PROJECT TRAFFIC ANALYSIS

C:isociP20.ivc

TRIPS GENERATED BY PROJECTS

PROJECT (or Project Group)	A.M.PEAK HOUR enter	A.M.PEAK HOUR exit	P.M.PEAK HOUR enter	P.M.PEAK HOUR exit
ISOCI Expansion	33	21	21	33

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LEVEL OF SERVICE ANALYSIS

A.M. PEAK HOUR

Scenario: Year 2006
Geometrics: Existing Geometrics
Ambient Traffic Growth: 1 % per year

	Year 2005			Forecast Year 2006			Plus Proposed Project			
	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	+V/C
Soto and Washington	D	30.5	0.837	D	31.7	0.845	D	32.7	0.851	+0.006
Downey and Washington	B	6.6	0.616	B	7.1	0.621	B	7.4	0.624	+0.003
I-710 NB Ramps and Washington	A	5.0	0.461	A	5.0	0.465	A	5.0	0.468	+0.004
I-710 SB Ramps and Washington	A	5.0	0.527	A	5.0	0.532	A	5.0	0.535	+0.003
Soto and Olympic	C	23.8	0.788	C	24.6	0.796	C	24.8	0.798	+0.002
Lorena and Olympic	A	5.0	0.562	A	5.0	0.567	A	5.0	0.569	+0.003

Notes:
v/c = volume to capacity ratio (capacity utilization ratio)
delay = average stopped delay in seconds per vehicle
LOS = Level of Service

Soto and Washington

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	2	0	0	0	0	0	0	0	0	0	0	0	2
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	9	0	0	0	0	0	0	0	0	0	0	0	9
ST	1	0	0	0	0	0	0	0	0	0	0	0	1
SR	1	0	0	0	0	0	0	0	0	0	0	0	1
EL	2	0	0	0	0	0	0	0	0	0	0	0	2
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	15	0	0	0	0	0	0	0	0	0	0	0	15
Sum	30	0	0	0	0	0	0	0	0	0	0	0	30

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	1.00	1600	68	0.043	69	0.043	69	0.043	69	0.043
	THRU	2.00	3200	1264	0.410	1277	0.414	1278	0.415	1278	0.415
	RIGHT	0.00	0	49	0.000	49	0.000	49	0.000	49	0.000
SB	LEFT	1.00	1600	57	0.036	58	0.036	67	0.042	67	0.042
	THRU	2.00	3200	1174	0.432	1186	0.437	1187	0.437	1187	0.437
	RIGHT	0.00	0	209	0.000	211	0.000	212	0.000	212	0.000
EB	LEFT	1.00	1600	131	0.082	132	0.083	134	0.084	134	0.084
	THRU	2.00	3200	348	0.109	351	0.110	351	0.110	351	0.110
	RIGHT	1.00	1600	141	0.088	142	0.089	142	0.089	142	0.089
WB	LEFT	1.00	1600	81	0.051	82	0.051	82	0.051	82	0.051
	THRU	2.00	3200	702	0.230	709	0.233	709	0.237	709	0.237
	RIGHT	0.00	0	35	0.000	35	0.000	50	0.000	50	0.000
Intersection Volume				4259		4302		4331		4331	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.837		0.845		0.851		0.851	
Stopped Delay (sec/veh)				30.5		31.7		32.7		32.7	
LEVEL OF SERVICE (LOS)				D		D		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Downey and Washington

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	2	0	0	0	0	0	0	0	0	0	0	0	2
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	8	0	0	0	0	0	0	0	0	0	0	0	8
ER	1	0	0	0	0	0	0	0	0	0	0	0	1
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	8	0	0	0	0	0	0	0	0	0	0	0	8
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	20	0	0	0	0	0	0	0	0	0	0	0	20

