

APPENDICES

PUBLIC REVIEW DRAFT
INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION

FOR THE

CALAVERAS ESTATES IV
RESIDENTIAL PROJECT

4204 Alvarado Avenue
Stockton, CA
IS File No. P17-0356

October 13, 2017

Prepared for:

City of Stockton
Community Development Department
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APPENDIX A

AIR QUALITY MODELING

Calaveras Estates - San Joaquin County, Annual

Calaveras Estates

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	38.00	Dwelling Unit	8.70	68,400.00	121

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.7	Precipitation Freq (Days)	51
Climate Zone	2			Operational Year	2019
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per site plan.

Construction Phase - No demolition work.

Architectural Coating - Per SJVAPCD rule.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Area Coating - Per SJVAPCD rule.

Water Mitigation -

Waste Mitigation -

Calaveras Estates - San Joaquin County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	150.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	150.00	50.00
tblAreaCoating	Area_EF_Residential_Exterior	150	50
tblAreaCoating	Area_EF_Residential_Interior	150	50
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	15
tblConstructionPhase	NumDays	20.00	0.00
tblLandUse	LotAcreage	12.34	8.70
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

Calaveras Estates - San Joaquin County, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2018	0.2304	2.0962	1.4616	2.3900e-003	0.1667	0.1255	0.2922	0.0862	0.1174	0.2037	0.0000	213.4696	213.4696	0.0522	0.0000	214.7746
2019	0.3553	1.2644	1.0659	1.7500e-003	8.4000e-003	0.0749	0.0833	2.2600e-003	0.0704	0.0726	0.0000	153.6897	153.6897	0.0362	0.0000	154.5942
Maximum	0.3553	2.0962	1.4616	2.3900e-003	0.1667	0.1255	0.2922	0.0862	0.1174	0.2037	0.0000	213.4696	213.4696	0.0522	0.0000	214.7746

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2018	0.2304	2.0962	1.4616	2.3900e-003	0.0809	0.1255	0.2065	0.0404	0.1174	0.1578	0.0000	213.4693	213.4693	0.0522	0.0000	214.7744
2019	0.3553	1.2644	1.0659	1.7500e-003	8.4000e-003	0.0749	0.0833	2.2600e-003	0.0704	0.0726	0.0000	153.6895	153.6895	0.0362	0.0000	154.5940
Maximum	0.3553	2.0962	1.4616	2.3900e-003	0.0809	0.1255	0.2065	0.0404	0.1174	0.1578	0.0000	213.4693	213.4693	0.0522	0.0000	214.7744

Calaveras Estates - San Joaquin County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	48.97	0.00	22.83	51.79	0.00	16.59	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
5	4-25-2018	7-24-2018	0.8010	0.8010
6	7-25-2018	10-24-2018	0.8793	0.8793
7	10-25-2018	1-24-2019	0.8568	0.8568
8	1-25-2019	4-24-2019	0.7744	0.7744
9	4-25-2019	7-24-2019	0.6356	0.6356
		Highest	0.8793	0.8793

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4762	0.0438	1.8998	5.3600e-003		0.2654	0.2654		0.2654	0.2654	35.1717	16.9228	52.0945	0.1652	3.0000e-004	56.3141
Energy	6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	165.0007	165.0007	5.7700e-003	2.1300e-003	165.7785
Mobile	0.1460	0.9873	1.6690	5.5600e-003	0.3912	6.9000e-003	0.3981	0.1049	6.5300e-003	0.1114	0.0000	511.2098	511.2098	0.0269	0.0000	511.8811
Waste						0.0000	0.0000		0.0000	0.0000	8.8423	0.0000	8.8423	0.5226	0.0000	21.9064
Water						0.0000	0.0000		0.0000	0.0000	0.7855	5.4866	6.2720	0.0809	1.9600e-003	8.8781
Total	0.6287	1.0871	3.5926	0.0113	0.3912	0.2768	0.6680	0.1049	0.2764	0.3813	44.7995	698.6198	743.4193	0.8013	4.3900e-003	764.7582

Calaveras Estates - San Joaquin County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4762	0.0438	1.8998	5.3600e-003		0.2654	0.2654		0.2654	0.2654	35.1717	16.9228	52.0945	0.1652	3.0000e-004	56.3141
Energy	6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	165.0007	165.0007	5.7700e-003	2.1300e-003	165.7785
Mobile	0.1358	0.8871	1.4420	4.6500e-003	0.3207	5.7800e-003	0.3265	0.0860	5.4600e-003	0.0915	0.0000	428.1885	428.1885	0.0242	0.0000	428.7945
Waste						0.0000	0.0000		0.0000	0.0000	2.2106	0.0000	2.2106	0.1306	0.0000	5.4766
Water						0.0000	0.0000		0.0000	0.0000	0.6284	4.3892	5.0176	0.0647	1.5700e-003	7.1025
Total	0.6185	0.9868	3.3656	0.0104	0.3207	0.2757	0.5964	0.0860	0.2754	0.3614	38.0106	614.5011	652.5118	0.3906	4.0000e-003	663.4662

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	1.63	9.22	6.32	8.07	18.01	0.40	10.71	18.00	0.39	5.23	15.15	12.04	12.23	51.26	8.88	13.24

3.0 Construction Detail**Construction Phase**

Calaveras Estates - San Joaquin County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/25/2017	4/24/2017	5	0	
2	Site Preparation	Site Preparation	5/23/2018	6/5/2018	5	10	
3	Grading	Grading	6/6/2018	7/3/2018	5	20	
4	Building Construction	Building Construction	7/4/2018	5/21/2019	5	230	
5	Paving	Paving	5/22/2019	6/18/2019	5	20	
6	Architectural Coating	Architectural Coating	6/19/2019	7/16/2019	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 138,510; Residential Outdoor: 46,170; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Calaveras Estates - San Joaquin County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	14.00	4.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2017

Unmitigated Construction On-Site

[illegible]

Calaveras Estates - San Joaquin County, Annual

3.2 Demolition - 2017

Unmitigated Construction Off-Site

[illegible]

Mitigated Construction On-Site

[illegible]

Calaveras Estates - San Joaquin County, Annual

3.2 Demolition - 2017**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 Site Preparation - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3800	17.3800	5.4100e-003	0.0000	17.5152
Total	0.0228	0.2410	0.1124	1.9000e-004	0.0903	0.0129	0.1032	0.0497	0.0119	0.0615	0.0000	17.3800	17.3800	5.4100e-003	0.0000	17.5152

Calaveras Estates - San Joaquin County, Annual

3.3 Site Preparation - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	3.3000e-004	3.2400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6754	0.6754	2.0000e-005	0.0000	0.6760
Total	4.4000e-004	3.3000e-004	3.2400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6754	0.6754	2.0000e-005	0.0000	0.6760

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0407	0.0000	0.0407	0.0223	0.0000	0.0223	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0228	0.2410	0.1124	1.9000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	17.3799	17.3799	5.4100e-003	0.0000	17.5152
Total	0.0228	0.2410	0.1124	1.9000e-004	0.0407	0.0129	0.0535	0.0223	0.0119	0.0342	0.0000	17.3799	17.3799	5.4100e-003	0.0000	17.5152

Calaveras Estates - San Joaquin County, Annual

3.3 Site Preparation - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	3.3000e-004	3.2400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6754	0.6754	2.0000e-005	0.0000	0.6760
Total	4.4000e-004	3.3000e-004	3.2400e-003	1.0000e-005	7.2000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6754	0.6754	2.0000e-005	0.0000	0.6760

3.4 Grading - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0655	0.0000	0.0655	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.3067	0.1658	3.0000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	27.1069	27.1069	8.4400e-003	0.0000	27.3178
Total	0.0277	0.3067	0.1658	3.0000e-004	0.0655	0.0155	0.0810	0.0337	0.0143	0.0479	0.0000	27.1069	27.1069	8.4400e-003	0.0000	27.3178

Calaveras Estates - San Joaquin County, Annual

3.4 Grading - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.6000e-004	5.3900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1257	1.1257	4.0000e-005	0.0000	1.1266
Total	7.3000e-004	5.6000e-004	5.3900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1257	1.1257	4.0000e-005	0.0000	1.1266

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0295	0.0000	0.0295	0.0152	0.0000	0.0152	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0277	0.3067	0.1658	3.0000e-004		0.0155	0.0155		0.0143	0.0143	0.0000	27.1068	27.1068	8.4400e-003	0.0000	27.3178
Total	0.0277	0.3067	0.1658	3.0000e-004	0.0295	0.0155	0.0450	0.0152	0.0143	0.0294	0.0000	27.1068	27.1068	8.4400e-003	0.0000	27.3178

Calaveras Estates - San Joaquin County, Annual

3.4 Grading - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	5.6000e-004	5.3900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1257	1.1257	4.0000e-005	0.0000	1.1266
Total	7.3000e-004	5.6000e-004	5.3900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.1257	1.1257	4.0000e-005	0.0000	1.1266

3.5 Building Construction - 2018**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1728	1.5087	1.1339	1.7400e-003		0.0967	0.0967		0.0909	0.0909	0.0000	153.3599	153.3599	0.0376	0.0000	154.2992
Total	0.1728	1.5087	1.1339	1.7400e-003		0.0967	0.0967		0.0909	0.0909	0.0000	153.3599	153.3599	0.0376	0.0000	154.2992

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3.5 Building Construction - 2018**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4600e-003	0.0356	8.3900e-003	7.0000e-005	1.7000e-003	3.1000e-004	2.0100e-003	4.9000e-004	2.9000e-004	7.9000e-004	0.0000	7.0453	7.0453	4.9000e-004	0.0000	7.0576
Worker	4.3800e-003	3.3500e-003	0.0325	8.0000e-005	7.1900e-003	5.0000e-005	7.2400e-003	1.9100e-003	5.0000e-005	1.9600e-003	0.0000	6.7765	6.7765	2.3000e-004	0.0000	6.7822
Total	5.8400e-003	0.0390	0.0409	1.5000e-004	8.8900e-003	3.6000e-004	9.2500e-003	2.4000e-003	3.4000e-004	2.7500e-003	0.0000	13.8218	13.8218	7.2000e-004	0.0000	13.8398

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1728	1.5087	1.1339	1.7400e-003		0.0967	0.0967		0.0909	0.0909	0.0000	153.3597	153.3597	0.0376	0.0000	154.2990
Total	0.1728	1.5087	1.1339	1.7400e-003		0.0967	0.0967		0.0909	0.0909	0.0000	153.3597	153.3597	0.0376	0.0000	154.2990

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3.5 Building Construction - 2018**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4600e-003	0.0356	8.3900e-003	7.0000e-005	1.7000e-003	3.1000e-004	2.0100e-003	4.9000e-004	2.9000e-004	7.9000e-004	0.0000	7.0453	7.0453	4.9000e-004	0.0000	7.0576
Worker	4.3800e-003	3.3500e-003	0.0325	8.0000e-005	7.1900e-003	5.0000e-005	7.2400e-003	1.9100e-003	5.0000e-005	1.9600e-003	0.0000	6.7765	6.7765	2.3000e-004	0.0000	6.7822
Total	5.8400e-003	0.0390	0.0409	1.5000e-004	8.8900e-003	3.6000e-004	9.2500e-003	2.4000e-003	3.4000e-004	2.7500e-003	0.0000	13.8218	13.8218	7.2000e-004	0.0000	13.8398

3.5 Building Construction - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1192	1.0645	0.8668	1.3600e-003		0.0651	0.0651		0.0612	0.0612	0.0000	118.7276	118.7276	0.0289	0.0000	119.4507
Total	0.1192	1.0645	0.8668	1.3600e-003		0.0651	0.0651		0.0612	0.0612	0.0000	118.7276	118.7276	0.0289	0.0000	119.4507

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3.5 Building Construction - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0263	5.8700e-003	6.0000e-005	1.3300e-003	2.0000e-004	1.5400e-003	3.9000e-004	1.9000e-004	5.8000e-004	0.0000	5.4702	5.4702	3.7000e-004	0.0000	5.4793
Worker	3.0900e-003	2.3000e-003	0.0224	6.0000e-005	5.6300e-003	4.0000e-005	5.6700e-003	1.5000e-003	4.0000e-005	1.5300e-003	0.0000	5.1518	5.1518	1.6000e-004	0.0000	5.1558
Total	4.1000e-003	0.0286	0.0283	1.2000e-004	6.9600e-003	2.4000e-004	7.2100e-003	1.8900e-003	2.3000e-004	2.1100e-003	0.0000	10.6220	10.6220	5.3000e-004	0.0000	10.6351

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1192	1.0645	0.8668	1.3600e-003		0.0651	0.0651		0.0612	0.0612	0.0000	118.7275	118.7275	0.0289	0.0000	119.4506
Total	0.1192	1.0645	0.8668	1.3600e-003		0.0651	0.0651		0.0612	0.0612	0.0000	118.7275	118.7275	0.0289	0.0000	119.4506

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3.5 Building Construction - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0100e-003	0.0263	5.8700e-003	6.0000e-005	1.3300e-003	2.0000e-004	1.5400e-003	3.9000e-004	1.9000e-004	5.8000e-004	0.0000	5.4702	5.4702	3.7000e-004	0.0000	5.4793
Worker	3.0900e-003	2.3000e-003	0.0224	6.0000e-005	5.6300e-003	4.0000e-005	5.6700e-003	1.5000e-003	4.0000e-005	1.5300e-003	0.0000	5.1518	5.1518	1.6000e-004	0.0000	5.1558
Total	4.1000e-003	0.0286	0.0283	1.2000e-004	6.9600e-003	2.4000e-004	7.2100e-003	1.8900e-003	2.3000e-004	2.1100e-003	0.0000	10.6220	10.6220	5.3000e-004	0.0000	10.6351

3.6 Paving - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371

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3.6 Paving - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.9000e-004	4.7600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0930	1.0930	3.0000e-005	0.0000	1.0939
Total	6.6000e-004	4.9000e-004	4.7600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0930	1.0930	3.0000e-005	0.0000	1.0939

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0145	0.1524	0.1467	2.3000e-004		8.2500e-003	8.2500e-003		7.5900e-003	7.5900e-003	0.0000	20.4752	20.4752	6.4800e-003	0.0000	20.6371

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3.6 Paving - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	4.9000e-004	4.7600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0930	1.0930	3.0000e-005	0.0000	1.0939
Total	6.6000e-004	4.9000e-004	4.7600e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.2000e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0930	1.0930	3.0000e-005	0.0000	1.0939

3.7 Architectural Coating - 2019**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587
Total	0.2167	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5587

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3.7 Architectural Coating - 2019**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2186	0.2186	1.0000e-005	0.0000	0.2188
Total	1.3000e-004	1.0000e-004	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2186	0.2186	1.0000e-005	0.0000	0.2188

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2140					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6600e-003	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586
Total	0.2167	0.0184	0.0184	3.0000e-005		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	2.5533	2.5533	2.2000e-004	0.0000	2.5586

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3.7 Architectural Coating - 2019**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	1.0000e-004	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2186	0.2186	1.0000e-005	0.0000	0.2188
Total	1.3000e-004	1.0000e-004	9.5000e-004	0.0000	2.4000e-004	0.0000	2.4000e-004	6.0000e-005	0.0000	7.0000e-005	0.0000	0.2186	0.2186	1.0000e-005	0.0000	0.2188

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Improve Destination Accessibility

Improve Pedestrian Network

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1358	0.8871	1.4420	4.6500e-003	0.3207	5.7800e-003	0.3265	0.0860	5.4600e-003	0.0915	0.0000	428.1885	428.1885	0.0242	0.0000	428.7945
Unmitigated	0.1460	0.9873	1.6690	5.5600e-003	0.3912	6.9000e-003	0.3981	0.1049	6.5300e-003	0.1114	0.0000	511.2098	511.2098	0.0269	0.0000	511.8811

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	361.76	376.58	327.56	1,040,291	852,970
Total	361.76	376.58	327.56	1,040,291	852,970

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	10.80	7.30	7.50	45.60	19.00	35.40	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.540593	0.038119	0.180116	0.134753	0.022260	0.005220	0.015807	0.053428	0.001181	0.001630	0.005273	0.000623	0.000996

5.0 Energy Detail

Historical Energy Use: N

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	100.1349	100.1349	4.5300e-003	9.4000e-004	100.5272
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	100.1349	100.1349	4.5300e-003	9.4000e-004	100.5272
NaturalGas Mitigated	6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	64.8658	64.8658	1.2400e-003	1.1900e-003	65.2513
NaturalGas Unmitigated	6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	64.8658	64.8658	1.2400e-003	1.1900e-003	65.2513

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.21554e+006	6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	64.8658	64.8658	1.2400e-003	1.1900e-003	65.2513
Total		6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	64.8658	64.8658	1.2400e-003	1.1900e-003	65.2513

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	1.21554e+006	6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	64.8658	64.8658	1.2400e-003	1.1900e-003	65.2513
Total		6.5500e-003	0.0560	0.0238	3.6000e-004		4.5300e-003	4.5300e-003		4.5300e-003	4.5300e-003	0.0000	64.8658	64.8658	1.2400e-003	1.1900e-003	65.2513

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	344211	100.1349	4.5300e-003	9.4000e-004	100.5272
Total		100.1349	4.5300e-003	9.4000e-004	100.5272

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	344211	100.1349	4.5300e-003	9.4000e-004	100.5272
Total		100.1349	4.5300e-003	9.4000e-004	100.5272

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4762	0.0438	1.8998	5.3600e-003		0.2654	0.2654		0.2654	0.2654	35.1717	16.9228	52.0945	0.1652	3.0000e-004	56.3141
Unmitigated	0.4762	0.0438	1.8998	5.3600e-003		0.2654	0.2654		0.2654	0.2654	35.1717	16.9228	52.0945	0.1652	3.0000e-004	56.3141

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1790	0.0405	1.6162	5.3400e-003		0.2638	0.2638		0.2638	0.2638	35.1717	16.4619	51.6336	0.1647	3.0000e-004	55.8419
Landscaping	8.6800e-003	3.2800e-003	0.2836	1.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	0.4609	0.4609	4.5000e-004	0.0000	0.4722
Total	0.4762	0.0438	1.8998	5.3500e-003		0.2654	0.2654		0.2654	0.2654	35.1717	16.9228	52.0945	0.1652	3.0000e-004	56.3141

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0214					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1790	0.0405	1.6162	5.3400e-003		0.2638	0.2638		0.2638	0.2638	35.1717	16.4619	51.6336	0.1647	3.0000e-004	55.8419
Landscaping	8.6800e-003	3.2800e-003	0.2836	1.0000e-005		1.5500e-003	1.5500e-003		1.5500e-003	1.5500e-003	0.0000	0.4609	0.4609	4.5000e-004	0.0000	0.4722
Total	0.4762	0.0438	1.8998	5.3500e-003		0.2654	0.2654		0.2654	0.2654	35.1717	16.9228	52.0945	0.1652	3.0000e-004	56.3141

7.0 Water Detail**7.1 Mitigation Measures Water**

Apply Water Conservation Strategy

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.0176	0.0647	1.5700e-003	7.1025
Unmitigated	6.2720	0.0809	1.9600e-003	8.8781

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	2.47585 / 1.56086	6.2720	0.0809	1.9600e-003	8.8781
Total		6.2720	0.0809	1.9600e-003	8.8781

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	1.98068 / 1.24869	5.0176	0.0647	1.5700e-003	7.1025
Total		5.0176	0.0647	1.5700e-003	7.1025

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.2106	0.1306	0.0000	5.4766
Unmitigated	8.8423	0.5226	0.0000	21.9064

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	43.56	8.8423	0.5226	0.0000	21.9064
Total		8.8423	0.5226	0.0000	21.9064

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8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	10.89	2.2106	0.1306	0.0000	5.4766
Total		2.2106	0.1306	0.0000	5.4766

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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APPENDIX B
CULTURAL RESOURCES STUDY



CULTURAL RESOURCES LETTER REPORT

Date: July 24, 2017
To: BaseCamp Environmental, Inc.
From: Solano Archaeological Services (SAS)
Subject: Cultural Resources Study – Calaveras Estates 4, Stockton, California

INTRODUCTION

This letter report summarizes the background research, pedestrian survey, and findings for the Calaveras Estates 4 Project (Project). BaseCamp Environmental will be preparing a Tentative Subdivision Map creating 39 lots for single-family residential development. The proposed project is consistent with the Stockton General Plan; however, it will require rezoning from Medium Density Residential to Single-Family Residential, requiring compliance with the California Environmental Quality Act (CEQA). Therefore, SAS has prepared this technical memorandum to support those needs.

PROJECT LOCATION

The project area is located north of Essex Street, south of the Calaveras River Diverting Canal, west of Coronado Avenue, and immediately east of Alvarado Avenue. It is located within Section 17 of Township 2 North, Range 6 East as depicted on the Stockton West California 7.5' USGS quadrangle map (Attachment A Figures 1, 2, and 3).

PROJECT DESCRIPTION

The Project will entail development of the currently open 8.2-acre parcel into 39 residential lots with appurtenant facilities including utility and right-of-way improvements. Curb, gutter, and sidewalk construction would occur along the Alvarado Avenue frontage. The project would be served by City sewer, water and storm drainage lines to be extended onto the project site from existing infrastructure located in Alvarado Avenue.

Two parcel access point are proposed at the north end of Alvarado Avenue. Both left-turn and right-turn movements would be allowed at these points. Additionally, four of the proposed houses would front along the east side Alvarado Avenue, where access is currently available. A 15-foot masonry wall would be constructed along the eastern boundary of the site. The northern and southern property boundary would be marked by 6-foot wooden fences.

REGULATORY SETTING

CEQA requires that public agencies having authority to finance or approve public or private projects assess the effects of the projects on cultural resources. Cultural resources include buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA states that if a proposed project would result in an effect that may cause a substantial adverse change in the significance of a significant cultural resource (termed a "historical

resource”), alternative plans or mitigation measures must be considered. Because only significant cultural resources need to be addressed, the significance of cultural resources must be determined before mitigation measures are developed.

CEQA §5024.1 (Public Resources Code §5024.1) and §15064.5 of the State CEQA Guidelines (14 California Code of Regulations [CCR] §15064.5) define a historical resource as “a resource listed or eligible for listing on the California Register of Historical Resources.” A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- 1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- 2) Is associated with the lives of persons important to our past;
- 3) Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values; or
- 4) Has yielded, or may be likely to yield, information important to prehistory or history.

In addition, CEQA also distinguishes between two classes of archaeological resources: archaeological sites that meet the definition of a historical resource, and “unique archaeological resources.” An archaeological resource is considered “unique” if it:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory;
- Can provide information that is of demonstrable public interest and is useful in addressing scientifically consequential and reasonable research questions;
- Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;
- Is at least 100 years old and possesses substantial stratigraphic integrity; or
- Involves important research questions that historical research has shown can be answered only with archaeological methods (Public Resources Code §21083.2).

According to the State CEQA Guidelines, a project with an effect that may cause a substantial adverse change in the significance of a historical resource or a unique archaeological resource is a project that may have a significant effect on the environment (14 CCR §15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

The State CEQA Guidelines (14 CCR §15064.5[e]) also require that excavation activities be stopped whenever human remains are uncovered, and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of a Native American, the Native American Heritage Commission must be contacted within 24 hours, and the provisions for treating or disposing of the remains and any associated grave goods as described in CCR §15064.5 must be followed.

NATURAL AND CULTURAL SETTING

Existing Environment

The natural environment consists of a level terrace along the Calaveras River Diverting Canal; at the time of the survey, the parcel consisted of a freshly mowed field. Prehistorically, the landscape would have been dominated by annual grasslands.

Prehistoric Setting

Various syntheses have been proposed for the Project region over the past 80 years. In an attempt to unify the various hypothesized cultural periods in California, Fredrickson (1973, 1974, and 1993) proposed an all-encompassing scheme for cultural development, while acknowledging that these general trends may manifest themselves differently and there may be some variation between sub-regions. Fredrickson also recognized that the economic/cultural component of each pattern could be manifested in neighboring geographic regions according to the presence of stylistically different artifact assemblages. He introduced the term aspect as a cultural subset of the pattern, defining it as a set of historically related technological and stylistic cultural assemblages.

The earliest well-documented entry and spread of humans into California occurred at the beginning of the **Paleo-Indian Period (10,000–6000 B.C.)**. Social units are thought to have been small and highly mobile. Known sites have been identified in the contexts of ancient pluvial lake shores and coast lines. Prehistoric adaptations over the ensuing centuries have been identified in the archaeological record by numerous researchers working in the area since the early 1900s, as summarized by Fredrickson (1974) and Moratto (1984).

Few archaeological sites have been found in the Valley that date to the Paleo-Indian or the **Lower Archaic (6000–3000 B.C.)** time periods, however archaeologists have recovered a great deal of data from sites occupied by the Middle Archaic period (3000–500 B.C.) when the broad regional patterns of foraging subsistence strategies gave way to more intensive procurement practices. Permanent villages that were occupied throughout the year were established, primarily along major waterways. The onset of status distinctions and other indicators of growing sociopolitical complexity mark the **Upper Archaic Period (500 B.C.–A.D. 700)**. Exchange systems become more complex and formalized and evidence of regular, sustained trade between groups was seen for the first time.

Several technological and social changes characterized the **Emergent Period (A.D. 700–1800)**. The bow and arrow were introduced, ultimately replacing the dart and atlatl. Territorial boundaries between groups became well established. It became increasingly common that distinctions in an individual's social status could be linked to acquired wealth. Exchange of goods between groups became more regularized with more goods, including raw materials, entering into the exchange networks.

The Middle and Upper Archaic and Emergent Periods are further broken down under the Central California Taxonomic System. These three time periods are well represented in archaeological assemblages in the general vicinity of the project area. The assemblages are discussed in detail in Bennyhoff and Fredrickson (1994) and Moratto (1984) and summarized here.

The **Windmill Pattern (3000–500 B.C.)** of archaeological assemblages included an increased emphasis on acorn use as well as a continuation of hunting and fishing activities. Ground and polished charmstones, twined basketry, baked-clay artifacts and worked shell and bone were hallmarks of Windmill culture. Widely ranging trade patterns brought goods in from the Coast Ranges and trans-Sierran sources as well as closer trading partners.

The **Berkeley Pattern (500 B.C.–A.D. 700)** represented a greater reliance on acorns as a food source than was seen previously. Distinctive stone and shell artifacts distinguished it from earlier or later cultural expressions. Minimally shaped mortar and pestle technology was much more prevalent than mano/metate.

