APPENDIX B

ADOPTED COMMUNITY PLAN

1. Adopted Community Plan Land Use Summary & Trip Generation File
2. Otay Mesa Adopted CP Street Network Plot
3. Revised Otay Mesa Adopted CP ADT Plot
4. SANDAG Regional Transportation Plan (Excerpt, Pg. A-17)
5. Caltrans Peak Hour Volume Data
6. Caltrans Ramp Meter Rate E-Mail
7. City Requested ADT Adjustments
8. Intersection Lane Configurations
9. AM / PM Peak hour Volumes
10. Intersection LOS Worksheets

Otay Mesa Adopted CP Land Uses Summary				
Land Use	**Input Vehicle Trip Generation**			
	Type	**Amount**	**Per. Trips**	**Veh. Trips**
Single Family	du	5,106	64,335	44,894
Multi-Family	du	7,097	80,904	56,800
Elementary school	site	2	4,238	2,370
Junior College	student	5,000	11,500	9,095
Senior High School	student	2,400	9,120	4,115
∗L-R Office	ksf	24	821	629
∗Industrial Park	ksf	1,555	31,102	25,497
∗Light Industry LGR IP	ksf	62,757	621,294	502,116
Commercial Airport	Flt	658	2,040	1,320
✔ Community Commercial	ksf	3,729	372,910	263,846
✔ Neighborhood Commercial	ksf	1,597	270,834	191,625
✔ Specialty Commercial	ksf	450	25,312	17,909
Gas Station w/fdmt	pump	12	2,466	1,790
Truck Storage	acre	38	1,421	1,162
∗Warehouse or Storage	ksf	129	784	641
Active Park	acre	51	3,370	2,217
Communication or Utility	acre	17	66	50
OMPOE in/out Laden	truck	2,000	10,600	8,096
OMPOE in/out unladen	truck	4,000	21,200	16,192
Other Health Care	ksf	293	19,787	14,680
Other Public Service	ksf	0.2	80	58
Under Construction	acre	0.2	1	1
Grand Total:			***1,554,185***	***1,165,103***

Source: T:\DWP\om_cpu042809\2030rc_adopted CPU\subtgmx.pr

∗ **Industrial square footage total of 64,465,000**

✔ **Commercial square footage total of 5,776,000**

	---- Land Use ----				---Trips---	
Zone	Code	Name	Type	Amount	Person	Vehicle
4385	101	SINGLE FAMILY	du	24.0	302.	211.
4385	1401	JAIL	acre	72.5	1320.	956.
4385	4112	RIGHT-OF-WAY	acre	2.0	0.	0.
4385	4113	COMMUNICATION OR UTILITY	acre	43.0	172.	131.
4385	9101	INACTIVE USE	acre	9980.2	0.	0.
4385		TOTAL			1794.	1299.
4429	101	SINGLE FAMILY	du	800.0	10080.	7034.
4429	4112	RIGHT-OF-WAY	acre	62.0	0.	0.
4429	7601	ACTIVE PARK	acre	5.5	366.	241.
4429	9101	INACTIVE USE	acre	249.7	0.	0.
4429	9710	MULTI-FAMILY(UNDER20DU/AC)	du	820.0	9348.	6563.
4429		TOTAL			19794.	13838.
4431	7601	ACTIVE PARK	acre	11.0	733.	482.
4431	8001	ORCHARDS OR VINEYARD	acre	4.8	0.	0.
4431	9711	GAS STATION W/FDMT(PUMP)	pump	12.0	2466.	1790.
4431	9719	OTHER HEALTH CARE(KSF)	ksf	292.7	19787.	14680.
4431		TOTAL			22986.	16952.
4443	101	SINGLE FAMILY	du	1069.0	13469.	9399.
4443	4112	RIGHT-OF-WAY	acre	47.4	0.	0.
4443	7601	ACTIVE PARK	acre	5.3	353.	232.
4443	9101	INACTIVE USE	acre	263.2	0.	0.
4443	9500	UNDER CONTRUCTION	acre	0.2	1.	1.
4443	9710	MULTI-FAMILY(UNDER20DU/AC)	du	381.0	4343.	3049.
4443		TOTAL			18167.	12682.
4450	4112	RIGHT-OF-WAY	acre	13.6	0.	0.
4450	9101	INACTIVE USE	acre	88.8	0.	0.
4450	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2143.1	21217.	17147.
4450		TOTAL			21217.	17147.
4460	4112	RIGHT-OF-WAY	acre	22.0	0.	0.
4460	9101	INACTIVE USE	acre	44.0	0.	0.
4460	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1197.9	11859.	9584.
4460		TOTAL			11859.	9584.
4463	4112	RIGHT-OF-WAY	acre	15.8	0.	0.
4463	9101	INACTIVE USE	acre	104.2	0.	0.
4463	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1400.4	13864.	11205.
4463		TOTAL			13864.	11205.
4464	4112	RIGHT-OF-WAY	acre	24.4	0.	0.
4464	9733	COMMUNITY COMMERCIAL (KSF)	ksf	770.9	77090.	54544.
4464		TOTAL			77090.	54544.
4467	101	SINGLE FAMILY	du	409.0	5153.	3596.
4467	4112	RIGHT-OF-WAY	acre	28.4	0.	0.
4467	7601	ACTIVE PARK	acre	1.0	67.	44.
4467	9101	INACTIVE USE	acre	138.7	0.	0.
4467	9710	MULTI-FAMILY(UNDER20DU/AC)	du	445.0	5073.	3562.
4467		TOTAL			10293.	7201.

NO CBF
No BF

	---------------------- Land Use	----------------------			-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4472	9101	INACTIVE USE	acre	162.8	0.	0.
4472		TOTAL			0.	0.
4473	101	SINGLE FAMILY	du	140.0	1764.	1231.
4473	2202	EXTRACTIVE INDUSTRY TAZ 4473	acre	254.0	2642.	2184.
4473	8003	FIELD CROPS	acre	75.4	8.	6.
4473	9101	INACTIVE USE	acre	50.0	0.	0.
4473		TOTAL			4413.	3421.
4479	4112	RIGHT-OF-WAY	acre	60.5	0.	0.
4479	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	3942.2	39028.	31542.
4479		TOTAL			39028.	31542.
4480	101	SINGLE FAMILY	du	1.0	13.	9.
4480	2101	INDUSTRIAL PARK	acre	120.7	23186.	19008.
4480	4112	RIGHT-OF-WAY	acre	4.7	0.	0.
4480	5003	COMMUNITY COMMERCIAL	acre	38.4	32221.	22798.
4480	8003	FIELD CROPS	acre	62.5	6.	5.
4480		TOTAL			55427.	41819.
4482	2101	INDUSTRIAL PARK	acre	127.7	24531.	20110.
4482	4112	RIGHT-OF-WAY	acre	1.7	0.	0.
4482	8003	FIELD CROPS	acre	82.5	8.	6.
4482		TOTAL			24539.	20116.
4496	101	SINGLE FAMILY	du	372.0	4687.	3271.
4496	4112	RIGHT-OF-WAY	acre	6.4	0.	0.
4496	9101	INACTIVE USE	acre	54.2	0.	0.
4496	9710	MULTI-FAMILY(UNDER20DU/AC)	du	760.0	8664.	6083.
4496	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	39.2	6648.	4704.
4496	9733	COMMUNITY COMMERCIAL (KSF)	ksf	17.0	1700.	1203.
4496		TOTAL			21700.	15260.
4497	4112	RIGHT-OF-WAY	acre	16.0	0.	0.
4497	9101	INACTIVE USE	acre	67.0	0.	0.
4497	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1916.6	18974.	15335.
4497		TOTAL			18974.	15335.
4498	101	SINGLE FAMILY	du	2.0	25.	18.
4498	2101	INDUSTRIAL PARK	acre	185.7	35673.	29244.
4498	8003	FIELD CROPS	acre	5.8	1.	0.
4498		TOTAL			35699.	29262.
4499	101	SINGLE FAMILY	du	123.0	1550.	1081.
4499	4112	RIGHT-OF-WAY	acre	54.9	0.	0.
4499	7601	ACTIVE PARK	acre	4.9	326.	215.
4499	9101	INACTIVE USE	acre	32.9	0.	0.
4499	9710	MULTI-FAMILY(UNDER20DU/AC)	du	630.0	7182.	5042.
4499	9714	WAREHOUSING OR STORAGE(KSF)	ksf	63.2	386.	315.
4499		TOTAL			9444.	6654.
4500	1401	JAIL	acre	176.3	3209.	2326.

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Adopted Otay Mesa CP/2030 REVENUE CONSTRAINED
trip generation and land use by zone page 3

---------------------- Land Use ---------------------- -----Trips-----

Zone	Code	Name	Type	Amount	Person	Vehicle
4500	2101	INDUSTRIAL PARK	acre	57.8	11103.	9102.
4500	2103	LIGHT INDUSTRY	acre	20.1	2014.	1628.
4500	2301	JUNKYARD/DUMP/LANDFILL	acre	80.8	1277.	1052.
4500	4112	RIGHT-OF-WAY	acre	5.5	0.	0.
4500	5003	COMMUNITY COMMERCIAL	acre	6.1	5119.	3622.
4500	8003	FIELD CROPS	acre	85.7	9.	7.
4500		TOTAL			22730.	17736.
4502	101	SINGLE FAMILY	du	174.0	2192.	1530.
4502	9101	INACTIVE USE	acre	671.3	0.	0.
4502		TOTAL			2192.	1530.
4505	4112	RIGHT-OF-WAY	acre	33.0	0.	0.
4505	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4505	7601	ACTIVE PARK	acre	15.0	999.	657.
4505	9101	INACTIVE USE	acre	21.0	0.	0.
4505	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1690.0	19266.	13526.
4505		TOTAL			22384.	15368.
4506	2103	LIGHT INDUSTRY	acre	37.8	3788.	3061.
4506	2202	EXTRACTIVE INDUSTRY TAZ 4473	acre	125.3	1303.	1077.
4506	2301	JUNKYARD/DUMP/LANDFILL	acre	185.2	2926.	2412.
4506	4112	RIGHT-OF-WAY	acre	1.9	0.	0.
4506	6109	OTHER PUBLIC SERVICE	acre	0.2	80.	58.
4506	8003	FIELD CROPS	acre	111.7	11.	9.
4506	9101	INACTIVE USE	acre	5.0	0.	0.
4506		TOTAL			8108.	6617.
4511	4112	RIGHT-OF-WAY	acre	5.7	0.	0.
4511	9733	COMMUNITY COMMERCIAL (KSF)	ksf	470.5	47050.	33289.
4511		TOTAL			47050.	33289.
4517	101	SINGLE FAMILY	du	443.0	5582.	3895.
4517	4112	RIGHT-OF-WAY	acre	78.1	0.	0.
4517	9101	INACTIVE USE	acre	64.4	0.	0.
4517		TOTAL			5582.	3895.
4520	4112	RIGHT-OF-WAY	acre	31.8	0.	0.
4520	9733	COMMUNITY COMMERCIAL (KSF)	ksf	326.7	32670.	23115.
4520		TOTAL			32670.	23115.
4521	4112	RIGHT-OF-WAY	acre	10.0	0.	0.
4521	9733	COMMUNITY COMMERCIAL (KSF)	ksf	274.4	27440.	19415.
4521		TOTAL			27440.	19415.
4522	4112	RIGHT-OF-WAY	acre	16.7	0.	0.
4522	9101	INACTIVE USE	acre	24.7	0.	0.
4522	9712	SPECIALTY COMMERCIAL(KSF)	ksf	11.8	664.	470.
4522	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	522.7	5175.	4182.
4522	9733	COMMUNITY COMMERCIAL (KSF)	ksf	23.5	2350.	1663.
4522		TOTAL			8189.	6315.

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Adopted Otay Mesa CP/2030 REVENUE CONSTRAINED
trip generation and land use by zone

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----	---- Land Use	----	----	----	-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4524	4112	RIGHT-OF-WAY	acre	20.9	0.	0.

4524	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1154.3	11428.	9236.
4524		TOTAL			11428.	9236.
4525	4112	RIGHT-OF-WAY	acre	19.9	0.	0.
4525	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1311.2	12981.	10491.
4525		TOTAL			12981.	10491.
4526	101	SINGLE FAMILY	du	4.0	50.	35.
4526	4112	RIGHT-OF-WAY	acre	37.3	0.	0.
4526	8003	FIELD CROPS	acre	4.3	0.	0.
4526	9101	INACTIVE USE	acre	68.8	0.	0.
4526	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1106.0	12608.	8852.
4526		TOTAL			12659.	8887.
4527	4112	RIGHT-OF-WAY	acre	20.5	0.	0.
4527	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1415.7	14015.	11327.
4527		TOTAL			14015.	11327.
4528	4112	RIGHT-OF-WAY	acre	16.7	0.	0.
4528	9733	COMMUNITY COMMERCIAL (KSF)	ksf	836.3	83630.	59171.
4528		TOTAL			83630.	59171.
4529	4112	RIGHT-OF-WAY	acre	7.0	0.	0.
4529	9712	SPECIALTY COMMERCIAL(KSF)	ksf	437.8	24648.	17439.
4529		TOTAL			24648.	17439.
4530	4112	RIGHT-OF-WAY	acre	42.2	0.	0.
4530	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1184.8	11730.	9480.
4530		TOTAL			11730.	9480.
4531	4112	RIGHT-OF-WAY	acre	33.2	0.	0.
4531	4113	COMMUNICATION OR UTILITY	acre	2.1	8.	6.
4531	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1548.6	15331.	12390.
4531		TOTAL			15340.	12397.
4532	4112	RIGHT-OF-WAY	acre	8.2	0.	0.
4532	9717	INDUSTRIAL PARK(KSF)	ksf	1555.1	31102.	25497.
4532		TOTAL			31102.	25497.
4534	4112	RIGHT-OF-WAY	acre	6.9	0.	0.
4534	4119	OTHER TRANSPORTATION	acre	60.3	6705.	5121.
4534	8003	FIELD CROPS	acre	157.6	16.	12.
4534		TOTAL			6721.	5133.
4535	101	SINGLE FAMILY	du	19.0	239.	167.
4535	9101	INACTIVE USE	acre	81.6	0.	0.
4535		TOTAL			239.	167.
4537	4119	OTHER TRANSPORTATION	acre	36.3	4037.	3083.
4537	5004	NEIGHBORHOOD COMMERCIAL	acre	1.5	1989.	1407.
4537	8003	FIELD CROPS	acre	120.5	12.	9.
4537		TOTAL			6038.	4500.

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♀ Adopted Otay Mesa CP/2030 REVENUE CONSTRAINED
trip generation and land use by zone page 5

		---------------------- Land Use ----------------------			-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4538	101	SINGLE FAMILY	du	21.0	265.	185.
4538	9101	INACTIVE USE	acre	40.7	0.	0.

4538		TOTAL			265.	185.
4539	101	SINGLE FAMILY	du	1.0	13.	9.
4539	2103	LIGHT INDUSTRY	acre	131.5	13176.	10649.
4539	8003	FIELD CROPS	acre	5.0	1.	0.
4539		TOTAL			13189.	10658.
4545	4112	RIGHT-OF-WAY	acre	27.3	0.	0.
4545	9101	INACTIVE USE	acre	81.0	0.	0.
4545	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1073.8	10631.	8591.
4545		TOTAL			10631.	8591.
4546	4112	RIGHT-OF-WAY	acre	2.9	0.	0.
4546	4113	COMMUNICATION OR UTILITY	acre	3.9	16.	12.
4546	9101	INACTIVE USE	acre	134.1	0.	0.
4546	9710	MULTI-FAMILY(UNDER20DU/AC)	du	40.0	456.	320.
4546		TOTAL			472.	332.
4547	4112	RIGHT-OF-WAY	acre	14.9	0.	0.
4547	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1424.4	14102.	11397.
4547		TOTAL			14102.	11397.
4548	4112	RIGHT-OF-WAY	acre	18.2	0.	0.
4548	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1372.1	13584.	10978.
4548		TOTAL			13584.	10978.
4549	4112	RIGHT-OF-WAY	acre	29.0	0.	0.
4549	9101	INACTIVE USE	acre	6.3	0.	0.
4549	9706	JUNIOR COLLEGE (STUDENTS)	stu	5000.0	11500.	9095.
4549	9733	COMMUNITY COMMERCIAL (KSF)	ksf	424.3	42430.	30021.
4549		TOTAL			53930.	39115.
4550	4112	RIGHT-OF-WAY	acre	4.9	0.	0.
4550	9733	COMMUNITY COMMERCIAL (KSF)	ksf	456.1	45610.	32270.
4550		TOTAL			45610.	32270.
4551	4112	RIGHT-OF-WAY	acre	7.0	0.	0.
4551	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1605.2	15891.	12843.
4551		TOTAL			15891.	12843.
4553	101	SINGLE FAMILY	du	6.0	76.	53.
4553	4113	COMMUNICATION OR UTILITY	acre	1.5	6.	5.
4553	9101	INACTIVE USE	acre	126.1	0.	0.
4553		TOTAL			82.	57.
4558	101	SINGLE FAMILY	du	100.0	1260.	879.
4558	9101	INACTIVE USE	acre	303.4	0.	0.
4558	9710	MULTI-FAMILY(UNDER20DU/AC)	du	333.0	3796.	2665.
4558	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	95.4	16180.	11448.
4558		TOTAL			21236.	14992.

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♀ Adopted Otay Mesa CP/2030 REVENUE CONSTRAINED
trip generation and land use by zone page 6

	---------- Land Use	----------			-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
4560	4112	RIGHT-OF-WAY	acre	11.1	0.	0.
4560	8003	FIELD CROPS	acre	1.1	0.	0.
4560	9101	INACTIVE USE	acre	143.6	0.	0.
4560	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	3491.3	34564.	27934.

4560		TOTAL			34564.	27934.
4561	101	SINGLE FAMILY	du	1225.0	15435.	10771.
4561	6806	ELEMENTARY SCHOOL	acre	1.0	2119.	1185.
4561	7601	ACTIVE PARK	acre	7.9	526.	346.
4561	9101	INACTIVE USE	acre	330.2	0.	0.
4561	9710	MULTI-FAMILY(UNDER20DU/AC)	du	7.0	80.	56.
4561		TOTAL			18160.	12358.
4562	4112	RIGHT-OF-WAY	acre	7.5	0.	0.
4562	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	3351.9	33184.	26819.
4562		TOTAL			33184.	26819.
4563	4112	RIGHT-OF-WAY	acre	4.9	0.	0.
4563	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	3426.0	33917.	27411.
4563		TOTAL			33917.	27411.
4564	4112	RIGHT-OF-WAY	acre	3.4	0.	0.
4564	8003	FIELD CROPS	acre	11.0	1.	1.
4564	9101	INACTIVE USE	acre	16.5	0.	0.
4564	9710	MULTI-FAMILY(UNDER20DU/AC)	du	1.0	11.	8.
4564	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2842.3	28139.	22741.
4564		TOTAL			28151.	22750.
4565	4112	RIGHT-OF-WAY	acre	26.1	0.	0.
4565	4113	COMMUNICATION OR UTILITY	acre	10.6	42.	32.
4565	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	3073.2	30425.	24589.
4565		TOTAL			30467.	24621.
4566	4112	RIGHT-OF-WAY	acre	8.5	0.	0.
4566	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2962.1	29325.	23700.
4566		TOTAL			29325.	23700.
4567	4112	RIGHT-OF-WAY	acre	9.0	0.	0.
4567	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	522.7	88650.	62723.
4567		TOTAL			88650.	62723.
4569	4112	RIGHT-OF-WAY	acre	24.0	0.	0.
4569	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	283.1	2803.	2265.
4569	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	405.1	68705.	48611.
4569		TOTAL			71508.	50876.
4570	4112	RIGHT-OF-WAY	acre	11.0	0.	0.
4570	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1241.5	12291.	9933.
4570		TOTAL			12291.	9933.
4571	2101	INDUSTRIAL PARK	acre	8.6	1652.	1354.
4571	2103	LIGHT INDUSTRY	acre	32.0	3206.	2591.

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♀ Adopted Otay Mesa CP/2030 REVENUE CONSTRAINED
trip generation and land use by zone page 7

	Land Use				Trips	
Zone	Code	Name	Type	Amount	Person	Vehicle
4571	4119	OTHER TRANSPORTATION	acre	5.4	600.	459.
4571	8003	FIELD CROPS	acre	157.1	16.	12.
4571	9101	INACTIVE USE	acre	5.0	0.	0.
4571		TOTAL			5475.	4417.
4572	9101	INACTIVE USE	acre	192.4	0.	0.
4572		TOTAL			0.	0.

4573	2101	INDUSTRIAL PARK	acre	170.6	32772.	26866.
4573	8003	FIELD CROPS	acre	5.0	1.	0.
4573	9101	INACTIVE USE	acre	35.0	0.	0.
4573		TOTAL			32773.	26866.
4578	101	SINGLE FAMILY	du	508.0	6401.	4467.
4578	9101	INACTIVE USE	acre	322.0	0.	0.
4578	9710	MULTI-FAMILY(UNDER20DU/AC)	du	6.0	68.	48.
4578		TOTAL			6469.	4515.
4580	4112	RIGHT-OF-WAY	acre	9.4	0.	0.
4580	9101	INACTIVE USE	acre	5.0	0.	0.
4580	9715	LIGHT INDUSTRY LRG IP(KSF)	acre	58.8	582.	470.
4580	9720	TRUCK STORAGE (WRHSGSTRG)	acre	37.9	1421.	1162.
4580	9724	L-R OFFICE(KSF-17;ZN 9724)	acre	24.0	821.	629.
4580	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	164.7	27933.	19764.
4580	9733	COMMUNITY COMMERCIAL (KSF)	ksf	129.4	12940.	9155.
4580		TOTAL			43697.	31180.
4581	4112	RIGHT-OF-WAY	acre	11.0	0.	0.
4581	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2613.6	25875.	20911.
4581		TOTAL			25875.	20911.
4584	4112	RIGHT-OF-WAY	acre	20.0	0.	0.
4584	9714	WAREHOUSING OR STORAGE(KSF)	ksf	65.3	398.	326.
4584	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	326.7	3234.	2614.
4584	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	235.2	39890.	28223.
4584		TOTAL			43523.	31163.
4586	4112	RIGHT-OF-WAY	acre	7.1	0.	0.
4586	9101	INACTIVE USE	acre	257.7	0.	0.
4586	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2330.5	23072.	18646.
4586		TOTAL			23072.	18646.
4587	4112	RIGHT-OF-WAY	acre	10.9	0.	0.
4587	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	3267.0	32343.	26139.
4587		TOTAL			32343.	26139.
4588	4112	RIGHT-OF-WAY	acre	13.5	0.	0.
4588	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2877.8	28490.	23025.
4588		TOTAL			28490.	23025.
4589	9101	INACTIVE USE	acre	9.4	0.	0.
4589	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	2606.4	25803.	20854.
4589		TOTAL			25803.	20854.

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Adopted Otay Mesa CP/2030 REVENUE CONSTRAINED
trip generation and land use by zone page 8

		Land Use			Trips	
Zone	Code	Name	Type	Amount	Person	Vehicle
4590	4112	RIGHT-OF-WAY	acre	24.0	0.	0.
4590	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	3593.7	35578.	28753.
4590		TOTAL			35578.	28753.
4606	4001	OMPOE IN/OUT LADEN(TRUCKS)	truck	2000.0	10600.	8096.
4606		TOTAL			10600.	8096.
4607	4002	OMPOE IN/OUT UNLADEN(TRUCKS)	truck	4000.0	21200.	16192.

4607		TOTAL			21200.	16192.
4608	9710	MULTI-FAMILY(UNDER20DU/AC)	du	145.0	1653.	1160.
4608	9715	LIGHT INDUSTRY LRG IP(KSF)	ksf	1197.9	11859.	9584.
4608	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	39.2	6648.	4704.
4608		TOTAL			20161.	15449.
4609	9726	COMMERCIAL AIRPORT (OM/FLT)	flt	658.0	2040.	1320.
4609		TOTAL			2040.	1320.
4610	9710	MULTI-FAMILY(UNDER20DU/AC)	du	400.0	4560.	3201.
4610	9725	SENIOR HIGH SCHOOL(STUDENTS)	stu	2400.0	9120.	4115.
4610		TOTAL			13680.	7316.
4611	101	SINGLE FAMILY	du	53.0	668.	466.
4611	9710	MULTI-FAMILY(UNDER20DU/AC)	du	333.0	3796.	2665.
4611	9731	NEIGHBORHOOD COMMERCIAL(KSF)	ksf	95.4	16180.	11448.
4611		TOTAL			20644.	14579.

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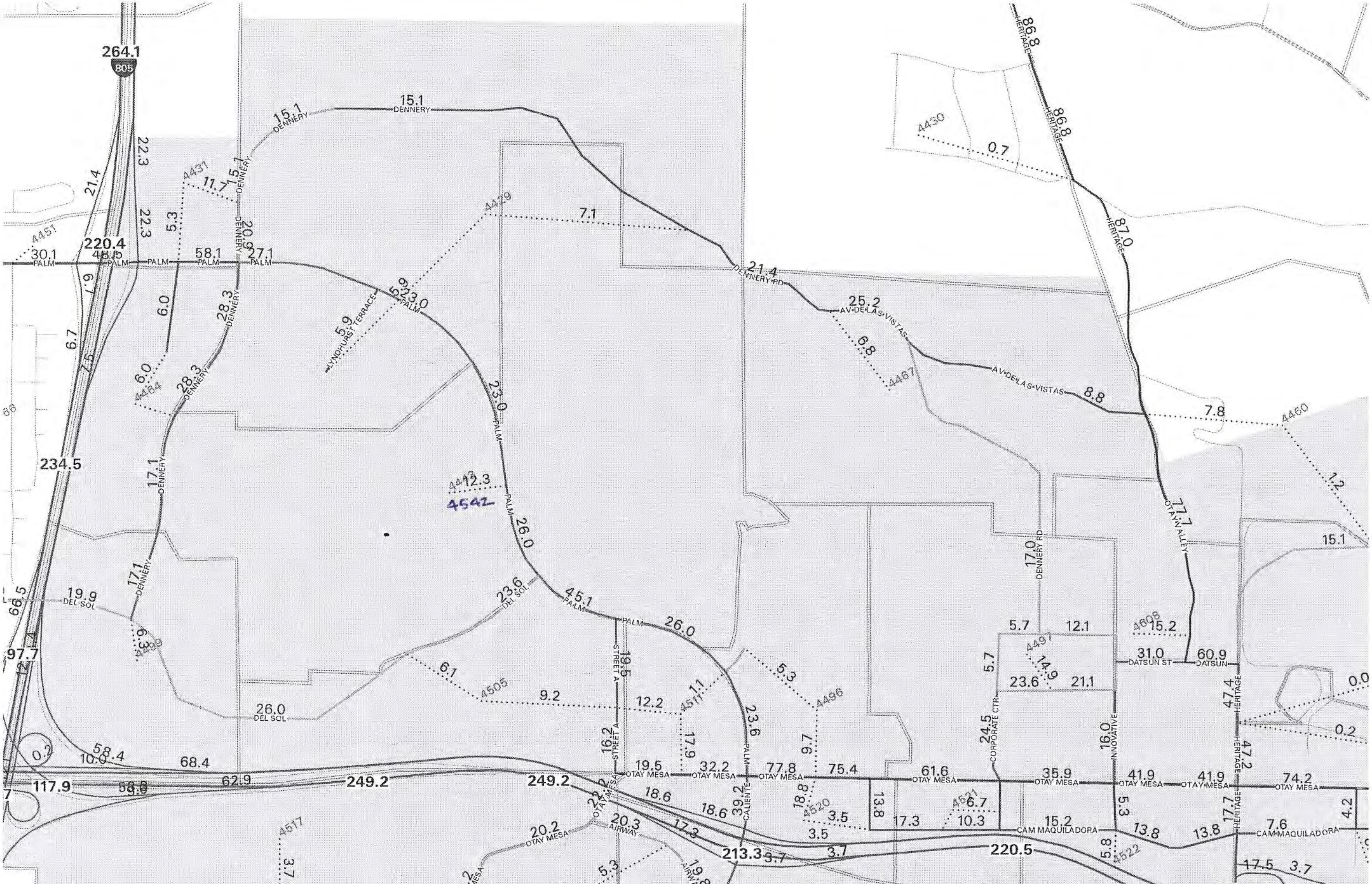
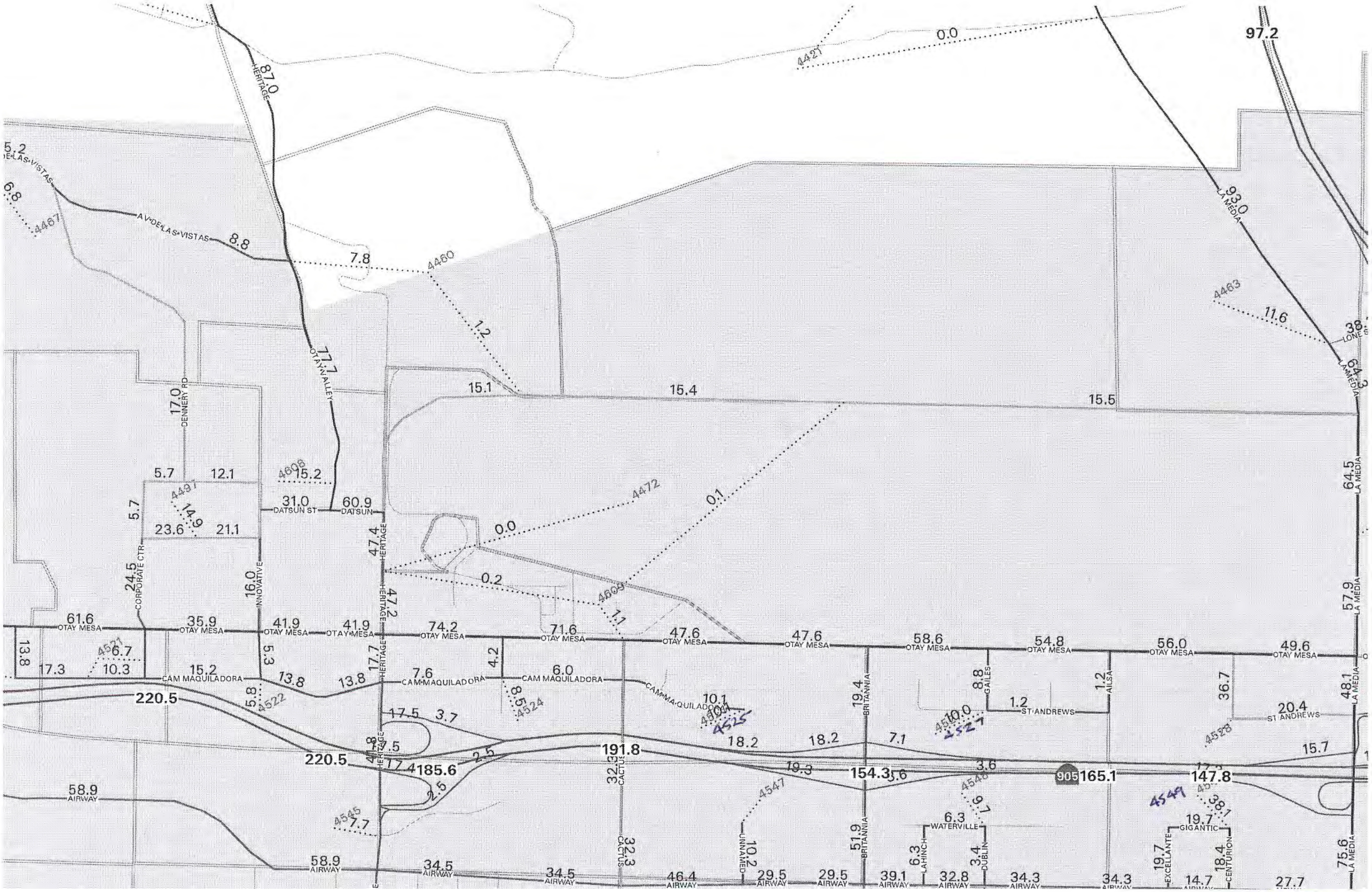
OTAY MESA 2030 Adopted CP Street Network

REVISED OTAY MESA ADOPTED CP ADT



COMMUNITY PLAN
READABLE VOLS. & TAZ #'s

TAZ
4/6
1/6

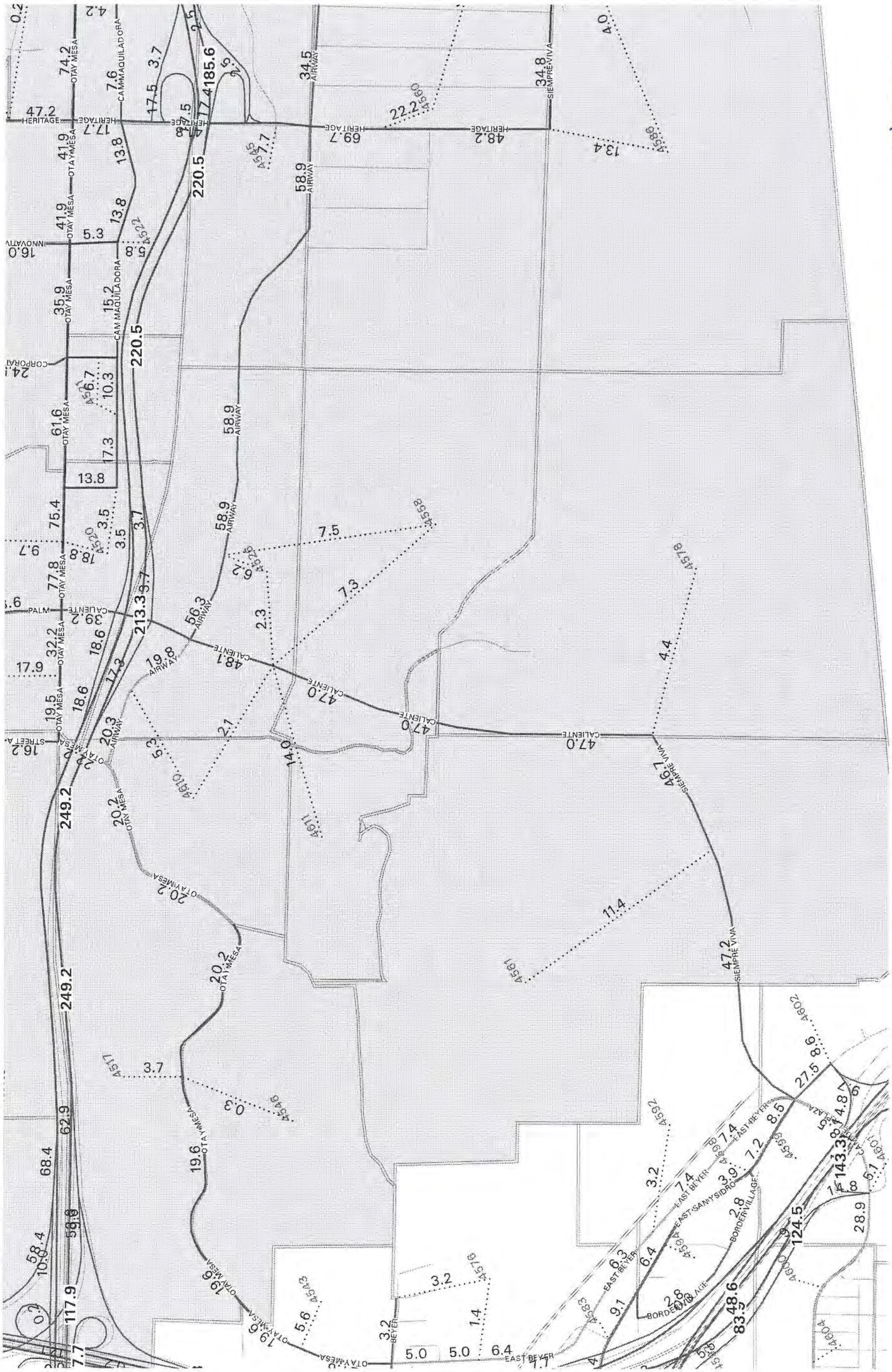


OTAY MESA
CAM MAQUILADORA
HERITAGE
AIRWAY
LA MEDIA
OTAY VALLEY
AV DE LAS VISTAS
DENNERY RD
DATSUN ST
DATSUN
INNOVATIVE
CORPORATE CTR
CACTUS
BRITANNIA
UNNAMED
LAHINCH
WATERVILLE
DUBLIN
GAILES
ST ANDREWS
AILSA
EXCELLANTE
GIGANTIC
CENTURION
LONE S
905
220.5
185.6
191.8
154.3
165.1
147.8
97.2
93.0
87.0
77.7
61.6
35.9
41.9
74.2
71.6
47.6
58.6
54.8
56.0
49.6
48.1
57.9
64.5
75.6
15.5
15.4
15.1
58.9
34.5
46.4
29.5
39.1
32.8
34.3
14.7
27.7

2/6
TAZ
CP

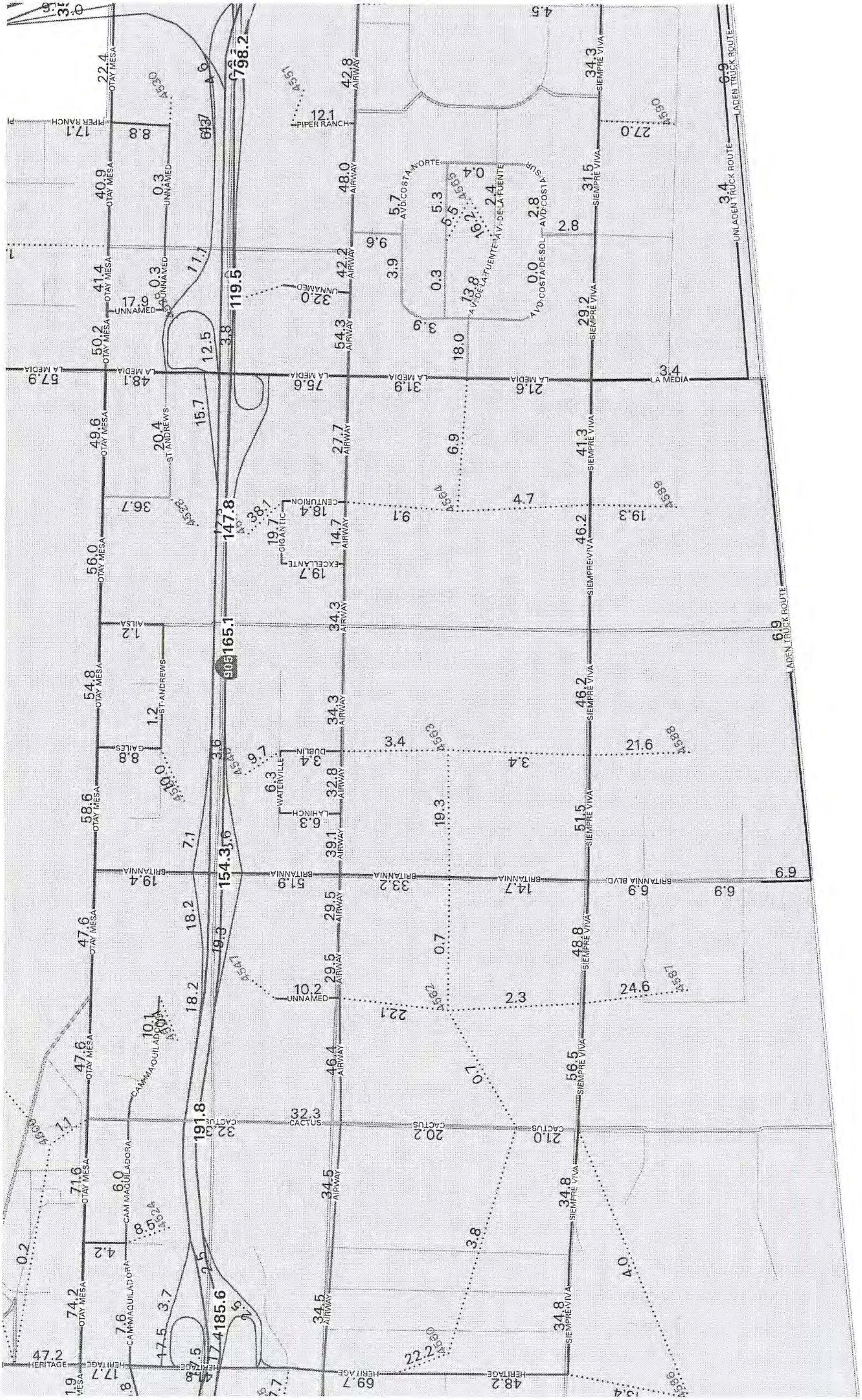

LONE STAR
LA MEDIA
OTAY MESA
PIPER RANCH
HARVEST RD
HARVEST
ZINSER RD
UNNAMED
SUNROAD
SUNROAD BLVD
SANYO
PASEO DE LAS AMERICA
ST ANDREWS
GAILES
AILSA
AIRWAY
DUBLIN
EXCELLANTE
GIGANTIC
CENTURION
905
3/6
TAZ
CP

4/6
TAZ
CP



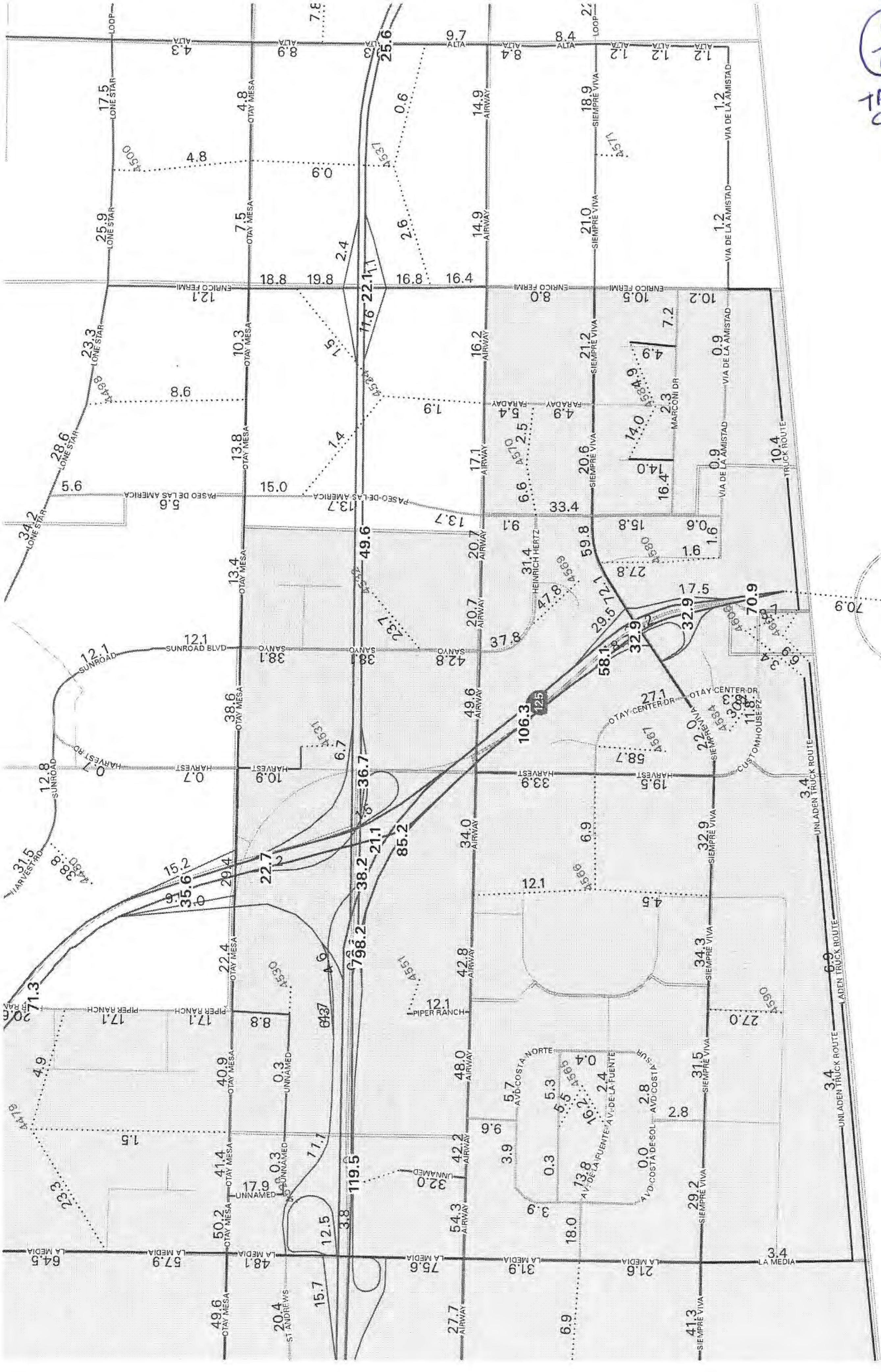
OTAY MESA
HERITAGE
CAM MAQUILADORA
AIRWAY
SIEMPRE VIVA
INNOVATIVE
CORPORATE
PALM
CALIENTE
STREET
EAST BEYER
EAST SAN YSIDRO
BORDER VILLAGE
BEYER

5/6
TAZ CP


OTAY MESA
PIPER RANCH
UNNAMED
LA MEDIA
ST ANDREWS
AILSA
GAILES
BRITANNIA
CAM MAQUILADORA
CACTUS
HERITAGE
AIRWAY
CENTURION
GIGANTIC
EXCELLANTE
DUBLIN
WATERVILLE
LAHINCH
AVD COSTA NORTE
AVD COSTA SUR
AV DE LA FUENTE
AVD COSTA DE SOL
SIEMPRE VIVA
BRITANNIA BLVD
LADEN TRUCK ROUTE
UNLADEN TRUCK ROUTE
905

6/6

TAZ
CP



LOOP
ALTA
LONE STAR
OTAY MESA
AIRWAY
SIEMPRE VIVA
VIA DE LA AMISTAD
ENRICO FERMI
PASEO DE LAS AMERICA
FARADAY
MARCONI DR
TRUCK ROUTE
HEINRICH HERTZ
SUNROAD
SUNROAD BLVD
SANYO
OTAY CENTER DR
CUSTOMHOUSE PZ
HARVEST RD
HARVEST
UNLADEN TRUCK ROUTE
LADEN TRUCK ROUTE
PIPER RANCH
UNNAMED
AVD COSTA NORTE
AV DE LA FUENTE
AVD COSTA SUR
AVD COSTA DE SOL
LA MEDIA
ST ANDREWS

Table 6.4—Major Capital Improvements – Reasonably Expected Revenue Scenario

Transit Facilities	Cost ($ millions)
SPRINTER Rail	$484
Mid-Coast Light Rail	$1,008
Downtown to Kearny Mesa Guideway	$660
Sorrento Mesa Guideway	$450
Transit Parking Structures	$735
SPRINTER Rail Double Tracking and Westfield NC Fair Extension	$669
Coastal Rail Double Tracking and Other Improvements	$1,350
Coastal Rail Tunnels (Del Mar and UTC)	$1,004
Regional Rail Grade Separations	$671
Local Share for I-15 High Speed Rail	$100
Improved/New Major Transit Stations and Centers	$603
Transit Priority Measures/Enhancements	$250
Vehicles for New Services	$489
Arterial BRT Transit Priority Improvements	$395
Subtotal	$8,868

HOV and Managed Lane Facilities

Freeway	From	To	Existing	Improvements	
I-5	SR 905	SR 54	8F	8F + 2HOV	$202
I-5	SR 54	I-8	8F	8F + 2HOV	$934
I-5	I-8	La Jolla Village Dr.	8F/10F	8F/10F + 2HOV	$200
I-5	La Jolla Village Dr.	I-5/I-805 Merge	8F/14F	8F/14F + 2HOV/	$160
I-5	I-5/I-805 Merge	Vandegrift Blvd.	8F/14F	8F/14F+ 4ML	$2,740
I-15****	SR 94	SR 163	6F/8F	8F + 2HOV	$265
I-15	SR 163	SR 56	8F + 2ML (R)	10F + 4ML/MB	$414
I-15	SR 56	Centre City Pkwy.	8F	10F + 4ML/MB	$427
I-15	Centre City Pkwy.	SR 78	8F	8F + 4ML	$210
SR 52	I-805	SR 125	4F/6F	6F + 2ML(R)	$330
SR 78	I-5	I-15	6F	6F + 2HOV	$650
SR 94	I-5	I-805	8F	8F + 2HOV	$200
SR 94/SR 125	I-805	I-8	8F	8F + 2HOV	$834
# I-805	SR 905	I-5	8F	8F + 4ML	$3,336
ADD 2 MANAGED LANES EACH DIRECTION ON I-805 NORTH OF SR-905				Subtotal	$10,902

HOV and BRT Connectors

Freeway	Intersecting Freeway	Movement	
I-5	I-805	North to North & South to South	$170
I-15	SR 78	East to South & North to West	$213
I-15	SR 94	South to West & East to North	$140
I-15	I-805	North to North & South to South	$66
I-805	SR 52	West to North & South to East	$190
I-805	SR 94	North to West & East to South	$95
		Subtotal	$874

2030 RTP

ADD MANAGED LANES NORTH OF SR-905

Table A.3 – Phased Highway Projects - Revenue Constrained Plan (Continued)

Year Built By	Freeway	From	To	Existing	Improvements	($ Millions - 2010 Dollars)	
						Cost	Cumulative Cost
2020	SR 94/ SR 125	South to East (Freeway Connector)				$ 139	$ 7,342
2030	I-5	SR 56	Manchester Ave	8F+2HOV	10F+4ML	$ 655	$ 7,997
2030	I-5	Palomar St	SR 15	8F	8F+2ML	$ 200	$ 8,197
2030	I-5	I-5/I-805 Merge	SR 56	8F/14F+2HOV	8F/14F+4ML	$ 40	$ 8,237
2030	I-5	Manchester Ave	Palomar Airport Rd	8F+2HOV[2]	10F+4ML	$ 1,230	$ 9,467
2030	I-5/SR 56	West to North (Freeway Connector)				$ 65	$ 9,532
2030	I-5/SR 56	South to East (Freeway Connector)				$ 120	$ 9,652
2030	I-15/SR 78	East to South and North to West (HOV Connectors)				$ 105	$ 9,757
2030	I-805	SR 905	Palomar St	8F	8F+4ML	$ 350	$ 10,107
2030	I-805	SR 15	Mission Valley	8F	8F+4ML	$ 230	$ 10,337
2030	I-805	Mission Valley Viaduct	SR 52	8F/10F	8F/10F+4ML	$ 637	$ 10,974
2030	SR 67	Mapleview St	Dye Rd	2C/4C	4C	$ 570	$ 11,544
2030	SR 94/ SR 125	West to North (Freeway Connector)				$ 180	$ 11,724
2030	SR 125	SR 94	I-8	8F	10F	$ 215	$ 11,939
2030	SR 241	Orange County	I-5	4T	6T	$ 58	$ 11,997
2035	I-5	Palomar Airport Rd	SR 78	8F+2HOV[2]	8F+4ML	$ 1,003	$ 13,000
2035	I-5	SR 78	Vandegrift Blvd	8F	8F+4ML	$ 495	$ 13,495
2035	I-15/SR 94	South to West and East to North (HOV Connectors)				$ 80	$ 13,575
2035	SR 52	I-805	I-15	6F	6F+2ML	$ 223	$ 13,798
2040	I-5/SR 78	South to East and West to North (HOV Connectors)				$ 120	$ 13,918
2040	I-5/SR 78	North to East and West to South (HOV Connectors)				$ 120	$ 14,038
2040	I-5/SR 78	South to East (Freeway Connector)				$ 60	$ 14,098

[2] Project completed in two phases. See 2020 phased improvement.

2050 RTP

1/2

KD

PEAK HOUR VOLUME DATA

Peak hour volume data consists of hourly volume relationships and data location. The hourly volumes are expressed as a percentage of the Annual Average Daily Traffic (AADT). The percentages are shown for both the AM and the PM peak periods.

The principle data described here are the K factor, the D factor and their product (KD). The K factor is the percentage of AADT during the peak hour for both directions of travel. The D factor is the percentage of the peak hour travel in the peak direction. KD multiplied with the AADT gives the one way peak period directional flow rate or the design hourly volume (DHV). The design hourly volume is used for either Operational Analysis or Design Analysis. Refer to the 2000 Highway Capacity Manual for more details.

Following is a glossary of terms used in this listing of peak hour volume data:

Dir	Indicates direction of travel for peak volume
AADT	Annual Average Daily Traffic in vehicles per day (vpd).
AM Peak	Represents the morning peak period for traffic analysis
CS	Control Station Number, Caltrans identification number for monitoring site.
CO	County abbreviation used by Caltrans
D	D factor. The percentage of traffic in the peak direction during the peak hour. Values in this book are derived by dividing the measured PHV by the sum of both directions of travel during the peak hour.
DAY	Day of week for the peak volume.
DDHV	The directional design hour volume, in vehicles per hour (vph) DDHV=AADTxKxD. See equation (8-1) on page 8-11 of the 2000 Highway Capacity Manual.
DI	Caltrans has twelve transportation districts statewide. This abbreviation identifies the district in which the count station is located.
HR	The ending time for the peak hour volume listed. The volume observed fro 1 to 2 would be recorded as 2.

CALTRANS TRAFFIC VOLUMES
LATEST TRAFFIC YEAR SELECTED
PEAK HOUR VOLUME DATA

									AM PEAK								PM PEAK						
									1 WAY	%	%	%					1 WAY	%	%	%			
I	RTE	CO	PRE	PM	CS	LEG	YR	Dir					HR	DAY	MNTH	Dir					HR	DAY	MNTH
)4	780	SOL		2.955	339	A	07	E	3084	8.74	62.38	5.45	7	THU	SEP	W	2773	8.84	55.44	4.9	16	THU	SEP
.1	805	SD		.647	922	A	09	S	2521	6.4	67.53	4.32	9	SAT	OCT	S	3158	8.39	64.5	5.41	17	FRI	OCT
i1	805	SD		5.542	684	O	09	N	5901	7	54.13	3.79	7	WED	JAN	S	6937	7.69	57.96	4.45	15	WED	SEP
i1	805	SD		8.854	944	A	09	N	9093	7.09	64.04	4.54	7	WED	APR	S	9064	7.64	59.19	4.52	17	MON	MAY
l1	805	SD		11.10	925	B	09	N	9224	7.04	66.59	4.69	7	TUE	MAY	S	9048	7.78	59.08	4.6	15	FRI	OCT
l1	805	SD		13.51	926	B	09	N	10032	7.11	65.32	4.64	7	WED	JUN	S	9990	7.86	58.79	4.62	15	FRI	APR
l1	805	SD		14.46	966	B	09	S	10631	7.34	66.42	4.88	7	TUE	SEP	N	10402	7.96	59.95	4.77	15	FRI	JUN
l1	805	SD		16.43	927	B	09	N	8515	7.43	67.23	4.99	7	THU	MAR	S	9389	8.45	65.19	5.51	16	THU	OCT
l1	805	SD		17.65	928	A	09	N	11114	8.25	69.5	5.73	7	WED	MAY	S	10864	8.49	66.03	5.6	17	WED	MAY
l1	805	SD		23.65	929	B	09	N	7708	7.3	58.87	4.3	7	MON	JUN	S	8514	8	59.34	4.75	16	THU	MAY
l1	805	SD		24.44	683	X	09	N	9382	7.87	64.16	5.05	7	FRI	AUG	S	8478	7.63	59.78	4.56	16	THU	MAR
l1	805	SD		28.50	930	B	09	S	7753	8.12	64.93	5.27	8	WED	NOV	N	6980	7.82	60.72	4.75	17	TUE	MAY
)4	880	SCL		1.25	300	B	08	N	6889	7.62	58.69	4.47	8	TUE	JUL	S	7135	8.2	56.52	4.63	17	WED	APR
)4	880	ALA		26.61	129	A	08	S	7626	6.65	51.63	3.43	6	MON	JUN	N	7697	6.58	52.67	3.47	14	WED	JUN
l1	905	SD		3.207	932	A	09	W	2342	8.92	54.75	4.88	7	WED	DEC	E	2536	9.57	55.23	5.29	16	THU	SEP
l1	905	SD		5.164	942	A	09	E	2848	7.26	69.62	5.06	7	THU	APR	W	3188	9.62	58.87	5.66	16	FRI	FEB
l1	905	SD		11.60	125	B	09	W	1196	6.69	59.12	3.95	11	TUE	OCT	E	1615	8.33	64.06	5.34	17	FRI	SEP

"D" USE 60/40
"K" USE 8%

I-805 PEAK HOUR & DIRECTIONAL SPLIT

KD N/N

CALTRANS MOST RESTRICTIVE METER RATE 1

From: Douglas Hooper [douglas_hooper@dot.ca.gov]
Sent: Thursday, November 18, 2010 4:44 PM
To: sam@urbansystems.net
Subject: SR 905 ramp meter info to date

Good Afternoon Sam,

Please excuse my delay in getting back. These are the locations I have after discussing with my coworker:

EB 905
Brittania Blvd - 2 SOV lanes and 2 cars per green La Media Rd - same as above

WB 905
La Media Rd (SB) - 1 SOV and 1 HOV with 2 cars per green La Media Rd (NB) - same as above

For now I would assume the most restrictive cycling rate to be 15 sec./cycle for all the onramps.
Another one of my coworkers will be gone through this month and could ask more details then if needed.

Hope this info will suffice,

Douglas Hooper
Traffic Operations
Ramp Metering and Congestion Monitoring
Office (858) 467 - 4329
Fax (858) 467 - 3042

1. 2 SOV LANES X 2 CARS PER GREEN PER LANE = 4 CARS PER GREEN CYCLE.
2. $\frac{\text{3600 SECONDS PER HOUR}}{\text{15 SECONDS PER CYCLE}}$ = 240 CYCLES PER HOUR
3. 240 CYCLES PER HOUR X 4 CARS PER GREEN CYCLE = 960 CARS PER HOUR METER RATE

CP ADJ.
1/7

From: Huffman, Victoria [VHuffman@sandiego.gov]
Sent: Wednesday, January 26, 2011 5:51 PM
To: Lisa@urbansystems.net; sam@urbansystems.net
Cc: Gonsalves, Ann
Subject: Possible ADT Adjustments

Hi Sam,

Here's the list of TAZs with zone connector loadings that might require some segment ADT adjustment:

Adopted Community Plan: FIG. 5.2 SHOWS AGREED TO ADJUSTMENTS

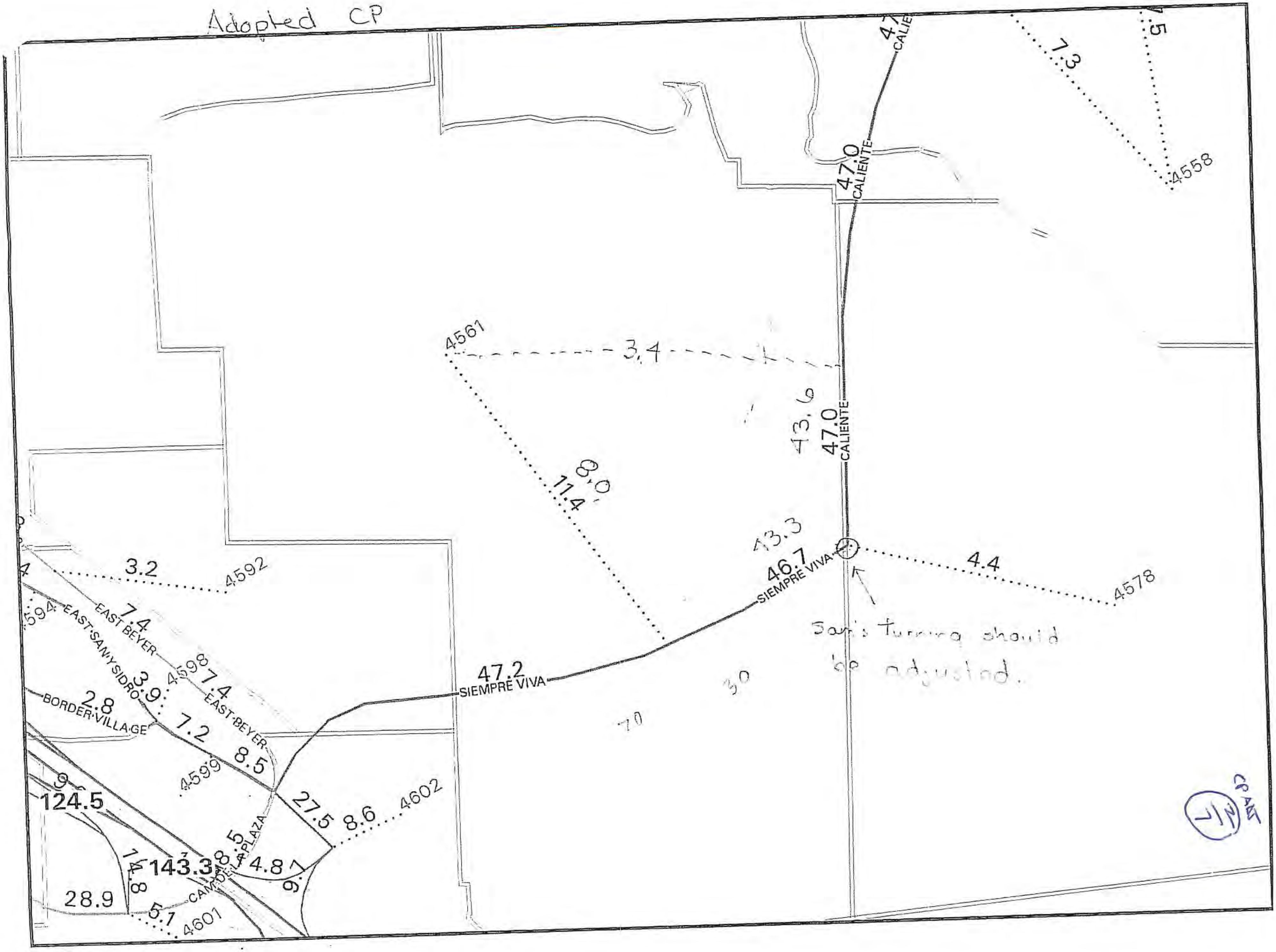
4561
4586
4560
4547
4587
4588
4567
4569
4532
4497
4608 (loading okay but assume loading point is signalized as this would reduce tremendous number of U-turns at Datsun/Otay Valley Road) (DONE, NO CHANGE TO ADT NORTH OF HERE)

Scenario 3B (both with and without La Media Rd):
SEE APPENDIX C&D FOR 3B ADJUSTMENTS
4561
4586
4587
4560
4547
4497
4569
4532
4587
4608 (loading okay but assume loading point is signalized)

As I also mentioned to you on the phone today, there are some other circulation element streets that are not shown in the forecasts which may need to be added to the proposed circulation element figures. I'll send you a figure showing these when I'm back in the office. (DONE)

Thanks,
Victoria

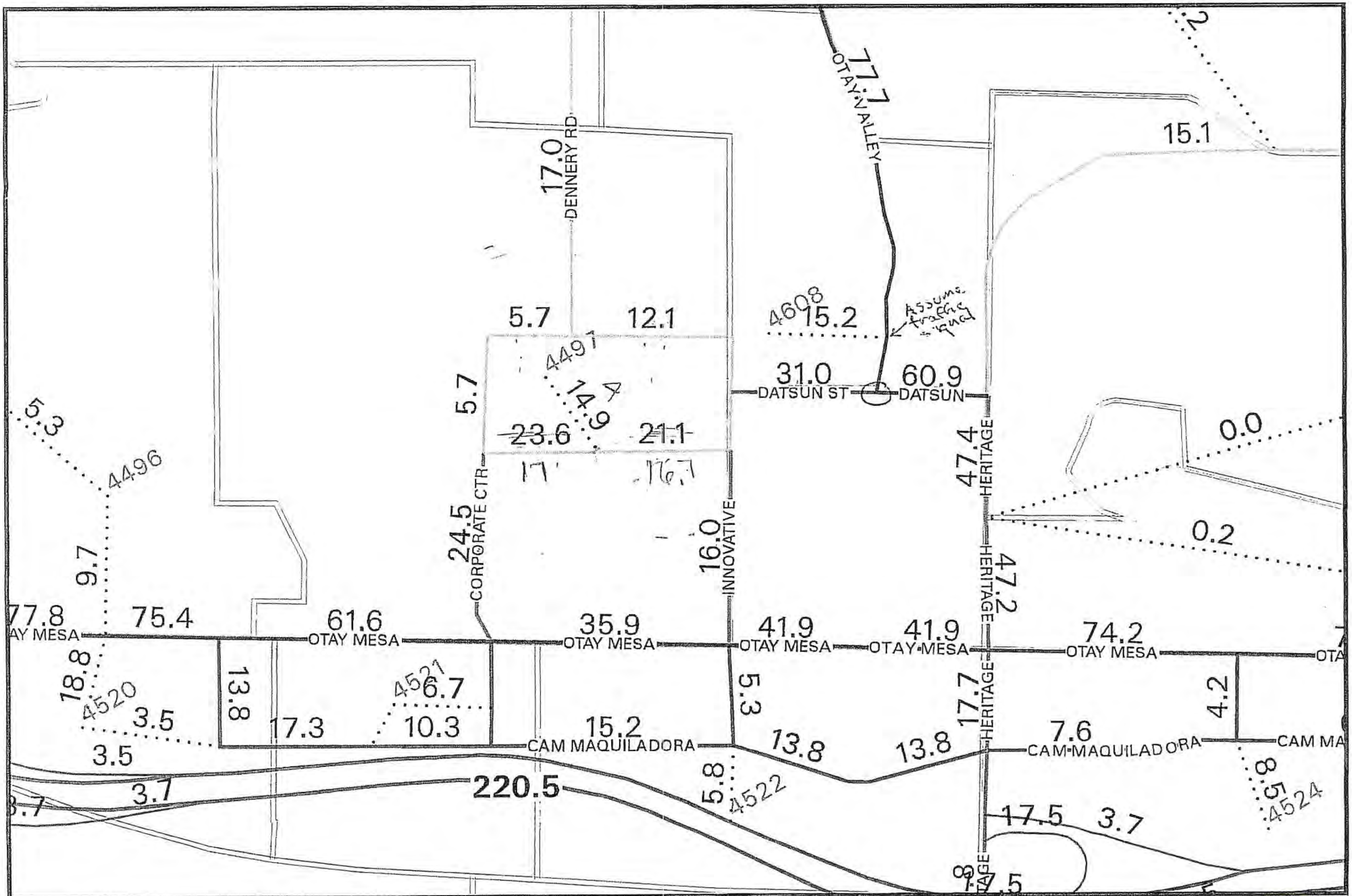
Adopted CP



CALIENTE
47.0
43.6
3.4
4561
8.0
11.4
4558
7.3
7.5
43.3
46.7
SIEMPRE VIVA
4.4
4578
San's turning should be adjusted.
47.2
30
70
3.2
4592
7.4
EAST BEYER
EAST SAN YSIDRO
3.9
4598
2.8
BORDER VILLAGE
7.2
8.5
4599
27.5
8.6
4602
124.5
143.3
PLAZA
4.8
28.9
5.1
4601
CP ADJ

Adopted

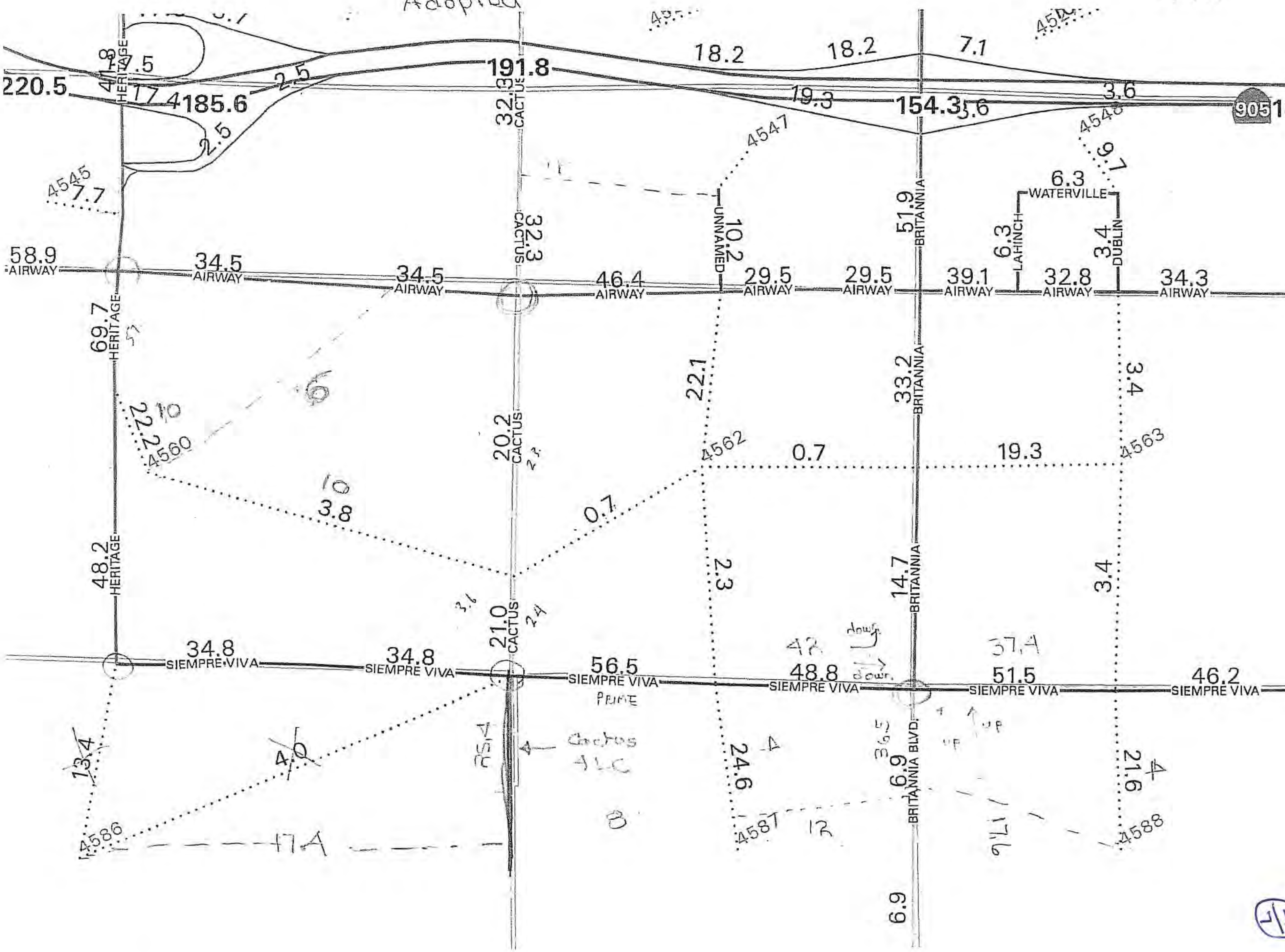
2/1/11



L/W

2/1/11

Adopted

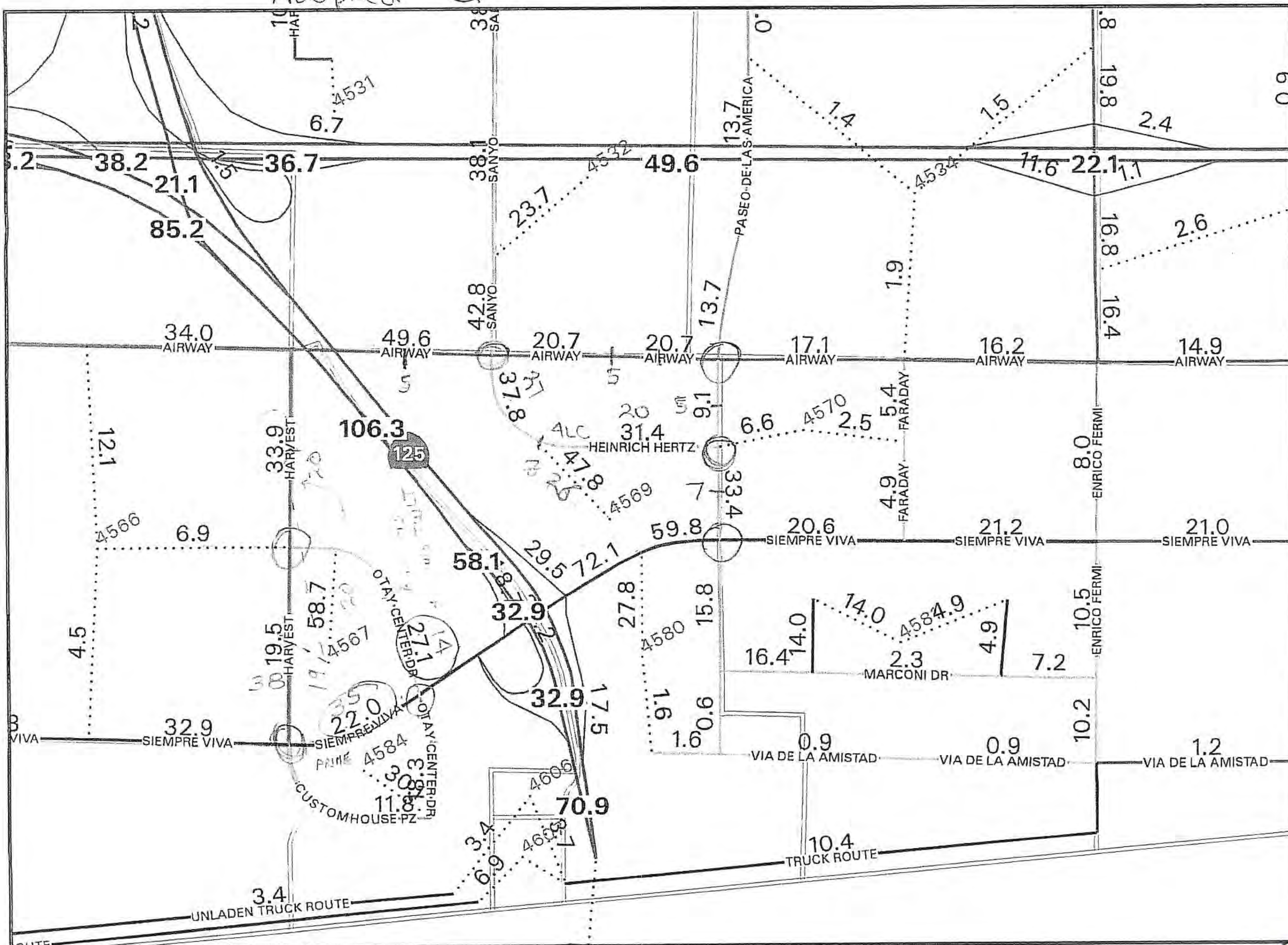


CP ADJ.

