

Appendices

Appendix B Newport Village Trip Making Assessment

Appendices

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urbanxroads.com

April 23, 2020

Ms. JoAnn Hadfield
PLACEWORKS
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707

SUBJECT: NEWPORT AIRPORT VILLAGE TRIP-MAKING ASSESSMENT

Dear Ms. JoAnn Hadfield:

Urban Crossroads, Inc. is pleased to provide this assessment of Trip Generation, Distribution, and Intersection Volume Shifts for the proposed Newport Airport Village mixed-use (residential and office/commercial) Project located in the City of Newport Beach.

The Project is located on the northwest corner of MacArthur Boulevard (NS) at Birch Street (EW) as shown on Exhibit A. Newport Beach Transportation Model (NBTM) Traffic Analysis Zones (TAZs) 1377 and 1378 encompass the Project, and also surrounding parcels, with extents to MacArthur Boulevard, Campus Drive, Birch Street, and Dove Street.

It is our understanding that the residential portion of the Project includes up to 329 residential dwelling units plus 115 density bonus units with accessory uses (such as open space and parking). The non-residential portion of the Project includes 297,572 square feet of non-residential facilities.

BACKGROUND LAND USE AND TRIP GENERATION

Urban Crossroads, Inc. has compiled previous land use and trip generation information for the Project and related area from the transportation analysis documents prepared in support of the 2006 General Plan EIR and the 2014 Land Use Update EIR.

The Newport Beach General Plan Land Use Element Amendment Traffic Impact Analysis (TIA) (Urban Crossroads, March 12, 2014) studied proposed city wide changes to land us element including a sub-area identified as "Saunders Properties". The Saunders Properties land use change studied increases of horizontal mixed-use land uses consisting of 329 Apartment dwelling units (plus 115 density bonus units) and 238,077 square feet of office. The result was a total of 4,651 additional daily trips. The Saunders Property area was 26.24 acres and included TAZs 1377 and 1378 in their entirety, including the proposed project site.

Since the proposed project site area is 16.46 acres of the of 26.24 acres of the area studied in 2014, trip generation was calculated by using 62.7% (16.46 acres of 26.24 acres) of allowed land uses (0.5 FAR) in TAZs 1377 and 1378 plus the proposed increase of 62.7% of the additional 238,077 square feet of office studied in the 2014 Land Use Amendment. The 329 dwelling and 115 density bonus dwelling units were

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all included in the proposed project analysis as the location of those units contemplated in 2014 was within the proposed project area. Please refer to Table 1 for more information.

The City of Newport Beach General Plan Transportation Study (Urban Crossroads, March 22, 2006) provides trip rate adjustment for specific types and locations of land uses, including vertical mixed-use developments. On page 3-4, the study indicates that in the Airport Area, the 20% high rise apartment reduction has been applied with no accompanying reduction for mixed use.

Pursuant to the Airport Area Residential & Mixed-Use Adjustment Factors for Traffic Analysis in Newport Beach (City of Newport Beach, July 2009), the Airport Area land use conversion factor for commercial uses being demolished for conversion to residential is 5.40 DU/KSF.

Similarly, a conversion factor of 2.29 DU/KSF would be used for office conversion to residential or 1.16 for industrial conversion to residential.

PROJECT LAND USE AND TRIP GENERATION

The 2006 General Plan Update (Approved General Plan) included 107,336 square feet of commercial uses, 232,562 square feet of office uses, and 26,834 square feet of industrial uses. The 2013 LUE amendment included 107,336 square feet of commercial uses, 26,834 square feet of industrial uses, 444 dwelling units, and 370,166 square feet of office uses on the Project site.

The Project proposes to include a total of 297,572 square feet of non-residential uses (which is represented as 46,410 square feet of commercial, 232,562 square feet of office, and 18,600 square feet of industrial uses for purposes of this analysis). The Project proposes to convert 61,000 square feet to accommodate the 329 dwelling units, which is based upon the commercial conversion factor.

An additional 35% of residential units (115 additional units) are proposed as density bonus units, for which a non-residential reduction is not proposed. The total residential on-site would therefore be 444 dwelling units.

NBTM trip generation calculations for the site for General Plan conditions are shown in Table 2. The worksheets that calculate trips for individual land use categories are shown in Attachment 1.

As shown on Table 2, the greatest directional Project increase (in comparison to approved land uses) without the density bonus is 75 vehicles in the outbound direction for the AM peak hour. With density bonus, the AM peak hour outbound direction Project increase is 119 trips. Table 3 presents a comparison of the Project to the Land Use Element scenario.

PROJECT TRIP DISTRIBUTION AND TRAFFIC VOLUME CHANGES

Exhibit A shows the anticipated outbound Project trip distribution pattern. The inbound trip distribution pattern is shown on Exhibit B.

Ms. JoAnn Hadfield

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The Project trip difference based upon NBTM rates is applied to these trip distribution patterns to develop AM and PM peak hour intersection volume changes.

Exhibits C and D show the resulting AM and PM peak hour Project difference volumes without density bonus, respectively. Peak hour Project difference volumes with density bonus are shown on Exhibits E and F, respectively.

PERFORMANCE REVIEW OF NEARBY INTERSECTIONS

The Newport Beach General Plan Land Use Element Amendment Traffic Impact Analysis (TIA) includes two relevant attachments. The first attachment includes intersection analysis data for the approved General Plan (the 2006 Project). Attachment 2 of this letter provides Intersection Capacity Utilization (ICU) calculation sheets for General Plan buildout conditions at study area intersections. Intersection analysis worksheets with the previously proposed Citywide Land Use Element Amendment are provided in Attachment 3 of this letter.

Because the density bonus units within the Newport Airport Village Project represent conservative “worst case” conditions, the potential traffic volume changes associated with this scenario have been applied to the background traffic volumes in Attachments 2 and 3.

Intersection analysis worksheets for Newport Airport Village Project volume changes from approved General Plan conditions are included in Attachment 4. Attachment 5 includes study area intersection analysis worksheets for Newport Airport Village Project volume changes from the former Citywide Land Use Element Amendment.

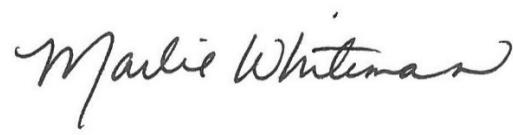
The results of these changes in ICU values associated with the Newport Airport Village Project are summarized in Table 4. As shown in Table 4, potentially impacted study area intersections continue to experience acceptable operations for long range future conditions with the Newport Airport Village Project.

Respectfully submitted,

URBAN CROSSROADS, INC.