The **Augustine Pattern (A.D. 700–1800)** was marked by increasing populations resulting from more intensive food procurement strategies, as well as a marked change in burial practices and increased trade activities. Intensive fishing, hunting and gathering, complex exchange systems and a wider variety in mortuary patterns were all hallmarks of this period. Mortars and pestles were more carefully shaped; bow and arrow technology was present. Fishing implements became more common, trade increased and cremation was used for some higher status individuals.

Ethnographic Setting

The project area is located in Northern Valley Yokuts ethnographic territory. Because of their rapid decimation as a result of disease, missionization, and Euro-American settlement, the Northern Valley Yokuts are generally not well documented in the ethnographic record (Wallace 1978). Information on the Yokuts' lifeways has been compiled by ethnographers from various sources; primarily military and missionary reports and diaries written during the Spanish and Mexican periods.

The Northern Valley Yokuts were organized into at least 11 small political units or tribes (Wallace 1978). Each tribe had a population of approximately 300 people, most of who lived within one principal settlement that usually had the same name as the political unit. Within the villages, structures included sweathouses, ceremonial chambers, and oval single-family dwellings made of tule (Wallace 1978).

Ethnographically, the Northern Valley Yokuts occupied the land on either side of the San Joaquin River from the delta to south of Mendota. The Diablo range probably marked the Yokuts' western boundary (Wallace 1978); the eastern edge would have lain along the Sierra Nevada foothills. The late prehistoric Yokuts may have been the largest ethnic group in pre-contact California.

Northern Valley Yokuts material culture included a wide range of implements. Acorn mortars were pecked into bedrock outcrops or could be made from oak to be more portable; pestles were frequently irregular or somewhat crude and were often left in place at bedrock outcrops (Kroeber 1925). Smaller mortars may have been used for tobacco or medicine. Snares, bows and spears were used in hunting, sometimes as part of organized animal drives or after being lured in with decoys. Fish were speared, netted or poisoned then gathered. Tule boats were used on rivers and lakes. Basketry took a wide variety of forms, as did cradle types. Clay cooking balls were used to replace scarce stone in the upper Valley.

Euro American contact with the Northern Valley Yokuts began with infrequent excursions by Spanish explorers traveling through the Sacramento-San Joaquin Valleys in the late 1700s to early 1800s. Cook (1955) attempted to identify San Joaquin Valley village and tribal groups based on early accounts from Spanish explorers and Mission records. Many Yokuts were lured or captured by missionaries and taken to Mission San Jose or Santa Clara. The malaria epidemic of 1833 decimated the indigenous population, killing thousands of the tribesmen. The influx of Europeans during the gold rush era further reduced the population because of disease and violent relations with the miners. Though there was no gold in the Yokuts territory, miners passing through on their way to the diggings caused a certain amount of upheaval. Former miners, who had seen the richness of the San Joaquin Valley on their way east later returned to settle and farm the area (Wallace 1978).

Historic Setting

The Spanish, and later Mexican, governments of California tried to encourage settlement by awarding large plots of land, called ranchos, to prominent men; the current project site was part of one such grant, Charles M. Weber's *El Campo De Los Franceses* land grant. Captain Weber was a German immigrant who left his native land in 1836. After stays in New Orleans and Salt Lake City, Weber made his way to Sutter's Fort where he was employed as overseer and general assistant to John Sutter. Eventually he made a trip to San Jose sometime during 1841, where he struck up a partnership with Guillermo Gulnac. In 1842, they built and opened a flourmill and made sea biscuits. In 1843 Gulnac obtained a land grant of 48,000 acres near French Camp and raised cattle (Cook 1975). This became known as *Campo de los Franceses* (Beck and Haase 1974).

Weber moved from San Jose to Stockton in 1847, after Gulnac gave him a half interest in the rancho. Weber could not himself obtain a land grant because he was not a Mexican citizen, but purchased the other half interest from Gulnac after the end of the Mexican Period. Webber also convinced several other settlers to locate to this area by offering them land (Cook 1975). In 1868 the Central Pacific Railroad Company announced their intentions to build a rail yard in Lathrop, near Weber's rancho. Chinese labor was brought in to do the work, and a settlement grew up around the rail yard (Cook 1975).

One of the key components to the settlement of the San Joaquin Valley was the availability of transportation, addressed in the 1870s when the Central Pacific Railroad constructed its line through the San Joaquin Valley to reach southern California. This revolutionized the transportation network, passenger travel, and the ability of farmers and ranchers to sell their goods to distant markets. During the late 1800s, the San Joaquin Valley became the center of California's wheat belt. While ranching remained an important industry, with the expansion of large-scale irrigation in the early 1900s came the production of a variety of fruits and vegetables, vineyards, alfalfa, and cotton, among other crops (Jelinek 1982).

The establishment of a state highway system in the early-to-mid 1900s was the next major transportation development. This included two north-south highways through the Central Valley. One corresponded to today's State Route (SR) 99 in the interior; the second to U.S. Highways 1 and 101 along the western slope of the Coast Range. The routes that passed through population centers, particularly during the latter half of the 20th century, witnessed the growth of residential, commercial, and industrial complexes along these corridors and development of the modern freeway system (Berlo 1998).

Weber founded the City of Stockton in 1850, and the City incorporated that same year. While Weber drafted subdivision maps of the City of Stockton as early as 1849, greater portions of the City developed around the 1860s and 1870s. During the latter part of the 19th century, the manufacture of agricultural tools and equipment became a major industry in Stockton. Several new inventions from the region revolutionized farming techniques, including the Stockton Gang Plow and the Marvin Combined Harvester (or combine). Benjamin Holt founded the Stockton Wheel Company which eventually became the Holt Manufacturing Company in 1883. The Holt Company thrived as it supported the regional agricultural industry and excelled with its innovative farm machinery. Following the introduction of rail service to the area, Stockton continued to expand. By the conclusion of the 19th century, the City witnessed increased commercial activity as a hub of transportation and agriculture on the Sacramento/San Joaquin Delta (ICF 2008).

The United States military developed an Army Air Force base at Old Stockton Field and the Stockton Naval Supply Depot during World War II and local manufacturers benefitted by building and maintaining army equipment as well as shipbuilding. Regardless of this military support success, agricultural and related industries continued their driving force and influence in the Stockton economy (ICF 2008).

Over the years the farmers of the region have continued to make agriculture the state's top industry. By the 1990s, agricultural annual income in San Joaquin County exceeded \$1 billion. During the late 20th century, Stockton's main successes in business continued to relate to the activity and support of processing, growing, and transportation of agricultural products.

NATIVE AMERICAN CONSULTATION

On July 8, 2017 SAS emailed a letter and a map depicting the project area to the Native American Heritage Commission (NAHC). The letter requested a records search of the Sacred Lands Files for the project area, and for a list of Native American consultants that should be contacted about the project. On July 26, 2017, Ms. Sharaya Souza, Staff Services Analyst for the NAHC, replied in an emailed letter that the "Sacred Lands File was completed for the area of potential effect (APE) . . . with negative results." Ms. Souza also supplied a list of Native Americans to contact in regard to requesting official project recommendations and information on unrecorded cultural resources that may exist in the project area. On July 31, 2017, SAS mailed letters to the following Native Americans identified by the NAHC:

- Rhonda Morningstar Pope (Chairperson, Buena Vista Rancheria of Me-Wuk Indians)
- The California Valley Miwok Tribe
- Randy Yonemura (Ione Band of Miwok Indians)
- Crystal Martinez Chairperson, Ione Band of Miwok Indians)
- Katherine Erolinda Perez (Chairperson, North Valley Yokuts Tribe)
- Lois Martin (Chairperson, Southern Sierra Miwuk Nation)
- Raymond Hitchcock (Chairperson, Wilton Rancheria)

To date there has been no response.

California Public Resources Code Sections 21080.1, 21080.3.1, and 21080.3.2 (AB 52) requires public agencies to consult with the appropriate California Native American tribes identified by the NAHC for the purpose of mitigating impacts to cultural resources.

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM (CHRIS) RECORDS SEARCH

On July, 2017, a records search request was emailed to the Central California Information Center (CCIC) at California State University, Stanislaus. The CCIC in turn conducted a records search (I.C. file No. 10355L) of the CHRIS for any previously known or recorded cultural resources. The search included a review of all known archaeological sites, studies, and isolates within a half-mile radius of the project area. Additionally, the NCIC also reviewed the following sources:

- the *National Register of Historic Places* (Historic Properties Directory, California Office of Historic Preservation 2002);
- the *California Register of Historic Places* (Historic Properties Directory, California Office of Historic Preservation 2002);
- the *California Historical Landmarks* (California Office of Historic Preservation 1996);
- the *California Points of Historical Interest* (California Office of Historic Preservation 1992);

- the *California Inventory of Historic Resources* (California Department of Parks and Recreation 1976); and
- pertinent historical inventories including historic maps and plat maps.

No sites were previously recorded in the Project area, but the record search results indicated that five previously recorded resources have been found within half-mile of the Project area. These include: P-39-4488, the B.S. Clowes House; P-39-4898, a Native American burial; a railroad line; a section of the Central California Traction Company railway line; and the former location of the Kennedy House. The record search further indicated that the Project footprint has not been previously surveyed, though 17 surveys have been completed within a ½-mile radius (Table 1).

Table 1. *Previously Conducted Studies within a ½-Mile Radius of the Project Area*

Report #	Author	Title	Date
SJ-00771	Napton, L. K.	Cultural Resource Investigation of the Weber/Sperry Ranches, San Joaquin County, California.	1985
SJ-03995	Nelson, W. J.	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield	2000
SJ-04192	Jensen, P. M.	Archaeological Inventory Survey: Seven Proposed School Sites within the San Joaquin School System, San Joaquin County, California.	2000
SJ-04875	Jensen, P. M.	Archaeological Inventory Survey, Oakmore West Residential Subdivision Project, c. 80 Acres South of the Calaveras River, San Joaquin County, California.	2003
SJ-04992	Jensen, P. M.	Archaeological Inventory Survey, Weber Grove Residential Development Project, c. 5 Acres Adjacent to West Lane and the Calaveras River, Stockton, San Joaquin County, California.	2003
SJ-05257	Jensen, P. M. and S. M. Jensen	Archaeological Inventory Survey, Alvarado Avenue, Residential Subdivision Project, c. 21 Acres Adjacent to the Calaveras River, Stockton, San Joaquin County, California.	2003
SJ-05259	Jensen, P. M. and S. M. Jensen	Archaeological Inventory Survey, Stockton's System 9 Sewer Improvement Project, 5.5 Linear Miles in Stockton, San Joaquin County, California.	2003
SJ-05486	Jensen, P. M.	Archaeological Inventory Survey, Proposed West Lane Residential Development Project, c. 20 Acres Adjacent to West Lane and the Calaveras River, Stockton, San Joaquin County, California.	2004
SJ-06316	Jensen, S.	Archaeological Inventory Survey Rite Aid Development Project, c. 8 acres Adjacent to East Side of West Lane, Stockton, San Joaquin County, California.	2006
SJ-06317	Jensen, S.	Archaeological Inventory Survey Ijams Residential Development Project, c. 2.7 acres Adjacent to the East Side of Ijams Road, Stockton, San Joaquin County, California.	2006
SJ-06345	SWCA Environmental Consultants	Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California. SWCA Project No. 10715-180.	2006
SJ-06507	URS Corporation	Cultural Resources Report for Geotechnical Evaluations of the San Joaquin Area Flood Control Agency Project Levees	2007
SJ-06514	Busby, C.	Archaeological Literature Review, "Orchard at Oak Park" (Cabral/McAdams Property), City of Stockton, San Joaquin County	2006

SJ-06723	URS Corporation	Technical Report, Final: Cultural Resources Survey Report for the Urban Levee Project.	2008
SJ-06724	URS Corporation	Technical Report, Final: Cultural Resources Baseline Literature Review for the Urban Levee Project.	2008
SJ-06784	Billat, L.	New Tower ("NT") Submission Packet FCC Form 620 Project Name: Filipino American Church, Project Number: SC-13368B	2008
SJ-08284	AECOM	Cultural Resources Inventory Report for the Central Valley Independent Network Fiber Optic Communications Network Project, California (Calaveras, Merced, San Joaquin, Stanislaus and Tuolumne Counties in the CCalC Area of Responsibility)	2011

FIELD SURVEY

Methods

On July 23, 2017, SAS archaeologists conducted an intensive pedestrian survey of the project area using parallel transects spaced 15 meters apart. The parcel consisted of a freshly mowed field of annual grasses, resulting in ground surface visibility averaging only 0-5 % at best. The field was pock-marked with numerous gopher holes, allowing for minor observation of subsurface soils. There was a modern house and residence along the southwest corner of the project area.

Results

No cultural resources were identified either by the record search or the field survey.

RECOMMENDATIONS

Provided that all ground-disturbing work is confined to the Project footprint as it is currently defined, a finding of *No Historical Resources Impacted* is recommended. It is not anticipated that buried resources will be uncovered during project construction, but there is always a possibility. In the event that buried archaeological deposits are encountered during any construction activity, work must cease within a 50-foot radius of the discovery, and the property owner notified. A qualified archaeologist must be retained to document the discovery, assess its significance, and recommend treatment. In the event that human remains or any associated funerary artifacts are discovered during construction, all work must cease within the immediate vicinity of the discovery. In accordance with CEQA and the California Health and Safety Code (Section 7050.5), the County coroner must be contacted immediately. If the remains are deemed to be Native American, the coroner will notify the Native American Heritage Commission, which will in turn appoint a Most Likely Descendent (MLD) to act as a tribal representative. The MLD will work with the project proponent, lead agency, and a qualified archaeologist to determine the proper treatment of the human remains and associated funerary objects. Construction activities will not resume until either the human remains are exhumed, or the remains are avoided via project construction design change.

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ICF

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ATTACHMENT A

Figures



Figure1. Project Vicinity Map.

 Project Area

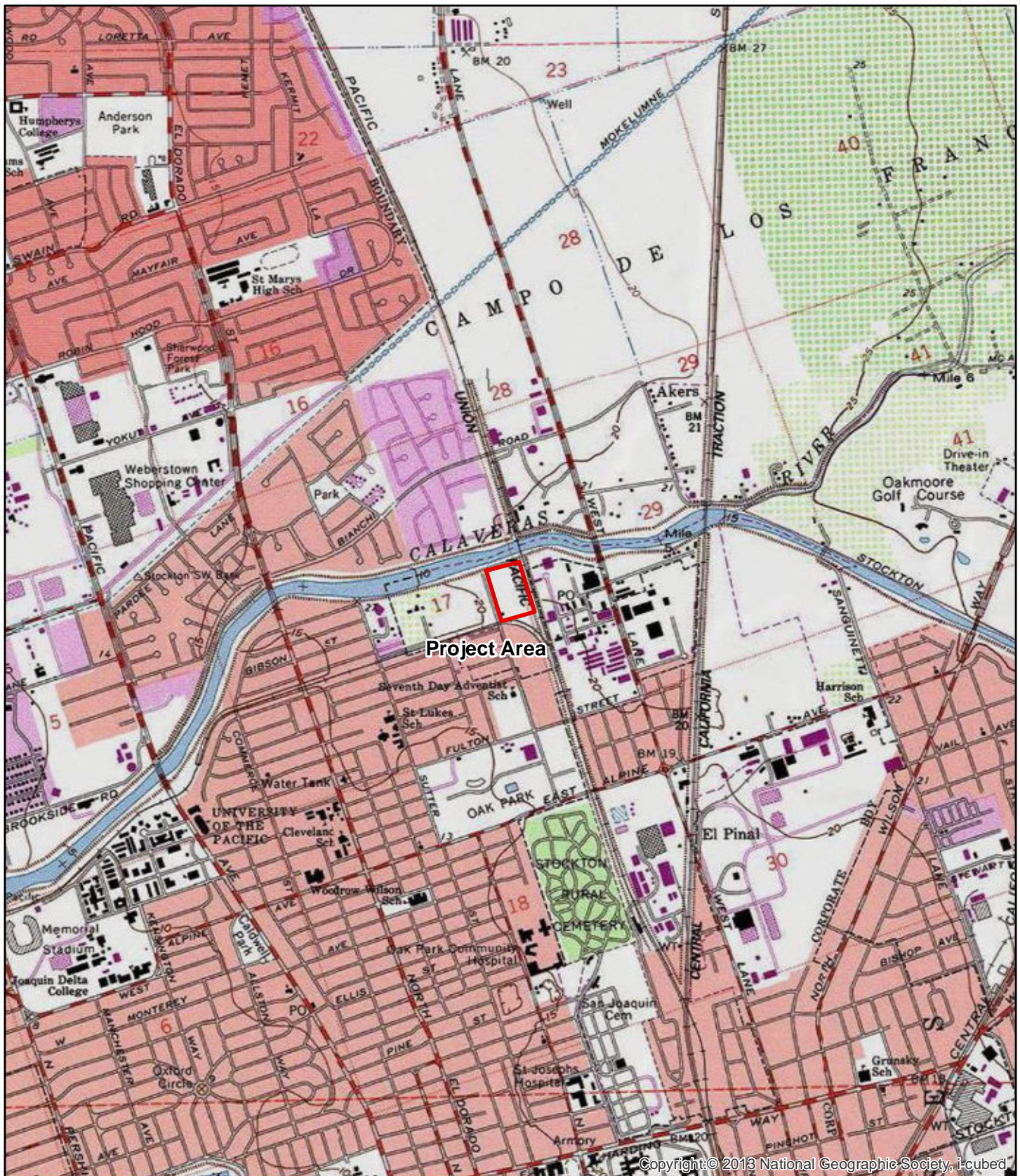


1:250,000

0 2 Miles

0 5 Kilometers





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Figure 2. Project Location

 Project Area

San Joaquin County, CA
 Campo De Los Fraceses Land Grant,
 Presumed Section 17
 Stockton West USGS Quadrangle,
 7.5' Series, 1978

1:24,000

0 1,000 Feet

0 500 Meters





Figure 3. Project Area Map.

 Project Area

1:3,200

0 200 Feet

0 100 Meters





October 11, 2017

BaseCamp Environmental, Inc.
Attn. Charlie Simpson
115 S. School Street, Ste. 14
Lodi, CA 95240

SU: ADDENDUM TO THE CALAVERAS ESTATES 4 PROJECT, SAN JOAQUIN COUNTY, CA

Dear Mr. Simpson:

This letter is an addendum to the Calaveras Estates 4 Project letter report we submitted to you in July of this year. We have reviewed the structure located at 4204 Alvarado Avenue, Stockton, San Joaquin County, APN # 11530002. The building was identified on the 1913 Stockton West, California, USGS topographic quadrangle, making the resource at least 104 years old. Zillow.com has the structure listed as being built in 1915. We have enclosed a State of California Department of Parks and Recreation recordation form documenting this resource. Please be advised that although the structure is a resource, it has been extensively renovated and exhibits modern construction including a new stucco exterior and a new concrete front porch and walkway. The house has the overall feel of a structure that dates to post 1970s. As the structure at 4204 Alvarado Avenue lacks historic integrity, it likely does not meet California Register of Historic Resources eligibility criteria. Thanks for your time, and if you have any questions please let me know.

Sincerely,

Jason A Coleman, M.A., R.P.A.
Owner and Principal Investigator
jason@solanoarchaeology.com

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code

Reviewer

Date

Page 1 of 2

* Resource Name or #: SAS-001 4204 Alvarado Avenue

P1. Other Identifier:

*P2. Location: ☒ Not for Publication ☐ Unrestricted
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*a. County: San Joaquin

*b USGS 7.5' Quad: Stockton West

Date: 1978 T 2N R 6E

Unsectioned land

M.D. B.M.

c. Address: 4204 Alvarado Avenue

City: Stockton

Zip: 95204

d. UTM: Zone: 10; 649,968 mE/ 4,206,115 mN Datum: NAD 83

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 500-520'

From the town of Snelling head east on State Highway 59 for less than a half a mile. When Hwy 59 branches off north, head east onto Merced Falls Road for 5.7 miles, then veer east onto Hornitos Road. After approximately a half a mile, Hornitos Road veers south. Turn right to stay onto Hornitos Road, and travel for 3 miles. Park and head south, following the UTM coordinates above.

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This resource consists of a 1,142 square foot single story single family house (APN# 11530002). The resource was identified on the 1913 Stockton West, California, USGS topographic quadrangle, making the resource at least 104 years old. Zillow.com has the structure listed as being built in 1915. Located in the *Campos De Los Franceses Land Grant*, the house now has three bedrooms, one bathroom, and an associated 8.71 acre lot. As evident from the picture below, the house has been extensively renovated and exhibits modern construction including a new stucco exterior and a new concrete front porch and walkway. As such, the resource lacks historic integrity most likely does not meet California Register of Historical Resources listing criteria.

*P3b. Resource Attributes: HP.2 Single family property

*P3d. Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a.



P5b. Description of Photo:

Site overview, facing east, October 11, 2017.

*P6. Date Constructed/Age and Sources:

☒ Historic ☐ Prehistoric ☐ Both

*P7. Owner and Address:

Unknown
4204 Alvarado Avenue
Stockton, CA 95204

*P8. Recorded by:

J. Coleman
Solano Archaeological Services
131 Sunset Ave., Ste. E 120
Suisun, CA 94585

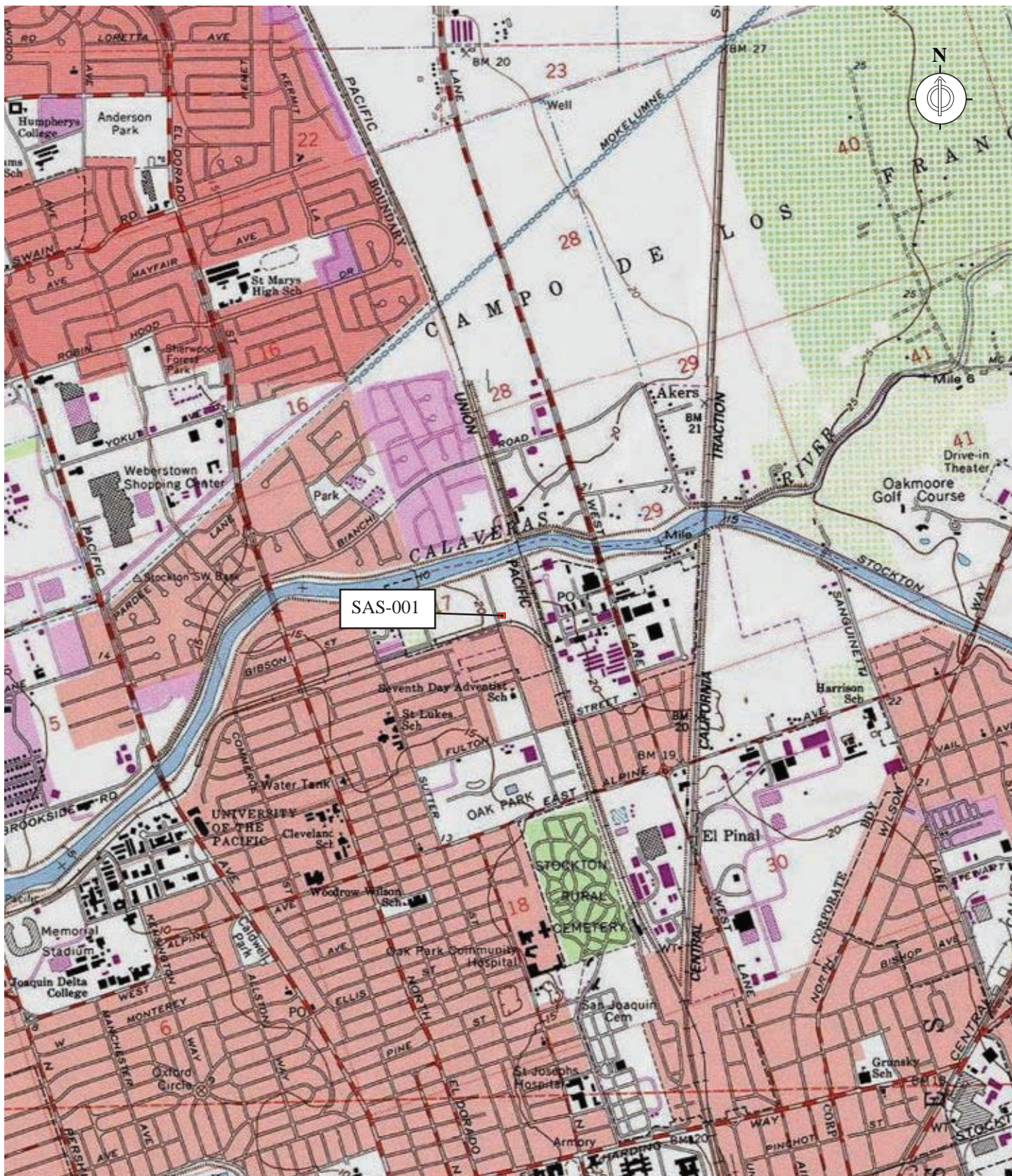
P9. Date Recorded: October 11, 2017

P10. Survey Type: Intensive pedestrian

*P11. Report Citation: Coleman, 2017 Cultural Resources Letter Report for the Calaveras Estates 4 Project, San Joaquin County, California. Submitted to the BaseCamp Environmental by Solano Archaeological Services.

* Attachments: ☐ NONE ☒ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

LOCATION MAP



APPENDIX C NOISE STUDY

Environmental Noise Analysis

Alvarado Avenue Residential Project

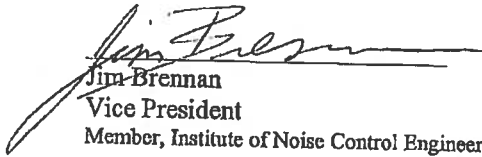
City of Stockton, California
Project # 2004-221

Prepared For:

Insite Environmental, Inc.
6653 Embarcadero Drive, Suite Q
Stockton, CA 95219

Prepared By:

Bollard & Brennan, Inc.


Jim Brennan
Vice President
Member, Institute of Noise Control Engineers

September 21, 2004

Bollard & Brennan, Inc.

1293 Lincoln Way, Suite A - Auburn, California 95603 - (530) 745-0191 - Fax: (530) 745-0192



INTRODUCTION

The proposed Alvarado Avenue Residential project includes two separate parcels. The Sperry Parcel is bordered by the Calaveras River Diverting Canal to the north, and Alvarado Avenue to the east. The second parcel is adjacent to the Union Pacific Railroad (UPRR) to the east and Alvarado Avenue to the west, in the City of Stockton. Train operations along the UPRR are considered to be a potentially significant noise source which may affect the project design. The intent of this analysis is to determine the existing and potential future railroad noise levels on the project site, and to provide mitigation measures where future noise levels on the project site are expected to exceed the City of Stockton General Plan noise level criteria (Figure 1 shows the project area).