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	1.00	1600	194	0.121	196	0.122	198	0.123	198	0.123
	THRU	2.00	3200	870	0.272	879	0.275	879	0.275	879	0.275
	RIGHT	1.00	1600	73	0.046	74	0.046	74	0.046	74	0.046
SB	LEFT	1.00	1600	75	0.047	76	0.047	76	0.047	76	0.047
	THRU	3.00	4800	737	0.154	744	0.155	744	0.155	744	0.155
	RIGHT	1.00	1600	206	0.129	208	0.130	208	0.130	208	0.130
EB	LEFT	1.00	1600	114	0.071	115	0.072	115	0.072	115	0.072
	THRU	2.00	3200	197	0.062	199	0.062	207	0.065	207	0.065
	RIGHT	1.00	1600	63	0.039	64	0.040	65	0.040	65	0.040
WB	LEFT	1.00	1600	124	0.078	125	0.078	125	0.078	125	0.078
	THRU	2.00	3200	562	0.176	568	0.177	576	0.180	576	0.180
	RIGHT	1.00	1600	73	0.046	74	0.046	74	0.046	74	0.046
Intersection Volume				3288		3321		3340		3340	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.616		0.621		0.624		0.624	
Stopped Delay (sec/veh)				6.6		7.1		7.4		7.4	
LEVEL OF SERVICE (LOS)				B		B		B		B	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-710 NB Ramps and Washington

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	3	0	0	0	0	0	0	0	0	0	0	0	3
EL	5	0	0	0	0	0	0	0	0	0	0	0	5
ET	1	0	0	0	0	0	0	0	0	0	0	0	1
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	2	0	0	0	0	0	0	0	0	0	0	0	2
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	11	0	0	0	0	0	0	0	0	0	0	0	11

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB	LEFT	1.80	2816	320	0.114	323	0.115	323	0.115	323	0.115
	THRU	0.10	160	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.10	1752	242	0.138	244	0.140	248	0.141	248	0.141
EB	LEFT	1.00	1600	86	0.054	87	0.054	92	0.058	92	0.058
	THRU	2.00	3200	634	0.198	640	0.200	641	0.200	641	0.200
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB	LEFT	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	778	0.243	786	0.246	787	0.246	787	0.246
	RIGHT	1.00	1600	268	0.168	271	0.169	271	0.169	271	0.169
Intersection Volume				2328		2351		2363		2363	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.461		0.465		0.468		0.468	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-710 SB Ramps and Washington

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A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	8	0	0	0	0	0	0	0	0	0	0	0	8
EL	2	0	0	0	0	0	0	0	0	0	0	0	2
ET	6	0	0	0	0	0	0	0	0	0	0	0	6
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	5	0	0	0	0	0	0	0	0	0	0	0	5
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	22	0	0	0	0	0	0	0	0	0	0	0	22

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
	THRU	1.00	1600	0	0.001	0	0.001	0	0.001	0	0.001
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
SB	LEFT	1.80	2816	314	0.112	317	0.113	317	0.113	317	0.113
	THRU	0.10	160	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.10	1752	215	0.123	217	0.124	225	0.129	225	0.129
EB	LEFT	1.00	1600	79	0.049	80	0.050	82	0.051	82	0.051
	THRU	3.00	4800	408	0.085	412	0.086	418	0.087	418	0.087
	RIGHT	0.00	0	0	0.000	0	0.000	0	0.000	0	0.000
WB	LEFT	1.00	1600	3	0.002	3	0.002	3	0.002	3	0.002
	THRU	2.00	3200	823	0.316	831	0.319	836	0.320	836	0.320
	RIGHT	0.00	0	187	0.000	189	0.000	189	0.000	189	0.000
Intersection Volume				2030		2050		2072		2072	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.527		0.532		0.535		0.535	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Soto and Olympic

File: C:isociA05.ivc

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	1	0	0	0	0	0	0	0	0	0	0	0	1
NT	5	0	0	0	0	0	0	0	0	0	0	0	5
NR	3	0	0	0	0	0	0	0	0	0	0	0	3
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	8	0	0	0	0	0	0	0	0	0	0	0	8
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	2	0	0	0	0	0	0	0	0	0	0	0	2
WL	5	0	0	0	0	0	0	0	0	0	0	0	5
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	24	0	0	0	0	0	0	0	0	0	0	0	24