John Kain, AICP
Principal



Marlie Whiteman, P.E.
Senior Associate

EXHIBIT A: PROJECT OUTBOUND TRIP DISTRIBUTION

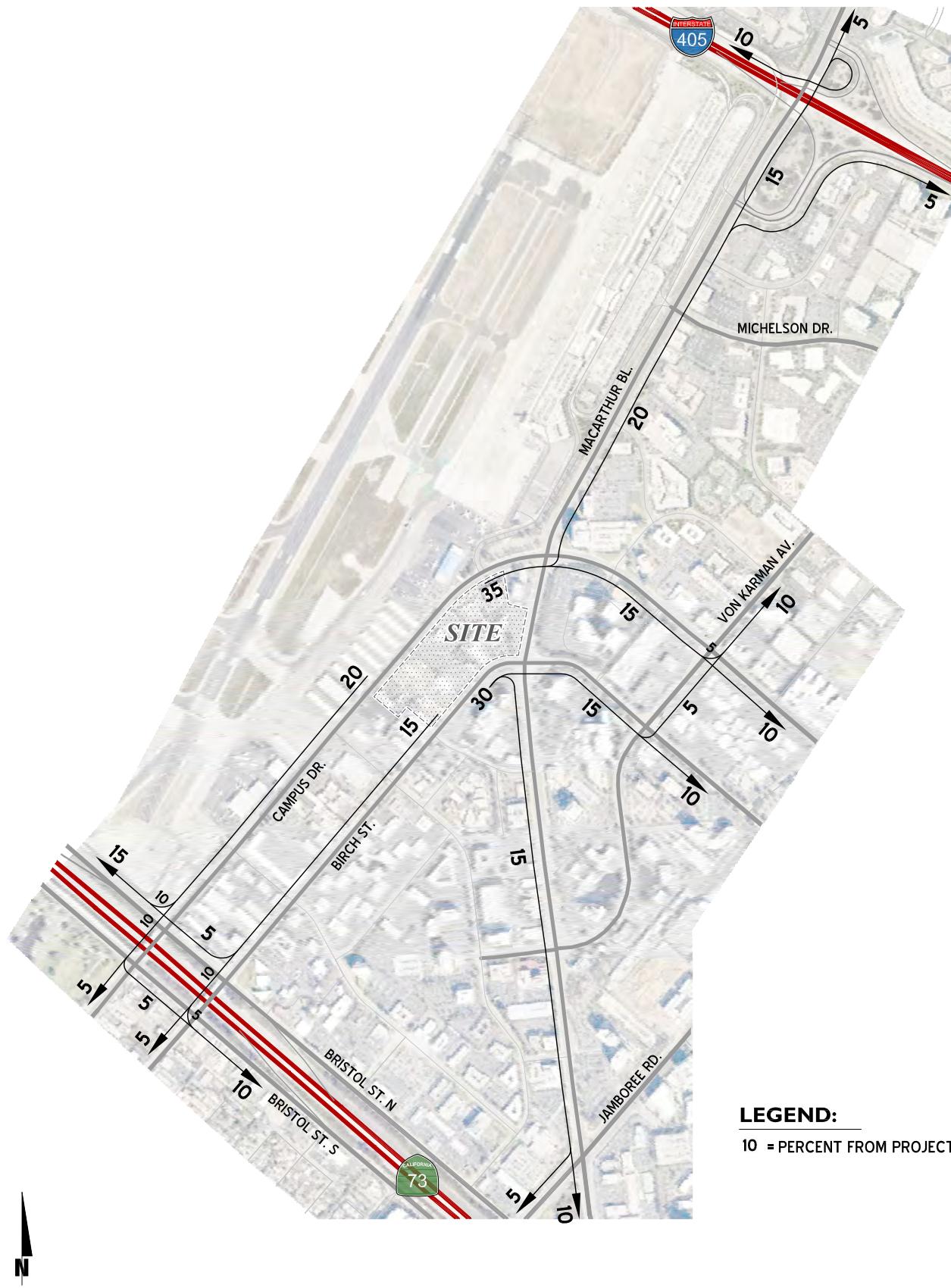


EXHIBIT B: PROJECT INBOUND TRIP DISTRIBUTION

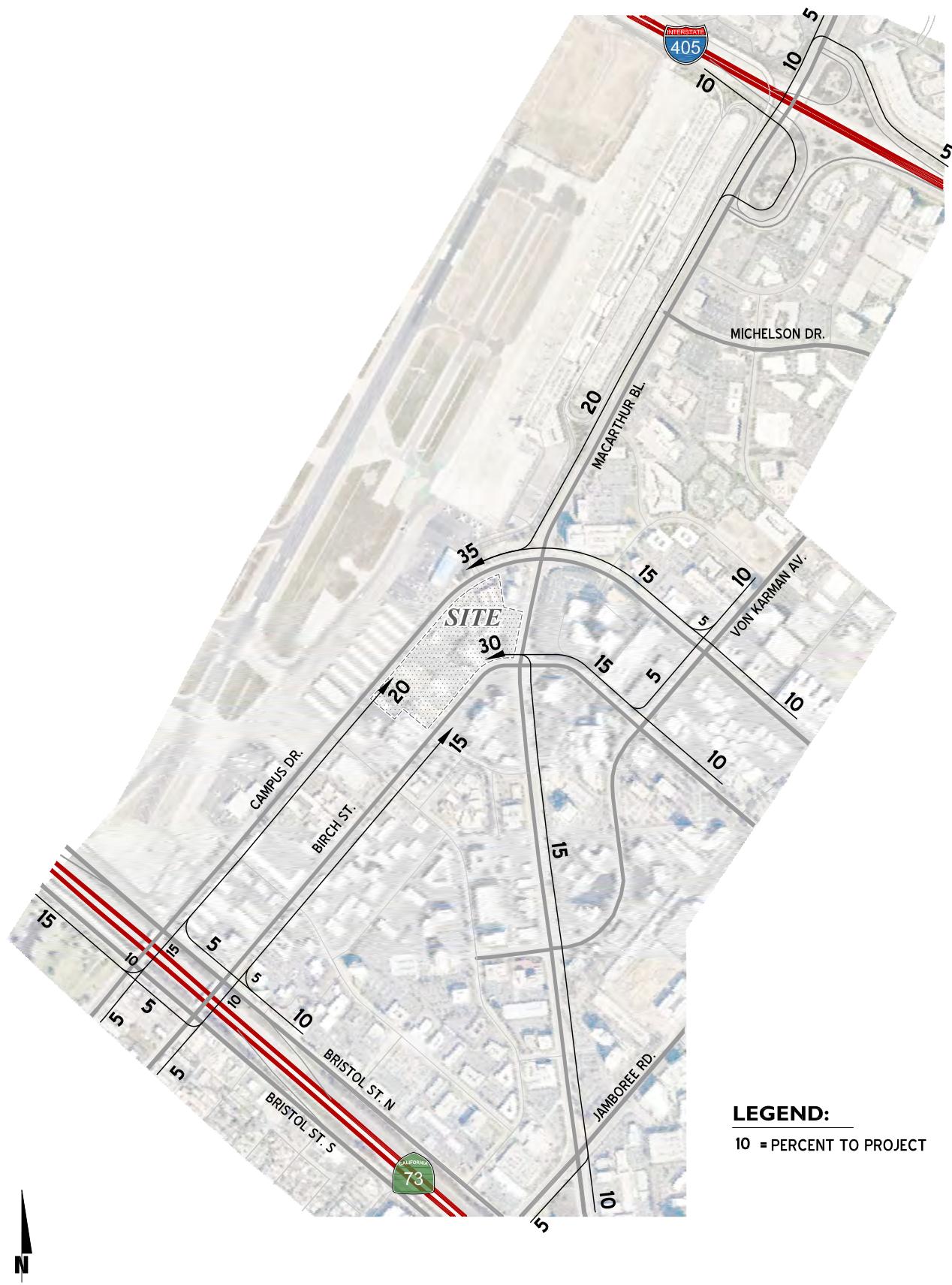
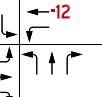
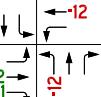
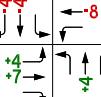
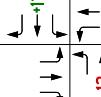
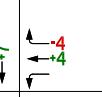
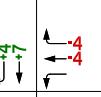
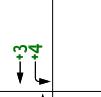
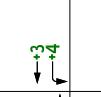
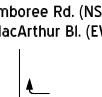
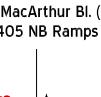
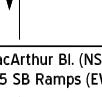
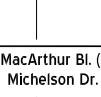
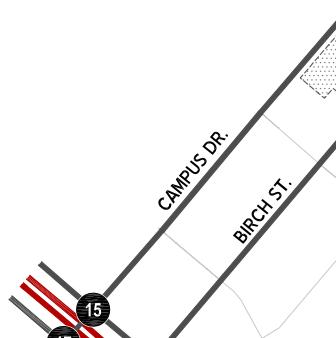
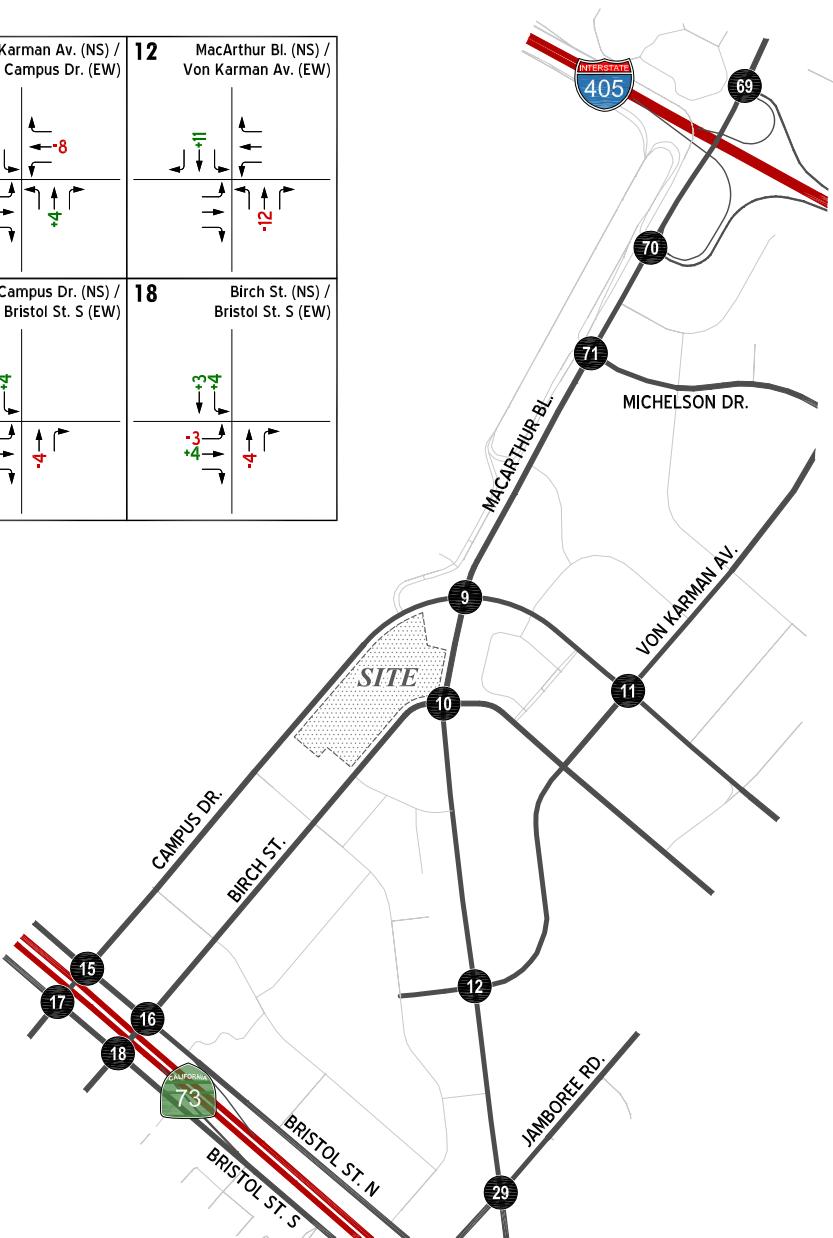


EXHIBIT C: PROJECT AM PEAK HOUR INTERSECTION VOLUME DIFFERENCES WITHOUT DENSITY BONUS

9	MacArthur Bl. (NS) / Campus Dr. (EW)	10	MacArthur Bl. (NS) / Birch St. (EW)	11	Von Karman Av. (NS) / Campus Dr. (EW)	12	MacArthur Bl. (NS) / Von Karman Av. (EW)
							
15	Campus Dr. (NS) / Bristol St. N (EW)	16	Birch St. (NS) / Bristol St. N (EW)	17	Campus Dr. (NS) / Bristol St. S (EW)	18	Birch St. (NS) / Bristol St. S (EW)
							
29	Jamboree Rd. (NS) / MacArthur Bl. (EW)	69	MacArthur Bl. (NS) / I-405 NB Ramps (EW)				
							
70	MacArthur Bl. (NS) / I-405 SB Ramps (EW)	71	MacArthur Bl. (NS) / Michelson Dr. (EW)				
							





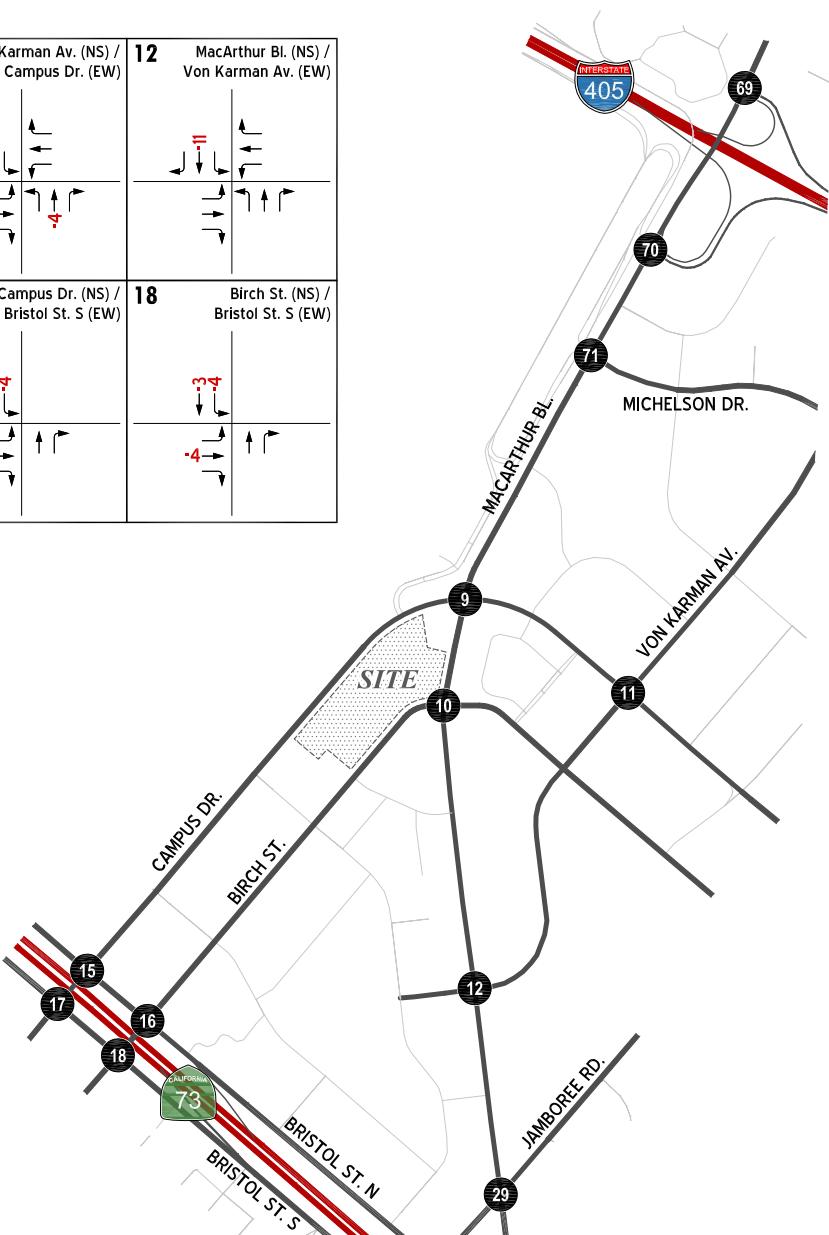
LEGEND:

- # = INTERSECTION ID
 - +10 = VOLUME INCREASE ASSOCIATED WITH PROPOSED PROJECT WITHOUT DENSITY BONUS IN COMPARISON TO APPROVED PROJECT
 - 10 = VOLUME DECREASE ASSOCIATED WITH THE PROPOSED PROJECT WITHOUT DENSITY BONUS IN COMPARISON TO APPROVED PROJECT



**EXHIBIT D: PROJECT PM PEAK HOUR
INTERSECTION VOLUME DIFFERENCES
WITHOUT DENSITY BONUS**

9 MacArthur Bl. (NS) / Campus Dr. (EW)	10 MacArthur Bl. (NS) / Birch St. (EW)	11 Von Karman Av. (NS) / Campus Dr. (EW)	12 MacArthur Bl. (NS) / Von Karman Av. (EW)
15 Campus Dr. (NS) / Bristol St. N (EW)	16 Birch St. (NS) / Bristol St. N (EW)	17 Campus Dr. (NS) / Bristol St. S (EW)	18 Birch St. (NS) / Bristol St. S (EW)
29 Jamboree Rd. (NS) / MacArthur Bl. (EW)	69 MacArthur Bl. (NS) / I-405 NB Ramps (EW)		
70 MacArthur Bl. (NS) / I-405 SB Ramps (EW)	71 MacArthur Bl. (NS) / Michelson Dr. (EW)		



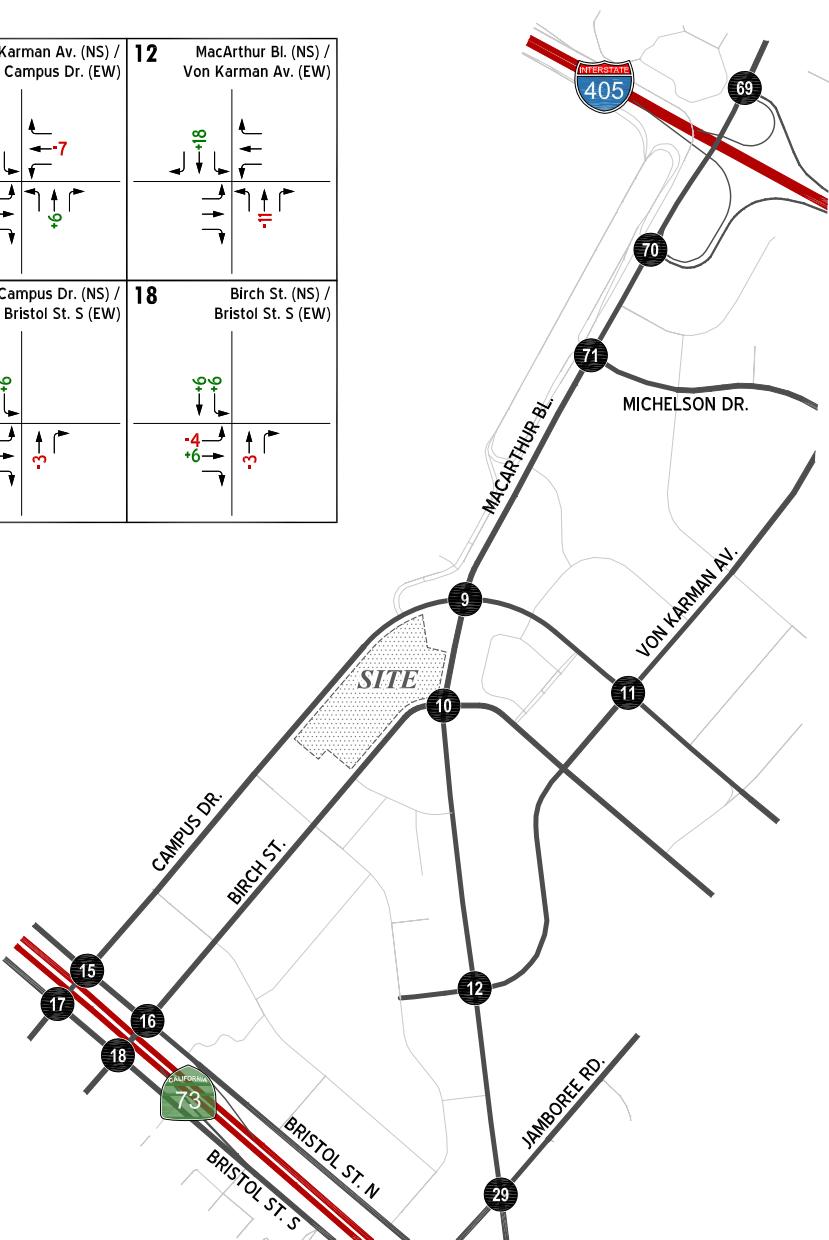
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- = INTERSECTION ID
- +10 = VOLUME INCREASE ASSOCIATED WITH PROPOSED PROJECT WITHOUT DENSITY BONUS IN COMPARISON TO APPROVED PROJECT
- 10 = VOLUME DECREASE ASSOCIATED WITH THE PROPOSED PROJECT WITHOUT DENSITY BONUS IN COMPARISON TO APPROVED PROJECT



**EXHIBIT E: PROJECT AM PEAK HOUR
INTERSECTION VOLUME DIFFERENCES
WITH DENSITY BONUS**

9 MacArthur Bl. (NS) / Campus Dr. (EW)	10 MacArthur Bl. (NS) / Birch St. (EW)	11 Von Karman Av. (NS) / Campus Dr. (EW)	12 MacArthur Bl. (NS) / Von Karman Av. (EW)
+24 +17 -13 -10	+18 +18 -10 -11	+3 +11 -7 -6	+8 +6 -10 -7
15 Campus Dr. (NS) / Bristol St. N (EW)	16 Birch St. (NS) / Bristol St. N (EW)	17 Campus Dr. (NS) / Bristol St. S (EW)	18 Birch St. (NS) / Bristol St. S (EW)
-12 -3 -6 -10	-6 -3 -7 -7	-6 -4 -7 -3	-6 -4 -6 -3
29 Jamboree Rd. (NS) / MacArthur Bl. (EW)	69 MacArthur Bl. (NS) / I-405 NB Ramps (EW)		
+12 +6 -9 -3	-2 -3 +3 +3		
70 MacArthur Bl. (NS) / I-405 SB Ramps (EW)	71 MacArthur Bl. (NS) / Michelson Dr. (EW)		
-5 -8 +19 +5	-13 -13 +24 +24		



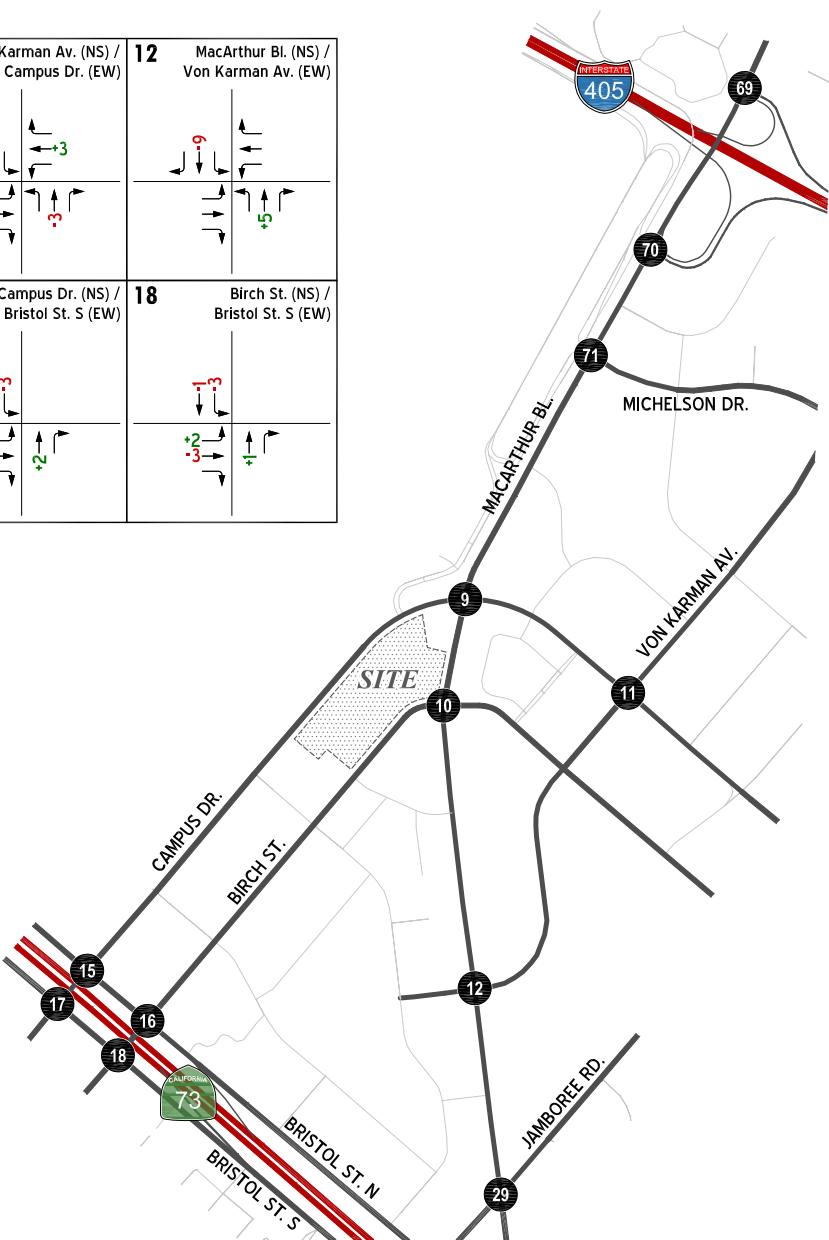
LEGEND:

- = INTERSECTION ID
- +10 = VOLUME INCREASE ASSOCIATED WITH PROPOSED PROJECT WITH DENSITY BONUS IN COMPARISON TO APPROVED PROJECT
- 10 = VOLUME DECREASE ASSOCIATED WITH THE PROPOSED PROJECT WITH DENSITY BONUS IN COMPARISON TO APPROVED PROJECT



**EXHIBIT F: PROJECT PM PEAK HOUR
INTERSECTION VOLUME DIFFERENCES
WITH DENSITY BONUS**

9 MacArthur Bl. (NS) / Campus Dr. (EW)	10 MacArthur Bl. (NS) / Birch St. (EW)	11 Von Karman Av. (NS) / Campus Dr. (EW)	12 MacArthur Bl. (NS) / Von Karman Av. (EW)
15 Campus Dr. (NS) / Bristol St. N (EW)	16 Birch St. (NS) / Bristol St. N (EW)	17 Campus Dr. (NS) / Bristol St. S (EW)	18 Birch St. (NS) / Bristol St. S (EW)
29 Jamboree Rd. (NS) / MacArthur Bl. (EW)	69 MacArthur Bl. (NS) / I-405 NB Ramps (EW)		
70 MacArthur Bl. (NS) / I-405 SB Ramps (EW)	71 MacArthur Bl. (NS) / Michelson Dr. (EW)		



LEGEND:

- = INTERSECTION ID
- +10 = VOLUME INCREASE ASSOCIATED WITH PROPOSED PROJECT WITH DENSITY BONUS IN COMPARISON TO APPROVED PROJECT
- 10 = VOLUME DECREASE ASSOCIATED WITH THE PROPOSED PROJECT WITH DENSITY BONUS IN COMPARISON TO APPROVED PROJECT



TABLE 1: NEWPORT AIRPORT VILLAGE TRAFFIC LAND USE DATA

2014 Land Use Element – Land Uses Studied in NBTM

	TAZ 1377	TAZ 1378	Total Studied (2014)	Adjustment for smaller project area: 62.7% ¹	Proposed Project Studied
General Commercial	79,715	91,476	171,191	107,336	46,410 ²
General Office	243,262	347,115	590,377	370,166	232,562 ³
Industrial	19,929	22,869	42,798	26,834	18,600 ⁴
Apartments	297	147	444	N/A ⁵	329 (444 w/density bonus)

¹ Proposed project area is 62.7% (16.46 acres) of TAZs 1377 and 1378 combined (26.24 acres)

² 60,926 sq. ft. converted into 329 dwelling units per Airport Area Conversion Rates (107,336-60,926 = 46,410)

³ 2014 study included an increase of 238,077 square feet of office in TAZs 1377 and 1378. No increase in the allowed office development for the proposed project.