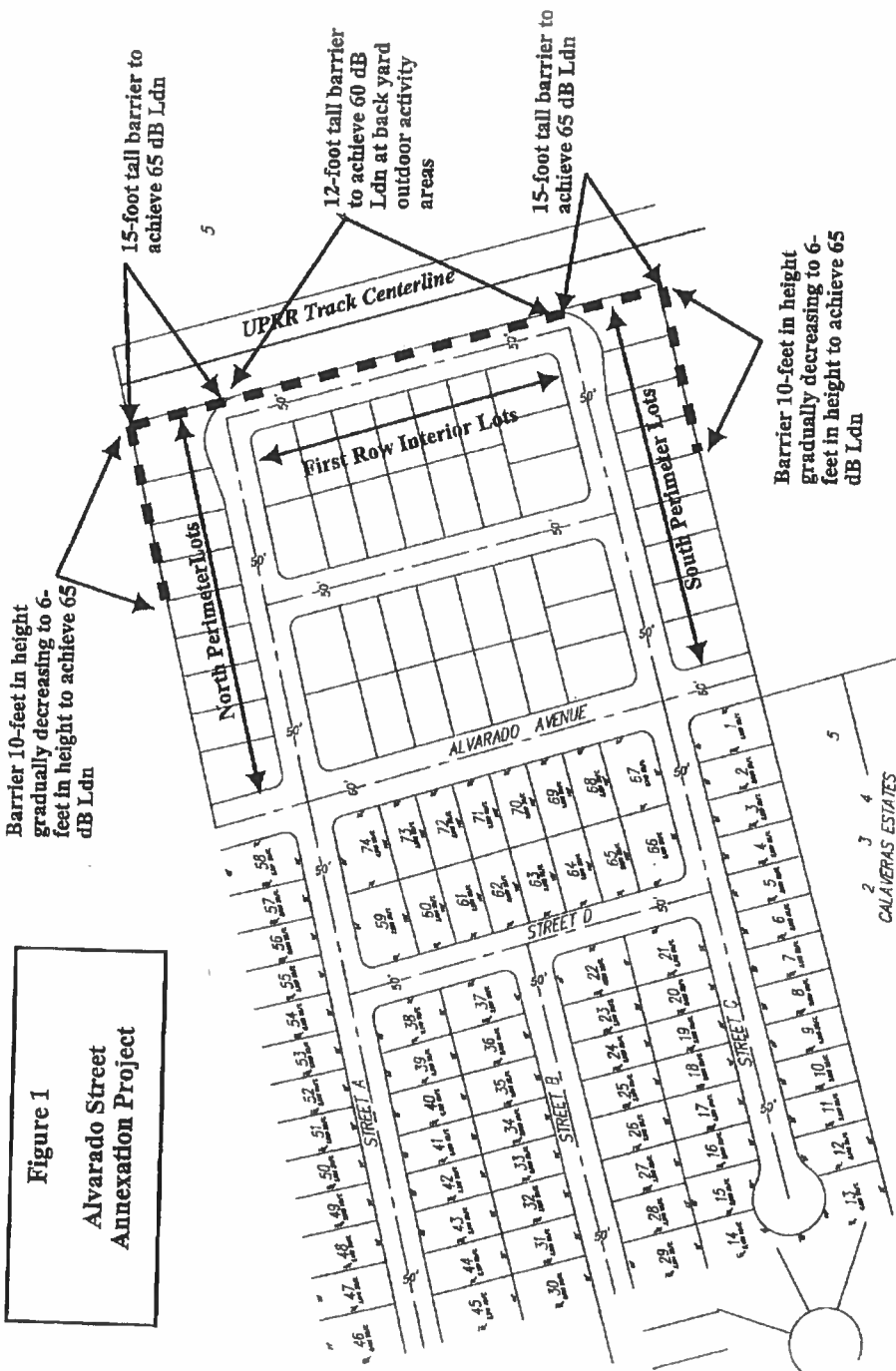
BACKGROUND ON NOISE AND ACOUSTICAL TERMINOLOGY¹

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dBA. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dBA. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Figure 2 illustrates common noise levels associated with various sources.

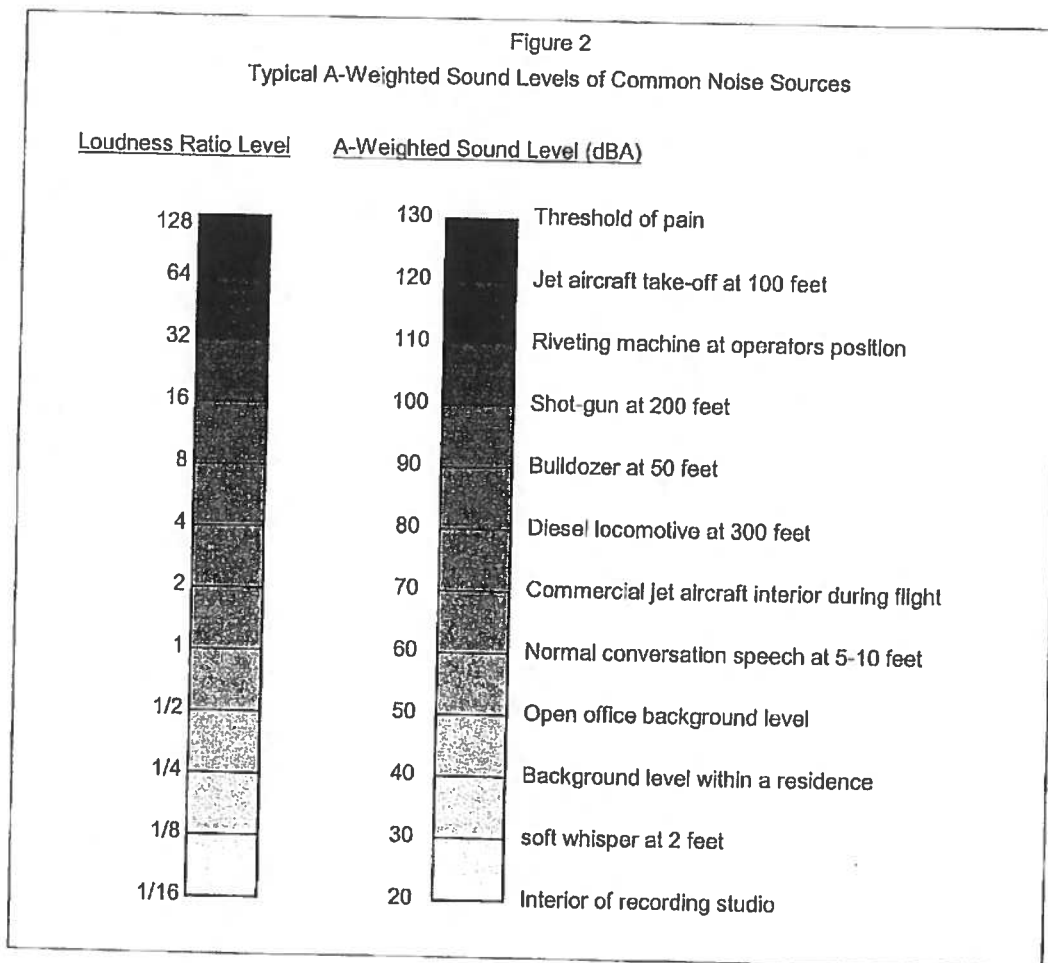
The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

¹ For an explanation of these terms, see Appendix A: "Acoustical Terminology"



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Community noise is commonly described in terms of the "ambient" noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq). The Leq is the foundation of the day/night average noise descriptor, Ldn, and shows very good correlation with community response to noise.



CRITERIA FOR ACCEPTABLE NOISE EXPOSURE

City of Stockton General Plan

For transportation noise sources, such as railroad line operations, the City of Stockton General Plan establishes a "Normally Acceptable" exterior noise level standard for residential uses of 60 dBA Ldn,

which is applied in the outdoor activity areas. A "Conditionally Acceptable" exterior noise level standard of 65 dB Ldn is applied after careful study and inclusion of protective measures as needed for the intended use. The City also establishes an interior noise level criterion of 45 dB Ldn.

EXISTING NOISE ENVIRONMENT

Existing Railroad Noise:

Bollard & Brennan, Inc. conducted noise level measurements of UPRR operations on November 11-12, 2003. The noise level measurements were conducted at a distance of approximately 435 feet from the railroad track centerline, within the backyard of 4102 Alvarado. A Larson Davis Laboratories (LDL) Model 820 sound level meter was used to conduct the noise level measurements. The sound level meter was programmed to collect single event noise level data associated with train passbys, as well as overall hourly noise level data. Figure 3 graphically illustrates the results of the measured noise level data. Due to security reasons, the sound level meter was not left directly on the project site. See figure 1 for the location of 24-hour monitoring site.

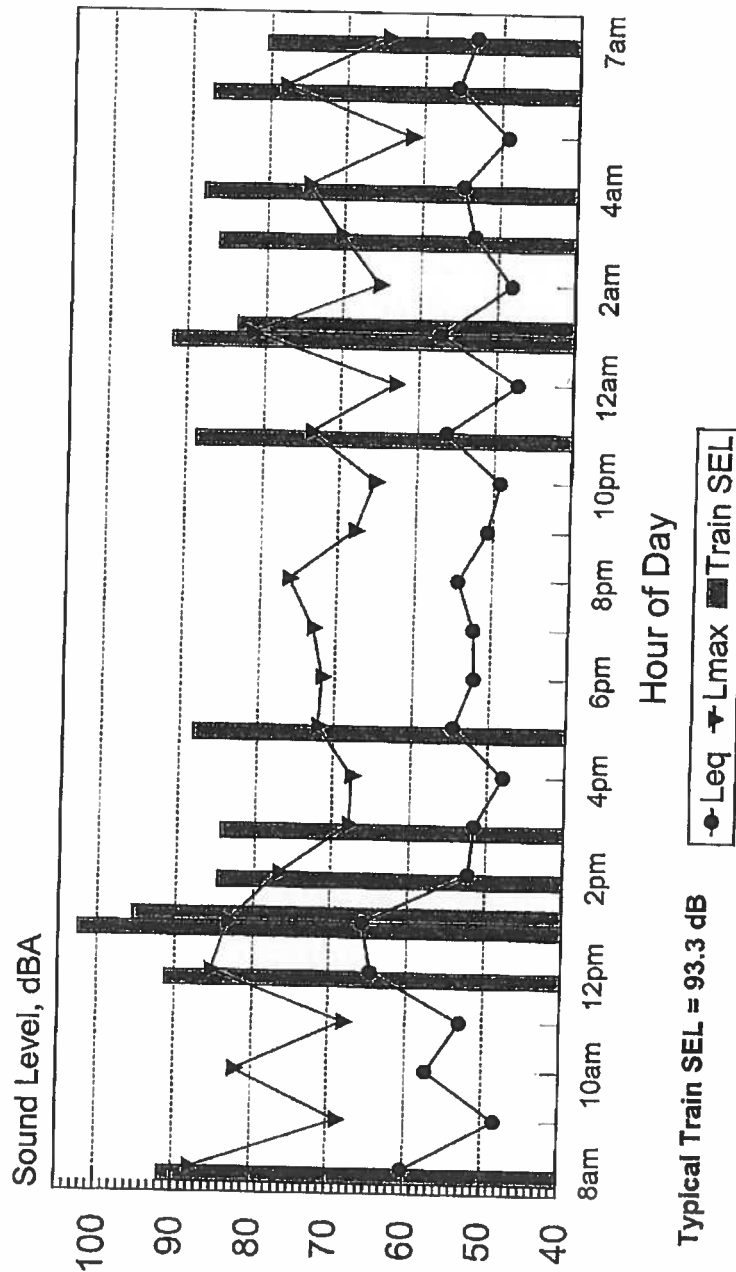
The results of the noise level measurements indicated that the typical train operation resulted in an average sound exposure level (SEL) of 93.3 dB at a distance of 435 feet from the railroad track centerline. Based upon the noise measurement data, approximately 14 trains per day operate along the track, with approximately 43% of the trains operating during the nighttime hours (10 p.m. to 7 a.m.) and 57% of the trains operating during the daytime hours (7 a.m. to 10 p.m.).

To determine the Ldn value associated with the railroad operations near the project site, the following formula can be used:

$$Ldn = SEL + 10 \log Neq - 49.4 \text{ dB, where:}$$

SEL is the mean measured SEL of the train events (93.3 dB at a distance of 435 feet), Neq is the sum of the daytime (7 a.m. to 10 p.m.) train events plus 10 times the number of nighttime (10 p.m. to 7 a.m.) train events, and 49.4 is ten times the logarithm of the number of seconds per day. Based upon this information, the Ldn is predicted to be 62.2 dB at a distance of 435. Using accepted noise prediction methodology to account for attenuation over distance, the existing Ldn at the project site is predicted to be 74 dB Ldn at the lots on the closest lots on the north and south sides of the parcel (75 feet from the centerline of the railroad tracks), and 71 dB at the nearest residential uses within the interior of the project site (120 feet from the centerline of the railroad tracks). The distances to the railroad operation noise level contours are shown in Table 1.

Figure 3
Continuous Measured Hourly Noise Levels and Train Events
At 435 feet from Railroad Track Centerline
Tuesday November 11, 2003 - Wednesday November 12, 2003



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Table 1 Predicted Existing Railroad Operation Noise Levels				
Distance to Noise Contours*			Predicted Ldn at Nearest Residential Facades	
60 dB Ldn	65 dB Ldn	70 dB Ldn	North and South Lots	Interior Lots
610 feet	283 feet	131 feet	74 dB Ldn	71 dB
*Predicted distances to noise level contours are from the railroad track centerline.				

FUTURE NOISE ENVIRONMENT

Future Exterior Railroad Noise:

Future railroad operations data was not available. Therefore, it is assumed that the existing railroad noise exposure represents potential future railroad noise exposure. Based upon the predicted railroad noise levels, it is expected that the railroad operations will exceed the City of Stockton lower limit exterior noise level criterion of 60 dB Ldn, and the upper limit noise level criterion of 65 dB Ldn.

Future Interior Railroad Noise:

The nearest residential building facades are approximately 120 feet from the adjacent UPRR track centerline. The predicted exterior railroad noise levels range between 71 dB and 74 Ldn at first floor facades, and approximately 73 dB to 76 dB Ldn at second floor facades. Second floor facades are generally exposed to overall noise levels of approximately 2 dB higher than first floor facades, due to the fact that they do not benefit from excess ground attenuation.

Standard residential construction (wood siding or two-coat stucco siding, STC-26 windows, door weatherstripping, exterior wall insulation, composition plywood roof, etc.), results in an exterior to interior noise reduction of about 20 to 25 dB with windows closed, and approximately 15 dB with windows open.

Therefore, interior noise levels will not comply with the City of Stockton interior noise level criterion of 45 dB Ldn. Therefore, interior mitigation measures are required.

MITIGATION

Exterior Noise Mitigation:

Exterior noise mitigation measures can take the form of barriers, setbacks or through site design. Barriers would be required to the lots on the north and south ends. However, due to the preliminary project design, outdoor activity areas (back yard patios) at the interior lots would be shielded from railroad noise levels by the building facades.

Shielding Effects

These shielding effects by buildings is discussed in the Caltrans Technical Noise Supplement (Section N-5515, Caltrans 1998 Technical Noise Supplement, TeNS). The amount of attenuation provided by the building facades depends on the size of the gaps between the buildings. Based upon the TENS, Bollard & Brennan, Inc. conservatively applied a -6 dBA adjustment to account for the shielding that would be provided by the residential building facades. Combining the additional distance and noise attenuation to the outdoor activity areas, and the shielding effects of the building facades, the predicted exterior noise levels at the interior lots outdoor activity areas are less than 65 dB Ldn. Therefore, the interior lots are expected to comply with the upper noise level criterion of 65 dB Ldn. However, these lots would not comply with the interior noise level criterion of 60 dB Ldn.

Barrier Analysis

Bollard & Brennan, Inc. used a barrier analysis to determine the barrier heights required to reduce exterior noise levels to 60 dB and 65 dB Ldn for each of the lots. The analysis accounts for the fact that the railroad bed is elevated approximately 8-feet above the project site. The results of the analysis are shown in Table 2 and are shown graphically on Figure 1.

Based upon the analysis, a barrier 15-feet in height would be required at the property line to reduce exterior noise levels to 65 dB Ldn for the perimeter lots to the north and south. The barriers would need to return to the west along the rear property lines at a height of 10 feet, and gradually decrease to 6-feet in height at a distance of 280 feet from the railroad track centerline. Barriers in excess of 20 feet would be required to reduce railroad noise levels to 60 dB Ldn at the north and south perimeter lots. See Figure 1.

No barrier would be required to reduce exterior noise levels to 65 dB Ldn at the outdoor activity areas of the interior lots. A right-of-way barrier 12 feet in height would be required to reduce exterior noise levels to 60 dB Ldn at the outdoor activity areas of the interior lots. See Figure 1.

Interior Noise Mitigation:

The following interior noise mitigation measures should be included to ensure that exterior to interior noise levels will be reduced by 30 dB, and comply with the interior noise level criterion of 45 dB Ldn.

1. Air conditioning or mechanical ventilation systems are installed so that windows and doors may remain closed.
2. Exterior doors are solid core with perimeter weather-stripping and threshold seals.
3. Exterior walls consist of 3-1/2" insulation; 5/8-inch exterior sheet rock mounted to a minimum 2x4 studs; 2" DRYVIT insulation board; DRYVIT or Stucco finish. Interior walls should be 5/8" sheet rock. Windows and sliding glass doors should have a minimum STC rating of 35.

This only applies to second floor facades of the perimeter lots which do not receive shielding from barriers.

If a barrier is constructed for the interior lots, this only applies to second floors of the interior lots which do not receive shielding from barriers. If a barrier is not constructed for the interior lots, this applies to the first and second floor facades of the first row of interior lots.

This does not apply to facades on the opposite sides of the houses from the railroad track.

4. Glass in both windows and doors should not exceed 20% of the floor area in a room.
5. Roof or attic vents facing the noise source of concern should be boxed so that there is not a direct path of sound into the attic spaces.

CONCLUSIONS

The proposed project is expected to comply with the City of Stockton exterior and interior noise level criteria provided that the recommendations described in the mitigation section of this report are incorporated into the project design.

These conclusions are based upon the noise source data and assumptions contained within this report.

Interior noise levels are based upon noise reduction performance from standard construction practices consistent with the uniform building code. Bollard & Brennan, Inc. is not responsible for degradation in acoustic performance due to poor construction practices, or failure to adhere to Uniform Building Code requirements.

Appendix A Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L ₅₀ is the sound level exceeded 50% of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
RT₆₀	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.

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Appendix B

Insertion Loss Calculation Spreadsheet Infinite Barrier

Job Number : 2004-221
Description: Railroad at perimeter
Source Noise level (dBA): 74
Source Frequency (Hz): 500
Source Height (ft): 18
Receiver Height(ft): 5
C1 (Source to barrier Distance (ft)): 50
C2 (Barrier to Receiver Distance (ft)): 25
Range of Barrier Heights
From(ft): 10
to(ft): 20

Barrier Heights (ft)	Insertion Loss(dB)	Noise Level (dB)
10	-5.1	68.9
11	-5.7	68.3
12	-6.7	67.3
13	-7.7	66.4
14	-8.8	65.3
15	-9.5	64.5
16	-10.5	63.5
17	-11.2	62.8
18	-12.0	62.0
19	-12.6	61.4
20	-13.2	60.8



Appendix B

Insertion Loss Calculation Spreadsheet Infinite Barrier

Job Number : 2004-221
Description: Railroad at Interior
Source Noise level (dBA): 65
Source Frequency (Hz): 500
Source Height (ft): 18
Receiver Height(ft): 5
C1 (Source to barrier Distance (ft)): 50
C2 (Barrier to Receiver Distance (ft)): 75
Range of Barrier Heights
From(ft): 10
to(ft): 20

Barrier Heights (ft)	Insertion Loss(dB)	Noise Level (dB)
10	-3.3	61.7
11	-4.4	60.6
12	-4.9	60.1
13	-5.0	60.0
14	-5.2	59.8
15	-5.7	59.3
16	-6.4	58.6
17	-7.2	57.9
18	-8.0	57.1
19	-8.8	56.2
20	-9.4	55.6

Bollard & Brennan, Inc.



APPENDIX D
TRAFFIC STUDY

**UPDATED
TRAFFIC IMPACT ANALYSIS**

FOR

**CALAVERAS ESTATES # 3 ANNEXTATION, PREZONE &
TENTATIVE SUBDIVISION MAP**
Stockton, CA

Prepared For:

Calaveras River Sun, LLC
1701 W. March Lane, Suite D
Stockton, CA 95207

Prepared By:

KD Anderson & Associates, Inc.
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

December 14, 2011

1247-01

Calaveras Estates #3.rpt

KD Anderson & Associates, Inc.

Transportation Engineers

**UPDATED TRAFFIC IMPACT ANALYSIS FOR
CALAVERAS ESTATES # 3 ANNEXTATION, PREZONE &
TENTATIVE SUBDIVISION MAP
Stockton, CA**

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December 14, 2011

KDA

**TRAFFIC IMPACT ANALYSIS FOR
CALAVERAS ESTATES # 3 ANNEXATION, PREZONE &
TENTATIVE SUBDIVISION MAP
Stockton, CA**

EXECUTIVE SUMMARY

- **Project Description.** The project combines annexation and pre-zoning of property located in the area between El Dorado Street and West Lane south of the Calaveras River in Stockton, CA, as shown in Figure 1. A portion of the project site is also the subject of a 77 unit tentative subdivision map, as noted in Figure 2, with a total of 333 dwellings possible in the entire project area.
- The project was the subject of previous environmental review and was approved with conditions by the City of Stockton in 2005. Since that time infrastructure was constructed, and a few model homes were completed. Subsequent construction on the site was curtailed by the economic downturn, and the model homes are currently vacant. This traffic impact analysis updates the previous Year 2005 analysis to address current background traffic conditions and to address the impacts of the project within the context of currently approved but not yet constructed projects, as well as the City of Stockton Year 2035 General Plan.

The project would ultimately involve development of 333 single family residential dwellings. Those dwellings are expected to generate approximately 3,187 daily trips on a weekday basis, with 250 trips generated during the a.m. peak hour and 336 trips occurring during the p.m. peak hour.

Local streets with the tentative map area have been constructed, and assumptions for roadways serving the balance of the annexations areas have been identified. The project will have access to the west via the extension of Fargo Street and access to the south will be via Alvarado Avenue.

- **Existing Setting.** New traffic count information was collected for key intersections in the area of the proposed project. These traffic counts were conducted in October and November 2011 and were employed to identify current operating Levels of Service. Existing Levels of Service at all study intersections satisfy the City of Stockton's minimum Level of Service D standard for overall intersection Level of Service.
- **Existing Plus Project Traffic Impacts.** The project will add traffic to the area street system as residents travel to and from destinations throughout the Stockton Metropolitan area. However, overall Levels of Service will remain within the City's LOS D minimum standard, and project impacts are judged to be less than significant.
- **Existing Plus Approved Projects (EPAP) Cumulative Traffic Impacts.** Other Approved development in Stockton will increase the volume of traffic on local streets near the project

and on the regional roadway system. However, the addition of traffic from other Approved Projects does not result in overall intersection Levels of Service that exceed the City's LOS D minimum standard.

- The proposed project will further increase traffic volumes under Existing Plus Approved Projects (EPAP) conditions, but resulting intersection Levels of Service will remain within the City's adopted minimum LOS D threshold. **Thus, the impact of the project under EPAP Plus Project conditions is not significant, and mitigation is not required.**
- **Project Impacts under Year 2035 Cumulative Traffic Conditions.** Community-wide development under the Stockton Year 2035 General Plan will increase the volume of traffic on study area roads. The General Plan EIR previously assumed that 165 dwellings would be constructed in the area of the project, and the Year 2025 Plus Project condition assumes that the remaining 168 dwellings within the site are also completed. Under these assumptions one intersection is projected to operate at a Level of Service that exceeds the City's LOS D minimum. The El Dorado Street / Alpine Avenue intersection is projected to operate at LOS E during the p.m. peak hour.
- The addition of project trips will exacerbate conditions at one location and will result in impacts to one other study intersections under Year 2035 Levels of Service with the proposed project. The project's trips will lengthen delays at the El Dorado Avenue / Alpine Avenue intersection, and LOS E conditions will remain. However, the incremental change in overall delay at the intersection will not exceed the threshold used by the City of Stockton to determine significance of traffic impacts. At the El Dorado Street / Fargo Street intersection project trips will result in the overall Level of Service deteriorating from LOS B to LOS F. **This is a significant impact.**
- **Mitigation Measures.** Development in the project area will mitigate its traffic impacts by implementing the following mitigation measures:
 1. **Development in the project area shall contribute its fair share to the cost of signalizing the El Dorado Street / Fargo Street intersection.** Under Year 2035 conditions project trips represent 5.6% of the total traffic through the intersection.
 2. **Development in the project area shall contribute its fair share to the cost of signalizing the Alpine Avenue / Alvarado Avenue intersection.** While not needed to mitigate a specific Level of Service impact, the intersection will eventually carry traffic volumes that satisfy traffic signal warrants. Under Year 2035 conditions project trips represent 3.6% of the total p.m. peak hour traffic through the intersection.

INTRODUCTION

Study Purpose and Objectives

This study evaluates the traffic impacts associated with developing 333 single family residences on roughly 53 acres in the area south of the Calaveras River between El Dorado Street and West Lane, as noted in Figure 1. The project as previously considered and approved with conditions in 2005, and at that time a 77 lot subdivision in the center of the project was processed. While infrastructure was installed, subsequent economic conditions stalled project occupancy. As a result, 16 model homes occupy a portion of the tentative map area but these homes are not occupied.

The 2005 approval include conditions of approval relating to various infrastructure items, including roads. The project was conditioned to install traffic signals at two locations with initial project construction in response to Existing Plus Approved Projects conditions. However, as background traffic growth has been flat over the past few years and new development has slowed, this analysis tasked with determining whether traffic signals remained a necessary condition of approval for the project.

To evaluate impacts this study addresses the following scenarios, all during the weekday a.m. peak period (i.e., 7:00 to 9:00 a.m.):

1. Existing traffic conditions;
2. Existing Conditions plus the 333 residents included in the project;
3. Existing plus Approved Projects (EPAP) conditions without the project;
4. EPAP conditions plus the 333 dwellings included in the project;
5. Cumulative Year 2035 conditions per the City of Stockton General Plan with 165 dwellings on the site; and,
6. Year 2035 conditions with build out of the 333 dwellings included in the project.