4/7

Adopted CP

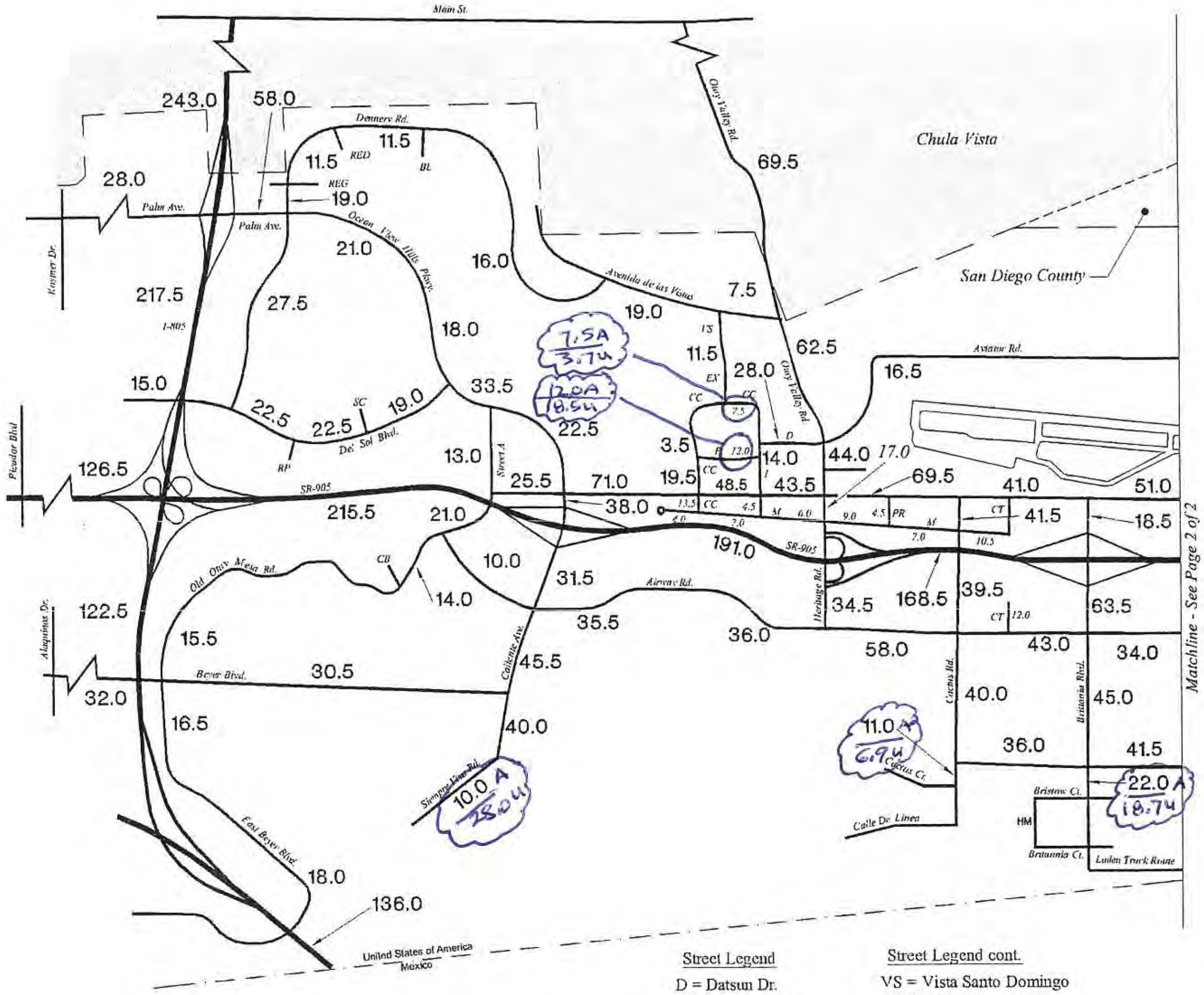
2/1/11



CP ADJ 5/7

CP ADJ. 6/7

Page 1 of 2



Street Legend
D = Datsun Dr.
P = Progressive Ave.
CC = Corporate Center Dr.
I = Innovative Ave.
M = Camino Maquiladora
PR = Pacific Rim Ct.
EX = Exposition Way
CT = Continental St.
HM = Hixson Mesa Way

Street Legend cont.
VS = Vista Santo Domingo
REG = Regatta Ln.
RED = Red Coral Ln.
BL = Black Coral Ln.
CB = Crescent Bay Dr.
SC = Surf Crest Dr.
RP = Riviera Pointe St.

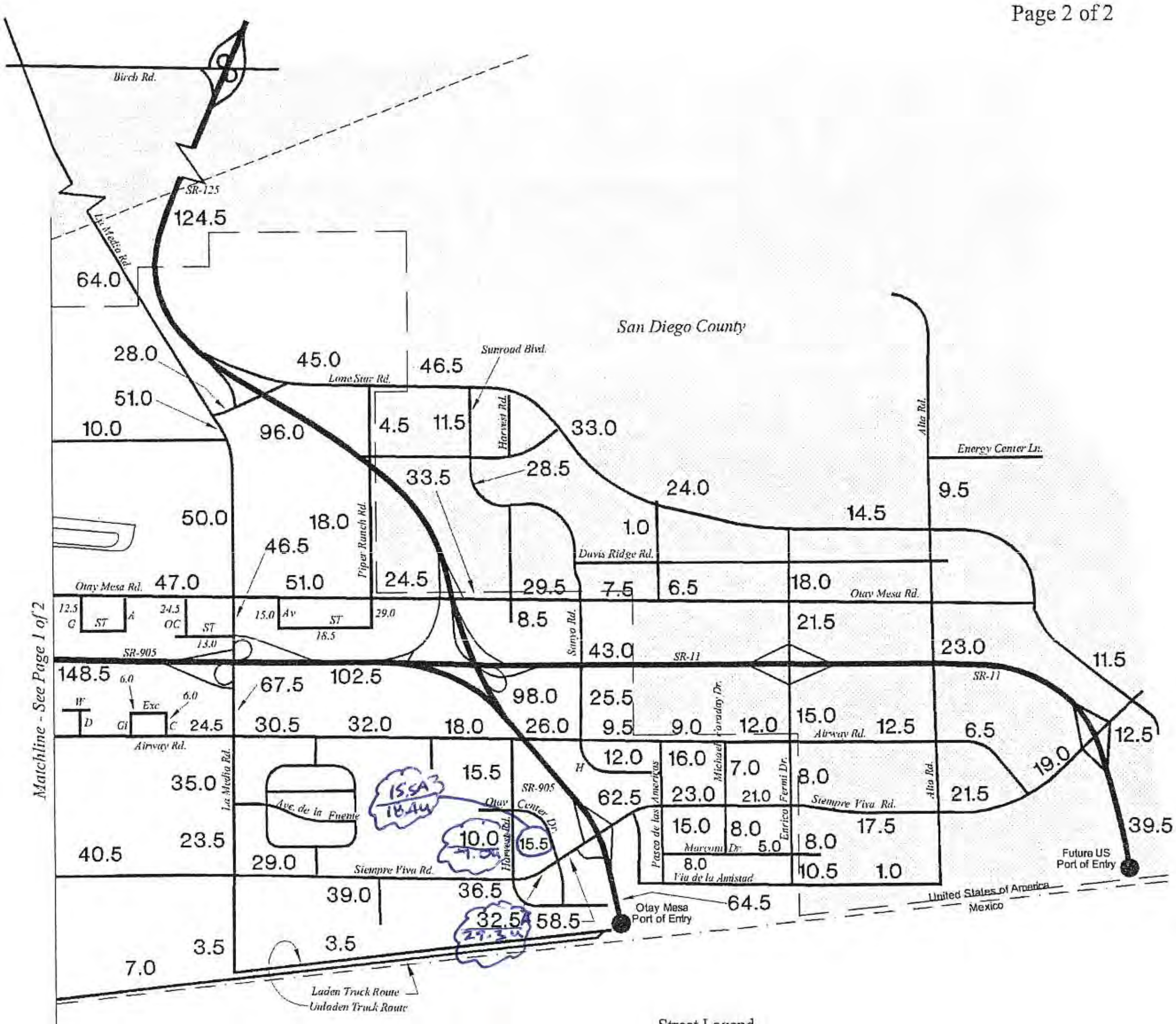
LEGEND
XXX.X = Alternative 3B With La Media Rd. (9-30-10 Run Date, Series 11) (ADT Shown In Thousands)
— — = City of San Diego Boundary

FIGURE 6-1

Scenario 3B With La Media Road Average Daily Traffic

(WITH CITY ADJUSTMENTS SHOWN (X)ADJUSTED (Y)UNADJUSTED)

CP ADJ
7
.7



Street Legend

OC = Otay Mesa Ctr. Rd.
G = Gailes Blvd.
A = Ailsa Ct.
ST = St. Andrews Ave.
H = Heinrich Hertz Dr.
C = Centurion St.
Gi = Gigantic St.
Exc = Excellante St.
Av = Avenida Costa Azul
W = Waterville Rd.
D = Dublin Dr.

N
NO SCALE

LEGEND

XXX.X = Alternative 3B With La Media Rd. (9-30-10 Run Date, Series 11) (ADT Shown In Thousands)

— — = City of San Diego Boundary

FIGURE 6-1

Scenario 3B With La Media Road Average Daily Traffic

WITH CITY ADJUSTMENTS SHOWN (XX) ADJUSTED (YY) UNADJUSTED

MITIGATION ASSUMPTIONS (APPENDIX B, ATTACHMENT 8)

The attached lane configurations show recommended mitigation at intersections. Intersection lane configurations without mitigation are assumed to be as shown in the City of San Diego Street Design Manual for the roadway classification at the intersection approaches.

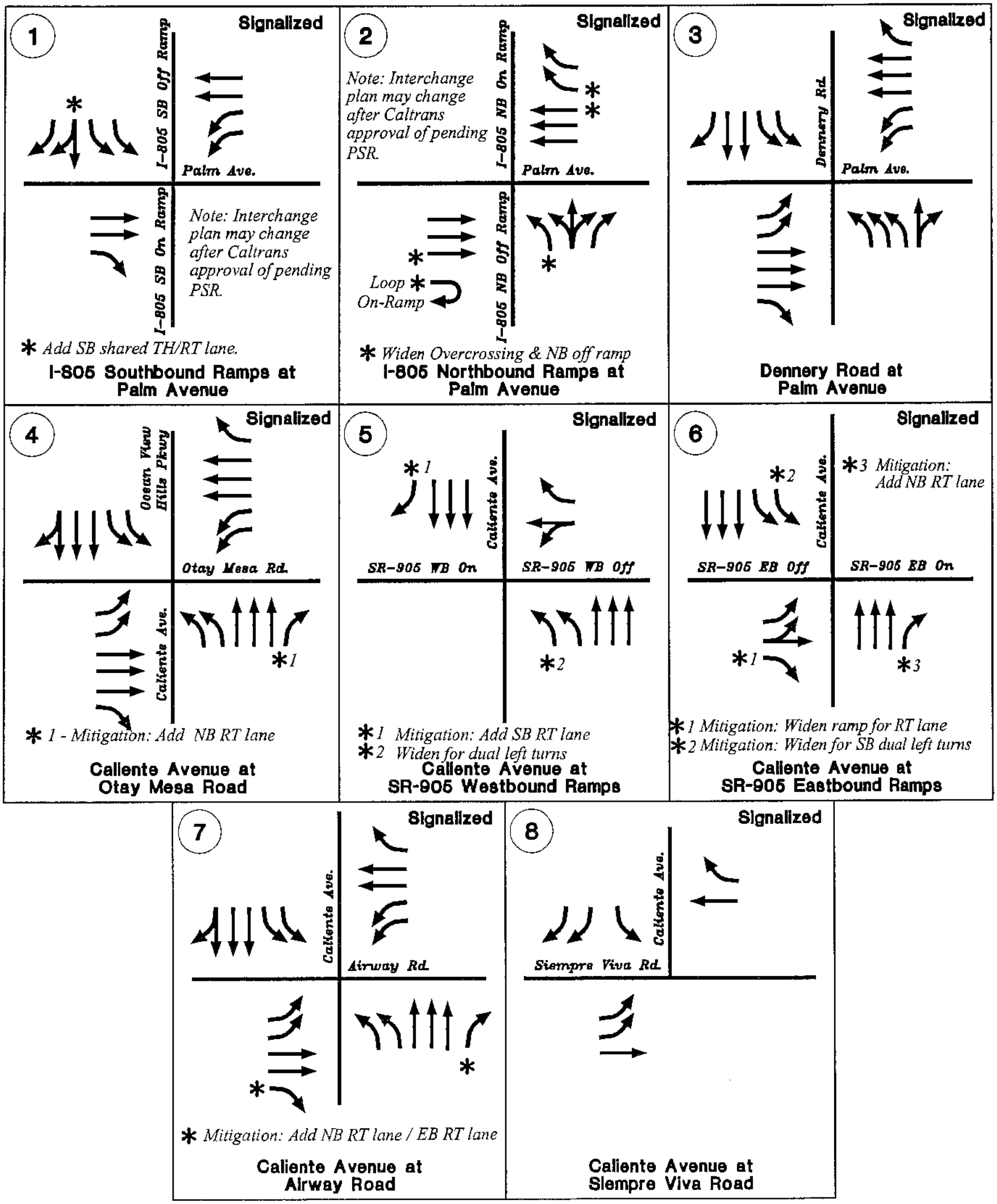
The Design Manual requires widening for an additional 10 feet at approaches to intersecting four or six lane streets for a two lane left turn, and this additional width is not considered mitigation. Therefore, dual left turns are to be assumed at all four or six lane major and primary arterials, before mitigation, unless a supporting traffic study documents that a single left turn would be sufficient. Overlapping left-turn / right- turn phases are recommended at the high volume right turns during the traffic signal design stage.

Separate single or dual right turn lanes at new intersections should be designed with appropriate right of way widths. At retrofit locations additional lanes have been reviewed for initial feasibility by on-site observations and aerial photography. In some cases additional right of way will be needed, but only during the design phase will the required widths be determined.

Improvements are recommended at the interchange ramps for SR-905 / Caliente Avenue, SR-905 / Future Heritage Road, SR-905 / Britannia Boulevard; SR-905 / La Media Rd.; SR-905 / Siempre Viva Road. Subsequent design requirements from Caltrans may change the recommended lane configurations.

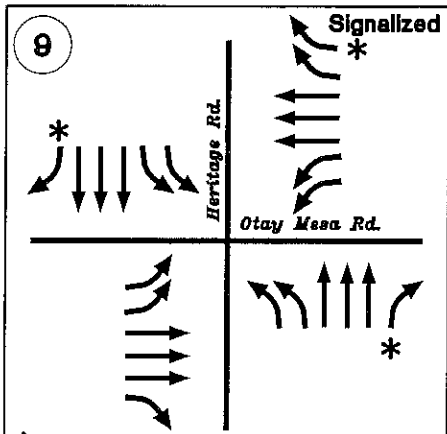
APPENDIX B - ATTACHMENT 8

Buildout Recommended Lane Configurations - Community Plan



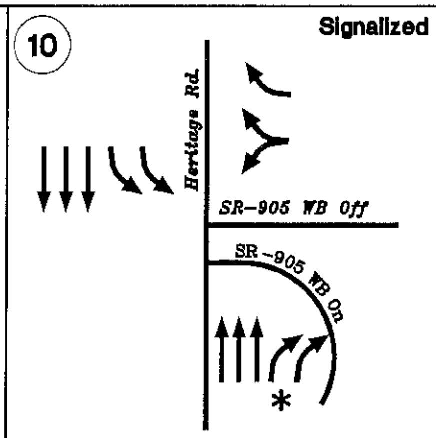
APPENDIX B - ATTACHMENT 8

Buildout Recommended Lane Configurations - Community Plan



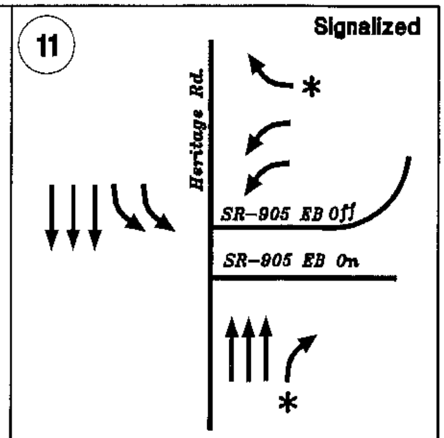
* Mitigation: Add WB RT lane / NB RT lane SB RT lane

Heritage Road at Otay Mesa Road



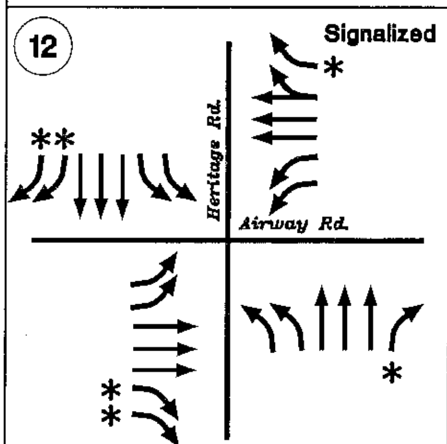
* Mitigation: Add two NB RT lanes

Heritage Road at SR-905 Westbound Ramps



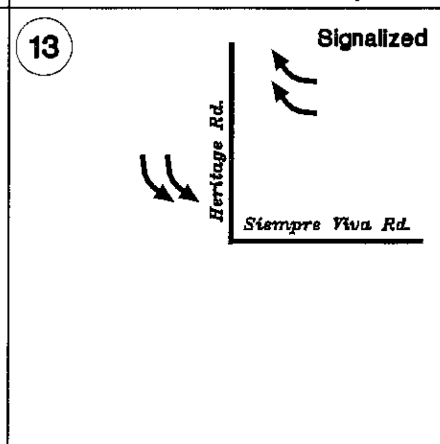
* Mitigation: Add NB & WB RT lane

Heritage Road at SR-905 Eastbound Ramps

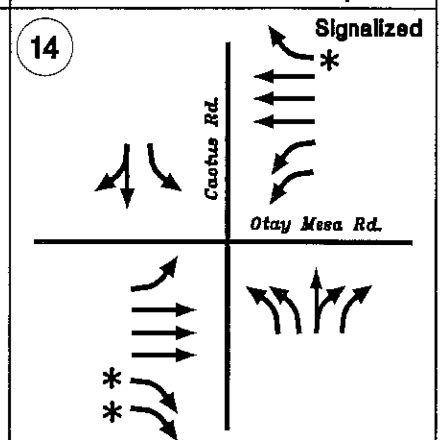


* Mitigation: Add SB, EB, NB, WB RT lanes

Heritage Road at Airway Road

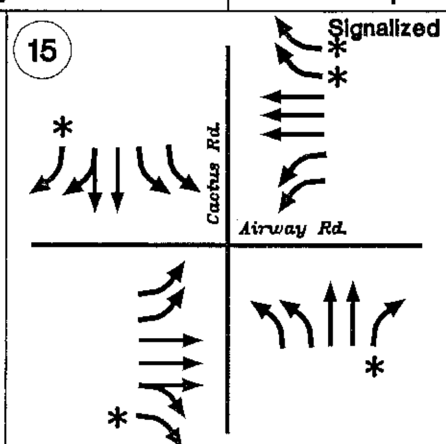


Heritage Road at Siempre Viva Road



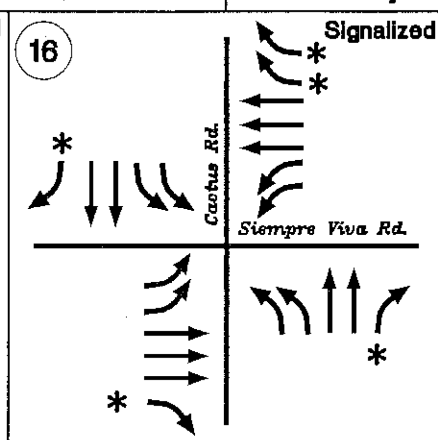
* Mitigation: Add WB RT lane / EB RT lanes

Cactus Road at Otay Mesa Road



* Mitigation: Add SB, EB, NB, WB RT lanes

Cactus Road at Airway Road

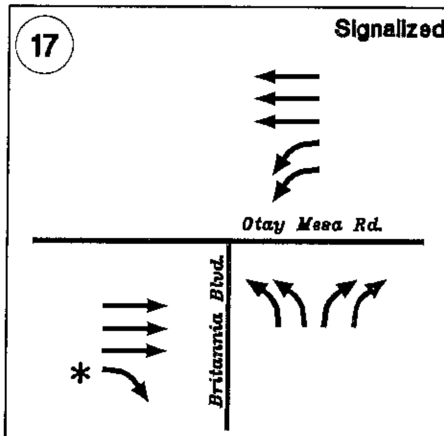


*1 Mitigation: Add NB, SB, EB, WB RT lanes

Cactus Road at Siempre Viva Road

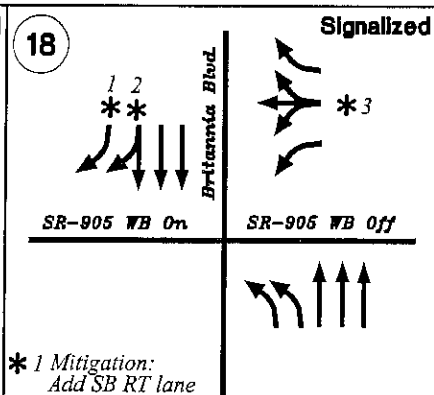
APPENDIX B - ATTACHMENT 8

Buildout Recommended Lane Configurations - Community Plan



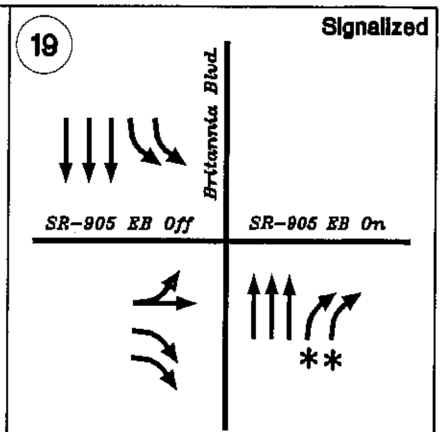
* Mitigation: Add EB RT lane

Britannia Boulevard at Otay Mesa Road



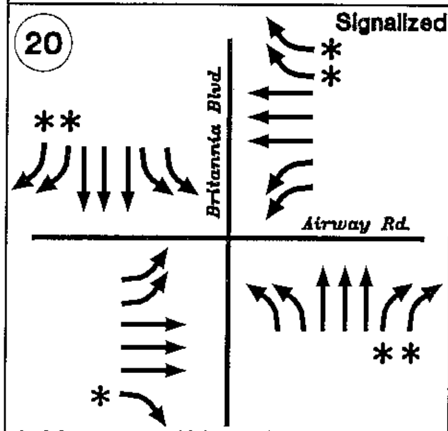
*1 Mitigation: Add SB RT lane
*2 Mitigation: Restripe #3 lane as shown
*3 Mitigation: Restripe middle WB lane for LT-TH-RT

Britannia Boulevard at SR-905 Westbound Ramps



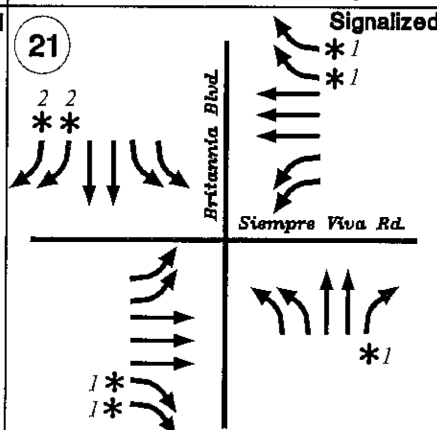
* Mitigation: Add two NB RT lanes

Britannia Boulevard at SR-905 Eastbound Ramps



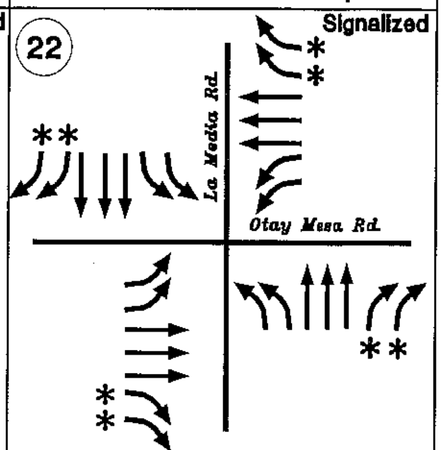
* Mitigation: Add SB RT lanes / NB RT lanes / WB RT lanes / EB RT lane

Britannia Boulevard at Airway Road



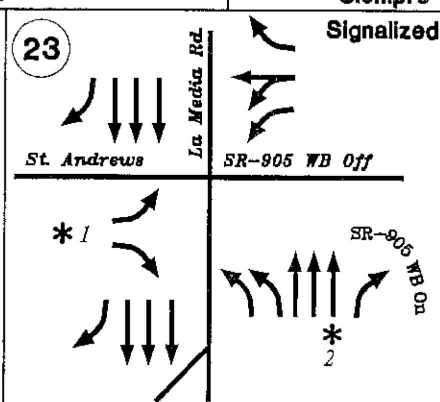
*1 Mitigation: Add EB,WB,NB RT lanes
*2 Add SB RT lane. Restripe #3 lane for RT.

Britannia Boulevard at Siempre Viva Road



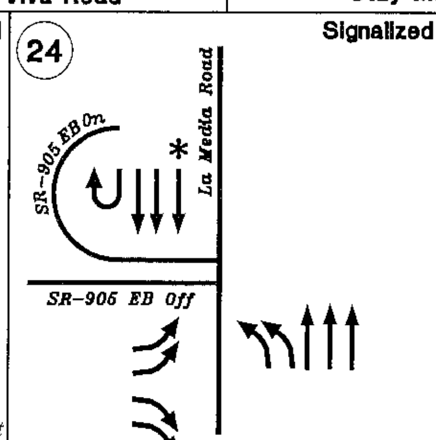
* Mitigation: Add WB, EB, NB and SB RT lanes

La Media Road at Otay Mesa Road



*1 Mitigation: Delete EB through movement
*2 Mitigation: Restripe for third NB TH lane

La Media Road at SR-905 Westbound Ramps

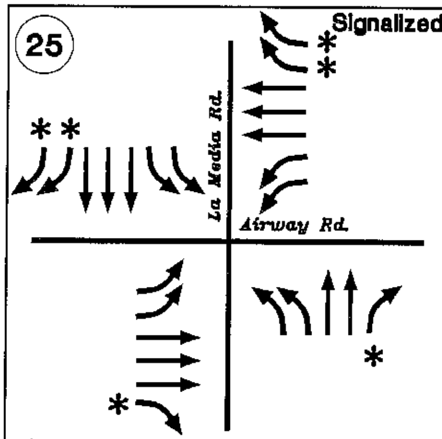


* Mitigation: Add third SB lane

La Media Road at SR-905 Eastbound Ramps

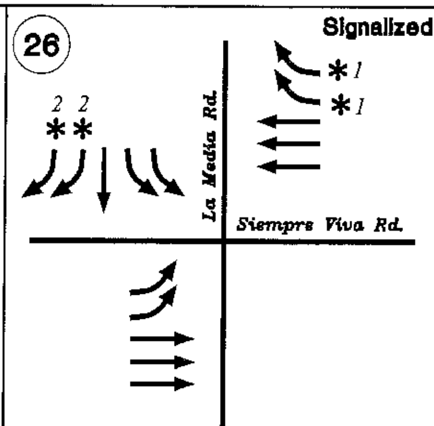
APPENDIX B - ATTACHMENT 8

Buildout Recommended Lane Configurations - Community Plan



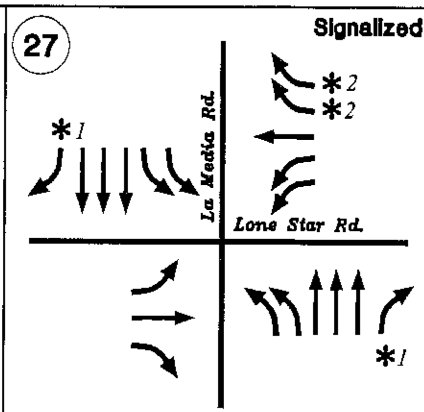
* Mitigation: Add NB, SB, EB, & WB RT lanes

La Media Road at Airway Road



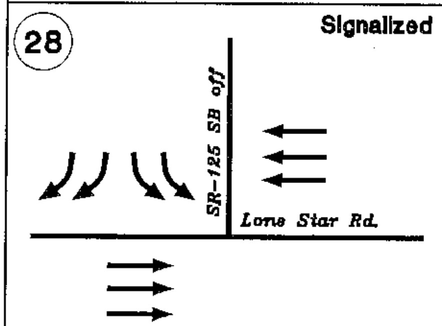
*1 Mitigation: Add WB RT lanes.
*2 Mitigation: Restripe SB for 2 RT lanes

La Media Road at Siempre Viva Road

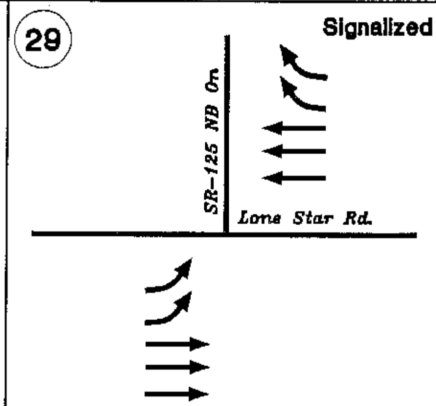


*1 Mitigation: Add SB & NB RT lanes
*2 Restripe 2 WB TH lanes for 2 RT lanes

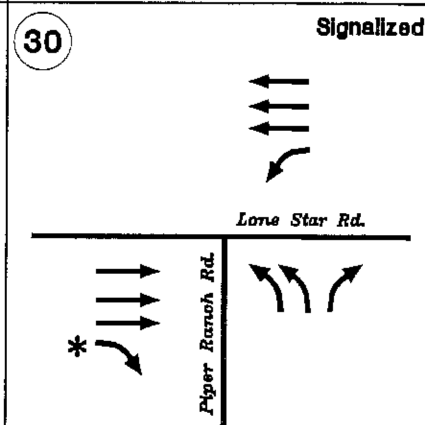
La Media Road at Lone Star Road



SR-125 Southbound Off Ramp at Lone Star Road

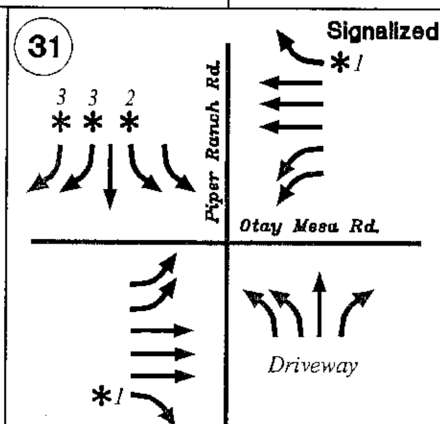


SR-125 Northbound On Ramp at Lone Star Road



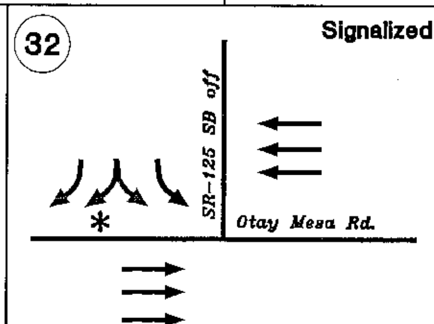
* Mitigation: Add EB RT lane

Piper Ranch Road at Lone Star Road



*1 Mitigation: Add WB & EB RT lanes
*2 Mitigation: Restripe SB TH for LT lane
*3 Mitigation: Add 2 SB RT lanes

Piper Ranch Rd. at Otay Mesa Road

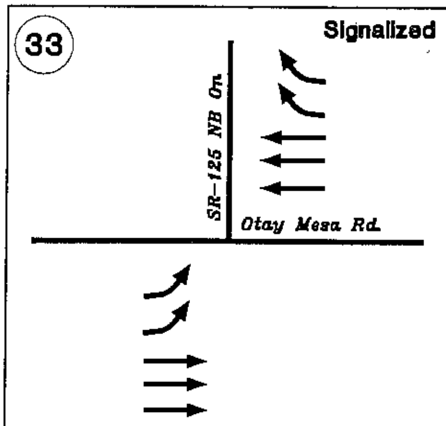


* Restripe Existing Lanes

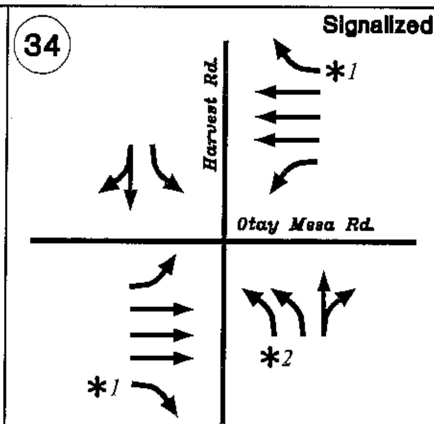
SR-125 Southbound Off Ramp at Otay Mesa Road

APPENDIX B - ATTACHMENT 8

Buildout Recommended Lane Configurations - Community Plan

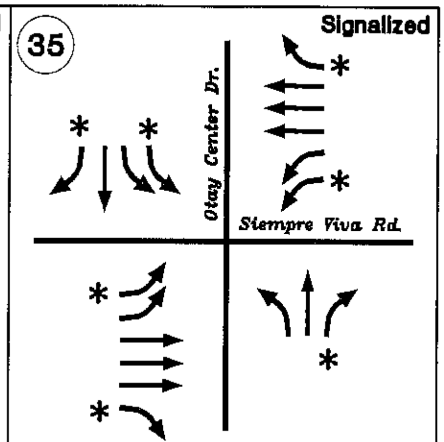


SR-125 Northbound On Ramp at
Otay Mesa Road



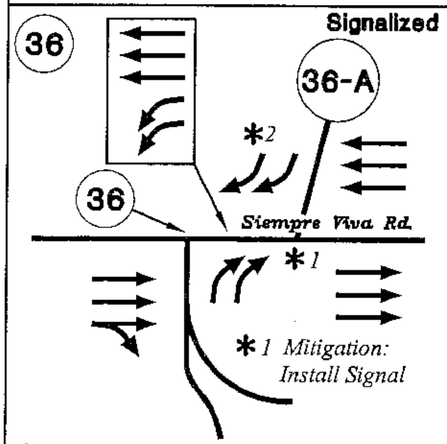
*1 Mitigation: Add WB & EB RT lanes
*2 Mitigation: Add NB LT lane

Harvest Road at
Otay Mesa Road



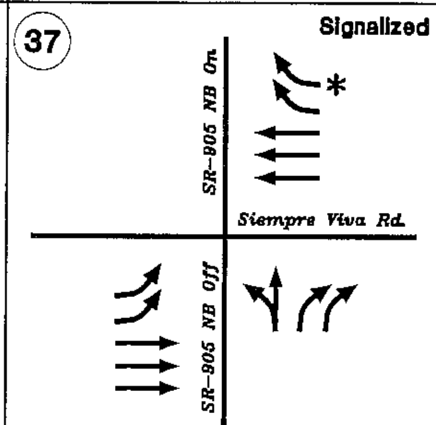
* Mitigation: Add lanes as shown

Otay Center Drive at
Siempre Viva Road



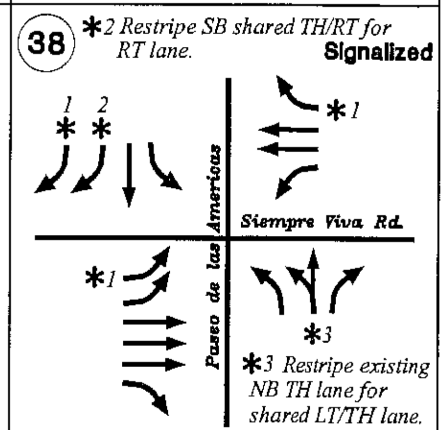
*2 Mitigation: Widen Ramp, Add RT lane

SR-905 Southbound Ramps at
Siempre Viva Road



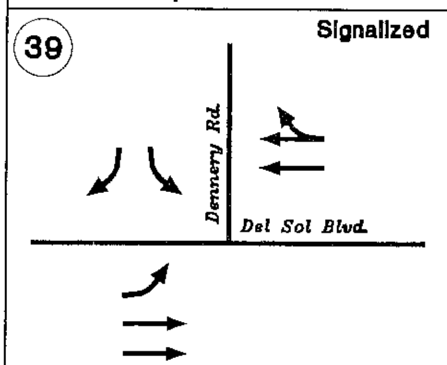
* Mitigation: Add WB RT lane

SR-905 Northbound Ramps at
Siempre Viva Road

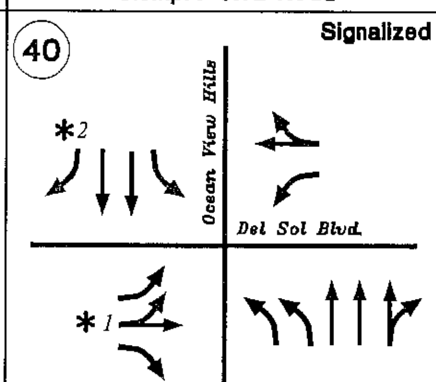


*1 Add EB LT lane, WB RT lane &SB RT lane

Paseo de las Americas at
Siempre Viva Road

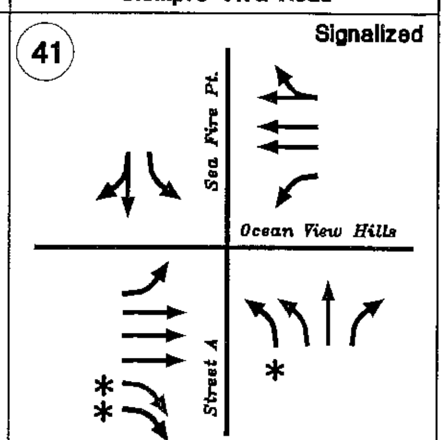


Dennery Road at
Del Sol Boulevard



*1 Mitigation: Restripe for EB dual LT/TH
*2 Mitigation: Add SB RT lane

Ocean View Hills Parkway at
Del Sol Boulevard

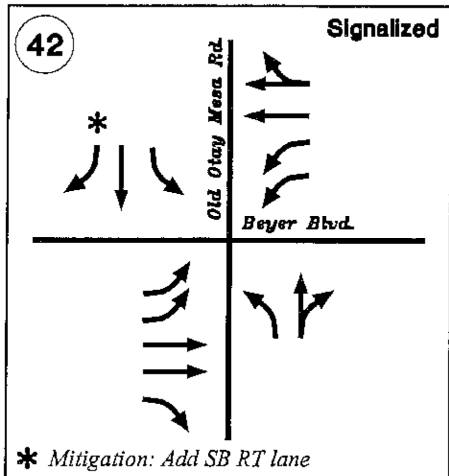


* Mitigation: Add NB LT lane, EB RT lanes

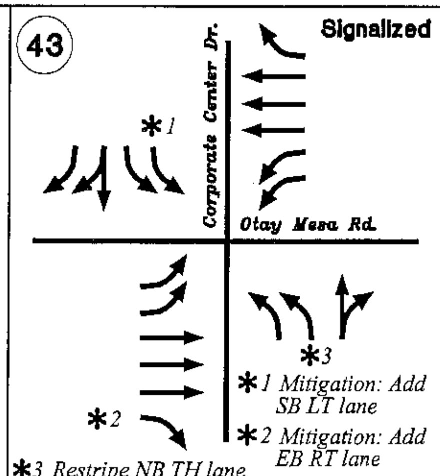
Ocean View Hills Parkway at
Street A

APPENDIX B - ATTACHMENT 8

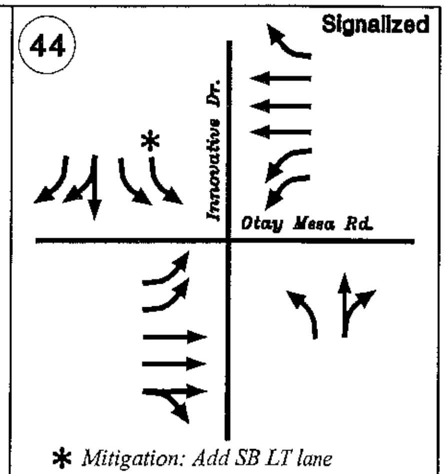
Buildout Recommended Lane Configurations - Community Plan



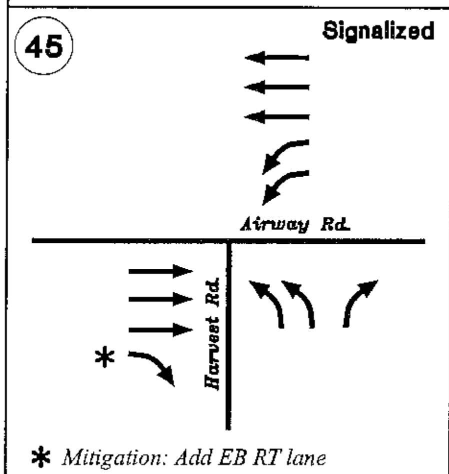
Old Otay Mesa Road at Beyer Boulevard



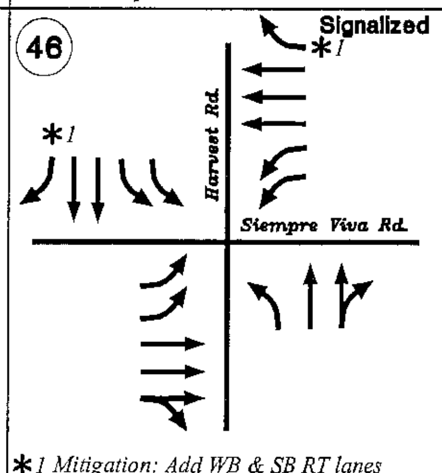
Otay Mesa Road at Corporate Center Drive



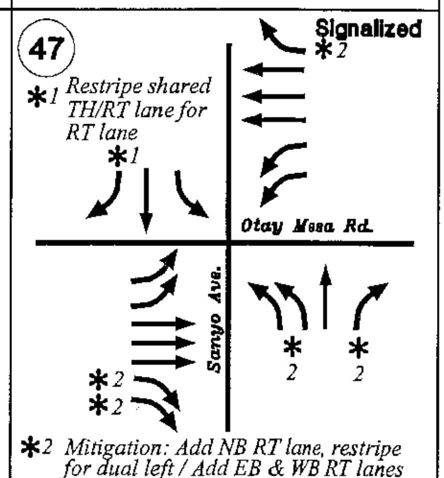
Otay Mesa Road at Innovative Drive



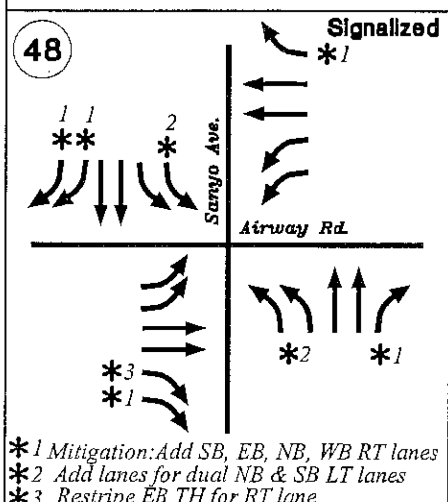
Airway Road at Harvest Road



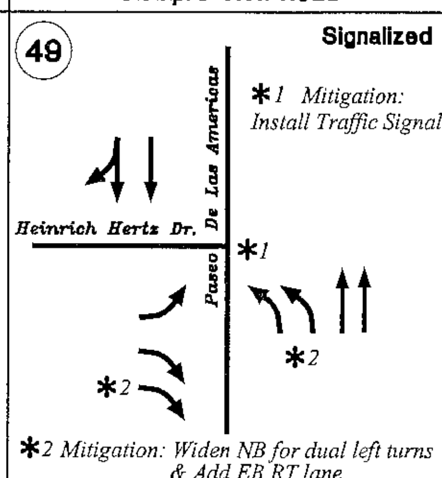
Harvest Road at Siempre Viva Road



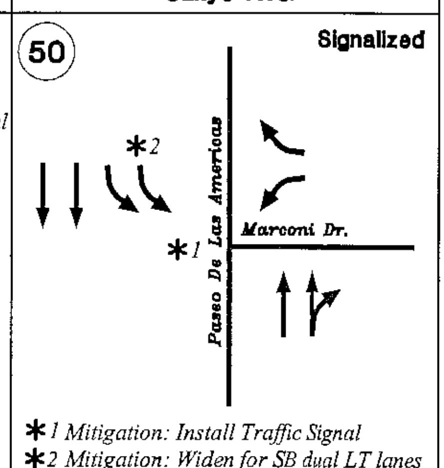
Otay Mesa Road at Sanyo Ave.



Airway Road at Sanyo Ave.



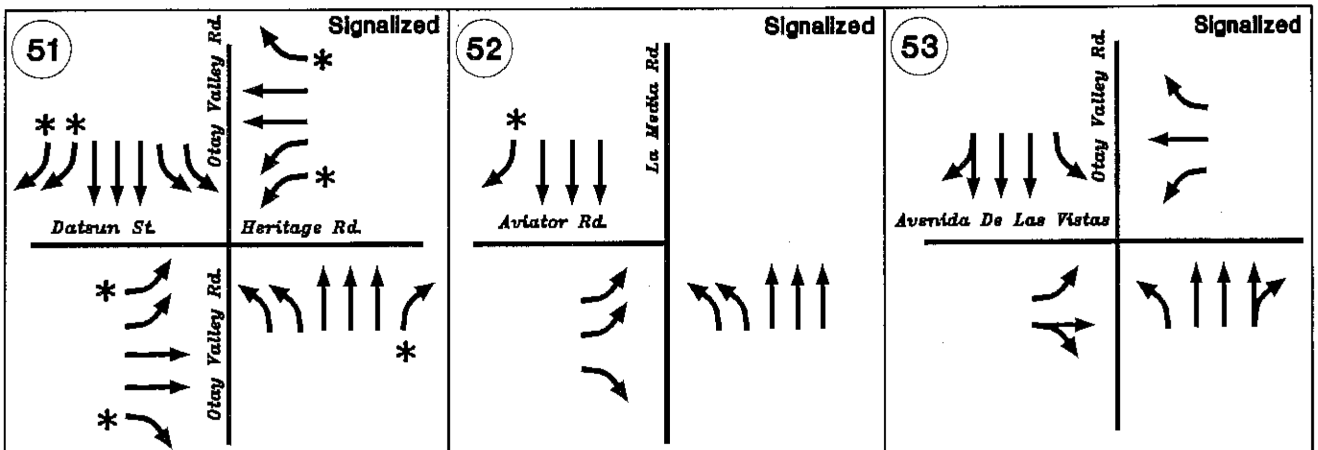
Paseo De Las Americas at Heinrich Hertz Drive



Paseo De Las Americas at Marconi Drive

APPENDIX B - ATTACHMENT 8

Buildout Recommended Lane Configurations - Community Plan



* Mitigation: Add Lanes as noted

Heritage Road at Otay Valley Road

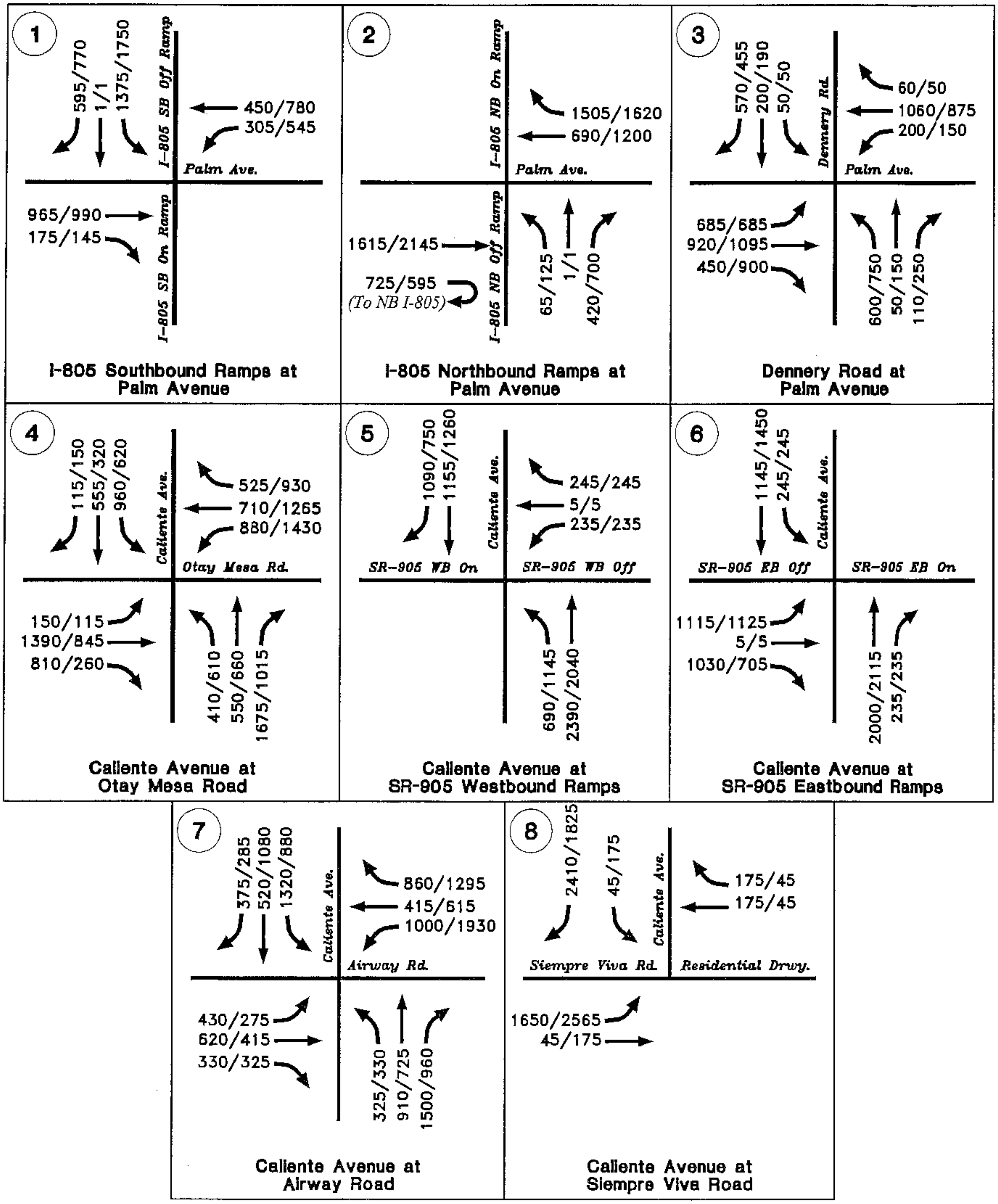
* Mitigation: Add SB RT lane

La Media Road at Aviator Road

Otay Valley Road at Avenida De Las Vistas

APPENDIX B - ATTACHMENT 9

Buildout AM/PM Peak Hour Traffic - Community Plan

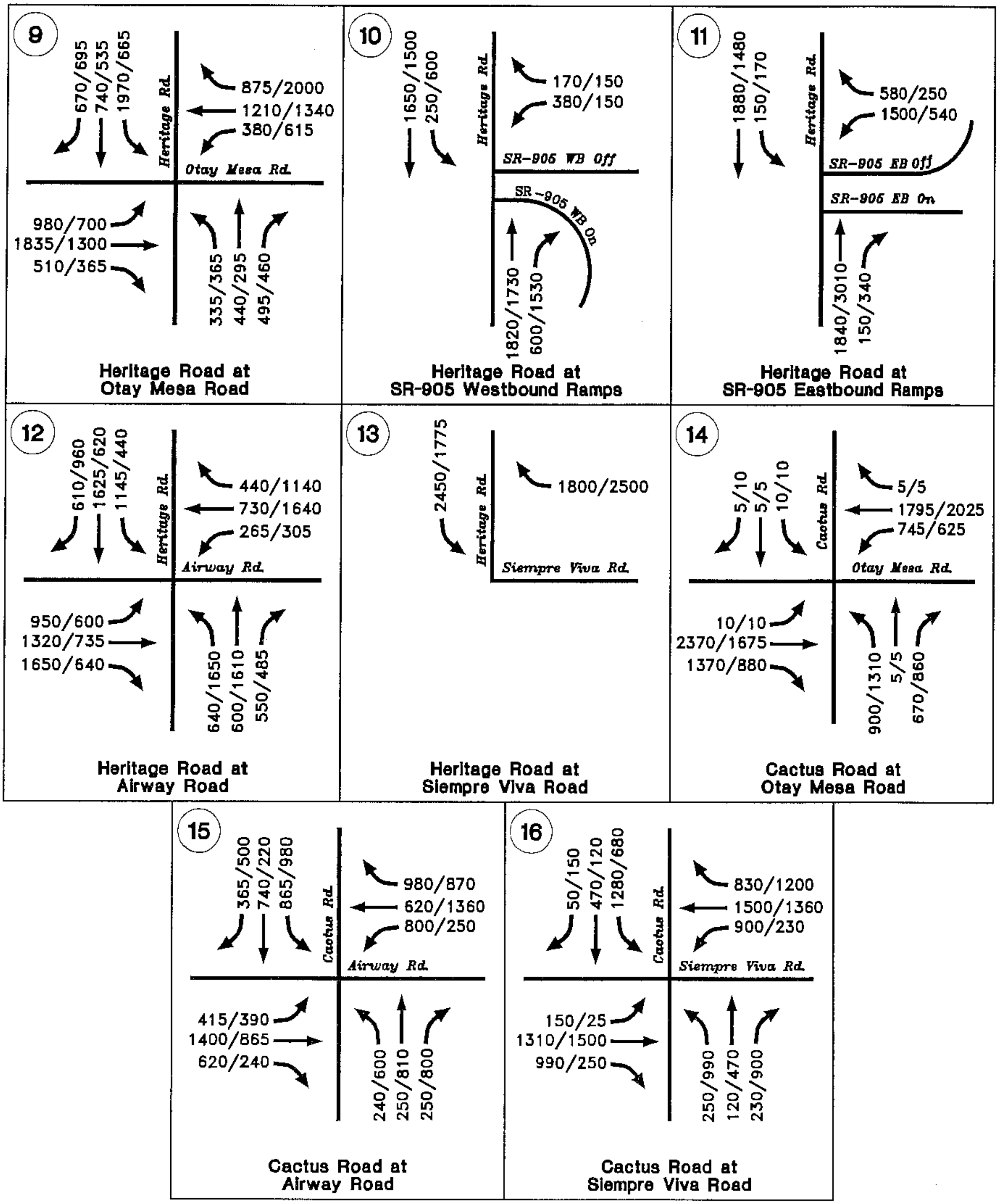


(11-30-10 Traffic Model Date)

(Revised 7-29-11)

APPENDIX B - ATTACHMENT 9

Buildout AM/PM Peak Hour Traffic - Community Plan

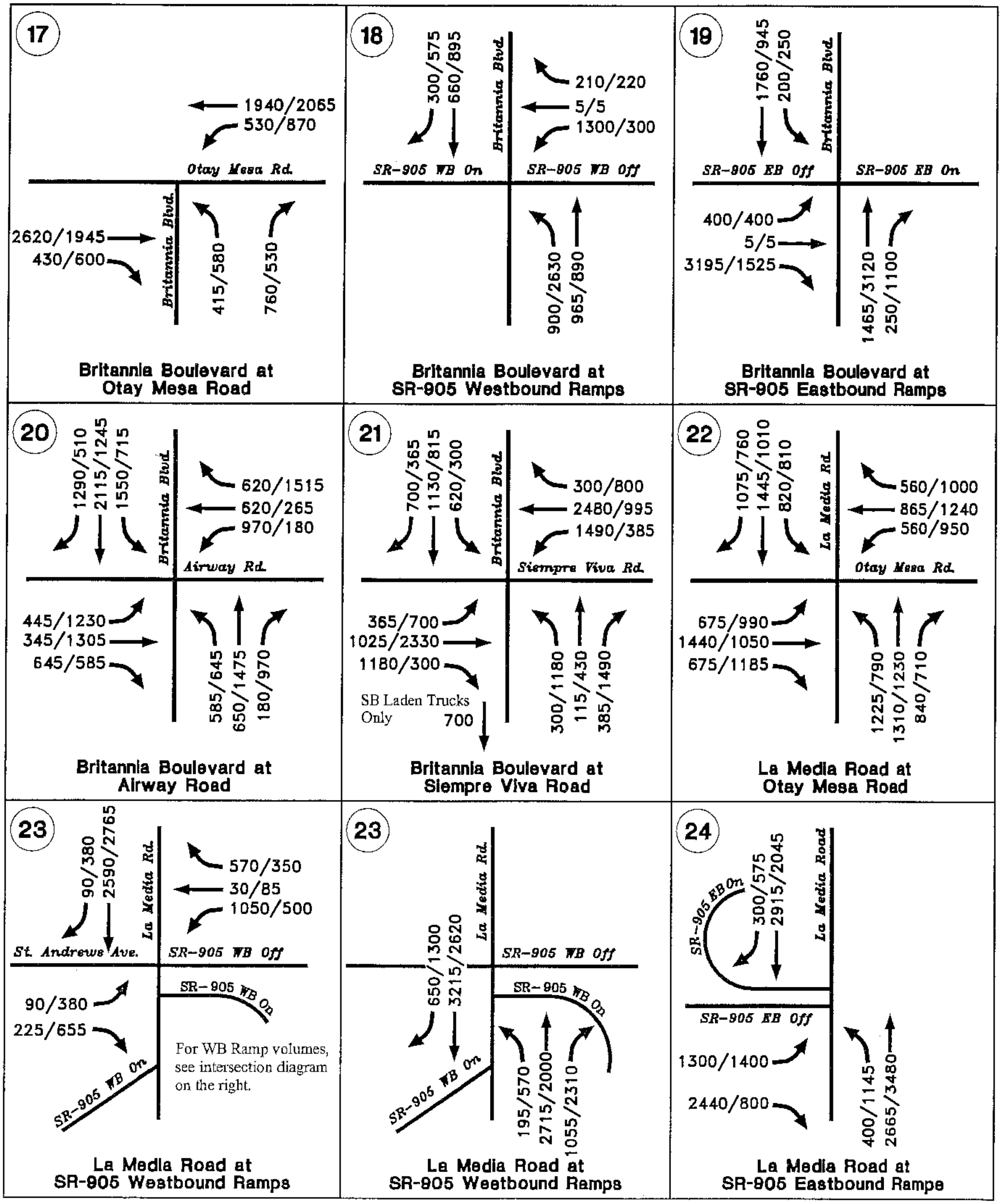


(11-30-10 Traffic Model Date)

(Revised 7-29-11)

