5.8 TRANSPORTATION AND TRAFFIC

This section of the DSEIR evaluates the potential for implementation of the Proposed Project to result in transportation and traffic impacts as compared to the 2011 Approved Project. The analysis in this section is based in part on the following technical report:

- Irvine Unified School District High School No. 5 Project Traffic Impact Analysis Report, IBI Group, September, 2013 (the "Traffic Study"). (A complete copy of this study is included in the Technical Appendices to this DSEIR as Appendix F).

5.8.1 Environmental Setting

As part of the Great Park Neighborhoods Project, the MCAS El Toro site will be developed into master-planned neighborhoods or "Districts" that include a variety of housing, shops, restaurants, workplaces, educational institutions, parks, trails and outdoor activities. In 2011, the Heritage Fields/Great Park Neighborhoods Project was approved (the "2011 Approved Project") to develop 4,712 residential dwelling units (2,741 single family detached and 1,971 multi-family units) and over six million square feet of non-residential uses in the buildout condition. The 2011 Approved Project did not include a high school facility as part of its land use plan.

In 2012, a General Plan Amendment and Zone Change (the "2012 Modified Project") was prepared that included two development options with an increase in residential development units and a decrease in non-residential acreage compared to the 2011 Approved Project. The 2012 Modified Project Options 1 and 2 each includes 9,318 residential dwelling units (3,358 single family detached and 5,960 multi-family units) but propose a slightly different allocation of those units between neighborhood Districts 1N and 1S. In both the 2012 Modified Project Options 1 and 2, a 2,600-student high school is included in the buildout scenario.

The 2012 Modified Project Option 1 proposes the same level of single family detached and multi-family residential development as the 2011 Approved Project, with the following exceptions:

- In District 5, the community recreational and retail land uses proposed in the 2011 Approved Project are replaced with 1,194 single family detached residential units and 1,690 multi-family residential units.

- In District 6, the mortuary, golf, agriculture, educational institution and research and development land uses proposed in the 2011 Approved Project are replaced with 1,722 multi-family residential units along with multi-use land use.

- In District 7, the 840 single family detached residential units proposed in the 2011 Approved Project are replaced with 692 single family detached residential units and 148 multi-family residential units.

The 2012 Modified Project Option 2 proposes the same level of single family detached and multi-family residential development as the 2012 Modified Project Option 1, with the following exceptions:

- In District 1N, 258 additional multi-family residential units are proposed in place of retail land use in Option 2.

- In District 1S, the 429 multi-family residential units proposed in Option 1 are replaced with 171 multi-family residential units plus retail and multi-use land uses.

The levels of residential development proposed in the 2011 Approved Project and 2012 Modified Project Options 1 and 2 in the Year 2015 and Post-2030 conditions are summarized in Table 5.8-1.

Table 5.8-1
Residential Development Summary

Development District	2015 Conditions			Post 2030 Conditions		
	2011 AP	2012 MP Option 1	2012 MP Option 2	2011 AP	2012 MP Option 1	2012 MP Option 2
1N	494 SFD	494 SFD	494 SFD	494 SFD 1,121 MF	494 SFD 1,121 MF	494 SFD 1,379 MF
1S	--	429 MF	171 MF	429 MF	429 MF	171 MF
2	--	--	--	--	--	--
3	--	--	--	--	--	--
4	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF	494 SFD 608 MF
5	--	--	--	--	1,194 SFD 1,690 MF	1,194 SFD 1,690 MF
6	--	--	--	--	1,722 SFD	1,722 SFD
7	840 SFD	692 SFD 148 MF	692 SFD 148 MF	840 SFD	692 SFD 148 MF	692 SFD 148 MF
8	484 SFD 242 MF	484 SFD 242 MF	484 SFD 242 MF	484 SFD 242 MF	484 SFD 242 MF	484 SFD 242 MF
Total SFD	2,312	2,164	2,164	2,312	3,358	3,358
Total MF	850	1,427	1,169	2,400	5,960	5,960
Total Units	3,162	3,591	3,333	4,712	9,318	9,318

Analysis Methodology

The traffic analysis conducted for High School No. 5 includes an assessment of traffic conditions at 52 study intersections for the following analysis timeframes:

- Existing: Year 2013
- Interim: Year 2017[1]
- Interim: Year 2035
- Buildout: Post-2035

The project is scheduled for an opening year of 2016, however, per City requirements, the year 2017 is analyzed. The baseline for this DSEIR is the 2011 Approved Project, not the existing conditions at the time that the environmental documentation is prepared. Although the existing physical condition would generally be the baseline for analysis, in this case, the impacts of the 2011 Approved Project have been

[1] The City of Irvine's current traffic impact analysis guidelines require the analysis of the interim year, year 2035, and post year 2035 conditions. Because the city currently defines the interim year as 2017, the traffic analysis conducted an interim year analysis for the year 2017, which would occur after High School No. 5 opening year of 2016.

fully analyzed in the context of expected growth and all feasible mitigation has been imposed. The 2011 Approved Project is vested pursuant to a development agreement and would remain vested whether or not the Proposed Project is approved. Therefore, the DSEIR analysis aims to determine any traffic impacts expected from the proposed changes to the 2011 Approved Project being made by Proposed Project, and additional mitigation, if required. The intersection analysis methodology and performance criteria used in this analysis conform to the City of Irvine Traffic Impact Analysis Guidelines adopted August 24, 2004.

The traffic analysis for the Proposed Project includes the following scenarios. This list is contingent on the availability of this data as part of the "baseline" and "pending" versions of ITAM and subject to change based on direction from the City of Irvine.

- No Project - 2011 Approved Project Base
- No Project - 2012 Modified Project Option 1 Base
- No Project - 2012 Modified Project Option 2 Base
- No Project - 2011 Approved Project Base Plus Cumulative Projects
- No Project - 2012 Modified Project Option 1 Base Plus Cumulative Projects
- No Project - 2012 Modified Project Option 2 Base Plus Cumulative Projects
- With Project - 2011 Approved Project Base
- With Project - 2012 Modified Project Option 1 Base
- With Project - 2012 Modified Project Option 2 Base
- With Project - 2011 Approved Project Base Plus Cumulative Projects
- With Project - 2012 Modified Project Option 1 Base Plus Cumulative Projects
- With Project - 2012 Modified Project Option 2 Base Plus Cumulative Projects

An AM and PM peak hour analysis of each scenario has been made for the following timeframes:

- Existing Condition (Year 2013)
- Interim (Year 2017)
- Interim (Year 2035)
- Buildout (Post-2035)

The analysis of future conditions began with use of the Irvine Traffic Analysis Model, Version 8.4-10 in order to maintain consistency with the analyses performed for the Heritage Fields Project 2012 GPA/ZC, of which this project was a part. In addition, in order to have an Interim Year analysis that corresponded with or occurred following the opening year of the High School project (consistent with City of Irvine guidelines) an annual growth factor was applied to the 2015, 2030, and Post-2030 traffic volumes to estimate traffic conditions for the 2017, 2035, and Post-2035 conditions. This annual growth value is equal to the calculated annual growth in baseline traffic volumes between the horizon years in ITAM 8.4-10. This approach allows the analysis to assume the same background and pending projects as the Heritage Fields Project 2012 GPA/ZC and also provide for a more conservative analysis in an interim year that occurs after project opening.[2]

[2] The traffic analysis contained in this DSEIR may differ from the analyses in the 2011 Certified EIR and the 2012 Modified Project SSEIR as a result of the modifications and growth factors applied to the traffic volumes for this project-specific analysis to estimate traffic conditions in the year 2017, 2035, and Post-2035 conditions.

Intersection Analysis

Study intersection future forecast traffic conditions are analyzed using the Intersection Capacity Utilization (ICU) methodology adopted in the Orange County Congestion Management Program (CMP). The ICU methodology is based on intersection volume-to-capacity (V/C) ratios. The ICU value for each movement is the observed or forecast volume divided by the saturation flow volume. The intersection ICU value is the sum of the ICU values for the critical movement on each leg, where the critical movement is the one (left, through, or right) that has the highest ICU value. ICU values are usually expressed as a decimal percent (e.g., 0.74), where 1.00 represents the saturated condition where the volume of traffic flow is equal to the capacity.

The methodology also incorporates a check for right-turn capacity utilization. Right-turn-on-green and right-turn-on-red capacity availability is calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. This calculation utilizes a right-turn-on-red (RTOR) factor, which reflects a lower saturation flow rate for these turning movements. The RTOR factor is not used for dedicated right turns, due to the absence of conflicting movements that would reduce capacity.

The efficiency of traffic operations is measured in terms of Level of Service (LOS). The LOS refers to the quality of traffic flow along roadways and at intersections. Evaluation of roadways and intersections involves the assignment of grades from “A” to “F,” with LOS “A” representing the highest level operating conditions and LOS “F” representing extremely congested and restricted operations. Each letter grade corresponds to a range of V/C values, which are described in Table 5.8-2. Intersection LOS analysis was performed using TRAFFIX software.

Table 5.8-2
Level of Service Description

Level of Service	ICU Value	Definition
A	0.00 – 0.60	At level of service A there are no cycles that are fully loaded, and few are even close to loaded. No approach phase is utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turning movements are easily made, and nearly all drivers find freedom of operation.
B	0.61 – 0.70	Level of service B represents stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	0.71 – 0.80	In level of service C stable operation continues. Full signal cycle loading is still intermittent, but more frequent. Occasionally drivers may have to wait through more than one red signal indication, and back-ups may develop behind turning vehicles.
D	0.81 – 0.90	Level of service D encompasses a zone of increasing restriction, approaching instability. Delay to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups.
E	0.91 – 1.00	Level of service E represents the most vehicles that any particular intersection approach can accommodate. At capacity (V/C = 1.00) there may be long queues of vehicles waiting upstream of the intersection and delays may be great (up to several signal cycles).
F	> 1.000	Level of service F represents jammed conditions. Back-ups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. V/C values are highly variable, because full utilization of the approach may be prevented by outside conditions.

ICU – Intersection Capacity Utilization
Source: City of Irvine Traffic Study Guidelines

Performance Standards

The traffic analysis incorporates the performance standards adopted by the City of Irvine. A capacity of 1,700 vehicles per hour per lane (vphpl) is assumed for both through lanes and dedicated turn lanes at the study intersections. Traffic signal phasing in the future condition is assumed to match the existing signal phasing (i.e. existing protected left turn = future protected left turn). The assumptions used in the analysis are as follows:

- Saturation Flow Rate: 1,700 vehicles per hour per lane
- Clearance Interval: 0.05 seconds
- Right-Turn-On-Red (RTOR): Allowed
- RTOR Saturation Flow Factor: 0.75
- Minimum Volume/Capacity (V/C): None

Traffic Count Data

Intersection turning movement counts were obtained from the Heritage Fields Project 2012 General Plan Amendment and Zone Change Traffic Impact Analysis, 2012 (Heritage Field Traffic). The counts were taken in 2012 and the City-approved annual growth rate of 1.5 percent per year was applied to the year 2012 counts to estimate year 2013 volumes. Average Daily Traffic (ADT) volumes on roadway segments

in the vicinity of the project location were also obtained from the Heritage Fields Traffic.

Forecast Traffic Volumes

The future forecast intersection traffic volumes for year 2017, 2035, and post-2035 were obtained by applying an annual growth rate of 1.5 percent per year to the Heritage Fields' traffic count data.

Traffic Analysis Performance Criteria

The minimum acceptable level of service for intersections in the City of Irvine located outside of the Irvine Business Complex (IBC) is LOS D. All of the project study intersections are located outside of the IBC. For facilities that are forecast to operate at LOS "E" or LOS "F" in the baseline condition, project traffic is considered to result in a significant impact if it would cause the total ICU to increase by 0.02 or greater. Mitigation measures to return the ICU value back to the "without project" condition are required.

For intersections that are projected to be deficient in the most recent Circulation Phasing Analysis Report, a project-related increase in ICU of 0.01 or greater in the interim year (short-term) would require mitigation measures to return the facility to baseline or contribution of fair share towards mitigation back to an acceptable level of service.

Existing Roadway Network

Selected master plan arterials that provide access to the Project Site are described as follows:

Jeffrey Road is a six-lane major highway divided by a striped and raised median. On the City of Irvine Master Plan of Arterial Highways, Jeffrey Road is designated as a Major Highway between I-405 and Portola Parkway. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted. It provides access to the Interstate 5 freeway and the Interstate 405 freeway.

Sand Canyon Avenue runs east and west through the project area. It is generally a six lane roadway divided by a landscaped median. On the City of Irvine Master Plan of Arterial Highways, Sand Canyon Avenue is designated as a Major Highway (generally 6-lanes) between Portola Parkway and I-405. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Alton Parkway is a six-lane divided major highway with Class II bike lanes and classified as a Major Highway between the city limits southeast of Irvine Boulevard and the Laguna Freeway. It is classified as a Primary Highway on the City of Irvine Master Plan of Arterial Highways from the Laguna Freeway north to Culver Drive where it transitions into a four-lane divided primary highway. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Bake Parkway is a six to eight lane roadway divided by a landscaped or painted median. On the City of Irvine Master Plan of Arterial Highways, Bake Parkway is designated as a Major Highway (generally 6-lanes) between Irvine Boulevard and Laguna Canyon. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Portola Parkway is a six lane roadway north of Jeffrey divided by a landscaped median, and it transitions to a four lane roadway south of Jeffrey Road divided by a striped median then a landscaped median south of SR-133. On the City of Irvine Master Plan of Arterial Highways, Portola Parkway is designated as a Major Highway (generally 6-lanes) between the northern city limits south of Tustin Ranch Road and Jeffrey Road and a Primary Highway south of Jeffrey Road. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Irvine Boulevard is a six lane roadway divided by a landscaped median. On the City of Irvine Master Plan of Arterial Highways, Irvine Boulevard is designated as a Major Highway (generally 6-lanes) between Newport Avenue and the southern city limits south of Alton Parkway. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Trabuco Road runs north and south through the study area. On the City of Irvine Master Plan of Arterial Highways, Trabuco Road is designated as a Major Highway between Sand Canyon and the future SR-133 interchange. It is two lanes in each direction divided by a landscaped median. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Barranca Parkway runs north and south through the study area. It is currently a four-lane divided roadway. On the City of Irvine Master Plan of Arterial Highways, Barranca Parkway/Muirlands Boulevard is designated as a Primary Highway. Class II bicycle lanes are striped along both sides of the street throughout the study area, and on-street parking is not permitted.

Marine Way is currently a two-lane undivided roadway between Sand Canyon Avenue and El Toro Boulevard. In the City of Irvine Master Plan of Arterial Highways, Marine Way is designated as a Primary.

Existing Average Daily Traffic Volumes and Levels of Service

ADT volumes for the study area network are summarized in Table 5.8-3 and as shown all study area segments currently operate at LOS C or better.

Table 5.8-3

Year 2013 ADT Volumes – No Project

#	Street	Limits	# Lanes	Capacity	ADT	V/C	LOS
1	Jeffrey Rd	Irvine Blvd to Bryan Ave	6D	54,000	15,856	0.290	A
2	Sand Canyon Ave	Portola Pkwy to Irvine Blvd	4D	32,000	12,428	0.390	A
3	Sand Canyon Ave	Irvine Blvd to Trabuco Rd	6D	54,000	23,063	0.430	A
4	Sand Canyon Ave	Trabuco Rd to Marine Way	8D	72,000	28,245	0.390	A
5	Sand Canyon Ave	Marine Way to Oak Canyon Rd	4D	32,000	25,000	0.780	C
6	Alton Pkwy	Irvine Blvd to Toledo Wy	6D	54,000	9,105	0.170	A
7	Alton Pkwy	Toledo Wy to Jeronimo Rd	6D	54,000	16,281	0.300	A
8	Alton Pkwy	Jeronimo Rd to Barranca Pkwy	6D	54,000	24,196	0.450	A
9	Portola Pkwy	Jeffrey Rd to Sand Canyon Ave	4D	32,000	9,988	0.310	A
10	Portola Pkwy	Sand Canyon Ave to Ridge Valley	4D	32,000	10,000	0.310	A
11	Portola Pkwy	Ridge Valley to Modjeska	4D	32,000	4,882	0.150	A
12	Irvine Blvd	Jeffrey Rd to Sand Canyon Ave	6D	54,000	22,364	0.410	A
13	Irvine Blvd	Sand Canyon Ave to SR-133 Fwy	6D	54,000	18,961	0.350	A
14	Irvine Blvd	SR-133 Fwy to Ridge Valley	4D	32,000	18,961	0.590	A
15	Irvine Blvd	Ridge Valley to "LY" St	4D	32,000	18,961	0.590	A
16	Irvine Blvd	"Z" St to "B" St	6D	54,000	18,961	0.350	A
17	Irvine Blvd	"LQ" St to Alton Pkwy	6D	54,000	18,961	0.350	A
18	Trabuco Rd	Jeffrey Rd to Sand Canyon Ave	4D	32,000	6,988	0.220	A
19	"O" St	Portola Pkwy to Irvine Blvd	4D	32,000	--	--	A
20	"O" St	Irvine Blvd to "C" St	4D	32,000	--	--	A
21	"O" St	"C" St to "LN" St	4D	32,000	--	--	A
22	"O" St	"LN" St to "LQ" St	4D	32,000	--	--	A
23	"O" St	"LQ" St to Trabuco Rd	4D	32,000	--	--	A
24	"O" St	Trabuco Rd to "LV" St	4D	32,000	--	--	A
25	"B" St	Irvine Blvd to "LQ" St	2D	13,000	--	--	A
26	"B" St	"LQ" St to Marine Wy	2D	13,000	--	--	A
27	"LQ" St	"O" St to "C" St	2D	13,000	--	--	A
28	"LQ" St	"C" St to "LY" St	2D	13,000	--	--	A
29	"LQ" St	"LY" St to "A" St	2D	13,000	--	--	A
30	"LQ" St	"A" St to "Z" St	2D	13,000	--	--	A

Existing Peak Hour Intersection Levels of Service

Fifty-two study intersections have been selected for analysis based on traffic patterns as shown in Figure 5.8-1, *Project Study Area*, and forecast project trip distribution through the study area and the existing lane geometry and traffic control for each intersection are illustrated in Figure 5.8-2, *Existing Study Intersection Geometry and Control*. A summary of the level of service analysis results for the year 2013 without project condition is included in Table 5.8-4. Based on the intersection LOS performance criteria outlined above, the study area intersections generally appear to operate at acceptable LOS during peak hours with the exception of the following intersection:

- Bake Parkway and I-5 NB Ramps (#367) - LOS "F"

Table 5.8-4
Year 2013 Peak Hour Intersection LOS – No Project

#	Intersection	Control	AM Peak		PM Peak	
			V/C Delay	LOS	V/C Delay	LOS
282	Jeffrey Rd & Portola Pkwy	S	0.38	A	0.35	A
283	Jeffrey Rd & Irvine Blvd	S	0.47	A	0.55	A
284	Jeffrey Rd & Bryan Ave	S	0.46	A	0.38	A
285	Jeffrey Rd & Trabuco Rd	S	0.45	A	0.43	A
300	Sand Canyon Ave & Portola Pkwy	S	0.26	A	0.29	A
301	Sand Canyon Ave & Irvine Blvd	S	0.51	A	0.50	A
302	Sand Canyon Ave & Trabuco Rd	S	0.39	A	0.38	A
303	Sand Canyon Ave & I-5 NB Ramps	S	0.66	B	0.43	A
304	Sand Canyon Ave & Marine Way	S	0.59	A	0.61	B
305	Sand Canyon Ave & I-5 SB Ramps	S	0.70	B	0.73	C
444	Sand Canyon Ave & Burt Rd	S	0.67	B	0.57	A
306	Sand Canyon Ave & Oak Cyn Rd	S	0.29	A	0.29	A
316	SR-133 SB Ramps & Irvine Blvd	S	0.39	A	0.41	A
317	SR-133 NB Ramps & Irvine Blvd	S	0.40	A	0.44	A
338	Alton Pkwy & Irvine Blvd	S	0.46	A	0.49	A
339	Alton Pkwy & Toledo Way	S	0.38	A	0.36	A
340	Alton Pkwy & Jeronimo Rd	S	0.37	A	0.35	A
341	Alton Pkwy & Barranca Pkwy	S	0.45	A	0.57	A
367	Bake Pkwy & I-5 NB Ramps	S	0.86	D	1.01	F
368	Bake Pkwy & I-5/I-405 SB Ramps	S	0.61	B	0.67	B
556	Ridge Valley & Portola Pkwy	S	0.35	A	0.25	A
571	Portola Springs & Portola Pkwy	S	0.18	A	0.15	A
572	Modjeska/"A" St & Irvine Blvd	S	0.32	A	0.44	A

5.8.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the City has determined that a project would normally have a significant effect on the environment if the project would:

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual? [CCR, Title 5 § 14010 (l)]

T-6 Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual? [CCR, Title 5 § 14010(k)]

T-7 Is the proposed school site within 1,500 feet of a railroad track easement? [CCR, Title 5 § 14010(d)]

T-8 Result in inadequate emergency access.

T-9 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

T-10 Result in inadequate parking capacity?

Chapter 8, *Impacts Found Not to Be Significant,* substantiates the District's determination in the Initial Study for the Proposed Project (Appendix A to this DSEIR) that impacts associated with the following impacts would be less than significant:

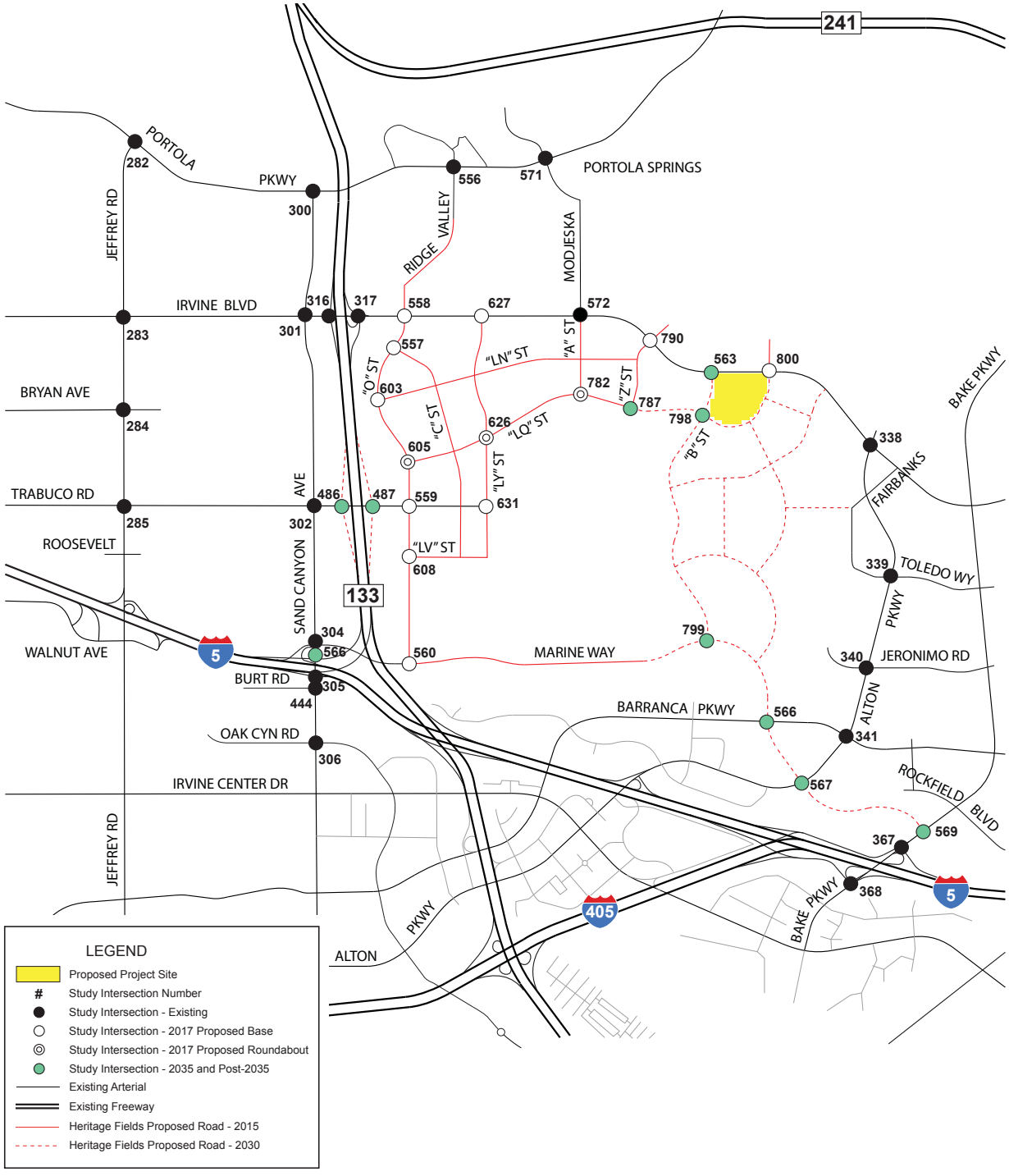
- Impact T-3
- Impact T-7

Accordingly, these impacts will not be addressed further in this document.

5.8.3 2011 Approved Project

The Certified EIR concluded that with the 2011 Approved Project, all intersections and roadway/freeway/tollway/ramp segments would operate at acceptable LOS with the existing or planned improvements. However, inasmuch as the primary responsibility for approving and/or completing certain improvements located outside of Irvine lies with agencies other than the City (i.e., City of Lake Forest, Laguna Woods, Mission Viejo, County of Orange, and Caltrans), there is the potential that significant impacts may not be fully mitigated if such improvements are not completed for reasons beyond the City's control (i.e., the City cannot undertake or require improvements outside of its jurisdiction). Should that occur, impacts relating to traffic generated by the 2011 Approved Project would remain significant. Therefore, the Certified EIR concluded that cumulative freeway/tollway ramp impacts would remain significant and unavoidable if these programs are not implemented by the agencies with the responsibility to do so.

Project Study Area



NOT TO SCALE

Source: IBI Group 2013

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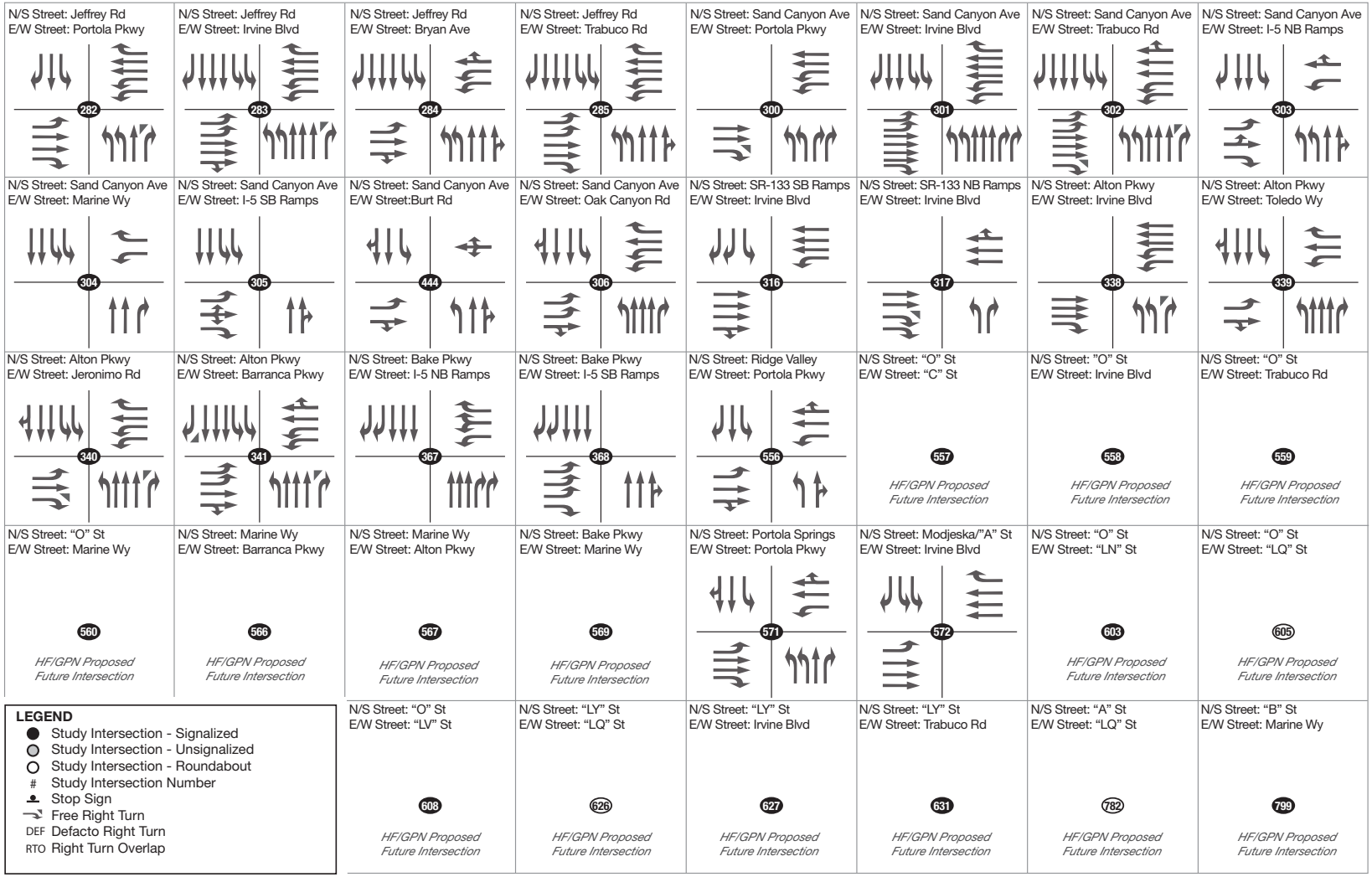
Existing Study Intersection Geometry and Control



Source: IBI Group 2013

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5.8.4 2012 Modified Project

The 2012 Modified Project analyzed the study area circulation system based on existing traffic conditions and 2015, 2030 and Post-2030 future traffic conditions. In some cases, project impacts that were not mitigated by improvements identified in the North Irvine Transportation Mitigation (NITM) Program were identified for project development scenarios. As with the 2011 Approved Project, it was determined that traffic impacts would remain significant and unavoidable for the 2012 Modified Project if there are intersections where identified improvements may not be feasible due to cost, right-of-way concerns, or community opposition.

Inasmuch as the primary responsibility for approving and/or completing certain improvements located outside of Irvine lies with agencies other than the City (i.e., City of Lake Forest, Laguna Woods, Mission Viejo, Orange County, and Caltrans), there is the potential that significant impacts may not be fully mitigated if such improvements are not completed for reasons beyond the City's control (i.e., the City cannot undertake or require improvements outside of Irvine's jurisdiction). Although the City adopted the NITM Program to establish a funding mechanism for the transportation improvement mitigation measures identified in the EIRs for three future development projects in north Irvine; 1) Spectrum 8/PA40, 2) Irvine Northern Sphere Area (PAs 5B, 6, 8A and 9), and 3) the Orange County Great Park. This program will contribute to the improvement of facilities within Irvine and a fair-share to improvements outside Irvine. The City acknowledged the fair-share cost of improvements to those facilities; however, the adjacent Cities have full control over implementing the identified improvements under their jurisdiction. The 2012 Modified Project concluded that if improvements are not completed for reasons beyond the City's control, the 2012 Modified Project's traffic impacts would remain significant.

Caltrans Main-Line Segments and Ramps

The 2012 Modified Project evaluated potential impacts to the freeway mainline segments and ramps but because implementation of the transportation improvements to Caltrans facilities listed above is the primary responsibility of Caltrans, it was determined that the 2012 Modified Project would have significant and unavoidable impacts to freeway/tollway ramp and mainline.

5.8.5 Environmental Impacts of High School No. 5

Existing Plans, Programs, and Policies

There are no existing plans, programs, and policies that are applicable to the Proposed Project.

Additional Plans, Programs, and Policies

There are no additional plan, programs, and policies that are applicable to the Proposed Project.

Impact Threshold Analysis

The following impact analysis addresses impacts that the Initial Study disclosed as potentially significant impacts of the Proposed Project, as compared to the 2011 Approved Project. The applicable impacts are identified in brackets after the impact statement.

IMPACT 5.8-1: TRIP GENERATION ASSOCIATED WITH THE PROPOSED PROJECT WOULD NOT IMPACT LEVELS OF SERVICE FOR THE EXISTING AREA ROADWAY SYSTEM, AS COMPARED TO THE 2011 APPROVED PROJECT. [IMPACTS T-1]

Impact Analysis:

Project Trip Generation

The trip generation for the High School No. 5 project has been estimated using rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition. The trip generation rates and the forecast trip volumes for the High School land use category (ITE Code 530), are summarized in Table 5.8-5.

Table 5.8-5
Project ITE Trip Generation

		AM Peak			PM Peak		
	Weekday	In	Out	Total	In	Out	Total
Rates	1.71	0.2856	0.1344	0.42	0.0611	0.0689	0.13
Trips	4,446	743	349	1,092	159	179	338

Trip Distribution

The project trip distribution for each analysis scenario has been developed based on the following assumptions:

- 5% of the project trips are generated by faculty and staff originating outside of the City of Irvine.
- 5% of the project trips are generated by faculty and staff originating within the City of Irvine but outside of the High School No. 5 attendance area boundary.
- The number of trips originating from each sub-area within the High School No. 5 attendance area boundary is proportional to the number of residential dwelling units located in that sub-area.

Based on a field inventory and information published online, there are approximately 10,242 existing residential housing units located within the High School No. 5 attendance area, plus an estimated 1,000 additional residential units under construction or planned to be built by 2017. For the purpose of this trip distribution, it is assumed that there are 11,242 residential dwelling units, not including the proposed Great Park Neighborhoods development.

The trip origin and destination assumptions for each of the years 2017, 2035 and Post-2035 scenarios are summarized in Table 5.8-6. The Appendix F, *Traffic Study*, contains a memo that details the trip distribution for the study area for Year 2017, 2035 and Post-2035.

Table 5.8-6
Trip Distribution Assumptions

Trip Origins/ Destinations	2011 Approve Project	2012 Modified Project Option 1	2012 Modified Project Option 2
Year 2017 Trip Distribution Assumptions			
Outside of the City of Irvine	5%	5%	5%
Within the City of Irvine but outside the HS No.5 attendance area boundary	5%	5%	5%
Within the HS No.5 attendance area boundary but outside of the Great Park Neighborhoods	70%	68%	69%
Within the Great Park Neighborhoods development area	20%	22%	21%
Year 2035 and Post-2035 Trip Distribution Assumptions			
Outside of the City of Irvine	5%	5%	5%
Within the City of Irvine but outside the HS No.5 attendance area boundary	5%	5%	5%
Within the HS No.5 attendance area boundary but outside of the Great Park Neighborhoods	63%	49%	49%
Within the Great Park Neighborhoods development area	27%	41%	41%

Stadium Trip Generation

The stadium land use category is not currently listed in the Institute of Transportation Engineers (ITE) Trip Generation Manual, and there is limited local or national survey data available for this type of use. High school stadiums typically do not generate a significant number of vehicle trips during the peak hours of adjacent street traffic, but volumes may vary depending on the type of event and the scheduled start time. Stadium uses that would not attract large numbers of spectators are not expected to generate any additional trips. Vehicle trips generated by sports team practices and activities that take place on the track and football field are already captured in the standard trip generation for the high school. The only additional trips that are expected to be generated by the stadium would be for events with a significant volume of spectators seated in the bleachers.

High school stadium activities that attract large numbers of spectators tend to be seasonal, and include football games, graduation ceremonies, and occasional community events. Varsity football games are typically scheduled for Thursday, Friday, or Saturday evenings between late August and early December.

It is expected that the daily and peak hour trip generation for High School No. 5 would be similar to the trip generation at the Irvine High School stadium. Driveway counts were made at the Irvine stadium in an attempt to identify the number of vehicle trips that enter and exit the stadium site during a typical stadium event. Varsity football games with attendance at stadium capacity are forecast to generate a total of 605 evening peak hour trips (430 inbound and 175 outbound). This value is based on driveway volumes observed at the Irvine stadium and ITE Trip Generation rates for Heritage Park.

Evening peak hour trips are not expected to occur on typical weekdays. As a worst case scenario, the number of stadium-related trips for a maximum capacity event was added to the weekday PM peak hour volumes for each intersection in the LOS analysis. This would be representative of a maximum capacity varsity football game held on a Thursday night.

Average Daily Trips

The daily traffic volume for a stadium spectator event at High School No. 5 is forecast to be 2,176 trips, which includes 1,088 inbound trips and 1,088 outbound trips throughout the day. Daily trip generation for a high school stadium is highly variable, and depends on a number of local factors including demographics, weather patterns, team performance, and other site-specific criteria. The high school stadium is not one of the land use categories included in the ITE Trip Generation Manual, so two other sources were used to estimate the daily trip rate for the High School No. 5: 1) The San Diego Municipal Code Land Development Code Trip Generation Manual, and 2) the Estancia High School Stadium Traffic and Parking Impact Analysis.