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	1.00	1600	142	0.089	143	0.090	144	0.090	144	0.090
	THRU	3.00	4800	1106	0.241	1117	0.244	1122	0.246	1122	0.246
	RIGHT	0.00	0	53	0.000	54	0.000	57	0.000	57	0.000
SB	LEFT	1.00	1600	150	0.094	152	0.095	152	0.095	152	0.095
	THRU	3.00	4800	1515	0.334	1530	0.337	1538	0.339	1538	0.339
	RIGHT	0.00	0	87	0.000	88	0.000	88	0.000	88	0.000
EB	LEFT	1.00	1600	133	0.083	134	0.084	134	0.084	134	0.084
	THRU	3.00	4800	393	0.110	397	0.111	397	0.111	397	0.111
	RIGHT	0.00	0	134	0.000	135	0.000	137	0.000	137	0.000
WB	LEFT	1.00	1600	143	0.089	144	0.090	149	0.093	149	0.093
	THRU	2.00	3200	744	0.233	751	0.235	751	0.235	751	0.235
	RIGHT	1.00	1600	212	0.132	214	0.134	214	0.134	214	0.134
Intersection Volume				4812		4860		4884		4884	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.788		0.796		0.798		0.798	
Stopped Delay (sec/veh)				23.8		24.6		24.8		24.8	
LEVEL OF SERVICE (LOS)				C		C		C		C	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Lorena and Olympic

File: C:isociA05.ivc

A.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	3	0	0	0	0	0	0	0	0	0	0	0	3
EL	2	0	0	0	0	0	0	0	0	0	0	0	2
ET	1	0	0	0	0	0	0	0	0	0	0	0	1
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	2	0	0	0	0	0	0	0	0	0	0	0	2
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	8	0	0	0	0	0	0	0	0	0	0	0	8

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	0.00	0	55	0.000	56	0.000	56	0.000	56	0.000
	THRU	2.00	3200	371	0.166	375	0.167	375	0.167	375	0.167
	RIGHT	0.00	0	104	0.000	105	0.000	105	0.000	105	0.000
SB	LEFT	0.00	0	85	0.000	86	0.000	86	0.000	86	0.000
	THRU	2.00	3200	575	0.236	581	0.239	581	0.240	581	0.240
	RIGHT	0.00	0	96	0.000	97	0.000	100	0.000	100	0.000
EB	LEFT	1.00	1600	90	0.056	91	0.057	93	0.058	93	0.058
	THRU	3.00	4800	298	0.066	301	0.067	302	0.067	302	0.067
	RIGHT	0.00	0	20	0.000	20	0.000	20	0.000	20	0.000
WB	LEFT	1.00	1600	287	0.179	290	0.181	290	0.181	290	0.181
	THRU	3.00	4800	998	0.219	1008	0.221	1010	0.222	1010	0.222
	RIGHT	0.00	0	54	0.000	55	0.000	55	0.000	55	0.000
Intersection Volume				3033		3063		3071		3071	
Signal Phasing Loss Factor					0.05		0.05		0.05		0.05
Intersection V/C Ratio					0.562		0.567		0.569		0.569
Stopped Delay (sec/veh)					5.0		5.0		5.0		5.0
LEVEL OF SERVICE (LOS)					A		A		A		A

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Soto and Washington

File: C:isociP05.ivc

P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	1	0	0	0	0	0	0	0	0	0	0	0	1
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	15	0	0	0	0	0	0	0	0	0	0	0	15
ST	2	0	0	0	0	0	0	0	0	0	0	0	2
SR	2	0	0	0	0	0	0	0	0	0	0	0	2
EL	1	0	0	0	0	0	0	0	0	0	0	0	1
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	9	0	0	0	0	0	0	0	0	0	0	0	9
Sum	30	0	0	0	0	0	0	0	0	0	0	0	30