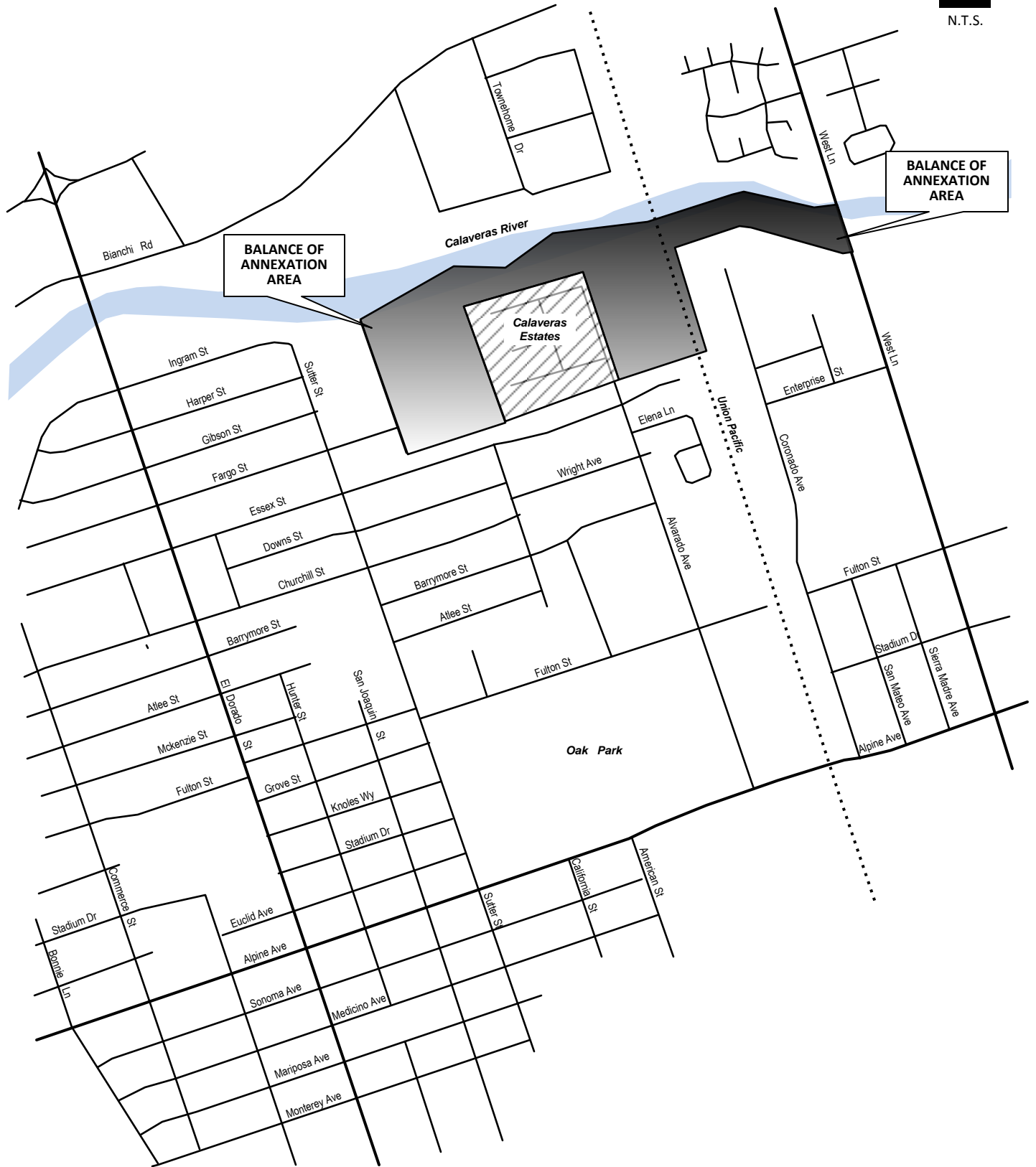
The objectives of this study are:

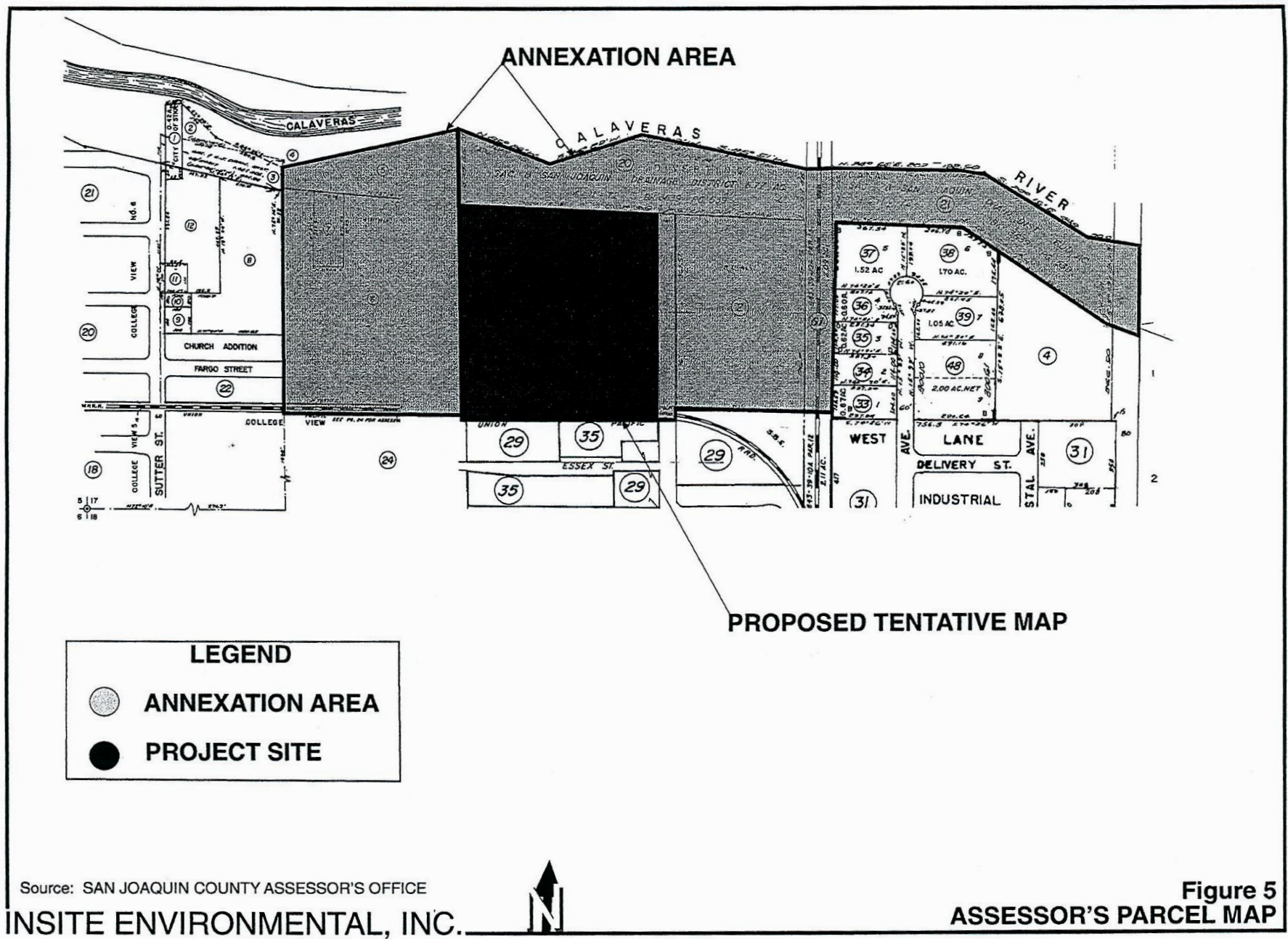
1. To identify whether the intersections in the vicinity of the proposed project meet minimum Levels of Service today and under “existing plus project” conditions;
2. To determine whether the project contributes significantly to cumulative impacts under EPAP or Year 2035 conditions;
3. To evaluate the adequacy of site access and internal circulation;
4. To evaluate the adequacy of bicycle, pedestrian and transit facilities for resident use.

Project Description

The project site lies south of the Calaveras River between El Dorado Street and West Lane and north of Oak Park. As noted in Figure 2, a 77 subdivision is in the center of the project, with LDR (114 dwellings) and MDR (142 dwellings) areas to the west and east.

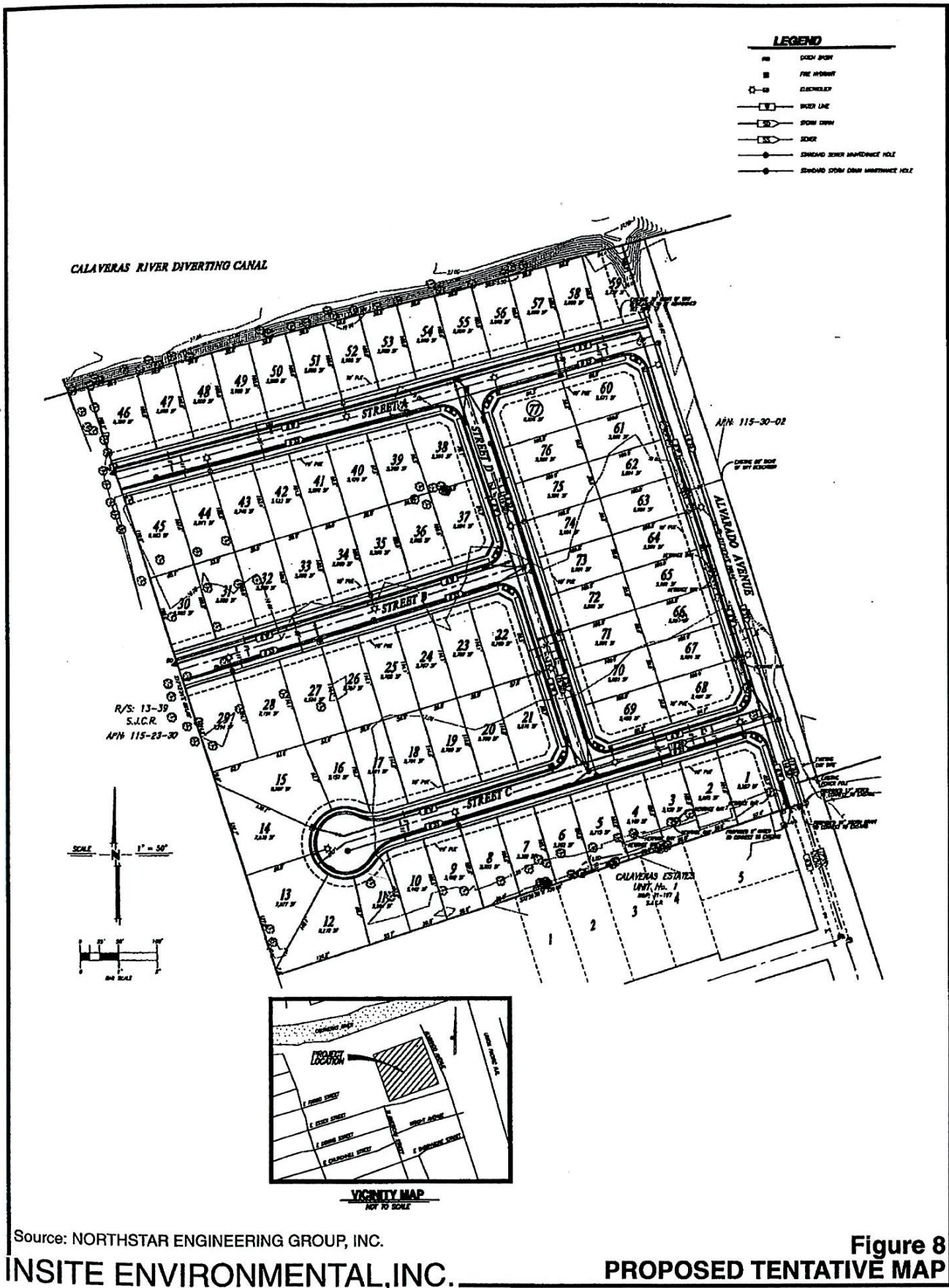
The site will take access at two locations. Alvarado Avenue has been extended northerly beyond Essex Street into the subdivision. Fargo Street will be extended easterly into the site when the western portion of the project is developed.





KD Anderson & Associates, Inc.
Transportation Engineers

SITE PLAN



EXISTING SETTING

This traffic study addresses current traffic conditions within the study area considered in the original 2004 traffic impact analysis.

Study Area Streets

This study addresses traffic conditions at key intersections on the City of Stockton streets in the vicinity of the proposed project. The text that follows describes the facilities included in this analysis.

Regional access to central Stockton is provided by Interstate 5 and State Route 99, as well as major City streets that connect the freeways and cross the Calaveras River. Interstate 5 (I-5) is roughly 3 miles west of the site, and the primary access to the I-5 freeway is via the existing Country Club Drive interchange. State Route 99 (SR 99) is located roughly 3 miles east of the site. Access to the site from SR 99 will be via the interchange at Wilson Way. The site lies between El Dorado Street and West Lane, both of which are important north-south routes that traverse the City of Stockton. The site is north of Alpine Avenue, a major east-west route that connects Interstate 5 and Wilson Way.

The text which follows describes the physical characteristics and functional classification of the study area circulation system.

Functionally, study area streets are classified as Arterials, Collectors or Local Streets under the City of Stockton General Plan. The applicable designation is presented in the General Plan Circulation Element.

Interstate 5 (I-5) is a major north-south freeway that traverses the western U.S., originating in southern California and continuing north towards Sacramento and beyond. It is aligned through the western portion of the City, generally providing four travel lanes in each direction through the central portion of Stockton (between Charter Way and Country Club Drive) and three lanes in each direction along the remaining segments. Twelve interchanges are provided along the 14-mile stretch of I-5 within and adjacent to the City limits. Based on information available on the Caltrans website (<http://www.dot.ca.gov/>), in 2010 I-5 carried an *Annual Average Daily Traffic (AADT)* volume of 96,000 vehicles per day south of Eight Mile Road and 77,000 AADT north of Eight Mile Road. Trucks comprise 23% of the daily traffic on I-5 in this area. The speed limit on I-5 is 70 miles per hour (mph) north of Eight Mile Road, and 65 mph south of Eight Mile Road.

State Route 99 (SR 99) is a freeway that traverses the Central Valley, connecting Sacramento and points north with numerous Central Valley cities, including Modesto, Merced, Fresno and Bakersfield. Three travel lanes are provided in each direction north of Wilson Way, while the segments south of Wilson Way include two lanes per direction. Twelve interchanges are provided along the 12-mile length of SR 99 within and adjacent to the City limits. SR 99 carries 64,000 ADT in the area of the Eight Mile Road interchange (Caltrans 2010), and trucks comprise

13% of the daily traffic on SR 99. The speed limit on SR 99 is 65 mph in the vicinity of the proposed project site.

Alpine Avenue is an east-west Arterial roadway that lies south of the project site and traverses central Stockton. Alpine Avenue begins in the Country Club area near Interstate 5 and continues easterly for about 5 miles through the University of the Pacific (UOP) across El Dorado Street and West Lane to an intersection on Wilson Way east of the project site. In the vicinity of the proposed project site, Alpine Avenue is a four lane road (i.e., two travel lanes in each direction), although the road has been widened at major intersections to accommodate auxiliary turn lanes. The posted speed limit along Alpine Avenue is 35 mph. The most recent traffic counts available from the City of Stockton reveal that the Alpine Avenue carried 18,800 vehicles per day between El Dorado Street and California Street and 15,100 vehicles per day from California Street to West Lane.

El Dorado Street is a north-south Arterial roadway that originates at an interchange on I-5 in San Joaquin County near the community of French Camp and continues northerly for roughly 13 miles through downtown Stockton to a northern terminus in Northern Stockton on Morada Lane. In the area of the proposed project El Dorado Street is a four lane urban road. The speed limit on El Dorado Street is xx mph north of Alpine Avenue. The most recent traffic counts on El Dorado Streets indicated that the road carried 27,700 vehicles per day (2008) north of Alpine Avenue and 29,300 vehicles per day across the Calaveras River.

West Lane is a north-south Arterial roadway that in combination with Airport Way extends northerly from an interchange on SR 120 in Lathrop along the Stockton Airport beneath the Cross Town (SR 4) Freeway to Eight Mile Road in northern Stockton. In the area of the proposed project West Lane is a four lane street, and the speed limit on West Lane is xx mph north of Alpine Avenue. The most recent traffic counts on West Lane indicated that the road carried 41,000 vehicles per day (2008) between Alpine Avenue and the Calaveras River.

The circulation system in the immediate area of the project takes the form of a “grid” comprised of two lane local streets.

Alvarado Avenue and **Sutter Street** are local north-south streets that provide access to the area north of Alpine Avenue around Oak Park. Alvarado Avenue is a two lane street with on-street parking and intermittent sidewalks. The prima facie speed limit is 25 mph. Undulations have been installed on Alvarado Avenue to “calm” traffic speeds, and school zones are enforced near the Fulton Street intersection. Sutter Street is a two lane Collector street with on-street parking and intermittent sidewalks. The prima facie speed limit is 25 mph. School zones are enforced near the Fulton Street intersection (St. Luke’s Catholic School).

Fargo Street, Essex Street and Churchill Street are three of the numerous east-west local streets that link El Dorado Street with the neighborhoods north of Alpine Avenue. Each is a two lane street with sidewalk and on-street parking. The prima facie speed limit is 25 mph. Undulations have been installed to “calm” traffic on Essex Street west of Sutter Street and on Churchill Street between Sutter Street and American Street.

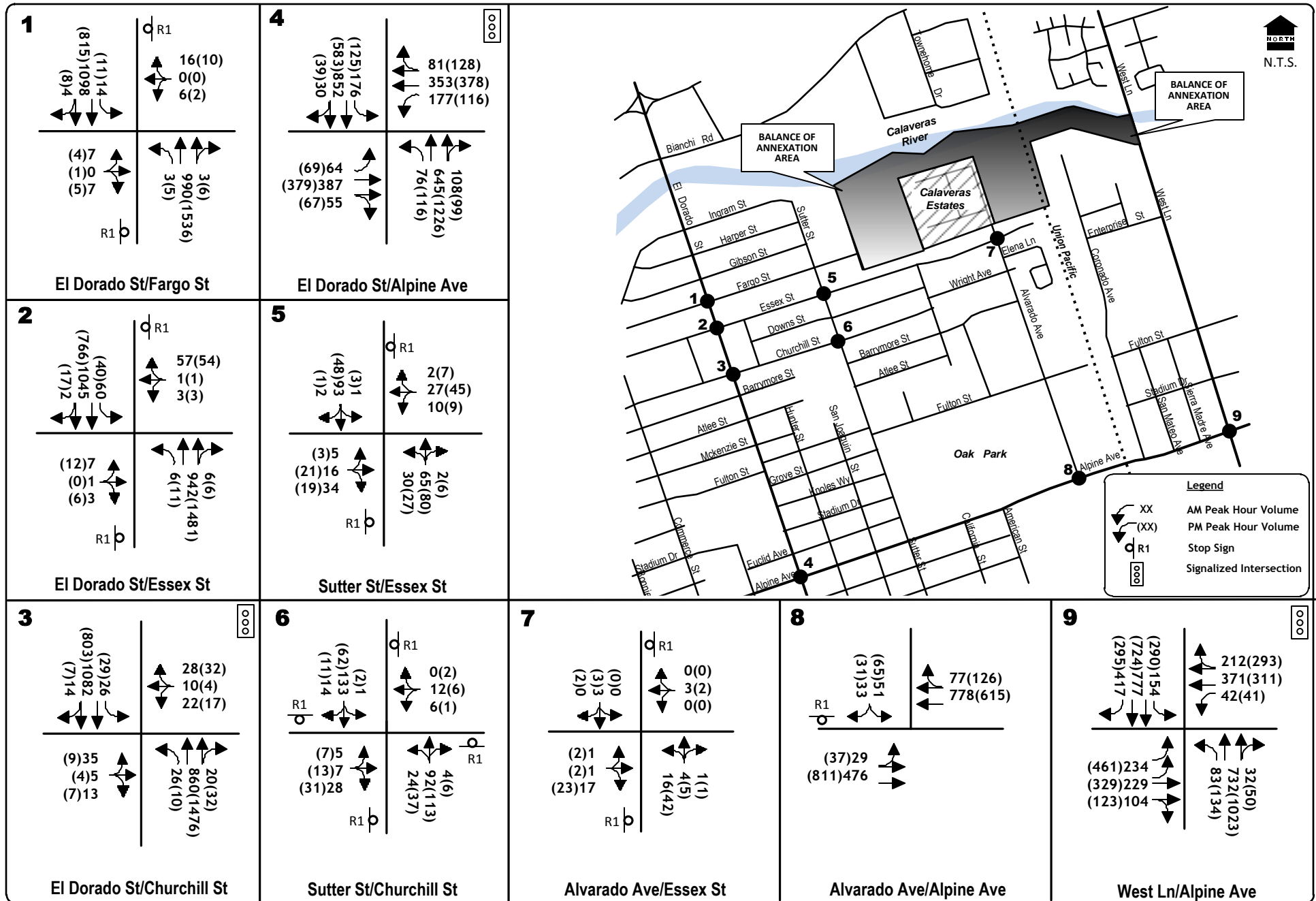
Study Intersections

The traffic analysis focuses on the operation of nine existing intersections listed in Table 1.

**TABLE 1
STUDY INTERSECTIONS**

#	Intersection	Control
1	El Dorado Street / Fargo Street	EB/WB Stop
2	El Dorado Street / Essex Street	EB/WB Stop
3	El Dorado Street / Churchill Street	Signal
4	El Dorado Street / Alpine Avenue	Signal
5	Sutter Streets / Essex Street	EB/WB Stop
6	Sutter Street / Churchill Street	All-Way stop
7	Alvarado Avenue / Essex Street	EB/WB Stop
8	Alvarado Avenue / Alpine Avenue	SB Stop
9	West Lane / Alpine Avenue	Signal

The location of each intersection is noted in Figure 4.



Public Transportation

The San Joaquin Regional Transit District (SJRTD) is the primary provider of public transportation service in Stockton. SJRTD provides fixed-route, flexible fixed-route, and dial-a-ride services in Stockton. Each service is described in more detail below.

- **Stockton Metropolitan Area Fixed Route Service** operates 16 fixed-routes within the Stockton area on weekdays between 5:30 a.m. and 9:30 p.m., and on weekends and holidays between 8:00 a.m. and 6:00 a.m. The frequency of services is between 30 minutes and 1 hour during weekdays and 45 minutes to 2 hours on weekends.
- **Intercity Fixed Route Service** is provided between 5:30 a.m. to 9:30 p.m. with the frequency of service ranging from 1 to 3 hours. Four intercity routes connect Stockton with the cities of Lathrop, Lodi, Manteca, Ripon, and Tracy.
- **Interregional Commuter Service** is a subscription commuter bus service designed to help commuters who travel more than 50 miles each way to work. A total of 21 subscription buses connect San Joaquin County to Sacramento, the San Francisco Bay Area, and the Bay Area Rapid Transit (BART) system.
- **Stockton Metropolitan Area ADA Dial-a-Ride** provides curb-to-curb transportation to persons who, due to their disability, are unable to get to or from the fixed-route bus stops. This service is available 365 days a year by appointment only. People interested in utilizing this service must first obtain certification under the Americans with Disabilities Act (ADA) through an application process.
- **SJRTD Hopper Service** is a flexible fixed-route service connecting Escalon, Lathrop, Manteca, and Woodbridge to Lodi, Stockton, and Tracy. This service replaces the SJRTD Countywide General Public Dial-A-Ride (DAR), Rural Elderly & Disabled DAR, and County Area Transit (CAT) Fixed-Route during Hopper service hours, in the areas covered by the Hopper. These buses will deviate up to ¾-mile for those passengers that are ADA-certified and are unable to reach the fixed-route stops. Advance reservations are required for all route deviations.

Bicycle and Pedestrian Systems

The generally level terrain and mild weather make bicycling and walking viable forms of transportation in Stockton. The City of Stockton has an extensive network of bicycle facilities, including off-street trails and paths, as well as on-street bicycle lanes and routes. Many of these facilities also support pedestrian travel. According to Caltrans guidelines, bicycle facilities are generally divided into three categories:

- **Class I Bikeway (Bike Path).** A completely separate facility designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized. Examples of Class I facilities include the Calaveras River bike path, and the East Bay Municipal Utility District right-of-way (March Lane).

- **Class II Bikeway (Bike Lane).** A striped lane designated for the use of bicycles on a street or highway. Vehicle parking and vehicle/pedestrian cross-flow are permitted at designated locations. Examples of Class II bicycle lane roadways include A.G. Spanos Boulevard, Iron Canyon Circle, Wagner Heights Road/Estate Circle, Benjamin Holt Drive, Quail Lakes Drive, and Feather River Drive.
- **Class III Bikeway (Bike Route).** A route designated by signs or pavement markings for bicyclists within the vehicular travel lane (i.e., shared use) of a roadway. Portions of West Lane and Pershing Avenue are examples of bicycle routes currently designated in the City.

The existing bicycle facilities in this area of Stockton are limited. While shoulders of varying width exist along Lower Sacramento Road, there are no formal class II bicycle lanes on this street.

The *City of Stockton Bicycle Master Plan* (City of Stockton 2007a) presents a description of future bicycle facilities in the vicinity of the proposed project site. Future Class I facilities are shown:

- along Bear Creek,
- on a new north-south roadway within the Bear Creek West project site,

Future Class II facilities are shown on:

- Sutter Street north of Alpine Avenue

Future Class III facilities are shown on:

- Alvarado Avenue between Fulton Street and Alpine Avenue
- Fulton Street from El Dorado Street to Alvarado Avenue
- Alpine avenue from El Dorado Street to West Lane,

Pedestrian facilities have been constructed in the study area as development has proceeded. There are sidewalks on at least one side of Alvarado Avenue between the project and Alpine Avenue. There are sidewalks along both sides of Essex Street and Fargo Street between El Dorado Street and Alvarado Avenue. There are sidewalks on El Dorado Street. However, there are no sidewalks on Alpine Avenue in the area of the Alvarado Avenue intersection.

Level of Service Analysis Methodology / Thresholds of Significance

Methodology. The *2000 Highway Capacity Manual* was used to provide a basis for describing existing traffic conditions and for evaluating the significance of project traffic impacts based on operating Level of Service. Level of Service (LOS) measures the *quality* of traffic flow and is represented by letter designations from "A" to "F", with a grade of "A" referring to the best conditions, and "F" representing the worst conditions. Table 2 presents typical Level of Service characteristics.

