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April 6, 2009

Henry Pittner
AECOM
999 Town & Country Road, 4th Floor
Orange, CA 92868

Subject: Supplemental Traffic Analysis for the James A. Musick Facility Expansion

Dear Mr. Pittner:

LSA Associates, Inc. (LSA) has prepared the following supplemental traffic analysis to update the traffic information provided in Environmental Impact Report (EIR) No. 564 (August 1996) for the James A. Musick Facility (JAMF) Expansion project. EIR 564 analyzed traffic conditions assuming that the Marine Corps Air Station (MCAS) El Toro base was an active military base. The EIR did not contemplate reuse of this site. Changes in land uses surrounding the jail site have occurred since 1996, including the approval of The Great Park, Heritage Fields, and proposed development within the Cities of Irvine and Lake Forest. As such, future traffic conditions for the JAMF Expansion have been updated as part of this analysis.

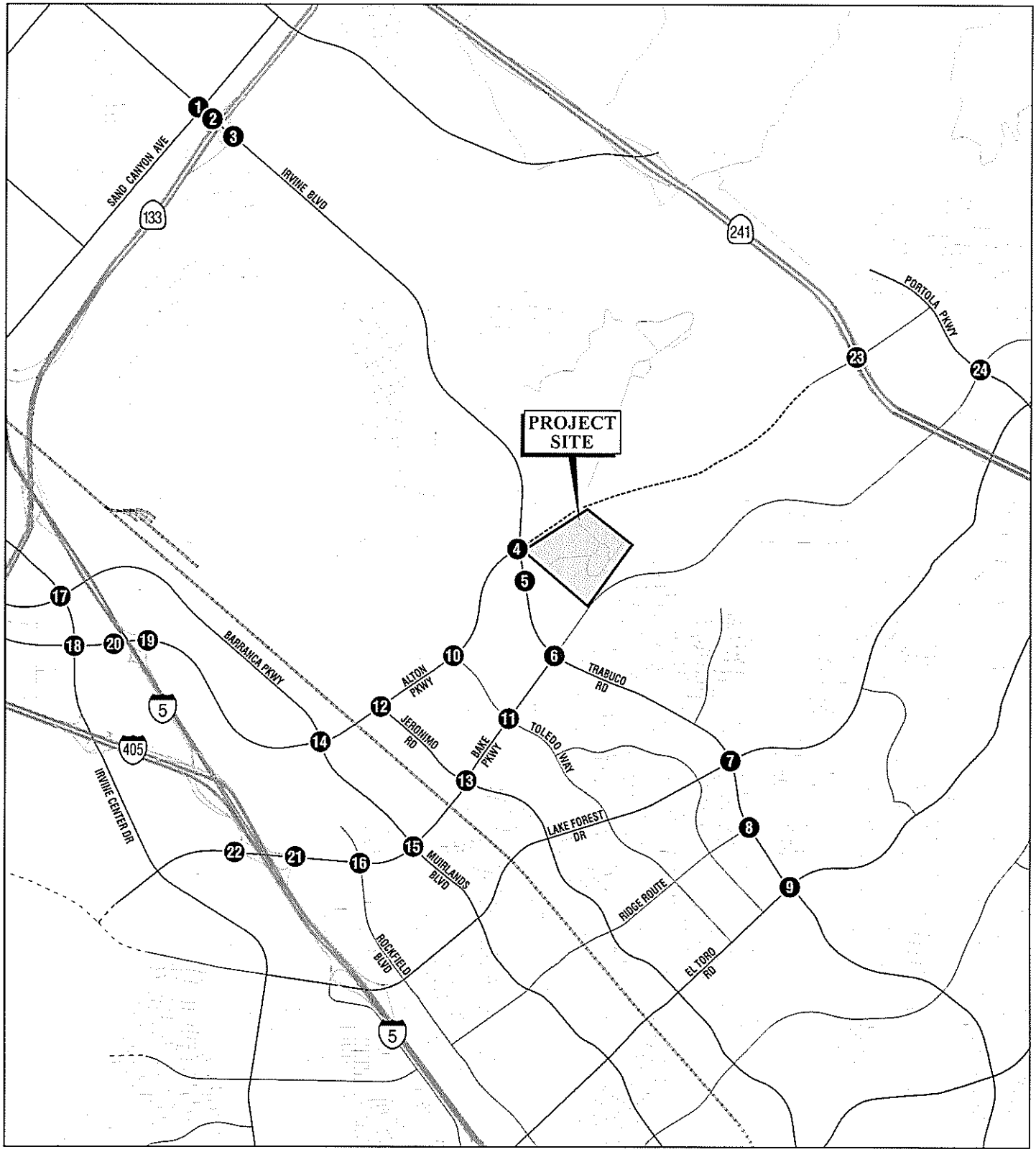
INTRODUCTION

Project Site

The JAMF site is located at 13502 Musick Road in central Orange County within a 100-acre unincorporated area abutting the Cities of Irvine and Lake Forest. The project site is bounded by the former MCAS El Toro (now called The Great Park Neighborhoods) to the west and Bake Parkway to the east. The Great Park is located entirely within the jurisdictional boundaries of Irvine. The planned extension of Alton Parkway will form the northwest boundary of the JAMF site. The project location is illustrated in Figure 1. The existing JAMF has 1,256 beds. Approximately 1,024 beds would be added during Phase I of the JAMF expansion in 2014 (i.e., a total of 2,280 beds). Under build-out conditions, a total of 7,584 beds would be provided on site. The proposed project site plan under interim (year 2014) and build-out (year 2030) conditions is illustrated in Figures 2 and 3, respectively.

Background

Expansion plans for the JAMF were approved in 1996. Operations and structures at the JAMF remain relatively unchanged from the existing conditions described and presented in the 1996 EIR 564. However, at that time, the use considered for the MCAS El Toro site was an international airport. The previous MCAS El Toro is now The Great Park, a planned community with residential, commercial, business, and regional park uses in Irvine.



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LEGEND

1 - Study Area Intersection

------- - Future Roadway (Under Construction)

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FIGURE 1

Musick Jail Expansion

Project Location and Study Area Intersections

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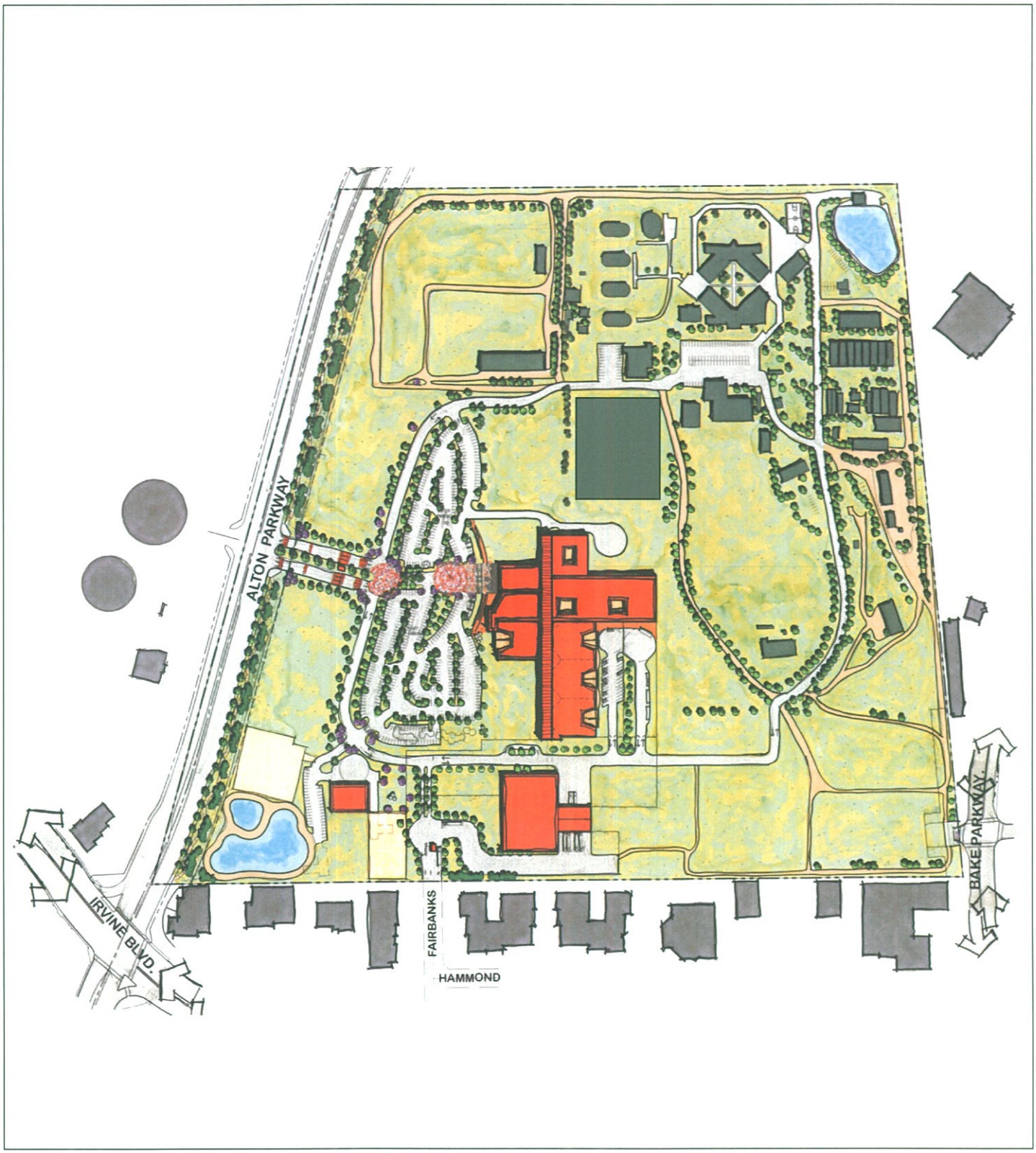

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FIGURE 2

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SOURCE: AECOM, 2008

Musick Jail Expansion

Phase 1 Site Plan

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FIGURE 3

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SOURCE: AECOM, 2008

Musick Jail Expansion

Buildout Site Plan

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With the previously assumed airport no longer being implemented, Lake Forest reevaluated land uses on seven properties that were previously constrained by land use restrictions associated with military aircraft operations. This study was called the Vacant Land Opportunities Phase III Study (July 2005), and was originally approved in 2006 and revised in 2008. Many of the land use changes included conversions of land uses that were not aircraft/flight-sensitive (i.e., commercial, industrial, and business park) to residential and/or a mix of residential and various uses.

In addition to redevelopment of the MCAS El Toro site and land use changes at the seven Lake Forest properties, the approved extension of Alton Parkway between Irvine Boulevard and Towne Centre Drive have altered the assumed future traffic conditions of EIR 564. The Alton Parkway Extension EIR 585 was approved in 2007. Construction of the undeveloped segment of Alton Parkway will commence in 2009 and will be completed prior to the first phase of the JAMF Expansion.

For the purposes of this supplemental traffic analysis, data from the approved EIR 564, the Alton Parkway Extension EIR 585, and the Lake Forest Vacant Land Opportunities Study have been included in order to reflect updated existing and future traffic conditions (the existing and General Plan build-out data are provided in Attachments A and B). Existing 2004 conditions were referenced from the recently approved Alton Parkway Extension EIR 585, which more accurately reflects current roadway conditions than the 1996 EIR 564, the original analysis of the JAMF expansion. Additional existing data for intersections not included in EIR 585 was obtained from EIR 564.

It should be noted that the Alton Parkway Extension EIR included a "special analysis" of General Plan build-out conditions with and without the JAMF expansion, which has been referenced for this supplemental analysis. Additional General Plan build-out data was obtained from the Vacant Land Opportunities Study, which did not include an evaluation of the JAMF. The Alton Parkway Extension EIR and the Vacant Land Opportunities Study are the two most recent documents that analyze the currently proposed land uses of the areas surrounding the JAMF site. Therefore, these documents have been used to evaluate proposed development and land use changes that have occurred since 1996.

Study Area Boundary

As illustrated in Figure 1, the study area includes 24 intersections within the area bounded by Sand Canyon Avenue and Irvine Center Drive to the west, Portola Parkway to the north, Bake Parkway to the south, and El Toro Road to the east. The limits of the study area are based on the potential impact of the existing and future roadway network and the existing conditions surrounding the project site. For purposes of this supplemental traffic analysis, the study area is based on the original study area of the JAMF expansion in the 1996 EIR 564. Based on discussions with County of Orange Public Works staff, the study area includes two additional intersections (Alton Parkway/State Route 241 [SR-241] and Bake Parkway/Portola Parkway).

PERFORMANCE CRITERIA

To determine the peak-hour intersection operations at signalized intersections within the study area, the intersection capacity utilization (ICU) methodology was used. The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting

ICU is expressed in terms of level of service (LOS), where LOS A represents free-flow activity and LOS F represents overcapacity operation. Parameters set by the Cities for ICU calculations, including lane capacity, right-turn treatment, and clearance interval, are included in the analysis.

The relationship of ICU to LOS is demonstrated in the following table.

Level of Service	ICU	Level of Service	ICU
A	0.00–0.60	D	0.81–0.90
B	0.61–0.70	E	0.91–1.00
C	0.71–0.80	F	> 1.00

ICU = intersection capacity utilization

According to City of Irvine and Lake Forest performance standards, LOS at an intersection is considered to be unsatisfactory when the ICU exceeds 0.90 (LOS D). The exceptions to these standards (i.e., unsatisfactory when the ICU exceeds 1.00 [LOS E]) are the following intersections:

- Alton Parkway/Irvine Boulevard
- El Toro Road/Trabuco Road
- Barranca Parkway/Irvine Center Drive
- Irvine Center Drive/Alton Parkway
- Interstate 5 (I-5) northbound ramps/Alton Parkway
- Enterprise Drive/Alton Parkway
- I-5 northbound ramps/Bake Parkway
- I-5 southbound ramps/Bake Parkway

A project impact occurs in the study area when the intersection in question exceeds the acceptable LOS (as described above) and the impact of the development is greater than 0.01. Project mitigation will be required to return the intersection to acceptable LOS or baseline (i.e., no project) conditions. This is consistent with the criteria used in EIR 564, EIR 585, and in the Cities of Irvine and Lake Forest.

EXISTING CONDITIONS

Existing LOS

In order to provide a summary of existing intersection LOS, data has been referenced from the Alton Parkway Extension Project Traffic Analysis (March 2006) and the 1996 EIR 564 (the existing data is provided in Attachment A). Twenty-two study area intersections were evaluated based on the 2004 counts in the Alton Parkway Extension Project Traffic Analysis. The remaining two intersections (Ridge Route Drive/Trabuco Road and El Toro Road/Trabuco Road) were evaluated according to the 1996 counts provided in EIR 564 because they were not included in the Alton Parkway Extension Project Traffic Analysis. The LOS referenced from these documents both include the 1,256 beds that exist on the JAMF site. As Table A indicates, all study area intersections operate at satisfactory LOS

according to City of Irvine and Lake Forest standards, with the exception of Bake Parkway/Trabuco Road (i.e., LOS E during the a.m. peak hour). The LOS calculations were based on the existing 2004 roadway network.

