

22-P  
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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description 2030 3B NO LA MEDIA PM PEAK HOUR/NO MITIGATION-OM/LM

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	700	2211		1042	2400		705	1548		421	789	
Satflow per lane	1641	1675		1641	1705		1641	1632		1641	1766	
Capacity/lane	637	913		637	929		744	1038		744	785	
Flow ratio	0.22	0.48		0.33	0.52		0.22	0.35		0.13	0.23	
v/c ratio	1.10	2.42		1.64	2.58		0.95	1.49		0.57	1.01	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67		1.67	1.67		1.67	1.67	
PF factor	1.00	1.00		1.00	1.00		0.98	1.00		0.89	1.00	
Q1	15.0	33.8		22.3	36.7		14.6	23.7		7.0	17.3	
kb	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.6	
Q2	7.1	60.3		27.2	68.3		3.8	24.9		0.7	5.5	
Q avg.	22.1	94.1		49.5	105.0		18.4	48.5		7.7	22.7	

**Percentile Back of Queue (95th percentile)**

fb%	1.7	1.5		1.5	1.5		1.7	1.5		1.9	1.7	
BOQ, Q%	37.0	141		76.2	158		31.6	74.8		14.6	37.9	

**Queue Storage Ratio**

Q spacing	24.9	24.9		24.9	24.9		24.9	24.9		24.9	24.9	
Q storage	0	0		0	0		0	0		0	0	
Avg. Ro												
95% Ro%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD/LA MEDIA RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/13/11					Jurisdiction	OMLM30P3BNLM/WITH MIT						
Time Period	YEAR 2030 PM PEAK HOUR					Analysis Year	YEAR 2030 - ALT-3B NO LM/WITH						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	2	2	3	2	2	3	2	2	2	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	665	1000	1100	990	1500	780	670	620	850	400	630	120	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10		0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 30.0	G = 30.0	G =	G =			G = 35.0			G = 35.0	G =		
	Y = 5	Y = 5	Y =	Y =			Y = 5			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	700	1053	1158	1042	1579	821	705	653	895	421	663	126	
Lane group cap.	637	991	1213	637	991	1177	744	1156	1180	744	808	1180	
v/c ratio	1.10	1.06	0.95	1.64	1.59	0.70	0.95	0.56	0.76	0.57	0.82	0.11	
Green ratio	0.20	0.20	0.47	0.20	0.20	0.47	0.23	0.23	0.47	0.23	0.23	0.47	
Unif. delay d1	60.0	60.0	38.5	60.0	60.0	31.6	56.6	50.8	33.0	50.8	54.5	22.5	
Delay factor k	0.50	0.50	0.46	0.50	0.50	0.26	0.46	0.16	0.31	0.16	0.36	0.11	
Increm. delay d2	65.8	46.7	16.2	293.2	271.8	1.8	21.2	0.6	2.9	1.0	6.8	0.0	
PF factor	0.833	0.833	0.417	0.833	0.833	0.417	0.797	0.797	0.417	0.797	0.797	0.417	
Control delay	115.8	96.7	32.2	343.2	321.8	15.0	66.3	41.1	16.7	41.5	50.2	9.4	
Lane group LOS	F	F	C	F	F	B	E	D	B	D	D	A	
Approch. delay	75.6			255.1			39.3			42.9			
Approach LOS	E			F			D			D			
Intersec. delay	126.2			Intersection LOS						F			

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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description 2030 3B NO LA MEDIA PM PEAK HOUR/WITH MIT/OM-LM

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	700	1053	1158	1042	1579	821	705	653	895	421	663	126
Satflow per lane	1641	1818	1468	1641	1818	1425	1641	1818	1429	1641	1818	1429
Capacity/lane	637	991	1213	637	991	1177	744	1156	1180	744	808	1180
Flow ratio	0.22	0.21	0.45	0.33	0.32	0.32	0.22	0.13	0.35	0.13	0.19	0.05
w/c ratio	1.10	1.06	0.95	1.64	1.59	0.70	0.95	0.56	0.76	0.57	0.82	0.11
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.90	1.00	1.00	0.61	0.98	0.89	0.66	0.89	0.95	0.43
Q1	15.0	16.1	23.5	22.3	24.1	9.4	14.6	7.8	11.4	7.0	13.0	0.7
kB	0.5	0.5	0.7	0.5	0.5	0.7	0.5	0.6	0.7	0.5	0.6	0.7
Q2	7.1	6.6	6.1	27.2	28.3	1.6	3.8	0.7	2.1	0.7	2.1	0.1
Q avg.	22.1	22.7	29.6	49.5	52.4	10.9	18.4	8.5	13.5	7.7	15.1	0.8

**Percentile Back of Queue (95th percentile)**

fB%	1.7	1.7	1.6	1.5	1.5	1.8	1.7	1.9	1.8	1.9	1.8	2.1
BOQ, Q%	37.0	37.9	47.9	76.2	80.4	20.0	31.6	15.9	24.0	14.6	26.6	1.7

**Queue Storage Ratio**

Q spacing	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Rq												
95% Rq%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SR905 WB RAMPS/LA MEDIA RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/13/11					Jurisdiction	905WBLAMED30A3BNLM/NO						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	1	1	1	1	1	2	2	1	0	3	1	
Lane group		LT	R	L	LT	R	L	T	R		T	R	
Volume (vph)	85	100	130	1325	50	1035	110	1940	1300		1945	100	
% Heavy veh	5	5	5	10	5	10	5	10	10		10	5	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A		A	A	
Startup lost time		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type		5	5	5	5	5	5	5	5		5	3	
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0	
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr		0	0	0	0	0	0	0	0		0	0	
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	NB Only	Thru & RT	07	08					
Timing	G = 10.0	G = 47.0	G =	G =	G = 10.0	G = 55.0	G =	G =					
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate		194	137	698	750	1089	116	2042	1368		2047	105	
Lane group cap.		133	220	551	585	493	238	1706	555		1946	753	
v/c ratio		1.46	0.62	1.27	1.28	2.21	0.49	1.20	2.46		1.05	0.14	
Green ratio		0.07	0.14	0.34	0.34	0.34	0.07	0.49	0.39		0.39	0.50	
Unif. delay d1		65.0	56.5	46.5	46.5	46.5	62.5	35.5	42.5		42.5	18.8	
Delay factor k		0.50	0.21	0.50	0.50	0.50	0.11	0.50	0.50		0.50	0.11	
Increm. delay d2		243.0	5.4	134.0	139.6	550.6	1.6	94.6	664.6		35.6	0.1	
PF factor		0.949	0.889	0.663	0.663	0.858	0.949	0.406	1.000		0.569	1.000	
Control delay		304.6	55.6	164.8	170.5	590.5	60.9	109.1	707.1		59.8	18.9	
Lane group LOS		F	E	F	F	F	E	F	F		E	B	
Approch. delay		201.5			349.2			339.5			57.8		
Approach LOS		F			F			F			E		
Intersec. delay		266.1			Intersection LOS						F		

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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description *ALT.-3B NO LA MEDIA AM PEAK HOUR/NO MIT*

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		<i>LT</i>	<i>R</i>	<i>L</i>	<i>LT</i>	<i>R</i>	<i>L</i>	<i>T</i>	<i>R</i>		<i>T</i>	<i>R</i>
Init. queue/lane		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Flow rate/lane		194	137	698	750	1089	116	2042	1368		2047	105
Satflow per lane		1862	1538	1641	1743	1468	1719	1818	1414		1818	1505
Capacity/lane		133	220	551	585	493	238	1706	555		1946	753
Flow ratio		0.10	0.09	0.43	0.43	0.74	0.03	0.59	0.97		0.41	0.07
v/c ratio		1.46	0.62	1.27	1.28	2.21	0.49	1.20	2.46		1.05	0.14
I factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000
Arrival type		5	5	5	5	5	5	5	5		5	3
Platoon ratio		1.67	1.67	1.67	1.67	1.28	1.67	1.61	1.00		1.67	1.00
PF factor		1.00	0.95	1.00	1.00	1.00	0.97	1.00	1.00		1.00	1.00
Q <sub>1</sub>		7.5	4.8	27.1	29.2	42.3	2.1	41.7	53.2		29.2	2.2
k <sub>B</sub>		0.3	0.4	0.6	0.7	0.6	0.3	0.8	0.6		0.7	0.8
Q <sub>2</sub>		8.4	0.6	21.0	23.3	75.6	0.2	26.3	102.7		10.9	0.1
Q avg.		15.9	5.3	48.1	52.4	117.9	2.4	68.0	155.9		40.1	2.3

**Percentile Back of Queue (95th percentile)**

fb%		1.7	1.9	1.5	1.5	1.5	2.0	1.5	1.5		1.6	2.0
BOQ, Q%		27.9	10.4	74.2	80.3	177	4.8	103	234		62.8	4.7

**Queue Storage Ratio**

Q spacing		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0
Q storage		0	0	0	0	0	0	0	0		0	0
Avg. R <sub>q</sub>												
95% R <sub>q</sub> %												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection SR905 WB RAMPS/LA MEDIA RD.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	05/13/12					Jurisdiction 905WBLAMED30A3BNLM/MITIGATION						
Time Period	AM PEAK HOUR					Analysis Year YEAR 2030 ALT.-3B						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	1	1	1	2	3	1	0	3	1
Lane group	L		R	L	LT	R	L	T	R		T	R
Volume (vph)	85		230	1325	50	1035	110	1940	1300		1945	100
% Heavy veh	5		5	10	5	10	5	10	10		10	5
PHF	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95
Actuated (P/A)	A		A	A	A	A	A	A	A		A	A
Startup lost time	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Ext. eff. green	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Arrival type	5		5	5	5	5	5	5	5		5	3
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0
Lane Width	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0	0	0	0	0	0	0		0	0
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Phasing	EB Only	WB Only	03		04		NB Only	Thru & RT	07		08	
Timing	G = 10.0	G = 47.0	G =		G =		G = 10.0	G = 55.0	G =		G =	
	Y = 4	Y = 5	Y =		Y =		Y = 4	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	89		242	698	750	1089	116	2042	1368		2047	105
Lane group cap.	123		220	551	585	493	238	2441	1418		1946	753
v/c ratio	0.72		1.10	1.27	1.28	2.21	0.49	0.84	0.96		1.05	0.14
Green ratio	0.07		0.14	0.34	0.34	0.34	0.07	0.49	1.00		0.39	0.50
Unif. delay d1	63.6		60.0	46.5	46.5	46.5	62.5	30.6	0.0		42.5	18.8
Delay factor k	0.28		0.50	0.50	0.50	0.50	0.11	0.37	0.47		0.50	0.11
Increm. delay d2	18.9		90.0	134.0	139.6	550.6	1.6	2.7	16.2		35.6	0.1
PF factor	0.949		0.889	0.663	0.663	0.858	0.949	0.352	0.950		0.569	1.000
Control delay	79.3		143.3	164.8	170.5	590.5	60.9	13.5	16.2		59.8	18.9
Lane group LOS	E		F	F	F	F	E	B	B		E	B
Apprch. delay	126.1			349.2			16.1			57.8		
Approach LOS	F			F			B			E		
Intersec. delay	129.8			Intersection LOS						F		

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## BACK-OF-QUEUE WORKSHEET

## General Information

Project Description ALT.-3B NO LA MEDIA AM PEAK HOUR/MITIGATION

## Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R	L	LT	R	L	T	R		T	R
Init. queue/lane	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Flow rate/lane	89		242	698	750	1089	116	2042	1368		2047	105
Satflow per lane	1719		1538	1641	1743	1468	1719	1818	1418		1818	1505
Capacity/lane	123		220	551	585	493	238	2441	1418		1946	753
Flow ratio	0.05		0.16	0.43	0.43	0.74	0.03	0.41	0.96		0.41	0.07
v/c ratio	0.72		1.10	1.27	1.28	2.21	0.49	0.84	0.96		1.05	0.14
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000
Arrival type	5		5	5	5	5	5	5	5		5	3
Platoon ratio	1.67		1.67	1.67	1.67	1.28	1.67	1.67	1.00		1.67	1.00
PF factor	0.98		1.00	1.00	1.00	1.00	0.97	0.66			1.00	1.00
Q1	3.3		9.4	27.1	29.2	42.3	2.1	16.6			29.2	2.2
kB	0.3		0.4	0.6	0.7	0.6	0.3	0.8	1.1		0.7	0.8
Q2	0.6		5.0	21.0	23.3	75.6	0.2	3.6	11.0		10.9	0.1
Q avg.	3.9		14.4	48.1	52.4	117.9	2.4	20.2			40.1	2.3

## Percentile Back of Queue (95th percentile)

fB%	2.0		1.8	1.5	1.5	1.5	2.0	1.7			1.6	2.0
BOQ, Q%	7.8		25.4	74.2	80.3	177	4.8	34.2			62.8	4.7

## Queue Storage Ratio

Q spacing	25.0		25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0
Q storage	0		0	0	0	0	0	0	0		0	0
Avg. Ro												
95% Ro%												

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MIT

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SR905 WB RAMPS/LA MEDIA RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/13/11					Jurisdiction	905WBLAMED30P3BNLM/NO						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	1	1	1	1	1	2	2	1	0	3	1	
Lane group		LT	R	L	LT	R	L	T	R		T	R	
Volume (vph)	270	100	405	525	125	350	225	1520	1605		2470	250	
% Heavy veh	5	5	5	10	10	10	5	10	10		10	5	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A		A	A	
Startup lost time		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type		5	5	5	5	5	5	5	5		5	3	
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0	
Lane Width		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr		0	0	0	0	0	0	0	0		0	0	
Unit Extension		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	EB Only	WB Only	03	04	NB Only	Thru & RT	07	08					
Timing	G = 20.0	G = 40.0	G =	G =	G = 12.0	G = 60.0	G =	G =					
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate		389	426	277	408	368	237	1600	1689		2600	263	
Lane group cap.		245	328	438	469	391	267	1754	717		1981	853	
v/c ratio		1.59	1.30	0.63	0.87	0.94	0.89	0.91	2.36		1.31	0.31	
Green ratio		0.13	0.21	0.27	0.27	0.27	0.08	0.51	0.51		0.40	0.57	
Unif. delay d1		65.0	59.0	48.5	52.5	53.8	68.3	33.9	37.0		45.0	17.1	
Delay factor k		0.50	0.50	0.21	0.40	0.45	0.41	0.43	0.50		0.50	0.11	
Increm. delay d2		283.0	155.1	3.0	16.1	30.9	28.2	7.7	614.4		144.3	0.2	
PF factor		0.897	0.819	0.758	0.758	0.758	0.942	0.315	1.000		0.556	1.000	
Control delay		341.4	203.5	39.7	55.8	71.7	92.6	18.4	651.4		169.3	17.3	
Lane group LOS		F	F	D	E	E	F	B	F		F	B	
Approch. delay		269.3			57.1			326.6			155.4		
Approach LOS		F			E			F			F		
Intersec. delay		227.2			Intersection LOS						F		



23-P  
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MIT

BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B NO LA MEDIA PM PEAK HOUR/NO MIT												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R	L	LT	R	L	T	R		T	R
Init. queue/lane		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Flow rate/lane		389	426	277	408	368	237	1600	1689		2600	263
Satflow per lane		1838	1538	1641	1759	1468	1719	1818	1415		1818	1505
Capacity/lane		245	328	438	469	391	267	1754	717		1981	853
Flow ratio		0.21	0.28	0.17	0.23	0.25	0.07	0.46	1.19		0.52	0.17
v/c ratio		1.59	1.30	0.63	0.87	0.94	0.89	0.91	2.36		1.31	0.31
I factor		1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000
Arrival type		5	5	5	5	5	5	5	5		5	3
Platoon ratio		1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.00		1.67	1.00
PF factor		1.00	1.00	0.88	0.95	0.98	0.99	0.74	1.00		1.00	1.00
Q1		16.2	17.8	8.9	15.4	14.6	5.0	23.7	70.4		39.8	5.8
ks		0.4	0.5	0.6	0.6	0.5	0.3	0.9	0.8		0.8	0.9
Q2		19.0	14.1	0.9	2.9	3.7	1.3	5.9	122.8		31.3	0.4
Q avg.		35.2	31.8	9.9	18.3	18.4	6.3	29.5	193.2		71.1	6.1
Percentile Back of Queue (95th percentile)												
fb%		1.6	1.6	1.8	1.7	1.7	1.9	1.6	1.5		1.5	1.9
BOQ, Q%		55.8	51.0	18.2	31.4	31.5	12.2	47.7	290		107	11.8
Queue Storage Ratio												
Q spacing		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0
Q storage		0	0	0	0	0	0	0	0		0	0
Avg. Ro												
95% Ro%												

23 P  
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## SHORT REPORT

General Information				Site Information			
Analyst	USAI	Intersection	SR905 WB RAMPS/LA MEDIA RD.				
Agency or Co.	USAI	Area Type	All other areas				
Date Performed	05/13/12	Jurisdiction	905WBLAMED30P3BNLM/MIT.				
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B				

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	1	1	1	2	3	1	0	3	1
Lane group	L		R	L	LT	R	L	T	R		T	R
Volume (vph)	270		505	525	125	350	225	1520	1605		2470	250
% Heavy veh	5		5	10	10	10	5	10	10		10	5
PHF	0.95		0.95	0.95	0.95	0.95	0.95	0.95	0.95		0.95	0.95
Actuated (P/A)	A		A	A	A	A	A	A	A		A	A
Startup lost time	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Ext. eff. green	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0
Arrival type	5		5	5	5	5	5	5	5		5	5
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Ped/Bike/RTOR Volume	10		0	10		0	10	5	0	10	5	0
Lane Width	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0	0	0	0	0	0	0		0	0
Unit Extension	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0
Phasing	EB Only	WB Only	03		04		NB Only	Thru & RT		07	08	
Timing	G = 20.0	G = 40.0	G =	G =	G = 12.0	G = 60.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	284		532	277	408	368	237	1600	1689		2600
Lane group cap.	229		328	438	469	391	267	2510	1422		1981	853
v/c ratio	1.24		1.62	0.63	0.87	0.94	0.89	0.64	1.19		1.31	0.31
Green ratio	0.13		0.21	0.27	0.27	0.27	0.08	0.51	1.00		0.40	0.57
Unif. delay d1	65.0		59.0	48.5	52.5	53.8	68.3	27.0	0.0		45.0	17.1
Delay factor k	0.50		0.50	0.21	0.40	0.45	0.41	0.22	0.50		0.50	0.11
Increm. delay d2	139.5		293.5	3.0	16.1	30.9	28.2	0.5	91.9		144.3	0.2
PF factor	0.897		0.819	0.758	0.758	0.758	0.942	0.315	0.950		0.556	0.128
Control delay	197.9		341.9	39.7	55.8	71.7	92.6	9.0	91.9		169.3	2.4
Lane group LOS	F		F	D	E	E	F	A	F		F	A
Approch. delay	291.7			57.1			54.3			154.0		
Approach LOS	F			E			D			F		
Intersec. delay	112.7			Intersection LOS						F		

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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B NO LA MEDIA PM PEAK HOUR/MITIGATION*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>		<i>R</i>	<i>L</i>	<i>LT</i>	<i>R</i>	<i>L</i>	<i>T</i>	<i>R</i>		<i>T</i>	<i>R</i>
Init. queue/lane	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Flow rate/lane	284		532	277	408	368	237	1600	1689		2600	263
Satflow per lane	1719		1538	1641	1759	1468	1719	1818	1422		1818	1505
Capacity/lane	229		328	438	469	391	267	2510	1422		1981	853
Flow ratio	0.17		0.35	0.17	0.23	0.25	0.07	0.32	1.19		0.52	0.17
v/c ratio	1.24		1.62	0.63	0.87	0.94	0.89	0.64	1.19		1.31	0.31
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000
Arrival type	5		5	5	5	5	5	5	5		5	5
Platoon ratio	1.67		1.67	1.67	1.67	1.67	1.67	1.67	1.00		1.67	1.67
PF factor	1.00		1.00	0.88	0.95	0.98	0.99	0.46			1.00	0.15
Q <sub>1</sub>	11.8		22.2	8.9	15.4	14.6	5.0	8.2			39.8	0.9
k <sub>B</sub>	0.4		0.5	0.6	0.6	0.5	0.3	0.9	1.2		0.8	0.9
Q <sub>2</sub>	8.5		26.7	0.9	2.9	3.7	1.3	1.5	39.6		31.3	0.4
Q avg.	20.3		48.9	9.9	18.3	18.4	6.3	9.8			71.1	1.2

### Percentile Back of Queue (95th percentile)

fB%	1.7		1.5	1.8	1.7	1.7	1.9	1.8			1.5	2.1
BOQ, Q%	34.4		75.2	18.2	31.4	31.5	12.2	18.0			107	2.5

### Queue Storage Ratio

Q spacing	25.0		25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0
Q storage	0		0	0	0	0	0	0	0		0	0
Avg. R <sub>q</sub>												
95% R <sub>q</sub> %												

SHORT REPORT												
General Information						Site Information						
Analyst		USAI				Intersection		SR-905 EB/LA MEDIA				
Agency or Co		USAI				Area Type		All other areas				
Date Performed		11/08/10				Jurisdiction		905EBLAMED30A3BNLM/CAI.TRANS				
Time Period		AM PEAK HOUR				Analysis Year		YEAR 2030/ALT. 39 NO LM				
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Nbr. of Lanes	2	0	2	0	0	0	2	3	0	5	2	1
Lane group	L		R				L	T			T	R
Volume (vph)	1235		2360				600	2115			2350	405
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.85	0.85			0.85	0.85
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Biker/RTOR Volume	10		6	10						10	5	6
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N			N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Phasing	FB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 50.0	G =	G =	G =	G = 20.0	G = 52.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	1300		2421				632	2226			2474	421
Lane group cap	1319		1506				440	2596			1242	1160
v/c ratio	0.99		1.61				1.44	0.86			1.99	0.36
Green ratio	0.41		0.58				0.14	0.52			0.36	0.81
Unif. delay d1	42.1		30.5				62.5	29.8			46.5	3.8
Delay factor k	0.49		0.50				0.50	0.39			0.50	0.11
Incr. delay d2	21.3		276.5				209.0	3.1			449.3	0.2
PF factor	1.000		1.000				0.993	0.266			0.916	0.259
Control delay	65.4		307.0				264.8	11.0			467.2	1.2
Lane group LOS	E		F				F	B			F	A
Approach delay	221.9						67.1			416.5		
Approach LOS	F						E			F		
Intersection delay	234.7			Intersection LOS			F			F		

24A  
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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT. 3B NO LA MEDIA AM PEAK HOUR/CALTRANS LANES												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	1300		2421				632	2226			2474	421
Satflow per lane	1641		1468				1641	1818			1818	1437
Capacity/lane	1319		1506				440	2596			1242	1160
Flow ratio	0.41		0.93				0.20	0.45			0.71	0.29
v/c ratio	0.99		1.61				1.44	0.86			1.99	0.36
I factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Platoon ratio	1.00		1.00				1.67	1.67			1.33	1.18
PF factor	1.00		1.00				1.00	0.58			1.00	0.28
Q1	26.7		55.1				13.1	16.6			52.3	1.3
kB	0.7		0.8				0.4	0.9			0.7	1.0
Q2	7.2		66.8				13.5	4.3			82.3	0.6
Q avg.	33.9		121.8				26.6	20.9			134.6	1.9
Percentile Back of Queue (95th percentile)												
fB%	1.6		1.5				1.6	1.7			1.5	2.0
BOQ, Q%	53.9		183				43.5	35.2			202	3.8
Queue Storage Ratio												
Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. Ro												
95% Ro%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection:	SR-905 EB/ LA MEDIA					
Agency or Co	USAI					Area Type	All other areas					
Date Performed	11/08/10					Jurisdiction	905EB/LAMED/30A38NLM/MT					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030/ALT. 3B NC i M					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num of Lanes	2	0	2	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	1235		2300				600	2115			2350	400
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Ln+ Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10		0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	G	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Ln+ Extension	3.0		3.0				3.0	3.0			3.0	3.0
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 60.0	G =	G =	G =	G = 20.0	G = 52.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj flow rate	1300		2421				632	2225			2474	421
Lane group cap.	1319		1506				440	2595			1776	1160
v/c ratio	0.99		1.61				1.44	0.86			1.35	0.36
Green ratio	0.41		0.58				0.14	0.52			0.36	0.81
Unif. delay d1	42.1		30.5				62.5	29.8			46.5	3.8
Delay factor k	0.49		0.50				0.50	0.33			0.50	0.11
Increm. delay d2	21.3		276.5				209.0	3.1			180.4	0.2
PF factor	1.000		1.005				0.893	0.266			0.627	0.259
Control delay	63.4		307.0				264.8	11.0			209.5	1.2
Lane group LOS	F		F				F	B			F	A
Approch. delay	221.9						67.1			179.2		
Approach LOS	F						E			F		
Intersec. delay	162.2			Intersection LOS						F		

24-A  
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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT. 3B NO LA MEDIA AM PEAK HOUR/MITIGATION												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	1300		2421				632	2226			2474	421
Satflow per lane	1641		1468				1641	1818			1818	1437
Capacity/lane	1319		1506				440	2596			1776	1160
Flow ratio	0.41		0.93				0.20	0.45			0.50	0.29
w/o ratio	0.99		1.61				1.44	0.85			1.39	0.36
I factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Pigeon ratio	1.00		1.00				1.67	1.67			1.87	1.18
PF factor	1.00		1.00				1.00	0.58			1.00	0.28
Q1	26.7		65.1				13.1	16.6			36.6	1.3
ku	0.7		0.8				0.4	0.9			0.7	1.0
Q2	7.2		65.8				13.5	4.3			34.5	0.6
Q avg.	33.9		121.8				26.6	20.9			71.0	1.9
Percentile Back of Queue (95th percentile)												
75%	1.6		1.5				1.6	1.7			1.5	2.0
BOQ Q%	53.9		183				43.5	36.2			107	3.8
Queue Storage Ratio												
Q spacing	24.9		24.3				24.9	24.5			24.3	24.9
Q storage	0		0				0	0			0	0
Avg Ro												
95% Ro%												

24P  
NO  
MIT

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-905 EB/ LA MEDIA					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	11/08/10					Jurisdiction	905EBLAMED30P3BNLMCALTRANS					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030/ALT. 3B NO LM					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	2	0	0	0	2	3	0	0	2	1
Lane group	L		R				L	T			T	R
Volume (vph)	825		1500				1300	2525			1430	650
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10		200	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 37.0	G =	G =	G =	G = 58.0	G = 42.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	868		1368				1368	2658			1505	684
Lane group cap.	786		1715				1232	3434			969	802
v/c ratio	1.10		0.80				1.11	0.77			1.55	0.85
Green ratio	0.25		0.66				0.39	0.69			0.28	0.56
Unif. delay d1	56.5		18.3				46.0	15.2			54.0	27.8
Delay factor k	0.50		0.34				0.50	0.32			0.50	0.39
Increm. delay d2	64.6		2.7				61.5	1.1			254.0	8.8
PF factor	1.000		1.000				0.580	0.163			0.741	0.152
Control delay	121.1		21.1				88.2	3.6			294.0	13.1
Lane group LOS	F		C				F	A			F	B
Apprch. delay	59.9						32.4			206.2		
Approach LOS	E						C			F		
Intersec. delay	84.7			Intersection LOS						F		



24P  
NO  
MST

BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT. 3B NO LA MEDIA PM PEAK HOUR/CALTRANS LANES												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	868		1368				1368	2658			1505	684
Satflow per lane	1641		1468				1641	1818			1818	1433
Capacity/lane	786		1715				1232	3434			969	802
Flow ratio	0.27		0.53				0.43	0.54			0.43	0.48
v/c ratio	1.10		0.80				1.11	0.77			1.55	0.85
l factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Platoon ratio	1.00		1.00				1.67	1.37			1.67	1.67
PF factor	1.00		1.00				1.00	0.29			1.00	0.39
Q1	18.6		23.1				29.3	7.7			32.9	9.3
kB	0.5		0.9				0.7	1.1			0.6	0.8
Q2	8.7		3.2				13.4	3.4			36.9	3.8
Q avg.	27.3		26.3				42.8	11.0			69.8	13.1
Percentile Back of Queue (95th percentile)												
fb%	1.6		1.6				1.6	1.8			1.5	1.8
BOQ, Q%	44.6		43.1				66.5	20.1			106	23.4
Queue Storage Ratio												
Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. Ro												
95% Ro%												

24-P  
W  
MIT

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-905 EB/ LA MEDIA					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	11/08/10					Jurisdiction	905EBLAMED30P3BNLMMIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030/ALT. 3B NO LM					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	2	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	825		1500				1300	2525			1430	650
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	3		3				5	5			5	5
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10		200	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 37.0	G =	G =	G =	G = 58.0	G = 42.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	868		1368				1368	2658			1505	684
Lane group cap.	786		1715				1232	3434			1387	802
v/c ratio	1.10		0.80				1.11	0.77			1.09	0.85
Green ratio	0.25		0.66				0.39	0.69			0.28	0.56
Unif. delay d1	56.5		18.3				46.0	15.2			54.0	27.8
Delay factor k	0.50		0.34				0.50	0.32			0.50	0.39
Incram. delay d2	64.6		2.7				61.5	1.1			50.8	8.8
PF factor	1.000		1.000				0.580	0.163			0.741	0.152
Control delay	121.1		21.1				88.2	3.6			90.8	13.1
Lane group LOS	F		C				F	A			F	B
Aprch. delay	59.9						32.4			66.5		
Approach LOS	E						C			E		
Intersec. delay	48.5			Intersection LOS						D		

24-P  
W  
MIT

**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description ALT. 3B NO LA MEDIA PM PEAK HOUR/MITIGATION

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L		R				L	T			T	R
init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	868		1368				1368	2658			1505	684
Satflow per lane	1641		1468				1641	1818			1818	1433
Capacity/lane	786		1715				1232	3434			1387	802
Flow ratio	0.27		0.53				0.43	0.54			0.30	0.48
v/c ratio	1.10		0.80				1.11	0.77			1.09	0.85
l factor	1.000	1.000	1.000				1.000	1.000			1.000	1.000
Arrival type	3		3				5	5			5	5
Platoon ratio	1.00		1.00				1.67	1.37			1.67	1.67
PF factor	1.00		1.00				1.00	0.29			1.00	0.39
Q1	18.6		23.1				29.3	7.7			23.0	9.3
KB	0.5		0.9				0.7	1.1			0.6	0.8
Q2	8.7		3.2				13.4	3.4			9.8	3.8
Q avg.	27.3		26.3				42.8	11.0			32.8	13.1

**Percentile Back of Queue (95th percentile)**

fb%	1.6		1.6				1.6	1.8			1.6	1.8
BOQ, Q%	44.6		43.1				66.5	20.1			52.4	23.4

**Queue Storage Ratio**

Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. Ro												
95% RQ%												

25-A  
No  
MIT

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LA MEDIA RD./AIRWAY RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	12/07/10					Jurisdiction	LAMEDIAAIR30A3BNLMNM						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	0	2	2	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	700	615	350	350	450	635	250	1380	150	1600	1850	1200	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	5	5		5	5		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 17.0	G = 17.0	G =	G =			G = 43.0			G = 55.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	737	1015		368	1142		263	1611		1684	3210		
Lane group cap.	361	365		361	348		914	1248		914	1693		
v/c ratio	2.04	2.78		1.02	3.28		0.29	1.29		1.84	1.90		
Green ratio	0.11	0.11		0.11	0.11		0.29	0.37		0.29	0.37		
Unif. delay d1	66.5	66.5		66.5	66.5		41.6	47.5		53.5	47.5		
Delay factor k	0.50	0.50		0.50	0.50		0.11	0.50		0.50	0.50		
Increm. delay d2	478.3	809.0		52.4	1034		0.2	137.0		383.4	405.5		
PF factor	0.915	0.915		0.915	0.915		0.732	0.614		0.732	0.788		
Control delay	539.1	869.8		113.2	1095		30.6	166.2		422.5	442.9		
Lane group LOS	F	F		F	F		C	F		F	F		
Apprch. delay	730.7			855.7			147.1			435.9			
Approach LOS	F			F			F			F			
Intersec. delay	496.6			Intersection LOS						F			