The City of San Diego Traffic and Engineering Division recommended trip generation rate for a Sports Facility land use is 1 trip per attendee. A spectator sport facility is defined as a specially designed land use where people gather to watch a team sport or other attraction, such as the San Diego Qualcomm Stadium, the Sports Arena, or the Del Mar Race Track. This type of land use generally attracts more regional trips than a local high school football stadium, and would be expected to have a higher daily trip generation rate. The Newport-Mesa Unified School District proposed to build a stadium at Estancia High School in 2001. Estancia High is another local Orange County school located in the City of Costa Mesa. The Estancia High School Traffic and Parking Impact Analysis utilized a daily trip generation rate of 0.47 trips per seat, and forecast a total of 1,186 trips for a 2,523-seat stadium.

The daily trip generation rate of 0.74 trips per seat used for the High School No. 5 is based on an average of the City of San Diego Traffic and Engineering Division trip rate for a Sports Facility (1 trip per attendee) and the rate used for the Estancia High School stadium (0.47 trips per seat). This rate represents a conservative estimate for capacity events at High School No. 5.

The stadium trips would not be generated on typical weekdays throughout the year. Total driveway trips of 2,176 are only expected to occur on days when a varsity football game, graduation ceremony, or other special event that fills the stadium would occur. Varsity football games are scheduled for Friday evenings between late August and early December, and graduation ceremonies occur in the month of June. This traffic would have the characteristics of a special event, and would not contribute to the typical daily traffic volumes year round.

Stadium Trip Distribution

The stadium trip distribution for each analysis scenario has been developed based on the following assumptions:

- 68% of the trips generated for stadium events would originate within the High School No. 5 attendance area boundary, and follow a distribution similar to typical weekday traffic.

- 32% of the trips generated for stadium events would originate outside of the High School No. 5 attendance area boundary, with 3% coming from the east, 8% coming from the south, and 21% coming from the west. Trip distribution percentages on local arterials are proportional to 2011 daily traffic volumes published by the City of Irvine.

5.8.5.2 Existing Year 2013

Arterial Analysis

Year 2013 with project ADT volumes on study area arterials are listed in Table 6-1 of the Traffic Study included as Appendix F of this DSEIR. Tables 6-2 and 6-3 of the Traffic Study included as Appendix F of this DSEIR also summarize the study area arterials ADT volumes for 2013 (2012 Modified Project Options 1 and 2), respectively. All study area segments are calculated to operate at LOS C or better under 2013 with project conditions for all three scenarios.

Intersection Analysis

Year 2013 with project intersection volumes are shown in Figure 5.8-3, *Year 2013 Peak Hour Volumes – 2011 Approved Project – With Project*. Figures 5.8-4, *Year 2013 Peak Hour Volumes – 2012 Modified Project Options 1 – With Project*, and 5.8-5, *Year 2013 Peak Hour Volumes – 2012 Modified Project Options 2 – With Project*, show the 2013 - 2012 Modified Project Option 1 and 2, respectively. A summary of the LOS analysis results for the 2013 with project condition is included in Tables 5.8-7a through 5.8-7c. Tables 5.8-8a through 5.8-8c include a summary of the 2013 (2012 Modified Project Option 1) with project, and Tables 5.8-9a through 5.8-9c include the 2013 (2012 Modified Project Option 1) with project analysis summary results.

2011 Approved Project

As seen in Tables 5.8-7a, b and c, all study area intersections are calculated to operate at LOS C or better under 2013 with project conditions with the exception of Bake Parkway and I-5 NB Ramps, which operates at a deficient LOS F during the PM peak hour with and without the project.

Table 5.8-7a
Existing Year 2013 AM Peak LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1 (#1)	U	0.00	A	0.09	A	0.09	No
"B" St & Driveway 2 (#2)	U	0.00	A	0.08	A	0.08	No
Driveway 3 & "LQ" St (#3)	U	0.00	A	0.04	A	0.04	No
Driveway 4 & "LQ" St (#4)	U	0.00	A	0.05	A	0.05	No
"LQ" St & Driveway 5 (#5)	U	0.00	A	0.07	A	0.07	No
"LQ" St & Driveway 6 (#6)	U	0.00	A	0.19	A	0.19	No
"LQ" St & Driveway 7 (#7)	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.38	A	0.38	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.47	A	0.48	A	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.46	A	0.46	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.45	A	0.45	A	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.26	A	0.27	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.51	A	0.56	A	0.05	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.39	A	0.43	A	0.04	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.66	B	0.67	B	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.59	A	0.59	A	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.70	B	0.71	C	0.01	No
Sand Canyon Ave & Burt Rd (#444)	S	0.67	B	0.68	B	0.01	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.29	A	0.29	A	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.39	A	0.46	A	0.07	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.40	A	0.54	A	0.14	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.46	A	0.47	A	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.38	A	0.39	A	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.37	A	0.37	A	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.45	A	0.46	A	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.86	D	0.86	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.61	B	0.61	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.35	A	0.35	A	0.00	No
"B" St & Irvine Blvd (#563)	U	0.00	A	0.24	A	0.24	No
Portola Springs & Portola Pkwy (#571)	S	0.18	A	0.18	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.32	A	0.68	B	0.36	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.00	A	0.36	A	0.36	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-7b
Existing Year 2013 PM Peak LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact ?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1 (#1)	U	0.00	A	0.01	A	0.01	No
"B" St & Driveway 2 (#2)	U	0.00	A	0.02	A	0.02	No
Driveway 3 & "LQ" St (#3)	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St (#4)	U	0.00	A	0.01	A	0.01	No
"LQ" St & Driveway 5 (#5)	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6 (#6)	U	0.00	A	0.08	A	0.08	No
"LQ" St & Driveway 7 (#7)	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.35	A	0.35	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.55	A	0.55	A	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.38	A	0.38	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.29	A	0.29	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.50	A	0.51	A	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.38	A	0.38	A	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.61	B	0.61	B	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.73	C	0.73	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.57	A	0.57	A	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.29	A	0.29	A	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.41	A	0.41	A	0.00	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.44	A	0.46	A	0.02	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.49	A	0.50	A	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.36	A	0.36	A	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.35	A	0.35	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.57	A	0.57	A	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	1.01	F	1.02	F	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.67	B	0.67	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.25	A	0.25	A	0.00	No
"B" St & Irvine Blvd (#563)	U	0.00	A	0.12	A	0.12	No
Portola Springs & Portola Pkwy (#571)	S	0.15	A	0.15	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.44	A	0.58	A	0.14	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.00	A	0.12	A	0.12	No

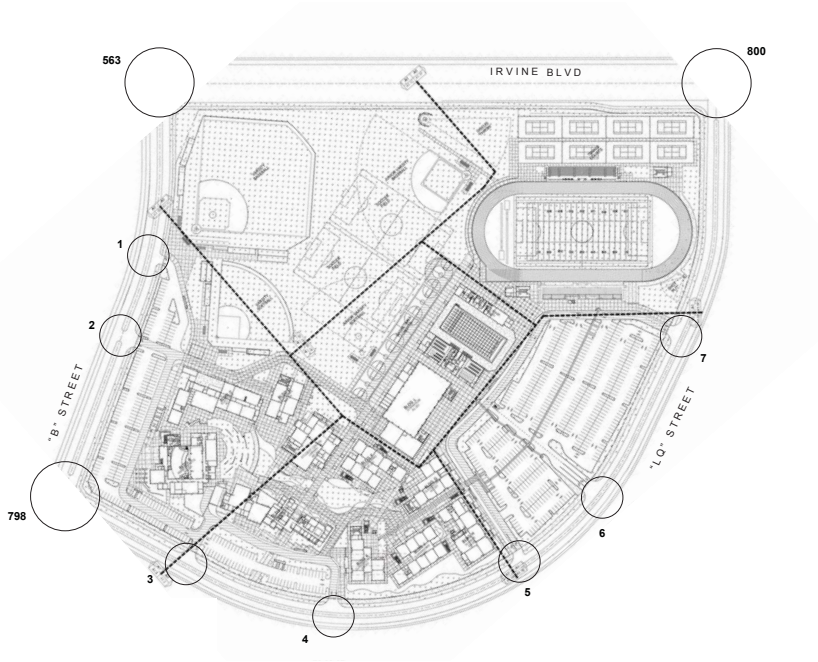
Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-7c
Existing Year 2013 PM Peak With Stadium LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.01	A	0.01	No
"B" St & Driveway 2	U	0.00	A	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	0.00	A	0.01	A	0.01	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.07	A	0.07	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.35	A	0.35	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.55	A	0.55	A	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.38	A	0.38	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.29	A	0.29	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.50	A	0.51	A	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.38	A	0.39	A	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.43	A	0.73	C	0.30	No
Sand Canyon Ave & Marine Way (#304)	S	0.61	B	0.62	B	0.01	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.73	C	0.74	C	0.01	No
Sand Canyon Ave & Burt Rd (#444)	S	0.57	A	0.57	A	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.29	A	0.29	A	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.41	A	0.41	A	0.00	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.44	A	0.46	A	0.02	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.49	A	0.50	A	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.36	A	0.37	A	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.35	A	0.35	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.57	A	0.58	A	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	1.01	F	1.02	F	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.67	B	0.67	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.25	A	0.25	A	0.00	No
"B" St & Irvine Blvd (#563)	U	0.00	A	0.14	A	0.14	No
Portola Springs & Portola Pkwy (#571)	S	0.15	A	0.15	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.44	A	0.61	B	0.17	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.00	A	0.07	A	0.07	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Year 2013 Peak Hour Volumes-2011 Approved Project-With Project



N/S Street: "B" St E/W Street: Driveway 1 223/48 0/0 0/0 0/0 17/9 0/0 1 0/0 0/0 0/0 0/0 0/0 157/81	N/S Street: Sand Canyon Ave E/W Street: Driveway 2 111/24 0/0 111/24 0/0 17/9 0/0 2 0/0 0/0 0/0 0/0 0/0 140/72	N/S Street: Driveway 3 E/W Street: "LQ" St 0/0 35/18 0/0 37/8 37/8 74/16 3 105/54 0/0 0/0 0/0 0/0 0/0	N/S Street: Driveway 4 E/W Street: "LQ" St 0/0 17/9 17/9 74/16 34/8 0/0 4 124/53 0/0 0/0 0/0 0/0 0/0
N/S Street: "LQ" St E/W Street: Driveway 5 92/25 0/0 0/0 0/0 0/0 0/0 5 0/0 70/36 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 6 74/16 186/40 0/0 157/81 0/0 0/0 6 0/0 17/9 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 7 260/56 260/56 0/0 0/0 0/0 0/0 7 0/0 0/0 0/0 0/0 0/0 175/90	N/S Street: "B" St E/W Street: Irvine Blvd 0/0 0/0 0/0 0/0 0/0 468/102 563 154/79 215/41 7/6 161/86 14/4 0/0
N/S Street: "Z" St E/W Street: :"LQ" St 787 *HF/GPN Proposed Future Intersection*	N/S Street: "Z" St E/W Street: Irvine Blvd 790 *HF/GPN Proposed Future Intersection*	N/S Street: "B" St E/W Street: "LQ" St 798 *HF/GPN Proposed Future Intersection*	N/S Street: "A-02" St/"LQ" St E/W Street: Irvine Blvd 22/3 0/0 0/0 0/0 0/0 14/4 800 7/6 468/102 30/6 154/79 14/5 7/5
N/S Street: SR-133 SB Ramps E/W Street: Trabuco Rd 486 *HF/GPN Proposed Future Intersection*	N/S Street: SR-133 NB Ramps E/W Street: Trabuco Rd 487 *HF/GPN Proposed Future Intersection*		

LEGEND
- ● Study Intersection - Signalized
- ◎ Study Intersection - Unsignalized
- ○ Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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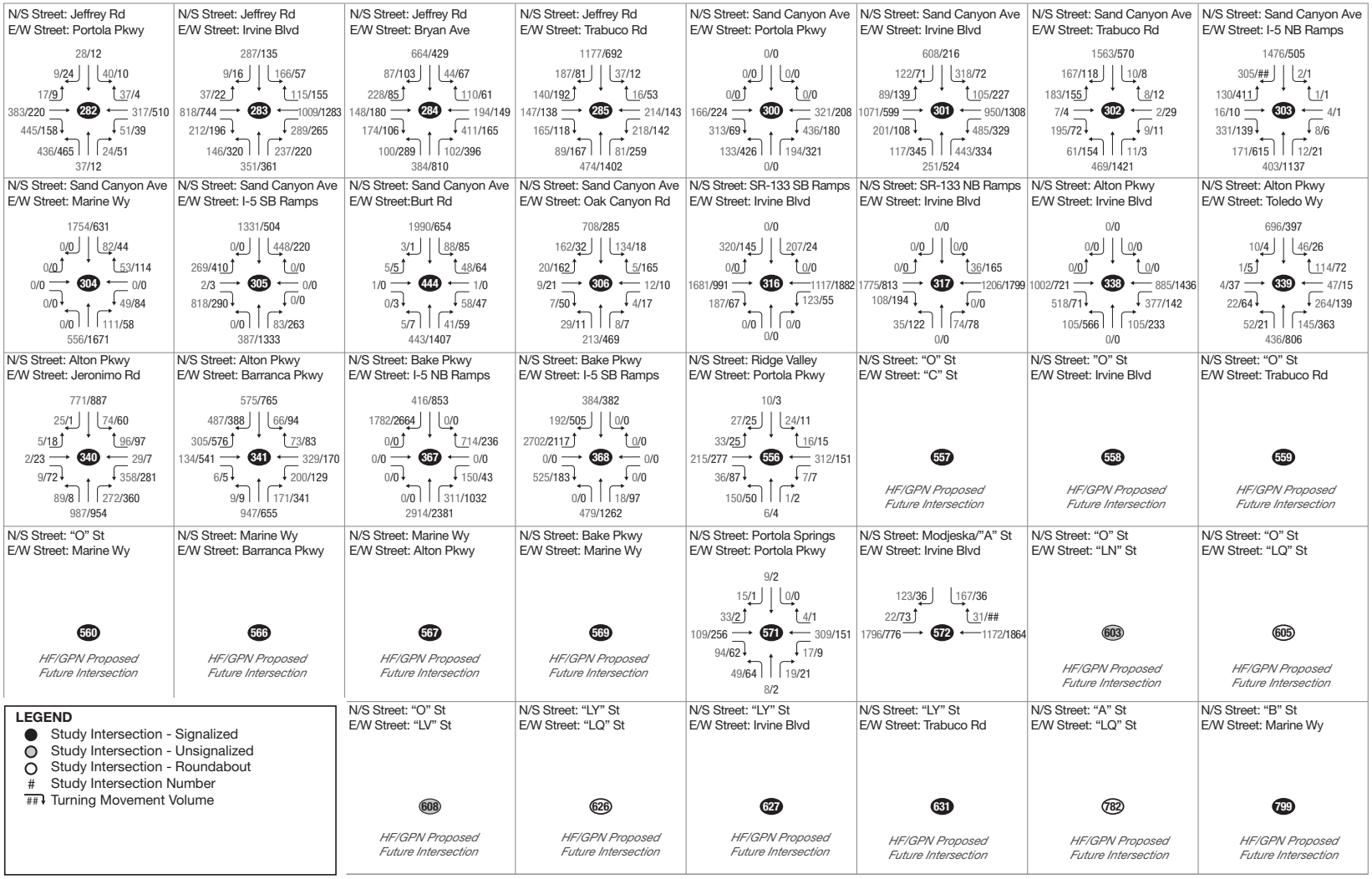
Year 2013 Peak Hour Volumes-2011 Approved Project-With Project



Source: IBI Group 2013

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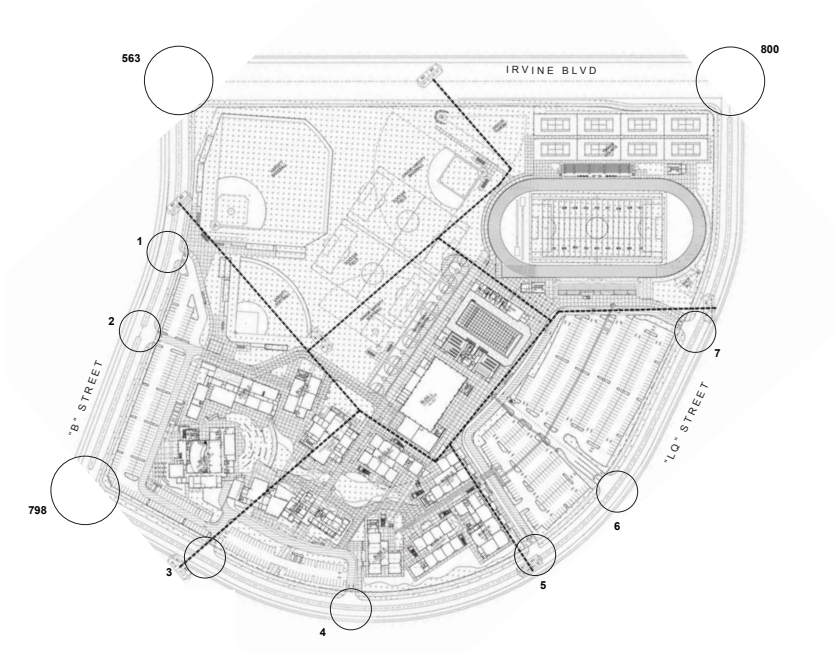
Year 2013 Peak Hour Volumes-2012 Modified Project Option 1-With Project



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N/S Street: "LQ" St E/W Street: Driveway 5 92/25 0/0 0/0 0/0 0/0 0/0 5 0/0 70/36 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 6 74/16 186/40 0/0 157/81 0/0 0/0 6 0/0 17/9 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 7 260/56 260/56 0/0 0/0 0/0 0/0 7 0/0 0/0 0/0 0/0 0/0 175/90	N/S Street: "B" St E/W Street: Irvine Blvd 0/0 0/0 0/0 0/0 0/0 468/102 563 154/79 215/41 7/0 161/86 14/4 0/0
N/S Street: "Z" St E/W Street: :"LQ" St 787 *HF/GPN Proposed Future Intersection*	N/S Street: "Z" St E/W Street: Irvine Blvd 790 *HF/GPN Proposed Future Intersection*	N/S Street: "B" St E/W Street: "LQ" St 798 *HF/GPN Proposed Future Intersection*	N/S Street: "A-02" St/"LQ" St E/W Street: Irvine Blvd 22/3 0/0 0/0 0/0 0/0 14/4 800 7/6 468/102 30/0 154/79 14/5 7/5
N/S Street: SR-133 SB Ramps E/W Street: Trabuco Rd 486 *HF/GPN Proposed Future Intersection*	N/S Street: SR-133 NB Ramps E/W Street: Trabuco Rd 487 *HF/GPN Proposed Future Intersection*		

LEGEND
- ● Study Intersection - Signalized
- ◎ Study Intersection - Unsignalized
- ○ Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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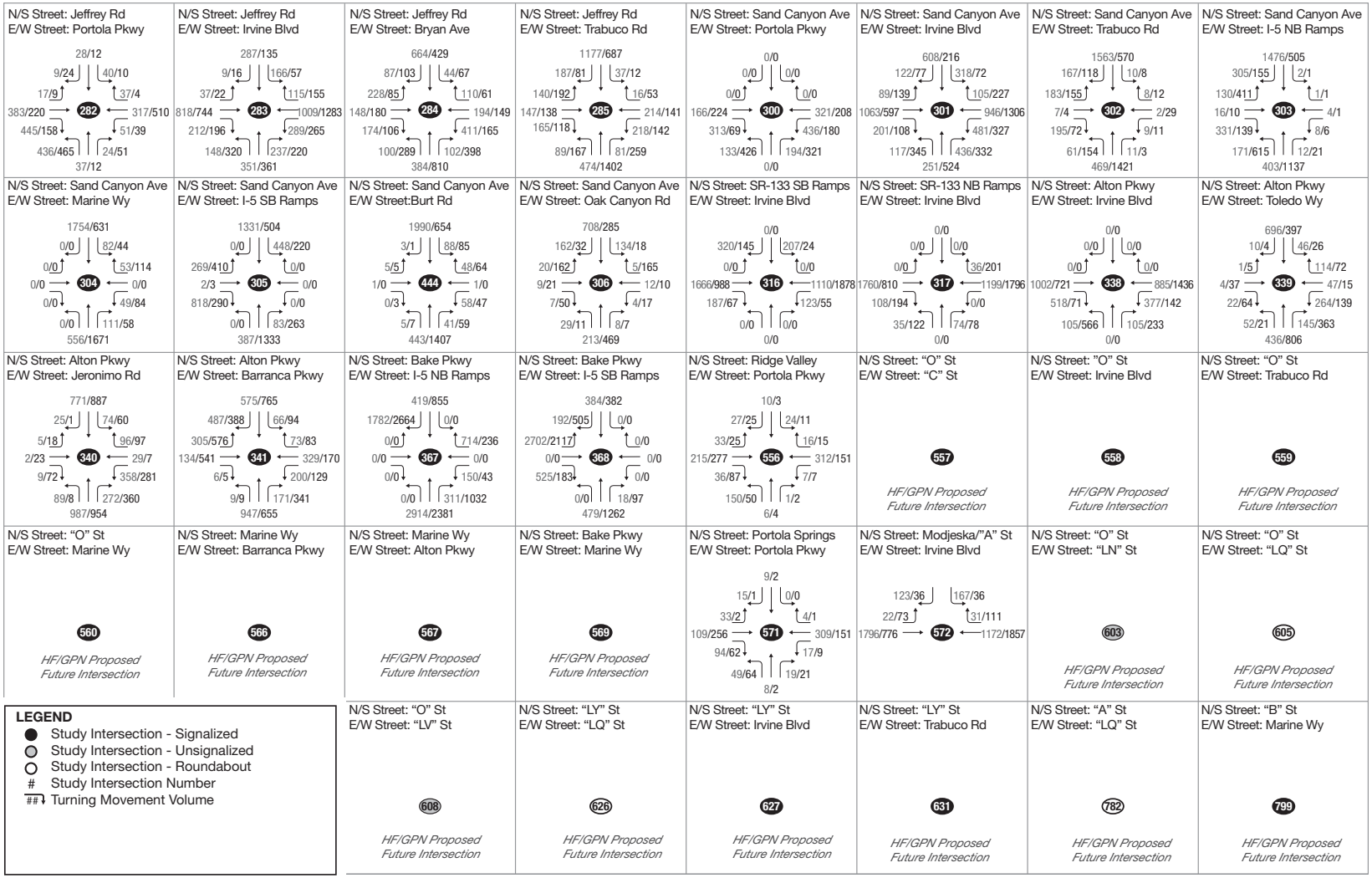
Year 2013 Peak Hour Volumes-2012 Modified Project Option 1-With Project



Source: IBI Group 2013

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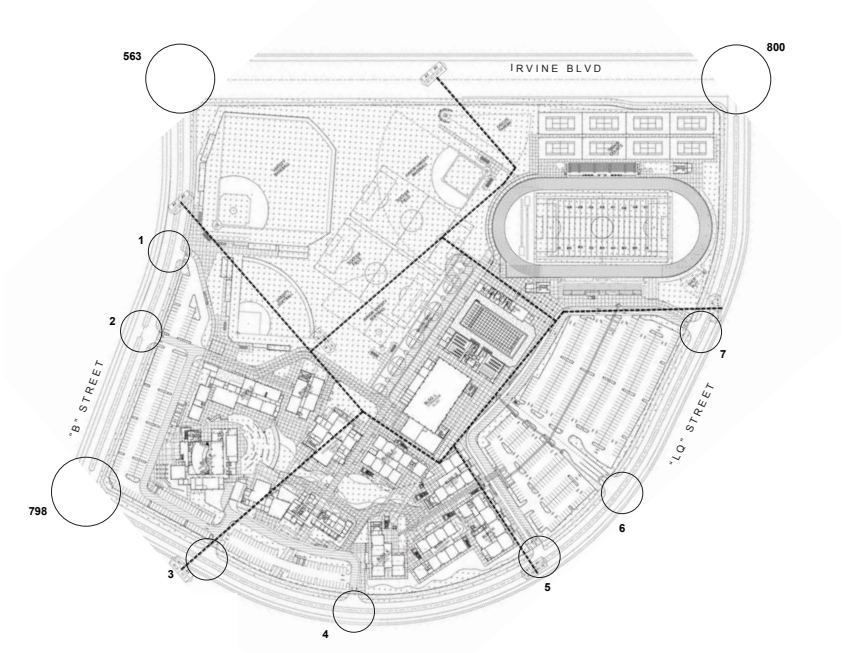
Year 2013 Peak Hour Volumes-2012 Modified Project Option 2-With Project



N/S Street: "B" St E/W Street: Driveway 1 223/48 0/0 0/0 0/0 17/9 0/0 1 0/0 0/0 0/0 0/0 0/0 157/81	N/S Street: Sand Canyon Ave E/W Street: Driveway 2 111/24 0/0 111/24 0/0 17/9 0/0 2 0/0 0/0 0/0 0/0 0/0 140/72	N/S Street: Driveway 3 E/W Street: "LQ" St 0/0 35/18 0/0 37/8 37/8 74/16 3 105/54 0/0 0/0 0/0 0/0 0/0	N/S Street: Driveway 4 E/W Street: "LQ" St 111/0 0/9 111/9 0/16 17/8 0/0 4 0/53 0/0 0/0 0/0 0/0 140/0
N/S Street: "LQ" St E/W Street: Driveway 5 92/25 0/0 0/0 0/0 0/0 0/0 5 0/0 70/36 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 6 74/16 186/40 0/0 157/81 0/0 0/0 6 0/0 17/9 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 7 260/56 260/56 0/0 0/0 0/0 0/0 7 0/0 0/0 0/0 0/0 0/0 175/90	N/S Street: "B" St E/W Street: Irvine Blvd 0/0 0/0 0/0 0/0 0/0 468/102 563 154/79 215/41 7/6 161/86 14/4 0/0
N/S Street: "Z" St E/W Street: :"LQ" St 787 *HF/GPN Proposed Future Intersection*	N/S Street: "Z" St E/W Street: Irvine Blvd 790	N/S Street: "B" St E/W Street: "LQ" St 798 *HF/GPN Proposed Future Intersection*	N/S Street: "A-02" St/"LQ" St E/W Street: Irvine Blvd 22/3 14/4 800 7/6 468/102 30/6 154/79 14/5 7/5
N/S Street: SR-133 SB Ramps E/W Street: Trabuco Rd 486 *HF/GPN Proposed Future Intersection*	N/S Street: SR-133 NB Ramps E/W Street: Trabuco Rd 487 *HF/GPN Proposed Future Intersection*		

LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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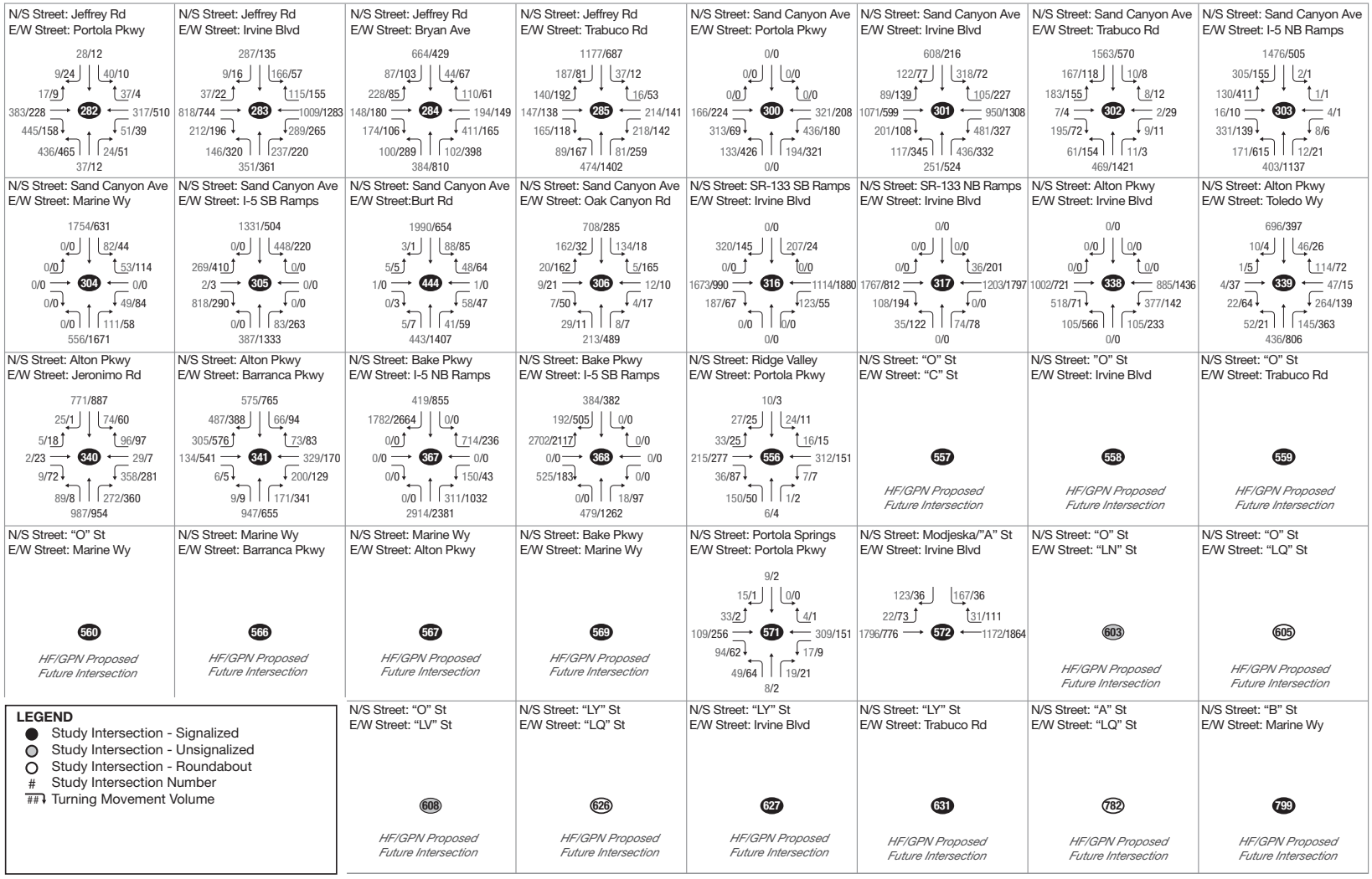
Year 2013 Peak Hour Volumes-2012 Modified Project Option 2-With Project



Source: IBI Group 2013

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2012 Modified Project Option 1

As seen in Tables 5.8-8a and b, all study area intersections are calculated to operate at LOS C or better under 2013 with project conditions with the exception of Bake Parkway and I-5 NB Ramps, which operates at LOS F during the PM peak hour without the project. There are no project impacts under the year 2013 scenarios.

Table 5.8-8a
Existing Year 2013 AM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

		No Project		With Project			
Intersection	*Control*	*V/C Delay*	*LOS*	*V/C Delay*	*LOS*	*Change in V/C*	*Impact?*
"B" St & Driveway 1	U	0.00	A	0.02	A	0.02	No
"B" St & Driveway 2	U	0.00	A	0.08	A	0.08	No
Driveway 3 & "LQ" St	U	0.00	A	0.04	A	0.04	No
Driveway 4 & "LQ" St	U	0.00	A	0.05	A	0.05	No
"LQ" St & Driveway 5	U	0.00	A	0.07	A	0.07	No
"LQ" St & Driveway 6	U	0.00	A	0.19	A	0.19	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.38	A	0.38	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.47	A	0.48	A	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.46	A	0.46	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.45	A	0.45	A	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.26	A	0.27	A	0.01	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.51	A	0.56	A	0.05	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.39	A	0.43	A	0.04	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.66	B	0.67	B	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.59	A	0.59	A	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.70	B	0.71	C	0.01	No
Sand Canyon Ave & Burt Rd (#444)	S	0.67	B	0.68	B	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.29	A	0.29	A	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.39	A	0.46	A	0.07	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.40	A	0.53	A	0.14	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.46	A	0.47	A	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.38	A	0.39	A	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.37	A	0.37	A	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.45	A	0.46	A	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.86	D	0.86	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.61	B	0.61	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.35	A	0.35	A	0.00	No
"B" St & Irvine Blvd (#563)	U	0.00	A	0.24	A	0.24	No
Portola Springs & Portola Pkwy (#571)	S	0.18	A	0.18	A	0.01	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.32	A	0.68	B	0.36	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.00	A	0.36	A	0.36	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-8b
Existing Year 2013 PM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.02	A	0.02	No
"B" St & Driveway 2	U	0.00	A	0.02	A	0.02	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.01	A	0.01	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.08	A	0.08	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.35	A	0.35	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.55	A	0.55	A	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.38	A	0.38	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.29	A	0.29	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.50	A	0.51	A	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.38	A	0.38	A	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.61	B	0.61	B	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.73	C	0.73	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.57	A	0.57	A	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.29	A	0.29	A	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.41	A	0.41	A	0.00	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.44	A	0.46	A	0.02	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.49	A	0.50	A	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.36	A	0.36	A	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.35	A	0.35	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.57	A	0.57	A	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	1.01	F	1.02	F	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.67	B	0.67	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.25	A	0.25	A	0.00	No
"O" St & "C" St (#557)		0.00	A	0.12	A	0.12	No
"B" St & Irvine Blvd (#563)	U	0.15	A	0.15	A	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.44	A	0.58	A	0.14	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.45	A	0.48	A	0.03	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.00	A	0.09	A	0.09	No

Source: Urban Crossroads, 2012.
Bold = Deficient Intersection
[1]. Fully Funded (F), Partially Funded (P)

2012 Modified Project Option 2

As seen in Tables 5.8-9a and b, all study area intersections are calculated to operate at LOS D or better under 2013 with project conditions with the exception of Bake Parkway and I-5 NB Ramps, which

operates at LOS F during the PM peak hour without the project. There are no project impacts under the year 2013 scenarios.

Table 5.8-9a
Existing Year 2013 AM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.02	A	0.02	No
"B" St & Driveway 2	U	0.00	A	0.08	A	0.08	No
Driveway 3 & "LQ" St	U	0.00	A	0.04	A	0.04	No
Driveway 4 & "LQ" St	U	0.00	A	0.05	A	0.05	No
"LQ" St & Driveway 5	U	0.00	A	0.07	A	0.07	No
"LQ" St & Driveway 6	U	0.00	A	0.19	A	0.19	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.38	A	0.38	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.47	A	0.48	A	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.46	A	0.46	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.45	A	0.45	A	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.26	A	0.27	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.51	A	0.56	A	0.05	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.39	A	0.43	A	0.04	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.66	B	0.67	B	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.59	A	0.59	A	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.70	B	0.71	C	0.01	No
Sand Canyon Ave & Burt Rd (#444)	S	0.67	B	0.68	B	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.29	A	0.29	A	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.39	A	0.46	A	0.07	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.40	A	0.54	A	0.14	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.46	A	0.47	A	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.38	A	0.39	A	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.37	A	0.37	A	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.45	A	0.46	A	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.86	D	0.86	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.61	B	0.61	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.35	A	0.35	A	0.00	No
"B" St & Irvine Blvd (#563)	U	0.00	A	0.34	A	0.34	No
Portola Springs & Portola Pkwy (#571)	S	0.18	A	0.18	A	0.01	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.32	A	0.68	B	0.36	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.00	A	0.18	A	0.18	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-9b
Existing Year 2013 PM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

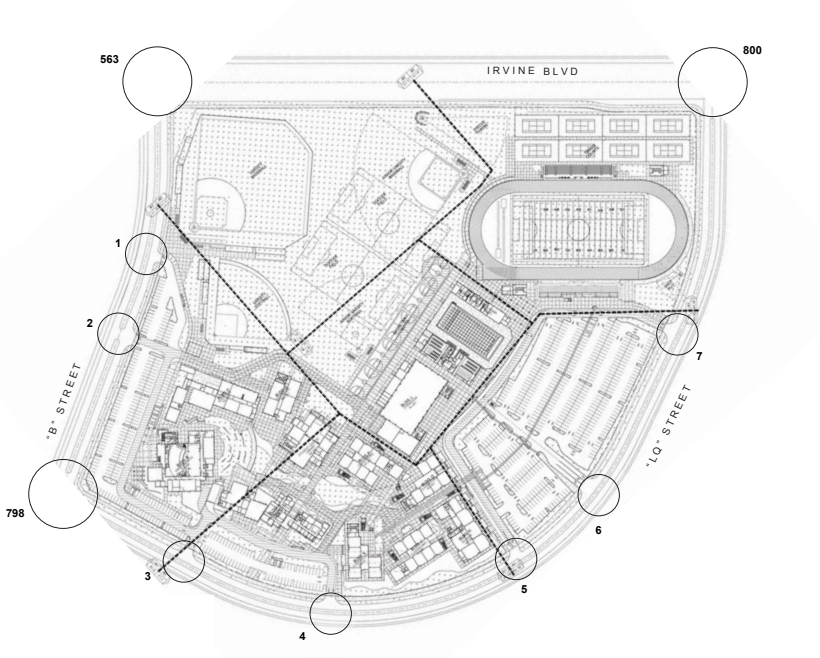
Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.01	A	0.01	No
"B" St & Driveway 2	U	0.00	A	0.02	A	0.02	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.01	A	0.01	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.08	A	0.08	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.35	A	0.35	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.55	A	0.55	A	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.38	A	0.38	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.29	A	0.29	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.50	A	0.51	A	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.38	A	0.38	A	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.61	B	0.61	B	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.73	C	0.73	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.57	A	0.57	A	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.29	A	0.29	A	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.41	A	0.41	A	0.00	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.44	A	0.46	A	0.02	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.49	A	0.50	A	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.36	A	0.36	A	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.35	A	0.35	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.57	A	0.57	A	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	1.01	F	1.02	F	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.67	B	0.67	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.25	A	0.25	A	0.00	No
"B" St & Irvine Blvd (#563)	U	0.00	A	0.10	A	0.10	No
Portola Springs & Portola Pkwy (#571)	S	0.15	A	0.15	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.44	A	0.58	A	0.14	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.00	A	0.08	A	0.08	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

5.8.5.3 Year 2017

Figures 5.8-6 and 5.8-7 show year 2017 intersection geometry and traffic control for the 2011 Approved Project scenario and the 2012 Modified Project Options 1 and 2 scenarios. Year 2017 peak hour volumes with stadium traffic for all scenarios are shown in Figures 8.1 through 8.3 of the Traffic Study included as Appendix F of this DSEIR..