FUTURE ANALYSIS METHODOLOGY/APPROACH

The General Plan build-out traffic forecasts were prepared by Austin-Foust Associates, Inc. (AFA) for the Alton Parkway Extension Project Traffic Analysis (March 2006) and the Lake Forest Vacant Land Opportunities Phase III Study (July 2005). The traffic forecasts within the study area were developed using the Irvine Transportation Analysis Model (ITAM) and the Lake Forest Traffic Analysis Model (LFTAM), which are both derived from the Orange County Transportation Analysis Model (OCTAM) maintained by the Orange County Transportation Authority (OCTA). Both versions of ITAM and LFTAM include the land uses approved as part of the Vacant Land Opportunities Study. The roadway circulation improvements identified in the North Irvine Transportation Mitigation (NITM) Program and Lake Forest Transportation Mitigation (LFTM) Program were also included. It should be noted that the Alton Parkway Extension Project Traffic Analysis provided a special analysis of General Plan build-out conditions, including the JAMF expansion. The General Plan build-out intersection LOS was referenced from this document. The LOS of intersections not included as part of this analysis were obtained from the Vacant Land Opportunities Phase III Study.

In order to determine the interim (2014) baseline volumes for the study area intersections, existing (2004) and future build-out (2030) a.m. and p.m. peak-hour volumes were obtained from the Alton Parkway Extension Project Traffic Analysis and the Vacant Land Opportunities Phase III Study. LSA derived the growth per year (i.e., 26 years of growth between 2004 and 2030) at each intersection and applied the growth to the existing volumes to determine 2014 baseline volumes. These interim volumes were interpolated based on straight-line growth over a 10-year period (i.e., 2004 to 2014). It should be noted that the Alton Parkway Extension EIR and the Vacant Land Opportunities Study did not include Fairbanks-Musick/Irvine Boulevard as one of the study area intersections. In order to generate interim volumes and LOS for this intersection, the growth at the two adjacent intersections (i.e., Alton Parkway/Irvine Boulevard and Bake Parkway/Trabuco Road) has been applied to the existing volumes provided in EIR 564.

FUTURE CONDITIONS

Interim (Year 2014) LOS

A summary of 2014 intersection LOS is shown in Table B. The 2014 LOS worksheets are provided in Attachment C. The existing roadway network lane geometrics were used to calculate the 2014 intersection LOS. No planned, future intersection improvements were assumed. As shown in Table B, the following intersections are forecast to operate at unsatisfactory LOS according to City of Lake Forest standards:

- Bake Parkway/Trabuco Road (a.m. and p.m. peak hours)
- Bake Parkway/Jeronimo Road (a.m. peak hour)

Table A: Existing LOS Summary (2004)

	Intersection	Baseline			
		AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
1	Sand Canyon Ave/Irvine Blvd	0.52	A	0.45	A
2	SR-133 SB Ramps/Irvine Blvd	0.48	A	0.31	A
3	SR-133 NB Ramps/Irvine Blvd	0.34	A	0.37	A
4	Alton Pkwy/Irvine Blvd	0.37	A	0.40	A
5	Fairbanks-Musick/Irvine Blvd	0.61	B	0.70	B
6	Bake Pkwy/Trabuco Rd	0.95	E	0.81	D
7	Lake Forest Dr/Trabuco Rd	0.74	C	0.74	C
8	Ridge Route Dr/Trabuco Rd [1]	0.42	A	0.66	B
9	El Toro Rd/Trabuco Rd [1]	0.61	B	0.74	C
10	Alton Pkwy/Toledo Way	0.43	A	0.38	A
11	Bake Pkwy/Toledo Way	0.85	D	0.62	B
12	Alton Pkwy/Jeronimo Rd	0.42	A	0.36	A
13	Bake Pkwy/Jeronimo Rd	0.90	D	0.75	C
14	Alton Pkwy/Muirlands Blvd	0.50	A	0.45	A
15	Bake Pkwy/Muirlands Blvd	0.60	A	0.62	B
16	Bake Pkwy/Rockfield Blvd	0.51	A	0.67	B
17	Barranca Pkwy/Irvine Center Dr	0.62	B	0.50	A
18	Irvine Center Dr/Alton Pkwy	0.66	B	0.63	B
19	I-5 NB Ramps/Alton Pkwy	0.66	B	0.31	A
20	Enterprise Dr/Alton Pkwy	0.67	B	0.70	B
21	I-5 NB Ramps/Bake Pkwy	0.71	C	0.56	A
22	I-5 SB Ramps/Bake Pkwy	0.63	B	0.71	C
23	Alton Pkwy/SR-241 Ramps	0.20	A	0.26	A
24	Bake Pkwy/Portola Pkwy	0.58	A	0.74	C

Notes:

= exceeds City of Lake Forest's Level of Service criteria

[1] Existing baseline ICUs obtained from the Musick Jail Expansion Traffic Analysis (AFA, August 1996).

All other existing ICUs obtained from the Alton Parkway Extenstion Project Traffic Analysis (AFA, March 2006).

Table B: Interim LOS Summary (2014)

	Intersection	Baseline				Plus Project [1]			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1	Sand Canyon Ave/Irvine Blvd	0.72	C	0.59	A	0.72	C	0.59	A
2	SR-133 SB Ramps/Irvine Blvd	0.64	B	0.42	A	0.64	B	0.42	A
3	SR-133 NB Ramps/Irvine Blvd	0.54	A	0.59	A	0.54	A	0.59	A
4	Alton Pkwy/Irvine Blvd	0.61	B	0.70	B	0.61	B	0.71	C
5	Fairbanks-Musick/Irvine Blvd	0.51	A	0.67	B	0.52	A	0.67	B
6	Bake Pkwy/Trabuco Rd	0.98	E	0.93	E	0.99	E	0.93	E
7	Lake Forest Dr/Trabuco Rd	0.77	C	0.89	D	0.77	C	0.89	D
8	Ridge Route Dr/Trabuco Rd	0.53	A	0.64	B	0.53	A	0.64	B
9	El Toro Rd/Trabuco Rd	0.79	C	0.80	C	0.79	C	0.80	C
10	Alton Pkwy/Toledo Way	0.57	A	0.60	A	0.57	A	0.60	A
11	Bake Pkwy/Toledo Way	0.89	D	0.65	B	0.89	D	0.65	B
12	Alton Pkwy/Jeronimo Rd	0.58	A	0.56	A	0.59	A	0.56	A
13	Bake Pkwy/Jeronimo Rd	0.96	E	0.80	C	0.96	E	0.80	C
14	Alton Pkwy/Muirlands Blvd	0.85	D	0.72	C	0.85	D	0.71	C
15	Bake Pkwy/Muirlands Blvd	0.66	B	0.73	C	0.66	B	0.73	C
16	Bake Pkwy/Rockfield Blvd	0.58	A	0.77	C	0.58	A	0.77	C
17	Barranca Pkwy/Irvine Center Dr	0.74	C	0.62	B	0.74	C	0.62	B
18	Irvine Center Dr/Alton Pkwy	0.87	D	0.85	D	0.87	D	0.85	D
19	I-5 NB Ramps/Alton Pkwy	0.84	D	0.42	A	0.84	D	0.42	A
20	Enterprise Dr/Alton Pkwy	0.77	C	0.80	C	0.78	C	0.80	C
21	I-5 NB Ramps/Bake Pkwy	0.81	D	0.68	B	0.82	D	0.68	B
22	I-5 SB Ramps/Bake Pkwy	0.80	C	0.85	D	0.81	D	0.85	D
23	Alton Pkwy/SR-241 Ramps	0.53	A	0.42	A	0.53	A	0.42	A
24	Bake Pkwy/Portola Pkwy	0.64	B	0.88	D	0.64	B	0.88	D

Notes:

= exceeds City of Lake Forest's Level of Service criteria

All Interim volumes interpolated from existing and future volumes provided in:

the Alton Parkway Extenstion Project Traffic Analysis (AFA, March 2006) and the Vacant Land Opportunities Phase III Study (AFA, July 2005).

[1] Plus Project assumes Phase I of the JAMF expansion.

General Plan Build-Out (2030) LOS

Future General Plan build-out (2030) intersection LOS were referenced from the Alton Parkway Extension Project Traffic Analysis (March 2006) and the Vacant Land Opportunities Phase III Study (July 2005). As shown in Table C, all study area intersections are forecast to operate at satisfactory LOS according to City of Irvine and Lake Forest standards, with the exception of Bake Parkway/Portola Parkway (i.e., LOS E during the p.m. peak hour). It should be noted that the deficient intersections under interim conditions improve to satisfactory levels at General Plan build out due to the following NITM improvements:

- Bake Parkway/Trabuco Road – the addition of a second northbound left-turn lane
- Bake Parkway/Jeronimo Road – the addition of a second northbound left-turn lane

PROPOSED PROJECT IMPACTS

Project Trip Generation, Distribution, and Assignment

The existing JAMF has a 1,256-bed capacity. Under build-out conditions, the total number of beds provided on site is 7,584 (which also includes a Sheriff station and Interim Care Facility), consistent with the maximum number of beds analyzed and approved in EIR 564. Table D presents the JAMF project trip generation summary. The total number of trips generated with build out of the JAMF is 5,457 average daily trips (ADT), 538 a.m. peak-hour trips, and 492 p.m. peak-hour trips, which was referenced from EIR 564. Approximately 2,280 beds will be provided in Phase I in 2014 (i.e., the addition of 1,024 beds from existing conditions). In order to calculate the Phase I trip generation, JAMF trip rates were determined by dividing the ADT, a.m. peak-hour trips (inbound and outbound) and p.m. peak-hour trips (inbound/outbound) by the total number of beds (i.e., 7,584). These derived rates were applied to the 1,024 beds added during Phase I. The Phase I beds (and trips) represent approximately 13.5 percent of the JAMF build out. Therefore, Phase I will generate 737 ADT, 73 a.m. peak-hour trips, and 66 p.m. peak-hour trips by 2014.

Table D: JAMF Trip Generation Summary

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Jail		bed	0.72	0.03	0.04	0.07	0.02	0.04	0.06
Build-out Trip Generation[1]									
Jail	7,584	beds	5,457	260	278	538	167	325	492
Phase I Trip Generation[2]									
Jail	1,024	beds	737	35	38	73	22	44	66

Notes:

[1] Build-out trip generation referenced from the Musick Jail Expansion Traffic Analysis (AFA, August 1996). Trip rates determined by dividing the build-out trip generation by the total number of beds (i.e., 7,584 beds).

[2] Phase I trip generation interpolated from the build-out trip generation (i.e., 1,024 beds is approximately 13.5 percent of 7,584 beds).

ADT = average daily trips

Table C: General Plan Buildout LOS Summary (2030)

	Intersection	Baseline				Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1	Sand Canyon Ave/Irvine Blvd	0.73	C	0.75	C	0.74	C	0.75	C
2	SR-133 SB Ramps/Irvine Blvd	0.85	D	0.58	A	0.85	D	0.58	A
3	SR-133 NB Ramps/Irvine Blvd	0.75	C	0.70	B	0.75	C	0.70	B
4	Alton Pkwy/Irvine Blvd	0.83	D	0.84	D	0.83	D	0.87	D
5	Fairbanks-Musick/Irvine Blvd	0.69	B	0.83	D	0.73	C	0.85	D
6	Bake Pkwy/Trabuco Rd	0.89	D	0.69	B	0.89	D	0.88	D
7	Lake Forest Dr/Trabuco Rd	0.81	D	0.88	D	0.81	D	0.89	D
8	Ridge Route Dr/Trabuco Rd [1]	0.60	A	0.68	B	0.60	A	0.68	B
9	El Toro Rd/Trabuco Rd [1,2]	0.89	D	0.99	E	0.89	D	1.00	E
10	Alton Pkwy/Toledo Way	0.62	B	0.77	C	0.62	B	0.78	C
11	Bake Pkwy/Toledo Way	0.89	D	0.69	B	0.89	D	0.70	B
12	Alton Pkwy/Jeronimo Rd	0.75	C	0.78	C	0.75	C	0.80	C
13	Bake Pkwy/Jeronimo Rd	0.79	C	0.84	D	0.79	C	0.85	D
14	Alton Pkwy/Muirlands Blvd	0.77	C	0.87	D	0.77	C	0.88	D
15	Bake Pkwy/Muirlands Blvd	0.75	C	0.88	D	0.75	C	0.89	D
16	Bake Pkwy/Rockfield Blvd	0.69	B	0.88	D	0.69	B	0.88	D
17	Barranca Pkwy/Irvine Center Dr	0.90	D	0.80	C	0.90	D	0.81	D
18	Irvine Center Dr/Alton Pkwy [3]	0.87	D	0.97	E	0.87	D	0.97	E
19	I-5 NB Ramps/Alton Pkwy [3]	0.96	E	0.60	A	0.96	E	0.61	B
20	Enterprise Dr/Alton Pkwy	0.85	D	0.90	D	0.85	D	0.90	D
21	I-5 NB Ramps/Bake Pkwy [4]	0.87	D	0.95	E	0.87	D	0.95	E
22	I-5 SB Ramps/Bake Pkwy	0.82	D	0.87	D	0.82	D	0.88	D
23	Alton Pkwy/SR-241 Ramps	0.63	B	0.52	A	0.64	B	0.53	A
24	Bake Pkwy/Portola Pkwy	0.63	B	0.92	E	0.64	B	0.92	E

Notes:

= exceeds Lake Forest's and/or Irvine's Level of Service criteria

[1] Lake Forest General Plan baseline volumes and ICUs obtained from the Vacant Land Opportunities Phase III Study (AFA, July 2005).
All other General Plan ICUs obtained from the Alton Parkway Extenstion Project Traffic Analysis (AFA, March 2006).

[2] LOS E is acceptable at this location (Congestion Management Program).

[3] LOS E is acceptable at this location (Irvine Planning Area 33 [Spectrum 1]).

[4] LOS E is acceptable at this location (Lake Forest General Plan).

Directions of approach to and departure from the JAMF site were determined based on the trip distribution percentages assumed in EIR 564. The JAMF trip distribution is illustrated in Figure 4. As shown in this figure, 65 percent of the JAMF trips are destined to the northwest (via I-5, Interstate 405 [I-405], and Irvine Boulevard), 17 percent to the north (via State Route 133 [SR-133], SR-241, Alton Parkway, and Bake Parkway), 15 percent to the southeast (via Trabuco Road and I-5), and 3 percent to the south (via Bake Parkway and Lake Forest Drive). The a.m. peak-hour trips and p.m. peak-hour trips were manually assigned to the study area intersections for purposes of determining interim plus project conditions and LOS. The results are discussed later in this report.

FUTURE CONDITIONS WITH PROPOSED PROJECT

Interim (2014) plus Phase I Project LOS

Table B presents the LOS summary of 2014 baseline and plus project (i.e., Phase I) conditions. As stated previously, the 2014 baseline volumes were interpolated from existing and future volumes. The 2014 plus project volumes were determined by manually assigning the Phase I trips associated with the JAMF expansion to the 2014 baseline volumes. The baseline volumes already include the existing 1,256 beds on the JAMF site. As shown in Table B, two study area intersections are forecast to operate at an unsatisfactory LOS (LOS E) according to City of Lake Forest standards. However, the ICUs do not increase by greater than 0.01 with implementation of the project. Therefore, no significant project impacts are created during Phase I of the proposed JAMF expansion.