25-A  
MO  
MIT

**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description *ALT.-3B NO LA MEDIA AM PEAK HOUR/NO MITIGATION*

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	737	1015		368	1142		263	1611		1684	3210	
Satflow per lane	1641	1690		1641	1612		1641	1787		1641	1695	
Capacity/lane	361	365		361	348		914	1248		914	1693	
Flow ratio	0.23	0.32		0.12	0.37		0.08	0.47		0.53	0.69	
w/c ratio	2.04	2.78		1.02	3.28		0.29	1.29		1.84	1.90	
l factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67		1.67	1.67		1.67	1.37	
PF factor	1.00	1.00		1.00	1.00		0.78	1.00		1.00	1.00	
Q <sub>1</sub>	15.8	22.2		7.9	25.0		3.4	35.3		36.1	49.1	
k <sub>B</sub>	0.3	0.3		0.3	0.3		0.6	0.7		0.6	0.7	
Q <sub>2</sub>	24.9	43.3		3.1	52.6		0.2	26.8		50.9	71.1	
Q avg.	40.7	65.5		11.0	77.6		3.6	62.0		87.0	120.2	

**Percentile Back of Queue (95th percentile)**

f <sub>B</sub> %	1.6	1.5		1.8	1.5		2.0	1.5		1.5	1.5	
BOQ, Q%	63.6	99.3		20.0	117		7.3	94.2		131	180	

**Queue Storage Ratio**

Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. Ro												
95% Ro%												

25-A  
W  
MT

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LA MEDIA RD./AIRWAY RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/13/11					Jurisdiction	LAMEDIAAIR30A3BNLM						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/MI						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	2	2	2	1	2	3	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	700	615	350	350	450	635	250	1380	150	1600	1850	1200	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 17.0	G = 17.0	G =	G =			G = 43.0			G = 55.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	737	647	368	368	474	668	263	1453	158	1684	1947	1263	
Lane group cap.	361	392	611	361	392	1050	914	1269	737	914	1816	1285	
v/c ratio	2.04	1.65	0.60	1.02	1.21	0.64	0.29	1.14	0.21	1.84	1.07	0.98	
Green ratio	0.11	0.11	0.43	0.11	0.11	0.43	0.29	0.37	0.51	0.29	0.37	0.51	
Unif. delay d1	66.5	66.5	32.6	66.5	66.5	33.2	41.6	47.5	20.0	53.5	47.5	35.9	
Delay factor k	0.50	0.50	0.19	0.50	0.50	0.22	0.11	0.50	0.11	0.50	0.50	0.49	
Increm. delay d2	478.3	304.0	1.7	52.4	115.7	1.3	0.2	75.0	0.1	383.4	43.5	21.0	
PF factor	0.915	0.915	0.490	0.915	0.915	0.490	0.732	0.614	0.297	0.732	0.614	0.297	
Control delay	539.1	364.8	17.7	113.2	176.6	17.6	30.6	104.2	6.1	422.5	72.6	31.6	
Lane group LOS	F	F	B	F	F	B	C	F	A	F	E	C	
Approch. delay	365.2			90.8			85.6			182.5			
Approach LOS	F			F			F			F			
Intersec. delay	182.5			Intersection LOS						F			

25-A  
W  
MIT

BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B NO LA MEDIA AM PEAK HOUR/WITH MITIGATION												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	737	647	368	368	474	668	263	1453	158	1684	1947	1263
Satflow per lane	1641	1818	1409	1641	1818	1369	1641	1818	1436	1641	1818	1414
Capacity/lane	361	392	611	361	392	1050	914	1269	737	914	1816	1285
Flow ratio	0.23	0.19	0.26	0.12	0.14	0.28	0.08	0.42	0.11	0.53	0.39	0.50
v/c ratio	2.04	1.65	0.60	1.02	1.21	0.64	0.29	1.14	0.21	1.84	1.07	0.98
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.64	1.00	1.00	0.66	0.78	1.00	0.32	1.00	1.00	0.92
Q1	15.8	14.1	7.5	7.9	10.3	8.1	3.4	31.8	1.2	36.1	29.8	26.9
kb	0.3	0.4	0.7	0.3	0.4	0.7	0.6	0.7	0.8	0.6	0.7	0.8
Q2	24.9	17.6	1.0	3.1	7.0	1.1	0.2	16.4	0.2	50.9	11.6	7.6
Q avg.	40.7	31.7	8.6	11.0	17.3	9.2	3.6	48.2	1.4	87.0	41.4	34.5
Percentile Back of Queue (95th percentile)												
fb%	1.6	1.6	1.9	1.8	1.7	1.9	2.0	1.5	2.1	1.5	1.6	1.6
BOQ, Q%	63.6	50.9	16.0	20.0	30.0	17.1	7.3	74.3	2.8	131	64.6	54.8
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Rq												
95% Rq%												

25-P  
NO  
MIT

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LA MEDIA RD./AIRWAY RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/13/11					Jurisdiction	LAMEDIAAIR30P3BNLMNM						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LMNO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	0	2	2	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	800	500	500	200	300	700	295	2325	300	800	1430	700	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	5	5		5	5		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 17.0	G = 17.0	G =	G =			G = 43.0	G = 55.0	G =	G =			
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =	Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	842	1052		211	1053		311	2763		842	2242		
Lane group cap.	361	354		361	340		914	1244		914	1713		
v/c ratio	2.33	2.97		0.58	3.10		0.34	2.22		0.92	1.31		
Green ratio	0.11	0.11		0.11	0.11		0.29	0.37		0.29	0.37		
Unif. delay d1	66.5	66.5		63.1	66.5		42.3	47.5		51.9	47.5		
Delay factor k	0.50	0.50		0.18	0.50		0.11	0.50		0.44	0.50		
Increm. delay d2	608.2	894.9		2.4	951.4		0.2	552.1		14.4	143.3		
PF factor	0.915	0.915		0.915	0.915		0.732	0.903		0.732	0.614		
Control delay	669.0	955.7		60.2	1012		31.2	595.0		52.3	172.5		
Lane group LOS	F	F		E	F		C	F		D	F		
Apprch. delay	828.3			853.3			538.0			139.7			
Approach LOS	F			F			F			F			
Intersec. delay	507.9			Intersection LOS						F			



25-P  
NO  
MIT

**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description *ALT.-3B NO LA MEDIA PM PEAK HOUR/LA MEDIA AIRWAY/NO MITIGATI*

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	842	1052		211	1053		311	2763		842	2242	
Satflow per lane	1641	1642		1641	1573		1641	1782		1641	1715	
Capacity/lane	361	354		361	340		914	1244		914	1713	
Flow ratio	0.26	0.34		0.07	0.35		0.10	0.81		0.26	0.48	
v/c ratio	2.33	2.97		0.58	3.10		0.34	2.22		0.92	1.31	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		5	5		5	5	
Platoon ratio	1.67	1.67		1.67	1.67		1.67	1.17		1.67	1.67	
PF factor	1.00	1.00		0.96	1.00		0.79	1.00		0.96	1.00	
Q1	18.0	23.0		4.1	23.0		4.2	60.5		16.8	34.3	
k <sub>B</sub>	0.3	0.3		0.3	0.3		0.6	0.7		0.6	0.7	
Q2	31.6	46.4		0.5	47.4		0.3	101.1		3.8	27.1	
Q avg.	49.6	69.4		4.6	70.4		4.5	161.5		20.6	61.4	

**Percentile Back of Queue (95th percentile)**

fb%	1.5	1.5		2.0	1.5		2.0	1.5		1.7	1.5	
BOQ, Q%	76.3	105		9.0	106		8.8	242		34.9	93.3	

**Queue Storage Ratio**

Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. R <sub>q</sub>												
95% R <sub>q</sub> %												

25-P  
W  
MIT

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LA MEDIA RD./AIRWAY RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/13/11					Jurisdiction	LAMEDIAAIR30P3BNLM						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	2	2	2	1	2	3	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	800	500	500	200	300	700	295	2325	300	800	1430	700	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 17.0	G = 17.0	G =	G =			G = 43.0			G = 55.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	842	526	526	211	316	737	311	2447	316	842	1505	737	
Lane group cap.	361	392	611	361	392	1050	914	1269	737	914	1816	1285	
v/c ratio	2.33	1.34	0.86	0.58	0.81	0.70	0.34	1.93	0.43	0.92	0.83	0.57	
Green ratio	0.11	0.11	0.43	0.11	0.11	0.43	0.29	0.37	0.51	0.29	0.37	0.51	
Unif. delay d1	66.5	66.5	38.4	63.1	64.9	34.6	42.3	47.5	22.8	51.9	43.2	25.2	
Delay factor k	0.50	0.50	0.39	0.18	0.35	0.27	0.11	0.50	0.11	0.44	0.37	0.17	
Increm. delay d2	608.2	170.1	12.0	2.4	11.7	2.1	0.2	420.7	0.4	14.4	3.4	0.6	
PF factor	0.915	0.915	0.490	0.915	0.915	0.490	0.732	0.801	0.297	0.732	0.614	0.297	
Control delay	669.0	231.0	30.8	60.2	71.1	19.1	31.2	458.7	7.2	52.3	29.9	8.1	
Lane group LOS	F	F	C	E	E	B	C	F	A	D	C	A	
Apprch. delay	370.1			39.0			369.0			30.8			
Approach LOS	F			D			F			C			
Intersec. delay	212.5			Intersection LOS						F			

**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description ALT.-3B NO LA MEDIA PM PEAK HOUR/LA MEDIA AIRWAY/MITIGATION

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	842	526	526	211	316	737	311	2447	316	842	1505	737
Satflow per lane	1641	1818	1409	1641	1818	1369	1641	1818	1436	1641	1818	1414
Capacity/lane	361	392	611	361	392	1050	914	1269	737	914	1816	1285
Flow ratio	0.26	0.15	0.37	0.07	0.09	0.30	0.10	0.71	0.22	0.26	0.30	0.29
v/c ratio	2.33	1.34	0.86	0.58	0.81	0.70	0.34	1.93	0.43	0.92	0.83	0.57
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.34	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.81	0.96	0.98	0.69	0.79	1.00	0.37	0.96	0.87	0.41
Q1	18.0	11.5	16.1	4.1	6.6	9.8	4.2	53.5	3.0	16.8	18.1	4.9
kB	0.3	0.4	0.7	0.3	0.4	0.7	0.6	0.7	0.8	0.6	0.7	0.8
Q2	31.6	10.1	3.3	0.5	1.2	1.5	0.3	78.9	0.6	3.8	2.9	1.0
Q avg.	49.6	21.6	19.4	4.6	7.8	11.3	4.5	132.4	3.6	20.6	21.1	5.9

**Percentile Back of Queue (95th percentile)**

fB%	1.5	1.7	1.7	2.0	1.9	1.8	2.0	1.5	2.0	1.7	1.7	1.9
BOQ, Q%	76.3	36.3	33.1	9.0	14.7	20.5	8.8	199	7.1	34.9	35.5	11.5

**Queue Storage Ratio**

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Rq												
95% Rq%												

26A  
N  
M

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	LA MEDIA RD./SIEMPRE VIVA RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/13/12					Jurisdiction	LMSV30A3BNLM/NO MIT					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	0	0	0	0	2	3	0
Lane group	L	T			TR					L	TR	
Volume (vph)	1000	800			2100	900				400	350	1100
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0					2.0	2.0	
Ext. eff. green	2.0	2.0			2.0					2.0	2.0	
Arrival type	5	5			5					5	5	
Unit Extension	3.0	3.0			3.0					3.0	3.0	
Ped/Bike/RTOR Volume				10	5	0	10			10	5	0
Lane Width	12.0	12.0			12.0					12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0	0	
Unit Extension	3.0	3.0			3.0					3.0	3.0	
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 25.0	G = 57.0	G =	G =	G = 35.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	1053	842			3158					421	1526	
Lane group cap.	613	3277			2061					858	968	
v/c ratio	1.72	0.26			1.53					0.49	1.58	
Green ratio	0.19	0.66			0.44					0.27	0.27	
Unif. delay d1	52.5	9.0			36.5					40.0	47.5	
Delay factor k	0.50	0.11			0.50					0.11	0.50	
Increm. delay d2	329.9	0.0			242.0					0.4	264.4	
PF factor	0.841	0.148			0.677					0.754	0.754	
Control delay	374.0	1.4			266.7					30.6	300.2	
Lane group LOS	F	A			F					C	F	
Apprch. delay	208.5			266.7						241.9		
Approach LOS	F			F						F		
Intersec. delay	244.0			Intersection LOS						F		

26-A  
W  
M

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection LA MEDIA RD./SIEMPRE VIVA RD.						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	04/10/11					Jurisdiction LMSV30A3BNLM/WITH MIT						
Time Period	AM PEAK HOUR					Analysis Year YEAR 2030 ALT.-3B WI LM/NO MIT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	2	1	2
Lane group	L	T			T	R				L	T	R
Volume (vph)	1000	800			2100	900				400	350	1100
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Arrival type	5	5			5	5				5	5	5
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0
Ped/Bike/RTOR Volume				10	5	0	10			10	5	0
Lane Width	12.0	12.0			12.0	12.0				12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0	0	0
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 27.0	G = 55.0	G =	G =	G = 35.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	1053	842		2211	947					421	368	1158
Lane group cap.	662	3277		2096	1835					858	271	1286
v/c ratio	1.59	0.26		1.05	0.52					0.49	1.36	0.90
Green ratio	0.21	0.66		0.42	0.73					0.27	0.27	0.51
Unif. delay d1	51.5	9.0		37.5	7.6					40.0	47.5	29.0
Delay factor k	0.50	0.11		0.50	0.12					0.11	0.50	0.42
Increm. delay d2	272.9	0.0		36.0	0.3					0.4	183.2	8.9
PF factor	0.825	0.148		0.511	0.186					0.754	0.754	0.312
Control delay	315.4	1.4		55.2	1.7					30.6	219.1	18.0
Lane group LOS	F	A		E	A					C	F	B
Approch. delay	175.9			39.1						58.7		
Approach LOS	F			D						E		
Intersec. delay	81.6			Intersection LOS						F		

26P

N  
M

## SHORT REPORT

General Information				Site Information			
Analyst	USAI	Intersection	LA MEDIA RD./SIEMPRE VIVA RD.	Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/12	Jurisdiction	LMSV30P3BNLM/NO MIT	Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	0	0	0	0	2	3	0
Lane group	L	T			TR					L	TR	
Volume (vph)	1100	1850			500	700				700	350	1400
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0					2.0	2.0	
Ext. eff. green	2.0	2.0			2.0					2.0	2.0	
Arrival type	5	5			5					5	5	
Unit Extension	3.0	3.0			3.0					3.0	3.0	
Ped/Bike/RTOR Volume				10	5	0	10			10		0
Lane Width	12.0	12.0			12.0					12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N			N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0	0	
Unit Extension	3.0	3.0			3.0					3.0	3.0	
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 37.0	G = 38.0	G =	G =	G = 42.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	1158	1947			1263					737	1842
Lane group cap.	907	3010			1301					1030	1212	
v/c ratio	1.28	0.65			0.97					0.72	1.52	
Green ratio	0.28	0.61			0.29					0.32	0.32	
Unif. delay d1	46.5	16.5			45.5					38.7	44.0	
Delay factor k	0.50	0.22			0.48					0.28	0.50	
Increm. delay d2	133.1	0.5			18.3					2.4	238.2	
PF factor	0.735	0.127			0.725					0.682	0.682	
Control delay	167.3	2.6			51.3					28.8	268.2	
Lane group LOS	F	A			D					C	F	
Apprch. delay	64.0			51.3						199.8		
Approach LOS	E			D						F		
Intersec. delay	112.1			Intersection LOS						F		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	LA MEDIA RD./SIEMPRE VIVA RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	04/10/11					Jurisdiction	LMSV30P3BNLM/WITH MIT.					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NLM/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	2	1	2
Lane group	L	T			T	R				L	T	R
Volume (vph)	1100	1850			500	700				700	350	1400
% Heavy veh	10	10			10	10				10	99	10
PHF	0.95	0.95			0.95	0.95				0.95	0.95	0.95
Actuated (P/A)	A	A			A	A				A	A	A
Startup lost time	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Ext. eff. green	2.0	2.0			2.0	2.0				2.0	2.0	2.0
Arrival type	5	5			5	5				5	5	5
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0
Ped/Bike/RTOR Volume				10	5	0	10			10		0
Lane Width	12.0	12.0			12.0	12.0				12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0	0				0	0	0
Unit Extension	3.0	3.0			3.0	3.0				3.0	3.0	3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 39.0	G = 36.0	G =	G =	G = 42.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	1158	1947			526	737				737	368	1474
Lane group cap.	956	3010			1372	1592				1030	325	1699
v/c ratio	1.21	0.65			0.38	0.46				0.72	1.13	0.87
Green ratio	0.30	0.61			0.28	0.64				0.32	0.32	0.65
Unif. delay d1	45.5	16.5			38.0	12.1				38.7	44.0	18.0
Delay factor k	0.50	0.22			0.11	0.11				0.28	0.50	0.40
Increm. delay d2	104.9	0.5			0.2	0.2				2.4	90.7	5.1
PF factor	0.714	0.127			0.745	0.138				0.682	0.682	0.144
Control delay	137.4	2.6			28.5	1.9				28.8	120.7	7.7
Lane group LOS	F	A			C	A				C	F	A
Apprch. delay	52.9			13.0						29.8		
Approach LOS	D			B						C		
Intersec. delay	37.1			Intersection LOS						D		

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## SHORT REPORT

General Information				Site Information			
Analyst	USAI			Intersection	SR-125SB OFF-RAMP/LONESTAR RD.		
Agency or Co.	USAI			Area Type	All other areas		
Date Performed	05/13/12			Jurisdiction	125SBLONE30A3BNLM		
Time Period	AM PEAK HOUR			Analysis Year	YEAR 2030 ALT.-3B NO LM		

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	0	0	0	2	2	2	0
Lane group				L					R	L	T	
Volume (vph)				350					1400	1600	1630	
% Heavy veh				10					10	10	10	
PHF				0.95					0.95	0.95	0.95	
Actuated (P/A)				A					A	A	A	
Startup lost time				2.0					2.0	2.0	2.0	
Ext. eff. green				2.0					2.0	2.0	2.0	
Arrival type				5					5	5	5	
Unit Extension				3.0					3.0	3.0	3.0	
Ped/Bike/RTOR Volume	0						10		0			
Lane Width				12.0					12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0					0	0	0	
Unit Extension				3.0					3.0	3.0	3.0	
Phasing	WB Only	02	03	04	Thru & RT	SB Only	07	08				
Timing	G = 20.0	G =	G =	G =	G = 29.0	G = 54.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate			368					1474	1684	1716	
Lane group cap.			554					1198	1497	2619		
v/c ratio			0.66					1.23	1.12	0.66		
Green ratio			0.17					0.46	0.47	0.76		
Unif. delay d1			44.4					31.0	30.5	6.8		
Delay factor k			0.24					0.50	0.50	0.23		
Increm. delay d2			3.0					111.2	65.5	0.6		
PF factor			0.860					0.430	0.410	0.205		
Control delay			41.1					124.5	78.0	2.0		
Lane group LOS			D					F	E	A		
Apprch. delay				41.1			124.5			39.6		
Approach LOS				D			F			D		
Intersec. delay	63.6			Intersection LOS						E		



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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description <i>ALT.-3B AM NO LA MEDIA/SR125-SB-LONESTAR</i>												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L					R	L	T	
Init. queue/lane				0.0					0.0	0.0	0.0	
Flow rate/lane				368					1474	1684	1716	
Satflow per lane				1641					1468	1641	1818	
Capacity/lane				554					1198	1497	2619	
Flow ratio				0.12					0.57	0.53	0.50	
v/c ratio				0.66					1.23	1.12	0.66	
I factor				1.000	1.000			1.000	1.000	1.000	1.000	
Arrival type				5					5	5	5	
Platoon ratio				1.67					1.67	1.67	1.26	
PF factor				0.94					1.00	1.00	0.27	
Q1				5.3					26.6	27.7	3.8	
kB				0.4					0.6	0.7	1.0	
Q2				0.7					22.4	16.6	1.8	
Q avg.				6.0					49.0	44.3	5.6	
Percentile Back of Queue (95th percentile)												
fb%				1.9					1.5	1.6	1.9	
BOQ, Q%				11.6					75.4	68.7	10.9	
Queue Storage Ratio												
Q spacing				25.0					25.0	25.0	25.0	
Q storage				0					0	0	0	
Avg. Ro												
95% Ro%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-125SB OFF-RAMP/LONESTAR RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/13/12					Jurisdiction	125SBLONE30P3BNLM					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	2	0	0	0	0	2	2	2	0
Lane group				L					R	L	T	
Volume (vph)				1050					2365	500	350	
% Heavy veh				10					10	10	10	
PHF				0.95					0.95	0.95	0.95	
Actuated (P/A)				A					A	A	A	
Startup lost time				2.0					2.0	2.0	2.0	
Ext. eff. green				2.0					2.0	2.0	2.0	
Arrival type				5					5	5	5	
Unit Extension				3.0					3.0	3.0	3.0	
Ped/Bike/RTOR Volume	0						10		0			
Lane Width				12.0					12.0	12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0					0	0	0	
Unit Extension				3.0					3.0	3.0	3.0	
Phasing	WB Only	02	03	04	Thru & RT	SB Only	07	08				
Timing	G = 40.0	G =	G =	G =	G = 43.0	G = 20.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 4	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate				1105					2489	526	368	
Lane group cap.				1109					1968	554	2017	
v/c ratio				1.00					1.27	0.95	0.18	
Green ratio				0.35					0.76	0.17	0.58	
Unif. delay d1				37.4					14.0	47.0	11.2	
Delay factor k				0.50					0.50	0.46	0.11	
Increm. delay d2				26.1					123.9	26.2	0.0	
PF factor				0.644					1.000	0.860	0.120	
Control delay				50.2					137.9	66.6	1.4	
Lane group LOS				D					F	E	A	
Apprch. delay				50.2			137.9			39.7		
Approach LOS				D			F			D		
Intersec. delay	96.8			Intersection LOS						F		

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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B PM NO LA MEDIA/SR125-SB-LONESTAR*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				L					R	L	T	
Init. queue/lane				0.0					0.0	0.0	0.0	
Flow rate/lane				1105					2489	526	368	
Satflow per lane				1641					1468	1641	1818	
Capacity/lane				1109					1966	554	2017	
Flow ratio				0.35					0.96	0.16	0.11	
v/c ratio				1.00					1.27	0.95	0.18	
I factor				1.000	1.000			1.000	1.000	1.000	1.000	
Arrival type				5					5	5	5	
Platoon ratio				1.67					1.00	1.67	1.63	
PF factor				1.00					1.00	0.99	0.13	
Q <sub>1</sub>				18.1					44.9	8.4	0.4	
k <sub>B</sub>				0.6					0.9	0.4	0.8	
Q <sub>2</sub>				6.2					40.7	2.7	0.2	
Q avg.				24.3					85.6	11.2	0.6	

### Percentile Back of Queue (95th percentile)

f <sub>B</sub> %				1.7					1.5	1.8	2.1	
BOQ, Q%				40.3					129	20.4	1.2	

### Queue Storage Ratio

Q spacing				25.0					25.0	25.0	25.0	
Q storage				0					0	0	0	
Avg. R <sub>Q</sub>												
95% R <sub>Q</sub> %												

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## SHORT REPORT

General Information				Site Information			
Analyst	USAI	Intersection	LONESTAR RD./PIPER RANCH RD.	Area Type	All other areas	Jurisdiction	LONEPIPER30A3BNLM/NO
Agency or Co.	USAI	Analysis Year	YEAR 2030 ALT.-3B				
Date Performed	03/23/11						
Time Period	AM PEAK HOUR						

## Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		2410	240	240	790		60		60			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0		2.0	2.0		2.0		2.0			
Ext. eff. green		2.0		2.0	2.0		2.0		2.0			
Arrival type		5		5	5		5		5			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0		0		0			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08				
Timing	G = 17.0	G = 75.0	G =	G =	G = 10.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 115.0						

## Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		2790		253	832		63		63			
Lane group cap.		3181		471	4135		277		120			
v/c ratio		0.88		0.54	0.20		0.23		0.52			
Green ratio		0.65		0.15	0.83		0.09		0.09			
Unif. delay d1		16.3		45.4	1.9		48.9		50.2			
Delay factor k		0.40		0.14	0.11		0.11		0.13			
Increm. delay d2		3.1		1.2	0.0		0.4		4.2			
PF factor		0.144		0.884	0.303		0.937		0.937			
Control delay		5.4		41.3	0.6		46.2		51.2			
Lane group LOS		A		D	A		D		D			
Approch. delay		5.4		10.1			48.7					
Approach LOS		A		B			D					
Intersec. delay		8.1		Intersection LOS							A	

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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description *ALT.-3B NO LA MEDIA AM LONESTAR/PIPER RD./NO MIT*

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		<i>TR</i>		<i>L</i>	<i>T</i>		<i>L</i>		<i>R</i>			
Init. queue/lane		<i>0.0</i>		<i>0.0</i>	<i>0.0</i>		<i>0.0</i>		<i>0.0</i>			
Flow rate/lane		<i>2790</i>		<i>253</i>	<i>832</i>		<i>63</i>		<i>63</i>			
Satflow per lane		<i>1790</i>		<i>1641</i>	<i>1818</i>		<i>1641</i>		<i>1383</i>			
Capacity/lane		<i>3181</i>		<i>471</i>	<i>4135</i>		<i>277</i>		<i>120</i>			
Flow ratio		<i>0.57</i>		<i>0.08</i>	<i>0.17</i>		<i>0.02</i>		<i>0.05</i>			
v/c ratio		<i>0.88</i>		<i>0.54</i>	<i>0.20</i>		<i>0.23</i>		<i>0.52</i>			
I factor		<i>1.000</i>		<i>1.000</i>	<i>1.000</i>		<i>1.000</i>	<i>1.000</i>	<i>1.000</i>			
Arrival type		<i>5</i>		<i>5</i>	<i>5</i>		<i>5</i>		<i>5</i>			
Platoon ratio		<i>1.46</i>		<i>1.67</i>	<i>1.14</i>		<i>1.67</i>		<i>1.67</i>			
PF factor		<i>0.37</i>		<i>0.94</i>	<i>0.31</i>		<i>0.95</i>		<i>0.97</i>			
Q1		<i>9.8</i>		<i>3.6</i>	<i>0.6</i>		<i>0.9</i>		<i>1.9</i>			
k <sub>B</sub>		<i>0.9</i>		<i>0.3</i>	<i>1.0</i>		<i>0.2</i>		<i>0.2</i>			
Q2		<i>4.9</i>		<i>0.4</i>	<i>0.3</i>		<i>0.1</i>		<i>0.2</i>			
Q avg.		<i>14.7</i>		<i>4.0</i>	<i>0.9</i>		<i>1.0</i>		<i>2.1</i>			

**Percentile Back of Queue (95th percentile)**

fb%		<i>1.8</i>		<i>2.0</i>	<i>2.1</i>		<i>2.1</i>		<i>2.0</i>			
BOQ, Q%		<i>26.0</i>		<i>7.9</i>	<i>1.8</i>		<i>2.0</i>		<i>4.3</i>			

**Queue Storage Ratio**

Q spacing		<i>25.0</i>		<i>25.0</i>	<i>25.0</i>		<i>25.0</i>		<i>25.0</i>			
Q storage		<i>0</i>		<i>0</i>	<i>0</i>		<i>0</i>		<i>0</i>			
Avg. R <sub>0</sub>												
95% R <sub>0</sub> %												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	LONESTAR RD./PIPER RANCH RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/23/11					Jurisdiction	LONEPIPER30P3BNLM/NO					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		790	60	60	2410		240		240			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0		2.0	2.0		2.0		2.0			
Ext. eff. green		2.0		2.0	2.0		2.0		2.0			
Arrival type		5		5	5		5		5			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0		0		0			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08				
Timing	G = 17.0	G = 70.0	G =	G =	G = 25.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		895		63	2537		253		253			
Lane group cap.		2741		433	3606		637		284			
v/c ratio		0.33		0.15	0.70		0.40		0.89			
Green ratio		0.56		0.14	0.73		0.20		0.20			
Unif. delay d1		14.8		47.6	9.5		43.5		48.7			
Delay factor k		0.11		0.11	0.27		0.11		0.41			
Increm. delay d2		0.1		0.2	0.6		0.4		27.5			
PF factor		0.152		0.895	0.184		0.833		0.833			
Control delay		2.3		42.8	2.4		36.6		68.1			
Lane group LOS		A		D	A		D		E			
Approch. delay		2.3		3.4			52.3					
Approach LOS		A		A			D					
Intersec. delay		9.3		Intersection LOS								A

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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B NO LA MEDIA PM LONESTAR/PIPER RD./NO MIT												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		TR		L	T		L		R			
Init. queue/lane		0.0		0.0	0.0		0.0		0.0			
Flow rate/lane		895		63	2537		253		253			
Satflow per lane		1796		1641	1818		1641		1421			
Capacity/lane		2741		433	3606		637		284			
Flow ratio		0.18		0.02	0.51		0.08		0.18			
v/c ratio		0.33		0.15	0.70		0.40		0.89			
l factor		1.000		1.000	1.000		1.000	1.000	1.000			
Arrival type		5		5	5		5		5			
Platoon ratio		1.67		1.67	1.30		1.67		1.67			
PF factor		0.18		0.91	0.27		0.88		0.97			
Q1		1.1		0.9	4.9		3.5		8.3			
kB		0.8		0.3	1.0		0.4		0.4			
Q2		0.4		0.1	2.3		0.3		2.1			
Q avg.		1.5		0.9	7.1		3.7		10.4			
Percentile Back of Queue (95th percentile)												
fb%		2.1		2.1	1.9		2.0		1.8			
BOQ, Q%		3.1		2.0	13.6		7.4		19.1			
Queue Storage Ratio												
Q spacing		25.0		25.0	25.0		25.0		25.0			
Q storage		0		0	0		0		0			
Avg. Rq												
95% Rq%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA RD./PIPER RANCH RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/15/11					Jurisdiction	OMPIPER30A3BNLM/NO MIT					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	680	1935	350	185	1165	370	160	50	85	245	110	455
% Heavy veh	10	10	2	2	10	10	2	2	2	10	2	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 30.0	G = 55.0	G =	G =	G = 22.0	G = 15.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	716	2405		195	1615		168	142		258	595	
Lane group cap.	683	1916		737	1865		278	351		258	318	
v/c ratio	1.05	1.26		0.26	0.87		0.60	0.40		1.00	1.87	
Green ratio	0.21	0.39		0.21	0.39		0.16	0.11		0.16	0.11	
Unif. delay d1	55.0	42.5		45.8	39.1		54.9	58.3		59.0	62.5	
Delay factor k	0.50	0.50		0.11	0.40		0.19	0.11		0.50	0.50	
Increm. delay d2	47.8	119.3		0.2	4.6		3.7	0.8		56.0	403.8	
PF factor	0.818	0.569		0.818	0.569		1.000	1.000		1.000	1.000	
Control delay	92.8	143.5		37.7	26.8		58.7	59.1		115.0	466.3	
Lane group LOS	F	F		D	C		E	E		F	F	
Approch. delay	131.8			28.0			58.9			360.0		
Approach LOS	F			C			E			F		
Intersec. delay	129.2			Intersection LOS						F		