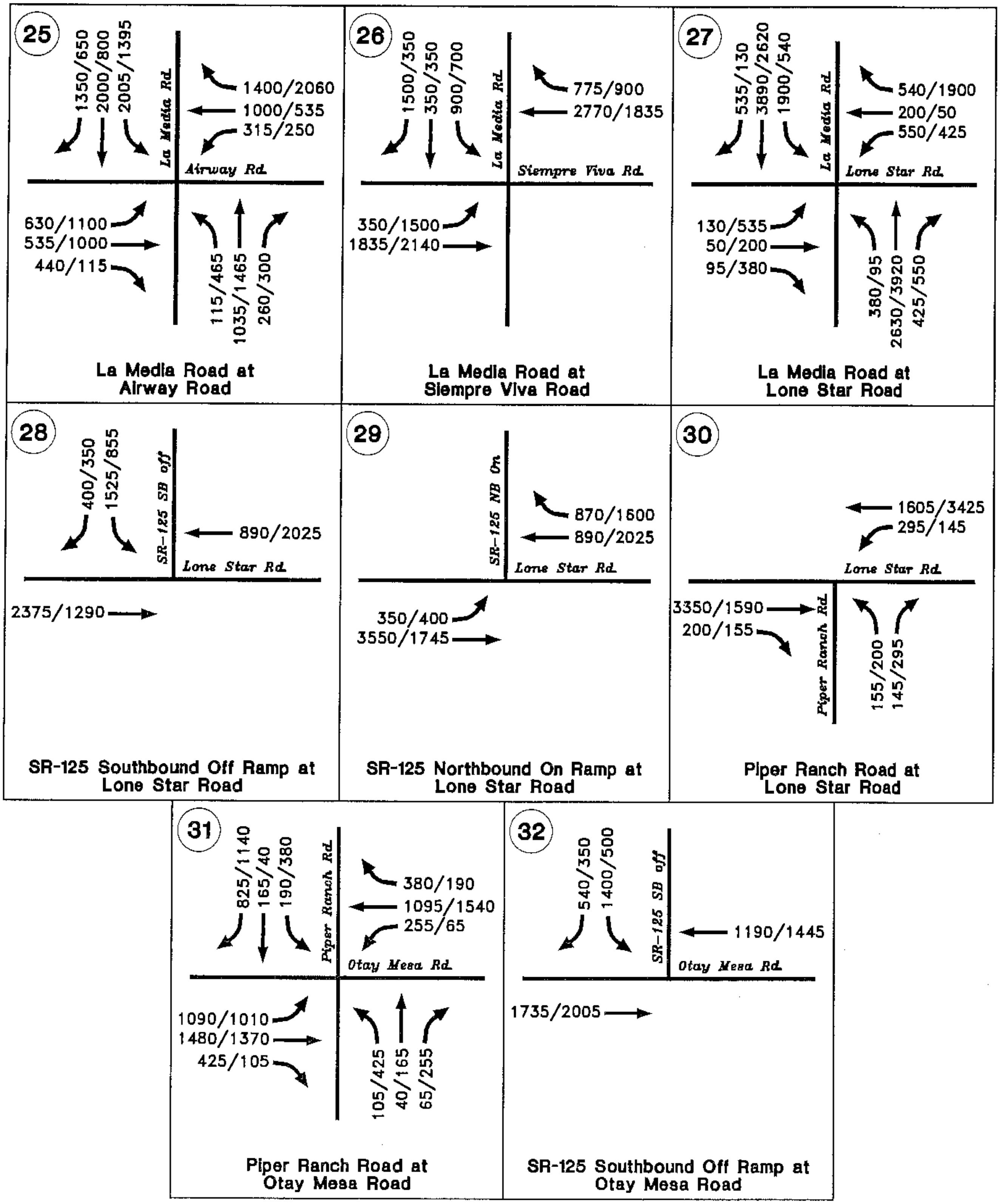
APPENDIX B - ATTACHMENT 9

Buildout AM/PM Peak Hour Traffic - Community Plan



APPENDIX B - ATTACHMENT 9

Buildout AM/PM Peak Hour Traffic - Community Plan

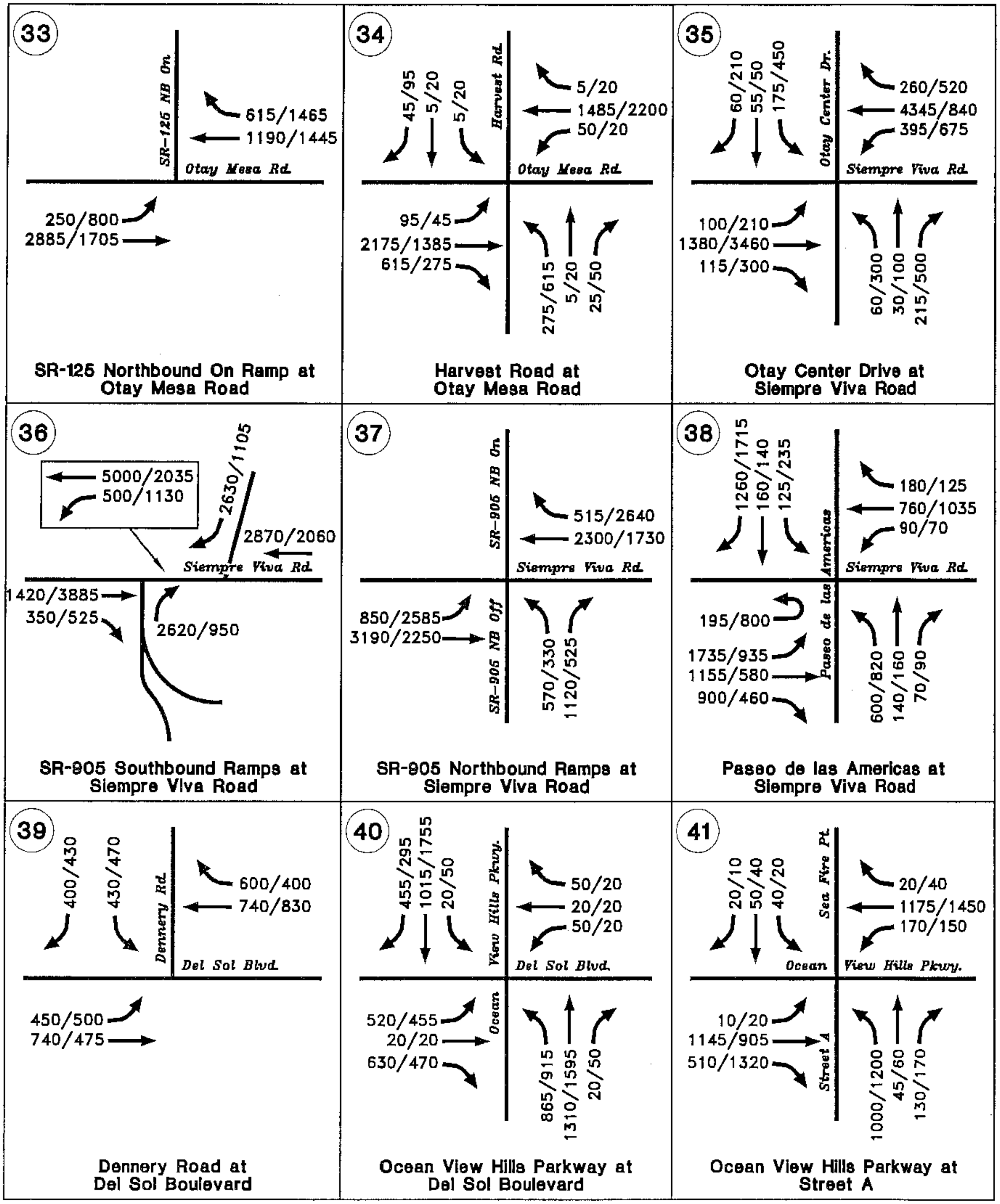


(11-30-10 Traffic Model Date)

(Revised 7-29-11)

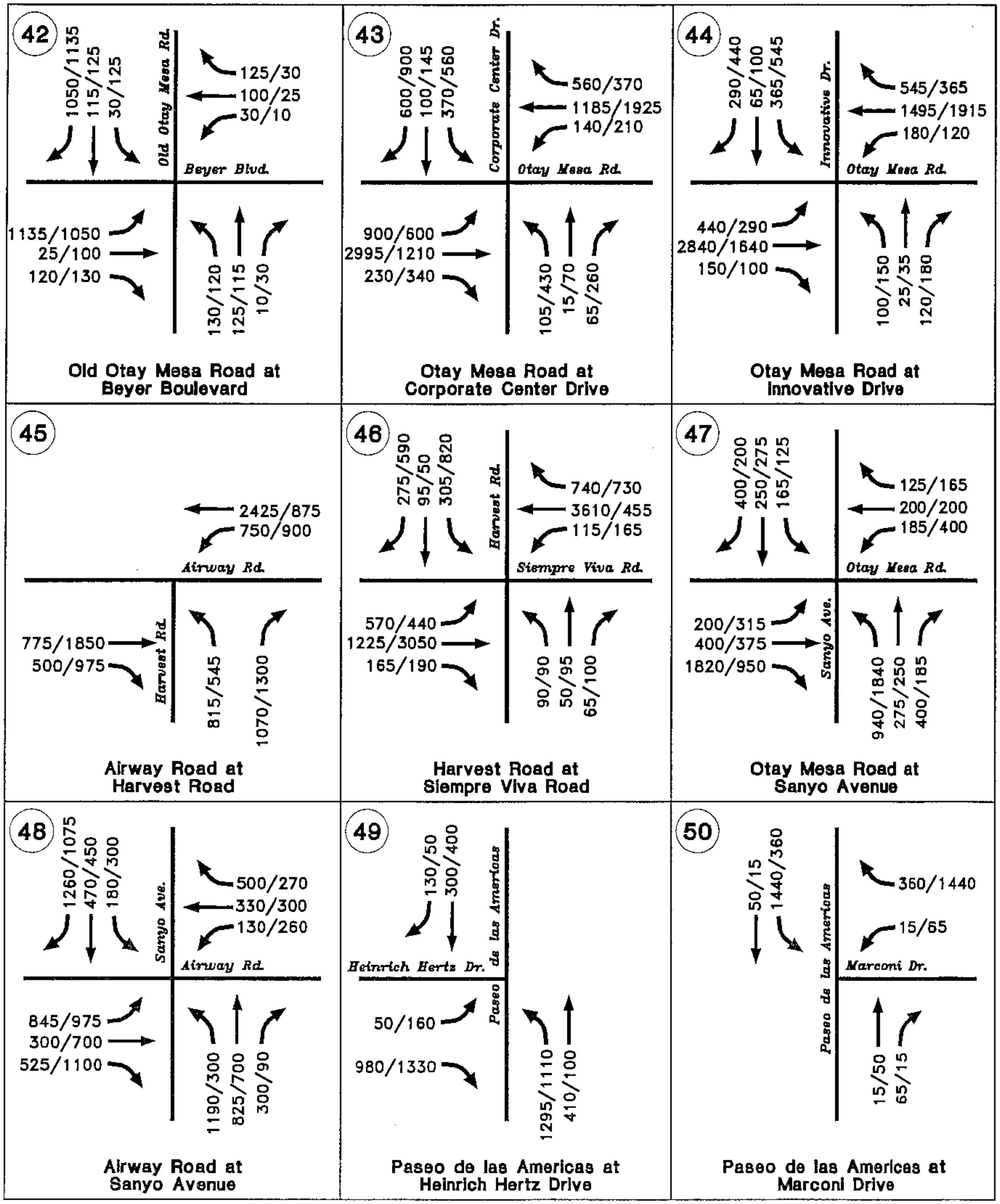
APPENDIX B - ATTACHMENT 9

Buildout AM/PM Peak Hour Traffic - Community Plan



APPENDIX B - ATTACHMENT 9

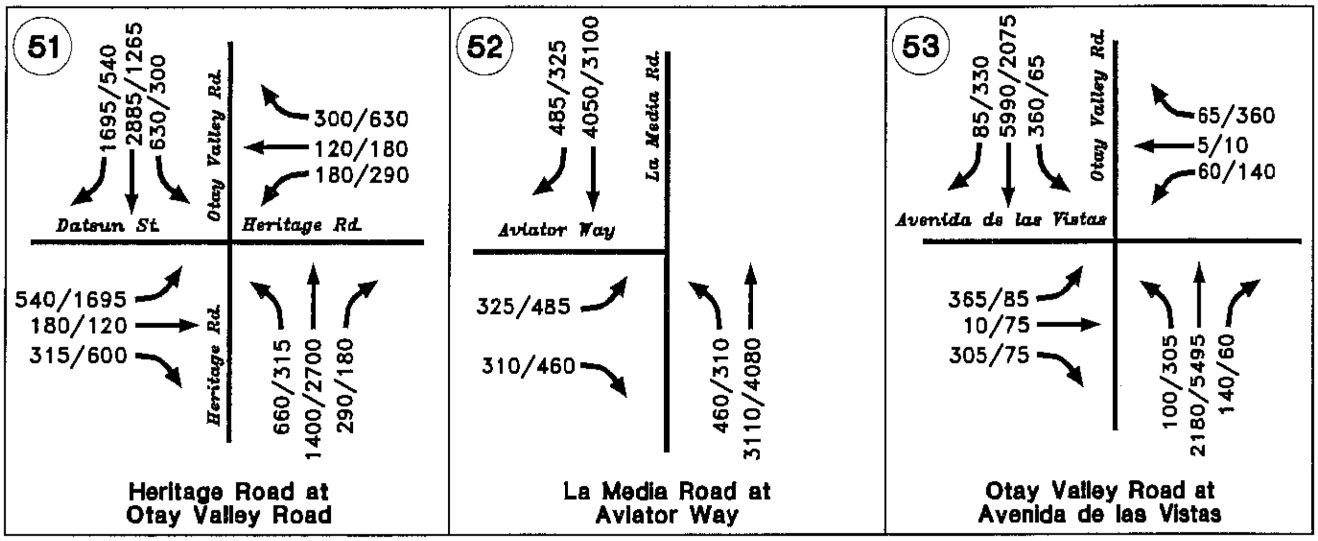
Buildout AM/PM Peak Hour Traffic - Community Plan



(11-30-10 Traffic Model Date) *(Revised 7-29-11)*

APPENDIX B - ATTACHMENT 9

Buildout AM/PM Peak Hour Traffic - Community Plan



(11-30-10 Traffic Model Date)

(Revised 7-29-11)

1A
No MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 SB RAMPS
Agency or Co.	SAN DIEGO	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 /COMMUNITY PLAN

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	0	0	0	1	1	1
Lane group		T	R	L	T					L	LTR	R
Volume (vph)		965	175	305	450					1375	1	595
% Heavy veh		2	2	2	2					2	2	2
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	150
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	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 25.0	G = 30.0	G =	G =	G = 50.0	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	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		
Adj. flow rate		1016	184	321	474					796	769	351
Lane group cap.		887	405	716	1867					737	724	636
v/c ratio		1.15	0.45	0.45	0.25					1.08	1.06	0.55
Green ratio		0.25	0.25	0.21	0.50					0.42	0.42	0.42
Unif. delay d1		45.0	38.1	41.5	17.2					35.0	35.0	26.5
Delay factor k		0.50	0.11	0.11	0.11					0.50	0.50	0.15
Increm. delay d2		78.7	0.8	0.4	0.1					56.9	51.2	1.0
PF factor		0.778	0.778	0.825	0.333					0.524	0.524	0.524
Control delay		113.7	30.4	34.7	5.8					75.2	69.5	14.9
Lane group LOS		F	C	C	A					E	E	B
Apprch. delay	101.0			17.4						61.9		
Approach LOS	F			B						E		
Intersec. delay	64.8			Intersection LOS						E		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/NO MIT./#1*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		*T*	*R*	*L*	*T*					*L*	*LTR*	*R*
Init. queue/lane		*0.0*	*0.0*	*0.0*	*0.0*					*0.0*	*0.0*	*0.0*
Flow rate/lane		*1016*	*184*	*321*	*474*					*796*	*769*	*351*
Satflow per lane		*1862*	*1620*	*1770*	*1960*					*1770*	*1737*	*1526*
Capacity/lane		*887*	*405*	*716*	*1867*					*737*	*724*	*636*
Flow ratio		*0.29*	*0.11*	*0.09*	*0.13*					*0.45*	0.44	*0.23*
v/c ratio		*1.15*	*0.45*	*0.45*	*0.25*					*1.08*	*1.06*	*0.55*
I factor		*1.000*	*1.000*	*1.000*	*1.000*					*1.000*	*1.000*	*1.000*
Arrival type		*5*	*5*	*5*	*5*					*5*	*5*	*5*
Platoon ratio		*1.67*	*1.67*	*1.67*	*1.67*					*1.67*	*1.67*	*1.67*
PF factor		*1.00*	*0.85*	*0.89*	*0.37*					*1.00*	*1.00*	*0.65*
Q_1		*17.8*	*4.4*	*4.3*	*1.7*					*26.5*	*25.6*	*5.8*
k_B		*0.5*	*0.5*	*0.5*	*0.8*					*0.7*	*0.7*	*0.6*
Q_2		*11.5*	*0.4*	*0.4*	*0.3*					*12.7*	*11.3*	*0.8*
Q avg.		*29.3*	*4.8*	*4.6*	*2.0*					*39.3*	*37.0*	*6.6*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.6*	*2.0*	*2.0*	*2.0*					*1.6*	*1.6*	*1.9*
BOQ, $Q_{\%}$		*47.4*	*9.4*	*9.1*	*4.1*					*61.5*	*58.3*	*12.6*

Queue Storage Ratio

Q spacing		*24.9*	*24.9*	*24.9*	*24.9*					*24.9*	*24.9*	*24.9*
Q storage		*0*	*0*	*0*	*0*					*0*	*0*	*0*
Avg. R_Q												
95% $R_{Q\%}$												

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1-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 SB RAMPS
Agency or Co.	SAN DIEGO	Area Type	All other areas
Date Performed	03/07/12	Jurisdiction	WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 /COMMUNITY PLAN

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	0	0	0	2	1	1
Lane group		T	R	L	T					L	TR	R
Volume (vph)		965	175	305	450					1375	1	595
% Heavy veh		2	2	2	2					2	2	2
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	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 20.0	G = 35.0	G =	G =	G = 50.0	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	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		
Adj. flow rate		1016	184	321	474					1447	314	313
Lane group cap.		1035	474	573	1867					1432	636	636
v/c ratio		0.98	0.39	0.56	0.25					1.01	0.49	0.49
Green ratio		0.29	0.29	0.17	0.50					0.42	0.42	0.42
Unif. delay d1		42.2	33.9	46.0	17.2					35.0	25.7	25.7
Delay factor k		0.49	0.11	0.16	0.11					0.50	0.11	0.11
Increm. delay d2		23.5	0.5	1.2	0.1					26.4	0.6	0.6
PF factor		0.725	0.725	0.867	0.333					0.524	0.524	0.524
Control delay		54.1	25.2	41.1	5.8					44.7	14.1	14.1
Lane group LOS		D	C	D	A					D	B	B
Apprch. delay	49.7			20.0						35.4		
Approach LOS	D			C						D		
Intersec. delay	36.6			Intersection LOS						D		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/WITH MIT./#1-AM

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R	L	T					L	TR	R
Init. queue/lane		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Flow rate/lane		1016	184	321	474					1447	314	313
Satflow per lane		1862	1624	1770	1960					1770	1527	1526
Capacity/lane		1035	474	573	1867					1432	636	636
Flow ratio		0.29	0.11	0.09	0.13					0.42	0.21	0.21
v/c ratio		0.98	0.39	0.56	0.25					1.01	0.49	0.49
I factor		1.000	1.000	1.000	1.000					1.000	1.000	1.000
Arrival type		5	5	5	5					5	5	5
Platoon ratio		1.67	1.67	1.67	1.67					1.67	1.67	1.67
PF factor		0.99	0.79	0.93	0.37					1.00	0.63	0.63
Q_1		17.5	3.9	4.7	1.7					24.8	4.9	4.8
k_B		0.6	0.5	0.4	0.8					0.7	0.6	0.6
Q_2		5.6	0.3	0.5	0.3					8.5	0.6	0.6
Q avg.		23.0	4.2	5.2	2.0					33.3	5.5	5.4
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.7	2.0	1.9	2.0					1.6	1.9	1.9
BOQ, $Q_{\%}$		38.4	8.3	10.1	4.1					53.1	10.6	10.6
Queue Storage Ratio												
Q spacing		24.9	24.9	24.9	24.9					24.9	24.9	24.9
Q storage		0	0	0	0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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N MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 SB RAMPS
Agency or Co.	SAN DIEGO	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 /COMMUNITY PLAN

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	0	0	0	1	1	1
Lane group		T	R	L	T					L	LTR	R
Volume (vph)		990	145	545	780					1750	1	770
% Heavy veh		2	2	2	2					2	2	2
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	150
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	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 60.0	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	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		
Adj. flow rate		1042	153	574	821					1032	974	490
Lane group cap.		788	359	764	1797					787	770	679
v/c ratio		1.32	0.43	0.75	0.46					1.31	1.26	0.72
Green ratio		0.22	0.22	0.22	0.48					0.44	0.44	0.44
Unif. delay d1		52.5	45.1	49.0	23.3					37.5	37.5	30.7
Delay factor k		0.50	0.11	0.31	0.11					0.50	0.50	0.28
Increm. delay d2		153.9	0.8	4.2	0.2					149.1	129.5	3.8
PF factor		0.810	0.810	0.810	0.381					0.497	0.467	0.467
Control delay		196.4	37.3	43.9	9.0					167.8	147.0	18.1
Lane group LOS		F	D	D	A					F	F	B
Apprch. delay	176.0			23.4						130.3		
Approach LOS	F			C						F		
Intersec. delay	111.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM PEAK HOUR/NO MITIGATION/#1/PM/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	R	L	T					L	LTR	R
Init. queue/lane		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Flow rate/lane		1042	153	574	821					1032	974	490
Satflow per lane		1862	1617	1770	1960					1770	1733	1528
Capacity/lane		788	359	764	1797					787	770	679
Flow ratio		0.29	0.09	0.17	0.22					0.58	0.56	0.32
v/c ratio		1.32	0.43	0.75	0.46					1.31	1.26	0.72
I factor		1.000	1.000	1.000	1.000					1.000	1.000	1.000
Arrival type		5	5	5	5					5	5	5
Platoon ratio		1.67	1.67	1.67	1.67					1.63	1.67	1.67
PF factor		1.00	0.87	0.93	0.47					1.00	1.00	0.68
Q_1		20.5	4.3	9.6	5.0					38.7	36.5	10.2
k_B		0.5	0.5	0.5	0.8					0.8	0.8	0.7
Q_2		18.6	0.3	1.4	0.7					33.6	28.7	1.7
Q avg.		39.2	4.6	11.0	5.7					72.3	65.2	11.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.6	2.0	1.8	1.9					1.5	1.5	1.8
BOQ, $Q_{\%}$		61.4	9.1	20.1	11.1					109	98.9	21.6
Queue Storage Ratio												
Q spacing		24.9	24.9	24.9	24.9					24.9	24.9	24.9
Q storage		0	0	0	0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

I-P
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 SB RAMPS
Agency or Co.	SAN DIEGO	Area Type	All other areas
Date Performed	03/07/12	Jurisdiction	WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 /COMMUNITY PLAN

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	0	0	0	2	1	1
Lane group		T	R	L	T					L	TR	R
Volume (vph)		990	145	545	780					1750	1	770
% Heavy veh		2	2	2	2					2	2	2
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	WB Only	Thru & RT	03	04	SB Only	06	07	08
Timing	G = 20.0	G = 40.0	G =	G =	G = 60.0	G =	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y =	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		
Adj. flow rate		1042	153	574	821					1842	406	406
Lane group cap.		1051	481	509	1797					1528	680	679
v/c ratio		0.99	0.32	1.13	0.46					1.21	0.60	0.60
Green ratio		0.30	0.30	0.15	0.48					0.44	0.44	0.44
Unif. delay d1		47.3	36.9	57.5	23.3					37.5	28.4	28.4
Delay factor k		0.49	0.11	0.50	0.11					0.50	0.19	0.19
Increm. delay d2		25.6	0.4	79.9	0.2					98.9	1.4	1.5
PF factor		0.719	0.719	0.884	0.381					0.467	0.467	0.467
Control delay		59.6	26.9	130.8	9.0					116.4	14.7	14.7
Lane group LOS		E	C	F	A					F	B	B
Apprch. delay	55.5			59.1						85.3		
Approach LOS	E			E						F		
Intersec. delay	71.5			Intersection LOS						E		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM PEAK HOUR/WITH MITIGATION/#1/PM/*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R	L	T					L	TR	R
Init. queue/lane		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Flow rate/lane		1042	153	535	821					1842	406	406
Satflow per lane		1862	1623	1770	1960					1770	1527	1527
Capacity/lane		1013	464	614	1867					1473	654	654
Flow ratio		0.29	0.09	0.16	0.22					0.54	0.27	0.27
v/c ratio		1.03	0.33	0.87	0.44					1.25	0.62	0.62
I factor		1.000	1.000	1.000	1.000					1.000	1.000	1.000
Arrival type		5	5	5	5					5	5	5
Platoon ratio		1.67	1.67	1.67	1.67					1.67	1.67	1.67
PF factor		1.00	0.79	0.97	0.41					1.00	0.66	0.66
Q_1		21.3	3.7	10.1	4.4					36.9	8.1	8.1
k_B		0.6	0.6	0.5	0.9					0.8	0.7	0.7
Q_2		7.5	0.3	2.1	0.7					27.1	1.1	1.1
Q avg.		28.8	4.0	12.3	5.1					64.0	9.2	9.2

Percentile Back of Queue (95th percentile)

$f_{B\%}$		1.6	2.0	1.8	2.0					1.5	1.9	1.9
BOQ, $Q_{\%}$		46.6	7.9	22.1	10.0					97.0	17.1	17.1

Queue Storage Ratio

Q spacing		24.9	24.9	24.9	24.9					24.9	24.9	24.9
Q storage		0	0	0	0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAi	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/24/11	Jurisdiction	NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR YEAR 2030/ COMMUNITY PLAN

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	0	2	1	0	1	1	0	0	0
Lane group	L	T			T	R		LTR	R			
Volume (vph)	725	1615			690	1505	65	1	420			
% Heavy veh	2	2			2	2	2	2	2			
PHF	0.99	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	200	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	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 25.0	G = 50.0	G =	G =	G = 31.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	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		
Adj. flow rate	732	1700			726	1374		202	309			
Lane group cap.	716	2458			1555	645		414	390			
v/c ratio	1.02	0.69			0.47	2.13		0.49	0.79			
Green ratio	0.21	0.66			0.42	0.42		0.26	0.26			
Unif. delay d1	47.5	12.9			25.3	35.0		37.8	41.5			
Delay factor k	0.50	0.26			0.11	0.50		0.11	0.34			
Increm. delay d2	39.4	0.8			0.2	513.8		0.9	10.7			
PF factor	0.825	0.146			0.524	0.949		0.768	0.768			
Control delay	78.6	2.7			13.5	547.0		29.9	42.5			
Lane group LOS	E	A			B	F		C	D			
Apprch. delay	25.6			362.6			37.5					
Approach LOS	C			F			D					
Intersec. delay	167.1			Intersection LOS						F		

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N
M17

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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	L	T			T	R		LTR	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	732	1700			726	1374		202	309			
Satflow per lane	1770	1960			1960	1549		1602	1511			
Capacity/lane	716	2458			1555	645		414	390			
Flow ratio	0.21	0.46			0.19	0.89		0.13	0.20			
v/c ratio	1.02	0.69			0.47	2.13		0.49	0.79			
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	1.44			1.67	1.07		1.67	1.67			
PF factor	1.00	0.23			0.62	1.00		0.85	0.93			
Q_1	12.5	4.3			5.7	45.8		4.9	8.9			
k_B	0.5	1.0			0.7	0.6		0.5	0.5			
Q_2	5.1	2.1			0.6	92.3		0.5	1.5			
Q avg.	17.7	6.4			6.4	138.1		5.3	10.4			

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.9			1.9	1.5		1.9	1.8			
BOQ, $Q_{\%}$	30.5	12.3			12.2	207		10.3	19.2			

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. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

2-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/12	Jurisdiction	WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR YEAR 2030/ COMMUNITY PLAN

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	1	0	3	2	1	1	1	0	0	0
Lane group		T	R		T	R	L	LTR	R			
Volume (vph)		1615	725		690	1505	65	1	420			
% Heavy veh		2	0		2	2	2	2	2			
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	0	0	0	10	5	200	10	5	0	10		
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	0	N	N		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	Thru & RT	02	03	04	NB Only	06	07	08
Timing	G = 60.0	G =	G =	G =	G = 31.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 101.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1700	763		726	1374	48	154	309			
Lane group cap.		3173	1010		3173	1613	543	484	474			
v/c ratio		0.54	0.76		0.23	0.85	0.09	0.32	0.65			
Green ratio		0.59	0.59		0.59	0.59	0.31	0.31	0.31			
Unif. delay d1		12.2	15.1		9.6	16.8	24.9	26.9	30.3			
Delay factor k		0.14	0.31		0.11	0.38	0.11	0.11	0.23			
Increm. delay d2		0.2	3.3		0.0	4.6	0.1	0.4	3.2			
PF factor		0.123	0.123		0.123	0.123	0.705	0.705	0.705			
Control delay		1.7	5.2		1.2	6.7	17.6	19.3	24.6			
Lane group LOS		A	A		A	A	B	B	C			
Apprch. delay	2.8			4.8			22.3					
Approach LOS	A			A			C					
Intersec. delay	5.6			Intersection LOS						A		

HCS2000™ Version 4.1f

2-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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		T	R		T	R	L	LTR	R			
Init. queue/lane		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Flow rate/lane		1700	763		726	1374	48	154	309			
Satflow per lane		1960	1700		1960	1534	1770	1577	1544			
Capacity/lane		3173	1010		3173	1613	543	484	474			
Flow ratio		0.32	0.45		0.14	0.51	0.03	0.10	0.20			
v/c ratio		0.54	0.76		0.23	0.85	0.09	0.32	0.65			
I factor		1.000	1.000		1.000	1.000	1.000	1.000	1.000			
Arrival type		5	5		5	5	5	5	5			
Platoon ratio		1.60	1.60		1.60	1.60	1.67	1.67	1.67			
PF factor		0.17	0.24		0.14	0.32	0.72	0.76	0.85			
Q_1		1.8	3.8		0.5	5.7	0.7	2.5	6.4			
k_B		0.8	0.7		0.8	0.7	0.5	0.5	0.5			
Q_2		0.9	2.1		0.2	3.4	0.0	0.2	0.8			
Q avg.		2.7	5.9		0.7	9.1	0.7	2.7	7.2			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		2.0	1.9		2.1	1.9	2.1	2.0	1.9			
BOQ, $Q_{\%}$		5.5	11.5		1.5	16.9	1.5	5.5	13.7			
Queue Storage Ratio												
Q spacing		24.9	24.9		24.9	24.9	24.9	24.9	24.9			
Q storage		0	0		0	0	0	0	0			
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™

Version 4.1f

2-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/24/11	Jurisdiction	NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR YEAR 2030/ COMMUNITY PLAN

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	0	2	1	0	1	1	0	0	0
Lane group	L	T			T	R		LTR	R			
Volume (vph)	595	2145			1200	1620	125	1	700			
% Heavy veh	2	2			2	2	2	2	2			
PHF	0.99	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	200	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	EB Only	Thru & RT	03	04	NB Only	06	07	08
Timing	G = 25.0	G = 50.0	G =	G =	G = 31.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 5	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		
Adj. flow rate	601	2258			1263	1495		501	369			
Lane group cap.	716	2458			1555	645		408	390			
v/c ratio	0.84	0.92			0.81	2.32		1.23	0.95			
Green ratio	0.21	0.66			0.42	0.42		0.26	0.26			
Unif. delay d1	45.6	17.7			30.9	35.0		44.5	43.7			
Delay factor k	0.37	0.44			0.35	0.50		0.50	0.46			
Increm. delay d2	8.8	6.2			3.4	597.9		122.5	32.0			
PF factor	0.825	0.146			0.524	1.000		0.768	0.768			
Control delay	46.4	8.8			19.6	632.9		156.6	65.5			
Lane group LOS	D	A			B	F		F	E			
Apprch. delay	16.7			352.0			118.0					
Approach LOS	B			F			F					
Intersec. delay	172.8			Intersection LOS						F		

2-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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	L	T			T	R		LTR	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	601	2258			1263	1495		501	369			
Satflow per lane	1770	1960			1960	1549		1581	1511			
Capacity/lane	716	2458			1555	645		408	390			
Flow ratio	0.17	0.60			0.34	0.97		0.32	0.24			
v/c ratio	0.84	0.92			0.81	2.32		1.23	0.95			
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	1.44			1.67	1.00		1.67	1.67			
PF factor	0.96	0.45			0.79	1.00		1.00	0.98			
Q_1	9.5	15.5			15.5	49.8		16.7	11.8			
k_B	0.5	1.0			0.7	0.6		0.5	0.5			
Q_2	1.9	7.0			2.8	107.3		13.8	3.5			
Q avg.	11.4	22.5			18.2	157.2		30.5	15.3			

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.8	1.7			1.7	1.5		1.6	1.8			
BOQ, $Q_{\%}$	20.7	37.6			31.3	236		49.1	26.9			

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	24.9	24.9			24.9	24.9		24.9	24.9			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

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2-P W MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AV./I-805 NB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/07/12	Jurisdiction	WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR YEAR 2030/ COMMUNITY PLAN

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	1	0	3	2	1	1	1	0	0	0
Lane group		T	R		T	R	L	LTR	R			
Volume (vph)		2145	595		1200	1620	125	1	700			
% Heavy veh		2	0		2	2	2	2	2			
PHF		0.95	0.95		0.95	0.95	0.95	0.95	0.95			
Actuated (P/A)		A	P		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	0	0	0	10	5	200	10	5	0	10		
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	0	N	N		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	Thru & RT	02	03	04	NB Only	06	07	08
Timing	G = 60.0	G =	G =	G =	G = 31.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 101.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2258	626		1263	1495	66	406	398			
Lane group cap.		3173	1010		3173	1613	543	486	474			
v/c ratio		0.71	0.62		0.40	0.93	0.12	0.84	0.84			
Green ratio		0.59	0.59		0.59	0.59	0.31	0.31	0.31			
Unif. delay d1		14.4	13.2		10.9	18.5	25.2	32.6	32.7			
Delay factor k		0.28	0.50		0.11	0.44	0.11	0.37	0.37			
Increm. delay d2		0.8	2.9		0.1	9.7	0.1	12.0	12.7			
PF factor		0.123	0.123		0.123	0.123	0.705	0.705	0.705			
Control delay		2.5	4.5		1.4	12.0	17.9	35.0	35.7			
Lane group LOS		A	A		A	B	B	D	D			
Apprch. delay	3.0			7.1			34.0					
Approach LOS	A			A			C					
Intersec. delay	8.9			Intersection LOS						A		

2-P
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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		T	R		T	R	L	LTR	R			
Init. queue/lane		0.0	0.0		0.0	0.0	0.0	0.0	0.0			
Flow rate/lane		2258	626		1263	1495	66	406	398			
Satflow per lane		1960	1700		1960	1534	1770	1583	1544			
Capacity/lane		3173	1010		3173	1613	543	486	474			
Flow ratio		0.42	0.37		0.24	0.55	0.04	0.26	0.26			
v/c ratio		0.71	0.62		0.40	0.93	0.12	0.84	0.84			
I factor		1.000	1.000		1.000	1.000	1.000	1.000	1.000			
Arrival type		5	5		5	5	5	5	5			
Platoon ratio		1.60	1.60		1.60	1.60	1.67	1.67	1.67			
PF factor		0.22	0.19		0.15	0.46	0.72	0.92	0.92			
Q_1		3.6	2.1		1.0	9.9	1.0	9.7	9.6			
k_B		0.8	1.2		0.8	0.7	0.5	0.5	0.5			
Q_2		1.9	2.0		0.5	5.4	0.1	2.0	2.0			
Q avg.		5.5	4.1		1.6	15.2	1.0	11.7	11.6			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.9	2.0		2.0	1.8	2.1	1.8	1.8			
BOQ, $Q_{\%}$		10.7	8.3		3.2	26.8	2.1	21.3	21.1			
Queue Storage Ratio												
Q spacing		24.9	24.9		24.9	24.9	24.9	24.9	24.9			
Q storage		0	0		0	0	0	0	0			
Avg. R_Q												
95% $R_{Q\%}$												

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3P

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AVE./DENNERY ROAD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	SAN DIEGO
Time Period	AM PEAK	Analysis Year	YEAR 2030/COMMUNITY PLAN

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	3	1	0	2	2	1
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Volume (vph)	685	920	450	200	1060	60	600	50	110	50	200	570
% 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	0.90	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	50	10		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	Thru & RT	Excl. Left	07	08
Timing	G = 29.0	G = 35.0	G =	G =	G = 16.0	G = 21.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	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		
Adj. flow rate	721	968	474	211	1116	67	632	116		53	211	600
Lane group cap.	831	1558	721	831	1558	450	843	235		601	498	594
v/c ratio	0.87	0.62	0.66	0.25	0.72	0.15	0.75	0.49		0.09	0.42	1.01
Green ratio	0.24	0.29	0.47	0.24	0.29	0.29	0.17	0.13		0.17	0.13	0.38
Unif. delay d1	43.7	36.8	24.6	36.8	38.1	31.5	47.0	48.2		41.5	47.8	37.5
Delay factor k	0.40	0.20	0.23	0.11	0.28	0.11	0.30	0.11		0.11	0.11	0.50
Increm. delay d2	9.7	0.8	2.2	0.2	1.6	0.2	3.8	1.6		0.1	0.6	39.5
PF factor	0.788	0.725	0.417	0.788	0.725	0.725	0.859	0.897		0.859	0.897	0.600
Control delay	44.1	27.4	12.5	29.1	29.2	23.0	44.1	44.9		35.7	43.4	62.0
Lane group LOS	D	C	B	C	C	C	D	D		D	D	E
Apprch. delay	29.7			28.9			44.3			55.8		
Approach LOS	C			C			D			E		
Intersec. delay	36.0			Intersection LOS						D		

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3A

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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	L	T	R	L	T	R	L	TR		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
Flow rate/lane	721	968	474	211	1116	67	632	116		53	211	600
Satflow per lane	1770	1960	1545	1770	1960	1543	1769	1760		1770	1960	1583
Capacity/lane	831	1558	721	831	1558	450	843	235		601	498	594
Flow ratio	0.21	0.18	0.31	0.06	0.21	0.04	0.13	0.07		0.02	0.06	0.38
v/c ratio	0.87	0.62	0.66	0.25	0.72	0.15	0.75	0.49		0.09	0.42	1.01
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	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
PF factor	0.96	0.85	0.59	0.82	0.88	0.75	0.95	0.94		0.87	0.93	1.00
Q_1	11.4	8.7	7.2	2.4	10.7	1.2	7.0	3.4		0.7	3.1	20.0
k_B	0.5	0.6	0.7	0.5	0.6	0.5	0.4	0.3		0.4	0.4	0.6
Q_2	2.4	0.9	1.2	0.2	1.4	0.1	1.1	0.3		0.0	0.3	7.1
Q avg.	13.8	9.6	8.4	2.6	12.1	1.3	8.1	3.7		0.7	3.4	27.1

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.8	1.9	1.9	2.0	1.8	2.1	1.9	2.0		2.1	2.0	1.6
BOQ, $Q_\%$	24.5	17.9	15.8	5.2	21.9	2.7	15.3	7.4		1.4	6.8	44.2

Queue Storage Ratio

Q spacing												
Q storage												
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	PALM AVE./DENNERY ROAD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK	Analysis Year	YEAR 2030/COMMUNITY PLAN

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	3	1	0	2	2	1
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Volume (vph)	685	1095	900	150	815	50	750	150	250	50	190	455
% 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	0.90	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	75	10		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	Thru & RT	Excl. Left	07	08
Timing	G = 25.0	G = 37.0	G =	G =	G = 25.0	G = 29.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	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		
Adj. flow rate	721	1153	947	158	858	56	789	342		53	200	479
Lane group cap.	636	1464	755	636	1464	422	1035	328		738	691	586
v/c ratio	1.13	0.79	1.25	0.25	0.59	0.13	0.76	1.04		0.07	0.29	0.82
Green ratio	0.19	0.27	0.49	0.19	0.27	0.27	0.21	0.19		0.21	0.19	0.37
Unif. delay d1	55.0	45.4	34.5	47.0	42.4	36.9	49.8	55.0		42.3	47.4	38.4
Delay factor k	0.50	0.33	0.50	0.11	0.18	0.11	0.31	0.50		0.11	0.11	0.36
Increm. delay d2	78.5	3.0	125.2	0.2	0.6	0.1	3.4	61.2		0.0	0.2	8.9
PF factor	0.848	0.748	0.475	0.848	0.748	0.748	0.818	0.848		0.818	0.848	0.608
Control delay	125.2	36.9	141.6	40.1	32.3	27.8	44.1	107.9		34.6	40.4	32.2
Lane group LOS	F	D	F	D	C	C	D	F		C	D	C
Apprch. delay	94.6			33.2			63.4			34.6		
Approach LOS	F			C			E			C		
Intersec. delay	69.4			Intersection LOS						E		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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	L	T	R	L	T	R	L	TR		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
Flow rate/lane	721	1153	947	158	858	56	789	342		53	200	479
Satflow per lane	1770	1960	1544	1770	1960	1541	1769	1770		1770	1960	1583
Capacity/lane	636	1464	755	636	1464	422	1035	328		738	691	586
Flow ratio	0.21	0.22	0.61	0.05	0.16	0.04	0.16	0.19		0.02	0.05	0.30
v/c ratio	1.13	0.79	1.25	0.25	0.59	0.13	0.76	1.04		0.07	0.29	0.82
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	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
PF factor	1.00	0.92	1.00	0.88	0.86	0.77	0.94	1.00		0.83	0.88	0.86
Q_1	13.9	13.5	35.5	2.3	8.7	1.2	9.6	12.8		0.7	3.0	13.9
k_B	0.5	0.6	0.7	0.5	0.6	0.5	0.5	0.5		0.5	0.5	0.6
Q_2	8.1	2.0	27.2	0.1	0.8	0.1	1.4	5.4		0.0	0.2	2.4
Q avg.	22.0	15.4	62.7	2.4	9.6	1.3	11.0	18.2		0.7	3.2	16.3

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.8	1.5	2.0	1.9	2.1	1.8	1.7		2.1	2.0	1.7
BOQ, $Q_{\%}$	36.9	27.1	95.3	4.9	17.7	2.7	20.0	31.2		1.5	6.4	28.4

Queue Storage Ratio

Q spacing												
Q storage												
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

4-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	NO MITIGATION
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030/COMMUNITY PLAN

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	3	0	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	150	1390	810	880	710	525	410	550	1675	960	555	115
% Heavy veh	5	5	5	10	5	5	5	5	10	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	
Ext. eff. green	2.0	3.0	2.0	2.0	3.0	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	100	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	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 26.0	G = 25.0	G =	G = 35.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	158	1463	747	926	747	553	432	2342		1011	705	
Lane group cap.	334	899	645	1031	1972	963	779	750		779	871	
v/c ratio	0.47	1.63	1.16	0.90	0.38	0.57	0.55	3.12		1.30	0.81	
Green ratio	0.10	0.17	0.43	0.30	0.38	0.64	0.23	0.17		0.23	0.17	
Unif. delay d1	63.8	62.0	42.5	50.3	33.7	15.4	50.6	62.0		57.5	59.6	
Delay factor k	0.11	0.50	0.50	0.42	0.11	0.17	0.15	0.50		0.50	0.35	
Increm. delay d2	1.1	287.4	87.7	10.5	0.1	0.8	0.9	958.7		143.4	5.8	
PF factor	0.926	0.860	0.490	0.714	0.591	0.139	0.797	0.860		0.797	0.860	
Control delay	60.1	340.7	108.6	46.5	20.0	3.0	41.2	1012		189.3	57.1	
Lane group LOS	E	F	F	D	C	A	D	F		F	E	
Apprch. delay	248.8			26.8			860.9			134.9		
Approach LOS	F			C			F			F		
Intersec. delay	359.8			Intersection LOS						F		

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4-A
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN AM PEAK HOUR/NOMIT.*

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	158	1463	747	926	747	553	432	2342		1011	705	
Satflow per lane	1719	1904	1489	1769	1904	1505	1719	1588		1719	1844	
Capacity/lane	334	899	645	1031	1972	963	779	750		779	871	
Flow ratio	0.05	0.28	0.50	0.27	0.14	0.37	0.13	0.54		0.30	0.14	
v/c ratio	0.47	1.63	1.16	0.90	0.38	0.57	0.55	3.12		1.30	0.81	
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	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.48	1.67	1.67		1.67	1.67	
PF factor	0.96	1.00	1.00	0.95	0.67	0.19	0.88	1.00		1.00	0.96	
Q_1	3.1	22.4	31.1	18.0	5.5	2.5	7.2	35.8		21.7	10.0	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.5	0.4		0.5	0.5	
Q_2	0.3	27.1	16.8	3.7	0.5	1.2	0.7	73.6		17.0	1.6	
Q avg.	3.3	49.4	47.9	21.7	6.0	3.7	7.9	109.4		38.6	11.6	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	2.0	1.5	1.5	1.7	1.9	2.0	1.9	1.5		1.6	1.8	
BOQ, $Q_{\%}$	6.7	76.1	73.8	36.4	11.5	7.4	14.8	164		60.6	21.1	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	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	
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

4-A
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/11/11	Jurisdiction	WITH MITIGATION
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030/COMMUNITY PLAN

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	3	1	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	150	1390	810	880	710	525	410	550	1675	960	555	115
% Heavy veh	5	5	5	10	5	5	5	5	10	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	3.0	2.0	2.0	3.0	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	100	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	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 26.0	G = 25.0	G =	G = 35.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	158	1463	747	926	747	553	432	579	1763	1011	705	
Lane group cap.	334	899	645	1031	1972	963	779	899	721	779	871	
v/c ratio	0.47	1.63	1.16	0.90	0.38	0.57	0.55	0.64	2.45	1.30	0.81	
Green ratio	0.10	0.17	0.43	0.30	0.38	0.64	0.23	0.17	0.51	0.23	0.17	
Unif. delay d1	63.8	62.0	42.5	50.3	33.7	15.4	50.6	57.7	37.0	57.5	59.6	
Delay factor k	0.11	0.50	0.50	0.42	0.11	0.17	0.15	0.22	0.50	0.50	0.35	
Increm. delay d2	1.1	287.4	87.7	10.5	0.1	0.8	0.9	1.6	654.5	143.4	5.8	
PF factor	0.926	0.860	0.490	0.714	0.591	0.139	0.797	0.860	1.000	0.797	0.860	
Control delay	60.1	340.7	108.6	46.5	20.0	3.0	41.2	51.2	691.5	189.3	57.1	
Lane group LOS	E	F	F	D	C	A	D	D	F	F	E	
Apprch. delay	248.8			26.8			456.6			134.9		
Approach LOS	F			C			F			F		
Intersec. delay	236.3			Intersection LOS						F		

4-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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	L	T	R	L	T	R	L	T	R	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	0.0	
Flow rate/lane	158	1463	747	926	747	553	432	579	1763	1011	705	
Satflow per lane	1719	1904	1489	1769	1904	1505	1719	1904	1423	1719	1844	
Capacity/lane	334	899	645	1031	1972	963	779	899	721	779	871	
Flow ratio	0.05	0.28	0.50	0.27	0.14	0.37	0.13	0.11	1.24	0.30	0.14	
v/c ratio	0.47	1.63	1.16	0.90	0.38	0.57	0.55	0.64	2.45	1.30	0.81	
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	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.48	1.67	1.67	1.00	1.67	1.67	
PF factor	0.96	1.00	1.00	0.95	0.67	0.19	0.88	0.94	1.00	1.00	0.96	
Q_1	3.1	22.4	31.1	18.0	5.5	2.5	7.2	7.7	73.5	21.7	10.0	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.5	0.5	0.8	0.5	0.5	
Q_2	0.3	27.1	16.8	3.7	0.5	1.2	0.7	0.8	131.5	17.0	1.6	
Q avg.	3.3	49.4	47.9	21.7	6.0	3.7	7.9	8.5	205.0	38.6	11.6	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.5	1.5	1.7	1.9	2.0	1.9	1.9	1.5	1.6	1.8	
BOQ, $Q_{\%}$	6.7	76.1	73.8	36.4	11.5	7.4	14.8	16.0	307	60.6	21.1	

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	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

A-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/07/11	Jurisdiction	NO MITIGATION
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030/COMMUNITY PLAN

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	3	0	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	115	845	260	1430	1265	930	610	660	1015	620	320	150
% Heavy veh	5	5	5	10	5	5	5	5	10	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	
Ext. eff. green	2.0	3.0	2.0	2.0	3.0	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	100	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	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 26.0	G = 25.0	G =	G = 35.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	121	889	168	1505	1332	979	642	1763		653	495	
Lane group cap.	334	899	645	1031	1972	963	779	778		779	847	
v/c ratio	0.36	0.99	0.26	1.46	0.68	1.02	0.82	2.27		0.84	0.58	
Green ratio	0.10	0.17	0.43	0.30	0.38	0.64	0.23	0.17		0.23	0.17	
Unif. delay d1	63.0	61.9	27.1	52.5	38.8	27.0	54.6	62.0		54.8	57.0	
Delay factor k	0.11	0.49	0.11	0.50	0.25	0.50	0.36	0.50		0.37	0.18	
Increm. delay d2	0.7	27.2	0.2	212.3	0.9	33.2	7.2	573.8		8.1	1.0	
PF factor	0.926	0.860	0.490	0.714	0.591	0.181	0.797	0.860		0.797	0.860	
Control delay	59.0	80.4	13.5	249.8	23.9	38.1	50.7	627.2		51.7	50.1	
Lane group LOS	E	F	B	F	C	D	D	F		D	D	
Apprch. delay	68.7			116.6			473.3			51.0		
Approach LOS	E			F			F			D		
Intersec. delay	201.6			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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	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	121	889	168	1505	1332	979	642	1763		653	495	
Satflow per lane	1719	1904	1489	1769	1904	1505	1719	1647		1719	1793	
Capacity/lane	334	899	645	1031	1972	963	779	778		779	847	
Flow ratio	0.04	0.17	0.11	0.44	0.26	0.65	0.19	0.39		0.20	0.10	
v/c ratio	0.36	0.99	0.26	1.46	0.68	1.02	0.82	2.27		0.84	0.58	
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	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.46	1.67	1.67		1.67	1.67	
PF factor	0.95	1.00	0.54	1.00	0.77	1.00	0.95	1.00		0.95	0.93	
Q_1	2.3	13.5	2.4	32.3	13.0	40.8	12.4	27.0		12.7	6.4	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.5	0.4		0.5	0.5	
Q_2	0.2	4.2	0.3	32.4	1.5	11.6	2.0	46.0		2.2	0.6	
Q avg.	2.5	17.7	2.6	64.7	14.5	52.4	14.4	73.0		14.9	7.1	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.7	2.0	1.5	1.8	1.5	1.8	1.5		1.8	1.9	
BOQ, $Q_{\%}$	5.0	30.5	5.3	98.1	25.7	80.4	25.5	110		26.2	13.5	

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	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

4-P
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD/OCEAN VIEW HILLS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/11/11	Jurisdiction	WITH MITIGATION
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030/COMMUNITY PLAN

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	3	1	2	3	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	115	845	260	1430	1265	930	610	660	1015	620	320	150
% Heavy veh	5	5	5	10	5	5	5	5	10	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	3.0	2.0	2.0	3.0	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	100	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	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 26.0	G = 25.0	G =	G = 30.0	G = 26.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	121	889	168	1505	1332	979	642	695	1068	653	495	
Lane group cap.	345	930	616	1066	2040	945	691	930	746	691	876	
v/c ratio	0.35	0.96	0.27	1.41	0.65	1.04	0.93	0.75	1.43	0.95	0.57	
Green ratio	0.10	0.18	0.41	0.31	0.39	0.63	0.21	0.18	0.52	0.21	0.18	
Unif. delay d1	60.5	58.9	28.1	50.0	35.9	27.0	56.5	56.4	34.5	56.7	54.3	
Delay factor k	0.11	0.47	0.11	0.50	0.23	0.50	0.44	0.30	0.50	0.46	0.16	
Increm. delay d2	0.6	19.6	0.2	190.9	0.8	39.0	19.0	3.4	201.9	21.8	0.9	
PF factor	0.923	0.854	0.529	0.700	0.568	0.222	0.826	0.854	0.706	0.826	0.854	
Control delay	56.4	70.0	15.1	225.9	21.2	45.0	65.7	51.5	226.3	68.6	47.3	
Lane group LOS	E	E	B	F	C	D	E	D	F	E	D	
Apprch. delay	60.8			108.0			132.9			59.4		
Approach LOS	E			F			F			E		
Intersec. delay	102.0			Intersection LOS						F		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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	TR	
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	
Flow rate/lane	121	889	168	1505	1332	979	642	695	1068	653	495	
Satflow per lane	1719	1904	1489	1769	1904	1506	1719	1904	1424	1719	1793	
Capacity/lane	345	930	616	1066	2040	945	691	930	746	691	876	
Flow ratio	0.04	0.17	0.11	0.44	0.26	0.65	0.19	0.13	0.75	0.20	0.10	
v/c ratio	0.35	0.96	0.27	1.41	0.65	1.04	0.93	0.75	1.43	0.95	0.57	
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	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.46	1.67	1.67	1.27	1.67	1.67	
PF factor	0.95	0.99	0.58	1.00	0.74	1.00	0.98	0.95	1.00	0.99	0.92	
Q_1	2.2	12.9	2.6	31.2	11.8	39.4	12.8	9.3	43.0	13.2	6.1	
k_B	0.3	0.5	0.7	0.6	0.8	0.9	0.5	0.5	0.8	0.5	0.5	
Q_2	0.2	3.6	0.3	30.3	1.4	12.8	3.2	1.3	42.7	3.5	0.6	
Q avg.	2.4	16.5	2.8	61.5	13.2	52.2	16.0	10.5	85.7	16.7	6.7	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.7	2.0	1.5	1.8	1.5	1.7	1.8	1.5	1.7	1.9	
BOQ, $Q_{\%}$	4.8	28.7	5.7	93.4	23.6	80.0	28.0	19.3	129	29.0	12.9	

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	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	2030/COMMUNITY PLAN

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	1	1	1	3	0	0	2	1
Lane group					LT	R	L	T			TR	R
Volume (vph)				235	5	245	690	2390			1155	1090
% 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			10	5	0				10	5	350
Lane Width					12.0	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	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 57.0	G = 50.0	G =	G =
	Y = 4	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		
Adj. flow rate					252	258	726	2516			1419	576
Lane group cap.					235	820	668	1769			1203	504
v/c ratio					1.07	0.31	1.09	1.42			1.18	1.14
Green ratio					0.14	0.58	0.41	0.36			0.36	0.36
Unif. delay d1					60.0	15.2	41.5	45.0			45.0	45.0
Delay factor k					0.50	0.11	0.50	0.50			0.50	0.50
Increm. delay d2					79.2	0.2	60.8	193.4			89.7	85.7
PF factor					0.889	0.119	0.542	0.630			0.630	0.630
Control delay					132.5	2.0	83.3	221.7			118.0	114.0
Lane group LOS					F	A	F	F			F	F
Apprch. delay				66.5			190.7			116.9		
Approach LOS				E			F			F		
Intersec. delay	154.1			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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					LT	R	L	T			TR	R
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane					252	258	726	2516			1419	576
Satflow per lane					1647	1418	1641	1818			1769	1411
Capacity/lane					235	820	668	1769			1203	504
Flow ratio					0.15	0.18	0.44	0.51			0.42	0.41
v/c ratio					1.07	0.31	1.09	1.42			1.18	1.14
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	1.64	1.67	1.67			1.67	1.67
PF factor					1.00	0.14	1.00	1.00			1.00	1.00
Q_1					9.8	0.7	28.2	35.9			29.0	22.4
k_B					0.4	0.8	0.7	0.7			0.7	0.6
Q_2					4.7	0.4	12.4	36.4			17.8	12.4
Q avg.					14.5	1.1	40.6	72.3			46.8	34.8
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.8	2.1	1.6	1.5			1.5	1.6
BOQ, $Q_{\%}$					25.6	2.2	63.5	109			72.3	55.3
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. R_Q												
95% $R_{Q\%}$												

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w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	2030/COMMUNITY PLAN

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	1	1	2	3	0	0	3	1
Lane group					LT	R	L	T			T	R
Volume (vph)				235	5	245	690	2390			1155	1090
% 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			10	5	0				10	5	235
Lane Width					12.0	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	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 37.0	G =	G =	G =	G = 30.0	G = 50.0	G =	G =
	Y = 4	Y =	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		
Adj. flow rate					252	258	726	2516			1216	900
Lane group cap.					469	783	735	3200			1905	552
v/c ratio					0.54	0.33	0.99	0.79			0.64	1.63
Green ratio					0.28	0.55	0.23	0.65			0.38	0.38
Unif. delay d1					39.3	16.3	49.8	16.5			32.6	40.0
Delay factor k					0.14	0.11	0.49	0.33			0.22	0.50
Increm. delay d2					1.2	0.2	30.0	1.4			0.7	291.9
PF factor					0.735	0.198	0.800	0.141			0.583	0.678
Control delay					30.1	3.5	69.9	3.7			19.8	319.0
Lane group LOS					C	A	E	A			B	F
Apprch. delay				16.6			18.5			147.0		
Approach LOS				B			B			F		
Intersec. delay	64.7			Intersection LOS						E		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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					LT	R	L	T			T	R
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane					252	258	726	2516			1216	900
Satflow per lane					1647	1433	1641	1818			1818	1435
Capacity/lane					469	783	735	3200			1905	552
Flow ratio					0.15	0.18	0.23	0.51			0.25	0.63
v/c ratio					0.54	0.33	0.99	0.79			0.64	1.63
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	1.47			1.67	1.51
PF factor					0.84	0.23	1.00	0.27			0.74	1.00
Q_1					6.4	1.2	13.4	6.6			9.8	32.5
k_B					0.5	0.7	0.5	0.9			0.7	0.6
Q_2					0.6	0.4	4.4	3.2			1.2	45.0
Q avg.					7.0	1.6	17.8	9.7			11.0	77.5

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$					1.9	2.1	1.7	1.8			1.8	1.5
BOQ, $Q_{\%}$					13.4	3.2	30.6	18.0			20.0	117

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing					24.9	24.9	24.9	24.9			24.9	24.9
Q storage					0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/COMMUNITY PLAN/NO MI

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	1	1	1	3	0	0	2	1
Lane group					LT	R	L	T			TR	R
Volume (vph)				235	5	245	1145	2040			1260	750
% 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			10	5	0				10	5	350
Lane Width					12.0	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	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 57.0	G = 50.0	G =	G =
	Y = 4	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		
Adj. flow rate					252	258	1205	2147			1326	421
Lane group cap.					235	820	668	1769			1236	504
v/c ratio					1.07	0.31	1.80	1.21			1.07	0.84
Green ratio					0.14	0.58	0.41	0.36			0.36	0.36
Unif. delay d1					60.0	15.2	41.5	45.0			45.0	41.2
Delay factor k					0.50	0.11	0.50	0.50			0.50	0.37
Increm. delay d2					79.2	0.2	367.7	101.6			47.6	11.6
PF factor					0.889	0.119	0.798	0.630			0.630	0.630
Control delay					132.5	2.0	400.8	130.0			75.9	37.6
Lane group LOS					F	A	F	F			E	D
Apprch. delay				66.5			227.3			66.7		
Approach LOS				E			F			E		
Intersec. delay	162.7			Intersection LOS						F		

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5-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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	T			TR	R
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane					252	258	1205	2147			1326	421
Satflow per lane					1647	1418	1641	1818			1818	1411
Capacity/lane					235	820	668	1769			1236	504
Flow ratio					0.15	0.18	0.73	0.43			0.38	0.30
v/c ratio					1.07	0.31	1.80	1.21			1.07	0.84
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	1.64	1.29	1.67			1.67	1.67
PF factor					1.00	0.14	1.00	1.00			1.00	0.88
Q_1					9.8	0.7	46.9	30.6			27.1	13.2
k_B					0.4	0.8	0.7	0.7			0.7	0.6
Q_2					4.7	0.4	68.7	20.7			11.2	2.4
Q avg.					14.5	1.1	115.5	51.3			38.3	15.6
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.8	2.1	1.5	1.5			1.6	1.8
BOQ, $Q_{\%}$					25.6	2.2	173	78.8			60.2	27.4
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. R_Q												
95% $R_{Q\%}$												

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 WB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	WTH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/COMM. PLAN 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	0	1	1	2	3	0	0	3	1
Lane group					LT	R	L	T			T	R
Volume (vph)				235	5	245	1145	2040			1260	750
% 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			10	5	0				10	5	350
Lane Width					12.0	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	0
Unit Extension					3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 25.0	G =	G =	G =	G = 52.0	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 = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate					252	258	1205	2147			1326	421
Lane group cap.					275	768	1105	1981			1981	574
v/c ratio					0.92	0.34	1.09	1.08			0.67	0.73
Green ratio					0.17	0.54	0.35	0.40			0.40	0.40
Unif. delay d1					61.5	19.4	49.0	45.0			36.9	38.2
Delay factor k					0.43	0.11	0.50	0.50			0.24	0.29
Increm. delay d2					33.2	0.3	55.2	47.1			0.9	4.8
PF factor					0.867	0.217	0.646	0.556			0.556	0.556
Control delay					86.4	4.5	86.9	72.1			21.4	26.1
Lane group LOS					F	A	F	E			C	C
Apprch. delay				45.0			77.4			22.5		
Approach LOS				D			E			C		
Intersec. delay	57.4			Intersection LOS						E		

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5-P
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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					LT	R	L	T			T	R
Init. queue/lane					0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane					252	258	1205	2147			1326	421
Satflow per lane					1647	1422	1641	1818			1818	1436
Capacity/lane					275	768	1105	1981			1981	574
Flow ratio					0.15	0.18	0.38	0.43			0.27	0.29
v/c ratio					0.92	0.34	1.09	1.08			0.67	0.73
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					0.99	0.26	1.00	1.00			0.73	0.77
Q_1					10.2	1.5	25.8	32.8			12.2	11.4
k_B					0.4	0.8	0.7	0.8			0.8	0.7
Q_2					2.5	0.4	11.1	13.3			1.5	1.7
Q avg.					12.7	1.9	36.9	46.2			13.7	13.1
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.8	2.0	1.6	1.5			1.8	1.8
BOQ, $Q_{\%}$					22.8	4.0	58.2	71.4			24.3	23.5
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. R_Q												
95% $R_{Q\%}$												

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6-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	NO MITIGATION
Time Period	YEAR 2030 AM PEAK	Analysis Year	YEAR 2030 /COMMUNITY PLAN

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	0	0	0	0	3	0	1	3	0
Lane group	L	LTR						TR		L	T	
Volume (vph)	1115	5	1030					2000	235	245	1145	
% 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	
Ext. eff. green	2.0	2.0						2.0		2.0	2.0	
Arrival type	3	3						5		5	5	
Unit Extension	3.0	3.0						3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	0	100	0			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	SB Only	Thru & RT	07	08
Timing	G = 51.0	G =	G =	G =	G = 20.0	G = 46.0	G =	G =
	Y = 4	Y =	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		
Adj. flow rate	1174	984						2352		258	1205	
Lane group cap.	644	572						1718		252	2667	
v/c ratio	1.82	1.72						1.37		1.02	0.45	
Green ratio	0.39	0.39						0.35		0.15	0.54	
Unif. delay d1	39.5	39.5						42.0		55.0	18.3	
Delay factor k	0.50	0.50						0.50		0.50	0.11	
Increm. delay d2	376.4	331.5						169.9		63.0	0.1	
PF factor	1.000	1.000						0.635		0.879	0.222	
Control delay	415.9	371.0						196.5		111.3	4.2	
Lane group LOS	F	F						F		F	A	
Apprch. delay	395.4						196.5			23.1		
Approach LOS	F						F			C		
Intersec. delay	225.9			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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	LTR						TR		L	T	
Init. queue/lane	0.0	0.0						0.0		0.0	0.0	
Flow rate/lane	1174	984						2352		258	1205	
Satflow per lane	1641	1459						1782		1641	1818	
Capacity/lane	644	572						1718		252	2667	
Flow ratio	0.72	0.67						0.48		0.16	0.24	
v/c ratio	1.82	1.72						1.37		1.02	0.45	
I factor	1.000	1.000						1.000		1.000	1.000	
Arrival type	3	3						5		5	5	
Platoon ratio	1.00	1.00						1.67		1.67	1.67	
PF factor	1.00	1.00						1.00		1.00	0.28	
Q_1	42.4	35.5						31.2		9.3	2.8	
k_B	0.7	0.6						0.7		0.4	0.8	
Q_2	67.7	52.9						31.4		3.9	0.7	
Q avg.	110.1	88.5						62.5		13.2	3.4	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.5						1.5		1.8	2.0	
BOQ, $Q_{\%}$	165	133						95.0		23.6	6.9	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	24.9	24.9						24.9		24.9	24.9	
Q storage	0	0						0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

6-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	WITH MITIGATION
Time Period	YEAR 2030 AM PEAK	Analysis Year	YEAR 2030 /COMMUNITY PLAN

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	0	0	0	0	3	1	2	3	0
Lane group	L	LT	R					T	R	L	T	
Volume (vph)	1115	5	1030					2000	235	245	1145	
% 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	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Arrival type	3	3	3					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	0	200	0			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		N	N	0	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	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 54.0	G =	G =	G =	G = 20.0	G = 53.0	G =	G =
	Y = 4	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		
Adj. flow rate	587	592	874					2105	247	258	1205	
Lane group cap.	633	635	562					1875	543	455	2724	
v/c ratio	0.93	0.93	1.56					1.12	0.45	0.57	0.44	
Green ratio	0.39	0.39	0.39					0.38	0.38	0.14	0.55	
Unif. delay d1	41.1	41.2	43.0					43.5	32.7	56.0	18.7	
Delay factor k	0.44	0.45	0.50					0.50	0.11	0.16	0.11	
Increm. delay d2	20.0	20.8	258.5					62.9	0.6	1.7	0.1	
PF factor	1.000	1.000	1.000					0.594	0.594	0.889	0.185	
Control delay	61.1	62.0	301.5					88.7	20.0	51.4	3.6	
Lane group LOS	E	E	F					F	C	D	A	
Apprch. delay	163.7						81.5			12.0		
Approach LOS	F						F			B		
Intersec. delay	92.9			Intersection LOS						F		

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6-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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	LT	R					T	R	L	T	
Init. queue/lane	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Flow rate/lane	587	592	874					2105	247	258	1205	
Satflow per lane	1641	1646	1457					1818	1435	1641	1818	
Capacity/lane	633	635	562					1875	543	455	2724	
Flow ratio	0.36	0.36	0.60					0.42	0.17	0.08	0.24	
v/c ratio	0.93	0.93	1.56					1.12	0.45	0.57	0.44	
I factor	1.000	1.000	1.000					1.000	1.000	1.000	1.000	
Arrival type	3	3	3					5	5	5	5	
Platoon ratio	1.00	1.00	1.00					1.67	1.67	1.67	1.67	
PF factor	1.00	1.00	1.00					1.00	0.69	0.94	0.24	
Q_1	21.8	22.1	34.0					30.0	5.0	4.5	2.4	
k_B	0.7	0.7	0.6					0.7	0.6	0.4	0.9	
Q_2	4.8	4.9	40.7					15.1	0.5	0.5	0.7	
Q avg.	26.6	27.0	74.7					45.1	5.5	5.0	3.1	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.6	1.5					1.5	1.9	2.0	2.0	
BOQ, $Q_{\%}$	43.5	44.1	113					69.9	10.7	9.7	6.2	
Queue Storage Ratio												
Q spacing	24.9	24.9	24.9					24.9	24.9	24.9	24.9	
Q storage	0	0	0					0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

G-P
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	NO MITIGATION
Time Period	YEAR 2030 PM PEAK	Analysis Year	YEAR 2030 /COM. PLAN /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	0	0	0	0	3	0	1	3	0
Lane group	L	LTR						TR		L	T	
Volume (vph)	1125	5	705					2115	235	245	1450	
% 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	
Ext. eff. green	2.0	2.0						2.0		2.0	2.0	
Arrival type	3	3						5		5	5	
Unit Extension	3.0	3.0						3.0		3.0	3.0	
Ped/Bike/RTOR Volume	10	5	100	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	SB Only	Thru & RT	07	08
Timing	G = 54.0	G =	G =	G =	G = 27.0	G = 46.0	G =	G =
	Y = 4	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		
Adj. flow rate	710	1116						2473		258	1526	
Lane group cap.	633	589						1597		316	2724	
v/c ratio	1.12	1.89						1.55		0.82	0.56	
Green ratio	0.39	0.39						0.33		0.19	0.55	
Unif. delay d1	43.0	43.0						47.0		54.1	20.5	
Delay factor k	0.50	0.50						0.50		0.36	0.16	
Increm. delay d2	74.1	409.0						250.0		15.3	0.3	
PF factor	1.000	1.000						0.674		0.841	0.185	
Control delay	117.1	452.0						281.6		60.8	4.1	
Lane group LOS	F	F						F		E	A	
Apprch. delay	321.8						281.6			12.3		
Approach LOS	F						F			B		
Intersec. delay	214.7			Intersection LOS						F		

6-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN PM PEAK HOUR/905CAL30P3CPNM

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	LTR						TR		L	T	
Init. queue/lane	0.0	0.0						0.0		0.0	0.0	
Flow rate/lane	710	1116						2473		258	1526	
Satflow per lane	1641	1527						1783		1641	1818	
Capacity/lane	633	589						1597		316	2724	
Flow ratio	0.43	0.73						0.51		0.16	0.31	
v/c ratio	1.12	1.89						1.55		0.82	0.56	
I factor	1.000	1.000						1.000		1.000	1.000	
Arrival type	3	3						5		5	5	
Platoon ratio	1.00	1.00						1.67		1.67	1.67	
PF factor	1.00	1.00						1.00		0.96	0.26	
Q_1	27.6	43.4						35.3		9.2	3.7	
k_B	0.7	0.7						0.7		0.5	0.9	
Q_2	14.0	67.2						41.9		1.6	1.1	
Q avg.	41.6	110.6						77.2		10.9	4.9	

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$	1.6	1.5						1.5		1.8	2.0	
BOQ, $Q_{\%}$	64.8	166						116		19.9	9.5	

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing	24.9	24.9						24.9		24.9	24.9	
Q storage	0	0						0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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W MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 EB/CALIENTE
Agency or Co.	USAI	Area Type	All other areas
Date Performed	07/06/11	Jurisdiction	WITH MITIGATION
Time Period	YEAR 2030 PM PEAK	Analysis Year	YEAR 2030 /COM. PLAN /WIT 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	0	0	0	0	3	1	2	3	0
Lane group	L	LT	R					T	R	L	T	
Volume (vph)	1125	5	705					2115	235	245	1450	
% 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	2.0	
Ext. eff. green	2.0	2.0	2.0					2.0	2.0	2.0	2.0	
Arrival type	3	3	3					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	100	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		N	N	0	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	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 60.0	G =	G =	G =	G = 14.0	G = 59.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 146.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	592	597	637					2226	247	258	1526	
Lane group cap.	674	676	590					2002	580	306	2612	
v/c ratio	0.88	0.88	1.08					1.11	0.43	0.84	0.58	
Green ratio	0.41	0.41	0.41					0.40	0.40	0.10	0.53	
Unif. delay d1	39.6	39.8	43.0					43.5	31.3	64.9	23.6	
Delay factor k	0.41	0.41	0.50					0.50	0.11	0.38	0.18	
Increm. delay d2	12.7	13.2	60.4					58.1	0.5	18.8	0.3	
PF factor	1.000	1.000	1.000					0.548	0.548	0.929	0.256	
Control delay	52.3	52.9	103.4					81.9	17.7	79.2	6.4	
Lane group LOS	D	D	F					F	B	E	A	
Apprch. delay	70.3						75.5			16.9		
Approach LOS	E						E			B		
Intersec. delay	56.8			Intersection LOS						E		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN PM PEAK HOUR/905CAL30P3CPWM