Year 2017 Intersection Geometry and Control-2011 Approved Project



N/S Street: "B" St E/W Street: Driveway 1 With Project Geometry	N/S Street: Sand Canyon Ave E/W Street: Driveway 2 With Project Geometry	N/S Street: Driveway 3 E/W Street: "LQ" St With Project Geometry	N/S Street: Driveway 4 E/W Street: "LQ" St With Project Geometry
N/S Street: "LQ" St E/W Street: Driveway 5 With Project Geometry	N/S Street: "LQ" St E/W Street: Driveway 6 With Project Geometry	N/S Street: "LQ" St E/W Street: Driveway 7 With Project Geometry	N/S Street: "B" St E/W Street: Irvine Blvd With Project Geometry
N/S Street: "Z" St E/W Street: :"LQ" St 787 HF/GPN Proposed Future Intersection	N/S Street: "Z" St E/W Street: Irvine Blvd 790 HF/GPN Proposed Future Intersection	N/S Street: "B" St E/W Street: "LQ" St 798 HF/GPN Proposed Future Intersection	N/S Street: "A-02" St/"LQ" St E/W Street: Irvine Blvd 800
N/S Street: SR-133 SB Ramps E/W Street: Trabuco Rd 486 HF/GPN Proposed Future Intersection	N/S Street: SR-133 NB Ramps E/W Street: Trabuco Rd 487 HF/GPN Proposed Future Intersection		

LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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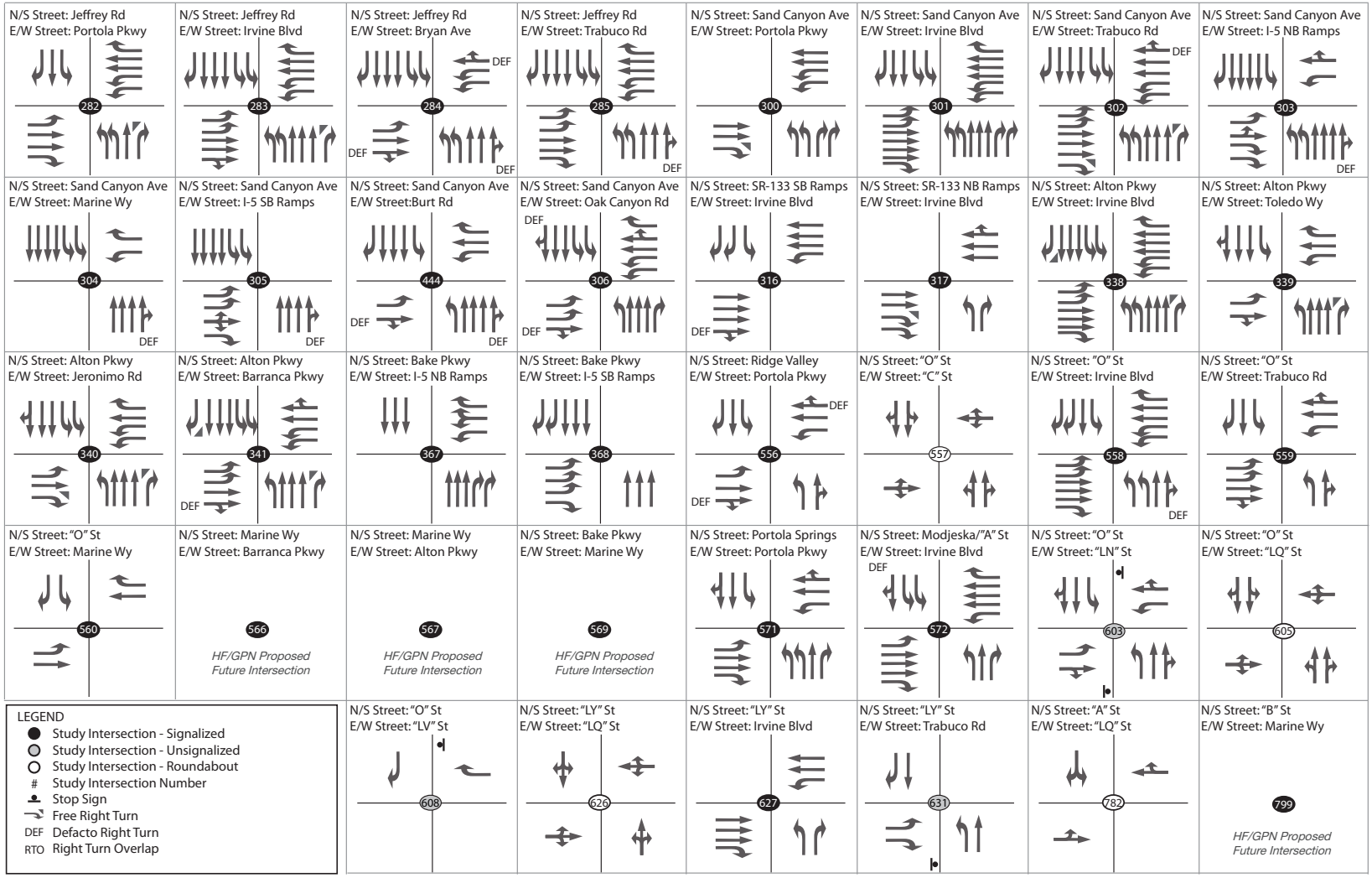
Year 2017 Intersection Geometry and Control-2011 Approved Project



Source: IBI Group 2013

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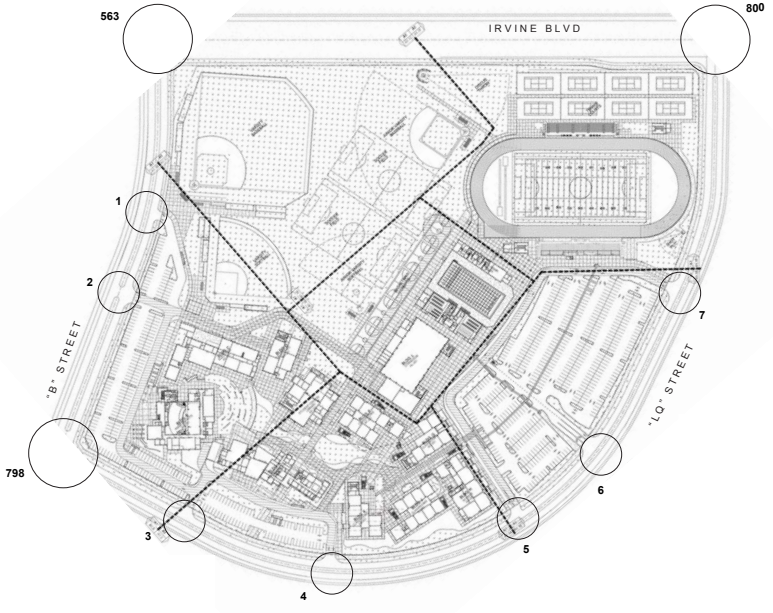
Year 2017 Intersection Geometry and Control-2012 Modified Project Options 1 and 2



N/S Street: "B" St E/W Street: Driveway 1 1 *With Project Geometry*	N/S Street: Sand Canyon Ave E/W Street: Driveway 2 2 *With Project Geometry*	N/S Street: Driveway 3 E/W Street: "LQ" St 3 *With Project Geometry*	N/S Street: Driveway 4 E/W Street: "LQ" St 4 *With Project Geometry*
N/S Street: "LQ" St E/W Street: Driveway 5 5 *With Project Geometry*	N/S Street: "LQ" St E/W Street: Driveway 6 6 *With Project Geometry*	N/S Street: "LQ" St E/W Street: Driveway 7 7 *With Project Geometry*	N/S Street: "B" St E/W Street: Irvine Blvd 563 *With Project Geometry*
N/S Street: "Z" St E/W Street: :"LQ" St 787 *HF/GPN Proposed Future Intersection*	N/S Street: "Z" St E/W Street: Irvine Blvd 790	N/S Street: "B" St E/W Street: "LQ" St 798 *HF/GPN Proposed Future Intersection*	N/S Street: "A-02" St/"LQ" St E/W Street: Irvine Blvd 800
N/S Street: SR-133 SB Ramps E/W Street: Trabuco Rd 486 *HF/GPN Proposed Future Intersection*	N/S Street: SR-133 NB Ramps E/W Street: Trabuco Rd 487 *HF/GPN Proposed Future Intersection*		

LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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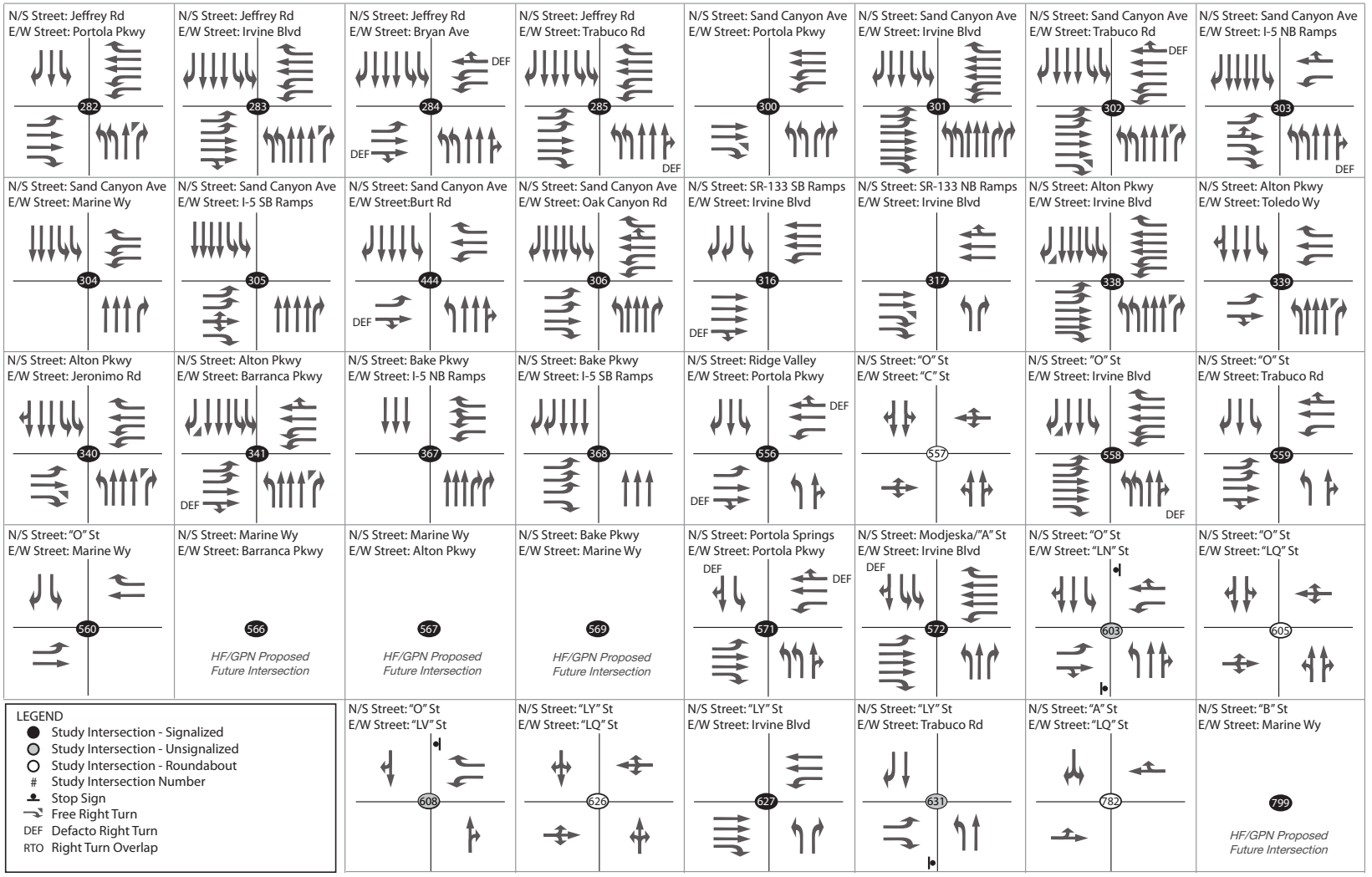
Year 2017 Intersection Geometry and Control-2012 Modified Project Options 1 and 2



Source: IBI Group 2013

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Arterial Analysis – All Scenarios

Year 2017 with project ADT volumes on study area arterials are listed in Tables 7-1 through 7-3 of the Traffic Study included as Appendix F of this DSEIR. As seen in Tables 7-1 through 7-3, all study area segments are calculated to operate at LOS A under 2017 for the 2011 Approved Project scenario and all except one segment are calculated to operate at acceptable LOS D or better for the 2012 Modified Project Options 1 and 2 scenarios. Table 5.8-10 shows deficient arterials for study years 2017, 2035, and post-2035 under all scenarios.

- Irvine Boulevard: "LQ" St to Alton Parkway (#800) - LOS F

Table 5.8-10
Year 2017, 2035, and Post 2035 Deficient Arterial LOS (All Scenarios)

Street	Limits	Lanes/ Capacity	No Project			With Project		
			ADT	V/C	LOS	ADT	V/C	LOS
Year 2017								
2012 Modified Project Options 1 and 2								
Irvine Blvd	LQ St to Alton Pkwy	5D/ 42,000	45,634	1.090	**F**	45,854	1.090	**F**
Year 2035								
2011 Approved Project								
Irvine Blvd	Z St to B St	6D/ 54,000	51,892	0.960	E	55,362	1.030	F
Irvine Blvd	LQ St to Alton Pkwy	6D/ 54,000	61,630	1.140	F	61,850	1.150	F
2012 Modified Project Options 1 and 2								
Irvine Blvd	Z St to B St	6D/ 54,000	54,152	1.000	E	56,822	1.050	F
Irvine Blvd	LQ St to Alton Pkwy	6D/ 54,000	57,756	1.070	F	57,976	1.070	F
Post 2035								
2011 Approved Project								
Sand Canyon Ave	Portola Pkwy to Irvine Blvd	4D/ 32,000	28,921	0.900	D	29,141	0.910	**E**
Sand Canyon Ave	Trabuco Rd to Marine Way	8D/ 72,000	67,214	0.930	**E**	67,344	0.940	**E**
Portola Pkwy	Jeffrey Rd to Sand Canyon Ave	4D/ 32,000	29,653	0.930	**E**	29,693	0.930	**E**
Irvine Blvd	Z St to B St	6D/ 54,000	46,836	0.870	D	50,306	0.930	**E**
Irvine Blvd	LQ St to Alton Pkwy	6D/ 54,000	58,025	1.070	**F**	58,245	1.080	**F**
2012 Modified Project Options 1 and 2								
Sand Canyon Ave	Trabuco Rd to Marine Way	8D/ 72,000	66,568	0.920	**E**	66,698	0.930	**E**
Portola Pkwy	Jeffrey Rd to Sand Canyon Ave	4D/ 32,000	29,760	0.930	**E**	29,800	0.930	**E**
Irvine Blvd	Z St to B St	6D/ 54,000	48,772	0.900	D	51,442	0.950	**E**
Irvine Blvd	LQ St to Alton Pkwy	6D/ 54,000	54,206	1.000	**E**	54,426	1.010	**F**

Intersection Analysis

2011 Approved Project

A summary of the LOS intersection analysis results for the 2017 with project condition is included in Tables 5.8-11a through 5.8-11c. Year 2017 with project intersection volumes are shown in Figure 5.8-8. The following intersection would operate at a deficient LOS under the 2011 Approved Project scenario but would not be impacted by the Proposed Project.

- Sand Canyon Avenue and Oak Canyon Road (#306) - LOS E (PM)

Table 5.8-11a
Year 2017 AM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.02	A	0.02	No
"B" St & Driveway 2	U	n/a	n/a	0.18	A	0.18	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.04	A	0.04	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.05	A	0.05	No
"LQ" St & Driveway 5	U	n/a	n/a	0.07	A	0.07	No
"LQ" St & Driveway 6	U	n/a	n/a	0.19	A	0.19	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.58	A	0.58	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.67	B	0.67	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.65	B	0.65	B	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.63	B	0.63	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.36	A	0.36	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.67	B	0.73	C	0.06	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.70	B	0.74	C	0.04	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.70	C	0.71	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.86	D	0.86	D	0.01	No
Sand Canyon Ave & Burt Rd (#444)	S	0.79	C	0.79	C	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.67	B	0.67	B	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.55	A	0.64	B	0.09	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.63	B	0.77	C	0.14	No
Alton Pkwy & Irvine Blvd* (#338)	**S**	0.88	D	0.89	D	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.67	B	0.67	B	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.69	B	0.69	B	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.60	A	0.61	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.84	D	0.84	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.72	C	0.72	C	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.52	A	0.52	A	0.00	No
"O" St & "C" St (#557)	R	0.31	A	0.31	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.63	B	0.70	B	0.07	No
"O" St & Trabuco Rd (#559)	S	0.54	A	0.54	A	0.00	No
"O" St & Marine Way (#560)	S	0.29	A	0.29	A	0.00	No
"B" St & Irvine Blvd (#563)		n/a	n/a	0.24	A	0.24	No
Portola Springs & Portola Pkwy (#571)	S	0.19	A	0.19	A	0.01	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.55	A	0.70	B	0.15	No
"O" St & "LN" St (#603)	U	0.18	A	0.19	A	0.00	No
"O" St & "LQ" St (#605)	R	0.20	A	0.20	A	0.00	No
"O" St & "LV" St (#608)	U	0.02	A	0.02	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.27	A	0.27	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.47	A	0.58	A	0.11	No
"LY" St & Trabuco Rd (#631)	U	0.02	A	0.02	A	0.00	No
"A" St & "LQ" St (#782)	R	0.17	A	0.17	A	0.01	No
"Z" St & Irvine Blvd (#790)	S	0.68	B	0.82	D	0.14	No

Table 5.8-11a
Year 2017 AM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.91	E	0.84	D	-0.08	No

Source: Urban Crossroads, 2012.
Bold = Deficient Intersection
[1]. Fully Funded (F), Partially Funded (P)

Table 5.8-11b
Year 2017 PM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.02	A	0.02	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.01	A	0.01	No
"LQ" St & Driveway 5	U	n/a	n/a	0.03	A	0.03	No
"LQ" St & Driveway 6	U	n/a	n/a	0.08	A	0.08	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.50	A	0.51	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.64	B	0.64	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.36	A	0.36	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.62	B	0.63	B	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.67	B	0.68	B	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.72	C	0.72	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.76	C	0.76	C	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.76	C	0.77	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.62	B	0.62	B	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	**S**	**0.99**	**E**	**0.99**	**E**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.49	A	0.52	A	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.77	C	0.80	C	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.81	D	0.81	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.60	A	0.60	A	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.55	A	0.55	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.70	B	0.70	B	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.89	D	0.89	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.84	D	0.84	D	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.63	B	0.63	B	0.00	No
"O" St & "C" St (#557)	R	0.23	A	0.23	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.84	D	0.88	D	0.04	No
"O" St & Trabuco Rd (#559)	S	0.45	A	0.45	A	0.00	No

Table 5.8-11b
Year 2017 PM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"O" St & Marine Way (#560)	S	0.34	A	0.34	A	0.00	No
"B" St & Irvine Blvd (#563)		n/a	n/a	0.12	A	0.12	No
Portola Springs & Portola Pkwy (#571)	S	0.15	A	0.16	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.60	B	0.63	B	0.03	No
"O" St & "LN" St (#603)	U	0.07	A	0.08	A	0.00	No
"O" St & "LQ" St (#605)	R	0.22	A	0.23	A	0.00	No
"O" St & "LV" St (#608)	U	0.01	A	0.01	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.25	A	0.25	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.70	C	0.74	C	0.04	No
"LY" St & Trabuco Rd (#631)	U	0.01	A	0.01	A	0.00	No
"A" St & "LQ" St (#782)	R	0.20	A	0.21	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.59	A	0.62	B	0.03	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.85	D	0.86	D	0.01	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-11c
Year 2017 PM Peak With Stadium Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.01	A	0.01	No
"B" St & Driveway 2	U	0.00	A	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	0.00	A	0.01	A	0.01	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.07	A	0.07	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.50	A	0.51	A	0.01	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.64	B	0.64	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.36	A	0.48	A	0.12	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.62	B	0.63	B	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.67	B	0.68	B	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.72	C	0.72	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.76	C	0.76	C	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.76	C	0.77	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.62	B	0.62	B	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	**S**	**0.99**	**E**	**0.99**	**E**	**0.00**	**No**

Table 5.8-11c
Year 2017 PM Peak With Stadium Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.49	A	0.51	A	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.77	C	0.81	D	0.04	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.81	D	0.81	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.60	A	0.60	B	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.55	A	0.55	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.70	B	0.70	C	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.89	D	0.66	B	-0.23	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.84	D	0.84	D	-0.01	No
Ridge Valley & Portola Pkwy (#556)	S	0.63	B	0.63	B	0.00	No
“O” St & "C" St (#557)	R	0.23	A	0.23	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.84	D	0.87	D	0.03	No
“O” St & Trabuco Rd (#559)	S	0.45	A	0.45	A	0.00	No
“O” St & Marine Way (#560)	S	0.34	A	0.34	A	0.00	No
“B” St & Irvine Blvd (#563)		0.00	A	0.14	A	0.14	No
Portola Springs & Portola Pkwy (#571)	S	0.15	A	0.16	A	0.01	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.60	B	0.63	B	0.03	No
“O” St & “LN” St (#603)	U	0.07	A	0.08	A	0.00	No
“O” St & “LQ” St (#605)	R	0.22	A	0.22	A	0.00	No
“O” St & “LV” St (#608)	U	0.01	A	0.01	A	0.00	No
“LY” St & “LQ” St (#626)	R	0.25	A	0.25	A	0.00	No
”LY” St & Irvine Blvd (#627)	S	0.70	C	0.73	C	0.03	No
“LY” St & Trabuco Rd (#631)	U	0.01	A	0.01	A	0.00	No
“A” St & “LQ” St (#782)	R	0.26	A	0.26	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.59	A	0.62	B	0.03	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.85	D	0.85	D	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

2012 Modified Project Option 1

Tables 5.8-12a through 5.8-12c include a summary of the 2017 (2012 Modified Project Option 1) with project. Figure 5.8-9 shows the 2017 - 2012 Modified Project Option 2. The following intersection would operate at a deficient LOS F in the year 2017 under the 2012 Modified Project Option 1 but would not be impacted by the Proposed Project:

- Sand Canyon Avenue and Oak Canyon Road (#306) - LOS F (PM)

Table 5.8-12a
Year 2017 AM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.02	A	0.02	No
"B" St & Driveway 2	U	n/a	n/a	0.08	A	0.08	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.04	A	0.04	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.05	A	0.05	No
"LQ" St & Driveway 5	U	n/a	n/a	0.07	A	0.07	No
"LQ" St & Driveway 6	U	n/a	n/a	0.19	A	0.19	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.58	A	0.58	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.66	B	0.66	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.63	B	0.63	B	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.63	B	0.64	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.36	A	0.36	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.58	A	0.63	B	0.05	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.71	C	0.72	C	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.71	C	0.71	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.86	D	0.86	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.79	C	0.79	C	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.67	B	0.67	B	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.43	A	0.50	A	0.08	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.44	A	0.55	A	0.11	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.85	D	0.87	D	0.02	No
Alton Pkwy & Toledo Way (#339)	S	0.66	B	0.67	B	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.69	B	0.69	B	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.60	A	0.61	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.83	D	0.84	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.70	B	0.70	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.52	A	0.52	A	0.00	No
"O" St & "C" St (#557)	R	0.53	A	0.54	A	0.01	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.54	A	0.61	B	0.07	No
"O" St & Trabuco Rd (#559)	S	0.75	C	0.75	C	0.00	No
"O" St & Marine Way (#560)	S	0.27	A	0.27	A	0.00	No
"B" St & Irvine Blvd (#563)		n/a	n/a	0.28	A	0.28	No
Portola Springs & Portola Pkwy (#571)	S	0.56	A	0.57	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.40	A	0.53	A	0.14	No
"O" St & "LN" St (#603)	S	0.32	A	0.32	A	0.00	No
"O" St & "LQ" St (#605)	R	0.31	A	0.31	A	0.00	No
"O" St & "LV" St (#608)	S	0.19	A	0.19	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.29	A	0.29	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.37	A	0.45	A	0.08	No
"LY" St & Trabuco Rd (#631)	U	0.01	A	0.01	A	0.00	No
"A" St & "LQ" St (#782)	R	0.17	A	0.17	A	0.01	No
"Z" St & Irvine Blvd (#790)	S	0.53	A	0.67	B	0.14	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.89	D	0.87	D	-0.02	No

Table 5.8-12a
Year 2017 AM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-12b
Year 2017 PM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.02	A	0.02	No
Driveway 3 & “LQ” St	U	n/a	n/a	0.02	A	0.02	No
Driveway 4 & “LQ” St	U	n/a	n/a	0.01	A	0.01	No
“LQ” St & Driveway 5	U	n/a	n/a	0.03	A	0.03	No
“LQ” St & Driveway 6	U	n/a	n/a	0.08	A	0.08	No
“LQ” St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.63	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.67	B	0.67	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.58	A	0.58	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.64	B	0.65	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.48	A	0.48	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.53	A	0.54	A	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.72	C	0.72	C	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.71	C	0.71	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.80	C	0.80	C	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	**S**	**1.00**	**F**	**1.00**	**F**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.45	A	0.47	A	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.68	B	0.71	C	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.81	D	0.81	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.59	A	0.60	A	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.54	A	0.54	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.70	C	0.71	C	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.66	B	0.66	B	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.83	D	0.83	D	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.65	B	0.65	B	0.00	No
“O” St & "C" St (#557)	R	0.38	A	0.39	A	0.01	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.67	B	0.70	B	0.03	No
“O” St & Trabuco Rd (#559)	S	0.64	B	0.64	B	0.00	No

Table 5.8-12b
Year 2017 PM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"O" St & Marine Way (#560)	S	0.49	A	0.49	A	0.00	No
"B" St & Irvine Blvd (#563)		n/a	n/a	0.15	A	0.15	No
Portola Springs & Portola Pkwy (#571)	S	0.48	A	0.48	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.55	A	0.58	A	0.03	No
"O" St & "LN" St (#603)	S	0.24	A	0.24	A	0.00	No
"O" St & "LQ" St (#605)	R	0.24	A	0.24	A	0.00	No
"O" St & "LV" St (#608)	S	0.31	A	0.31	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.29	A	0.29	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.64	B	0.68	B	0.04	No
"LY" St & Trabuco Rd (#631)	U	0.02	A	0.02	A	0.00	No
"A" St & "LQ" St (#782)	R	0.24	A	0.25	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.53	A	0.59	A	0.06	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.86	D	0.89	D	0.03	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-12c
Year 2017 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.01	A	0.01	No
"B" St & Driveway 2	U	0.00	A	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	0.00	A	0.01	A	0.01	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.07	A	0.07	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.63	B	0.64	B	0.01	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.67	B	0.67	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.58	A	0.58	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.64	B	0.65	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.48	A	0.48	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.53	A	0.54	A	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.72	C	0.72	C	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.71	C	0.71	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.78	C	0.79	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.80	C	0.80	C	0.00	No

Table 5.8-12c
Year 2017 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Sand Canyon Ave & Oak Cyn Rd (#306)	**S**	**1.00**	**F**	**1.00**	**F**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.45	A	0.47	A	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.68	B	0.72	C	0.04	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.81	D	0.81	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.59	A	0.60	A	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.54	A	0.55	A	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.70	C	0.71	C	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.66	B	0.66	B	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.83	D	0.83	D	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.65	B	0.65	B	0.00	No
“O” St & "C" St (#557)	R	0.38	A	0.38	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.67	B	0.70	B	0.03	No
“O” St & Trabuco Rd (#559)	S	0.64	B	0.64	B	0.00	No
“O” St & Marine Way (#560)	S	0.49	A	0.49	A	0.00	No
“B” St & Irvine Blvd (#563)		0.00	A	0.15	A	0.15	No
Portola Springs & Portola Pkwy (#571)	S	0.48	A	0.48	A	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.55	A	0.58	A	0.03	No
“O” St & “LN” St (#603)	S	0.18	A	0.18	A	0.00	No
“O” St & “LQ” St (#605)	R	0.24	A	0.24	A	0.00	No
“O” St & “LV” St (#608)	S	0.22	A	0.35	A	0.13	No
“LY” St & “LQ” St (#626)	R	0.29	A	0.29	A	0.00	No
”LY” St & Irvine Blvd (#627)	S	0.64	B	0.67	B	0.03	No
“LY” St & Trabuco Rd (#631)	U	0.02	A	0.02	A	0.00	No
“A” St & “LQ” St (#782)	R	0.24	A	0.25	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.53	A	0.58	A	0.05	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.86	D	0.86	D	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

2012 Modified Project Option 2

Tables 5.8-13a through 5.8-13c includes the 2017 (2012 Modified Project Option 2) with project analysis summary results. Figure 5.8-10 shows the 2017 - 2012 Modified Project Option 2. The following intersection would operate at a deficient LOS F in the year 2017 under the 2012 Modified Project Option 2 but would not be impacted by the Proposed Project:

- Sand Canyon Avenue and Oak Canyon Road (#306) - LOS F (PM)

Table 5.8-13a
Year 2017 AM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.02	A	0.02	No
"B" St & Driveway 2	U	n/a	n/a	0.08	A	0.08	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.04	A	0.04	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.05	A	0.05	No
"LQ" St & Driveway 5	U	n/a	n/a	0.07	A	0.07	No
"LQ" St & Driveway 6	U	n/a	n/a	0.19	A	0.19	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.58	A	0.58	A	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.66	B	0.67	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.63	B	0.63	B	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.63	B	0.64	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.36	A	0.36	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.58	A	0.63	B	0.05	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.71	C	0.72	C	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.71	C	0.71	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.82	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.86	D	0.86	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.79	C	0.79	C	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.67	B	0.67	B	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.43	A	0.51	A	0.07	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.43	A	0.54	A	0.11	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.85	D	0.87	D	0.02	No
Alton Pkwy & Toledo Way (#339)	S	0.67	B	0.67	B	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.68	B	0.69	B	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.60	A	0.60	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.83	D	0.83	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.70	B	0.70	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.52	A	0.52	A	0.00	No
"O" St & "C" St (#557)	R	0.52	A	0.53	A	0.01	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.54	A	0.60	B	0.07	No
"O" St & Trabuco Rd (#559)	S	0.74	C	0.74	C	0.00	No
"O" St & Marine Way (#560)	S	0.27	A	0.27	A	0.00	No
"B" St & Irvine Blvd (#563)		n/a	n/a	0.28	A	0.28	No
Portola Springs & Portola Pkwy (#571)	S	0.56	A	0.56	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.40	A	0.53	A	0.14	No
"O" St & "LN" St (#603)	S	0.32	A	0.32	A	0.00	No
"O" St & "LQ" St (#605)	R	0.30	A	0.30	A	0.00	No
"O" St & "LV" St (#608)	S	0.19	A	0.19	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.29	A	0.29	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.37	A	0.44	A	0.08	No
"LY" St & Trabuco Rd (#631)	U	0.01	A	0.01	A	0.00	No
"A" St & "LQ" St (#782)	R	0.15	A	0.16	A	0.01	No
"Z" St & Irvine Blvd (#790)	S	0.52	A	0.67	B	0.14	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.88	D	0.83	D	0.06	No

Table 5.8-13a
Year 2017 AM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-13b
Year 2017 PM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.02	A	0.02	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.01	A	0.01	No
"LQ" St & Driveway 5	U	n/a	n/a	0.03	A	0.03	No
"LQ" St & Driveway 6	U	n/a	n/a	0.08	A	0.08	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.67	B	0.67	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.58	A	0.58	A	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.64	B	0.65	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.48	A	0.48	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.60	A	0.60	B	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.72	C	0.72	C	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.70	C	0.71	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.79	C	0.79	C	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.80	C	0.80	C	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	**S**	**1.00**	**F**	**1.00**	**F**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.45	A	0.47	A	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.68	B	0.72	C	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.81	D	0.81	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.59	A	0.60	A	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.54	A	0.54	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.70	C	0.70	C	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.66	B	0.89	D	0.23	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.83	D	0.83	D	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.65	B	0.65	B	0.00	No
"O" St & "C" St (#557)	R	0.38	A	0.38	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.76	C	0.79	C	0.03	No

Table 5.8-13b
Year 2017 PM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"O" St & Trabuco Rd (#559)	S	0.63	B	0.63	B	0.00	No
"O" St & Marine Way (#560)	S	0.50	A	0.50	A	0.00	No
"B" St & Irvine Blvd (#563)		n/a	n/a	0.15	A	0.15	No
Portola Springs & Portola Pkwy (#571)	S	0.48	A	0.48	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.55	A	0.58	A	0.03	No
"O" St & "LN" St (#603)	S	0.23	A	0.23	A	0.00	No
"O" St & "LQ" St (#605)	R	0.24	A	0.24	A	0.00	No
"O" St & "LV" St (#608)	S	0.51	A	0.51	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.28	A	0.28	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.64	B	0.67	B	0.04	No
"LY" St & Trabuco Rd (#631)	U	0.02	A	0.02	A	0.00	No
"A" St & "LQ" St (#782)	R	0.23	A	0.23	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.56	A	0.59	A	0.03	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.86	D	0.87	D	0.01	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-13c
Year 2017 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.01	A	0.01	No
"B" St & Driveway 2	U	0.00	A	0.02	A	0.02	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.01	A	0.01	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.08	A	0.08	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.67	B	0.67	B	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.58	A	0.59	A	0.01	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.64	B	0.65	B	0.01	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.48	A	0.48	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.60	A	0.60	B	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.72	C	0.72	C	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.70	C	0.71	C	0.00	No
Sand Canyon Ave & Marine Way (#304)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.79	C	0.79	C	0.00	No

Table 5.8-13c
Year 2017 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Sand Canyon Ave & Burt Rd (#444)	S	0.80	C	0.80	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	**S**	**1.00**	**F**	**1.00**	**F**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.45	A	0.47	A	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.68	B	0.72	C	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.81	D	0.81	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.59	A	0.60	A	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.54	A	0.55	A	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.70	C	0.71	C	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.66	B	0.66	B	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.83	D	0.83	D	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.65	B	0.65	B	0.00	No
“O” St & "C" St (#557)	R	0.38	A	0.38	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.76	C	0.79	C	0.03	No
“O” St & Trabuco Rd (#559)	S	0.63	B	0.63	B	0.00	No
“O” St & Marine Way (#560)	S	0.50	A	0.50	A	0.00	No
“B” St & Irvine Blvd (#563)		0.00	A	0.15	A	0.15	No
Portola Springs & Portola Pkwy (#571)	S	0.48	A	0.48	A	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.55	A	0.58	A	0.03	No
“O” St & “LN” St (#603)	S	0.15	A	0.15	A	0.00	No
“O” St & “LQ” St (#605)	R	0.24	A	0.24	A	0.00	No
“O” St & “LV” St (#608)	S	0.29	A	0.36	A	0.08	No
“LY” St & “LQ” St (#626)	R	0.28	A	0.28	A	0.00	No
”LY” St & Irvine Blvd (#627)	S	0.64	B	0.67	B	0.03	No
“LY” St & Trabuco Rd (#631)	U	0.02	A	0.02	A	0.00	No
“A” St & “LQ” St (#782)	R	0.23	A	0.23	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.56	A	0.58	A	0.02	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.86	D	0.87	D	0.01	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

5.8.5.4 Year 2035

Figures 5.8-11 and 5.8-12 show Year 2035 and Post 2035 intersection geometry and traffic control for the 2011 Approved Project scenario and the 2012 Modified Project Options 1 and 2 scenarios. Year 2035 peak hour volumes with stadium traffic for all scenarios are shown in Figures 8.4 through 8.6 of the *Traffic Study* included as Appendix F of this DSEIR.