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<b>BACK-OF-QUEUE WORKSHEET</b>												
<b>General Information</b>												
Project Description <i>ALT.-3B AM NO LA MEDIA OTAY MESA/PIPER RANCH RD./NO MITIGATI</i>												
<b>Average Back of Queue</b>												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>TR</i>		<i>L</i>	<i>TR</i>		<i>L</i>	<i>TR</i>		<i>L</i>	<i>TR</i>	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	716	2405		195	1615		168	142		258	595	
Satflow per lane	1641	1790		1770	1743		1770	1721		1641	1557	
Capacity/lane	683	1916		737	1865		278	351		258	318	
Flow ratio	0.22	0.49		0.06	0.34		0.09	0.04		0.16	0.20	
v/c ratio	1.05	1.26		0.26	0.87		0.60	0.40		1.00	1.87	
l factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	1.00	1.00		0.85	0.87		1.00	1.00		1.00	1.00	
Q1	14.3	34.3		2.8	18.3		6.1	2.7		10.0	12.1	
kb	0.5	0.7		0.5	0.7		0.4	0.3		0.4	0.3	
Q2	5.9	25.5		0.2	3.5		0.6	0.2		3.6	18.8	
Q avg.	20.2	59.8		2.9	21.9		6.7	2.9		13.6	30.9	
<b>Percentile Back of Queue (95th percentile)</b>												
fb%	1.7	1.5		2.0	1.7		1.9	2.0		1.8	1.6	
BOQ, Q%	34.2	91.0		5.9	36.7		12.8	5.8		24.3	49.7	
<b>Queue Storage Ratio</b>												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. Rq												
95% Rq%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./PIPER RANCH RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/15/11					Jurisdiction	OMPIPER30A3BNLM/WITH MIT						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/WITH M						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	1	2	3	1	2	1	1	2	1	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	680	1935	350	185	1165	370	160	50	85	245	110	455	
% Heavy veh	10	10	2	2	10	10	2	2	2	10	2	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 30.0	G = 55.0	G =	G =	G = 22.0	G = 15.0	G =	G =					
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	716	2037	368	195	1226	389	168	53	89	258	116	479	
Lane group cap.	683	1946	908	737	1946	842	540	210	541	501	210	889	
v/c ratio	1.05	1.05	0.41	0.26	0.63	0.46	0.31	0.25	0.16	0.51	0.55	0.54	
Green ratio	0.21	0.39	0.59	0.21	0.39	0.59	0.16	0.11	0.36	0.16	0.11	0.36	
Unif. delay d1	55.0	42.5	15.8	45.8	34.3	16.5	52.3	57.4	30.7	54.1	59.3	35.8	
Delay factor k	0.50	0.50	0.11	0.11	0.21	0.11	0.11	0.11	0.11	0.12	0.15	0.14	
Increm. delay d2	47.8	33.9	0.3	0.2	0.7	0.4	0.3	0.6	0.1	0.9	3.1	0.7	
PF factor	0.818	0.569	0.121	0.818	0.569	0.121	1.000	1.000	1.000	1.000	1.000	1.000	
Control delay	92.8	58.1	2.2	37.7	20.2	2.4	52.6	58.0	30.9	55.0	62.5	36.5	
Lane group LOS	F	E	A	D	C	A	D	E	C	E	E	D	
Approch. delay	59.4			18.2			47.3			45.6			
Approach LOS	E			B			D			D			
Intersec. delay	44.6			Intersection LOS						D			

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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B AM NO LA MEDIA OTAY MESA/PIPER RANCH RD./WITH MITIGA												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	716	2037	368	195	1226	389	168	53	89	258	116	479
Satflow per lane	1641	1818	1550	1770	1818	1437	1770	1961	1516	1641	1961	1406
Capacity/lane	683	1946	908	737	1946	842	540	210	541	501	210	889
Flow ratio	0.22	0.41	0.24	0.06	0.25	0.27	0.05	0.03	0.06	0.08	0.06	0.19
v/c ratio	1.05	1.05	0.41	0.26	0.63	0.46	0.31	0.25	0.16	0.51	0.55	0.54
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.62	1.67	1.67	1.62	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	1.00	1.00	0.15	0.85	0.73	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Q1	14.3	29.0	1.2	2.8	10.3	1.3	3.0	1.9	2.4	4.7	4.3	8.4
k8	0.5	0.7	0.8	0.5	0.7	0.8	0.4	0.4	0.6	0.4	0.4	0.6
Q2	5.9	10.6	0.6	0.2	1.2	0.7	0.2	0.1	0.1	0.4	0.4	0.7
Q avg.	20.2	39.6	1.7	2.9	11.5	2.0	3.1	2.0	2.5	5.1	4.7	9.0
Percentile Back of Queue (95th percentile)												
fb%	1.7	1.6	2.0	2.0	1.8	2.0	2.0	2.0	2.0	2.0	2.0	1.9
BOQ, Q%	34.2	62.1	3.6	5.9	20.9	4.1	6.3	4.1	5.0	10.0	9.2	16.8
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Ro												
95% Ro%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA RD./PIPER RANCH RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/15/11					Jurisdiction	OMPIPER30P3BNLM/NO MIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	455	1085	540	280	1490	245	665	215	350	370	170	680
% Heavy veh	10	10	2	2	10	10	2	2	2	10	2	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 20.0	G = 45.0	G =	G =	G = 32.0	G = 25.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	479	1710		295	1826		700	594		389	895	
Lane group cap.	455	1537		491	1553		405	592		375	537	
v/c ratio	1.05	1.11		0.60	1.18		1.73	1.00		1.04	1.67	
Green ratio	0.14	0.32		0.14	0.32		0.23	0.18		0.23	0.18	
Unif. delay d1	60.0	47.5		56.3	47.5		54.0	57.5		54.0	57.5	
Delay factor k	0.50	0.50		0.19	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	56.8	60.4		2.1	86.2		338.0	37.8		56.5	308.2	
PF factor	0.889	0.684		0.889	0.684		1.000	1.000		1.000	1.000	
Control delay	110.1	92.9		52.1	118.7		392.0	95.3		110.5	365.7	
Lane group LOS	F	F		D	F		F	F		F	F	
Approch. delay	96.6			109.4			255.8			288.3		
Approach LOS	F			F			F			F		
Intersec. delay	166.2			Intersection LOS						F		

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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description ALT.-3B PM NO LA MEDIA OTAY MESA/PIPER RANCH RD./NO MITIGATI

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	479	1710		295	1826		700	594		389	895	
Satflow per lane	1641	1755		1770	1773		1770	1740		1641	1578	
Capacity/lane	455	1537		491	1553		405	592		375	537	
Flow ratio	0.15	0.36		0.09	0.38		0.40	0.18		0.24	0.30	
v/c ratio	1.05	1.11		0.60	1.18		1.73	1.00		1.04	1.67	
l factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	1.00	1.00		0.95	1.00		1.00	1.00		1.00	1.00	
Q1	9.6	24.4		5.2	26.1		27.2	12.1		15.1	18.3	
kB	0.4	0.6		0.4	0.6		0.5	0.4		0.5	0.4	
Q2	4.2	12.0		0.6	15.9		38.1	4.2		5.9	24.5	
Q avg.	13.8	36.4		5.8	41.9		65.3	16.3		21.0	42.8	

**Percentile Back of Queue (95th percentile)**

fb%	1.8	1.6		1.9	1.6		1.5	1.7		1.7	1.6	
BOQ, Q%	24.5	57.5		11.2	65.4		99.0	28.4		35.4	66.6	

**Queue Storage Ratio**

Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. Ro												
95% Ro%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./PIPER RANCH RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/15/11					Jurisdiction	OMPIPER30P3BNLM/WITH MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/WITH M						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	1	2	3	1	2	1	1	2	1	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	455	1085	540	280	1490	245	665	215	350	370	170	680	
% Heavy veh	10	10	2	2	10	10	2	2	2	10	2	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 22.0	G = 43.0	G =	G =			G = 32.0			G = 25.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	479	1142	568	295	1568	258	700	226	368	389	179	716	
Lane group cap.	501	1521	883	540	1521	819	786	350	570	728	350	935	
v/c ratio	0.96	0.75	0.64	0.55	1.03	0.32	0.89	0.65	0.65	0.53	0.51	0.77	
Green ratio	0.16	0.31	0.57	0.16	0.31	0.57	0.23	0.18	0.37	0.23	0.18	0.37	
Unif. delay d1	58.5	43.7	20.3	54.4	48.5	15.7	52.3	53.4	36.4	47.5	52.0	38.7	
Delay factor k	0.47	0.31	0.22	0.15	0.50	0.11	0.41	0.22	0.22	0.14	0.12	0.32	
Increm. delay d2	29.3	2.1	1.6	1.2	31.4	0.2	12.4	4.1	2.5	0.8	1.3	3.9	
PF factor	0.876	0.704	0.117	0.876	0.704	0.117	1.000	1.000	1.000	1.000	1.000	1.000	
Control delay	80.6	32.9	4.0	48.8	65.6	2.1	64.7	57.5	38.9	48.2	53.3	42.5	
Lane group LOS	F	C	A	D	E	A	E	E	D	D	D	D	
Apprch. delay	35.8			55.5			56.1			45.7			
Approach LOS	D			E			E			D			
Intersec. delay	47.5			Intersection LOS						D			

31P  
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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B PM NO LA MEDIA OTAY MESA/PIPER RANCH RD./WITH MITIGA												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	479	1142	568	295	1568	258	700	226	368	389	179	716
Satflow per lane	1641	1818	1546	1770	1818	1434	1770	1961	1534	1641	1961	1422
Capacity/lane	501	1521	883	540	1521	819	786	350	570	728	350	935
Flow ratio	0.15	0.23	0.37	0.09	0.32	0.18	0.20	0.12	0.24	0.12	0.09	0.28
v/c ratio	0.96	0.75	0.64	0.55	1.03	0.32	0.89	0.65	0.65	0.53	0.51	0.77
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.66	1.67	1.67	1.66	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	0.99	0.88	0.19	0.93	1.00	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Q1	9.4	12.9	2.8	5.1	22.4	0.7	13.6	8.2	11.8	6.8	6.3	13.8
kB	0.4	0.6	0.8	0.4	0.6	0.8	0.5	0.5	0.6	0.5	0.5	0.6
Q2	2.9	1.7	1.5	0.5	7.9	0.4	2.8	0.8	1.1	0.6	0.5	1.8
Q avg.	12.3	14.7	4.3	5.5	30.3	1.1	16.4	9.0	13.0	7.4	6.8	15.6
Percentile Back of Queue (95th percentile)												
fB%	1.8	1.8	2.0	1.9	1.6	2.1	1.7	1.9	1.8	1.9	1.9	1.8
BOQ, Q%	22.2	25.9	8.5	10.7	48.8	2.2	28.5	16.8	23.2	14.0	13.0	27.3
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Rq												
95% Rq%												

32A  
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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-125SB OFF-RAMP/OTAY					
Agency or Co.	USAI					Area Type	MESA RD					
Date Performed	03/15/11					Jurisdiction	All other areas					
Time Period	AM PEAK HOUR					Analysis Year	125SBOM30A3BNLMNM/NO					
							MIT					
							YEAR 2030 ALT.-3B NO					
							LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L		R
Volume (vph)		2265			775					1440		945
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0		2.0
Ext. eff. green		2.0			2.0					2.0		2.0
Arrival type		5			5					3		3
Unit Extension		3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0		0
Unit Extension		3.0			3.0					3.0		3.0
Phasing	Thru Only	02	03	04	SB Only	06	07	08				
Timing	G = 82.0	G =	G =	G =	G = 50.0	G =	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		2384			816					1516		679
Lane group cap.		2901			2901					1138		524
v/c ratio		0.82			0.28					1.33		1.30
Green ratio		0.59			0.59					0.36		0.36
Unif. delay d1		23.2			14.4					45.0		45.0
Delay factor k		0.36			0.11					0.50		0.50
Increm. delay d2		2.0			0.1					155.6		146.8
PF factor		0.121			0.121					1.000		1.000
Control delay		4.8			1.8					200.6		191.8
Lane group LOS		A			A					F		F
Apprch. delay		4.8			1.8					197.8		
Approach LOS		A			A					F		
Intersec. delay		82.9		Intersection LOS							F	



BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B AM NO LA MEDIA OTAY MESA RD./125SB OFF-RAMP/NO MIT												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L		R
Init. queue/lane		0.0			0.0					0.0		0.0
Flow rate/lane		2384			816					1516		679
Satflow per lane		1818			1818					1641		1468
Capacity/lane		2901			2901					1138		524
Flow ratio		0.48			0.16					0.48		0.46
v/c ratio		0.82			0.28					1.33		1.30
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3		3
Platoon ratio		1.62			1.62					1.00		1.00
PF factor		0.29			0.14					1.00		1.00
Q1		7.8			0.8					30.3		26.4
k8		0.9			0.9					0.7		0.6
Q2		3.7			0.4					26.8		21.8
Q avg.		11.5			1.2					57.1		48.2
Percentile Back of Queue (95th percentile)												
fB%		1.8			2.1					1.5		1.5
BOQ, Q%		20.9			2.4					87.1		74.2
Queue Storage Ratio												
Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. RQ												
95% RQ%												

32A  
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SHORT REPORT												
General Information						Site Information						
Analyst	USA/					Intersection	SR-125/SB OFF-RAMP/OTAY					
Agency or Co.	USA/					Area Type	MESA RD					
Date Performed	12/13/10					Jurisdiction	125/SB/030A/38/NL/MWM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT - 38 NO LMM/TH M					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L	LR	R
Volume (vph)		2265			775					1440		945
% Heavy veh		10			15					10		10
PHF		0.95			0.85					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0	2.0	2.0
Ext. eff. green		2.0			2.0					2.0	2.0	2.0
Arrival type		5			5					3	5	3
Unit Extensor		3.0			3.0					3.0	3.0	3.0
Ped/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0	0	0
Unit Extensor		3.0			3.0					3.0	3.0	3.0
Phasing	Thru Only	02	03	04	SB Only	06	07	08				
Timing	G = 82.0	G =	G =	G =	G = 50.0	G =	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		2384			816					1137	617	441
Lane group cap		2901			2901					1136	594	524
svc ratio		0.82			0.28					1.00	1.04	0.84
Green ratio		0.59			0.59					0.36	0.36	0.36
Unit. delay d1		23.2			14.4					45.0	45.0	41.4
Delay factor k		0.36			0.11					0.50	0.50	0.38
incum. delay d2		2.0			0.1					25.5	47.3	11.8
PF factor		0.121			0.121					1.000	0.630	1.000
Control delay		4.8			1.8					71.4	75.1	53.2
Lane group LOS		A			A					E	E	D
Approach delay		4.8			1.8					69.0		
Approach LOS		A			A					E		
Intersec. delay		30.4					Intersection LOS				C	

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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description: ALT -3B 4M NO LA MEDIA OTAY MESA RD./125SE OFF-RAMP/WITH MIT

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L	LR	R
Init queue/lane		0.0			0.0					0.0	0.0	0.0
Flow rate/lane		2384			816					1137	617	441
Satflow per lane		1818			1818					1641	1662	1468
Capacity/lane		2901			2901					1136	594	524
Flow ratio		0.48			0.16					0.36	0.37	0.30
w/c ratio		0.82			0.29					1.00	1.04	0.84
l factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3	5	3
Platoon ratio		1.62			1.62					1.00	1.67	1.00
PF factor		0.29			0.14					1.00	1.00	1.00
Q1		7.8			0.8					22.8	24.0	15.9
KB		0.9			0.9					0.7	0.7	0.6
Q2		3.7			0.4					6.9	9.7	2.6
Q avg		11.5			1.2					29.7	32.7	18.4

### Percentile Back of Queue (95th percentile)

P95		1.9			2.1					1.6	1.8	1.7
BOQ, Q%		20.9			2.4					47.9	52.2	31.5

### Queue Storage Ratio

Q spacing		25.0			25.0					25.0	25.0	25.0
Q storage		0			0					0	0	0
Avg Rc												
95% Rcv												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-125SB OFF-RAMP/OTAY MESA RD					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/15/11					Jurisdiction	125SBOM30P3BNLM/NO MIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L		R
Volume (vph)		1805			1415					650		600
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (P/A)		A			A					A		A
Startup lost time		2.0			2.0					2.0		2.0
Ext. eff. green		2.0			2.0					2.0		2.0
Arrival type		5			5					3		3
Unit Extension		3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0		0
Unit Extension		3.0			3.0					3.0		3.0
Phasing	Thru Only	02	03	04	SB Only	06	07	08				
Timing	G = 92.0	G =	G =	G =	G = 40.0	G =	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		1900			1489					684		316
Lane group cap.		3255			3255					911		419
v/c ratio		0.58			0.46					0.75		0.75
Green ratio		0.66			0.66					0.29		0.29
Unif. delay d1		13.3			11.8					45.5		45.5
Delay factor k		0.18			0.11					0.31		0.31
Increm. delay d2		0.3			0.1					3.5		7.6
PF factor		0.146			0.146					1.000		1.000
Control delay		2.2			1.8					49.0		53.1
Lane group LOS		A			A					D		D
Apprch. delay	2.2			1.8						50.3		
Approach LOS	A			A						D		
Intersec. delay	13.0			Intersection LOS						B		

32 P  
M

## BACK-OF-QUEUE WORKSHEET

## General Information

Project Description ALT.-3B PM NO LA MEDIA OTAY MESA RD./125SB OFF-RAMP/NO  
MIT

## Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L		R
Init. queue/lane		0.0			0.0					0.0		0.0
Flow rate/lane		1900			1489					684		316
Satflow per lane		1818			1818					1641		1468
Capacity/lane		3255			3255					911		419
Flow ratio		0.38			0.30					0.21		0.22
v/c ratio		0.58			0.46					0.75		0.75
l factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3		3
Platoon ratio		1.45			1.45					1.00		1.00
PF factor		0.20			0.18					1.00		1.00
Q <sub>1</sub>		3.0			1.9					12.4		11.2
k <sub>B</sub>		1.0			1.0					0.6		0.5
Q <sub>2</sub>		1.4			0.8					1.6		1.5
Q avg.		4.4			2.7					14.0		12.7

## Percentile Back of Queue (95th percentile)

fb%		2.0			2.0					1.8		1.8
BOQ, Q%		8.7			5.5					24.9		22.7

## Queue Storage Ratio

Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. R <sub>q</sub>												
95% R <sub>q</sub> %												

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WITH  
MIT

SHORT REPORT												
General Information						Site Information						
Analyst	USAJ					Intersection	SR 125SS OFF-RAMP:OTAY MESA RD					
Agency or Co	USAJ					Area Type	All other areas					
Date Performed	12/13/10					Jurisdiction	125SBOMSOP39NLMMWITH MIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LMMWITH M					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num of Lanes	0	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L	LR	R
Volume (vph)		1805			1415					850		600
% Heavy veh		10			10					10		10
PHF		0.95			0.95					0.95		0.95
Actuated (PIA)		A			A					A		A
Startup lost time		2.0			2.0					2.0	2.0	2.0
Ext eff green		2.0			2.0					2.0	2.0	2.0
Arrival type		5			5					3	5	3
Unit Extension		3.0			3.0					3.0	3.0	3.0
Red/Bike/RTOR Volume							10			10		300
Lane Width		12.0			12.0					12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr		0			0					0	0	0
Unit Extension		3.0			3.0					3.0	3.0	3.0
Phasing	Thru Only	02	03	04	SB Only	05	07	08				
Timing	G = 92.0	G =	G =	G =	G = 40.0	G =	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		1900			1489					581	245	174
Lane group cap		3255			3255					911	465	419
v/c ratio		0.58			0.46					0.64	0.53	0.42
Green ratio		0.66			0.66					0.29	0.29	0.29
Unit delay d1		13.3			11.8					43.7	42.0	40.5
Delay factor k		0.18			0.11					0.22	0.13	0.11
Increment delay d2		0.3			0.1					1.5	1.1	0.7
PF factor		0.146			0.146					1.000	0.733	1.000
Control delay		2.7			1.8					45.2	32.6	41.2
Lane group LOS		A			A					D	C	D
Approach delay		2.2			1.9					41.2		
Approach LOS		A			A					D		
Intersec. delay		11.0			Intersection LOS					B		

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WITH MIT

**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description ALT-39 PM NO LA MEDIA OTAY MESA RD./2656 OFF-RAMP/WITH MIT

**Average Back of Queue**

	EE			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T			T					L	LR	R
Init. queue/lane		0.0			0.0					0.0	0.0	0.0
Flow rate/lane		1906			1429					581	245	174
Satflow per lane		1818			1915					1641	1626	1468
Capacity/lane		3255			3255					911	465	419
Flow ratio		0.38			0.30					0.18	0.15	0.12
w/c ratio		0.58			0.48					0.64	0.53	0.42
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3	5	3
Patron ratio		1.45			1.45					1.00	1.57	1.00
PF factor		0.20			0.18					1.00	0.83	1.00
Q <sub>1</sub>		3.0			1.9					10.2	6.7	5.5
Q <sub>5</sub>		1.0			1.0					0.6	0.5	0.5
Q <sub>10</sub>		1.4			0.8					1.0	0.6	0.4
Q avg.		4.4			2.7					11.1	7.3	5.9

**Percentile Back of Queue (95th percentile)**

Max		2.0			2.0					1.8	1.9	1.9
BOQ, Q <sub>95</sub>		8.7			5.5					20.3	13.8	11.3

**Queue Storage Ratio**

Q spacing		25.0			25.0					25.0	25.0	25.0
Q storage		0			0					0	0	0
Avg. R <sub>q</sub>												
95% R <sub>q</sub>												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-125NB ON-RAMP/OTAY MESA RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/13/12					Jurisdiction	125NBOTAY30A3BNLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	0	0	0
Lane group	L	T			T	R						
Volume (vph)	1030	2675			775	650						
% Heavy veh	10	10			10	10						
PHF	0.95	0.95			0.95	0.95						
Actuated (P/A)	A	A			A	A						
Startup lost time	2.0	2.0			2.0	2.0						
Ext. eff. green	2.0	2.0			2.0	2.0						
Arrival type	5	5			5	5						
Unit Extension	3.0	3.0			3.0	3.0						
Ped/Bike/RTOR Volume				10		0						
Lane Width	12.0	12.0			12.0	12.0						
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0						
Unit Extension	3.0	3.0			3.0	3.0						
Phasing	EB Only	Thru & RT	03	04	05	06	07	08				
Timing	G = 39.0	G = 42.0	G =	G =	G =	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 90.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	1084	2816		816	684							
Lane group cap.	1381	4953		2311	1213							
w/c ratio	0.78	0.57		0.35	0.56							
Green ratio	0.43	1.00		0.47	0.47							
Unif. delay d1	21.9	0.0		15.3	17.4							
Delay factor k	0.33	0.16		0.11	0.16							
Incram. delay d2	3.1	0.2		0.1	0.6							
PF factor	0.490	0.950		0.417	0.417							
Control delay	13.8	0.2		6.5	7.8							
Lane group LOS	B	A		A	A							
Apprch. delay	3.9			7.1								
Approach LOS	A			A								
Intersec. delay	4.8			Intersection LOS						A		



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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B AM 3B NO LA MEDIA -125NBON RAMP/OTAY MESA RD.*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>			<i>T</i>	<i>R</i>						
Init. queue/lane	<i>0.0</i>	<i>0.0</i>			<i>0.0</i>	<i>0.0</i>						
Flow rate/lane	<i>1084</i>	<i>2816</i>			<i>816</i>	<i>684</i>						
Satflow per lane	<i>1641</i>	<i>1818</i>			<i>1818</i>	<i>1468</i>						
Capacity/lane	<i>1381</i>	<i>4953</i>			<i>2311</i>	<i>1213</i>						
Flow ratio	<i>0.34</i>	<i>0.57</i>			<i>0.16</i>	<i>0.26</i>						
w/c ratio	<i>0.78</i>	<i>0.57</i>			<i>0.35</i>	<i>0.56</i>						
l factor	<i>1.000</i>	<i>1.000</i>			<i>1.000</i>	<i>1.000</i>						
Arrival type	<i>5</i>	<i>5</i>			<i>5</i>	<i>5</i>						
Platoon ratio	<i>1.67</i>	<i>1.00</i>			<i>1.67</i>	<i>1.67</i>						
PF factor	<i>0.75</i>				<i>0.48</i>	<i>0.55</i>						
Q1	<i>8.9</i>				<i>2.3</i>	<i>3.8</i>						
kb	<i>0.6</i>	<i>1.0</i>			<i>0.6</i>	<i>0.5</i>						
Q2	<i>1.9</i>	<i>1.3</i>			<i>0.3</i>	<i>0.7</i>						
Q avg.	<i>10.8</i>				<i>2.6</i>	<i>4.5</i>						

### Percentile Back of Queue (95th percentile)

fb%	<i>1.8</i>				<i>2.0</i>	<i>2.0</i>						
BOQ, Q%	<i>19.8</i>				<i>5.3</i>	<i>8.9</i>						

### Queue Storage Ratio

Q spacing	<i>25.0</i>	<i>25.0</i>			<i>25.0</i>	<i>25.0</i>						
Q storage	<i>0</i>	<i>0</i>			<i>0</i>	<i>0</i>						
Avg. Ro												
95% Ro%												

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## SHORT REPORT

General Information				Site Information			
Analyst	USAI			Intersection	SR-125NB ON-RAMP/OTAY		
Agency or Co.	USAI				MESA RD.		
Date Performed	05/13/12			Area Type	All other areas		
Time Period	PM PEAK HOUR			Jurisdiction	125NBOTAY30P3BNLM		
				Analysis Year	YEAR 2030 ALT.-3B NO LM		

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	0	0	0	0	0
Lane group	L	T			T	R						
Volume (vph)	1085	1370			1415	1370						
% Heavy veh	10	10			10	10						
PHF	0.95	0.95			0.95	0.95						
Actuated (P/A)	A	A			A	A						
Startup lost time	2.0	2.0			2.0	2.0						
Ext. eff. green	2.0	2.0			2.0	2.0						
Arrival type	5	5			5	5						
Unit Extension	3.0	3.0			3.0	3.0						
Ped/Bike/RTOR Volume				10		0						
Lane Width	12.0	12.0			12.0	12.0						
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0						
Unit Extension	3.0	3.0			3.0	3.0						
Phasing	EB Only	Thru & RT	03	04	05	06	07	08				
Timing	G = 35.0	G = 46.0	G =	G =	G =	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 90.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	1142	1442		1489	1442						
Lane group cap.	1239	4953		2532	1328							
w/c ratio	0.92	0.29		0.59	1.09							
Green ratio	0.39	1.00		0.51	0.51							
Unif. delay d1	26.2	0.0		15.4	22.0							
Delay factor k	0.44	0.11		0.18	0.50							
Increm. delay d2	11.4	0.0		0.4	51.5							
PF factor	0.576	0.950		0.303	0.303							
Control delay	26.4	0.0		5.0	58.2							
Lane group LOS	C	A		A	E							
Apprch. delay	11.7			31.2								
Approach LOS	B			C								
Intersec. delay	22.0			Intersection LOS						C		

*Handwritten initials and numbers: "MS" and "22"*

**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description *ALT.-3B PM 3B NO LA MEDIA -125NBON RAMP/OTAY MESA RD.*

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>			<i>T</i>	<i>R</i>						
Init. queue/lane	<i>0.0</i>	<i>0.0</i>			<i>0.0</i>	<i>0.0</i>						
Flow rate/lane	<i>1142</i>	<i>1442</i>			<i>1489</i>	<i>1442</i>						
Satflow per lane	<i>1641</i>	<i>1818</i>			<i>1818</i>	<i>1468</i>						
Capacity/lane	<i>1239</i>	<i>4953</i>			<i>2532</i>	<i>1328</i>						
Flow ratio	<i>0.36</i>	<i>0.29</i>			<i>0.30</i>	<i>0.55</i>						
w/c ratio	<i>0.92</i>	<i>0.29</i>			<i>0.59</i>	<i>1.09</i>						
l factor	<i>1.000</i>	<i>1.000</i>			<i>1.000</i>	<i>1.000</i>						
Arrival type	<i>5</i>	<i>5</i>			<i>5</i>	<i>5</i>						
Platoon ratio	<i>1.67</i>	<i>1.00</i>			<i>1.67</i>	<i>1.67</i>						
PF factor	<i>0.92</i>				<i>0.42</i>	<i>1.00</i>						
Q1	<i>12.8</i>				<i>4.0</i>	<i>20.4</i>						
kB	<i>0.5</i>	<i>1.0</i>			<i>0.7</i>	<i>0.6</i>						
Q2	<i>3.8</i>	<i>0.4</i>			<i>0.9</i>	<i>12.7</i>						
Q avg.	<i>16.7</i>				<i>5.0</i>	<i>33.0</i>						

**Percentile Back of Queue (95th percentile)**

fB%	<i>1.7</i>				<i>2.0</i>	<i>1.6</i>						
BOQ, Q%	<i>29.0</i>				<i>9.7</i>	<i>52.7</i>						

**Queue Storage Ratio**

Q spacing	<i>25.0</i>	<i>25.0</i>			<i>25.0</i>	<i>25.0</i>						
Q storage	<i>0</i>	<i>0</i>			<i>0</i>	<i>0</i>						
Avg. Rq												
95% Rq%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-125NB ON-RAMP/OTAY MESA RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	125NBOTAY30P3BNLM					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	0	0	3	2	0	0	0	0	0	0
Lane group	L				T	R						
Volume (vph)	1085			1415			1370					
% Heavy veh	10			10			10					
PHF	0.95			0.95			0.95					
Actuated (P/A)	A			A			A					
Startup lost time	2.0			2.0			2.0					
Ext. eff. green	2.0			2.0			2.0					
Arrival type	5			5			5					
Unit Extension	3.0			3.0			3.0					
Ped/Bike/RTOR Volume				10			0					
Lane Width	12.0			12.0			12.0					
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N		N
Parking/hr												
Bus stops/hr	0			0			0					
Unit Extension	3.0			3.0			3.0					
Phasing	EB Only	WB Only	03	04	05	06	07	08				
Timing	G = 35.0	G = 46.0	G =	G =	G =	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 90.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	1142			1489			1442					
Lane group cap.	1239			2532			1328					
v/c ratio	0.92			0.59			1.09					
Green ratio	0.39			0.51			0.51					
Unif. delay d1	26.2			15.4			22.0					
Delay factor k	0.44			0.18			0.50					
Increm. delay d2	11.4			0.4			51.5					
PF factor	0.576			0.303			0.303					
Control delay	26.4			5.0			58.2					
Lane group LOS	C			A			E					
Approch. delay	26.4			31.2								
Approach LOS	C			C								
Intersec. delay	29.8			Intersection LOS						C		

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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description ALT.-3B PM 3B NO LA MEDIA -125NBON RAMP/OTAY MESA RD.