⁴ Total floor area studied in 2014 overestimated allowed capacity so industrial was reduced by 8,234 sq. ft.

⁵ Total 444 dwelling units were planned to go into the same general area as the current proposed project.

2006 General Plan Update – Land Uses Studied in NBTM

	TAZ 1377	TAZ 1378	Total Studied (2006)	Adjustment for smaller project area: 62.7% ¹	Proposed Project Studied
General Commercial	79,715	91,476	171,191	107,336	46,410 ²
General Office	172,715	198,198	370,913	232,562	232,562
Industrial	19,929	22,869	42,798	26,834	18,600 ³
Apartments	0	0	0		329 ⁴ (444 w/density bonus)

¹ Proposed project area is 62.7% (16.46 acres) of TAZs 1377 and 1378 combined (26.24 acres)

² 60,926 sq. ft. Converted into 329 dwelling units per Airport Area Conversion Rates (107,336-60,926 = 46,410)

³ Total floor area studied overestimated allowed capacity so industrial was reduced by 8,234

⁴ Proposed project requests a GPA to allow 329 of the 1,650 replacement dwelling units already allowed by the general plan in the MU-H2 land use category.

TABLE 2: NBTM TRIP GENERATION COMPARISON

NBTM Trip Generation Rates								
Land Use	NBTM Code	Units	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartment (High-Rise)	3c	DU	0.10	0.38	0.48	0.29	0.16	0.45
General Commercial	10a	TSF	1.78	0.80	2.58	1.53	2.02	3.55
General Office	23a	TSF	0.84	0.26	1.10	0.39	0.65	1.04
Industrial	26	TSF	0.48	0.13	0.61	0.18	0.33	0.51
								5.48

2006 General Plan Update (Approved General Plan) Trip Generation Results									
Land Use	NBTM Code	Quantity ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Commercial	10a	107.336 TSF	191	86	277	164	217	381	4,105
General Office	23a	232.562 TSF	195	60	255	91	151	242	2,577
Industrial	26	26.834 TSF	13	3	16	5	9	14	147
TOTAL			399	149	548	260	377	637	6,829

Proposed Project Trip Generation Results									
Land Use	NBTM Code	Quantity ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Apartment (High-Rise)	3c	329 DU	33	125	158	95	53	148	1,612
General Commercial	10a	46.41 TSF	83	37	120	71	94	165	1,775
General Office	23a	232.562 TSF	195	60	255	91	151	242	2,577
Industrial	26	18.6 TSF	9	2	11	3	6	9	102
TOTAL without Density Bonus			320	224	544	260	304	564	6,066
Apartment (High-Rise)	3c	115 DU	12	44	56	33	18	51	564
TOTAL with Density Bonus			332	268	600	293	322	615	6,630

¹ DU = Dwelling Unit, TSF = Thousand Square Feet

Difference without Density Bonus	-79	75	-4	0	-73	-73	-763
Difference with Density Bonus	-67	119	52	33	-55	-22	-199

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TABLE 3: NBTM LAND USE ELEMENT (LUE) TRIP GENERATION COMPARISON

NBTM Trip Generation Rates								
Land Use	NBTM Code	Units	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartment (High-Rise)	3c	DU	0.10	0.38	0.48	0.29	0.16	0.45
General Commercial	10a	TSF	1.78	0.80	2.58	1.53	2.02	3.55
General Office	23a	TSF	0.84	0.26	1.10	0.39	0.65	1.04
Industrial	26	TSF	0.48	0.13	0.61	0.18	0.33	0.51
								5.48

2014 LUE Update Trip Generation Results								
Land Use	NBTM Code	Quantity ¹	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartment (High-Rise)	3c	444 DU	44	169	213	129	71	200
General Commercial	10a	107.336 TSF	191	86	277	164	217	381
General Office	23a	370.166 TSF	311	96	407	144	241	385
Industrial	26	26.834 TSF	13	3	16	5	9	14
TOTAL			559	354	913	442	538	980
								10,529

Proposed Project Trip Generation Results								
Land Use	NBTM Code	Quantity ¹	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartment (High-Rise)	3c	329 DU	33	125	158	95	53	148
General Commercial	10a	46.41 TSF	83	37	120	71	94	165
General Office	23a	232.562 TSF	195	60	255	91	151	242
Industrial	26	18.6 TSF	9	2	11	3	6	9
TOTAL without Density Bonus			320	224	544	260	304	564
Apartment (High-Rise)	3c	115 DU	12	44	56	33	18	51
TOTAL with Density Bonus			332	268	600	293	322	615
								6,066
								6,630

¹ DU = Dwelling Unit, TSF = Thousand Square Feet

Difference without Density Bonus	-239	-130	-369	-182	-234	-416	-4,463
Difference with Density Bonus	-227	-86	-313	-149	-216	-365	-3,899

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TABLE 4: INTERSECTION ANALYSIS SUMMARY

Intersection	Approved GP				Approved GP with Project DB			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
9 MacArthur Bl. & Campus Dr.	0.58	A	0.67	B	0.58	A	0.67	B
10 MacArthur Bl. & Birch St.	0.53	A	0.65	B	0.54	A	0.65	B
11 Von Karman Av. & Campus Dr.	0.69	B	0.74	C	0.69	B	0.74	C
12 MacArthur Bl. & Von Karman Av.	0.64	B	0.56	A	0.64	B	0.56	A
15 Campus Dr. & Bristol St. N.	0.51	A	0.75	C	0.51	A	0.75	C
16 Birch St. & Bristol St. N.	0.64	B	0.64	B	0.63	B	0.64	B
17 Campus Dr. & Bristol St. S.	0.81	D	0.59	A	0.81	D	0.59	A
18 Birch St. & Bristol St. S.	0.49	A	0.53	A	0.50	A	0.53	A
29 MacArthur Bl. & Jamboree Rd.	0.62	B	0.88	D	0.62	B	0.88	D
69 MacArthur Bl. & I-405 NB Ramps	0.68	B	0.67	B	0.68	B	0.67	B
70 MacArthur Bl. & I-405 SB Ramps	0.61	B	0.77	C	0.61	B	0.76	C
71 MacArthur Bl. & Michelson Dr.	0.68	B	0.88	D	0.69	B	0.88	D

Intersection	LUE Update				LUE Update with Project DB			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
9 MacArthur Bl. & Campus Dr.	0.62	B	0.70	B	0.62	B	0.70	B
10 MacArthur Bl. & Birch St.	0.57	A	0.71	C	0.57	A	0.71	C
11 Von Karman Av. & Campus Dr.	0.66	B	0.74	C	0.66	B	0.73	C
12 MacArthur Bl. & Von Karman Av.	0.62	B	0.58	A	0.62	B	0.57	A
15 Campus Dr. & Bristol St. N.	0.50	A	0.73	C	0.50	A	0.73	C
16 Birch St. & Bristol St. N.	0.60	A	0.64	B	0.60	A	0.64	B
17 Campus Dr. & Bristol St. S.	0.79	C	0.59	A	0.79	C	0.59	A
18 Birch St. & Bristol St. S.	0.49	A	0.53	A	0.49	A	0.53	A
29 MacArthur Bl. & Jamboree Rd.	0.64	B	0.89	D	0.64	B	0.89	D
69 MacArthur Bl. & I-405 NB Ramps	0.69	B	0.66	B	0.69	B	0.66	B
70 MacArthur Bl. & I-405 SB Ramps	0.63	B	0.79	C	0.63	B	0.79	C
71 MacArthur Bl. & Michelson Dr.	0.70	B	0.90	D	0.70	B	0.90	D

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Attachment 1

Attachment 1, Item 1
Model Trip Generation for Approved General Plan

NBTM Land Use Code	NBTM Land Use Description	Quantity	Units	Trips						
				AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1a	Res-Low (SFD)-Balboa	0	DU	0	0	0	0	0	0	0
1b	Res-Low (SFD)	0	DU	0	0	0	0	0	0	0
2a	Res-Medium (SFA)-Balboa	0	DU	0	0	0	0	0	0	0
2b	Res-Medium (SFA)	0	DU	0	0	0	0	0	0	0
3a	Apartment-Balboa	0	DU	0	0	0	0	0	0	0
3b	Apartment	0	DU	0	0	0	0	0	0	0
3c	Apartment (High-Rise)	0	DU	0	0	0	0	0	0	0
3d	Apartment (Res-over-Retail)	0	DU	0	0	0	0	0	0	0
3e	Apartment (Mid-Rise Newport Center)	0	DU	0	0	0	0	0	0	0
4	Elderly Residential	0	DU	0	0	0	0	0	0	0
5a	Mobile Home-Balboa	0	DU	0	0	0	0	0	0	0
5b	Mobile Home	0	DU	0	0	0	0	0	0	0
6	Motel	0	ROOM	0	0	0	0	0	0	0
7	Hotel	0	ROOM	0	0	0	0	0	0	0
9	Regional Commercial	0	TSF	0	0	0	0	0	0	0
10a	General Commercial	107.336	TSF	191	86	277	164	217	381	4105
10b	Comm (Res-over-Retail)	0	TSF	0	0	0	0	0	0	0
11	Comm./Recreation	0	ACRE	0	0	0	0	0	0	0
13	Restaurant	0	TSF	0	0	0	0	0	0	0
15	Fast Food Restaurant	0	TSF	0	0	0	0	0	0	0
16	Auto Dealer/Sales	0	TSF	0	0	0	0	0	0	0
17	Yacht Club	0	TSF	0	0	0	0	0	0	0
18	Health Club	0	TSF	0	0	0	0	0	0	0
19	Tennis Club	0	CRT	0	0	0	0	0	0	0
20	Marina	0	SLIP	0	0	0	0	0	0	0
21	Theater	0	SEAT	0	0	0	0	0	0	0
22	Newport Dunes	0	ACRE	0	0	0	0	0	0	0
23a	General Office	232.562	TSF	195	60	255	91	151	242	2577
23b	Office (>300K block Newport Center)	0	TSF	0	0	0	0	0	0	0
24	Medical/Government Office	0	TSF	0	0	0	0	0	0	0
25	R & D	0	TSF	0	0	0	0	0	0	0
26	Industrial	26.834	TSF	13	3	16	5	9	14	147
27	Mini-Storage/Warehouse	0	TSF	0	0	0	0	0	0	0
28	Pre-School/Day Care	0	TSF	0	0	0	0	0	0	0
29	Elementary/Private School	0	STU	0	0	0	0	0	0	0
30	Junior/High School	0	STU	0	0	0	0	0	0	0
31	Cultural/Learning Center	0	TSF	0	0	0	0	0	0	0
32	Library	0	TSF	0	0	0	0	0	0	0
33	Post Office	0	TSF	0	0	0	0	0	0	0
34	Hospital	0	BEDS	0	0	0	0	0	0	0
35	Nursing/Conv. Home	0	BEDS	0	0	0	0	0	0	0
36	Church	0	TSF	0	0	0	0	0	0	0
37	Youth Ctr/Service	0	TSF	0	0	0	0	0	0	0
38	Park	0	ACRE	0	0	0	0	0	0	0
39	Regional Park	0	ACRE	0	0	0	0	0	0	0
40	Golf Course	0	ACRE	0	0	0	0	0	0	0
41	Resort Golf Course	0	ACRE	0	0	0	0	0	0	0
Total				399	149	548	260	377	637	6829