Arterial Analysis – All Scenarios

Year 2035 with project ADT volumes on study area arterials are listed in Tables 7-7 through 7-9 of the Appendix F, *Traffic Study*, of this DSEIR with project analysis summary results. As shown in Table 5.8-10, Year 2035 with-project deficient segment locations for all three 2035 scenarios are shown below and

all other arterials would operate ate LOS D or better.

- Irvine Boulevard: "Z" St to "B" St - LOS F
- Irvine Boulevard: "LQ" St to Alton Parkway - LOS F

Intersection Analysis

2011 Approved Project

Year 2035 with project intersection volumes are shown in Figure 5.8-13. A summary of the LOS intersection analysis results for the 2035 with project condition is included in Tables 5-8-14a, b and c. The following four intersections would operate at a deficient LOS under the 2011 Approved Project scenario. This scenario has one project impact at the intersection of "LQ" Street and Irvine Boulevard (#800):

- Sand Canyon Avenue and I-5 NB Ramps (#303) - LOS E (AM) and LOS F (PM)
- Sand Canyon Avenue and I-5 SB Ramps (#305) - LOS F (AM)
- Sand Canyon Avenue and Oak Canyon Road (#306) - LOS E (AM)
- "A-02" Street/"LQ" Street and Irvine Boulevard (#800) - LOS E (AM)

Table 5.8-14a
Year 2035 AM Peak Intersection LOS Summary
(2011 Approved Project)

		No Project		With Project			
Intersection	*Control*	*V/C Delay*	*LOS*	*V/C Delay*	*LOS*	*Change in V/C*	*Impact?*
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.09	A	0.09	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.06	A	0.06	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.05	A	0.05	No
"LQ" St & Driveway 5	U	n/a	n/a	0.09	A	0.09	No
"LQ" St & Driveway 6	U	n/a	n/a	0.60	A	0.60	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.67	B	0.67	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.72	C	0.73	C	0.01	No
Jeffrey Rd & Bryan Ave (#284)	S	0.75	C	0.75	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.68	B	0.69	B	0.01	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.43	A	0.43	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.79	C	0.85	D	0.06	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.81	D	0.84	D	0.03	No
Sand Canyon Ave & I-5 NB Ramps (#303)	**S**	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	**S**	**1.01**	**F**	**1.02**	**F**	**0.01**	**No**
Sand Canyon Ave & Burt Rd (#444)	S	0.87	D	0.87	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	**S**	**0.91**	**E**	**0.91**	**E**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.55	A	0.64	B	0.08	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.72	C	0.84	D	0.13	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.90	D	0.91	E	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.75	C	0.76	C	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.75	C	0.76	C	0.00	No

Table 5.8-14a
Year 2035 AM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Alton Pkwy & Barranca Pkwy (#341)	S	0.64	B	0.64	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.89	D	0.89	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.79	C	0.79	C	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.52	A	0.52	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.49	A	0.49	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.56	A	0.56	A	0.00	No
"O" St & "C" St (#557)	R	0.36	A	0.36	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.68	B	0.80	C	0.11	No
"O" St & Trabuco Rd (#559)	S	0.83	D	0.83	D	0.00	No
"O" St & Marine Way (#560)	S	0.47	A	0.47	A	0.00	No
"B" St & Irvine Blvd (#563)	S	0.73	C	0.90	D	0.16	No
Marine Way & Barranca Pkwy (#566)	S	0.71	C	0.71	C	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.67	B	0.68	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.72	C	0.73	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.61	B	0.61	B	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.73	C	0.85	D	0.12	No
"O" St & "LN" St (#603)	S	0.42	A	0.42	A	0.00	No
"O" St & "LQ" St (#605)	R	0.46	A	0.46	A	0.00	No
"O" St & "LV" St (#608)	S	0.37	A	0.37	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.35	A	0.37	A	0.01	No
"LY" St & Irvine Blvd (#627)	S	0.58	A	0.68	B	0.10	No
"LY" St & Trabuco Rd (#631)	U	0.03	A	0.03	A	0.00	No
"A" St & "LQ" St (#782)	R	0.29	A	0.35	A	0.07	No
"Z" St & "LQ" St (#787)	U	0.03	A	0.03	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.77	C	0.90	D	0.13	No
"B" St & "LQ" St (#798)	S	0.53	A	0.59	A	0.06	No
"B" St & Marine Way (#799)	S	0.52	A	0.53	A	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	**S**	**0.87**	**D**	**0.94**	**E**	**0.07**	**Yes**

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-14b
Year 2035 PM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.03	A	0.03	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.01	A	0.01	No
"LQ" St & Driveway 5	U	n/a	n/a	0.04	A	0.04	No
"LQ" St & Driveway 6	U	n/a	n/a	0.32	A	0.32	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.72	C	0.72	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.59	A	0.59	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.80	C	0.81	D	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.83	D	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	**S**	**1.07**	**F**	**1.07**	**F**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.86	D	0.86	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.78	C	0.78	C	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.61	B	0.63	B	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.80	C	0.83	D	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.95	E	0.95	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.65	B	0.66	B	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.60	B	0.60	B	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.83	D	0.83	D	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.61	B	0.61	B	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.89	D	0.89	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.53	A	0.53	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.58	A	0.58	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.58	A	0.58	A	0.00	No
"O" St & "C" St (#557)	R	0.24	A	0.24	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.80	D	0.83	D	0.02	No
"O" St & Trabuco Rd (#559)	S	0.80	C	0.80	C	0.00	No
"O" St & Marine Way (#560)	S	0.65	B	0.65	B	0.00	No
"B" St & Irvine Blvd (#563)	S	0.76	C	0.81	D	0.06	No
Marine Way & Barranca Pkwy (#566)	S	0.68	B	0.68	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.67	B	0.67	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.70	C	0.70	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.49	A	0.49	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.78	C	0.81	D	0.03	No
"O" St & "LN" St (#603)	S	0.35	A	0.35	A	0.00	No
"O" St & "LQ" St (#605)	R	0.44	A	0.44	A	0.00	No
"O" St & "LV" St (#608)	S	0.35	A	0.35	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.33	A	0.33	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.63	B	0.65	B	0.02	No

Table 5.8-14b
Year 2035 PM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"LY" St & Trabuco Rd (#631)	U	0.08	A	0.08	A	0.00	No
"A" St & "LQ" St (#782)	R	0.32	A	0.32	A	0.01	No
"Z" St & "LQ" St (#787)	U	0.05	A	0.05	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.75	C	0.78	C	0.03	No
"B" St & "LQ" St (#798)	S	0.41	A	0.46	A	0.05	No
"B" St & Marine Way (#799)	S	0.59	A	0.59	A	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.80	C	0.84	D	0.05	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-14c
Year 2035 PM Peak With Stadium Intersection LOS Summary
(2011 Approved Project)

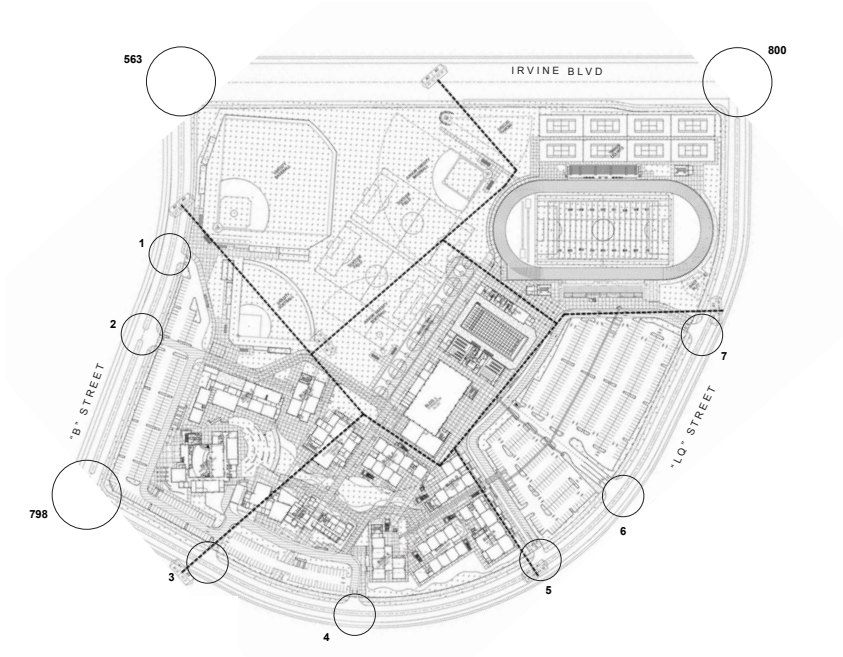
Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.00	A	0.00	No
"B" St & Driveway 2	U	0.00	A	0.04	A	0.04	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.07	A	0.07	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.72	C	0.72	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.59	A	0.60	A	0.01	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.80	C	0.80	D	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.84	D	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	**S**	**1.07**	**F**	**1.07**	**F**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.86	D	0.87	D	0.01	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.78	C	0.78	C	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.61	B	0.62	B	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.80	C	0.83	D	0.04	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.95	E	0.95	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.65	B	0.66	B	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.60	B	0.61	B	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.83	D	0.83	D	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.61	B	0.61	B	0.00	No

Table 5.8-14c
Year 2035 PM Peak With Stadium Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.89	D	0.89	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.53	A	0.53	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.58	A	0.58	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.58	A	0.58	A	0.00	No
“O” St & "C" St (#557)	R	0.24	A	0.24	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.80	C	0.83	D	0.03	No
“O” St & Trabuco Rd (#559)	S	0.80	C	0.80	C	0.00	No
“O” St & Marine Way (#560)	S	0.65	B	0.65	B	0.00	No
“B” St & Irvine Blvd (#563)	S	0.76	C	0.80	C	0.04	No
Marine Way & Barranca Pkwy (#566)	S	0.68	B	0.68	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.67	B	0.67	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.70	B	0.70	B	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.49	A	0.49	A	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.78	C	0.81	D	0.03	No
“O” St & “LN” St (#603)	S	0.35	A	0.36	A	0.01	No
“O” St & “LQ” St (#605)	R	0.44	A	0.44	A	0.00	No
“O” St & “LV” St (#608)	S	0.35	A	0.35	A	0.00	No
“LY” St & “LQ” St (#626)	R	0.33	A	0.34	A	0.01	No
”LY” St & Irvine Blvd (#627)	S	0.63	B	0.65	B	0.02	No
“LY” St & Trabuco Rd (#631)	U	0.08	A	0.08	A	0.00	No
“A” St & “LQ” St (#782)	R	0.32	A	0.34	A	0.03	No
“Z” St & “LQ” St (#787)	U	0.05	A	0.05	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.75	C	0.78	C	0.03	No
“B” St & “LQ” St (#798)	S	0.41	A	0.47	A	0.06	No
“B” St & Marine Way (#799)	S	0.59	A	0.59	A	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.80	C	0.83	D	0.03	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Year 2017 Peak Hour Volumes-2011 Approved Project-With Project



N/S Street: "B" St E/W Street: Driveway 1 223/48 0/0 0/0 0/0 17/9 0/0 1 0/0 0/0 0/0 0/0 0/0 157/81	N/S Street: Sand Canyon Ave E/W Street: Driveway 2 111/24 0/0 111/24 0/0 17/9 0/0 2 0/0 0/0 0/0 0/0 0/0 140/72	N/S Street: Driveway 3 E/W Street: "LQ" St 0/0 35/18 0/0 37/8 37/8 74/16 3 105/54 0/0 0/0 0/0 0/0 0/0	N/S Street: Driveway 4 E/W Street: "LQ" St 0/0 17/9 17/9 74/16 37/8 0/0 4 124/53 0/0 0/0 0/0 0/0 0/0
N/S Street: "LQ" St E/W Street: Driveway 5 92/25 0/0 0/0 0/0 0/0 0/0 5 0/0 70/36 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 6 74/16 186/40 0/0 157/81 0/0 0/0 6 0/0 17/9 0/0 0/0 0/0 17/9	N/S Street: "LQ" St E/W Street: Driveway 7 260/56 260/56 0/0 0/0 0/0 0/0 7 0/0 0/0 0/0 0/0 0/0 175/90	N/S Street: "B" St E/W Street: Irvine Blvd ###/## ###/## ###/## ###/## ###/## ###/## 563 ###/## ###/## ###/## ###/## ###/## ###/##
N/S Street: "Z" St E/W Street: :"LQ" St 787 *HF/GPN Proposed Future Intersection*	N/S Street: "Z" St E/W Street: Irvine Blvd 78/35 86/54 213/69 25/52 35/114 2609/1511 790 1656/2345 83/74 140/171 78/104 189/132 20/44	N/S Street: "B" St E/W Street: "LQ" St 798 *HF/GPN Proposed Future Intersection*	N/S Street: "A-02" St/"LQ" St E/W Street: Irvine Blvd 22/3 58/39 162/67 24/81 59/189 2304/1601 800 1546/2442 468/102 30/6 154/79 14/5 7/5
N/S Street: SR-133 SB Ramps E/W Street: Trabuco Rd 486 *HF/GPN Proposed Future Intersection*	N/S Street: SR-133 NB Ramps E/W Street: Trabuco Rd 487 *HF/GPN Proposed Future Intersection*		

LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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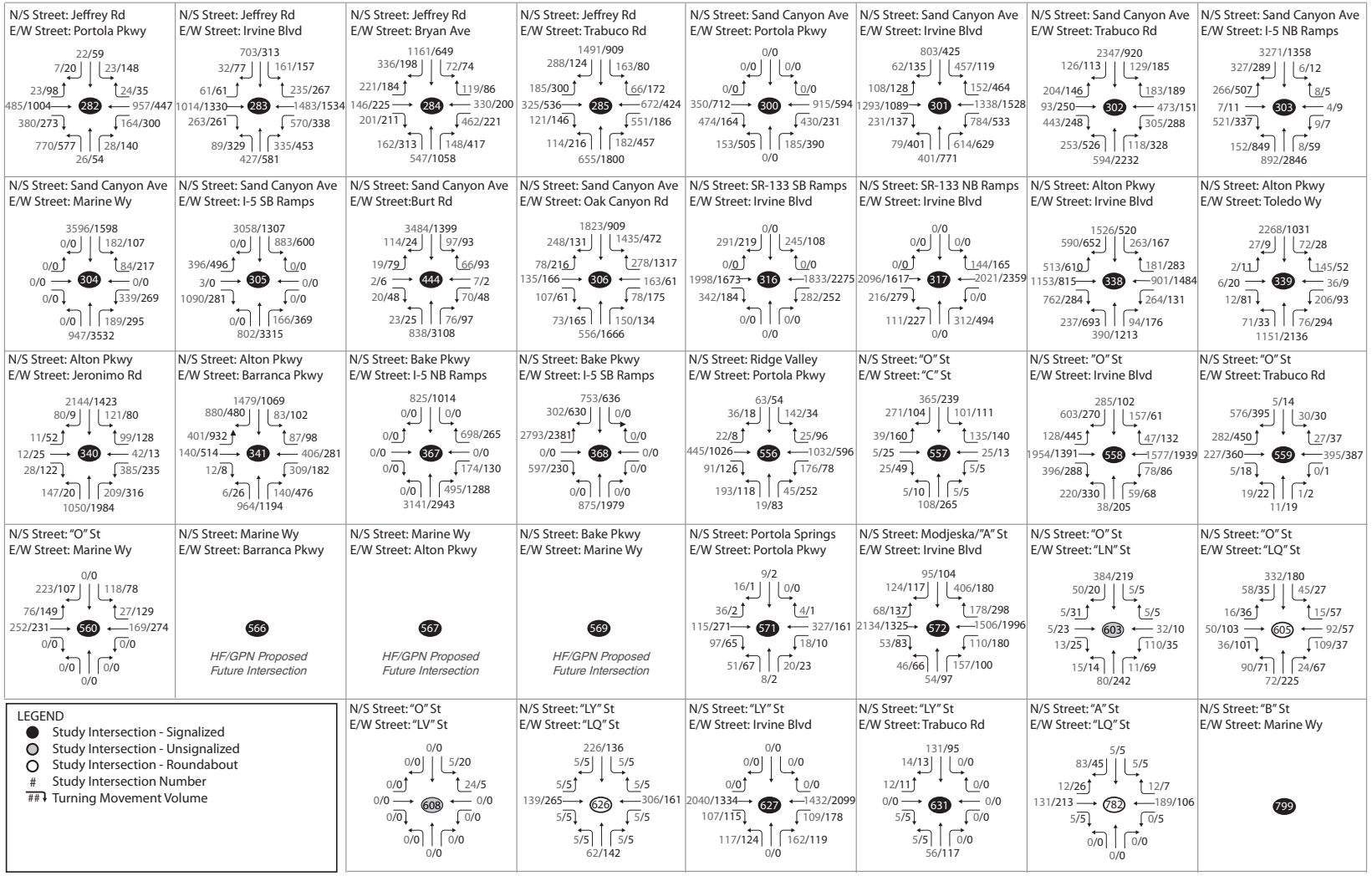
Year 2017 Peak Hour Volumes-2011 Approved Project-With Project



Source: IBI Group 2013

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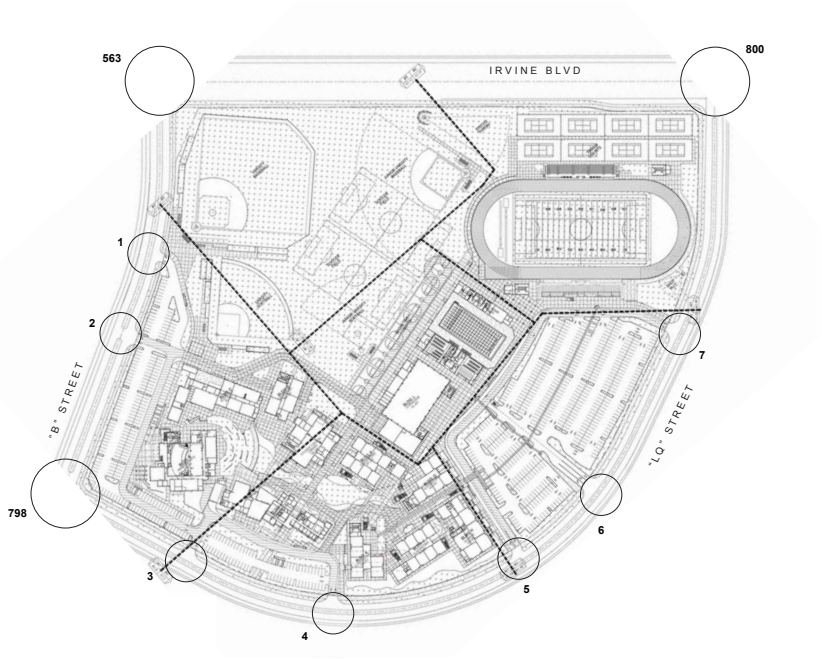
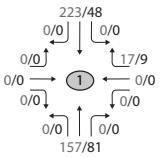
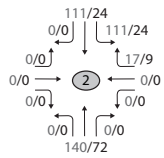
Year 2017 Peak Hour Volumes-2012 Modified Project Option 1-With Project



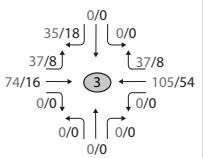
N/S Street: "B" St
E/W Street: Driveway 1



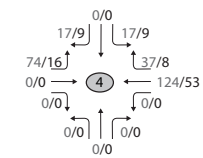
N/S Street: Sand Canyon Ave
E/W Street: Driveway 2



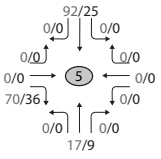
N/S Street: Driveway 3
E/W Street: "LQ" St



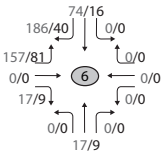
N/S Street: Driveway 4
E/W Street: "LQ" St



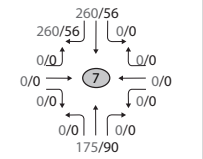
N/S Street: "LQ" St
E/W Street: Driveway 5



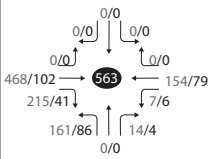
N/S Street: "LQ" St
E/W Street: Driveway 6



N/S Street: "LQ" St
E/W Street: Driveway 7



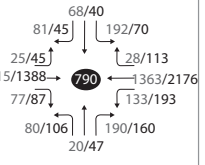
N/S Street: "B" St
E/W Street: Irvine Blvd



N/S Street: "Z" St
E/W Street: :"LQ" St

HF/GPN Proposed Future Intersection

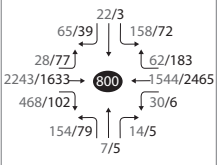
N/S Street: "Z" St
E/W Street: Irvine Blvd



N/S Street: "B" St
E/W Street: "LQ" St

HF/GPN Proposed Future Intersection

N/S Street: "A-02" St/"LQ" St
E/W Street: Irvine Blvd



N/S Street: SR-133 SB Ramps
E/W Street: Trabuco Rd

HF/GPN Proposed Future Intersection

N/S Street: SR-133 NB Ramps
E/W Street: Trabuco Rd

HF/GPN Proposed Future Intersection

LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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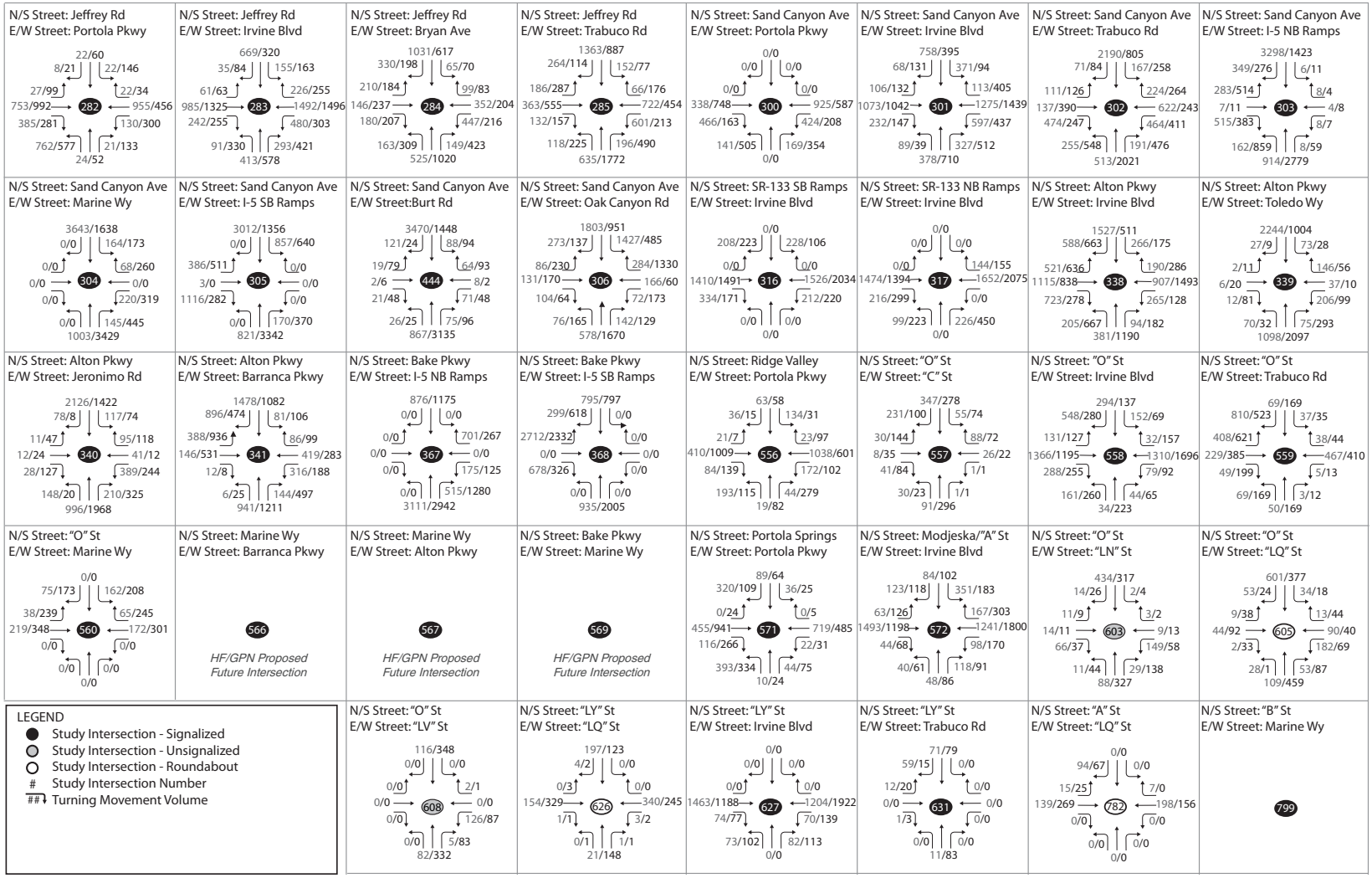
Year 2017 Peak Hour Volumes-2012 Modified Project Option 1-With Project



Source: IBI Group 2013

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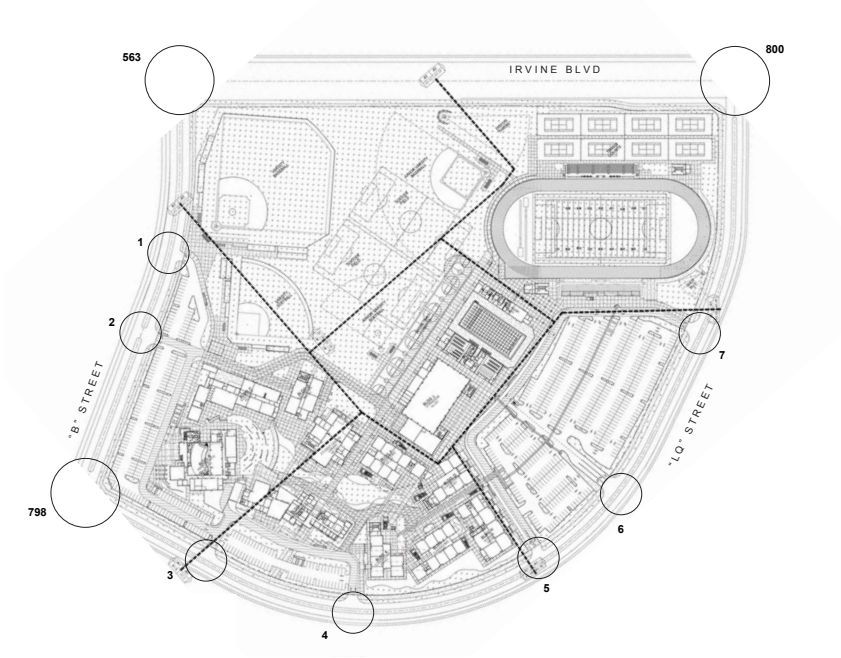
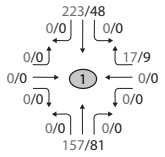
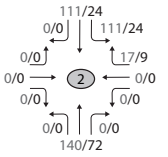
Year 2017 Peak Hour Volumes-2012 Modified Project Option 2-With Project



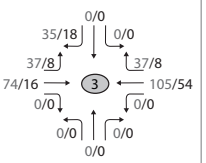
N/S Street: "B" St
E/W Street: Driveway 1



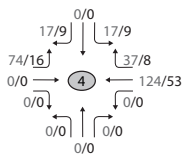
N/S Street: Sand Canyon Ave
E/W Street: Driveway 2



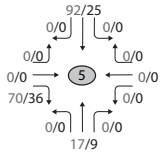
N/S Street: Driveway 3
E/W Street: "LQ" St



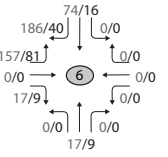
N/S Street: Driveway 4
E/W Street: "LQ" St



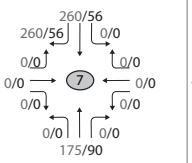
N/S Street: "LQ" St
E/W Street: Driveway 5



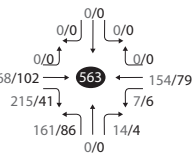
N/S Street: "LQ" St
E/W Street: Driveway 6



N/S Street: "LQ" St
E/W Street: Driveway 7



N/S Street: "B" St
E/W Street: Irvine Blvd

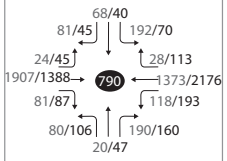


N/S Street: "Z" St
E/W Street: :"LQ" St

787

HF/GPN Proposed Future Intersection

N/S Street: "Z" St
E/W Street: Irvine Blvd

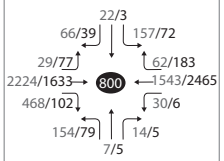


N/S Street: "B" St
E/W Street: "LQ" St

798

HF/GPN Proposed Future Intersection

N/S Street: "A-02" St/"LQ" St
E/W Street: Irvine Blvd



N/S Street: SR-133 SB Ramps
E/W Street: Trabuco Rd

486

HF/GPN Proposed Future Intersection

N/S Street: SR-133 NB Ramps
E/W Street: Trabuco Rd

487

HF/GPN Proposed Future Intersection

LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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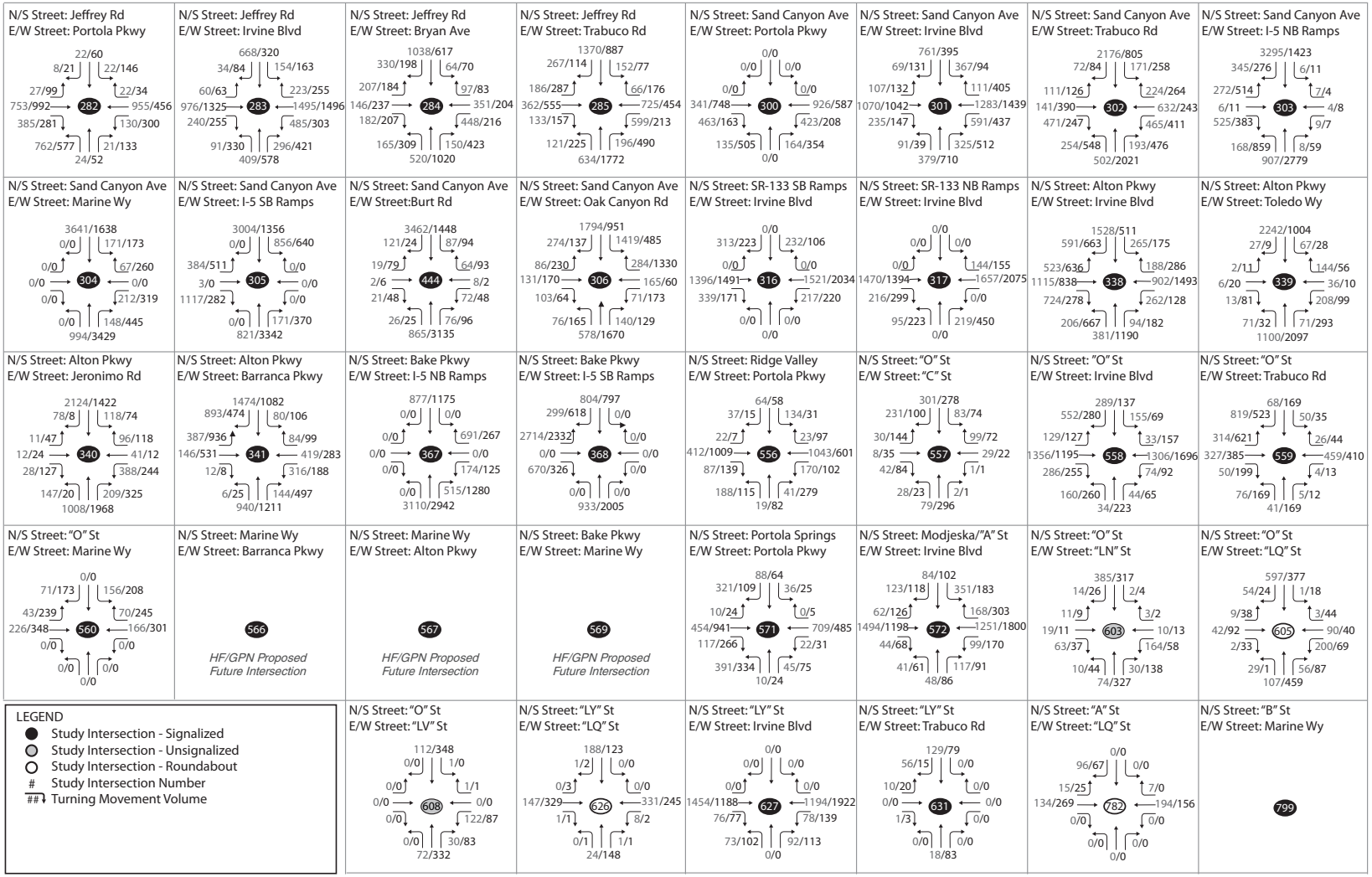
Year 2017 Peak Hour Volumes-2012 Modified Project Option 2-With Project



Source: IBI Group 2013

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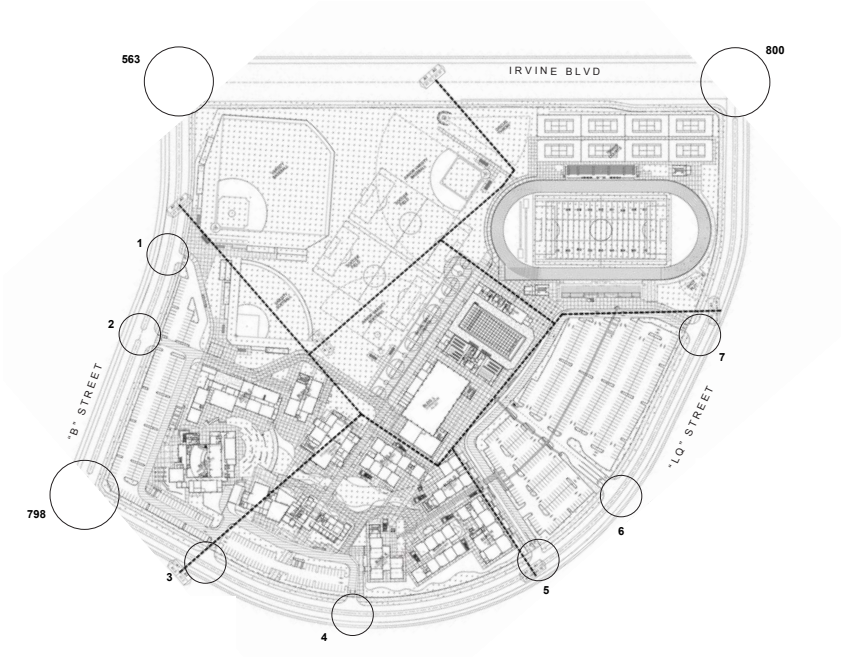
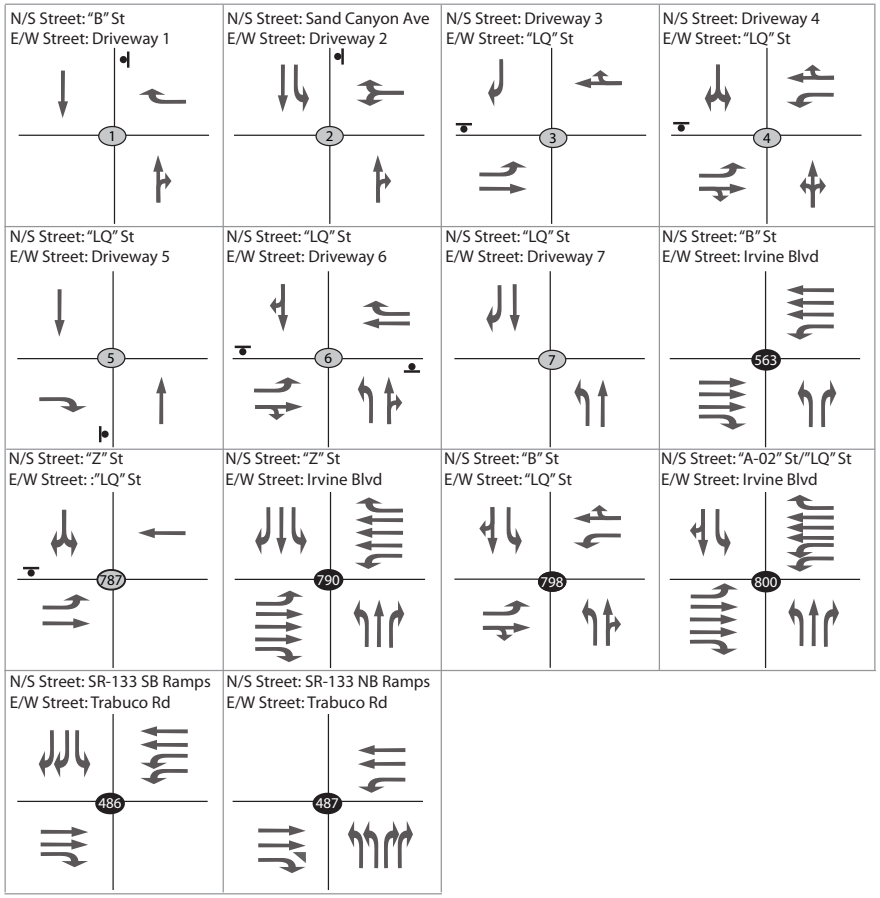
Year 2035 and Post 2035 Intersection Geometry and Control-2011 Approved Project





LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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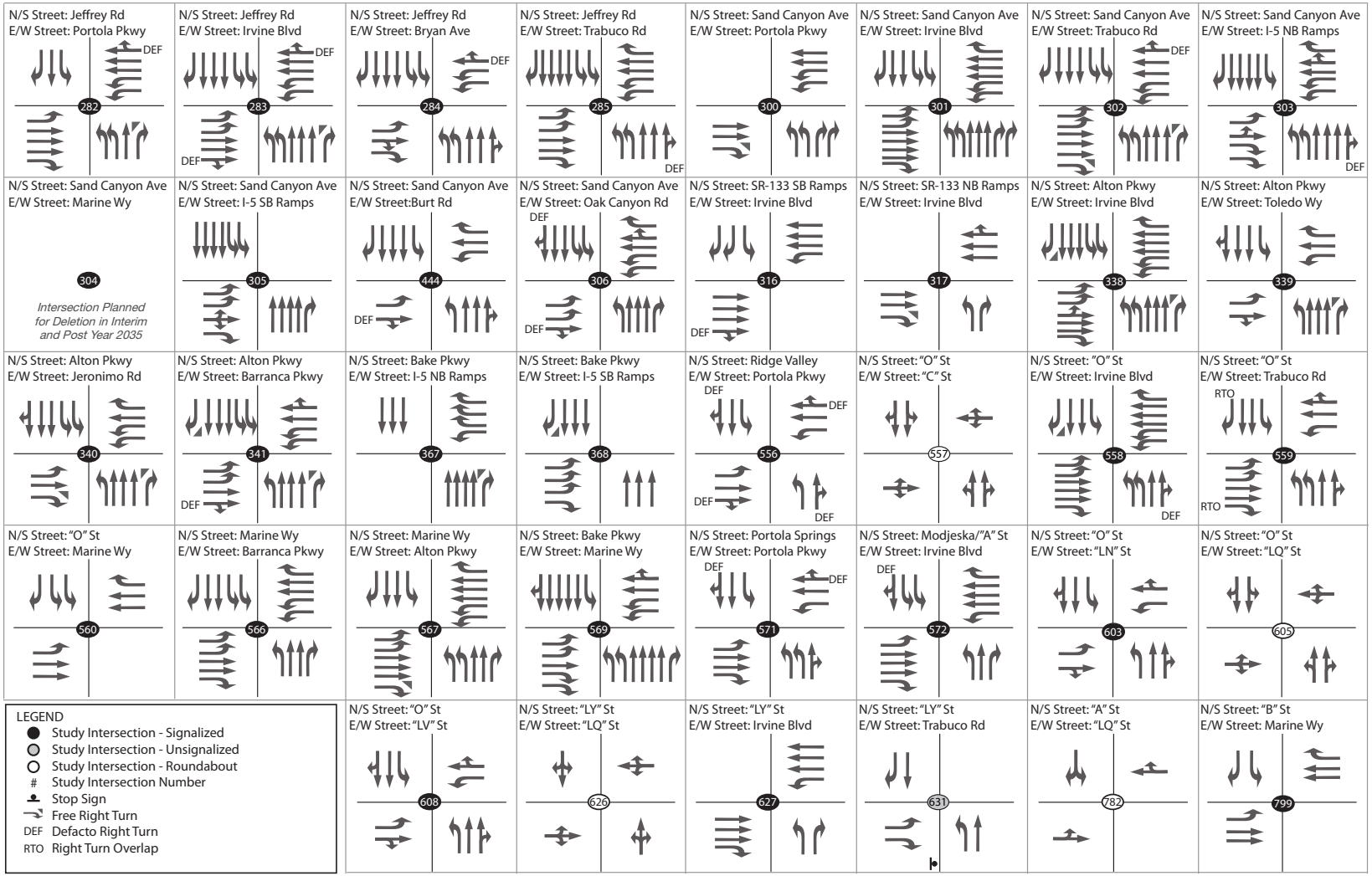
Year 2035 and Post 2035 Intersection Geometry and Control-2011 Approved Project



Source: IBI Group 2013

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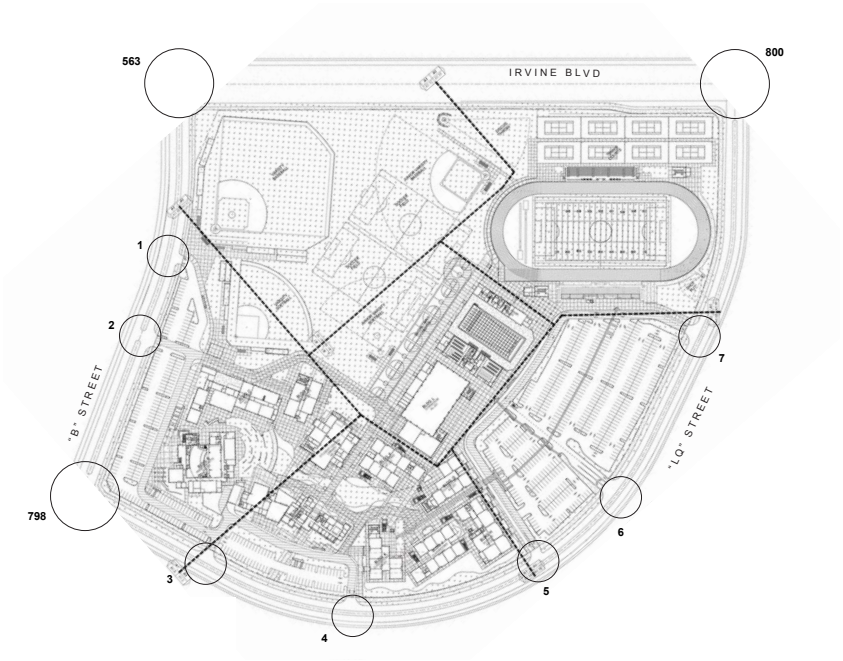
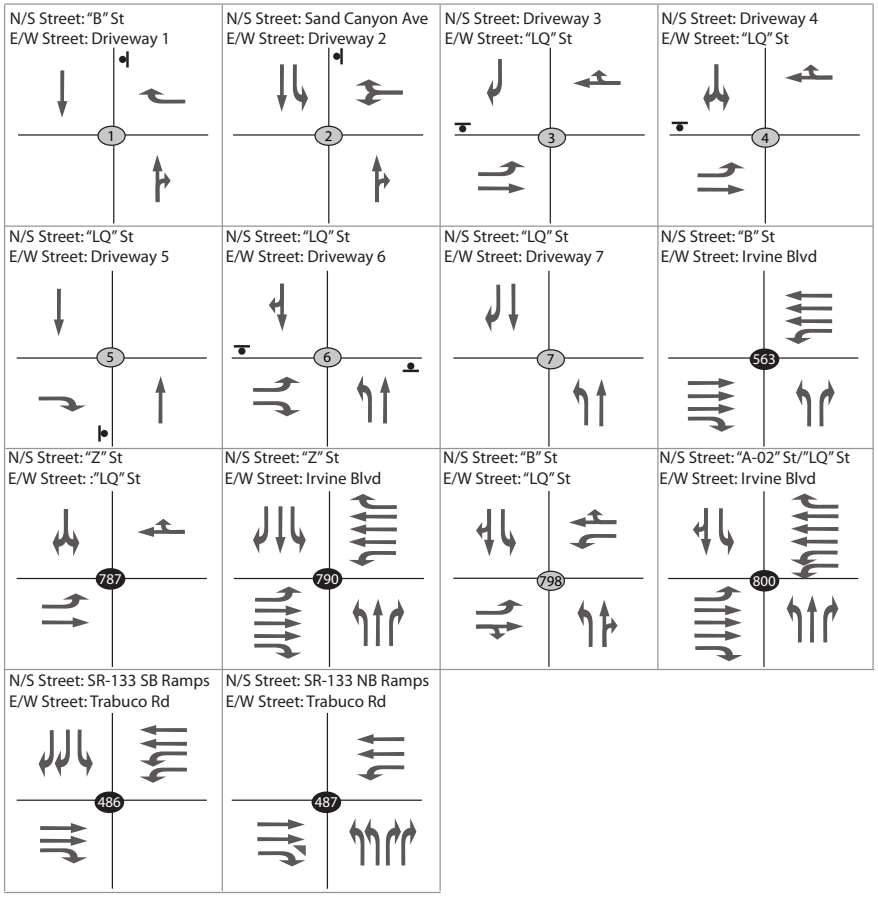
Year 2035 and Post 2035 Intersection Geometry and Control-2011 Modified Project Options 1 and 2





LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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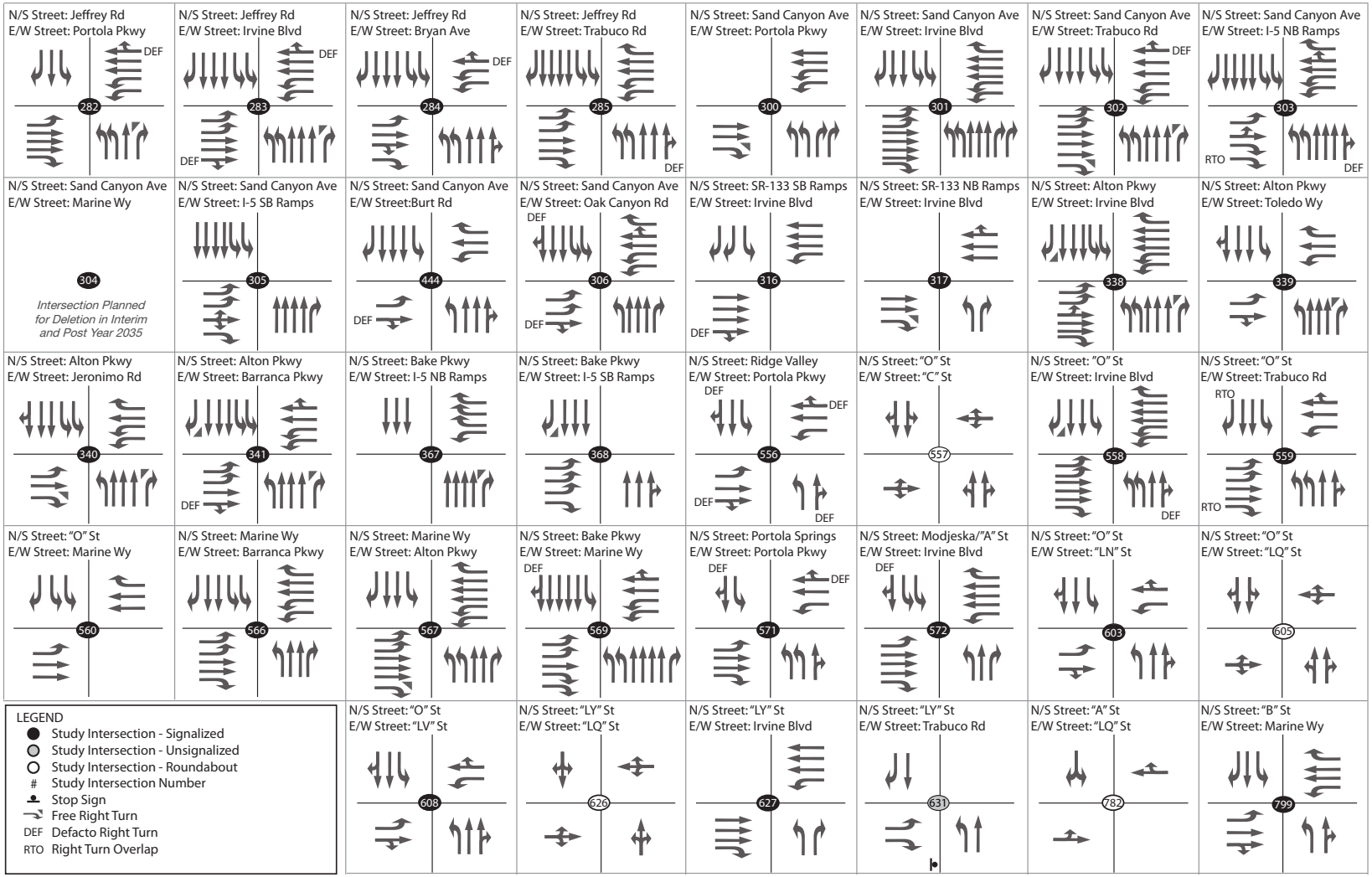
Year 2035 and Post 2035 Intersection Geometry and Control-2011 Modified Project Options 1 and 2



Source: IBI Group 2013

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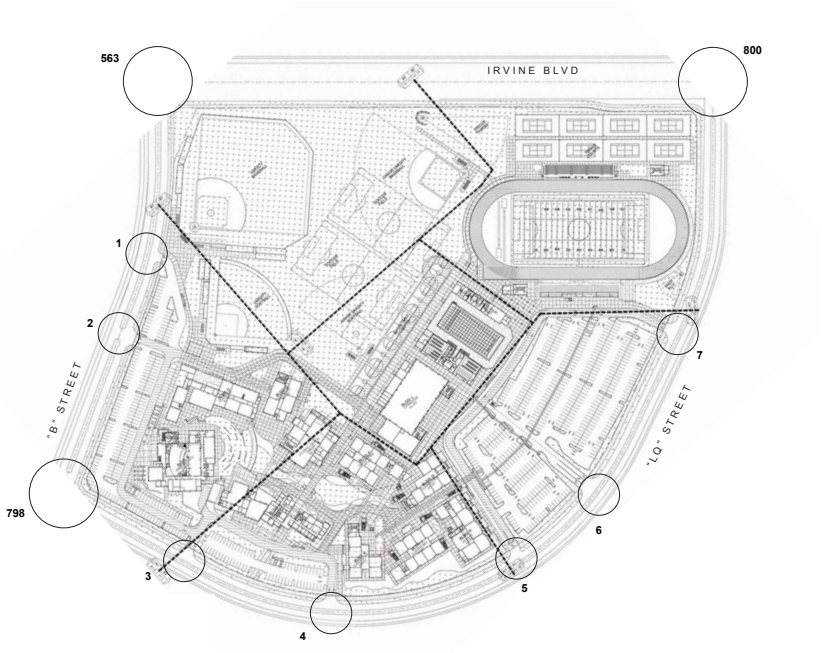
Year 2035 Peak Hour Volumes-2011 Approved Project-With Project



N/S Street: "B" St E/W Street: Driveway 1 223/48 0/0 0/0 0/0 7/4 0/0 → 1 ← 0/0 0/0 0/0 0/0 0/0 143/70	N/S Street: Sand Canyon Ave E/W Street: Driveway 2 89/19 0/0 134/29 0/0 42/21 0/0 → 2 ← 0/0 0/0 17/9 0/0 0/0 101/48	N/S Street: Driveway 3 E/W Street: "LQ" St 0/0 42/21 0/0 45/10 15/3 134/25 → 3 ← 84/43 0/0 0/0 0/0 0/0 0/0	N/S Street: Driveway 4 E/W Street: "LQ" St 0/0 10/5 3/2 59/13 7/5 74/13 → 4 ← 88/41 0/0 0/0 0/0 0/0 0/0
N/S Street: "LQ" St E/W Street: Driveway 5 43/19 0/0 0/0 0/0 0/0 0/0 → 5 ← 0/0 52/27 0/0 0/0 0/0 78/15	N/S Street: "LQ" St E/W Street: Driveway 6 22/8 171/37 0/0 154/79 0/0 0/0 → 6 ← 0/0 21/11 0/0 74/13 0/0 3/2	N/S Street: "LQ" St E/W Street: Driveway 7 193/45 223/48 0/0 0/0 0/0 0/0 → 7 ← 0/0 0/0 0/0 0/0 0/0 157/81	N/S Street: "B" St E/W Street: Irvine Blvd 0/0 0/0 0/0 0/0 0/0 3282/2019 → 563 ← 2163/3222 417/96 183/91 166/224 48/152 0/0
N/S Street: "Z" St E/W Street: :"LQ" St 0/0 23/1 11/3 11/55 7/2 526/304 → 787 ← 287/382 0/0 0/0 0/0 0/0 0/0	N/S Street: "Z" St E/W Street: Irvine Blvd 34/20 135/80 219/64 39/82 36/114 3371/1998 → 790 ← 2241/3206 68/70 50/95 54/71 85/55 8/25	N/S Street: "B" St E/W Street: "LQ" St 356/119 17/9 89/19 7/2 101/48 476/286 → 798 ← 270/333 55/19 11/4 8/42 1/8 54/283	N/S Street: "A-02" St/"LQ" St E/W Street: Irvine Blvd 83/31 34/29 137/74 25/38 54/176 2869/2054 → 800 ← 2130/3035 531/168 480/324 196/236 254/411 24/82
N/S Street: SR-133 SB Ramps E/W Street: Trabuco Rd 0/0 426/225 242/184 0/0 0/0 856/1162 → 486 ← 1341/1369 421/374 376/359 0/0 0/0 0/0	N/S Street: SR-133 NB Ramps E/W Street: Trabuco Rd 0/0 0/0 0/0 0/0 0/0 1065/1134 → 487 ← 1416/1281 53/214 141/303 297/445 594/557 0/0		

LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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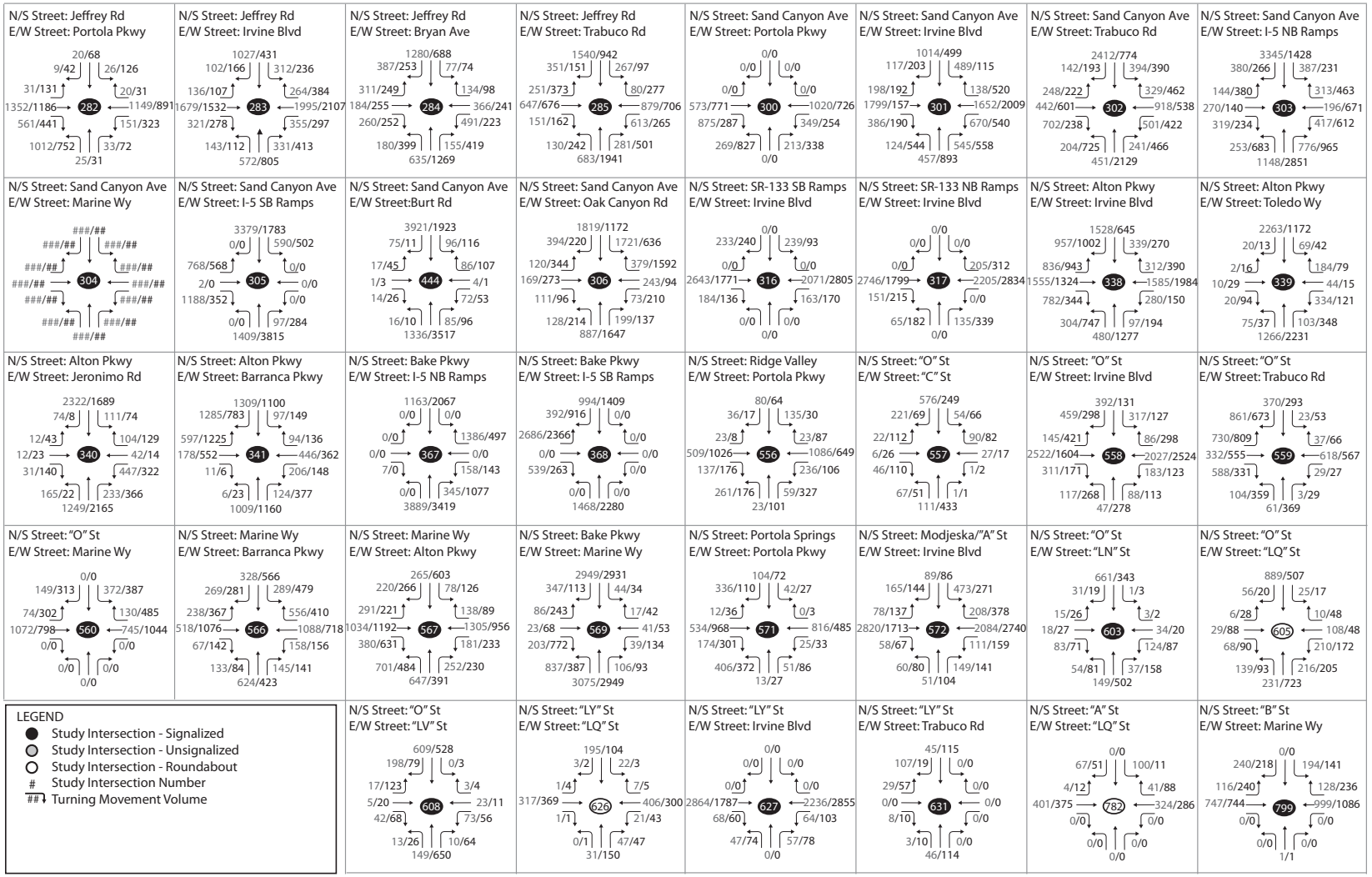
Year 2035 Peak Hour Volumes-2011 Approved Project-With Project



Source: IBI Group 2013

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2012 Modified Project Option 1

Year 2035 with project intersection volumes are shown in Figure 5.8-14. A summary of the LOS intersection analysis results for the 2035 with project condition is included in Tables 5.8-15a, b and c. The following three intersections would operate at a deficient LOS in the year 2017 under the 2012 Modified Project Option 1 Scenario:

- Sand Canyon Avenue and I-5 NB Ramps (#303) - LOS E (PM)
- Sand Canyon Avenue and I-5 SB Ramps (#305) - LOS F (AM)

Table 5.8-15a
Year 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.08	A	0.08	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.06	A	0.06	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.10	A	0.10	No
"LQ" St & Driveway 5	U	n/a	n/a	0.08	A	0.08	No
"LQ" St & Driveway 6	U	n/a	n/a	0.47	A	0.47	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.79	C	0.66	B	-0.13	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.74	C	0.74	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.76	C	0.76	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.69	B	0.69	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.44	A	0.44	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.77	C	0.79	C	0.02	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.80	D	0.82	D	0.02	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.88	D	0.89	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	**S**	**1.01**	**F**	**1.02**	**F**	**0.00**	**No**
Sand Canyon Ave & Burt Rd (#444)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.89	D	0.89	D	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.49	A	0.53	A	0.04	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.56	A	0.66	B	0.10	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.92	E	0.92	E	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.86	D	0.86	D	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.75	C	0.75	C	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.63	B	0.64	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.85	D	0.86	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.80	C	0.80	C	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.51	A	0.51	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.50	A	0.50	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.58	A	0.58	A	0.00	No
"O" St & "C" St (#557)	R	0.33	A	0.33	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.59	A	0.67	B	0.08	No
"O" St & Trabuco Rd (#559)	S	0.89	D	0.89	D	0.00	No

Table 5.8-15a
Year 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"O" St & Marine Way (#560)	S	0.55	A	0.55	A	0.00	No
"B" St & Irvine Blvd (#563)	S	0.59	A	0.74	C	0.15	No
Marine Way & Barranca Pkwy (#566)	S	0.68	B	0.68	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.70	C	0.71	C	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.83	D	0.84	D	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.60	A	0.60	B	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.62	B	0.71	C	0.09	No
"O" St & "LN" St (#603)	S	0.39	A	0.39	A	0.00	No
"O" St & "LQ" St (#605)	R	0.46	A	0.46	A	0.00	No
"O" St & "LV" St (#608)	S	0.35	A	0.35	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.41	A	0.42	A	0.02	No
"LY" St & Irvine Blvd (#627)	S	0.50	A	0.57	A	0.08	No
"LY" St & Trabuco Rd (#631)	U	0.03	A	0.03	A	0.00	No
"A" St & "LQ" St (#782)	R	0.33	A	0.35	A	0.02	No
"Z" St & "LQ" St (#787)	U	0.01	A	0.02	A	0.01	No
"Z" St & Irvine Blvd (#790)	S	0.65	B	0.75	C	0.10	No
"B" St & "LQ" St (#798)	S	0.33	A	0.46	A	0.13	No
"B" St & Marine Way (#799)	S	0.77	C	0.77	C	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.81	D	0.82	D	0.01	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-15b
Year 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.02	A	0.02	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.03	A	0.03	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.02	A	0.02	No
"LQ" St & Driveway 5	U	n/a	n/a	0.04	A	0.04	No
"LQ" St & Driveway 6	U	n/a	n/a	0.14	A	0.14	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.01	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.76	C	0.76	C	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.72	C	0.72	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.70	B	0.70	B	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.60	A	0.60	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.79	C	0.79	C	0.02	No

Table 5.8-15b
Year 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Sand Canyon Ave & Trabuco Rd (#302)	S	0.82	D	0.83	D	0.03	No
Sand Canyon Ave & I-5 NB Ramps (#303)	**S**	**0.97**	**E**	**0.97**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.86	D	0.86	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.88	D	0.88	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.79	C	0.79	C	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.59	A	0.61	B	0.00	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.78	C	0.80	D	0.00	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.94	E	0.94	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.70	B	0.70	C	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.59	A	0.59	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.79	C	0.79	C	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.62	B	0.62	B	0.02	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.90	E	0.90	E	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.54	A	0.54	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.59	A	0.59	A	0.05	No
Ridge Valley & Portola Pkwy (#556)	S	0.56	A	0.56	A	0.00	No
“O” St & "C" St (#557)	R	0.26	A	0.26	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.78	C	0.80	D	0.00	No
“O” St & Trabuco Rd (#559)	S	0.77	C	0.77	C	0.00	No
“O” St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
“B” St & Irvine Blvd (#563)	S	0.72	C	0.77	C	0.05	No
Marine Way & Barranca Pkwy (#566)	S	0.64	B	0.65	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.63	B	0.63	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.76	C	0.76	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.50	A	0.51	A	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.76	C	0.78	C	0.02	No
“O” St & “LN” St (#603)	S	0.33	A	0.33	A	0.00	No
“O” St & “LQ” St (#605)	R	0.40	A	0.41	A	0.00	No
“O” St & “LV” St (#608)	S	0.34	A	0.34	A	0.00	No
“LY” St & “LQ” St (#626)	R	0.39	A	0.39	A	0.00	No
”LY” St & Irvine Blvd (#627)	S	0.62	B	0.63	B	0.02	No
“LY” St & Trabuco Rd (#631)	U	0.10	A	0.10	A	0.00	No
“A” St & “LQ” St (#782)	R	0.36	A	0.37	A	0.01	No
“Z” St & “LQ” St (#787)	U	0.02	A	0.02	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.73	C	0.76	C	0.02	No
“B” St & “LQ” St (#798)	S	0.40	A	0.41	A	0.01	No
“B” St & Marine Way (#799)	S	0.70	C	0.71	C	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.74	C	0.74	C	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-15c
Year 2035 AM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.00	A	0.00	No
"B" St & Driveway 2	U	0.00	A	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.05	A	0.05	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.76	C	0.76	C	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.72	C	0.72	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.70	B	0.70	C	0.01	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.60	A	0.60	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.79	C	0.79	C	0.00	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.82	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.97**	**E**	**0.97**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.86	D	0.87	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.88	D	0.88	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.79	C	0.79	C	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.59	A	0.61	B	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.78	C	0.81	D	0.04	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.94	E	0.94	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.70	B	0.70	C	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.59	A	0.60	A	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.79	C	0.80	C	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.62	B	0.62	B	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.90	E	0.90	E	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.54	A	0.54	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.59	A	0.59	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.56	A	0.56	A	0.00	No
"O" St & "C" St (#557)	R	0.26	A	0.26	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.78	C	0.80	D	0.02	No
"O" St & Trabuco Rd (#559)	S	0.77	C	0.77	C	0.00	No
"O" St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
"B" St & Irvine Blvd (#563)	S	0.72	C	0.76	C	0.04	No
Marine Way & Barranca Pkwy (#566)	S	0.64	B	0.65	B	0.01	No
Marine Way & Alton Pkwy (#567)	S	0.63	B	0.64	B	0.01	No
Bake Pkwy & Marine Way (#569)	S	0.76	C	0.76	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.50	A	0.50	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.76	C	0.78	C	0.02	No
"O" St & "LN" St (#603)	S	0.33	A	0.33	A	0.00	No
"O" St & "LQ" St (#605)	R	0.40	A	0.41	A	0.00	No
"O" St & "LV" St (#608)	S	0.34	A	0.34	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.39	A	0.40	A	0.01	No
"LY" St & Irvine Blvd (#627)	S	0.62	B	0.63	B	0.01	No

Table 5.8-15c
Year 2035 AM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"LY" St & Trabuco Rd (#631)	U	0.10	A	0.10	A	0.00	No
"A" St & "LQ" St (#782)	R	0.36	A	0.38	A	0.02	No
"Z" St & "LQ" St (#787)	U	0.02	A	0.02	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.73	C	0.75	C	0.02	No
"B" St & "LQ" St (#798)	S	0.40	A	0.42	A	0.02	No
"B" St & Marine Way (#799)	S	0.70	C	0.70	C	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.74	C	0.74	C	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

2012 Modified Project Option 2

Year 2035 with project intersection volumes are shown in Figure 5.8-15. A summary of the level of service intersection analysis results for the 2035 with project condition is included in Table 5.8-16a, b and c. The following three intersections would operate at a deficient LOS in the year 2017 under the 2012 Modified Project Option 2 scenario:

- Sand Canyon Avenue and I-5 NB Ramps (#303) - LOS E (PM)
- Sand Canyon Avenue and I-5 SB Ramps (#305) - LOS F (AM)

Table 5.8-16a
Year 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U		A	0.01	A	0.01	No
"B" St & Driveway 2	U		A	0.08	A	0.08	No
Driveway 3 & "LQ" St	U		A	0.04	A	0.04	No
Driveway 4 & "LQ" St	U		A	0.05	A	0.05	No
"LQ" St & Driveway 5	U		A	0.06	A	0.06	No
"LQ" St & Driveway 6	U		A	0.17	A	0.17	No
"LQ" St & Driveway 7	U		A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.67	B	0.67	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.74	C	0.74	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.76	C	0.76	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.66	B	0.66	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.44	A	0.44	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.77	C	0.79	C	0.02	No

Table 5.8-16a
Year 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Sand Canyon Ave & Trabuco Rd (#302)	S	0.80	D	0.82	D	0.02	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & I-5 SB Ramps (#305)	S	**1.01**	**F**	**1.01**	**F**	**0.00**	**No**
Sand Canyon Ave & Burt Rd (#444)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.89	D	0.89	D	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.49	A	0.53	A	0.04	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.56	A	0.66	B	0.10	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.91	E	0.93	E	0.02	No
Alton Pkwy & Toledo Way (#339)	S	0.86	D	0.86	D	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.75	C	0.75	C	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.63	B	0.64	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.86	D	0.86	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.80	C	0.80	C	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.53	A	0.53	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.50	A	0.50	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.58	A	0.58	A	0.00	No
“O” St & "C" St (#557)	R	0.33	A	0.33	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.59	A	0.67	B	0.08	No
“O” St & Trabuco Rd (#559)	S	0.89	D	0.89	D	0.00	No
“O” St & Marine Way (#560)	S	0.55	A	0.55	A	0.00	No
“B” St & Irvine Blvd (#563)	S	0.59	A	0.74	C	0.15	No
Marine Way & Barranca Pkwy (#566)	S	0.69	B	0.69	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.70	C	0.70	C	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.83	D	0.84	D	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.60	B	0.60	B	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.62	B	0.71	C	0.09	No
“O” St & “LN” St (#603)	S	0.39	A	0.39	A	0.00	No
“O” St & “LQ” St (#605)	R	0.45	A	0.45	A	0.00	No
“O” St & “LV” St (#608)	S	0.35	A	0.35	A	0.00	No
“LY” St & “LQ” St (#626)	R	0.41	A	0.42	A	0.01	No
”LY” St & Irvine Blvd (#627)	S	0.50	A	0.57	A	0.08	No
“LY” St & Trabuco Rd (#631)	U	0.02	A	0.02	A	0.00	No
“A” St & “LQ” St (#782)	R	0.34	A	0.36	A	0.02	No
“Z” St & “LQ” St (#787)	U	0.01	A	0.02	A	0.01	No
“Z” St & Irvine Blvd (#790)	S	0.65	B	0.75	C	0.10	No
“B” St & “LQ” St (#798)	S	0.33	A	0.47	A	0.13	No
“B” St & Marine Way (#799)	S	0.77	C	0.77	C	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.81	D	0.82	D	0.01	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-16b
Year 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U		A	0.00	A	0.00	No
"B" St & Driveway 2	U		A	0.02	A	0.02	No
Driveway 3 & "LQ" St	U		A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U		A	0.01	A	0.01	No
"LQ" St & Driveway 5	U		A	0.03	A	0.03	No
"LQ" St & Driveway 6	U		A	0.06	A	0.06	No
"LQ" St & Driveway 7	U		A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.71	C	0.72	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.78	C	0.78	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.60	A	0.60	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.79	C	0.79	C	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.82	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.86	D	0.87	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.88	D	0.88	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.79	C	0.80	C	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.59	A	0.61	B	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.77	C	0.79	C	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.94	E	0.94	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.70	B	0.70	B	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.59	A	0.59	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.80	C	0.80	C	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.61	B	0.62	B	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.90	D	0.90	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.54	A	0.54	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.60	B	0.60	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.56	A	0.56	A	0.00	No
"O" St & "C" St (#557)	R	0.26	A	0.26	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.78	C	0.80	D	0.02	No
"O" St & Trabuco Rd (#559)	S	0.77	C	0.77	C	0.00	No
"O" St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
"B" St & Irvine Blvd (#563)	S	0.72	C	0.76	C	0.04	No
Marine Way & Barranca Pkwy (#566)	S	0.64	B	0.65	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.63	B	0.63	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.76	C	0.76	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.50	A	0.50	A	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.76	C	0.78	C	0.02	No
"O" St & "LN" St (#603)	S	0.32	A	0.32	A	0.00	No
"O" St & "LQ" St (#605)	R	0.42	A	0.42	A	0.00	No
"O" St & "LV" St (#608)	S	0.37	A	0.37	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.38	A	0.38	A	0.00	No
"LY" St & Irvine Blvd (#627)	S	0.62	B	0.63	B	0.02	No

Table 5.8-16b
Year 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"LY" St & Trabuco Rd (#631)	U	0.10	A	0.10	A	0.00	No
"A" St & "LQ" St (#782)	R	0.37	A	0.37	A	0.01	No
"Z" St & "LQ" St (#787)	U	0.03	A	0.03	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.74	C	0.76	C	0.02	No
"B" St & "LQ" St (#798)	S	0.40	A	0.41	A	0.01	No
"B" St & Marine Way (#799)	S	0.70	C	0.71	C	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.74	C	0.75	C	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-16c
Year 2035 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.00	A	0.00	No
"B" St & Driveway 2	U	0.00	A	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.05	A	0.05	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.64	B	0.64	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.71	C	0.72	C	0.01	No
Jeffrey Rd & Bryan Ave (#284)	S	0.78	C	0.79	C	0.01	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.78	C	0.78	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.60	A	0.60	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.79	C	0.79	C	0.00	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.82	D	0.83	D	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.86	D	0.87	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	0.88	D	0.88	D	0.00	No
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.79	C	0.80	C	0.01	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.59	A	0.60	B	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.77	C	0.80	D	0.04	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.94	E	0.94	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.70	B	0.70	C	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.59	A	0.60	A	0.01	No

Table 5.8-16c
Year 2035 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Alton Pkwy & Barranca Pkwy (#341)	S	0.80	C	0.80	D	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.61	B	0.62	B	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.90	D	0.90	E	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.54	A	0.54	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.60	B	0.60	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.56	A	0.56	A	0.00	No
“O” St & "C" St (#557)	R	0.26	A	0.26	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.78	C	0.80	D	0.02	No
“O” St & Trabuco Rd (#559)	S	0.77	C	0.77	C	0.00	No
“O” St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
“B” St & Irvine Blvd (#563)	S	0.72	C	0.76	C	0.04	No
Marine Way & Barranca Pkwy (#566)	S	0.64	B	0.65	B	0.01	No
Marine Way & Alton Pkwy (#567)	S	0.63	B	0.63	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.76	C	0.76	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.50	A	0.50	A	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.76	C	0.78	C	0.02	No
“O” St & “LN” St (#603)	S	0.32	A	0.32	A	0.00	No
“O” St & “LQ” St (#605)	R	0.42	A	0.42	A	0.00	No
“O” St & “LV” St (#608)	S	0.37	A	0.37	A	0.00	No
“LY” St & “LQ” St (#626)	R	0.38	A	0.39	A	0.01	No
”LY” St & Irvine Blvd (#627)	S	0.62	B	0.63	B	0.01	No
“LY” St & Trabuco Rd (#631)	U	0.10	A	0.10	A	0.00	No
“A” St & “LQ” St (#782)	R	0.37	A	0.38	A	0.02	No
“Z” St & “LQ” St (#787)	U	0.03	A	0.03	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.74	C	0.75	C	0.01	No
“B” St & “LQ” St (#798)	S	0.40	A	0.42	A	0.02	No
“B” St & Marine Way (#799)	S	0.70	C	0.70	C	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.74	C	0.74	C	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

5.8.5.5 Post 2035

Figures 5.8-11 and 5.8-12 show Year 2035 and Post 2035 intersection geometry and traffic control for the 2011 Approved Project scenario and the 2012 Modified Project Options 1 and 2 scenarios. Year 2017 peak hour volumes with stadium traffic for all scenarios are shown in Figures 8.7 through 8.9 of the *Traffic Study*, included as Appendix F of this DSEIR.