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group	L	LT	R					T	R	L	T	
Init. queue/lane	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Flow rate/lane	592	597	637					2226	247	258	1526	
Satflow per lane	1641	1646	1436					1818	1436	1641	1818	
Capacity/lane	674	676	590					2002	580	306	2612	
Flow ratio	0.36	0.36	0.44					0.45	0.17	0.08	0.31	
v/c ratio	0.88	0.88	1.08					1.11	0.43	0.84	0.58	
I factor	1.000	1.000	1.000					1.000	1.000	1.000	1.000	
Arrival type	3	3	3					5	5	5	5	
Platoon ratio	1.00	1.00	1.00					1.67	1.67	1.67	1.67	
PF factor	1.00	1.00	1.00					1.00	0.64	0.99	0.36	
Q_1	22.1	22.4	25.8					33.1	4.6	5.2	5.6	
k_B	0.7	0.7	0.7					0.8	0.7	0.3	0.9	
Q_2	3.8	3.9	10.8					15.4	0.5	1.2	1.2	
Q avg.	26.0	26.3	36.7					48.6	5.1	6.4	6.9	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.6	1.6					1.5	2.0	1.9	1.9	
BOQ, $Q_{\%}$	42.6	43.1	57.9					74.8	9.9	12.2	13.1	
Queue Storage Ratio												
Q spacing	24.9	24.9	24.9					24.9	24.9	24.9	24.9	
Q storage	0	0	0					0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/24/11	Jurisdiction	NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//COMMUNITY PLAN

Volume and Timing Input

SOUTHVIEW TM

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	2	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	430	620	330	1000	415	860	325	910	1500	1320	520	375
% Heavy veh	5	5	5	10	5	10	5	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	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	Thru & RT	Excl. Left	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 41.0	G = 30.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	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	453	1000		1053	437	905	342	2537		1389	942	
Lane group cap.	477	729		455	777	612	715	1294		683	1371	
v/c ratio	0.95	1.37		2.31	0.56	1.48	0.48	1.96		2.03	0.69	
Green ratio	0.14	0.21		0.14	0.21	0.43	0.21	0.29		0.21	0.29	
Unif. delay d1	59.5	55.0		60.0	49.1	40.0	48.1	49.5		55.0	43.8	
Delay factor k	0.46	0.50		0.50	0.16	0.50	0.11	0.50		0.50	0.26	
Increm. delay d2	28.9	175.9		598.3	0.9	224.2	0.5	435.1		470.3	1.5	
PF factor	0.889	0.818		0.889	0.818	0.627	0.818	0.729		0.818	0.724	
Control delay	81.7	220.9		651.6	41.1	249.2	39.9	471.2		515.3	33.2	
Lane group LOS	F	F		F	D	F	D	F		F	C	
Apprch. delay	177.5			388.2			419.9			320.5		
Approach LOS	F			F			F			F		
Intersec. delay	347.1			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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	L	TR		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	
Flow rate/lane	453	1000		1053	437	905	342	2537		1389	942	
Satflow per lane	1719	1786		1641	1904	1427	1719	1621		1641	1718	
Capacity/lane	477	729		455	777	612	715	1294		683	1371	
Flow ratio	0.14	0.29		0.33	0.12	0.63	0.10	0.57		0.44	0.20	
v/c ratio	0.95	1.37		2.31	0.56	1.48	0.48	1.96		2.03	0.69	
I 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	1.50	1.67	1.65		1.67	1.67	
PF factor	0.99	1.00		1.00	0.90	1.00	0.89	1.00		1.00	0.87	
Q_1	8.9	20.4		21.1	7.2	35.2	5.3	36.2		27.8	10.3	
k_B	0.4	0.5		0.4	0.5	0.7	0.5	0.6		0.5	0.6	
Q_2	2.7	19.6		39.2	0.7	38.6	0.4	58.2		46.4	1.2	
Q avg.	11.6	40.0		60.2	7.8	73.8	5.8	94.4		74.2	11.5	

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$	1.8	1.6		1.5	1.9	1.5	1.9	1.5		1.5	1.8	
BOQ, $Q_{\%}$	21.1	62.6		91.6	14.8	111	11.1	142		112	21.0	

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing	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	
Avg. R_Q												
95% $R_{Q\%}$												

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//COMMUNITY PLAN

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	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	430	620	330	1000	415	860	325	910	1500	1320	520	375
% Heavy veh	5	5	5	10	5	10	5	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	
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	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 41.0	G = 30.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	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	453	653	347	1053	437	905	342	958	1579	1389	942	
Lane group cap.	477	777	641	455	777	612	715	1451	624	683	1371	
v/c ratio	0.95	0.84	0.54	2.31	0.56	1.48	0.48	0.66	2.53	2.03	0.69	
Green ratio	0.14	0.21	0.43	0.14	0.21	0.43	0.21	0.29	0.44	0.21	0.29	
Unif. delay d1	59.5	52.7	29.8	60.0	49.1	40.0	48.1	43.4	39.5	55.0	43.8	
Delay factor k	0.46	0.38	0.14	0.50	0.16	0.50	0.11	0.23	0.50	0.50	0.26	
Increm. delay d2	28.9	8.2	0.9	598.3	0.9	224.2	0.5	1.1	693.4	470.3	1.5	
PF factor	0.889	0.818	0.500	0.889	0.818	0.627	0.818	0.724	1.000	0.818	0.724	
Control delay	81.7	51.3	15.8	651.6	41.1	249.2	39.9	32.5	732.9	515.3	33.2	
Lane group LOS	F	D	B	F	D	F	D	C	F	F	C	
Apprch. delay	52.3			388.2			417.6			320.5		
Approach LOS	D			F			F			F		
Intersec. delay	326.2			Intersection LOS						F		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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	TR	
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	
Flow rate/lane	453	653	347	1053	437	905	342	958	1579	1389	942	
Satflow per lane	1719	1904	1495	1641	1904	1427	1719	1818	1432	1641	1718	
Capacity/lane	477	777	641	455	777	612	715	1451	624	683	1371	
Flow ratio	0.14	0.18	0.23	0.33	0.12	0.63	0.10	0.19	1.10	0.44	0.20	
v/c ratio	0.95	0.84	0.54	2.31	0.56	1.48	0.48	0.66	2.53	2.03	0.69	
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	5	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.50	1.67	1.67	1.00	1.67	1.67	
PF factor	0.99	0.96	0.63	1.00	0.90	1.00	0.89	0.86	1.00	1.00	0.87	
Q_1	8.9	12.2	6.3	21.1	7.2	35.2	5.3	10.3	61.4	27.8	10.3	
k_B	0.4	0.5	0.7	0.4	0.5	0.7	0.5	0.6	0.7	0.5	0.6	
Q_2	2.7	2.2	0.8	39.2	0.7	38.6	0.4	1.1	120.5	46.4	1.2	
Q avg.	11.6	14.4	7.1	60.2	7.8	73.8	5.8	11.4	181.9	74.2	11.5	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.8	1.8	1.9	1.5	1.9	1.5	1.9	1.8	1.5	1.5	1.8	
BOQ, $Q_{\%}$	21.1	25.4	13.5	91.6	14.8	111	11.1	20.8	273	112	21.0	
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	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/24/11	Jurisdiction	NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030//COMMUNITY PLAN

Volume and Timing Input

SOUTHVIEW TM

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	2	0	2	2	1	2	3	0	2	3	0
Lane group	L	TR		L	T	R	L	TR		L	TR	
Volume (vph)	275	415	325	1930	615	1295	330	725	960	880	1080	285
% Heavy veh	5	5	5	10	5	10	5	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	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	Thru & RT	Excl. Left	07	08
Timing	G = 20.0	G = 30.0	G =	G =	G = 41.0	G = 30.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	Y = 4	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	289	779		2032	647	1363	347	1774		926	1437	
Lane group cap.	477	716		455	777	612	715	1307		683	1411	
v/c ratio	0.61	1.09		4.47	0.83	2.23	0.49	1.36		1.36	1.02	
Green ratio	0.14	0.21		0.14	0.21	0.43	0.21	0.29		0.21	0.29	
Unif. delay d1	56.3	55.0		60.0	52.6	40.0	48.2	49.5		55.0	49.5	
Delay factor k	0.19	0.50		0.50	0.37	0.50	0.11	0.50		0.50	0.50	
Increm. delay d2	2.2	60.1		1565	7.7	557.5	0.5	165.9		169.6	28.7	
PF factor	0.889	0.818		0.918	0.818	1.000	0.818	0.724		0.818	0.724	
Control delay	52.3	105.1		1620	50.8	597.5	40.0	201.7		214.6	64.5	
Lane group LOS	D	F		F	D	F	D	F		F	E	
Apprch. delay	90.8			1024			175.2			123.3		
Approach LOS	F			F			F			F		
Intersec. delay	510.6			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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	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	
Flow rate/lane	289	779		2032	647	1363	347	1774		926	1437	
Satflow per lane	1719	1755		1641	1904	1427	1719	1638		1641	1768	
Capacity/lane	477	716		455	777	612	715	1307		683	1411	
Flow ratio	0.09	0.23		0.64	0.18	0.96	0.10	0.40		0.29	0.30	
v/c ratio	0.61	1.09		4.47	0.83	2.23	0.49	1.36		1.36	1.02	
I 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		1.49	1.67	1.00	1.67	1.67		1.67	1.67	
PF factor	0.95	1.00		1.00	0.96	1.00	0.89	1.00		1.00	1.00	
Q_1	5.1	15.9		40.7	12.1	53.0	5.4	25.3		18.5	20.5	
k_B	0.4	0.5		0.4	0.5	0.7	0.5	0.6		0.5	0.6	
Q_2	0.6	7.5		102.0	2.1	95.1	0.5	23.5		17.3	7.0	
Q avg.	5.7	23.4		142.7	14.1	148.1	5.8	48.8		35.8	27.5	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.9	1.7		1.5	1.8	1.5	1.9	1.5		1.6	1.6	
BOQ, $Q_{\%}$	11.0	39.0		214	25.1	222	11.3	75.2		56.6	44.8	
Queue Storage Ratio												
Q spacing	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	
Avg. R_Q												
95% $R_{Q\%}$												

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD.@CALIENTE BLVD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030//COMMUNITY PLAN

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	0
Lane group	L	T	R	L	T	R	L	T	R	L	TR	
Volume (vph)	275	415	325	1930	615	1295	330	725	960	880	1080	285
% Heavy veh	5	5	5	10	5	10	5	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	
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	Thru & RT	03	04	Thru & RT	Excl. Left	07	08
Timing	G = 30.0	G = 30.0	G =	G =	G = 41.0	G = 30.0	G =	G =
	Y = 5	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		
Adj. flow rate	289	437	342	2032	647	1363	347	763	1011	926	1437	
Lane group cap.	668	725	597	637	725	570	668	1354	678	637	1317	
v/c ratio	0.43	0.60	0.57	3.19	0.89	2.39	0.52	0.56	1.49	1.45	1.09	
Green ratio	0.20	0.20	0.40	0.20	0.20	0.40	0.20	0.27	0.47	0.20	0.27	
Unif. delay d1	52.5	54.6	35.0	60.0	58.4	45.0	53.6	46.8	39.5	60.0	54.5	
Delay factor k	0.11	0.19	0.17	0.50	0.42	0.50	0.13	0.16	0.50	0.50	0.50	
Increm. delay d2	0.5	1.4	1.3	989.6	13.4	631.4	0.7	0.5	228.8	212.8	53.5	
PF factor	0.833	0.833	0.556	0.877	0.833	1.000	0.833	0.749	0.689	0.833	0.749	
Control delay	44.2	46.9	20.8	1042	62.1	676.4	45.4	35.6	256.0	262.8	94.4	
Lane group LOS	D	D	C	F	E	F	D	D	F	F	F	
Apprch. delay	37.8			762.0			142.3			160.4		
Approach LOS	D			F			F			F		
Intersec. delay	396.2			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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	TR	
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	
Flow rate/lane	289	437	342	2032	647	1363	347	763	1011	926	1437	
Satflow per lane	1719	1904	1493	1641	1904	1425	1719	1818	1432	1641	1768	
Capacity/lane	668	725	597	637	725	570	668	1354	678	637	1317	
Flow ratio	0.09	0.12	0.23	0.64	0.18	0.96	0.10	0.15	0.71	0.29	0.30	
v/c ratio	0.43	0.60	0.57	3.19	0.89	2.39	0.52	0.56	1.49	1.45	1.09	
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	5	5	
Platoon ratio	1.67	1.67	1.67	1.49	1.67	1.00	1.67	1.67	1.35	1.67	1.67	
PF factor	0.89	0.92	0.69	1.00	0.97	1.00	0.90	0.85	1.00	1.00	1.00	
Q_1	4.8	8.0	7.7	43.6	13.4	56.8	6.0	8.5	42.1	19.8	22.0	
k_B	0.5	0.5	0.7	0.5	0.5	0.7	0.5	0.6	0.7	0.5	0.6	
Q_2	0.4	0.8	0.9	90.4	2.8	100.3	0.5	0.8	43.8	19.9	9.6	
Q avg.	5.2	8.7	8.6	134.0	16.2	157.1	6.5	9.3	85.9	39.8	31.6	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.9	1.9	1.5	1.7	1.5	1.9	1.9	1.5	1.6	1.6	
BOQ, $Q_{\%}$	10.1	16.3	16.1	201	28.3	236	12.5	17.3	129	62.3	50.7	
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	
Q storage	0	0	0	0	0	0	0	0	0	0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	CALIENTE AV./SIEMPRE VIVA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/01/11	Jurisdiction	NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/COMMUNITY PLAN

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	0	0	1	1	0	0	0	1	0	2
Lane group	L	T			T	R				L		R
Volume (vph)	1650	45			175	175				45		2410
% Heavy veh	10	5			5	5				5		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			3	3				3		3
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				5	5	0	5			5	5	0
Lane Width	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
Unit Extension	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 = 90.0	G = 15.0	G =	G =	G = 21.0	G =	G =	G =
	Y = 5	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		
Adj. flow rate	1737	47			184	184				47		2537
Lane group cap.	2049	204			204	159				258		2053
v/c ratio	0.85	0.23			0.90	1.16				0.18		1.24
Green ratio	0.64	0.11			0.11	0.11				0.15		0.82
Unif. delay d1	19.6	57.2			61.8	62.5				52.0		12.5
Delay factor k	0.38	0.11			0.42	0.50				0.11		0.50
Increm. delay d2	3.5	0.6			37.3	119.9				0.3		110.5
PF factor	1.000	1.000			1.000	1.000				1.000		1.000
Control delay	23.2	57.8			99.0	182.4				52.3		123.0
Lane group LOS	C	E			F	F				D		F
Apprch. delay	24.1			140.7						121.7		
Approach LOS	C			F						F		
Intersec. delay	86.4			Intersection LOS						F		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	CALIENTE AV./SIEMPRE VIVA RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/01/11	Jurisdiction	NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/COMMUNITY PLAN

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	2	1	0	0	1	1	0	0	0	1	0	2
Lane group	L	T			T	R				L		R
Volume (vph)	2565	175			45	45				175		1825
% Heavy veh	10	5			5	5				5		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			3	3				3		3
Unit Extension	3.0	3.0			3.0	3.0				3.0		3.0
Ped/Bike/RTOR Volume				5	5	0	5			5	5	0
Lane Width	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
Unit Extension	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 = 96.0	G = 14.0	G =	G =	G = 16.0	G =	G =	G =
	Y = 5	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		
Adj. flow rate	2700	184			47	47				184		1921
Lane group cap.	2185	1565			191	148				196		2060
v/c ratio	1.24	0.12			0.25	0.32				0.94		0.93
Green ratio	0.69	0.82			0.10	0.10				0.11		0.83
Unif. delay d1	22.0	2.5			58.1	58.6				61.5		9.0
Delay factor k	0.50	0.11			0.11	0.11				0.45		0.45
Increm. delay d2	110.2	0.0			0.7	1.2				47.0		8.5
PF factor	1.000	1.000			1.000	1.000				1.000		1.000
Control delay	132.2	2.5			58.8	59.8				108.6		17.5
Lane group LOS	F	A			E	E				F		B
Apprch. delay	123.9			59.3						25.5		
Approach LOS	F			E						C		
Intersec. delay	82.0			Intersection LOS						F		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/22/11	Jurisdiction	NO MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN NO 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	3	1	2	3	1	2	3	0	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	980	1835	510	380	1210	875	335	440	495	1970	740	670
% 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	35	10	5	155	10	5	30	10	5	80
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 = 33.0	G = 40.0	G =	G =	G = 32.0	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 = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1032	1932	500	400	1274	758	353	952		2074	1400	
Lane group cap.	701	1321	735	701	1321	735	680	748		680	758	
v/c ratio	1.47	1.46	0.68	0.57	0.96	1.03	0.52	1.27		3.05	1.85	
Green ratio	0.22	0.27	0.51	0.22	0.27	0.51	0.21	0.17		0.21	0.17	
Unif. delay d1	58.5	55.0	27.3	52.2	54.3	36.5	52.2	62.5		59.0	62.5	
Delay factor k	0.50	0.50	0.25	0.17	0.47	0.50	0.12	0.50		0.50	0.50	
Increm. delay d2	220.2	212.4	2.6	1.1	16.9	41.5	0.7	133.1		926.4	386.2	
PF factor	0.812	0.758	0.297	0.812	0.758	0.297	0.819	0.867		0.875	0.867	
Control delay	267.7	254.0	10.7	43.5	58.1	52.3	43.5	187.3		978.0	440.4	
Lane group LOS	F	F	B	D	E	D	D	F		F	F	
Apprch. delay	223.0			53.9			148.4			761.4		
Approach LOS	F			D			F			F		
Intersec. delay	350.5			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN/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	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	1032	1932	500	400	1274	758	353	952		2074	1400	
Satflow per lane	1641	1818	1431	1641	1818	1431	1641	1646		1641	1669	
Capacity/lane	701	1321	735	701	1321	735	680	748		680	758	
Flow ratio	0.32	0.39	0.35	0.12	0.26	0.53	0.11	0.21		0.65	0.31	
v/c ratio	1.47	1.46	0.68	0.57	0.96	1.03	0.52	1.27		3.05	1.85	
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	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67		1.46	1.67	
PF factor	1.00	1.00	0.46	0.90	0.98	1.00	0.89	1.00		1.00	1.00	
Q_1	22.1	29.5	7.2	6.8	18.9	31.6	6.0	14.5		44.5	21.4	
k_B	0.5	0.6	0.8	0.5	0.6	0.8	0.5	0.4		0.5	0.4	
Q_2	22.9	29.9	1.6	0.7	5.0	10.1	0.5	11.1		90.4	30.3	
Q avg.	45.0	59.5	8.8	7.5	23.9	41.7	6.5	25.6		134.8	51.7	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.5	1.9	1.9	1.7	1.6	1.9	1.6		1.5	1.5	
BOQ, $Q_{\%}$	69.7	90.5	16.4	14.2	39.6	65.1	12.4	42.1		202	79.3	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/22/11	Jurisdiction	WITH MITIGATION
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN 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	1	2	3	2	2	3	1	2	3	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	980	1835	510	380	1210	875	335	440	495	1970	740	670
% 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	35	10	5	155	10	5	30	10	5	80
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 = 33.0	G = 40.0	G =	G =	G = 32.0	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 = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1032	1932	500	400	1274	758	353	463	489	2074	779	621
Lane group cap.	701	1321	735	701	1321	1301	680	826	597	680	826	597
v/c ratio	1.47	1.46	0.68	0.57	0.96	0.58	0.52	0.56	0.82	3.05	0.94	1.04
Green ratio	0.22	0.27	0.51	0.22	0.27	0.51	0.21	0.17	0.42	0.21	0.17	0.42
Unif. delay d1	58.5	55.0	27.3	52.2	54.3	25.3	52.2	57.5	38.5	59.0	61.8	43.5
Delay factor k	0.50	0.50	0.25	0.17	0.47	0.17	0.12	0.16	0.36	0.50	0.46	0.50
Increm. delay d2	220.2	212.4	2.6	1.1	16.9	0.7	0.7	0.9	8.8	926.4	18.9	47.7
PF factor	0.812	0.758	0.297	0.812	0.758	0.297	0.819	0.867	0.517	0.875	0.867	0.517
Control delay	267.7	254.0	10.7	43.5	58.1	8.2	43.5	50.7	28.7	978.0	72.5	70.2
Lane group LOS	F	F	B	D	E	A	D	D	C	F	E	E
Apprch. delay	223.0			40.1			40.5			612.7		
Approach LOS	F			D			D			F		
Intersec. delay	285.8			Intersection LOS						F		

9-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN/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	1032	1932	500	400	1274	758	353	463	489	2074	779	621
Satflow per lane	1641	1818	1431	1641	1818	1432	1641	1818	1421	1641	1818	1421
Capacity/lane	701	1321	735	701	1321	1301	680	826	597	680	826	597
Flow ratio	0.32	0.39	0.35	0.12	0.26	0.30	0.11	0.09	0.34	0.65	0.16	0.44
v/c ratio	1.47	1.46	0.68	0.57	0.96	0.58	0.52	0.56	0.82	3.05	0.94	1.04
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	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	1.46	1.67	1.67
PF factor	1.00	1.00	0.46	0.90	0.98	0.41	0.89	0.93	0.80	1.00	0.99	1.00
Q_1	22.1	29.5	7.2	6.8	18.9	5.1	6.0	6.0	14.3	44.5	11.6	25.9
k_B	0.5	0.6	0.8	0.5	0.6	0.8	0.5	0.5	0.7	0.5	0.5	0.7
Q_2	22.9	29.9	1.6	0.7	5.0	1.1	0.5	0.6	2.6	90.4	3.1	9.0
Q avg.	45.0	59.5	8.8	7.5	23.9	6.2	6.5	6.6	16.9	134.8	14.7	34.8
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.5	1.9	1.9	1.7	1.9	1.9	1.9	1.7	1.5	1.8	1.6
BOQ, $Q_{\%}$	69.7	90.5	16.4	14.2	39.6	11.9	12.4	12.6	29.4	202	25.9	55.3
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. R_Q												
95% $R_{Q\%}$												

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/24/11	Jurisdiction	NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN

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	3	0	2	3	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	700	1300	365	615	1340	2000	365	295	460	665	535	695
% 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	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	
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 = 25.0	G = 37.0	G =	G =	G = 30.0	G = 40.0	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	737	1368	384	647	1411	2053	384	795		700	1295	
Lane group cap.	531	1222	686	531	1222	686	637	1180		637	1190	
v/c ratio	1.39	1.12	0.56	1.22	1.15	2.99	0.60	0.67		1.10	1.09	
Green ratio	0.17	0.25	0.48	0.17	0.25	0.48	0.20	0.27		0.20	0.27	
Unif. delay d1	62.5	56.5	27.7	62.5	56.5	39.0	54.6	49.2		60.0	55.0	
Delay factor k	0.50	0.50	0.16	0.50	0.50	0.50	0.19	0.25		0.50	0.50	
Increm. delay d2	186.0	65.2	1.0	114.5	79.3	900.6	1.6	1.5		65.8	53.5	
PF factor	0.867	0.782	0.385	0.867	0.782	1.000	0.833	0.758		0.833	0.758	
Control delay	240.1	109.3	11.7	168.7	123.4	939.6	47.1	38.8		115.8	95.2	
Lane group LOS	F	F	B	F	F	F	D	D		F	F	
Apprch. delay	133.0			538.2			41.5			102.4		
Approach LOS	F			F			D			F		
Intersec. delay	286.1			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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	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	737	1368	384	647	1411	2053	384	795		700	1295	
Satflow per lane	1641	1818	1430	1641	1818	1430	1641	1624		1641	1638	
Capacity/lane	531	1222	686	531	1222	686	637	1180		637	1190	
Flow ratio	0.23	0.28	0.27	0.20	0.28	1.44	0.12	0.18		0.22	0.29	
v/c ratio	1.39	1.12	0.56	1.22	1.15	2.99	0.60	0.67		1.10	1.09	
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	5	
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.00	1.67	1.67		1.67	1.67	
PF factor	1.00	1.00	0.51	1.00	1.00	1.00	0.92	0.89		1.00	1.00	
Q_1	15.8	20.9	5.8	13.9	21.5	85.5	6.8	9.6		15.0	19.8	
k_B	0.4	0.6	0.7	0.4	0.6	0.7	0.5	0.6		0.5	0.6	
Q_2	14.6	10.3	0.9	9.4	11.8	172.0	0.7	1.1		7.1	8.7	
Q avg.	30.4	31.2	6.7	23.3	33.3	257.5	7.5	10.7		22.1	28.5	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6	1.6	1.9	1.7	1.6	1.5	1.9	1.8		1.7	1.6	
BOQ, $Q_\%$	49.0	50.1	12.9	38.8	53.1	386	14.3	19.6		37.0	46.3	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./HERITAGE RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	WITH MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN

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	2	2	3	1	2	3	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	700	1300	365	615	1340	2000	365	295	460	665	535	695
% 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	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 = 25.0	G = 37.0	G =	G =	G = 30.0	G = 40.0	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	737	1368	384	647	1411	2053	384	311	484	700	563	732
Lane group cap.	531	1222	686	531	1222	1215	637	1321	668	637	1321	668
v/c ratio	1.39	1.12	0.56	1.22	1.15	1.69	0.60	0.24	0.72	1.10	0.43	1.10
Green ratio	0.17	0.25	0.48	0.17	0.25	0.48	0.20	0.27	0.47	0.20	0.27	0.47
Unif. delay d1	62.5	56.5	27.7	62.5	56.5	39.0	54.6	43.0	32.2	60.0	45.5	40.0
Delay factor k	0.50	0.50	0.16	0.50	0.50	0.50	0.19	0.11	0.29	0.50	0.11	0.50
Increm. delay d2	186.0	65.2	1.0	114.5	79.3	314.0	1.6	0.1	3.9	65.8	0.2	63.9
PF factor	0.867	0.782	0.385	0.867	0.782	0.841	0.833	0.758	0.417	0.833	0.758	0.417
Control delay	240.1	109.3	11.7	168.7	123.4	346.8	47.1	32.7	17.3	115.8	34.7	80.6
Lane group LOS	F	F	B	F	F	F	D	C	B	F	C	F
Apprch. delay	133.0			242.1			31.1			80.0		
Approach LOS	F			F			C			E		
Intersec. delay	155.8			Intersection LOS						F		

9-P
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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	737	1368	384	647	1411	2053	384	311	484	700	563	732
Satflow per lane	1641	1818	1430	1641	1818	1430	1641	1818	1431	1641	1818	1431
Capacity/lane	531	1222	686	531	1222	1215	637	1321	668	637	1321	668
Flow ratio	0.23	0.28	0.27	0.20	0.28	0.81	0.12	0.06	0.34	0.22	0.11	0.51
v/c ratio	1.39	1.12	0.56	1.22	1.15	1.69	0.60	0.24	0.72	1.10	0.43	1.10
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	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.17	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.51	1.00	1.00	1.00	0.92	0.79	0.63	1.00	0.83	1.00
Q_1	15.8	20.9	5.8	13.9	21.5	48.3	6.8	2.9	10.3	15.0	5.9	30.5
k_B	0.4	0.6	0.7	0.4	0.6	0.7	0.5	0.6	0.7	0.5	0.6	0.7
Q_2	14.6	10.3	0.9	9.4	11.8	60.9	0.7	0.2	1.8	7.1	0.4	13.1
Q avg.	30.4	31.2	6.7	23.3	33.3	109.2	7.5	3.1	12.1	22.1	6.3	43.6

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6	1.6	1.9	1.7	1.6	1.5	1.9	2.0	1.8	1.7	1.9	1.6
BOQ, $Q_\%$	49.0	50.1	12.9	38.8	53.1	164	14.3	6.3	21.8	37.0	12.2	67.8

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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. R_Q												
95% $R_{Q\%}$												

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10-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	905WBHER30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN NO MI

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	0	2	0	3	0	2	3	0
Lane group					LR	R		TR		L	T	
Volume (vph)				380		170		1820	600	250	1650	
% 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 = 22.0	G = 65.0	G =	G =
	Y = 4	Y =	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		
Adj. flow rate					400	179		2548		263	1737	
Lane group cap.					400	600		2373		539	3467	
v/c ratio					1.00	0.30		1.07		0.49	0.50	
Green ratio					0.23	0.23		0.50		0.17	0.70	
Unif. delay d1					50.0	41.3		32.5		48.9	9.0	
Delay factor k					0.50	0.11		0.50		0.11	0.11	
Increm. delay d2					45.0	0.3		41.9		0.7	0.1	
PF factor					0.800	0.800		0.333		0.864	0.167	
Control delay					85.0	33.3		52.8		43.0	1.6	
Lane group LOS					F	C		D		D	A	
Apprch. delay				69.0			52.8			7.1		
Approach LOS				E			D			A		
Intersec. delay	36.8			Intersection LOS						D		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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					*LR*	*R*		*TR*		*L*	*T*	
Init. queue/lane					*0.0*	*0.0*		*0.0*		*0.0*	*0.0*	
Flow rate/lane					*400*	*179*		*2548*		*263*	*1737*	
Satflow per lane					*1732*	*1468*		*1741*		*1641*	*1818*	
Capacity/lane					*400*	*600*		*2373*		*539*	*3467*	
Flow ratio					*0.23*	*0.07*		*0.54*		*0.08*	0.35	
v/c ratio					*1.00*	*0.30*		*1.07*		*0.49*	*0.50*	
I factor					*1.000*	*1.000*		*1.000*		*1.000*	*1.000*	
Arrival type					*5*	*5*		*5*		*5*	*5*	
Platoon ratio					*1.67*	*1.67*		*1.67*		*1.67*	*1.36*	
PF factor					*1.00*	*0.84*		*1.00*		*0.92*	*0.21*	
Q_1					*14.4*	*2.5*		*33.8*		*4.1*	*2.2*	
k_B					*0.5*	*0.4*		*0.8*		*0.4*	*1.0*	
Q_2					*5.0*	*0.2*		*14.4*		*0.4*	*1.0*	
Q avg.					*19.4*	*2.7*		*48.2*		*4.4*	*3.2*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					*1.7*	*2.0*		*1.5*		*2.0*	*2.0*	
BOQ, $Q_{\%}$					*33.1*	*5.5*		*74.3*		*8.7*	*6.4*	
Queue Storage Ratio												
Q spacing					*25.0*	*25.0*		*25.0*		*25.0*	*25.0*	
Q storage					*0*	*0*		*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/22/11	Jurisdiction	905WBHER30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	0	0	2	0	3	2	2	3	0
Lane group					LR	R		T	R	L	T	
Volume (vph)				380		170		1820	600	250	1650	
% 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			10		0	10	5	0			
Lane Width					12.0	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	0	
Unit Extension					3.0	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 = 22.0	G = 65.0	G =	G =
	Y = 4	Y =	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		
Adj. flow rate					400	179		1916	632	263	1737	
Lane group cap.					400	600		2477	1935	539	3467	
v/c ratio					1.00	0.30		0.77	0.33	0.49	0.50	
Green ratio					0.23	0.23		0.50	0.77	0.17	0.70	
Unif. delay d1					50.0	41.3		26.5	4.6	48.9	9.0	
Delay factor k					0.50	0.11		0.32	0.11	0.11	0.11	
Increm. delay d2					45.0	0.3		1.6	0.1	0.7	0.1	
PF factor					0.800	0.800		0.333	0.217	0.864	0.167	
Control delay					85.0	33.3		10.4	1.1	43.0	1.6	
Lane group LOS					F	C		B	A	D	A	
Apprch. delay				69.0			8.1			7.1		
Approach LOS				E			A			A		
Intersec. delay	14.6			Intersection LOS						B		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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					LR	R		T	R	L	T	
Init. queue/lane					0.0	0.0		0.0	0.0	0.0	0.0	
Flow rate/lane					400	179		1916	632	263	1737	
Satflow per lane					1732	1468		1818	1421	1641	1818	
Capacity/lane					400	600		2477	1935	539	3467	
Flow ratio					0.23	0.07		0.39	0.25	0.08	0.35	
v/c ratio					1.00	0.30		0.77	0.33	0.49	0.50	
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	1.24	1.67	1.36	
PF factor					1.00	0.84		0.58	0.24	0.92	0.21	
Q_1					14.4	2.5		11.9	0.9	4.1	2.2	
k_B					0.5	0.4		0.8	0.9	0.4	1.0	
Q_2					5.0	0.2		2.5	0.4	0.4	1.0	
Q avg.					19.4	2.7		14.4	1.4	4.4	3.2	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.7	2.0		1.8	2.1	2.0	2.0	
BOQ, $Q_{\%}$					33.1	5.5		25.5	2.8	8.7	6.4	
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. R_Q												
95% $R_{Q\%}$												

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	905WBHER30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN NO MI

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	0	2	0	3	0	2	3	0
Lane group					LR	R		TR		L	T	
Volume (vph)				150		150		1730	1530	600	1500	
% 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	0			0		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 = 25.0	G =	G =	G =	G = 50.0	G = 62.0	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		
Adj. flow rate					158	158		3432		632	1579	
Lane group cap.					289	433		1884		1062	3830	
v/c ratio					0.55	0.36		1.82		0.60	0.41	
Green ratio					0.17	0.17		0.41		0.33	0.77	
Unif. delay d1					57.3	55.5		44.0		41.6	5.7	
Delay factor k					0.15	0.11		0.50		0.18	0.11	
Increm. delay d2					2.2	0.5		371.9		0.9	0.1	
PF factor					0.867	0.867		0.816		0.667	0.221	
Control delay					51.8	48.6		407.7		28.6	1.3	
Lane group LOS					D	D		F		C	A	
Apprch. delay				50.2			407.7			9.1		
Approach LOS				D			F			A		
Intersec. delay	240.9			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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					*LR*	*R*		*TR*		*L*	*T*	
Init. queue/lane					*0.0*	*0.0*		*0.0*		*0.0*	*0.0*	
Flow rate/lane					*158*	*158*		*3432*		*632*	*1579*	
Satflow per lane					*1732*	*1468*		*1672*		*1641*	*1818*	
Capacity/lane					*289*	*433*		*1884*		*1062*	*3830*	
Flow ratio					*0.09*	*0.06*		*0.75*		*0.20*	0.32	
v/c ratio					*0.55*	*0.36*		*1.82*		*0.60*	*0.41*	
I factor					*1.000*	*1.000*		*1.000*		*1.000*	*1.000*	
Arrival type					*5*	*5*		*5*		*5*	*5*	
Platoon ratio					*1.67*	*1.67*		*1.26*		*1.67*	*1.23*	
PF factor					*0.93*	*0.91*		*1.00*		*0.80*	*0.25*	
Q_1					*5.6*	*3.0*		*52.5*		*9.0*	*2.0*	
k_B					*0.4*	*0.4*		*0.8*		*0.7*	*1.1*	
Q_2					*0.5*	*0.2*		*72.6*		*0.9*	*0.8*	
Q avg.					*6.1*	*3.2*		*125.1*		*9.9*	*2.8*	

Percentile Back of Queue (95th percentile)

$f_{B\%}$					*1.9*	*2.0*		*1.5*		*1.8*	*2.0*	
BOQ, $Q_{\%}$					*11.8*	*6.4*		*188*		*18.3*	*5.6*	

Queue Storage Ratio

Q spacing					*25.0*	*25.0*		*25.0*		*25.0*	*25.0*	
Q storage					*0*	*0*		*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 WB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/22/11	Jurisdiction	905WBHER30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN/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	0	0	2	0	3	2	2	3	0
Lane group					LR	R		T	R	L	T	
Volume (vph)				150		150		1730	1530	600	1500	
% 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	0			0		0	10	5	150			
Lane Width					12.0	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	0	
Unit Extension					3.0	3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 25.0	G =	G =	G =	G = 35.0	G = 77.0	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		
Adj. flow rate					158	158		1821	1453	632	1579	
Lane group cap.					289	433		2543	1795	744	3830	
v/c ratio					0.55	0.36		0.72	0.81	0.85	0.41	
Green ratio					0.17	0.17		0.51	0.71	0.23	0.77	
Unif. delay d1					57.3	55.5		28.1	14.6	55.0	5.7	
Delay factor k					0.15	0.11		0.28	0.35	0.38	0.11	
Increm. delay d2					2.2	0.5		1.0	2.9	9.2	0.1	
PF factor					0.867	0.867		0.297	0.174	0.797	0.221	
Control delay					51.8	48.6		9.3	5.4	53.0	1.3	
Lane group LOS					D	D		A	A	D	A	
Apprch. delay				50.2			7.6			16.1		
Approach LOS				D			A			B		
Intersec. delay	13.2			Intersection LOS						B		

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W
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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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					LR	R		T	R	L	T	
Init. queue/lane					0.0	0.0		0.0	0.0	0.0	0.0	
Flow rate/lane					158	158		1821	1453	632	1579	
Satflow per lane					1732	1468		1818	1421	1641	1818	
Capacity/lane					289	433		2543	1795	744	3830	
Flow ratio					0.09	0.06		0.37	0.58	0.20	0.32	
v/c ratio					0.55	0.36		0.72	0.81	0.85	0.41	
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	1.33	1.67	1.23	
PF factor					0.93	0.91		0.48	0.32	0.95	0.25	
Q_1					5.6	3.0		10.4	7.4	12.4	2.0	
k_B					0.4	0.4		0.9	0.9	0.5	1.1	
Q_2					0.5	0.2		2.1	3.5	2.3	0.8	
Q avg.					6.1	3.2		12.5	10.9	14.6	2.8	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$					1.9	2.0		1.8	1.8	1.8	2.0	
BOQ, $Q_{\%}$					11.8	6.4		22.5	19.9	25.8	5.6	
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. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	905EBHER30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN NO MI

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	3	0	2	3	0
Lane group				L	LR			TR		L	T	
Volume (vph)				1500		580		1840	150	150	1880	
% 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 = 67.0	G =	G =	G =	G = 15.0	G = 55.0	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		
Adj. flow rate				1579	611			2095		158	1979	
Lane group cap.				1424	690			1792		319	2443	
v/c ratio				1.11	0.89			1.17		0.50	0.81	
Green ratio				0.45	0.45			0.37		0.10	0.49	
Unif. delay d1				41.5	38.0			47.5		63.9	32.1	
Delay factor k				0.50	0.41			0.50		0.11	0.35	
Increm. delay d2				59.6	13.2			82.5		1.2	2.2	
PF factor				0.462	0.462			0.614		0.926	0.351	
Control delay				78.7	30.7			111.7		60.4	13.4	
Lane group LOS				E	C			F		E	B	
Apprch. delay				65.3			111.7			16.9		
Approach LOS				E			F			B		
Intersec. delay	64.3			Intersection LOS						E		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN NO MITIGATION 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				*L*	*LR*			*TR*		*L*	*T*	
Init. queue/lane				*0.0*	*0.0*			*0.0*		*0.0*	*0.0*	
Flow rate/lane				*1579*	*611*			*2095*		*158*	*1979*	
Satflow per lane				*1641*	*1545*			*1794*		*1641*	*1818*	
Capacity/lane				*1424*	*690*			*1792*		*319*	*2443*	
Flow ratio				*0.50*	*0.40*			*0.43*		*0.05*	0.40	
v/c ratio				*1.11*	*0.89*			*1.17*		*0.50*	*0.81*	
I factor				*1.000*	*1.000*			*1.000*		*1.000*	*1.000*	
Arrival type				*5*	*5*			*5*		*5*	*5*	
Platoon ratio				*1.67*	*1.67*			*1.67*		*1.67*	*1.67*	
PF factor				*1.00*	*0.82*			*1.00*		*0.96*	*0.63*	
Q_1				*33.9*	*19.1*			*32.0*		*3.1*	*16.1*	
k_B				*0.8*	*0.8*			*0.7*		*0.3*	*0.9*	
Q_2				*15.2*	*4.1*			*17.9*		*0.3*	*3.3*	
Q avg.				*49.1*	*23.2*			*50.0*		*3.4*	*19.3*	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				*1.5*	*1.7*			*1.5*		*2.0*	*1.7*	
BOQ, $Q_{\%}$				*75.5*	*38.6*			*76.8*		*6.7*	*33.0*	
Queue Storage Ratio												
Q spacing				*25.0*	*25.0*			*25.0*		*25.0*	*25.0*	
Q storage				*0*	*0*			*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

11-A
W MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	905EBHER30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN/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	2	0	1	0	3	1	2	3	0
Lane group				L		R		T	R	L	T	
Volume (vph)				1500		580		1840	150	150	1880	
% 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			10		0	10	5	0			
Lane Width				12.0		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	0	
Unit Extension				3.0		3.0		3.0	3.0	3.0	3.0	

Phasing	WB Only	02	03	04	SB Only	Thru & RT	07	08
Timing	G = 67.0	G =	G =	G =	G = 15.0	G = 55.0	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		
Adj. flow rate				1579		611		1937	158	158	1979	
Lane group cap.				1424		656		1816	526	319	2443	
v/c ratio				1.11		0.93		1.07	0.30	0.50	0.81	
Green ratio				0.45		0.45		0.37	0.37	0.10	0.49	
Unif. delay d1				41.5		39.3		47.5	33.8	63.9	32.1	
Delay factor k				0.50		0.45		0.50	0.11	0.11	0.35	
Increm. delay d2				59.6		20.1		41.5	0.3	1.2	2.2	
PF factor				0.462		0.462		0.614	0.614	0.926	0.351	
Control delay				78.7		38.3		70.6	21.1	60.4	13.4	
Lane group LOS				E		D		E	C	E	B	
Apprch. delay				67.5			66.9			16.9		
Approach LOS				E			E			B		
Intersec. delay	50.4			Intersection LOS						D		

11-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN WITH MITIGATION 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				L		R		T	R	L	T	
Init. queue/lane				0.0		0.0		0.0	0.0	0.0	0.0	
Flow rate/lane				1579		611		1937	158	158	1979	
Satflow per lane				1641		1468		1818	1434	1641	1818	
Capacity/lane				1424		656		1816	526	319	2443	
Flow ratio				0.50		0.42		0.39	0.11	0.05	0.40	
v/c ratio				1.11		0.93		1.07	0.30	0.50	0.81	
I factor				1.000	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		0.88		1.00	0.67	0.96	0.63	
Q_1				33.9		21.2		29.6	3.1	3.1	16.1	
k_B				0.8		0.7		0.7	0.6	0.3	0.9	
Q_2				15.2		5.2		11.4	0.3	0.3	3.3	
Q avg.				49.1		26.4		41.0	3.4	3.4	19.3	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				1.5		1.6		1.6	2.0	2.0	1.7	
BOQ, $Q_{\%}$				75.5		43.2		64.0	6.8	6.7	33.0	
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. R_Q												
95% $R_{Q\%}$												

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	905EBHER30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN NO MITIGA

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	3	0	2	3	0
Lane group				L	LR			TR		L	T	
Volume (vph)				540		250		3010	340	170	1480	
% 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	0			0		0	0	0	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 = 35.0	G =	G =	G =	G = 20.0	G = 72.0	G =	G =
	Y = 4	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		
Adj. flow rate				568	263			3526		179	1558	
Lane group cap.				797	386			2508		455	3396	
v/c ratio				0.71	0.68			1.41		0.39	0.46	
Green ratio				0.25	0.25			0.51		0.14	0.69	
Unif. delay d1				47.9	47.5			34.0		54.5	10.1	
Delay factor k				0.28	0.25			0.50		0.11	0.11	
Increm. delay d2				3.0	4.9			185.1		0.6	0.1	
PF factor				0.778	0.778			0.667		0.889	0.159	
Control delay				40.3	41.8			207.8		49.0	1.7	
Lane group LOS				D	D			F		D	A	
Apprch. delay				40.8			207.8			6.6		
Approach LOS				D			F			A		
Intersec. delay	127.7			Intersection LOS						F		

11-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN NO MITIGATION 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				L	LR			TR		L	T	
Init. queue/lane				0.0	0.0			0.0		0.0	0.0	
Flow rate/lane				568	263			3526		179	1558	
Satflow per lane				1641	1545			1790		1641	1818	
Capacity/lane				797	386			2508		455	3396	
Flow ratio				0.18	0.17			0.72		0.06	0.31	
v/c ratio				0.71	0.68			1.41		0.39	0.46	
I factor				1.000	1.000			1.000		1.000	1.000	
Arrival type				5	5			5		5	5	
Platoon ratio				1.67	1.67			1.31		1.67	1.39	
PF factor				0.91	0.90			1.00		0.93	0.19	
Q_1				9.4	8.3			50.3		3.0	2.0	
k_B				0.5	0.5			0.9		0.4	1.0	
Q_2				1.2	1.0			49.5		0.2	0.9	
Q avg.				10.6	9.3			99.9		3.2	2.8	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				1.8	1.9			1.5		2.0	2.0	
BOQ, $Q_{\%}$				19.5	17.4			150		6.5	5.7	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0	25.0			25.0		25.0	25.0	
Q storage				0	0			0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./ SR-905 EB RAMPS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	905EBHER30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN /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	2	0	1	0	3	1	2	3	0
Lane group				L		R		T	R	L	T	
Volume (vph)				540		250		3010	340	170	1480	
% 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	0			0		0	0	0	0			
Lane Width				12.0		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	0	
Unit Extension				3.0		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 = 17.0	G = 80.0	G =	G =
	Y = 4	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		
Adj. flow rate				568		263		3168	358	179	1558	
Lane group cap.				683		315		2830	1206	387	3573	
v/c ratio				0.83		0.83		1.12	0.30	0.46	0.44	
Green ratio				0.21		0.21		0.57	0.82	0.12	0.72	
Unif. delay d1				52.6		52.6		30.0	3.0	57.2	7.9	
Delay factor k				0.37		0.37		0.50	0.11	0.11	0.11	
Increm. delay d2				8.6		17.4		59.2	0.1	0.9	0.1	
PF factor				0.818		0.818		0.352	0.280	0.908	0.179	
Control delay				51.6		60.4		69.7	1.0	52.9	1.5	
Lane group LOS				D		E		E	A	D	A	
Apprch. delay				54.4			62.7			6.8		
Approach LOS				D			E			A		
Intersec. delay	45.7			Intersection LOS						D		

11-P
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN WITH MITIGATION 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				L		R		T	R	L	T	
Init. queue/lane				0.0		0.0		0.0	0.0	0.0	0.0	
Flow rate/lane				568		263		3168	358	179	1558	
Satflow per lane				1641		1468		1818	1468	1641	1818	
Capacity/lane				683		315		2830	1206	387	3573	
Flow ratio				0.18		0.18		0.64	0.24	0.06	0.31	
v/c ratio				0.83		0.83		1.12	0.30	0.46	0.44	
I factor				1.000	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		1.49	1.16	1.67	1.32	
PF factor				0.96		0.96		1.00	0.29	0.95	0.21	
Q_1				10.4		9.4		45.2	1.0	3.1	1.9	
k_B				0.5		0.4		0.9	1.0	0.3	1.1	
Q_2				1.9		1.8		21.7	0.4	0.3	0.8	
Q avg.				12.3		11.2		66.9	1.4	3.4	2.7	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				1.8		1.8		1.5	2.1	2.0	2.0	
BOQ, $Q_{\%}$				22.1		20.3		101	2.9	6.9	5.5	
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. R_Q												
95% $R_{Q\%}$												

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12-A
No
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/03/11	Jurisdiction	HERAIR30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	950	1320	1650	265	730	440	640	600	550	1145	1625	610
% 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		5	5	
Unit Extension	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Ped/Bike/RTOR Volume	0	0	0	10	5	0	10	0	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	EB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 20.0	G = 20.0	G =	G = 37.0	G = 30.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1000	3126		279	1231		674	1211		1205	2353	
Lane group cap.	935	1362		425	613		786	913		786	942	
v/c ratio	1.07	2.30		0.66	2.01		0.86	1.33		1.53	2.50	
Green ratio	0.29	0.30		0.13	0.13		0.25	0.20		0.25	0.20	
Unif. delay d1	53.0	52.5		61.7	65.0		54.0	60.0		56.5	60.0	
Delay factor k	0.50	0.50		0.23	0.50		0.39	0.50		0.50	0.50	
Increm. delay d2	45.5	584.5		2.6	457.7		9.4	154.5		246.3	677.2	
PF factor	0.723	0.837		0.897	0.897		1.000	1.000		0.782	0.833	
Control delay	83.9	628.4		58.0	516.1		63.3	214.5		290.5	727.2	
Lane group LOS	F	F		E	F		E	F		F	F	
Apprch. delay	496.4			431.4			160.4			579.3		
Approach LOS	F			F			F			F		
Intersec. delay	457.0			Intersection LOS						F		

12-A
NO MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN NO MIT 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	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	1000	3126		279	1231		674	1211		1205	2353	
Satflow per lane	1641	1666		1641	1688		1641	1675		1641	1728	
Capacity/lane	935	1362		425	613		786	913		786	942	
Flow ratio	0.31	0.69		0.09	0.27		0.21	0.27		0.38	0.50	
v/c ratio	1.07	2.30		0.66	2.01		0.86	1.33		1.53	2.50	
I factor	0.700	0.700		0.700	0.700		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		5	5	
Platoon ratio	1.67	1.38		1.67	1.67		1.00	1.00		1.67	1.67	
PF factor	1.00	1.00		0.96	1.00		1.00	1.00		1.00	1.00	
Q_1	21.4	47.8		5.4	18.8		13.8	18.5		25.8	36.0	
k_B	0.4	0.4		0.3	0.3		0.5	0.5		0.5	0.5	
Q_2	7.7	81.6		0.5	28.8		2.5	15.4		28.5	65.6	
Q avg.	29.1	129.4		5.9	47.6		16.3	33.9		54.3	101.5	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.5		1.9	1.5		1.7	1.6		1.5	1.5	
BOQ, $Q_{\%}$	47.1	194		11.4	73.4		28.4	53.9		83.1	153	
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_Q												
95% $R_{Q\%}$												

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/03/11	Jurisdiction	HERAIR30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN /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	2	2	3	1	2	3	1	2	3	2
Lane group	L	T	R	L	TR	R	L	T	R	L	T	R
Volume (vph)	950	1320	1650	265	730	440	640	600	550	1145	1625	610
% 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	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	0	0	0	10	5	0	10	0	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	EB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 20.0	G = 20.0	G =	G = 37.0	G = 30.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1000	1389	1737	279	768	463	674	632	579	1205	1711	642
Lane group cap.	935	1486	1507	425	660	584	786	991	530	786	991	1329
v/c ratio	1.07	0.93	1.15	0.66	1.16	0.79	0.86	0.64	1.09	1.53	1.73	0.48
Green ratio	0.29	0.30	0.58	0.13	0.13	0.41	0.25	0.20	0.37	0.25	0.20	0.53
Unif. delay d1	53.0	51.1	31.5	61.7	65.0	38.4	54.0	55.0	47.5	56.5	60.0	22.5
Delay factor k	0.50	0.45	0.50	0.23	0.50	0.34	0.39	0.22	0.50	0.50	0.50	0.11
Increm. delay d2	45.5	8.5	74.5	2.6	85.3	5.3	9.4	1.4	66.7	246.3	331.2	0.3
PF factor	0.723	0.714	0.418	0.897	0.897	0.530	1.000	1.000	1.000	0.782	0.833	0.258
Control delay	83.9	44.9	87.7	58.0	143.7	25.6	63.3	56.4	114.2	290.5	381.2	6.1
Lane group LOS	F	D	F	E	F	C	E	E	F	F	F	A
Apprch. delay	72.4			91.7			76.6			282.8		
Approach LOS	E			F			E			F		
Intersec. delay	143.3			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN WITH MIT 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	L	T	R	L	TR	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	1000	1389	1737	279	768	463	674	632	579	1205	1711	642
Satflow per lane	1641	1818	1468	1641	1818	1414	1641	1818	1446	1641	1818	1426
Capacity/lane	935	1486	1507	425	660	584	786	991	530	786	991	1329
Flow ratio	0.31	0.28	0.67	0.09	0.15	0.33	0.21	0.13	0.40	0.38	0.35	0.25
v/c ratio	1.07	0.93	1.15	0.66	1.16	0.79	0.86	0.64	1.09	1.53	1.73	0.48
I factor	0.700	0.700	0.700	0.700	0.700	0.700	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	5	5	5
Platoon ratio	1.67	1.67	1.42	1.67	1.67	1.67	1.00	1.00	1.00	1.67	1.67	1.67
PF factor	1.00	0.96	1.00	0.96	1.00	0.79	1.00	1.00	1.00	1.00	1.00	0.33
Q_1	21.4	19.9	40.9	5.4	11.7	13.2	13.8	8.9	24.1	25.8	26.2	3.2
k_B	0.4	0.5	0.6	0.3	0.3	0.5	0.5	0.5	0.6	0.5	0.5	0.8
Q_2	7.7	3.6	19.9	0.5	6.4	1.6	2.5	0.9	10.5	28.5	34.3	0.7
Q avg.	29.1	23.5	60.8	5.9	18.1	14.9	16.3	9.7	34.7	54.3	60.5	3.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.7	1.5	1.9	1.7	1.8	1.7	1.8	1.6	1.5	1.5	2.0
BOQ, $Q_{\%}$	47.1	39.0	92.4	11.4	31.2	26.2	28.4	18.0	55.0	83.1	92.0	7.8
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. R_Q												
95% $R_{Q\%}$												

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NO MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/03/11	Jurisdiction	HERAIR30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	600	735	640	305	1640	1140	1650	1610	485	440	620	960
% 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		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 = 30.0	G = 30.0	G =	G =	G = 40.0	G = 40.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 158.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	632	1448		321	2926		1737	2206		463	1664	
Lane group cap.	605	861		605	871		807	1203		807	1120	
v/c ratio	1.04	1.68		0.53	3.36		2.15	1.83		0.57	1.49	
Green ratio	0.19	0.19		0.19	0.19		0.25	0.25		0.25	0.25	
Unif. delay d1	64.0	64.0		57.7	64.0		59.0	59.0		51.6	59.0	
Delay factor k	0.50	0.50		0.13	0.50		0.50	0.50		0.17	0.50	
Increm. delay d2	42.9	310.4		0.6	1064		522.7	378.4		1.0	223.4	
PF factor	0.844	0.844		0.844	0.885		1.000	1.000		0.774	0.774	
Control delay	96.9	364.4		49.3	1120		581.7	437.4		40.9	269.0	
Lane group LOS	F	F		D	F		F	F		D	F	
Apprch. delay	283.1			1015			501.0			219.4		
Approach LOS	F			F			F			F		
Intersec. delay	555.0			Intersection LOS						F		

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NO MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN NO MIT. 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	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	632	1448		321	2926		1737	2206		463	1664	
Satflow per lane	1641	1665		1641	1683		1641	1743		1641	1624	
Capacity/lane	605	861		605	871		807	1203		807	1120	
Flow ratio	0.20	0.32		0.10	0.64		0.54	0.46		0.15	0.38	
v/c ratio	1.04	1.68		0.53	3.36		2.15	1.83		0.57	1.49	
I factor	0.700	0.700		0.700	0.700		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		3	3		5	5	
Platoon ratio	1.67	1.67		1.67	1.49		1.00	1.00		1.67	1.67	
PF factor	1.00	1.00		0.91	1.00		1.00	1.00		0.87	1.00	
Q_1	14.3	23.3		5.9	47.1		39.2	35.5		8.0	26.8	
k_B	0.3	0.3		0.3	0.3		0.6	0.6		0.6	0.6	
Q_2	4.7	27.7		0.4	94.9		60.9	47.3		0.7	26.5	
Q avg.	18.9	51.0		6.3	142.0		100.2	82.8		8.7	53.3	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.5		1.9	1.5		1.5	1.5		1.9	1.5	
BOQ, $Q_{\%}$	32.4	78.3		12.1	213		150	125		16.3	81.6	

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. R_Q												
95% $R_{Q\%}$												

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	HERITAGE RD./AIRWAY RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/03/11	Jurisdiction	HERAIR30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	3	1	2	3	1	2	3	2
Lane group	L	T	R	L	TR	R	L	T	R	L	T	R
Volume (vph)	600	735	640	305	1640	1140	1650	1610	485	440	620	960
% 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	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 = 35.0	G =	G =	G = 42.0	G = 40.0	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		
Adj. flow rate	632	774	674	321	1726	1200	1737	1695	511	463	653	1011
Lane group cap.	498	1083	1295	498	1083	732	837	1238	626	837	1238	1107
v/c ratio	1.27	0.71	0.52	0.64	1.59	1.64	2.08	1.37	0.82	0.55	0.53	0.91
Green ratio	0.16	0.22	0.51	0.16	0.22	0.51	0.26	0.25	0.44	0.26	0.25	0.44
Unif. delay d1	67.5	57.9	25.9	63.3	62.5	39.0	59.0	60.0	39.4	50.9	51.8	42.2
Delay factor k	0.50	0.28	0.13	0.22	0.50	0.50	0.50	0.50	0.36	0.15	0.13	0.43
Increm. delay d2	132.0	1.6	0.3	2.0	270.3	292.1	488.0	171.3	8.3	0.8	0.4	11.4
PF factor	0.877	0.813	0.299	0.877	0.813	0.863	1.000	1.000	1.000	0.763	0.778	0.481
Control delay	191.2	48.7	8.0	57.5	321.1	325.7	547.0	231.3	47.7	39.6	40.7	31.7
Lane group LOS	F	D	A	E	F	F	F	F	D	D	D	C
Apprch. delay	78.8			296.7			346.6			36.2		
Approach LOS	E			F			F			D		
Intersec. delay	225.6			Intersection LOS						F		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN WITH MIT. 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	L	T	R	L	TR	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	632	774	674	321	1726	1200	1737	1695	511	463	653	1011
Satflow per lane	1641	1818	1428	1641	1818	1428	1641	1818	1430	1641	1818	1430
Capacity/lane	498	1083	1295	498	1083	732	837	1238	626	837	1238	1107
Flow ratio	0.20	0.16	0.27	0.10	0.35	0.84	0.54	0.34	0.36	0.15	0.13	0.40
v/c ratio	1.27	0.71	0.52	0.64	1.59	1.64	2.08	1.37	0.82	0.55	0.53	0.91
I factor	0.700	0.700	0.700	0.700	0.700	0.700	1.000	1.000	1.000	1.000	1.000	1.000
Arrival type	5	5	5	5	5	5	3	3	3	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.13	1.00	1.00	1.00	1.67	1.67	1.67
PF factor	1.00	0.93	0.39	0.95	1.00	1.00	1.00	1.00	1.00	0.86	0.87	0.86
Q_1	14.4	10.8	4.4	6.5	28.1	53.3	39.7	27.6	19.9	7.8	7.9	20.6
k_B	0.3	0.4	0.6	0.3	0.4	0.6	0.6	0.6	0.7	0.6	0.6	0.7
Q_2	9.9	0.9	0.6	0.5	30.5	59.9	59.1	23.0	2.7	0.7	0.7	4.6
Q avg.	24.3	11.8	5.0	7.0	58.7	113.2	98.8	50.7	22.6	8.6	8.6	25.2
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.7	1.8	2.0	1.9	1.5	1.5	1.5	1.5	1.7	1.9	1.9	1.6
BOQ, $Q_{\%}$	40.2	21.3	9.8	13.4	89.3	170	149	77.9	37.8	16.0	16.1	41.5
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. R_Q												
95% $R_{Q\%}$												

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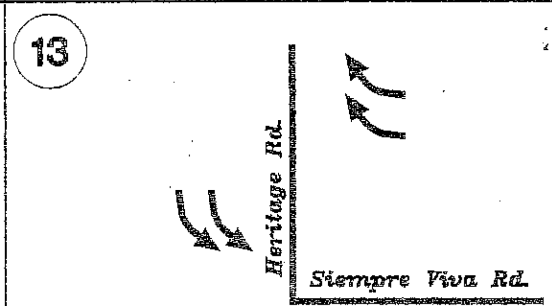

NO INTERSECTION CONTROL

Heritage Road at
Siempre Viva Road

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	OMCAC30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN 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	2	3	0	2	1	1	1	1	0
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Volume (vph)	10	2370	1370	745	1795	5	900	5	670	10	5	5
% 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	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	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	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		
Adj. flow rate	11	3937		784	1894		947	5	705	11	10	
Lane group cap.	361	1391		701	1485		850	485	696	164	164	
v/c ratio	0.03	2.83		1.12	1.28		1.11	0.01	1.01	0.07	0.06	
Green ratio	0.22	0.30		0.22	0.30		0.27	0.27	0.49	0.10	0.10	
Unif. delay d1	45.9	52.5		58.5	52.5		55.0	40.4	38.5	61.2	61.1	
Delay factor k	0.11	0.50		0.50	0.50		0.50	0.11	0.50	0.11	0.11	
Increm. delay d2	0.0	825.6		71.4	129.3		67.2	0.0	37.4	0.2	0.2	
PF factor	0.812	0.949		0.812	0.714		0.758	0.758	0.368	0.926	0.926	
Control delay	37.3	875.5		118.9	166.8		108.8	30.6	51.5	56.8	56.8	
Lane group LOS	D	F		F	F		F	C	D	E	E	
Apprch. delay	873.1			152.8			84.2			56.8		
Approach LOS	F			F			F			E		
Intersec. delay	481.3			Intersection LOS						F		

HCS2000™ Version 4.1f

14-A
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	OMCAC30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN

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	2	2	3	1	2	1	1	1	1	0
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Volume (vph)	10	2370	1370	745	1795	5	900	5	670	10	5	5
% 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	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	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		
Adj. flow rate	11	2495	1442	784	1889	5	947	5	705	11	10	
Lane group cap.	361	1486	747	701	1486	422	850	485	696	164	164	
v/c ratio	0.03	1.68	1.93	1.12	1.27	0.01	1.11	0.01	1.01	0.07	0.06	
Green ratio	0.22	0.30	0.30	0.22	0.30	0.30	0.27	0.27	0.49	0.10	0.10	
Unif. delay d1	45.9	52.5	52.5	58.5	52.5	36.9	55.0	40.4	38.5	61.2	61.1	
Delay factor k	0.11	0.50	0.50	0.50	0.50	0.11	0.50	0.11	0.50	0.11	0.11	
Increm. delay d2	0.0	308.5	423.6	71.4	127.5	0.0	67.2	0.0	37.4	0.2	0.2	
PF factor	0.812	0.714	0.725	0.812	0.714	0.714	0.758	0.758	0.368	0.926	0.926	
Control delay	37.3	346.0	461.7	118.9	165.0	26.4	108.8	30.6	51.5	56.8	56.8	
Lane group LOS	D	F	F	F	F	C	F	C	D	E	E	
Apprch. delay	387.4			151.2			84.2			56.8		
Approach LOS	F			F			F			E		
Intersec. delay	249.9			Intersection LOS						F		

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14-P
NO
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/04/11	Jurisdiction	OMCAC30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN

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	2	3	0	2	1	1	1	1	0
Lane group	L	TR		L	TR		L	TR	R	L	TR	
Volume (vph)	10	1675	880	625	2025	5	1310	5	860	10	5	10
% 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	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	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	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		
Adj. flow rate	11	2689		658	2137		1379	457	453	11	16	
Lane group cap.	361	1397		701	1485		850	402	381	164	157	
v/c ratio	0.03	1.92		0.94	1.44		1.62	1.14	1.19	0.07	0.10	
Green ratio	0.22	0.30		0.22	0.30		0.27	0.27	0.27	0.10	0.10	
Unif. delay d1	45.9	52.5		57.5	52.5		55.0	55.0	55.0	61.2	61.4	
Delay factor k	0.11	0.50		0.45	0.50		0.50	0.50	0.50	0.11	0.11	
Increm. delay d2	0.0	418.8		20.4	201.5		285.5	87.7	108.4	0.2	0.3	
PF factor	0.812	0.724		0.812	0.714		0.758	0.758	0.758	0.926	0.926	
Control delay	37.3	456.8		67.1	239.0		327.1	129.4	150.0	56.8	57.1	
Lane group LOS	D	F		E	F		F	F	F	E	E	
Apprch. delay	455.1			198.5			252.6			57.0		
Approach LOS	F			F			F			E		
Intersec. delay	302.6			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	OMCAC30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN/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	2	2	3	1	2	1	1	1	1	0
Lane group	L	T	R	L	T	R	L	TR	R	L	TR	
Volume (vph)	10	1675	880	625	2025	5	1310	5	860	10	5	10
% 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	Thru & RT	03	04	NB Only	SB Only	07	08
Timing	G = 33.0	G = 45.0	G =	G =	G = 40.0	G = 15.0	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	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		
Adj. flow rate	11	1763	926	658	2132	5	1379	457	453	11	16	
Lane group cap.	361	1486	1498	701	1486	422	850	403	696	164	157	
v/c ratio	0.03	1.19	0.62	0.94	1.43	0.01	1.62	1.13	0.65	0.07	0.10	
Green ratio	0.22	0.30	0.60	0.22	0.30	0.30	0.27	0.27	0.49	0.10	0.10	
Unif. delay d1	45.9	52.5	19.1	57.5	52.5	36.9	55.0	55.0	28.9	61.2	61.4	
Delay factor k	0.11	0.50	0.20	0.45	0.50	0.11	0.50	0.50	0.23	0.11	0.11	
Increm. delay d2	0.0	91.0	0.8	20.4	199.5	0.0	285.5	86.6	2.2	0.2	0.3	
PF factor	0.812	0.714	0.125	0.812	0.714	0.714	0.758	0.758	0.368	0.926	0.926	
Control delay	37.3	128.5	3.2	67.1	237.0	26.4	327.1	128.3	12.8	56.8	57.1	
Lane group LOS	D	F	A	E	F	C	F	F	B	E	E	
Apprch. delay	85.1			196.7			225.2			57.0		
Approach LOS	F			F			F			E		
Intersec. delay	166.0			Intersection LOS						F		

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15 A
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	AIRCAC30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	415	1400	620	800	620	980	240	250	250	865	740	365
% 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	50
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 = 22.0	G = 55.0	G =	G =	G = 30.0	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 = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	437	2127		842	1685		253	526		911	1111	
Lane group cap.	467	1720		467	1626		637	524		637	545	
v/c ratio	0.94	1.24		1.80	1.04		0.40	1.00		1.43	2.04	
Green ratio	0.15	0.37		0.15	0.37		0.20	0.17		0.20	0.17	
Unif. delay d1	63.3	47.5		64.0	47.5		52.1	62.5		60.0	62.5	
Delay factor k	0.45	0.50		0.50	0.50		0.11	0.50		0.50	0.50	
Increm. delay d2	26.4	111.7		369.8	32.3		0.4	40.3		202.5	473.7	
PF factor	0.885	0.614		0.885	0.614		0.833	0.867		0.833	0.867	
Control delay	82.5	140.9		426.5	61.5		43.9	94.4		252.5	527.9	
Lane group LOS	F	F		F	E		D	F		F	F	
Apprch. delay	130.9			183.1			78.0			403.8		
Approach LOS	F			F			E			F		
Intersec. delay	212.3			Intersection LOS						F		

15-A
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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	AIRCAC30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN /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	2	2	2	1	2	2	1
Lane group	L	TR	R	L	T	R	L	T	R	L	TR	R
Volume (vph)	415	1400	620	800	620	980	240	250	250	865	740	365
% 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	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 = 55.0	G =	G =	G = 30.0	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 = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	437	1474	653	842	653	1032	253	263	263	911	779	384
Lane group cap.	467	1816	849	467	1816	1503	637	577	492	637	577	492
v/c ratio	0.94	0.81	0.77	1.80	0.36	0.69	0.40	0.46	0.53	1.43	1.35	0.78
Green ratio	0.15	0.37	0.60	0.15	0.37	0.60	0.20	0.17	0.35	0.20	0.17	0.35
Unif. delay d1	63.3	42.8	22.3	64.0	34.7	20.4	52.1	56.4	39.3	60.0	62.5	43.9
Delay factor k	0.45	0.35	0.32	0.50	0.11	0.26	0.11	0.11	0.14	0.50	0.50	0.33
Increm. delay d2	26.4	2.9	4.3	369.8	0.1	1.3	0.4	0.6	1.1	202.5	168.8	7.9
PF factor	0.885	0.614	0.125	0.885	0.614	0.125	0.833	0.867	0.646	0.833	0.867	1.000
Control delay	82.5	29.2	7.1	426.5	21.4	3.9	43.9	49.4	26.5	252.5	222.9	51.8
Lane group LOS	F	C	A	F	C	A	D	D	C	F	F	D
Apprch. delay	32.7			149.2			39.9			204.3		
Approach LOS	C			F			D			F		
Intersec. delay	115.2			Intersection LOS						F		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/03/11	Jurisdiction	AIRCAC30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	390	865	240	250	1360	870	600	810	800	980	220	500
% 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	50
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 = 37.0	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	411	1164		263	2348		632	1695		1032	706	
Lane group cap.	425	1430		425	1385		786	631		786	609	
v/c ratio	0.97	0.81		0.62	1.70		0.80	2.69		1.31	1.16	
Green ratio	0.13	0.30		0.13	0.30		0.25	0.20		0.25	0.20	
Unif. delay d1	64.7	48.6		61.4	52.5		53.1	60.0		56.5	60.0	
Delay factor k	0.47	0.35		0.20	0.50		0.35	0.50		0.50	0.50	
Increm. delay d2	35.1	3.7		2.7	316.0		6.1	763.3		149.9	89.0	
PF factor	0.897	0.714		0.897	0.714		0.782	0.833		0.782	0.833	
Control delay	93.1	38.5		57.8	353.5		47.6	813.3		194.0	139.0	
Lane group LOS	F	D		E	F		D	F		F	F	
Apprch. delay	52.7			323.7			605.4			171.7		
Approach LOS	D			F			F			F		
Intersec. delay	319.4			Intersection LOS						F		