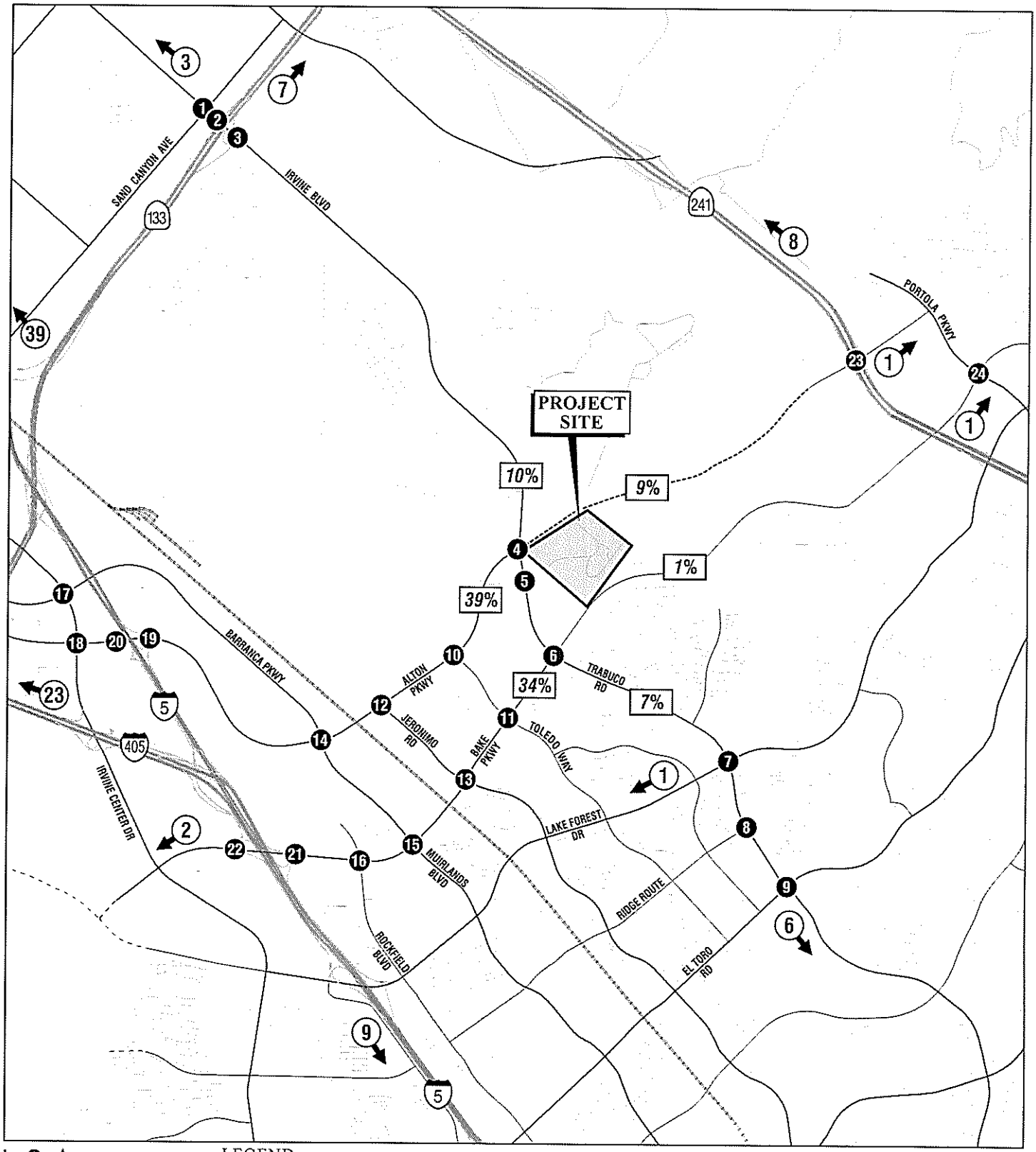
General Plan Build-out (2030) plus Project LOS

Table C presents the LOS summary of 2030 baseline and plus project (i.e., build-out) conditions, which were referenced from the Alton Parkway Extension Project Traffic Analysis (March 2006) and the Vacant Land Opportunities Phase III Study (July 2005). The 2030 plus project LOS obtained from the Alton Parkway Analysis includes build out of the JAMF. For intersections that were not included as part of this analysis, the 2030 plus project volumes were determined by manually assigning the JAMF build-out trips to the 2030 baseline volumes. As shown in Table C, four study area intersections are forecast to operate at unsatisfactory LOS (LOS E) according to City of Irvine and Lake Forest standards. However, the ICUs do not increase by more than 0.01 with implementation of the project. Therefore, no significant project impacts are created during build out of the proposed JAMF expansion.

REQUIRED MITIGATION MEASURES AND/OR RECOMMENDATIONS

New Mitigation Measures

Based on the results of the intersection LOS analysis, expansion of the JAMF can be implemented without significantly impacting the surrounding roadway system in the 2014 (Phase I) and 2030 (build out) horizons. The addition of project traffic during Phase I and build out conditions will not exceed the City of Irvine and Lake Forest thresholds for performance and are not considered significant; thus, mitigation is not required.



LSA

LEGEND

- 1 - Study Area Intersection
- ------- - Future Roadway (Under Construction)
- 23 - Regional Project Trip Distribution Percentage
- 34% - Localized Project Trip Distribution Percentage

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FIGURE 4

Musick Jail Expansion

Project Trip Distribution

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Implementation Status of Previously Identified Mitigation Measures in EIR 564

EIR 564 identified 52 mitigation measures for the JAMF project when expansion of the JAMF was approved in 1996. This supplemental analysis will reevaluate all traffic-related mitigation measures (i.e., transit, pedestrian, circulation, and project site-specific improvements) and determine if they are still required based on updated land uses in areas surrounding the JAMF site.

Mitigation Measures 29 and 49.

29. At the time that final construction plans for the Alton Parkway signalized access are prepared, the Director of Public Works shall ensure that JAMF specifications require that bus turn aprons are located on each side of Alton Parkway and bus shelters are provided. The County of Orange will cooperate with the Orange County Fire Authority (OCFA) in designing bus shelters for the jail which match as much as possible the bus shelters in Irvine Spectrum. These efforts shall take place prior to the occupation of the first jail building, and will be supervised by Environmental Management Agency or its successor agency.

49. Prior to or concurrent with the opening of the Alton Parkway entrance to employee and visitor access, the Director of Public Works shall ensure that the project specifications require that contractors install bus aprons on the northerly and southerly sides of Alton Parkway in a manner meeting the requirements of the OCTA, and a sidewalk is constructed along the southerly side of Alton Parkway from Irvine Boulevard to the project entrance on Alton Parkway, and along the project entry drive to the visitor entrance.

Based on the results of this supplemental traffic analysis, the mitigation measures pertaining to the design and installation of bus aprons (as well as sidewalks) still apply.

Mitigation Measure 45.

45. Prior to or concurrent with the occupancy of the first phase of the project, the Director of Public Works shall cause to be constructed or installed:

    a. Two southbound left-turn lanes and one westbound right-turn lane at the intersection of Alton Parkway and Irvine Boulevard.

    b. A traffic signal at the Alton Parkway project entrance to Complexes 1 and 2.

Alton Parkway/Irvine Boulevard is currently a three-leg intersection. The recommended improvements at this intersection should be in place once the approved Alton Parkway Extension is completed. Construction of the fourth leg of this intersection (i.e., the Alton Parkway Extension) will begin in 2009 and will conclude prior to occupancy of Phase I of the JAMF expansion in 2014. The installation of a traffic signal at the proposed Alton Parkway access prior to occupancy of Phase I should be a project design feature, as this will be the main access for JAMF visitors and staff.

Mitigation Measure 46.

46. Prior to or concurrent with the occupancy of the last phase of the project, the Director of Public Works shall negotiate agreements with the Cities of Irvine and Lake Forest, as applicable, to ensure that the County provides the project's pro rata share of costs of the following improvements:

    a. Alton Parkway/Irvine Boulevard: Convert the third northbound through lane to a shared through/right-turn lane.

    b. Musick Road/Irvine Boulevard: Add a northbound right-turn lane.

    c. Bake Parkway/Irvine Boulevard: Add a northbound right-turn lane and convert the third northbound through lane to a shared through/right-turn lane.

    d. Bake Parkway/Jeronimo Road: Provide an eastbound right-turn overlap signal phase.

With completion of the Alton Parkway Extension, three northbound through lanes and a free right-turn lane will be provided at Alton Parkway/Irvine Boulevard. These improvements will be in place prior to occupancy of Phase I in 2014. Therefore, the proposed conversion of the northbound through lane to the shared through/right-turn lane at Alton Parkway/Irvine Boulevard no longer applies.

Based on the LOS analysis of Fairbanks-Musick/Irvine Boulevard, a designated northbound right-turn lane is not required. With the current shared through/right-turn lane, this intersection operates at satisfactory LOS under existing, interim, and General Plan build-out conditions.

The recommended improvements at Bake Parkway/Irvine Boulevard are not required based on the LOS analysis, as implementation of Phase I would not result in a significant impact. It should be noted that the lane addition and lane conversion at Bake Parkway/Irvine Boulevard (i.e., NITM improvements) are assumed to be in place under General Plan build-out conditions, which results in satisfactory LOS.

An eastbound right-turn overlap signal phase is not required at Bake Parkway/Jeronimo Road. Implementation of Phase I would not result in a significant impact. As stated previously, the planned NITM improvement at this intersection (i.e., the addition of a second northbound left-turn lane) would result in satisfactory LOS under General Plan build-out conditions.

Mitigation Measure 48.

48. Upon adoption of a Road Fee Program by the Board of Supervisors which includes the project site, the County shall pay the pro rata fee attributable to each project phase, or provide credits, prior to commencement of construction of the phase as required for the Musick Jail project under the Road Fee Program.

Based on the results of this supplemental traffic analysis, this mitigation measure is still valid. According to EIR 564, government-owned facilities or utilities, such as the JAMF, that will not be used for generating revenue or commercial purposes are exempt from the transportation fee programs

located within the vicinity of the JAMF. A Road Fee Program does not currently exist as described above. When such a program is adopted, the JAMF will be subject to these provisions.

CONCLUSIONS

Based on the results of this supplemental traffic analysis, the consideration of new land use and circulation changes surrounding the JAMF site will not affect the results and conclusions as presented in EIR 564. Implementation of Phase I (i.e., the addition of 1,024 beds) in 2014 and build out of the JAMF site (i.e., a total of 7,584 beds) would not cause any significant impacts.

If you have any questions, please call me at (949) 553-0666.

Sincerely,

LSA ASSOCIATES, INC.

Ken Wilhelm
Principal

Attachments: LOS worksheets

cc: Tom C. Davis, Orange County Sheriff-Coroner Department
Jack Golden, County of Orange

ATTACHMENT A – EXISTING LOS

(FROM ALTON PARKWAY EXTENSION [AFA, MARCH 2006] AND MUSICK JAIL EXPANSION [AFA, AUGUST 1996])

Table 6

EXISTING INTERSECTION LOS SUMMARY

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
300 Sand Cyn. Av. at Portola Pkwy.	Irvine	.27	A	.32	A
301 Sand Cyn. Av. at Irvine Bl.	Irvine	.52	A	.45	A
302 Sand Cyn. Av. at Trabuco Rd.	Irvine	.42	A	.32	A
303 Sand Cyn. Av. at I-5 NB Ramps	Irvine	.57	A	.40	A
305 Sand Cyn. Av. at I-5 SB Ramps	Irvine	.61	B	.60	A
306 Sand Cyn. Av. at Oak Cyn.	Irvine	.51	A	.64	B
307 Sand Cyn. Av. at ICD	Irvine	.35	A	.43	A
309 Sand Cyn. Av. at Barranca Pkwy.	Irvine	.39	A	.42	A
310 Sand Cyn. Av. at Alton Pkwy.	Irvine	.47	A	.50	A
311 Sand Cyn. Av. at I-405 NB Ramps	Irvine	.52	A	.38	A
312 Sand Cyn. Av. at I-405 SB Ramps	Irvine	.64	B	.45	A
313 Laguna Cyn. Rd. at ICD	Irvine	.26	A	.27	A
314 Laguna Cyn. Rd. at Barranca Pkwy.	Irvine	.25	A	.27	A
315 Laguna Cyn. Rd. at Alton Pkwy.	Irvine	.38	A	.42	A
316 SR-133 SB Ramps at Irvine Bl.	Irvine	.48	A	.31	A
317 SR-133 NB Ramps at Irvine Bl.	Irvine	.34	A	.37	A
318 Banting at Barranca Pkwy.	Irvine	.53	A	.41	A
319 Banting at Alton Pkwy.	Irvine	.63	B	.47	A
321 Laguna Cyn. Rd. at Old Laguna Cyn. Rd.[1]	Irvine	1.05	F	1.06	F
324 Portola Pkwy. at SR-241 NB Ramps	Irvine	.32	A	.15	A
325 Portola Pkwy. at SR-241 SB Ramps	Irvine	.30	A	.40	A
327 Barranca Pkwy. at Technology Dr.	Irvine	.64	B	.87	D
328 Barranca Pkwy. at I-5 HOV Ramps	Irvine	.61	B	.42	A
329 Barranca Pkwy. at ICD[2]	Irvine	.62	B	.50	A
330 Barranca Pkwy. at Pacifica[2]	Irvine	.60	A	.75	C
335 Alton Pkwy. at Portola Pkwy.	Lake Forest	.39	A	.24	A
336 Alton Pkwy. at SR-241 Ramps	Lake Forest	.20	A	.26	A
338 Alton Pkwy. at Irvine Bl.[2]	Irvine	.37	A	.40	A
339 Alton Pkwy. at Toledo Wy.	Irvine	.43	A	.38	A
340 Alton Pkwy. at Jeronimo Rd.	Irvine	.42	A	.36	A
341 Alton Pkwy. at Muirlands Bl.	Irvine	.50	A	.45	A
344 Alton Pkwy. at Technology Dr. W.	Irvine	.47	A	.60	A
345 Alton Pkwy. at I-5 NB Ramps[2]	Irvine	.66	B	.31	A
346 Alton Pkwy. at Enterprise Dr.[2]	Irvine	.67	B	.70	B
348 Alton Pkwy. at ICD[2]	Irvine	.66	B	.63	B
350 Alton Pkwy. at Pacifica[2]	Irvine	.55	A	.35	A
351 I-5 SB Ramps at Enterprise Dr.[2]	Irvine	.18	A	.51	A
357 Enterprise Dr. at Fortune[2]	Irvine	.26	A	.17	A
358 ICD at Enterprise Dr.[2]	Irvine	.66	B	.50	A
359 ICD at I-405 SB Ramps[2]	Irvine	.73	C	.85	D

Table 6 (cont.)
EXISTING INTERSECTION LOS SUMMARY

Intersection	Jurisdiction	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
361 Bake Pkwy. at Portola Pkwy.	Lake Forest	.58	A	.74	C
362 Bake Pkwy. at Irvine Bl.[1]	Irvine/Lake Forest	.95	E	.81	D
363 Bake Pkwy. at Toledo Wy.	Irvine/Lake Forest	.85	D	.62	B
364 Bake Pkwy. at Jeronimo Rd.	Irvine/Lake Forest	.90	D	.75	C
365 Bake Pkwy. at Muirlands Bl.	Irvine	.60	A	.62	B
366 Bake Pkwy. at Rockfield Bl.	Irvine	.51	A	.67	B
367 Bake Pkwy. at I-5 NB Ramps[2]	Irvine	.71	C	.56	A
368 Bake Pkwy. at I-5 SB Ramps[2]	Irvine	.63	B	.71	C
372 Bake Pkwy. at ICD	Irvine	.44	A	.65	B
373 Lake Forest Dr. at SR-241 NB Ramps	Lake Forest	.35	A	.42	A
374 Lake Forest Dr. at Portola Pkwy.	Lake Forest	.48	A	.73	C
375 Lake Forest Dr. at SR-241 SB Ramps	Lake Forest	.47	A	.48	A
376 Lake Forest Dr. at Trabuco Rd.	Lake Forest	.74	C	.74	C
377 Lake Forest Dr. at Toledo Wy.	Lake Forest	.47	A	.44	A
378 Lake Forest Dr. at Jeronimo Rd.	Lake Forest	.62	B	.75	C
379 Lake Forest Dr. at Muirlands Bl.	Lake Forest	.56	A	.78	C
380 Lake Forest Dr. at Rockfield Bl.[2]	Lake Forest	.62	B	.66	B
381 Lake Forest Dr. at I-5 NB Ramps	Lake Forest	.46	A	.72	C
383 Lake Forest Dr. at Avenida Carlota[2]	Irvine/Laguna Hills	.68	B	.74	C
385 Lake Forest Dr. at ICD[2]	Irvine	.57	A	.55	A
409 Bake Pkwy. at Commercentre Dr.	Lake Forest	.64	B	.74	C
515 Bake Pkwy. N at Rancho Pkwy. N	Lake Forest	.63	B	.76	C
516 Lake Forest & Rancho Pkwy.	Lake Forest	.43	A	.55	A
555 Bake Pkwy. at Rancho Pkwy. S	Lake Forest	.70	B	.68	B

Abbreviations: ICU – intersection capacity utilization; LOS – level of service; NB – northbound; SB – southbound

[1] This location currently operates deficiently in the AM and/or PM peak hour (i.e., the forecasted LOS is worse than the adopted LOS performance standard).