2011 Approved Project

Arterial Analysis

A summary of Post-2035 with project ADT volumes on study area arterials are listed in Table 5.8-17. Post-2035 With Project deficient segment locations under 2011 Approved Project scenario includes these five segments:

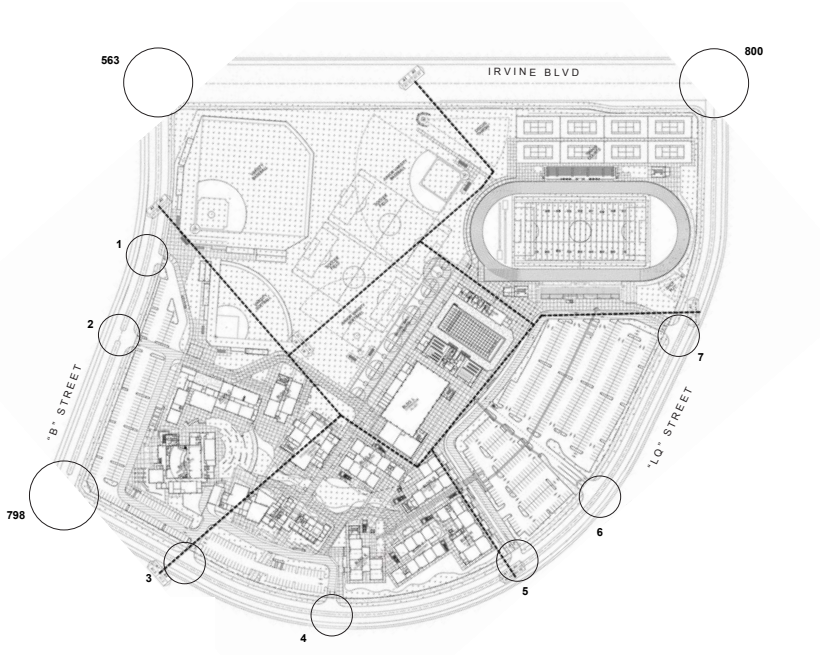
- Sand Canyon Ave: Portola Pkwy to Irvine Blvd - LOS E
- Sand Canyon Ave: Trabuco Rd to Marine Way - LOS E
- Portola Pkwy: Jeffrey Rd to Sand Canyon Ave - LOS E
- Irvine Boulevard: "Z" St to "B" St - LOS E
- Irvine Boulevard: "LQ" St to Alton Parkway - LOS F

Table 5.8-17

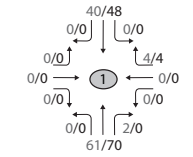
Post 2035 Deficient Arterial LOS

Street	*Limits*	*Lanes*	*Capacity*	*ADT*	*V/C*	*LOS*	*ADT*	*V/C*	*LOS*
2011 Approved Project									
Sand Canyon Ave	Portola Pkwy to Irvine Blvd	4D	32,000	28,921	0.900	D	29,141	0.910	**E**
Sand Canyon Ave	Trabuco Rd to Marine Way	8D	72,000	67,214	0.930	**E**	67,344	0.940	**E**
Portola Pkwy	Jeffrey Rd to Sand Canyon Ave	4D	32,000	29,653	0.930	**E**	29,693	0.930	**E**
Irvine Blvd	"Z" St to "B" St	6D	54,000	46,836	0.870	D	50,306	0.930	**E**
Irvine Blvd	LQ St to Alton Pkwy	6D	54,000	58,025	1.070	**F**	58,245	1.080	**F**
2012 Modified Project Options 1 and 2									
Sand Canyon Ave	Trabuco Rd to Marine Way	8D	72,000	66,568	0.920	**E**	66,698	0.930	**E**
Portola Pkwy	Jeffrey Rd to Sand Canyon Ave	4D	32,000	29,760	0.930	**E**	29,800	0.930	**E**
Irvine Blvd	"Z" St to "B" St	6D	54,000	48,772	0.900	D	51,442	0.950	**E**
Irvine Blvd	"LQ" St to Alton Pkwy	6D	54,000	54,206	1.000	**E**	54,426	1.010	**F**

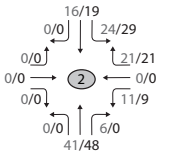
Year 2035 Peak Hour Volumes-2012 Modified Project Option 1-With Project



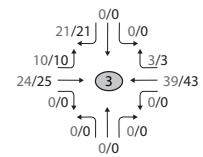
N/S Street: "B" St
E/W Street: Driveway 1



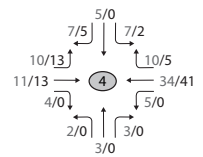
N/S Street: Sand Canyon Ave
E/W Street: Driveway 2



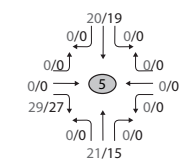
N/S Street: Driveway 3
E/W Street: "LQ" St



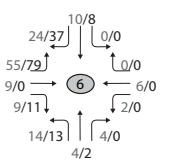
N/S Street: Driveway 4
E/W Street: "LQ" St



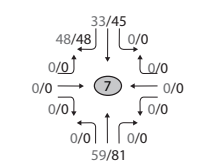
N/S Street: "LQ" St
E/W Street: Driveway 5



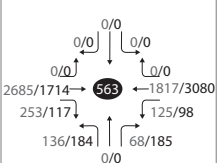
N/S Street: "LQ" St
E/W Street: Driveway 6



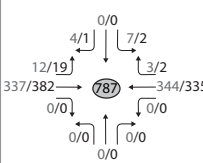
N/S Street: "LQ" St
E/W Street: Driveway 7



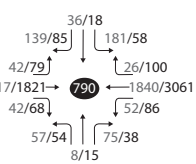
N/S Street: "B" St
E/W Street: Irvine Blvd



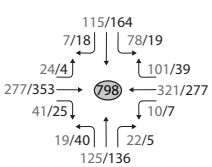
N/S Street: "Z" St
E/W Street: :"LQ" St



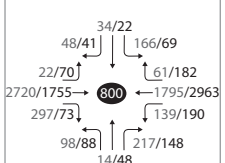
N/S Street: "Z" St
E/W Street: Irvine Blvd



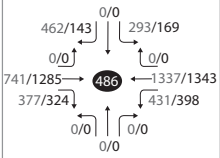
N/S Street: "B" St
E/W Street: "LQ" St



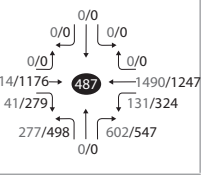
N/S Street: "A-02" St/"LQ" St
E/W Street: Irvine Blvd



N/S Street: SR-133 SB Ramps
E/W Street: Trabuco Rd



N/S Street: SR-133 NB Ramps
E/W Street: Trabuco Rd



LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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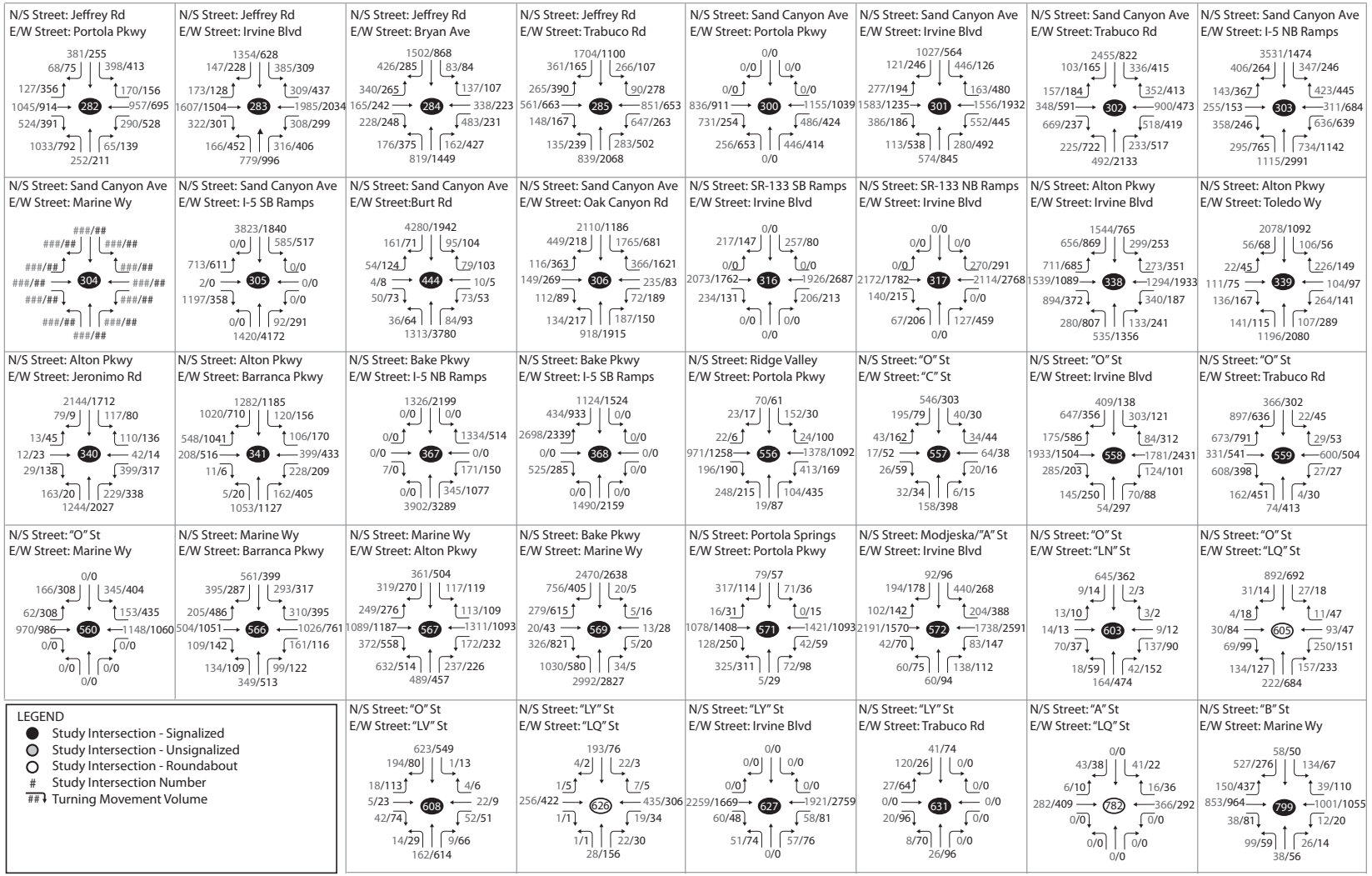
Year 2035 Peak Hour Volumes-2012 Modified Project Option 1-With Project



Source: IBI Group 2013

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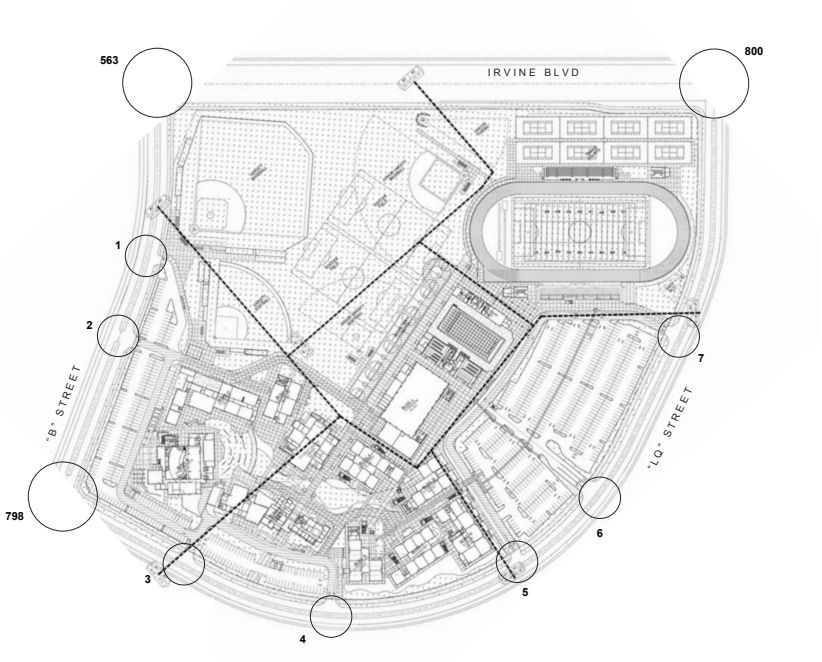
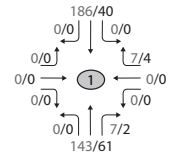
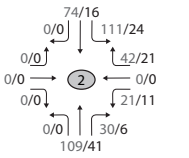
Year 2035 Peak Hour Volumes-2012 Modified Project Option 2-With Project



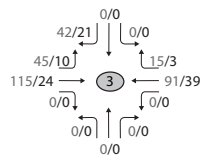
N/S Street: "B" St
E/W Street: Driveway 1



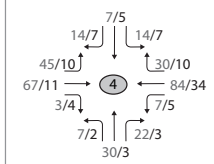
N/S Street: Sand Canyon Ave
E/W Street: Driveway 2



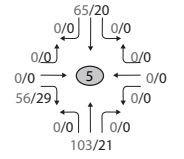
N/S Street: Driveway 3
E/W Street: "LQ" St



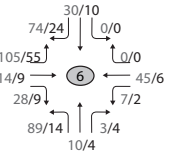
N/S Street: Driveway 4
E/W Street: "LQ" St



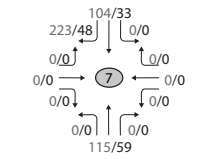
N/S Street: "LQ" St
E/W Street: Driveway 5



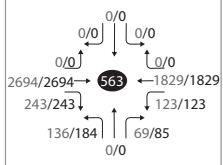
N/S Street: "LQ" St
E/W Street: Driveway 6



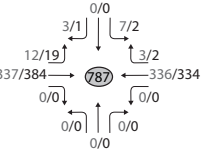
N/S Street: "LQ" St
E/W Street: Driveway 7



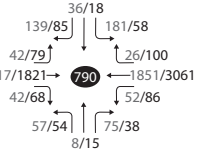
N/S Street: "B" St
E/W Street: Irvine Blvd



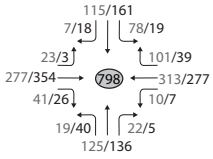
N/S Street: "Z" St
E/W Street: :"LQ" St



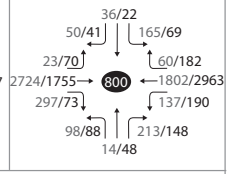
N/S Street: "Z" St
E/W Street: Irvine Blvd



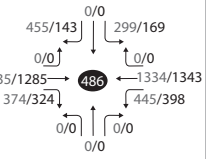
N/S Street: "B" St
E/W Street: "LQ" St



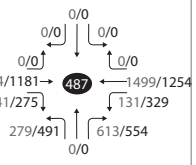
N/S Street: "A-02" St/"LQ" St
E/W Street: Irvine Blvd



N/S Street: SR-133 SB Ramps
E/W Street: Trabuco Rd



N/S Street: SR-133 NB Ramps
E/W Street: Trabuco Rd



LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

NOT TO SCALE

Source: IBI Group 2013

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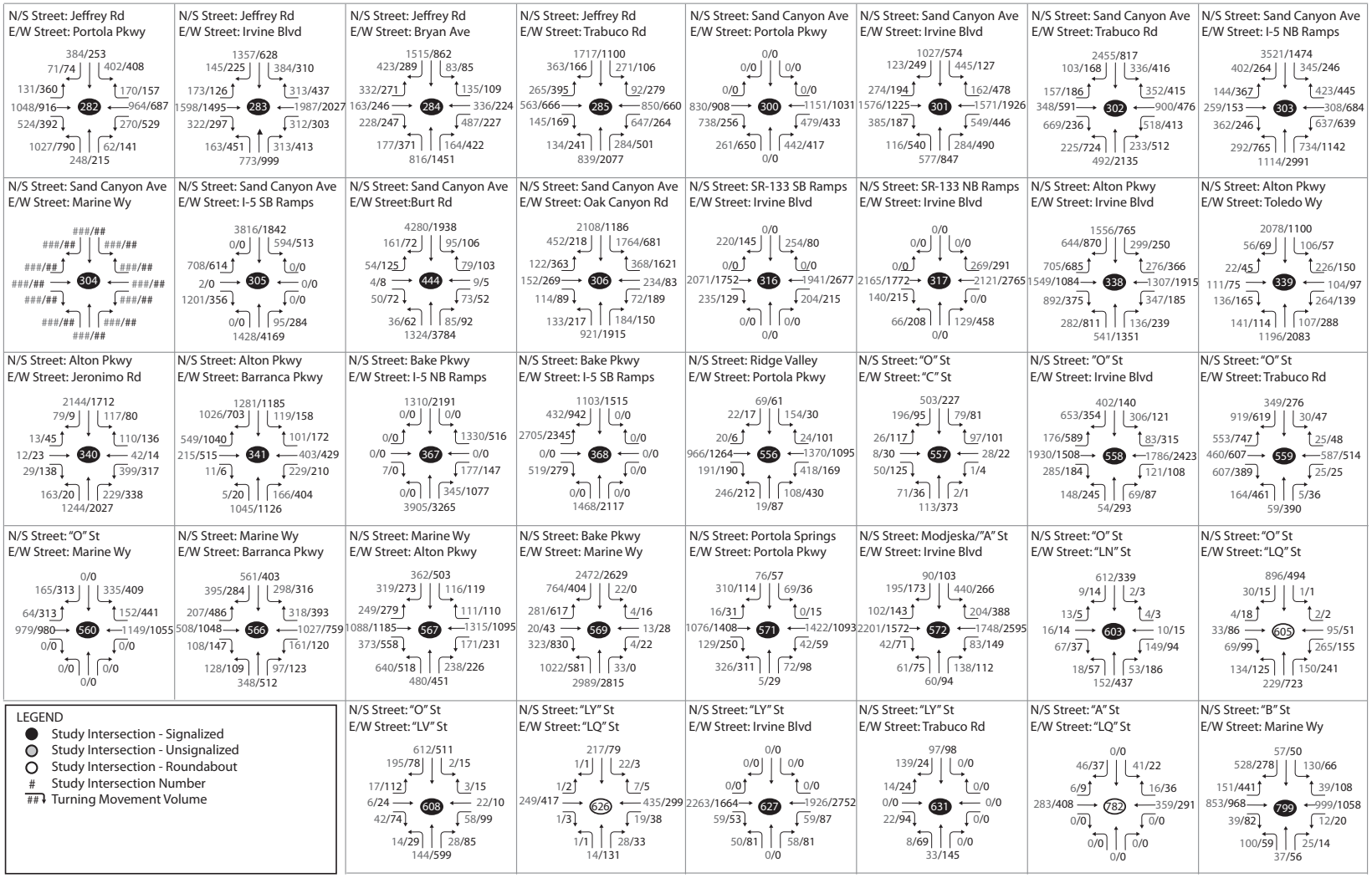
Year 2035 Peak Hour Volumes-2012 Modified Project Option 2-With Project



Source: IBI Group 2013

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Intersection Analysis

Post-2035 with project intersection volumes are shown in Figure 5.8-16. A summary of the level of service intersection analysis results for the Post-2035 with project condition is included in Table 5.8-18a, b and c. The following six intersections would operate at a deficient LOS in post 2035 under the 2011 Approved Project scenario. This scenario has one project impact at the intersection of "LQ" Street and Irvine Boulevard (#800):

- Sand Canyon Avenue and I-5 NB Ramps (#303) - LOS E (AM) and LOS F (PM)
- Sand Canyon Avenue and I-5 SB Ramps (#305) - LOS F (AM)
- Sand Canyon Avenue and Burt Road (#444) - LOS E (AM and PM)
- Sand Canyon Avenue and Oak Canyon Road (#306) - LOS E (AM)
- "A-02" Street/"LQ" Street and Irvine Boulevard (#800) - LOS E (AM)

Table 5.8-18a
Post 2035 AM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.09	A	0.09	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.06	A	0.06	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.05	A	0.05	No
"LQ" St & Driveway 5	U	n/a	n/a	0.08	A	0.08	No
"LQ" St & Driveway 6	U	n/a	n/a	0.58	A	0.58	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.73	C	0.73	C	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.79	C	0.80	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.78	C	0.79	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.70	B	0.70	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.65	B	0.52	A	-0.13	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.79	C	0.85	D	0.05	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.81	D	0.84	D	0.02	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.98**	**E**	**0.98**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	**1.07**	**F**	**1.07**	**F**	**0.00**	**No**
Sand Canyon Ave & Burt Rd (#444)	S	**0.94**	**E**	**0.94**	**E**	**0.00**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	**0.94**	**E**	**0.94**	**E**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.61	B	0.69	B	0.08	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.74	C	0.86	D	0.13	No
Alton Pkwy & Irvine Blvd* (#338)	S	1.00	E	1.00	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.73	C	0.74	C	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.71	C	0.71	C	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.82	D	0.83	D	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.91	E	0.91	E	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.79	C	0.79	C	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.54	A	0.54	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.50	A	0.50	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.75	C	0.76	C	0.00	No

Table 5.8-18a
Post 2035 AM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"O" St & "C" St (#557)	R	0.37	A	0.37	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.79	C	0.88	D	0.09	No
"O" St & Trabuco Rd (#559)	S	0.82	D	0.82	D	0.00	No
"O" St & Marine Way (#560)	S	0.46	A	0.46	A	0.00	No
"B" St & Irvine Blvd (#563)	S	0.73	C	0.89	D	0.16	No
Marine Way & Barranca Pkwy (#566)	S	0.67	B	0.67	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.67	B	0.67	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.73	C	0.74	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.75	C	0.75	C	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.75	C	0.86	D	0.12	No
"O" St & "LN" St (#603)	S	0.42	A	0.42	A	0.00	No
"O" St & "LQ" St (#605)	R	0.45	A	0.45	A	0.00	No
"O" St & "LV" St (#608)	S	0.38	A	0.38	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.45	A	0.47	A	0.03	No
"LY" St & Irvine Blvd (#627)	S	0.67	B	0.77	C	0.10	No
"LY" St & Trabuco Rd (#631)	U	0.08	A	0.08	A	0.00	No
"A" St & "LQ" St (#782)	R	0.33	A	0.40	A	0.07	No
"Z" St & "LQ" St (#787)	U	0.06	A	0.09	A	0.03	No
"Z" St & Irvine Blvd (#790)	S	0.77	C	0.90	D	0.13	No
"B" St & "LQ" St (#798)	S	0.50	A	0.56	A	0.06	No
"B" St & Marine Way (#799)	S	0.46	A	0.46	A	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	**0.87**	**D**	**0.93**	**E**	**0.05**	**Yes**

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-18b
Post 2035 PM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	n/a	n/a	0.01	A	0.01	No
"B" St & Driveway 2	U	n/a	n/a	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	n/a	n/a	0.03	A	0.03	No
Driveway 4 & "LQ" St	U	n/a	n/a	0.01	A	0.01	No
"LQ" St & Driveway 5	U	n/a	n/a	0.04	A	0.04	No
"LQ" St & Driveway 6	U	n/a	n/a	0.33	A	0.33	No
"LQ" St & Driveway 7	U	n/a	n/a	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.79	C	0.79	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.80	D	0.80	D	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.64	B	0.64	B	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.82	D	0.83	D	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**1.08**	**F**	**1.08**	**F**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.87	D	0.87	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	**0.95**	**E**	**0.95**	**E**	**0.00**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.82	D	0.83	D	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.57	A	0.59	A	0.02	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	**0.88**	**D**	**0.91**	**E**	**0.03**	**No**
Alton Pkwy & Irvine Blvd* (#338)	S	0.98	E	0.98	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.68	B	0.74	C	0.06	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.58	A	0.59	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.79	C	0.80	C	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.59	A	0.59	A	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.85	D	0.85	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.55	A	0.55	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.59	A	0.59	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.73	C	0.73	C	0.00	No
"O" St & "C" St (#557)	R	0.25	A	0.25	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.86	D	0.88	D	0.02	No
"O" St & Trabuco Rd (#559)	S	0.80	C	0.80	C	0.00	No
"O" St & Marine Way (#560)	S	0.59	A	0.59	A	0.00	No
"B" St & Irvine Blvd (#563)	S	0.75	C	0.81	D	0.06	No
Marine Way & Barranca Pkwy (#566)	S	0.66	B	0.66	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.71	C	0.71	C	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.70	B	0.70	B	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.63	B	0.63	B	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.79	C	0.82	D	0.03	No
"O" St & "LN" St (#603)	S	0.38	A	0.38	A	0.00	No
"O" St & "LQ" St (#605)	R	0.41	A	0.41	A	0.00	No
"O" St & "LV" St (#608)	S	0.34	A	0.34	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.31	A	0.33	A	0.01	No

Table 5.8-18b
Post 2035 PM Peak Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
”LY” St & Irvine Blvd (#627)	S	0.68	B	0.70	B	0.02	No
“LY” St & Trabuco Rd (#631)	U	0.14	A	0.14	A	0.00	No
“A” St & “LQ” St (#782)	R	0.32	A	0.34	A	0.02	No
“Z” St & “LQ” St (#787)	U	0.08	A	0.09	A	0.01	No
“Z” St & Irvine Blvd (#790)	S	0.75	C	0.78	C	0.03	No
“B” St & “LQ” St (#798)	S	0.34	A	0.38	A	0.04	No
“B” St & Marine Way (#799)	S	0.58	A	0.58	A	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.76	C	0.81	D	0.05	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-18c
Post 2035 PM Peak With Stadium Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.00	A	0.00	No
"B" St & Driveway 2	U	0.00	A	0.04	A	0.04	No
Driveway 3 & “LQ” St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & “LQ” St	U	0.00	A	0.02	A	0.02	No
“LQ” St & Driveway 5	U	0.00	A	0.03	A	0.03	No
“LQ” St & Driveway 6	U	0.00	A	0.07	A	0.07	No
“LQ” St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.79	C	0.79	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.80	D	0.80	D	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.64	B	0.64	B	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.82	D	0.82	D	0.00	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**1.08**	**F**	**1.09**	**F**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.87	D	0.87	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	**0.95**	**E**	**0.95**	**E**	**0.00**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.82	D	0.83	D	0.01	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.57	A	0.58	A	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	**0.88**	**D**	**0.92**	**E**	**0.04**	**No**
Alton Pkwy & Irvine Blvd* (#338)	S	0.98	E	0.99	E	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.68	B	0.68	B	0.00	No

Table 5.8-18c
Post 2035 PM Peak With Stadium Intersection LOS Summary
(2011 Approved Project)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Alton Pkwy & Jeronimo Rd (#340)	S	0.58	A	0.59	A	0.01	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.79	C	0.80	C	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.59	A	0.59	A	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.85	D	0.85	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.55	A	0.55	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.59	A	0.59	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.73	C	0.73	C	0.00	No
“O” St & "C" St (#557)	R	0.25	A	0.25	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.86	D	0.88	D	0.02	No
“O” St & Trabuco Rd (#559)	S	0.80	C	0.80	C	0.00	No
“O” St & Marine Way (#560)	S	0.59	A	0.59	A	0.00	No
“B” St & Irvine Blvd (#563)	S	0.75	C	0.80	C	0.05	No
Marine Way & Barranca Pkwy (#566)	S	0.66	B	0.66	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.71	C	0.71	C	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.70	B	0.70	B	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.63	B	0.63	B	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.79	C	0.81	D	0.02	No
“O” St & “LN” St (#603)	S	0.38	A	0.38	A	0.00	No
“O” St & “LQ” St (#605)	R	0.41	A	0.41	A	0.00	No
“O” St & “LV” St (#608)	S	0.34	A	0.35	A	0.01	No
“LY” St & “LQ” St (#626)	R	0.31	A	0.32	A	0.01	No
”LY” St & Irvine Blvd (#627)	S	0.68	B	0.69	B	0.01	No
“LY” St & Trabuco Rd (#631)	U	0.14	A	0.14	A	0.00	No
“A” St & “LQ” St (#782)	R	0.32	A	0.34	A	0.02	No
“Z” St & “LQ” St (#787)	U	0.08	A	0.09	A	0.02	No
“Z” St & Irvine Blvd (#790)	S	0.75	C	0.77	C	0.02	No
“B” St & “LQ” St (#798)	S	0.34	A	0.38	A	0.04	No
“B” St & Marine Way (#799)	S	0.58	A	0.58	A	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.76	C	0.80	C	0.04	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

2012 Modified Project Option 1

Arterial Analysis

Table 5.8-17 includes the Post-2035 (2012 Modified Project Option 1) with project analysis summary results. Post-2035 With Project (2012 Modified Project Options 1) deficient segment locations include these four segments:

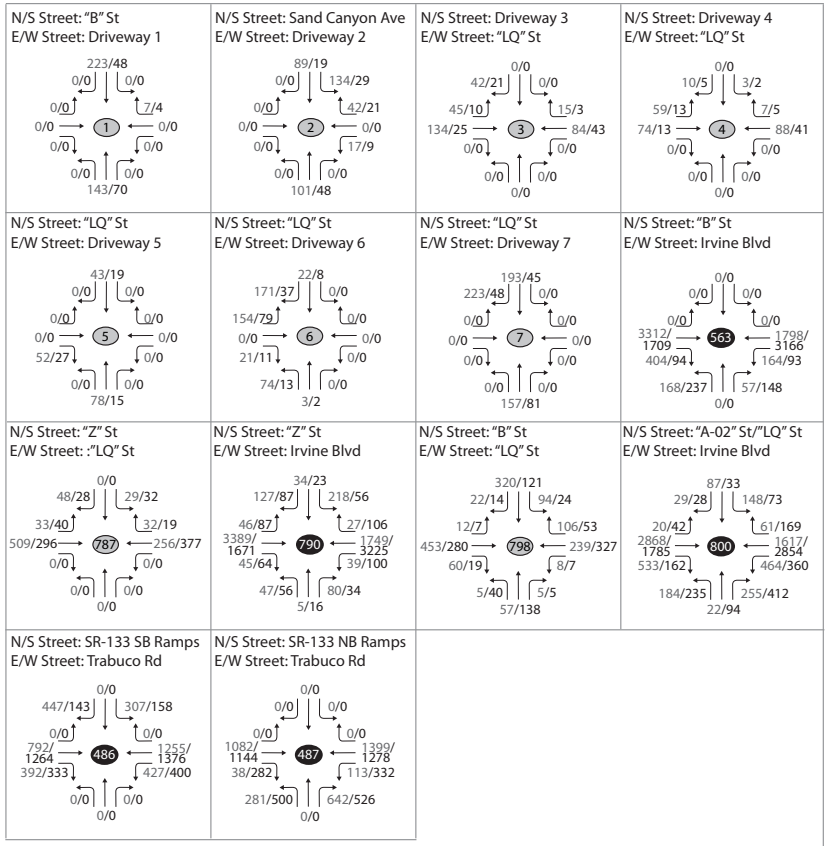
- Sand Canyon Ave: Trabuco Rd to Marine Way - LOS E
- Portola Pkwy: Jeffrey Rd to Sand Canyon Ave - LOS E
- Irvine Boulevard: "Z" St to "B" St - LOS E
- Irvine Boulevard: "LQ" St to Alton Parkway - LOS F

Intersection Analysis

Post-2035 with project intersection volumes are shown in Figure 5.8-17. A summary of the level of service intersection analysis results for the Post-2035 with project condition is included in Table 5.8-19a, b and c. The following seven intersections would operate at a deficient LOS in post 2035 under the 2012 Modified Project Option 1 Scenario:

- Sand Canyon Avenue and I-5 NB Ramps (#303) - LOS E (AM and PM)
- Sand Canyon Avenue and I-5 SB Ramps (#305) - LOS F (AM)
- Sand Canyon Avenue and Burt Road (#444) - LOS E (AM and PM)
- Sand Canyon Avenue and Oak Canyon Road (#306) - LOS E (AM)

Post Year 2035 Peak Hour Volumes-2011 Approved Project-With Project



LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

Source: IBI Group 2013

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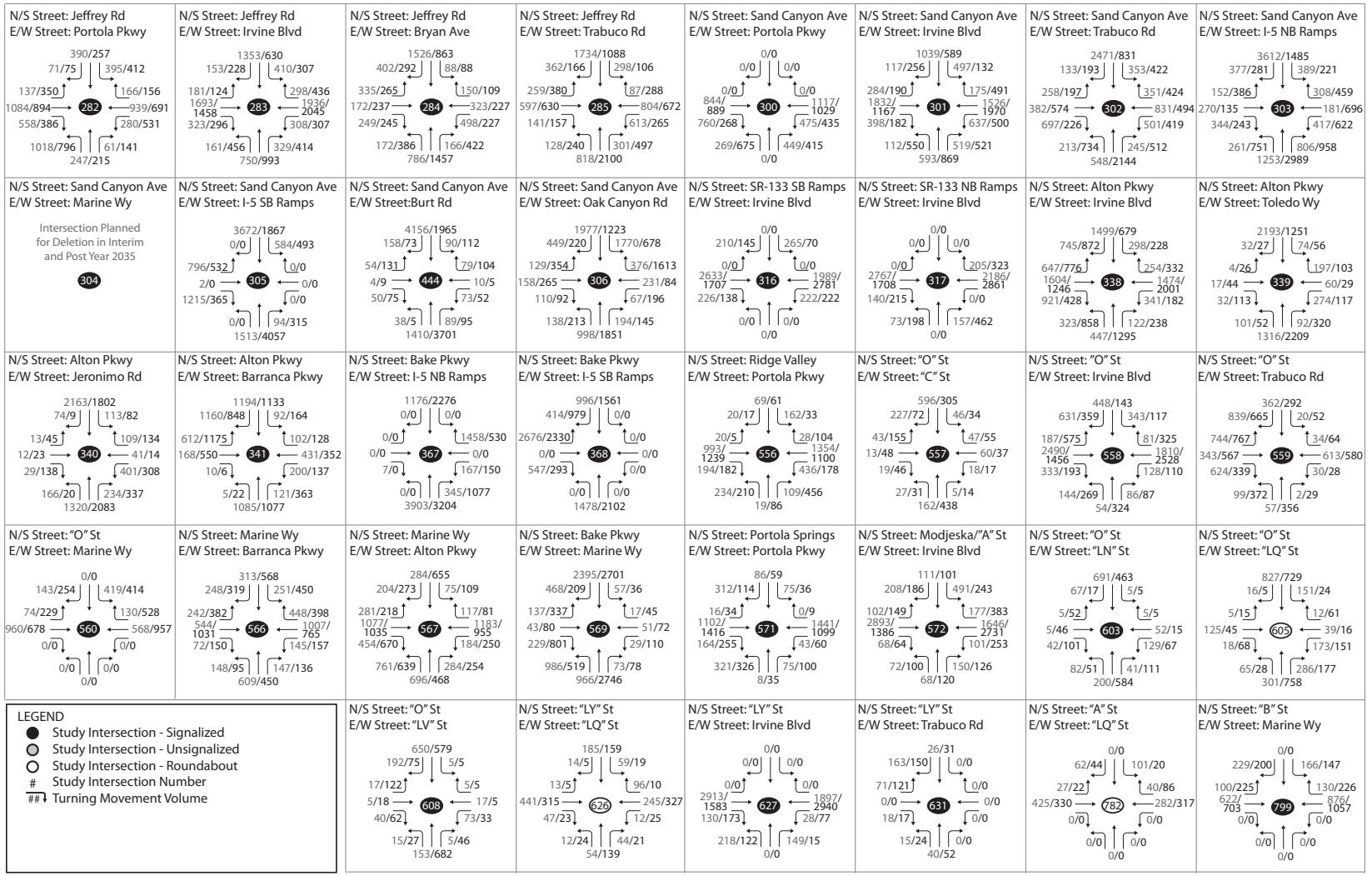
Post Year 2035 Peak Hour Volumes-2011 Approved Project-With Project