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Attachment 1, Item 2
Model Trip Generation with Proposed Project

NBTM Land Use Code	NBTM Land Use Description	Quantity	Units	Trips						
				AM Peak Hour			PM Peak Hour			Daily
				In	Out	Total	In	Out	Total	
1a	Res-Low (SFD)-Balboa	0	DU	0	0	0	0	0	0	0
1b	Res-Low (SFD)	0	DU	0	0	0	0	0	0	0
2a	Res-Medium (SFA)-Balboa	0	DU	0	0	0	0	0	0	0
2b	Res-Medium (SFA)	0	DU	0	0	0	0	0	0	0
3a	Apartment-Balboa	0	DU	0	0	0	0	0	0	0
3b	Apartment	0	DU	0	0	0	0	0	0	0
3c	Apartment (High-Rise)	329	DU	33	125	158	95	53	148	1612
3d	Apartment (Res-over-Retail)	0	DU	0	0	0	0	0	0	0
3e	Apartment (Mid-Rise Newport Center)	0	DU	0	0	0	0	0	0	0
4	Elderly Residential	0	DU	0	0	0	0	0	0	0
5a	Mobile Home-Balboa	0	DU	0	0	0	0	0	0	0
5b	Mobile Home	0	DU	0	0	0	0	0	0	0
6	Motel	0	ROOM	0	0	0	0	0	0	0
7	Hotel	0	ROOM	0	0	0	0	0	0	0
9	Regional Commercial	0	TSF	0	0	0	0	0	0	0
10a	General Commercial	46.41	TSF	83	37	120	71	94	165	1775
10b	Comm (Res-over-Retail)	0	TSF	0	0	0	0	0	0	0
11	Comm./Recreation	0	ACRE	0	0	0	0	0	0	0
13	Restaurant	0	TSF	0	0	0	0	0	0	0
15	Fast Food Restaurant	0	TSF	0	0	0	0	0	0	0
16	Auto Dealer/Sales	0	TSF	0	0	0	0	0	0	0
17	Yacht Club	0	TSF	0	0	0	0	0	0	0
18	Health Club	0	TSF	0	0	0	0	0	0	0
19	Tennis Club	0	CRT	0	0	0	0	0	0	0
20	Marina	0	SLIP	0	0	0	0	0	0	0
21	Theater	0	SEAT	0	0	0	0	0	0	0
22	Newport Dunes	0	ACRE	0	0	0	0	0	0	0
23a	General Office	232.562	TSF	195	60	255	91	151	242	2577
23b	Office (>300K block Newport Center)	0	TSF	0	0	0	0	0	0	0
24	Medical/Government Office	0	TSF	0	0	0	0	0	0	0
25	R & D	0	TSF	0	0	0	0	0	0	0
26	Industrial	18.6	TSF	9	2	11	3	6	9	102
27	Mini-Storage/Warehouse	0	TSF	0	0	0	0	0	0	0
28	Pre-School/Day Care	0	TSF	0	0	0	0	0	0	0
29	Elementary/Private School	0	STU	0	0	0	0	0	0	0
30	Junior/High School	0	STU	0	0	0	0	0	0	0
31	Cultural/Learning Center	0	TSF	0	0	0	0	0	0	0
32	Library	0	TSF	0	0	0	0	0	0	0
33	Post Office	0	TSF	0	0	0	0	0	0	0
34	Hospital	0	BEDS	0	0	0	0	0	0	0
35	Nursing/Conv. Home	0	BEDS	0	0	0	0	0	0	0
36	Church	0	TSF	0	0	0	0	0	0	0
37	Youth Ctr/Service	0	TSF	0	0	0	0	0	0	0
38	Park	0	ACRE	0	0	0	0	0	0	0
39	Regional Park	0	ACRE	0	0	0	0	0	0	0
40	Golf Course	0	ACRE	0	0	0	0	0	0	0
41	Resort Golf Course	0	ACRE	0	0	0	0	0	0	0
Total				320	224	544	260	304	564	6066

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Attachment 1, Item 3
Model Trip Generation for Density Bonus Units

NBTM Land Use Code	NBTM Land Use Description	Quantity	Units	Trips						Daily	
				AM Peak Hour			PM Peak Hour				
				In	Out	Total	In	Out	Total		
1a	Res-Low (SFD)-Balboa	0	DU	0	0	0	0	0	0	0	
1b	Res-Low (SFD)	0	DU	0	0	0	0	0	0	0	
2a	Res-Medium (SFA)-Balboa	0	DU	0	0	0	0	0	0	0	
2b	Res-Medium (SFA)	0	DU	0	0	0	0	0	0	0	
3a	Apartment-Balboa	0	DU	0	0	0	0	0	0	0	
3b	Apartment	0	DU	0	0	0	0	0	0	0	
3c	Apartment (High-Rise)	115	DU	12	44	55	33	18	52	564	
3d	Apartment (Res-over-Retail)	0	DU	0	0	0	0	0	0	0	
3e	Apartment (Mid-Rise Newport Center)	0	DU	0	0	0	0	0	0	0	
4	Elderly Residential	0	DU	0	0	0	0	0	0	0	
5a	Mobile Home-Balboa	0	DU	0	0	0	0	0	0	0	
5b	Mobile Home	0	DU	0	0	0	0	0	0	0	
6	Motel	0	ROOM	0	0	0	0	0	0	0	
7	Hotel	0	ROOM	0	0	0	0	0	0	0	
9	Regional Commercial	0	TSF	0	0	0	0	0	0	0	
10a	General Commercial	0	TSF	0	0	0	0	0	0	0	
10b	Comm (Res-over-Retail)	0	TSF	0	0	0	0	0	0	0	
11	Comm./Recreation	0	ACRE	0	0	0	0	0	0	0	
13	Restaurant	0	TSF	0	0	0	0	0	0	0	
15	Fast Food Restaurant	0	TSF	0	0	0	0	0	0	0	
16	Auto Dealer/Sales	0	TSF	0	0	0	0	0	0	0	
17	Yacht Club	0	TSF	0	0	0	0	0	0	0	
18	Health Club	0	TSF	0	0	0	0	0	0	0	
19	Tennis Club	0	CRT	0	0	0	0	0	0	0	
20	Marina	0	SLIP	0	0	0	0	0	0	0	
21	Theater	0	SEAT	0	0	0	0	0	0	0	
22	Newport Dunes	0	ACRE	0	0	0	0	0	0	0	
23a	General Office	0	TSF	0	0	0	0	0	0	0	
23b	Office (>300K block Newport Center)	0	TSF	0	0	0	0	0	0	0	
24	Medical/Government Office	0	TSF	0	0	0	0	0	0	0	
25	R & D	0	TSF	0	0	0	0	0	0	0	
26	Industrial	0	TSF	0	0	0	0	0	0	0	
27	Mini-Storage/Warehouse	0	TSF	0	0	0	0	0	0	0	
28	Pre-School/Day Care	0	TSF	0	0	0	0	0	0	0	
29	Elementary/Private School	0	STU	0	0	0	0	0	0	0	
30	Junior/High School	0	STU	0	0	0	0	0	0	0	
31	Cultural/Learning Center	0	TSF	0	0	0	0	0	0	0	
32	Library	0	TSF	0	0	0	0	0	0	0	
33	Post Office	0	TSF	0	0	0	0	0	0	0	
34	Hospital	0	BEDS	0	0	0	0	0	0	0	
35	Nursing/Conv. Home	0	BEDS	0	0	0	0	0	0	0	
36	Church	0	TSF	0	0	0	0	0	0	0	
37	Youth Ctr/Service	0	TSF	0	0	0	0	0	0	0	
38	Park	0	ACRE	0	0	0	0	0	0	0	
39	Regional Park	0	ACRE	0	0	0	0	0	0	0	
40	Golf Course	0	ACRE	0	0	0	0	0	0	0	
41	Resort Golf Course	0	ACRE	0	0	0	0	0	0	0	
Total				12	44	55	33	18	52	564	

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Attachment 2

9 . MacArthur Bl at Campus Dr

GP Baseline								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR
NBL	2	3200	220	.069		185	.058*	
NBT	4	6400	987	.154*		1221	.191	
NBR	1	1600	90	.056		46	.029	
SBL	1	1600	193	.121*		143	.089	
SBT	3.5	8000	925	.193		1106	.225*	
SBR	1.5		673	.210		697		
EBL	2	3200	546	.171*		461	.144*	
EBT	3	4800	1057	.220		622	.130	
EBR	d	1600	128	.080		163	.102	
WBL	2	3200	57	.018		83	.026	
WBT	3	4800	638	.133*		1160	.242*	
WBR	f		57			131		
Right Turn Adjustment			SBR	.004*				
TOTAL CAPACITY UTILIZATION					.583		.669	

10 . MacArthur Bl at Birch St

GP Baseline								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR
NBL	1	1600	35	.022		142	.089*	
NBT	3	4800	878	.183*		854	.178	
NBR	1	1600	81	.051		60	.038	
SBL	1	1600	106	.066*		114	.071	
SBT	4	6400	726	.151		1138	.222*	
SBR	0	0	265	.166		280		
EBL	1.5		190			314		
EBT	1.5	4800	514	.165*		426	.161*	
EBR	0		87			34		
WBL	1	1600	47	.029		108	.068	
WBT	2	3200	380	.119*		569	.178*	
WBR	f		162			202		
Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION					.533		.650	