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L				T	R						
Init. queue/lane	0.0				0.0	0.0						
Flow rate/lane	1142				1489	1442						
Satflow per lane	1641				1818	1468						
Capacity/lane	1239				2532	1328						
Flow ratio	0.36				0.30	0.55						
v/c ratio	0.92				0.59	1.09						
l factor	1.000	1.000			1.000	1.000						
Arrival type	5				5	5						
Platoon ratio	1.67				1.67	1.67						
PF factor	0.92				0.42	1.00						
Q1	12.8				4.0	20.4						
kB	0.5				0.7	0.6						
Q2	3.8				0.9	12.7						
Q avg.	16.7				5.0	33.0						

**Percentile Back of Queue (95th percentile)**

fB%	1.7				2.0	1.6						
BOQ, Q%	29.0				9.7	52.7						

**Queue Storage Ratio**

Q spacing	25.0				25.0	25.0						
Q storage	0				0	0						
Avg. Ro												
95% Ro%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./HARVEST RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	OTAYHARV30A3BNLM/NO						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	120	1940	615	50	1095	5	275	5	25	5	5	55	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	5	5		5	5		3	3		3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 15.0	G = 82.0	G =	G =			G = 15.0	G = 10.0	G =		G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	126	2689		53	1158		289	31		5	63		
Lane group cap.	176	2775		176	2899		176	107		176	105		
v/c ratio	0.72	0.97		0.30	0.40		1.64	0.29		0.03	0.60		
Green ratio	0.11	0.59		0.11	0.59		0.11	0.07		0.11	0.07		
Unif. delay d1	60.4	27.8		57.7	15.7		62.5	61.6		56.0	63.1		
Delay factor k	0.28	0.48		0.11	0.11		0.50	0.11		0.11	0.19		
Increm. delay d2	13.0	10.9		1.0	0.1		313.1	1.5		0.1	9.2		
PF factor	0.920	0.121		0.920	0.121		1.000	1.000		1.000	1.000		
Control delay	68.6	14.2		54.0	2.0		375.6	63.1		56.0	72.3		
Lane group LOS	E	B		D	A		F	E		E	E		
Approch. delay	16.6			4.3			345.3			71.1			
Approach LOS	B			A			F			E			
Intersec. delay	37.9			Intersection LOS						D			

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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B AM NO LA MEDIA OTAYMESA RD./HARVEST RD./NO MIT												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	126	2689		53	1158		289	31		5	63	
Satflow per lane	1641	1739		1641	1816		1641	1499		1641	1470	
Capacity/lane	176	2775		176	2899		176	107		176	105	
Flow ratio	0.08	0.57		0.03	0.23		0.18	0.02		0.00	0.04	
v/c ratio	0.72	0.97		0.30	0.40		1.64	0.29		0.03	0.60	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.62		1.67	1.62		1.00	1.00		1.00	1.00	
PF factor	0.97	0.66		0.94	0.15		1.00	1.00		1.00	1.00	
Q1	4.6	24.2		1.8	1.3		11.2	1.1		0.2	2.4	
kB	0.3	0.9		0.3	0.9		0.3	0.2		0.3	0.2	
Q2	0.7	8.8		0.1	0.6		14.9	0.1		0.0	0.3	
Q avg.	5.3	33.0		1.9	1.9		26.1	1.2		0.2	2.7	
Percentile Back of Queue (95th percentile)												
fB%	1.9	1.6		2.0	2.0		1.6	2.1		2.1	2.0	
BOQ, Q%	10.4	52.7		3.9	4.0		42.9	2.6		0.4	5.5	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. Rq												
95% Rq%												

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**SHORT REPORT**

General Information				Site Information			
Analyst	USAI			Intersection	OTAY MESA RD./HARVEST RD.		
Agency or Co.	USAI			Area Type	All other areas		
Date Performed	03/24/11			Jurisdiction	OTAYHARV30A3BNLMWITH MIT		
Time Period	AM PEAK HOUR			Analysis Year	YEAR 2030 ALT.-3B NO LMWITH M		

Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	3	1	1	3	1	2	1	0	1	1	0	
Lane group	L	T	R	L	T	R	L	TR		L	TR		
Volume (vph)	120	1940	615	50	1095	5	275	5	25	5	5	55	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	5	5	5	5	5	5	3	3		3	3		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 15.0	G = 82.0	G =	G =			G = 15.0	G = 10.0	G =		G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	126	2042	647	53	1153	5	289	31		5	63
Lane group cap.	176	2901	1037	176	2901	1037	341	107		176	105	
v/c ratio	0.72	0.70	0.62	0.30	0.40	0.00	0.85	0.29		0.03	0.60	
Green ratio	0.11	0.59	0.73	0.11	0.59	0.73	0.11	0.07		0.11	0.07	
Unif. delay d1	60.4	20.4	9.5	57.7	15.7	5.2	61.4	61.6		56.0	63.1	
Delay factor k	0.28	0.27	0.21	0.11	0.11	0.11	0.38	0.11		0.11	0.19	
Increm. delay d2	13.0	0.8	1.2	1.0	0.1	0.0	17.8	1.5		0.1	9.2	
PF factor	0.920	0.121	0.184	0.920	0.121	0.184	1.000	1.000		1.000	1.000	
Control delay	68.6	3.3	2.9	54.0	2.0	1.0	79.1	63.1		56.0	72.3	
Lane group LOS	E	A	A	D	A	A	E	E		E	E	
Apprch. delay	6.1			4.3			77.6			71.1		
Approach LOS	A			A			E			E		
Intersec. delay	11.8			Intersection LOS						B		



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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B AM NO LA MEDIA OTAYMESA RD./HARVEST RD./WITH MIT												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	126	2042	647	53	1153	5	289	31		5	63	
Satflow per lane	1641	1818	1423	1641	1818	1423	1641	1499		1641	1470	
Capacity/lane	176	2901	1037	176	2901	1037	341	107		176	105	
Flow ratio	0.08	0.41	0.45	0.03	0.23	0.00	0.09	0.02		0.00	0.04	
v/c ratio	0.72	0.70	0.62	0.30	0.40	0.00	0.85	0.29		0.03	0.60	
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	3	3		3	3	
Platoon ratio	1.67	1.62	1.30	1.67	1.62	1.30	1.00	1.00		1.00	1.00	
PF factor	0.97	0.21	0.25	0.94	0.15	0.18	1.00	1.00		1.00	1.00	
Q1	4.6	4.4	3.1	1.8	1.3	0.0	5.7	1.1		0.2	2.4	
kB	0.3	0.9	0.9	0.3	0.9	0.9	0.3	0.2		0.3	0.2	
Q2	0.7	2.1	1.5	0.1	0.6	0.0	1.3	0.1		0.0	0.3	
Q avg.	5.3	6.5	4.6	1.9	1.9	0.0	6.9	1.2		0.2	2.7	
Percentile Back of Queue (95th percentile)												
fb%	1.9	1.9	2.0	2.0	2.0	2.1	1.9	2.1		2.1	2.0	
BOQ, Q%	10.4	12.5	9.0	3.9	3.9	0.0	13.2	2.6		0.4	5.5	
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. Ro												
95% Ro%												

34 P  
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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./HARVEST RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	OTAYHARV30P3BNLM/NO MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	3	0	1	3	0	1	1	0	1	1	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	55	1040	275	20	2050	20	615	20	50	20	20	120	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	5	5		5	5		3	3		3	3		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 10.0	G = 77.0	G =	G =			G = 20.0	G = 15.0	G =		G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	58	1384		21	2179		647	73		21	147		
Lane group cap.	117	2621		117	2719		234	167		234	163		
v/c ratio	0.50	0.53		0.18	0.80		2.76	0.44		0.09	0.90		
Green ratio	0.07	0.55		0.07	0.55		0.14	0.11		0.14	0.11		
Unif. delay d1	62.6	20.0		61.1	25.3		60.0	58.5		52.1	61.8		
Delay factor k	0.11	0.13		0.11	0.35		0.50	0.11		0.11	0.42		
Increm. delay d2	3.3	0.2		0.7	1.8		806.1	1.8		0.2	43.4		
PF factor	0.949	0.185		0.949	0.185		1.000	1.000		1.000	1.000		
Control delay	62.6	3.9		58.7	6.5		866.1	60.4		52.3	105.1		
Lane group LOS	E	A		E	A		F	E		D	F		
Approch. delay	6.3			7.0			784.4			98.5			
Approach LOS	A			A			F			F			
Intersec. delay	133.7			Intersection LOS						F			

BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B PM NO LA MEDIA OTAYMESA RD./HARVEST RD./NO MIT												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR		L	TR		L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	58	1384		21	2179		647	73		21	147	
Satflow per lane	1641	1749		1641	1814		1641	1562		1641	1517	
Capacity/lane	117	2621		117	2719		234	167		234	163	
Flow ratio	0.04	0.29		0.01	0.44		0.39	0.05		0.01	0.10	
v/c ratio	0.50	0.53		0.18	0.80		2.76	0.44		0.09	0.90	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		3	3	
Platoon ratio	1.67	1.67		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	0.97	0.25		0.96	0.39		1.00	1.00		1.00	1.00	
Q1	2.1	3.2		0.7	9.7		25.2	2.7		0.7	5.7	
ks	0.2	0.9		0.2	0.9		0.4	0.3		0.4	0.3	
Q2	0.2	1.0		0.1	3.2		52.2	0.2		0.0	1.6	
Q avg.	2.3	4.2		0.8	12.9		77.4	2.9		0.7	7.2	
Percentile Back of Queue (95th percentile)												
fb%	2.0	2.0		2.1	1.8		1.5	2.0		2.1	1.9	
BOQ, Q%	4.8	8.2		1.6	23.2		117	5.8		1.5	13.7	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0		0	0		0	0		0	0	
Avg. Ro												
95% Ro%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./HARVEST RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	OTAYHARV30P3BNLMWITH						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LMMWITH M						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	3	1	1	3	1	2	1	0	1	1	0	
Lane group	L	T	R	L	T	R	L	TR		L	TR		
Volume (vph)	55	1040	275	20	2050	20	615	20	50	20	20	120	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Arrival type	5	5	5	5	5	5	3	3		3	3		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 10.0	G = 60.0	G =	G =			G = 32.0	G = 20.0	G =	G =			
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	58	1095	289	21	2158	21	647	73		21	147		
Lane group cap.	117	2120	986	117	2118	606	713	225		375	219		
v/c ratio	0.50	0.52	0.29	0.18	1.02	0.03	0.91	0.32		0.06	0.67		
Green ratio	0.07	0.43	0.69	0.07	0.43	0.43	0.23	0.14		0.23	0.14		
Unif. delay d1	62.6	29.4	8.3	61.1	40.0	23.2	52.6	53.9		42.2	56.9		
Delay factor k	0.11	0.12	0.11	0.11	0.50	0.11	0.43	0.11		0.11	0.24		
Increm. delay d2	3.3	0.2	0.2	0.7	24.4	0.0	15.4	0.8		0.1	7.8		
PF factor	0.949	0.500	0.163	0.949	0.500	0.500	1.000	1.000		1.000	1.000		
Control delay	62.6	14.9	1.5	58.7	44.4	11.6	68.0	54.8		42.3	64.6		
Lane group LOS	E	B	A	E	D	B	E	D		D	E		
Approch. delay	14.1			44.3			66.7			61.9			
Approach LOS	B			D			E			E			
Intersec. delay	38.9			Intersection LOS						D			

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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B PM NO LA MEDIA OTAYMESA RD./HARVEST RD./WITH MIT												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow rate/lane	58	1095	289	21	2158	21	647	73		21	147	
Satflow per lane	1641	1818	1423	1641	1815	1415	1641	1573		1641	1530	
Capacity/lane	117	2120	986	117	2118	606	713	225		375	219	
Flow ratio	0.04	0.22	0.20	0.01	0.44	0.01	0.21	0.05		0.01	0.10	
v/c ratio	0.50	0.52	0.29	0.18	1.02	0.03	0.91	0.32		0.06	0.67	
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5	5	3	3		3	3	
Platoon ratio	1.67	1.67	1.37	1.67	1.67	1.67	1.00	1.00		1.00	1.00	
PF factor	0.97	0.62	0.18	0.96	1.00	0.51	1.00	1.00		1.00	1.00	
Q1	2.1	7.1	0.8	0.7	30.8	0.2	12.9	2.6		0.6	5.4	
kb	0.2	0.8	0.9	0.2	0.8	0.7	0.5	0.4		0.5	0.4	
Q2	0.2	0.8	0.4	0.1	9.7	0.0	2.9	0.2		0.0	0.7	
Q avg.	2.3	7.9	1.1	0.8	40.6	0.3	15.8	2.7		0.7	6.1	
Percentile Back of Queue (95th percentile)												
fb%	2.0	1.9	2.1	2.1	1.6	2.1	1.7	2.0		2.1	1.9	
BOQ, Q%	4.8	14.9	2.4	1.6	63.4	0.6	27.6	5.5		1.4	11.8	
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. Ra												
95% Ra%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD./OTAY CENTER D					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	SIEMOTCR30A3BNLM/NO MIT					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Nun. of Lanes	1	3	0	1	3	0	0	1	1	1	1	0
Lane group	L	TR		L	TR			LT	R	L	TR	
Volume (vph)	505	1135	150	295	3075	975	55	30	120	200	90	100
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5			3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0			0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07		08
Timing	G = 20.0	G = 74.0	G =	G =		G = 14.0		G = 14.0	G =		G =	
	Y = 4	Y = 5	Y =	Y =		Y = 4		Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	532	1353		311	4211			90	126	211	200	
Lane group cap.	234	2563		234	2508			176	391	164	163	
v/c ratio	2.27	0.53		1.33	1.68			0.51	0.32	1.29	1.23	
Green ratio	0.14	0.53		0.14	0.53			0.10	0.28	0.10	0.10	
Unif. delay d1	60.0	21.6		60.0	33.0			59.8	40.0	63.0	63.0	
Delay factor k	0.50	0.13		0.50	0.50			0.12	0.11	0.50	0.50	
Increm. delay d2	586.5	0.2		174.4	307.3			2.5	0.5	167.0	144.4	
PF factor	0.889	0.253		0.889	0.921			1.000	1.000	1.000	1.000	
Control delay	639.8	5.7		227.8	337.7			62.3	40.5	230.0	207.4	
Lane group LOS	F	A		F	F			E	D	F	F	
Apprch. delay	184.6			330.2			49.6			219.0		
Approach LOS	F			F			D			F		
Intersec. delay	276.0			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B-NO LA MEDIA/NO MITIGATION												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR			LT	R	L	TR	
Init. queue/lane	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	
Flow rate/lane	532	1353		311	4211			90	126	211	200	
Satflow per lane	1641	1779		1641	1741			1761	1402	1641	1629	
Capacity/lane	234	2563		234	2508			176	391	164	163	
Flow ratio	0.32	0.28		0.19	0.89			0.05	0.09	0.13	0.12	
v/c ratio	2.27	0.53		1.33	1.68			0.51	0.32	1.29	1.23	
l factor	1.000	1.000		1.000	1.000			1.000	1.000	1.000	1.000	
Arrival type	5	5		5	5			3	3	3	3	
Platoon ratio	1.67	1.67		1.67	1.07			1.00	1.00	1.00	1.00	
PF factor	1.00	0.34		1.00	1.00			1.00	1.00	1.00	1.00	
Q1	20.7	4.3		12.1	60.1			3.3	3.9	8.2	7.8	
ks	0.4	0.9		0.4	0.9			0.3	0.5	0.3	0.3	
Q2	37.9	1.0		11.0	80.2			0.3	0.2	7.0	5.9	
Q avg.	58.6	5.2		23.1	140.3			3.6	4.1	15.2	13.7	
Percentile Back of Queue (95th percentile)												
fb%	1.5	1.9		1.7	1.5			2.0	2.0	1.8	1.8	
BOQ, Q%	89.3	10.2		38.4	210			7.2	8.2	26.8	24.4	
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0			25.0	25.0	25.0	25.0	
Q storage	0	0		0	0			0	0	0	0	
Avg. Ro												
95% Ro%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SIEMPRE VIVA RD./OTAY CENTER D						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	SIEMOTCR30A3BNLM/WITH MIT						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	1	2	3	1	1	1	1	2	1	1	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	505	1135	150	295	3075	975	55	30	120	200	90	100	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	50	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 20.0	G = 74.0	G =	G =			G = 14.0	G = 14.0	G =		G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	532	1195	158	311	3237	974	58	32	126	211	95	105	
Lane group cap.	455	2618	957	455	2618	957	164	182	391	319	182	391	
v/c ratio	1.17	0.46	0.17	0.68	1.24	1.02	0.35	0.18	0.32	0.66	0.52	0.27	
Green ratio	0.14	0.53	0.66	0.14	0.53	0.66	0.10	0.10	0.28	0.10	0.10	0.28	
Unif. delay d1	60.0	20.5	8.9	57.0	33.0	23.5	58.8	57.7	40.0	60.7	59.8	39.4	
Delay factor k	0.50	0.11	0.11	0.25	0.50	0.50	0.11	0.11	0.11	0.24	0.13	0.11	
Increm. delay d2	97.5	0.1	0.1	4.2	109.9	33.6	1.3	0.5	0.5	5.0	2.7	0.4	
PF factor	0.889	0.253	0.149	0.889	0.491	0.200	1.000	1.000	1.000	1.000	1.000	1.000	
Control delay	150.8	5.3	1.4	54.9	126.1	38.3	60.1	58.2	40.5	65.8	62.5	39.7	
Lane group LOS	F	A	A	D	F	D	E	E	D	E	E	D	
Approch. delay	46.1			102.3			48.4			58.4			
Approach LOS	D			F			D			E			
Intersec. delay	83.0			Intersection LOS						F			



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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B-NO LA MEDIA/MITIGATION												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	532	1195	158	311	3237	974	58	32	126	211	95	105
Satflow per lane	1641	1818	1440	1641	1818	1440	1641	1818	1402	1641	1818	1402
Capacity/lane	455	2618	957	455	2618	957	164	182	391	319	182	391
Flow ratio	0.17	0.24	0.11	0.10	0.65	0.68	0.04	0.02	0.09	0.07	0.05	0.07
v/c ratio	1.17	0.46	0.17	0.68	1.24	1.02	0.35	0.18	0.32	0.66	0.52	0.27
I factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.43	1.67	1.45	1.40	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	1.00	0.32	0.16	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1	10.6	3.4	0.4	5.7	46.2	37.9	2.1	1.1	3.9	4.0	3.5	3.2
kb	0.4	0.9	0.9	0.4	0.9	0.9	0.3	0.3	0.5	0.3	0.3	0.5
Q2	6.8	0.7	0.2	0.8	32.4	11.4	0.2	0.1	0.2	0.5	0.3	0.2
Q avg.	17.4	4.1	0.5	6.4	78.6	49.3	2.3	1.2	4.1	4.6	3.9	3.4
Percentile Back of Queue (95th percentile)												
fb%	1.7	2.0	2.1	1.9	1.5	1.5	2.0	2.1	2.0	2.0	2.0	2.0
BOQ, Q%	30.1	8.1	1.1	12.3	118	75.9	4.6	2.5	8.2	9.0	7.6	6.7
Queue Storage Ratio												
Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Ro												
95% Ro%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SIEMPRE VIVA RD./OTAY CENTER D						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	SAN DIEGO/NO MITIGATION						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LA MEDIA						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	3	0	1	3	0	0	1	1	1	1	1	
Lane group	L	TR		L	TR			LT	R	L	T	R	
Volume (vph)	90	2000	135	265	1160	180	210	130	415	945	85	490	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	5	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0			2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5			3	3	3	3	3	
Unit Extension	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	0	200	
Lane Width	12.0	12.0		12.0	12.0			12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0			0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 20.0	G = 52.0	G =	G =	G = 40.0	G = 15.0	G =	G =					
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 145.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	95	2247		279	1410			358	437	995	89	305	
Lane group cap.	226	1755		226	1731			182	387	453	188	412	
v/c ratio	0.42	1.28		1.23	0.81			1.97	1.13	2.20	0.47	0.74	
Green ratio	0.14	0.36		0.14	0.36			0.10	0.28	0.28	0.10	0.28	
Unif. delay d1	57.2	46.5		62.5	42.1			65.0	52.5	52.5	61.3	47.8	
Delay factor k	0.11	0.50		0.50	0.36			0.50	0.50	0.50	0.11	0.30	
Increm. delay d2	1.3	130.7		137.7	3.1			454.4	85.7	545.6	1.9	7.0	
PF factor	0.893	0.627		0.893	0.627			1.000	1.000	1.000	1.000	1.000	
Control delay	52.4	159.8		193.5	29.6			519.4	138.2	598.1	63.2	54.8	
Lane group LOS	D	F		F	C			F	F	F	E	D	
Apprch. delay	155.5			56.6			309.9			444.5			
Approach LOS	F			E			F			F			
Intersec. delay	213.0			Intersection LOS						F			

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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B-NO LA MEDIA-PM PEAK HOUR/NO MITIGATION												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	TR		L	TR			LT	R	L	T	R
Init. queue/lane	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Flow rate/lane	95	2247		279	1410			358	437	995	89	305
Satflow per lane	1641	1796		1641	1772			1764	1404	1641	1818	1494
Capacity/lane	226	1755		226	1731			182	387	453	188	412
Flow ratio	0.06	0.46		0.17	0.29			0.20	0.31	0.61	0.05	0.20
v/c ratio	0.42	1.28		1.23	0.81			1.97	1.13	2.20	0.47	0.74
l factor	1.000	1.000		1.000	1.000			1.000	1.000	1.000	1.000	1.000
Arrival type	5	5		5	5			3	3	3	3	3
Platoon ratio	1.67	1.67		1.67	1.67			1.00	1.00	1.00	1.00	1.00
PF factor	0.93	1.00		1.00	0.86			1.00	1.00	1.00	1.00	1.00
Q1	3.3	33.2		11.2	16.3			14.4	17.6	40.1	3.4	11.2
kB	0.4	0.7		0.4	0.7			0.3	0.5	0.6	0.3	0.5
Q2	0.3	25.4		8.2	2.6			22.7	9.3	68.8	0.3	1.4
Q avg.	3.5	58.6		19.5	18.9			37.1	26.9	108.9	3.7	12.6
Percentile Back of Queue (95th percentile)												
fB%	2.0	1.5		1.7	1.7			1.6	1.6	1.5	2.0	1.8
BOQ, Q%	7.0	89.2		33.2	32.3			58.4	44.0	163	7.3	22.6
Queue Storage Ratio												
Q spacing	25.0	25.0		25.0	25.0			25.0	25.0	25.0	25.0	25.0
Q storage	0	0		0	0			0	0	0	0	0
Avg. Rq												
95% Rq%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SIEMPRE VIVA RD./OTAY CENTER D						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	SAN DIEGO WITH MITIGATION						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LA MEDIA						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	1	2	3	1	1	1	1	2	1	1	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	90	2000	135	265	1160	180	210	130	415	945	85	490	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	5	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	0	200	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 20.0	G = 52.0	G =	G =			G = 40.0	G = 15.0	G =		G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	95	2105	142	279	1221	189	221	137	437	995	89	305	
Lane group cap.	440	1776	961	440	1776	961	453	188	387	879	188	412	
v/c ratio	0.22	1.19	0.15	0.63	0.69	0.20	0.49	0.73	1.13	1.13	0.47	0.74	
Green ratio	0.14	0.36	0.67	0.14	0.36	0.67	0.28	0.10	0.28	0.28	0.10	0.28	
Unif. delay d1	55.5	46.5	8.8	59.0	39.6	9.1	43.9	63.0	52.5	52.5	61.3	47.8	
Delay factor k	0.11	0.50	0.11	0.21	0.26	0.11	0.11	0.29	0.50	0.50	0.11	0.30	
Increm. delay d2	0.2	89.4	0.1	3.0	1.1	0.1	0.8	13.4	85.7	73.6	1.9	7.0	
PF factor	0.893	0.627	0.151	0.893	0.627	0.151	1.000	1.000	1.000	1.000	1.000	1.000	
Control delay	49.9	118.6	1.4	55.7	26.0	1.5	44.8	76.4	138.2	126.1	63.2	54.8	
Lane group LOS	D	F	A	E	C	A	D	E	F	F	E	D	
Approch. delay	108.7			28.1			101.6			106.4			
Approach LOS	F			C			F			F			
Intersec. delay	85.4			Intersection LOS						F			

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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description *ALT.-3B-NO LA MEDIA-PM PEAK HOUR/WITH MITIGATION*

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	95	2105	142	279	1221	189	221	137	437	995	89	305
Satflow per lane	1641	1818	1437	1641	1818	1437	1641	1818	1404	1641	1818	1494
Capacity/lane	440	1776	961	440	1776	961	453	188	387	879	188	412
Flow ratio	0.03	0.42	0.10	0.09	0.25	0.13	0.13	0.08	0.31	0.31	0.05	0.20
w/c ratio	0.22	1.19	0.15	0.63	0.69	0.20	0.49	0.73	1.13	1.13	0.47	0.74
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	3	3	3
Platoon ratio	1.67	1.67	1.42	1.67	1.67	1.42	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	0.91	1.00	0.16	0.95	0.80	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Q1	1.6	31.1	0.3	5.2	12.3	0.5	7.4	5.4	17.6	20.6	3.4	11.2
kB	0.4	0.7	0.9	0.4	0.7	0.9	0.6	0.3	0.5	0.6	0.3	0.5
Q2	0.1	18.8	0.2	0.6	1.5	0.2	0.5	0.8	9.3	10.9	0.3	1.4
Q avg.	1.7	49.9	0.5	5.8	13.8	0.7	8.0	6.2	26.9	31.5	3.7	12.6

**Percentile Back of Queue (95th percentile)**

fb%	2.0	1.5	2.1	1.9	1.8	2.1	1.9	1.9	1.6	1.6	2.0	1.8
BOQ, Q%	3.4	76.7	1.0	11.2	24.6	1.4	15.0	11.9	44.0	50.5	7.3	22.6

**Queue Storage Ratio**

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Rq												
95% Rq%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD/SR-905					
Agency or Co.	USAI						SB OFF					
Date Performed	05/13/12					Area Type	All other areas					
Time Period	AM PEAK HOUR					Jurisdiction	SR905SBSIEM30ANLM					
						Analysis Year	YEAR 2030 ALT.-3B NO LA MEDIA					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	0	0	2	0	0	0
Lane group		TR		L	T				R			
Volume (vph)		1105	350	400	4345				1630			
% Heavy veh		10	10	10	10				10			
PHF		0.95	0.95	0.95	0.95				0.95			
Actuated (P/A)		A	A	A	A							
Startup lost time		2.0		2.0	2.0				2.0			
Ext. eff. green		2.0		2.0	2.0				2.0			
Arrival type		5		5	5				3			
Unit Extension		3.0		3.0	3.0				3.0			
Ped/Bike/RTOR Volume	10		0				10		0			
Lane Width		12.0		12.0	12.0				12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0				0			
Unit Extension		3.0		3.0	3.0				3.0			
Phasing	WB Only	WB Only	Thru & RT	04	05	06	07	08				
Timing	G = 35.0	G = 35.0	G = 37.0	G =	G =	G =	G =	G =				
	Y = 4	Y = 5	Y = 4	Y =	Y =	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		1531		421	4574				1716			
Lane group cap.		1472		930	4953				1603			
v/c ratio		1.04		0.45	0.92				1.07			
Green ratio		0.31		0.29	1.00				0.62			
Unif. delay d1		41.5		34.7	0.0				23.0			
Delay factor k		0.50		0.11	0.44				0.50			
Increm. delay d2		34.6		0.4	3.5				44.0			
PF factor		0.703		0.725	0.950				1.000			
Control delay		63.8		25.5	3.5				67.0			
Lane group LOS		E		C	A				E			
Apprch. delay		63.8		5.4				67.0				
Approach LOS		E		A				E				
Intersec. delay		29.0		Intersection LOS							C	

3LA  
M

## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B-NO LA MEDIA AM PEAK HOUR*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		<i>TR</i>		<i>L</i>	<i>T</i>				<i>R</i>			
Init. queue/lane		<i>0.0</i>		<i>0.0</i>	<i>0.0</i>				<i>0.0</i>			
Flow rate/lane		<i>1531</i>		<i>421</i>	<i>4574</i>				<i>1716</i>			
Satflow per lane		<i>1752</i>		<i>1641</i>	<i>1818</i>				<i>1468</i>			
Capacity/lane		<i>1472</i>		<i>930</i>	<i>4953</i>				<i>1603</i>			
Flow ratio		<i>0.32</i>		<i>0.13</i>	<i>0.92</i>				<i>0.66</i>			
v/c ratio		<i>1.04</i>		<i>0.45</i>	<i>0.92</i>				<i>1.07</i>			
l factor		<i>1.000</i>		<i>1.000</i>	<i>1.000</i>			<i>1.000</i>	<i>1.000</i>			
Arrival type		<i>5</i>		<i>5</i>	<i>5</i>				<i>3</i>			
Platoon ratio		<i>1.67</i>		<i>1.67</i>	<i>1.00</i>				<i>1.00</i>			
PF factor		<i>1.00</i>		<i>0.81</i>					<i>1.00</i>			
Q1		<i>18.7</i>		<i>4.7</i>					<i>32.3</i>			
k <sub>B</sub>		<i>0.6</i>		<i>0.5</i>	<i>1.2</i>				<i>0.8</i>			
Q2		<i>7.8</i>		<i>0.4</i>	<i>9.3</i>				<i>14.5</i>			
Q avg.		<i>26.6</i>		<i>5.2</i>					<i>46.8</i>			

### Percentile Back of Queue (95th percentile)

f <sub>B</sub> %		<i>1.6</i>		<i>2.0</i>					<i>1.5</i>			
BOQ, Q%		<i>43.5</i>		<i>10.1</i>					<i>72.2</i>			

### Queue Storage Ratio

Q spacing		<i>25.0</i>		<i>25.0</i>	<i>25.0</i>				<i>25.0</i>			
Q storage		<i>0</i>		<i>0</i>	<i>0</i>				<i>0</i>			
Avg. R <sub>q</sub>												
95% R <sub>q</sub> %												

368  
MN

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD./SR-905					
Agency or Co.	USAI						SB OFF					
Date Performed	05/13/12					Area Type	All other areas					
Time Period	PM PEAK HOUR					Jurisdiction	SAN DIEGO					
						Analysis Year	YEAR 2030 ALT.-3B NO LA MEDIA					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	2	3	0	0	0	2	0	0	0
Lane group		TR		L	T				R			
Volume (vph)		2690	670	1000	1605				350			
% Heavy veh		10	10	10	10				10			
PHF		0.95	0.95	0.95	0.95				0.95			
Actuated (P/A)		A	A	A	A							
Startup lost time		2.0		2.0	2.0				2.0			
Ext. eff. green		2.0		2.0	2.0				2.0			
Arrival type		5		5	5				3			
Unit Extension		3.0		3.0	3.0				3.0			
Ped/Bike/RTOR Volume	10	5	0				10		0			
Lane Width		12.0		12.0	12.0				12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0				0			
Unit Extension		3.0		3.0	3.0				3.0			
Phasing	WB Only	WB Only	Thru & RT	04	05	06	07	08				
Timing	G = 30.0	G = 15.0	G = 62.0	G =	G =	G =	G =	G =				
	Y = 4	Y = 4	Y = 5	Y =	Y =	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		3537		1053	1689				368			
Lane group cap.		2473		797	4953				1061			
w/c ratio		1.43		1.32	0.34				0.35			
Green ratio		0.52		0.25	1.00				0.41			
Unif. delay d1		29.0		45.0	0.0				24.5			
Delay factor k		0.50		0.50	0.11				0.11			
Increm. delay d2		196.0		153.3	0.0				0.2			
PF factor		0.695		0.778	0.950				1.000			
Control delay		216.2		188.3	0.0				24.7			
Lane group LOS		F		F	A				C			
Apprch. delay		216.2		72.3				24.7				
Approach LOS		F		E				C				
Intersec. delay		146.2		Intersection LOS								F



368  
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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B-NO LA MEDIA PM PEAK HOUR*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		<i>TR</i>		<i>L</i>	<i>T</i>				<i>R</i>			
Init. queue/lane		<i>0.0</i>		<i>0.0</i>	<i>0.0</i>				<i>0.0</i>			
Flow rate/lane		<i>3537</i>		<i>1053</i>	<i>1689</i>				<i>368</i>			
Satflow per lane		<i>1756</i>		<i>1641</i>	<i>1818</i>				<i>1468</i>			
Capacity/lane		<i>2473</i>		<i>797</i>	<i>4953</i>				<i>1061</i>			
Flow ratio		<i>0.74</i>		<i>0.33</i>	<i>0.34</i>				<i>0.14</i>			
v/c ratio		<i>1.43</i>		<i>1.32</i>	<i>0.34</i>				<i>0.35</i>			
l factor		<i>1.000</i>		<i>1.000</i>	<i>1.000</i>			<i>1.000</i>	<i>1.000</i>			
Arrival type		<i>5</i>		<i>5</i>	<i>5</i>				<i>3</i>			
Platoon ratio		<i>1.29</i>		<i>1.67</i>	<i>1.00</i>				<i>1.00</i>			
PF factor		<i>1.00</i>		<i>1.00</i>					<i>1.00</i>			
Q1		<i>43.3</i>		<i>18.1</i>					<i>4.8</i>			
kB		<i>0.8</i>		<i>0.5</i>	<i>1.2</i>				<i>0.6</i>			
Q2		<i>51.3</i>		<i>18.3</i>	<i>0.6</i>				<i>0.3</i>			
Q avg.		<i>94.6</i>		<i>36.3</i>					<i>5.1</i>			

### Percentile Back of Queue (95th percentile)

fB%		<i>1.5</i>		<i>1.6</i>					<i>2.0</i>			
BOQ, Q%		<i>142</i>		<i>57.4</i>					<i>9.9</i>			

### Queue Storage Ratio

Q spacing		<i>25.0</i>		<i>25.0</i>	<i>25.0</i>				<i>25.0</i>			
Q storage		<i>0</i>		<i>0</i>	<i>0</i>				<i>0</i>			
Avg. Rq												
95% Rq%												

36 (A)  
AM  
No LM  
N  
M

## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP
Agency/Co.	USAI	Jurisdiction	905SBSIEMPAM3BNLM
Date Performed	05/14/12	Analysis Year	2030 3B NO LA MEDIA /NO MIT.
Analysis Time Period	AM PEAK HOUR		

Project Description 3B NO LA MEDIA/ NO MIT.

East/West Street: SIEMPRE VIVA RD.