TABLE 2
LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestion of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 60.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 60.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.
Sources: 2000 <u>Highway Capacity Manual</u> , Transportation Research Board (TRB) Special Report 209.			

Traffic Signal Warrants Procedures

Traffic signal warrants are a series of eight standards which provide guidelines for determining if a traffic signal is appropriate.

For the traffic analysis conducted for this traffic impact study, available data are limited to a.m. peak hour traffic volumes. Thus, unsignalized intersections operating at poor LOS were evaluated using the Peak Hour Warrant (Warrant Number 3) from the document *Manual on Uniform Traffic Control Devices for Streets and Highways FHWA's MUTCD 2003 Edition, as amended for use in California* (MUTCD) (California Department of Transportation 2006). This warrant was applied where the minor street experiences long delays in entering or crossing the major street for at least one hour of the day.

Even if the Peak Hour Warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the eight highest hours of the day, volumes during the four highest hours of the day, pedestrian traffic, and accident histories.

Signal warrant analysis worksheets for all stop sign-controlled intersections are presented in the technical appendix.

Standards of Significance

In this traffic impact study, the significance of the proposed project's impact on traffic operating conditions is based on a determination of whether resulting intersection or roadway segment LOS is considered acceptable by the City of Stockton. A project's impact on traffic conditions is considered significant if implementation of the project would result in LOS changing from levels considered acceptable to levels considered unacceptable, or if the project would substantially worsen already unacceptable LOS.

As noted in the City of Stockton Transportation Impact Analysis Guidelines (City of Stockton 2003),

“The City of Stockton's General Plan has a LOS ‘D’ standard for its roadway system. Intersections and roadway segments operating at LOS ‘A’, ‘B’, ‘C’, or ‘D’ conditions are considered acceptable, while those operating at LOS ‘E’ or ‘F’ conditions are considered unacceptable.

“For a City intersection, a transportation impact for a project is considered significant if the addition of project traffic would cause an intersection that would function at LOS ‘D’ or better without the Project to function at LOS ‘E’ or ‘F’.

“For City intersections with a LOS ‘E’ or ‘F’ conditions without the project, a transportation impact for a project is considered significant if the addition of project traffic causes an increase of greater than 5 seconds in the average delay for the intersection.”

The City of Stockton recently adopted an updated General Plan. The *Goals & Policies Report – Stockton General Plan 2035* (City of Stockton 2007b) notes,

“To assist in ensuring efficient traffic operating conditions, evaluating the effects of new development, determining mitigation measures and impact fees, and developing capital improvement programs, the City shall require that Level of Service (LOS) D or better be maintained for both daily and peak hour conditions, with the following exceptions:”

This section of the *Goals & Policies Report* lists more than 20 facilities as exceptions to the LOS D policy standard, and lists the applicable standard. There are no locations in the study area where exceptions are granted by the General Plan.

BACKGROUND TRAFFIC OPERATING CONDITIONS

Traffic impacts associated with development of the Greentech HS have been analyzed with respect to Opening Day traffic conditions (Existing Plus Project) and to future conditions occurring with the completion of other Approved but Unconstructed Projects (EPAP) conditions in the year 2035.

Existing Traffic Conditions

Traffic Volumes. Peak hour traffic counts were conducted at the nine study intersections during October and November 2011. The results of these counts are presented in Figure 4.

Intersection Levels of Service. Table 3 summarizes current Levels of Service at the study area intersections during the highest volume hour within the typical a.m. (7:00 to 9:00 a.m.) and p.m. (4:00 to 6:00 p.m.) commute period.

**TABLE 3
EXISTING PEAK HOUR LEVELS OF SERVICE AT INTERSECTIONS**

Location / Approach	Control	AM Peak Hour		PM Peak Hour	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS
El Dorado Street / Fargo Street (overall)	EB/WB Stop	(0.8)	(A)	(0.6)	(A)
NB left turn		11.3	B	9.8	A
SB left turn		10.7	B	14.8	C
EB left+thru+right turn		53.3	F	59.9	F
WB left+thru+right turn		31.9	D	43.2	E
El Dorado Street / Essex Street (overall)	EB/WB Stop	(1.4)	(A)	(1.9)	(A)
NB left turn		11.0	B	9.7	A
SB left turn		11.0	B	15.1	C
EB left+thru+right turn		94.0	F	100.7	F
WB left+thru+right turn		20.4	C	36.9	E
El Dorado Street / Churchill Street	Signal	9.1	A	7.8	A
El Dorado Street / Alpine Avenue	Signal	31.7	C	32.9	C
Sutter Street / Essex Street (overall)	EB/WB Stop	(4.2)	(A)	(4.8)	(A)
NB left turn		7.5	A	7.4	A
SB left turn		7.4	A	7.4	A
EB left+thru+right turn		9.8	A	9.9	A
WB left+thru+right turn		10.9	B	10.7	B
Sutter Street / Churchill Street	All-Way Stop	8.0	A	7.9	A
Alvarado Avenue / Essex Street (overall)	EB/WB Stop	(6.6)	(A)	(6.8)	(A)
NB left turn		7.2	A	7.3	A
SB left turn		-	-	-	-
EB left+thru+right turn		8.5	A	8.6	A
WB left+thru+right turn		9.3	A	9.7	A
Alpine Avenue / Alvarado Street (overall)	SB Stop	(2.0)	(A)	(2.5)	(A)
EB left turn		10.1	B	9.6	A
SB left+thru+right turn		30.2	D	39.3	D
West Lane / Alpine Avenue	Signal	31.2	C	49.8	D

As shown, the overall Level of Service at each study intersection satisfies the City of Stockton's minimum LOS D standard during both a.m. and p.m. peak hours.

Traffic Signal Warrants. As noted in Table 4, none of the un-signalized study intersections carry traffic volumes which satisfy peak hour signal warrant requirements.

TABLE 4
EXISTING STATUS OF PEAK HOUR TRAFFIC SIGNAL WARRANTS AT INTERSECTIONS

Location / Approach	Control	Peak Hour Warrants Satisfied?	
		AM Peak Hour Existing Conditions	PM Peak Hour Existing Conditions
El Dorado Street / Fargo Street	EB/WB Stop	No	No
El Dorado Street / Essex Street	EB/WB Stop	No	No
Sutter Street / Essex Street	EB/WB Stop	No	No
Sutter Street / Churchill Street	All-Way Stop	No	No
Alvarado Avenue / Essex Street	EB/WB Stop	No	No
Alpine Avenue / Alvarado Street	SB Stop	No	No

PROJECT CHARACTERISTICS

The relative impacts of developing the project is dependent on the physical characteristics of the adjoining street system, as well as the amount of traffic generated by the proposed project. The amount of additional traffic on a particular section of the street network is dependent upon two factors:

- I. Trip Generation, the number of new trips generated by the project, and
- II. Trip Distribution and Assignment, the specific routes that the new traffic takes.

Trip generation is determined by identifying the type and size of land use being developed. Recognized sources of trip generation data may then be used to calculate the total number of trip ends.

Trip Generation

This analysis employed trip generation rates published by the Institute of Transportation Engineers (ITE) in their publication *“Trip Generation, 8th Edition*.

As shown in Table 5, the entire 333 dwelling project could generate 3,197 daily trips, with 251 trips in the morning peak hour and 336 trips in the evening peak hour.

TABLE 5
TRIP GENERATION RATES / FORECASTS

Description	Quantity	Trip Generation						
		Daily	AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total
Single family residence	dwelling	9.57	0.19	0.56	0.75	0.64	0.37	1.01
Calaveras Estates Unit #3	77	737	15	43	58	49	29	78
West LDR	114	1,091	22	64	86	73	42	115
East MDR	142	1,369	27	80	107	91	52	143
Total	333	3,197	64	187	251	213	123	336

Trip Distribution

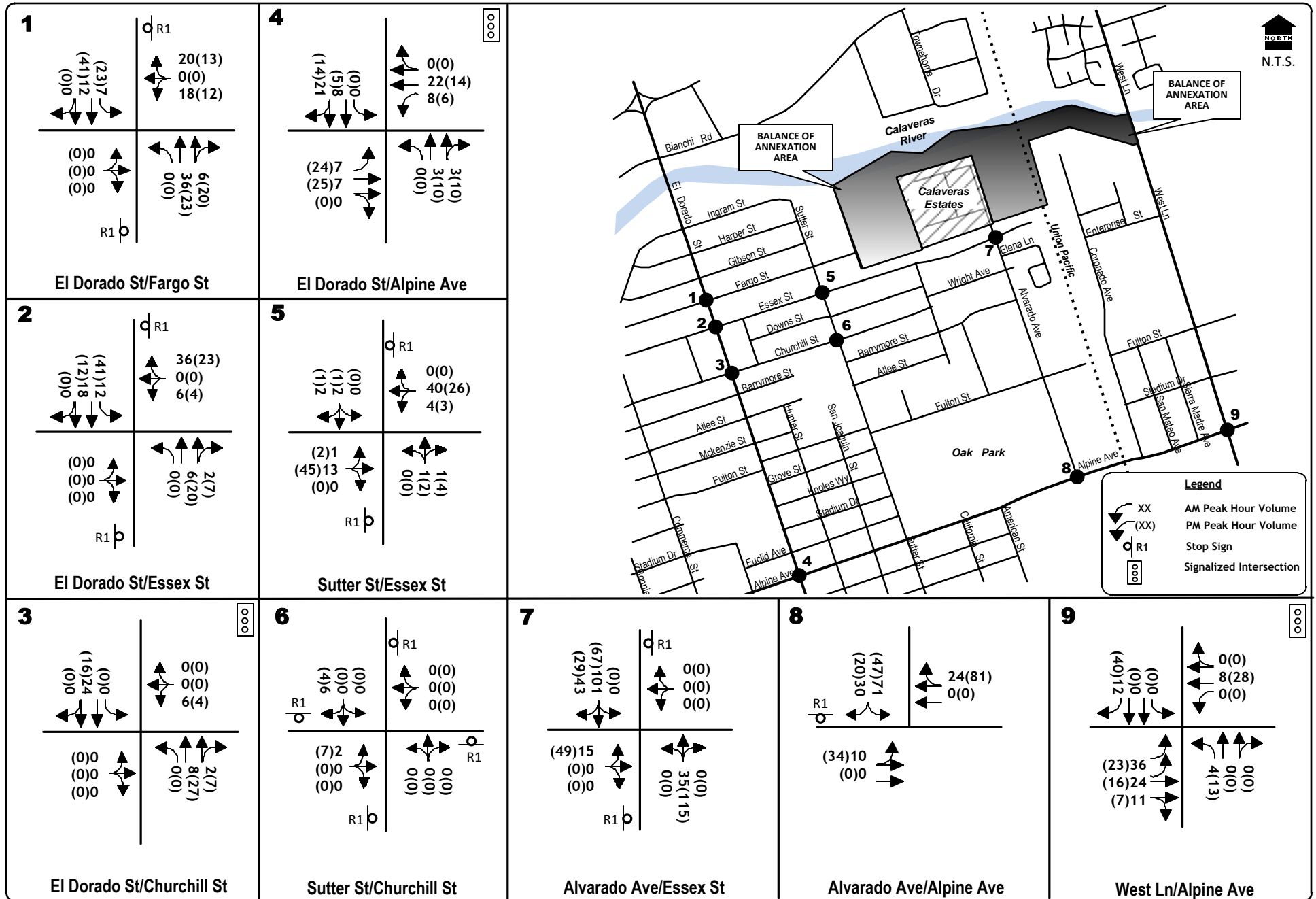
The distribution of project traffic was determined based on consideration of current travel patterns in the area of Stockton and on review of the assumptions made in the original traffic study. Based on this information, the directional paths for the trips generated by the project will be per Table 6.

**TABLE 6
PROJECT TRIP DISTRIBUTION**

Direction	Route	Percent of Total
North	El Dorado Street	30%
	West Lane	19%
South	El Dorado Street	9%
	West Lane	6%
East	Alpine Avenue	13%
West	Alpine Avenue	23%
	Total	100%

Trip Assignment

Project trips were assigned to the adjacent streets assuming that streets within the project are completed with access to Fargo Street and to Alvarado Avenue. Figure 5 identifies the assignment of project trips under “Project Only” conditions.



TRAFFIC OPERATIONAL ANALYSIS / IMPACTS

Existing Plus Project Conditions

By the time the entire project is occupied background traffic conditions in the area of the proposed project may differ from existing traffic conditions, as other development may occur and roadway improvement projects are likely to have been completed. However, to meet the requirements of CEQA, the evaluation of project impacts assumes only those improvements associated with the proposed project itself will have been constructed when the project is fully occupied. These improvements involve completion of internal streets.

Existing Plus Project traffic volumes are presented in Figure 6.

Existing Plus Project Levels of Service. The impacts of operating the proposed project have been identified by superimposing project traffic onto the identified background traffic volumes. Resulting intersection Levels of Service were then calculated and used as the basis for evaluating potential project impacts.

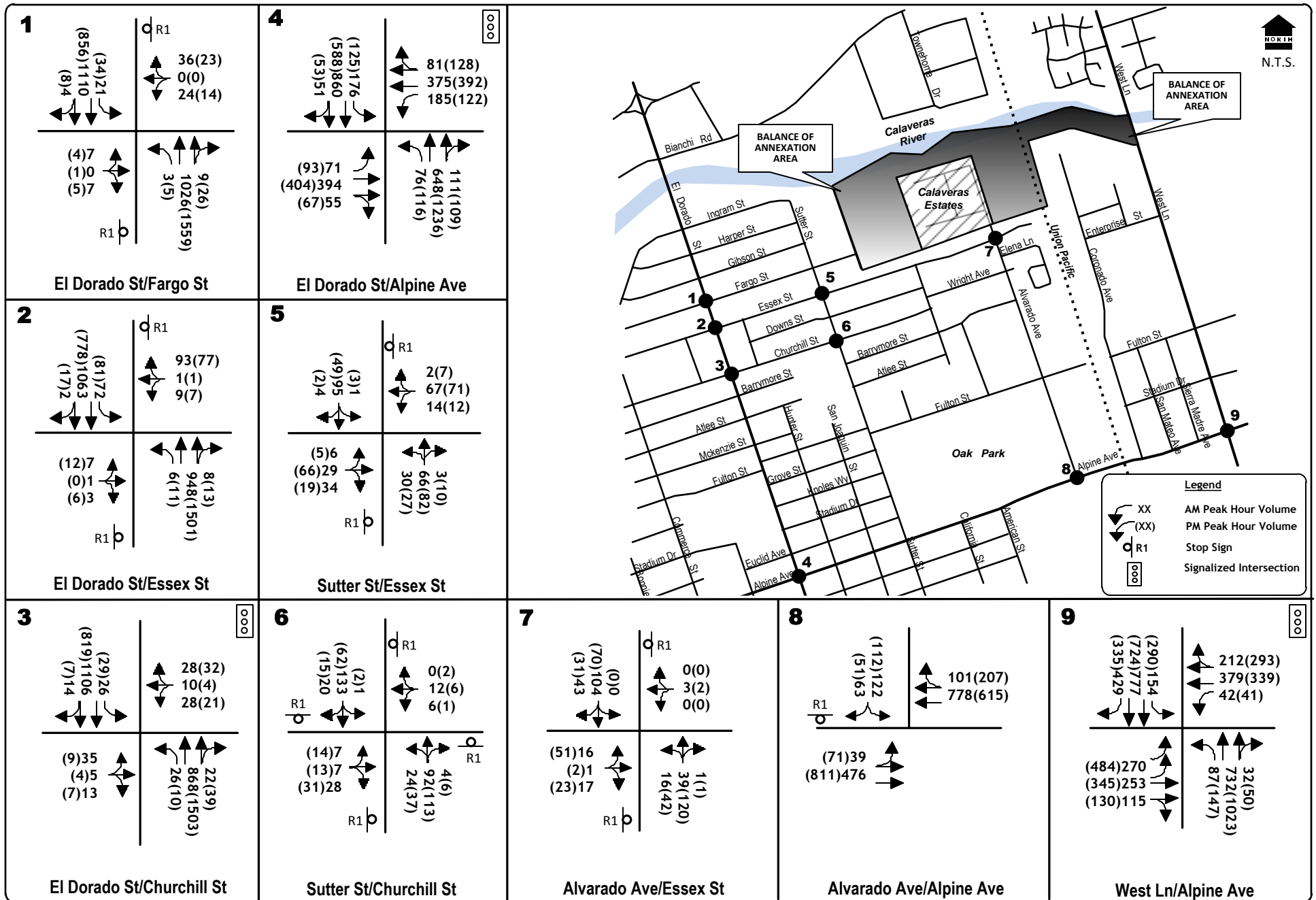
Table 7 displays the a.m. and p.m. peak hour Level of Service and average delay per vehicle at each study intersection with and without the proposed project. As shown, the addition of project trips will increase both the length of overall delays at each intersection and will increase the length of delays on individual approaches controlled by side street stop signs. However, the addition of project trips does not result in overall Level of Service in excess of the City of Stockton's overall minimum LOS D standard. Thus, the project's traffic impact is not judged to be significant under City of Stockton standards.

Traffic Signal Warrant Analysis. Table 8 compares the status of traffic signal warrants under Existing and Existing Plus Project conditions. As noted, occupancy of 333 dwellings on the project site will result in traffic volumes which satisfy traffic signal warrants at two locations:

El Dorado Street / Essex Street (AM only)
Alpine Avenue / Alvarado Avenue (AM and PM)

However, in the a.m. peak hour the volume of side street traffic at the El Dorado Street / Essex Street intersection is comprised almost entirely of vehicles turning right onto northbound El Dorado Street, and convention engineering judgment suggests that a traffic signal is not needed to accommodate right turning traffic alone.

A traffic signal is warranted during both time periods at the Alpine Avenue / Alvarado Avenue intersection when the project is built out. However, development of the 77 lot subdivision alone would not result in traffic volumes that satisfy traffic signal warrants.



**TABLE 7
EXISTING PLUS PROJECT PEAK HOUR LEVELS OF SERVICE AT INTERSECTIONS**

Location / Approach	Control	AM Peak Hour				PM Peak Hour			
		Existing		Existing Plus Project		Existing		Existing Plus Project	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
El Dorado Street / Fargo Street (overall)	EB/WB Stop	(0.8)	(A)	(2.7)	(A)	(0.6)	(A)	(3.9)	(A)
NB left turn		11.3	B	11.3	B	9.8	A	10.0	B
SB left turn		10.7	B	11.1	B	14.8	C	16.0	C
EB left+thru+right turn		53.3	F	61.6	F	59.9	F	81.1	F
WB left+thru+right turn		31.9	D	80.6	F	43.2	E	230.7	F
El Dorado Street / Essex Street (overall)	EB/WB Stop	(1.4)	(A)	(2.4)	(A)	(1.9)	(A)	(5.1)	(A)
NB left turn		11.0	B	11.1	B	9.7	A	9.7	A
SB left turn		11.0	B	11.1	B	15.1	C	16.9	C
EB left+thru+right turn		94.0	F	117.2	F	100.7	F	181.2	F
WB left+thru+right turn		20.4	C	31.3	D	36.9	E	93.6	F
El Dorado Street / Churchill Street	Signal	9.1	A	9.3	A	7.8	A	8.1	A
El Dorado Street / Alpine Avenue	Signal	31.7	C	32.1	C	32.9	C	34.7	C
Sutter Street / Essex Street (overall)	EB/WB Stop	(4.2)	(A)	(5.4)	(A)	(4.8)	(A)	(6.3)	(A)
NB left turn		7.5	A	7.5	A	7.4	A	7.4	A
SB left turn		7.4	A	7.4	A	7.4	A	7.4	A
EB left+thru+right turn		9.8	A	10.3	B	9.9	A	10.8	B
WB left+thru+right turn		10.9	B	11.6	B	10.7	B	11.2	B
Sutter Street / Churchill Street	All-Way Stop	8.0	A	8.0	A	7.9	A	7.9	A
Alvarado Avenue / Essex Street (overall)	EB/WB Stop	(6.6)	(A)	(2.0)	(A)	(6.8)	(A)	(3.4)	(A)
NB left turn		7.2	A	7.6	A	7.3	A	7.5	A
SB left turn		-	-	-	-	-	-	-	-
EB left+thru+right turn		8.5	A	9.7	A	8.6	A	10.9	B
WB left+thru+right turn		9.3	A	10.5	B	9.7	A	11.4	B
Alpine Avenue / Alvarado Street (overall)	SB Stop	(2.0)	(A)	(12.1)	(B)	(2.5)	(A)	(13.2)	(A)
EB left turn		10.1	B	10.4	B	9.6	A	10.3	B
SB left+thru+right turn		30.2	D	101.2	F	39.3	D	147.0	F
West Lane / Alpine Avenue	Signal	31.2	C	32.0	C	49.8	D	52.7	D

TABLE 8
STATUS OF PEAK HOUR TRAFFIC SIGNAL WARRANTS
UNDER EXISTING PLUS PROJECT CONDITIONS

Location / Approach	Control	Peak Hour Warrants Satisfied?			
		AM Peak Hour		PM Peak Hour	
		Existing Conditions	Existing Plus Project	Existing Conditions	Existing Plus Project
El Dorado Street / Fargo Street	EB/WB Stop	No	No	No	No
El Dorado Street / Essex Street	EB/WB Stop	No	Yes*	No	No
Sutter Street / Essex Street	EB/WB Stop	No	No	No	No
Sutter Street / Churchill Street	All-Way Stop	No	No	No	No
Alvarado Avenue / Essex Street	EB/WB Stop	No	No	No	No
Alpine Avenue / Alvarado Street	SB Stop	No	Yes	No	Yes
* total minor street volume reaches warrant level, but a traffic signal would not be recommended as 90% of the traffic turns right					

Summary of Existing Plus Project Traffic Impacts / Mitigations

Impact 1. The project will add traffic to the study area circulation system. However, the existing street system has the capacity to accommodate projected traffic without exceeding adopted overall minimum Level of Service standards or otherwise exceeding the incremental traffic increase permitted under traffic study guidelines at locations where minimum standards are not satisfied without the project. This impact is not significant.

Mitigation 1. None Required.

CUMULATIVE IMPACT ANALYSIS

The cumulative analysis addresses the two future traffic scenarios mandated under City of Stockton traffic impact study guidelines. The “**Existing Plus Approved Projects**” (EPAP) background condition assumes traffic and roadway improvements associated with approved but not yet constructed development proposals and pending roadway improvement projects. The second Cumulative scenario assumes **Year 2035** development under the City of Stockton General Plan.

Existing Plus Approved Projects (EPAP) Conditions

EPAP No Project conditions represent a near-term future background condition that addresses the effects of pending circulation system improvements, regional traffic growth on major roads and the additional traffic accompanying local development projects that have already been approved.

EPAP Traffic Volume Forecasts. A two step process was taken to create EPAP No Project traffic volumes.

EPAP Model Results. First, the City’s EPAP travel demand forecasting model was run, and the results were compared to the calibrated baseline model that is representative of existing conditions. The resulting ratio of EPAP to baseline daily volumes deemed the growth rate on individual roadway segments. This rate was used to interpolating EPAP peak hour volume using applicable Furness techniques at each major intersection.

Developing future year intersection turning movement traffic volumes using growth rates requires that the turning movements at each intersection “balance”. To achieve the balance, inbound traffic volumes must equal the outbound traffic volumes, and the volumes must be distributed among the various left-turn, through, and right-turn movements at each intersection. The “balancing” of future year intersection turning movement traffic volumes was conducted using methods described in the Transportation Research Board’s (TRB’s) National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design*. The NCHRP 255 method applies the desired peak hour directional volumes to the intersection turning movement volumes, using an iterative process to balance and adjust the resulting forecasts to match the desired peak hour directional volumes. However, because this approach introduces the possibility of lower segments volumes at some locations, a minimum growth rate of 1.01 was substituted for the actual result in each case where the model forecast was for a reduction.

Local Growth. Because the regional traffic model does not address every street in Stockton, it was necessary to account for the effects of specific approved projects when estimating the traffic volumes on local streets. To do so, the City’s current list of “approved but not yet built” projects was reviewed with City staff. Projects located within the area bounded by Pacific Avenue on the west, the railroad on the east, Alpine Avenue on the south and the Calaveras River on the north were identified. In addition to the Calaveras Estates #3 project, the City’s list includes two other projects listed in Table 9: **Dama Estates (TM37-04)** covers 3 acres off of Alvarado Avenue and was approved for 17 lots of which 12 remain to be occupied.

The **Altamont Commuter Express (ACE) Maintenance Facility** will employ 150 persons in multiple shifts at a site located off of Alpine Avenue west of West lane. The trips associated with these uses have been superimposed onto results of the Furness analysis for model results to create the final EPAP No project forecasts at each intersection.