[2] LOS "E" is acceptable at this location (Irvine Planning Area 33 (Spectrum 1) intersections, Irvine Business Complex (IBC) intersections, the Bake Parkway/I-5 northbound and southbound ramp intersections, and the Alton Parkway/Irvine Boulevard, and Lake Forest Drive/Irvine Center Drive intersections.

Table II-1

EXISTING ICU SUMMARY

INTERSECTION	EXISTING AM	EXISTING PM
1. Sand Canyon & Irvine	.77	.72
4. Alton & Irvine	.40	.68
5. Musick/Fairbanks & Irvine	.61	.70
6. Bake & Irvine/Trabuco	.89	1.01*
7. Lake Forest & Trabuco	.70	.64
8. Ridge Route & Trabuco	.42	.66
9. El Toro & Trabuco	.61	.74
10. Alton & Toledo	.66	.83
11. Bake & Toledo	.79	.82
12. Alton & Jeronimo	.57	.66
13. Bake & Jeronimo	1.11*	.84
14. Alton & Muirlands/Barranca	.68	.77
15. Bake & Muirlands	.76	.87
17. Bake & Rockfield	.68	.77
18. Barranca & Irvine Center	.52	.49
19. Irvine Center & Alton	.80	.88
20. I-5 NB Ramps & Alton	.64	.55
21. Enterprise & Alton	.64	.78
22. Bake & I-5 NB Ramps	–	–
23. Bake & I-5 SB Off-Ramp	–	–

* Exceeds LOS "D"

Level of service ranges: .00 - .60 A
.61 - .70 B
.71 - .80 C
.81 - .90 D
.91 - 1.00 E
Above 1.00 F

Source: Traffic counts carried out in 1996

ATTACHMENT B – GENERAL PLAN BUILDOUT LOS

(FROM VACANT LAND OPPORTUNITIES PHASE III [AFA, JULY 2005]
AND ALTON PARKWAY EXTENSION [AFA, MARCH 2006])

Table 14

POST-2025 INTERSECTION LOS SUMMARY

Intersection	Without Alton Extension				With Alton Extension				ICU Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
300 Sand Cyn. Av. at Portola Pkwy.	.62	B	.71	C	.63	B	.70	B	.01	-.01
301 Sand Cyn. Av. at Irvine Bl.	.73	C	.74	C	.73	C	.75	C	.00	.01
302 Sand Cyn. Av. at Trabuco Rd.[1]	.93	E	.82	D	.91	E	.82	D	-.02	.00
303 Sand Cyn. Av. at I-5 NB Ramps	.62	B	.78	C	.63	B	.78	C	.01	.00
305 Sand Cyn. Av. at I-5 SB Ramps	.66	B	.73	C	.65	B	.73	C	-.01	.00
306 Sand Cyn. Av. at Oak Cyn.	.64	B	.87	D	.62	B	.85	D	-.02	-.02
307 Sand Cyn. Av. at ICD	.81	D	.75	C	.81	D	.74	C	.00	-.01
309 Sand Cyn. Av. at Barranca Pkwy.	.60	A	.63	B	.59	A	.62	B	-.01	-.01
310 Sand Cyn. Av. at Alton Pkwy.	.83	D	.77	C	.85	D	.80	C	.02	.03
311 Sand Cyn. Av. at I-405 NB Ramps	.73	C	.51	A	.73	C	.51	A	.00	.00
312 Sand Cyn. Av. at I-405 SB Ramps	.79	C	.59	A	.79	C	.57	A	.00	-.02
313 Laguna Cyn. Rd. at ICD	.54	A	.80	C	.54	A	.80	C	.00	.00
314 Laguna Cyn. Rd. at Barranca Pkwy.	.31	A	.47	A	.32	A	.47	A	.01	.00
315 Laguna Cyn. Rd. at Alton Pkwy.	.62	B	.69	B	.64	B	.71	C	.02	.02
316 SR-133 SB Ramps at Irvine Bl.	.78	C	.58	A	.85	D	.58	A	.07	.00
317 SR-133 NB Ramps at Irvine Bl.	.74	C	.69	B	.75	C	.70	B	.01	.01
318 Banting at Barranca Pkwy.	.51	A	.36	A	.52	A	.39	A	.01	.03
319 Banting at Alton Pkwy.	.70	B	.58	A	.72	C	.60	A	.02	.02
321 Laguna Cyn. Rd. at Old Laguna Cyn. Rd.[1]	1.09	F	1.03	F	1.09	F	1.03	F	.00	.00
324 Portola Pkwy. at SR-241 NB Ramps	.65	B	.53	A	.57	A	.45	A	-.08	-.08
325 Portola Pkwy. at SR-241 SB Ramps	.61	B	.54	A	.53	A	.47	A	-.08	-.07
327 Barranca Pkwy. at Technology Dr.	.63	B	.85	D	.63	B	.87	D	.00	.02
328 Barranca Pkwy. at I-5 HOV Ramps	.79	C	.58	A	.81	D	.58	A	.02	.00
329 Barranca Pkwy. at ICD[2]	.90	D	.77	C	.90	D	.80	C	.00	.03
330 Barranca Pkwy. at Pacifica[2]	.62	B	.69	B	.64	B	.69	B	.02	.00

Table 14 (cont.)
POST-2025 INTERSECTION LOS SUMMARY

Intersection	Without Alton Extension				With Alton Extension				ICU Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
335 Alton Pkwy. at Portola Pkwy.	.46	A	.48	A	.51	A	.51	A	.05	.03
336 Alton Pkwy. at SR-241 Ramps	.26	A	.40	A	.63	B	.52	A	.37	.12
338 Alton Pkwy. at Irvine Bl.[2]	.86	D	.78	C	.83	D	.84	D	-.03	.06
339 Alton Pkwy. at Toledo Wy.	.64	B	.66	B	.62	B	.77	C	-.02	.11
340 Alton Pkwy. at Jeronimo Rd.	.67	B	.72	C	.75	C	.78	C	.08	.06
341 Alton Pkwy. at Muirlands Bl.	.68	B	.79	C	.77	C	.87	D	.09	.08
344 Alton Pkwy. at Technology Dr. W.	.77	C	.83	D	.82	D	.85	D	.05	.02
345 Alton Pkwy. at I-5 NB Ramps[2]	.95	E	.57	A	.96	E	.60	A	.01	.03
346 Alton Pkwy. at Enterprise Dr.[2]	.83	D	.92	E	.85	D	.90	D	.02	-.02
348 Alton Pkwy. at ICD[2]	.87	D	.94	E	.87	D	.97	E	.00	.03
350 Alton Pkwy. at Pacifica[2]	.56	A	.81	D	.58	A	.79	C	.02	-.02
351 I-5 SB Ramps at Enterprise Dr.[2]	.41	A	.95	E	.41	A	.91	E	.00	-.04
357 Enterprise Dr. at Fortune[2]	.77	C	.39	A	.78	C	.40	A	.01	.01
358 ICD at Enterprise Dr.[2]	.87	D	.91	E	.86	D	.91	E	-.01	.00
359 ICD at I-405 SB Ramps[1,2]	1.06	F	.82	D	1.06	F	.82	D	.00	.00
361 Bake Pkwy. at Portola Pkwy.[1]	.62	B	.95	E	.63	B	.94	E	.01	-.01
362 Bake Pkwy. at Irvine Bl.[1,3]	1.14	F	.94	E	.89	D	.87	D	-.25	-.07
363 Bake Pkwy. at Toledo Wy.	.90	D	.70	B	.89	D	.69	B	-.01	-.01
364 Bake Pkwy. at Jeronimo Rd.[3]	.76	C	.87	D	.79	C	.84	D	.03	-.03
365 Bake Pkwy. at Muirlands Bl.	.74	C	.89	D	.75	C	.88	D	.01	-.01
366 Bake Pkwy. at Rockfield Bl.	.68	B	.88	D	.69	B	.88	D	.01	.00
367 Bake Pkwy. at I-5 NB Ramps[2]	.88	D	.94	E	.87	D	.95	E	-.01	.01
368 Bake Pkwy. at I-5 SB Ramps[2]	.81	D	.86	D	.82	D	.87	D	.01	.01
372 Bake Pkwy. at ICD	.49	A	.48	A	.49	A	.48	A	.00	.00
373 Lake Forest Dr. at SR-241 NB Ramps	.36	A	.49	A	.32	A	.46	A	-.04	-.03

Table 14 (cont.)
POST-2025 INTERSECTION LOS SUMMARY

Intersection	Without Alton Extension				With Alton Extension				ICU Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
374 Lake Forest Dr. at Portola Pkwy.	.60	A	.90	D	.64	B	.90	D	.04	.00
375 Lake Forest Dr. at SR-241 SB Ramps	.62	B	.57	A	.53	A	.50	A	-.09	-.07
376 Lake Forest Dr. at Trabuco Rd.	.90	D	.84	D	.81	D	.88	D	-.09	.04
377 Lake Forest Dr. at Toledo Wy.	.61	B	.62	B	.59	A	.57	A	-.02	-.05
378 Lake Forest Dr. at Jeronimo Rd.	.76	C	.91	E	.72	C	.88	D	-.04	-.03
379 Lake Forest Dr. at Muirlands Bl.	.70	B	.82	D	.69	B	.84	D	-.01	.02
380 Lake Forest Dr. at Rockfied Bl.	.84	D	.86	D	.83	D	.88	D	-.01	.02
381 Lake Forest Dr. at I-5 NB Ramps	.59	A	.75	C	.58	A	.76	C	-.01	.01
383 Lake Forest Dr. at Avenida Carlota[1]	1.01	F	.77	C	1.00	E	.78	C	-.01	.01
385 Lake Forest Dr. at ICD	.70	B	.75	C	.71	C	.72	C	.01	-.03
406 Laguna Canyon Rd. at Lake Forest Dr.	.89	D	.87	D	.89	D	.87	D	.00	.00
409 Bake Pkwy. at Commercentre Dr.	.82	D	.88	D	.65	B	.72	C	-.17	-.16
410 Bake Pkwy. at Lake Forest Dr.	.44	A	.42	A	.44	A	.42	A	.00	.00
481 Laguna Canyon Rd. at Technology Dr.	.63	B	.69	B	.63	B	.69	B	.00	.00
486 SR-133 SB Ramps at Trabuco Rd.	.54	A	.47	A	.52	A	.46	A	-.02	-.01
487 SR-133 NB Ramps at Trabuco Rd.	.58	A	.52	A	.58	A	.52	A	.00	.00
514 Alton Pkwy. at Towne Centre/Rancho	--	--	--	--	.69	B	.71	C	--	--
515 Bake Pkwy. N at Rancho Pkwy. N	.71	C	.85	D	.71	C	.87	D	.00	.02
516 Lake Forest & Rancho Pkwy.	.74	C	.93	E	.68	B	.88	D	-.06	-.05
518 Alton Pkwy. at Commercentre Dr.	--	--	--	--	.61	B	.74	C	--	--
555 Bake Pkwy. at Rancho Pkwy. S	.82	D	.80	C	.77	C	.80	C	-.05	.00
556 Ridge Valley at Portola Pkwy.[1,3]	.86	D	.94	E	.84	D	.89	D	-.02	-.05
557 Ridge Valley at Irvine Bl.	.87	D	.74	C	.86	D	.75	C	-.01	.01
558 College Dr. at Irvine Bl.	.70	B	.60	A	.72	C	.63	B	.02	.03
566 Marine Wy. at Barranca Pkwy.	.84	D	.82	D	.89	D	.85	D	.05	.03

Table 14 (cont.)
POST-2025 INTERSECTION LOS SUMMARY

Intersection	Without Alton Extension				With Alton Extension				ICU Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
567 Marine Wy. at Alton Pkwy.	.75	C	.83	D	.80	C	.83	D	.05	.00
568 Marine Wy. at Rockfield Bl.	.59	A	.54	A	.56	A	.52	A	-.03	-.02

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

[1] This location is forecast to operate deficiently in the AM and/or PM peak hour under no Alton Parkway extension and/or with Alton Parkway extension conditions (i.e., the LOS is worse than the adopted LOS performance standard).

[2] LOS "E" is acceptable at this location (Irvine Planning Area 33 (Spectrum 1) intersections, Irvine Business Complex (IBC) intersections, the Bake Parkway/I-5 northbound and southbound ramp intersections, and the Alton Parkway/Irvine Boulevard, and Lake Forest Drive/Irvine Center Drive intersections.

[3] The LOS at this location improves and meets the LOS performance standard under Post-2025 conditions with Alton Parkway extension thereby a beneficial impact is provided by the project.

Table 18
POST-2025 INTERSECTION LOS SUMMARY WITH MUSICK JAIL FACILITY EXPANSION

Intersection	Without Alton Extension				With Alton Extension				ICU Difference	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	AM	PM
301 Sand Cyn. Av. at Irvine Bl.	.74	C	.74	C	.74	C	.75	C	.00	.01
316 SR-133 SB Ramps at Irvine Bl.	.79	C	.58	A	.85	D	.58	A	.07	.00
317 SR-133 NB Ramps at Irvine Bl.	.74	C	.69	B	.75	C	.70	B	.01	.01
338 Alton Pkwy. at Irvine Bl.[2]	.89	D	.81	D	.83	D	.87	D	-.03	.06
362 Bake Pkwy. at Irvine Bl. [1,3]	1.15	F	.95	E	.89	D	.88	D	-.25	-.07
376 Lake Forest Dr. at Trabuco Rd.	.90	D	.85	D	.81	D	.89	D	-.09	.04
339 Alton Pkwy. at Toledo Wy.	.66	B	.67	B	.62	B	.78	C	-.02	.11
363 Bake Pkwy. at Toledo Wy.	.91	E	.71	C	.89	D	.70	B	-.01	-.01
340 Alton Pkwy. at Jeronimo Rd.	.69	B	.74	C	.75	C	.80	C	.08	.06
364 Bake Pkwy. at Jeronimo Rd.[3]	.78	C	.88	D	.79	C	.85	D	.03	-.03
341 Alton Pkwy. at Muirlands Bl.	.70	B	.80	C	.77	C	.88	D	.09	.08
365 Bake Pkwy. at Muirlands Bl.	.75	C	.90	D	.75	C	.89	D	.01	-.01
567 Marine Wy. at Alton Pkwy.	.78	C	.83	D	.80	C	.83	D	.05	.00
366 Bake Pkwy. at Rockfield Bl.	.69	B	.88	D	.69	B	.88	D	.01	.00
329 Barranca Pkwy. at ICD[2]	.90	D	.78	C	.90	D	.81	D	.00	.03
348 Alton Pkwy. at ICD[2]	.88	D	.94	E	.87	D	.97	E	.00	.03
345 Alton Pkwy. at I-5 NB Ramps[2]	.97	E	.58	A	.96	E	.61	B	.01	.03
346 Alton Pkwy. at Enterprise Dr.[2]	.84	D	.92	E	.85	D	.90	D	.02	-.02
367 Bake Pkwy. at I-5 NB Ramps[2]	.88	D	.94	E	.87	D	.95	E	-.01	.01
368 Bake Pkwy. at I-5 SB Ramps[2]	.82	D	.87	D	.82	D	.88	D	.01	.01

Abbreviations: ICU – intersection capacity utilization; LOS – level of service; NB – northbound; SB – southbound

1 This location is forecast to operate deficiently in the AM and/or PM peak hour under no Alton Parkway extension and/or with Alton Parkway extension conditions (i.e., the LOS is worse than the adopted LOS performance standard).