North/South Street: SR-905 SB TO WB OFF RAMP

Intersection Orientation: East-West

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments <sup>↑</sup> DUE TO MODEL LIMITS, 2 WB LANES & 2/3 VOLUME IS USED

Major Street	Eastbound			Westbound		
	1	2	3	4	5	6
Movement	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	1120	0
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate (veh/h)	0	0	0	0	1178	0
Proportion of heavy vehicles, P <sub>HV</sub>	10	--	--	10	--	--
Median type	Raised curb					
RT Channelized?			0			0
Lanes	0	0	0	0	2	0
Configuration					T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
	7	8	9	10	11	12
Movement	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	0	3065
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate (veh/h)	0	0	0	0	0	3226
Proportion of heavy vehicles, P <sub>HV</sub>	10	10	0	10	10	10
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	0	0	0	0	1
Configuration						R

## Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
			7	8	9	10	11	12
Movement	1	4	7	8	9	10	11	12
Lane Configuration								R
Volume, v (vph)								3226
Capacity, c <sub>m</sub> (vph)								473
v/c ratio								6.82
Queue length (95%)								347.61

905 SB To WB AM

36(A)  
AM  
NO LM  
M

Control Delay (s/veh)								2641
LOS								F
Approach delay (s/veh)	--	--					2641	
Approach LOS	--	--					F	

36(A)  
AM  
WMT

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	07/26/11					Jurisdiction	SR905SBWBAM3BNLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	3	0	0	0	0	0	0	2
Lane group					T							R
Volume (vph)					1680							3065
% Heavy veh					10							10
PHF					0.95							0.95
Actuated (P/A)					A							A
Startup lost time					2.0							2.0
Ext. eff. green					2.0							2.0
Arrival type					5							3
Unit Extension					3.0							3.0
Ped/Bike/RTOR Volume										10		285
Lane Width					12.0							12.0
Parking/Grade/Parking	N		N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr					0							0
Unit Extension					3.0							3.0
Phasing	WB Only	02	03	04	SB Only	06	07	08				
Timing	G = 60.0	G =	G =	G =	G = 70.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate					1768							2926
Lane group cap.					2123							1300
v/c ratio					0.83							2.25
Green ratio					0.43							0.50
Unif. delay d1					35.5							35.0
Delay factor k					0.37							0.50
Increm. delay d2					3.0							565.3
PF factor					0.500							1.000
Control delay					20.8							600.3
Lane group LOS					C							F
Apprch. delay				20.8						600.3		
Approach LOS				C						F		
Intersec. delay	382.0			Intersection LOS						F		

361  
MM  
W-MIT

BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B AM NO LA MEDIA / SR-905 SB TO WB OFF-RAMP												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					T							R
Init. queue/lane					0.0							0.0
Flow rate/lane					1768							2926
Satflow per lane					1818							1468
Capacity/lane					2123							1300
Flow ratio					0.36							1.13
v/c ratio					0.83							2.25
I factor					1.000						1.000	1.000
Arrival type					5							3
Platoon ratio					1.67							1.00
PF factor					0.79							1.00
Q1					17.8							64.3
kB					0.8							0.7
Q2					3.2							116.2
Q avg.					21.0							180.5
Percentile Back of Queue (95th percentile)												
fB%					1.7							1.5
BOQ, Q%					35.5							271
Queue Storage Ratio												
Q spacing					25.0							25.0
Q storage					0							0
Avg. Ro												
95% Ro%												

36(A)  
PM  
NO LM  
N  
M

TWO-WAY STOP CONTROL SUMMARY								
General Information				Site Information				
Analyst	USAI			Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP			
Agency/Co.	USAI			Jurisdiction	905SBSIEMPPM3BNLM			
Date Performed	05/14/12			Analysis Year	2030 3B NO LA MEDIA /NO MIT.			
Analysis Time Period	PM PEAK HOUR							
Project Description 3B NO LA MEDIA/ NO MIT.								
East/West Street: SIEMPRE VIVA RD.				North/South Street: SR-905 SB TO WB OFF RAMP				
Intersection Orientation: East-West				Study Period (hrs): 0.25				
<b>Vehicle Volumes and Adjustments</b> *DUE TO MODEL LIMITS 2WB LANES & 7/3 VOLUME IS USED.								
Major Street	Eastbound			Westbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	0	+1403	0		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	0	0	0	0	1476	0		
Proportion of heavy vehicles, P <sub>HV</sub>	10	--	--	10	--	--		
Median type	Raised curb							
RT Channelized?			0			0		
Lanes	0	0	0	0	2	0		
Configuration					T			
Upstream Signal		0			0			
Minor Street	Northbound			Southbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume (veh/h)	0	0	0	0	0	500		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly Flow Rate (veh/h)	0	0	0	0	0	526		
Proportion of heavy vehicles, P <sub>HV</sub>	10	10	0	10	10	10		
Percent grade (%)	0			0				
Flared approach		N			N			
Storage		0			0			
RT Channelized?			0			0		
Lanes	0	0	0	0	0	1		
Configuration						R		
Control Delay, Queue Length, Level of Service								
Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration								R
Volume, v (vph)								526
Capacity, c <sub>m</sub> (vph)								387
v/c ratio								1.36
Queue length (95%)								25.20

905/SV SBTOWB PM

36(A)

Control Delay (s/veh)								205.7
LOS								F
Approach delay (s/veh)	--	--					205.7	
Approach LOS	--	--					F	

PM  
No LM  
N  
M

36(A)  
PM  
W  
MIT

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	07/26/11					Jurisdiction	SR905SBWBPM3BNLM					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B-NO LA MEDIA					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	0	3	0	0	0	0	0	0	2
Lane group					T							R
Volume (vph)					2105							500
% Heavy veh					10							10
PHF					0.95							0.95
Actuated (P/A)					A							A
Startup lost time					2.0							2.0
Ext. eff. green					2.0							2.0
Arrival type					5							3
Unit Extension					3.0							3.0
Ped/Bike/RTOR Volume										10		250
Lane Width					12.0							12.0
Parking/Grade/Parking	N		N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr					0							0
Unit Extension					3.0							3.0
Phasing	WB Only	02	03	04	SB Only	06	07	08				
Timing	G = 70.0	G =	G =	G =	G = 60.0	G =	G =	G =				
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate					2216							263
Lane group cap.					2477							1114
v/c ratio					0.89							0.24
Green ratio					0.50							0.43
Unif. delay d1					31.7							25.4
Delay factor k					0.42							0.11
Increm. delay d2					4.7							0.1
PF factor					0.333							1.000
Control delay					15.2							25.5
Lane group LOS					B							C
Apprch. delay				15.2						25.5		
Approach LOS				B						C		
Intersec. delay	16.3			Intersection LOS						B		



36(M)  
PM  
W  
MIT

**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description 3B NO LA MEDIA / SR-905 SB TO WB OFF-RAMP

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group					T							R
Init. queue/lane					0.0							0.0
Flow rate/lane					2216							263
Satflow per lane					1818							1468
Capacity/lane					2477							1114
Flow ratio					0.45							0.10
v/c ratio					0.89							0.24
I factor					1.000						1.000	1.000
Arrival type					5							3
Platoon ratio					1.67							1.00
PF factor					0.72							1.00
Q1					20.7							3.7
k <sub>B</sub>					0.8							0.7
Q2					5.1							0.2
Q avg.					25.7							3.9

**Percentile Back of Queue (95th percentile)**

fb%					1.6							2.0
BOQ, Q%					42.3							7.7

**Queue Storage Ratio**

Q spacing					25.0							25.0
Q storage					0							0
Avg. R <sub>q</sub>												
95% R <sub>Q%</sub>												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	SAN DIEGO					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B-NO LA MEDIA					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	1	0	1	2	0	0	0
Lane group	L	T			TR	R		LT	R			
Volume (vph)	575	2160			1080	610	600	1	1000			
% Heavy veh	10	10			10	10	10	10	10			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	0	10		0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08				
Timing	G = 26.0	G = 51.0	G =	G =	G = 52.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 142.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	605	2274		1201	578		633	1053				
Lane group cap.	584	2825		1761	507		634	952				
v/c ratio	1.04	0.80		0.68	1.14		1.00	1.11				
Green ratio	0.18	0.57		0.36	0.36		0.37	0.37				
Unif. delay d1	58.0	24.2		38.6	45.5		45.0	45.0				
Delay factor k	0.50	0.35		0.25	0.50		0.50	0.50				
Increm. delay d2	46.9	1.8		1.1	84.6		35.3	62.7				
PF factor	0.851	0.116		0.626	0.626		0.615	0.615				
Control delay	96.2	4.6		25.3	113.1		63.0	90.4				
Lane group LOS	F	A		C	F		E	F				
Apprch. delay	23.9			53.8			80.1					
Approach LOS	C			D			F					
Intersec. delay	47.2			Intersection LOS						D		

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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description ALT.-3B NO LA MEDIA AM PEAK HOUR/NO MITIGATION

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			TR	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	605	2274			1201	578		633	1053			
Satflow per lane	1641	1818			1799	1412		1732	1468			
Capacity/lane	584	2825			1761	507		634	952			
Flow ratio	0.19	0.46			0.24	0.41		0.37	0.40			
v/c ratio	1.04	0.80			0.68	1.14		1.00	1.11			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.67	1.67			1.67	1.67		1.67	1.67			
PF factor	1.00	0.27			0.80	1.00		1.00	1.00			
Q1	12.3	7.0			11.8	22.8		24.9	23.4			
kB	0.4	0.9			0.7	0.6		0.7	0.6			
Q2	4.9	3.4			1.4	12.4		7.3	11.2			
Q avg.	17.2	10.3			13.2	35.2		32.2	34.7			

**Percentile Back of Queue (95th percentile)**

fb%	1.7	1.8			1.8	1.6		1.6	1.6			
BOQ, Q%	29.7	19.0			23.6	55.8		51.6	55.1			

**Queue Storage Ratio**

Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. Rq												
95% Rq%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	SAN DIEGO/WITH MITIGATION					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B-NO LA MEDIA					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	1	2	0	0	0
Lane group	L	T			T	R		LT	R			
Volume (vph)	575	2160			1080	610	600	1	1000			
% Heavy veh	10	10			10	10	10	10	10			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	0	10		0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08				
Timing	G = 26.0	G = 51.0	G =	G =	G = 52.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 142.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	605	2274			1137	642		633	1053			
Lane group cap.	584	2825			1779	898		634	952			
v/c ratio	1.04	0.80			0.64	0.71		1.00	1.11			
Green ratio	0.18	0.57			0.36	0.36		0.37	0.37			
Unif. delay d1	58.0	24.2			37.8	39.2		45.0	45.0			
Delay factor k	0.50	0.35			0.22	0.28		0.50	0.50			
Increm. delay d2	46.9	1.8			0.8	2.7		35.3	62.7			
PF factor	0.851	0.116			0.626	0.626		0.615	0.615			
Control delay	96.2	4.6			24.5	27.3		63.0	90.4			
Lane group LOS	F	A			C	C		E	F			
Approch. delay	23.9			25.5			80.1					
Approach LOS	C			C			F					
Intersec. delay	39.3			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET												
General Information												
Project Description ALT.-3B NO LA MEDIA AM PEAK HOURWITH MITIGATION												
Average Back of Queue												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	T			T	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	605	2274			1137	642		633	1053			
Satflow per lane	1641	1818			1818	1412		1732	1468			
Capacity/lane	584	2825			1779	898		634	952			
Flow ratio	0.19	0.46			0.23	0.26		0.37	0.40			
v/c ratio	1.04	0.80			0.64	0.71		1.00	1.11			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.67	1.67			1.67	1.67		1.67	1.67			
PF factor	1.00	0.27			0.78	0.81		1.00	1.00			
Q1	12.3	7.0			10.7	10.0		24.9	23.4			
k8	0.4	0.9			0.7	0.6		0.7	0.6			
Q2	4.9	3.4			1.2	1.4		7.3	11.2			
Q avg.	17.2	10.3			11.9	11.4		32.2	34.7			
Percentile Back of Queue (95th percentile)												
fb%	1.7	1.8			1.8	1.8		1.6	1.6			
BOQ, Q%	29.7	19.0			21.5	20.7		51.6	55.1			
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. Rq												
95% Rq%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	SAN DIEGO/NO MITIGATION						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B-NO LA MEDIA						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	0	0	3	1	0	1	2	0	0	0	
Lane group	L	T			TR	R		LT	R				
Volume (vph)	1940	1100			1755	1570	350	1	600				
% Heavy veh	10	10			10	10	10	10	10				
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95				
Actuated (P/A)	A	A			A	A	A	A	A				
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0				
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0				
Arrival type	5	5			5	5		5	5				
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0				
Ped/Bike/RTOR Volume				10	5	0	10		0	10			
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0				
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N	
Parking/hr													
Bus stops/hr	0	0			0	0		0	0				
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0				
Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08					
Timing	G = 40.0	G = 65.0	G =	G =	G = 27.0	G =	G =	G =					
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	2042	1158			2673	827		369	632				
Lane group cap.	879	3723			2094	635		323	484				
v/c ratio	2.32	0.31			1.28	1.30		1.14	1.31				
Green ratio	0.28	0.75			0.45	0.45		0.19	0.19				
Unif. delay d1	52.5	5.8			40.0	40.0		59.0	59.0				
Delay factor k	0.50	0.11			0.50	0.50		0.50	0.50				
Increment. delay d2	599.0	0.0			128.3	147.3		94.4	152.0				
PF factor	0.816	0.201			0.463	0.490		0.847	0.847				
Control delay	641.8	1.2			146.8	166.9		144.4	202.0				
Lane group LOS	F	A			F	F		F	F				
Approch. delay	410.0			151.6			180.8						
Approach LOS	F			F			F						
Intersec. delay	262.7			Intersection LOS									F

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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B NO LA MEDIA PM PEAK HOUR/NO MITIGATION*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>			<i>TR</i>	<i>R</i>		<i>LT</i>	<i>R</i>			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	2042	1158			2673	827		369	632			
Satflow per lane	1641	1818			1715	1417		1732	1468			
Capacity/lane	879	3723			2094	635		323	484			
Flow ratio	0.64	0.23			0.57	0.58		0.21	0.24			
v/c ratio	2.32	0.31			1.28	1.30		1.14	1.31			
l factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.48	1.26			1.66	1.63		1.67	1.67			
PF factor	1.00	0.22			1.00	1.00		1.00	1.00			
Q1	42.3	1.2			39.5	33.3		14.9	14.4			
kB	0.6	1.1			0.8	0.7		0.5	0.4			
Q2	75.9	0.5			29.8	26.7		8.3	12.1			
Q avg.	118.2	1.7			69.4	60.0		23.2	26.4			

### Percentile Back of Queue (95th percentile)

fb%	1.5	2.0			1.5	1.5		1.7	1.6			
BOQ, Q%	177	3.5			105	91.3		38.6	43.3			

### Queue Storage Ratio

Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. Rq												
95% Rq%												

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General Information		Site Information	
Analyst	USAI	Intersection	SR905 NB RAMPS/ SIEMPRE VIVA R
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/24/11	Jurisdiction	SAN DIEGO/WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B-NO LA MEDIA

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	0	3	2	0	1	2	0	0	0
Lane group	L	T			T	R		LT	R			
Volume (vph)	1940	1100			1755	1570	350	1	600			
% Heavy veh	10	10			10	10	10	10	10			
PHF	0.95	0.95			0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)	A	A			A	A	A	A	A			
Startup lost time	2.0	2.0			2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0			2.0	2.0		2.0	2.0			
Arrival type	5	5			5	5		5	5			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume				10	5	0	10		0	10		
Lane Width	12.0	12.0			12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr	0	0			0	0		0	0			
Unit Extension	3.0	3.0			3.0	3.0		3.0	3.0			

Phasing	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 40.0	G = 65.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 145.0			

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	2042	1158			1847	1653		369	632			
Lane group cap.	879	3723			2220	1124		323	484			
v/c ratio	2.32	0.31			0.83	1.47		1.14	1.31			
Green ratio	0.28	0.75			0.45	0.45		0.19	0.19			
Unif. delay d1	52.5	5.8			35.2	40.0		59.0	59.0			
Delay factor k	0.50	0.11			0.37	0.50		0.50	0.50			
Incram. delay d2	599.0	0.0			2.9	216.7		94.4	152.0			
PF factor	0.816	0.201			0.458	0.640		0.847	0.847			
Control delay	641.8	1.2			19.0	242.3		144.4	202.0			
Lane group LOS	F	A			B	F		F	F			
Approch. delay	410.0			124.4			180.8					
Approach LOS	F			F			F					
Intersec. delay	250.4			Intersection LOS						F		



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**BACK-OF-QUEUE WORKSHEET**

**General Information**

Project Description *ALT.-3B NO LA MEDIA PM PEAK HOUR/WITH MITIGATION*

**Average Back of Queue**

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>			<i>T</i>	<i>R</i>		<i>LT</i>	<i>R</i>			
Init. queue/lane	<i>0.0</i>	<i>0.0</i>			<i>0.0</i>	<i>0.0</i>		<i>0.0</i>	<i>0.0</i>			
Flow rate/lane	<i>2042</i>	<i>1158</i>			<i>1847</i>	<i>1653</i>		<i>369</i>	<i>632</i>			
Satflow per lane	<i>1641</i>	<i>1818</i>			<i>1818</i>	<i>1417</i>		<i>1732</i>	<i>1468</i>			
Capacity/lane	<i>879</i>	<i>3723</i>			<i>2220</i>	<i>1124</i>		<i>323</i>	<i>484</i>			
Flow ratio	<i>0.64</i>	<i>0.23</i>			<i>0.37</i>	<i>0.66</i>		<i>0.21</i>	<i>0.24</i>			
v/c ratio	<i>2.32</i>	<i>0.31</i>			<i>0.83</i>	<i>1.47</i>		<i>1.14</i>	<i>1.31</i>			
l factor	<i>1.000</i>	<i>1.000</i>			<i>1.000</i>	<i>1.000</i>		<i>1.000</i>	<i>1.000</i>			
Arrival type	<i>5</i>	<i>5</i>			<i>5</i>	<i>5</i>		<i>5</i>	<i>5</i>			
Platoon ratio	<i>1.48</i>	<i>1.26</i>			<i>1.67</i>	<i>1.44</i>		<i>1.67</i>	<i>1.67</i>			
PF factor	<i>1.00</i>	<i>0.22</i>			<i>0.76</i>	<i>1.00</i>		<i>1.00</i>	<i>1.00</i>			
Q1	<i>42.3</i>	<i>1.2</i>			<i>18.3</i>	<i>37.6</i>		<i>14.9</i>	<i>14.4</i>			
kB	<i>0.6</i>	<i>1.1</i>			<i>0.8</i>	<i>0.7</i>		<i>0.5</i>	<i>0.4</i>			
Q2	<i>75.9</i>	<i>0.5</i>			<i>3.4</i>	<i>39.3</i>		<i>8.3</i>	<i>12.1</i>			
Q avg.	<i>118.2</i>	<i>1.7</i>			<i>21.6</i>	<i>76.9</i>		<i>23.2</i>	<i>26.4</i>			

**Percentile Back of Queue (95th percentile)**

fb%	<i>1.5</i>	<i>2.0</i>			<i>1.7</i>	<i>1.5</i>		<i>1.7</i>	<i>1.6</i>			
BOQ, Q%	<i>177</i>	<i>3.5</i>			<i>36.4</i>	<i>116</i>		<i>38.6</i>	<i>43.3</i>			

**Queue Storage Ratio**

Q spacing	<i>25.0</i>	<i>25.0</i>			<i>25.0</i>	<i>25.0</i>		<i>25.0</i>	<i>25.0</i>			
Q storage	<i>0</i>	<i>0</i>			<i>0</i>	<i>0</i>		<i>0</i>	<i>0</i>			
Avg. Ro												
95% Ro%												

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## SHORT REPORT

General Information				Site Information			
Analyst	USAI	Intersection	SIEMPRE VIVA RD./PSEO	Agency or Co.	USAI	Area Type	AMERICAS
Date Performed	05/21/12	Jurisdiction	SAN DIEGO	Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	1	1	2	0	1	2	0	1	2	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	900	1255	820	90	715	95	465	50	50	55	100	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	5
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5	5	5	5		5	5		5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	0	200
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 38.0	G = 35.0	G =	G =	G = 30.0	G = 19.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	947	1321	863	95	853		489	106		58	431
Lane group cap.	445	1238	715	445	848		352	676		223	424	
v/c ratio	2.13	1.07	1.21	0.21	1.01		1.39	0.16		0.26	1.02	
Green ratio	0.27	0.25	0.50	0.27	0.25		0.21	0.21		0.14	0.14	
Unif. delay d1	51.0	52.5	35.0	39.4	52.5		55.0	44.7		54.2	60.5	
Delay factor k	0.50	0.50	0.50	0.11	0.50		0.50	0.11		0.11	0.50	
Increm. delay d2	515.2	45.5	106.0	0.2	32.4		191.8	0.1		0.6	47.9	
PF factor	0.759	0.778	0.426	0.752	0.778		0.818	0.818		0.895	0.895	
Control delay	553.9	86.3	120.9	29.9	73.2		236.8	36.7		49.2	102.1	
Lane group LOS	F	F	F	C	E		F	D		D	F	
Aprch. delay	237.3			68.8			201.2			95.8		
Approach LOS	F			E			F			F		
Intersec. delay	188.8			Intersection LOS						F		

## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B NO LA MEDIA AM PEAK HOUR/NO MIT*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>	<i>R</i>	<i>L</i>	<i>TR</i>		<i>L</i>	<i>TR</i>		<i>L</i>	<i>TR</i>	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	947	1321	863	95	853		489	106		58	431	
Satflow per lane	1641	1818	1430	1641	1780		1641	1655		1641	1641	
Capacity/lane	445	1238	715	445	848		352	676		223	424	
Flow ratio	0.58	0.27	0.60	0.06	0.25		0.30	0.03		0.04	0.14	
v/c ratio	2.13	1.07	1.21	0.21	1.01		1.39	0.16		0.26	1.02	
l factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5		5	5		5	5	
Platoon ratio	1.65	1.67	1.57	1.67	1.67		1.67	1.67		1.67	1.67	
PF factor	1.00	1.00	1.00	0.78	1.00		1.00	0.84		0.92	1.00	
Q1	36.8	18.8	33.6	2.2	17.4		19.0	1.5		1.9	8.8	
k <sub>B</sub>	0.6	0.6	0.7	0.6	0.6		0.5	0.5		0.4	0.4	
Q2	63.8	8.0	22.1	0.1	5.8		18.7	0.1		0.1	3.5	
Q avg.	100.6	26.8	55.7	2.4	23.2		37.7	1.5		2.0	12.3	

### Percentile Back of Queue (95th percentile)

fB%	1.5	1.6	1.5	2.0	1.7		1.6	2.1		2.0	1.8	
BOQ, Q%	151	43.8	85.0	4.8	38.6		59.4	3.2		4.0	22.1	

### Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0		0	0		0	0	
Avg. R <sub>q</sub>												
95% R <sub>q</sub> %												

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD./PSEO AMERICAS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/21/12					Jurisdiction	SAN DIEGO					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/WITH M					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	1	2	1	1	1	1	1	1	2
Lane group	L	T	R	L	T	R	L	LT	R	L	T	R
Volume (vph)	900	1255	820	90	715	95	465	50	50	55	100	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	NB Only	SB Only	07	08				
Timing	G = 38.0	G = 35.0	G =	G =	G = 30.0	G = 19.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	947	1321	863	95	753	100	367	175	53	58	105	537
Lane group cap.	865	1238	703	445	866	357	352	377	694	223	247	1082
v/c ratio	1.09	1.07	1.23	0.21	0.87	0.28	1.04	0.46	0.08	0.26	0.43	0.50
Green ratio	0.27	0.25	0.50	0.27	0.25	0.25	0.21	0.21	0.49	0.14	0.14	0.44
Unif. delay d1	51.0	52.5	35.0	39.4	50.3	42.3	55.0	48.0	19.2	54.2	55.5	27.8
Delay factor k	0.50	0.50	0.50	0.11	0.40	0.11	0.50	0.11	0.11	0.11	0.11	0.11
Increm. delay d2	59.8	45.5	114.7	0.2	9.5	0.4	59.5	0.9	0.0	0.6	1.2	0.4
PF factor	0.752	0.778	0.453	0.752	0.778	0.778	0.818	0.818	0.370	0.895	0.895	0.470
Control delay	98.1	86.3	130.6	29.9	48.6	33.4	104.5	40.2	7.2	49.2	50.9	13.5
Lane group LOS	F	F	F	C	D	C	F	D	A	D	D	B
Apprch. delay	102.1			45.1			78.9			22.0		
Approach LOS	F			D			E			C		
Intersec. delay	78.8			Intersection LOS						E		

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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B NO LA MEDIA AM PEAK HOUR/WITH MIT*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>	<i>R</i>	<i>L</i>	<i>T</i>	<i>R</i>	<i>L</i>	<i>LT</i>	<i>R</i>	<i>L</i>	<i>T</i>	<i>R</i>
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	947	1321	863	95	753	100	367	175	53	58	105	537
Satflow per lane	1641	1818	1405	1641	1818	1427	1641	1757	1428	1641	1818	1381
Capacity/lane	865	1238	703	445	866	357	352	377	694	223	247	1082
Flow ratio	0.30	0.27	0.61	0.06	0.22	0.07	0.22	0.10	0.04	0.04	0.06	0.22
v/c ratio	1.09	1.07	1.23	0.21	0.87	0.28	1.04	0.46	0.08	0.26	0.43	0.50
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.55	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	1.00	0.78	0.95	0.82	1.00	0.88	0.38	0.92	0.93	0.58
Q1	18.9	18.8	33.6	2.2	14.1	2.6	14.3	5.2	0.4	1.9	3.5	4.9
kB	0.6	0.6	0.7	0.6	0.6	0.5	0.5	0.5	0.7	0.4	0.4	0.7
Q2	9.0	8.0	23.4	0.1	2.7	0.2	5.7	0.4	0.1	0.1	0.3	0.6
Q avg.	27.9	26.8	56.9	2.4	16.8	2.8	20.0	5.7	0.5	2.0	3.8	5.5

### Percentile Back of Queue (95th percentile)

fb%	1.6	1.6	1.5	2.0	1.7	2.0	1.7	1.9	2.1	2.0	2.0	1.9
BOQ, Q%	45.5	43.8	86.8	4.8	29.1	5.6	33.9	11.0	1.0	4.0	7.5	10.7

### Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Ro												
95% Ro%												

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	SIEMPRE VIVA RD./PSEO AMERICAS						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	05/21/12					Jurisdiction	SAN DIEGO/NO MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	3	1	1	2	0	1	2	0	1	2	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	530	735	480	235	1405	260	915	100	100	100	50	1005	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	5	5	5	5	5		5	5		5	5		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	275	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04		NB Only		SB Only		07	08
Timing	G = 22.0	G = 35.0	G =	G =	G =	G = 32.0	G = 33.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	558	774	505	247	1753		963	210		105	821		
Lane group cap.	258	1238	735	258	842		375	721		387	683		
v/c ratio	2.16	0.63	0.69	0.96	2.08		2.57	0.29		0.27	1.20		
Green ratio	0.16	0.25	0.51	0.16	0.25		0.23	0.23		0.24	0.24		
Unif. delay d1	59.0	46.7	25.5	58.5	52.5		54.0	44.6		43.7	53.5		
Delay factor k	0.50	0.21	0.26	0.47	0.50		0.50	0.11		0.11	0.50		
Increm. delay d2	535.9	1.0	2.7	44.2	491.0		713.4	0.2		0.4	104.6		
PF factor	0.876	0.778	0.294	0.876	0.778		0.817	0.802		0.794	0.794		
Control delay	587.6	37.3	10.2	95.5	531.8		757.5	36.0		35.1	147.1		
Lane group LOS	F	D	B	F	F		F	D		D	F		
Apprch. delay	197.0			477.9			628.3			134.4			
Approach LOS	F			F			F			F			
Intersec. delay	367.1			Intersection LOS						F			

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## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B NO LA MEDIA PM PEAK HOUR/NO MIT*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>	<i>R</i>	<i>L</i>	<i>TR</i>		<i>L</i>	<i>TR</i>		<i>L</i>	<i>TR</i>	
Init. queue/lane	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Flow rate/lane	558	774	505	247	1753		963	210		105	821	
Satflow per lane	1641	1818	1430	1641	1767		1641	1657		1641	1521	
Capacity/lane	258	1238	735	258	842		375	721		387	683	
Flow ratio	0.34	0.16	0.35	0.15	0.52		0.59	0.07		0.06	0.28	
v/c ratio	2.16	0.63	0.69	0.96	2.08		2.57	0.29		0.27	1.20	
l factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5	5	5	5		5	5		5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67		1.62	1.67		1.67	1.67	
PF factor	1.00	0.89	0.46	0.99	1.00		1.00	0.84		0.83	1.00	
Q1	21.7	8.7	6.8	9.5	35.8		37.5	3.0		2.8	16.8	
kB	0.4	0.6	0.7	0.4	0.6		0.5	0.5		0.5	0.5	
Q2	38.2	0.9	1.6	2.9	60.8		74.3	0.2		0.2	11.4	
Q avg.	59.9	9.6	8.4	12.4	96.6		111.8	3.2		3.0	28.2	

### Percentile Back of Queue (95th percentile)

fB%	1.5	1.9	1.9	1.8	1.5		1.5	2.0		2.0	1.6	
BOQ, Q%	91.2	17.8	15.7	22.3	145		168	6.4		6.0	45.8	

### Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0		25.0	25.0		25.0	25.0	
Q storage	0	0	0	0	0		0	0		0	0	
Avg. Rq												
95% Rq%												

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD./PSEO AMERICAS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/21/12					Jurisdiction	SAN DIEGO/WITH MIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/WITH M					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	1	2	1	1	1	1	1	1	2
Lane group	L	T	R	L	T	R	L	LT	R	L	T	R
Volume (vph)	530	735	480	235	1405	260	915	100	100	100	50	1005
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	275
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03		04		NB Only		SB Only		07	08
Timing	G = 22.0	G = 35.0	G =	G =	G = 32.0	G = 33.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	558	774	505	247	1479	274	520	548	105	105	53	768
Lane group cap.	501	1238	723	258	866	357	375	400	551	387	429	1064
v/c ratio	1.11	0.63	0.70	0.96	1.71	0.77	1.39	1.37	0.19	0.27	0.12	0.72
Green ratio	0.16	0.25	0.51	0.16	0.25	0.25	0.23	0.23	0.39	0.24	0.24	0.43
Unif. delay d1	59.0	46.7	25.8	58.5	52.5	48.7	54.0	54.0	28.5	43.7	42.1	33.1
Delay factor k	0.50	0.21	0.26	0.47	0.50	0.32	0.50	0.50	0.11	0.11	0.11	0.28
Increm. delay d2	75.2	1.0	3.0	44.2	323.5	9.7	189.8	181.8	0.2	0.4	0.1	2.4
PF factor	0.876	0.778	0.294	0.876	0.778	0.778	0.802	0.802	0.581	0.794	0.794	0.500
Control delay	126.8	37.3	10.6	95.5	364.3	47.6	233.1	225.1	16.7	35.1	33.6	19.0
Lane group LOS	F	D	B	F	F	D	F	F	B	D	C	B
Aprch. delay	57.1			287.7			210.0			21.6		
Approach LOS	E			F			F			C		
Intersec. delay	159.5			Intersection LOS						F		



38P  
NW

## BACK-OF-QUEUE WORKSHEET

### General Information

Project Description *ALT.-3B NO LA MEDIA PM PEAK HOUR/WITH MIT*

### Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	<i>L</i>	<i>T</i>	<i>R</i>	<i>L</i>	<i>T</i>	<i>R</i>	<i>L</i>	<i>LT</i>	<i>R</i>	<i>L</i>	<i>T</i>	<i>R</i>
Init. queue/lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Flow rate/lane	558	774	505	247	1479	274	520	548	105	105	53	768
Satflow per lane	1641	1818	1405	1641	1818	1427	1641	1748	1428	1641	1818	1402
Capacity/lane	501	1238	723	258	866	357	375	400	551	387	429	1064
Flow ratio	0.17	0.16	0.36	0.15	0.43	0.19	0.32	0.31	0.07	0.06	0.03	0.31
v/c ratio	1.11	0.63	0.70	0.96	1.71	0.77	1.39	1.37	0.19	0.27	0.12	0.72
l factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	0.89	0.47	0.99	1.00	0.92	1.00	1.00	0.61	0.83	0.81	0.71
Q1	11.2	8.7	7.0	9.5	30.2	9.1	20.2	21.3	1.7	2.8	1.3	9.9
kB	0.4	0.6	0.7	0.4	0.6	0.5	0.5	0.5	0.6	0.5	0.5	0.7
Q2	6.1	0.9	1.6	2.9	41.6	1.4	19.8	20.3	0.1	0.2	0.1	1.6
Q avg.	17.3	9.6	8.6	12.4	71.7	10.5	40.0	41.6	1.8	3.0	1.4	11.5