Source: IBI Group 2013

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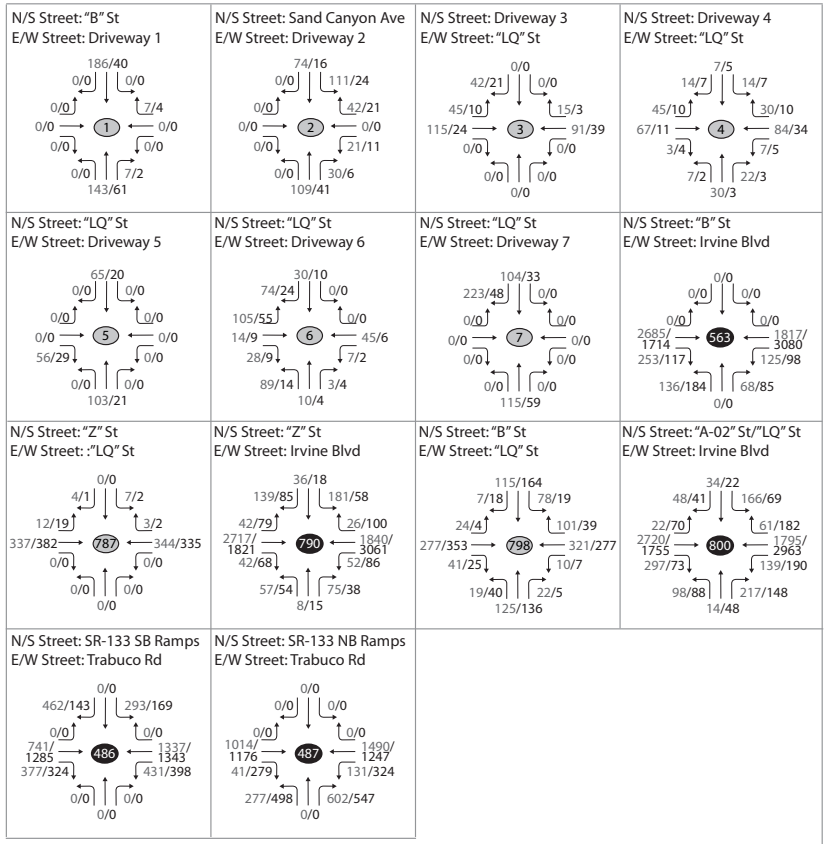
Post Year 2035 Peak Hour Volumes-2012 Modified Project Option 1-With Project



LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

Source: IBI Group 2013

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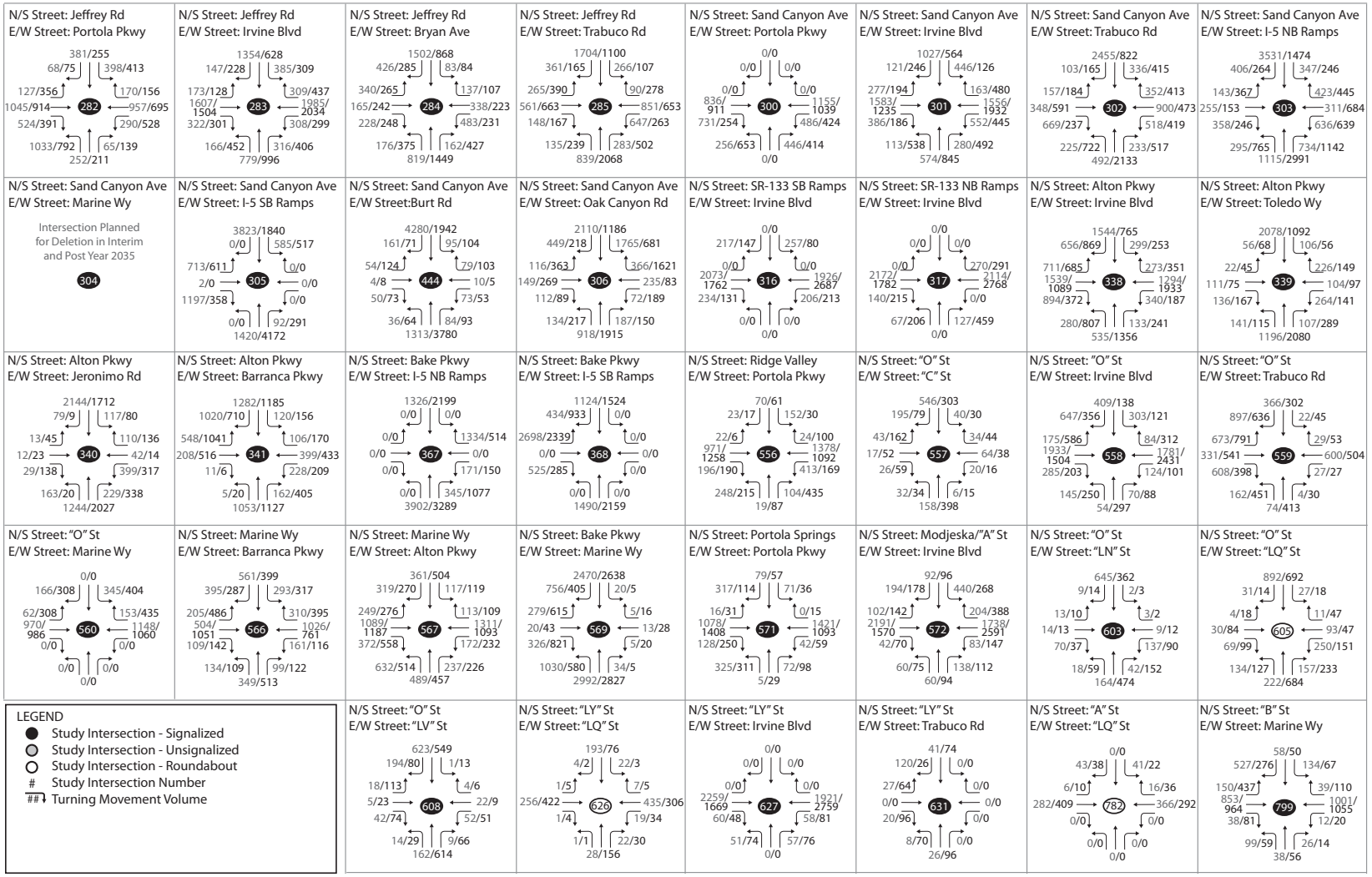
Post Year 2035 Peak Hour Volumes-2012 Modified Project Option 1-With Project



Source: IBI Group 2013

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Table 5.8-19a
Post 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U		A	0.01	A	0.01	No
"B" St & Driveway 2	U		A	0.08	A	0.08	No
Driveway 3 & "LQ" St	U		A	0.04	A	0.04	No
Driveway 4 & "LQ" St	U		A	0.05	A	0.05	No
"LQ" St & Driveway 5	U		A	0.06	A	0.06	No
"LQ" St & Driveway 6	U		A	0.17	A	0.17	No
"LQ" St & Driveway 7	S		A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.73	C	0.73	C	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.80	C	0.80	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.79	C	0.80	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.69	B	0.70	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.51	A	0.51	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.76	C	0.78	C	0.02	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.81	D	0.82	D	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.91**	**E**	**0.91**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	**1.07**	**F**	**1.07**	**F**	**0.00**	**No**
Sand Canyon Ave & Burt Rd (#444)	S	**0.96**	**E**	**0.97**	**E**	**0.01**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	**0.92**	**E**	**0.92**	**E**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.53	A	0.60	A	0.07	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.58	A	0.68	B	0.10	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.98	E	1.00	E	0.02	No
Alton Pkwy & Toledo Way (#339)	S	0.85	D	0.85	D	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.70	C	0.71	C	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.61	B	0.61	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.88	D	0.88	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.80	D	0.80	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.53	A	0.53	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.50	A	0.50	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	R	0.74	C	0.75	C	0.00	No
"O" St & "C" St (#557)	S	0.33	A	0.33	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.58	A	0.66	B	0.08	No
"O" St & Trabuco Rd (#559)	S	0.86	D	0.86	D	0.00	No
"O" St & Marine Way (#560)	S	0.53	A	0.53	A	0.00	No
"B" St & Irvine Blvd (#563)	S	0.58	A	0.73	C	0.15	No
Marine Way & Barranca Pkwy (#566)	S	0.68	B	0.68	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.70	B	0.70	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.82	D	0.82	D	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.75	C	0.75	C	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.61	B	0.70	C	0.09	No
"O" St & "LN" St (#603)	R	0.38	A	0.38	A	0.00	No
"O" St & "LQ" St (#605)	S	0.46	A	0.46	A	0.00	No
"O" St & "LV" St (#608)	R	0.36	A	0.36	A	0.00	No
"LY" St & "LQ" St (#626)	S	0.38	A	0.39	A	0.01	No
"LY" St & Irvine Blvd (#627)	U	0.48	A	0.56	A	0.08	No

Table 5.8-19a
Post 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"LY" St & Trabuco Rd (#631)	R	0.03	A	0.03	A	0.00	No
"A" St & "LQ" St (#782)	U	0.30	A	0.32	A	0.02	No
"Z" St & "LQ" St (#787)	S	0.01	A	0.02	A	0.01	No
"Z" St & Irvine Blvd (#790)	S	0.64	B	0.74	C	0.10	No
"B" St & "LQ" St (#798)	S	0.30	A	0.44	A	0.14	No
"B" St & Marine Way (#799)	S	0.73	C	0.73	C	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.81	D	0.82	D	0.01	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-19b
Post 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U		A	0.00	A	0.00	No
"B" St & Driveway 2	U		A	0.02	A	0.02	No
Driveway 3 & "LQ" St	U		A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U		A	0.01	A	0.01	No
"LQ" St & Driveway 5	U		A	0.03	A	0.03	No
"LQ" St & Driveway 6	U		A	0.06	A	0.06	No
"LQ" St & Driveway 7	S		A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.79	C	0.80	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.79	C	0.79	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.63	B	0.63	B	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.80	D	0.81	D	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.84	D	0.84	D	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.56	A	0.57	A	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.86	D	0.88	D	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.93	E	0.93	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.71	C	0.72	C	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.58	A	0.58	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.80	C	0.80	C	0.00	No

Table 5.8-19b
Post 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.60	A	0.60	A	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.86	D	0.86	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.56	A	0.56	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.60	A	0.60	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	R	0.72	C	0.72	C	0.00	No
“O” St & "C" St (#557)	S	0.27	A	0.27	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.84	D	0.86	D	0.02	No
“O” St & Trabuco Rd (#559)	S	0.78	C	0.78	C	0.00	No
“O” St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
“B” St & Irvine Blvd (#563)	S	0.72	C	0.76	C	0.05	No
Marine Way & Barranca Pkwy (#566)	S	0.66	B	0.66	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.65	B	0.65	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.77	C	0.77	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.62	B	0.62	B	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.76	C	0.78	C	0.02	No
“O” St & “LN” St (#603)	R	0.32	A	0.32	A	0.00	No
“O” St & “LQ” St (#605)	S	0.45	A	0.45	A	0.00	No
“O” St & “LV” St (#608)	R	0.35	A	0.35	A	0.00	No
“LY” St & “LQ” St (#626)	S	0.38	A	0.38	A	0.00	No
”LY” St & Irvine Blvd (#627)	U	0.62	B	0.63	B	0.02	No
“LY” St & Trabuco Rd (#631)	R	0.10	A	0.10	A	0.00	No
“A” St & “LQ” St (#782)	U	0.35	A	0.35	A	0.01	No
“Z” St & “LQ” St (#787)	S	0.02	A	0.02	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.72	C	0.74	C	0.02	No
“B” St & “LQ” St (#798)	S	0.39	A	0.41	A	0.01	No
“B” St & Marine Way (#799)	S	0.70	B	0.70	B	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	U	0.74	C	0.74	C	0.00	No

Source: Urban Crossroads, 2012.
Bold = Deficient Intersection
[1]. Fully Funded (F), Partially Funded (P)

Table 5.8-19c
Post 2035 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.00	A	0.00	No
"B" St & Driveway 2	U	0.00	A	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.05	A	0.05	No
"LQ" St & Driveway 7	S	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.79	C	0.80	C	0.01	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.79	C	0.80	C	0.01	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.63	B	0.64	B	0.01	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.80	D	0.81	D	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.89	D	0.90	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.84	D	0.84	D	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.56	A	0.57	A	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.86	D	0.89	D	0.04	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.93	E	0.93	E	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.71	C	0.72	C	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.58	A	0.58	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.80	C	0.80	D	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.60	A	0.60	A	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.86	D	0.86	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.56	A	0.56	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.60	A	0.60	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	R	0.72	C	0.72	C	0.00	No
"O" St & "C" St (#557)	S	0.27	A	0.27	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.84	D	0.86	D	0.02	No
"O" St & Trabuco Rd (#559)	S	0.78	C	0.78	C	0.00	No
"O" St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
"B" St & Irvine Blvd (#563)	S	0.72	C	0.76	C	0.04	No
Marine Way & Barranca Pkwy (#566)	S	0.66	B	0.66	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.65	B	0.65	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.77	C	0.77	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.62	B	0.62	B	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.76	C	0.77	C	0.01	No
"O" St & "LN" St (#603)	R	0.32	A	0.32	A	0.00	No
"O" St & "LQ" St (#605)	S	0.45	A	0.45	A	0.00	No
"O" St & "LV" St (#608)	R	0.34	A	0.34	A	0.00	No
"LY" St & "LQ" St (#626)	S	0.38	A	0.38	A	0.01	No
"LY" St & Irvine Blvd (#627)	U	0.62	B	0.63	B	0.01	No

Table 5.8-19c
Post 2035 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 1)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"LY" St & Trabuco Rd (#631)	R	0.10	A	0.10	A	0.00	No
"A" St & "LQ" St (#782)	U	0.35	A	0.36	A	0.02	No
"Z" St & "LQ" St (#787)	S	0.02	A	0.02	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.72	C	0.74	C	0.02	No
"B" St & "LQ" St (#798)	S	0.39	A	0.41	A	0.02	No
"B" St & Marine Way (#799)	S	0.70	B	0.70	B	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	U	0.74	C	0.74	C	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

2012 Modified Project Option 2

Arterial Analysis

Table 5.8-17 includes the Post-2035 (2012 Modified Project Option 1) with project analysis summary results. Post-2035 With Project (2012 Modified Project Options 1) deficient segment locations include these four segments:

- Sand Canyon Ave: Trabuco Rd to Marine Way - LOS E
- Portola Pkwy: Jeffrey Rd to Sand Canyon Ave - LOS E
- Irvine Boulevard: "Z" St to "B" St - LOS E
- Irvine Boulevard: "LQ" St to Alton Parkway - LOS F

Intersection Analysis

Post-2035 with project intersection volumes are shown in Figure 5.8-18. A summary of the LOS intersection analysis results for the Post-2035 with project condition is included in Tables 5.8-20a, b and c. The following seven intersections would operate at a deficient LOS in post 2035 under the 2012 Modified Project Option 2 scenario:

- Sand Canyon Avenue and I-5 NB Ramps (#303) - LOS E (AM and PM)
- Sand Canyon Avenue and I-5 SB Ramps (#305) - LOS F (AM)
- Sand Canyon Avenue and Burt Road (#444) - LOS E (AM and PM)
- Sand Canyon Avenue and Oak Canyon Road (#306) - LOS E (AM)

Table 5.8-20a
Post 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U		A	0.01	A	0.01	No
"B" St & Driveway 2	U		A	0.08	A	0.08	No
Driveway 3 & "LQ" St	U		A	0.04	A	0.04	No
Driveway 4 & "LQ" St	U		A	0.05	A	0.05	No
"LQ" St & Driveway 5	U		A	0.06	A	0.06	No
"LQ" St & Driveway 6	U		A	0.17	A	0.17	No
"LQ" St & Driveway 7	U		A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.73	C	0.73	C	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.80	D	0.80	D	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.79	C	0.79	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.70	B	0.70	B	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.51	A	0.51	A	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.76	C	0.78	C	0.02	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.81	D	0.82	D	0.01	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.91**	**E**	**0.91**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	**1.07**	**F**	**1.07**	**F**	**0.00**	**No**
Sand Canyon Ave & Burt Rd (#444)	S	**0.96**	**E**	**0.97**	**E**	**0.01**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	**0.92**	**E**	**0.92**	**E**	**0.00**	**No**
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.53	A	0.59	A	0.07	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.58	A	0.68	B	0.10	No
Alton Pkwy & Irvine Blvd* (#338)	**S**	0.99	E	1.00	E	0.01	No
Alton Pkwy & Toledo Way (#339)	S	0.85	D	0.85	D	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.70	C	0.71	C	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.61	B	0.61	B	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.88	D	0.88	D	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.80	C	0.80	C	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.54	A	0.54	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.51	A	0.51	A	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.74	C	0.75	C	0.00	No
"O" St & "C" St (#557)	R	0.33	A	0.33	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.58	A	0.66	B	0.08	No
"O" St & Trabuco Rd (#559)	S	0.86	D	0.86	D	0.00	No
"O" St & Marine Way (#560)	S	0.52	A	0.52	A	0.00	No
"B" St & Irvine Blvd (#563)	S	0.58	A	0.73	C	0.15	No
Marine Way & Barranca Pkwy (#566)	S	0.67	B	0.67	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.70	B	0.70	C	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.82	D	0.82	D	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.75	C	0.75	C	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.61	B	0.70	C	0.09	No
"O" St & "LN" St (#603)	S	0.38	A	0.38	A	0.00	No
"O" St & "LQ" St (#605)	R	0.45	A	0.45	A	0.00	No
"O" St & "LV" St (#608)	S	0.36	A	0.36	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.37	A	0.38	A	0.01	No
"LY" St & Irvine Blvd (#627)	S	0.48	A	0.56	A	0.08	No

Table 5.8-20a
Post 2035 AM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"LY" St & Trabuco Rd (#631)	U	0.02	A	0.02	A	0.00	No
"A" St & "LQ" St (#782)	R	0.29	A	0.31	A	0.02	No
"Z" St & "LQ" St (#787)	U	0.01	A	0.02	A	0.01	No
"Z" St & Irvine Blvd (#790)	S	0.64	B	0.74	C	0.10	No
"B" St & "LQ" St (#798)	S	0.30	A	0.44	A	0.14	No
"B" St & Marine Way (#799)	S	0.74	C	0.74	C	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.80	D	0.82	D	0.01	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

Table 5.8-20b
Post 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U		A	0.00	A	0.00	No
"B" St & Driveway 2	U		A	0.02	A	0.02	No
Driveway 3 & "LQ" St	U		A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U		A	0.01	A	0.01	No
"LQ" St & Driveway 5	U		A	0.03	A	0.03	No
"LQ" St & Driveway 6	U		A	0.06	A	0.06	No
"LQ" St & Driveway 7	U		A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.80	C	0.80	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.80	C	0.80	C	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.64	B	0.64	B	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.81	D	0.81	D	0.01	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.89	D	0.89	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.84	D	0.84	D	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.55	A	0.57	A	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.86	D	0.88	D	0.03	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.90	D	0.90	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.71	C	0.71	C	0.00	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.58	A	0.58	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.80	C	0.80	C	0.00	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.59	A	0.59	A	0.00	No

Table 5.8-20b
Post 2035 PM Peak Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.86	D	0.86	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.56	A	0.56	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.61	B	0.61	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.72	C	0.72	C	0.00	No
“O” St & "C" St (#557)	R	0.26	A	0.26	A	0.00	No
Ridge Valley/”O” St & Irvine Blvd (#558)	S	0.84	D	0.86	D	0.02	No
“O” St & Trabuco Rd (#559)	S	0.77	C	0.77	C	0.00	No
“O” St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
“B” St & Irvine Blvd (#563)	S	0.71	C	0.76	C	0.05	No
Marine Way & Barranca Pkwy (#566)	S	0.66	B	0.66	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.65	B	0.65	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.77	C	0.77	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.62	B	0.62	B	0.00	No
Modjeska/”A” St & Irvine Blvd (#572)	S	0.76	C	0.78	C	0.02	No
“O” St & “LN” St (#603)	S	0.32	A	0.32	A	0.00	No
“O” St & “LQ” St (#605)	R	0.46	A	0.46	A	0.00	No
“O” St & “LV” St (#608)	S	0.38	A	0.38	A	0.00	No
“LY” St & “LQ” St (#626)	R	0.37	A	0.37	A	0.00	No
”LY” St & Irvine Blvd (#627)	S	0.62	B	0.64	B	0.02	No
“LY” St & Trabuco Rd (#631)	U	0.10	A	0.10	A	0.00	No
“A” St & “LQ” St (#782)	R	0.34	A	0.35	A	0.01	No
“Z” St & “LQ” St (#787)	U	0.02	A	0.02	A	0.00	No
“Z” St & Irvine Blvd (#790)	S	0.72	C	0.74	C	0.02	No
“B” St & “LQ” St (#798)	S	0.39	A	0.41	A	0.01	No
“B” St & Marine Way (#799)	S	0.70	B	0.70	C	0.00	No
“A-02” St/”LQ” St & Irvine Blvd (#800)	S	0.74	C	0.74	C	0.00	No

Source: Urban Crossroads, 2012.
Bold = Deficient Intersection
[1]. Fully Funded (F), Partially Funded (P)

Table 5.8-20c
Post 2035 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"B" St & Driveway 1	U	0.00	A	0.00	A	0.00	No
"B" St & Driveway 2	U	0.00	A	0.03	A	0.03	No
Driveway 3 & "LQ" St	U	0.00	A	0.02	A	0.02	No
Driveway 4 & "LQ" St	U	0.00	A	0.02	A	0.02	No
"LQ" St & Driveway 5	U	0.00	A	0.03	A	0.03	No
"LQ" St & Driveway 6	U	0.00	A	0.05	A	0.05	No
"LQ" St & Driveway 7	U	0.00	A	0.00	A	0.00	No
Jeffrey Rd & Portola Pkwy (#282)	S	0.68	B	0.68	B	0.00	No
Jeffrey Rd & Irvine Blvd (#283)	S	0.77	C	0.77	C	0.00	No
Jeffrey Rd & Bryan Ave (#284)	S	0.80	C	0.80	C	0.00	No
Jeffrey Rd & Trabuco Rd (#285)	S	0.80	C	0.80	D	0.00	No
Sand Canyon Ave & Portola Pkwy (#300)	S	0.64	B	0.64	B	0.00	No
Sand Canyon Ave & Irvine Blvd (#301)	S	0.81	D	0.81	D	0.00	No
Sand Canyon Ave & Trabuco Rd (#302)	S	0.83	D	0.83	D	0.00	No
Sand Canyon Ave & I-5 NB Ramps (#303)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & I-5 SB Ramps (#305)	S	0.89	D	0.90	D	0.00	No
Sand Canyon Ave & Burt Rd (#444)	S	**0.96**	**E**	**0.96**	**E**	**0.00**	**No**
Sand Canyon Ave & Oak Cyn Rd (#306)	S	0.84	D	0.84	D	0.00	No
SR-133 SB Ramps & Irvine Blvd (#316)	S	0.55	A	0.56	A	0.01	No
SR-133 NB Ramps & Irvine Blvd* (#317)	S	0.86	D	0.89	D	0.04	No
Alton Pkwy & Irvine Blvd* (#338)	S	0.90	D	0.90	D	0.00	No
Alton Pkwy & Toledo Way (#339)	S	0.71	C	0.72	C	0.01	No
Alton Pkwy & Jeronimo Rd (#340)	S	0.58	A	0.58	A	0.00	No
Alton Pkwy & Barranca Pkwy (#341)	S	0.80	C	0.80	D	0.01	No
Bake Pkwy & I-5 NB Ramps* (#367)	S	0.59	A	0.59	A	0.00	No
Bake Pkwy & I-5/I-405 SB Ramps* (#368)	S	0.86	D	0.86	D	0.00	No
SR-133 SB Ramps & Trabuco Rd (#486)	S	0.56	A	0.56	A	0.00	No
SR-133 NB Ramps & Trabuco Rd (#487)	S	0.61	B	0.61	B	0.00	No
Ridge Valley & Portola Pkwy (#556)	S	0.72	C	0.72	C	0.00	No
"O" St & "C" St (#557)	R	0.26	A	0.26	A	0.00	No
Ridge Valley/"O" St & Irvine Blvd (#558)	S	0.84	D	0.86	D	0.02	No
"O" St & Trabuco Rd (#559)	S	0.77	C	0.77	C	0.00	No
"O" St & Marine Way (#560)	S	0.66	B	0.66	B	0.00	No
"B" St & Irvine Blvd (#563)	S	0.71	C	0.77	C	0.06	No
Marine Way & Barranca Pkwy (#566)	S	0.66	B	0.66	B	0.00	No
Marine Way & Alton Pkwy (#567)	S	0.65	B	0.65	B	0.00	No
Bake Pkwy & Marine Way (#569)	S	0.77	C	0.77	C	0.00	No
Portola Springs & Portola Pkwy (#571)	S	0.62	B	0.62	B	0.00	No
Modjeska/"A" St & Irvine Blvd (#572)	S	0.76	C	0.78	C	0.02	No
"O" St & "LN" St (#603)	S	0.32	A	0.32	A	0.00	No
"O" St & "LQ" St (#605)	R	0.46	A	0.47	A	0.00	No
"O" St & "LV" St (#608)	S	0.38	A	0.38	A	0.00	No
"LY" St & "LQ" St (#626)	R	0.37	A	0.38	A	0.01	No
"LY" St & Irvine Blvd (#627)	S	0.62	B	0.63	B	0.01	No

Table 5.8-20c
Post 2035 PM Peak With Stadium Intersection LOS Summary
(2012 Modified Project Option 2)

Intersection	Control	No Project		With Project		Change in V/C	Impact?
		V/C Delay	LOS	V/C Delay	LOS		
"LY" St & Trabuco Rd (#631)	U	0.10	A	0.10	A	0.00	No
"A" St & "LQ" St (#782)	R	0.34	A	0.36	A	0.02	No
"Z" St & "LQ" St (#787)	U	0.02	A	0.02	A	0.00	No
"Z" St & Irvine Blvd (#790)	S	0.72	C	0.74	C	0.02	No
"B" St & "LQ" St (#798)	S	0.39	A	0.41	A	0.02	No
"B" St & Marine Way (#799)	S	0.70	B	0.70	B	0.00	No
"A-02" St/"LQ" St & Irvine Blvd (#800)	S	0.74	C	0.74	C	0.00	No

Source: IBI Group 2013.
Bold = Deficient Intersection
U = Unsignalized Intersection; S = Signalized Intersection; R = Roundabout
*LOS E is acceptable.

5.8.5.6 Signal Warrant Analysis

A signal warrant analysis was conducted at all unsignalized study intersections per the Manual on Uniform Traffic Control Devices (MUTCD). Chapter 4 of the MUTCD includes criteria to determine if a traffic signal may be warranted at a stop-controlled or uncontrolled intersection. Traffic control may be needed if the criteria for one or more of the traffic signal warrants listed below are met. If none of the warrants are satisfied, then a traffic signal should not be installed. However, the satisfaction of a traffic signal warrant or warrants does not in itself require the installation of traffic control signal. A signal should not be installed if it will seriously disrupt progressive traffic flow or if it will not improve overall safety or operation of the intersection. The peak hour signal warrant calculations are provided in the Appendix F of the Traffic Study included in Appendix F of this DSEIR. Based on the forecast volumes, traffic signals are not warranted at all unsignalized study intersections and site access driveways for all analysis scenarios.

IMPACT 5.8-2: THE PROPOSED PROJECT WOULD NOT CONFLICT WITH THE ORANGE COUNTY CONGESTION MANAGEMENT PROGRAM. [IMPACTS T-2]

Impact Analysis: The Orange County Congestion Management Program (CMP) monitors the level of service at all designated CMP intersections in the County. Irvine Boulevard is designated as a CMP roadway within the study area. Two CMP intersections are located in the traffic study area for High School No. 5. These intersections are:

- Irvine Boulevard and the SR-133 NB Ramps
- Irvine Boulevard and the SR-133 SB Ramps

Table 5.8-21 summarizes the anticipated level of service for these two intersections with and without the project for each of the future analysis years. No significant traffic impacts are anticipated to CMP intersections as a result of the proposed High School No. 5. No mitigation measures are necessary under any of the scenarios. This assessment is applicable to both the 2011 Approved Project and the 2012 Modified Project.

Table 5.8-21
CMP Intersection Analysis

Intersection	AM Peak Hour NP V/C Delay/ LOS	AM Peak Hour WP V/C Delay/ LOS	AM Peak Hour Change in V/C	AM Peak Hour Impact?	PM Peak Hour NP V/C Delay/ LOS	PM Peak Hour WP V/C Delay/ LOS	PM Peak Hour Change in V/C	PM Peak Hour Impact?
Year 2017 (2011 Approved Project)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.55/ A	0.64/ B	0.09	No	0.49/ A	0.52/ A	0.02	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.63/ B	0.7 C	0.14	No	0.77/ C	0.80/ C	0.03	No
2017 (2012 Modified Project 1)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.43/ A	0.50/ A	0.08	No	0.45/ A	0.47/ A	0.02	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.44/ A	0.55/ A	0.11	No	0.68/ B	0.71/ C	0.03	No
2017 (2012 Modified Project 2)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.43/ A	0.51/ A	0.07	No	0.45/ A	0.47/ B	0.02	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.43/ A	0.54/ A	0.11	No	0.68/ B	0.72/ C	0.03	No
2035 (2011 Approved Project)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.55/ A	0.64 B	0.08	No	0.61/ B	0.63/ B	0.02	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.72/ C	0.84/ D	0.13	No	0.80/ C	0.83/ D	0.03	No
2035 (2012 Modified Project 1)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.49/ A	0.53/ A	0.04	No	0.59/ A	0.61/ B	0.02	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.56/ A	0.66/ B	0.10	No	0.78/ C	0.80/ C	0.03	No
2035 (2012 Modified Project 2)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.49/ A	0.53/ A	0.04	No	0.59/ A	0.61/ B	0.02	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.56/ A	0.66/ B	0.10	No	0.77/ C	0.79/ C	0.03	No
Post 2035 (2011 Approved Project)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.61/ B	0.69/ B	0.08	No	0.57/ A	0.59/ A	0.02	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.74/ C	0.86/ D	0.13	No	0.88/ D	0.91/ E	0.03	No
Post 2035 (2012 Modified Project 1)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.53/ A	0.60/ A	0.07	No	0.56/ A	0.57/ A	0.01	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.58/ A	0.68/ B	0.10	No	0.86/ D	0.88/ D	0.03	No
Post 2035 (2012 Modified Project 2)								
SR-133 SB Ramps at Irvine Blvd (#316)	0.53/ A	0.59/ A	0.07	No	0.55/ A	0.57/ A	0.01	No
SR-133 NB Ramps at Irvine Blvd (#317)	0.58/ A	0.68/ B	0.10	No	0.86/ D	0.88/ D	0.03	No

IMPACT 5.8-3: THE PROPOSED PROJECT WOULD NOT RESULT IN HAZARDOUS CONDITIONS DUE TO DESIGN FEATURES OR INADEQUATE EMERGENCY ACCESS. [IMPACTS T-4, T-5, T-6, AND T-8]

Impact Analysis: The concentrated levels of traffic that would occur at the school's starting and ending times, the increased number of pedestrians and bicycles in the area, and the vehicular turning movements that would occur at the school driveways, at the nearby intersections, and in the general vicinity of the school could potentially result in an increased number of vehicle-pedestrian conflicts and a corresponding increase in the probability of an accident occurring. However, these issues are typical for new school development and could be mitigated through providing school area signs and crosswalks.

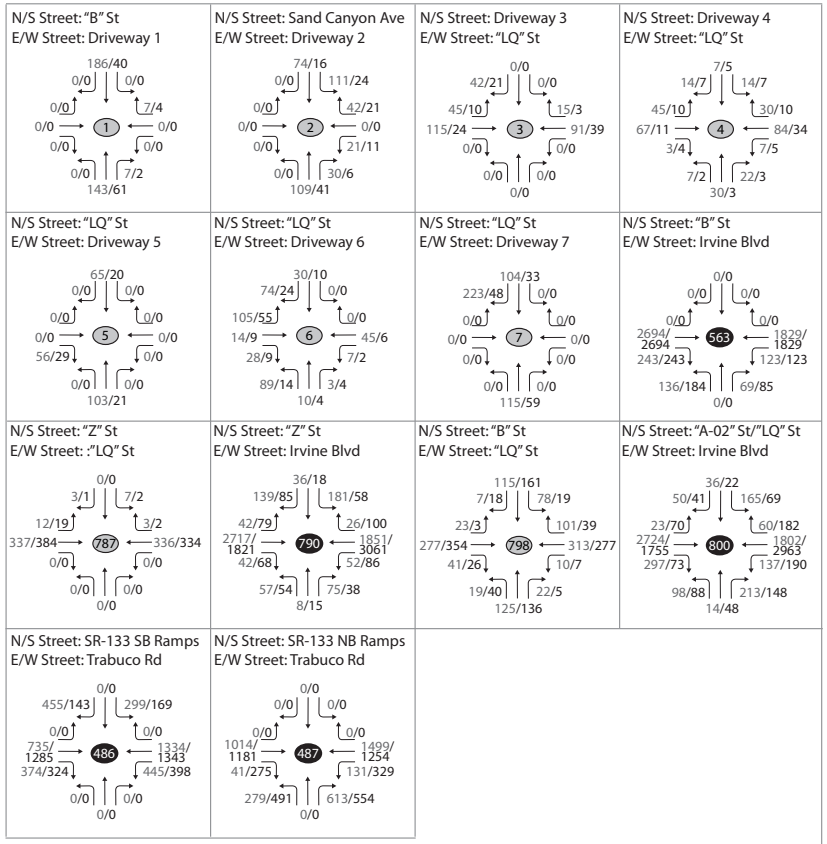
The standard practice of installing school area warning signs to notify drivers that they are entering a school zone and yellow school crosswalks at the signalized intersections near the school site would reduce hazardous conditions due to design features. Typical examples would be "School – Speed Limit 25 – When Children Are Present" sign.

Additionally, the Project Site would have seven unsignalized access driveways located along "B" Street and "LQ" Street. Three additional signalized intersections are proposed along Irvine Boulevard at "B" Street and "LQ" Street, and at the intersection of "B" Street and "LQ" Street. These access points are proposed to serve a maximum capacity of 2,600 students and school employees that will utilize the facility during the school year. All access intersections are forecast to operate at an acceptable level of service during all analysis scenarios and both peak hour periods. Therefore, no site access impacts have been identified and no significant impacts are anticipated.

Visibility at Driveways

Sight distance is the continuous length of highway ahead, visible to the highway user. There are four types of sight distance to consider, including passing, stopping, decision, and corner. Passing sight distance is used where use of an opposing lane can provide passing opportunities. Stopping sight distance is the minimum sight distance for a given design speed to be provided on multilane highways and on 2-lane roads when passing sight distance is not obtainable. Stopping sight distance also is to be provided for all users, including motorists and bicyclists, at all elements of intersections at grade, including private road connections. Decision sight distance is used at major decision points, and corner sight distance is used at intersections. Sight distance analysis involves establishing the needed sight triangle in each quadrant by determining the legs of the triangle on the two crossing roadways.