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	1.00	1600	83	0.052	84	0.052	84	0.052	84	0.052
	THRU	2.00	3200	1272	0.431	1285	0.435	1286	0.435	1286	0.435
	RIGHT	0.00	0	106	0.000	107	0.000	107	0.000	107	0.000
SB	LEFT	1.00	1600	48	0.030	48	0.030	63	0.040	63	0.040
	THRU	2.00	3200	1250	0.438	1263	0.442	1264	0.443	1264	0.443
	RIGHT	0.00	0	151	0.000	153	0.000	154	0.000	154	0.000
EB	LEFT	1.00	1600	188	0.117	190	0.119	191	0.119	191	0.119
	THRU	2.00	3200	984	0.308	994	0.311	994	0.311	994	0.311
	RIGHT	1.00	1600	202	0.126	204	0.128	204	0.128	204	0.128
WB	LEFT	1.00	1600	82	0.051	83	0.052	83	0.052	83	0.052
	THRU	2.00	3200	569	0.204	575	0.206	575	0.209	575	0.209
	RIGHT	0.00	0	84	0.000	85	0.000	94	0.000	94	0.000
Intersection Volume				5019		5069		5099		5099	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.898		0.907		0.908		0.908	
Stopped Delay (sec/veh)				39.8		41.4		41.6		41.6	
LEVEL OF SERVICE (LOS)				D		E		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Downey and Washington

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	1	0	0	0	0	0	0	0	0	0	0	0	1
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	13	0	0	0	0	0	0	0	0	0	0	0	13
ER	2	0	0	0	0	0	0	0	0	0	0	0	2
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	13	0	0	0	0	0	0	0	0	0	0	0	13
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	29	0	0	0	0	0	0	0	0	0	0	0	29

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	1.00	1600	105	0.066	106	0.066	107	0.067	107	0.067
	THRU	2.00	3200	1012	0.316	1022	0.319	1022	0.319	1022	0.319
	RIGHT	1.00	1600	39	0.024	39	0.025	39	0.025	39	0.025
SB	LEFT	1.00	1600	246	0.154	248	0.155	248	0.155	248	0.155
	THRU	3.00	4800	1597	0.333	1613	0.336	1613	0.336	1613	0.336
	RIGHT	1.00	1600	187	0.117	189	0.118	189	0.118	189	0.118
EB	LEFT	1.00	1600	400	0.250	404	0.252	404	0.252	404	0.252
	THRU	2.00	3200	1055	0.330	1066	0.333	1079	0.337	1079	0.337
	RIGHT	1.00	1600	383	0.239	387	0.242	388	0.243	388	0.243
WB	LEFT	1.00	1600	105	0.066	106	0.066	106	0.066	106	0.066
	THRU	2.00	3200	380	0.119	384	0.120	397	0.124	397	0.124
	RIGHT	1.00	1600	113	0.071	114	0.071	114	0.071	114	0.071
Intersection Volume				5622		5678		5707		5707	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.915		0.924		0.928		0.928	
Stopped Delay (sec/veh)				43.1		44.8		45.6		45.6	
LEVEL OF SERVICE (LOS)				E		E		E		E	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-710 NB Ramps and Washington

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	2	0	0	0	0	0	0	0	0	0	0	0	2
EL	8	0	0	0	0	0	0	0	0	0	0	0	8
ET	2	0	0	0	0	0	0	0	0	0	0	0	2
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	1	0	0	0	0	0	0	0	0	0	0	0	1
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	13	0	0	0	0	0	0	0	0	0	0	0	13

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	0.00	0	2	0.000	2	0.000	2	0.000	2	0.000
	THRU	1.00	1600	1	0.002	1	0.003	1	0.003	1	0.003
	RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
SB	LEFT	1.70	2664	168	0.063	170	0.064	170	0.064	170	0.064
	THRU	0.10	160	0	0.000	0	0.000	0	0.000	0	0.000
	RIGHT	1.20	1904	132	0.069	133	0.070	135	0.071	135	0.071
EB	LEFT	1.00	1600	164	0.102	166	0.104	174	0.109	174	0.109
	THRU	2.00	3200	994	0.312	1004	0.315	1006	0.315	1006	0.315
	RIGHT	0.00	0	3	0.000	3	0.000	3	0.000	3	0.000
WB	LEFT	1.00	1600	3	0.002	3	0.002	3	0.002	3	0.002
	THRU	2.00	3200	818	0.256	826	0.258	827	0.259	827	0.259
	RIGHT	1.00	1600	326	0.204	329	0.206	329	0.206	329	0.206
Intersection Volume				2612		2638		2651		2651	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.474		0.478		0.483		0.483	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