### Percentile Back of Queue (95th percentile)

fB%	1.7	1.9	1.9	1.8	1.5	1.8	1.6	1.6	2.0	2.0	2.1	1.8
BOQ, Q%	29.9	17.8	16.1	22.3	108	19.3	62.6	64.8	3.7	6.0	2.9	20.9

### Queue Storage Ratio

Q spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Q storage	0	0	0	0	0	0	0	0	0	0	0	0
Avg. Ro												
95% Ro%												

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**SHORT REPORT**

General Information				Site Information			
Analyst	USAI			Intersection	DEL SOL BLVD./DENNERY RD.		
Agency or Co.	USAI			Area Type	All other areas		
Date Performed	11/08/10			Jurisdiction	DEL SOLDEN30A3BNLM		
Time Period	AM PEAK HOUR			Analysis Year	YEAR 2030 NO LM		

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num of Lanes	1	2	0	0	2	0	0	0	0	1	0	1
Lane group	L	T			TR					L		R
Volume (vph)	450	220			300	500				430		400
% Heavy veh	2	2			2	2				2		2
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.5			2.0					2.0		2.0
Ext. eff. green	2.0	2.0			2.0					2.0		2.0
Arrival type	3	3			3					3		3
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume				10	10	0	10			10	10	0
Lane Width	12.0	12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N		N	N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0		0
Unit Extension	3.0	3.0			3.0					3.0		3.0
Phasing	EB Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 40.0	G = 40.0	G =	G =	G = 33.0	G =	G =	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	474	232			548					453	
Lane group cap.	566	2509			990					467		950
w/c ratio	0.84	0.09			0.96					0.97		0.44
Green ratio	0.32	0.67			0.32					0.26		0.62
Unif. delay d1	39.5	7.2			41.7					45.5		12.7
Delay factor k	0.37	0.11			0.47					0.48		0.11
Incom. delay d2	10.7	0.0			19.1					33.9		0.3
PF factor	1.000	1.000			1.000					1.000		1.000
Control delay	50.2	7.2			50.6					79.4		13.0
Lane group LOS	D	A			E					E		B
Approach delay	36.0			60.9						47.4		
Approach LOS	D			E						D		
Intersec. delay	49.2			Intersection LOS						D		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAJ					Intersection	DEL SOL BLVD / DENNERY RD					
Agency or Co.	USAJ					Area Type	All other areas					
Date Performed	11/08/10					Jurisdiction	DELSOLDEN30P38NLM					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 NO LM					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	0	2	0	0	0	0	1	0	1
Lane group	L	T			TR					L		R
Volume (vph)	500	240			150	400				470		430
% Heavy veh	2	2			2	2				2		2
PHF	0.95	0.95			0.95	0.95				0.95		0.95
Actuated (P/A)	A	A			A	A				A		A
Startup lost time	2.0	2.0			2.0					2.0		2.0
Ext. eff. green	2.0	2.0			2.0					2.0		2.0
Arrival type	3	3			3					3		3
Unit Extension	3.0	3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume				10	10	0	10			10	10	0
Lane Width	12.0	12.0			12.0					12.0		12.0
Parking/Grade/Parking	N	0	N	N	0	N	N			N	0	N
Parking/hr												
Bus stops/hr	0	0			0					0		0
Unit Extension	3.0	3.0			3.0					3.0		3.0
Phasing	FR Only	Thru & RT	03	04	SB Only	06	07	08				
Timing	G = 40.0	G = 40.0	G =	G =	G = 33.0	G =	G =	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	526	253			579					495		453
Lane group cap.	566	2509			977					467		950
v/c ratio	0.93	0.10			0.59					1.06		0.48
Green ratio	0.32	0.67			0.32					0.26		0.62
Unif. delay d1	41.1	7.2			35.7					46.0		13.0
Delay factor k	0.44	0.11			0.16					0.50		0.11
Incrom. delay d2	22.0	0.5			1.0					58.4		0.4
PF factor	1.000	1.000			1.000					1.000		1.000
Control delay	63.1	7.2			36.6					104.4		13.4
Lane group LOS	E	A			D					F		B
Approach delay	45.0			36.6						61.0		
Approach LOS	D			D						E		
Intersec. delay	49.4			Intersection LOS						D		

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OCEAN VIEW HILLS/DEL						
Agency or Co.	USAI						DOL BL.						
Date Performed	03/24/11					Area Type	All other areas						
Time Period	AM PEAK HOUR					Jurisdiction	OCEANDEL30A3BNLM						
						Analysis Year	YEAR 2030 3B NO LM/NO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	400	20	460	50	20	50	400	1000	20	20	855	350	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	12	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	3	3	3	3	3		3	3		3	3		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	100	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 35.0	G = 20.0	G =	G =			G = 25.0			G = 52.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	421	21	484	53	74		421	1074		21	1163		
Lane group cap.	413	248	506	413	214		573	1752		295	1155		
v/c ratio	1.02	0.08	0.96	0.13	0.35		0.73	0.61		0.07	1.01		
Green ratio	0.23	0.13	0.33	0.23	0.13		0.17	0.35		0.17	0.35		
Unif. delay d1	57.5	57.0	48.9	45.4	59.1		59.4	40.7		52.7	49.0		
Delay factor k	0.50	0.11	0.47	0.11	0.11		0.29	0.20		0.11	0.50		
Increm. delay d2	49.3	0.1	29.2	0.1	1.0		4.9	0.6		0.1	28.2		
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000		
Control delay	106.8	57.1	78.2	45.6	60.0		64.3	41.3		52.8	77.2		
Lane group LOS	F	E	E	D	E		E	D		D	E		
Approch. delay	90.7			54.0			47.8			76.7			
Approach LOS	F			D			D			E			
Intersec. delay	67.8			Intersection LOS						E			

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OCEAN VIEW HILLS/DEL						
Agency or Co.	USAI						DOL BL.						
Date Performed	03/24/11					Area Type	All other areas						
Time Period	AM PEAK HOUR					Jurisdiction	OCEANDEL30A3BNLM						
						Analysis Year	YEAR 2030 3B NO LMMWITH MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	1	
Lane group	L	LT	R	L	TR		L	TR		L	T	R	
Volume (vph)	400	20	460	50	20	50	400	1000	20	20	855	350	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	12	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	3	3	3	3	3		3	3		3	3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	100	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 35.0	G = 20.0	G =	G =			G = 25.0			G = 52.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	295	147	484	53	74		421	1074		21	900	263	
Lane group cap.	413	238	506	413	214		573	1752		295	1230	864	
v/c ratio	0.71	0.62	0.96	0.13	0.35		0.73	0.61		0.07	0.73	0.30	
Green ratio	0.23	0.13	0.33	0.23	0.13		0.17	0.35		0.17	0.35	0.61	
Unif. delay d1	52.9	61.4	48.9	45.4	59.1		59.4	40.7		52.7	42.9	13.8	
Delay factor k	0.28	0.20	0.47	0.11	0.11		0.29	0.20		0.11	0.29	0.11	
Incram. delay d2	5.8	4.8	29.2	0.1	1.0		4.9	0.6		0.1	2.3	0.2	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	1.000	
Control delay	58.7	66.2	78.2	45.6	60.0		64.3	41.3		52.8	45.2	14.0	
Lane group LOS	E	E	E	D	E		E	D		D	D	B	
Approch. delay	70.1			54.0			47.8			38.4			
Approach LOS	E			D			D			D			
Intersec. delay	50.5			Intersection LOS						D			

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OCEAN VIEW HILLS/DEL						
Agency or Co.	USAI						DOL BL.						
Date Performed	03/24/11					Area Type	All other areas						
Time Period	PM PEAK HOUR					Jurisdiction	OCEANDEL30A3BNLM						
						Analysis Year	YEAR 2030 3B NO LM/NO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	0	
Lane group	L	T	R	L	TR		L	TR		L	TR		
Volume (vph)	350	20	290	20	20	20	450	1235	50	50	1010	225	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	3	3	3	3	3		4	4		4	4		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	100	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 30.0	G = 28.0	G =	G =			G = 20.0	G = 49.0	G =	G =			
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =	Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	368	21	305	21	42		474	1353		53	1195		
Lane group cap.	368	360	560	368	326		474	1701		244	1175		
v/c ratio	1.01	0.06	0.54	0.06	0.13		1.00	0.80		0.22	1.02		
Green ratio	0.21	0.19	0.37	0.21	0.19		0.14	0.34		0.14	0.34		
Unif. delay d1	57.5	47.7	36.4	46.2	48.4		62.5	43.5		55.5	48.0		
Delay factor k	0.50	0.11	0.14	0.11	0.11		0.50	0.34		0.11	0.50		
Increm. delay d2	48.4	0.1	1.1	0.1	0.2		41.3	2.7		0.4	30.6		
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	0.954		1.000	0.954		
Control delay	105.9	47.8	37.5	46.2	48.6		103.8	44.2		56.0	76.4		
Lane group LOS	F	D	D	D	D		F	D		E	E		
Apprch. delay	74.1			47.8			59.7			75.5			
Approach LOS	E			D			E			E			
Intersec. delay	67.3			Intersection LOS						E			

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OCEAN VIEW HILLS/DEL						
Agency or Co.	USAI						DOL BL.						
Date Performed	03/24/11					Area Type	All other areas						
Time Period	PM PEAK HOUR					Jurisdiction	OCEANDEL30A3BNLM						
						Analysis Year	YEAR 2030 3B NO LMMWITH MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	1	1	1	1	0	2	3	0	1	2	1	
Lane group	L	LT	R	L	TR		L	TR		L	T	R	
Volume (vph)	350	20	290	20	20	20	450	1235	50	50	1010	225	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	2.0	
Arrival type	3	3	3	3	3		4	4		4	4	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	100	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0		0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 30.0	G = 28.0	G =	G =		G = 20.0			G = 49.0	G =		G =	
	Y = 4	Y = 5	Y =	Y =		Y = 4			Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 145.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	221	168	305	21	42		474	1353		53	1063	132	
Lane group cap.	366	345	560	366	326		474	1701		244	1199	895	
w/c ratio	0.60	0.49	0.54	0.06	0.13		1.00	0.80		0.22	0.89	0.15	
Green ratio	0.21	0.19	0.37	0.21	0.19		0.14	0.34		0.14	0.34	0.58	
Unif. delay d1	52.1	52.1	36.4	46.2	48.4		62.5	43.5		55.5	45.4	14.0	
Delay factor k	0.19	0.11	0.14	0.11	0.11		0.50	0.34		0.11	0.41	0.11	
Incram. delay d2	2.8	1.1	1.1	0.1	0.2		41.3	2.7		0.4	8.3	0.1	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	0.954		1.000	0.954	1.000	
Control delay	54.9	53.2	37.5	46.2	48.6		103.8	44.2		56.0	51.6	14.1	
Lane group LOS	D	D	D	D	D		F	D		E	D	B	
Apprch. delay	46.9			47.8			59.7			47.8			
Approach LOS	D			D			E			D			
Intersec. delay	53.3			Intersection LOS						D			

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OCEAN VIEW HILLS/STREET A					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	OCEANSTA303BNLM/NO					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/NO					
							MIT					
							MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	T	R	L	TR	
Volume (vph)	10	1100	255	85	900	20	500	45	65	40	50	20
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4		4	4	4	4	4	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 15.0	G = 47.0	G =	G =	G = 40.0	G = 15.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 135.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	11	1426		89	968		526	47	68	42	74	
Lane group cap.	197	1702		197	1759		524	207	166	524	195	
v/c ratio	0.06	0.84		0.45	0.55		1.00	0.23	0.41	0.08	0.38	
Green ratio	0.11	0.35		0.11	0.35		0.30	0.11	0.11	0.30	0.11	
Unif. delay d1	53.7	40.5		56.2	35.5		47.5	54.7	55.9	34.2	55.7	
Delay factor k	0.11	0.37		0.11	0.15		0.50	0.11	0.11	0.11	0.11	
Increm. delay d2	0.1	3.9		1.6	0.4		40.3	0.6	1.6	0.1	1.2	
PF factor	1.000	0.945		1.000	0.945		0.989	1.000	1.000	0.989	1.000	
Control delay	53.8	42.2		57.8	33.9		87.2	55.3	57.5	33.9	56.9	
Lane group LOS	D	D		E	C		F	E	E	C	E	
Approch. delay	42.2			35.9			81.7			48.6		
Approach LOS	D			D			F			D		
Intersec. delay	48.2			Intersection LOS						D		



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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OCEAN VIEW HILLS/STREET A						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	12/07/10					Jurisdiction	OCEANSTA303BNLM/WITH MIT						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/WITH MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Nurn. of Lanes	1	3	1	1	3	0	2	1	1	1	1	0	
Lane group	L	T	R	L	TR		L	T	R	L	TR		
Volume (vph)	10	1100	255	85	900	20	500	45	65	40	50	20	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	3	4	4		4	4	4	4	4		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 15.0	G = 47.0	G =	G =			G = 40.0	G = 15.0	G =			G =	
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =			Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	11	1158	268	89	968		526	47	68	42	74		
Lane group cap.	197	1767	1037	197	1759		1018	207	166	524	195		
v/c ratio	0.06	0.66	0.26	0.45	0.55		0.52	0.23	0.41	0.08	0.38		
Green ratio	0.11	0.35	0.68	0.11	0.35		0.30	0.11	0.11	0.30	0.11		
Unif. delay d1	53.7	37.2	8.3	56.2	35.5		39.5	54.7	55.9	34.2	55.7		
Delay factor k	0.11	0.23	0.11	0.11	0.15		0.12	0.11	0.11	0.11	0.11		
Increm. delay d2	0.1	0.9	0.1	1.6	0.4		0.5	0.6	1.6	0.1	1.2		
PF factor	1.000	0.945	1.000	1.000	0.945		0.989	1.000	1.000	0.989	1.000		
Control delay	53.8	36.0	8.4	57.8	33.9		39.5	55.3	57.5	33.9	56.9		
Lane group LOS	D	D	A	E	C		D	E	E	C	E		
Aprch. delay	31.0			35.9			42.6			48.6			
Approach LOS	C			D			D			D			
Intersec. delay	35.5			Intersection LOS						D			

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OCEAN VIEW HILLS/STREET A					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	OCEANSTA30P3BNLM/NO					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/NO					
							MIT					
							MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	3	0	1	3	0	1	1	1	1	1	0
Lane group	L	TR		L	TR		L	T	R	L	TR	
Volume (vph)	20	700	660	75	1125	40	600	60	85	20	40	10
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4		4	4		4	4	4	4	4	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 15.0	G = 47.0	G =	G =	G = 45.0	G = 13.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 138.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	21	1432		79	1226		632	63	89	21	53	
Lane group cap.	192	1567		192	1717		577	175	139	577	168	
v/c ratio	0.11	0.91		0.41	0.71		1.10	0.36	0.64	0.04	0.32	
Green ratio	0.11	0.34		0.11	0.34		0.33	0.09	0.09	0.33	0.09	
Unif. delay d1	55.5	43.6		57.4	39.6		46.5	58.6	60.2	31.7	58.3	
Delay factor k	0.11	0.43		0.11	0.28		0.50	0.11	0.22	0.11	0.11	
Increm. delay d2	0.3	8.6		1.4	1.4		66.1	1.3	9.6	0.0	1.1	
PF factor	1.000	0.952		1.000	0.952		0.965	1.000	1.000	0.965	1.000	
Control delay	55.7	50.1		58.8	39.2		111.0	59.9	69.8	30.6	59.4	
Lane group LOS	E	D		E	D		F	E	E	C	E	
Approch. delay	50.2			40.4			102.2			51.3		
Approach LOS	D			D			F			D		
Intersec. delay	57.9			Intersection LOS						E		

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OCEAN VIEW HILLS/STREET A						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	OCEANSTA30P3BNLM/WITH MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/WITH MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	3	1	1	3	0	2	1	1	1	1	0	
Lane group	L	T	R	L	TR		L	T	R	L	TR		
Volume (vph)	20	700	660	75	1125	40	600	60	85	20	40	10	
% Heavy veh	2	2	2	2	2	2	2	2	2	2	2	2	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	3	4	4		4	4	4	4	4		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	10	10	0	10	10	0	10	10	0	10	10	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0	0	0		
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 15.0	G = 47.0	G =	G =	G = 45.0	G = 13.0	G =	G =					
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 138.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	21	737	695	79	1226		632	63	89	21	53		
Lane group cap.	192	1728	1069	192	1717		1121	175	139	577	168		
v/c ratio	0.11	0.43	0.65	0.41	0.71		0.56	0.36	0.64	0.04	0.32		
Green ratio	0.11	0.34	0.70	0.11	0.34		0.33	0.09	0.09	0.33	0.09		
Unif. delay d1	55.5	35.1	11.2	57.4	39.6		38.4	58.6	60.2	31.7	58.3		
Delay factor k	0.11	0.11	0.23	0.11	0.28		0.16	0.11	0.22	0.11	0.11		
Increm. delay d2	0.3	0.2	1.4	1.4	1.4		0.7	1.3	9.6	0.0	1.1		
PF factor	1.000	0.952	1.000	1.000	0.952		0.965	1.000	1.000	0.965	1.000		
Control delay	55.7	33.6	12.6	58.8	39.2		37.7	59.9	69.8	30.6	59.4		
Lane group LOS	E	C	B	E	D		D	E	E	C	E		
Approch. delay	23.9			40.4			43.1			51.3			
Approach LOS	C			D			D			D			
Intersec. delay	34.6			Intersection LOS						C			

42-A  
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**SHORT REPORT**

General Information				Site Information			
Analyst	USAJ	Agency or Co.	USAJ	Intersection	OLD STAY MESA/BEYER BLVD		
Date Performed	12/07/10	Time Period	AM PEAK HOUR	Area Type	All other areas		
				Jurisdiction	GOMBEYER30A30NLM/NO MIT		
				Analysis Year	YEAR 2030 JB NO LM/NO MIT		

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	1	2	2	0	1	1	0	1	1	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	300	1245	360	360	1200	15	300	106	600	10	200	600
% Heavy veh	2	5	2	2	5	2	2	2	2	2	2	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	4	4	3	4	4		4	4		4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0		0	0		0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl Left	Thru & RT	03	04	Excl Left	Thru & RT	07	08				
Timing	G = 30.0	G = 39.0	G =	G =	G = 39.0	G = 30.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 155.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	316	1311	316	926	1279		316	737		11	843
Lane group cap.	665	845	377	665	843		445	305		445	312	
v/c ratio	0.48	1.55	0.84	1.39	1.52		0.71	2.42		0.02	2.70	
Green ratio	0.19	0.25	0.25	0.19	0.25		0.25	0.19		0.25	0.19	
Unif. delay d1	55.5	58.5	55.0	62.5	58.5		52.8	62.5		43.7	62.5	
Delay factor k	0.11	0.50	0.37	0.56	0.50		0.27	0.56		0.11	0.50	
incomm. delay d2	0.5	254.0	15.3	185.7	238.8		5.2	647.3		0.0	774.9	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	56.0	312.5	70.9	249.2	297.3		58.1	709.8		43.7	837.4	
Lane group LOS	E	F	E	F	F		E	F		D	F	
Approach delay	231.5			276.7			514.2			827.2		
Approach LOS	F			F			F			F		
Intersec. delay	361.2			Intersection LOS						F		

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MIT

SHORT REPORT														
General Information						Site Information								
Analyst: USAI Agency or Co: USAI Date Performed: 12/07/10 Time Period: AM PEAK HOUR						Intersection: OLD OTAY MESA BEYER BLVD. Area Type: All other areas Jurisdiction: COMBEYER30A3BNLMMWITH MIT Analysis Year: YEAR 2030 3B NO LMMWITH MIT								
Volume and Timing Input														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Num of Lanes	2	2	1	2	2	0	1	1	1	1	1	1		
Lane group	L	T	R	L	TR		L	T	R	L	T	R		
Volume (vch)	300	1245	300	880	1200	15	300	100	800	10	200	600		
% Heavy veh	2	5	2	2	5	2	2	2	2	2	2	2		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A		
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0		
Arrival type	4	4	3	4	4		4	4	3	4	4	3		
Ur1 Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0		
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0		
Parking/Grade/Farking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/hr														
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	0		
Ur1 Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08	
Timing	G = 30.0	G = 38.0	G =			G =			G = 39.0	G = 30.0	G =		G =	
	Y = 4	Y = 5	Y =			Y =			Y = 4	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 155.0							
Lane Group Capacity, Control Delay, and LOS Determination														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Adj. flow rate	316	1311	316	926	1279		316	105	832	11	211	632		
Lane group cap.	665	845	816	665	843		445	361	644	445	361	644		
W/C ratio	0.48	1.55	0.39	1.39	1.52		0.71	0.29	0.98	0.02	0.58	0.98		
Green ratio	0.19	0.25	0.53	0.19	0.25		0.25	0.19	0.42	0.25	0.19	0.42		
Util. delay d1	55.5	58.5	21.6	62.5	58.5		52.8	53.4	44.4	43.7	56.8	44.4		
Delay factor k	0.11	0.50	0.11	0.50	0.50		0.27	0.11	0.49	0.11	0.18	0.49		
Increm. delay d2	0.5	254.0	0.3	185.7	236.8		5.2	0.4	30.7	0.0	2.4	30.7		
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	1.000		
Control delay	58.0	312.5	21.9	248.2	297.3		58.1	53.9	75.1	43.7	59.3	75.1		
Lane group LOS	E	F	C	F	F		E	D	F	D	E	E		
Approach delay	223.5			276.7			67.9			70.8				
Approach LOS	F			F			E			E				
Intersec. delay	194.3			intersection LOS						F				

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SHORT REPORT														
General Information						Site Information								
Analyst	USAI					Intersection	OLD OTAY MESA/BEYER BLVD.							
Agency or Co.	USAI					Area Type	All other areas							
Date Performed	03/25/11					Jurisdiction	OOMBEYER30P3BNLM/NO							
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/NO							
							MIT							
Volume and Timing Input														
	EB			WB			NB			SB				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
Num. of Lanes	2	2	1	2	2	0	1	1	0	1	1	0		
Lane group	L	T	R	L	TR		L	TR		L	TR			
Volume (vph)	600	1200	300	600	1245	10	300	200	880	15	100	300		
% Heavy veh	5	5	5	5	5	5	5	5	5	5	5	5		
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A		
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0			
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0		2.0	2.0			
Arrival type	4	4	4	4	4		4	4		4	4			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0			
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0		
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0		12.0	12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N		
Parking/hr														
Bus stops/hr	0	0	0	0	0		0	0		0	0			
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0			
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08	
Timing	G = 30.0	G = 38.0	G =			G =			G = 34.0	G = 30.0	G =		G =	
	Y = 4	Y = 5	Y =			Y =			Y = 4	Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0							
Lane Group Capacity, Control Delay, and LOS Determination														
	EB			WB			NB			SB				
	Adj. flow rate	Lane group cap.	w/c ratio	Green ratio	Unif. delay d1	Delay factor k	Increm. delay d2	PF factor	Control delay	Lane group LOS	Aprch. delay	Approach LOS	Intersec. delay	
Adj. flow rate	632	1263	316	632	1322		316	1137		16	421			
Lane group cap.	668	873	769	668	871		390	309		390	313			
w/c ratio	0.95	1.45	0.41	0.95	1.52		0.81	3.68		0.04	1.35			
Green ratio	0.20	0.25	0.51	0.20	0.25		0.23	0.20		0.23	0.20			
Unif. delay d1	59.2	56.0	22.5	59.2	56.0		54.9	60.0		45.3	60.0			
Delay factor k	0.46	0.50	0.11	0.46	0.50		0.35	0.50		0.11	0.50			
Increm. delay d2	22.5	207.5	0.4	22.5	238.9		12.1	1214		0.0	175.1			
PF factor	1.000	1.000	0.746	1.000	1.000		1.000	1.000		1.000	1.000			
Control delay	81.7	263.5	17.1	81.7	294.9		67.1	1274		45.3	235.1			
Lane group LOS	F	F	B	F	F		E	F		D	F			
Aprch. delay	176.3			225.9			1011			228.2				
Approach LOS	F			F			F			F				
Intersec. delay	396.5			Intersection LOS						F				

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OLD OTAY MESA/BEYER BLVD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/25/11					Jurisdiction	OOMBEYER30P3BNLM/WITH MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/WITH MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	0	1	1	1	1	1	1	
Lane group	L	T	R	L	TR		L	T	R	L	T	R	
Volume (vph)	600	1200	300	600	1245	10	300	200	880	15	100	300	
% Heavy veh	5	5	5	5	5	5	5	5	5	5	5	5	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	4	4	4	4	4		4	4	4	4	4	4	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0		0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 30.0	G = 38.0	G =	G =			G = 34.0	G = 30.0	G =	G =			
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	632	1263	316	632	1322		316	211	926	16	105	316	
Lane group cap.	668	873	769	668	871		390	362	647	390	362	647	
v/c ratio	0.95	1.45	0.41	0.95	1.52		0.81	0.58	1.43	0.04	0.29	0.49	
Green ratio	0.20	0.25	0.51	0.20	0.25		0.23	0.20	0.43	0.23	0.20	0.43	
Unif. delay d1	59.2	56.0	22.5	59.2	56.0		54.9	54.3	42.5	45.3	51.0	30.5	
Delay factor k	0.46	0.50	0.11	0.46	0.50		0.35	0.17	0.50	0.11	0.11	0.11	
Increm. delay d2	22.5	207.5	0.4	22.5	238.9		12.1	2.4	202.9	0.0	0.4	0.6	
PF factor	1.000	1.000	0.746	1.000	1.000		1.000	1.000	0.857	1.000	1.000	0.857	
Control delay	81.7	263.5	17.1	81.7	294.9		67.1	56.7	239.3	45.3	51.4	26.8	
Lane group LOS	F	F	B	F	F		E	E	F	D	D	C	
Approch. delay	176.3			225.9			175.3			33.4			
Approach LOS	F			F			F			C			
Intersec. delay	181.8			Intersection LOS						F			

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA					
Agency or Co.	USAI					Area Type	RD./CORPORATE CENTER					
Date Performed	03/27/11					Jurisdiction	OTAYCORP30A3BWLM/NO					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 3B W L M/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	725	2980	275	185	1050	525	120	50	80	275	115	375
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	EB Only	Thru & RT	04	SB Only	NB Only	07	08				
Timing	G = 10.0	G = 18.0	G = 50.0	G =	G = 20.0	G = 19.0	G =	G =				
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	763	3426		195	1105	553	126	137		289	212	304
Lane group cap.	728	2546		228	1769	769	223	416		234	227	303
w/c ratio	1.05	1.35		0.86	0.62	0.72	0.57	0.33		1.24	0.93	1.00
Green ratio	0.23	0.52		0.07	0.36	0.54	0.14	0.14		0.14	0.14	0.21
Unif. delay d1	54.0	33.5		64.3	37.2	24.5	56.6	54.7		60.0	59.3	55.0
Delay factor k	0.50	0.50		0.39	0.21	0.28	0.16	0.11		0.50	0.45	0.50
Increm. delay d2	46.6	158.2		25.9	0.7	3.3	3.3	0.5		137.0	41.8	52.5
PF factor	0.802	0.614		0.949	0.630	0.231	0.895	0.895		0.889	0.889	0.818
Control delay	90.0	178.8		86.8	24.1	8.9	54.0	49.5		190.3	94.5	97.5
Lane group LOS	F	F		F	C	A	D	D		F	F	F
Apprch. delay	162.6			26.2			51.6			130.1		
Approach LOS	F			C			D			F		
Intersec. delay	119.3			Intersection LOS						F		



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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					OTAY MESA						
Agency or Co.	USAI					RD./CORPORATE CENTER						
Date Performed	03/24/11					All other areas						
Time Period	AM PEAK HOUR					OTAYCORP30A3BNLM/WITH						
						MIT						
						YEAR 2030 3B N LMW/ITH						
						MIT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	1	2	3	1	2	1	0	2	1	1
Lane group	L	T	R	L	T	R	L	TR		L	TR	R
Volume (vph)	725	2980	275	185	1050	525	120	50	80	275	115	375
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	EB Only	Thru & RT	04			SB Only	NB Only	07		08	
Timing	G = 10.0	G = 18.0	G = 50.0	G =	G = 20.0			G = 19.0	G =	G =		
	Y = 4	Y = 5	Y = 5	Y =	Y = 4			Y = 5	Y =	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	763	3137	289	195	1105	553	126	137		289	212	304
Lane group cap.	728	2583	946	228	1769	769	433	218		455	227	303
v/c ratio	1.05	1.21	0.31	0.86	0.62	0.72	0.29	0.63		0.64	0.93	1.00
Green ratio	0.23	0.52	0.66	0.07	0.36	0.54	0.14	0.14		0.14	0.14	0.21
Unif. delay d1	54.0	33.5	10.3	64.3	37.2	24.5	54.4	57.2		56.6	59.3	55.0
Delay factor k	0.50	0.50	0.11	0.39	0.21	0.28	0.11	0.21		0.22	0.45	0.50
Increm. delay d2	46.6	100.3	0.2	25.9	0.7	3.3	0.4	5.7		2.9	41.8	52.5
PF factor	0.802	0.455	0.146	0.949	0.630	0.231	0.895	0.895		0.889	0.889	0.818
Control delay	90.0	115.5	1.7	86.8	24.1	8.9	49.1	56.9		53.2	94.5	97.5
Lane group LOS	F	F	A	F	C	A	D	E		D	F	F
Apprch. delay	103.0			26.2			53.1			80.8		
Approach LOS	F			C			D			F		
Intersec. delay	78.6			Intersection LOS						E		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA					
Agency or Co.	USAI					Area Type	RD./CORPORATE CENTER					
Date Performed	03/27/11					Jurisdiction	OTAYCORP30PA3BNLM/NO					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/NO					
							MIT					
							MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	375	1050	400	260	2690	275	515	215	340	525	135	725
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	100	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	SB Only	NB Only	07	08				
Timing	G = 20.0	G = 64.0	G =	G =	G = 25.0	G = 24.0	G =	G =				
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	395	1526		274	2832	289	542	479		553	234	671
Lane group cap.	425	2014		425	2113	892	263	500		274	268	426
v/c ratio	0.93	0.76		0.64	1.34	0.32	2.06	0.96		2.02	0.87	1.58
Green ratio	0.13	0.43		0.13	0.43	0.62	0.16	0.16		0.17	0.17	0.30
Unif. delay d1	64.3	36.4		61.6	43.0	13.6	63.0	62.5		62.5	61.0	52.5
Delay factor k	0.44	0.31		0.22	0.50	0.11	0.50	0.47		0.50	0.40	0.50
Increm. delay d2	26.9	1.7		3.4	156.4	0.2	490.3	29.8		470.9	25.6	269.9
PF factor	0.897	0.504		0.897	0.507	0.132	0.873	0.873		0.867	0.867	0.714
Control delay	84.6	20.1		58.7	178.2	2.0	545.3	84.4		525.0	78.4	307.4
Lane group LOS	F	C		E	F	A	F	F		F	E	F
Approch. delay	33.3			153.6			329.1			353.2		
Approach LOS	C			F			F			F		
Intersec. delay	184.3			Intersection LOS						F		

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./CORPORATE CENTER						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	OTAYCORP30PA3BNLM/WITH MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/WITH MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	1	2	3	1	2	1	0	2	1	1	
Lane group	L	T	R	L	T	R	L	TR		L	TR	R	
Volume (vph)	375	1050	400	260	2690	275	515	215	340	525	135	725	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5		5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	100	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0		0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04		SB Only		NB Only		07	08
Timing	G = 20.0	G = 64.0	G =	G =	G = 25.0		G = 24.0		G =		G =		
	Y = 4	Y = 4	Y =	Y =	Y = 4		Y = 5		Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	395	1105	421	274	2832	289	542	479		553	371	534	
Lane group cap.	425	2113	844	425	2113	892	510	263		531	256	426	
v/c ratio	0.93	0.52	0.50	0.64	1.34	0.32	1.06	1.82		1.04	1.45	1.25	
Green ratio	0.13	0.43	0.59	0.13	0.43	0.62	0.16	0.16		0.17	0.17	0.30	
Unif. delay d1	64.3	31.7	18.1	61.6	43.0	13.6	63.0	63.0		62.5	62.5	52.5	
Delay factor k	0.44	0.13	0.11	0.22	0.50	0.11	0.50	0.50		0.50	0.50	0.50	
Increm. delay d2	26.9	0.2	0.5	3.4	156.4	0.2	57.6	384.2		50.3	222.7	132.1	
PF factor	0.897	0.504	0.121	0.897	0.507	0.132	0.873	0.873		0.867	0.867	0.714	
Control delay	84.6	16.2	2.7	58.7	178.2	2.0	112.6	439.2		104.4	276.9	169.6	
Lane group LOS	F	B	A	E	F	A	F	F		F	F	F	
Approch. delay	27.3			153.6			265.8			172.2			
Approach LOS	C			F			F			F			
Intersec. delay	140.6			Intersection LOS						F			