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w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	AIRCAC30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN /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	2	2	2	1	2	2	1
Lane group	L	TR	R	L	T	R	L	T	R	L	TR	R
Volume (vph)	390	865	240	250	1360	870	600	810	800	980	220	500
% 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	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 = 20.0	G = 45.0	G =	G =	G = 37.0	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	411	911	253	263	1432	916	632	853	842	1032	495	263
Lane group cap.	425	1486	818	425	1486	1448	786	692	523	786	627	523
v/c ratio	0.97	0.61	0.31	0.62	0.96	0.63	0.80	1.23	1.61	1.31	0.79	0.50
Green ratio	0.13	0.30	0.58	0.13	0.30	0.58	0.25	0.20	0.37	0.25	0.20	0.37
Unif. delay d1	64.7	45.0	16.1	61.4	51.7	20.9	53.1	60.0	47.5	56.5	57.0	36.9
Delay factor k	0.47	0.20	0.11	0.20	0.47	0.21	0.35	0.50	0.50	0.50	0.34	0.11
Increm. delay d2	35.1	0.8	0.2	2.7	15.5	0.9	6.1	117.0	283.3	149.9	6.7	0.8
PF factor	0.897	0.714	0.119	0.897	0.714	0.119	0.782	0.833	0.648	0.782	0.833	1.000
Control delay	93.1	32.9	2.1	57.8	52.5	3.4	47.6	167.0	314.1	194.0	54.2	37.7
Lane group LOS	F	C	A	E	D	A	D	F	F	F	D	D
Apprch. delay	43.7			35.8			187.8			132.4		
Approach LOS	D			D			F			F		
Intersec. delay	100.7			Intersection LOS						F		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD../CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	SIEMPCAC30ACP
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	150	1310	990	900	1500	830	250	120	230	1280	470	50
% 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 = 20.0	G = 57.0	G =	G =	G = 35.0	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 = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	158	2421		947	2453		263	368		1347	548	
Lane group cap.	425	1743		425	1767		744	405		744	453	
v/c ratio	0.37	1.39		2.23	1.39		0.35	0.91		1.81	1.21	
Green ratio	0.13	0.38		0.13	0.38		0.23	0.13		0.23	0.13	
Unif. delay d1	59.3	46.5		65.0	46.5		48.0	64.1		57.5	65.0	
Delay factor k	0.11	0.50		0.50	0.50		0.11	0.43		0.50	0.50	
Increm. delay d2	0.6	178.7		560.3	178.3		0.3	24.0		370.0	113.4	
PF factor	0.897	0.591		0.897	0.591		0.797	0.897		0.797	0.897	
Control delay	53.7	206.2		618.6	205.8		38.6	81.5		415.9	171.8	
Lane group LOS	D	F		F	F		D	F		F	F	
Apprch. delay	196.8			320.8			63.6			345.3		
Approach LOS	F			F			E			F		
Intersec. delay	269.6			Intersection LOS						F		

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD../CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/03/11	Jurisdiction	SIEMPCAC30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	2	2	1	2	2	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	150	1310	990	900	1500	830	250	120	230	1280	470	50
% 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	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	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 15.0	G = 35.0	G =	G = 42.0	G = 20.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	158	1379	1042	947	1579	874	263	126	242	1347	495	53
Lane group cap.	319	1156	782	722	1816	1704	892	462	377	892	462	377
v/c ratio	0.50	1.19	1.33	1.31	0.87	0.51	0.29	0.27	0.64	1.51	1.07	0.14
Green ratio	0.10	0.23	0.55	0.23	0.37	0.68	0.28	0.13	0.27	0.28	0.13	0.27
Unif. delay d1	63.9	57.5	34.0	58.0	44.2	11.8	42.4	58.5	48.7	54.0	65.0	41.9
Delay factor k	0.11	0.50	0.50	0.50	0.40	0.12	0.11	0.11	0.22	0.50	0.50	0.11
Increm. delay d2	1.2	95.6	158.3	150.0	4.9	0.3	0.2	0.3	3.7	235.4	62.3	0.2
PF factor	0.926	0.797	0.634	0.805	0.614	0.156	0.741	0.897	0.758	0.741	0.897	1.000
Control delay	60.4	141.4	179.9	196.7	32.0	2.1	31.6	52.8	40.6	275.4	120.6	42.1
Lane group LOS	E	F	F	F	C	A	C	D	D	F	F	D
Apprch. delay	152.0			70.2			39.3			228.4		
Approach LOS	F			E			D			F		
Intersec. delay	127.9			Intersection LOS						F		

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N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD../CACTUS RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	SIEMPCAC30PCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	25	1500	250	230	1360	1200	990	470	900	680	120	150
% 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 = 15.0	G = 50.0	G =	G =	G = 34.0	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 = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	26	1842		242	2695		1042	1442		716	284	
Lane group cap.	319	1610		319	1518		722	673		722	686	
v/c ratio	0.08	1.14		0.76	1.78		1.44	2.14		0.99	0.41	
Green ratio	0.10	0.33		0.10	0.33		0.23	0.22		0.23	0.22	
Unif. delay d1	61.2	50.0		65.7	50.0		58.0	58.5		57.9	50.2	
Delay factor k	0.11	0.50		0.31	0.50		0.50	0.50		0.49	0.11	
Increm. delay d2	0.1	72.8		10.1	351.6		207.3	519.2		31.3	0.4	
PF factor	0.926	0.667		0.926	0.697		0.805	0.812		0.805	0.812	
Control delay	56.8	106.1		71.0	386.5		253.9	566.7		77.9	41.2	
Lane group LOS	E	F		E	F		F	F		E	D	
Apprch. delay	105.4			360.5			435.5			67.5		
Approach LOS	F			F			F			E		
Intersec. delay	290.1			Intersection LOS						F		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*SIEMPRE VIVA RD../CACTUS RD.*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*02/03/11*	Jurisdiction	*SIEMPCAC30PCPWM*
Time Period	*PM PEAK HOUR*	Analysis Year	*YEAR 2030 COMM. PLAN/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	2	2	2	1	2	2	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	25	1500	250	230	1360	1200	990	470	900	680	120	150
% 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	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 = 15.0	G = 45.0	G =	G =	G = 37.0	G = 35.0	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	26	1579	263	242	1432	1263	1042	495	947	716	126	158
Lane group cap.	319	1486	831	319	1486	1448	786	808	524	786	808	524
v/c ratio	0.08	1.06	0.32	0.76	0.96	0.87	1.33	0.61	1.81	0.91	0.16	0.30
Green ratio	0.10	0.30	0.58	0.10	0.30	0.58	0.25	0.23	0.37	0.25	0.23	0.37
Unif. delay d1	61.2	52.5	16.2	65.7	51.7	26.8	56.5	51.4	47.5	54.9	45.7	33.8
Delay factor k	0.11	0.50	0.11	0.31	0.47	0.40	0.50	0.20	0.50	0.43	0.11	0.11
Increm. delay d2	0.1	42.0	0.2	10.1	15.5	6.1	155.4	1.4	370.8	14.7	0.1	0.3
PF factor	0.926	0.714	0.119	0.926	0.714	0.119	0.782	0.797	0.750	0.782	0.797	1.000
Control delay	56.8	79.5	2.1	71.0	52.5	9.3	199.5	42.4	406.4	57.7	36.6	34.1
Lane group LOS	E	E	A	E	D	A	F	D	F	E	D	C
Apprch. delay	68.3			35.4			247.1			51.3		
Approach LOS	E			D			F			D		
Intersec. delay	108.2			Intersection LOS						F		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/04/11	Jurisdiction	OMBRIT30ACP
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMMUNITY PLAN/NO MI

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	2	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		2620	430	530	1940		415		760			
% 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 = 25.0	G = 77.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		3211		558	2042		437		800			
Lane group cap.		2666		569	3750		569		971			
v/c ratio		1.20		0.98	0.54		0.77		0.82			
Green ratio		0.55		0.18	0.76		0.18		0.39			
Unif. delay d1		31.5		57.3	7.0		54.7		38.7			
Delay factor k		0.50		0.48	0.14		0.32		0.36			
Increm. delay d2		95.8		32.7	0.2		6.3		5.9			
PF factor		0.469		0.855	0.206		0.855		0.581			
Control delay		110.6		81.7	1.6		53.1		28.4			
Lane group LOS		F		F	A		D		C			
Apprch. delay	110.6			18.8			37.1					
Approach LOS	F			B			D					
Intersec. delay	63.8			Intersection LOS						E		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN 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		*TR*		*L*	*T*		*L*		*R*			
Init. queue/lane		*0.0*		*0.0*	*0.0*		*0.0*		*0.0*			
Flow rate/lane		*3211*		*558*	*2042*		*437*		*800*			
Satflow per lane		*1779*		*1641*	*1818*		*1641*		*1422*			
Capacity/lane		*2666*		*569*	*3750*		*569*		*971*			
Flow ratio		*0.66*		*0.17*	*0.41*		*0.14*		*0.32*			
v/c ratio		*1.20*		*0.98*	*0.54*		*0.77*		*0.82*			
I factor		*1.000*		*1.000*	*1.000*		*1.000*	*1.000*	*1.000*			
Arrival type		*5*		*5*	*5*		*5*		*5*			
Platoon ratio		*1.43*		*1.67*	*1.25*		*1.67*		*1.67*			
PF factor		*1.00*		*1.00*	*0.25*		*0.96*		*0.84*			
Q_1		*45.8*		*11.1*	*3.0*		*8.0*		*13.3*			
k_B		*0.9*		*0.4*	*1.1*		*0.4*		*0.6*			
Q_2		*29.4*		*3.6*	*1.3*		*1.3*		*2.4*			
Q avg.		*75.3*		*14.7*	*4.3*		*9.2*		*15.7*			

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$		*1.5*		*1.8*	*2.0*		*1.9*		*1.8*			
BOQ, $Q_{\%}$		*114*		*26.0*	*8.5*		*17.2*		*27.5*			

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing		*25.0*		*25.0*	*25.0*		*25.0*		*25.0*			
Q storage		*0*		*0*	*0*		*0*		*0*			
Avg. R_Q												
95% $R_{Q\%}$												

17-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*OTAY MESA RD./BRITANNIA BLVD.*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*01/04/11*	Jurisdiction	*OMBRIT30ACP*
Time Period	*AM PEAK HOUR*	Analysis Year	*YEAR 2030 COMM. PLAN/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	3	1	2	3	0	2	0	2	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		2620	430	530	1940		415		760			
% 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 = 25.0	G = 77.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		2758	453	558	2042		437		800			
Lane group cap.		2724	807	569	3750		569		971			
v/c ratio		1.01	0.56	0.98	0.54		0.77		0.82			
Green ratio		0.55	0.55	0.18	0.76		0.18		0.39			
Unif. delay d1		31.5	20.5	57.3	7.0		54.7		38.7			
Delay factor k		0.50	0.16	0.48	0.14		0.32		0.36			
Increm. delay d2		20.4	0.9	32.7	0.2		6.3		5.9			
PF factor		0.185	0.185	0.855	0.206		0.855		0.581			
Control delay		26.2	4.7	81.7	1.6		53.1		28.4			
Lane group LOS		C	A	F	A		D		C			
Apprch. delay	23.2			18.8			37.1					
Approach LOS	C			B			D					
Intersec. delay	24.0			Intersection LOS						C		

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mit

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN 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		T	R	L	T		L		R			
Init. queue/lane		0.0	0.0	0.0	0.0		0.0		0.0			
Flow rate/lane		2758	453	558	2042		437		800			
Satflow per lane		1818	1468	1641	1818		1641		1422			
Capacity/lane		2724	807	569	3750		569		971			
Flow ratio		0.56	0.31	0.17	0.41		0.14		0.32			
v/c ratio		1.01	0.56	0.98	0.54		0.77		0.82			
I factor		1.000	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	1.25		1.67		1.67			
PF factor		1.00	0.26	1.00	0.25		0.96		0.84			
Q_1		39.4	3.0	11.1	3.0		8.0		13.3			
k_B		0.9	0.8	0.4	1.1		0.4		0.6			
Q_2		11.4	1.0	3.6	1.3		1.3		2.4			
Q avg.		50.8	4.0	14.7	4.3		9.2		15.7			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.5	2.0	1.8	2.0		1.9		1.8			
BOQ, $Q_{\%}$		78.0	7.9	26.0	8.5		17.2		27.5			
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. R_Q												
95% $R_{Q\%}$												

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N
MT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/04/11	Jurisdiction	OMBRIT30PCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	3	0	2	0	2	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		1945	600	870	2065		580		530			
% 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 = 25.0	G = 72.0	G =	G =	G = 30.0	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		
Adj. flow rate		2679		916	2174		611		558			
Lane group cap.		2457		569	3573		683		2530			
v/c ratio		1.09		1.61	0.61		0.89		0.22			
Green ratio		0.51		0.18	0.72		0.21		1.00			
Unif. delay d1		34.0		57.5	9.7		53.5		0.0			
Delay factor k		0.50		0.50	0.19		0.42		0.11			
Increm. delay d2		48.1		282.5	0.3		14.3		0.0			
PF factor		0.294		0.855	0.179		0.818		0.950			
Control delay		58.1		331.7	2.0		58.1		0.0			
Lane group LOS		E		F	A		E		A			
Apprch. delay	58.1			99.8			30.4					
Approach LOS	E			F			C					
Intersec. delay	72.0			Intersection LOS						E		

17-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN PM PEAK HOUR/#17/NO MITIGATION

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		2679		916	2174		611		558			
Satflow per lane		1753		1641	1818		1641		1429			
Capacity/lane		2457		569	3573		683		2530			
Flow ratio		0.56		0.29	0.44		0.19		0.22			
v/c ratio		1.09		1.61	0.61		0.89		0.22			
I 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	1.32		1.67		1.00			
PF factor		1.00		1.00	0.24		0.97					
Q_1		38.2		18.3	3.7		11.5					
k_B		0.8		0.4	1.1		0.5		1.1			
Q_2		16.5		23.5	1.6		2.6		0.3			
Q avg.		54.8		41.8	5.3		14.1					

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$		1.5		1.6	1.9		1.8					
BOQ, $Q_{\%}$		83.7		65.1	10.3		25.1					

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing		25.0		25.0	25.0		25.0		25.0			
Q storage		0		0	0		0		0			
Avg. R_Q												
95% $R_{Q\%}$												

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W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/04/11	Jurisdiction	OMBRIT30PCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	3	1	2	3	0	2	0	2	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		1945	600	870	2065		580		530			
% 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 = 25.0	G = 72.0	G =	G =	G = 30.0	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		
Adj. flow rate		2047	632	916	2174		611		558			
Lane group cap.		2547	755	569	3573		683		2530			
v/c ratio		0.80	0.84	1.61	0.61		0.89		0.22			
Green ratio		0.51	0.51	0.18	0.72		0.21		1.00			
Unif. delay d1		28.1	29.0	57.5	9.7		53.5		0.0			
Delay factor k		0.35	0.37	0.50	0.19		0.42		0.11			
Increm. delay d2		2.0	8.2	282.5	0.3		14.3		0.0			
PF factor		0.294	0.294	0.855	0.179		0.818		0.950			
Control delay		10.2	16.7	331.7	2.0		58.1		0.0			
Lane group LOS		B	B	F	A		E		A			
Apprch. delay	11.8			99.8			30.4					
Approach LOS	B			F			C					
Intersec. delay	54.1			Intersection LOS						D		

17-P
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN PM PEAK HOUR/#17/WITH MITIGATION*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		T	R	L	T		L		R			
Init. queue/lane		0.0	0.0	0.0	0.0		0.0		0.0			
Flow rate/lane		2047	632	916	2174		611		558			
Satflow per lane		1818	1468	1641	1818		1641		1429			
Capacity/lane		2547	755	569	3573		683		2530			
Flow ratio		0.41	0.43	0.29	0.44		0.19		0.22			
v/c ratio		0.80	0.84	1.61	0.61		0.89		0.22			
I factor		1.000	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	1.32		1.67		1.00			
PF factor		0.55	0.59	1.00	0.24		0.97					
Q_1		13.4	12.4	18.3	3.7		11.5					
k_B		0.9	0.8	0.4	1.1		0.5		1.1			
Q_2		3.1	3.2	23.5	1.6		2.6		0.3			
Q avg.		16.5	15.7	41.8	5.3		14.1					
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.7	1.8	1.6	1.9		1.8					
BOQ, $Q_{\%}$		28.7	27.4	65.1	10.3		25.1					
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. R_Q												
95% $R_{Q\%}$												

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18-A
NO MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905WB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	CALTRANS STRIPING/NO MIT.
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	0	0	1	1	1	2	3	0	0	2	1
Lane group				L	TR	R	L	T			TR	R
Volume (vph)				1300	5	210	900	965			660	300
% 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	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	3
Unit Extension				3.0	3.0	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			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			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 60.0	G =	G =	G =	G = 42.0	G = 25.0	G =	G =
	Y = 4	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		
Adj. flow rate				1368	5	221	947	1016			774	237
Lane group cap.				703	779	629	956	2512			605	247
v/c ratio				1.95	0.01	0.35	0.99	0.40			1.28	0.96
Green ratio				0.43	0.43	0.43	0.30	0.51			0.18	0.18
Unif. delay d1				40.0	22.9	26.9	48.8	21.4			57.5	57.0
Delay factor k				0.50	0.11	0.11	0.49	0.11			0.50	0.47
Increm. delay d2				430.9	0.0	0.3	26.7	0.1			138.1	45.9
PF factor				0.895	0.500	0.500	0.714	0.314			0.855	1.000
Control delay				466.7	11.5	13.8	61.6	6.8			187.3	102.9
Lane group LOS				F	B	B	E	A			F	F
Apprch. delay				402.5			33.2			167.5		
Approach LOS				F			C			F		
Intersec. delay	191.8			Intersection LOS						F		

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NO MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN-SR905WB RAMPS/BRITANNIA BLVD/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	R	L	T			TR	R
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				1368	5	221	947	1016			774	237
Satflow per lane				1641	1818	1468	1641	1818			1779	1384
Capacity/lane				703	779	629	956	2512			605	247
Flow ratio				0.83	0.00	0.15	0.30	0.20			0.23	0.17
v/c ratio				1.95	0.01	0.35	0.99	0.40			1.28	0.96
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.14	1.67	1.67	1.67	1.67			1.67	1.00
PF factor				1.00	0.50	0.57	0.99	0.38			1.00	1.00
Q_1				53.2	0.1	3.3	18.7	3.4			15.8	9.1
k_B				0.7	0.8	0.7	0.6	0.9			0.5	0.4
Q_2				84.6	0.0	0.4	5.7	0.6			12.9	2.8
Q avg.				137.8	0.1	3.6	24.4	4.0			28.7	12.0

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				1.5	2.1	2.0	1.7	2.0			1.6	1.8
BOQ, $Q_{\%}$				207	0.1	7.3	40.4	7.9			46.5	21.6

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

18-A
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905WB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	CALTRANS STRIPING/WITH MIT.
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/WIT 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	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			TR	R
Volume (vph)				1300	5	210	900	965			660	300
% 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	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	3
Unit Extension				3.0	3.0	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			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			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 55.0	G =	G =	G =	G = 42.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate				684	689	221	947	1016			758	253
Lane group cap.				645	680	577	956	2689			1044	299
v/c ratio				1.06	1.01	0.38	0.99	0.38			0.73	0.85
Green ratio				0.39	0.39	0.39	0.30	0.54			0.21	0.21
Unif. delay d1				42.5	42.5	30.4	48.8	18.4			51.2	52.8
Delay factor k				0.50	0.50	0.11	0.49	0.11			0.29	0.38
Increm. delay d2				52.6	37.8	0.4	26.7	0.1			2.6	19.6
PF factor				0.569	0.569	0.569	0.714	0.208			0.818	1.000
Control delay				76.7	62.0	17.7	61.6	3.9			44.4	72.4
Lane group LOS				E	E	B	E	A			D	E
Apprch. delay				62.2			31.7			51.4		
Approach LOS				E			C			D		
Intersec. delay	46.7			Intersection LOS						D		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN-SR905WB RAMPS/BRITANNIA BLVD/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	LTR	R	L	T			TR	R
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				684	689	221	947	1016			758	253
Satflow per lane				1641	1732	1468	1641	1818			1787	1394
Capacity/lane				645	680	577	956	2689			1044	299
Flow ratio				0.42	0.40	0.15	0.30	0.20			0.16	0.18
v/c ratio				1.06	1.01	0.38	0.99	0.38			0.73	0.85
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.67	1.67	1.67	1.67	1.67			1.67	1.00
PF factor				1.00	1.00	0.64	0.99	0.25			0.93	1.00
Q_1				26.6	26.8	4.0	18.7	2.1			9.4	9.4
k_B				0.7	0.7	0.6	0.6	0.9			0.5	0.4
Q_2				10.5	8.4	0.4	5.7	0.5			1.2	1.8
Q avg.				37.1	35.2	4.4	24.4	2.6			10.6	11.3
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				1.6	1.6	2.0	1.7	2.0			1.8	1.8
BOQ, $Q_{\%}$				58.5	55.8	8.6	40.4	5.3			19.4	20.5
Queue Storage Ratio												
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

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NO
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905WB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	905WBBRIT30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMMUNITY PLAN/NO MITIGAT

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	1	1	2	3	0	0	2	1
Lane group				L	TR	R	L	T			TR	R
Volume (vph)				300	5	220	2630	890			895	575
% 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	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	3
Unit Extension				3.0	3.0	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			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			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 30.0	G =	G =	G =	G = 57.0	G = 40.0	G =	G =
	Y = 4	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		
Adj. flow rate				316	5	232	2768	937			1093	454
Lane group cap.				352	390	954	1298	3573			963	401
v/c ratio				0.90	0.01	0.24	2.13	0.26			1.13	1.13
Green ratio				0.21	0.21	0.65	0.41	0.72			0.29	0.29
Unif. delay d1				53.5	43.3	10.2	41.5	6.7			50.0	50.0
Delay factor k				0.42	0.11	0.11	0.50	0.11			0.50	0.50
Increm. delay d2				24.6	0.0	0.1	512.2	0.0			73.7	86.1
PF factor				0.818	0.818	0.143	0.935	0.179			0.733	1.000
Control delay				68.4	35.5	1.6	551.0	1.2			110.4	136.1
Lane group LOS				E	D	A	F	A			F	F
Apprch. delay				40.1			412.0			117.9		
Approach LOS				D			F			F		
Intersec. delay	298.2			Intersection LOS						F		

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NO
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM-SR905WB RAMPS/BRITANNIA BLVD/CALTRANS*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group				*L*	*TR*	*R*	*L*	*T*			*TR*	*R*
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				316	5	232	2768	937			1093	454
Satflow per lane				1641	1818	1468	1641	1818			1769	1404
Capacity/lane				352	390	954	1298	3573			963	401
Flow ratio				0.19	0.00	0.16	0.87	0.19			0.32	0.32
v/c ratio				0.90	0.01	0.24	2.13	0.26			1.13	1.13
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.67	1.67	1.46	1.09	1.32			1.67	1.00
PF factor				0.97	0.82	0.16	1.00	0.19			1.00	1.00
Q_1				11.6	0.1	0.6	55.4	0.9			22.3	17.7
k_B				0.5	0.5	0.9	0.7	1.1			0.6	0.5
Q_2				2.7	0.0	0.3	95.9	0.4			12.2	9.7
Q avg.				14.3	0.1	0.9	151.4	1.3			34.5	27.3

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$				1.8	2.1	2.1	1.5	2.1			1.6	1.6
BOQ, $Q_{\%}$				25.3	0.3	1.8	227	2.6			54.8	44.6

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

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W MIT

SHORT REPORT

General Information		Site Information	
Analyst	*USAI*	Intersection	*SR-905WB RAMPS/BRITANNIA BLVD.*
Agency or Co.	*USAI*	Area Type	*All other areas*
Date Performed	*02/01/11*	Jurisdiction	*905WBBRIT30PCPWM*
Time Period	*PM PEAK HOUR*	Analysis Year	*2030 COMMUNITY PLAN/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	1	1	2	3	0	0	3	1
Lane group				L	LTR	R	L	T			TR	R
Volume (vph)				300	5	220	2630	890			895	575
% 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	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	3
Unit Extension				3.0	3.0	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			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			0	0
Unit Extension				3.0	3.0	3.0	3.0	3.0			3.0	3.0

Phasing	WB Only	02	03	04	NB Only	Thru & RT	07	08
Timing	G = 20.0	G =	G =	G =	G = 72.0	G = 35.0	G =	G =
	Y = 4	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		
Adj. flow rate				158	163	232	2768	937			1232	315
Lane group cap.				234	248	1007	1639	3927			1181	350
v/c ratio				0.68	0.66	0.23	1.69	0.24			1.04	0.90
Green ratio				0.14	0.14	0.69	0.51	0.79			0.25	0.25
Unif. delay d1				56.9	56.8	8.2	34.0	3.7			52.5	50.8
Delay factor k				0.25	0.23	0.11	0.50	0.11			0.50	0.42
Increm. delay d2				7.5	6.2	0.1	312.6	0.0			38.2	25.1
PF factor				0.889	0.889	0.159	0.900	0.241			0.778	1.000
Control delay				58.1	56.7	1.4	343.3	0.9			79.0	75.9
Lane group LOS				E	E	A	F	A			E	E
Apprch. delay				33.9			256.7			78.4		
Approach LOS				C			F			E		
Intersec. delay	187.9			Intersection LOS						F		

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W MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM-SR905WB RAMPS/BRITANNIA BLVD/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	LTR	R	L	T			TR	R
Init. queue/lane				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Flow rate/lane				158	163	232	2768	937			1232	315
Satflow per lane				1641	1734	1468	1641	1818			1734	1399
Capacity/lane				234	248	1007	1639	3927			1181	350
Flow ratio				0.10	0.09	0.16	0.87	0.19			0.26	0.23
v/c ratio				0.68	0.66	0.23	1.69	0.24			1.04	0.90
I factor				1.000	1.000	1.000	1.000	1.000			1.000	1.000
Arrival type				5	5	5	5	5			5	3
Platoon ratio				1.67	1.67	1.39	1.09	1.20			1.67	1.00
PF factor				0.96	0.95	0.17	1.00	0.25			1.00	1.00
Q_1				5.6	5.7	0.6	55.4	0.9			17.6	11.9
k_B				0.4	0.4	0.9	0.8	1.1			0.5	0.5
Q_2				0.7	0.7	0.3	74.7	0.3			6.9	2.7
Q avg.				6.3	6.4	0.8	130.1	1.2			24.4	14.5
Percentile Back of Queue (95th percentile)												
$f_{B\%}$				1.9	1.9	2.1	1.5	2.1			1.7	1.8
BOQ, $Q_{\%}$				12.1	12.3	1.8	195	2.5			40.4	25.7
Queue Storage Ratio												
Q spacing				25.0	25.0	25.0	25.0	25.0			25.0	25.0
Q storage				0	0	0	0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

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19-A
NO
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905EB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	905EBBRIT30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	1	2	0	0	0	0	3	0	2	3	0
Lane group		LT	R					TR		L	T	
Volume (vph)	400	5	3195					1465	250	200	1760	
% 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	
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		300	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	SB Only	Thru & RT	07	08
Timing	G = 77.0	G =	G =	G =	G = 10.0	G = 50.0	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		
Adj. flow rate		426	3047					1805		211	1853	
Lane group cap.		890	1334					1609		212	2113	
v/c ratio		0.48	2.28					1.12		1.00	0.88	
Green ratio		0.51	0.51					0.33		0.07	0.43	
Unif. delay d1		23.5	36.5					50.0		70.0	39.4	
Delay factor k		0.11	0.50					0.50		0.50	0.40	
Increm. delay d2		0.4	580.2					63.7		60.4	4.5	
PF factor		0.297	1.000					0.667		0.952	0.504	
Control delay		7.4	616.7					97.0		127.0	24.4	
Lane group LOS		A	F					F		F	C	
Apprch. delay	542.0						97.0			34.9		
Approach LOS	F						F			C		
Intersec. delay	290.0			Intersection LOS						F		

19-A
NO
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description AM COMM. PLAN NO MIT. - ---SR905EB RAMPS/BRITANNIA

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R					TR		L	T	
Init. queue/lane		0.0	0.0					0.0		0.0	0.0	
Flow rate/lane		426	3047					1805		211	1853	
Satflow per lane		1733	1468					1772		1641	1818	
Capacity/lane		890	1334					1609		212	2113	
Flow ratio		0.25	1.17					0.37		0.07	0.37	
v/c ratio		0.48	2.28					1.12		1.00	0.88	
I factor		1.000	1.000					1.000		1.000	1.000	
Arrival type		5	5					5		5	5	
Platoon ratio		1.67	1.00					1.67		1.67	1.67	
PF factor		0.38	1.00					1.00		1.00	0.84	
Q_1		4.3	71.7					27.6		4.5	21.7	
k_B		0.9	0.8					0.7		0.2	0.8	
Q_2		0.8	122.4					13.3		1.8	4.2	
Q avg.		5.1	194.1					40.8		6.3	26.0	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		2.0	1.5					1.6		1.9	1.6	
BOQ, $Q_{\%}$		10.0	291					63.8		12.0	42.7	
Queue Storage Ratio												
Q spacing		25.0	25.0					25.0		25.0	25.0	
Q storage		0	0					0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

19-A
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905EB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	905EBBRIT30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	1	2	0	0	0	0	3	2	2	3	0
Lane group		LT	R					T	R	L	T	
Volume (vph)	400	5	3195					1465	250	200	1760	
% 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		300	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	SB Only	Thru & RT	07	08
Timing	G = 77.0	G =	G =	G =	G = 10.0	G = 50.0	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		
Adj. flow rate		426	3047					1542	263	211	1853	
Lane group cap.		890	1334					1651	831	212	2113	
v/c ratio		0.48	2.28					0.93	0.32	1.00	0.88	
Green ratio		0.51	0.51					0.33	0.33	0.07	0.43	
Unif. delay d1		23.5	36.5					48.4	37.3	70.0	39.4	
Delay factor k		0.11	0.50					0.45	0.11	0.50	0.40	
Increm. delay d2		0.4	580.2					10.3	0.2	60.4	4.5	
PF factor		0.297	1.000					0.667	0.667	0.952	0.504	
Control delay		7.4	616.7					42.5	25.1	127.0	24.4	
Lane group LOS		A	F					D	C	F	C	
Apprch. delay	542.0						40.0			34.9		
Approach LOS	F						D			C		
Intersec. delay	276.0			Intersection LOS						F		

19-A
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description AM COMM. PLAN WITH MIT.. - ---SR905EB RAMPS/BRITANNIA

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		LT	R					T	R	L	T	
Init. queue/lane		0.0	0.0					0.0	0.0	0.0	0.0	
Flow rate/lane		426	3047					1542	263	211	1853	
Satflow per lane		1733	1468					1818	1409	1641	1818	
Capacity/lane		890	1334					1651	831	212	2113	
Flow ratio		0.25	1.17					0.31	0.11	0.07	0.37	
v/c ratio		0.48	2.28					0.93	0.32	1.00	0.88	
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	1.00					1.67	1.67	1.67	1.67	
PF factor		0.38	1.00					0.95	0.72	1.00	0.84	
Q_1		4.3	71.7					21.8	3.3	4.5	21.7	
k_B		0.9	0.8					0.7	0.6	0.2	0.8	
Q_2		0.8	122.4					4.9	0.3	1.8	4.2	
Q avg.		5.1	194.1					26.7	3.6	6.3	26.0	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		2.0	1.5					1.6	2.0	1.9	1.6	
BOQ, $Q_{\%}$		10.0	291					43.7	7.2	12.0	42.7	
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. R_Q												
95% $R_{Q\%}$												

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19-P

NO MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905EB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	905EBBRIT30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	1	2	0	0	0	0	3	0	2	3	0
Lane group		LT	R					TR		L	T	
Volume (vph)	400	5	1525					3120	1100	250	945	
% 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	
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		300	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	SB Only	Thru & RT	07	08
Timing	G = 40.0	G =	G =	G =	G = 10.0	G = 77.0	G =	G =
	Y = 4	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		
Adj. flow rate		426	1289					4442		263	995	
Lane group cap.		495	743					2604		228	3219	
v/c ratio		0.86	1.73					1.71		1.15	0.31	
Green ratio		0.29	0.29					0.55		0.07	0.65	
Unif. delay d1		47.4	50.0					31.5		65.0	10.7	
Delay factor k		0.39	0.50					0.50		0.50	0.11	
Increm. delay d2		14.3	336.3					319.3		107.3	0.1	
PF factor		0.733	0.733					0.984		0.949	0.143	
Control delay		49.0	373.0					350.3		168.9	1.6	
Lane group LOS		D	F					F		F	A	
Apprch. delay	292.5						350.3			36.6		
Approach LOS	F						F			D		
Intersec. delay	283.7			Intersection LOS						F		

19-P
NO MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *PM COMM. PLAN - ---SR905EB RAMPS/BRITANNIA/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*					*TR*		*L*	*T*	
Init. queue/lane		*0.0*	*0.0*					*0.0*		*0.0*	*0.0*	
Flow rate/lane		*426*	*1289*					*4442*		*263*	*995*	
Satflow per lane		*1733*	*1468*					*1738*		*1641*	*1818*	
Capacity/lane		*495*	*743*					*2604*		*228*	*3219*	
Flow ratio		*0.25*	*0.50*					*0.94*		*0.08*	0.20	
v/c ratio		*0.86*	*1.73*					*1.71*		*1.15*	*0.31*	
I factor		*1.000*	*1.000*					*1.000*		*1.000*	*1.000*	
Arrival type		*5*	*5*					*5*		*5*	*5*	
Platoon ratio		*1.67*	*1.67*					*1.01*		*1.67*	*1.46*	
PF factor		*0.94*	*1.00*					*1.00*		*1.00*	*0.16*	
Q_1		*14.7*	*28.3*					*63.4*		*5.3*	*1.0*	
k_B		*0.6*	*0.5*					*0.9*		*0.2*	*1.0*	
Q_2		*2.8*	*39.8*					*86.4*		*3.5*	*0.4*	
Q avg.		*17.5*	*68.2*					*149.8*		*8.7*	*1.4*	

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$		*1.7*	*1.5*					*1.5*		*1.9*	*2.1*	
BOQ, $Q_{\%}$		*30.2*	*103*					*225*		*16.3*	*3.0*	

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing		*25.0*	*25.0*					*25.0*		*25.0*	*25.0*	
Q storage		*0*	*0*					*0*		*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-905EB RAMPS/BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	905EBBRIT30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	1	2	0	0	0	0	3	2	2	3	0
Lane group		LT	R					T	R	L	T	
Volume (vph)	400	5	1525					3120	1100	250	945	
% 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		300	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	SB Only	Thru & RT	07	08
Timing	G = 40.0	G =	G =	G =	G = 10.0	G = 77.0	G =	G =
	Y = 4	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		
Adj. flow rate		426	1289					3284	1158	263	995	
Lane group cap.		495	743					2724	1383	228	3219	
v/c ratio		0.86	1.73					1.21	0.84	1.15	0.31	
Green ratio		0.29	0.29					0.55	0.55	0.07	0.65	
Unif. delay d1		47.4	50.0					31.5	26.3	65.0	10.7	
Delay factor k		0.39	0.50					0.50	0.37	0.50	0.11	
Increm. delay d2		14.3	336.3					96.2	4.7	107.3	0.1	
PF factor		0.733	0.733					0.470	0.185	0.949	0.143	
Control delay		49.0	373.0					111.1	9.6	168.9	1.6	
Lane group LOS		D	F					F	A	F	A	
Apprch. delay	292.5						84.6			36.6		
Approach LOS	F						F			D		
Intersec. delay	124.5			Intersection LOS						F		

19-P
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *PM COMM. PLAN - ---SR905EB RAMPS/BRITANNIA*

Average Back of Queue

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane group		*LT*	*R*					*T*	*R*	*L*	*T*	
Init. queue/lane		*0.0*	*0.0*					*0.0*	*0.0*	*0.0*	*0.0*	
Flow rate/lane		*426*	*1289*					*3284*	*1158*	*263*	*995*	
Satflow per lane		*1733*	*1468*					*1818*	*1421*	*1641*	*1818*	
Capacity/lane		*495*	*743*					*2724*	*1383*	*228*	*3219*	
Flow ratio		*0.25*	*0.50*					*0.66*	*0.46*	*0.08*	0.20	
v/c ratio		*0.86*	*1.73*					*1.21*	*0.84*	*1.15*	*0.31*	
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*					*1.43*	*1.67*	*1.67*	*1.46*	
PF factor		*0.94*	*1.00*					*1.00*	*0.43*	*1.00*	*0.16*	
Q_1		*14.7*	*28.3*					*46.9*	*9.1*	*5.3*	*1.0*	
k_B		*0.6*	*0.5*					*0.9*	*0.8*	*0.2*	*1.0*	
Q_2		*2.8*	*39.8*					*30.1*	*3.3*	*3.5*	*0.4*	
Q avg.		*17.5*	*68.2*					*77.0*	*12.4*	*8.7*	*1.4*	

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$		*1.7*	*1.5*					*1.5*	*1.8*	*1.9*	*2.1*	
BOQ, $Q_{\%}$		*30.2*	*103*					*116*	*22.4*	*16.3*	*3.0*	

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing		*25.0*	*25.0*					*25.0*	*25.0*	*25.0*	*25.0*	
Q storage		*0*	*0*					*0*	*0*	*0*	*0*	
Avg. R_Q												
95% $R_{Q\%}$												

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NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/16/11	Jurisdiction	AIRBRIT30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	445	345	645	970	620	620	585	650	180	1550	2115	1290
% 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 = 23.0	G =	G =	G = 32.0	G = 52.0	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	468	1042		1021	1306		616	873		1632	3584	
Lane group cap.	531	668		531	689		680	1653		680	1605	
v/c ratio	0.88	1.56		1.92	1.90		0.91	0.53		2.40	2.23	
Green ratio	0.17	0.15		0.17	0.15		0.21	0.35		0.21	0.35	
Unif. delay d1	61.1	63.5		62.5	63.5		57.5	39.2		59.0	49.0	
Delay factor k	0.41	0.50		0.50	0.50		0.43	0.13		0.50	0.50	
Increm. delay d2	15.8	259.2		422.2	408.4		15.8	0.3		634.5	556.9	
PF factor	0.867	0.879		0.867	0.879		0.819	0.646		0.819	0.879	
Control delay	68.7	315.1		476.4	464.3		63.0	25.6		682.8	600.0	
Lane group LOS	E	F		F	F		E	C		F	F	
Apprch. delay	238.7			469.6			41.1			625.9		
Approach LOS	F			F			D			F		
Intersec. delay	453.3			Intersection LOS						F		

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NM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *AM COMM. PLAN-AIRWAY RD./BRITANNIA BLVD./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	468	1042		1021	1306		616	873		1632	3584	
Satflow per lane	1641	1599		1641	1649		1641	1750		1641	1699	
Capacity/lane	531	668		531	689		680	1653		680	1605	
Flow ratio	0.15	0.24		0.32	0.29		0.19	0.18		0.51	0.77	
v/c ratio	0.88	1.56		1.92	1.90		0.91	0.53		2.40	2.23	
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	1.23	
PF factor	0.98	1.00		1.00	1.00		0.97	0.76		1.00	1.00	
Q_1	9.6	15.9		21.9	20.0		12.6	8.1		35.0	54.8	
k_B	0.4	0.4		0.4	0.4		0.5	0.7		0.5	0.7	
Q_2	2.1	18.2		32.4	29.2		2.8	0.8		62.1	92.0	
Q avg.	11.6	34.1		54.2	49.2		15.4	8.9		97.1	146.8	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.8	1.6		1.5	1.5		1.8	1.9		1.5	1.5	
BOQ, $Q_\%$	21.1	54.2		83.0	75.7		27.0	16.5		146	220	
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_Q												
95% $R_{Q\%}$												

20-A
WM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/16/11	Jurisdiction	AIRBRIT30ACPM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	3	2	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	445	345	645	970	620	620	585	650	180	1550	2115	1290
% 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	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 = 25.0	G = 23.0	G =	G =	G = 32.0	G = 52.0	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	468	363	679	1021	653	653	616	684	189	1632	2226	1358
Lane group cap.	531	759	568	531	759	1004	680	1717	1389	680	1717	1389
v/c ratio	0.88	0.48	1.20	1.92	0.86	0.65	0.91	0.40	0.14	2.40	1.30	0.98
Green ratio	0.17	0.15	0.40	0.17	0.15	0.40	0.21	0.35	0.55	0.21	0.35	0.55
Unif. delay d1	61.1	58.0	45.0	62.5	61.9	36.5	57.5	37.1	16.7	59.0	49.0	33.1
Delay factor k	0.41	0.11	0.50	0.50	0.39	0.23	0.43	0.11	0.11	0.50	0.50	0.48
Increm. delay d2	15.8	0.5	104.3	422.2	9.9	1.5	15.8	0.2	0.0	634.5	137.8	19.0
PF factor	0.867	0.879	0.556	0.867	0.879	0.556	0.819	0.646	0.196	0.819	0.646	1.000
Control delay	68.7	51.5	129.3	476.4	64.3	21.8	63.0	24.2	3.3	682.8	169.5	52.1
Lane group LOS	E	D	F	F	E	C	E	C	A	F	F	D
Apprch. delay	91.8			233.2			37.6			299.5		
Approach LOS	F			F			D			F		
Intersec. delay	218.1			Intersection LOS						F		

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20-A
WM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *AM COMM. PLAN-AIRWAY RD./BRITANNIA BLVD./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	*468*	*363*	*679*	*1021*	*653*	*653*	*616*	*684*	*189*	*1632*	*2226*	*1358*
Satflow per lane	*1641*	*1818*	*1419*	*1641*	*1818*	*1419*	*1641*	*1818*	*1436*	*1641*	*1818*	*1436*
Capacity/lane	*531*	*759*	*568*	*531*	*759*	*1004*	*680*	*1717*	*1389*	*680*	*1717*	*1389*
Flow ratio	*0.15*	*0.07*	*0.48*	*0.32*	*0.13*	*0.26*	*0.19*	*0.14*	*0.07*	*0.51*	0.45	*0.53*
v/c ratio	*0.88*	*0.48*	*1.20*	*1.92*	*0.86*	*0.65*	*0.91*	*0.40*	*0.14*	*2.40*	*1.30*	*0.98*
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*	*5*	*5*	*5*	*5*	*5*	*3*
Platoon ratio	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*	*1.00*
PF factor	*0.98*	*0.93*	*1.00*	*1.00*	*0.98*	*0.72*	*0.97*	*0.72*	*0.21*	*1.00*	*1.00*	*1.00*
Q_1	*9.6*	*4.7*	*28.3*	*21.9*	*9.5*	*9.0*	*12.6*	*5.7*	*0.4*	*35.0*	*34.0*	*31.1*
k_B	*0.4*	*0.4*	*0.7*	*0.4*	*0.4*	*0.7*	*0.5*	*0.7*	*0.8*	*0.5*	*0.7*	*0.8*
Q_2	*2.1*	*0.4*	*17.2*	*32.4*	*1.9*	*1.2*	*2.8*	*0.5*	*0.1*	*62.1*	*26.1*	*7.8*
Q avg.	*11.6*	*5.1*	*45.5*	*54.2*	*11.4*	*10.2*	*15.4*	*6.2*	*0.6*	*97.1*	*60.2*	*39.0*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.8*	*2.0*	*1.5*	*1.5*	*1.8*	*1.8*	*1.8*	*1.9*	*2.1*	*1.5*	*1.5*	*1.6*
BOQ, $Q_{\%}$	*21.1*	*9.9*	*70.4*	*83.0*	*20.8*	*18.7*	*27.0*	*11.9*	*1.2*	*146*	*91.6*	*61.1*
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. R_Q												
95% $R_{Q\%}$												

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20-P
NM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/16/11	Jurisdiction	AIRBRIT30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	1230	1305	585	180	265	1515	645	1475	970	715	1245	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	
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 = 23.0	G =	G =	G = 32.0	G = 52.0	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	1295	1990		189	1874		679	2574		753	1848	
Lane group cap.	531	716		531	641		680	1600		680	1631	
v/c ratio	2.44	2.78		0.36	2.92		1.00	1.61		1.11	1.13	
Green ratio	0.17	0.15		0.17	0.15		0.21	0.35		0.21	0.35	
Unif. delay d1	62.5	63.5		55.4	63.5		59.0	49.0		59.0	49.0	
Delay factor k	0.50	0.50		0.11	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	653.2	804.6		0.4	869.8		34.1	276.9		67.8	68.1	
PF factor	0.867	0.879		0.867	0.879		0.819	0.646		0.819	0.646	
Control delay	707.3	860.4		48.4	925.7		82.4	308.5		116.1	99.8	
Lane group LOS	F	F		D	F		F	F		F	F	
Apprch. delay	800.1			845.3			261.3			104.5		
Approach LOS	F			F			F			F		
Intersec. delay	490.5			Intersection LOS						F		

20-P
NM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM -AIRWAY RD./BRITANNIA BLVD./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	1295	1990		189	1874		679	2574		753	1848	
Satflow per lane	1641	1713		1641	1534		1641	1694		1641	1727	
Capacity/lane	531	716		531	641		680	1600		680	1631	
Flow ratio	0.41	0.43		0.06	0.45		0.21	0.56		0.24	0.39	
v/c ratio	2.44	2.78		0.36	2.92		1.00	1.61		1.11	1.13	
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		0.90	1.00		1.00	1.00		1.00	1.00	
Q_1	27.8	30.4		3.2	28.6		14.5	39.3		16.1	28.3	
k_B	0.4	0.4		0.4	0.4		0.5	0.7		0.5	0.7	
Q_2	49.8	59.1		0.2	57.1		4.6	46.4		7.7	14.1	
Q avg.	77.6	89.6		3.5	85.7		19.1	85.7		23.9	42.4	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.5	1.5		2.0	1.5		1.7	1.5		1.7	1.6	
BOQ, $Q_{\%}$	117	135		6.9	129		32.7	129		39.6	66.0	

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_Q												
95% $R_{Q\%}$												

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WM

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./BRITANNIA BLVD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	11/16/11	Jurisdiction	AIRBRIT30PCPM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	2	3	2	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	1230	1305	585	180	265	1515	645	1475	970	715	1245	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	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 = 25.0	G = 23.0	G =	G =	G = 32.0	G = 52.0	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	1295	1374	616	189	279	1595	679	1553	1021	753	1311	537
Lane group cap.	531	759	568	531	759	1004	680	1717	1389	680	1717	1389
v/c ratio	2.44	1.81	1.08	0.36	0.37	1.59	1.00	0.90	0.74	1.11	0.76	0.39
Green ratio	0.17	0.15	0.40	0.17	0.15	0.40	0.21	0.35	0.55	0.21	0.35	0.55
Unif. delay d1	62.5	63.5	45.0	55.4	57.0	45.0	59.0	46.6	25.8	59.0	43.5	19.5
Delay factor k	0.50	0.50	0.50	0.11	0.11	0.50	0.50	0.43	0.29	0.50	0.32	0.11
Increm. delay d2	653.2	369.8	62.7	0.4	0.3	269.6	34.1	7.2	2.1	67.8	2.1	0.2
PF factor	0.867	0.879	0.556	0.867	0.879	0.669	0.819	0.646	0.196	0.819	0.646	1.000
Control delay	707.3	425.7	87.7	48.4	50.4	299.8	82.4	37.4	7.1	116.1	30.2	19.7
Lane group LOS	F	F	F	D	D	F	F	D	A	F	C	B
Apprch. delay	473.3			243.0			37.3			52.9		
Approach LOS	F			F			D			D		
Intersec. delay	206.7			Intersection LOS						F		

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WM

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM -AIRWAY RD./BRITANNIA BLVD./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	1295	1374	616	189	279	1595	679	1553	1021	753	1311	537
Satflow per lane	1641	1818	1419	1641	1818	1419	1641	1818	1436	1641	1818	1436
Capacity/lane	531	759	568	531	759	1004	680	1717	1389	680	1717	1389
Flow ratio	0.41	0.28	0.43	0.06	0.06	0.63	0.21	0.31	0.40	0.24	0.26	0.21
v/c ratio	2.44	1.81	1.08	0.36	0.37	1.59	1.00	0.90	0.74	1.11	0.76	0.39
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	5	5	5	5	5	3
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.50	1.67	1.67	1.67	1.67	1.67	1.00
PF factor	1.00	1.00	1.00	0.90	0.92	1.00	1.00	0.93	0.35	1.00	0.85	1.00
Q_1	27.8	21.0	25.7	3.2	3.5	37.5	14.5	21.0	6.4	16.1	15.1	7.3
k_B	0.4	0.4	0.7	0.4	0.4	0.7	0.5	0.7	0.8	0.5	0.7	0.8
Q_2	49.8	29.2	10.8	0.2	0.2	43.5	4.6	4.3	2.1	7.7	2.1	0.5
Q avg.	77.6	50.2	36.4	3.5	3.7	81.0	19.1	25.3	8.5	23.9	17.2	7.8
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.5	1.6	2.0	2.0	1.5	1.7	1.6	1.9	1.7	1.7	1.9
BOQ, $Q_{\%}$	117	77.1	57.5	6.9	7.4	122	32.7	41.7	16.0	39.6	29.8	14.7
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. R_Q												
95% $R_{Q\%}$												

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21-A
N
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/05/11	Jurisdiction	SIEMBRIT30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	365	1025	1180	1490	2480	300	300	115	385	620	1130	700
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	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	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 30.0	G = 30.0	G =	G = 20.0	G = 32.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	384	2321		1568	2927		316	526		653	1926	
Lane group cap.	319	895		1041	2106		425	638		425	562	
v/c ratio	1.20	2.59		1.51	1.39		0.74	0.82		1.54	3.43	
Green ratio	0.10	0.20		0.33	0.43		0.13	0.21		0.13	0.21	
Unif. delay d1	67.5	60.0		50.5	42.5		62.5	56.3		65.0	59.0	
Delay factor k	0.50	0.50		0.50	0.50		0.30	0.36		0.50	0.50	
Increm. delay d2	117.7	720.2		232.8	178.4		6.9	8.7		253.0	1097	
PF factor	0.926	0.833		0.677	0.558		0.897	0.819		0.897	0.919	
Control delay	180.2	770.2		267.0	202.1		63.1	54.8		311.3	1151	
Lane group LOS	F	F		F	F		E	D		F	F	
Apprch. delay	686.5			224.8			57.9			938.3		
Approach LOS	F			F			E			F		
Intersec. delay	502.4			Intersection LOS						F		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/05/11	Jurisdiction	SIEMBRIT30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	2	2	3	2	2	2	1	2	2	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	365	1025	1180	1490	2480	300	300	115	385	620	1130	365
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	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	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	WB Only	Thru & RT	04	Excl. Left	Thru & RT	07	08
Timing	G = 15.0	G = 30.0	G = 30.0	G =	G = 20.0	G = 32.0	G =	G =
	Y = 4	Y = 5	Y = 5	Y =	Y = 4	Y = 5	Y =	Y =
Duration of Analysis (hrs) = 0.25						Cycle Length C = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	384	1079	1242	1568	2611	316	316	121	405	653	1189	384
Lane group cap.	319	991	906	1041	2146	1506	425	739	494	425	542	875
v/c ratio	1.20	1.09	1.37	1.51	1.22	0.21	0.74	0.16	0.82	1.54	2.19	0.44
Green ratio	0.10	0.20	0.37	0.33	0.43	0.60	0.13	0.21	0.35	0.13	0.21	0.35
Unif. delay d1	67.5	60.0	47.5	50.5	42.5	13.7	62.5	48.1	44.7	65.0	59.0	37.8
Delay factor k	0.50	0.50	0.50	0.50	0.50	0.11	0.30	0.11	0.36	0.50	0.50	0.11
Increm. delay d2	117.7	55.9	173.9	232.8	102.0	0.1	6.9	0.1	10.5	253.0	543.2	0.4
PF factor	0.926	0.833	0.614	0.677	0.490	0.125	0.897	0.819	0.646	0.897	0.819	1.000
Control delay	180.2	105.9	203.1	267.0	122.8	1.8	63.1	39.5	39.5	311.3	591.5	38.1
Lane group LOS	F	F	F	F	F	A	E	D	D	F	F	D
Apprch. delay	161.1			164.6			48.3			413.9		
Approach LOS	F			F			D			F		
Intersec. delay	208.2			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/05/11	Jurisdiction	SIEMBRIT30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	2	0	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	700	2330	300	385	995	800	1180	430	1490	300	815	365
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	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 = 27.0	G = 45.0	G =	G =	G = 27.0	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 = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	737	2769		405	1889		1242	2021		316	1242	
Lane group cap.	574	1456		574	1371		574	657		574	575	
v/c ratio	1.28	1.90		0.71	1.38		2.16	3.08		0.55	2.16	
Green ratio	0.18	0.30		0.18	0.30		0.18	0.22		0.18	0.22	
Unif. delay d1	61.5	52.5		57.8	52.5		61.5	58.5		56.0	58.5	
Delay factor k	0.50	0.50		0.27	0.50		0.50	0.50		0.15	0.50	
Increm. delay d2	140.7	408.4		3.9	174.7		529.5	938.3		1.1	527.8	
PF factor	0.854	0.715		0.854	0.714		0.854	0.886		0.854	0.812	
Control delay	193.2	445.9		53.3	212.2		582.0	990.1		48.9	575.3	
Lane group LOS	F	F		D	F		F	F		D	F	
Apprch. delay	392.8			184.1			834.8			468.5		
Approach LOS	F			F			F			F		
Intersec. delay	494.6			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./BRITANNIA BLV
Agency or Co.	USAI	Area Type	All other areas
Date Performed	04/05/11	Jurisdiction	SIEMBRIT30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	2	3	2	2	2	1	2	2	2
Lane group	L	T	R	L	T	R	L	T	R	L	TR	R
Volume (vph)	700	2330	300	385	995	800	1180	430	1490	300	815	365
% Heavy veh	10	10	10	10	10	10	10	10	10	10	50	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	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 = 27.0	G = 45.0	G =	G =	G = 27.0	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 = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	737	2453	316	405	1047	842	1242	453	1568	316	858	384
Lane group cap.	574	1486	1281	574	1486	1281	574	762	618	574	559	1074
v/c ratio	1.28	1.65	0.25	0.71	0.70	0.66	2.16	0.59	2.54	0.55	1.53	0.36
Green ratio	0.18	0.30	0.51	0.18	0.30	0.51	0.18	0.22	0.43	0.18	0.22	0.43
Unif. delay d1	61.5	52.5	20.3	57.8	46.6	26.8	61.5	52.5	42.5	56.0	58.5	28.5
Delay factor k	0.50	0.50	0.11	0.27	0.27	0.23	0.50	0.18	0.50	0.15	0.50	0.11
Increm. delay d2	140.7	295.9	0.1	3.9	1.5	1.2	529.5	1.3	696.5	1.1	249.6	0.2
PF factor	0.854	0.714	0.297	0.854	0.714	0.297	0.854	0.812	1.000	0.854	0.812	1.000
Control delay	193.2	333.4	6.1	53.3	34.8	9.2	582.0	43.9	739.0	48.9	297.1	28.7
Lane group LOS	F	F	A	D	C	A	F	D	F	D	F	C
Apprch. delay	274.4			28.7			582.7			180.6		
Approach LOS	F			C			F			F		
Intersec. delay	302.3			Intersection LOS						F		

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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	01/04/11	Jurisdiction	OMLM30ACPNM
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030 - COMM. PLAN/ 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	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	675	1440	675	560	865	560	1225	1310	840	820	1445	1075
% 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		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 = 30.0	G =	G =	G = 35.0	G = 35.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	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	711	2227		589	1500		1289	2263		863	2653	
Lane group cap.	637	943		637	920		744	1076		744	1068	
v/c ratio	1.12	2.36		0.92	1.63		1.73	2.10		1.16	2.48	
Green ratio	0.20	0.20		0.20	0.20		0.23	0.23		0.23	0.23	
Unif. delay d1	60.0	60.0		58.9	60.0		57.5	57.5		57.5	57.5	
Delay factor k	0.50	0.50		0.44	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	72.0	616.0		19.4	288.7		335.3	499.6		86.6	670.6	
PF factor	0.833	0.833		0.833	0.833		0.797	0.797		0.797	0.805	
Control delay	122.0	666.0		68.5	338.7		381.1	545.4		132.4	716.9	
Lane group LOS	F	F		E	F		F	F		F	F	
Apprch. delay	534.4			262.5			485.8			573.5		
Approach LOS	F			F			F			F		
Intersec. delay	484.5			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN AM PEAK OM/LM 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	711	2227		589	1500		1289	2263		863	2653	
Satflow per lane	1641	1731		1641	1689		1641	1692		1641	1680	
Capacity/lane	637	943		637	920		744	1076		744	1068	
Flow ratio	0.22	0.47		0.18	0.33		0.40	0.49		0.27	0.58	
v/c ratio	1.12	2.36		0.92	1.63		1.73	2.10		1.16	2.48	
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	1.64	
PF factor	1.00	1.00		0.98	1.00		1.00	1.00		1.00	1.00	
Q_1	15.3	34.0		12.2	22.9		27.6	34.6		18.5	40.5	
k_B	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Q_2	7.6	59.7		3.0	27.8		36.2	55.4		10.4	73.5	
Q avg.	22.9	93.8		15.1	50.7		63.8	90.0		28.9	114.1	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.7	1.5		1.8	1.5		1.5	1.5		1.6	1.5	
BOQ, $Q_{\%}$	38.2	141		26.6	77.9		96.9	135		46.9	171	
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. R_Q												
95% $R_{Q\%}$												

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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	02/01/11	Jurisdiction	OMLM30ACPWM
Time Period	YEAR 2030 AM PEAK HOUR	Analysis Year	YEAR 2030 - COMM. PLAN/ 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	2	2	3	2	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	675	1440	675	560	865	560	1225	1310	840	820	1445	1075
% 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 =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	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	711	1516	711	589	911	589	1289	1379	884	863	1521	1132
Lane group cap.	637	991	1213	637	991	1177	744	1156	1180	744	1156	1180
v/c ratio	1.12	1.53	0.59	0.92	0.92	0.50	1.73	1.19	0.75	1.16	1.32	0.96
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	29.4	58.9	58.8	27.8	57.5	57.5	32.8	57.5	57.5	38.6
Delay factor k	0.50	0.50	0.18	0.44	0.44	0.11	0.50	0.50	0.30	0.50	0.50	0.47
Increm. delay d2	72.0	243.5	0.7	19.4	13.2	0.3	335.3	95.6	2.7	86.6	148.3	17.3
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	122.0	293.5	13.0	68.5	62.3	11.9	381.1	141.4	16.4	132.4	194.1	33.4
Lane group LOS	F	F	B	E	E	B	F	F	B	F	F	C
Apprch. delay	184.1			49.8			197.3			127.2		
Approach LOS	F			D			F			F		
Intersec. delay	148.3			Intersection LOS						F		

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22-A
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMMUNITY PLAN AM PEAK OM/LM 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	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	711	1516	711	589	911	589	1289	1379	884	863	1521	1132
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	1156	1180
Flow ratio	0.22	0.31	0.27	0.18	0.18	0.23	0.40	0.28	0.35	0.27	0.31	0.45
v/c ratio	1.12	1.53	0.59	0.92	0.92	0.50	1.73	1.19	0.75	1.16	1.32	0.96
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	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	0.56	0.98	0.98	0.52	1.00	1.00	0.65	1.00	1.00	0.90
Q_1	15.3	23.2	6.8	12.2	13.4	5.0	27.6	21.1	11.1	18.5	23.3	23.3
k_B	0.5	0.5	0.7	0.5	0.5	0.7	0.5	0.6	0.7	0.5	0.6	0.7
Q_2	7.6	25.5	1.0	3.0	3.1	0.7	36.2	13.0	2.0	10.4	18.8	6.2
Q avg.	22.9	48.7	7.8	15.1	16.5	5.7	63.8	34.1	13.1	28.9	42.1	29.4

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.7	1.5	1.9	1.8	1.7	1.9	1.5	1.6	1.8	1.6	1.6	1.6
BOQ, $Q_{\%}$	38.2	75.0	14.8	26.6	28.7	11.1	96.9	54.2	23.4	46.9	65.6	47.6

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. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

22-P
N
MIT

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	02/22/11	Jurisdiction	OMLM30PCPNM
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030 - COMM. PLAN/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	2	3	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	990	1050	1185	950	1240	1000	790	1230	710	810	1010	760
% 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		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 = 30.0	G =	G =	G = 35.0	G = 35.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	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	1042	2352		1000	2358		832	2042		853	1863	
Lane group cap.	637	912		637	911		744	1081		744	1068	
v/c ratio	1.64	2.58		1.57	2.59		1.12	1.89		1.15	1.74	
Green ratio	0.20	0.20		0.20	0.20		0.23	0.23		0.23	0.23	
Unif. delay d1	60.0	60.0		60.0	60.0		57.5	57.5		57.5	57.5	
Delay factor k	0.50	0.50		0.50	0.50		0.50	0.50		0.50	0.50	
Increm. delay d2	293.2	713.7		264.0	718.0		70.5	403.6		81.3	338.9	
PF factor	0.833	0.833		0.833	0.833		0.797	0.797		0.797	0.797	
Control delay	343.2	763.7		314.0	768.0		116.3	449.4		127.1	384.7	
Lane group LOS	F	F		F	F		F	F		F	F	
Apprch. delay	634.6			632.8			353.0			303.8		
Approach LOS	F			F			F			F		
Intersec. delay	495.7			Intersection LOS						F		

22-P
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN PM PEAK OM/LM 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	1042	2352		1000	2358		832	2042		853	1863	
Satflow per lane	1641	1673		1641	1672		1641	1700		1641	1679	
Capacity/lane	637	912		637	911		744	1081		744	1068	
Flow ratio	0.33	0.52		0.31	0.52		0.26	0.44		0.27	0.41	
v/c ratio	1.64	2.58		1.57	2.59		1.12	1.89		1.15	1.74	
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		1.00	1.00		1.00	1.00	
Q_1	22.3	36.0		21.4	36.0		17.8	31.2		18.3	28.5	
k_B	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Q_2	27.2	66.9		24.5	67.2		8.8	45.2		9.9	37.6	
Q avg.	49.5	102.9		45.9	103.2		26.7	76.4		28.2	66.0	

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$	1.5	1.5		1.5	1.5		1.6	1.5		1.6	1.5	
BOQ, $Q_\%$	76.2	155		71.0	155		43.6	115		45.8	100	

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
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. R_Q												
95% $R_{Q\%}$												

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22-P
W
MIT

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	02/01/11	Jurisdiction	OMLM30PCPNM
Time Period	YEAR 2030 PM PEAK HOUR	Analysis Year	YEAR 2030 - COMM. PLAN/WITH 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	3	2	2	3	2	2	3	2	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	990	1050	1185	950	1240	1000	790	1230	710	810	1010	760
% 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 =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	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	1042	1105	1247	1000	1305	1053	832	1295	747	853	1063	800
Lane group cap.	637	991	1213	637	991	1177	744	1156	1180	744	1156	1180
v/c ratio	1.64	1.12	1.03	1.57	1.32	0.89	1.12	1.12	0.63	1.15	0.92	0.68
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	40.0	60.0	60.0	36.6	57.5	57.5	30.3	57.5	56.1	31.2
Delay factor k	0.50	0.50	0.50	0.50	0.50	0.42	0.50	0.50	0.21	0.50	0.44	0.25
Increm. delay d2	293.2	65.6	33.3	264.0	149.8	9.1	70.5	66.0	1.1	81.3	11.8	1.6
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	343.2	115.6	49.9	314.0	199.8	24.4	116.3	111.8	13.7	127.1	56.5	14.6
Lane group LOS	F	F	D	F	F	C	F	F	B	F	E	B
Apprch. delay	161.4			178.8			87.6			66.3		
Approach LOS	F			F			F			E		
Intersec. delay	128.0			Intersection LOS						F		

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22-P
W MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMMUNITY PLAN PM PEAK OM/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	*1042*	*1105*	*1247*	*1000*	*1305*	*1053*	*832*	*1295*	*747*	*853*	*1063*	*800*
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*	*1156*	*1180*
Flow ratio	*0.33*	*0.22*	*0.48*	*0.31*	*0.26*	*0.42*	*0.26*	*0.26*	*0.30*	*0.27*	0.21	*0.32*
v/c ratio	*1.64*	*1.12*	*1.03*	*1.57*	*1.32*	*0.89*	*1.12*	*1.12*	*0.63*	*1.15*	*0.92*	*0.68*
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*	*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*	*1.00*	*1.00*	*1.00*	*0.80*	*1.00*	*1.00*	*0.58*	*1.00*	*0.97*	*0.60*
Q_1	*22.3*	*16.9*	*29.3*	*21.4*	*20.0*	*18.0*	*17.8*	*19.8*	*7.7*	*18.3*	*15.5*	*8.8*
k_B	*0.5*	*0.5*	*0.7*	*0.5*	*0.5*	*0.7*	*0.5*	*0.6*	*0.7*	*0.5*	*0.6*	*0.7*
Q_2	*27.2*	*8.3*	*9.4*	*24.5*	*16.4*	*4.2*	*8.8*	*9.8*	*1.2*	*9.9*	*3.5*	*1.5*
Q avg.	*49.5*	*25.2*	*38.7*	*45.9*	*36.3*	*22.2*	*26.7*	*29.6*	*8.9*	*28.2*	*19.0*	*10.3*

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*1.5*	*1.6*	*1.6*	*1.5*	*1.6*	*1.7*	*1.6*	*1.6*	*1.9*	*1.6*	*1.7*	*1.8*
BOQ, $Q_{\%}$	*76.2*	*41.6*	*60.8*	*71.0*	*57.4*	*37.2*	*43.6*	*47.8*	*16.6*	*45.8*	*32.4*	*18.9*

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. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

23-A
NO
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	02/03/11	Jurisdiction	905WBLAMED30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)	90	100	125	1050	30	570	195	2715	1055		2590	90
% 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		
Adj. flow rate		200	132	553	584	600	205	2858	1111		2726	95
Lane group cap.		133	220	551	584	493	238	1706	555		1946	753
v/c ratio		1.50	0.60	1.00	1.00	1.22	0.86	1.68	2.00		1.40	0.13
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	56.3	46.5	46.5	46.5	64.3	35.5	42.5		42.5	18.7
Delay factor k		0.50	0.19	0.50	0.50	0.50	0.39	0.50	0.50		0.50	0.11
Increm. delay d2		261.7	4.5	39.2	37.2	115.0	26.0	306.5	457.2		183.5	0.1
PF factor		0.949	0.889	0.663	0.663	0.663	0.949	0.854	0.865		0.569	1.000
Control delay		323.4	54.5	70.1	68.1	145.9	87.0	336.8	494.0		207.7	18.8
Lane group LOS		F	D	E	E	F	F	F	F		F	B
Apprch. delay	216.5			95.6			366.3			201.3		
Approach LOS	F			F			F			F		
Intersec. delay	257.6			Intersection LOS						F		

23-A
NO
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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		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		200	132	553	584	600	205	2858	1111		2726	95
Satflow per lane		1861	1538	1641	1740	1468	1719	1818	1414		1818	1505
Capacity/lane		133	220	551	584	493	238	1706	555		1946	753
Flow ratio		0.11	0.09	0.34	0.34	0.41	0.06	0.83	0.79		0.55	0.06
v/c ratio		1.50	0.60	1.00	1.00	1.22	0.86	1.68	2.00		1.40	0.13
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	1.15	1.21		1.67	1.00
PF factor		1.00	0.95	1.00	1.00	1.00	0.99	1.00	1.00		1.00	1.00
Q_1		7.8	4.6	21.5	22.7	23.3	4.0	58.4	43.2		38.9	2.0
k_B		0.3	0.4	0.6	0.7	0.6	0.3	0.8	0.6		0.7	0.8
Q_2		9.1	0.5	6.7	6.9	16.1	1.1	77.7	70.7		38.2	0.1
Q avg.		16.9	5.1	28.2	29.6	39.4	5.1	136.0	113.9		77.0	2.1
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.7	2.0	1.6	1.6	1.6	2.0	1.5	1.5		1.5	2.0
BOQ, $Q_{\%}$		29.3	9.9	45.9	47.8	61.8	9.9	204	171		116	4.2
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_Q												
95% $R_{Q\%}$												