Post Year 2035 Peak Hour Volumes-2012 Modified Project Option 2-With Project



LEGEND
- Study Intersection - Signalized
- Study Intersection - Unsignalized
- Study Intersection - Roundabout
- # Study Intersection Number
- Stop Sign
- Free Right Turn
- DEF Defacto Right Turn
- RTO Right Turn Overlap

Source: IBI Group 2013

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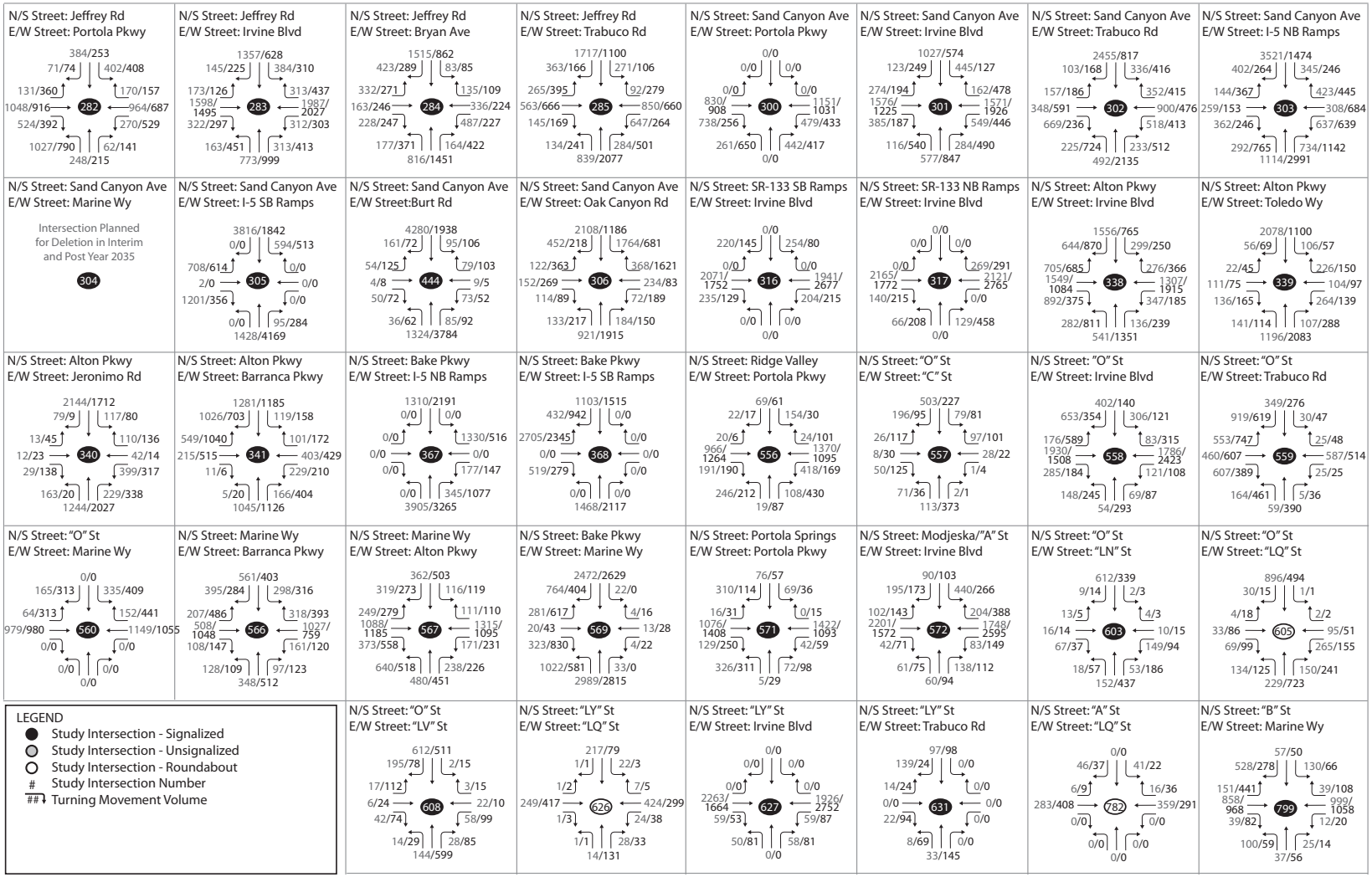
Post Year 2035 Peak Hour Volumes-2012 Modified Project Option 2-With Project



Source: IBI Group 2013

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Within this clear sight triangle, the objective is to remove or lower any object that obstructs the driver's view, if practical. Sight obstructions may include buildings, landscaping, fences, retaining walls, or the actual ground line. Table 5.8-22 shows the minimum standards for stopping and passing sight distance related to design speed for motorists per Caltrans Highway Design Manual and Table 8-23 shows the sight distance for the access roadways leading to the high school. Therefore, it is anticipated that the minimum peripheral visibility would be maintained per the Caltrans "Highway Design Manual," and a clear line of sight be maintained at intersections "B" St /Irvine Blvd (#563), "A-02" St/"LQ" St /Irvine Blvd (#800), and "A-02" St/"LQ" St / Irvine Blvd (#798). No significant impacts are anticipated.

Table 5.8-22
Sight Distance Minimum Standards

Design Speed (mph)	Stopping (ft)	Passing (ft)
20	125	800
25	150	950
30	200	1,100
35	250	1,300
40	300	1,500
45	360	1,650
50	430	1,800
55	500	1,950
60	580	2,100
65	660	2,300
70	750	2,500
75	840	2,600
80	930	2,700

Table 5.8-23
Sight Distance Minimum Standards

Street	Design Speed (mph)	Stopping (ft)	Passing (ft)
Irvine Blvd	55	500	1,950
"B" St	35	250	1,300
"LQ" St	35	250	1,300

The Project Site has street frontages on all sides but no access would be permitted via Irvine Boulevard. Circulation features at the Project Site would accommodate emergency and ingress and egress by emergency vehicles as required by the OCFA. All access features are subject to and must satisfy city's fire code. Compliance with the required fire code would ensure that adequate emergency access is provided.

This assessment is applicable to both the 2011 Approved Project and the 2012 Modified Project.

Mitigation Program and Net Impact

No additional mitigation measures are introduced here in this DSEIR as net impacts related to hazardous design features would be less than significant.

IMPACT 5.8-4: THE PROPOSED PROJECT COMPLIES WITH ADOPTED POLICIES, PLANS, AND PROGRAMS FOR ALTERNATIVE TRANSPORTATION. [IMPACT T-9]

Impact Analysis:

2011 Approved Project

The 2011 Approved Project has the goals for providing effective non-motorized transportation through enhanced local street connectivity, an extensive network of walkways and bikeways, and the arrangement of land uses for access by various modes of transportation. The Proposed Project would be compatible and have integrated circulation system with the rest of the Great Park Neighborhoods. The preliminary site plan for Irvine High School #5 shows landscaped pedestrian pathways throughout the school, with connections to the various surface parking facilities. Various Class 1 (Off-Street) and Class 2 (On-Street) bikeways would be provided throughout the 2011 Approved Project Site in accordance with the City of Irvine General Plan Trails Network. Irvine Boulevard, Alton Parkway, and Sand Canyon Avenue provide Class 2 on-street bike lanes and OCTA also provides bus services where bus stops are provided along various points of the Alton Parkway, Barranca Parkway, and Irvine Boulevard. The Project Site's proximity to Irvine Boulevard would provide various alternative transportation opportunities for school population. The high school would also provide bicycle lockers or racks on campus, as well as signage to increase awareness and safety of bicyclists and pedestrians. The Proposed Project would not conflict with the alternative transportation plans, policies, or programs compared to the 2011 Approved Project.

Mitigation Program and Net Impact

No mitigation measures are introduced here in this DSEIR as net impacts on alternative transportation would be less than significant.

2012 Modified Project

The Proposed Project was included in the 2012 Modified Project at the current location and the 2012 Modified Project improved connectivity to the new high school and expanded opportunities for bikeway and pedestrian facilities. The proposed high school was considered in conjunction with future maps/master plans and amendments to the Master Landscape and Trails Plan as part of the 2012 Modified Project. Under the 2012 Modified Project, additional Class 1 (off-street) bikeways are proposed for the adjacent Irvine Boulevard and both Class 1(off-street) and Class 2 (on-street) bikeways are planned for LQ Street. Similarly with the 2011 Approved Project, implementation of the Proposed Project would not conflict with alternative transportation plans, policies, and programs.

Mitigation Program and Net Impact

No additional mitigation measures are introduced here in this DSEIR as net impacts on alternative transportation would be less than significant.

IMPACT 5.8-5: THE PROPOSED PROJECT WOULD PROVIDE ADEQUATE PARKING CAPACITY DURING NORMAL SCHOOL HOURS BUT NOT FOR AT-CAPACITY STADIUM EVENTS. [IMPACT T-9]

Impact Analysis:

2011 Approved Project

The current High School No. 5 site plan shows 747 surface parking spaces. Parking spaces allocated to staff and performing arts would be accessible from Driveways 1 and 2 along "B" Street, visitor parking spaces would be accessible from Driveways 3 and 4 along "LQ" Street, and student, stadium event, and additional staff parking would be accessible from Driveways 5, 6, and 7 along "LQ" Street. The design of the surface parking spaces is still on-going, and the final number of parking spaces may change. Forecast peak period parking generation per the Institute of Transportation Engineers (ITE) Parking Generation Manual is 598 parking spaces. Table 5.8-24 summarizes the peak period forecast parking demand for the project. As shown, based on the forecast parking generation and proposed parking supply, the proposed parking supply exceeds forecast peak period parking demand and adequate parking capacity has been provided.

Table 5.8-24
ITE Parking Generation – High School

Use Classification	Unit	Quantity	ITE Rate (Spaces/Unit)	Parking Generation
High School - Suburban	Students	2,600	0.23	598

Stadium Parking

Estancia High School parking counts were taken in 2002 at the Athletic Stadium Complex at Estancia High School in the City of Costa Mesa, Orange County. The collected data counted 601 parked vehicles for a varsity football game with an attendance of 2,523, yielding a parking demand ratio of 0.24. Similarly, parking occupancy counts were taken at Irvine High School Stadium, which holds 2,940 bleacher seats in November 2007. The observed peak parking demand for a high school Homecoming varsity football game between rival teams is estimated to be 824 spaces, which corresponds to a demand rate of 0.28 spaces per seat. To provide a conservative estimate, a parking demand ratio of 0.30 was considered for the parking analysis. It should be noted that the parking demand will vary depending on the event at the proposed project site.

Full-capacity events would be scheduled approximately six times per year (five varsity football games and graduation) with the remaining events attracting substantially reduced spectator crowds. As shown in Section 3.4 *Description of the Project*, Table 3-1, *Tentative Event Schedule*, the average varsity football game is expected to attract approximately 1,000 spectators. These 1,000 spectators would require approximately 300 parking spaces. Spectator attendance at other athletic venues would be even less and is not expected to exceed 400 spectators. These events would require less than 120 parking spaces. University High School has adequate parking to accommodate these more frequent and less-heavily attended events (with spectator crowds of less than 2,940). There is sufficient parking for the vast majority of events anticipated at the stadium. Only rare special events such as graduation, homecoming, or a championship game would exceed the parking supply and require offsite parking and shuttles.

Nevertheless, completion and implementation of a parking management plan would be necessary to avoid impacts in the adjoining neighborhoods. Use of the hardcourts, grass fields, and other interior campus areas for parking would require a process to educate event participants to park in designated areas, coordinate staff to direct cars, install directional signage, etc., to ensure the efficient ingress and egress of cars. With careful implementation of this plan, and with regular feedback and adjustment to changing conditions, this impact would be less than significant.

Mitigation Program and Net Impact

Mitigation measure has been provided to reduce parking impacts during stadium events to a less than significant level. With mitigation, net impacts on parking capacity would not be significant.

2012 Modified Project

The parking analysis for the 2011 Approved Project above is the same for the 2012 Modified Project.

5.8.6 Cumulative Impacts

The 2012 Modified Project included the Proposed Project in its traffic impact cumulative analysis. The 2012 Modified Project cumulative analysis incorporated OCGP-2004 projections and assesses the traffic impacts of all cumulative development reasonably anticipated by Year 2015, Year 2030 and Post-2030. As discussed above, the Proposed Project evaluated the incremental difference for Year 2017, Year 2035, and Post-2035. And as shown, most intersections and roadway/freeway/tollway/ramp segments will operate at acceptable levels of service with the existing or planned improvements, although some may require additional improvements, as described in Section 5.8.11, *Applicable Mitigation Measures from the 2011 Approved Project and 2012 Modified Project* and Section 5.8.12, *Additional Mitigation Measures for the Proposed Project*.

Both the 2011 Approved Project and 2012 Modified Project concluded that traffic together with other regional growth at the identified ramp and freeway locations will be largely mitigated through a combination of regional programs that are the responsibility of other agencies such as Lake Forest and Caltrans and the community developer will contribute its fair share to these regional programs, as applicable. However, if these programs are not implemented by the agencies with the responsibility to do so, the cumulative freeway/tollway ramp impacts would remain significant and unavoidable. Under these circumstances, the Certified EIR and the 2012 SSEIR could result in a cumulatively significant traffic impact that may remain significant and unavoidable. Whereas the Certified EIR and the 2012 SSEIR found cumulative traffic impacts to be significant, the Proposed Project would not create additional adverse cumulative impacts beyond already identified under these previous EIRs, therefore, cumulative impacts of the Proposed Project would be less than significant.

5.8.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, standard conditions of approval, and PPPs, Impacts 5.8-2, 5.8-3, and 5.8-4 would result in less than significant impact without mitigation.

5.8.8 Applicable Mitigation Measures from the 2011 Approved Project and 2012 Modified Project

The Mitigation Agreement between the District and Heritage Fields provides for the site to be delivered to the District in a super pad condition, mass-graded and compacted, with backbone infrastructure installed (roadway, storm drains, sanitary sewer, water, etc.) and stubbed wet and dry utilities. The following mitigation measures are applicable to the community developer and not directly to the District.

2011 Approved Project

TRAN1 was modified by the City and approved as shown with 2nd AVTTM 17008 (PC Resolution 11-3109) after the certification of the 2011 OCGP SEIR. Modifications to the original mitigation measure are identified in ~~strikeout~~ text to indicate deletions and underlined to signify additions.

TRAN1 Prior to the approval of any final map of a subsequent subdivision map (other than a financing and conveyance map) ~~allocating~~ for any land use, excluding single family land uses (single family land use includes single family detached and single family attached projects), parks, schools, daycare, and religious institutions, that allocates building intensity within Planning Areas 30 and 51, and prior to issuances of any building permits for permanent improvements within Planning Area~~s~~ 30 and 51, the landowner or subsequent project applicant shall either (i) apply for annexation of any areas within the final map to the Irvine Spectrum Transportation Management Association (TMA) ("Spectrumotion") in accordance with Article X of the recorded Declaration of Covenants, Conditions and Restrictions (CC&Rs) for the Irvine Spectrum TMA, including any supplementary or amended CC&Rs, to reduce traffic, air quality and noise impacts or (ii) develop and implement a similar transportation management plan containing the elements and meeting the criteria described below as approved by the Director of Public Works. The transportation management plan shall be implemented via payment of assessment dues to an organization similar to Spectrumotion for all land uses, with the exceptions noted above. While affordable housing units will be included, their assessment fees will be covered by other remaining adjacent land uses. The implementation (payment of assessment dues) for either option described above shall occur prior to issuance of building permit(s):

Transportation Management Plan (TMP)

The development and implementation of a Transportation Management Plan is an identified mitigation measure to manage transportation access for Planning Area~~s~~ 30 and 51. This document summarizes the key elements of the TMP.

A. Introduction

The purpose of this document is to provide an outline for a comprehensive TMP for the Planning Area~~s~~ 30 and 51 ("Great Park TMP"). This report is not intended to provide the specific details of the plan, but rather to highlight the key components and provide direction for subsequent detailed planning and implementation activities. When preparation of the TMP is undertaken, all of the agency and stakeholders will be invited to provide input.

The applicant may elect to annex Combined PA 51 and a portion of Planning Area 30 into the

Irvine Spectrum Transportation Management Association (Spectrumotion). Spectrumotion is a private, non-profit Transportation Management Association (TMA) formed to reduce traffic congestion in Irvine Spectrum. Spectrumotion promotes, markets, and subsidizes alternatives to solo-commuting and assists the business community in complying with trip reduction related requirements. Membership is mandatory to property owners with deed restrictions requiring participation in the TMA. Membership dues provide the funding for the Association and its programs, which offer a variety of employer and commuter services focused on reducing vehicular trip generation.

In the event that the applicant elects not to annex into Spectrumotion, a TMP similar to that provided by Spectrumotion will be developed and implemented. This document sets forth the components of the TMP should it be necessary.

B. Transportation Management Plan Framework

The key elements of the Great Park TMP are set forth below:

New Hire Orientation: Inform newly hired employees of commuting services available to them.

Public Transportation Pass Sales: Provide a central location for purchase of passes to available transit services ((i.e., OCTA buses, Metrolink, Amtrak, etc.).

Vanpool and Carpool Formation Assistance: Perform all of the administrative work necessary to establish van pools and car pools.

On-site Promotions: Hold rideshare promotions at work sites and assist in employer assistance promotions.

Telecommuting/Alternative Work Schedule Consulting: Assist employers in developing and implementing a telecommuting or alternative work schedule program.

Personalized Commute Consulting: Provide a personalized commute profile to any commuter, which includes carpool match list containing the names of other commuters in the North Irvine Sphere that live and work near each other.

Website: Maintain a website with all of their program information available.

Rideshare Promotions: Conduct high visibility rideshare promotions as a means to advertise its services.

Subsidies: To the extent financially feasible, offer subsidies to assist in the formation of vanpools, the formation of carpools, and to encourage the trying of transit services.

Public Agency Coordination: Work closely with various public and quasi-public agencies to improve bus and commuter rail service to the Spectrum and North Irvine Sphere areas.

C. Transportation Management Plan Implementation

As part of the TMP, a process will be established to monitor its effectiveness in reducing peak hour trip generation in the Combined PA 30 and 51. Provision shall be made for the Plan to be modified as appropriate to enhance its effectiveness.

TRAN2 Following adoption of a land use plan and circulation plan for the Great Park property and before the issuance of any building permits within the base property, the City of Irvine shall request a cooperative study with OCTA and other affected jurisdictions to amend the Orange County Master Plan of Arterial Highways (MPAH). Marine Way, Trabuco Road from the SR-133 toll way to "O" Street (formerly College Road), and Ridge Valley (formerly "Y" Street) should be included on the MPAH.

TRAN3 Prior to issuance of the first building permit for dwelling units or non-residential square footage, a Fee Reallocation Study shall be completed to recalculate the NITM Fees reflecting any fair share allocation modifications. The landowner or subsequent property owner shall submit the Fee Reallocation Study under a separate cover to be approved by the Director of Public Works, in consultation with the NITM Advisory Committee.

TRAN4 Prior to approval of the last final map for the 2011 Approved Project (or any portion thereof in the event that the final map is approved in multiple phases), the landowner or subsequent property owner shall pay its fair share of the costs of the following mitigation in an amount to be mutually agreed upon between the landowner or subsequent property owner and the City and reflective of the costs of the mitigation at the time of payment:

- 286 Jeffrey Road & Roosevelt: Restripe the existing eastbound approach to provide a shared through/ right turn lane within the existing right-of-way.

- 361 Bake Parkway & Portola Parkway: Restripe the existing northbound approach to provide a shared through/left lane (which currently exists as a through lane) within the existing right-of-way and modify the existing traffic signal operation for a north/south split phase signal operation. Alternatively, restripe the existing northbound approach to provide dual left turn lanes in combination with a single through lane and single right turn lane within the existing right-of-way, and modify signal operation to include northbound right turn overlap phase.

- 374 Lake Forest & Portola Parkway (Pending Projects analysis impact): Convert the existing northbound approach from de-facto right-turn to a dedicated right-turn, and modify the existing traffic signal operation to include right turn overlap phase.

2012 Modified Project

Mitigation Measures TRANS1 through TRANS4 for the 2011 Approved Project are also included in the 2012 Modified Project with certain modifications. As shown below, references to Existing Planning Area 30 are proposed to be removed since the 2012 Modified Project's proposed GPA/ZC consolidates Existing PAs 30 and 51 into one PA to be designated Combined PA 51. In addition, more mitigation measures have been identified under the 2012 Modified Project. Modifications to the original mitigation measure are identified in ~~strikeout~~ text to indicate deletions and <u>underlined</u> to signify additions.

TRAN1 Prior to the approval of any final map of a subsequent subdivision map (other than a financing and conveyance map) ~~allocating~~ for any land use, excluding single family land uses (single family land use includes single family detached and single family attached projects), parks, schools, daycare, and religious institutions, that allocates building intensity ~~within Planning Areas 30 and 51, and prior to issuances of any building permits for permanent improvements~~ within Planning Area~~s 30 and~~ 51, the landowner or subsequent project applicant shall either (i) apply for annexation of any areas within the final map to the Irvine Spectrum Transportation Management Association (TMA) ("Spectrumotion") in accordance with Article X of the recorded Declaration of Covenants, Conditions and Restrictions (CC&Rs) for the Irvine Spectrum TMA, including any supplementary or amended CC&Rs, to reduce traffic, air quality and noise impacts or (ii) develop and implement a similar transportation management plan containing the elements and meeting the criteria described below as approved by the Director of Public Works. The transportation management plan shall be implemented via payment of assessment dues to an organization similar to Spectrumotion for all land uses, with the exceptions noted above. While affordable housing units will be included, their assessment fees will be covered by other remaining adjacent land uses. The implementation (payment of assessment dues) for either option described above shall occur prior to issuance of building permit(s):

Transportation Management Plan (TMP)

The development and implementation of a Transportation Management Plan is an identified mitigation measure to manage transportation access for Planning Area~~s 30 and~~ 51. This document summarizes the key elements of the TMP.

A. Introduction

The purpose of this document is to provide an outline for a comprehensive TMP for the Planning Area~~s 30 and~~ 51 ("Great Park TMP"). This report is not intended to provide the specific details of the plan, but rather to highlight the key components and provide direction for subsequent detailed planning and implementation activities. When preparation of the TMP is undertaken, all of the agency and stakeholders will be invited to provide input.

The applicant may elect to annex Combined PA 51 ~~and a portion of Planning Area 30~~ into the Irvine Spectrum Transportation Management Association (Spectrumotion). Spectrumotion is a private, non-profit Transportation Management Association (TMA) formed to reduce traffic congestion in Irvine Spectrum. Spectrumotion promotes, markets, and subsidizes alternatives to solo-commuting and assists the business community in complying with trip reduction related requirements. Membership is mandatory to property owners with deed restrictions requiring participation in the TMA. Membership dues provide the funding for the Association and its programs, which offer a variety of employer and commuter services focused on reducing vehicular trip generation.

In the event that the applicant elects not to annex into Spectrumotion, a TMP similar to that provided by Spectrumotion will be developed and implemented. This document sets forth the components of the TMP should it be necessary.

B. Transportation Management Plan Framework

The key elements of the Great Park TMP are set forth below:

New Hire Orientation: Inform newly hired employees of commuting services available to them.

Public Transportation Pass Sales: Provide a central location for purchase of passes to available transit services ((i.e., OCTA buses, Metrolink, Amtrak, etc.).

Vanpool and Carpool Formation Assistance: Perform all of the administrative work necessary to establish van pools and car pools.

On-site Promotions: Hold rideshare promotions at work sites and assist in employer assistance promotions.

Telecommuting/Alternative Work Schedule Consulting: Assist employers in developing and implementing a telecommuting or alternative work schedule program.

Personalized Commute Consulting: Provide a personalized commute profile to any commuter, which includes carpool match list containing the names of other commuters in the North Irvine Sphere that live and work near each other.

Website: Maintain a website with all of their program information available.

Rideshare Promotions: Conduct high visibility rideshare promotions as a means to advertise its services.

Subsidies: To the extent financially feasible, offer subsidies to assist in the formation of vanpools, the formation of carpools, and to encourage the trying of transit services.

Public Agency Coordination: Work closely with various public and quasi-public agencies to improve bus and commuter rail service to the Spectrum and North Irvine Sphere areas.

C. Transportation Management Plan Implementation

As part of the TMP, a process will be established to monitor its effectiveness in reducing peak hour trip generation in the Combined PA ~~30 and~~ 51. Provision shall be made for the Plan to be modified as appropriate to enhance its effectiveness.

TRAN2 Following adoption of a land use plan and circulation plan for the Great Park property and before the issuance of any building permits within the base property, the City of Irvine shall request a cooperative study with OCTA and other affected jurisdictions to amend the Orange County Master Plan of Arterial Highways (MPAH). Marine Way, Trabuco Road from the SR-133 toll way to "O" Street (formerly College Road), and Ridge Valley (formerly "Y" Street) should be included on the MPAH.

TRAN3 Prior to issuance of the first building permit for dwelling units or non-residential square footage, a Fee Reallocation Study shall be completed to recalculate the NITM Fees reflecting any fair share allocation modifications. The landowner or subsequent property owner shall

submit the Fee Reallocation Study under a separate cover to be approved by the Director of Public Works, in consultation with the NITM Advisory Committee.

TRAN4 Prior to approval of the last final map for the 2011 Approved Project (or any portion thereof in the event that the final map is approved in multiple phases), the landowner or subsequent property owner shall pay its fair share of the costs of the following mitigation in an amount to be mutually agreed upon between the landowner or subsequent property owner and the City and reflective of the costs of the mitigation at the time of payment:

- 286 Jeffrey Road & Roosevelt: Restripe the existing eastbound approach to provide a shared through/ right turn lane within the existing right-of-way.

- 361 Bake Parkway & Portola Parkway: Restripe the existing northbound approach to provide a shared through/left lane (which currently exists as a through lane) within the existing right-of-way and modify the existing traffic signal operation for a north/south split phase signal operation. Alternatively, restripe the existing northbound approach to provide dual left turn lanes in combination with a single through lane and single right turn lane within the existing right-of-way, and modify signal operation to include northbound right turn overlap phase.

- 374 Lake Forest & Portola Parkway (Pending Projects analysis impact): Convert the existing northbound approach from de-facto right-turn to a dedicated right-turn, and modify the existing traffic signal operation to include right turn overlap phase.

TRAN5 **(For specific Project-related non-NITM improvements):** In conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in this SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

- 16. Newport & Irvine – Modification of signal to provide a northbound right turn overlap phase. (2030, Option 2) Improvement no longer needed if Pending projects are approved.

- 54. Browning & Irvine – Application of ATMS, subject to approval by City of Tustin. (2030, Options 1 & 2)

- 221. Culver & Bryan – Addition of a westbound defacto right turn lane. (2030, Option 2) Improvement no longer needed if Pending projects are approved.

- 286. Jeffrey & Roosevelt – Conversion of the eastbound shared through/right lane into a through lane and addition of a second right turn lane. (Post-2030, Options 1 & 2)

- 290. Jeffrey & Barranca – Application of PA9C-identified ATMS. (2030. Options 1 & 2)

- 291. Jeffrey & Alton – Provision of an eastbound standard right-turn lane with right-turn overlap resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. (Post-2030, Options 1 & 2)

- 303. Sand Canyon & I-5 NB ramp/Marine Way – Conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. (2030, Options 1 & 2)

- 306. Sand Canyon & Oak Canyon - Fair Share contribution towards – conversion of the westbound shared through/right lane to a single through lane and conversion of the westbound right-turn lane into a free-right turn lane, as identified in the PA40/12 GPA/ZC. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

- 321. Laguna Canyon & Old Laguna Canyon – Application of ATMS, subject to approval by the Director of Public Works. Alternate improvement is the addition of a fourth northbound through lane. (Post-2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

- 366. Bake & Rockfield – Fully funded LFTM improvement: Conversion of a westbound through lane to a third left turn lane. (2030, Options 1 & 2)

TRAN6 **(For specific Project-related NITM improvements):** The NITM Program provides a funding mechanism for the coordinated and phased installation of required traffic and transportation improvements established in connection with land use entitlements for City of Irvine Planning Areas 1, 5, 6, 8, 9, 40 and 51. As established by City Ordinance No. 03-20, Combined PA 51 is included in this program and, as such, is required to pay its fair share towards the List of NITM Improvements included within the established NITM Program. The following Project impacted locations are included in the NITM List of Improvements and thus, payment of NITM fees will mitigate the Combined PA 51 project's fair share responsibility towards these improvements:

- 228. Culver & Barranca – Conversion of the westbound defacto right-turn lane to a through lane. (2030, Options 1 & 2)

- 424. Los Alisos & Rockfield – Addition of a southbound right turn lane. (2030, Option 1) Improvement no longer needed if Pending projects are approved.

- I-5 Northbound Off-ramp to Jamboree – Addition of a second drop lane from the I-5 to the Jamboree off-ramp. (2030, Option 1)

TRAN7 **(If pending projects are approved, Project-related non-NITM improvements):** In the event that all of the pending (not approved) projects analyzed are approved and in conjunction with the submittal of any tentative tract maps/tentative parcel maps for the Project within Combined PA 51, the landowner or subsequent project applicant shall prepare, subject to review and approval of the City, the required tentative tract map/tentative parcel map (TTM/TPM) level traffic study per City Resolution No. 03-61. This traffic study will verify whether the intersection locations listed below, which have been identified as impacted in this SSEIR, are projected to be impacted by the subject project of the Interim Year Analysis. For those intersections impacted by subject project of the TTM/TPM traffic study, the tentative tract map/tentative parcel map will be conditioned to construct the necessary improvements that have been identified in the TTM/TPM traffic study. For those intersections listed below, which are not projected to be impacted by the subject project of the TTM/TPM traffic study, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall construct, pay fair share of the costs or enter into an agreement with the City to establish the mechanism in which the funds generated by the mitigations shall be provided and utilized by Caltrans, City of Lake Forest, City of Tustin and/or City of Irvine toward implementing the improvements.

- 54. Browning & Irvine – Application of ATMS, subject to approval by City of Tustin. (2030, Options 1 & 2)
- 286. Jeffrey & Roosevelt – Conversion of the eastbound shared through/right lane into a through lane and addition of a second right turn lane. (Post-2030, Options 1 & 2)
- 290. Jeffrey & Barranca – Application of PA9C-identified ATMS.
- 291. Jeffrey & Alton – Provision of an eastbound standard right-turn lane with right-turn overlap resulting in an ultimate eastbound lane configuration of 2 left-turn lanes, 2 through lanes, and 1 right-turn lane. (2030 & Post-2030, Options 1, Post-2030, Option 2)
- 303. Sand Canyon & I-5 NB ramp/Marine Way – Conversion of the northbound defacto right turn lane to a standard right turn lane with right turn overlap signal operation. (2030, Options 1 & 2)
- 366. Bake & Rockfield – Fully funded LFTM improvement: Conversion of a westbound through lane to a third left turn lane. (2030, Options 1 & 2)
- 417. El Toro & Portola – Fully funded LFTM improvement: Addition of a southbound right turn overlap phase. (2030, Options 1 & 2)

TRAN8 **(If pending projects are approved, For specific Project-related NITM improvements):** The NITM Program provides a funding mechanism for the coordinated and phased installation of required traffic and transportation improvements established in connection with land use entitlements for City of Irvine Planning Areas 1, 5, 6, 8, 9, 40 and 51. As established by City Ordinance No. 03-20, Combined PA 51 is included in this program and, as such, is required to pay its fair share towards the List of NITM Improvements included within the established NITM Program. In the event that all of the pending (not approved)

projects analyzed are approved, the following Project impacted locations are included in the NITM List of Improvements and thus, payment of NITM fees will mitigate the Combined PA 51 project's fair share responsibility towards these improvements:

- 228. Culver & Barranca – Conversion of the westbound defacto right-turn lane to a through lane. (2030, Options 1 & 2)

- I-5 NB Off-ramp to Jamboree – Addition of a second drop lane from the I-5 to the Jamboree off-ramp. (2030 & Post-2030, Option 1 & 2)

TRAN9 **(Caltrans Fair Share):** Prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall make a good-faith effort to enter into a fair share agreement with Caltrans and the City of Irvine to establish its fair share allocation towards the future implementation of the following freeway facility improvements. It may not be possible to successfully negotiate the agreement with Caltrans. Fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine toward implementing the following improvements:

- I-5 Northbound, north of Culver – Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2)

- I-5 Northbound, north of Jeffrey – Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

- I-405 Northbound, north of Jeffrey – Directional capacity enhancement equivalent to a single general purpose lane. (2030 and Post-2030, Options 1 & 2) Improvement no longer needed if Pending projects are approved.

TRAN10 **(If pending projects are approved, Caltrans Fair Share):** In the event that all of the pending (not approved) projects analyzed are approved, and prior to approval of the last final map for the 2012 Modified Project (or any portion thereof in the event that the final map is approved in multiple phases), the land owner or subsequent property owner shall make a good-faith effort to enter into a fair share agreement with Caltrans and the City of Irvine to establish its fair share allocation towards the future implementation of the following freeway facility improvements. It may not be possible to successfully negotiate the agreement with Caltrans. Fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine toward implementing the following improvements:

- SR-133 northbound loop on-ramp at Barranca Parkway – Conversion of the HOV preferential lane to a second metered mixed-flow lane (2015, Option 2)

- I-5 Northbound, north of Culver – Directional capacity enhancement equivalent to a single general purpose lane. (2030, Options 1 & 2)

TRAN11 **(Rockfield MPAH Amendment)** The City of Irvine shall submit a request to OCTA and other affected jurisdictions to amend the Orange County Master Plan of Arterial Highways (MPAH) to eliminate the extension of Rockfield Boulevard from the eastern project boundary to Marine Way.

TRAN12 **(If Rockfield MPAH Amendment not approved by OCTA)** In the event that the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed, and in addition to previously identified Post-2030 Option 1 improvements, the land owner or subsequent property owner shall enter into a fair share agreement with the City of Irvine and shall make a good-faith effort to enter into a fair share agreement with Caltrans to establish its fair share allocation towards the future implementation of the conversion of the HOV preferential lane at the SR-133 northbound loop on-ramp at Barranca Parkway to a second metered mixed-flow lane. It may not be possible to successfully negotiate the agreement with Caltrans. The fair share contribution shall be calculated using the same methodology for determining fair share contributions as included in the North Irvine Transportation Mitigation Program. The Agreement shall establish the mechanism in which the funds generated by the Project's fair share mitigations shall be provided and utilized by Caltrans and/or City of Irvine. For Option 2, the mitigations as indicated in TRAN5 through TRAN10 remain unchanged in the event that the Rockfield MPAH change does not occur and the Rockfield connection to Marine Way is ultimately constructed.

5.8.9 Additional Mitigation for High School No. 5

Impact 5.8-1

T-1 The following additional roadway improvement is required beyond those required for 2011 Approved Project as a result of changes to the traffic generation rates, high school trip distribution and analysis years relative to the 2012 Modified Project SSEIR, as requested by the City of Irvine. The District shall work with the City and Heritage Fields to reconcile any differences between this assessment and the Heritage Fields SSEIR data set. Final mitigation may be modified prior to certification of the Final SEIR, so long as adequate levels of service are maintained in accordance with the City's adopted thresholds.

Year 2035 - 2011 Approved Project

- Add northbound left turn lane, resulting in dual –northbound left-turn lanes at "LQ" Street and Irvine Boulevard (#800)

Post-2035 - 2011 Approved Project

- Add northbound left turn lane, resulting in dual –northbound left-turn lanes at "LQ" Street and Irvine Boulevard (#800)

Impact 5.8-5

T-2 In consultation with the City of Irvine (including Police, Public Works and Planning), and prior to the first major event, the Irvine Unified School District shall complete a Traffic and Parking Management Plan (TPMP) to address events with expected attendance over 2,490 (747 parked cars). The Plan shall:

a. Detail how the hardcourts, grass field, and other miscellaneous on-campus spaces will be accessed and laid out for possible additional attendance.

b. Identify targeted groups to use these spaces, including staff, participants, support groups, and similar (not the general public).

c. Develop directions and procedures to direct targeted groups to use these specific parking areas.

d. Use the school's master calendar to ensure that other campus events do not coincide with football games and other major events.

e. Manage events with expected attendance over 2,490 (747 parked cars) through such methods as:

1. Limit graduation ceremonies to 1 parking pass per 4 graduation tickets. This would require patrons to carpool and would require 1,058 parking spaces.

2. Provide shuttles to/from other offsite locations for additional parking.

f. Include provisions to monitor parking management success and make adjustments as necessary.

T-3 The District shall form a Stadium Use Advisory Committee comprised of up to 5 Community Stakeholders and up to 4 District Stakeholders, all appointed by the IUSD Board of Education. This Committee will review and make recommendations concerning any modifications to the Traffic and Parking Management Plan, review and make recommendations concerning the types and quantity of non-IUSD events that may be appropriate for the High School 5 stadium.

5.8.9.2 Level of Significance After Additional Mitigation

With implementation of the mitigation measure outlined above, project-specific impacts associated with transportation and traffic would be reduced to a level that is less than significant. Therefore, no significant impacts relating to traffic would result from the Proposed Project, individually and cumulatively.

Cumulative impacts under the 2011 Approved Project and 2012 Modified Project were determined to be significant and unavoidable only because certain mitigation measures for the Certified EIR and the 2012 SSEIR required improvements that are within the responsibility and jurisdiction of a public agency other than the City of Irvine (i.e., Caltrans, County of Orange, and cities of Lake Forest, Laguna Woods, and Mission Viejo). Although mitigation measure have been provided to reduce traffic impacts to a less than significant level, because there is the potential that improvements are not completed for reasons beyond

the City's control, traffic impacts would remain significant for the Certified EIR and the 2012 SSEIR. However, because the Proposed Project would not result in substantial traffic impacts beyond already identified under the previous EIRs, project-specific cumulative traffic impacts would be less than significant.