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA						
Agency or Co.	USAI					Area Type	RD./INNOVATIVE DR.						
Date Performed	03/27/11					Jurisdiction	All other areas						
Time Period	AM PEAK HOUR					Analysis Year	OTAYINNOV30A3BNLM/NO						
							MIT						
							YEAR 2030 3B NO LM/NO						
							MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	0	2	3	1	1	1	0	1	1	1	
Lane group	L	TR		L	T	R	L	TR		L	TR	R	
Volume (vph)	510	2735	90	60	1445	465	40	15	25	250	40	275	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	
Arrival type	5	5		5	5	5	5	5		5	5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0	0	0	0		0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 20.0	G = 67.0	G =	G =			G = 30.0	G = 15.0	G =		G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =		Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	537	2974		63	1521	489	42	42		263	42	289	
Lane group cap.	425	2200		425	2212	979	328	160		328	173	374	
v/c ratio	1.26	1.35		0.15	0.69	0.50	0.13	0.26		0.80	0.24	0.77	
Green ratio	0.13	0.45		0.13	0.45	0.68	0.20	0.10		0.20	0.10	0.27	
Unif. delay d1	65.0	41.5		57.5	33.1	11.6	49.3	62.4		57.2	62.3	50.8	
Delay factor k	0.50	0.50		0.11	0.26	0.11	0.11	0.11		0.35	0.11	0.32	
Increm. delay d2	136.3	161.4		0.2	0.9	0.4	0.2	0.9		13.3	0.7	9.7	
PF factor	0.897	0.536		0.897	0.462	0.156	0.833	0.926		0.833	0.926	0.758	
Control delay	194.6	183.7		51.7	16.2	2.2	41.2	58.6		61.0	58.4	48.1	
Lane group LOS	F	F		D	B	A	D	E		E	E	D	
Approch. delay	185.3			14.0			49.9			54.5			
Approach LOS	F			B			D			D			
Intersec. delay	114.4			Intersection LOS						F			

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA RD./INNOVATIVE DR.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/27/11					Jurisdiction	OTAYINNOV30A3BNLM/WITH MIT					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	1	0	2	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	510	2735	90	60	1445	465	40	15	25	250	40	275
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 20.0	G = 67.0	G =	G =	G = 30.0	G = 15.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	537	2974		63	1521	489	42	42		263	42	289
Lane group cap.	425	2200		425	2212	979	328	160		637	173	374
w/c ratio	1.26	1.35		0.15	0.69	0.50	0.13	0.26		0.41	0.24	0.77
Green ratio	0.13	0.45		0.13	0.45	0.68	0.20	0.10		0.20	0.10	0.27
Unif. delay d1	65.0	41.5		57.5	33.1	11.6	49.3	62.4		52.3	62.3	50.8
Delay factor k	0.50	0.50		0.11	0.26	0.11	0.11	0.11		0.11	0.11	0.32
Incram. delay d2	136.3	161.4		0.2	0.9	0.4	0.2	0.9		0.4	0.7	9.7
PF factor	0.897	0.536		0.897	0.462	0.156	0.833	0.926		0.833	0.926	0.758
Control delay	194.6	183.7		51.7	16.2	2.2	41.2	58.6		44.0	58.4	48.1
Lane group LOS	F	F		D	B	A	D	E		D	E	D
Aprch. delay	185.3			14.0			49.9			47.0		
Approach LOS	F			B			D			D		
Intersec. delay	113.7			Intersection LOS						F		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA					
Agency or Co.	USAI					Area Type	RD/INNOVATIVE DR.					
Date Performed	03/27/11					Jurisdiction	All other areas					
Time Period	PM PEAK HOUR					Analysis Year	OTAYINNOV30P3BNLM/NO					
							MIT					
							YEAR 2030 3B NO LM/NO					
							MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	1	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	275	1510	130	85	2545	250	170	70	115	465	90	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08				
Timing	G = 20.0	G = 64.0	G =	G =	G = 19.0	G = 29.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	289	1726		89	2679	263	179	195		489	202	430
Lane group cap.	425	2088		425	2113	910	317	209		317	201	382
v/c ratio	0.68	0.83		0.21	1.27	0.29	0.56	0.93		1.54	1.00	1.13
Green ratio	0.13	0.43		0.13	0.43	0.62	0.19	0.13		0.19	0.13	0.26
Unif. delay d1	62.0	38.1		58.0	43.0	13.2	54.8	64.9		60.5	65.5	55.5
Delay factor k	0.25	0.36		0.11	0.50	0.11	0.16	0.45		0.50	0.50	0.50
Increment. delay d2	4.4	2.9		0.2	124.4	0.2	2.3	43.8		259.4	64.8	84.7
PF factor	0.897	0.504		0.897	0.504	0.132	0.840	0.903		0.840	0.903	0.766
Control delay	60.0	22.1		52.3	146.1	1.9	48.4	102.4		310.2	123.9	127.2
Lane group LOS	E	C		D	F	A	D	F		F	F	F
Approch. delay	27.5			130.8			76.5			206.4		
Approach LOS	C			F			E			F		
Intersec. delay	108.9			Intersection LOS						F		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAJ					Intersection	OTAY MESA RD./INNOVATIVE DR.					
Agency or Co.	USAJ					Area Type	All other areas					
Date Performed	03/27/11					Jurisdiction	OTAYINNOV30P3BNLM/WITH MIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	1	0	2	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	275	1510	130	85	2545	250	170	70	115	465	90	510
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08				
Timing	G = 20.0	G = 64.0	G =	G =	G = 19.0	G = 29.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 5	Y = 4	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	289	1726		89	2679	263	179	195		489	202	430
Lane group cap.	425	2088		425	2113	910	317	209		616	201	382
v/c ratio	0.68	0.83		0.21	1.27	0.29	0.56	0.93		0.79	1.00	1.13
Green ratio	0.13	0.43		0.13	0.43	0.62	0.19	0.13		0.19	0.13	0.26
Unif. delay d1	62.0	38.1		58.0	43.0	13.2	54.8	64.9		57.7	65.5	55.5
Delay factor k	0.25	0.36		0.11	0.50	0.11	0.16	0.45		0.34	0.50	0.50
Increm. delay d2	4.4	2.9		0.2	124.4	0.2	2.3	43.8		7.1	64.8	84.7
PF factor	0.897	0.504		0.897	0.504	0.132	0.840	0.903		0.840	0.903	0.766
Control delay	60.0	22.1		52.3	146.1	1.9	48.4	102.4		55.5	123.9	127.2
Lane group LOS	E	C		D	F	A	D	F		E	F	F
Apprch. delay	27.5			130.8			76.5			95.4		
Approach LOS	C			F			E			F		
Intersec. delay	89.8			Intersection LOS						F		

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	AIRWAY RD./HARVEST RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/27/11					Jurisdiction	AIRHARV30A3BNLMNO MIT						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LMNO MIT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	0	2	0	2	2	0	2	0	1	0	0	0	
Lane group		TR		L	T		L		R				
Volume (vph)		1810	365	470	485		320		415				
% Heavy veh		10	10	10	10		10		10				
PHF		0.95	0.95	0.95	0.95		0.95		0.95				
Actuated (P/A)		A	A	A	A		A		A				
Startup lost time		2.0		2.0	2.0		2.0		2.0				
Ext. eff. green		2.0		2.0	2.0		2.0		2.0				
Arrival type		5		5	5		5		5				
Unit Extension		3.0		3.0	3.0		3.0		3.0				
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10			
Lane Width		12.0		12.0	12.0		12.0		12.0				
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N	
Parking/hr													
Bus stops/hr		0		0	0		0		0				
Unit Extension		3.0		3.0	3.0		3.0		3.0				
Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08					
Timing	G = 37.0	G = 70.0	G =	G =	G = 20.0	G =	G =	G =					
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate		2289		495	511		337		437				
Lane group cap.		1682		842	2745		455		617				
v/c ratio		1.36		0.59	0.19		0.74		0.71				
Green ratio		0.50		0.26	0.79		0.14		0.44				
Unif. delay d1		35.0		44.9	3.5		57.5		32.2				
Delay factor k		0.50		0.18	0.11		0.30		0.27				
Increm. delay d2		166.3		1.1	0.0		6.4		3.8				
PF factor		0.604		0.761	0.241		0.889		0.485				
Control delay		187.5		35.2	0.9		57.5		19.4				
Lane group LOS		F		D	A		E		B				
Approch. delay		187.5		17.8			36.0						
Approach LOS		F		B			D						
Intersec. delay		116.7		Intersection LOS							F		



45 A  
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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	AIRWAY RD./HARVEST RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/27/11					Jurisdiction	AIRHARV30A3BNLM/WITH					
Time Period	AM PEAK HOUR						MIT					
						Analysis Year	YEAR 2030 3B NO LM/WITH					
							MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	1	2	2	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		1810	365	470	485		320		415			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0	2.0	2.0	2.0		2.0		2.0			
Ext. eff. green		2.0	2.0	2.0	2.0		2.0		2.0			
Arrival type		5	5	5	5		5		5			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0	12.0	12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0	0	0	0		0		0			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Phasing	WB Only	Thru & RT	03		04		NB Only	06		07		08
Timing	G = 37.0	G = 70.0	G =	G =	G = 20.0	G =	G =	G =	G =	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		1905	384	495	511		337		437			
Lane group cap.		1731	977	842	2745		455		617			
v/c ratio		1.10	0.39	0.59	0.19		0.74		0.71			
Green ratio		0.50	0.68	0.26	0.79		0.14		0.44			
Unif. delay d1		35.0	9.9	44.9	3.5		57.5		32.2			
Delay factor k		0.50	0.11	0.18	0.11		0.30		0.27			
Increm. delay d2		54.7	0.3	1.1	0.0		6.4		3.8			
PF factor		0.333	0.156	0.761	0.241		0.889		0.485			
Control delay		66.3	1.8	35.2	0.9		57.5		19.4			
Lane group LOS		E	A	D	A		E		B			
Apprch. delay	55.5			17.8			36.0					
Approach LOS	E			B			D					
Intersec. delay	42.5			Intersection LOS						D		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	AIRWAY RD./HARVEST RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/27/11					Jurisdiction	AIRHARV30P3BNLM/NO MIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	0	2	2	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		485	320	415	1810		365		470			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0		2.0	2.0		2.0		2.0			
Ext. eff. green		2.0		2.0	2.0		2.0		2.0			
Arrival type		5		5	5		5		5			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0		12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0		0	0		0		0			
Unit Extension		3.0		3.0	3.0		3.0		3.0			
Phasing	WB Only	Thru & RT	03	04	NB Only	06	07	08				
Timing	G = 37.0	G = 60.0	G =	G =	G = 20.0	G =	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		848		437	1905		384		495			
Lane group cap.		1490		907	2690		490		666			
v/c ratio		0.57		0.48	0.71		0.78		0.74			
Green ratio		0.46		0.28	0.78		0.15		0.47			
Unif. delay d1		25.6		38.6	7.2		52.9		28.1			
Delay factor k		0.16		0.11	0.27		0.33		0.30			
Increm. delay d2		0.5		0.4	0.9		8.1		4.5			
PF factor		0.429		0.735	0.224		0.879		0.411			
Control delay		11.5		28.7	2.5		54.6		16.1			
Lane group LOS		B		C	A		D		B			
Apprch. delay		11.5		7.4			32.9					
Approach LOS		B		A			C					
Intersec. delay		13.8		Intersection LOS							B	

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	AIRWAY RD./HARVEST RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/27/11					Jurisdiction	AIRHARV30P3BNLM/WITH MIT					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 3B NO LM/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	2	1	2	2	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		485	320	415	1810		365		470			
% Heavy veh		10	10	10	10		10		10			
PHF		0.95	0.95	0.95	0.95		0.95		0.95			
Actuated (P/A)		A	A	A	A		A		A			
Startup lost time		2.0	2.0	2.0	2.0		2.0		2.0			
Ext. eff. green		2.0	2.0	2.0	2.0		2.0		2.0			
Arrival type		5	5	5	5		5		5			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Ped/Bike/RTOR Volume	10	5	0				10	5	0	10		
Lane Width		12.0	12.0	12.0	12.0		12.0		12.0			
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N		N
Parking/hr												
Bus stops/hr		0	0	0	0		0		0			
Unit Extension		3.0	3.0	3.0	3.0		3.0		3.0			
Phasing	WB Only	Thru & RT	03		04		NB Only	06		07		08
Timing	G = 37.0	G = 60.0	G =	G =	G = 20.0	G =	G =	G =	G =	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	Y =	Y =	Y =	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate		511	337	437	1905		384		495			
Lane group cap.		1598	664	907	2690		490		666			
v/c ratio		0.32	0.51	0.48	0.71		0.78		0.74			
Green ratio		0.46	0.46	0.28	0.78		0.15		0.47			
Unif. delay d1		22.1	24.6	38.6	7.2		52.9		28.1			
Delay factor k		0.11	0.12	0.11	0.27		0.33		0.30			
Increm. delay d2		0.1	0.6	0.4	0.9		8.1		4.5			
PF factor		0.429	0.429	0.735	0.224		0.879		0.411			
Control delay		9.6	11.2	28.7	2.5		54.6		16.1			
Lane group LOS		A	B	C	A		D		B			
Apprch. delay		10.2			7.4			32.9				
Approach LOS		B			A			C				
Intersec. delay		13.5			Intersection LOS							B

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32A

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD./HARVEST RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	SIEMPHARV30A3BNLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030//ALT.-3B/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	455	1660	110	90	2675	465	40	5	35	95	20	140
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08				
Timing	G = 15.0	G = 75.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	479	1863		95	3305		42	42		100	168	
Lane group cap.	368	2827		368	2786		126	218		126	218	
v/c ratio	1.30	0.66		0.26	1.19		0.33	0.19		0.79	0.77	
Green ratio	0.12	0.58		0.12	0.58		0.08	0.08		0.08	0.08	
Unif. delay d1	57.5	18.8		52.4	27.5		56.8	56.2		59.0	58.9	
Delay factor k	0.50	0.23		0.11	0.50		0.11	0.11		0.34	0.32	
Increm. delay d2	154.3	0.6		0.4	87.8		1.6	0.4		28.5	15.5	
PF factor	0.913	0.118		0.913	0.471		0.944	0.944		0.944	0.944	
Control delay	206.8	2.8		48.2	100.7		55.2	53.5		84.2	71.1	
Lane group LOS	F	A		D	F		E	D		F	E	
Apprch. delay	44.5			99.3			54.4			76.0		
Approach LOS	D			F			D			E		
Intersec. delay	76.6			Intersection LOS						E		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD./HARVEST RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	SIEMPHARV30A3BNLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030//ALT.-3B/WITH MIT					

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	2	2	1
Lane group	L	TR		L	T	R	L	TR		L	T	R
Volume (vph)	455	1660	110	90	2675	465	40	5	35	95	20	140
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08				
Timing	G = 15.0	G = 75.0	G =	G =	G = 10.0	G = 10.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 130.0						

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	Adj. flow rate	479	1863	95	2816	489	42	42		100	21	147
Lane group cap.	368	2827	368	2857	831	126	218		245	266	267	
v/c ratio	1.30	0.66	0.26	0.99	0.59	0.33	0.19		0.41	0.08	0.55	
Green ratio	0.12	0.58	0.12	0.58	0.58	0.08	0.08		0.08	0.08	0.19	
Unif. delay d1	57.5	18.8	52.4	27.0	17.6	56.8	56.2		57.2	55.7	47.4	
Delay factor k	0.50	0.23	0.11	0.49	0.18	0.11	0.11		0.11	0.11	0.15	
Increm. delay d2	154.3	0.6	0.4	13.6	1.1	1.6	0.4		1.1	0.1	2.4	
PF factor	0.913	0.118	0.913	0.118	0.118	0.944	0.944		0.944	0.944	0.841	
Control delay	206.8	2.8	48.2	16.8	3.2	55.2	53.5		55.1	52.8	42.3	
Lane group LOS	F	A	D	B	A	E	D		E	D	D	
Apprch. delay	44.5			15.7			54.4			47.9		
Approach LOS	D			B			D			D		
Intersec. delay	28.7			Intersection LOS						C		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	SIEMPRE VIVA RD./HARVEST RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	SAN DIEGO					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030//ALT.-3B/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	125	1610	95	80	1660	120	175	30	145	470	30	455
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08				
Timing	G = 10.0	G = 45.0	G =	G =	G = 20.0	G = 25.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	132	1795		84	1873		184	185		495	511	
Lane group cap.	266	1839		266	1836		342	490		342	479	
v/c ratio	0.50	0.98		0.32	1.02		0.54	0.38		1.45	1.07	
Green ratio	0.08	0.38		0.08	0.38		0.21	0.17		0.21	0.17	
Unif. delay d1	52.6	37.0		51.8	37.5		42.4	44.5		47.5	50.0	
Delay factor k	0.11	0.48		0.11	0.50		0.14	0.11		0.50	0.50	
Increm. delay d2	1.5	15.7		0.7	26.2		1.7	0.5		217.1	60.1	
PF factor	0.939	0.600		0.939	0.600		0.825	0.867		0.825	0.867	
Control delay	50.9	37.8		49.3	48.7		36.6	39.0		256.3	103.4	
Lane group LOS	D	D		D	D		D	D		F	F	
Approch. delay	38.7			48.8			37.8			178.6		
Approach LOS	D			D			D			F		
Intersec. delay	69.2			Intersection LOS						E		

46P  
W  
M

SHORT REPORT												
General Information						Site Information						
Analyst	USAJ					Intersection	SIEMPRE VIVA RD./HARVEST RD.					
Agency or Co.	USAJ					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	SAN DIEGO <i>No W/M</i>					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030//ALT.-3B//WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	1	1	2	0	2	2	1
Lane group	L	TR		L	T	R	L	TR		L	T	R
Volume (vph)	125	1610	95	80	1660	120	175	30	145	470	30	455
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Arrival type	5	5		5	5	5	5	5		5	5	5
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	0
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03	04	Thru & RT	Excl. Left	07	08				
Timing	G = 10.0	G = 45.0	G =	G =	G = 20.0	G = 25.0	G =	G =				
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 120.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	132	1795	84	1747	126	184	185		495	32	479	
Lane group cap.	266	1839		266	1857	838	342	490		664	577	355
v/c ratio	0.50	0.98		0.32	0.94	0.15	0.54	0.38		0.75	0.06	1.35
Green ratio	0.08	0.38		0.08	0.38	0.58	0.21	0.17		0.21	0.17	0.25
Unif. delay d1	52.6	37.0		51.8	36.2	11.4	42.4	44.5		44.5	42.1	45.0
Delay factor k	0.11	0.48		0.11	0.45	0.11	0.14	0.11		0.30	0.11	0.50
Increm. delay d2	1.5	15.7		0.7	10.1	0.1	1.7	0.5		4.6	0.0	174.8
PF factor	0.939	0.600		0.939	0.600	0.120	0.825	0.867		0.825	0.867	0.778
Control delay	50.9	37.8		49.3	31.9	1.5	36.6	39.0		41.3	36.5	209.8
Lane group LOS	D	D		D	C	A	D	D		D	D	F
Approch. delay	38.7			30.6			37.8			121.4		
Approach LOS	D			C			D			F		
Intersec. delay	51.5			Intersection LOS						D		

A7A  
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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA RD/SANYO AVE.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/25/11					Jurisdiction	OTAYSANYO30A3BNLMNO					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LMNO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	825	355	1180	90	200	10	490	310	100	75	205	460
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10		0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 35.0	G = 25.0	G =	G =	G = 32.0	G = 25.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 135.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	868	1616		95	222		516	431		79	700	
Lane group cap.	826	790		826	909		389	618		389	561	
v/c ratio	1.05	2.05		0.12	0.24		1.33	0.70		0.20	1.25	
Green ratio	0.26	0.19		0.26	0.19		0.24	0.19		0.24	0.19	
Unif. delay d1	50.0	55.0		38.2	46.9		51.5	51.5		41.3	55.0	
Delay factor k	0.50	0.50		0.11	0.11		0.50	0.26		0.11	0.50	
Increm. delay d2	45.5	474.9		0.1	0.1		163.8	3.5		0.3	125.8	
PF factor	0.767	0.848		0.767	0.848		1.000	1.000		1.000	1.000	
Control delay	83.9	521.6		29.3	40.0		215.3	54.9		41.5	180.8	
Lane group LOS	F	F		C	D		F	D		D	F	
Approch. delay	368.6			36.8			142.3			166.7		
Approach LOS	F			D			F			F		
Intersec. delay	263.3			Intersection LOS						F		



47  
L  
E  
M

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./SANYO AVE.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/25/11					Jurisdiction	OTAYSANYO30A3BNLM/WITH						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/WITH M						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	2	2	3	1	2	1	1	1	1	1	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	825	355	1180	90	200	10	490	310	100	75	205	460	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3	5	3	3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10		0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07	08	
Timing	G = 35.0	G = 25.0	G =	G =			G = 32.0	G = 25.0	G =	G =			
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =	Y =			
Duration of Analysis (hrs) = 0.25							Cycle Length C = 135.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	868	374	1242	95	211	11	516	326	105	79	216	484	
Lane group cap.	826	917	1133	826	917	263	755	337	272	389	337	263	
v/c ratio	1.05	0.41	1.10	0.12	0.23	0.04	0.68	0.97	0.39	0.20	0.64	1.84	
Green ratio	0.26	0.19	0.46	0.26	0.19	0.19	0.24	0.19	0.19	0.24	0.19	0.19	
Unif. delay d1	50.0	48.5	36.5	38.2	46.8	45.2	46.9	54.6	48.3	41.3	50.9	55.0	
Delay factor k	0.50	0.11	0.50	0.11	0.11	0.11	0.25	0.47	0.11	0.11	0.22	0.50	
Incram. delay d2	45.5	0.3	57.0	0.1	0.1	0.1	2.6	40.2	0.9	0.3	4.1	392.6	
PF factor	0.767	0.848	0.434	0.767	0.848	0.848	1.000	1.000	0.848	1.000	1.000	1.000	
Control delay	83.9	41.4	72.9	29.3	39.8	38.4	49.4	94.8	41.9	41.5	54.9	447.6	
Lane group LOS	F	D	E	C	D	D	D	F	D	D	D	F	
Apprch. delay	72.0			36.6			64.2			297.5			
Approach LOS	E			D			E			F			
Intersec. delay	106.7			Intersection LOS						F			

47-P  
N  
M

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY MESA RD./SANYO AVE.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/24/11					Jurisdiction	OTAYSANYO30P3BNLMNO					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-38 NO LMNO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	340	355	555	100	315	75	1045	205	25	10	310	730
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		3	3		3	3	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 17.0	G = 25.0	G =	G =	G = 45.0	G = 25.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	358	958		105	411		1100	242		11	1094	
Lane group cap.	417	848		417	919		568	653		568	582	
v/c ratio	0.86	1.13		0.25	0.45		1.94	0.37		0.02	1.88	
Green ratio	0.13	0.19		0.13	0.19		0.35	0.19		0.35	0.19	
Unif. delay d1	55.3	52.5		50.8	46.4		42.5	45.7		28.0	52.5	
Delay factor k	0.39	0.50		0.11	0.11		0.50	0.11		0.11	0.50	
Increm. delay d2	16.3	73.1		0.3	0.3		427.9	0.4		0.0	402.4	
PF factor	0.900	0.841		0.900	0.841		1.000	1.000		1.000	1.000	
Control delay	66.0	117.3		46.0	39.4		470.4	46.0		28.0	454.9	
Lane group LOS	E	F		D	D		F	D		C	F	
Approch. delay	103.4			40.7			393.9			450.6		
Approach LOS	F			D			F			F		
Intersec. delay	276.6			Intersection LOS						F		

47-P  
W  
M

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	OTAY MESA RD./SANYO AVE.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/24/11					Jurisdiction	OTAYSANYO30P3BNLM/WITH MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/WITH M						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	3	2	2	3	1	2	1	1	1	1	1	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	340	355	555	100	315	75	1045	205	25	10	310	730	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	3	3	5	3	3	3	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 17.0	G = 25.0	G =	G =			G = 45.0			G = 25.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 130.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	358	374	584	105	332	79	1100	216	26	11	326	768	
Lane group cap.	417	953	1426	417	953	822	1103	350	515	568	350	515	
v/c ratio	0.86	0.39	0.41	0.25	0.35	0.10	1.00	0.62	0.05	0.02	0.93	1.49	
Green ratio	0.13	0.19	0.58	0.13	0.19	0.58	0.35	0.19	0.36	0.35	0.19	0.36	
Unif. delay d1	55.3	45.9	15.2	50.8	45.4	12.3	42.4	48.1	27.0	28.0	51.7	41.5	
Delay factor k	0.39	0.11	0.11	0.11	0.11	0.11	0.50	0.20	0.11	0.11	0.45	0.50	
Increm. delay d2	16.3	0.3	0.2	0.3	0.2	0.1	26.4	3.3	0.0	0.0	31.1	231.2	
PF factor	0.900	0.841	0.118	0.900	0.841	0.118	1.000	1.000	0.622	1.000	1.000	1.000	
Control delay	66.0	38.9	2.0	46.0	38.5	1.5	68.8	51.4	16.8	28.0	82.7	272.7	
Lane group LOS	E	D	A	D	D	A	E	D	B	C	F	F	
Apprch. delay	29.9			34.3			65.0			214.2			
Approach LOS	C			C			E			F			
Intersec. delay	89.0			Intersection LOS						F			

48A  
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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	AIRWAY RD./SANYO AVE.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/25/11					Jurisdiction	AIRSANYO30A3BNLM/NO					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/NO MITIGATIO					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	1200	490	535	110	210	50	230	120	50	315	260	515
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 50.0	G = 25.0	G =	G =	G = 22.0	G = 25.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	1263	1079		116	274		242	179		332	816	
Lane group cap.	1138	559		1138	596		258	585		258	544	
v/c ratio	1.11	1.93		0.10	0.46		0.94	0.31		1.29	1.50	
Green ratio	0.36	0.18		0.36	0.18		0.16	0.18		0.16	0.18	
Unif. delay d1	45.0	57.5		30.0	51.5		58.3	50.0		59.0	57.5	
Delay factor k	0.50	0.50		0.11	0.11		0.45	0.11		0.50	0.50	
Increment. delay d2	62.1	425.2		0.0	0.6		39.5	0.3		155.1	234.5	
PF factor	0.630	0.855		0.630	0.855		0.876	0.855		0.876	0.855	
Control delay	90.5	474.3		18.9	44.6		90.6	43.0		206.8	283.7	
Lane group LOS	F	F		B	D		F	D		F	F	
Approch. delay	267.3			36.9			70.3			261.4		
Approach LOS	F			D			E			F		
Intersec. delay	225.6			Intersection LOS						F		

ASA  
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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	AIRWAY RD./SANYO RD						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/25/11					Jurisdiction	AIRSANYO30A3BNLM						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MITIGAT						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	2	2	2	1	2	2	1	2	2	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	1200	490	535	110	210	50	230	120	50	315	260	515	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 50.0	G = 25.0	G =			G =			G = 27.0	G = 20.0	G =		G =
	Y = 4	Y = 5	Y =			Y =			Y = 4	Y = 5	Y =		Y =
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	1263	516	563	116	221	53	242	126	53	332	274	542	
Lane group cap.	1138	618	1003	1138	618	579	615	495	760	615	495	1312	
v/c ratio	1.11	0.83	0.56	0.10	0.36	0.09	0.39	0.25	0.07	0.54	0.55	0.41	
Green ratio	0.36	0.18	0.41	0.36	0.18	0.41	0.19	0.14	0.54	0.19	0.14	0.54	
Unif. delay d1	45.0	55.5	31.9	30.0	50.5	25.6	49.3	53.4	15.7	50.9	55.8	19.4	
Delay factor k	0.50	0.37	0.16	0.11	0.11	0.11	0.11	0.11	0.11	0.14	0.15	0.11	
Incram. delay d2	62.1	9.7	0.7	0.0	0.4	0.1	0.4	0.3	0.0	1.0	1.4	0.2	
PF factor	0.630	0.855	0.542	0.630	0.855	0.542	0.841	0.889	0.231	0.841	0.889	0.231	
Control delay	90.5	57.1	18.0	18.9	43.5	13.9	41.9	47.7	3.7	43.8	51.0	4.7	
Lane group LOS	F	E	B	B	D	B	D	D	A	D	D	A	
Apprch. delay	65.7			32.2			38.8			27.0			
Approach LOS	E			C			D			C			
Intersec. delay	49.7			Intersection LOS						D			

ASP  
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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	AIRWAY RD./SANYO AVE.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/27/11					Jurisdiction	AIRSANYO30P3BNLM/NO MIT						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/NO MIT.						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	0	2	2	0	1	2	0	1	2	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	515	210	230	50	490	315	535	260	110	50	120	1200	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	5	5		5	5		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 25.0	G = 20.0	G =	G =			G = 22.0	G = 55.0	G =	G =			
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =	Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 140.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	542	463		53	848		563	390		53	1389		
Lane group cap.	569	446		569	458		258	1291		258	1151		
v/c ratio	0.95	1.04		0.09	1.85		2.18	0.30		0.21	1.21		
Green ratio	0.18	0.14		0.18	0.14		0.16	0.39		0.16	0.39		
Unif. delay d1	56.9	60.0		48.0	60.0		59.0	29.3		51.4	42.5		
Delay factor k	0.46	0.50		0.11	0.50		0.50	0.11		0.11	0.50		
Increm. delay d2	26.3	52.8		0.1	391.6		544.6	0.1		0.4	101.4		
PF factor	0.855	0.889		0.855	0.889		0.876	0.569		0.876	0.569		
Control delay	75.0	106.2		41.1	444.9		596.2	16.8		45.4	125.6		
Lane group LOS	E	F		D	F		F	B		D	F		
Apprch. delay	89.4			421.1			359.1			122.6			
Approach LOS	F			F			F			F			
Intersec. delay	229.8			Intersection LOS						F			

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	AIRWAY RD./SANYO RD					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/27/11					Jurisdiction	AIRSANYO30P3BNLM					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MIT.					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	2	2	2	1	2	2	1	2	2	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	515	210	230	50	490	315	535	260	110	50	120	1200
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Phasing	Excl. Left	Thru & RT	03			04		Excl. Left	Thru & RT	07		08
Timing	G = 25.0	G = 25.0	G =	G =		G = 27.0		G = 45.0	G =		G =	
	Y = 4	Y = 5	Y =	Y =		Y = 4		Y = 5	Y =		Y =	
Duration of Analysis (hrs) = 0.25							Cycle Length C = 140.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	542	221	242	53	516	332	563	274	116	53	126	1263
Lane group cap.	569	618	1003	569	618	579	615	1113	768	615	1113	1339
v/c ratio	0.95	0.36	0.24	0.09	0.83	0.57	0.92	0.25	0.15	0.09	0.11	0.94
Green ratio	0.18	0.18	0.41	0.18	0.18	0.41	0.19	0.32	0.54	0.19	0.32	0.54
Unif. delay d1	56.9	50.5	27.3	48.0	55.5	32.1	55.4	35.0	16.4	46.4	33.4	30.5
Delay factor k	0.46	0.11	0.11	0.11	0.37	0.17	0.43	0.11	0.11	0.11	0.11	0.46
Increm. delay d2	26.3	0.4	0.1	0.1	9.7	1.4	18.5	0.1	0.1	0.1	0.0	13.4
PF factor	0.855	0.855	0.542	0.855	0.855	0.542	0.841	0.684	0.231	0.841	0.684	0.231
Control delay	75.0	43.5	14.9	41.1	57.1	18.8	65.1	24.1	3.9	39.0	22.9	20.4
Lane group LOS	E	D	B	D	E	B	E	C	A	D	C	C
Apprch. delay	53.6			42.1			45.8			21.3		
Approach LOS	D			D			D			C		
Intersec. delay	38.6			Intersection LOS						D		