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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	02/03/11	Jurisdiction	905WBLAMED30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	1	1	1	2	3	1	0	3	1
Lane group	L		R	L	LT	R	L	TR	R		T	R
Volume (vph)	90		225	1050	30	570	195	2715	1055		2590	90
% 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		
Adj. flow rate	95		237	553	584	600	205	2858	1111		2726	95
Lane group cap.	123		220	551	584	493	238	2441	1418		1946	753
v/c ratio	0.77		1.08	1.00	1.00	1.22	0.86	1.17	0.78		1.40	0.13
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	63.9		60.0	46.5	46.5	46.5	64.3	35.5	0.0		42.5	18.7
Delay factor k	0.32		0.50	0.50	0.50	0.50	0.39	0.50	0.33		0.50	0.11
Increm. delay d2	25.6		82.7	39.2	37.2	115.0	26.0	81.6	3.0		183.5	0.1
PF factor	0.949		0.889	0.663	0.663	0.663	0.949	0.372	0.950		0.569	1.000
Control delay	86.2		136.1	70.1	68.1	145.9	87.0	94.8	3.0		207.7	18.8
Lane group LOS	F		F	E	E	F	F	F	A		F	B
Apprch. delay	121.8			95.6			70.0			201.3		
Approach LOS	F			F			E			F		
Intersec. delay	117.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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		R	L	LT	R	L	TR	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	95		237	553	584	600	205	2858	1111		2726	95
Satflow per lane	1719		1538	1641	1740	1468	1719	1818	1418		1818	1505
Capacity/lane	123		220	551	584	493	238	2441	1418		1946	753
Flow ratio	0.06		0.15	0.34	0.34	0.41	0.06	0.58	0.78		0.55	0.06
v/c ratio	0.77		1.08	1.00	1.00	1.22	0.86	1.17	0.78		1.40	0.13
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	1.67	1.67	1.65	1.00		1.67	1.00
PF factor	0.99		1.00	1.00	1.00	1.00	0.99	1.00			1.00	1.00
Q_1	3.6		9.2	21.5	22.7	23.3	4.0	40.8			38.9	2.0
k_B	0.3		0.4	0.6	0.7	0.6	0.3	0.8	1.1		0.7	0.8
Q_2	0.7		4.5	6.7	6.9	16.1	1.1	23.8	3.7		38.2	0.1
Q avg.	4.3		13.7	28.2	29.6	39.4	5.1	64.6			77.0	2.1

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	2.0		1.8	1.6	1.6	1.6	2.0	1.5			1.5	2.0
BOQ, $Q_{\%}$	8.5		24.4	45.9	47.8	61.8	9.9	97.9			116	4.2

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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NO 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	02/03/11	Jurisdiction	905WBLAMED30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	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)	380	200	455	500	85	350	570	2000	2310		2620	380
% 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 = 20.0	G = 25.0	G =	G =	G = 22.0	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 = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		611	479	263	352	368	600	2105	2432		2758	400
Lane group cap.		254	445	283	306	253	506	2053	840		2050	883
v/c ratio		2.41	1.08	0.93	1.15	1.45	1.19	1.03	2.90		1.35	0.45
Green ratio		0.14	0.29	0.17	0.17	0.17	0.15	0.59	0.59		0.41	0.59
Unif. delay d1		62.5	51.5	59.1	60.0	60.0	61.5	29.5	29.5		42.5	16.9
Delay factor k		0.50	0.50	0.44	0.50	0.50	0.50	0.50	0.50		0.50	0.11
Increm. delay d2		644.4	64.7	35.3	98.5	225.2	102.2	26.6	856.1		158.8	0.4
PF factor		0.893	0.728	0.861	0.861	0.861	0.881	0.179	1.000		0.529	1.000
Control delay		700.2	102.2	86.2	150.2	276.9	156.3	31.9	885.6		181.3	17.3
Lane group LOS		F	F	F	F	F	F	C	F		F	B
Apprch. delay	437.4			180.5			450.6			160.5		
Approach LOS	F			F			F			F		
Intersec. delay	335.2			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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		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		611	479	263	352	368	600	2105	2432		2758	400
Satflow per lane		1844	1538	1641	1773	1468	1719	1818	1417		1818	1506
Capacity/lane		254	445	283	306	253	506	2053	840		2050	883
Flow ratio		0.33	0.31	0.16	0.20	0.25	0.18	0.61	1.72		0.56	0.27
v/c ratio		2.41	1.08	0.93	1.15	1.45	1.19	1.03	2.90		1.35	0.45
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	1.56	1.00		1.67	1.00
PF factor		1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Q_1		24.6	19.3	10.3	14.2	14.8	12.4	44.5	98.0		40.8	9.1
k_B		0.4	0.6	0.4	0.5	0.4	0.4	1.0	0.8		0.8	0.9
Q_2		45.3	8.3	2.7	8.2	15.6	8.0	13.3	200.3		35.3	0.7
Q avg.		69.9	27.6	13.0	22.4	30.4	20.4	57.8	298.2		76.0	9.8
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.5	1.6	1.8	1.7	1.6	1.7	1.5	1.5		1.5	1.8
BOQ, $Q_{\%}$		106	45.0	23.3	37.4	49.0	34.5	88.2	447		115	18.1
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_Q												
95% $R_{Q\%}$												

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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	905WBLAMED30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	1	1	1	2	3	1	0	3	1
Lane group	L		R	L	LT	R	L	T	R		T	R
Volume (vph)	380		655	500	85	350	570	2000	2310		2765	380
% 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 = 20.0	G = 25.0	G =	G =	G = 22.0	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 = 145.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	400		689	263	352	368	600	2105	2432		2911	400
Lane group cap.	237		445	283	306	253	506	2938	1419		2050	883
v/c ratio	1.69		1.55	0.93	1.15	1.45	1.19	0.72	1.71		1.42	0.45
Green ratio	0.14		0.29	0.17	0.17	0.17	0.15	0.59	1.00		0.41	0.59
Unif. delay d1	62.5		51.5	59.1	60.0	60.0	61.5	20.9	0.0		42.5	16.9
Delay factor k	0.50		0.50	0.44	0.50	0.50	0.50	0.28	0.50		0.50	0.11
Increm. delay d2	327.1		257.7	35.3	98.5	225.2	102.2	0.9	324.3		191.9	0.4
PF factor	0.893		0.728	0.861	0.861	0.861	0.881	0.123	0.950		0.564	1.000
Control delay	383.0		295.2	86.2	150.2	276.9	156.3	3.4	324.3		215.9	17.3
Lane group LOS	F		F	F	F	F	F	A	F		F	B
Apprch. delay	327.4			180.5			173.2			191.9		
Approach LOS	F			F			F			F		
Intersec. delay	195.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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		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	400		689	263	352	368	600	2105	2432		2911	400
Satflow per lane	1719		1538	1641	1773	1468	1719	1818	1419		1818	1506
Capacity/lane	237		445	283	306	253	506	2938	1419		2050	883
Flow ratio	0.23		0.45	0.16	0.20	0.25	0.18	0.42	1.71		0.59	0.27
v/c ratio	1.69		1.55	0.93	1.15	1.45	1.19	0.72	1.71		1.42	0.45
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	1.67	1.67	1.60	1.00		1.62	1.00
PF factor	1.00		1.00	0.99	1.00	1.00	1.00	0.22			1.00	1.00
Q_1	16.1		27.8	10.3	14.2	14.8	12.4	4.9			43.0	9.1
k_B	0.4		0.6	0.4	0.5	0.4	0.4	1.0	1.1		0.8	0.9
Q_2	21.3		32.0	2.7	8.2	15.6	8.0	2.3	129.3		42.0	0.7
Q avg.	37.4		59.8	13.0	22.4	30.4	20.4	7.1			85.0	9.8

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6		1.5	1.8	1.7	1.6	1.7	1.9			1.5	1.8
BOQ, $Q_{\%}$	58.9		91.0	23.3	37.4	49.0	34.5	13.6			128	18.1

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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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	01/04/11	Jurisdiction	905EBLAMED30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/COMM. PLAN/ 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	2	0	0	0	2	3	0	0	2	1
Lane group	L		R				L	T			T	R
Volume (vph)	1300		2440				400	2665			2915	300
% 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		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 = 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		
Adj. flow rate	1368		2568				421	2805			3068	316
Lane group cap.	1319		1506				440	2596			1242	1160
v/c ratio	1.04		1.71				0.96	1.08			2.47	0.27
Green ratio	0.41		0.58				0.14	0.52			0.36	0.81
Unif. delay d1	42.5		30.5				62.1	34.5			46.5	3.5
Delay factor k	0.50		0.50				0.47	0.50			0.50	0.11
Increm. delay d2	34.9		320.2				32.0	43.9			664.0	0.1
PF factor	1.000		1.000				0.893	0.266			0.960	0.259
Control delay	77.4		350.7				87.4	53.1			708.6	1.0
Lane group LOS	E		F				F	D			F	A
Apprch. delay	255.7						57.6			642.6		
Approach LOS	F						E			F		
Intersec. delay	319.2			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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	1368		2568				421	2805			3068	316
Satflow per lane	1641		1468				1641	1818			1818	1437
Capacity/lane	1319		1506				440	2596			1242	1160
Flow ratio	0.43		0.99				0.13	0.57			0.89	0.22
v/c ratio	1.04		1.71				0.96	1.08			2.47	0.27
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			1.07	1.18
PF factor	1.00		1.00				0.99	1.00			1.00	0.27
Q_1	28.4		58.4				8.6	41.4			64.9	0.9
k_B	0.7		0.8				0.4	0.9			0.7	1.0
Q_2	9.7		77.0				2.6	16.5			121.1	0.4
Q avg.	38.1		135.4				11.2	57.9			185.9	1.2
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6		1.5				1.8	1.5			1.5	2.1
BOQ, $Q_{\%}$	59.9		203				20.4	88.3			279	2.5
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. R_Q												
95% $R_{Q\%}$												

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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	01/04/11	Jurisdiction	905EBLAMED30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030/COMM. PLAN/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	0	2	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	1300		2440				400	2665			2915	300
% 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		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 = 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		
Adj. flow rate	1368		2568				421	2805			3068	316
Lane group cap.	1319		1506				440	2596			1776	1160
v/c ratio	1.04		1.71				0.96	1.08			1.73	0.27
Green ratio	0.41		0.58				0.14	0.52			0.36	0.81
Unif. delay d1	42.5		30.5				62.1	34.5			46.5	3.5
Delay factor k	0.50		0.50				0.47	0.50			0.50	0.11
Increm. delay d2	34.9		320.2				32.0	43.9			329.8	0.1
PF factor	1.000		1.000				0.893	0.266			0.702	0.259
Control delay	77.4		350.7				87.4	53.1			362.4	1.0
Lane group LOS	E		F				F	D			F	A
Apprch. delay	255.7						57.6			328.6		
Approach LOS	F						E			F		
Intersec. delay	218.5			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	1368		2568				421	2805			3068	316
Satflow per lane	1641		1468				1641	1818			1818	1437
Capacity/lane	1319		1506				440	2596			1776	1160
Flow ratio	0.43		0.99				0.13	0.57			0.62	0.22
v/c ratio	1.04		1.71				0.96	1.08			1.73	0.27
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			1.53	1.18
PF factor	1.00		1.00				0.99	1.00			1.00	0.27
Q_1	28.4		58.4				8.6	41.4			45.4	0.9
k_B	0.7		0.8				0.4	0.9			0.7	1.0
Q_2	9.7		77.0				2.6	16.5			61.0	0.4
Q avg.	38.1		135.4				11.2	57.9			106.4	1.2
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6		1.5				1.8	1.5			1.5	2.1
BOQ, $Q_{\%}$	59.9		203				20.4	88.3			160	2.5
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. R_Q												
95% $R_{Q\%}$												

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N
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	01/04/11	Jurisdiction	905EBLAMED30P3CPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/COMM. PLAN/ 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	2	0	0	0	2	3	0	0	2	1
Lane group	L		R				L	T			T	R
Volume (vph)	1400		800				1145	3480			2045	575
% 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		
Adj. flow rate	1474		632				1205	3663			2153	605
Lane group cap.	786		1715				1232	3434			969	802
v/c ratio	1.88		0.37				0.98	1.07			2.22	0.75
Green ratio	0.25		0.66				0.39	0.69			0.28	0.56
Unif. delay d1	56.5		11.5				45.4	23.0			54.0	25.1
Delay factor k	0.50		0.11				0.48	0.50			0.50	0.31
Increm. delay d2	398.7		0.1				20.5	36.8			553.2	4.1
PF factor	1.000		1.000				0.580	0.356			0.795	0.152
Control delay	455.2		11.6				46.8	45.0			596.1	7.9
Lane group LOS	F		B				D	D			F	A
Apprch. delay	322.1						45.5			467.1		
Approach LOS	F						D			F		
Intersec. delay	224.8			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General information

Project Description COMM. PLAN 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	1474		632				1205	3663			2153	605
Satflow per lane	1641		1468				1641	1818			1818	1433
Capacity/lane	786		1715				1232	3434			969	802
Flow ratio	0.46		0.24				0.38	0.74			0.62	0.42
v/c ratio	1.88		0.37				0.98	1.07			2.22	0.75
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	1.29			1.53	1.67
PF factor	1.00		1.00				0.97	1.00			1.00	0.30
Q_1	31.6		6.7				24.8	56.0			47.1	5.7
k_B	0.5		0.9				0.7	1.1			0.6	0.8
Q_2	45.5		0.5				6.6	19.7			78.9	2.3
Q avg.	77.1		7.2				31.4	75.7			126.0	8.0
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5		1.9				1.6	1.5			1.5	1.9
BOQ, $Q_{\%}$	116		13.7				50.4	114			189	15.0
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. R_Q												
95% $R_{Q\%}$												

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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	01/04/11	Jurisdiction	905EBLAMED30P3CPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030/COMM. PLAN/ 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	0	2	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	1400		800				1145	3480			2045	575
% 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		
Adj. flow rate	1474		632				1205	3663			2153	605
Lane group cap.	786		1715				1232	3434			1387	802
v/c ratio	1.88		0.37				0.98	1.07			1.55	0.75
Green ratio	0.25		0.66				0.39	0.69			0.28	0.56
Unif. delay d1	56.5		11.5				45.4	23.0			54.0	25.1
Delay factor k	0.50		0.11				0.48	0.50			0.50	0.31
Increm. delay d2	398.7		0.1				20.5	36.8			252.1	4.1
PF factor	1.000		1.000				0.580	0.356			0.741	0.152
Control delay	455.2		11.6				46.8	45.0			292.1	7.9
Lane group LOS	F		B				D	D			F	A
Apprch. delay	322.1						45.5			229.8		
Approach LOS	F						D			F		
Intersec. delay	157.6			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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		R				L	T			T	R
Init. queue/lane	0.0		0.0				0.0	0.0			0.0	0.0
Flow rate/lane	1474		632				1205	3663			2153	605
Satflow per lane	1641		1468				1641	1818			1818	1433
Capacity/lane	786		1715				1232	3434			1387	802
Flow ratio	0.46		0.24				0.38	0.74			0.43	0.42
v/c ratio	1.88		0.37				0.98	1.07			1.55	0.75
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	1.29			1.67	1.67
PF factor	1.00		1.00				0.97	1.00			1.00	0.30
Q_1	31.6		6.7				24.8	56.0			32.9	5.7
k_B	0.5		0.9				0.7	1.1			0.6	0.8
Q_2	45.5		0.5				6.6	19.7			36.8	2.3
Q avg.	77.1		7.2				31.4	75.7			69.7	8.0

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5		1.9				1.6	1.5			1.5	1.9
BOQ, $Q_\%$	116		13.7				50.4	114			105	15.0

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	24.9		24.9				24.9	24.9			24.9	24.9
Q storage	0		0				0	0			0	0
Avg. R_Q												
95% $R_{Q\%}$												

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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	01/04/11	Jurisdiction	LAMEDIAAIR30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	630	535	440	315	1000	1400	115	1035	260	2005	2000	1350
% 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 = 48.0	G = 50.0	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	663	1026		332	2527		121	1363		2111	3526	
Lane group cap.	361	512		361	498		1020	1114		1020	1536	
v/c ratio	1.84	2.00		0.92	5.07		0.12	1.22		2.07	2.30	
Green ratio	0.11	0.11		0.11	0.11		0.32	0.33		0.32	0.33	
Unif. delay d1	66.5	66.5		65.8	66.5		36.0	50.0		51.0	50.0	
Delay factor k	0.50	0.50		0.44	0.50		0.11	0.50		0.50	0.50	
Increm. delay d2	387.1	458.7		28.1	1838		0.1	108.8		484.7	585.1	
PF factor	0.915	0.915		0.915	0.917		0.686	0.667		0.796	0.879	
Control delay	447.9	519.5		88.3	1899		24.8	142.1		525.3	629.0	
Lane group LOS	F	F		F	F		C	F		F	F	
Apprch. delay	491.4			1689			132.5			590.2		
Approach LOS	F			F			F			F		
Intersec. delay	786.8			Intersection LOS						F		

HCS2000™ Version 4.1f

25A
N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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	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	663	1026		332	2527		121	1363		2111	3526	
Satflow per lane	1641	1658		1641	1613		1641	1754		1641	1691	
Capacity/lane	361	512		361	498		1020	1114		1020	1536	
Flow ratio	0.21	0.23		0.10	0.57		0.04	0.41		0.66	0.77	
v/c ratio	1.84	2.00		0.92	5.07		0.12	1.22		2.07	2.30	
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	1.65		1.67	1.67		1.43	1.24	
PF factor	1.00	1.00		0.99	1.00		0.70	1.00		1.00	1.00	
Q_1	14.2	15.7		6.9	38.6		1.3	29.8		45.3	53.9	
k_B	0.3	0.3		0.3	0.3		0.6	0.7		0.6	0.7	
Q_2	20.2	24.3		1.9	93.5		0.1	19.4		71.5	92.5	
Q avg.	34.4	40.0		8.9	132.2		1.4	49.2		116.8	146.5	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.6	1.6		1.9	1.5		2.1	1.5		1.5	1.5	
BOQ, $Q_{\%}$	54.7	62.5		16.5	198		2.8	75.7		175	220	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

25-A
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	01/04/11	Jurisdiction	LAMEDIAAIR30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	2	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	630	535	440	315	1000	1400	115	1035	260	2005	2000	1350
% 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 = 48.0	G = 50.0	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	663	563	463	332	1053	1474	121	1089	274	2111	2105	1421
Lane group cap.	361	561	658	361	561	1132	1020	1154	688	1020	1651	1219
v/c ratio	1.84	1.00	0.70	0.92	1.88	1.30	0.12	0.94	0.40	2.07	1.27	1.17
Green ratio	0.11	0.11	0.47	0.11	0.11	0.47	0.32	0.33	0.48	0.32	0.33	0.48
Unif. delay d1	66.5	66.5	31.8	65.8	66.5	40.0	36.0	48.6	25.1	51.0	50.0	39.0
Delay factor k	0.50	0.50	0.27	0.44	0.50	0.50	0.11	0.46	0.11	0.50	0.50	0.50
Increm. delay d2	387.1	38.9	3.4	28.1	401.4	142.5	0.1	15.0	0.4	484.7	128.6	83.8
PF factor	0.915	0.915	0.417	0.915	0.915	0.506	0.686	0.667	0.385	0.796	0.667	0.385
Control delay	447.9	99.7	16.6	88.3	462.2	162.7	24.8	47.4	10.0	525.3	161.9	98.8
Lane group LOS	F	F	B	F	F	F	C	D	B	F	F	F
Apprch. delay	213.6			264.4			38.7			282.1		
Approach LOS	F			F			D			F		
Intersec. delay	236.9			Intersection LOS						F		

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25A
w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN 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	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	611	563	489	316	1053	1368	121	1126	263	2168	2174	1458
Satflow per lane	1641	1818	1409	1641	1818	1370	1641	1818	1434	1641	1818	1434
Capacity/lane	361	561	658	361	561	1132	1020	1154	688	1020	1651	1219
Flow ratio	0.19	0.11	0.35	0.10	0.21	0.56	0.04	0.33	0.18	0.68	0.44	0.57
v/c ratio	1.69	1.00	0.74	0.88	1.88	1.21	0.12	0.98	0.38	2.13	1.32	1.20
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	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	1.40	1.67	1.66
PF factor	1.00	1.00	0.65	0.99	1.00	1.00	0.70	0.98	0.45	1.00	1.00	1.00
Q_1	13.1	8.6	10.7	6.6	16.1	32.2	1.3	23.9	3.2	46.5	33.3	34.3
k_B	0.3	0.4	0.7	0.3	0.4	0.7	0.6	0.7	0.7	0.6	0.7	0.7
Q_2	16.9	3.1	1.9	1.6	23.4	20.1	0.1	6.3	0.5	75.1	26.6	20.6
Q avg.	30.0	11.7	12.7	8.1	39.5	52.2	1.4	30.2	3.6	121.6	59.9	54.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.8	1.8	1.9	1.6	1.5	2.1	1.6	2.0	1.5	1.5	1.5
BOQ, $Q_{\%}$	48.4	21.2	22.8	15.3	61.8	80.1	2.8	48.6	7.2	182	91.1	83.9
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. R_Q												
95% $R_{Q\%}$												

25-P
N
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	01/04/11	Jurisdiction	LAMEDIAAIR30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	0	2	3	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	1100	1000	115	250	535	2060	465	1465	300	1395	800	650
% 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 = 22.0	G =	G =	G = 30.0	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		
Adj. flow rate	1158	1174		263	2731		489	1858		1468	1526	
Lane group cap.	531	712		531	620		637	1232		637	1676	
v/c ratio	2.18	1.65		0.50	4.40		0.77	1.51		2.30	0.91	
Green ratio	0.17	0.15		0.17	0.15		0.20	0.37		0.20	0.37	
Unif. delay d1	62.5	64.0		56.8	64.0		56.7	47.5		60.0	45.2	
Delay factor k	0.50	0.50		0.11	0.50		0.32	0.50		0.50	0.43	
Increm. delay d2	537.5	298.3		0.7	1536		5.6	232.9		592.0	7.9	
PF factor	0.867	0.885		0.867	0.919		0.833	0.614		0.833	0.614	
Control delay	591.7	354.9		49.9	1595		52.9	262.1		642.0	35.6	
Lane group LOS	F	F		D	F		D	F		F	D	
Apprch. delay	472.5			1459			218.5			332.9		
Approach LOS	F			F			F			F		
Intersec. delay	654.3			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN PM PEAK HOUR/LA MEDIA AIRWAY/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	1158	1174		263	2731		489	1858		1468	1526	
Satflow per lane	1641	1782		1641	1551		1641	1764		1641	1678	
Capacity/lane	531	712		531	620		637	1232		637	1676	
Flow ratio	0.36	0.24		0.08	0.65		0.15	0.55		0.46	0.33	
v/c ratio	2.18	1.65		0.50	4.40		0.77	1.51		2.30	0.91	
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	1.47		1.67	1.67		1.67	1.67	
PF factor	1.00	1.00		0.92	1.00		0.95	1.00		1.00	0.92	
Q_1	24.8	17.9		4.7	41.8		9.4	40.6		31.5	20.5	
k_B	0.4	0.4		0.4	0.4		0.5	0.7		0.5	0.7	
Q_2	41.2	22.1		0.4	97.4		1.4	43.0		54.2	4.4	
Q avg.	66.0	40.1		5.1	139.1		10.7	83.7		85.7	24.8	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.6		2.0	1.5		1.8	1.5		1.5	1.7	
BOQ, $Q_{\%}$	100.0	62.7		10.0	209		19.6	126		129	41.0	
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_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

25P
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	01/04/11	Jurisdiction	LAMEDIAAIR30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	2	2	1	2	3	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	1100	1000	115	250	535	2060	465	1465	300	1395	800	650
% 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 = 22.0	G =	G =	G = 30.0	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		
Adj. flow rate	1158	1053	121	263	563	2168	489	1542	316	1468	842	684
Lane group cap.	531	726	538	531	726	930	637	1269	814	637	1816	1440
v/c ratio	2.18	1.45	0.22	0.50	0.78	2.33	0.77	1.22	0.39	2.30	0.46	0.47
Green ratio	0.17	0.15	0.38	0.17	0.15	0.38	0.20	0.37	0.57	0.20	0.37	0.57
Unif. delay d1	62.5	64.0	31.5	56.8	61.6	46.5	56.7	47.5	18.1	60.0	36.2	19.3
Delay factor k	0.50	0.50	0.11	0.11	0.32	0.50	0.32	0.50	0.11	0.50	0.11	0.11
Increm. delay d2	537.5	210.4	0.2	0.7	5.3	602.4	5.6	104.2	0.3	592.0	0.2	0.2
PF factor	0.867	0.885	0.591	0.867	0.885	0.955	0.833	0.614	0.128	0.833	0.614	0.128
Control delay	591.7	267.0	18.9	49.9	59.8	646.8	52.9	133.4	2.6	642.0	22.4	2.7
Lane group LOS	F	F	B	D	E	F	D	F	A	F	C	A
Apprch. delay	415.4			484.0			99.0			321.7		
Approach LOS	F			F			F			F		
Intersec. delay	338.7			Intersection LOS						F		

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25-P
W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM PEAK HOUR/LA MEDIA AIRWAY/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	1158	1053	121	263	563	2168	489	1542	316	1468	842	684
Satflow per lane	1641	1818	1417	1641	1818	1383	1641	1818	1436	1641	1818	1436
Capacity/lane	531	726	538	531	726	930	637	1269	814	637	1816	1440
Flow ratio	0.36	0.21	0.09	0.08	0.11	0.89	0.15	0.44	0.22	0.46	0.17	0.27
v/c ratio	2.18	1.45	0.22	0.50	0.78	2.33	0.77	1.22	0.39	2.30	0.46	0.47
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	5	5	5	5	5	5
Platoon ratio	1.67	1.67	1.67	1.67	1.67	1.07	1.67	1.67	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	0.63	0.92	0.97	1.00	0.95	1.00	0.16	1.00	0.71	0.17
Q_1	24.8	16.1	2.2	4.7	8.0	51.0	9.4	33.7	1.2	31.5	7.0	1.6
k_B	0.4	0.4	0.6	0.4	0.4	0.6	0.5	0.7	0.8	0.5	0.7	0.8
Q_2	41.2	16.3	0.2	0.4	1.2	88.5	1.4	21.4	0.5	54.2	0.6	0.7
Q avg.	66.0	32.3	2.3	5.1	9.2	139.5	10.7	55.1	1.7	85.7	7.6	2.4
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.6	2.0	2.0	1.9	1.5	1.8	1.5	2.0	1.5	1.9	2.0
BOQ, $Q_\%$	100.0	51.7	4.7	10.0	17.2	209	19.6	84.1	3.4	129	14.4	4.8
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. R_Q												
95% $R_{Q\%}$												

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MIT.

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	LMSV30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	0
Lane group	L	T			TR					L	TR	
Volume (vph)	350	1835			2770	775				900	350	1500
% 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	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 = 15.0	G = 62.0	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 = 125.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	368	1932			3732					947	1947	
Lane group cap.	382	3210			2365					892	738	
v/c ratio	0.96	0.60			1.58					1.06	2.64	
Green ratio	0.12	0.65			0.50					0.28	0.28	
Unif. delay d1	54.7	12.7			31.5					45.0	45.0	
Delay factor k	0.47	0.19			0.50					0.50	0.50	
Increm. delay d2	36.4	0.3			262.2					47.9	741.1	
PF factor	0.909	0.142			0.790					0.741	0.889	
Control delay	86.2	2.1			287.0					81.2	781.1	
Lane group LOS	F	A			F					F	F	
Apprch. delay	15.6			287.0						552.1		
Approach LOS	B			F						F		
Intersec. delay	303.0			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	LMSV30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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)	350	1835			2770	775				900	350	1500
% 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 = 15.0	G = 62.0	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 = 125.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	368	1932			2916	816				947	368	1579
Lane group cap.	382	3210			2457	2053				892	281	1123
v/c ratio	0.96	0.60			1.19	0.40				1.06	1.31	1.41
Green ratio	0.12	0.65			0.50	0.82				0.28	0.28	0.43
Unif. delay d1	54.7	12.7			31.5	3.1				45.0	45.0	35.5
Delay factor k	0.47	0.19			0.50	0.11				0.50	0.50	0.50
Increm. delay d2	36.4	0.3			88.5	0.1				47.9	162.5	188.1
PF factor	0.909	0.142			0.396	0.272				0.741	0.741	0.571
Control delay	86.2	2.1			101.0	1.0				81.2	195.9	208.4
Lane group LOS	F	A			F	A				F	F	F
Apprch. delay	15.6			79.1						165.2		
Approach LOS	B			E						F		
Intersec. delay	90.6			Intersection LOS						F		

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MIT

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	LMSV30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	2	0
Lane group	L	T			TR					L	TR	
Volume (vph)	1500	2140			1835	900				700	350	350
% 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 = 37.0	G = 38.0	G =	G =	G = 32.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	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		
Adj. flow rate	1579	2253			2879					737	736	
Lane group cap.	983	3261			1479					850	600	
v/c ratio	1.61	0.69			1.95					0.87	1.23	
Green ratio	0.31	0.66			0.32					0.27	0.27	
Unif. delay d1	41.5	12.8			41.0					42.0	44.0	
Delay factor k	0.50	0.26			0.50					0.40	0.50	
Increm. delay d2	277.6	0.6			428.5					9.5	116.2	
PF factor	0.703	0.146			0.749					0.758	0.758	
Control delay	306.8	2.5			459.2					41.2	149.6	
Lane group LOS	F	A			F					D	F	
Apprch. delay	127.9			459.2						95.4		
Approach LOS	F			F						F		
Intersec. delay	238.6			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	LMSV30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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)	1500	2140			1835	900				700	350	350
% 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 = 37.0	G = 40.0	G =	G =	G = 30.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	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		
Adj. flow rate	1579	2253			1932	947				737	368	368
Lane group cap.	983	3343			1651	1563				797	251	1498
v/c ratio	1.61	0.67			1.17	0.61				0.92	1.47	0.25
Green ratio	0.31	0.68			0.33	0.63				0.25	0.25	0.59
Unif. delay d1	41.5	11.6			40.0	13.6				43.9	45.0	11.7
Delay factor k	0.50	0.25			0.50	0.19				0.44	0.50	0.11
Increm. delay d2	277.6	0.5			83.5	0.7				16.5	230.3	0.1
PF factor	0.703	0.154			0.667	0.133				0.778	0.778	0.122
Control delay	306.8	2.3			110.1	2.5				50.6	265.3	1.5
Lane group LOS	F	A			F	A				D	F	A
Apprch. delay	127.8			74.7						92.0		
Approach LOS	F			E						F		
Intersec. delay	102.7			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	LAMEDLONE30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	3	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	130	50	95	550	200	540	380	2630	425	1900	3890	535
% 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	3	3	3	5	3		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
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	WB Only	EB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 10.0	G =	G =	G = 45.0	G = 53.0	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		
Adj. flow rate	137	53	100	579	779		400	3215		2000	4658	
Lane group cap.	109	121	91	531	716		956	1708		956	1718	
v/c ratio	1.26	0.44	1.10	1.09	1.09		0.42	1.88		2.09	2.71	
Green ratio	0.07	0.07	0.07	0.17	0.17		0.30	0.35		0.30	0.35	
Unif. delay d1	70.0	67.3	70.0	62.5	62.5		42.0	48.5		52.5	48.5	
Delay factor k	0.50	0.11	0.50	0.50	0.50		0.11	0.50		0.50	0.50	
Increm. delay d2	170.4	2.5	123.6	65.9	60.1		0.3	399.3		495.0	771.7	
PF factor	1.000	1.000	1.000	0.867	1.000		0.714	0.766		0.779	1.000	
Control delay	240.4	69.8	193.6	120.1	122.6		30.3	436.4		535.9	820.2	
Lane group LOS	F	E	F	F	F		C	F		F	F	
Apprch. delay	193.1			121.5			391.5			734.8		
Approach LOS	F			F			F			F		
Intersec. delay	547.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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	L	T	R	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	0.0	
Flow rate/lane	137	53	100	579	779		400	3215		2000	4658	
Satflow per lane	1641	1818	1363	1641	1576		1641	1774		1641	1785	
Capacity/lane	109	121	91	531	716		956	1708		956	1718	
Flow ratio	0.08	0.03	0.07	0.18	0.18		0.12	0.67		0.63	0.96	
v/c ratio	1.26	0.44	1.10	1.09	1.09		0.42	1.88		2.09	2.71	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	3	3	3	5	3		5	5		5	5	
Platoon ratio	1.00	1.00	1.00	1.67	1.00		1.67	1.43		1.52	1.00	
PF factor	1.00	1.00	1.00	1.00	1.00		0.79	1.00		1.00	1.00	
Q_1	5.7	2.1	4.2	12.4	11.9		5.4	49.2		42.9	71.2	
k_B	0.2	0.3	0.2	0.4	0.4		0.6	0.7		0.6	0.7	
Q_2	4.5	0.2	2.3	5.9	5.6		0.4	70.6		68.3	136.0	
Q avg.	10.2	2.3	6.5	18.3	17.4		5.8	119.8		111.2	207.2	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.8	2.0	1.9	1.7	1.7		1.9	1.5		1.5	1.5	
BOQ, $Q_{\%}$	18.7	4.7	12.4	31.4	30.1		11.3	180		167	311	
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_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/22/11	Jurisdiction	LAMEDLONE30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	1	1	2	1	2	2	3	1	2	3	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	130	50	95	550	200	540	380	2630	425	1900	3890	535
% 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	3	3	3	5	3	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		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	WB Only	EB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 10.0	G =	G =	G = 45.0	G = 53.0	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		
Adj. flow rate	137	53	100	579	211	568	400	2768	447	2000	4095	563
Lane group cap.	109	121	91	531	303	1174	956	1750	795	956	1750	519
v/c ratio	1.26	0.44	1.10	1.09	0.70	0.48	0.42	1.58	0.56	2.09	2.34	1.08
Green ratio	0.07	0.07	0.07	0.17	0.17	0.47	0.30	0.35	0.55	0.30	0.35	0.35
Unif. delay d1	70.0	67.3	70.0	62.5	58.9	27.6	42.0	48.5	21.7	52.5	48.5	48.5
Delay factor k	0.50	0.11	0.50	0.50	0.26	0.11	0.11	0.50	0.16	0.50	0.50	0.50
Increm. delay d2	170.4	2.5	123.6	65.9	6.8	0.3	0.3	264.5	0.9	495.0	604.8	64.4
PF factor	1.000	1.000	1.000	0.867	1.000	0.417	0.714	0.636	0.174	0.779	0.919	0.636
Control delay	240.4	69.8	193.6	120.1	65.8	11.8	30.3	295.4	4.7	535.9	649.3	95.3
Lane group LOS	F	E	F	F	E	B	C	F	A	F	F	F
Apprch. delay	193.1			66.3			230.1			568.4		
Approach LOS	F			E			F			F		
Intersec. delay	399.5			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN AM PEAK HOUR WITH LA MEDIA/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	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	137	53	100	579	211	568	400	2768	447	2000	4095	563
Satflow per lane	1641	1818	1363	1641	1818	1421	1641	1818	1436	1641	1818	1468
Capacity/lane	109	121	91	531	303	1174	956	1750	795	956	1750	519
Flow ratio	0.08	0.03	0.07	0.18	0.12	0.23	0.12	0.56	0.31	0.63	0.83	0.38
v/c ratio	1.26	0.44	1.10	1.09	0.70	0.48	0.42	1.58	0.56	2.09	2.34	1.08
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	3	3	3	5	3	5	5	5	5	5	5	5
Platoon ratio	1.00	1.00	1.00	1.67	1.00	1.67	1.67	1.67	1.67	1.52	1.15	1.67
PF factor	1.00	1.00	1.00	1.00	1.00	0.52	0.79	1.00	0.25	1.00	1.00	1.00
Q_1	5.7	2.1	4.2	12.4	8.3	4.7	5.4	42.3	3.0	42.9	62.6	23.5
k_B	0.2	0.3	0.2	0.4	0.5	0.7	0.6	0.7	0.8	0.6	0.7	0.6
Q_2	4.5	0.2	2.3	5.9	1.0	0.7	0.4	48.6	1.0	68.3	108.9	10.0
Q avg.	10.2	2.3	6.5	18.3	9.3	5.4	5.8	91.0	4.0	111.2	171.5	33.4

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.8	2.0	1.9	1.7	1.9	1.9	1.9	1.5	2.0	1.5	1.5	1.6
BOQ, $Q_{\%}$	18.7	4.7	12.4	31.4	17.2	10.5	11.3	137	8.0	167	257	53.3

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. R_Q												
95% $R_{Q\%}$												

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/25/11	Jurisdiction	LAMEDLONE30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	2	3	0	2	3	0	2	3	0
Lane group	L	T	R	L	TR		L	TR		L	TR	
Volume (vph)	535	200	380	425	50	1900	95	3920	555	540	350	130
% 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	3	3	3	5	3		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
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	WB Only	EB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 10.0	G =	G =	G = 45.0	G = 53.0	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		
Adj. flow rate	563	211	400	447	2053		100	4710		568	505	
Lane group cap.	109	121	544	531	680		956	1713		956	1679	
v/c ratio	5.17	1.74	0.74	0.84	3.02		0.10	2.75		0.59	0.30	
Green ratio	0.07	0.07	0.39	0.17	0.17		0.30	0.35		0.30	0.35	
Unif. delay d1	70.0	70.0	38.8	60.6	62.5		37.9	48.5		44.7	35.1	
Delay factor k	0.50	0.50	0.29	0.38	0.50		0.11	0.50		0.18	0.11	
Increm. delay d2	1895	366.6	5.2	11.7	912.5		0.0	789.0		1.0	0.1	
PF factor	1.000	1.000	1.000	0.867	1.000		0.714	1.000		0.714	0.636	
Control delay	1965	436.6	44.0	64.2	975.0		27.1	837.5		32.9	22.4	
Lane group LOS	F	F	D	E	F		C	F		C	C	
Apprch. delay	1036			812.2			820.6			28.0		
Approach LOS	F			F			F			C		
Intersec. delay	755.8			Intersection LOS						F		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM PEAK HOUR WITH LA MEDIA/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	T	R	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	0.0	
Flow rate/lane	563	211	400	447	2053		100	4710		568	505	
Satflow per lane	1641	1818	1382	1641	1497		1641	1779		1641	1744	
Capacity/lane	109	121	544	531	680		956	1713		956	1679	
Flow ratio	0.34	0.12	0.29	0.14	0.50		0.03	0.97		0.18	0.11	
v/c ratio	5.17	1.74	0.74	0.84	3.02		0.10	2.75		0.59	0.30	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	3	3	3	5	3		5	5		5	5	
Platoon ratio	1.00	1.00	1.00	1.67	1.00		1.67	1.00		1.67	1.67	
PF factor	1.00	1.00	1.00	0.97	1.00		0.73	1.00		0.83	0.69	
Q_1	23.5	8.8	14.2	9.0	31.4		1.1	72.0		8.6	3.8	
k_B	0.2	0.3	0.7	0.4	0.4		0.6	0.7		0.6	0.7	
Q_2	57.1	11.8	1.7	1.7	63.6		0.1	138.7		0.9	0.3	
Q avg.	80.5	20.6	15.9	10.8	95.0		1.2	210.8		9.5	4.1	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.7	1.7	1.8	1.5		2.1	1.5		1.9	2.0	
BOQ, $Q_{\%}$	121	34.9	27.8	19.7	143		2.5	316		17.6	8.2	
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_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	LA MEDIA RD./LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/22/11	Jurisdiction	LAMEDLONE30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	1	1	2	1	2	2	3	1	2	3	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	535	200	380	425	50	1900	95	3920	555	540	350	130
% 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	3	3	3	5	3	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		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	WB Only	EB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 25.0	G = 10.0	G =	G =	G = 45.0	G = 53.0	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		
Adj. flow rate	563	211	400	447	53	2000	100	4126	584	568	368	137
Lane group cap.	109	121	544	531	303	1174	956	1750	795	956	1750	519
v/c ratio	5.17	1.74	0.74	0.84	0.17	1.70	0.10	2.36	0.73	0.59	0.21	0.26
Green ratio	0.07	0.07	0.39	0.17	0.17	0.47	0.30	0.35	0.55	0.30	0.35	0.35
Unif. delay d1	70.0	70.0	38.8	60.6	53.6	40.0	37.9	48.5	25.2	44.7	33.9	34.6
Delay factor k	0.50	0.50	0.29	0.38	0.11	0.50	0.11	0.50	0.29	0.18	0.11	0.11
Increm. delay d2	1895	366.6	5.2	11.7	0.3	320.3	0.0	612.8	3.6	1.0	0.1	0.3
PF factor	1.000	1.000	1.000	0.867	1.000	0.829	0.714	0.923	0.174	0.714	0.636	0.636
Control delay	1965	436.6	44.0	64.2	53.9	353.4	27.1	657.5	8.0	32.9	21.6	22.3
Lane group LOS	F	F	D	E	D	F	C	F	A	C	C	C
Apprch. delay	1036			295.4			565.6			27.7		
Approach LOS	F			F			F			C		
Intersec. delay	492.2			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM PEAK HOUR WITH LA MEDIA/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	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	563	211	400	447	53	2000	100	4126	584	568	368	137
Satflow per lane	1641	1818	1382	1641	1818	1421	1641	1818	1436	1641	1818	1468
Capacity/lane	109	121	544	531	303	1174	956	1750	795	956	1750	519
Flow ratio	0.34	0.12	0.29	0.14	0.03	0.79	0.03	0.83	0.41	0.18	0.07	0.09
v/c ratio	5.17	1.74	0.74	0.84	0.17	1.70	0.10	2.36	0.73	0.59	0.21	0.26
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	3	3	3	5	3	5	5	5	5	5	5	5
Platoon ratio	1.00	1.00	1.00	1.67	1.00	1.20	1.67	1.14	1.67	1.67	1.67	1.67
PF factor	1.00	1.00	1.00	0.97	1.00	1.00	0.73	1.00	0.32	0.83	0.67	0.68
Q_1	23.5	8.8	14.2	9.0	1.9	47.0	1.1	63.1	5.9	8.6	2.6	2.8
k_B	0.2	0.3	0.7	0.4	0.5	0.7	0.6	0.7	0.8	0.6	0.7	0.6
Q_2	57.1	11.8	1.7	1.7	0.1	60.0	0.1	110.2	2.1	0.9	0.2	0.2
Q avg.	80.5	20.6	15.9	10.8	2.0	107.0	1.2	173.3	8.0	9.5	2.8	3.0
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.7	1.7	1.8	2.0	1.5	2.1	1.5	1.9	1.9	2.0	2.0
BOQ, $Q_{\%}$	121	34.9	27.8	19.7	4.1	161	2.5	260	15.0	17.6	5.7	6.0
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. R_Q												
95% $R_{Q\%}$												

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MIT

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	01/04/11	Jurisdiction	125SBLONE30ACP
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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	2
Lane group		T			T					L		R
Volume (vph)		2375			890					1525		400
% 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		150
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 = 62.0	G =	G =	G =	G = 60.0	G =	G =	G =
	Y = 4	Y =	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		2500			937					1605		263
Lane group cap.		2362			2362					1471		1200
v/c ratio		1.06			0.40					1.09		0.22
Green ratio		0.48			0.48					0.46		0.46
Unif. delay d1		34.0			21.9					35.0		21.0
Delay factor k		0.50			0.11					0.50		0.11
Increm. delay d2		36.3			0.1					52.4		0.1
PF factor		0.392			0.392					1.000		1.000
Control delay		49.6			8.7					87.4		21.1
Lane group LOS		D			A					F		C
Apprch. delay	49.6			8.7						78.1		
Approach LOS	D			A						E		
Intersec. delay	52.4			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/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		T			T					L		R
Init. queue/lane		0.0			0.0					0.0		0.0
Flow rate/lane		2500			937					1605		263
Satflow per lane		1818			1818					1641		1468
Capacity/lane		2362			2362					1471		1200
Flow ratio		0.50			0.19					0.50		0.10
v/c ratio		1.06			0.40					1.09		0.22
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3		3
Platoon ratio		1.67			1.67					1.00		1.00
PF factor		1.00			0.46					1.00		1.00
Q_1		33.1			3.7					29.8		3.2
k_B		0.8			0.8					0.7		0.7
Q_2		13.1			0.5					14.0		0.2
Q avg.		46.3			4.2					43.8		3.4
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.5			2.0					1.6		2.0
BOQ, $Q_{\%}$		71.5			8.3					68.0		6.8
Queue Storage Ratio												
Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

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	01/04/11	Jurisdiction	125SBLONE30PCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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	2
Lane group		T			T					L		R
Volume (vph)		1290			2025					855		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					3		3
Unit Extension		3.0			3.0					3.0		3.0
Ped/Bike/RTOR Volume							10			10		150
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 = 40.0	G =	G =	G =
	Y = 4	Y =	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		1358			2132					900		211
Lane group cap.		3124			3124					981		800
v/c ratio		0.43			0.68					0.92		0.26
Green ratio		0.63			0.63					0.31		0.31
Unif. delay d1		12.2			15.6					43.4		33.9
Delay factor k		0.11			0.25					0.44		0.11
Increm. delay d2		0.1			0.6					13.1		0.2
PF factor		0.135			0.135					1.000		1.000
Control delay		1.8			2.7					56.5		34.1
Lane group LOS		A			A					E		C
Apprch. delay	1.8			2.7						52.3		
Approach LOS	A			A						D		
Intersec. delay	14.4			Intersection LOS						B		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/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		*T*			*T*					*L*		*R*
Init. queue/lane		*0.0*			*0.0*					*0.0*		*0.0*
Flow rate/lane		*1358*			*2132*					*900*		*211*
Satflow per lane		*1818*			*1818*					*1641*		*1468*
Capacity/lane		*3124*			*3124*					*981*		*800*
Flow ratio		*0.27*			*0.43*					*0.28*		*0.08*
v/c ratio		*0.43*			*0.68*					*0.92*		*0.26*
I factor		*1.000*			*1.000*					*1.000*	*1.000*	*1.000*
Arrival type		*5*			*5*					*3*		*3*
Platoon ratio		*1.51*			*1.51*					*1.00*		*1.00*
PF factor		*0.17*			*0.22*					*1.00*		*1.00*
Q_1		*1.5*			*4.0*					*16.1*		*3.2*
k_B		*0.9*			*0.9*					*0.6*		*0.5*
Q_2		*0.7*			*1.9*					*3.7*		*0.2*
Q avg.		*2.2*			*5.9*					*19.8*		*3.4*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*			*1.9*					*1.7*		*2.0*
BOQ, $Q_{\%}$		*4.6*			*11.5*					*33.7*		*6.8*
Queue Storage Ratio												
Q spacing		*25.0*			*25.0*					*25.0*		*25.0*
Q storage		*0*			*0*					*0*		*0*
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125NB ON-RAMP/LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/12	Jurisdiction	125NBLONE30ACP
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)	350	3550			890	870						
% 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		100						
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		
Adj. flow rate	368	3737			937	811						
Lane group cap.	1381	4953			2311	1213						
v/c ratio	0.27	0.75			0.41	0.67						
Green ratio	0.43	1.00			0.47	0.47						
Unif. delay d1	16.3	0.0			15.8	18.6						
Delay factor k	0.11	0.31			0.11	0.24						
Increm. delay d2	0.1	0.7			0.1	1.4						
PF factor	0.490	0.950			0.417	0.417						
Control delay	8.1	0.7			6.7	9.2						
Lane group LOS	A	A			A	A						
Apprch. delay	1.4			7.8								
Approach LOS	A			A								
Intersec. delay	3.3			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/ 125NB-LONESTAR 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			T	R						
Init. queue/lane	0.0	0.0			0.0	0.0						
Flow rate/lane	368	3737			937	811						
Satflow per lane	1641	1818			1818	1468						
Capacity/lane	1381	4953			2311	1213						
Flow ratio	0.12	0.75			0.19	0.31						
v/c ratio	0.27	0.75			0.41	0.67						
I factor	1.000	1.000			1.000	1.000						
Arrival type	5	5			5	5						
Platoon ratio	1.67	1.00			1.67	1.67						
PF factor	0.54				0.49	0.60						
Q_1	1.6				2.8	5.3						
k_B	0.6	1.0			0.6	0.5						
Q_2	0.2	2.9			0.4	1.1						
Q avg.	1.8				3.2	6.4						
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0				2.0	1.9						
BOQ, $Q_{\%}$	3.7				6.4	12.2						
Queue Storage Ratio												
Q spacing	25.0	25.0			25.0	25.0						
Q storage	0	0			0	0						
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SR-125NB ON-RAMP/LONESTAR RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/31/11	Jurisdiction	125NBLONE30PCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)	400	1745			2025	1600						
% 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	5	150						
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 = 25.0	G = 56.0	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	421	1837			2132	1526						
Lane group cap.	885	4953			3082	1567						
v/c ratio	0.48	0.37			0.69	0.97						
Green ratio	0.28	1.00			0.62	0.62						
Unif. delay d1	27.0	0.0			11.3	16.3						
Delay factor k	0.11	0.11			0.26	0.48						
Increm. delay d2	0.4	0.0			0.7	16.9						
PF factor	0.744	0.950			0.132	0.132						
Control delay	20.5	0.0			2.2	19.0						
Lane group LOS	C	A			A	B						
Apprch. delay	3.9			9.2								
Approach LOS	A			A								
Intersec. delay	7.2			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/ 125NB-LONESTAR 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*			*T*	*R*						
Init. queue/lane	*0.0*	*0.0*			*0.0*	*0.0*						
Flow rate/lane	*421*	*1837*			*2132*	*1526*						
Satflow per lane	*1641*	*1818*			*1818*	*1423*						
Capacity/lane	*885*	*4953*			*3082*	*1567*						
Flow ratio	*0.13*	*0.37*			*0.43*	*0.61*						
v/c ratio	*0.48*	*0.37*			*0.69*	*0.97*						
I factor	*1.000*	*1.000*			*1.000*	*1.000*						
Arrival type	*5*	*5*			*5*	*5*						
Platoon ratio	*1.67*	*1.00*			*1.53*	*1.53*						
PF factor	*0.83*				*0.22*	*0.69*						
Q_1	*3.7*				*2.8*	*14.4*						
k_B	*0.4*	*1.0*			*0.7*	*0.6*						
Q_2	*0.4*	*0.6*			*1.6*	*7.0*						
Q avg.	*4.1*				*4.5*	*21.4*						
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*2.0*				*2.0*	*1.7*						
BOQ, $Q_{\%}$	*8.1*				*8.8*	*35.9*						
Queue Storage Ratio												
Q spacing	*25.0*	*25.0*			*25.0*	*25.0*						
Q storage	*0*	*0*			*0*	*0*						
Avg. R_Q												
95% $R_{Q\%}$												

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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	02/22/11	Jurisdiction	LONEPIPER30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	1	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		3350	200	295	1605		155		145			
% 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 = 20.0	G = 80.0	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 = 123.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		3737		311	1689		163		153			
Lane group cap.		3188		267	4188		259		385			
v/c ratio		1.17		1.16	0.40		0.63		0.40			
Green ratio		0.65		0.16	0.85		0.08		0.28			
Unif. delay d1		21.5		51.5	2.2		54.7		36.2			
Delay factor k		0.50		0.50	0.11		0.21		0.11			
Increm. delay d2		81.2		107.1	0.1		4.8		0.7			
PF factor		0.541		0.871	0.324		0.941		0.745			
Control delay		92.8		152.0	0.8		56.3		27.6			
Lane group LOS		F		F	A		E		C			
Apprch. delay	92.8			24.3			42.4					
Approach LOS	F			C			D					
Intersec. delay	67.5			Intersection LOS						E		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN 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		TR		L	T		L		R			
Init. queue/lane		0.0		0.0	0.0		0.0		0.0			
Flow rate/lane		3737		311	1689		163		153			
Satflow per lane		1799		1641	1818		1641		1392			
Capacity/lane		3188		267	4188		259		385			
Flow ratio		0.76		0.19	0.34		0.05		0.11			
v/c ratio		1.17		1.16	0.40		0.63		0.40			
I factor		1.000		1.000	1.000		1.000	1.000	1.000			
Arrival type		5		5	5		5		5			
Platoon ratio		1.25		1.67	1.12		1.67		1.67			
PF factor		1.00		1.00	0.35		0.98		0.81			
Q_1		46.8		10.6	1.7		2.7		3.5			
k_B		0.9		0.4	1.1		0.2		0.5			
Q_2		30.3		7.5	0.7		0.4		0.3			
Q avg.		77.1		18.1	2.4		3.1		3.8			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.5		1.7	2.0		2.0		2.0			
BOQ, $Q_{\%}$		116		31.1	4.9		6.2		7.5			
Queue Storage Ratio												
Q spacing		25.0		25.0	25.0		25.0		25.0			
Q storage		0		0	0		0		0			
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

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	01/04/11	Jurisdiction	LONEPIPER30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	3	1	1	3	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		3350	200	295	1605		155		145			
% 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 = 20.0	G = 80.0	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 = 123.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		3526	211	311	1689		163		153			
Lane group cap.		3221	926	267	4188		259		385			
v/c ratio		1.09	0.23	1.16	0.40		0.63		0.40			
Green ratio		0.65	0.65	0.16	0.85		0.08		0.28			
Unif. delay d1		21.5	8.8	51.5	2.2		54.7		36.2			
Delay factor k		0.50	0.11	0.50	0.11		0.21		0.11			
Increm. delay d2		48.3	0.1	107.1	0.1		4.8		0.7			
PF factor		0.377	0.143	0.871	0.324		0.941		0.745			
Control delay		56.4	1.4	152.0	0.8		56.3		27.6			
Lane group LOS		E	A	F	A		E		C			
Apprch. delay	53.3			24.3			42.4					
Approach LOS	D			C			D					
Intersec. delay	43.2			Intersection LOS						D		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN AM LONESTAR/PIPER 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		T	R	L	T		L		R			
Init. queue/lane		0.0	0.0	0.0	0.0		0.0		0.0			
Flow rate/lane		3526	211	311	1689		163		153			
Satflow per lane		1818	1424	1641	1818		1641		1392			
Capacity/lane		3221	926	267	4188		259		385			
Flow ratio		0.71	0.15	0.19	0.34		0.05		0.11			
v/c ratio		1.09	0.23	1.16	0.40		0.63		0.40			
I factor		1.000	1.000	1.000	1.000		1.000	1.000	1.000			
Arrival type		5	5	5	5		5		5			
Platoon ratio		1.33	1.46	1.67	1.12		1.67		1.67			
PF factor		1.00	0.16	1.00	0.35		0.98		0.81			
Q_1		44.2	0.5	10.6	1.7		2.7		3.5			
k_B		0.9	0.8	0.4	1.1		0.2		0.5			
Q_2		21.1	0.2	7.5	0.7		0.4		0.3			
Q avg.		65.3	0.7	18.1	2.4		3.1		3.8			

Percentile Back of Queue (95th percentile)

$f_{B\%}$		1.5	2.1	1.7	2.0		2.0		2.0			
BOQ, $Q_{\%}$		99.0	1.4	31.1	4.9		6.2		7.5			

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. R_Q												
95% $R_{Q\%}$												

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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	02/22/11	Jurisdiction	LONEPIPER30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	1	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		1590	155	145	3425		200		295			
% 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		
Adj. flow rate		1837		153	3605		211		311			
Lane group cap.		2729		223	3606		637		524			
v/c ratio		0.67		0.69	1.00		0.33		0.59			
Green ratio		0.56		0.14	0.73		0.20		0.37			
Unif. delay d1		19.4		51.5	17.0		42.8		31.9			
Delay factor k		0.25		0.26	0.50		0.11		0.18			
Increm. delay d2		0.7		8.5	14.9		0.3		1.8			
PF factor		0.152		0.895	0.184		0.833		0.612			
Control delay		3.6		54.6	18.0		36.0		21.4			
Lane group LOS		A		D	B		D		C			
Apprch. delay	3.6			19.5			27.3					
Approach LOS	A			B			C					
Intersec. delay	15.4			Intersection LOS						B		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information												
Project Description	*COMM. PLAN 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		*1837*		*153*	*3605*		*211*		*311*			
Satflow per lane		*1788*		*1641*	*1818*		*1641*		*1425*			
Capacity/lane		*2729*		*223*	*3606*		*637*		*524*			
Flow ratio		*0.38*		*0.09*	*0.73*		*0.07*		*0.22*			
v/c ratio		*0.67*		*0.69*	*1.00*		*0.33*		*0.59*			
I 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		*0.25*		*0.96*	*0.99*		*0.87*		*0.75*			
Q_1		*4.2*		*4.9*	*45.7*		*2.8*		*6.6*			
k_B		*0.8*		*0.3*	*1.0*		*0.4*		*0.6*			
Q_2		*1.7*		*0.7*	*12.8*		*0.2*		*0.8*			
Q avg.		*5.9*		*5.6*	*58.5*		*3.0*		*7.4*			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*1.9*		*1.9*	*1.5*		*2.0*		*1.9*			
BOQ, $Q_{\%}$		*11.3*		*10.8*	*89.1*		*6.1*		*14.0*			
Queue Storage Ratio												
Q spacing		*25.0*		*25.0*	*25.0*		*25.0*		*25.0*			
Q storage		*0*		*0*	*0*		*0*		*0*			
Avg. R_Q												
95% $R_{Q\%}$												

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W
MIT

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	01.04/11	Jurisdiction	LONEPIPER30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/ 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	3	1	1	3	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		1590	155	145	3425		200		295			
% 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 = 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		
Adj. flow rate		1674	163	153	3605		211		311			
Lane group cap.		2774	796	223	3606		637		524			
v/c ratio		0.60	0.20	0.69	1.00		0.33		0.59			
Green ratio		0.56	0.56	0.14	0.73		0.20		0.37			
Unif. delay d1		18.3	13.7	51.5	17.0		42.8		31.9			
Delay factor k		0.19	0.11	0.26	0.50		0.11		0.18			
Increm. delay d2		0.4	0.1	8.5	14.9		0.3		1.8			
PF factor		0.152	0.152	0.895	0.184		0.833		0.612			
Control delay		3.1	2.2	54.6	18.0		36.0		21.4			
Lane group LOS		A	A	D	B		D		C			
Apprch. delay	3.1			19.5			27.3					
Approach LOS	A			B			C					
Intersec. delay	15.2			Intersection LOS						B		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN PM LONESTAR/PIPER 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		*T*	*R*	*L*	*T*		*L*		*R*			
Init. queue/lane		*0.0*	*0.0*	*0.0*	*0.0*		*0.0*		*0.0*			
Flow rate/lane		*1674*	*163*	*153*	*3605*		*211*		*311*			
Satflow per lane		*1818*	*1422*	*1641*	*1818*		*1641*		*1425*			
Capacity/lane		*2774*	*796*	*223*	*3606*		*637*		*524*			
Flow ratio		*0.34*	*0.11*	*0.09*	*0.73*		*0.07*		*0.22*			
v/c ratio		*0.60*	*0.20*	*0.69*	*1.00*		*0.33*		*0.59*			
I factor		*1.000*	*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*	*1.30*		*1.67*		*1.67*			
PF factor		*0.23*	*0.17*	*0.96*	*0.99*		*0.87*		*0.75*			
Q_1		*3.3*	*0.5*	*4.9*	*45.7*		*2.8*		*6.6*			
k_B		*0.8*	*0.7*	*0.3*	*1.0*		*0.4*		*0.6*			
Q_2		*1.3*	*0.2*	*0.7*	*12.8*		*0.2*		*0.8*			
Q avg.		*4.5*	*0.7*	*5.6*	*58.5*		*3.0*		*7.4*			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		*2.0*	*2.1*	*1.9*	*1.5*		*2.0*		*1.9*			
BOQ, $Q_{\%}$		*8.9*	*1.4*	*10.8*	*89.1*		*6.1*		*14.0*			
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. R_Q												
95% $R_{Q\%}$												

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N
MIT

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	02/25/11	Jurisdiction	OMPIPER30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.COMM. PLAN/NO 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	3	0	2	3	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	1090	1480	425	255	1095	380	105	40	65	190	165	825
% 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		
Adj. flow rate	1147	2005		268	1553		111	110		200	1042	
Lane group cap.	683	1902		737	1860		278	352		258	315	
v/c ratio	1.68	1.05		0.36	0.83		0.40	0.31		0.78	3.31	
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		46.9	38.4		53.1	57.7		56.6	62.5	
Delay factor k	0.50	0.50		0.11	0.37		0.11	0.11		0.32	0.50	
Increm. delay d2	312.1	36.6		0.3	3.5		0.9	0.5		13.8	1047	
PF factor	0.818	0.569		0.818	0.569		1.000	1.000		1.000	1.000	
Control delay	357.1	60.8		38.7	25.3		54.0	58.2		70.4	1109	
Lane group LOS	F	E		D	C		D	E		E	F	
Apprch. delay	168.6			27.3			56.1			941.9		
Approach LOS	F			C			E			F		
Intersec. delay	274.0			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/OTAY MESA/PIPER RANCH 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	1147	2005		268	1553		111	110		200	1042	
Satflow per lane	1641	1777		1770	1737		1770	1724		1641	1544	
Capacity/lane	683	1902		737	1860		278	352		258	315	
Flow ratio	0.36	0.41		0.08	0.33		0.06	0.03		0.12	0.35	
v/c ratio	1.68	1.05		0.36	0.83		0.40	0.31		0.78	3.31	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Arrival type	5	5		5	5		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		0.87	0.84		1.00	1.00		1.00	1.00	
Q_1	22.9	28.6		4.0	16.9		3.9	2.0		7.5	21.3	
k_B	0.5	0.7		0.5	0.7		0.4	0.3		0.4	0.3	
Q_2	31.0	10.9		0.3	3.0		0.3	0.1		1.2	48.2	
Q avg.	54.0	39.5		4.3	19.9		4.2	2.2		8.6	69.5	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.6		2.0	1.7		2.0	2.0		1.9	1.5	
BOQ, $Q_{\%}$	82.6	61.9		8.4	33.8		8.2	4.5		16.2	105	
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_Q												
95% $R_{Q\%}$												

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MIT

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	01/04/11	Jurisdiction	OMPIPER30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 ALT.COMM. PLAN/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	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)	1090	1480	425	255	1095	380	105	40	65	190	165	825
% 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		
Adj. flow rate	1147	1558	447	268	1153	400	111	42	68	200	174	868
Lane group cap.	683	1946	908	737	1946	842	540	210	541	501	210	889
v/c ratio	1.68	0.80	0.49	0.36	0.59	0.48	0.21	0.20	0.13	0.40	0.83	0.98
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	37.6	16.9	46.9	33.6	16.6	51.4	57.0	30.3	53.1	61.2	44.4
Delay factor k	0.50	0.34	0.11	0.11	0.18	0.11	0.11	0.11	0.11	0.11	0.37	0.48
Increm. delay d2	312.1	2.5	0.4	0.3	0.5	0.4	0.2	0.5	0.1	0.5	23.3	24.4
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	357.1	23.9	2.5	38.7	19.6	2.4	51.6	57.5	30.4	53.6	84.5	68.9
Lane group LOS	F	C	A	D	B	A	D	E	C	D	F	E
Apprch. delay	142.1			18.6			46.2			68.6		
Approach LOS	F			B			D			E		
Intersec. delay	89.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/OTAY MESA/PIPER RANCH 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	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	1147	1558	447	268	1153	400	111	42	68	200	174	868
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	0.36	0.31	0.29	0.08	0.23	0.28	0.03	0.02	0.04	0.06	0.09	0.35
v/c ratio	1.68	0.80	0.49	0.36	0.59	0.48	0.21	0.20	0.13	0.40	0.83	0.98
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	0.82	0.16	0.87	0.71	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	22.9	16.1	1.6	4.0	9.3	1.4	1.9	1.5	1.8	3.6	6.6	18.8
k_B	0.5	0.7	0.8	0.5	0.7	0.8	0.4	0.4	0.6	0.4	0.4	0.6
Q_2	31.0	2.6	0.8	0.3	1.0	0.7	0.1	0.1	0.1	0.3	1.3	5.3
Q avg.	54.0	18.7	2.4	4.3	10.3	2.1	2.0	1.6	1.9	3.8	7.9	24.1

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.7	2.0	2.0	1.8	2.0	2.0	2.0	2.0	2.0	1.9	1.7
BOQ, $Q_{\%}$	82.6	32.0	4.9	8.4	19.0	4.4	4.1	3.2	3.8	7.6	15.0	40.0

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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. R_Q												
95% $R_{Q\%}$												

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MIT

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	02/25/11	Jurisdiction	OMPIPER30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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)	1010	1370	105	65	1540	190	425	165	255	380	40	1140
% 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		
Adj. flow rate	1063	1553		68	1821		447	442		400	1242	
Lane group cap.	455	1580		491	1561		405	593		375	512	
v/c ratio	2.34	0.98		0.14	1.17		1.10	0.75		1.07	2.43	
Green ratio	0.14	0.32		0.14	0.32		0.23	0.18		0.23	0.18	
Unif. delay d1	60.0	47.1		52.5	47.5		54.0	54.5		54.0	57.5	
Delay factor k	0.50	0.49		0.11	0.50		0.50	0.30		0.50	0.50	
Increm. delay d2	608.2	18.6		0.1	82.3		75.8	5.1		65.3	647.5	
PF factor	0.889	0.684		0.889	0.684		1.000	1.000		1.000	1.000	
Control delay	661.5	50.9		46.8	114.8		129.8	59.6		119.3	705.0	
Lane group LOS	F	D		D	F		F	E		F	F	
Apprch. delay	299.0			112.4			94.9			562.3		
Approach LOS	F			F			F			F		
Intersec. delay	284.6			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/ OTAY MESA/PIPER RANCH RD.NO MIT./PM

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	1063	1553		68	1821		447	442		400	1242	
Satflow per lane	1641	1805		1770	1783		1770	1745		1641	1506	
Capacity/lane	455	1580		491	1561		405	593		375	512	
Flow ratio	0.33	0.32		0.02	0.37		0.25	0.13		0.24	0.43	
v/c ratio	2.34	0.98		0.14	1.17		1.10	0.75		1.07	2.43	
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	1.00	0.99		0.90	1.00		1.00	1.00		1.00	1.00	
Q_1	21.3	21.7		1.1	26.0		17.4	8.6		15.6	25.4	
k_B	0.4	0.6		0.4	0.6		0.5	0.4		0.5	0.4	
Q_2	39.8	6.2		0.1	15.4		8.6	1.2		6.8	48.7	
Q avg.	61.0	27.9		1.1	41.4		26.0	9.7		22.4	74.0	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.6		2.1	1.6		1.6	1.8		1.7	1.5	
BOQ, $Q_{\%}$	92.8	45.4		2.3	64.5		42.7	18.0		37.4	112	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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W
MIT