TABLE 9
TRIP GENERATION FORECASTS FOR OTHER APPROVED PROJECTS

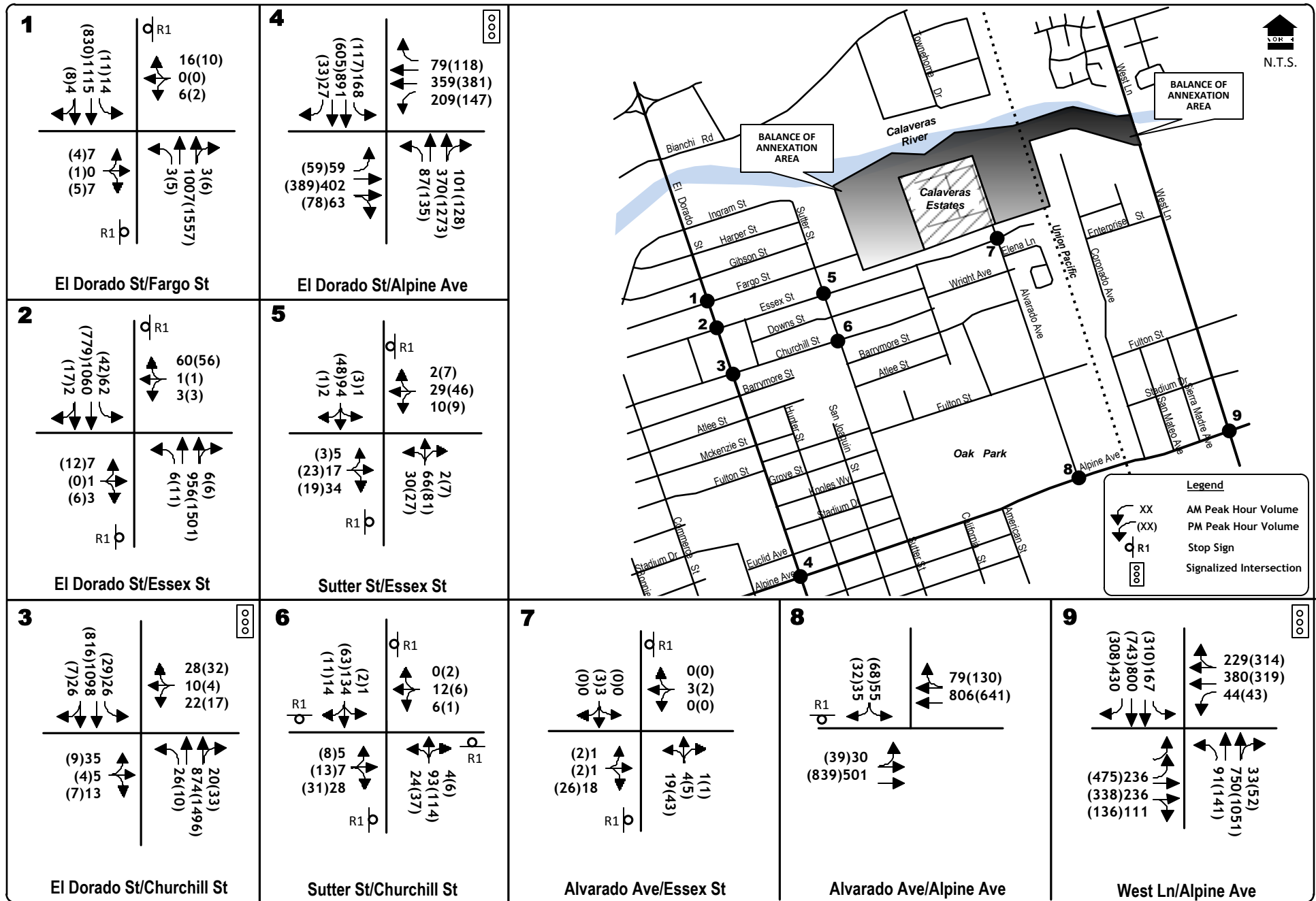
Description	Quantity	Trip Generation						
		Daily Total	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Dama Estates	12 du's	115	2	7	9	8	4	12
Altamont Commuter Express Maintenance Facility	150 employees	330	50	50	100	50	150	100

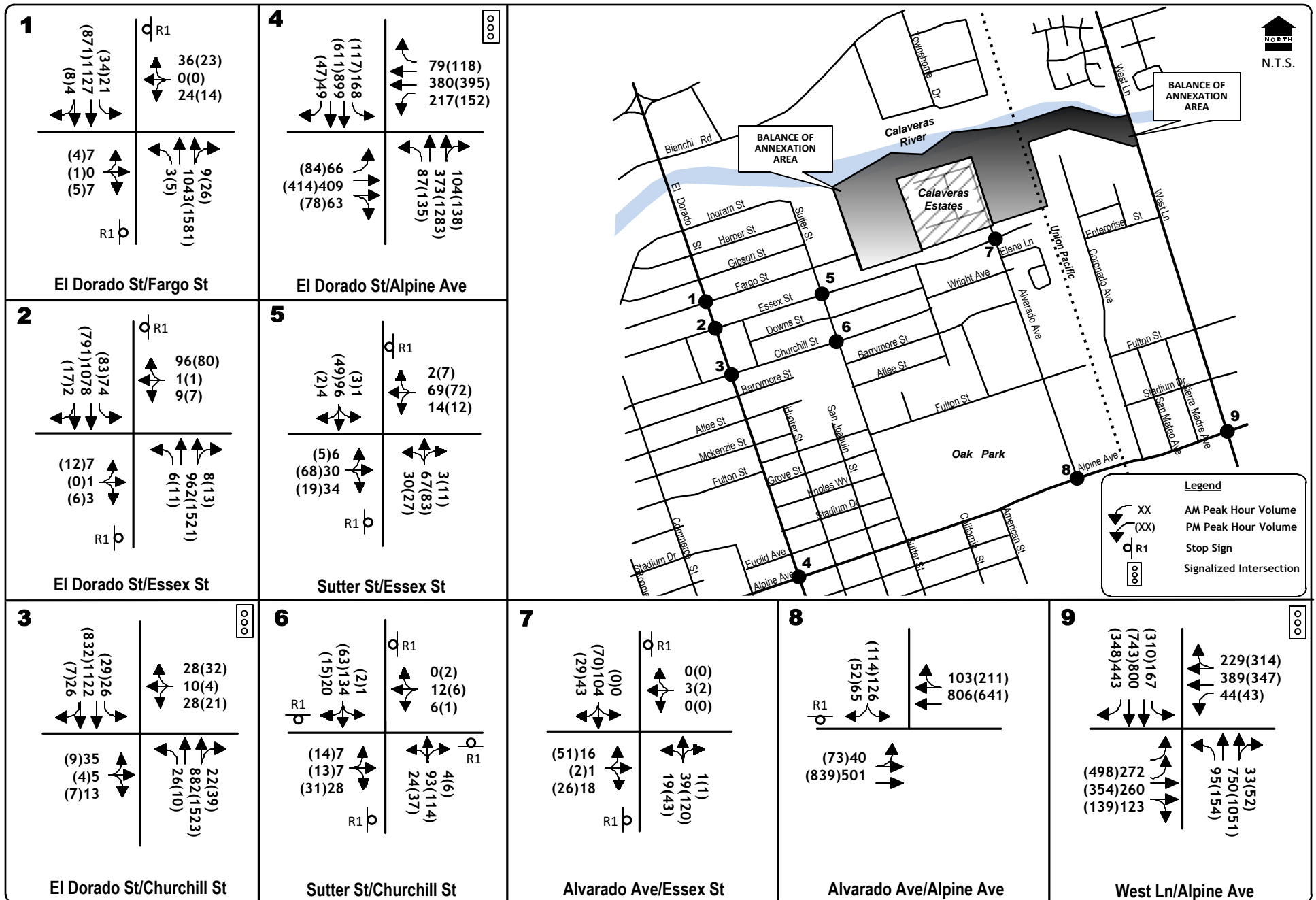
Resulting EPAP No project traffic volumes are noted in Figure 7, while Figure 8 presents EPAP Plus Project volumes created by manually superimposing project trips onto the No Project condition.

Roadway Improvements. The EPAP No Project condition assumes roadway improvements associated with previously-approved development projects and/or planned by the City of Stockton. The City's pending El Dorado Street Improvement Project will improve that facility from the Calaveras River south through the Alpine Avenue intersection. From the standpoint of intersection capacity, the only change to existing conditions occurs at the Alpine Avenue / El Dorado Avenue intersection where southbound and westbound right turn lanes will be added. This change is identified in the two figures previously noted.

EPAP Levels of Service. Table 10 compares intersection peak hour Levels of Service under EPAP conditions with and without the proposed project. As shown, at one intersection the overall Level of Service will exceed the City of Stockton's LOS D minimum. The **Alpine Avenue / West Lane intersection** will operate at LOS E in the p.m. peak hour with and without the proposed project.

City of Stockton traffic study guidelines determine the significance of traffic impacts when background conditions exceed the minimum standard based on the incremental change in delay associated with the project. In this case, project traffic will increase the delay by 3.2 seconds. As this change is less than the 5.0 second increment used by the City to establish significance. Thus, the project's impacts under EPAP conditions are not significant.





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Transportation Engineers

EXISTING PLUS APPROVED PROJECTS PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

TABLE 10
EPAP PLUS PROJECT PEAK HOUR LEVELS OF SERVICE AT INTERSECTIONS

Location / Approach	Control	AM Peak Hour				PM Peak Hour			
		EPAP		Plus Project		EPAP		Plus Project	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
El Dorado Street / Fargo Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(0.8) 11.4 10.8 56.2 33.3	(A) B B F D	(2.8) 11.4 11.2 65.2 87.8	(A) B B F F	(0.6) 9.9 15.2 65.8 47.0	(A) A C F E	(4.6) 10.1 16.5 90.8 280.6	(A) A C F F
El Dorado Street / Essex Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(1.5) 11.1 11.1 101.3 20.9	(A) B B F C	(2.6) 11.2 11.3 127.3 33.0	(A) B B F D	(2.1) 9.7 15.4 111.4 39.2	(A) A C F E	(5.8) 9.8 17.4 207.4 106.4	(A) A C F F
El Dorado Street / Churchill Street	Signal	11.0	B	11.3	B	9.0	A	9.4	A
El Dorado Street / Alpine Avenue	Signal	32.5	C	32.7	C	34.0	C	35.5	D
Sutter Street / Essex Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(4.3) 7.5 7.4 9.9 11.0	(A) A A A B	(5.5) 7.5 7.4 10.3 11.6	A A A B B	(4.9) 7.4 7.4 9.9 10.7	(A) A A A B	(6.3) 7.4 7.4 10.9 11.3	(A) A A B B
Sutter Street / Churchill Street	All-way Stop	8.0	A	8.0	A	7.9	A	7.9	A
Alvarado Street / Essex Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(6.7) 7.3 - 8.5 9.4	(A) A - A A	(2.1) 7.6 - 9.7 10.6	(A) A - A B	(7.0) 7.3 - 8.6 9.7	(A) A - A A	(3.5) 7.5 - 10.9 11.4	(A) A - B B
Alpine Avenue / Alvarado Street (overall) EB left turn SB left+thru+right turn	SB Stop	(2.3) 10.3 34.4	(A) B D	(15.7) 10.5 132.7	(C) B F	(2.9) 9.8 46.3	(A) A D	(16.5) 10.5 187.2	(C) B F
Alpine Avenue / West Lane	Signal	32.1	C	32.9	C	56.3	E	59.5	E
Bold values are conditions in excess of the LOS D minimum. Highlighted values are significant impacts									

Traffic signal warrants. The status of traffic signal warrants under EPAP conditions is the same as that under Existing Plus Project conditions. As noted in Table 11, occupancy of 333 dwellings on the project site will result in traffic volumes which satisfy traffic signal warrants at two locations:

El Dorado Street / Essex Street (AM only)
Alpine Avenue / Alvarado Avenue (AM and PM)

However, in the a.m. peak hour the volume of side street traffic at the El Dorado Street / Essex Street intersection is comprised almost entirely of vehicles turning right onto northbound El Dorado Street, and convention engineering judgment suggests that a traffic signal is not needed to accommodate right turning traffic alone.

A traffic signal is warranted during both time periods at the Alpine Avenue / Alvarado Avenue intersection when the project is built out. Development of the 77 lot subdivision in addition to approved projects would not result in traffic volumes that satisfy traffic signal warrants in the a.m. peak hour but would result in warrants being satisfied in the p.m. peak hour.

TABLE 11
STATUS OF PEAK HOUR TRAFFIC SIGNAL WARRANTS
UNDER EPAP PLUS PROJECT CONDITIONS

Location / Approach	Control	Peak Hour Warrants Satisfied?			
		AM Peak Hour		PM Peak Hour	
		Existing Conditions	Existing Plus Project	Existing Conditions	Existing Plus Project
El Dorado Street / Fargo Street	EB/WB Stop	No	No	No	No
El Dorado Street / Essex Street	EB/WB Stop	No	Yes*	No	No
Sutter Street / Essex Street	EB/WB Stop	No	No	No	No
Sutter Street / Churchill Street	All-Way Stop	No	No	No	No
Alvarado Avenue / Essex Street	EB/WB Stop	No	No	No	No
Alpine Avenue / Alvarado Street	SB Stop	No	Yes	No	Yes
* total minor street volume reaches warrant level, but a traffic signal would not be recommended as 90% of the traffic turns right					

Summary of Cumulative EPAP Plus Project Traffic Impacts / Mitigations

Impact 2. The project will add traffic to the study area circulation system. However, the street system anticipated under EPAP conditions has the capacity to accommodate projected traffic without exceeding adopted minimum Level of Service standards or without otherwise exceeding the incremental traffic increase permitted under traffic study guidelines when background conditions exceed adopted minimum standards. This impact is not significant.

Mitigation 2. None Required.

Year 2035 Cumulative Impacts

Approach to Year 2035 Analysis. The cumulative impacts of the proposed project and other regional development have been evaluated within the context of future conditions associated with the City of Stockton's Year 2035 General Plan. Because the entire city is not expected to be built out by 2035, the GPU EIR traffic analysis made assumptions as to the amount of new development that would be anticipated by that horizon. In this case, a total of 165 new dwellings were expected on the subject site by Year 2035. This represents the Year 2035 No Project conditions. The Year 2035 Plus Project condition assumes all 333 dwellings are occupied.

Because not every street in Stockton is included in the City's regional travel demand forecasting model, modifications to the model were made in order to provide a basis for forecasting conditions on the streets in the area of the proposed project. The model's land use traffic analysis zones (taz's) were disaggregated and several local / collectors streets were added. These changes were made to both the base year 2003 model and to the year 2035 model. The Year 2035 traffic model was then run under No Project (i.e., 165 du's) and Plus Project (i.e., 333 du's) conditions. Model results are included in the Appendix.

Year 2035 intersection turning movement volumes were created in a manner that is similar to that described for EPAP conditions. The modified Year 2035 travel demand forecasting model results were compared to the modified base year model that is representative of existing conditions. The incremental change in directional peak hour volume was identified for each intersection approach and the growth rate on each approach was calculated. Transportation Research Board's (TRB's) National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* techniques were applied to balance intersection turning movement volumes. This methodology was followed for both "no project" and "plus project" scenarios.

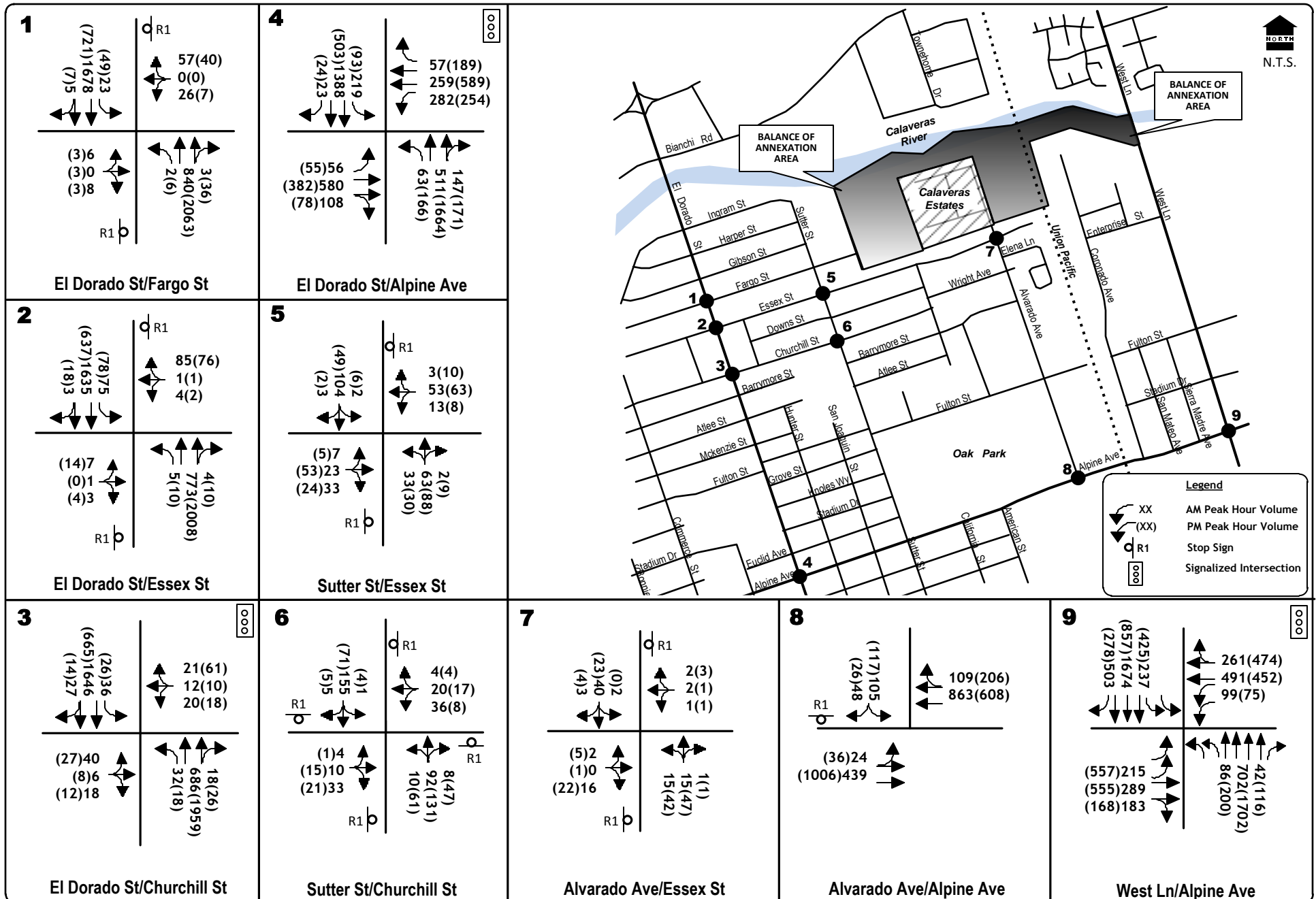
Year 2035 improvements. The extent of improvements to study area intersections that could be expected by the year 2035 was determined from the General Plan EIR in consultation with City of Stockton staff. The only change beyond EPAP geometry assumed for Year 2035 occurs at the West Lane / Alpine Avenue intersection. The General Plan indicates that West Lane will be widened to an 8 lane section. Auxiliary turn lanes would accompany the widening project.

Traffic Volume Forecasts / Intersection Levels of Service. Figures 9 and 10 present a.m./ p.m. peak hour traffic volumes and long term circulation system geometry for Year 2035 conditions with and without the proposed Calaveras Estates project. Intersection geometry and traffic controls at each study location are indicated, including the assumed improvements to the West Lane / Alpine Avenue intersection.

Table 12 compares year 2035 a.m. peak hour intersection Levels of Service for the No Project and Plus Project conditions. As shown, one intersection will operate at a Level of Service that exceeds the City of Stockton's overall LOS D minimum standard under Year 2035 No Project conditions. The Alpine Avenue / El Dorado Street intersection is projected to operate at LOS E.

As indicated, in the Year 2035 there is relatively little difference in operating Level of Service under No Project and Plus Project conditions, but under City of Stockton policies one intersection would be impacted from a Level of Service standpoint. Projected traffic conditions at the Alpine Avenue / El Dorado Street intersection would be Level of Service E in the p.m. peak hour with or without the proposed project. However, the incremental change in overall delay at this intersection that results from the project is only 0.1 seconds. This change does not reach the level employed under City policies to determined significance when background conditions already exceed the minimum standard (i.e., 5.0 seconds). As a result, the project's impact is not significant at this location.

The addition of project traffic does impact the **El Dorado Street / Fargo Street intersection**. At this intersection the addition of project traffic in the p.m. peak hour will take the overall Level of Service from LOS B to LOS F. This change is significant under City policy.



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Transportation Engineers

2035 NO PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

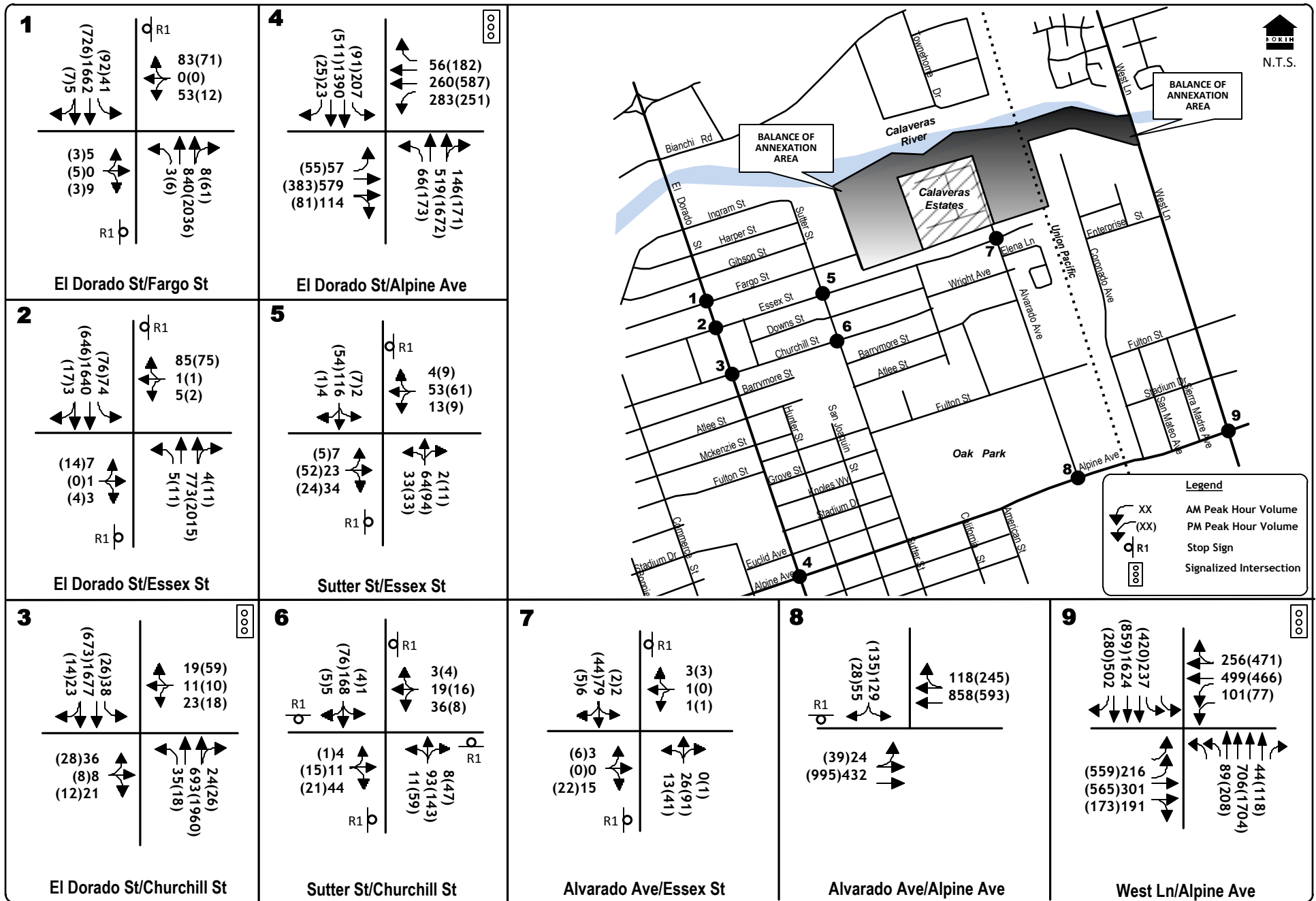


TABLE 12
YEAR 2035 PLUS PROJECT PEAK HOUR LEVELS OF SERVICE AT INTERSECTIONS

Location / Approach	Control	Year 2035 AM Peak Hour				Year 2035 PM Peak Hour			
		No Project		Plus Project		No Project		Plus Project	
		Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS
El Dorado Street / Fargo Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(4.4) 16.0 10.0 163.8 109.6	(A) C B F F	(23.3) 15.8 10.2 154.3 444.6	(C) C B F F	(12.6) 9.4 26.6 390.5 683.4	(B) A D F F	(>50) 9.4 34.4 >999 >999	(F) A D F F
El Dorado Street / Essex Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(2.8) 15.6 10.1 376.4 24.6	(A) C B F F	(2.9) 15.7 10.1 378.9 27.1	(A) C B F D	(7.9) 9.1 28.4 542.8 131.4	(A) A D F F	(7.9) 9.2 28.3 551.0 133.9	(A) A D F F
El Dorado Street / Churchill Street	Signal	11.7	B	12.0	B	14.8	B	14.7	B
El Dorado Street / Alpine Avenue	Signal	49.3	D	50.1	D	60.7	E	60.8	E
Sutter Street / Essex Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(5.0) 7.5 7.4 10.3 11.5	(A) A A B B	(4.9) 7.5 7.4 10.4 11.6	A A A B B	(5.9) 7.4 7.4 10.7 11.2	(A) A A B B	(5.8) 7.4 7.5 10.9 11.4	(A) A A B B
Sutter Street / Churchill Street	All-way Stop	8.2	A	8.3	A	8.4	A	8.5	A
Alvarado Street / Essex Street (overall) NB left turn SB left turn EB left+thru+right turn WB left+thru+right turn	EB/WB Stop	(3.3) 7.3 7.3 8.7 9.1	(A) A A A A	(2.1) 7.4 7.3 8.9 9.0	(A) A A A A	(4.0) 7.3 - 8.8 9.1	(A) A - A A	(2.8) 7.4 7.4 9.0 9.2	(A) A A A A
Alpine Avenue / Alvarado Street (overall) EB left turn SB left+thru+right turn	SB Stop	(8.2) 10.7 83.2	(A) B F	(14.8) 10.7 128.5	(B) B F	(10.9) 10.0 150.5	(B) B F	(17.0) 10.1 210.4	(C) B F
Alpine Avenue / West Lane	Signal	31.3	C	31.4	C	54.7	D	54.6	D
Bold values are conditions in excess of the LOS D minimum. Highlighted values are significant impacts									

Traffic Signal Warrants. The status of traffic signal warrants under Year 2035 conditions is noted in Table 13. As shown, under the Year 2035 No Project condition peak hour volumes satisfy traffic signal warrants at one location:

Alpine Avenue / Alvarado Avenue (PM only)

The addition of Project traffic will result in one additional intersection carry volumes that satisfy warrant requirements, and one intersection will satisfy peak hour warrants during an additional time period.

El Dorado Street / Fargo Street (AM Peak Hour Only)
Alpine Avenue / Alvarado Avenue (AM and PM)

TABLE 13
STATUS OF PEAK HOUR TRAFFIC SIGNAL WARRANTS
UNDER YEAR 2035 PLUS PROJECT CONDITIONS

Location / Approach	Control	Peak Hour Warrants Satisfied?			
		Year 2035 AM Peak Hour		Year 2035 PM Peak Hour	
		No Project Conditions	Plus Project	No Project Conditions	Plus Project
El Dorado Street / Fargo Street	EB/WB Stop	No	Yes	No	No
El Dorado Street / Essex Street	EB/WB Stop	No	No	No	No
Sutter Street / Essex Street	EB/WB Stop	No	No	No	No
Sutter Street / Churchill Street	All-Way Stop	No	No	No	No
Alvarado Avenue / Essex Street	EB/WB Stop	No	No	No	No
Alpine Avenue / Alvarado Street	SB Stop	No	Yes	Yes	Yes

Summary of Cumulative Year 2035 Plus Project Traffic Impacts / Mitigations

Impact 3. The project will add traffic to the study area circulation system, and one location will be impacted. The project will result in conditions at the El Dorado Street / Fargo Street intersection deteriorating from LOS B to LOS F. As LOS F exceeds the adopted minimum Level of Service standard this impact is significant.