I-710 SB Ramps and Washington

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	5	0	0	0	0	0	0	0	0	0	0	0	5
EL	3	0	0	0	0	0	0	0	0	0	0	0	3
ET	10	0	0	0	0	0	0	0	0	0	0	0	10
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	3	0	0	0	0	0	0	0	0	0	0	0	3
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	22	0	0	0	0	0	0	0	0	0	0	0	22

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	0.00	0	2	0.000	2	0.000	2	0.000	2	0.000
	THRU	1.00	1600	1	0.002	1	0.003	1	0.003	1	0.003
	RIGHT	0.00	0	1	0.000	1	0.000	1	0.000	1	0.000
SB	LEFT	2.00	3120	264	0.085	267	0.085	267	0.085	267	0.085
	THRU	0.10	160	2	0.013	2	0.013	2	0.013	2	0.013
	RIGHT	0.90	1440	93	0.065	94	0.065	99	0.069	99	0.069
EB	LEFT	1.00	1600	220	0.138	222	0.139	225	0.141	225	0.141
	THRU	3.00	4800	944	0.197	953	0.199	963	0.201	963	0.201
	RIGHT	0.00	0	2	0.000	2	0.000	2	0.000	2	0.000
WB	LEFT	1.00	1600	0	0.000	0	0.000	0	0.000	0	0.000
	THRU	2.00	3200	573	0.278	579	0.281	582	0.282	582	0.282
	RIGHT	0.00	0	318	0.000	321	0.000	321	0.000	321	0.000
Intersection Volume				2420		2444		2466		2466	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.553		0.558		0.561		0.561	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Soto and Olympic

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	2	0	0	0	0	0	0	0	0	0	0	0	2
NT	8	0	0	0	0	0	0	0	0	0	0	0	8
NR	5	0	0	0	0	0	0	0	0	0	0	0	5
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	5	0	0	0	0	0	0	0	0	0	0	0	5
SR	0	0	0	0	0	0	0	0	0	0	0	0	0
EL	0	0	0	0	0	0	0	0	0	0	0	0	0
ET	0	0	0	0	0	0	0	0	0	0	0	0	0
ER	1	0	0	0	0	0	0	0	0	0	0	0	1
WL	3	0	0	0	0	0	0	0	0	0	0	0	3
WT	0	0	0	0	0	0	0	0	0	0	0	0	0
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	24	0	0	0	0	0	0	0	0	0	0	0	24

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	1.00	1600	194	0.121	196	0.122	198	0.123	198	0.123
	THRU	3.00	4800	1382	0.330	1396	0.334	1404	0.336	1404	0.336
	RIGHT	0.00	0	204	0.000	206	0.000	211	0.000	211	0.000
SB	LEFT	1.00	1600	132	0.083	133	0.083	133	0.083	133	0.083
	THRU	3.00	4800	974	0.220	984	0.222	989	0.223	989	0.223
	RIGHT	0.00	0	81	0.000	82	0.000	82	0.000	82	0.000
EB	LEFT	1.00	1600	134	0.084	135	0.085	135	0.085	135	0.085
	THRU	3.00	4800	776	0.206	784	0.208	784	0.209	784	0.209
	RIGHT	0.00	0	214	0.000	216	0.000	217	0.000	217	0.000
WB	LEFT	1.00	1600	253	0.158	256	0.160	259	0.162	259	0.162
	THRU	2.00	3200	626	0.196	632	0.198	632	0.198	632	0.198
	RIGHT	1.00	1600	381	0.238	385	0.241	385	0.241	385	0.241
Intersection Volume				5351		5405		5429		5429	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.827		0.835		0.840		0.840	
Stopped Delay (sec/veh)				29.1		30.3		31.0		31.0	
LEVEL OF SERVICE (LOS)				D		D		D		D	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

Lorena and Olympic

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P.M. PEAK HOUR

TRIPS AT INTERSECTION FROM EACH PROJECT

Projects or Project Groups (1 = Proposed Project)