2 LOS "E" is acceptable at this location (Irvine Planning Area 33 (Spectrum 1) intersections, Irvine Business Complex (IBC) intersections, the Bake Parkway/I-5 northbound and southbound ramp intersections, and the Alton Parkway/Irvine Boulevard, and Lake Forest Drive/Irvine Center Drive intersections.

3 The LOS at this location improves and meets the LOS performance standard under Post-2025 conditions with Alton Parkway extension thereby a beneficial impact is provided by the project.

16. Ridge Route & Trabuco

Existing Count (2004)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	196	.12*	206	.12*
NBT	0	0	0		0	
NBR	1	1700	159	.09	248	.15
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	535	.10	1792	.35*
EBR	d	1700	207	.12	178	.10
WBL	1	1700	225	.13	143	.08*
WBT	3	5100	1589	.31*	822	.16
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.48		.60

2030 Current General Plan

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	290	.17*	260	.15*
NBT	0	0	0		0	
NBR	1	1700	80	.05	330	.19
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	790	.15	2140	.42*
EBR	d	1700	130	.08	220	.13
WBL	1	1700	260	.15	110	.06*
WBT	3	5100	1930	.38*	1070	.21
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.60		.68

2030 City Preferred Plan

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	270	.16*	270	.16*
NBT	0	0	0		0	
NBR	1	1700	80	.05	390	.23
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	780	.15	2000	.39*
EBR	d	1700	180	.11	260	.15
WBL	1	1700	300	.18	100	.06*
WBT	3	5100	1840	.36*	1090	.21
WBR	0	0	0		0	
Right Turn Adjustment					NBR	.02*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.57		.68

2030 Landowners Plan

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	230	.14*	270	.16*
NBT	0	0	0		0	
NBR	1	1700	80	.05	350	.21
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	3	5100	780	.15	2060	.40*
EBR	d	1700	190	.11	210	.12
WBL	1	1700	280	.16	110	.06*
WBT	3	5100	1850	.36*	1090	.21
WBR	0	0	0		0	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				.55		.67

17. El Toro & Trabuco

Existing Count (2004)

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	298	.09*	317	.09
NBT	3	5100	917	.20	1009	.23*
NBR	0	0	123		176	
SBL	2	3400	260	.08	250	.07*
SBT	3	5100	1395	.27*	828	.16
SBR	1	1700	388	.23	152	.09
EBL	2	3400	199	.06*	541	.16
EBT	3	5100	315	.09	1225	.27*
EBR	0	0	150		158	
WBL	2	3400	305	.09	187	.06*
WBT	3	5100	1014	.24*	484	.12
WBR	0	0	235		147	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .71 .68

2030 Current General Plan

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	530	.16*	460	.14
NBT	3	5100	1410	.30	1560	.45*
NBR	0	0	140		710	
SBL	2	3400	270	.08	290	.09*
SBT	3	5100	1730	.34*	1160	.23
SBR	1	1700	270	.16	170	.10
EBL	2	3400	140	.04*	600	.18
EBT	3	5100	320	.09	1240	.33*
EBR	0	0	350	.21	460	
WBL	2	3400	310	.09	230	.07*
WBT	3	5100	1250	.30*	510	.13
WBR	0	0	270		170	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .89 .99

2030 City Preferred Plan

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	450	.13*	510	.15
NBT	3	5100	1230	.27	1710	.47*
NBR	0	0	130		680	
SBL	2	3400	270	.08	270	.08*
SBT	3	5100	1920	.38*	1070	.21
SBR	1	1700	350	.21	130	.08
EBL	2	3400	110	.03*	620	.18
EBT	3	5100	330	.10	1270	.32*
EBR	0	0	350	.21	340	
WBL	2	3400	340	.10	230	.07*
WBT	3	5100	1200	.28*	510	.13
WBR	0	0	250		160	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .87 .99

2030 Landowners Plan

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	480	.14*	500	.15
NBT	3	5100	1230	.27	1800	.48*
NBR	0	0	140		670	
SBL	2	3400	270	.08	260	.08*
SBT	3	5100	2030	.40*	1080	.21
SBR	1	1700	270	.16	130	.08
EBL	2	3400	120	.04*	580	.17
EBT	3	5100	340	.10	1290	.33*
EBR	0	0	340	.20	380	
WBL	2	3400	300	.09	230	.07*
WBT	3	5100	1260	.29*	520	.13
WBR	0	0	240		160	
Clearance Interval				.05*		.05*

Note: Assumes Right-Turn Overlap for SBR

TOTAL CAPACITY UTILIZATION .92 1.01

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 5
NORTH/SOUTH: Fairbanks-Musick
EAST/WEST: Irvine Blvd

	2030					
Move-			Volume		V/C Ratio	
ment	Lane	Capacity	AM	PM	AM	PM
NBL	1	1,700	2	111	0.00	0.07
NBT	1	1,700	48	8	0.08 *	0.40 *
NBR	0	0	89	668	0.00	0.00
SBL	1	1,700	10	63	0.01 *	0.04 *
SBT	1	1,700	14	23	0.02	0.08
SBR	0	0	20	114	0.00	0.00
EBL	1	1,700	122	10	0.07	0.01
EBT	3	5,100	1,253	1,348	0.28 *	0.27 *
EBR	0	0	172	6	0.00	0.00
WBL	1	1,700	451	111	0.27 *	0.07 *
WBT	3	5,100	2,290	12	0.46	0.09
WBR	0	0	71	442	0.00	0.00
N/S Critical Movements					0.09	0.44
E/W Critical Movements					0.55	0.34
Right Turn Critical Movement					0.00	0.00
Clearance Interval					0.05	0.05
ICU					0.69	0.83
Level of Service (LOS)					B	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 8
NORTH/SOUTH: Ridge Route Dr
EAST/WEST: Trabuco Rd

	2030					
Move-			Volume		V/C Ratio	
ment	Lane	Capacity	AM	PM	AM	PM
NBL	1	1,700	290	260	0.17 *	0.15 *
NBT	0	0	0	0	0.00	0.00
NBR	1 U	1,700	80	330	0.00	0.00
SBL	0	0	0	0	0.00	0.00
SBT	0	0	0	0	0.00 *	0.00 *
SBR	0	0	0	0	0.00	0.00
EBL	0	0	0	0	0.00 *	0.00
EBT	3	5,100	790	2,140	0.15	0.42 *
EBR	1 U	1,700	130	220	0.00	0.00
WBL	1	1,700	260	110	0.15	0.06 *
WBT	3	5,100	1,930	1,070	0.38 *	0.21
WBR	0	0	0	0	0.00	0.00
N/S Critical Movements					0.17	0.15
E/W Critical Movements					0.38	0.48
Right Turn Critical Movement					0.00	0.00
Clearance Interval					0.05	0.05
ICU					0.60	0.68
Level of Service (LOS)					A	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 9
NORTH/SOUTH: El Toro Rd
EAST/WEST: Trabuco Rd

	2030						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	530	460	0.16 *	0.14
NBT	3		5,100	1,410	1,560	0.30	0.45 *
NBR	0		0	140	710	0.00	0.00
SBL	2		3,400	270	290	0.08	0.09 *
SBT	3		5,100	1,730	1,160	0.34 *	0.23
SBR	1	U	1,700	270	170	0.00	0.00
EBL	2		3,400	140	600	0.04 *	0.18
EBT	3		5,100	320	1,240	0.13	0.33 *
EBR	0		0	350	460	0.00	0.00
WBL	2		3,400	310	230	0.09	0.07 *
WBT	3		5,100	1,250	510	0.30 *	0.13
WBR	0		0	270	170	0.00	0.00
N/S Critical Movements						0.50	0.54
E/W Critical Movements						0.34	0.40
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.89	0.99
Level of Service (LOS)						D	E

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 23
NORTH/SOUTH: Alton Pkwy
EAST/WEST: SR-241 Ramps

	2030						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	111	302	0.07 *	0.18 *
NBT	3		5,100	473	738	0.09	0.14
NBR	1	F	1,700	314	1,172	0.00	0.00
SBL	1		1,700	136	78	0.08	0.05
SBT	3		5,100	760	685	0.15 *	0.13 *
SBR	1	F	1,700	19	108	0.00	0.00
EBL	2		3,400	188	75	0.06	0.02
EBT	0		0	0	0	0.00 *	0.00 *
EBR	1	F	1,700	389	144	0.00	0.00
WBL	2		3,400	1,210	541	0.36 *	0.16 *
WBT	0		0	0	0	0.00	0.00
WBR	1	F	1,700	117	127	0.00	0.00
N/S Critical Movements						0.22	0.31
E/W Critical Movements						0.36	0.16
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.63	0.52
Level of Service (LOS)						B	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 24
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Portola Pkwy

	2030						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	181	451	0.11 *	0.27 *
NBT	1.5		2,550	180	306	0.07	0.12
NBR	1.5	0	2,550	90	882	0.00	0.00
SBL	1		1,700	143	207	0.08	0.12
SBT	2		3,400	253	325	0.07 *	0.10 *
SBR	1	U	1,700	293	428	0.00	0.02 *
EBL	2		3,400	428	491	0.13 *	0.14 *
EBT	3		5,100	477	1,041	0.09	0.20
EBR	1	U	1,700	165	208	0.00	0.00
WBL	2		3,400	940	567	0.28	0.17
WBT	2		3,400	909	1,170	0.27 *	0.34 *
WBR	1	U	1,700	112	92	0.00	0.00
N/S Critical Movements						0.18	0.37
E/W Critical Movements						0.40	0.48
Right Turn Critical Movement						0.00	0.02
Clearance Interval						0.05	0.05
ICU						0.63	0.92
Level of Service (LOS)						B	E

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
- P - Protected right turn movement
- U - Unprotected right turn movement
- N - No right turn on red
- F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 5
NORTH/SOUTH: Fairbanks-Musick
EAST/WEST: Irvine Blvd

	2030 + Buildout					
Move-ment	Lane	Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1	1,700	2	111	0.00	0.07
NBT	1	1,700	64	20	0.09 *	0.40 *
NBR	0	0	89	668	0.00	0.00
SBL	1	1,700	32	86	0.02 *	0.05 *
SBT	1	1,700	35	45	0.04	0.10
SBR	0	0	30	125	0.00	0.00
EBL	1.0	1,700	130	16	0.08	0.01
EBT	3.0	5,100	1,339	1,439	0.30 *	0.28 *
EBR	0	0	172	6	0.00	0.00
WBL	1	1,700	451	111	0.27 *	0.07 *
WBT	3	5,100	2,359	61	0.48	0.10
WBR	0	0	88	454	0.00	0.00
N/S Critical Movements					0.11	0.45
E/W Critical Movements					0.57	0.35
Right Turn Critical Movement					0.00	0.00
Clearance Interval					0.05	0.05
ICU					0.73	0.85
Level of Service (LOS)					C	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 8
NORTH/SOUTH: Ridge Route Dr
EAST/WEST: Trabuco Rd

	2030 + Buildout					
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	290	260	0.17 *	0.15 *
NBT	0		0	0	0	0.00	0.00
NBR	1	U	1,700	80	330	0.00	0.00
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00 *	0.00
EBT	3		5,100	806	2,157	0.16	0.42 *
EBR	1	U	1,700	130	220	0.00	0.00
WBL	1		1,700	260	110	0.15	0.06 *
WBT	3		5,100	1,943	1,079	0.38 *	0.21
WBR	0		0	0	0	0.00	0.00
N/S Critical Movements						0.17	0.15
E/W Critical Movements						0.38	0.48
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.60	0.68
Level of Service (LOS)						A	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 9
NORTH/SOUTH: El Toro Rd
EAST/WEST: Trabuco Rd

	2030 + Buildout					
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	2		3,400	530	460	0.16 *	0.14
NBT	3		5,100	1,410	1,560	0.30	0.45 *
NBR	0		0	140	710	0.00	0.00
SBL	2		3,400	270	290	0.08	0.09 *
SBT	3		5,100	1,730	1,160	0.34 *	0.23
SBR	1	U	1,700	270	170	0.00	0.00
EBL	2		3,400	140	600	0.04 *	0.18
EBT	3		5,100	336	1,257	0.13	0.34 *
EBR	0		0	350	460	0.00	0.00
WBL	2		3,400	310	230	0.09	0.07 *
WBT	3		5,100	1,263	519	0.30 *	0.14
WBR	0		0	270	170	0.00	0.00
N/S Critical Movements						0.50	0.54
E/W Critical Movements						0.34	0.41
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.89	1.00
Level of Service (LOS)						D	E

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 23
NORTH/SOUTH: Alton Pkwy
EAST/WEST: SR-241 Ramps

	2030 + Buildout					
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	132	324	0.08 *	0.19 *
NBT	3		5,100	476	741	0.09	0.15
NBR	1	F	1,700	314	1,172	0.00	0.00
SBL	1		1,700	136	78	0.08	0.05
SBT	3		5,100	762	686	0.15 *	0.13 *
SBR	1	F	1,700	19	108	0.00	0.00
EBL	2		3,400	188	75	0.06	0.02
EBT	0		0	0	0	0.00 *	0.00 *
EBR	1	F	1,700	406	156	0.00	0.00
WBL	2		3,400	1,210	541	0.36 *	0.16 *
WBT	0		0	0	0	0.00	0.00
WBR	1	F	1,700	117	127	0.00	0.00
N/S Critical Movements						0.23	0.32
E/W Critical Movements						0.36	0.16
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.64	0.53
Level of Service (LOS)						B	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 24
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Portola Pkwy

				2030 + Buildout			
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	181	451	0.11 *	0.27 *
NBT	1.5		2,550	183	309	0.07	0.12
NBR	1.5	0	2,550	90	882	0.00	0.00
SBL	1		1,700	143	207	0.08	0.12
SBT	2		3,400	255	326	0.08 *	0.10 *
SBR	1	U	1,700	293	428	0.00	0.02 *
EBL	2		3,400	428	491	0.13 *	0.14 *
EBT	3		5,100	477	1,041	0.09	0.20
EBR	1	U	1,700	165	208	0.00	0.00
WBL	2		3,400	940	568	0.28	0.17
WBT	2		3,400	909	1,170	0.27 *	0.34 *
WBR	1	U	1,700	112	92	0.00	0.00
N/S Critical Movements						0.19	0.37
E/W Critical Movements						0.40	0.48
Right Turn Critical Movement						0.00	0.02
Clearance Interval						0.05	0.05
ICU						0.64	0.92
Level of Service (LOS)						B	E