11 . Von Karman Av at Campus

GP Baseline							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1600	39	.024		50	.031*
NBT	2	3200	853	.292*		564	.223
NBR	0	0	82			148	
SBL	1	1600	93	.058*		224	.140
SBT	2	3200	641	.263		815	.370*
SBR	0	0	201			368	
EBL	2	3200	274	.086*		234	.073*
EBT	2	3200	526	.185		791	.272
EBR	0	0	66			79	
WBL	1	1600	124	.078		78	.049
WBT	2	3200	703	.256*		745	.265*
WBR	0	0	116			104	
TOTAL CAPACITY UTILIZATION				.692		.739	

12 . MacArthur Bl at Von Karman

GP Baseline							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1600	44	.028		40	.025*
NBT	3	4800	915	.191*		806	.168
NBR	1	1600	768	.480		191	.119
SBL	1	1600	74	.046*		48	.030
SBT	3	4800	573	.119		1248	.260*
SBR	1	1600	135	.084		68	.043
EBL	1	1600	13	.008*		103	.064
EBT	2	3200	89	.028		213	.067*
EBR	f		19			135	
WBL	2	3200	157	.049		663	.207*
WBT	1	1600	171	.107*		102	.064
WBR	f		52			143	
Right Turn Adjustment				NBR	.289*		
TOTAL CAPACITY UTILIZATION				.641		.559	

15 . Campus Dr at Bristol St(N)

GP Baseline							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	518	.162		488	.153*
NBT	4	6400	2110	.330*		1036	.162
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	4	6400	547	.085		1317	.206*
SBR	3	4800	229	.048		1191	.248
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1	1600	283	.177*		303	.189
WBT	5	8000	1193	.168		2671	.347*
WBR	0	0	150			104	
Right Turn Adjustment						SBR	.042*
TOTAL CAPACITY UTILIZATION				.507		.748	

16 . Birch St at Bristol St(N)

GP Baseline							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	85	.027		164	.051*
NBT	2	3200	1214	.379*		466	.146
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	1.5	6400	264	.083		562	.231*
SBR	2.5		245	.077		918	
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1.5		376			578	
WBT	3.5	8000	1300	.257*		2058	.354*
WBR	0		376			194	
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION				.636		.636	

17 . Campus Dr at Bristol St(S)

GP Baseline								
	LANES	CAPACITY	AM VOL	PK HOUR V/C		PM VOL	PK HOUR V/C	
NBL	0	0	0			0		
NBT	5	8000	1362	.206*	1002		.157*	
NBR	0	0	287		309		.193	
SBL	1	1600	171	.107*	258		.161*	
SBT	3	4800	658	.137	1361		.284	
SBR	0	0	0		0			
EBL	1.5		1272		518			
EBT	2.5	6400	1914	.498*	973		.233*	
EBR	2	3200	534	.167	569		.178	
WBL	0	0	0		0			
WBT	0	0	0		0			
WBR	0	0	0		0			
Right Turn Adjustment					NBR		.036*	
Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION					.811		.587	

18 . Birch St at Bristol St(S)

GP Baseline								
	LANES	CAPACITY	AM VOL	PK HOUR V/C		PM VOL	PK HOUR V/C	
NBL	0	0	0			0		
NBT	2.5	6400	538	.156*	438		.097	
NBR	1.5		462		182			
SBL	2	3200	170	.053*	170		.053	
SBT	2	3200	470	.147	973		.304*	
SBR	0	0	0		0			
EBL	1.5		752		194		.121	
EBT	3.5	8000	1378	.285*	1315		.223*	
EBR	0		150		110			
WBL	0	0	0		0			
WBT	0	0	0		0			
WBR	0	0	0		0			
Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION					.494		.527	

29 . MacArthur Bl at Jamboree Rd

GP Baseline							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	345	.108*	380	.119*	
NBT	4	6400	1136	.178	492	.077	
NBR	1	1600	385	.241	336	.210	
SBL	3	4800	54	.011	210	.044	
SBT	3	4800	523	.109*	1445	.301*	
SBR	f		196		517		
EBL	2	3200	536	.168*	415	.130*	
EBT	4	6400	1361	.213	1085	.170	
EBR	1	1600	497	.311	127	.079	
WBL	3	4800	440	.092	638	.133	
WBT	3	4800	1089	.227*	1572	.328*	
WBR	1	1600	88	.055	213	.133	
Right Turn Adjustment			EBR	.008*			
Note: Assumes Right-Turn Overlap for NBR							

TOTAL CAPACITY UTILIZATION .620 .878

30 . Jamboree Rd at Bristol St(N)

GP Baseline							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	743	.232	803	.251*	
NBT	2.5	6400	2320	.483*	1510	.377	
NBR	1.5		690	.431	900		
SBL	0	0	0		0		
SBT	3.5	8000	1040	.203	1270	.265*	
SBR	1.5		587		1327	.415	
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	0	0	0		0		
WBT	0	0	0		0		
WBR	0	0	0		0		
Right Turn Adjustment			SBR	.150*			

TOTAL CAPACITY UTILIZATION .483 .666

69 . MacArthur Bl. at I-405 NB Ramps

GP Baseline (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0		
NBT	4	6800	2009	.30*	2177	.32*	
NBR	2	3400	358	.11	1115	.33	
SBL	2	3400	162	.05*	495	.15*	
SBT	4	6800	1431	.21	2042	.30	
SBR	0	0	0		0		
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	2	3400	889	.26*	518	.15*	
WBT	0	0	0		0		
WBR	2	3400	1091	.32	423	.12	
Right Turn Adjustment		WBR		.02*			
Clearance Interval				.05*		.05*	
TOTAL CAPACITY UTILIZATION				.68		.67	

70 . MacArthur Bl. at I-405 SB Ramps

GP Baseline (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0		
NBT	4	6800	1499	.22*	2890	.43*	
NBR	1	1700	432	.25	676	.40	
SBL	2	3400	160	.05*	477	.14*	
SBT	4	6800	1692	.25	1719	.25	
SBR	1	1700	475	.28	384	.23	
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	2	3400	994	.29*	507	.15*	
WBT	1	1700	138	.08	157	.09	
WBR	f		809		369		
Clearance Interval					.05*		.05*
Note: Assumes Right-Turn Overlap for NBR							
TOTAL CAPACITY UTILIZATION				.61		.77	

71 . MacArthur Bl. at Michelson Dr.

GP Baseline (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1700	254	.15	212	.12	
NBT	4	6800	1319	.19*	1759	.26*	
NBR	1	1700	300	.18	119	.07	
SBL	2	3400	973	.29*	619	.18*	
SBT	4	6800	1590	.24	1520	.23	
SBR	0	0	14		12		
EBL	2	3400	347	.10*	385	.11	
EBT	1	1700	78	.05	112	.07*	
EBR	1	1700	86	.05	134	.08	
WBL	2	3400	95	.03	517	.15*	
WBT	1	1700	92	.05*	107	.06	
WBR	1	1700	264	.16	776	.46	
Right Turn Adjustment				WBR		.17*	
Clearance Interval					.05*	.05*	
Note: Assumes Right-Turn Overlap for WBR							
TOTAL CAPACITY UTILIZATION				.68		.88	

72 . Von Karman Av. at Barranca Pkwy.

GP Baseline (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3400	183	.05*	319	.09	
NBT	2	3400	576	.17	1445	.43*	
NBR	d	1700	152	.09	377	.22	
SBL	2	3400	285	.08	441	.13*	
SBT	2	3400	1131	.33*	661	.19	
SBR	2	3400	347	.10	388	.11	
EBL	2	3400	224	.07*	507	.15	
EBT	3	5100	552	.11	1193	.23*	
EBR	1	1700	235	.14	200	.12	
WBL	2	3400	544	.16	159	.05*	
WBT	4	6800	1480	.22*	833	.12	
WBR	1	1700	510	.30	408	.24	
Right Turn Adjustment					WBR		.01*
Clearance Interval					.05*	.05*	
Note: Assumes Right-Turn Overlap for SBR							
TOTAL CAPACITY UTILIZATION				.72		.90	

Attachment 3

9 . MacArthur Bl at Campus Dr

GP Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	245	.077	189	.059*	
NBT	4	6400	1072	.168*	1268	.198	
NBR	1	1600	83	.052	47	.029	
SBL	1	1600	170	.106*	157	.098	
SBT	3.5	8000	849	.177	1283	.254*	
SBR	1.5		718	.224	752		
EBL	2	3200	670	.209*	482	.151*	
EBT	3	4800	1106	.230	646	.135	
EBR	d	1600	139	.087	180	.113	
WBL	2	3200	42	.013	87	.027	
WBT	3	4800	547	.114*	1129	.235*	
WBR	f		47		130		
Right Turn Adjustment			SBR	.027*			
TOTAL CAPACITY UTILIZATION				.624		.699	

10 . MacArthur Bl at Birch St

GP Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1600	34	.021	151	.094*	
NBT	3	4800	911	.190*	872	.182	
NBR	1	1600	67	.042	63	.039	
SBL	1	1600	85	.053*	136	.085	
SBT	4	6400	687	.143	1249	.248*	
SBR	0	0	255	.159	336		
EBL	1.5		261		338		
EBT	1.5	4800	567	.196*	472	.176*	
EBR	0		112		34		
WBL	1	1600	51	.032	107	.067	
WBT	2	3200	420	.131*	613	.192*	
WBR	f		188		210		
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION				.570		.710	

11 . Von Karman Av at Campus

GP Project								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR
NBL	1	1600	47	.029		50	.031*	
NBT	2	3200	885	.308*		567	.226	
NBR	0	0	101			155		
SBL	1	1600	91	.057*		216	.135	
SBT	2	3200	724	.288		845	.369*	
SBR	0	0	196			335		
EGL	2	3200	263	.082*		228	.071	
EBT	2	3200	597	.214		809	.280*	
EBR	0	0	87			87		
WBL	1	1600	120	.075		88	.055*	
WBT	2	3200	586	.209*		735	.262	
WBR	0	0	82			104		
TOTAL CAPACITY UTILIZATION					.656			.735

12 . MacArthur Bl at Von Karman

GP Project								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR
NBL	1	1600	46	.029		51	.032*	
NBT	3	4800	906	.189*		833	.174	
NBR	1	1600	735	.459		201	.126	
SBL	1	1600	64	.040*		49	.031	
SBT	3	4800	601	.125		1282	.267*	
SBR	1	1600	128	.080		84	.053	
EGL	1	1600	23	.014*		102	.064	
EBT	2	3200	151	.047		212	.066*	
EBR	f		40			137		
WBL	2	3200	179	.056		672	.210*	
WBT	1	1600	176	.110*		125	.078	
WBR	f		51			141		
Right Turn Adjustment				NBR	.270*			
TOTAL CAPACITY UTILIZATION					.623			.575

15 . Campus Dr at Bristol St(N)

GP Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	546	.171		467	.146*
NBT	4	6400	2042	.319*		1060	.166
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	4	6400	552	.086		1269	.198*
SBR	3	4800	244	.051		1141	.238
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1	1600	288	.180*		301	.188
WBT	5	8000	1281	.179		2632	.343*
WBR	0	0	148			110	
Right Turn Adjustment						SBR	.040*
TOTAL CAPACITY UTILIZATION					.499	.727	

16 . Birch St at Bristol St(N)

GP Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	84	.026		174	.054*
NBT	2	3200	1111	.347*		496	.155
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	1.5	6400	315	.098		560	.225*
SBR	2.5		314	.098		880	
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1.5		357			602	
WBT	3.5	8000	1326	.255*		2062	.357*
WBR	0		353			195	
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION					.602	.636	