	1	2	3	4	5	6	7	8	9	10	11	12	Sum
NL	0	0	0	0	0	0	0	0	0	0	0	0	0
NT	0	0	0	0	0	0	0	0	0	0	0	0	0
NR	0	0	0	0	0	0	0	0	0	0	0	0	0
SL	0	0	0	0	0	0	0	0	0	0	0	0	0
ST	0	0	0	0	0	0	0	0	0	0	0	0	0
SR	2	0	0	0	0	0	0	0	0	0	0	0	2
EL	3	0	0	0	0	0	0	0	0	0	0	0	3
ET	2	0	0	0	0	0	0	0	0	0	0	0	2
ER	0	0	0	0	0	0	0	0	0	0	0	0	0
WL	0	0	0	0	0	0	0	0	0	0	0	0	0
WT	1	0	0	0	0	0	0	0	0	0	0	0	1
WR	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	8	0	0	0	0	0	0	0	0	0	0	0	8

INTERSECTION LEVEL OF SERVICE (LOS)

* Scenario: Year 2006
* Geometrics: Existing Geometrics
* Ambient Traffic Growth: 1 % per year

Movement		Lanes	Capacity	Year 2005 Volume	Year 2005 V/C	Forecast Year 2006 Volume	Forecast Year 2006 V/C	W/Proposed Project Volume	W/Proposed Project V/C	With ALL Projects Volume	With ALL Projects V/C
NB	LEFT	0.00	0	26	0.000	26	0.000	26	0.000	26	0.000
	THRU	2.00	3200	421	0.196	425	0.198	425	0.198	425	0.198
	RIGHT	0.00	0	181	0.000	183	0.000	183	0.000	183	0.000
SB	LEFT	0.00	0	68	0.000	69	0.000	69	0.000	69	0.000
	THRU	2.00	3200	344	0.152	347	0.153	347	0.154	347	0.154
	RIGHT	0.00	0	74	0.000	75	0.000	77	0.000	77	0.000
EB	LEFT	1.00	1600	117	0.073	118	0.074	121	0.076	121	0.076
	THRU	3.00	4800	687	0.145	694	0.146	696	0.146	696	0.146
	RIGHT	0.00	0	7	0.000	7	0.000	7	0.000	7	0.000
WB	LEFT	1.00	1600	205	0.128	207	0.129	207	0.129	207	0.129
	THRU	3.00	4800	486	0.117	491	0.118	492	0.119	492	0.119
	RIGHT	0.00	0	77	0.000	78	0.000	78	0.000	78	0.000
Intersection Volume				2693		2720		2728		2728	
Signal Phasing Loss Factor				0.05		0.05		0.05		0.05	
Intersection V/C Ratio				0.519		0.524		0.524		0.524	
Stopped Delay (sec/veh)				5.0		5.0		5.0		5.0	
LEVEL OF SERVICE (LOS)				A		A		A		A	

Note: If turns must be made from a through lane, turning volumes are included in the v/c ratio of the through lane. A curb lane 20 feet or wider is treated as having an unmarked right turn pocket.

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LEVEL OF SERVICE ANALYSIS

P.M. PEAK HOUR

Scenario: Year 2006
Geometrics: Existing Geometrics
Ambient Traffic Growth: 1 % per year

	Year 2005			Forecast Year 2006			Plus Proposed Project			
	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	+V/C
Soto and Washington	D	39.8	0.898	E	41.4	0.907	E	41.6	0.908	+0.001
Downey and Washington	E	43.1	0.915	E	44.8	0.924	E	45.6	0.928	+0.004
I-710 NB Ramps and Washington	A	5.0	0.474	A	5.0	0.478	A	5.0	0.483	+0.005
I-710 SB Ramps and Washington	A	5.0	0.553	A	5.0	0.558	A	5.0	0.561	+0.003
Soto and Olympic	D	29.1	0.827	D	30.3	0.835	D	31.0	0.840	+0.005
Lorena and Olympic	A	5.0	0.519	A	5.0	0.524	A	5.0	0.524	+0.000

Notes:
v/c = volume to capacity ratio (capacity utilization ratio)
delay = average stopped delay in seconds per vehicle
LOS = Level of Service