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	01/04/11	Jurisdiction	OMPIPER30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN 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	1	2	1	2
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	1010	1370	105	65	1540	190	425	165	255	380	40	1140
% 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 = 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		
Adj. flow rate	1063	1442	111	68	1621	200	447	174	268	400	42	1200
Lane group cap.	455	1592	906	491	1592	840	786	350	548	728	350	899
v/c ratio	2.34	0.91	0.12	0.14	1.02	0.24	0.57	0.50	0.49	0.55	0.12	1.33
Green ratio	0.14	0.32	0.59	0.14	0.32	0.59	0.23	0.18	0.36	0.23	0.18	0.36
Unif. delay d1	60.0	45.5	12.9	52.5	47.5	14.0	47.9	51.8	35.1	47.6	48.3	45.0
Delay factor k	0.50	0.43	0.11	0.11	0.50	0.11	0.16	0.11	0.11	0.15	0.11	0.50
Increm. delay d2	608.2	7.8	0.1	0.1	27.2	0.1	1.0	1.1	0.7	0.9	0.2	158.3
PF factor	0.889	0.684	0.121	0.889	0.684	0.121	1.000	1.000	1.000	1.000	1.000	1.000
Control delay	661.5	38.9	1.6	46.8	59.7	1.8	48.9	52.9	35.7	48.5	48.4	203.3
Lane group LOS	F	D	A	D	E	A	D	D	D	D	D	F
Apprch. delay	290.3			53.1			45.7			161.6		
Approach LOS	F			D			D			F		
Intersec. delay	165.7			Intersection LOS						F		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/ OTAY MESA/PIPER RANCH RD.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	1063	1442	111	68	1621	200	447	174	268	400	42	1200
Satflow per lane	1641	1818	1547	1770	1818	1434	1770	1961	1533	1641	1961	1422
Capacity/lane	455	1592	906	491	1592	840	786	350	548	728	350	899
Flow ratio	0.33	0.29	0.07	0.02	0.33	0.14	0.13	0.09	0.17	0.12	0.02	0.48
v/c ratio	2.34	0.91	0.12	0.14	1.02	0.24	0.57	0.50	0.49	0.55	0.12	1.33
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	0.94	0.13	0.90	1.00	0.13	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	21.3	18.5	0.2	1.1	23.1	0.5	7.9	6.1	8.1	7.0	1.4	26.3
k_B	0.4	0.7	0.8	0.4	0.7	0.8	0.5	0.5	0.6	0.5	0.5	0.6
Q_2	39.8	4.0	0.1	0.1	7.7	0.3	0.7	0.5	0.6	0.6	0.1	23.4
Q avg.	61.0	22.5	0.4	1.1	30.8	0.8	8.6	6.6	8.7	7.6	1.4	49.7
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.5	1.7	2.1	2.1	1.6	2.1	1.9	1.9	1.9	1.9	2.1	1.5
BOQ, $Q_{\%}$	92.8	37.6	0.8	2.3	49.6	1.6	16.1	12.6	16.3	14.4	3.0	76.5
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. R_Q												
95% $R_{Q\%}$												

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N
MIT

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	02/22/11	Jurisdiction	125SBOM30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 CP/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)		1735			1190					1400		540
% 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 = 73.0	G =	G =	G =	G = 55.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 136.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1826			1253					1474		253
Lane group cap.		2659			2659					1289		594
v/c ratio		0.69			0.47					1.14		0.43
Green ratio		0.54			0.54					0.40		0.40
Unif. delay d1		23.1			19.5					40.5		29.1
Delay factor k		0.26			0.11					0.50		0.11
Increm. delay d2		0.8			0.1					74.3		0.5
PF factor		0.228			0.228					1.000		1.000
Control delay		6.0			4.6					114.8		29.6
Lane group LOS		A			A					F		C
Apprch. delay	6.0			4.6						102.3		
Approach LOS	A			A						F		
Intersec. delay	40.2			Intersection LOS						D		

32A
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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/AM//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		1826			1253					1474		253
Satflow per lane		1818			1818					1641		1468
Capacity/lane		2659			2659					1289		594
Flow ratio		0.37			0.25					0.46		0.17
v/c ratio		0.69			0.47					1.14		0.43
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3		3
Platoon ratio		1.67			1.67					1.00		1.00
PF factor		0.37			0.29					1.00		1.00
Q_1		6.9			3.2					28.7		6.9
k_B		0.9			0.9					0.7		0.6
Q_2		1.8			0.8					16.1		0.5
Q avg.		8.7			3.9					44.8		7.4

Percentile Back of Queue (95th percentile)

$f_{B\%}$		1.9			2.0					1.5		1.9
BOQ, $Q_{\%}$		16.3			7.8					69.4		14.0

Queue Storage Ratio

Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

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	02/22/11	Jurisdiction	125SBOM30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 CP/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	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L	LR	R
Volume (vph)		1735			1190					1400		540
% 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	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
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 Extension		3.0			3.0					3.0	3.0	3.0

Phasing	Thru Only	02	03	04	SB Only	06	07	08
Timing	G = 73.0	G =	G =	G =	G = 55.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis (hrs) = 0.25					Cycle Length C = 136.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		1826			1253					1120	468	139
Lane group cap.		2659			2659					1289	683	594
v/c ratio		0.69			0.47					0.87	0.69	0.23
Green ratio		0.54			0.54					0.40	0.40	0.40
Unif. delay d1		23.1			19.5					37.2	33.4	26.6
Delay factor k		0.26			0.11					0.40	0.25	0.11
Increm. delay d2		0.8			0.1					6.6	2.9	0.2
PF factor		0.228			0.228					1.000	0.547	1.000
Control delay		6.0			4.6					43.8	21.1	26.8
Lane group LOS		A			A					D	C	C
Apprch. delay	6.0			4.6						36.3		
Approach LOS	A			A						D		
Intersec. delay	16.5			Intersection LOS						B		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/AM//OTAY MESA RD./125SB 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		1826			1253					1120	468	139
Satflow per lane		1818			1818					1641	1688	1468
Capacity/lane		2659			2659					1289	683	594
Flow ratio		0.37			0.25					0.35	0.28	0.09
v/c ratio		0.69			0.47					0.87	0.69	0.23
I factor		1.000			1.000					1.000	1.000	1.000
Arrival type		5			5					3	5	3
Platoon ratio		1.67			1.67					1.00	1.67	1.00
PF factor		0.37			0.29					1.00	0.74	1.00
Q_1		6.9			3.2					20.0	10.7	3.5
k_B		0.9			0.9					0.7	0.7	0.6
Q_2		1.8			0.8					3.5	1.5	0.2
Q avg.		8.7			3.9					23.4	12.2	3.7

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$		1.9			2.0					1.7	1.8	2.0
BOQ, $Q_{\%}$		16.3			7.8					39.0	22.0	7.3

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing		25.0			25.0					25.0	25.0	25.0
Q storage		0			0					0	0	0
Avg. R_Q												
95% $R_{Q\%}$												

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N
MIT

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	02/22/11	Jurisdiction	125SBOM30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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)		2005			1445					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					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		
Adj. flow rate		2111			1521					526		53
Lane group cap.		3255			3255					911		419
v/c ratio		0.65			0.47					0.58		0.13
Green ratio		0.66			0.66					0.29		0.29
Unif. delay d1		14.3			11.9					42.8		37.1
Delay factor k		0.23			0.11					0.17		0.11
Increm. delay d2		0.5			0.1					0.9		0.1
PF factor		0.146			0.146					1.000		1.000
Control delay		2.6			1.8					43.7		37.2
Lane group LOS		A			A					D		D
Apprch. delay	2.6			1.8						43.1		
Approach LOS	A			A						D		
Intersec. delay	7.9			Intersection LOS						A		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/PM/ 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		2111			1521					526		53
Satflow per lane		1818			1818					1641		1468
Capacity/lane		3255			3255					911		419
Flow ratio		0.43			0.31					0.16		0.04
v/c ratio		0.65			0.47					0.58		0.13
I 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		0.22			0.18					1.00		1.00
Q_1		3.9			2.0					9.0		1.5
k_B		1.0			1.0					0.6		0.5
Q_2		1.8			0.9					0.8		0.1
Q avg.		5.7			2.8					9.7		1.6
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.9			2.0					1.8		2.0
BOQ, $Q_{\%}$		11.0			5.7					18.0		3.3
Queue Storage Ratio												
Q spacing		25.0			25.0					25.0		25.0
Q storage		0			0					0		0
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

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	02/22/11	Jurisdiction	125SBOM30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	3	0	0	3	0	0	0	0	2	0	1
Lane group		T			T					L	LR	R
Volume (vph)		2005			1445					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	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
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 Extension		3.0			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		
Adj. flow rate		2111			1521					447	103	29
Lane group cap.		3255			3255					911	483	419
v/c ratio		0.65			0.47					0.49	0.21	0.07
Green ratio		0.66			0.66					0.29	0.29	0.29
Unif. delay d1		14.3			11.9					41.5	38.0	36.4
Delay factor k		0.23			0.11					0.11	0.11	0.11
Increm. delay d2		0.5			0.1					0.4	0.2	0.1
PF factor		0.146			0.146					1.000	0.733	1.000
Control delay		2.6			1.8					42.0	28.1	36.5
Lane group LOS		A			A					D	C	D
Apprch. delay	2.6			1.8						39.2		
Approach LOS	A			A						D		
Intersec. delay	7.3			Intersection LOS						A		

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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/PM/ OTAY MESA RD./125SB 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		*2111*			*1521*					*447*	*103*	*29*
Satflow per lane		*1818*			*1818*					*1641*	*1690*	*1468*
Capacity/lane		*3255*			*3255*					*911*	*483*	*419*
Flow ratio		*0.43*			*0.31*					*0.14*	0.06	*0.02*
v/c ratio		*0.65*			*0.47*					*0.49*	*0.21*	*0.07*
I factor		*1.000*			*1.000*					*1.000*	*1.000*	*1.000*
Arrival type		*5*			*5*					*3*	*5*	*3*
Platoon ratio		*1.45*			*1.45*					*1.00*	*1.67*	*1.00*
PF factor		*0.22*			*0.18*					*1.00*	*0.77*	*1.00*
Q_1		*3.9*			*2.0*					*7.4*	*2.3*	*0.8*
k_B		*1.0*			*1.0*					*0.6*	*0.6*	*0.5*
Q_2		*1.8*			*0.9*					*0.5*	*0.2*	*0.0*
Q avg.		*5.7*			*2.8*					*8.0*	*2.5*	*0.9*

Percentile Back of Queue (95th percentile)

$f_{B\%}$		*1.9*			*2.0*					*1.9*	*2.0*	*2.1*
BOQ, $Q_{\%}$		*11.0*			*5.7*					*15.0*	*5.0*	*1.8*

Queue Storage Ratio

Q spacing		*25.0*			*25.0*					*25.0*	*25.0*	*25.0*
Q storage		*0*			*0*					*0*	*0*	*0*
Avg. R_Q												
95% $R_{Q\%}$												

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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	125NBOTAY30ACP
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)	250	2885			1190	615						
% 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		
Adj. flow rate	263	3037			1253	647						
Lane group cap.	1381	4953			2311	1213						
v/c ratio	0.19	0.61			0.54	0.53						
Green ratio	0.43	1.00			0.47	0.47						
Unif. delay d1	15.7	0.0			17.1	17.0						
Delay factor k	0.11	0.20			0.14	0.14						
Increm. delay d2	0.1	0.2			0.3	0.5						
PF factor	0.490	0.950			0.417	0.417						
Control delay	7.8	0.2			7.4	7.6						
Lane group LOS	A	A			A	A						
Apprch. delay	0.8			7.5								
Approach LOS	A			A								
Intersec. delay	3.3			Intersection LOS						A		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN -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*			*T*	*R*						
Init. queue/lane	*0.0*	*0.0*			*0.0*	*0.0*						
Flow rate/lane	*263*	*3037*			*1253*	*647*						
Satflow per lane	*1641*	*1818*			*1818*	*1468*						
Capacity/lane	*1381*	*4953*			*2311*	*1213*						
Flow ratio	*0.08*	*0.61*			*0.25*	*0.25*						
v/c ratio	*0.19*	*0.61*			*0.54*	*0.53*						
I factor	*1.000*	*1.000*			*1.000*	*1.000*						
Arrival type	*5*	*5*			*5*	*5*						
Platoon ratio	*1.67*	*1.00*			*1.67*	*1.67*						
PF factor	*0.52*				*0.54*	*0.53*						
Q_1	*1.1*				*4.4*	*3.5*						
k_B	*0.6*	*1.0*			*0.6*	*0.5*						
Q_2	*0.1*	*1.5*			*0.7*	*0.6*						
Q avg.	*1.2*				*5.1*	*4.1*						

Percentile Back of Queue (95th percentile)

$f_{B\%}$	*2.1*				*2.0*	*2.0*						
BOQ, $Q_{\%}$	*2.5*				*10.0*	*8.1*						

Queue Storage Ratio

Q spacing	*25.0*	*25.0*			*25.0*	*25.0*						
Q storage	*0*	*0*			*0*	*0*						
Avg. R_Q												
95% $R_{Q\%}$												

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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	125NBOTAY30PCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)	800	1705			1445	1465						
% 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 = 30.0	G = 51.0	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	842	1795			1521	1542						
Lane group cap.	1062	4953			2807	1473						
v/c ratio	0.79	0.36			0.54	1.05						
Green ratio	0.33	1.00			0.57	0.57						
Unif. delay d1	27.2	0.0			12.2	19.5						
Delay factor k	0.34	0.11			0.14	0.50						
Increm. delay d2	4.2	0.0			0.2	36.7						
PF factor	0.667	0.950			0.128	0.214						
Control delay	22.3	0.0			1.8	40.9						
Lane group LOS	C	A			A	D						
Apprch. delay	7.2			21.5								
Approach LOS	A			C								
Intersec. delay	14.9			Intersection LOS						B		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN -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			T	R						
Init. queue/lane	0.0	0.0			0.0	0.0						
Flow rate/lane	842	1795			1521	1542						
Satflow per lane	1641	1818			1818	1468						
Capacity/lane	1062	4953			2807	1473						
Flow ratio	0.26	0.36			0.31	0.59						
v/c ratio	0.79	0.36			0.54	1.05						
I factor	1.000	1.000			1.000	1.000						
Arrival type	5	5			5	5						
Platoon ratio	1.67	1.00			1.67	1.60						
PF factor	0.88				0.18	1.00						
Q_1	8.6				1.6	21.8						
k_B	0.5	1.0			0.7	0.6						
Q_2	1.6	0.6			0.8	11.0						
Q avg.	10.2				2.4	32.8						

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.8				2.0	1.6						
BOQ, $Q_{\%}$	18.8				4.9	52.3						

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0			25.0	25.0						
Q storage	0	0			0	0						
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

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	03/28/11	Jurisdiction	OTAYHARV30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	95	2175	615	50	1485	5	275	5	25	5	5	45
% 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 = 62.0	G =	G =	G = 25.0	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		
Adj. flow rate	100	2936		53	1568		289	31		5	52	
Lane group cap.	176	2104		176	2192		293	219		293	216	
v/c ratio	0.57	1.40		0.30	0.72		0.99	0.14		0.02	0.24	
Green ratio	0.11	0.44		0.11	0.44		0.18	0.14		0.18	0.14	
Unif. delay d1	59.4	39.0		57.7	31.8		57.3	52.5		47.4	53.3	
Delay factor k	0.16	0.50		0.11	0.28		0.49	0.11		0.11	0.11	
Increm. delay d2	4.3	180.9		1.0	1.1		48.7	0.3		0.0	0.6	
PF factor	0.920	0.572		0.920	0.470		1.000	1.000		1.000	1.000	
Control delay	59.0	203.2		54.0	16.1		106.0	52.8		47.4	53.8	
Lane group LOS	E	F		D	B		F	D		D	D	
Apprch. delay	198.5			17.3			100.9			53.3		
Approach LOS	F			B			F			D		
Intersec. delay	132.3			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN /AM/ 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	100	2936		53	1568		289	31		5	52	
Satflow per lane	1641	1744		1641	1817		1641	1536		1641	1515	
Capacity/lane	176	2104		176	2192		293	219		293	216	
Flow ratio	0.06	0.62		0.03	0.32		0.18	0.02		0.00	0.03	
v/c ratio	0.57	1.40		0.30	0.72		0.99	0.14		0.02	0.24	
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	1.54		1.67	1.67		1.00	1.00		1.00	1.00	
PF factor	0.96	1.00		0.94	0.68		1.00	1.00		1.00	1.00	
Q_1	3.6	41.9		1.8	12.4		11.2	1.1		0.2	1.8	
k_B	0.3	0.8		0.3	0.8		0.4	0.4		0.4	0.4	
Q_2	0.4	40.7		0.1	1.9		3.7	0.1		0.0	0.1	
Q avg.	4.0	82.6		1.9	14.3		14.9	1.1		0.2	1.9	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	2.0	1.5		2.0	1.8		1.8	2.1		2.1	2.0	
BOQ, $Q_{\%}$	7.8	124		3.9	25.3		26.3	2.3		0.4	3.9	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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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	03/31/11	Jurisdiction	OTAYHARV30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	2	1	0	1	1	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	95	2175	615	50	1485	5	275	5	25	5	5	45
% 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 = 62.0	G =	G =	G = 25.0	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		
Adj. flow rate	100	2289	647	53	1563	5	289	31		5	52	
Lane group cap.	176	2193	932	176	2193	628	569	219		293	216	
v/c ratio	0.57	1.04	0.69	0.30	0.71	0.01	0.51	0.14		0.02	0.24	
Green ratio	0.11	0.44	0.66	0.11	0.44	0.44	0.18	0.14		0.18	0.14	
Unif. delay d1	59.4	39.0	15.1	57.7	31.7	21.8	51.9	52.5		47.4	53.3	
Delay factor k	0.16	0.50	0.26	0.11	0.28	0.11	0.12	0.11		0.11	0.11	
Increm. delay d2	4.3	31.8	2.3	1.0	1.1	0.0	0.8	0.3		0.0	0.6	
PF factor	0.920	0.470	0.146	0.920	0.470	0.470	1.000	1.000		1.000	1.000	
Control delay	59.0	50.1	4.5	54.0	16.0	10.3	52.7	52.8		47.4	53.8	
Lane group LOS	E	D	A	D	B	B	D	D		D	D	
Apprch. delay	40.7			17.3			52.7			53.3		
Approach LOS	D			B			D			D		
Intersec. delay	34.1			Intersection LOS						C		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN /AM/ 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	100	2289	647	53	1563	5	289	31		5	52	
Satflow per lane	1641	1818	1419	1641	1818	1417	1641	1536		1641	1515	
Capacity/lane	176	2193	932	176	2193	628	569	219		293	216	
Flow ratio	0.06	0.46	0.46	0.03	0.32	0.00	0.09	0.02		0.00	0.03	
v/c ratio	0.57	1.04	0.69	0.30	0.71	0.01	0.51	0.14		0.02	0.24	
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	1.67	1.45	1.67	1.67	1.67	1.00	1.00		1.00	1.00	
PF factor	0.96	1.00	0.23	0.94	0.68	0.47	1.00	1.00		1.00	1.00	
Q_1	3.6	32.7	3.7	1.8	12.3	0.1	5.2	1.1		0.2	1.8	
k_B	0.3	0.8	0.9	0.3	0.8	0.7	0.4	0.4		0.4	0.4	
Q_2	0.4	11.6	1.9	0.1	1.8	0.0	0.4	0.1		0.0	0.1	
Q avg.	4.0	44.2	5.6	1.9	14.1	0.1	5.6	1.1		0.2	1.9	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.6	1.9	2.0	1.8	2.1	1.9	2.1		2.1	2.0	
BOQ, $Q_{\%}$	7.8	68.6	10.8	3.9	25.1	0.1	10.9	2.3		0.4	3.9	
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	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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N
MIT

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	03/31/11	Jurisdiction	OTAYHARV30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	45	1385	275	20	2200	20	615	20	50	20	20	95
% 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	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	
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 = 57.0	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 = 130.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	47	1747		21	2337		647	73		21	121	
Lane group cap.	126	2118		126	2169		379	187		379	184	
v/c ratio	0.37	0.82		0.17	1.08		1.71	0.39		0.06	0.66	
Green ratio	0.08	0.44		0.08	0.44		0.23	0.12		0.23	0.12	
Unif. delay d1	57.0	32.1		56.1	36.5		50.0	53.3		39.0	55.0	
Delay factor k	0.11	0.36		0.11	0.50		0.50	0.11		0.11	0.23	
Increm. delay d2	1.9	2.8		0.6	44.0		329.3	1.3		0.1	8.3	
PF factor	0.944	0.479		0.944	0.479		1.000	1.000		1.000	1.000	
Control delay	55.7	18.2		53.6	61.5		379.3	54.6		39.0	63.3	
Lane group LOS	E	B		D	E		F	D		D	E	
Apprch. delay	19.2			61.4			346.4			59.7		
Approach LOS	B			E			F			E		
Intersec. delay	87.2			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/PM/ 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	47	1747		21	2337		647	73		21	121	
Satflow per lane	1641	1773		1641	1815		1641	1620		1641	1593	
Capacity/lane	126	2118		126	2169		379	187		379	184	
Flow ratio	0.03	0.36		0.01	0.47		0.39	0.05		0.01	0.08	
v/c ratio	0.37	0.82		0.17	1.08		1.71	0.39		0.06	0.66	
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	0.96	0.77		0.95	1.00		1.00	1.00		1.00	1.00	
Q_1	1.6	15.7		0.7	30.9		23.4	2.4		0.6	4.2	
k_B	0.2	0.7		0.2	0.8		0.5	0.3		0.5	0.3	
Q_2	0.1	3.0		0.0	13.6		34.6	0.2		0.0	0.6	
Q avg.	1.7	18.7		0.7	44.5		58.0	2.6		0.6	4.7	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	2.0	1.7		2.1	1.6		1.5	2.0		2.1	2.0	
BOQ, $Q_{\%}$	3.5	31.9		1.5	69.0		88.4	5.3		1.3	9.3	

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_Q												
95% $R_{Q\%}$												

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W
MIT

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	03/31/11	Jurisdiction	OTAYHARV30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	2	1	0	1	1	0
Lane group	L	T	R	L	T	R	L	TR		L	TR	
Volume (vph)	45	1385	275	20	2200	20	615	20	50	20	20	95
% 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	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	Excl. Left	Thru & RT	07	08
Timing	G = 10.0	G = 57.0	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 = 130.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	47	1458	289	21	2316	21	647	73		21	121	
Lane group cap.	126	2172	1039	126	2172	1039	735	187		379	184	
v/c ratio	0.37	0.67	0.28	0.17	1.07	0.02	0.88	0.39		0.06	0.66	
Green ratio	0.08	0.44	0.71	0.08	0.44	0.71	0.23	0.12		0.23	0.12	
Unif. delay d1	57.0	29.0	6.9	56.1	36.5	5.6	48.3	53.3		39.0	55.0	
Delay factor k	0.11	0.24	0.11	0.11	0.50	0.11	0.41	0.11		0.11	0.23	
Increm. delay d2	1.9	0.8	0.1	0.6	39.8	0.0	12.0	1.3		0.1	8.3	
PF factor	0.944	0.479	0.171	0.944	0.479	0.171	1.000	1.000		1.000	1.000	
Control delay	55.7	14.7	1.3	53.6	57.3	1.0	60.2	54.6		39.0	63.3	
Lane group LOS	E	B	A	D	E	A	E	D		D	E	
Apprch. delay	13.7			56.8			59.7			59.7		
Approach LOS	B			E			E			E		
Intersec. delay	41.9			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/PM/ 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	47	1458	289	21	2316	21	647	73		21	121	
Satflow per lane	1641	1818	1468	1641	1818	1468	1641	1620		1641	1593	
Capacity/lane	126	2172	1039	126	2172	1039	735	187		379	184	
Flow ratio	0.03	0.29	0.20	0.01	0.47	0.01	0.20	0.05		0.01	0.08	
v/c ratio	0.37	0.67	0.28	0.17	1.07	0.02	0.88	0.39		0.06	0.66	
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	1.67	1.34	1.67	1.67	1.34	1.00	1.00		1.00	1.00	
PF factor	0.96	0.66	0.19	0.95	1.00	0.17	1.00	1.00		1.00	1.00	
Q_1	1.6	10.2	0.7	0.7	30.7	0.0	11.6	2.4		0.6	4.2	
k_B	0.2	0.8	0.9	0.2	0.8	0.9	0.5	0.3		0.5	0.3	
Q_2	0.1	1.5	0.3	0.0	12.8	0.0	2.5	0.2		0.0	0.6	
Q avg.	1.7	11.7	1.0	0.7	43.5	0.1	14.1	2.6		0.6	4.7	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.8	2.1	2.1	1.6	2.1	1.8	2.0		2.1	2.0	
BOQ, $Q_{\%}$	3.5	21.2	2.2	1.5	67.6	0.1	25.0	5.3		1.3	9.3	
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	
Q storage	0	0	0	0	0	0	0	0		0	0	
Avg. R_Q												
95% $R_{Q\%}$												

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MIT

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	02/04/11	Jurisdiction	SIEMOTCR30ACP NM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	0	1	1	1	1	0
Lane group	L	TR		L	TR			LT	R	L	TR	
Volume (vph)	100	1380	115	395	4345	260	60	30	215	175	55	60
% 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		
Adj. flow rate	105	1574		416	4795			95	226	184	121	
Lane group cap.	234	2582		234	2596			176	391	164	163	
v/c ratio	0.45	0.61		1.78	1.85			0.54	0.58	1.12	0.74	
Green ratio	0.14	0.53		0.14	0.53			0.10	0.28	0.10	0.10	
Unif. delay d1	55.0	23.0		60.0	33.0			59.9	43.4	63.0	61.2	
Delay factor k	0.11	0.20		0.50	0.50			0.14	0.17	0.50	0.30	
Increm. delay d2	1.4	0.4		366.8	382.7			3.3	2.1	106.8	16.6	
PF factor	0.889	0.253		0.889	1.000			1.000	1.000	1.000	1.000	
Control delay	50.2	6.2		420.1	415.7			63.3	45.6	169.8	77.9	
Lane group LOS	D	A		F	F			E	D	F	E	
Apprch. delay	9.0			416.0			50.8			133.3		
Approach LOS	A			F			D			F		
Intersec. delay	298.0			Intersection LOS						F		

35-A
NO MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM PLAN/OTAY CTR-SIEMP/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	105	1574		416	4795			95	226	184	121	
Satflow per lane	1641	1792		1641	1802			1760	1402	1641	1631	
Capacity/lane	234	2582		234	2596			176	391	164	163	
Flow ratio	0.06	0.32		0.25	0.98			0.05	0.16	0.11	0.07	
v/c ratio	0.45	0.61		1.78	1.85			0.54	0.58	1.12	0.74	
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	1.00			1.00	1.00	1.00	1.00	
PF factor	0.93	0.37		1.00	1.00			1.00	1.00	1.00	1.00	
Q_1	3.5	5.8		16.2	68.4			3.5	7.6	7.2	4.6	
k_B	0.4	0.9		0.4	0.9			0.3	0.5	0.3	0.3	
Q_2	0.3	1.3		23.6	102.7			0.4	0.7	4.2	0.8	
Q avg.	3.8	7.1		39.8	171.2			3.9	8.2	11.3	5.3	
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.9		1.6	1.5			2.0	1.9	1.8	1.9	
BOQ, $Q_{\%}$	7.5	13.5		62.3	257			7.7	15.5	20.6	10.4	
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. R_Q												
95% $R_{Q\%}$												

35 A WITH MIT

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	02/04/11	Jurisdiction	SIEMOTCR30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	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)	100	1380	115	395	4345	260	60	30	215	175	55	60
% 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		
Adj. flow rate	105	1453	121	416	4574	221	63	32	226	184	58	63
Lane group cap.	455	2618	957	455	2618	957	164	182	391	319	182	391
v/c ratio	0.23	0.56	0.13	0.91	1.75	0.23	0.38	0.18	0.58	0.58	0.32	0.16
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	53.2	22.0	8.6	59.2	33.0	9.3	59.0	57.7	43.4	60.2	58.6	38.1
Delay factor k	0.11	0.15	0.11	0.43	0.50	0.11	0.11	0.11	0.17	0.17	0.11	0.11
Increm. delay d2	0.3	0.3	0.1	22.9	337.8	0.1	1.5	0.5	2.1	2.6	1.0	0.2
PF factor	0.889	0.253	0.149	0.889	0.968	0.149	1.000	1.000	1.000	1.000	1.000	1.000
Control delay	47.5	5.8	1.3	75.5	369.8	1.5	60.5	58.2	45.6	62.7	59.6	38.3
Lane group LOS	D	A	A	E	F	A	E	E	D	E	E	D
Apprch. delay	8.1			330.6			49.7			57.1		
Approach LOS	A			F			D			E		
Intersec. delay	235.5			Intersection LOS						F		

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35-A
W
MT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM PLAN/OTAY CTR-SIEMP/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	105	1453	121	416	4574	221	63	32	226	184	58	63
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	0.03	0.29	0.08	0.13	0.92	0.15	0.04	0.02	0.16	0.06	0.03	0.04
v/c ratio	0.23	0.56	0.13	0.91	1.75	0.23	0.38	0.18	0.58	0.58	0.32	0.16
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	1.03	1.43	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	0.91	0.35	0.16	0.99	1.00	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	1.7	4.8	0.3	8.1	65.3	0.6	2.3	1.1	7.6	3.5	2.1	1.9
k_B	0.4	0.9	0.9	0.4	0.9	0.9	0.3	0.3	0.5	0.3	0.3	0.5
Q_2	0.1	1.1	0.1	2.2	91.8	0.3	0.2	0.1	0.7	0.4	0.1	0.1
Q avg.	1.8	5.9	0.4	10.3	157.1	0.8	2.5	1.2	8.2	3.9	2.2	1.9
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.9	2.1	1.8	1.5	2.1	2.0	2.1	1.9	2.0	2.0	2.0
BOQ, $Q_{\%}$	3.7	11.4	0.8	18.9	236	1.7	5.0	2.5	15.5	7.7	4.6	4.0
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. R_Q												
95% $R_{Q\%}$												

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35-P
NO
MIT

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	02/04/11	Jurisdiction	SAN DIEGO/NO MITIGATION
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	0	1	1	1	2	0
Lane group	L	TR		L	TR			LT	R	L	TR	
Volume (vph)	210	3460	300	675	840	520	300	100	500	450	50	210
% 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	
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	0	200
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 = 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		
Adj. flow rate	221	3958		711	1431			421	526	474	64	
Lane group cap.	226	1752		226	1650			181	387	453	350	
v/c ratio	0.98	2.26		3.15	0.87			2.33	1.36	1.05	0.18	
Green ratio	0.14	0.36		0.14	0.36			0.10	0.28	0.28	0.10	
Unif. delay d1	62.3	46.5		62.5	43.3			65.0	52.5	52.5	59.4	
Delay factor k	0.48	0.50		0.50	0.40			0.50	0.50	0.50	0.11	
Increm. delay d2	53.4	568.4		977.2	5.2			613.6	177.6	54.9	0.3	
PF factor	0.893	0.904		0.893	0.627			1.000	1.000	1.000	1.000	
Control delay	109.0	610.5		1033	32.4			678.6	230.1	107.4	59.7	
Lane group LOS	F	F		F	C			F	F	F	E	
Apprch. delay	584.0			364.5			429.5			101.7		
Approach LOS	F			F			F			F		
Intersec. delay	471.8			Intersection LOS						F		

35-P
NO
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN-PM PEAK HOUR/NO MITIGATION/#35*

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	*221*	*3958*		*711*	*1431*			*421*	*526*	*474*	*64*	
Satflow per lane	*1641*	*1792*		*1641*	*1688*			*1752*	*1404*	*1641*	*1776*	
Capacity/lane	*226*	*1752*		*226*	*1650*			*181*	*387*	*453*	*350*	
Flow ratio	*0.13*	*0.81*		*0.43*	*0.31*			*0.24*	*0.37*	*0.29*	0.02	
v/c ratio	*0.98*	*2.26*		*3.15*	*0.87*			*2.33*	*1.36*	*1.05*	*0.18*	
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*	*1.17*		*1.67*	*1.67*			*1.00*	*1.00*	*1.00*	*1.00*	
PF factor	*1.00*	*1.00*		*1.00*	*0.90*			*1.00*	*1.00*	*1.00*	*1.00*	
Q_1	*8.8*	*58.5*		*28.6*	*17.7*			*17.0*	*21.2*	*19.1*	*1.2*	
k_B	*0.4*	*0.7*		*0.4*	*0.7*			*0.3*	*0.5*	*0.6*	*0.3*	
Q_2	*2.9*	*102.5*		*61.2*	*3.3*			*30.6*	*19.2*	*7.3*	*0.1*	
Q avg.	*11.8*	*161.0*		*89.8*	*21.0*			*47.5*	*40.3*	*26.4*	*1.3*	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	*1.8*	*1.5*		*1.5*	*1.7*			*1.5*	*1.6*	*1.6*	*2.1*	
BOQ, $Q_\%$	*21.3*	*242*		*135*	*35.4*			*73.3*	*63.1*	*43.2*	*2.6*	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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35-P
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MIT

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	02/04/11	Jurisdiction	SAN DIEGO/WITH MIT.
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	1	1	2	1	1
Lane group	L	T	R	L	T	R	L	T	R	L	T	R
Volume (vph)	210	3460	300	675	840	520	300	100	500	450	50	210
% 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 = 25.0	G = 62.0	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		
Adj. flow rate	221	3642	316	711	884	547	316	105	526	474	53	11
Lane group cap.	531	2047	930	531	2047	930	328	182	421	637	182	448
v/c ratio	0.42	1.78	0.34	1.34	0.43	0.59	0.96	0.58	1.25	0.74	0.29	0.02
Green ratio	0.17	0.41	0.65	0.17	0.41	0.65	0.20	0.10	0.30	0.20	0.10	0.30
Unif. delay d1	56.0	44.0	12.0	62.5	31.4	15.1	59.5	64.5	52.5	56.4	62.6	37.0
Delay factor k	0.11	0.50	0.11	0.50	0.11	0.18	0.47	0.17	0.50	0.30	0.11	0.11
Increm. delay d2	0.5	352.6	0.2	164.9	0.1	1.0	39.8	4.5	130.6	4.7	0.9	0.0
PF factor	0.867	0.794	0.142	0.867	0.530	0.142	1.000	1.000	1.000	1.000	1.000	1.000
Control delay	49.0	387.6	1.9	219.1	16.8	3.1	99.3	68.9	183.1	61.1	63.5	37.0
Lane group LOS	D	F	A	F	B	A	F	E	F	E	E	D
Apprch. delay	340.5			80.5			142.5			60.9		
Approach LOS	F			F			F			E		
Intersec. delay	225.9			Intersection LOS						F		

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35-P
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MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN-PM PEAK HOUR/WITH MITIGATION/#35

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	221	3642	316	711	884	547	316	105	526	474	53	11
Satflow per lane	1641	1818	1438	1641	1818	1438	1641	1818	1402	1641	1818	1492
Capacity/lane	531	2047	930	531	2047	930	328	182	421	637	182	448
Flow ratio	0.07	0.74	0.22	0.22	0.18	0.38	0.19	0.06	0.38	0.15	0.03	0.01
v/c ratio	0.42	1.78	0.34	1.34	0.43	0.59	0.96	0.58	1.25	0.74	0.29	0.02
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	1.29	1.47	1.67	1.67	1.47	1.00	1.00	1.00	1.00	1.00	1.00
PF factor	0.91	1.00	0.16	1.00	0.62	0.20	1.00	1.00	1.00	1.00	1.00	1.00
Q_1	3.8	55.7	1.0	15.3	6.0	2.6	13.0	4.2	21.9	9.6	2.0	0.3
k_B	0.4	0.8	0.9	0.4	0.8	0.9	0.5	0.3	0.6	0.5	0.3	0.6
Q_2	0.3	75.0	0.5	13.1	0.6	1.2	3.7	0.4	15.5	1.2	0.1	0.0
Q avg.	4.1	130.7	1.4	28.4	6.6	3.8	16.7	4.6	37.4	10.8	2.2	0.3
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	2.0	1.5	2.1	1.6	1.9	2.0	1.7	2.0	1.6	1.8	2.0	2.1
BOQ, $Q_{\%}$	8.2	196	2.9	46.1	12.6	7.6	29.0	9.1	58.9	19.8	4.4	0.7
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. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./SR-905 SB OFF
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/12	Jurisdiction	SR905SBSIEM30ACP
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)		1420	350	500	5160				2620			
% 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 = 20.0	G = 55.0	G = 32.0	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		
Adj. flow rate		1863		526	5432				2758			
Lane group cap.		1275		531	4953				1711			
v/c ratio		1.46		0.99	1.10				1.61			
Green ratio		0.27		0.17	1.00				0.66			
Unif. delay d1		44.0		49.9	0.0				20.5			
Delay factor k		0.50		0.49	0.50				0.50			
Increm. delay d2		211.9		36.5	47.3				278.1			
PF factor		0.758		0.867	0.950				1.000			
Control delay		245.2		79.8	47.3				298.6			
Lane group LOS		F		E	D				F			
Apprch. delay	245.2			50.2			298.6					
Approach LOS	F			D			F					
Intersec. delay	149.3			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/AM/#36

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				R			
Init. queue/lane		0.0		0.0	0.0				0.0			
Flow rate/lane		1863		526	5432				2758			
Satflow per lane		1754		1641	1818				1468			
Capacity/lane		1275		531	4953				1711			
Flow ratio		0.39		0.16	1.10				1.06			
v/c ratio		1.46		0.99	1.10				1.61			
I factor		1.000		1.000	1.000			1.000	1.000			
Arrival type		5		5	5				3			
Platoon ratio		1.67		1.67	1.00				1.00			
PF factor		1.00		1.00					1.00			
Q_1		22.8		9.0					51.9			
k_B		0.5		0.4	1.2				0.8			
Q_2		28.4		3.4	31.3				76.1			
Q avg.		51.2		12.3					128.0			

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$		1.5		1.8					1.5			
BOQ, $Q_{\%}$		78.6		22.2					192			

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing		25.0		25.0	25.0				25.0			
Q storage		0		0	0				0			
Avg. R_Q												
95% $R_{Q\%}$												

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	SIEMPRE VIVA RD./SR-905 SB OFF
Agency or Co.	USAI	Area Type	All other areas
Date Performed	05/13/12	Jurisdiction	SAN DIEGO/
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN

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)		3885	525	1130	2035				950			
% 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 = 20.0	G = 77.0	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 = 140.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate		4642		1189	2142				1000			
Lane group cap.		2669		683	4953				1002			
v/c ratio		1.74		1.74	0.43				1.00			
Green ratio		0.55		0.21	1.00				0.39			
Unif. delay d1		31.5		55.0	0.0				42.9			
Delay factor k		0.50		0.50	0.11				0.50			
Increm. delay d2		334.2		339.5	0.1				27.9			
PF factor		1.000		0.818	0.950				1.000			
Control delay		365.7		384.5	0.1				70.9			
Lane group LOS		F		F	A				E			
Apprch. delay	365.7			137.3			70.9					
Approach LOS	F			F			E					
Intersec. delay	248.1			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/PM/#36*

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				R			
Init. queue/lane		0.0		0.0	0.0				0.0			
Flow rate/lane		4642		1189	2142				1000			
Satflow per lane		1781		1641	1818				1468			
Capacity/lane		2669		683	4953				1002			
Flow ratio		0.96		0.37	0.43				0.38			
v/c ratio		1.74		1.74	0.43				1.00			
I factor		1.000		1.000	1.000			1.000	1.000			
Arrival type		5		5	5				3			
Platoon ratio		1.00		1.67	1.00				1.00			
PF factor		1.00		1.00					1.00			
Q_1		66.3		23.8					21.9			
k_B		0.9		0.5	1.3				0.6			
Q_2		92.7		33.7	1.0				6.6			
Q avg.		158.9		57.5					28.5			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$		1.5		1.5					1.6			
BOQ, $Q_{\%}$		238		87.7					46.2			
Queue Storage Ratio												
Q spacing		25.0		25.0	25.0				25.0			
Q storage		0		0	0				0			
Avg. R_Q												
95% $R_{Q\%}$												

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TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	USAI
Agency/Co.	USAI
Date Performed	05/14/12
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP
Jurisdiction	905SBSIEMPAMCP
Analysis Year	2030 COMM PLAN /NO MIT.

Project Description COMM. PLAN/ 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

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	1913	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	2013	0
Proportion of heavy vehicles, P_{HV}	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	2630
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	2768
Proportion of heavy vehicles, P_{HV}	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)								2768
Capacity, c_m (vph)								270
v/c ratio								10.25
Queue length (95%)								315.54

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Control Delay (s/veh)								4196
LOS								F
Approach delay (s/veh)	--	--				4196		
Approach LOS	--	--				F		

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36(A) AM 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	SR905SBWBAMCP
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)					2870							2630
% 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		425
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		
Adj. flow rate					3021							2321
Lane group cap.					2123							1300
v/c ratio					1.42							1.79
Green ratio					0.43							0.50
Unif. delay d1					40.0							35.0
Delay factor k					0.50							0.50
Increm. delay d2					193.2							356.5
PF factor					0.582							1.000
Control delay					216.4							391.5
Lane group LOS					F							F
Apprch. delay				216.4						391.5		
Approach LOS				F						F		
Intersec. delay	292.5			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN / 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					*3021*							*2321*
Satflow per lane					*1818*							*1468*
Capacity/lane					*2123*							*1300*
Flow ratio					*0.61*							*0.89*
v/c ratio					*1.42*							*1.79*
I factor					*1.000*						*1.000*	*1.000*
Arrival type					*5*							*3*
Platoon ratio					*1.56*							*1.00*
PF factor					*1.00*							*1.00*
Q_1					*43.1*							*51.0*
k_B					*0.8*							*0.7*
Q_2					*43.7*							*73.8*
Q avg.					*86.8*							*124.8*

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$					*1.5*							*1.5*
BOQ, $Q_{\%}$					*131*							*187*

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing					*25.0*							*25.0*
Q storage					*0*							*0*
Avg. R_Q												
95% $R_{Q\%}$												

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	SR-905 SB TO WB OFF-RAMP/SIEMP
Agency/Co.	USAI	Jurisdiction	905SBSIEMPPMCP
Date Performed	05/14/12	Analysis Year	2030 COMM PLAN /NO MIT.
Analysis Time Period	PM PEAK HOUR		

Project Description COMM. PLAN/ 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

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	0	0	0	1373	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	1445	0
Proportion of heavy vehicles, P_{HV}	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	1105
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	1163
Proportion of heavy vehicles, P_{HV}	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)								1163
Capacity, c_m (vph)								396
v/c ratio								2.94
Queue length (95%)								100.23

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Control Delay (s/veh)								899.3
LOS								F
Approach delay (s/veh)	--	--				899.3		
Approach LOS	--	--				F		

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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	SR905SBWBPMCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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)					2060							1105
% 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		550
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		
Adj. flow rate					2168							584
Lane group cap.					2123							1300
v/c ratio					1.02							0.45
Green ratio					0.43							0.50
Unif. delay d1					40.0							22.6
Delay factor k					0.50							0.11
Increm. delay d2					25.1							0.2
PF factor					0.500							1.000
Control delay					45.1							22.8
Lane group LOS					D							C
Apprch. delay				45.1						22.8		
Approach LOS				D						C		
Intersec. delay	40.4			Intersection LOS						D		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN / 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					2168							584
Satflow per lane					1818							1468
Capacity/lane					2123							1300
Flow ratio					0.44							0.22
v/c ratio					1.02							0.45
I factor					1.000						1.000	1.000
Arrival type					5							3
Platoon ratio					1.67							1.00
PF factor					1.00							1.00
Q_1					30.9							8.2
k_B					0.8							0.7
Q_2					9.8							0.6
Q avg.					40.7							8.8

Percentile Back of Queue (95th percentile)

$f_{B\%}$					1.6							1.9
BOQ, $Q_{\%}$					63.7							16.5

Queue Storage Ratio

Q spacing					25.0							25.0
Q storage					0							0
Avg. R_Q												
95% $R_{Q\%}$												

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NO MIT

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	02/01/11	Jurisdiction	SAN DIEGO
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	0	1	2	0	0	0
Lane group	L	T			TR	R		LT	R			
Volume (vph)	850	3190			2300	515	570	1	1120			
% 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				0	0	0	0	0	0	0		
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		
Adj. flow rate	895	3358			2475	488		601	1179			
Lane group cap.	584	2825			1773	527		634	952			
v/c ratio	1.53	1.19			1.40	0.93		0.95	1.24			
Green ratio	0.18	0.57			0.36	0.36		0.37	0.37			
Unif. delay d1	58.0	30.5			45.5	43.7		43.7	45.0			
Delay factor k	0.50	0.50			0.50	0.44		0.46	0.50			
Increm. delay d2	248.2	88.7			181.7	22.5		23.6	116.4			
PF factor	0.851	0.466			0.626	0.626		0.615	0.615			
Control delay	297.5	103.0			210.2	49.9		50.5	144.0			
Lane group LOS	F	F			F	D		D	F			
Apprch. delay	143.9			183.8			112.4					
Approach LOS	F			F			F					
Intersec. delay	150.8			Intersection LOS						F		

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NO MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/ AM /#37/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	T			TR	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	895	3358			2475	488		601	1179			
Satflow per lane	1641	1818			1812	1468		1732	1468			
Capacity/lane	584	2825			1773	527		634	952			
Flow ratio	0.28	0.68			0.50	0.33		0.35	0.45			
v/c ratio	1.53	1.19			1.40	0.93		0.95	1.24			
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	1.40			1.67	1.67		1.67	1.67			
PF factor	1.00	1.00			1.00	0.94		0.95	1.00			
Q_1	18.1	48.6			35.8	17.3		21.9	26.3			
k_B	0.4	0.9			0.7	0.6		0.7	0.6			
Q_2	21.2	29.3			34.6	4.2		5.4	18.9			
Q avg.	39.3	77.9			70.4	21.5		27.3	45.2			
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	1.6	1.5			1.5	1.7		1.6	1.5			
BOQ, $Q_{\%}$	61.7	117			106	36.2		44.6	69.9			
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. R_Q												
95% $R_{Q\%}$												

HCS2000™ Version 4.1f

37-A
w
MIT

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	02/01/11	Jurisdiction	SAN DIEGO
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	2	0	0	0
Lane group	L	T			T	R		LT	R			
Volume (vph)	850	3190			2300	515	570	1	1120			
% 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				0	0	0	0	0	0	0		
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		
Adj. flow rate	895	3358			2421	542		601	1179			
Lane group cap.	584	2825			1779	933		634	952			
v/c ratio	1.53	1.19			1.36	0.58		0.95	1.24			
Green ratio	0.18	0.57			0.36	0.36		0.37	0.37			
Unif. delay d1	58.0	30.5			45.5	36.8		43.7	45.0			
Delay factor k	0.50	0.50			0.50	0.17		0.46	0.50			
Increm. delay d2	248.2	88.7			166.1	0.9		23.6	116.4			
PF factor	0.851	0.466			0.626	0.626		0.615	0.615			
Control delay	297.5	103.0			194.6	24.0		50.5	144.0			
Lane group LOS	F	F			F	C		D	F			
Apprch. delay	143.9			163.4			112.4					
Approach LOS	F			F			F					
Intersec. delay	144.1			Intersection LOS						F		

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w
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/ AM /#37/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			T	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	895	3358			2421	542		601	1179			
Satflow per lane	1641	1818			1818	1468		1732	1468			
Capacity/lane	584	2825			1779	933		634	952			
Flow ratio	0.28	0.68			0.49	0.21		0.35	0.45			
v/c ratio	1.53	1.19			1.36	0.58		0.95	1.24			
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	1.40			1.67	1.67		1.67	1.67			
PF factor	1.00	1.00			1.00	0.76		0.95	1.00			
Q_1	18.1	48.6			35.0	7.4		21.9	26.3			
k_B	0.4	0.9			0.7	0.6		0.7	0.6			
Q_2	21.2	29.3			31.8	0.8		5.4	18.9			
Q avg.	39.3	77.9			66.9	8.3		27.3	45.2			

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.6	1.5			1.5	1.9		1.6	1.5			
BOQ, $Q_{\%}$	61.7	117			101	15.5		44.6	69.9			

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. R_Q												
95% $R_{Q\%}$												

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N
MIT

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	02/25/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	0	1	2	0	0	0
Lane group	L	T			TR	R		LT	R			
Volume (vph)	2585	2250			1730	2640	330	1	525			
% 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	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	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		
Adj. flow rate	2721	2368			3210	1390		348	553			
Lane group cap.	879	3723			2045	635		323	468			
v/c ratio	3.10	0.64			1.57	2.19		1.08	1.18			
Green ratio	0.28	0.75			0.45	0.45		0.19	0.19			
Unif. delay d1	52.5	8.6			40.0	40.0		59.0	59.0			
Delay factor k	0.50	0.22			0.50	0.50		0.50	0.50			
Increm. delay d2	946.0	0.4			258.8	540.2		72.2	101.8			
PF factor	0.957	0.201			0.716	1.000		0.847	0.847			
Control delay	996.3	2.1			287.4	580.2		122.2	151.8			
Lane group LOS	F	A			F	F		F	F			
Apprch. delay	533.7			375.9			140.4					
Approach LOS	F			F			F					
Intersec. delay	431.7			Intersection LOS						F		

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N
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/ PM/ #37/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	T			TR	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	2721	2368			3210	1390		348	553			
Satflow per lane	1641	1818			1674	1417		1732	1419			
Capacity/lane	879	3723			2045	635		323	468			
Flow ratio	0.85	0.48			0.70	0.98		0.20	0.22			
v/c ratio	3.10	0.64			1.57	2.19		1.08	1.18			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.11	1.26			1.35	1.00		1.67	1.67			
PF factor	1.00	0.27			1.00	1.00		1.00	1.00			
Q_1	56.4	4.4			47.4	56.0		14.0	12.6			
k_B	0.6	1.1			0.8	0.7		0.5	0.4			
Q_2	119.5	1.9			55.5	95.6		6.3	8.0			
Q avg.	175.9	6.3			103.0	151.6		20.3	20.6			

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.9			1.5	1.5		1.7	1.7			
BOQ, $Q_{\%}$	264	12.1			155	227		34.5	34.8			

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

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37-P
W
MIT

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	02/25/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	2	0	0	0
Lane group	L	T			T	R		LT	R			
Volume (vph)	2585	2250			1730	2640	330	1	525			
% 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	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	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		
Adj. flow rate	2721	2368			1821	2779		348	553			
Lane group cap.	879	3723			2220	1680		323	468			
v/c ratio	3.10	0.64			0.82	1.65		1.08	1.18			
Green ratio	0.28	0.75			0.45	0.67		0.19	0.19			
Unif. delay d1	52.5	8.6			34.9	24.0		59.0	59.0			
Delay factor k	0.50	0.22			0.36	0.50		0.50	0.50			
Increm. delay d2	946.0	0.4			2.6	297.1		72.2	101.8			
PF factor	0.957	0.201			0.458	1.000		0.847	0.847			
Control delay	996.3	2.1			18.6	321.1		122.2	151.8			
Lane group LOS	F	A			B	F		F	F			
Apprch. delay	533.7			201.3			140.4					
Approach LOS	F			F			F					
Intersec. delay	355.8			Intersection LOS						F		

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W
MIT

BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/ PM/ #37/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			T	R		LT	R			
Init. queue/lane	0.0	0.0			0.0	0.0		0.0	0.0			
Flow rate/lane	2721	2368			1821	2779		348	553			
Satflow per lane	1641	1818			1818	1419		1732	1419			
Capacity/lane	879	3723			2220	1680		323	468			
Flow ratio	0.85	0.48			0.37	1.11		0.20	0.22			
v/c ratio	3.10	0.64			0.82	1.65		1.08	1.18			
I factor	1.000	1.000			1.000	1.000		1.000	1.000			
Arrival type	5	5			5	5		5	5			
Platoon ratio	1.11	1.26			1.67	1.00		1.67	1.67			
PF factor	1.00	0.27			0.75	1.00		1.00	1.00			
Q_1	56.4	4.4			17.6	63.2		14.0	12.6			
k_B	0.6	1.1			0.8	0.9		0.5	0.4			
Q_2	119.5	1.9			3.2	79.8		6.3	8.0			
Q avg.	175.9	6.3			20.7	143.0		20.3	20.6			

Percentile Back of Queue (95th percentile)

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
$f_{B\%}$	1.5	1.9			1.7	1.5		1.7	1.7			
BOQ, $Q_{\%}$	264	12.1			35.0	215		34.5	34.8			

Queue Storage Ratio

	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Q spacing	25.0	25.0			25.0	25.0		25.0	25.0			
Q storage	0	0			0	0		0	0			
Avg. R_Q												
95% $R_{Q\%}$												

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N
M

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	2030 COMM. PLAN/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)	1930	1155	900	90	760	180	600	140	70	125	160	1260
% 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 = 43.0	G = 30.0	G =	G =	G = 19.0	G = 35.0	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		
Adj. flow rate	2032	1216	947	95	989		632	221		132	1284	
Lane group cap.	487	1025	531	487	691		215	425		396	749	
v/c ratio	4.17	1.19	1.78	0.20	1.43		2.94	0.52		0.33	1.71	
Green ratio	0.30	0.21	0.37	0.30	0.21		0.13	0.13		0.24	0.24	
Unif. delay d1	51.0	57.5	45.5	38.1	57.5		63.0	58.7		45.4	55.0	
Delay factor k	0.50	0.50	0.50	0.11	0.50		0.50	0.13		0.11	0.50	
Increm. delay d2	1432	93.8	360.1	0.2	202.4		885.3	1.1		0.5	327.1	
PF factor	1.000	0.826	0.745	0.719	0.826		0.899	0.899		0.788	0.788	
Control delay	1483	141.3	394.0	27.6	249.9		942.0	54.0		36.2	370.4	
Lane group LOS	F	F	F	C	F		F	D		D	F	
Apprch. delay	848.5			230.4			711.9			339.3		
Approach LOS	F			F			F			F		
Intersec. delay	648.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description COMM. PLAN/ AM/ #38/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	T	R	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	0.0	
Flow rate/lane	2032	1216	947	95	989		632	221		132	1284	
Satflow per lane	1641	1818	1426	1641	1755		1641	1702		1641	1628	
Capacity/lane	487	1025	531	487	691		215	425		396	749	
Flow ratio	1.24	0.25	0.66	0.06	0.30		0.39	0.07		0.08	0.41	
v/c ratio	4.17	1.19	1.78	0.20	1.43		2.94	0.52		0.33	1.71	
I 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	1.00	1.67	1.43	1.67	1.67		1.67	1.67		1.67	1.67	
PF factor	1.00	1.00	1.00	0.75	1.00		1.00	0.95		0.84	1.00	
Q_1	81.8	18.0	38.1	2.1	20.9		25.5	4.1		3.7	27.1	
k_B	0.6	0.5	0.6	0.6	0.5		0.4	0.4		0.5	0.5	
Q_2	193.9	11.3	53.4	0.1	21.2		52.7	0.4		0.3	36.3	
Q avg.	275.8	29.2	91.5	2.3	42.1		78.1	4.5		3.9	63.5	

Percentile Back of Queue (95th percentile)

$f_{B\%}$	1.5	1.6	1.5	2.0	1.6		1.5	2.0		2.0	1.5	
BOQ, $Q_{\%}$	414	47.3	138	4.6	65.5		118	8.9		7.8	96.4	

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_Q												
95% $R_{Q\%}$												

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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
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	1	2	1	2	1	0	1	1	2
Lane group	L	T	R	L	T	R	L	TR		L	T	R
Volume (vph)	1930	1155	900	90	760	180	600	140	70	125	160	1260
% 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
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	0	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	NB Only	SB Only	07	08
Timing	G = 43.0	G = 30.0	G =	G =	G = 19.0	G = 35.0	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		
Adj. flow rate	2032	1216	947	95	800	189	632	221		132	168	1326
Lane group cap.	945	1025	520	487	716	294	418	223		396	439	644
v/c ratio	2.15	1.19	1.82	0.20	1.12	0.64	1.51	0.99		0.33	0.38	2.06
Green ratio	0.30	0.21	0.37	0.30	0.21	0.21	0.13	0.13		0.24	0.24	0.24
Unif. delay d1	51.0	57.5	45.5	38.1	57.5	52.6	63.0	62.9		45.4	46.0	55.0
Delay factor k	0.50	0.50	0.50	0.11	0.50	0.22	0.50	0.49		0.11	0.11	0.50
Increm. delay d2	521.2	93.8	377.0	0.2	70.7	4.7	242.5	57.6		0.5	0.6	481.9
PF factor	0.793	0.826	0.762	0.719	0.826	0.826	0.899	0.899		0.788	0.788	0.788
Control delay	561.6	141.3	411.7	27.6	118.2	48.2	299.1	114.2		36.2	36.8	525.3
Lane group LOS	F	F	F	C	F	D	F	F		D	D	F
Apprch. delay	405.9			98.0			251.2			435.1		
Approach LOS	F			F			F			F		
Intersec. delay	352.0			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *COMM. PLAN/ AM/ #38/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*	*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*
Flow rate/lane	*2032*	*1216*	*947*	*95*	*800*	*189*	*632*	*221*		*132*	*168*	*1326*
Satflow per lane	*1641*	*1818*	*1397*	*1641*	*1818*	*1422*	*1641*	*1702*		*1641*	*1818*	*1507*
Capacity/lane	*945*	*1025*	*520*	*487*	*716*	*294*	*418*	*223*		*396*	*439*	*644*
Flow ratio	*0.64*	*0.25*	*0.68*	*0.06*	*0.23*	*0.13*	*0.20*	*0.13*		*0.08*	0.09	*0.50*
v/c ratio	*2.15*	*1.19*	*1.82*	*0.20*	*1.12*	*0.64*	*1.51*	*0.99*		*0.33*	*0.38*	*2.06*
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*	*5*	*5*
Platoon ratio	*1.49*	*1.67*	*1.40*	*1.67*	*1.67*	*1.67*	*1.67*	*1.67*		*1.67*	*1.67*	*1.67*
PF factor	*1.00*	*1.00*	*1.00*	*0.75*	*1.00*	*0.92*	*1.00*	*1.00*		*0.84*	*0.85*	*1.00*
Q_1	*42.1*	*18.0*	*38.1*	*2.1*	*16.9*	*6.4*	*13.1*	*8.9*		*3.7*	*4.8*	*30.2*
k_B	*0.6*	*0.5*	*0.6*	*0.6*	*0.5*	*0.4*	*0.4*	*0.4*		*0.5*	*0.6*	*0.5*
Q_2	*71.1*	*11.3*	*54.7*	*0.1*	*8.6*	*0.8*	*14.8*	*3.1*		*0.3*	*0.3*	*49.2*
Q avg.	*113.2*	*29.2*	*92.9*	*2.3*	*25.5*	*7.2*	*27.8*	*12.0*		*3.9*	*5.1*	*79.4*
Percentile Back of Queue (95th percentile)												
$f_{B\%}$	*1.5*	*1.6*	*1.5*	*2.0*	*1.6*	*1.9*	*1.6*	*1.8*		*2.0*	*2.0*	*1.5*
BOQ, $Q_{\%}$	*170*	*47.3*	*140*	*4.6*	*42.0*	*13.6*	*45.3*	*21.6*		*7.8*	*10.0*	*120*
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*
Q storage	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*		*0*	*0*	*0*
Avg. R_Q												
95% R_Q												

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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	2030 COMM. PLAN

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)	1735	580	460	70	1035	125	820	160	90	235	140	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	
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 = 35.0	G = 25.0	G =	G =	G = 30.0	G = 32.0	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	1826	611	484	74	1221		863	263		247	1663	
Lane group cap.	410	884	610	410	606		352	694		375	665	
v/c ratio	4.45	0.69	0.79	0.18	2.01		2.45	0.38		0.66	2.50	
Green ratio	0.25	0.18	0.43	0.25	0.18		0.21	0.21		0.23	0.23	
Unif. delay d1	52.5	53.9	34.6	41.2	57.5		55.0	47.0		49.0	54.0	
Delay factor k	0.50	0.26	0.34	0.11	0.50		0.50	0.11		0.23	0.50	
Increm. delay d2	1560	2.3	7.1	0.2	462.5		661.8	0.3		4.2	679.8	
PF factor	1.000	0.855	0.500	0.778	0.855		0.818	0.818		0.802	0.804	
Control delay	1612	48.4	24.5	32.3	511.7		706.8	38.8		43.6	723.2	
Lane group LOS	F	D	C	C	F		F	D		D	F	
Apprch. delay	1022			484.3			550.8			635.3		
Approach LOS	F			F			F			F		
Intersec. delay	751.0			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description *2030 COMM. PLAN PM /#38 /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	T	R	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	0.0	
Flow rate/lane	1826	611	484	74	1221		863	263		247	1663	
Satflow per lane	1641	1818	1423	1641	1782		1641	1700		1641	1527	
Capacity/lane	410	884	610	410	606		352	694		375	665	
Flow ratio	1.11	0.12	0.34	0.05	0.36		0.53	0.08		0.15	0.57	
v/c ratio	4.45	0.69	0.79	0.18	2.01		2.45	0.38		0.66	2.50	
I 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	1.00	1.67	1.67	1.67	1.67		1.67	1.67		1.67	1.66	
PF factor	1.00	0.94	0.76	0.80	1.00		1.00	0.87		0.91	1.00	
Q_1	71.0	7.7	12.4	1.8	24.9		33.6	4.0		7.9	34.0	
k_B	0.5	0.5	0.7	0.5	0.5		0.5	0.5		0.5	0.5	
Q_2	177.7	1.0	2.2	0.1	41.3		64.7	0.3		0.9	66.3	
Q avg.	248.7	8.7	14.7	1.9	66.2		98.2	4.3		8.8	100.2	

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.9	1.8	2.0	1.5		1.5	2.0		1.9	1.5	
BOQ, $Q_{\%}$	373	16.2	25.9	3.9	100		148	8.5		16.5	151	

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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_Q												
95% $R_{Q\%}$												

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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	2030 COMM. PLAN

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)	1735	580	460	70	1035	125	820	160	90	235	140	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	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 = 35.0	G = 25.0	G =	G =	G = 30.0	G = 32.0	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	1826	611	484	74	1089	132	466	565	95	247	147	1516
Lane group cap.	797	884	597	410	618	579	352	376	663	375	416	565
v/c ratio	2.29	0.69	0.81	0.18	1.76	0.23	1.32	1.50	0.14	0.66	0.35	2.68
Green ratio	0.25	0.18	0.43	0.25	0.18	0.41	0.21	0.21	0.46	0.23	0.23	0.23
Unif. delay d1	52.5	53.9	35.0	41.2	57.5	27.1	55.0	55.0	21.5	49.0	45.3	54.0
Delay factor k	0.50	0.26	0.35	0.11	0.50	0.11	0.50	0.50	0.11	0.23	0.11	0.50
Increm. delay d2	585.0	2.3	8.3	0.2	349.6	0.2	164.3	239.7	0.1	4.2	0.5	762.5
PF factor	0.781	0.855	0.500	0.778	0.855	0.542	0.818	0.818	0.422	0.802	0.802	0.837
Control delay	625.9	48.4	25.8	32.3	398.7	14.9	209.3	284.7	9.2	43.6	36.9	807.7
Lane group LOS	F	D	C	C	F	B	F	F	A	D	D	F
Apprch. delay	405.7			338.7			230.2			649.6		
Approach LOS	F			F			F			F		
Intersec. delay	430.7			Intersection LOS						F		

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BACK-OF-QUEUE WORKSHEET

General Information

Project Description 2030 COMM. PLAN PM /#38 /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	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	0.0	0.0	0.0
Flow rate/lane	1826	611	484	74	1089	132	466	565	95	247	147	1516
Satflow per lane	1641	1818	1392	1641	1818	1423	1641	1756	1427	1641	1818	1396
Capacity/lane	797	884	597	410	618	579	352	376	663	375	416	565
Flow ratio	0.57	0.12	0.35	0.05	0.31	0.09	0.28	0.32	0.07	0.15	0.08	0.61
v/c ratio	2.29	0.69	0.81	0.18	1.76	0.23	1.32	1.50	0.14	0.66	0.35	2.68
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	5	5	5	5	5	5
Platoon ratio	1.66	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.55
PF factor	1.00	0.94	0.78	0.80	1.00	0.58	1.00	1.00	0.44	0.91	0.85	1.00
Q_1	36.6	7.7	12.8	1.8	22.2	2.0	18.1	22.0	0.9	7.9	4.1	33.3
k_B	0.5	0.5	0.7	0.5	0.5	0.6	0.5	0.5	0.7	0.5	0.5	0.5
Q_2	67.2	1.0	2.4	0.1	31.9	0.2	16.0	25.0	0.1	0.9	0.3	67.8
Q avg.	103.7	8.7	15.2	1.9	54.1	2.1	34.1	47.0	1.1	8.8	4.4	101.1

Percentile Back of Queue (95th percentile)

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
$f_{B\%}$	1.5	1.9	1.8	2.0	1.5	2.0	1.6	1.5	2.1	1.9	2.0	1.5
BOQ, $Q_{\%}$	156	16.2	26.7	3.9	82.8	4.4	54.3	72.6	2.2	16.5	8.6	152

Queue Storage Ratio

	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT	NB LT	NB TH	NB RT	SB LT	SB TH	SB RT
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. R_Q												
95% $R_{Q\%}$												

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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	01/04/11	Jurisdiction	DELSOLDEN30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN

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	740			740	600				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	2.0			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	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	779			1411					453		421
Lane group cap.	566	2509			1036					467		950
v/c ratio	0.84	0.31			1.36					0.97		0.44
Green ratio	0.32	0.67			0.32					0.26		0.62
Unif. delay d1	39.5	8.5			42.5					45.5		12.7
Delay factor k	0.37	0.11			0.50					0.48		0.11
Increm. delay d2	10.7	0.1			169.2					33.9		0.3
PF factor	1.000	1.000			1.000					1.000		1.000
Control delay	50.2	8.6			211.7					79.4		13.0
Lane group LOS	D	A			F					E		B
Apprch. delay	24.3			211.7						47.4		
Approach LOS	C			F						D		
Intersec. delay	104.7			Intersection LOS						F		

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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	01/04/11	Jurisdiction	DELSOLDEN30PCP
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN

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	475			830	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	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 = 35.0	G = 43.0	G =	G =	G = 30.0	G =	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	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		
Adj. flow rate	526	500			1295					495		453
Lane group cap.	516	2551			1192					443		885
v/c ratio	1.02	0.20			1.09					1.12		0.51
Green ratio	0.29	0.68			0.36					0.25		0.57
Unif. delay d1	42.5	6.9			38.5					45.0		15.4
Delay factor k	0.50	0.11			0.50					0.50		0.12
Increm. delay d2	44.6	0.0			52.9					78.8		0.5
PF factor	1.000	1.000			1.000					1.000		1.000
Control delay	87.1	7.0			91.4					123.8		15.9
Lane group LOS	F	A			F					F		B
Apprch. delay	48.1			91.4						72.2		
Approach LOS	D			F						E		
Intersec. delay	72.2			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAi	Intersection	OCEAN VIEW HILLS/DEL DOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	OCEANDEL30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	520	20	630	50	20	50	865	1310	20	20	1015	455
% 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 =	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	547	21	663	53	74		911	1400		21	1442	
Lane group cap.	413	248	506	413	214		573	1754		295	1144	
v/c ratio	1.32	0.08	1.31	0.13	0.35		1.59	0.80		0.07	1.26	
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	50.0	45.4	59.1		62.5	44.3		52.7	49.0	
Delay factor k	0.50	0.11	0.50	0.11	0.11		0.50	0.34		0.11	0.50	
Increm. delay d2	162.0	0.1	153.3	0.1	1.0		273.7	2.7		0.1	124.4	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	
Control delay	219.5	57.1	203.3	45.6	60.0		336.2	47.0		52.8	173.4	
Lane group LOS	F	E	F	D	E		F	D		D	F	
Apprch. delay	208.0			54.0			161.0			171.7		
Approach LOS	F			D			F			F		
Intersec. delay	172.7			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/DEL DOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	OCEANDEL30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	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)	520	20	630	50	20	50	865	1310	20	20	1015	455
% 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	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 33.0	G = 13.0	G =	G =	G = 35.0	G = 52.0	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		
Adj. flow rate	323	245	663	53	74		911	1400		21	1068	374
Lane group cap.	389	392	696	153	137		802	1754		413	1230	487
v/c ratio	0.83	0.63	0.95	0.35	0.54		1.14	0.80		0.05	0.87	0.77
Green ratio	0.22	0.22	0.45	0.09	0.09		0.23	0.35		0.23	0.35	0.35
Unif. delay d1	55.8	52.9	39.4	64.5	65.6		57.5	44.3		44.6	45.8	43.6
Delay factor k	0.37	0.21	0.46	0.11	0.14		0.50	0.34		0.11	0.40	0.32
Increm. delay d2	14.1	3.1	23.1	1.4	4.3		76.2	2.7		0.1	6.9	7.3
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000		1.000	1.000	1.000
Control delay	69.9	56.0	62.6	65.9	69.9		133.7	47.0		44.7	52.7	50.9
Lane group LOS	E	E	E	E	E		F	D		D	D	D
Apprch. delay	63.2			68.2			81.2			52.1		
Approach LOS	E			E			F			D		
Intersec. delay	68.2			Intersection LOS						E		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/DEL DOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/01/11	Jurisdiction	OCEANDEL30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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)	455	20	470	20	20	20	915	1595	50	50	1755	295
% 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 = 15.0	G =	G =	G = 24.0	G = 58.0	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		
Adj. flow rate	479	21	495	21	42		963	1732		53	2052	
Lane group cap.	366	193	458	366	173		569	2018		293	1394	
v/c ratio	1.31	0.11	1.08	0.06	0.24		1.69	0.86		0.18	1.47	
Green ratio	0.21	0.10	0.30	0.21	0.10		0.17	0.40		0.17	0.40	
Unif. delay d1	57.5	58.9	50.5	46.2	59.8		60.5	39.7		52.0	43.5	
Delay factor k	0.50	0.11	0.50	0.11	0.11		0.50	0.39		0.11	0.50	
Increm. delay d2	157.3	0.3	65.5	0.1	0.7		319.1	4.0		0.3	216.4	
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	0.894		1.000	0.894	
Control delay	214.8	59.2	116.0	46.2	60.5		379.6	39.5		52.3	255.3	
Lane group LOS	F	E	F	D	E		F	D		D	F	
Apprch. delay	162.4			55.7			161.1			250.2		
Approach LOS	F			E			F			F		
Intersec. delay	192.2			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/DEL SOL BL.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/22/11	Jurisdiction	OCEANDEL30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	YEAR 2030 COMM. PLAN/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	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)	455	20	470	20	20	20	915	1595	50	50	1755	295
% 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	EB Only	WB Only	03	04	Excl. Left	Thru & RT	07	08
Timing	G = 30.0	G = 15.0	G =	G =	G = 33.0	G = 55.0	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		
Adj. flow rate	263	237	495	21	42		963	1732		53	1847	205
Lane group cap.	354	356	644	177	167		756	1849		389	1301	928
v/c ratio	0.74	0.67	0.77	0.12	0.25		1.27	0.94		0.14	1.42	0.22
Green ratio	0.20	0.20	0.42	0.10	0.10		0.22	0.37		0.22	0.37	0.60
Unif. delay d1	56.4	55.4	37.3	61.5	62.3		58.5	45.8		47.0	47.5	13.8
Delay factor k	0.30	0.24	0.32	0.11	0.11		0.50	0.45		0.11	0.50	0.11
Increm. delay d2	8.2	4.7	5.6	0.3	0.8		133.4	9.7		0.2	193.4	0.1
PF factor	1.000	1.000	1.000	1.000	1.000		1.000	0.928		1.000	0.928	1.000
Control delay	64.6	60.0	42.9	61.8	63.1		191.9	52.2		47.2	237.5	14.0
Lane group LOS	E	E	D	E	E		F	D		D	F	B
Apprch. delay	52.7			62.7			102.1			210.9		
Approach LOS	D			E			F			F		
Intersec. delay	132.4			Intersection LOS						F		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/04/11	Jurisdiction	OCEANSTA30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN