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## TWO-WAY STOP CONTROL SUMMARY

General Information			Site Information					
Analyst	USAI		Intersection	H. HERTZ DR./PAS. D L AMERICAS				
Agency/Co.	USAI		Jurisdiction	SAN DIEGO				
Date Performed	3/1/2011		Analysis Year	2030 3B NO LA MEDIA/NO MIT.				
Analysis Time Period	AM PEAK HOUR							
Project Description 3B- NO LA MEDIA NO MIT.								
East/West Street: HEINRICH HERTZ DR.			North/South Street: PASEO DE LAS AMERICAS					
Intersection Orientation: North-South			Study Period (hrs): 0.25					
Vehicle Volumes and Adjustments								
Major Street	Northbound			Southbound				
Movement	1	2	3	4	5	6		
	L	T	R	L	T	R		
Volume	720	360	0	0	305	80		
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95		
Hourly Flow Rate, HFR	757	378	0	0	321	84		
Percent Heavy Vehicles	10	--	--	0	--	--		
Median Type	Undivided							
RT Channelized			0			0		
Lanes	1	2	0	0	2	0		
Configuration	L	T			T	TR		
Upstream Signal		0			0			
Minor Street	Westbound			Eastbound				
Movement	7	8	9	10	11	12		
	L	T	R	L	T	R		
Volume	0	0	0	20	0	360		
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.95	1.00	0.95		
Hourly Flow Rate, HFR	0	0	0	21	0	378		
Percent Heavy Vehicles	0	0	0	10	0	0		
Percent Grade (%)		0			0			
Flared Approach		N			N			
Storage		0			0			
RT Channelized			0			0		
Lanes	0	0	0	1	0	1		
Configuration				L		R		
Delay, Queue Length, and Level of Service								
Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					L		R
v (vph)	757					21		378
C (m) (vph)	1076					12		775
v/c	0.70					1.75		0.49
95% queue length	6.17					3.42		2.71
Control Delay	15.9					988.3		14.0
LOS	C					F		B
Approach Delay	--	--				65.3		
Approach LOS	--	--				F		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	HERTZ DR./PASEO DE LAS AMERICA					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/25/11					Jurisdiction	HERTZ AMERIC30A3BNLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	0	0	0	2	2	0	0	2	0
Lane group	L		R				L	T			TR	
Volume (vph)	20		360				720	360			305	80
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	
Arrival type	5		5				5	5			5	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 15.0	G =	G =	G =	G = 42.0	G = 20.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 90.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	21		379				758	379			405	
Lane group cap.	274		964				1487	2539			741	
v/c ratio	0.08		0.39				0.51	0.15			0.55	
Green ratio	0.17		0.68				0.47	0.73			0.22	
Unif. delay d1	31.7		6.4				16.8	3.6			31.0	
Delay factor k	0.11		0.11				0.12	0.11			0.15	
Increm. delay d2	0.1		0.3				0.3	0.0			0.9	
PF factor	0.867		0.155				0.417	0.188			0.810	
Control delay	27.6		1.3				7.3	0.7			25.9	
Lane group LOS	C		A				A	A			C	
Approch. delay	2.6						5.1			25.9		
Approach LOS	A						A			C		
Intersec. delay	8.9			Intersection LOS						A		

A9 P  
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## TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	H. HERTZ DR./PAS. D L AMERICAS
Agency/Co.	USAI	Jurisdiction	SAN DIEGO
Date Performed	5/17/12	Analysis Year	2030 3B NO LA MEDIA/NO MIT.
Analysis Time Period	PM PEAK HOUR		
Project Description 3B- NO LA MEDIA NO MIT.			
East/West Street: HEINRICH HERTZ DR.		North/South Street: PASEO DE LAS AMERICAS	
Intersection Orientation: North-South		Study Period (hrs): 0.25	

## Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound			
	Movement	1	2	3	4	5	6
		L	T	R	L	T	R
Volume		360	310	0	0	435	20
Peak-Hour Factor, PHF		0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR		378	326	0	0	457	21
Percent Heavy Vehicles		10	--	--	0	--	--
Median Type	Undivided						
RT Channelized				0			0
Lanes		1	2	0	0	2	0
Configuration		L	T			T	TR
Upstream Signal			0			0	
Minor Street	Westbound			Eastbound			
	Movement	7	8	9	10	11	12
		L	T	R	L	T	R
Volume		0	0	0	80	0	720
Peak-Hour Factor, PHF		1.00	1.00	1.00	0.95	1.00	0.95
Hourly Flow Rate, HFR		0	0	0	84	0	757
Percent Heavy Vehicles		0	0	0	10	0	0
Percent Grade (%)			0			0	
Flared Approach			N			N	
Storage			0			0	
RT Channelized				0			0
Lanes		0	0	0	1	0	1
Configuration					L		R

## Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
			7	8	9	10	11	12
Movement	1	4						
Lane Configuration	L					L		R
v (vph)	378					84		757
C (m) (vph)	1009					74		734
v/c	0.37					1.14		1.03
95% queue length	1.76					6.27		18.35
Control Delay	10.7					244.6		65.2
LOS	B					F		F
Approach Delay	--	--					83.1	
Approach LOS	--	--					F	

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	HERTZ DR./PASEO DE LAS AMERICA					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/25/11					Jurisdiction	HERTZ AMERIC30P3BNLM					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	0	1	0	0	0	2	1	0	0	2	0
Lane group	L		R				L	T			TR	
Volume (vph)	80		720				360	310			435	20
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	
Arrival type	5		5				5	5			5	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 30.0	G =	G =	G =	G = 32.0	G = 20.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 95.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	84		758				379	326			479	
Lane group cap.	518		997				1074	1072			723	
v/c ratio	0.16		0.76				0.35	0.30			0.66	
Green ratio	0.32		0.69				0.34	0.59			0.21	
Unif. delay d1	23.4		9.4				23.7	9.8			34.4	
Delay factor k	0.11		0.31				0.11	0.11			0.24	
Increm. delay d2	0.1		3.5				0.2	0.2			2.3	
PF factor	0.692		0.164				0.661	0.122			0.822	
Control delay	16.4		5.0				15.9	1.3			30.6	
Lane group LOS	B		A				B	A			C	
Apprch. delay	6.1						9.2			30.6		
Approach LOS	A						A			C		
Intersec. delay	13.0			Intersection LOS						B		

50-A  
NO MIT

TWO-WAY STOP CONTROL SUMMARY

Analyst: USAI  
 Agency/Co.: USAI  
 Date Performed: 8/10/2011  
 Analysis Time Period: AM PEAK HOUR  
 Intersection: MARCONI DR./PAS. D.L. AMERICAS  
 Jurisdiction: SAN DIEGO  
 Units: U. S. Customary  
 Analysis Year: 2030 3B NO LA MEDIA/NO MIT.  
 Project ID: 2030 3B NO LA MEDIA  
 East/West Street: MARCONI DR.  
 North/South Street: PASEO DE LAS AMERICAS  
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound				Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R	
Volume		385	65		720	290		
Peak-Hour Factor, PHF		0.95	0.95		0.95	0.95		
Hourly Flow Rate, HFR		405	68		757	305		
Percent Heavy Vehicles		--	--		10	--	--	
Median Type/Storage		Undivided			/			
RT Channelized?								
Lanes		2	0		1	2		
Configuration		T	TR		L	T		
Upstream Signal?		No				No		

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		15		180			
Peak Hour Factor, PHF		0.95		0.95			
Hourly Flow Rate, HFR		15		189			
Percent Heavy Vehicles		10		10			
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage					/		/
Lanes		1		1			
Configuration		L		R			

Delay, Queue Length, and Level of Service

Approach Movement	NB	SB	Westbound			Eastbound		
			4	7	8	9	10	11
Lane Config	1		L	L		R		
v (vph)		757	15			189		
C(m) (vph)		1031	11			742		
v/c		0.73	1.36			0.25		
95% queue length		6.90	2.63			1.01		
Control Delay		17.5	869.8			11.5		
LOS		C	F			B		
Approach Delay						74.6		
Approach LOS						F		

SoA

W  
M

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PASEO DE LAS AMERICAS/MARCONI					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/25/11					Jurisdiction	PASEOMARCONI303BANLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	1	0	2	0	2	2	0
Lane group				L		R		TR		L	T	
Volume (vph)				15		180		385	65	720	290	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 15.0	G =	G =	G =	G = 40.0	G = 30.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 98.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate			16		189		473		758	305		
Lane group cap.			251		884		1033		1301	2614		
v/c ratio			0.06		0.21		0.46		0.58	0.12		
Green ratio			0.15		0.60		0.31		0.41	0.76		
Unif. delay d1			35.5		8.9		27.4		22.5	3.2		
Delay factor k			0.11		0.11		0.11		0.17	0.11		
Increm. delay d2			0.1		0.1		0.3		0.7	0.0		
PF factor			0.880		0.126		0.706		0.540	0.204		
Control delay			31.3		1.2		19.7		12.8	0.7		
Lane group LOS			C		A		B		B	A		
Apprch. delay				3.6			19.7			9.3		
Approach LOS				A			B			A		
Intersec. delay	11.5			Intersection LOS						B		

50-P

TWO-WAY STOP CONTROL SUMMARY

NO MIT

Analyst: USAI  
 Agency/Co.: USAI  
 Date Performed: 8/10/2011  
 Analysis Time Period: PM PEAK HOUR  
 Intersection: MARCONI DR./PAS. D.L. AMERICAS  
 Jurisdiction: SAN DIEGO  
 Units: U. S. Customary  
 Analysis Year: 2030 3B NO LA MEDIA/NO MIT.  
 Project ID: 2030 3B NO LA MEDIA  
 East/West Street: MARCONI DR.  
 North/South Street: PASEO DE LAS AMERICAS  
 Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street:	Approach Movement	Northbound				Southbound		
		1 L	2 T	3 R	4 L	5 T	6 R	
Volume		400	15		360	305		
Peak-Hour Factor, PHF		0.95	0.95		0.95	0.95		
Hourly Flow Rate, HFR		421	15		378	321		
Percent Heavy Vehicles		--	--		10	--	--	
Median Type/Storage		Undivided			/			
RT Channelized?								
Lanes		2	0		1	2		
Configuration		T	TR		L	T		
Upstream Signal?		No				No		

Minor Street:	Approach Movement	Westbound			Eastbound		
		7 L	8 T	9 R	10 L	11 T	12 R
Volume		56		715			
Peak Hour Factor, PHF		0.95		0.95			
Hourly Flow Rate, HFR		58		752			
Percent Heavy Vehicles		10		10			
Percent Grade (%)			0			0	
Flared Approach: Exists?/Storage					/		/
Lanes		1		1			
Configuration		L		R			

Delay, Queue Length, and Level of Service

Approach Movement	NB	SB	Westbound			Eastbound		
			4	7	8	9	10	11
Lane Config	1		L	L		R		
v (vph)		378	58		752			
C(m) (vph)		1065	86		762			
v/c		0.35	0.67		0.99			
95% queue length		1.62	3.23		16.18			
Control Delay		10.2	108.0		52.7			
LOS		B	F		F			
Approach Delay				56.6				
Approach LOS				F				

50P  
31

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	PASEO DE LAS AMERICAS/MARCONI					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/25/11					Jurisdiction	PASEOMARCONI/30P3BNLM					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	0	0	1	0	1	0	2	0	2	2	0
Lane group				L		R		TR		L	T	
Volume (vph)				65		715		400	15	360	305	
% Heavy veh				10		10		10	10	10	10	
PHF				0.95		0.95		0.95	0.95	0.95	0.95	
Actuated (P/A)				A		A		A	A	A	A	
Startup lost time				2.0		2.0		2.0		2.0	2.0	
Ext. eff. green				2.0		2.0		2.0		2.0	2.0	
Arrival type				5		5		5		5	5	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10			10		0	10	5	0			
Lane Width				12.0		12.0		12.0		12.0	12.0	
Parking/Grade/Parking	N		N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr				0		0		0		0	0	
Unit Extension				3.0		3.0		3.0		3.0	3.0	
Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08				
Timing	G = 30.0	G =	G =	G =	G = 27.0	G = 30.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 100.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate			68		753		437		379	321		
Lane group cap.			492		895		1032		860	2112		
v/c ratio			0.14		0.84		0.42		0.44	0.15		
Green ratio			0.30		0.61		0.30		0.27	0.61		
Unif. delay d1			25.6		15.6		28.1		30.2	8.4		
Delay factor k			0.11		0.38		0.11		0.11	0.11		
Incram. delay d2			0.1		7.3		0.3		0.4	0.0		
PF factor			0.714		0.128		0.714		0.753	0.128		
Control delay			18.4		9.3		20.3		23.1	1.1		
Lane group LOS			B		A		C		C	A		
Apprch. delay				10.0			20.3			13.0		
Approach LOS				B			C			B		
Intersec. delay	13.4			Intersection LOS						B		

SIA  
M

SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	HERITAGE RD./OTAY VALLEY RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	03/25/11					Jurisdiction	HEROVALLEY30A3BNLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	600	200	285	445	200	870	600	1580	500	1000	2435	1715
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5		5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0		0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 25.0	G = 30.0	G =	G =	G = 30.0	G = 57.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 160.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	632	511		468	1127		632	2189		1053	4368	
Lane group cap.	256	580		256	554		598	1691		598	1639	
w/c ratio	2.47	0.88		1.83	2.03		1.06	1.29		1.76	2.67	
Green ratio	0.16	0.19		0.16	0.19		0.19	0.36		0.19	0.36	
Unif. delay d1	67.5	63.3		67.5	65.0		65.0	51.5		65.0	51.5	
Delay factor k	0.50	0.41		0.50	0.50		0.50	0.50		0.50	0.50	
Increment. delay d2	672.6	14.7		387.6	471.7		52.7	137.0		349.2	751.0	
PF factor	0.877	0.846		0.877	0.846		0.846	0.631		0.846	0.999	
Control delay	731.7	68.2		446.7	526.7		107.7	169.5		404.2	802.5	
Lane group LOS	F	E		F	F		F	F		F	F	
Approch. delay	435.1			503.3			155.7			725.1		
Approach LOS	F			F			F			F		
Intersec. delay	516.4			Intersection LOS						F		



SIA  
W  
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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	HERITAGE RD./OTAY VALLEY RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/25/11					Jurisdiction	HEROVALLEY30A3BNLMM						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MIT.						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	1	2	3	1	2	3	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	600	200	285	445	200	870	600	1580	500	1000	2435	1715	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 25.0	G = 30.0	G =	G =			G = 30.0			G = 57.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 160.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	Adj. flow rate	Lane group cap.	v/c ratio	Green ratio	Unif. delay d1	Delay factor k	Increm. delay d2	PF factor	Control delay	Lane group LOS	Approch. delay	Approach LOS	Intersec. delay
Adj. flow rate	632	211	300	468	211	916	632	1663	526	1053	2563	1805	
Lane group cap.	498	649	579	498	649	579	598	1765	781	598	1765	1361	
v/c ratio	1.27	0.33	0.52	0.94	0.33	1.58	1.06	0.94	0.67	1.76	1.45	1.33	
Green ratio	0.16	0.19	0.41	0.16	0.19	0.41	0.19	0.36	0.54	0.19	0.36	0.54	
Unif. delay d1	67.5	56.2	35.7	66.8	56.2	47.5	65.0	49.9	26.3	65.0	51.5	36.5	
Delay factor k	0.50	0.11	0.12	0.45	0.11	0.50	0.50	0.45	0.25	0.50	0.50	0.50	
Increm. delay d2	136.2	0.3	0.8	26.1	0.3	270.1	52.7	10.7	2.3	349.2	206.7	152.0	
PF factor	0.877	0.846	0.544	0.877	0.846	0.674	0.846	0.631	0.205	0.846	0.631	0.621	
Control delay	195.4	47.9	20.3	84.6	47.9	302.1	107.7	42.2	7.7	404.2	239.2	174.7	
Lane group LOS	F	D	C	F	D	F	F	D	A	F	F	F	
Approch. delay	122.2			204.6			50.5			249.8			
Approach LOS	F			F			D			F			
Intersec. delay	178.7			Intersection LOS						F			

STP  
NM

SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	HERITAGE RD./OTAY VALLEY RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/25/11					Jurisdiction	HEROVALLEY30P3BNLM						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/NO MIT.						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	1	2	0	1	2	0	2	3	0	2	3	0	
Lane group	L	TR		L	TR		L	TR		L	TR		
Volume (vph)	1900	200	645	470	200	800	285	2065	445	1025	1345	630	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Ext. eff. green	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0		
Arrival type	5	5		5	5		5	5		5	5		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0		12.0	12.0		12.0	12.0		12.0	12.0		
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0		0	0		0	0		0	0		
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0		
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 25.0	G = 30.0	G =	G =			G = 30.0	G = 57.0	G =	G =			
	Y = 4	Y = 5	Y =	Y =			Y = 4	Y = 5	Y =	Y =			
Duration of Analysis (hrs) = 0.25						Cycle Length C = 160.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	2000	890		495	1053		300	2642		1079	2079		
Lane group cap.	256	560		255	556		598	1710		598	1668		
v/c ratio	7.81	1.59		1.93	1.89		0.50	1.55		1.80	1.25		
Green ratio	0.16	0.19		0.16	0.19		0.19	0.36		0.19	0.36		
Unif. delay d1	67.5	65.0		67.5	65.0		58.3	51.5		65.0	51.5		
Delay factor k	0.50	0.50		0.50	0.50		0.11	0.50		0.50	0.50		
Increm. delay d2	3074	273.6		434.2	409.0		0.7	248.2		368.6	116.1		
PF factor	1.000	0.846		0.877	0.846		0.846	0.631		0.846	0.631		
Control delay	3141	328.6		493.4	464.0		50.0	280.7		423.6	148.6		
Lane group LOS	F	F		F	F		D	F		F	F		
Apprch. delay	2275			473.4			257.2			242.6			
Approach LOS	F			F			F			F			
Intersec. delay	837.9			Intersection LOS						F			

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	HERITAGE RD./OTAY VALLEY RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	03/25/11					Jurisdiction	HEROVALLEY30P3BNLMM						
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B/WITH MIT.						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	2	1	2	2	1	2	3	1	2	3	2	
Lane group	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (vph)	1900	200	645	470	200	800	285	2065	445	1025	1345	630	
% Heavy veh	10	10	10	10	10	10	10	10	10	10	10	10	
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A	
Startup lost time	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5	5	5	5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0	
Lane Width	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0	0	0	0	0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03			04			Excl. Left	Thru & RT	07		08
Timing	G = 25.0	G = 30.0	G =	G =			G = 30.0			G = 57.0	G =		
	Y = 4	Y = 5	Y =	Y =			Y = 4			Y = 5	Y =		
Duration of Analysis (hrs) = 0.25							Cycle Length C = 160.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	2000	211	679	495	211	842	300	2174	468	1079	1416	663	
Lane group cap.	498	649	579	498	649	579	598	1765	781	598	1765	1361	
v/c ratio	4.02	0.33	1.17	0.99	0.33	1.45	0.50	1.23	0.60	1.80	0.80	0.49	
Green ratio	0.16	0.19	0.41	0.16	0.19	0.41	0.19	0.36	0.54	0.19	0.36	0.54	
Unif. delay d1	67.5	56.2	47.5	67.4	56.2	47.5	58.3	51.5	24.7	65.0	46.4	22.7	
Delay factor k	0.50	0.11	0.50	0.50	0.11	0.50	0.11	0.50	0.19	0.50	0.35	0.11	
Incram. delay d2	1362	0.3	95.0	38.7	0.3	213.9	0.7	109.4	1.3	368.6	2.8	0.3	
PF factor	0.905	0.846	0.544	0.877	0.846	0.585	0.846	0.631	0.205	0.846	0.631	0.205	
Control delay	1423	47.9	120.8	97.8	47.9	241.7	50.0	141.9	6.4	423.6	32.1	4.9	
Lane group LOS	F	D	F	F	D	F	D	F	A	F	C	A	
Apprch. delay	1017			169.3			111.0			160.1			
Approach LOS	F			F			F			F			
Intersec. delay	382.7			Intersection LOS						F			

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SHORT REPORT													
General Information							Site Information						
Analyst	USAI						Intersection	LA MEDIA RD./AVIATOR RD.					
Agency or Co.	USAI						Area Type	All other areas					
Date Performed	03/25/11						Jurisdiction	LAMEDAVIAT30A3BNLM					
Time Period	AM PEAK HOUR						Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT					
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	1	2	0	0	2	0	
Lane group	L		R				L	T			TR		
Volume (vph)	505		445				445	895			1535	445	
% Heavy veh	10		10				10	10			10	10	
PHF	0.95		0.95				0.95	0.95			0.95	0.95	
Actuated (P/A)	A		A				A	A			A	A	
Startup lost time	2.0		2.0				2.0	2.0			2.0		
Ext. eff. green	2.0		2.0				2.0	2.0			2.0		
Arrival type	5		5				5	5			5		
Unit Extension	3.0		3.0				3.0	3.0			3.0		
Ped/Bike/RTOR Volume	10	5	0	10						5	10	0	
Lane Width	12.0		12.0				12.0	12.0			12.0		
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N	
Parking/hr													
Bus stops/hr	0		0				0	0			0		
Unit Extension	3.0		3.0				3.0	3.0			3.0		
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08					
Timing	G = 20.0	G =	G =	G =	G = 35.0	G = 60.0	G =	G =					
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25							Cycle Length C = 128.0						
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	532		468				468	942			2084		
Lane group cap.	498		654				449	2678			1557		
v/c ratio	1.07		0.72				1.04	0.35			1.34		
Green ratio	0.16		0.46				0.27	0.77			0.47		
Unif. delay d1	54.0		27.8				46.5	4.5			34.0		
Delay factor k	0.50		0.28				0.50	0.11			0.50		
Increm. delay d2	59.8		3.7				53.9	0.1			156.8		
PF factor	0.877		0.430				0.749	0.221			0.546		
Control delay	107.1		15.7				88.8	1.1			175.3		
Lane group LOS	F		B				F	A			F		
Aprpch. delay	64.3						30.2			175.3			
Approach LOS	E						C			F			
Intersec. delay	105.1			Intersection LOS						F			

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SHORT REPORT													
General Information						Site Information							
Analyst	USAI					Intersection	LA MEDIA RD./AVIATOR RD.						
Agency or Co.	USAI					Area Type	All other areas						
Date Performed	05/13/12					Jurisdiction	LAMEDAVIAT30A3BNLM						
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LMWITH M						
Volume and Timing Input													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Num. of Lanes	2	0	1	0	0	0	2	2	0	0	2	1	
Lane group	L		R				L		T				
Volume (vph)	505		445				445	895				1535	445
% Heavy veh	10		10				10	10				10	10
PHF	0.95		0.95				0.95	0.95				0.95	0.95
Actuated (P/A)	A		A				A	A				A	A
Startup lost time	2.0		2.0				2.0	2.0				2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0				2.0	2.0
Arrival type	5		5				5	5				5	3
Unit Extension	3.0		3.0				3.0	3.0				3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10							5	10	0
Lane Width	12.0		12.0				12.0	12.0				12.0	12.0
Parking/Grade/Parking	N	0	N	N				N	0	N	N	0	N
Parking/hr													
Bus stops/hr	0		0				0	0				0	0
Unit Extension	3.0		3.0				3.0	3.0				3.0	3.0
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08					
Timing	G = 25.0	G =	G =	G =	G = 30.0	G = 60.0	G =	G =					
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =					
Duration of Analysis (hrs) = 0.25						Cycle Length C = 128.0							
Lane Group Capacity, Control Delay, and LOS Determination													
	EB			WB			NB			SB			
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT	
Adj. flow rate	532		468				468	942			1616	468	
Lane group cap.	622		657				747	2542			1623	675	
v/c ratio	0.86		0.71				0.63	0.37			1.00	0.69	
Green ratio	0.20		0.46				0.23	0.73			0.47	0.47	
Unif. delay d1	49.8		27.7				44.0	6.2			33.9	26.8	
Delay factor k	0.39		0.28				0.21	0.11			0.50	0.26	
Increm. delay d2	11.3		3.6				1.7	0.1			21.3	3.1	
PF factor	0.838		0.430				0.796	0.188			0.412	1.000	
Control delay	53.0		15.5				36.7	1.3			35.2	29.8	
Lane group LOS	D		B				D	A			D	C	
Apprch. delay	35.5						13.0			34.0			
Approach LOS	D						B			C			
Intersec. delay	27.7			Intersection LOS						C			

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection LA MEDIA RD./AVIATOR WAY						
Agency or Co.	USAI					Area Type All other areas						
Date Performed	03/25/11					Jurisdiction LAMEDAVIAT30P3BNLM						
Time Period	PM PEAK HOUR					Analysis Year YEAR 2030 ALT.-3B NO LMNO MIT						
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	1	2	0	0	2	0
Lane group	L		R				L	T			TR	
Volume (vph)	445		505				505	1920			895	505
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	
Arrival type	5		5				5	5			5	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	
Unit Extension	3.0		3.0				3.0	3.0			3.0	
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 20.0	G =	G =	G =	G = 40.0	G = 52.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	468		532				532	2021			1474	
Lane group cap.	510		728				525	2659			1345	
v/c ratio	0.92		0.73				1.01	0.76			1.10	
Green ratio	0.16		0.51				0.32	0.77			0.42	
Unif. delay d1	51.7		23.8				42.5	8.1			36.5	
Delay factor k	0.44		0.29				0.50	0.31			0.50	
Increm. delay d2	21.6		3.8				42.7	1.3			55.1	
PF factor	0.873		0.301				0.686	0.216			0.525	
Control delay	66.8		10.9				71.8	3.1			74.3	
Lane group LOS	E		B				E	A			E	
Approch. delay	37.1						17.4			74.3		
Approach LOS	D						B			E		
Intersec. delay	38.0			Intersection LOS						D		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	LA MEDIA RD./AVIATOR RD.					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	05/13/12					Jurisdiction	LAMEDAVIAT30P3BNLM/WITH					
Time Period	PM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/WITH M					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	0	1	0	0	0	2	2	0	0	2	1
Lane group	L		R				L	T			T	R
Volume (vph)	445		505				505	1920			895	505
% Heavy veh	10		10				10	10			10	10
PHF	0.95		0.95				0.95	0.95			0.95	0.95
Actuated (P/A)	A		A				A	A			A	A
Startup lost time	2.0		2.0				2.0	2.0			2.0	2.0
Ext. eff. green	2.0		2.0				2.0	2.0			2.0	2.0
Arrival type	5		5				5	5			5	3
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Ped/Bike/RTOR Volume	10	5	0	10						10	5	0
Lane Width	12.0		12.0				12.0	12.0			12.0	12.0
Parking/Grade/Parking	N	0	N	N		N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0		0				0	0			0	0
Unit Extension	3.0		3.0				3.0	3.0			3.0	3.0
Phasing	EB Only	02	03	04	NB Only	Thru & RT	07	08				
Timing	G = 25.0	G =	G =	G =	G = 35.0	G = 52.0	G =	G =				
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25						Cycle Length C = 125.0						
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	468		532				532	2021			942	532
Lane group cap.	637		730				892	2520			1440	597
w/c ratio	0.73		0.73				0.60	0.80			0.65	0.89
Green ratio	0.20		0.51				0.28	0.73			0.42	0.42
Unif. delay d1	46.9		23.7				38.9	11.1			29.3	33.9
Delay factor k	0.29		0.29				0.19	0.35			0.23	0.42
Increm. delay d2	4.4		3.7				1.1	2.0			1.1	15.6
PF factor	0.833		0.301				0.741	0.184			0.525	1.000
Control delay	43.5		10.8				29.9	4.0			16.5	49.4
Lane group LOS	D		B				C	A			B	D
Apprch. delay	26.1						9.4			28.4		
Approach LOS	C						A			C		
Intersec. delay	18.3			Intersection LOS						B		

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SHORT REPORT												
General Information						Site Information						
Analyst	USAI					Intersection	OTAY VALLEY./AV. DE LAS VISTAS					
Agency or Co.	USAI					Area Type	All other areas					
Date Performed	12/13/10					Jurisdiction	HERAVDLV30A3BNLM					
Time Period	AM PEAK HOUR					Analysis Year	YEAR 2030 ALT.-3B NO LM/NO MIT					
Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	0	1	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	300	10	275	60	5	65	70	3020	140	360	5415	75
% Heavy veh	2	2	2	10	2	10	2	10	10	10	10	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Arrival type	5	5		5	5	5	5	5		5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0		12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0		0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 25.0	G = 30.0	G =	G =	G = 30.0	G = 57.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 160.0					
Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	316	300		63	5	68	74	3326		379	5779	
Lane group cap.	277	304		256	368	579	332	1750		308	1762	
v/c ratio	1.14	0.99		0.25	0.01	0.12	0.22	1.90		1.23	3.28	
Green ratio	0.16	0.19		0.16	0.19	0.41	0.19	0.36		0.19	0.36	
Unif. delay d1	67.5	64.8		59.2	52.9	29.6	55.1	51.5		65.0	51.5	
Delay factor k	0.50	0.49		0.11	0.11	0.11	0.11	0.50		0.50	0.50	
Increm. delay d2	97.6	47.9		0.5	0.0	0.1	0.3	407.4		128.8	1027	
PF factor	0.877	0.846		0.877	0.846	0.544	0.846	0.777		0.846	1.000	
Control delay	156.7	102.7		52.4	44.8	16.2	47.0	447.4		183.8	1079	
Lane group LOS	F	F		D	D	B	D	F		F	F	
Approch. delay	130.4			34.0			438.7			1024		
Approach LOS	F			C			F			F		
Intersec. delay	764.4			Intersection LOS						F		



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## SHORT REPORT

General Information				Site Information			
Analyst	USAI			Intersection OTAY VALLEY/AV. DE LAS VISTAS			
Agency or Co.	USAI			Area Type All other areas			
Date Performed	03/25/11			Jurisdiction HERAVDLV30P3BNLM			
Time Period	PM PEAK HOUR			Analysis Year YEAR 2030 ALT.-3B NO LM/NO MIT			

Volume and Timing Input												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	1	1	0	1	1	1	1	3	1	1	3	0
Lane group	L	TR		L	T	R	L	T	R	L	TR	
Volume (vph)	75	5	70	140	10	360	275	4800	60	65	3130	300
% Heavy veh	2	2	2	10	2	10	2	10	2	10	10	2
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Actuated (P/A)	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost time	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Ext. eff. green	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	
Arrival type	5	5		5	5	5	5	5	5	5	5	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	0
Lane Width	12.0	12.0		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr	0	0		0	0	0	0	0	0	0	0	
Unit Extension	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Phasing	Excl. Left	Thru & RT	03	04	Excl. Left	Thru & RT	07	08				
Timing	G = 15.0	G = 15.0	G =	G =	G = 20.0	G = 82.0	G =	G =				
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =				
Duration of Analysis (hrs) = 0.25							Cycle Length C = 150.0					

Lane Group Capacity, Control Delay, and LOS Determination												
	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adj. flow rate	79	79		147	11	379	289	5053	63	68	3611	
Lane group cap.	177	160		164	196	374	236	2708	1043	219	2681	
v/c ratio	0.45	0.49		0.90	0.06	1.01	1.22	1.87	0.06	0.31	1.35	
Green ratio	0.10	0.10		0.10	0.10	0.27	0.13	0.55	0.68	0.13	0.55	
Unif. delay d1	63.6	63.9		66.7	61.1	55.0	65.0	34.0	8.0	58.8	34.0	
Delay factor k	0.11	0.11		0.42	0.11	0.50	0.50	0.50	0.11	0.11	0.50	
Incram. delay d2	1.8	2.4		41.9	0.1	50.0	132.7	391.1	0.0	0.8	158.7	
PF factor	0.926	0.926		0.926	0.926	0.758	0.897	1.000	0.156	0.897	0.650	
Control delay	60.7	61.6		103.7	56.7	91.6	191.1	425.1	1.3	53.6	180.7	
Lane group LOS	E	E		F	E	F	F	F	A	D	F	
Apprch. delay	61.1			94.2			407.7			178.4		
Approach LOS	E			F			F			F		
Intersec. delay	298.6			Intersection LOS						F		