17 . Campus Dr at Bristol St(S)

GP Project								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK	HOUR V/C
NBL	0	0	0			0		
NBT	5	8000	1386	.210*	988	.154*		
NBR	0	0	295		303	.189		
SBL	1	1600	170	.106*	255	.159*		
SBT	3	4800	669	.139	1314	.274		
SBR	0	0	0		0			
EBL	1.5		1204			532		
EBT	2.5	6400	1825	.473*	992	.238*		
EBR	2	3200	521	.163	566	.177		
WBL	0	0	0			0		
WBT	0	0	0			0		
WBR	0	0	0			0		
Right Turn Adjustment						NBR	.035*	
Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION						.789	.586	

18 . Birch St at Bristol St(S)

GP Project								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK	HOUR V/C
NBL	0	0	0			0		
NBT	2.5	6400	524	.161*	462	.100		
NBR	1.5		506		178			
SBL	2	3200	170	.053*	177	.055		
SBT	2	3200	501	.157	983	.307*		
SBR	0	0	0		0			
EBL	1.5		666			208	.130	
EBT	3.5	8000	1374	.275*	1315	.222*		
EBR	0		159		107			
WBL	0	0	0			0		
WBT	0	0	0			0		
WBR	0	0	0			0		
Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION						.489	.529	

29 . MacArthur Bl at Jamboree Rd

GP Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	365	.114*	384	.120*	
NBT	4	6400	1093	.171	513	.080	
NBR	1	1600	400	.250	352	.220	
SBL	3	4800	59	.012	221	.046	
SBT	3	4800	548	.114*	1467	.306*	
SBR	f		216		524		
EBL	2	3200	524	.164*	431	.135*	
EBT	4	6400	1434	.224	1138	.178	
EBR	1	1600	505	.316	128	.080	
WBL	3	4800	450	.094	638	.133	
WBT	3	4800	1173	.244*	1566	.326*	
WBR	1	1600	86	.054	218	.136	
Right Turn Adjustment			EBR	.002*			
Note: Assumes Right-Turn Overlap for NBR							
TOTAL CAPACITY UTILIZATION				.638		.887	

30 . Jamboree Rd at Bristol St(N

GP Project							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	730	.228	805	.252*	
NBT	2.5	6400	2370	.494*	1610	.392	
NBR	1.5		690	.431	900		
SBL	0	0	0		0		
SBT	3.5	8000	1110	.218	1280	.267*	
SBR	1.5		630		1345	.420	
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	0	0	0		0		
WBT	0	0	0		0		
WBR	0	0	0		0		
Right Turn Adjustment				SBR	.153*		
TOTAL CAPACITY UTILIZATION				.494		.672	

69 . MacArthur Bl. at I-405 NB Ramps

GP Project (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0	0	
NBT	4	6800	2105	.31*	2183	.32*	
NBR	2	3400	392	.12	1206	.35	
SBL	2	3400	159	.05*	479	.14*	
SBT	4	6800	1386	.20	2105	.31	
SBR	0	0	0		0		
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	2	3400	914	.27*	517	.15*	
WBT	0	0	0		0		
WBR	2	3400	1087	.32	428	.13	
Right Turn Adjustment					WBR	.01*	
Clearance Interval						.05*	.05*
TOTAL CAPACITY UTILIZATION						.69	.66

70 . MacArthur Bl. at I-405 SB Ramps

GP Project (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0	0	
NBT	4	6800	1628	.24*	2990	.44*	
NBR	1	1700	447	.26	682	.40	
SBL	2	3400	156	.05*	468	.14*	
SBT	4	6800	1764	.26	1788	.26	
SBR	1	1700	387	.23	387	.23	
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	2	3400	987	.29*	535	.16*	
WBT	1	1700	148	.09	158	.09	
WBR	f		810		366		
Clearance Interval						.05*	.05*
Note: Assumes Right-Turn Overlap for NBR							
TOTAL CAPACITY UTILIZATION						.63	.79

71 . MacArthur Bl. at Michelson Dr.

GP Project (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1700	275	.16	158	.09	
NBT	4	6800	1427	.21*	1864	.27*	
NBR	1	1700	315	.19	122	.07	
SBL	2	3400	1024	.30*	619	.18*	
SBT	4	6800	1631	.24	1626	.24	
SBR	0	0	14		12		
EBL	2	3400	355	.10*	361	.11	
EBT	1	1700	77	.05	83	.05*	
EBR	1	1700	85	.05	140	.08	
WBL	2	3400	106	.03	550	.16*	
WBT	1	1700	69	.04*	91	.05	
WBR	1	1700	263	.15	794	.47	
Right Turn Adjustment					WBR	.19*	
Clearance Interval						.05*	.05*
Note: Assumes Right-Turn Overlap for WBR							
TOTAL CAPACITY UTILIZATION						.70	.90

72 . Von Karman Av. at Barranca Pkwy.

GP Project (IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3400	177	.05*	332	.10	
NBT	2	3400	571	.17	1463	.43*	
NBR	d	1700	164	.10	376	.22	
SBL	2	3400	225	.07	428	.13*	
SBT	2	3400	1133	.33*	678	.20	
SBR	2	3400	341	.10	388	.11	
EBL	2	3400	223	.07*	506	.15	
EBT	3	5100	578	.11	1183	.23*	
EBR	1	1700	231	.14	186	.11	
WBL	2	3400	539	.16	162	.05*	
WBT	4	6800	1483	.22*	839	.12	
WBR	1	1700	532	.31	393	.23	
Clearance Interval						.05*	.05*
Note: Assumes Right-Turn Overlap for SBR							
TOTAL CAPACITY UTILIZATION						.72	.89

Attachment 4

9 . MacArthur Bl at Campus Dr

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	220	.069		185	.058*
NBT	4	6400	987	.154*		1221	.191
NBR	1	1600	90	.056		46	.029
SBL	1	1600	193	.121*		143	.089
SBT	3.5	8000	925	.193		1106	.226*
SBR	1.5		660	.206		703	
EBL	2	3200	570	.178*		450	.141*
EBT	3	4800	1074	.224		613	.128
EBR	d	1600	128	.080		163	.102
WBL	2	3200	57	.018		83	.026
WBT	3	4800	628	.131*		1165	.243*
WBR	f		57			131	
TOTAL CAPACITY UTILIZATION				.584		.668	

10 . MacArthur Bl at Birch St

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1600	24	.015		147	.092*
NBT	3	4800	878	.183*		854	.178
NBR	1	1600	81	.051		60	.038
SBL	1	1600	106	.066*		114	.071
SBT	4	6400	726	.151		1138	.222*
SBR	0	0	265	.166		280	
EBL	1.5		190			314	
EBT	1.5	4800	532	.172*		417	.158*
EBR	0		105			25	
WBL	1	1600	47	.029		108	.068
WBT	2	3200	370	.116*		574	.179*
WBR	f		162			202	
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION				.537		.651	

11 . Von Karman Av at Campus

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1600	39	.024		50	.031*
NBT	2	3200	859	.294*		561	.222
NBR	0	0	82			148	
SBL	1	1600	93	.058*		224	.140
SBT	2	3200	638	.293		817	.371*
SBR	0	0	298			370	
EBL	2	3200	280	.088*		231	.072*
EBT	2	3200	537	.188		785	.270
EBR	0	0	66			79	
WBL	1	1600	124	.078		78	.049
WBT	2	3200	696	.254*		748	.266*
WBR	0	0	116			104	
TOTAL CAPACITY UTILIZATION				.694		.740	

12 . MacArthur Bl at Von Karman

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1600	44	.028		40	.025*
NBT	3	4800	904	.188*		811	.169
NBR	1	1600	768	.480		191	.119
SBL	1	1600	74	.046*		48	.030
SBT	3	4800	591	.123		1239	.258*
SBR	1	1600	135	.084		68	.043
EBL	1	1600	13	.008*		103	.064
EBT	2	3200	89	.028		213	.067*
EBR	f		19			135	
WBL	2	3200	157	.049		663	.207*
WBT	1	1600	171	.107*		102	.064
WBR	f		52			143	
Right Turn Adjustment				NBR	.292*		
TOTAL CAPACITY UTILIZATION				.641		.557	

15 . Campus Dr at Bristol St(N)

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	518	.162		488	.153*
NBT	4	6400	2100	.328*		1041	.163
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	4	6400	559	.087		1313	.205*
SBR	3	4800	241	.050		1186	.247
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1	1600	283	.177*		303	.189
WBT	5	8000	1199	.168		2668	.347*
WBR	0	0	147			106	
Right Turn Adjustment						SBR	.042*
TOTAL CAPACITY UTILIZATION				.505		.747	

16 . Birch St at Bristol St(N)

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	85	.027		164	.051*
NBT	2	3200	1207	.377*		469	.147
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	1.5	6400	276	.086		558	.230*
SBR	2.5		251	.078		915	
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1.5		376			578	
WBT	3.5	8000	1297	.256*		2060	.354*
WBR	0		373			195	
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION				.633		.635	

17 . Campus Dr at Bristol St(S)

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0			0	
NBT	5	8000	1359	.206*	1006	.157*	
NBR	0	0	287		309	.193	
SBL	1	1600	177	.111*	255	.159*	
SBT	3	4800	662	.138	1360	.283	
SBR	0	0	0		0		
EBL	1.5		1265			517	
EBT	2.5	6400	1910	.496*	974	.233*	
EBR	2	3200	534	.167	570	.178	
WBL	0	0	0			0	
WBT	0	0	0			0	
WBR	0	0	0			0	
Right Turn Adjustment						NBR	.036*
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION						.813	.585

18 . Birch St at Bristol St(S)

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0			0	
NBT	2.5	6400	535	.156*	439	.097	
NBR	1.5		462		182		
SBL	2	3200	176	.055*	167	.052	
SBT	2	3200	476	.149	972	.304*	
SBR	0	0	0		0		
EBL	1.5		748			198	.124
EBT	3.5	8000	1384	.285*	1317	.223*	
EBR	0		150		110		
WBL	0	0	0			0	
WBT	0	0	0			0	
WBR	0	0	0			0	
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION						.496	.527

29 . MacArthur B1 at Jamboree Rd

GP Baseline wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	342	.107*	382	.119*	
NBT	4	6400	1136	.178	492	.077	
NBR	1	1600	385	.241	336	.210	
SBL	3	4800	54	.011	210	.044	
SBT	3	4800	523	.109*	1445	.301*	
SBR	f		196		517		
EBL	2	3200	536	.168*	415	.130*	
EBT	4	6400	1373	.215	1079	.169	
EBR	1	1600	503	.314	124	.078	
WBL	3	4800	440	.092	638	.133	
WBT	3	4800	1080	.225*	1575	.328*	
WBR	1	1600	88	.055	213	.133	
Right Turn Adjustment			EBR	.013*			
Note: Assumes Right-Turn Overlap for NBR							
TOTAL CAPACITY UTILIZATION				.622		.878	

79 . MacArthur Bl. at I-405 NB Ramps

GP Baseline wDB(IRVINE ISEC)								3	
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR	
NBL	0	0	0			0			
NBT	4	6800	2015	.30*	2174	.32*			
NBR	2	3400	371	.11	1111	.33			
SBL	2	3400	162	.05*	495	.15*			
SBT	4	6800	1429	.21	2045	.30			
SBR	0	0	0		0				
EBL	0	0	0		0				
EBT	0	0	0		0				
EBR	0	0	0		0				
WBL	2	3400	886	.26*	519	.15*			
WBT	0	0	0		0				
WBR	2	3400	1088	.32	423	.12			
Right Turn Adjustment									
Clearance Interval									
TOTAL CAPACITY UTILIZATION					.68				.67

80 . MacArthur Bl. at I-405 SB Ramps

GP Baseline wDB(IRVINE ISEC)								3	
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR	
NBL	0	0	0			0			
NBT	4	6800	1518	.22*	2883	.42*			
NBR	1	1700	437	.26	673	.40			
SBL	2	3400	160	.05*	477	.14*			
SBT	4	6800	1687	.25	1723	.25			
SBR	1	1700	475	.28	384	.23			
EBL	0	0	0		0				
EBT	0	0	0		0				
EBR	0	0	0		0				
WBL	2	3400	986	.29*	511	.15*			
WBT	1	1700	138	.08	157	.09			
WBR	f		809		369				
Clearance Interval									.05*
Note: Assumes Right-Turn Overlap for NBR									.05*
TOTAL CAPACITY UTILIZATION									.61
									.76

82 . MacArthur Bl. at Michelson Dr.