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	1145	510	170	1175	20	1000	45	130	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	100	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 = 40.0	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 = 128.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	1637		179	1258		1053	47	137	42	74	
Lane group cap.	207	1504		207	1580		553	218	175	553	206	
v/c ratio	0.05	1.09		0.86	0.80		1.90	0.22	0.78	0.08	0.36	
Green ratio	0.12	0.31		0.12	0.31		0.31	0.12	0.12	0.31	0.12	
Unif. delay d1	50.2	44.0		55.5	40.3		44.0	51.2	54.9	31.0	52.1	
Delay factor k	0.11	0.50		0.39	0.34		0.50	0.11	0.33	0.11	0.11	
Increm. delay d2	0.1	51.2		29.5	2.9		413.6	0.5	20.3	0.1	1.1	
PF factor	1.000	0.976		1.000	0.976		0.976	1.000	1.000	0.976	1.000	
Control delay	50.3	94.2		85.0	42.2		456.5	51.7	75.2	30.3	53.1	
Lane group LOS	D	F		F	D		F	D	E	C	D	
Apprch. delay	93.9			47.6			398.9			44.9		
Approach LOS	F			D			F			D		
Intersec. delay	162.6			Intersection LOS						F		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/02/11	Jurisdiction	OCEANSTA30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN

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	2	1	3	0	2	1	1	1	1	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	10	1145	510	170	1175	20	1000	45	130	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 = 40.0	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 = 128.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	11	1205	537	179	1258		1053	47	137	42	74	
Lane group cap.	207	1586	834	207	1580		1074	218	175	553	206	
v/c ratio	0.05	0.76	0.64	0.86	0.80		0.98	0.22	0.78	0.08	0.36	
Green ratio	0.12	0.31	0.31	0.12	0.31		0.31	0.12	0.12	0.31	0.12	
Unif. delay d1	50.2	39.7	37.9	55.5	40.3		43.6	51.2	54.9	31.0	52.1	
Delay factor k	0.11	0.31	0.22	0.39	0.34		0.48	0.11	0.33	0.11	0.11	
Increm. delay d2	0.1	2.2	1.7	29.5	2.9		22.7	0.5	20.3	0.1	1.1	
PF factor	1.000	0.976	1.000	1.000	0.976		0.976	1.000	1.000	0.976	1.000	
Control delay	50.3	40.9	39.6	85.0	42.2		65.3	51.7	75.2	30.3	53.1	
Lane group LOS	D	D	D	F	D		E	D	E	C	D	
Apprch. delay	40.6			47.6			65.9			44.9		
Approach LOS	D			D			E			D		
Intersec. delay	49.8			Intersection LOS						D		

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SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/04/11	Jurisdiction	OCEANSTA30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN

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	905	1320	150	1450	40	1200	60	170	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	100	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 = 47.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	21	2237		158	1568		1263	63	179	21	53	
Lane group cap.	190	1516		190	1695		594	173	137	594	165	
v/c ratio	0.11	1.48		0.83	0.93		2.13	0.36	1.31	0.04	0.32	
Green ratio	0.11	0.34		0.11	0.34		0.34	0.09	0.09	0.34	0.09	
Unif. delay d1	56.5	46.5		61.3	44.8		46.5	59.6	63.5	31.3	59.4	
Delay factor k	0.11	0.50		0.37	0.44		0.50	0.11	0.50	0.11	0.11	
Increm. delay d2	0.3	217.6		25.7	9.1		512.5	1.3	180.7	0.0	1.1	
PF factor	1.000	0.956		1.000	0.956		0.957	1.000	1.000	0.956	1.000	
Control delay	56.7	262.1		87.0	52.0		557.0	60.9	244.2	29.9	60.5	
Lane group LOS	E	F		F	D		F	E	F	C	E	
Apprch. delay	260.2			55.2			499.0			51.8		
Approach LOS	F			E			F			D		
Intersec. delay	258.4			Intersection LOS						F		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OCEAN VIEW HILLS/STREETA
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/02/11	Jurisdiction	OCEANSTA30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	2	1	3	0	2	1	1	1	1	0
Lane group	L	T	R	L	TR		L	T	R	L	TR	
Volume (vph)	20	905	1320	150	1450	40	1200	60	170	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 = 47.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	21	953	1389	158	1568		1263	63	179	21	53	
Lane group cap.	190	1703	1904	190	1695		1154	173	354	594	165	
v/c ratio	0.11	0.56	0.73	0.83	0.93		1.09	0.36	0.51	0.04	0.32	
Green ratio	0.11	0.34	0.71	0.11	0.34		0.34	0.09	0.24	0.34	0.09	
Unif. delay d1	56.5	38.0	12.4	61.3	44.8		46.5	59.6	46.4	31.3	59.4	
Delay factor k	0.11	0.16	0.29	0.37	0.44		0.50	0.11	0.11	0.11	0.11	
Increm. delay d2	0.3	0.4	1.5	25.7	9.1		56.2	1.3	1.2	0.0	1.1	
PF factor	1.000	0.956	1.000	1.000	0.956		0.956	1.000	1.000	0.956	1.000	
Control delay	56.7	36.8	13.9	87.0	52.0		100.6	60.9	47.6	29.9	60.5	
Lane group LOS	E	D	B	F	D		F	E	D	C	E	
Apprch. delay	23.5			55.2			92.7			51.8		
Approach LOS	C			E			F			D		
Intersec. delay	51.9			Intersection LOS						D		

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N
MIT

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	01/04/11	Jurisdiction	OOMBEYER30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	1135	25	120	30	100	125	130	125	10	30	115	1050
% 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	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 = 47.0	G = 15.0	G =	G =	G = 10.0	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 = 110.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1195	26	126	32	237		137	143		32	1226	
Lane group cap.	1469	470	207	1469	428		161	334		161	284	
v/c ratio	0.81	0.06	0.61	0.02	0.55		0.85	0.43		0.20	4.32	
Green ratio	0.43	0.14	0.14	0.43	0.14		0.09	0.18		0.09	0.18	
Unif. delay d1	27.7	41.3	44.7	18.2	44.4		49.3	39.9		46.3	45.0	
Delay factor k	0.35	0.11	0.19	0.11	0.15		0.38	0.11		0.11	0.50	
Increm. delay d2	3.6	0.0	5.1	0.0	1.6		32.9	0.9		0.6	1501	
PF factor	0.864	1.000	1.000	0.864	1.000		1.000	1.000		1.000	1.000	
Control delay	27.5	41.4	49.9	15.7	45.9		82.1	40.8		46.9	1546	
Lane group LOS	C	D	D	B	D		F	D		D	F	
Apprch. delay	29.9			42.4			61.0			1508		
Approach LOS	C			D			E			F		
Intersec. delay	623.1			Intersection LOS						F		

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w
MIT

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	01/04/11	Jurisdiction	OOMBEYER30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	0	1	1	1
Lane group	L	T	R	L	TR		L	TR		L	T	R
Volume (vph)	1135	25	120	30	100	125	130	125	10	30	115	1050
% 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
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	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
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 = 47.0	G = 15.0	G =	G =	G = 10.0	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 = 110.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1195	26	126	32	237		137	143		32	121	1105
Lane group cap.	1469	470	207	1469	428		161	334		161	339	1005
v/c ratio	0.81	0.06	0.61	0.02	0.55		0.85	0.43		0.20	0.36	1.10
Green ratio	0.43	0.14	0.14	0.43	0.14		0.09	0.18		0.09	0.18	0.65
Unif. delay d1	27.7	41.3	44.7	18.2	44.4		49.3	39.9		46.3	39.4	19.0
Delay factor k	0.35	0.11	0.19	0.11	0.15		0.38	0.11		0.11	0.11	0.50
Increm. delay d2	3.6	0.0	5.1	0.0	1.6		32.9	0.9		0.6	0.6	59.6
PF factor	0.864	1.000	1.000	0.864	1.000		1.000	1.000		1.000	1.000	0.452
Control delay	27.5	41.4	49.9	15.7	45.9		82.1	40.8		46.9	40.0	68.2
Lane group LOS	C	D	D	B	D		F	D		D	D	E
Apprch. delay	29.9			42.4			61.0			65.0		
Approach LOS	C			D			E			E		
Intersec. delay	47.7			Intersection LOS						D		

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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	01/04/11	Jurisdiction	COMBEYER30PCP
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	1050	100	130	10	25	30	120	115	30	125	125	1135
% 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	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	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 = 47.0	G = 15.0	G =	G =	G = 10.0	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 = 110.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1105	105	137	11	58		126	153		132	1221	
Lane group cap.	1469	470	207	1469	428		161	326		161	284	
v/c ratio	0.75	0.22	0.66	0.01	0.14		0.78	0.47		0.82	4.30	
Green ratio	0.43	0.14	0.14	0.43	0.14		0.09	0.18		0.09	0.18	
Unif. delay d1	26.6	42.3	45.1	18.1	41.8		48.9	40.3		49.1	45.0	
Delay factor k	0.31	0.11	0.24	0.11	0.11		0.33	0.11		0.36	0.50	
Increm. delay d2	2.2	0.2	7.7	0.0	0.1		21.8	1.1		27.4	1493	
PF factor	0.864	1.000	1.000	0.864	1.000		1.000	1.000		1.000	1.000	
Control delay	25.2	42.6	52.7	15.6	41.9		70.7	41.3		76.5	1538	
Lane group LOS	C	D	D	B	D		E	D		E	F	
Apprch. delay	29.4			37.7			54.6			1395		
Approach LOS	C			D			D			F		
Intersec. delay	638.2			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	01/04/11	Jurisdiction	OOMBEYER30PCP
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	0	1	1	1
Lane group	L	T	R	L	TR		L	TR		L	T	R
Volume (vph)	1050	100	130	10	25	30	120	115	30	125	125	1135
% 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
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	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
Ped/Bike/RTOR Volume	10	5	0	10	5	0	10	5	0	10	5	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 = 47.0	G = 15.0	G =	G =	G = 10.0	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 = 110.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	1105	105	137	11	58		126	153		132	132	1089
Lane group cap.	1469	470	207	1469	428		161	326		161	339	1005
v/c ratio	0.75	0.22	0.66	0.01	0.14		0.78	0.47		0.82	0.39	1.08
Green ratio	0.43	0.14	0.14	0.43	0.14		0.09	0.18		0.09	0.18	0.65
Unif. delay d1	26.6	42.3	45.1	18.1	41.8		48.9	40.3		49.1	39.6	19.0
Delay factor k	0.31	0.11	0.24	0.11	0.11		0.33	0.11		0.36	0.11	0.50
Increm. delay d2	2.2	0.2	7.7	0.0	0.1		21.8	1.1		27.4	0.7	53.8
PF factor	0.864	1.000	1.000	0.864	1.000		1.000	1.000		1.000	1.000	0.424
Control delay	25.2	42.6	52.7	15.6	41.9		70.7	41.3		76.5	40.4	61.9
Lane group LOS	C	D	D	B	D		E	D		E	D	E
Apprch. delay	29.4			37.7			54.6			61.2		
Approach LOS	C			D			D			E		
Intersec. delay	46.0			Intersection LOS						D		

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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	02/22/11	Jurisdiction	OTAYCORP30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	2	1	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	900	2995	230	140	1185	560	105	15	65	370	100	600
% 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 = 20.0	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 = 142.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	947	3395		147	1247	589	111	84		389	326	411
Lane group cap.	763	2584		224	1744	758	426	207		231	213	298
v/c ratio	1.24	1.31		0.66	0.72	0.78	0.26	0.41		1.68	1.53	1.38
Green ratio	0.24	0.53		0.07	0.35	0.53	0.13	0.13		0.14	0.14	0.21
Unif. delay d1	54.0	33.5		64.3	39.8	26.8	55.2	56.3		61.0	61.0	56.0
Delay factor k	0.50	0.50		0.23	0.28	0.33	0.11	0.11		0.50	0.50	0.50
Increm. delay d2	119.5	144.1		6.8	1.4	5.1	0.3	1.3		325.9	261.0	190.3
PF factor	0.790	0.587		0.949	0.638	0.254	0.897	0.897		0.891	0.891	0.821
Control delay	162.2	163.7		67.9	26.8	11.9	49.8	51.8		380.2	315.4	236.3
Lane group LOS	F	F		E	C	B	D	D		F	F	F
Apprch. delay	163.4			25.4			50.7			308.9		
Approach LOS	F			C			D			F		
Intersec. delay	146.2			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	02/02/11	Jurisdiction	OTAYCORP30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	900	2995	230	140	1185	560	105	15	65	370	100	600
% 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 = 20.0	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 = 142.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	947	3153	242	147	1247	589	111	84		389	326	411
Lane group cap.	763	2616	761	224	1744	758	426	207		449	213	298
v/c ratio	1.24	1.21	0.32	0.66	0.72	0.78	0.26	0.41		0.87	1.53	1.38
Green ratio	0.24	0.53	0.53	0.07	0.35	0.53	0.13	0.13		0.14	0.14	0.21
Unif. delay d1	54.0	33.5	19.0	64.3	39.8	26.8	55.2	56.3		59.7	61.0	56.0
Delay factor k	0.50	0.50	0.11	0.23	0.28	0.33	0.11	0.11		0.40	0.50	0.50
Increm. delay d2	119.5	96.3	0.2	6.8	1.4	5.1	0.3	1.3		16.2	261.0	190.3
PF factor	0.790	0.448	0.254	0.949	0.638	0.254	0.897	0.897		0.891	0.891	0.821
Control delay	162.2	111.3	5.1	67.9	26.8	11.9	49.8	51.8		69.4	315.4	236.3
Lane group LOS	F	F	A	E	C	B	D	D		E	F	F
Apprch. delay	116.5			25.4			50.7			201.5		
Approach LOS	F			C			D			F		
Intersec. delay	103.7			Intersection LOS						F		

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N
MIT

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	01/05/11	Jurisdiction	OTAYCORP30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	2	1	0	1	1	1
Lane group	L	TR		L	T	R	L	TR		L	TR	R
Volume (vph)	600	1210	340	210	1925	370	430	70	260	560	145	900
% 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 = 30.0	G = 19.0	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		
Adj. flow rate	632	1632		221	2026	389	453	242		589	437	663
Lane group cap.	425	2034		425	2113	939	404	200		328	306	475
v/c ratio	1.49	0.80		0.52	0.96	0.41	1.12	1.21		1.80	1.43	1.40
Green ratio	0.13	0.43		0.13	0.43	0.65	0.13	0.13		0.20	0.20	0.33
Unif. delay d1	65.0	37.5		60.5	41.7	12.4	65.5	65.5		60.0	60.0	50.0
Delay factor k	0.50	0.35		0.13	0.47	0.11	0.50	0.50		0.50	0.50	0.50
Increm. delay d2	231.4	2.4		1.1	11.5	0.3	82.0	131.7		370.1	210.6	190.6
PF factor	0.897	0.504		0.897	0.504	0.144	0.903	0.903		0.833	0.833	0.667
Control delay	289.8	21.3		55.5	32.5	2.1	141.2	190.9		420.1	260.6	223.9
Lane group LOS	F	C		E	C	A	F	F		F	F	F
Apprch. delay	96.2			29.9			158.5			301.8		
Approach LOS	F			C			F			F		
Intersec. delay	125.8			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	02/02/11	Jurisdiction	OTAYCORP30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	600	1210	340	210	1925	370	430	70	260	560	145	900
% 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 = 30.0	G = 19.0	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		
Adj. flow rate	632	1274	358	221	2026	389	453	242		589	437	663
Lane group cap.	425	2113	613	425	2113	939	404	200		637	306	475
v/c ratio	1.49	0.60	0.58	0.52	0.96	0.41	1.12	1.21		0.92	1.43	1.40
Green ratio	0.13	0.43	0.43	0.13	0.43	0.65	0.13	0.13		0.20	0.20	0.33
Unif. delay d1	65.0	33.2	32.8	60.5	41.7	12.4	65.5	65.5		58.9	60.0	50.0
Delay factor k	0.50	0.19	0.18	0.13	0.47	0.11	0.50	0.50		0.44	0.50	0.50
Increm. delay d2	231.4	0.5	1.4	1.1	11.5	0.3	82.0	131.7		19.4	210.6	190.6
PF factor	0.897	0.504	0.504	0.897	0.504	0.144	0.903	0.903		0.833	0.833	0.667
Control delay	289.8	17.2	18.0	55.5	32.5	2.1	141.2	190.9		68.5	260.6	223.9
Lane group LOS	F	B	B	E	C	A	F	F		E	F	F
Apprch. delay	93.4			29.9			158.5			179.2		
Approach LOS	F			C			F			F		
Intersec. delay	96.5			Intersection LOS						F		

HCS2000™ Version 4.1f

44 A
NO
MIT

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	04/04/11	Jurisdiction	OTAYINNOV30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	440	2840	150	180	1495	545	100	25	120	365	65	290
% 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
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	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 67.0	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		
Adj. flow rate	463	3147		189	1574	574	105	152		384	68	305
Lane group cap.	491	2468		491	2483	1040	253	184		253	200	452
v/c ratio	0.94	1.28		0.38	0.63	0.55	0.42	0.83		1.52	0.34	0.67
Green ratio	0.14	0.48		0.14	0.48	0.66	0.14	0.11		0.14	0.11	0.29
Unif. delay d1	59.4	36.5		54.4	27.3	12.9	54.7	61.2		60.0	57.9	44.2
Delay factor k	0.46	0.50		0.11	0.21	0.15	0.11	0.36		0.50	0.11	0.25
Increm. delay d2	26.9	127.1		0.5	0.5	0.6	1.1	25.5		252.3	1.0	4.0
PF factor	0.889	0.489		0.889	0.388	0.146	0.889	0.920		0.889	0.920	0.733
Control delay	79.8	144.9		48.9	11.1	2.5	49.7	81.9		305.6	54.3	36.4
Lane group LOS	E	F		D	B	A	D	F		F	D	D
Apprch. delay	136.6			12.1			68.7			174.6		
Approach LOS	F			B			E			F		
Intersec. delay	96.4			Intersection LOS						F		

44A
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MIT

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	04/04/11	Jurisdiction	OTAYINNOV30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	440	2840	150	180	1495	545	100	25	120	365	65	290
% 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
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	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 67.0	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		
Adj. flow rate	463	3147		189	1574	574	105	152		384	68	305
Lane group cap.	491	2468		491	2483	1040	253	184		491	200	452
v/c ratio	0.94	1.28		0.38	0.63	0.55	0.42	0.83		0.78	0.34	0.67
Green ratio	0.14	0.48		0.14	0.48	0.66	0.14	0.11		0.14	0.11	0.29
Unif. delay d1	59.4	36.5		54.4	27.3	12.9	54.7	61.2		57.9	57.9	44.2
Delay factor k	0.46	0.50		0.11	0.21	0.15	0.11	0.36		0.33	0.11	0.25
Increm. delay d2	26.9	127.1		0.5	0.5	0.6	1.1	25.5		8.0	1.0	4.0
PF factor	0.889	0.489		0.889	0.388	0.146	0.889	0.920		0.889	0.920	0.733
Control delay	79.8	144.9		48.9	11.1	2.5	49.7	81.9		59.5	54.3	36.4
Lane group LOS	E	F		D	B	A	D	F		E	D	D
Apprch. delay	136.6			12.1			68.7			49.7		
Approach LOS	F			B			E			D		
Intersec. delay	82.8			Intersection LOS						F		

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No MIT

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	04/04/11	Jurisdiction	OTAYINNOV30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	290	1640	100	120	1915	365	150	35	180	545	100	440
% 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
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	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 64.0	G =	G =	G = 29.0	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 = 150.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	305	1831		126	2016	384	158	226		574	156	412
Lane group cap.	458	2198		458	2214	1034	342	217		342	224	464
v/c ratio	0.67	0.83		0.28	0.91	0.37	0.46	1.04		1.68	0.70	0.89
Green ratio	0.13	0.43		0.13	0.43	0.65	0.19	0.13		0.19	0.13	0.29
Unif. delay d1	61.8	38.2		58.5	40.3	11.9	53.6	65.5		60.5	62.7	50.6
Delay factor k	0.24	0.37		0.11	0.43	0.11	0.11	0.50		0.50	0.26	0.41
Increm. delay d2	3.7	2.9		0.3	6.2	0.2	1.0	72.4		317.8	9.1	18.5
PF factor	0.897	0.504		0.897	0.504	0.144	0.840	0.903		0.840	0.903	0.723
Control delay	59.1	22.2		52.8	26.5	1.9	46.0	131.5		368.6	65.8	55.2
Lane group LOS	E	C		D	C	A	D	F		F	E	E
Apprch. delay	27.5			24.1			96.4			214.2		
Approach LOS	C			C			F			F		
Intersec. delay	64.8			Intersection LOS						E		

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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	04/04/11	Jurisdiction	OTAYINNOV30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	290	1640	100	120	1915	365	150	35	180	545	100	440
% 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
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	Excl. Left	Thru & RT	07	08
Timing	G = 20.0	G = 64.0	G =	G =	G = 29.0	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 = 150.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	305	1831		126	2016	384	158	226		574	156	412
Lane group cap.	458	2198		458	2214	1034	342	217		664	224	464
v/c ratio	0.67	0.83		0.28	0.91	0.37	0.46	1.04		0.86	0.70	0.89
Green ratio	0.13	0.43		0.13	0.43	0.65	0.19	0.13		0.19	0.13	0.29
Unif. delay d1	61.8	38.2		58.5	40.3	11.9	53.6	65.5		58.6	62.7	50.6
Delay factor k	0.24	0.37		0.11	0.43	0.11	0.11	0.50		0.39	0.26	0.41
Increm. delay d2	3.7	2.9		0.3	6.2	0.2	1.0	72.4		11.5	9.1	18.5
PF factor	0.897	0.504		0.897	0.504	0.144	0.840	0.903		0.840	0.903	0.723
Control delay	59.1	22.2		52.8	26.5	1.9	46.0	131.5		60.7	65.8	55.2
Lane group LOS	E	C		D	C	A	D	F		E	E	E
Apprch. delay	27.5			24.1			96.4			59.4		
Approach LOS	C			C			F			E		
Intersec. delay	36.2			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	01/05/11	Jurisdiction	AIRHARV30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/ 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	2	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		775	500	750	2425		815		1070			
% 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		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	100	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 = 36.0	G = 49.0	G =	G =	G = 40.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	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		
Adj. flow rate		1342		789	2553		858		1021			
Lane group cap.		1640		831	3194		924		831			
v/c ratio		0.82		0.95	0.80		0.93		1.23			
Green ratio		0.36		0.26	0.64		0.29		0.58			
Unif. delay d1		40.5		50.1	18.0		47.6		29.0			
Delay factor k		0.36		0.46	0.34		0.44		0.50			
Increm. delay d2		3.4		20.0	1.5		15.3		113.4			
PF factor		0.633		0.765	0.141		0.728		0.540			
Control delay		29.0		58.3	4.0		49.9		129.1			
Lane group LOS		C		E	A		D		F			
Apprch. delay	29.0			16.8			92.9					
Approach LOS	C			B			F					
Intersec. delay	41.1			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	01/05/11	Jurisdiction	AIRHARV30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/ 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	3	1	2	3	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		775	500	750	2425		815		1070			
% 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		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	100	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 = 36.0	G = 49.0	G =	G =	G = 40.0	G =	G =	G =
	Y = 4	Y = 5	Y =	Y =	Y = 4	Y =	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		
Adj. flow rate		816	526	789	2553		858		1021			
Lane group cap.		1759	978	831	3194		924		831			
v/c ratio		0.46	0.54	0.95	0.80		0.93		1.23			
Green ratio		0.36	0.68	0.26	0.64		0.29		0.58			
Unif. delay d1		34.4	11.1	50.1	18.0		47.6		29.0			
Delay factor k		0.11	0.14	0.46	0.34		0.44		0.50			
Increm. delay d2		0.2	0.6	20.0	1.5		15.3		113.4			
PF factor		0.633	0.157	0.765	0.141		0.728		0.540			
Control delay		21.9	2.3	58.3	4.0		49.9		129.1			
Lane group LOS		C	A	E	A		D		F			
Apprch. delay	14.3			16.8			92.9					
Approach LOS	B			B			F					
Intersec. delay	38.1			Intersection LOS						D		

HCS2000™

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./HARVEST RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	01/05/11	Jurisdiction	AIRHARV30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/ 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	2	3	0	2	0	1	0	0	0
Lane group		TR		L	T		L		R			
Volume (vph)		1850	975	900	875		545		1300			
% 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		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	100	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 = 36.0	G = 51.0	G =	G =	G = 40.0	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		
Adj. flow rate		2973		947	921		574		1263			
Lane group cap.		1697		820	3219		911		819			
v/c ratio		1.75		1.15	0.29		0.63		1.54			
Green ratio		0.36		0.26	0.65		0.29		0.57			
Unif. delay d1		44.5		52.0	10.5		43.6		30.0			
Delay factor k		0.50		0.50	0.11		0.21		0.50			
Increm. delay d2		340.8		83.4	0.0		1.4		250.1			
PF factor		0.720		0.769	0.143		0.733		0.896			
Control delay		372.8		123.4	1.6		33.4		276.9			
Lane group LOS		F		F	A		C		F			
Apprch. delay	372.8			63.3			200.8					
Approach LOS	F			E			F					
Intersec. delay	238.9			Intersection LOS						F		

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AS-P
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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	01/05/11	Jurisdiction	AIRHARV30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/ 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	3	1	2	3	0	2	0	1	0	0	0
Lane group		T	R	L	T		L		R			
Volume (vph)		1850	975	900	875		545		1300			
% 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		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	100	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 = 36.0	G = 51.0	G =	G =	G = 40.0	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		
Adj. flow rate		1947	1026	947	921		574		1263			
Lane group cap.		1804	985	820	3219		911		819			
v/c ratio		1.08	1.04	1.15	0.29		0.63		1.54			
Green ratio		0.36	0.69	0.26	0.65		0.29		0.57			
Unif. delay d1		44.5	22.0	52.0	10.5		43.6		30.0			
Delay factor k		0.50	0.50	0.50	0.11		0.21		0.50			
Increm. delay d2		46.2	40.1	83.4	0.0		1.4		250.1			
PF factor		0.618	0.279	0.769	0.143		0.733		0.896			
Control delay		73.7	46.2	123.4	1.6		33.4		276.9			
Lane group LOS		E	D	F	A		C		F			
Apprch. delay	64.2			63.3			200.8					
Approach LOS	E			E			F					
Intersec. delay	101.5			Intersection LOS						F		

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MIT

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	02/25/11	Jurisdiction	SIEMPHARV30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//COMM. PLAN/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	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	570	1225	165	115	3610	740	90	50	65	305	95	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	
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 = 85.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	600	1463		121	4579		95	121		321	389	
Lane group cap.	341	2947		341	2921		117	218		228	209	
v/c ratio	1.76	0.50		0.35	1.57		0.81	0.56		1.41	1.86	
Green ratio	0.11	0.61		0.11	0.61		0.07	0.07		0.07	0.07	
Unif. delay d1	62.5	15.5		58.0	27.5		64.1	62.8		65.0	65.0	
Delay factor k	0.50	0.11		0.11	0.50		0.35	0.15		0.50	0.50	
Increm. delay d2	353.6	0.1		0.6	257.1		33.6	3.1		207.6	405.4	
PF factor	0.920	0.127		0.920	1.000		0.949	0.949		0.949	0.949	
Control delay	411.1	2.1		54.0	284.6		94.4	62.7		269.3	467.0	
Lane group LOS	F	A		D	F		F	E		F	F	
Apprch. delay	121.1			278.7			76.7			377.6		
Approach LOS	F			F			E			F		
Intersec. delay	239.9			Intersection LOS						F		

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MIT

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	02/04/11	Jurisdiction	SIEMPHARV30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	YEAR 2030//COMM. PLAN/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	0	2	3	1	1	2	0	2	2	1
Lane group	L	TR		L	T	R	L	TR		L	T	R
Volume (vph)	570	1225	165	115	3610	740	90	50	65	305	95	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	Thru & RT	Excl. Left	07	08
Timing	G = 15.0	G = 65.0	G =	G =	G = 20.0	G = 20.0	G =	G =
	Y = 5	Y = 5	Y =	Y =	Y = 5	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	600	1463		121	3800	779	95	121		321	100	289
Lane group cap.	341	2253		341	2300	874	234	443		455	495	354
v/c ratio	1.76	0.65		0.35	1.65	0.89	0.41	0.27		0.71	0.20	0.82
Green ratio	0.11	0.46		0.11	0.46	0.61	0.14	0.14		0.14	0.14	0.25
Unif. delay d1	62.5	28.8		58.0	37.5	23.5	54.6	53.5		57.2	53.0	49.5
Delay factor k	0.50	0.23		0.11	0.50	0.42	0.11	0.11		0.27	0.11	0.36
Increm. delay d2	353.6	0.7		0.6	295.4	11.4	1.2	0.3		4.9	0.2	13.8
PF factor	0.920	0.422		0.920	0.794	0.127	0.889	0.889		0.889	0.889	0.778
Control delay	411.1	12.8		54.0	325.2	14.4	49.7	47.9		55.8	47.3	52.3
Lane group LOS	F	B		D	F	B	D	D		E	D	D
Apprch. delay	128.7			266.7			48.7			53.2		
Approach LOS	F			F			D			D		
Intersec. delay	203.8			Intersection LOS						F		

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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	02/25/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	2	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	440	3050	190	165	455	730	90	95	100	820	50	590
% 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 = 65.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	463	3411		174	1247		95	205		863	674	
Lane group cap.	228	2276		228	2060		293	447		569	410	
v/c ratio	2.03	1.50		0.76	0.61		0.32	0.46		1.52	1.64	
Green ratio	0.07	0.46		0.07	0.46		0.18	0.14		0.18	0.14	
Unif. delay d1	65.0	37.5		63.8	27.9		50.1	55.0		57.5	60.0	
Delay factor k	0.50	0.50		0.32	0.19		0.11	0.11		0.50	0.50	
Increm. delay d2	478.9	226.8		14.2	0.5		0.6	0.7		241.5	300.6	
PF factor	0.949	0.684		0.949	0.422		0.855	0.889		0.855	0.889	
Control delay	540.5	252.4		74.7	12.3		43.5	49.7		290.6	353.9	
Lane group LOS	F	F		E	B		D	D		F	F	
Apprch. delay	286.8			20.0			47.7			318.4		
Approach LOS	F			B			D			F		
Intersec. delay	230.4			Intersection LOS						F		

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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	02/25/11	Jurisdiction	SAN DIEGO
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	440	3050	190	165	455	730	90	95	100	820	50	590
% 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	150
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 = 65.0	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 = 140.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	463	3411		174	479	768	95	205		863	53	463
Lane group cap.	228	2276		228	2300	925	293	447		569	495	303
v/c ratio	2.03	1.50		0.76	0.21	0.83	0.32	0.46		1.52	0.11	1.53
Green ratio	0.07	0.46		0.07	0.46	0.64	0.18	0.14		0.18	0.14	0.21
Unif. delay d1	65.0	37.5		63.8	22.2	19.1	50.1	55.0		57.5	52.2	55.0
Delay factor k	0.50	0.50		0.32	0.11	0.37	0.11	0.11		0.50	0.11	0.50
Increm. delay d2	478.9	226.8		14.2	0.0	6.5	0.6	0.7		241.5	0.1	253.7
PF factor	0.949	0.684		0.949	0.422	0.140	0.855	0.889		0.855	0.889	0.818
Control delay	540.5	252.4		74.7	9.4	9.1	43.5	49.7		290.6	46.5	298.7
Lane group LOS	F	F		E	A	A	D	D		F	D	F
Apprch. delay	286.8			17.3			47.7			284.0		
Approach LOS	F			B			D			F		
Intersec. delay	221.1			Intersection LOS						F		

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MIT

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	03/30/11	Jurisdiction	OTAYSANYO30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	200	400	1820	185	200	125	940	275	400	165	250	400
% 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	400
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 = 50.0	G =	G =	G = 42.0	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 = 145.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	211	2337		195	343		989	710		174	263	
Lane group cap.	330	1469		330	1594		475	435		475	478	
v/c ratio	0.64	1.59		0.59	0.22		2.08	1.63		0.37	0.55	
Green ratio	0.10	0.34		0.10	0.34		0.29	0.14		0.29	0.14	
Unif. delay d1	62.4	47.5		62.1	33.6		51.5	62.5		40.9	58.3	
Delay factor k	0.22	0.50		0.18	0.11		0.50	0.50		0.11	0.15	
Increm. delay d2	4.1	269.2		2.8	0.1		494.1	294.8		0.5	1.4	
PF factor	0.923	0.649		0.923	0.649		1.000	1.000		1.000	1.000	
Control delay	61.7	300.0		60.1	21.9		545.6	357.3		41.4	59.7	
Lane group LOS	E	F		E	C		F	F		D	E	
Apprch. delay	280.3			35.7			466.9			52.4		
Approach LOS	F			D			F			D		
Intersec. delay	296.7			Intersection LOS						F		

HCS2000™ Version 4.1f

F1-A
W
MIT

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	03/30/11	Jurisdiction	OTAYSANYO30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	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)	200	400	1900	185	200	125	940	275	400	165	250	800
% 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	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 = 15.0	G = 40.0	G =	G =	G = 42.0	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		
Adj. flow rate	211	421	2000	195	211	132	989	289	421	174	263	632
Lane group cap.	341	1415	1550	341	1415	891	956	325	472	492	325	457
v/c ratio	0.62	0.30	1.29	0.57	0.15	0.15	1.03	0.89	0.89	0.35	0.81	1.38
Green ratio	0.11	0.29	0.62	0.11	0.29	0.62	0.30	0.18	0.32	0.30	0.18	0.32
Unif. delay d1	59.8	39.0	26.5	59.4	37.3	11.0	49.0	56.1	45.2	38.4	55.2	47.5
Delay factor k	0.20	0.11	0.50	0.17	0.11	0.11	0.50	0.41	0.42	0.11	0.35	0.50
Increm. delay d2	3.4	0.1	135.6	2.3	0.0	0.1	38.4	24.6	18.9	0.4	14.2	185.5
PF factor	0.920	0.733	0.694	0.920	0.733	0.132	1.000	1.000	0.684	1.000	1.000	1.000
Control delay	58.4	28.7	154.0	57.0	27.4	1.5	87.4	80.8	49.8	38.8	69.4	233.0
Lane group LOS	E	C	F	E	C	A	F	F	D	D	E	F
Apprch. delay	126.3			31.8			76.9			161.2		
Approach LOS	F			C			E			F		
Intersec. delay	109.9			Intersection LOS						F		

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N
MIT

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	03/31/11	Jurisdiction	OTAYSANYO30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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)	315	375	950	400	200	165	1840	250	185	125	275	200
% 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 = 65.0	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		
Adj. flow rate	332	1395		421	385		1937	458		132	500	
Lane group cap.	387	770		387	812		762	340		762	340	
v/c ratio	0.86	1.81		1.09	0.47		2.54	1.35		0.17	1.47	
Green ratio	0.12	0.18		0.12	0.18		0.46	0.11		0.46	0.11	
Unif. delay d1	60.3	57.5		61.5	51.6		37.5	62.5		21.8	62.5	
Delay factor k	0.39	0.50		0.50	0.11		0.50	0.50		0.11	0.50	
Increm. delay d2	17.2	370.4		71.4	0.4		697.8	174.6		0.1	227.2	
PF factor	0.908	0.855		0.908	0.855		1.000	1.000		1.000	1.000	
Control delay	72.0	419.6		127.3	44.6		735.3	237.1		22.0	289.7	
Lane group LOS	E	F		F	D		F	F		C	F	
Apprch. delay	352.7			87.8			640.0			233.8		
Approach LOS	F			F			F			F		
Intersec. delay	424.5			Intersection LOS						F		

47-P
w
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY MESA RD./SANYO RD.
Agency or Co.	USAI	Area Type	All other areas
Date Performed	03/31/11	Jurisdiction	OTAYSANYO30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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	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)	315	375	950	400	200	165	1840	250	185	125	275	200
% 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 = 65.0	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		
Adj. flow rate	332	395	1000	421	211	174	1937	263	195	132	289	211
Lane group cap.	387	884	1675	387	884	966	1480	195	371	762	195	371
v/c ratio	0.86	0.45	0.60	1.09	0.24	0.18	1.31	1.35	0.53	0.17	1.48	0.57
Green ratio	0.12	0.18	0.68	0.12	0.18	0.68	0.46	0.11	0.26	0.46	0.11	0.26
Unif. delay d1	60.3	51.3	12.2	61.5	49.3	8.2	37.5	62.5	44.0	21.8	62.5	44.6
Delay factor k	0.39	0.11	0.19	0.50	0.11	0.11	0.50	0.50	0.13	0.11	0.50	0.16
Increm. delay d2	17.2	0.4	0.6	71.4	0.1	0.1	143.9	186.9	1.4	0.1	242.3	2.1
PF factor	0.908	0.855	0.156	0.908	0.855	0.156	1.000	1.000	0.761	1.000	1.000	1.000
Control delay	72.0	44.3	2.5	127.3	42.3	1.4	181.4	249.4	34.9	22.0	304.8	46.7
Lane group LOS	E	D	A	F	D	A	F	F	C	C	F	D
Apprch. delay	25.4			77.8			177.0			159.6		
Approach LOS	C			E			F			F		
Intersec. delay	113.5			Intersection LOS						F		

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48-A
NO
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/04/11	Jurisdiction	AIRSANYO30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN NO MITIGATION

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	2	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	845	300	525	130	330	500	1190	825	300	180	470	1260
% 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		
Adj. flow rate	889	869		137	873		1253	1184		189	1821	
Lane group cap.	1138	783		1138	551		258	588		258	537	
v/c ratio	0.78	1.11		0.12	1.58		4.86	2.01		0.73	3.39	
Green ratio	0.36	0.18		0.36	0.18		0.16	0.18		0.16	0.18	
Unif. delay d1	40.1	57.5		30.2	57.5		59.0	57.5		56.2	57.5	
Delay factor k	0.33	0.50		0.11	0.50		0.50	0.50		0.29	0.50	
Increm. delay d2	3.6	66.7		0.0	271.6		1744	462.1		10.3	1081	
PF factor	0.630	0.855		0.630	0.855		0.954	0.855		0.876	0.877	
Control delay	28.9	115.8		19.1	320.7		1801	511.3		59.5	1131	
Lane group LOS	C	F		B	F		F	F		E	F	
Apprch. delay	71.8			279.8			1174			1030		
Approach LOS	E			F			F			F		
Intersec. delay	740.3			Intersection LOS						F		

48-A
W
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/04/11	Jurisdiction	AIRSANYO30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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)	845	300	525	130	330	500	1190	825	300	180	470	1260
% 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 = 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		
Adj. flow rate	889	316	553	137	347	526	1253	868	316	189	495	1326
Lane group cap.	1138	618	915	1138	618	528	501	618	814	501	618	1410
v/c ratio	0.78	0.51	0.60	0.12	0.56	1.00	2.50	1.40	0.39	0.38	0.80	0.94
Green ratio	0.36	0.18	0.37	0.36	0.18	0.37	0.16	0.18	0.57	0.16	0.18	0.57
Unif. delay d1	40.1	52.0	35.7	30.2	52.5	43.9	59.0	57.5	16.5	52.9	55.1	27.8
Delay factor k	0.33	0.12	0.19	0.11	0.16	0.50	0.50	0.50	0.11	0.11	0.34	0.45
Increm. delay d2	3.6	0.7	1.1	0.0	1.2	38.1	681.4	191.6	0.3	0.5	7.5	12.5
PF factor	0.630	0.855	0.606	0.630	0.855	0.606	0.876	0.855	0.117	0.876	0.855	0.117
Control delay	28.9	45.2	22.8	19.1	46.1	64.7	733.1	240.8	2.2	46.8	54.6	15.7
Lane group LOS	C	D	C	B	D	E	F	F	A	D	D	B
Apprch. delay	29.9			52.1			463.0			28.2		
Approach LOS	C			D			F			C		
Intersec. delay	178.8			Intersection LOS						F		

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48-P
NO
MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/04/11	Jurisdiction	AIRSANYO30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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	2	0	1	2	0	1	2	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume (vph)	975	700	1100	260	300	270	300	700	90	300	450	1075
% 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	
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	5	5	0	5	5	0	5	5	0	5	5	100
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		
Adj. flow rate	1026	1895		274	600		316	832		316	1500	
Lane group cap.	596	661		596	474		270	1397		270	1263	
v/c ratio	1.72	2.87		0.46	1.27		1.17	0.60		1.17	1.19	
Green ratio	0.18	0.14		0.18	0.14		0.16	0.39		0.16	0.39	
Unif. delay d1	57.5	60.0		51.5	60.0		59.0	33.7		59.0	42.5	
Delay factor k	0.50	0.50		0.11	0.50		0.50	0.18		0.50	0.50	
Increm. delay d2	331.7	844.3		0.6	135.6		108.9	0.7		108.9	92.7	
PF factor	0.855	0.889		0.855	0.889		0.876	0.569		0.876	0.569	
Control delay	380.9	897.6		44.6	188.9		160.6	19.9		160.6	116.8	
Lane group LOS	F	F		D	F		F	B		F	F	
Apprch. delay	716.1			143.7			58.6			124.4		
Approach LOS	F			F			E			F		
Intersec. delay	371.4			Intersection LOS						F		

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MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	AIRWAY RD./SANYO RD
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/04/11	Jurisdiction	AIRSANYO30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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)	975	700	1100	260	300	270	300	700	90	300	450	1075
% 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	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	5	5	0	5	5	0	5	5	0	5	5	100
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 = 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		
Adj. flow rate	1026	737	1158	274	316	284	316	737	95	316	474	1026
Lane group cap.	596	518	875	596	518	503	525	1425	593	525	1425	1605
v/c ratio	1.72	1.42	1.32	0.46	0.61	0.56	0.60	0.52	0.16	0.60	0.33	0.64
Green ratio	0.18	0.14	0.34	0.18	0.14	0.34	0.16	0.39	0.39	0.16	0.39	0.61
Unif. delay d1	57.5	60.0	46.5	51.5	56.3	38.1	54.9	32.4	27.5	54.9	29.7	17.7
Delay factor k	0.50	0.50	0.50	0.11	0.20	0.16	0.19	0.12	0.11	0.19	0.11	0.22
Increm. delay d2	331.7	201.3	153.5	0.6	2.1	1.5	1.9	0.3	0.1	1.9	0.1	0.9
PF factor	0.855	0.889	0.663	0.855	0.889	0.663	0.876	0.569	0.569	0.876	0.569	0.127
Control delay	380.9	254.6	184.4	44.6	52.2	26.8	50.0	18.7	15.8	50.0	17.0	3.1
Lane group LOS	F	F	F	D	D	C	D	B	B	D	B	A
Apprch. delay	271.1			41.5			27.1			14.9		
Approach LOS	F			D			C			B		
Intersec. delay	131.1			Intersection LOS						F		

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MIT

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 COMMUNITY PLAN/NO MIT.
Analysis Time Period	AM PEAK HOUR		

Project Description	CAMMUNITY PLAN/ 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	1295	410	0	0	300	130
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR	1363	431	0	0	315	136
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	50	0	980
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.95	1.00	0.95
Hourly Flow Rate, HFR	0	0	0	52	0	1031
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)	1363					52		1031
C (m) (vph)	1033					0		747
v/c	1.32							1.38
95% queue length	51.23							44.24
Control Delay	165.4							196.9
LOS	F ✓					F ✓		F ✓
Approach Delay	--	--						
Approach LOS	--	--						

ALL EVALUATED MOVES @ F

Figure 9-4
TRAFFIC SIGNAL WARRANTS

#49 PASEO DE LAS AMERICAS @ HEINRICH HERTZ DR.

(Based on Estimated Average Daily Traffic - See Note)

URBAN X RURAL

Minimum Requirements
EADT
BUILDOUT COMMUNITY PLAN

1. Minimum Vehicular

Satisfied YES Not Satisfied

Number of lanes for moving traffic on each approach: Major Street	Minor Street	PASEO DE LAS AMERICAS — Vehicles per day on major street (total of both approaches) 33,500 — Urban	Rural	HEINRICH HERTZ DR — Vehicles per day on higher-volume minor street approach (one direction only) 13,500 — Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 or more	1	9,600	6,720	2,400	1,680
2 or more	2 or more	9,600	6,720	3,200	2,240
1	2 or more	8,000	5,600	3,200	2,240

2. Interruption of Continuous Traffic

Satisfied YES Not Satisfied

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per day on major street (total of both approaches) — Urban	Rural	Vehicles per day on higher-volume minor street approach (one direction only) — Urban	Rural
1	1	12,000	8,400	1,200	850
2 or more	1	14,400	10,080	1,200	850
2 or more	2 or more	14,400	10,080	1,600	1,120
1	2 or more	12,000	8,400	1,600	1,120

3. Combination

Satisfied ____ Not Satisfied ____ No one warrant satisfied, but following warrants fulfilled 80% or more ...... ____ 1 ____ 2	2 Warrants	2 Warrants

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

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MIT

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	03/01/11	Jurisdiction	HERTZ AMERIC30ACP
Time Period	AM PEAK HOUR	Analysis Year	COMM. PLAN WITH MITIGATION

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	2	0	0	0	2	2	0	0	2	0
Lane group	L		R				L	T			TR	
Volume (vph)	50		980				1295	410			300	130
% 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 = 70.0	G = 27.0	G =	G =
	Y = 4	Y =	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		
Adj. flow rate	53		1032				1363	432			453	
Lane group cap.	252		1777				1716	2690			680	
v/c ratio	0.21		0.58				0.79	0.16			0.67	
Green ratio	0.15		0.72				0.54	0.78			0.21	
Unif. delay d1	48.1		8.6				24.2	3.7			47.4	
Delay factor k	0.11		0.17				0.34	0.11			0.24	
Increm. delay d2	0.4		0.5				2.7	0.0			2.5	
PF factor	0.879		0.181				0.222	0.224			0.825	
Control delay	42.7		2.0				8.0	0.9			41.6	
Lane group LOS	D		A				A	A			D	
Apprch. delay	4.0						6.3			41.6		
Approach LOS	A						A			D		
Intersec. delay	10.4			Intersection LOS						B		

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MIT

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	H. HERTZ/PSEO D. L. AMERICAS
Agency/Co.	USAI	Jurisdiction	SAN DIEGO
Date Performed	03/01/11	Analysis Year	2030 COMM. PLAN/NO MIT.
Analysis Time Period	PM PEAK HOUR		

Project Description	ADOPTED COMMUNITY PLAN		
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	1110	100	0	0	400	50
Peak-Hour Factor, PHF	0.95	0.95	1.00	1.00	0.95	0.95
Hourly Flow Rate, HFR	1168	105	0	0	421	52
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	160	0	1330
Peak-Hour Factor, PHF	1.00	1.00	1.00	0.95	1.00	0.95
Hourly Flow Rate, HFR	0	0	0	168	0	1400
Percent Heavy Vehicles	0	0	0	10	0	10
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)	1168					168		1400
C (m) (vph)	1022					0		724
v/c	1.14							1.93
95% queue length	31.96							90.31
Control Delay	94.0							440.2
LOS	F					F		F
Approach Delay	--	--						
Approach LOS	--	--						

ALL EVALUATED MOVES @ F

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W
MIT

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	03/01/11	Jurisdiction	HERTZ AMERIC30PCPM
Time Period	PM PEAK HOUR	Analysis Year	COMM. PLAN 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	2	0	0	0	2	2	0	0	2	0
Lane group	L		R				L	T			TR	
Volume (vph)	160		1330				1110	100			400	50
% 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 = 57.0	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 = 120.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
Adj. flow rate	168		1400				1168	105			474	
Lane group cap.	410		1887				1514	2337			565	
v/c ratio	0.41		0.74				0.77	0.04			0.84	
Green ratio	0.25		0.76				0.47	0.68			0.17	
Unif. delay d1	37.6		8.0				26.1	6.5			48.4	
Delay factor k	0.11		0.30				0.32	0.11			0.37	
Increm. delay d2	0.7		1.6				2.5	0.0			10.8	
PF factor	0.778		0.207				0.397	0.154			0.867	
Control delay	29.9		3.3				12.9	1.0			52.8	
Lane group LOS	C		A				B	A			D	
Apprch. delay	6.1						11.9			52.8		
Approach LOS	A						B			D		
Intersec. delay	15.0			Intersection LOS						B		

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MIT

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	PASEO DE LAS AMERICAS/MARCONI
Agency/Co.	USAI	Jurisdiction	SAN DIEGO
Date Performed	3/3/2011	Analysis Year	2030 COMM. PLAN/NO MITIGATION
Analysis Time Period	AM PEAK HOUR		

Project Description	2030 COMMUNITY PLAN/NO MITIGATION		
East/West Street:	MARCONI 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	0	15	65	1440	50	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	15	68	1515	52	0
Percent Heavy Vehicles	0	--	--	10	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	15	0	360	0	0	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	15	0	378	0	0	0
Percent Heavy Vehicles	10	0	10	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
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)		1515	15		378			
C (m) (vph)		1431	0		949			
v/c		1.06			0.40			
95% queue length		29.66			1.93			
Control Delay		57.8			11.3			
LOS		F	F		B			
Approach Delay	--	--						
Approach LOS	--	--						

MAJOR VOLUME MOVEMENT @ F

#50 PASEO DE LAS AMERICAS @ MARCONI DR

Figure 9-4
TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic - See Note)

URBAN X RURAL ____	Minimum Requirements EADT BUILDOUT COMMUNITY PLAN			
1. Minimum Vehicular Satisfied YES Not Satisfied ____	PASEO DE LAS AMERICAS Vehicles per day on major street (total of both approaches) 16,000		MARCONI DR. Vehicles per day on higher-volume minor street approach (one direction only) 8,250	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
1 / 1	8,000	5,600	2,400	1,680
2 or more / 1	9,600	6,720	2,400	1,680
2 or more / 2 or more	9,600	6,720	3,200	2,240
1 / 2 or more	8,000	5,600	3,200	2,240
2. Interruption of Continuous Traffic Satisfied YES Not Satisfied ____	Vehicles per day on major street (total of both approaches)		Vehicles per day on higher-volume minor street approach (one direction only)	
Number of lanes for moving traffic on each approach Major Street / Minor Street	Urban	Rural	Urban	Rural
1 / 1	12,000	8,400	1,200	850
2 or more / 1	14,400	10,080	1,200	850
2 or more / 2 or more	14,400	10,080	1,600	1,120
1 / 2 or more	12,000	8,400	1,600	1,120
3. Combination Satisfied ____ Not Satisfied ____ No one warrant satisfied, but following warrants fulfilled 80% or more ...... ____ 1 ____ 2	2 Warrants		2 Warrants	

NOTE: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

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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	03/03/11	Jurisdiction	PASEOMARCONI30CP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/WITH

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		360		15	65	1440	50	
% 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 = 82.0	G = 10.0	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	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		
Adj. flow rate				16		379		84		1516	53	
Lane group cap.				205		1236		241		2178	2770	
v/c ratio				0.08		0.31		0.35		0.70	0.02	
Green ratio				0.13		0.84		0.08		0.68	0.80	
Unif. delay d1				46.4		2.0		51.9		11.5	2.4	
Delay factor k				0.11		0.11		0.11		0.26	0.11	
Increm. delay d2				0.2		0.1		0.9		1.0	0.0	
PF factor				0.905		0.316		0.939		0.158	0.250	
Control delay				42.1		0.8		49.7		2.8	0.6	
Lane group LOS				D		A		D		A	A	
Apprch. delay				2.5			49.7			2.7		
Approach LOS				A			D			A		
Intersec. delay	4.6			Intersection LOS						A		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	USAI	Intersection	PASEO DE LAS AMERICAS/MARCONI
Agency/Co.	USAI	Jurisdiction	SAN DIEGO
Date Performed	3/3/2011	Analysis Year	2030 COMM. PLAN/NO MITIGATION
Analysis Time Period	PM PEAK HOUR		

Project Description	2030 COMMUNITY PLAN/NO MITIGATION		
East/West Street:	MARCONI 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	0	50	15	360	15	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	0	52	15	378	15	0
Percent Heavy Vehicles	0	--	--	10	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	65	0	1440	0	0	0
Peak-Hour Factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Hourly Flow Rate, HFR	68	0	1515	0	0	0
Percent Heavy Vehicles	10	0	10	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	0	0
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)		378	68		1515			
C (m) (vph)		1451	209		960			
v/c		0.26	0.33		1.58			
95% queue length		1.05	1.34		76.77			
Control Delay		8.4	30.3		278.8			
LOS		A	D		F			
Approach Delay	--	--	268.1					
Approach LOS	--	--	F					

MAJOR VOLUME MOVEMENT @ F

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w
MIT

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	*03/03/11*	Jurisdiction	*PASEOMARCONI30PCP*
Time Period	*PM PEAK HOUR*	Analysis Year	*2030 COMM. PLAN/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		1440		50	15	360	15	
% 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		100	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 = 80.0	G =	G =	G =	G = 37.0	G = 10.0	G =	G =
	Y = 4	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		
Adj. flow rate				68		1411		69		379	16	
Lane group cap.				938		1269		235		842	1261	
v/c ratio				0.07		1.11		0.29		0.45	0.01	
Green ratio				0.57		0.86		0.07		0.26	0.36	
Unif. delay d1				13.4		9.5		61.7		43.0	28.4	
Delay factor k				0.11		0.50		0.11		0.11	0.11	
Increm. delay d2				0.0		61.8		0.7		0.4	0.0	
PF factor				0.117		1.000		0.949		0.761	0.618	
Control delay				1.6		71.3		59.2		33.1	17.6	
Lane group LOS				A		E		E		C	B	
Apprch. delay				68.1			59.2			32.5		
Approach LOS				E			E			C		
Intersec. delay	60.6			Intersection LOS						E		

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NO
MIT

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	02/03/11	Jurisdiction	HEROVALLEY30ACPNM
Time Period	AM PEAK HOUR	Analysis Year	2030 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)	540	180	315	180	120	300	660	1400	290	630	2885	1695
% 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		
Adj. flow rate	568	521		189	442		695	1779		663	4821	
Lane group cap.	256	575		256	566		598	1712		598	1652	
v/c ratio	2.22	0.91		0.74	0.78		1.16	1.04		1.11	2.92	
Green ratio	0.16	0.19		0.16	0.19		0.19	0.36		0.19	0.36	
Unif. delay d1	67.5	63.6		64.4	61.9		65.0	51.5		65.0	51.5	
Delay factor k	0.50	0.43		0.30	0.33		0.50	0.50		0.50	0.50	
Increm. delay d2	561.0	18.1		10.8	7.0		90.4	32.7		70.3	864.9	
PF factor	0.877	0.846		0.877	0.846		0.846	0.631		0.846	1.000	
Control delay	620.1	71.9		67.2	59.3		145.4	65.2		125.3	916.4	
Lane group LOS	F	E		E	E		F	E		F	F	
Apprch. delay	357.8			61.7			87.7			820.7		
Approach LOS	F			E			F			F		
Intersec. delay	531.8			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	02/03/11	Jurisdiction	HEROVALLEY30ACPWM
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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)	540	180	315	180	120	300	660	1400	290	630	2885	1695
% 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 =	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		
Adj. flow rate	568	189	332	189	126	316	695	1474	305	663	3037	1784
Lane group cap.	498	649	579	498	649	579	598	1765	781	598	1765	1361
v/c ratio	1.14	0.29	0.57	0.38	0.19	0.55	1.16	0.84	0.39	1.11	1.72	1.31
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	55.9	36.8	60.5	54.8	36.2	65.0	47.2	21.1	65.0	51.5	36.5
Delay factor k	0.50	0.11	0.17	0.11	0.11	0.15	0.50	0.37	0.11	0.50	0.50	0.50
Increm. delay d2	85.1	0.3	1.4	0.5	0.1	1.1	90.4	3.7	0.3	70.3	326.7	145.2
PF factor	0.877	0.846	0.544	0.877	0.846	0.544	0.846	0.631	0.205	0.846	0.695	0.602
Control delay	144.2	47.5	21.4	53.6	46.5	20.8	145.4	33.4	4.7	125.3	362.5	167.2
Lane group LOS	F	D	C	D	D	C	F	C	A	F	F	F
Apprch. delay	90.0			35.7			61.3			270.3		
Approach LOS	F			D			E			F		
Intersec. delay	181.3			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	02/04/11	Jurisdiction	HEROVALLEY30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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)	1695	120	600	290	180	630	315	2700	180	300	1265	540
% 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 = 20.0	G = 67.0	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		
Adj. flow rate	1784	758		305	852		332	3031		316	1900	
Lane group cap.	256	552		256	558		398	2052		398	1968	
v/c ratio	6.97	1.37		1.19	1.53		0.83	1.48		0.79	0.97	
Green ratio	0.16	0.19		0.16	0.19		0.13	0.42		0.13	0.42	
Unif. delay d1	67.5	65.0		67.5	65.0		68.4	46.5		68.0	45.4	
Delay factor k	0.50	0.50		0.50	0.50		0.37	0.50		0.34	0.47	
Increm. delay d2	2694	179.2		118.1	246.1		14.2	217.4		10.6	13.1	
PF factor	1.000	0.846		0.877	0.846		0.905	0.614		0.905	0.520	
Control delay	2762	234.2		177.2	301.1		76.0	245.9		72.1	36.7	
Lane group LOS	F	F		F	F		E	F		E	D	
Apprch. delay	2008			268.4			229.1			41.7		
Approach LOS	F			F			F			D		
Intersec. delay	676.7			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	02/04/11	Jurisdiction	HEROVALLEY30PCPWM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN 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)	1695	120	600	290	180	630	315	2700	180	300	1265	540
% 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 = 30.0	G = 25.0	G =	G =	G = 20.0	G = 67.0	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		
Adj. flow rate	1784	126	632	305	189	663	332	2842	189	316	1332	568
Lane group cap.	598	541	443	598	541	443	398	2074	917	398	2074	1600
v/c ratio	2.98	0.23	1.43	0.51	0.35	1.50	0.83	1.37	0.21	0.79	0.64	0.35
Green ratio	0.19	0.16	0.31	0.19	0.16	0.31	0.13	0.42	0.64	0.13	0.42	0.64
Unif. delay d1	65.0	59.1	55.0	58.4	60.2	55.0	68.4	46.5	12.1	68.0	37.0	13.6
Delay factor k	0.50	0.11	0.50	0.12	0.11	0.50	0.37	0.50	0.11	0.34	0.22	0.11
Increm. delay d2	897.0	0.2	204.7	0.7	0.4	235.1	14.2	169.8	0.1	10.6	0.7	0.1
PF factor	0.846	0.877	0.697	0.846	0.877	0.697	0.905	0.527	0.138	0.905	0.520	0.138
Control delay	952.0	52.0	243.1	50.1	53.2	273.4	76.0	194.3	1.8	72.1	19.9	2.0
Lane group LOS	F	D	F	D	D	F	E	F	A	E	B	A
Apprch. delay	731.1			178.6			171.8			22.8		
Approach LOS	F			F			F			C		
Intersec. delay	290.3			Intersection LOS						F		

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MIT

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	01/05/11	Jurisdiction	LAMEDAVIAT30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	2	3	0	0	3	0
Lane group	L		R				L	T			TR	
Volume (vph)	325		310				460	3110			4050	485
% 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	0	0	0	5						0	0	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 = 20.0	G = 87.0	G =	G =
	Y = 4	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		
Adj. flow rate	342		326				484	3274			4774	
Lane group cap.	455		461				455	3927			3028	
v/c ratio	0.75		0.71				1.06	0.83			1.58	
Green ratio	0.14		0.31				0.14	0.79			0.62	
Unif. delay d1	57.6		42.3				60.0	8.9			26.5	
Delay factor k	0.31		0.27				0.50	0.37			0.50	
Increm. delay d2	6.9		4.9				60.2	1.7			261.1	
PF factor	0.889		0.694				0.889	0.241			1.000	
Control delay	58.1		34.3				113.5	3.8			287.6	
Lane group LOS	E		C				F	A			F	
Apprch. delay	46.5						17.9			287.6		
Approach LOS	D						B			F		
Intersec. delay	159.9			Intersection LOS						F		

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MIT

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	01/05/11	Jurisdiction	LAMEDAVIAT30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	0	1	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	325		310				460	3110			4050	485
% 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	0	0	0	5						0	0	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 = 20.0	G =	G =	G =	G = 20.0	G = 87.0	G =	G =
	Y = 4	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		
Adj. flow rate	342		326				484	3274			4263	511
Lane group cap.	455		461				455	3927			3078	1174
v/c ratio	0.75		0.71				1.06	0.83			1.38	0.44
Green ratio	0.14		0.31				0.14	0.79			0.62	0.80
Unif. delay d1	57.6		42.3				60.0	8.9			26.5	4.3
Delay factor k	0.31		0.27				0.50	0.37			0.50	0.11
Increm. delay d2	6.9		4.9				60.2	1.7			175.3	0.3
PF factor	0.889		0.694				0.889	0.241			0.829	1.000
Control delay	58.1		34.3				113.5	3.8			197.3	4.6
Lane group LOS	E		C				F	A			F	A
Apprch. delay	46.5						17.9			176.7		
Approach LOS	D						B			F		
Intersec. delay	102.4			Intersection LOS						F		

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N
MIT

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	01/05/11	Jurisdiction	LAMEDAVIAT30PCP
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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	2	3	0	0	3	0
Lane group	L		R				L	T			TR	
Volume (vph)	485		460				310	4080			3100	325
% 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	0	0	25	5						0	0	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 = 20.0	G = 87.0	G =	G =
	Y = 4	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		
Adj. flow rate	511		458				326	4295			3605	
Lane group cap.	455		461				455	3927			3034	
v/c ratio	1.12		0.99				0.72	1.09			1.19	
Green ratio	0.14		0.31				0.14	0.79			0.62	
Unif. delay d1	60.0		47.9				57.3	14.5			26.5	
Delay factor k	0.50		0.49				0.28	0.50			0.50	
Increm. delay d2	80.3		40.1				5.4	47.0			88.3	
PF factor	0.889		0.694				0.889	0.633			0.529	
Control delay	133.6		73.4				56.3	56.2			102.3	
Lane group LOS	F		E				E	E			F	
Apprch. delay	105.1						56.2			102.3		
Approach LOS	F						E			F		
Intersec. delay	79.4			Intersection LOS						E		

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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	*01/05/11*	Jurisdiction	*LAMEDAVIAT30PCPWM*
Time Period	*PM PEAK HOUR*	Analysis Year	*2030 COMM. PLAN/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	0	1	0	0	0	2	3	0	0	3	1
Lane group	L		R				L	T			T	R
Volume (vph)	485		460				310	4080			3100	325
% 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	0	0	25	5						0	0	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 = 20.0	G =	G =	G =	G = 20.0	G = 87.0	G =	G =
	Y = 4	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		
Adj. flow rate	511		458				326	4295			3263	342
Lane group cap.	455		461				455	3927			3078	1174
v/c ratio	1.12		0.99				0.72	1.09			1.06	0.29
Green ratio	0.14		0.31				0.14	0.79			0.62	0.80
Unif. delay d1	60.0		47.9				57.3	14.5			26.5	3.7
Delay factor k	0.50		0.49				0.28	0.50			0.50	0.11
Increm. delay d2	80.3		40.1				5.4	47.0			35.0	0.1
PF factor	0.889		0.694				0.889	0.633			0.273	1.000
Control delay	133.6		73.4				56.3	56.2			42.2	3.8
Lane group LOS	F		E				E	E			D	A
Apprch. delay	105.1						56.2			38.6		
Approach LOS	F						E			D		
Intersec. delay	54.4			Intersection LOS						D		

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NO MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY VAL RD./AV. DE LAS VISTAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/02/11	Jurisdiction	HERAVDLV30ACP
Time Period	AM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	365	10	305	60	5	65	100	2180	140	360	5990	85
% 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		
Adj. flow rate	384	332		63	5	68	105	2442		379	6394	
Lane group cap.	277	304		256	368	579	332	1745		308	1762	
v/c ratio	1.39	1.09		0.25	0.01	0.12	0.32	1.40		1.23	3.63	
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	65.0		59.2	52.9	29.6	56.1	51.5		65.0	51.5	
Delay factor k	0.50	0.50		0.11	0.11	0.11	0.11	0.50		0.50	0.50	
Increm. delay d2	194.7	78.5		0.5	0.0	0.1	0.6	183.3		128.8	1184	
PF factor	0.877	0.846		0.877	0.846	0.544	0.846	0.631		0.846	1.000	
Control delay	253.8	133.5		52.4	44.8	16.2	48.1	215.8		183.8	1236	
Lane group LOS	F	F		D	D	B	D	F		F	F	
Apprch. delay	198.0			34.0			208.9			1177		
Approach LOS	F			C			F			F		
Intersec. delay	850.4			Intersection LOS						F		

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NO MIT

SHORT REPORT

General Information		Site Information	
Analyst	USAI	Intersection	OTAY VALLE../AV. DE LAS VISTAS
Agency or Co.	USAI	Area Type	All other areas
Date Performed	02/02/11	Jurisdiction	HERAVDLV30PCPNM
Time Period	PM PEAK HOUR	Analysis Year	2030 COMM. PLAN/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)	85	75	75	140	10	360	305	5495	60	65	2075	330
% 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	
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 = 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		
Adj. flow rate	89	158		147	11	379	321	5847		68	2531	
Lane group cap.	177	177		164	196	374	236	2704		219	2667	
v/c ratio	0.50	0.89		0.90	0.06	1.01	1.36	2.16		0.31	0.95	
Green ratio	0.10	0.10		0.10	0.10	0.27	0.13	0.55		0.13	0.55	
Unif. delay d1	64.0	66.7		66.7	61.1	55.0	65.0	34.0		58.8	32.0	
Delay factor k	0.11	0.42		0.42	0.11	0.50	0.50	0.50		0.11	0.46	
Increm. delay d2	2.3	39.0		41.9	0.1	50.0	187.0	524.3		0.8	8.4	
PF factor	0.926	0.926		0.926	0.926	0.758	0.897	1.000		0.897	0.196	
Control delay	61.5	100.7		103.7	56.7	91.6	245.4	558.3		53.6	14.7	
Lane group LOS	E	F		F	E	F	F	F		D	B	
Apprch. delay	86.6			94.2			542.0			15.7		
Approach LOS	F			F			F			B		
Intersec. delay	361.8			Intersection LOS						F		

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