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
- P - Protected right turn movement
- U - Unprotected right turn movement
- N - No right turn on red
- F - Free right turn lane

ATTACHMENT C – INTERIM LOS WORKSHEETS

(DERIVED FROM EXISTING AND GENERAL PLAN BUILDOUT VOLUMES PROVIDED IN ATTACHMENTS A AND B)

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 1
NORTH/SOUTH: Sand Canyon Ave
EAST/WEST: Irvine Blvd

				Interim			
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	2		3,400	87	228	0.03 *	0.07
NBT	2		3,400	374	712	0.11	0.21 *
NBR	1	U	1,700	407	256	0.03 *	0.00
SBL	2		3,400	406	185	0.12	0.05 *
SBT	2		3,400	996	408	0.29 *	0.12
SBR	1	U	1,700	61	54	0.00	0.00
EBL	2		3,400	32	35	0.01	0.01 *
EBT	3		5,100	971	731	0.19 *	0.14
EBR	1	U	1,700	205	105	0.00	0.00
WBL	2		3,400	455	316	0.13 *	0.09
WBT	3		5,100	1,056	1,357	0.21	0.27 *
WBR	1	U	1,700	112	333	0.00	0.00
N/S Critical Movements						0.32	0.26
E/W Critical Movements						0.32	0.28
Right Turn Critical Movement						0.03	0.00
Clearance Interval						0.05	0.05
ICU						0.72	0.59
Level of Service (LOS)						C	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 2
NORTH/SOUTH: SR-133 SB Ramps
EAST/WEST: Irvine Blvd

				Interim			
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	0		0	0	0	0.00	0.00
NBT	0		0	0	0	0.00 *	0.00 *
NBR	0		0	0	0	0.00	0.00
SBL	1		1,700	272	36	0.16 *	0.02 *
SBT	0		0	0	0	0.00	0.00
SBR	2	U	3,400	375	63	0.00	0.00
EBL	0		0	0	0	0.00	0.00
EBT	3		5,100	1,709	1,233	0.34 *	0.24 *
EBR	1	U	1,700	178	123	0.00	0.00
WBL	1		1,700	158	182	0.09 *	0.11 *
WBT	3		5,100	1,394	1,696	0.27	0.33
WBR	0		0	0	0	0.00	0.00
N/S Critical Movements						0.16	0.02
E/W Critical Movements						0.43	0.35
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.64	0.42
Level of Service (LOS)						B	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 3
NORTH/SOUTH: SR-133 NB Ramps
EAST/WEST: Irvine Blvd

	Interim						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	76	127	0.04 *	0.07 *
NBT	0		0	0	0	0.00	0.00
NBR	1	U	1,700	205	256	0.08 *	0.08 *
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00	0.00 *
EBT	3		5,100	1,869	1,207	0.37 *	0.24
EBR	1	F	1,700	97	156	0.00	0.00
WBL	0		0	0	0	0.00 *	0.00
WBT	3		5,100	1,513	1,762	0.31	0.39 *
WBR	0		0	61	247	0.00	0.00
N/S Critical Movements						0.04	0.07
E/W Critical Movements						0.37	0.39
Right Turn Critical Movement						0.08	0.08
Clearance Interval						0.05	0.05
ICU						0.54	0.59
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 4
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Irvine Blvd

	Interim						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	2		3,400	116	582	0.03 *	0.17
NBT	3		5,100	265	1,100	0.05	0.22 *
NBR	1	F	1,700	35	113	0.00	0.00
SBL	2		3,400	334	383	0.10	0.11 *
SBT	3		5,100	1,076	382	0.21 *	0.07
SBR	1	F	1,700	523	509	0.00	0.00
EBL	3		5,100	478	467	0.09 *	0.09 *
EBT	3		5,100	1,015	843	0.20	0.17
EBR	1	U	1,700	435	136	0.03 *	0.00
WBL	2		3,400	114	77	0.03	0.02
WBT	3		5,100	1,001	1,183	0.20 *	0.23 *
WBR	1	U	1,700	192	298	0.00	0.00
N/S Critical Movements						0.24	0.33
E/W Critical Movements						0.29	0.32
Right Turn Critical Movement						0.03	0.00
Clearance Interval						0.05	0.05
ICU						0.61	0.70
Level of Service (LOS)						B	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 5
NORTH/SOUTH: Fairbanks-Musick
EAST/WEST: Irvine Blvd

	Interim					
			Volume		V/C Ratio	
Move-ment	Lane	Capacity	AM	PM	AM	PM
NBL	1	1,700	1	89	0.00	0.05
NBT	1	1,700	48	8	0.07 *	0.32 *
NBR	0	0	64	529	0.00	0.00
SBL	1	1,700	10	63	0.01 *	0.04 *
SBT	1	1,700	14	23	0.02	0.08
SBR	0	0	20	114	0.00	0.00
EBL	1	1,700	122	10	0.07 *	0.01
EBT	3	5,100	917	1,067	0.20	0.21 *
EBR	0	0	126	5	0.00	0.00
WBL	1	1,700	302	89	0.18	0.05 *
WBT	3	5,100	1,533	10	0.31 *	0.09
WBR	0	0	71	442	0.00	0.00
N/S Critical Movements					0.08	0.36
E/W Critical Movements					0.38	0.26
Right Turn Critical Movement					0.00	0.00
Clearance Interval					0.05	0.05
ICU					0.51	0.67
Level of Service (LOS)					A	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 6
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Trabuco Rd

	Interim						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	576	451	0.34 *	0.27 *
NBT	2		3,400	1,528	1,242	0.45	0.37
NBR	1	U	1,700	291	799	0.00	0.03 *
SBL	2		3,400	61	221	0.02	0.07
SBT	3		5,100	1,094	1,469	0.21 *	0.29 *
SBR	1	U	1,700	157	296	0.00	0.00
EBL	2		3,400	398	225	0.12	0.07
EBT	3		5,100	235	947	0.05 *	0.19 *
EBR	1	U	1,700	459	546	0.00	0.00
WBL	2		3,400	1,106	341	0.33 *	0.10 *
WBT	3		5,100	1,194	364	0.23	0.07
WBR	1	U	1,700	229	64	0.00	0.00
N/S Critical Movements						0.55	0.56
E/W Critical Movements						0.38	0.29
Right Turn Critical Movement						0.00	0.03
Clearance Interval						0.05	0.05
ICU						0.98	0.93
Level of Service (LOS)						E	E

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 7
NORTH/SOUTH: Lake Forest Dr
EAST/WEST: Trabuco Rd

	Interim					
			Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	258	283	0.08 *	0.08
NBT	3		5,100	785	992	0.15	0.19 *
NBR	1	U	1,700	113	659	0.00	0.14 *
SBL	2		3,400	288	495	0.08	0.15 *
SBT	3		5,100	1,048	969	0.26 *	0.22
SBR	0		0	258	140	0.00	0.00
EBL	2		3,400	167	294	0.05	0.09
EBT	3		5,100	584	1,164	0.11 *	0.23 *
EBR	1	U	1,700	464	191	0.10 *	0.00
WBL	2		3,400	565	256	0.17 *	0.08 *
WBT	3		5,100	1,147	565	0.22	0.11
WBR	1	U	1,700	495	459	0.00	0.05 *
N/S Critical Movements						0.34	0.34
E/W Critical Movements						0.28	0.31
Right Turn Critical Movement						0.10	0.19
Clearance Interval						0.05	0.05
ICU						0.77	0.89
Level of Service (LOS)						C	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 8
NORTH/SOUTH: Ridge Route Dr
EAST/WEST: Trabuco Rd

	Interim					
			Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	232	227	0.14 *	0.13 *
NBT	0		0	0	0	0.00	0.00
NBR	1	U	1,700	159	280	0.00	0.00
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00 *	0.00
EBT	3		5,100	633	1,926	0.12	0.38 *
EBR	1	U	1,700	207	194	0.00	0.00
WBL	1		1,700	238	143	0.14	0.08 *
WBT	3		5,100	1,720	917	0.34 *	0.18
WBR	0		0	0	0	0.00	0.00
N/S Critical Movements						0.14	0.13
E/W Critical Movements						0.34	0.46
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.53	0.64
Level of Service (LOS)						A	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 9
NORTH/SOUTH: El Toro Rd
EAST/WEST: Trabuco Rd

	Interim						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	2		3,400	387	372	0.11 *	0.11
NBT	3		5,100	1,107	1,221	0.24	0.31 *
NBR	0		0	130	381	0.00	0.00
SBL	2		3,400	264	265	0.08	0.08 *
SBT	3		5,100	1,524	956	0.30 *	0.19
SBR	1	U	1,700	388	159	0.00	0.00
EBL	2		3,400	199	564	0.06 *	0.17
EBT	3		5,100	317	1,231	0.11	0.30 *
EBR	0		0	227	274	0.00	0.00
WBL	2		3,400	307	204	0.09	0.06 *
WBT	3		5,100	1,105	494	0.27 *	0.13
WBR	0		0	248	156	0.00	0.00
N/S Critical Movements						0.41	0.39
E/W Critical Movements						0.33	0.36
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.79	0.80
Level of Service (LOS)						C	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 10
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Toledo Way

	Interim						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	81	38	0.05 *	0.02
NBT	3		5,100	685	1,717	0.13	0.34 *
NBR	1	F	1,700	130	304	0.00	0.00
SBL	1		1,700	91	75	0.05	0.04 *
SBT	3		5,100	1,304	685	0.26 *	0.13
SBR	0		0	5	1	0.00	0.00
EBL	1		1,700	2	11	0.00	0.01
EBT	1		1,700	17	52	0.03 *	0.08 *
EBR	0		0	26	87	0.00	0.00
WBL	1		1,700	299	145	0.18 *	0.09 *
WBT	1		1,700	39	29	0.02	0.02
WBR	1	U	1,700	248	184	0.00	0.00
N/S Critical Movements						0.31	0.38
E/W Critical Movements						0.21	0.17
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.57	0.60
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 11
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Toledo Way

				Interim			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	279	31	0.16 *	0.02
NBT	3		5,100	2,125	2,067	0.42	0.41 *
NBR	1	U	1,700	42	353	0.00	0.00
SBL	1		1,700	54	110	0.03	0.06 *
SBT	3		5,100	2,203	2,233	0.43 *	0.44
SBR	1	U	1,700	178	45	0.00	0.00
EBL	2		3,400	75	177	0.02	0.05
EBT	2		3,400	15	312	0.00 *	0.09 *
EBR	1	U	1,700	20	217	0.00	0.02 *
WBL	1		1,700	431	42	0.25 *	0.02 *
WBT	2		3,400	387	39	0.13	0.04
WBR	0		0	58	82	0.00	0.00
N/S Critical Movements						0.59	0.47
E/W Critical Movements						0.25	0.11
Right Turn Critical Movement						0.00	0.02
Clearance Interval						0.05	0.05
ICU						0.89	0.65
Level of Service (LOS)						D	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 12
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Jeronimo Rd

				Interim			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	142	24	0.08 *	0.01
NBT	3		5,100	1,281	1,794	0.25	0.35 *
NBR	1	F	1,700	226	372	0.00	0.00
SBL	2		3,400	60	81	0.02	0.02 *
SBT	3		5,100	1,500	1,315	0.30 *	0.26
SBR	0		0	42	12	0.00	0.00
EBL	1		1,700	7	51	0.00	0.03
EBT	1		1,700	8	43	0.00 *	0.03 *
EBR	1	F	1,700	16	152	0.00	0.00
WBL	2		3,400	510	370	0.15 *	0.11 *
WBT	1		1,700	60	29	0.04	0.02
WBR	1	U	1,700	123	107	0.00	0.00
N/S Critical Movements						0.38	0.37
E/W Critical Movements						0.15	0.14
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.58	0.56
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 13
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Jeronimo Rd

				Interim			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	424	47	0.25 *	0.03 *
NBT	3		5,100	2,074	2,239	0.41	0.44
NBR	1	U	1,700	35	479	0.00	0.00
SBL	1		1,700	69	91	0.04	0.05
SBT	3		5,100	2,337	2,334	0.46 *	0.46 *
SBR	1	U	1,700	102	10	0.00	0.00
EBL	2		3,400	8	102	0.00	0.03
EBT	2		3,400	35	547	0.01 *	0.16 *
EBR	1	U	1,700	50	378	0.00	0.04 *
WBL	1		1,700	322	108	0.19 *	0.06 *
WBT	2		3,400	566	75	0.19	0.04
WBR	0		0	89	66	0.00	0.00
N/S Critical Movements						0.71	0.49
E/W Critical Movements						0.20	0.22
Right Turn Critical Movement						0.00	0.04
Clearance Interval						0.05	0.05
ICU						0.96	0.80
Level of Service (LOS)						E	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 14
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Muirlands Blvd

				Interim			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	10	10	0.01 *	0.01
NBT	3		5,100	947	1,103	0.19	0.22 *
NBR	1	U	1,700	158	351	0.00	0.00
SBL	2		3,400	97	141	0.03	0.04 *
SBT	3		5,100	1,073	814	0.21 *	0.16
SBR	1	U	1,700	932	657	0.21 *	0.02 *
EBL	2		3,400	562	958	0.17 *	0.28 *
EBT	2		3,400	234	592	0.07	0.18
EBR	0		0	19	8	0.00	0.00
WBL	2		3,400	232	105	0.07	0.03
WBT	2		3,400	594	290	0.20 *	0.11 *
WBR	0		0	93	97	0.00	0.00
N/S Critical Movements						0.22	0.26
E/W Critical Movements						0.37	0.39
Right Turn Critical Movement						0.21	0.02
Clearance Interval						0.05	0.05
ICU						0.85	0.72
Level of Service (LOS)						D	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 15
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Muirlands Blvd

	Interim						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	160	40	0.05 *	0.01
NBT	4		6,800	2,523	2,389	0.37	0.35 *
NBR	1	U	1,700	81	305	0.00	0.00
SBL	2		3,400	91	233	0.03	0.07 *
SBT	4		6,800	2,485	2,405	0.37 *	0.35
SBR	1	F	1,700	268	84	0.00	0.00
EBL	2		3,400	72	311	0.02 *	0.09
EBT	2		3,400	95	766	0.03	0.23 *
EBR	1	F	1,700	41	237	0.00	0.00
WBL	2		3,400	215	117	0.06	0.03 *
WBT	2		3,400	580	121	0.17 *	0.04
WBR	1	F	1,700	116	102	0.00	0.00
N/S Critical Movements						0.42	0.42
E/W Critical Movements						0.19	0.26
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.66	0.73
Level of Service (LOS)						B	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 16
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Rockfield Blvd

	Interim						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	354	70	0.10 *	0.02
NBT	4		6,800	2,485	2,624	0.37	0.39 *
NBR	1	F	1,700	561	267	0.00	0.00
SBL	2		3,400	291	313	0.09	0.09 *
SBT	4		6,800	2,448	2,520	0.36 *	0.37
SBR	1	U	1,700	55	28	0.00	0.00
EBL	1		1,700	7	104	0.00	0.06
EBT	2		3,400	58	187	0.02 *	0.06 *
EBR	1	F	1,700	34	293	0.00	0.00
WBL	2		3,400	169	628	0.05 *	0.18 *
WBT	2		3,400	75	196	0.02	0.06
WBR	1	F	1,700	86	248	0.00	0.00
N/S Critical Movements						0.46	0.48
E/W Critical Movements						0.07	0.24
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.58	0.77
Level of Service (LOS)						A	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 17
NORTH/SOUTH: Barranca Pkwy
EAST/WEST: Irvine Center Dr