GP Baseline wDB(IRVINE ISEC)								3	
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C	HOUR	
NBL	1	1700	254	.15	212	.12			
NBT	4	6800	1343	.20*	1749	.26*			
NBR	1	1700	300	.18	119	.07			
SBL	2	3400	973	.29*	619	.18*			
SBT	4	6800	1577	.23	1528	.23			
SBR	0	0	14		12				
EBL	2	3400	347	.10*	385	.11			
EBT	1	1700	78	.05	112	.07*			
EBR	1	1700	86	.05	134	.08			
WBL	2	3400	95	.03	517	.15*			
WBT	1	1700	92	.05*	107	.06			
WBR	1	1700	264	.16	776	.46			
Right Turn Adjustment									
Clearance Interval									.05*
Note: Assumes Right-Turn Overlap for WBR									.05*
TOTAL CAPACITY UTILIZATION					.69				.88

Attachment 5

9 . MacArthur Bl at Campus Dr

GP Project wDB							
	LANES	CAPACITY	AM VOL	PK HOUR V/C	PM VOL	PK HOUR	V/C
NBL	2	3200	245	.077	189	.059*	
NBT	4	6400	1072	.168*	1268	.198	
NBR	1	1600	83	.052	47	.029	
SBL	1	1600	170	.106*	157	.098	
SBT	3.5	8000	849	.177	1283	.255*	
SBR	1.5		705	.220	758		
EBL	2	3200	684	.214*	471	.147*	
EBT	3	4800	1123	.234	637	.133	
EBR	d	1600	139	.087	180	.113	
WBL	2	3200	42	.013	87	.027	
WBT	3	4800	537	.112*	1134	.236*	
WBR	f		47		130		
Right Turn Adjustment			SBR	.023*			
TOTAL CAPACITY UTILIZATION				.623		.697	

10 . MacArthur Bl at Birch St

GP Project wDB							
	LANES	CAPACITY	AM VOL	PK HOUR V/C	PM VOL	PK HOUR	V/C
NBL	1	1600	23	.014	156	.098*	
NBT	3	4800	911	.190*	872	.182	
NBR	1	1600	67	.042	63	.039	
SBL	1	1600	85	.053*	136	.085	
SBT	4	6400	687	.143	1249	.248*	
SBR	0	0	255	.159	336		
EBL	1.5		261		338		
EBT	1.5	4800	585	.203*	463	.172*	
EBR	0		130		25		
WBL	1	1600	51	.032	107	.067	
WBT	2	3200	410	.128*	618	.193*	
WBR	f		188		210		
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION				.574		.711	

11 . Von Karman Av at Campus

GP Project wDB								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK	HOUR V/C
NBL	1	1600	47	.029		50	.031*	
NBT	2	3200	891	.310*		564	.225	
NBR	0	0	101			155		
SBL	1	1600	88	.055*		216	.135	
SBT	2	3200	721	.287		847	.370*	
SBR	0	0	196			337		
EBL	2	3200	269	.084		225	.070*	
EBT	2	3200	608	.217*		803	.278	
EBR	0	0	87			87		
WBL	1	1600	120	.075*		88	.055	
WBT	2	3200	579	.207		738	.263*	
WBR	0	0	82			104		
TOTAL CAPACITY UTILIZATION					.657		.734	

12 . MacArthur Bl at Von Karman

GP Project wDB								
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK	HOUR V/C
NBL	1	1600	46	.029		51	.032*	
NBT	3	4800	895	.186*		838	.175	
NBR	1	1600	735	.459		201	.126	
SBL	1	1600	64	.040*		49	.031	
SBT	3	4800	619	.129		1273	.265*	
SBR	1	1600	128	.080		84	.053	
EBL	1	1600	23	.014*		102	.064	
EBT	2	3200	151	.047		212	.066*	
EBR	f		40			137		
WBL	2	3200	179	.056		672	.210*	
WBT	1	1600	176	.110*		125	.078	
WBR	f		51			141		
Right Turn Adjustment					NBR	.273*		
TOTAL CAPACITY UTILIZATION					.623		.573	

15 . Campus Dr at Bristol St(N)

GP Project wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	546	.171		467	.146*
NBT	4	6400	2032	.318*		1065	.166
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	4	6400	564	.088		1265	.198*
SBR	3	4800	256	.053		1136	.237
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1	1600	288	.180*		301	.188
WBT	5	8000	1287	.179		2629	.343*
WBR	0	0	145			112	
Right Turn Adjustment						SBR	.039*
TOTAL CAPACITY UTILIZATION				.498		.726	

16 . Birch St at Bristol St(N)

GP Project wDB							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	2	3200	84	.026		174	.054*
NBT	2	3200	1104	.345*		499	.156
NBR	0	0	0			0	
SBL	0	0	0			0	
SBT	1.5	6400	327	.102		556	.224*
SBR	2.5		320	.100		877	
EBL	0	0	0			0	
EBT	0	0	0			0	
EBR	0	0	0			0	
WBL	1.5		357			602	
WBT	3.5	8000	1323	.254*		2064	.358*
WBR	0		350			197	
Note: Assumes E/W Split Phasing							
TOTAL CAPACITY UTILIZATION				.599		.636	

17 . Campus Dr at Bristol St(S)

GP Project wDB								
	LANES	CAPACITY	AM VOL	PK HOUR V/C		PM VOL	PK HOUR	V/C
NBL	0	0	0			0		
NBT	5	8000	1383	.210*	990	.155*		
NBR	0	0	295		303	.189		
SBL	1	1600	176	.110*	252	.158*		
SBT	3	4800	673	.140	1313	.274		
SBR	0	0	0		0			
EBL	1.5		1193		535			
EBT	2.5	6400	1821	.471*	994	.239*		
EBR	2	3200	521	.163	566	.177		
WBL	0	0	0		0			
WBT	0	0	0		0			
WBR	0	0	0		0			
Right Turn Adjustment						NBR	.034*	
Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION						.791	.586	

18 . Birch St at Bristol St(S)

GP Project wDB								
	LANES	CAPACITY	AM VOL	PK HOUR V/C		PM VOL	PK HOUR	V/C
NBL	0	0	0			0		
NBT	2.5	6400	521	.160*	464	.100		
NBR	1.5		506		177			
SBL	2	3200	176	.055*	174	.054		
SBT	2	3200	507	.158	982	.307*		
SBR	0	0	0		0			
EBL	1.5		663		210	.131		
EBT	3.5	8000	1380	.275*	1312	.222*		
EBR	0		159		107			
WBL	0	0	0		0			
WBT	0	0	0		0			
WBR	0	0	0		0			
Note: Assumes E/W Split Phasing								
TOTAL CAPACITY UTILIZATION						.490	.529	

29 . MacArthur Bl at Jamboree Rd

GP Project wDB							
	LANES	CAPACITY	AM VOL	PK V/C	PM VOL	PK V/C	HOUR
NBL	2	3200	362	.113*	386	.121*	
NBT	4	6400	1093	.171	513	.080	
NBR	1	1600	400	.250	352	.220	
SBL	3	4800	59	.012	221	.046	
SBT	3	4800	548	.114*	1467	.306*	
SBR	f		216		524		
EBL	2	3200	524	.164*	431	.135*	
EBT	4	6400	1446	.226	1132	.177	
EBR	1	1600	511	.319	125	.078	
WBL	3	4800	450	.094	638	.133	
WBT	3	4800	1164	.243*	1569	.327*	
WBR	1	1600	86	.054	218	.136	
Right Turn Adjustment			EBR	.006*			
Note: Assumes Right-Turn Overlap for NBR							
TOTAL CAPACITY UTILIZATION				.640		.889	

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79 . MacArthur Bl. at I-405 NB Ramps

GP Project LUE wDB(IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0	0	
NBT	4	6800	2111	.31*	2178	.32*	
NBR	2	3400	405	.12	1202	.35	
SBL	2	3400	159	.05*	479	.14*	
SBT	4	6800	1384	.20	2107	.31	
SBR	0	0	0		0		
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	2	3400	911	.27*	519	.15*	
WBT	0	0	0		0		
WBR	2	3400	1087	.32	428	.13	
Right Turn Adjustment							
Clearance Interval							
TOTAL CAPACITY UTILIZATION			.69		.66		

80 . MacArthur Bl. at I-405 SB Ramps

GP Project LUE wDB(IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	0	0	0		0	0	
NBT	4	6800	1647	.24*	2981	.44*	
NBR	1	1700	452	.27	680	.40	
SBL	2	3400	156	.05*	468	.14*	
SBT	4	6800	1759	.26	1792	.26	
SBR	1	1700	387	.23	387	.23	
EBL	0	0	0		0		
EBT	0	0	0		0		
EBR	0	0	0		0		
WBL	2	3400	979	.29*	537	.16*	
WBT	1	1700	148	.09	158	.09	
WBR	f		810		366		
Clearance Interval					.05*		.05*
Note: Assumes Right-Turn Overlap for NBR							
TOTAL CAPACITY UTILIZATION			.63		.79		

82 . MacArthur Bl. at Michelson Dr.

GP Project LUE wDB(IRVINE ISEC)							
	LANES	CAPACITY	AM VOL	PK V/C	HOUR	PM VOL	PK V/C
NBL	1	1700	275	.16	158	.09	
NBT	4	6800	1451	.21*	1853	.27*	
NBR	1	1700	315	.19	122	.07	
SBL	2	3400	1024	.30*	619	.18*	
SBT	4	6800	1618	.24	1632	.24	
SBR	0	0	14		12		
EBL	2	3400	355	.10*	361	.11	
EBT	1	1700	77	.05	83	.05*	
EBR	1	1700	85	.05	140	.08	
WBL	2	3400	106	.03	550	.16*	
WBT	1	1700	69	.04*	91	.05	
WBR	1	1700	263	.15	794	.47	
Right Turn Adjustment							
Clearance Interval							
Note: Assumes Right-Turn Overlap for WBR							
TOTAL CAPACITY UTILIZATION			.70		.90		