				Interim			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	213	37	0.06	0.01 *
NBT	2		3,400	1,219	642	0.36 *	0.19
NBR	1	U	1,700	96	259	0.00	0.00
SBL	2		3,400	61	209	0.02 *	0.06
SBT	2		3,400	502	958	0.15	0.28 *
SBR	1	U	1,700	361	464	0.00	0.00
EBL	2		3,400	310	340	0.09 *	0.10 *
EBT	3		5,100	338	810	0.07	0.16
EBR	1	U	1,700	39	166	0.00	0.00
WBL	2		3,400	261	256	0.08	0.08
WBT	3		5,100	1,136	929	0.22 *	0.18 *
WBR	1	U	1,700	325	150	0.00	0.00
N/S Critical Movements						0.38	0.29
E/W Critical Movements						0.31	0.28
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.74	0.62
Level of Service (LOS)						C	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 18
NORTH/SOUTH: Irvine Center Dr
EAST/WEST: Alton Pkwy

				Interim			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	575	302	0.17	0.09 *
NBT	3		5,100	1,478	960	0.29 *	0.19
NBR	1	U	1,700	1,053	393	0.27 *	0.00
SBL	2		3,400	116	361	0.03 *	0.11
SBT	3		5,100	348	1,111	0.07	0.22 *
SBR	1	U	1,700	16	33	0.00	0.00
EBL	2		3,400	33	53	0.01 *	0.02
EBT	3		5,100	509	823	0.10	0.16 *
EBR	1	U	1,700	155	580	0.00	0.11 *
WBL	2		3,400	252	764	0.07	0.22 *
WBT	3		5,100	1,135	592	0.22 *	0.12
WBR	1	U	1,700	285	220	0.00	0.00
N/S Critical Movements						0.32	0.31
E/W Critical Movements						0.23	0.38
Right Turn Critical Movement						0.27	0.11
Clearance Interval						0.05	0.05
ICU						0.87	0.85
Level of Service (LOS)						D	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 19
NORTH/SOUTH: I-5 NB Ramps
EAST/WEST: Alton Pkwy

	Interim						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	1.5		2,550	799	184	0.31 *	0.07 *
NBT	0		0	0	0	0.00	0.00
NBR	1.5	U	2,550	531	131	0.00	0.00
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00	0.00 *
EBT	3		5,100	2,439	1,482	0.48 *	0.29
EBR	1	F	1,700	215	492	0.00	0.00
WBL	0		0	0	0	0.00 *	0.00
WBT	3		5,100	1,475	1,552	0.29	0.30 *
WBR	1	F	1,700	174	1,079	0.00	0.00
N/S Critical Movements						0.31	0.07
E/W Critical Movements						0.48	0.30
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.84	0.42
Level of Service (LOS)						D	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 20
NORTH/SOUTH: Enterprise Dr
EAST/WEST: Alton Pkwy

	Interim						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	177	131	0.05 *	0.04 *
NBT	0		0	0	0	0.00	0.00
NBR	2	U	3,400	1,426	607	0.28 *	0.00
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00	0.00
EBT	3		5,100	1,426	1,586	0.28 *	0.31 *
EBR	1	U	1,700	151	388	0.00	0.00
WBL	1		1,700	187	677	0.11 *	0.40 *
WBT	3		5,100	1,684	1,624	0.33	0.32
WBR	0		0	0	0	0.00	0.00
N/S Critical Movements						0.05	0.04
E/W Critical Movements						0.39	0.71
Right Turn Critical Movement						0.28	0.00
Clearance Interval						0.05	0.05
ICU						0.77	0.80
Level of Service (LOS)						C	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 21
NORTH/SOUTH: I-5 NB Ramps
EAST/WEST: Bake Pkwy

	Interim						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1.5		2,550	96	122	0.04 *	0.05 *
NBT	0		0	0	0	0.00	0.00
NBR	1.5	U	2,550	424	221	0.13 *	0.04 *
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	11	0	0.00	0.00
EBT	3		5,100	3,023	2,762	0.59 *	0.54 *
EBR	1	F	1,700	218	552	0.00	0.00
WBL	0		0	43	29	0.00 *	0.00 *
WBT	3		5,100	562	879	0.12	0.18
WBR	1	F	1,700	1,843	2,412	0.00	0.00
N/S Critical Movements						0.04	0.05
E/W Critical Movements						0.59	0.54
Right Turn Critical Movement						0.13	0.04
Clearance Interval						0.05	0.05
ICU						0.81	0.68
Level of Service (LOS)						D	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 22
NORTH/SOUTH: I-5 SB Ramps
EAST/WEST: Bake Pkwy

	Interim						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	0		0	0	0	0.00	0.00
NBT	0		0	0	0	0.00 *	0.00 *
NBR	0		0	0	0	0.00	0.00
SBL	2.5		4,250	2,454	2,124	0.58 *	0.50 *
SBT	0		0	0	0	0.00	0.00
SBR	1.5	U	2,550	416	210	0.00	0.00
EBL	0		0	0	0	0.00	0.00
EBT	3		5,100	892	1,538	0.17 *	0.30 *
EBR	1	F	1,700	27	107	0.00	0.00
WBL	0		0	0	0	0.00 *	0.00 *
WBT	3		5,100	551	696	0.11	0.14
WBR	1	F	1,700	203	659	0.00	0.00
N/S Critical Movements						0.58	0.50
E/W Critical Movements						0.17	0.30
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.80	0.85
Level of Service (LOS)						C	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 23
NORTH/SOUTH: Alton Pkwy
EAST/WEST: SR-241 Ramps

	Interim						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	56	122	0.03 *	0.07
NBT	2		3,400	378	819	0.11	0.24 *
NBR	1	F	1,700	190	681	0.00	0.00
SBL	1		1,700	130	76	0.08	0.04 *
SBT	2		3,400	812	599	0.24 *	0.18
SBR	1	F	1,700	107	82	0.00	0.00
EBL	2		3,400	140	55	0.04	0.02
EBT	0		0	0	0	0.00 *	0.00 *
EBR	1	F	1,700	156	69	0.00	0.00
WBL	2		3,400	726	297	0.21 *	0.09 *
WBT	0		0	0	0	0.00	0.00
WBR	1	F	1,700	133	124	0.00	0.00
N/S Critical Movements						0.27	0.28
E/W Critical Movements						0.21	0.09
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.53	0.42
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 24
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Portola Pkwy

	Interim						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	98	305	0.06 *	0.18
NBT	1.5		2,550	150	347	0.06	0.14 *
NBR	1.5	U	2,550	136	938	0.00	0.05 *
SBL	1		1,700	118	248	0.07	0.15 *
SBT	2		3,400	427	324	0.13 *	0.10
SBR	1	U	1,700	179	344	0.00	0.00
EBL	1		1,700	345	404	0.20 *	0.24 *
EBT	3		5,100	302	755	0.06	0.15
EBR	1	U	1,700	70	96	0.00	0.00
WBL	2		3,400	1,040	630	0.31	0.19
WBT	2		3,400	663	860	0.20 *	0.25 *
WBR	1	U	1,700	78	83	0.00	0.00
N/S Critical Movements						0.19	0.29
E/W Critical Movements						0.40	0.49
Right Turn Critical Movement						0.00	0.05
Clearance Interval						0.05	0.05
ICU						0.64	0.88
Level of Service (LOS)						B	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 1
NORTH/SOUTH: Sand Canyon Ave
EAST/WEST: Irvine Blvd

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	2		3,400	87	228	0.03 *	0.07
NBT	2		3,400	374	712	0.11	0.21 *
NBR	1	U	1,700	407	256	0.03 *	0.00
SBL	2		3,400	406	185	0.12	0.05 *
SBT	2		3,400	996	408	0.29 *	0.12
SBR	1	U	1,700	61	54	0.00	0.00
EBL	2		3,400	32	35	0.01	0.01 *
EBT	3		5,100	972	732	0.19 *	0.14
EBR	1	U	1,700	205	105	0.00	0.00
WBL	2		3,400	455	316	0.13 *	0.09
WBT	3		5,100	1,057	1,358	0.21	0.27 *
WBR	1	U	1,700	112	333	0.00	0.00
N/S Critical Movements						0.32	0.26
E/W Critical Movements						0.32	0.28
Right Turn Critical Movement						0.03	0.00
Clearance Interval						0.05	0.05
ICU						0.72	0.59
Level of Service (LOS)						C	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 2
NORTH/SOUTH: SR-133 SB Ramps
EAST/WEST: Irvine Blvd

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	0		0	0	0	0.00	0.00
NBT	0		0	0	0	0.00 *	0.00 *
NBR	0		0	0	0	0.00	0.00
SBL	1		1,700	274	38	0.16 *	0.02 *
SBT	0		0	0	0	0.00	0.00
SBR	2	U	3,400	375	63	0.00	0.00
EBL	0		0	0	0	0.00	0.00
EBT	3		5,100	1,710	1,234	0.34 *	0.24 *
EBR	1	U	1,700	178	123	0.00	0.00
WBL	1		1,700	158	182	0.09 *	0.11 *
WBT	3		5,100	1,395	1,697	0.27	0.33
WBR	0		0	0	0	0.00	0.00
N/S Critical Movements						0.16	0.02
E/W Critical Movements						0.43	0.35
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.64	0.42
Level of Service (LOS)						B	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 3
NORTH/SOUTH: SR-133 NB Ramps
EAST/WEST: Irvine Blvd

	Interim + Phase I						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	76	127	0.04 *	0.07 *
NBT	0		0	0	0	0.00	0.00
NBR	1	U	1,700	205	256	0.08 *	0.08 *
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00	0.00 *
EBT	3		5,100	1,873	1,209	0.37 *	0.24
EBR	1	F	1,700	97	156	0.00	0.00
WBL	0		0	0	0	0.00 *	0.00
WBT	3		5,100	1,514	1,763	0.31	0.39 *
WBR	0		0	64	250	0.00	0.00
N/S Critical Movements						0.04	0.07
E/W Critical Movements						0.37	0.39
Right Turn Critical Movement						0.08	0.08
Clearance Interval						0.05	0.05
ICU						0.54	0.59
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 4
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Irvine Blvd

	Interim + Phase I						
Move-				Volume		V/C Ratio	
ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	116	582	0.03 *	0.17
NBT	3		5,100	276	1,107	0.05	0.22 *
NBR	1	F	1,700	35	113	0.00	0.00
SBL	2		3,400	347	398	0.10	0.12 *
SBT	3		5,100	1,088	396	0.21 *	0.08
SBR	1	F	1,700	526	513	0.00	0.00
EBL	3		5,100	481	469	0.09 *	0.09 *
EBT	3		5,100	1,016	843	0.20	0.17
EBR	1	U	1,700	435	136	0.03 *	0.00
WBL	2		3,400	114	77	0.03	0.02
WBT	3		5,100	1,002	1,184	0.20 *	0.23 *
WBR	1	U	1,700	204	306	0.00	0.00
N/S Critical Movements						0.24	0.34
E/W Critical Movements						0.29	0.32
Right Turn Critical Movement						0.03	0.00
Clearance Interval						0.05	0.05
ICU						0.61	0.71
Level of Service (LOS)						B	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 5
NORTH/SOUTH: Fairbanks-Musick
EAST/WEST: Irvine Blvd

Move-ment	Lane	Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
	Interim + Phase I					
NBL	1	1,700	1	89	0.00	0.05
NBT	1	1,700	51	10	0.07 *	0.32 *
NBR	0	0	64	529	0.00	0.00
SBL	1	1,700	13	67	0.01 *	0.04 *
SBT	1	1,700	17	26	0.02	0.08
SBR	0	0	22	116	0.00	0.00
EBL	1	1,700	123	11	0.07 *	0.01
EBT	3	5,100	929	1,081	0.21	0.21 *
EBR	0	0	126	5	0.00	0.00
WBL	1	1,700	302	89	0.18	0.05 *
WBT	3	5,100	1,544	17	0.32 *	0.09
WBR	0	0	74	444	0.00	0.00
N/S Critical Movements					0.08	0.36
E/W Critical Movements					0.39	0.26
Right Turn Critical Movement					0.00	0.00
Clearance Interval					0.05	0.05
ICU					0.52	0.67
Level of Service (LOS)					A	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 6
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Trabuco Rd

Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
	Interim + Phase I						
NBL	1		1,700	588	458	0.35 *	0.27 *
NBT	2		3,400	1,528	1,242	0.45	0.37
NBR	1	U	1,700	291	799	0.00	0.03 *
SBL	2		3,400	61	221	0.02	0.07
SBT	3		5,100	1,094	1,469	0.21 *	0.29 *
SBR	1	U	1,700	157	296	0.00	0.00
EBL	2		3,400	398	225	0.12	0.07
EBT	3		5,100	238	950	0.05 *	0.19 *
EBR	1	U	1,700	472	561	0.00	0.00
WBL	2		3,400	1,106	341	0.33 *	0.10 *
WBT	3		5,100	1,196	366	0.23	0.07
WBR	1	U	1,700	229	64	0.00	0.00
N/S Critical Movements						0.56	0.56
E/W Critical Movements						0.38	0.29
Right Turn Critical Movement						0.00	0.03
Clearance Interval						0.05	0.05
ICU						0.99	0.93
Level of Service (LOS)						E	E

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 7
NORTH/SOUTH: Lake Forest Dr
EAST/WEST: Trabuco Rd

				Interim + Phase I			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	258	283	0.08 *	0.08
NBT	3		5,100	785	992	0.15	0.19 *
NBR	1	U	1,700	113	659	0.00	0.14 *
SBL	2		3,400	288	495	0.08	0.15 *
SBT	3		5,100	1,048	969	0.26 *	0.22
SBR	0		0	258	140	0.00	0.00
EBL	2		3,400	167	294	0.05 *	0.09
EBT	3		5,100	586	1,167	0.11	0.23 *
EBR	1	U	1,700	464	191	0.10 *	0.00
WBL	2		3,400	565	256	0.17	0.08 *
WBT	3		5,100	1,149	566	0.23 *	0.11
WBR	1	U	1,700	495	459	0.00	0.05 *
N/S Critical Movements						0.34	0.34
E/W Critical Movements						0.28	0.31
Right Turn Critical Movement						0.10	0.19
Clearance Interval						0.05	0.05
ICU						0.77	0.89
Level of Service (LOS)						C	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 8
NORTH/SOUTH: Ridge Route Dr
EAST/WEST: Trabuco Rd

				Interim + Phase I			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	232	227	0.14 *	0.13 *
NBT	0		0	0	0	0.00	0.00
NBR	1	U	1,700	159	280	0.00	0.00
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00 *	0.00
EBT	3		5,100	635	1,929	0.12	0.38 *
EBR	1	U	1,700	207	194	0.00	0.00
WBL	1		1,700	238	143	0.14	0.08 *
WBT	3		5,100	1,722	918	0.34 *	0.18
WBR	0		0	0	0	0.00	0.00
N/S Critical Movements						0.14	0.13
E/W Critical Movements						0.34	0.46
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.53	0.64
Level of Service (LOS)						A	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 9
NORTH/SOUTH: El Toro Rd
EAST/WEST: Trabuco Rd

Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
	Interim + Phase I						
NBL	2		3,400	387	372	0.11 *	0.11
NBT	3		5,100	1,107	1,221	0.24	0.31 *
NBR	0		0	130	381	0.00	0.00
SBL	2		3,400	264	265	0.08	0.08 *
SBT	3		5,100	1,524	956	0.30 *	0.19
SBR	1	U	1,700	388	159	0.00	0.00
EBL	2		3,400	199	564	0.06 *	0.17
EBT	3		5,100	319	1,234	0.11	0.30 *
EBR	0		0	227	274	0.00	0.00
WBL	2		3,400	307	204	0.09	0.06 *
WBT	3		5,100	1,107	495	0.27 *	0.13
WBR	0		0	248	156	0.00	0.00
N/S Critical Movements						0.41	0.39
E/W Critical Movements						0.33	0.36
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.79	0.80
Level of Service (LOS)						C	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 10
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Toledo Way

Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
	Interim + Phase I						
NBL	1		1,700	81	38	0.05 *	0.02
NBT	3		5,100	696	1,724	0.14	0.34 *
NBR	1	F	1,700	133	306	0.00	0.00
SBL	1		1,700	91	75	0.05	0.04 *
SBT	3		5,100	1,316	699	0.26 *	0.14
SBR	0		0	5	1	0.00	0.00
EBL	1		1,700	2	11	0.00	0.01
EBT	1		1,700	17	52	0.03 *	0.08 *
EBR	0		0	26	87	0.00	0.00
WBL	1		1,700	302	148	0.18 *	0.09 *
WBT	1		1,700	39	29	0.02	0.02
WBR	1	U	1,700	248	184	0.00	0.00
N/S Critical Movements						0.31	0.38
E/W Critical Movements						0.21	0.17
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.57	0.60
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 11
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Toledo Way

	Interim + Phase I						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	279	31	0.16 *	0.02
NBT	3		5,100	2,137	2,074	0.42	0.41 *
NBR	1	U	1,700	42	353	0.00	0.00
SBL	1		1,700	54	110	0.03	0.06 *
SBT	3		5,100	2,216	2,248	0.43 *	0.44
SBR	1	U	1,700	178	45	0.00	0.00
EBL	2		3,400	75	177	0.02	0.05
EBT	2		3,400	15	312	0.00 *	0.09 *
EBR	1	U	1,700	20	217	0.00	0.02 *
WBL	1		1,700	431	42	0.25 *	0.02 *
WBT	2		3,400	387	39	0.13	0.04
WBR	0		0	58	82	0.00	0.00
N/S Critical Movements						0.59	0.47
E/W Critical Movements						0.25	0.11
Right Turn Critical Movement						0.00	0.02
Clearance Interval						0.05	0.05
ICU						0.89	0.65
Level of Service (LOS)						D	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 12
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Jeronimo Rd

	Interim + Phase I						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	142	24	0.08 *	0.01
NBT	3		5,100	1,295	1,803	0.25	0.35 *
NBR	1	F	1,700	226	372	0.00	0.00
SBL	2		3,400	60	81	0.02	0.02 *
SBT	3		5,100	1,515	1,332	0.31 *	0.26
SBR	0		0	42	12	0.00	0.00
EBL	1		1,700	7	51	0.00	0.03
EBT	1		1,700	8	43	0.00 *	0.03 *
EBR	1	F	1,700	16	152	0.00	0.00
WBL	2		3,400	510	370	0.15 *	0.11 *
WBT	1		1,700	60	29	0.04	0.02
WBR	1	U	1,700	123	107	0.00	0.00
N/S Critical Movements						0.39	0.37
E/W Critical Movements						0.15	0.14
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.59	0.56
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 13
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Jeronimo Rd

				Interim + Phase I			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	424	47	0.25 *	0.03 *
NBT	3		5,100	2,086	2,246	0.41	0.44
NBR	1	U	1,700	35	479	0.00	0.00
SBL	1		1,700	69	91	0.04	0.05
SBT	3		5,100	2,350	2,349	0.46 *	0.46 *
SBR	1	U	1,700	102	10	0.00	0.00
EBL	2		3,400	8	102	0.00	0.03
EBT	2		3,400	35	547	0.01 *	0.16 *
EBR	1	U	1,700	50	378	0.00	0.04 *
WBL	1		1,700	322	108	0.19 *	0.06 *
WBT	2		3,400	566	75	0.19	0.04
WBR	0		0	89	66	0.00	0.00
N/S Critical Movements						0.71	0.49
E/W Critical Movements						0.20	0.22
Right Turn Critical Movement						0.00	0.04
Clearance Interval						0.05	0.05
ICU						0.96	0.80
Level of Service (LOS)						E	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 14
NORTH/SOUTH: Alton Pkwy
EAST/WEST: Muirlands Blvd

				Interim + Phase I			
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	1		1,700	10	10	0.01 *	0.01
NBT	3		5,100	961	1,112	0.19	0.22 *
NBR	1	U	1,700	158	351	0.00	0.00
SBL	2		3,400	97	141	0.03	0.04 *
SBT	3		5,100	1,088	831	0.21 *	0.16
SBR	1	U	1,700	932	657	0.21 *	0.01 *
EBL	2		3,400	562	958	0.17 *	0.28 *
EBT	2		3,400	234	592	0.07	0.18
EBR	0		0	19	8	0.00	0.00
WBL	2		3,400	232	105	0.07	0.03
WBT	2		3,400	594	290	0.20 *	0.11 *
WBR	0		0	93	97	0.00	0.00
N/S Critical Movements						0.22	0.26
E/W Critical Movements						0.37	0.39
Right Turn Critical Movement						0.21	0.01
Clearance Interval						0.05	0.05
ICU						0.85	0.71
Level of Service (LOS)						D	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 15
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Muirlands Blvd

Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
			Interim + Phase I				
NBL	2		3,400	160	40	0.05 *	0.01
NBT	4		6,800	2,535	2,396	0.37	0.35 *
NBR	1	U	1,700	81	305	0.00	0.00
SBL	2		3,400	91	233	0.03	0.07 *
SBT	4		6,800	2,498	2,420	0.37 *	0.36
SBR	1	F	1,700	268	84	0.00	0.00
EBL	2		3,400	72	311	0.02 *	0.09
EBT	2		3,400	95	766	0.03	0.23 *
EBR	1	F	1,700	41	237	0.00	0.00
WBL	2		3,400	215	117	0.06	0.03 *
WBT	2		3,400	580	121	0.17 *	0.04
WBR	1	F	1,700	116	102	0.00	0.00
N/S Critical Movements						0.42	0.42
E/W Critical Movements						0.19	0.26
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.66	0.73
Level of Service (LOS)						B	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 16
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Rockfield Blvd

Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
			Interim + Phase I				
NBL	2		3,400	354	70	0.10 *	0.02
NBT	4		6,800	2,497	2,631	0.37	0.39 *
NBR	1	F	1,700	561	267	0.00	0.00
SBL	2		3,400	291	313	0.09	0.09 *
SBT	4		6,800	2,461	2,535	0.36 *	0.37
SBR	1	U	1,700	55	28	0.00	0.00
EBL	1		1,700	7	104	0.00	0.06
EBT	2		3,400	58	187	0.02 *	0.06 *
EBR	1	F	1,700	34	293	0.00	0.00
WBL	2		3,400	169	628	0.05 *	0.18 *
WBT	2		3,400	75	196	0.02	0.06
WBR	1	F	1,700	86	248	0.00	0.00
N/S Critical Movements						0.46	0.48
E/W Critical Movements						0.07	0.24
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.58	0.77
Level of Service (LOS)						A	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 17
NORTH/SOUTH: Barranca Pkwy
EAST/WEST: Irvine Center Dr

	Interim + Phase I						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	213	37	0.06	0.01 *
NBT	2		3,400	1,219	642	0.36 *	0.19
NBR	1	U	1,700	96	259	0.00	0.00
SBL	2		3,400	61	209	0.02 *	0.06
SBT	2		3,400	502	958	0.15	0.28 *
SBR	1	U	1,700	361	464	0.00	0.00
EBL	2		3,400	310	340	0.09 *	0.10 *
EBT	3		5,100	338	810	0.07	0.16
EBR	1	U	1,700	39	166	0.00	0.00
WBL	2		3,400	261	256	0.08	0.08
WBT	3		5,100	1,136	929	0.22 *	0.18 *
WBR	1	U	1,700	325	150	0.00	0.00
N/S Critical Movements						0.38	0.29
E/W Critical Movements						0.31	0.28
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.74	0.62
Level of Service (LOS)						C	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 18
NORTH/SOUTH: Irvine Center Dr
EAST/WEST: Alton Pkwy

	Interim + Phase I						
				Volume		V/C Ratio	
Move-ment	Lane		Capacity	AM	PM	AM	PM
NBL	2		3,400	575	302	0.17	0.09 *
NBT	3		5,100	1,478	960	0.29 *	0.19
NBR	1	U	1,700	1,053	393	0.27 *	0.00
SBL	2		3,400	116	361	0.03 *	0.11
SBT	3		5,100	348	1,111	0.07	0.22 *
SBR	1	U	1,700	16	33	0.00	0.00
EBL	2		3,400	33	53	0.01 *	0.02
EBT	3		5,100	509	823	0.10	0.16 *
EBR	1	U	1,700	155	580	0.00	0.11 *
WBL	2		3,400	252	764	0.07	0.22 *
WBT	3		5,100	1,135	592	0.22 *	0.12
WBR	1	U	1,700	285	220	0.00	0.00
N/S Critical Movements						0.32	0.31
E/W Critical Movements						0.23	0.38
Right Turn Critical Movement						0.27	0.11
Clearance Interval						0.05	0.05
ICU						0.87	0.85
Level of Service (LOS)						D	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 19
NORTH/SOUTH: I-5 NB Ramps
EAST/WEST: Alton Pkwy

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1.5		2,550	799	184	0.31 *	0.07 *
NBT	0		0	0	0	0.00	0.00
NBR	1.5	U	2,550	531	131	0.00	0.00
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00	0.00 *
EBT	3		5,100	2,453	1,491	0.48 *	0.29
EBR	1	F	1,700	215	492	0.00	0.00
WBL	0		0	0	0	0.00 *	0.00
WBT	3		5,100	1,475	1,552	0.29	0.30 *
WBR	1	F	1,700	189	1,096	0.00	0.00
N/S Critical Movements						0.31	0.07
E/W Critical Movements						0.48	0.30
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.84	0.42
Level of Service (LOS)						D	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 20
NORTH/SOUTH: Enterprise Dr
EAST/WEST: Alton Pkwy

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	2		3,400	177	131	0.05 *	0.04 *
NBT	0		0	0	0	0.00	0.00
NBR	2	U	3,400	1,440	616	0.29 *	0.00
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	0	0	0.00	0.00
EBT	3		5,100	1,426	1,586	0.28 *	0.31 *
EBR	1	U	1,700	151	388	0.00	0.00
WBL	1		1,700	187	677	0.11 *	0.40 *
WBT	3		5,100	1,684	1,624	0.33	0.32
WBR	0		0	0	0	0.00	0.00
N/S Critical Movements						0.05	0.04
E/W Critical Movements						0.39	0.71
Right Turn Critical Movement						0.29	0.00
Clearance Interval						0.05	0.05
ICU						0.78	0.80
Level of Service (LOS)						C	C

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 21
NORTH/SOUTH: I-5 NB Ramps
EAST/WEST: Bake Pkwy

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1.5		2,550	96	122	0.04 *	0.05 *
NBT	0		0	0	0	0.00	0.00
NBR	1.5	U	2,550	427	223	0.13 *	0.04 *
SBL	0		0	0	0	0.00	0.00
SBT	0		0	0	0	0.00 *	0.00 *
SBR	0		0	0	0	0.00	0.00
EBL	0		0	11	0	0.00	0.00
EBT	3		5,100	3,032	2,767	0.60 *	0.54 *
EBR	1	F	1,700	218	552	0.00	0.00
WBL	0		0	43	29	0.00 *	0.00 *
WBT	3		5,100	566	884	0.12	0.18
WBR	1	F	1,700	1,852	2,422	0.00	0.00
N/S Critical Movements						0.04	0.05
E/W Critical Movements						0.60	0.54
Right Turn Critical Movement						0.13	0.04
Clearance Interval						0.05	0.05
ICU						0.82	0.68
Level of Service (LOS)						D	B

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 22
NORTH/SOUTH: I-5 SB Ramps
EAST/WEST: Bake Pkwy

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	0		0	0	0	0.00	0.00
NBT	0		0	0	0	0.00 *	0.00 *
NBR	0		0	0	0	0.00	0.00
SBL	2.5		4,250	2,462	2,129	0.58 *	0.50 *
SBT	0		0	0	0	0.00	0.00
SBR	1.5	U	2,550	416	210	0.00	0.00
EBL	0		0	0	0	0.00	0.00
EBT	3		5,100	893	1,538	0.18 *	0.30 *
EBR	1	F	1,700	27	107	0.00	0.00
WBL	0		0	0	0	0.00 *	0.00 *
WBT	3		5,100	552	697	0.11	0.14
WBR	1	F	1,700	206	663	0.00	0.00
N/S Critical Movements						0.58	0.50
E/W Critical Movements						0.18	0.30
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.81	0.85
Level of Service (LOS)						D	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 23
NORTH/SOUTH: Alton Pkwy
EAST/WEST: SR-241 Ramps

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	59	126	0.03 *	0.07
NBT	2		3,400	378	819	0.11	0.24 *
NBR	1	F	1,700	190	681	0.00	0.00
SBL	1		1,700	130	76	0.08	0.04 *
SBT	2		3,400	812	599	0.24 *	0.18
SBR	1	F	1,700	107	82	0.00	0.00
EBL	2		3,400	140	55	0.04	0.02
EBT	0		0	0	0	0.00 *	0.00 *
EBR	1	F	1,700	159	71	0.00	0.00
WBL	2		3,400	726	297	0.21 *	0.09 *
WBT	0		0	0	0	0.00	0.00
WBR	1	F	1,700	133	124	0.00	0.00
N/S Critical Movements						0.27	0.28
E/W Critical Movements						0.21	0.09
Right Turn Critical Movement						0.00	0.00
Clearance Interval						0.05	0.05
ICU						0.53	0.42
Level of Service (LOS)						A	A

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane

INTERSECTION CAPACITY UTILIZATION

INTERSECTION NO. 24
NORTH/SOUTH: Bake Pkwy
EAST/WEST: Portola Pkwy

	Interim + Phase I						
Move-ment	Lane		Capacity	Volume AM	Volume PM	V/C Ratio AM	V/C Ratio PM
NBL	1		1,700	98	305	0.06 *	0.18
NBT	1.5		2,550	150	347	0.06	0.14 *
NBR	1.5	U	2,550	136	938	0.00	0.05 *
SBL	1		1,700	118	248	0.07	0.15 *
SBT	2		3,400	427	324	0.13 *	0.10
SBR	1	U	1,700	179	344	0.00	0.00
EBL	1		1,700	345	404	0.20 *	0.24 *
EBT	3		5,100	302	755	0.06	0.15
EBR	1	U	1,700	70	96	0.00	0.00
WBL	2		3,400	1,040	630	0.31	0.19
WBT	2		3,400	663	860	0.20 *	0.25 *
WBR	1	U	1,700	78	83	0.00	0.00
N/S Critical Movements						0.19	0.29
E/W Critical Movements						0.40	0.49
Right Turn Critical Movement						0.00	0.05
Clearance Interval						0.05	0.05
ICU						0.64	0.88
Level of Service (LOS)						B	D

Notes: ICU - Intersection Capacity Utilization
V/C - Volume to Capacity Ratio
Right Turn Conditions:
P - Protected right turn movement
U - Unprotected right turn movement
N - No right turn on red
F - Free right turn lane