Mitigation 3. Participate in the cost of a traffic signal at the El Dorado Street / Fargo Street intersection. Development in the project area shall contribute its fair share to the cost of signalizing the El Dorado Street / Fargo Street intersection.

Table 14 identifies the project's "fair share" of Year 2035 traffic at two study intersections. As noted, the net difference in p.m. peak hour traffic under No Project (165 du's) and Plus Project (333 du's) has been identified. This increment represents the traffic associated with 168 du's, and the fair share has been identified by factoring this increment upwards to reflect all 333 project du's. As shown, project trips represent 5.6% of the total traffic at the El Dorado Street / Fargo Street intersection. Table 15 indicates how that fair share responsibility can be spread among the three project areas.

**TABLE 14
PROJECT FAIR SHARE CALCULATIONS**

Location	Year 2035 PM Peak Hour				Fair Share
	No Project	Plus Project	Net		
			165 du's	333 du's	
El Dorado Street / Fargo Street	2,938	3,022	84	168	5.6%
Alpine Avenue / Alvarado Avenue	1,999	2,035	36	72	3.6%

**TABLE 15
PROJECT AREA FAIR SHARE ALLOCATION**

Location	Year 2035 PM Peak Hour						
	Total plus Project	77 unit Subdivision		114 units LDR		142 MDR units	
		Trips	Fair share	Trips	Fair share	trips	Fair share
El Dorado Street / Fargo Street	3,022	39	1.3%	58	1.9%	71	2.4%
Alpine Avenue / Alvarado Ave	2,035	17	0.8%	25	1.2%	30	1.5%

Impact 4. The project will add traffic to the study area circulation system, and peak hour traffic signal warrants will be satisfied at one additional location. The project will incrementally contribute to the satisfaction of traffic signal warrants at the Alpine Avenue / Alvarado Avenue intersection.

Mitigation 4. Participate in the cost of a traffic signal at the Alpine Avenue / Alvarado Avenue intersection. Development in the project area shall contribute its fair share to the cost of signalizing the Alpine Avenue / Alvarado Avenue intersection. As shown in Table 14, project trips represent 3.6% of the total traffic at the Alpine Avenue / Alvarado Avenue intersection, while Table 15 spreads that responsibility among the three project areas.

APPENDIX

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EX AM

Command: Default Command
Volume: EX AM
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: AM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

 EXISTING PLUS PROJECT LOS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for AM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.19	0.56	15	43	58	23.1
	Zone 1 Subtotal					15	43	58	23.1
2	WEST ANNEXAT	114.00	LDR	0.19	0.56	22	64	86	34.3
2	WEST ANNEXAT	57.00	GP LDR	0.00	0.00	0	0	0	0.0
	Zone 2 Subtotal					22	64	86	34.3
3	EAST ANNEXAT	142.00	MDR	0.19	0.56	27	80	107	42.6
	Zone 3 Subtotal					27	80	107	42.6
TOTAL						64	187	251	100.0

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
2	30.0	19.0	13.0	6.0	23.0	9.0
3	30.0	19.0	13.0	6.0	23.0	9.0

 EXISTING PLUS PROJECT LOS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 AM PEAK

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 El Dorado / Fargo St													
Base	3	990	3	14	1098	4	7	0	7	6	0	16	2148
Added	0	36	6	7	12	0	0	0	0	18	0	20	99
Total	3	1026	9	21	1110	4	7	0	7	24	0	36	2247
#2 El Dorado St / Essex St													
Base	6	942	6	60	1045	2	7	1	3	3	1	57	2133
Added	0	6	2	12	18	0	0	0	0	6	0	36	80
Total	6	948	8	72	1063	2	7	1	3	9	1	93	2213
#3 El Dorado St / Chruchill St													
Base	26	860	20	26	1082	14	35	5	13	22	10	28	2141
Added	0	8	2	0	24	0	0	0	0	6	0	0	40
Total	26	868	22	26	1106	14	35	5	13	28	10	28	2181
#4 El Dorado St / Alpine Ave													
Base	76	645	108	176	852	30	64	387	55	177	353	81	3004
Added	0	3	3	0	8	21	7	7	0	8	22	0	79
Total	76	648	111	176	860	51	71	394	55	185	375	81	3083
#5 Sutter St / Essex St													
Base	30	65	2	1	93	2	5	16	34	10	27	2	287
Added	0	1	1	0	2	2	1	13	0	4	40	0	64
Total	30	66	3	1	95	4	6	29	34	14	67	2	351
#6 Sutter St / Churchill St													
Base	24	92	4	1	133	14	5	7	28	6	12	0	326
Added	0	0	0	0	0	6	2	0	0	0	0	0	8
Total	24	92	4	1	133	20	7	7	28	6	12	0	334
#7 Alvarado St / Essex St													
Base	16	4	1	0	3	0	1	1	17	0	3	0	46
Added	0	35	0	0	101	43	15	0	0	0	0	0	194
Total	16	39	1	0	104	43	16	1	17	0	3	0	240
#8 Alvarado St / Alpine Ave													
Base	0	0	0	51	0	33	29	476	0	0	778	77	1444
Added	0	0	0	71	0	30	10	0	0	0	0	24	135
Total	0	0	0	122	0	63	39	476	0	0	778	101	1579
#9 West Lane / Alpine Ave													
Base	83	732	32	154	777	417	234	229	104	42	371	212	3387
Added	4	0	0	0	0	12	36	24	11	0	8	0	95
Total	87	732	32	154	777	429	270	253	115	42	379	212	3482

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 El Dorado / Fargo St	F	53.3 0.000	F	80.6 0.000	+27.252 D/V
# 2 El Dorado St / Essex St	F	94.0 0.000	F	117.2 0.000	+23.208 D/V
# 3 El Dorado St / Chruchill St	A	9.1 0.478	A	9.3 0.491	+ 0.214 D/V
# 4 El Dorado St / Alpine Ave	C	31.7 0.672	C	32.1 0.683	+ 0.450 D/V
# 5 Sutter St / Essex St	B	10.9 0.000	B	11.6 0.000	+ 0.654 D/V
# 6 Sutter St / Churchill St	A	8.0 0.188	A	8.0 0.195	+ 0.007 V/C
# 7 Alvarado St / Essex St	A	9.3 0.000	B	10.5 0.000	+ 1.218 D/V
# 8 Alvarado St / Alpine Ave	D	30.2 0.000	F	101.2 0.000	+70.994 D/V
# 9 West Lane / Alpine Ave	C	31.2 0.683	C	32.0 0.711	+ 0.780 D/V

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: F[53.3]

Street Name:	El Dorado St						Fargo St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	0	1	0	1	0	0	0
Volume Module: >> Count Date: 12 Oct 2011 <<												
Base Vol:	3	990	3	14	1098	4	7	0	7	6	0	16
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	990	3	14	1098	4	7	0	7	6	0	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	3	1076	3	15	1193	4	8	0	8	7	0	17
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	1076	3	15	1193	4	8	0	8	7	0	17

Critical Gap Module:	El Dorado St						Fargo St					
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	El Dorado St						Fargo St					
Cnflct Vol:	1198	xxxx	xxxxx	1079	xxxx	xxxxx	1771	2312	599	1711	2313	540
Potent Cap.:	578	xxxx	xxxxx	642	xxxx	xxxxx	53	38	445	58	37	486
Move Cap.:	578	xxxx	xxxxx	642	xxxx	xxxxx	50	36	445	56	36	486
Volume/Cap:	0.01	xxxx	xxxx	0.02	xxxx	xxxx	0.15	0.00	0.02	0.12	0.00	0.04

Level Of Service Module:	El Dorado St						Fargo St						
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:	11.3	xxxx	xxxxx	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	89	xxxxx	xxxx	157	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	0.5	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	53.3	xxxxx	xxxxx	31.9	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	F	*	*	D	*	
ApproachDel:	xxxxxx			xxxxxx			53.3			31.9			
ApproachLOS:	*			*			F			D			

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: F(80.6)

Street Name:	El Dorado St					Fargo St						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	0	1	0	1	0	0	0

Volume Module:	>>	Count	Date:	12 Oct 2011	<<
Base Vol:	3	990	3	14	1098
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	990	3	14	1098
Added Vol:	0	36	6	7	12
PasserByVol:	0	0	0	0	0
Initial Fut:	3	1026	9	21	1110
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92
PHF Volume:	3	1115	10	23	1207
Reduct Vol:	0	0	0	0	0
FinalVolume:	3	1115	10	23	1207

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1211	xxxx	xxxxxx	1125	xxxx	xxxxxx	1818	2386	605	1776	2383	563
Potent Cap.:	572	xxxx	xxxxxx	617	xxxx	xxxxxx	49	34	440	52	34	470
Move Cap.:	572	xxxx	xxxxxx	617	xxxx	xxxxxx	43	32	440	50	32	470
Volume/Cap:	0.01	xxxx	xxxx	0.04	xxxx	xxxx	0.18	0.00	0.02	0.52	0.00	0.08

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	11.3	xxxx	xxxxxx	11.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	78	xxxxxx	xxxx	107	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.7	xxxxxx	xxxxxx	3.0	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	61.6	xxxxxx	xxxxxx	80.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	61.6	xxxxxx	xxxxxx	xxxxxx	80.6	xxxxxx
ApproachLOS:	*	*	*	*	*	*	F	*	*	*	F	*

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: F[94.0]

Street Name:	El Dorado St						Essex St						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign			
Rights:	Include			Include			Include			Include			
Lanes:	1	0	1	1	0	0	1	0	1	0	0	0	
Volume Module: >> Count Date: 12 Oct 2011 <<													
Base Vol:	6	942	6	60	1045	2	7	1	3	3	1	57	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	6	942	6	60	1045	2	7	1	3	3	1	57	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
PHF Volume:	7	1024	7	65	1136	2	8	1	3	3	1	62	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Final Volume:	7	1024	7	65	1136	2	8	1	3	3	1	62	
Critical Gap Module:													
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9	
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3	
Capacity Module:													
Cnflct Vol:	1138	xxxx	xxxxx	1030	xxxx	xxxxx	1793	2311	569	1739	2309	515	
Potent Cap.:	610	xxxx	xxxxx	670	xxxx	xxxxx	51	38	465	56	38	505	
Move Cap.:	610	xxxx	xxxxx	670	xxxx	xxxxx	40	34	465	50	34	505	
Volume/Cap:	0.01	xxxx	xxxx	0.10	xxxx	xxxx	0.19	0.03	0.01	0.07	0.03	0.12	
Level Of Service Module:													
2Way95thQ:	0.0	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:	11.0	xxxx	xxxxx	11.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	52	xxxxx	xxxx	300	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	0.8	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	94.0	xxxxx	xxxxx	20.4	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	F	*	*	C	*	
ApproachDel:	xxxxxx			xxxxxx			94.0			20.4			
ApproachLOS:	*			*			F			C			

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: F[117.2]

Street Name:	El Dorado St					Essex St						
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1
Volume Module: >> Count Date: 12 Oct 2011 <<												
Base Vol:	6	942	6	60	1045	2	7	1	3	3	1	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	942	6	60	1045	2	7	1	3	3	1	57
Added Vol:	0	6	2	12	18	0	0	0	0	6	0	36
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	948	8	72	1063	2	7	1	3	9	1	93
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	7	1030	9	78	1155	2	8	1	3	10	1	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	1030	9	78	1155	2	8	1	3	10	1	101

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1158	xxxx	xxxxx	1039	xxxx	xxxxx	1842	2365	579	1783	2362	520
Potent Cap.:	599	xxxx	xxxxx	665	xxxx	xxxxx	47	35	459	52	35	501
Move Cap.:	599	xxxx	xxxxx	665	xxxx	xxxxx	33	30	459	45	30	501
Volume/Cap:	0.01	xxxx	xxxx	0.12	xxxx	xxxx	0.23	0.04	0.01	0.22	0.04	0.20

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	11.1	xxxx	xxxxx	11.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	43	xxxxx	xxxx	246	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.9	xxxxx	xxxxx	2.2	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	117	xxxxx	xxxxx	31.3	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	D	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	117.2	xxxxxxx	xxxxxxx	31.3	xxxxxxx	xxxxxxx
ApproachLOS:	*	*	*	*	*	*	F	*	*	D	*	*

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 El Dorado St / Churchill St

Cycle (sec): 80 Critical Vol./Cap.(X): 0.478

Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 9.1

Optimal Cycle: 32 Level Of Service: A

Street Name: El Dorado St

Churchill St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

-----|-----|-----|-----|

Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Include

Include

Min. Green: 4 4 0

4 4 0

4 4 0

4 4 0

Lanes: 1 0 1 1 0

1 0 1 1 0

0 0 1 0 0

0 0 1 0 0

-----|-----|-----|-----|

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol: 26 860 20 26 1082 14 35 5 13 22 10 28

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 26 860 20 26 1082 14 35 5 13 22 10 28

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 28 935 22 28 1176 15 38 5 14 24 11 30

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 28 935 22 28 1176 15 38 5 14 24 11 30

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 28 935 22 28 1176 15 38 5 14 24 11 30

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.92 0.92 0.92 0.90 0.90 0.90

Lanes: 1.00 1.95 0.05 1.00 1.97 0.03 0.66 0.09 0.25 0.36 0.17 0.47

Final Sat.: 1769 3447 80 1769 3486 45 1151 164 428 628 286 800

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.27 0.27 0.02 0.34 0.34 0.03 0.03 0.03 0.04 0.04 0.04

Crit Moves: **** **** ****

Green/Cycle: 0.05 0.63 0.63 0.12 0.69 0.69 0.07 0.07 0.07 0.07 0.08 0.08

Volume/Cap: 0.32 0.43 0.43 0.14 0.49 0.49 0.49 0.45 0.45 0.52 0.49 0.49

Delay/Veh: 38.8 7.8 7.8 32.1 5.9 5.9 39.1 38.1 38.1 39.7 38.1 38.1

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 38.8 7.8 7.8 32.1 5.9 5.9 39.1 38.1 38.1 39.7 38.1 38.1

LOS by Move: D A A C A A D D D D D D

HCM2kAvgQ: 1 6 6 1 7 7 2 2 2 2 2 2

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 El Dorado St / Churchill St

Cycle (sec): 80 Critical Vol./Cap.(X): 0.491
Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 9.3
Optimal Cycle: 33 Level Of Service: A

Street Name: El Dorado St Churchill St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|

Volume Module: >> Count Date: 16 Nov 2011 <<
Base Vol: 26 860 20 26 1082 14 35 5 13 22 10 28
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 26 860 20 26 1082 14 35 5 13 22 10 28
Added Vol: 0 8 2 0 24 0 0 0 0 6 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 26 868 22 26 1106 14 35 5 13 28 10 28
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 28 943 24 28 1202 15 38 5 14 30 11 30
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 28 943 24 28 1202 15 38 5 14 30 11 30
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 28 943 24 28 1202 15 38 5 14 30 11 30
-----|-----|-----|-----|

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.92 0.92 0.92 0.90 0.90 0.90
Lanes: 1.00 1.95 0.05 1.00 1.98 0.02 0.66 0.09 0.25 0.43 0.15 0.42
Final Sat.: 1769 3437 87 1769 3487 44 1151 164 428 729 260 729
-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 0.02 0.27 0.27 0.02 0.34 0.34 0.03 0.03 0.03 0.04 0.04 0.04
Crit Moves: **** **** **** ****
Green/Cycle: 0.05 0.62 0.62 0.11 0.69 0.69 0.07 0.07 0.07 0.07 0.08 0.08
Volume/Cap: 0.32 0.44 0.44 0.14 0.50 0.50 0.50 0.44 0.44 0.56 0.50 0.50
Delay/Veh: 38.8 7.9 7.9 32.3 6.1 6.1 39.5 37.8 37.8 41.2 37.8 37.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 38.8 7.9 7.9 32.3 6.1 6.1 39.5 37.8 37.8 41.2 37.8 37.8
LOS by Move: D A A C A A D D D D D D
HCM2kAvgQ: 1 7 7 1 8 8 2 2 2 3 2 2

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.672
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 31.7
Optimal Cycle: 56 Level Of Service: C

El Dorado St						Alpine Ave									
North Bound			South Bound			East Bound			West Bound						
L	T	R	L	T	R	L	T	R	L	T	R				
Control: Protected			Protected			Protected			Protected						
Rights: Include			Include			Include			Include						
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0			
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	1	1	0

Volume Module: >> Count Date: 16 Nov 2011 <<												
Base Vol:	76	645	108	176	852	30	64	387	55	177	353	81
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	645	108	176	852	30	64	387	55	177	353	81
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	83	701	117	191	926	33	70	421	60	192	384	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	83	701	117	191	926	33	70	421	60	192	384	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	83	701	117	191	926	33	70	421	60	192	384	88

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.91	0.91	0.93	0.93	0.93	0.93	0.91	0.91	0.93	0.90	0.90
Lanes:	1.00	1.71	0.29	1.00	1.93	0.07	1.00	1.75	0.25	1.00	1.63	0.37
Final Sat.:	1769	2967	497	1769	3400	120	1769	3039	432	1769	2797	642

Capacity Analysis Module:												
Vol/Sat:	0.05	0.24	0.24	0.11	0.27	0.27	0.04	0.14	0.14	0.11	0.14	0.14
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.35	0.35	0.16	0.44	0.44	0.08	0.21	0.21	0.16	0.28	0.28
Volume/Cap:	0.62	0.67	0.67	0.67	0.62	0.62	0.47	0.67	0.67	0.67	0.48	0.48
Delay/Veh:	53.7	29.0	29.0	45.7	22.6	22.6	46.2	39.1	39.1	45.6	30.0	30.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.7	29.0	29.0	45.7	22.6	22.6	46.2	39.1	39.1	45.6	30.0	30.0
LOS by Move:	D	C	C	D	C	C	D	D	D	D	C	C
HCM2kAvgQ:	4	12	12	7	12	12	3	8	8	7	7	7

Note: Queue reported is the number of cars per lane.

 EXISTING PLUS PROJECT LOS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.1
 Optimal Cycle: 57 Level Of Service: C

El Dorado St					Alpine Ave								
North Bound					South Bound			East Bound			West Bound		
Approach:					Approach:			Approach:			Approach:		
Movement:					Movement:			Movement:			Movement:		
L - T - R					L - T - R			L - T - R			L - T - R		
Control:					Control:			Control:			Control:		
Rights:					Rights:			Rights:			Rights:		
Protected					Protected			Protected			Protected		
Include					Include			Include			Include		
Min. Green:					Min. Green:			Min. Green:			Min. Green:		
4 4 0					4 4 0			4 4 0			4 4 0		
Lanes:					Lanes:			Lanes:			Lanes:		
1 0 1 1 0					1 0 1 1 0			1 0 1 1 0			1 0 1 1 0		

Volume Module: >> Count Date: 16 Nov 2011 <<
 Base Vol: 76 645 108 176 852 30 64 387 55 177 353 81
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 76 645 108 176 852 30 64 387 55 177 353 81
 Added Vol: 0 3 3 0 8 21 7 7 0 8 22 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 76 648 111 176 860 51 71 394 55 185 375 81
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 83 704 121 191 935 55 77 428 60 201 408 88
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 83 704 121 191 935 55 77 428 60 201 408 88
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 83 704 121 191 935 55 77 428 60 201 408 88

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.93 0.91 0.91 0.93 0.92 0.92 0.93 0.91 0.91 0.93 0.91 0.91
 Lanes: 1.00 1.71 0.29 1.00 1.89 0.11 1.00 1.76 0.24 1.00 1.64 0.36
 Final Sat.: 1769 2954 506 1769 3313 196 1769 3049 426 1769 2831 611

Capacity Analysis Module:
 Vol/Sat: 0.05 0.24 0.24 0.11 0.28 0.28 0.04 0.14 0.14 0.11 0.14 0.14
 Crit Moves: **** **** **** ****
 Green/Cycle: 0.07 0.35 0.35 0.16 0.44 0.44 0.09 0.21 0.21 0.17 0.29 0.29
 Volume/Cap: 0.65 0.68 0.68 0.68 0.65 0.65 0.50 0.68 0.68 0.68 0.50 0.50
 Delay/Veh: 56.2 29.4 29.4 46.5 23.2 23.2 46.3 39.4 39.4 45.6 30.2 30.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 56.2 29.4 29.4 46.5 23.2 23.2 46.3 39.4 39.4 45.6 30.2 30.2
 LOS by Move: E C C D C C D D D D C C
 HCM2kAvgQ: 4 12 12 7 13 13 3 9 9 7 7 7

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 4.2 Worst Case Level Of Service: B[10.9]

Street Name: Sutter St Essex St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 16 Nov 2011 <<
Base Vol: 30 65 2 1 93 2 5 16 34 10 27 2
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 30 65 2 1 93 2 5 16 34 10 27 2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 33 71 2 1 101 2 5 17 37 11 29 2
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 33 71 2 1 101 2 5 17 37 11 29 2
-----|-----|-----|-----|
Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2
FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 103 xxxx xxxxx 73 xxxx xxxxx 257 242 102 268 242 72
Potent Cap.: 1489 xxxx xxxxx 1527 xxxx xxxxx 696 659 953 684 659 991
Move Cap.: 1489 xxxx xxxxx 1527 xxxx xxxxx 659 644 953 633 644 991
Volume/Cap: 0.02 xxxx xxxx 0.00 xxxx xxxx 0.01 0.03 0.04 0.02 0.05 0.00
-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del: 7.5 xxxx xxxxx 7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: A * * A * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 807 xxxxx xxxx 653 xxxxx
SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.2 xxxxx xxxxx 0.2 xxxxx
Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 9.8 xxxxx xxxxx 10.9 xxxxx
Shared LOS: * * * * * * * * A * * B *
ApproachDel: xxxxxx xxxxxx 9.8 10.9
ApproachLOS: * * A B

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 5.4 Worst Case Level Of Service: B [11.6]

Street Name:	Sutter St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
Volume Module: >> Count Date: 16 Nov 2011 <<												
Base Vol:	30	65	2	1	93	2	5	16	34	10	27	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	65	2	1	93	2	5	16	34	10	27	2
Added Vol:	0	1	1	0	2	2	1	13	0	4	40	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	66	3	1	95	4	6	29	34	14	67	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	33	72	3	1	103	4	7	32	37	15	73	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	33	72	3	1	103	4	7	32	37	15	73	2

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	108	xxxx	xxxxxx	75	xxxx	xxxxxx	284	248	105	280	248	73
Potent Cap.:	1483	xxxx	xxxxxx	1524	xxxx	xxxxxx	669	655	949	672	654	988
Move Cap.:	1483	xxxx	xxxxxx	1524	xxxx	xxxxxx	598	640	949	611	639	988
Volume/Cap:	0.02	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.05	0.04	0.02	0.11	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	757	xxxxxx	xxxx	640	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx	xxxxxx	0.5	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.3	xxxxxx	xxxxxx	11.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	10.3	xxxxxxx	xxxxxxx	11.6	xxxxxxx	xxxxxxx
ApproachLOS:	*	*	*	*	*	*	B	B	B	B	B	B

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

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*****
Intersection #6 Sutter St / Churchill St
*****
Cycle (sec):      100          Critical Vol./Cap.(X):      0.188
Loss Time (sec):  0 (Y+R=4.0 sec)  Average Delay (sec/veh):      8.0
Optimal Cycle:    0          Level Of Service:      A
*****
Street Name:      Sutter St          Churchill St
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:        L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:         Stop Sign      Stop Sign      Stop Sign      Stop Sign
Rights:          Include      Include      Include      Include
Min. Green:      4    4    0      4    4    0      4    4    0      4    4    0
Lanes:           0    0    1! 0    0    0    1! 0    0    0    0    1! 0    0    0    1    0    0    0
-----|-----|-----|-----|
Volume Module: >> Count Date: 16 Nov 2011 <<
Base Vol:        24    92    4      1    133    14      5    7    28      6    12    0
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     24    92    4      1    133    14      5    7    28      6    12    0
User Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:         0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume:      26    100   4      1    145    15      5    8    30      7    13    0
Reduct Vol:      0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:     26    100   4      1    145    15      5    8    30      7    13    0
PCE Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:     26    100   4      1    145    15      5    8    30      7    13    0
-----|-----|-----|-----|
Saturation Flow Module:
Adjustment:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:           0.20 0.77 0.03 0.01 0.90 0.09 0.12 0.18 0.70 0.33 0.67 0.00
Final Sat.:     167   638   28      6   768   81    102  142   569   243  486    0
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:         0.16 0.16 0.16 0.19 0.19 0.19 0.05 0.05 0.05 0.03 0.03 xxxx
Crit Moves:      ****          ****          ****          ****
Delay/Veh:       8.0  8.0  8.0  8.1  8.1  8.1  7.4  7.4  7.4  7.8  7.8  0.0
Delay Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:      8.0  8.0  8.0  8.1  8.1  8.1  7.4  7.4  7.4  7.8  7.8  0.0
LOS by Move:     A    A    A    A    A    A    A    A    A    A    A    *
ApproachDel:     8.0          8.1          7.4          7.8
Delay Adj:       1.00          1.00          1.00          1.00
ApprAdjDel:      8.0          8.1          7.4          7.8
LOS by Appr:     A          A          A          A
AllWayAvgQ:      0.2  0.2  0.2  0.2  0.2  0.2  0.0  0.0  0.0  0.0  0.0  0.0
*****
Note: Queue reported is the number of cars per lane.
*****

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EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.195
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.0
Optimal Cycle: 0 Level Of Service: A

Street Name:	Sutter St						Churchill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	1	0 0 0

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol:	24	92	4	1	133	14	5	7	28	6	12	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	24	92	4	1	133	14	5	7	28	6	12	0
Added Vol:	0	0	0	0	0	6	2	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	24	92	4	1	133	20	7	7	28	6	12	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	26	100	4	1	145	22	8	8	30	7	13	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	100	4	1	145	22	8	8	30	7	13	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	26	100	4	1	145	22	8	8	30	7	13	0

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.20	0.77	0.03	0.01	0.86	0.13	0.17	0.17	0.66	0.33	0.67	0.00
Final Sat.:	166	637	28	6	740	111	134	134	535	242	484	0

Capacity Analysis Module:

Vol/Sat:	0.16	0.16	0.16	0.20	0.20	0.20	0.06	0.06	0.06	0.03	0.03	xxxx
Crit Moves:	****			****			****			****		
Delay/Veh:	8.0	8.0	8.0	8.1	8.1	8.1	7.4	7.4	7.4	7.8	7.8	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.0	8.0	8.0	8.1	8.1	8.1	7.4	7.4	7.4	7.8	7.8	0.0
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	*
ApproachDel:	8.0			8.1			7.4			7.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.0			8.1			7.4			7.8		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 6.6 Worst Case Level Of Service: A[9.3]

Street Name:	Alvarado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0	0	0	0 1 0	0	0	1! 0	0	0	1 0 0
Volume Module: >> Count Date: 16 Nov 2011 <<												
Base Vol:	16	4	1	0	3	0	1	1	17	0	3	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	4	1	0	3	0	1	1	17	0	3	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	17	4	1	0	3	0	1	1	18	0	3	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	17	4	1	0	3	0	1	1	18	0	3	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.1	6.5	6.2	xxxxx	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	4.0	xxxxx

Capacity Module:

Cnflict Vol:	3	xxxx	xxxxx	xxxx	xxxx	xxxxx	45	43	3	xxxx	43	xxxxx
Potent Cap.:	1619	xxxx	xxxxx	xxxx	xxxx	xxxxx	958	848	1081	xxxx	849	xxxxx
Move Cap.:	1619	xxxx	xxxxx	xxxx	xxxx	xxxxx	947	839	1081	xxxx	840	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.02	xxxx	0.00	xxxx

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0.0	xxxxx
Control Del:	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.3	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	A	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1057	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.5	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				8.5			9.3	
ApproachLOS:	*			*				A			A	

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: B[10.5]

Street Name: Alvarado St

Essex St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Uncontrolled

Uncontrolled

Stop Sign

Stop Sign

Rights: Include

Include

Include

Include

Lanes: 0 0 1! 0 0

0 0 0 1 0

0 0 1! 0 0

0 0 1 0 0

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol: 16 4 1 0 3 0 1 1 17 0 3 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 16 4 1 0 3 0 1 1 17 0 3 0

Added Vol: 0 35 0 0 101 43 15 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 16 39 1 0 104 43 16 1 17 0 3 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 17 42 1 0 113 47 17 1 18 0 3 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 17 42 1 0 113 47 17 1 18 0 3 0

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx 7.1 6.5 6.2 xxxxx 6.5 xxxxx

FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx 4.0 xxxxx

Capacity Module:

Cnflct Vol: 160 xxxx xxxxx xxxxx xxxx xxxxx 216 215 136 xxxx 238 xxxxx

Potent Cap.: 1419 xxxx xxxxx xxxxx xxxx xxxxx 741 683 912 xxxx 663 xxxxx

Move Cap.: 1419 xxxx xxxxx xxxxx xxxx xxxxx 731 675 912 xxxx 655 xxxxx

Volume/Cap: 0.01 xxxx xxxxx xxxxx xxxx xxxxx 0.02 0.00 0.02 xxxx 0.00 xxxxx

Level Of Service Module:

2Way95thQ: 0.0 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx

Control Del: 7.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxxx xxxxx xxxxx 10.5 xxxxx

LOS by Move: A * * * * * * * * * * B *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxxx xxxx xxxxx xxxx 809 xxxxx xxxx xxxx xxxxx

SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.1 xxxxx xxxxx xxxx xxxxx

Shrd ConDel:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 9.7 xxxxx xxxxx xxxx xxxxx

Shared LOS: * * * * * * * * * * A * * * *

ApproachDel: xxxxxx xxxxxx 9.7 10.5

ApproachLOS: * * A B

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: D[30.2]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Volume Module: >> Count Date: 12 Oct 2011 <<																				
Base Vol:	0	0	0	0	51	0	33	29	476	0	0	778	77							
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
Initial Bse:	0	0	0	0	51	0	33	29	476	0	0	778	77							
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00							
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92							
PHF Volume:	0	0	0	0	55	0	36	32	517	0	0	846	84							
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0							
FinalVolume:	0	0	0	0	55	0	36	32	517	0	0	846	84							

Critical Gap Module:

Critical Gp:xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1209	1468	465	929	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	175	127	544	732	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	169	121	544	732	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.33	0.00	0.07	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	232	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:xxxxx	xxxx	xxxx	xxxxx	xxxxx	1.8	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:xxxxx	xxxx	xxxx	xxxxx	xxxxx	30.2	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	D	*	B	*	*	*	*	*	
ApproachDel:	xxxxxx	30.2					xxxxxx	xxxxxx					
ApproachLOS:	*	D					*	*					

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 12.1 Worst Case Level Of Service: F[101.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0

Volume Module:	>>	Count	Date:	12 Oct 2011	<<
Base Vol:	0	0	0	51	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	51	0
Added Vol:	0	0	0	71	0
PasserByVol:	0	0	0	0	0
Initial Fut:	0	0	0	122	0
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	133	0
Reduct Vol:	0	0	0	0	0
FinalVolume:	0	0	0	133	0

Critical Gap Module:	Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	

Capacity Module:	Cnflct Vol:	xxxx	xxxx	xxxxx	1244	1503	478	955	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	166	121	534	715	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx	159	113	534	715	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxxx	0.84	0.00	0.13	0.06	xxxx	xxxx	xxxx	xxxx	xxxxx	

Level Of Service Module:	2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*	
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	209	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	8.2	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	101	xxxxx	10.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*	
ApproachDel:	xxxxxxx				101.2		xxxxxxx				xxxxxxx		
ApproachLOS:	*				F		*				*		

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 31.2

Optimal Cycle: 57 Level Of Service: C

Street Name: West Lane Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 1 1 0

-----|-----|-----|-----|

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol: 83 732 32 154 777 417 234 229 104 42 371 212

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 83 732 32 154 777 417 234 229 104 42 371 212

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 90 796 35 167 845 453 254 249 113 46 403 230

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 90 796 35 167 845 453 254 249 113 46 403 230

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 90 796 35 167 845 453 254 249 113 46 403 230

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.83 0.90 0.89 0.89 0.93 0.88 0.88

Lanes: 1.00 1.92 0.08 1.00 2.00 1.00 2.00 1.38 0.62 1.00 1.27 0.73

Final Sat.: 1769 3369 147 1769 3538 1583 3432 2319 1053 1769 2128 1216

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.05 0.24 0.24 0.09 0.24 0.29 0.07 0.11 0.11 0.03 0.19 0.19

Crit Moves: **** **** **** ****

Green/Cycle: 0.07 0.35 0.35 0.14 0.42 0.42 0.11 0.28 0.28 0.10 0.28 0.28

Volume/Cap: 0.68 0.67 0.67 0.67 0.57 0.68 0.68 0.38 0.38 0.25 0.68 0.68

Delay/Veh: 58.8 28.9 28.9 47.6 22.7 26.6 48.1 29.2 29.2 41.8 34.3 34.3

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 58.8 28.9 28.9 47.6 22.7 26.6 48.1 29.2 29.2 41.8 34.3 34.3

LOS by Move: E C C D C C D C C D C C

HCM2kAvgQ: 4 12 12 6 11 12 5 5 5 1 10 10

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.711

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.0

Optimal Cycle: 61 Level Of Service: C

Street Name:	West Lane						Alpine Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	1	0	1	1	0	1	2	0	1	1	0	1

Volume Module: >> Count Date: 16 Nov 2011 <<	West Lane			West Lane			Alpine Ave			Alpine Ave		
Base Vol:	83	732	32	154	777	417	234	229	104	42	371	212
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	83	732	32	154	777	417	234	229	104	42	371	212
Added Vol:	4	0	0	0	0	12	36	24	11	0	8	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	732	32	154	777	429	270	253	115	42	379	212
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	95	796	35	167	845	466	293	275	125	46	412	230
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	95	796	35	167	845	466	293	275	125	46	412	230
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	95	796	35	167	845	466	293	275	125	46	412	230

Saturation Flow Module:	West Lane			West Lane			Alpine Ave			Alpine Ave		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.93	0.93	0.83	0.90	0.89	0.89	0.93	0.88	0.88
Lanes:	1.00	1.92	0.08	1.00	2.00	1.00	2.00	1.37	0.63	1.00	1.28	0.72
Final Sat.:	1769	3369	147	1769	3538	1583	3432	2318	1054	1769	2146	1201

Capacity Analysis Module:	West Lane			West Lane			Alpine Ave			Alpine Ave		
Vol/Sat:	0.05	0.24	0.24	0.09	0.24	0.29	0.09	0.12	0.12	0.03	0.19	0.19
Crit Moves:	****			****			****			****		
Green/Cycle:	0.08	0.35	0.35	0.14	0.41	0.41	0.12	0.29	0.29	0.10	0.27	0.27
Volume/Cap:	0.71	0.68	0.68	0.68	0.58	0.71	0.71	0.41	0.41	0.26	0.71	0.71
Delay/Veh:	61.6	29.2	29.2	48.1	23.1	27.9	48.0	28.7	28.7	42.5	35.6	35.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.6	29.2	29.2	48.1	23.1	27.9	48.0	28.7	28.7	42.5	35.6	35.6
LOS by Move:	E	C	C	D	C	C	D	C	C	D	D	D
HCM2kAvgQ:	4	12	12	6	11	13	6	5	5	2	11	11

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EX PM

Command: Default Command
Volume: EX PM
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: PM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for PM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.64	0.37	49	28	77	22.9
	Zone 1 Subtotal					49	28	77	22.9
2	WEST ANNEXAT	114.00	LDR	0.64	0.37	73	42	115	34.2
	Zone 2 Subtotal					73	42	115	34.2
3	EAST ANNEXAT	142.00	MDR	0.64	0.37	91	53	144	42.9
	Zone 3 Subtotal					91	53	144	42.9
TOTAL						213	123	336	100.0

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
2	30.0	19.0	13.0	6.0	23.0	9.0
3	30.0	19.0	13.0	6.0	23.0	9.0

 EXISTING PLUS PROJECT LOS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 PM PEAK

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 El Dorado / Fargo St													
Base	5	1536	6	11	815	8	4	1	5	2	0	10	2403
Added	0	23	20	23	41	0	0	0	0	12	0	13	132
Total	5	1559	26	34	856	8	4	1	5	14	0	23	2535
#2 El Dorado St / Essex St													
Base	11	1481	6	40	766	17	12	0	6	3	1	54	2397
Added	0	20	7	41	12	0	0	0	0	4	0	23	107
Total	11	1501	13	81	778	17	12	0	6	7	1	77	2504
#3 El Dorado St / Chruchill St													
Base	10	1476	32	29	803	7	9	4	7	17	4	32	2430
Added	0	27	7	0	16	0	0	0	0	4	0	0	54
Total	10	1503	39	29	819	7	9	4	7	21	4	32	2484
#4 El Dorado St / Alpine Ave													
Base	116	1226	99	125	583	39	69	379	67	116	378	128	3325
Added	0	10	10	0	5	14	24	25	0	6	14	0	108
Total	116	1236	109	125	588	53	93	404	67	122	392	128	3433
#5 Sutter St / Essex St													
Base	27	80	6	3	48	1	3	21	19	9	45	7	269
Added	0	2	4	0	1	1	2	45	0	3	26	0	84
Total	27	82	10	3	49	2	5	66	19	12	71	7	353
#6 Sutter St / Churchill St													
Base	37	113	6	2	62	11	7	13	31	1	6	2	291
Added	0	0	0	0	0	4	7	0	0	0	0	0	11
Total	37	113	6	2	62	15	14	13	31	1	6	2	302
#7 Alvarado St / Essex St													
Base	42	5	1	0	3	2	2	2	23	0	2	0	82
Added	0	115	0	0	67	29	49	0	0	0	0	0	260
Total	42	120	1	0	70	31	51	2	23	0	2	0	342
#8 Alvarado St / Alpine Ave													
Base	0	0	0	65	0	31	37	811	0	0	615	126	1685
Added	0	0	0	47	0	20	34	0	0	0	0	81	182
Total	0	0	0	112	0	51	71	811	0	0	615	207	1867
#9 West Lane / Alpine Ave													
Base	134	1023	50	290	724	295	461	329	123	41	311	293	4074
Added	13	0	0	0	0	40	23	16	7	0	28	0	127
Total	147	1023	50	290	724	335	484	345	130	41	339	293	4201

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 El Dorado / Fargo St	F	59.9 0.000	F	230.7 0.000	+170.808 D/V
# 2 El Dorado St / Essex St	F	100.7 0.000	F	181.2 0.000	+80.586 D/V
# 3 El Dorado St / Chruchill St	A	7.8 0.596	A	8.1 0.611	+ 0.271 D/V
# 4 El Dorado St / Alpine Ave	C	32.9 0.795	C	34.7 0.816	+ 1.781 D/V
# 5 Sutter St / Essex St	B	10.7 0.000	B	11.2 0.000	+ 0.537 D/V
# 6 Sutter St / Churchill St	A	7.9 0.200	A	7.9 0.201	+ 0.001 V/C
# 7 Alvarado St / Essex St	A	9.7 0.000	B	11.4 0.000	+ 1.628 D/V
# 8 Alvarado St / Alpine Ave	E	39.3 0.000	F	147.0 0.000	+107.678 D/V
# 9 West Lane / Alpine Ave	D	49.8 0.973	D	52.7 0.991	+ 2.997 D/V

 EXISTING PLUS PROJECT LOS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #1 El Dorado / Fargo St

 Average Delay (sec/veh): 0.6 Worst Case Level Of Service: F[59.9]

 Street Name: El Dorado St Fargo St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

 Volume Module: >> Count Date: 12 Oct 2011 <<
 Base Vol: 5 1536 6 11 815 8 4 1 5 2 0 10
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 5 1536 6 11 815 8 4 1 5 2 0 10
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 5 1670 7 12 886 9 4 1 5 2 0 11
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 5 1670 7 12 886 9 4 1 5 2 0 11

 Critical Gap Module:
 Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.5 6.5 6.9 7.5 6.5 6.9
 FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

 Capacity Module:
 Cnflct Vol: 895 xxxx xxxxx 1676 xxxx xxxxx 1760 2601 447 2151 2602 838
 Potent Cap.: 754 xxxx xxxxx 379 xxxx xxxxx 54 24 559 27 24 309
 Move Cap.: 754 xxxx xxxxx 379 xxxx xxxxx 50 23 559 25 23 309
 Volume/Cap: 0.01 xxxx xxxx 0.03 xxxx xxxx 0.09 0.05 0.01 0.09 0.00 0.04

 Level Of Service Module:
 2Way95thQ: 0.0 xxxx xxxxx 0.1 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
 Control Del: 9.8 xxxx xxxxx 14.8 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
 LOS by Move: A * * B * * * * * * * * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 76 xxxx xxxx 107 xxxx
 SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 0.5 xxxxx xxxxx 0.4 xxxxx
 Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 59.9 xxxxx xxxxx 43.2 xxxxx
 Shared LOS: * * * * * * * F * * E *
 ApproachDel: xxxxxx xxxxxx 59.9 43.2
 ApproachLOS: * * F E

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: F[230.7]

Street Name:	El Dorado St				Fargo St					
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	1	0	1	1	0	0	0	1	0	0

Volume Module:	>>	Count	Date:	12 Oct 2011	<<
Base Vol:	5	1536	6	11	815
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	1536	6	11	815
Added Vol:	0	23	20	23	41
PasserByVol:	0	0	0	0	0
Initial Fut:	5	1559	26	34	856
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92
PHF Volume:	5	1695	28	37	930
Reduct Vol:	0	0	0	0	0
FinalVolume:	5	1695	28	37	930

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	939	xxxx	xxxxxx	1723	xxxx	xxxxxx	1867	2742	470	2259	2733	861
Potent Cap.:	725	xxxx	xxxxxx	363	xxxx	xxxxxx	45	20	540	22	20	299
Move Cap.:	725	xxxx	xxxxxx	363	xxxx	xxxxxx	37	18	540	19	18	299
Volume/Cap:	0.01	xxxx	xxxxxx	0.10	xxxx	xxxxxx	0.12	0.06	0.01	0.79	0.00	0.08

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.3	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	
Control Del:	10.0	xxxx	xxxxxx	16.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
LOS by Move:	A	*	*	C	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	58	xxxxxx	xxxx	46	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.6	xxxxxx	xxxxxx	3.5	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	81.1	xxxxxx	xxxxxx	231	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*	
ApproachDel:	xxxxxx			xxxxxx				81.1			230.7		
ApproachLOS:	*			*				F			F		

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: F[100.7]

Street Name: El Dorado St

Essex St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Uncontrolled

Uncontrolled

Stop Sign

Stop Sign

Rights: Include

Include

Include

Include

Lanes: 1 0 1 1 0

1 0 1 1 0

0 0 1! 0 0

0 0 1! 0 0

Volume Module: >> Count Date: 12 Oct 2011 <<

Base Vol: 11 1481 6 40 766 17 12 0 6 3 1 54

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 11 1481 6 40 766 17 12 0 6 3 1 54

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 12 1610 7 43 833 18 13 0 7 3 1 59

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 12 1610 7 43 833 18 13 0 7 3 1 59

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.5 6.5 6.9 7.5 6.5 6.9

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:

Cnflct Vol: 851 xxxx xxxxx 1616 xxxx xxxxx 1758 2569 426 2140 2575 808

Potent Cap.: 783 xxxx xxxxx 399 xxxx xxxxx 54 26 577 28 25 324

Move Cap.: 783 xxxx xxxxx 399 xxxx xxxxx 39 22 577 25 22 324

Volume/Cap: 0.02 xxxx xxxxx 0.11 xxxx xxxxx 0.34 0.00 0.01 0.13 0.05 0.18

Level Of Service Module:

2Way95thQ: 0.0 xxxx xxxxx 0.4 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Control Del: 9.7 xxxx xxxxx 15.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: A * * C * * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 56 xxxxx xxxx 174 xxxxx

SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 1.3 xxxxx xxxxx 1.5 xxxxx

Shrd ConDel:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 101 xxxxx xxxxx 36.9 xxxxx

Shared LOS: * * * * * * * F * * E *

ApproachDel: xxxxxx xxxxxx 100.7 36.9

ApproachLOS: * * F E

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 5.1 Worst Case Level Of Service: F[181.2]

Street Name:	El Dorado St					Essex St				
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	1	0	1	1	0	1	0	0	0	

Volume Module:	>> Count	Date:	12 Oct 2011	<<
Base Vol:	11 1481	6	40 766	17
Growth Adj:	1.00 1.00	1.00	1.00 1.00	1.00
Initial Bse:	11 1481	6	40 766	17
Added Vol:	0 20	7	41 12	0
PasserByVol:	0 0	0	0 0	0
Initial Fut:	11 1501	13	81 778	17
User Adj:	1.00 1.00	1.00	1.00 1.00	1.00
PHF Adj:	0.92 0.92	0.92	0.92 0.92	0.92
PHF Volume:	12 1632	14	88 846	18
Reduct Vol:	0 0	0	0 0	0
FinalVolume:	12 1632	14	88 846	18

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxxxx	4.1 xxxx xxxxxx	7.5 6.5 6.9	7.5 6.5 6.9
FollowUpTim:	2.2 xxxx xxxxxx	2.2 xxxx xxxxxx	3.5 4.0 3.3	3.5 4.0 3.3

Capacity Module:

Cnflict Vol:	864 xxxx xxxxxx	1646 xxxx xxxxxx	1871 2701	432 2261 2703	823
Potent Cap.:	774 xxxx xxxxxx	389 xxxx xxxxxx	44 21	572 22 21	317
Move Cap.:	774 xxxx xxxxxx	389 xxxx xxxxxx	25 16	572 18 16	317
Volume/Cap:	0.02 xxxx xxxxxx	0.23 xxxx xxxxxx	0.52 0.00	0.01 0.42 0.07	0.26

Level Of Service Module:

2Way95thQ:	0.0 xxxx xxxxxx	0.9 xxxx xxxxxx	xxxx xxxx xxxxxx	xxxx xxxx xxxxxx
Control Del:	9.7 xxxx xxxxxx	16.9 xxxx xxxxxx	xxxx xxxx xxxxxx	xxxx xxxx xxxxxx
LOS by Move:	A * *	C * *	* *	* *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxxxx	xxxx xxxx xxxxxx	xxxx 37 xxxxxx	xxxx 122 xxxxxx
SharedQueue:	xxxx xxxx xxxxxx	xxxx xxxx xxxxxx	xxxx 1.8 xxxxxx	xxxx 4.3 xxxxxx
Shrd ConDel:	xxxx xxxx xxxxxx	xxxx xxxx xxxxxx	xxxx 181 xxxxxx	xxxx 93.6 xxxxxx
Shared LOS:	* * *	* * *	* F *	* F *
ApproachDel:	xxxxxxx	xxxxxxx	181.2	93.6
ApproachLOS:	*	*	F	F

Note: Queue reported is the number of cars per lane.

 EXISTING PLUS PROJECT LOS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 El Dorado St / Chruchill St

Cycle (sec): 80 Critical Vol./Cap.(X): 0.596
 Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 7.8
 Optimal Cycle: 40 Level Of Service: A

Street Name:	El Dorado St						Churchill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:	>> Count	Date:	16 Nov 2011	<<								
Base Vol:	10	1476	32	29	803	7	9	4	7	17	4	32
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	1476	32	29	803	7	9	4	7	17	4	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	11	1604	35	32	873	8	10	4	8	18	4	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	1604	35	32	873	8	10	4	8	18	4	35
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	11	1604	35	32	873	8	10	4	8	18	4	35

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.93	0.93	0.93	0.91	0.91	0.91	0.89	0.89	0.89
Lanes:	1.00	1.96	0.04	1.00	1.98	0.02	0.45	0.20	0.35	0.32	0.08	0.60
Final Sat.:	1769	3452	75	1769	3504	31	781	347	607	539	127	1016

Capacity Analysis Module:												
Vol/Sat:	0.01	0.46	0.46	0.02	0.25	0.25	0.01	0.01	0.01	0.03	0.03	0.03
Crit Moves:	****			****			****			****		
Green/Cycle:	0.13	0.73	0.73	0.05	0.65	0.65	0.05	0.05	0.05	0.05	0.05	0.05
Volume/Cap:	0.05	0.63	0.63	0.36	0.38	0.38	0.25	0.24	0.24	0.66	0.63	0.63
Delay/Veh:	30.5	5.8	5.8	39.2	6.5	6.5	38.1	37.8	37.8	54.1	50.8	50.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.5	5.8	5.8	39.2	6.5	6.5	38.1	37.8	37.8	54.1	50.8	50.8
LOS by Move:	C	A	A	D	A	A	D	D	D	D	D	D
HCM2kAvgQ:	0	11	11	1	5	5	1	1	1	3	3	3

 Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 El Dorado St / Chruchill St

Cycle (sec): 80 Critical Vol./Cap.(X): 0.611

Loss Time (sec): 9 (Y+R=4.0 sec) Average Delay (sec/veh): 8.1

Optimal Cycle: 41 Level Of Service: A

Street Name: El Dorado St

Churchill St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol: 10 1476 32 29 803 7 9 4 7 17 4 32

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 10 1476 32 29 803 7 9 4 7 17 4 32

Added Vol: 0 27 7 0 16 0 0 0 0 4 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 10 1503 39 29 819 7 9 4 7 21 4 32

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 11 1634 42 32 890 8 10 4 8 23 4 35

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 11 1634 42 32 890 8 10 4 8 23 4 35

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 11 1634 42 32 890 8 10 4 8 23 4 35

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.91 0.91 0.91 0.89 0.89 0.89

Lanes: 1.00 1.95 0.05 1.00 1.98 0.02 0.45 0.20 0.35 0.37 0.07 0.56

Final Sat.: 1769 3435 89 1769 3504 30 781 347 607 622 119 949

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Capacity Analysis Module:

Vol/Sat: 0.01 0.48 0.48 0.02 0.25 0.25 0.01 0.01 0.01 0.04 0.04 0.04

Crit Moves: **** **** **** ****

Green/Cycle: 0.13 0.73 0.73 0.05 0.65 0.65 0.05 0.05 0.05 0.05 0.06 0.06

Volume/Cap: 0.05 0.65 0.65 0.36 0.39 0.39 0.25 0.24 0.24 0.69 0.65 0.65

Delay/Veh: 30.7 6.1 6.1 39.2 6.6 6.6 38.1 37.6 37.6 57.5 51.8 51.8

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 30.7 6.1 6.1 39.2 6.6 6.6 38.1 37.6 37.6 57.5 51.8 51.8

LOS by Move: C A A D A A D D D E D D

HCM2kAvgQ: 0 12 12 1 6 6 1 1 1 3 3 3

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.795
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 76 Level Of Service: C

Street Name:	El Dorado St						Alpine Ave						
Approach:	North Bound			South Bound			East Bound			West Bound			
Movement:	L	T	R	L	T	R	L	T	R	L	T	R	
Control:	Protected			Protected			Protected			Protected			
Rights:	Include			Include			Include			Include			
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0	
Lanes:	1	0	1	1	0	1	1	0	1	0	1	1	0

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol:	116	1226	99	125	583	39	69	379	67	116	378	128
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	116	1226	99	125	583	39	69	379	67	116	378	128
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	126	1333	108	136	634	42	75	412	73	126	411	139
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	126	1333	108	136	634	42	75	412	73	126	411	139
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	126	1333	108	136	634	42	75	412	73	126	411	139

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.92	0.92	0.93	0.92	0.92	0.93	0.91	0.91	0.93	0.90	0.90
Lanes:	1.00	1.85	0.15	1.00	1.87	0.13	1.00	1.70	0.30	1.00	1.49	0.51
Final Sat.:	1769	3237	261	1769	3286	220	1769	2940	520	1769	2542	861

Capacity Analysis Module:

Vol/Sat:	0.07	0.41	0.41	0.08	0.19	0.19	0.04	0.14	0.14	0.07	0.16	0.16
Crit Moves:	****			****			****			****		
Green/Cycle:	0.17	0.52	0.52	0.10	0.45	0.45	0.06	0.18	0.18	0.09	0.21	0.21
Volume/Cap:	0.43	0.80	0.80	0.80	0.43	0.43	0.77	0.80	0.80	0.80	0.77	0.77
Delay/Veh:	38.5	22.3	22.3	66.4	19.0	19.0	76.6	46.6	46.6	68.3	42.2	42.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.5	22.3	22.3	66.4	19.0	19.0	76.6	46.6	46.6	68.3	42.2	42.2
LOS by Move:	D	C	C	E	B	B	E	D	D	E	D	D
HCM2kAvgQ:	4	21	21	6	7	7	4	10	10	6	10	10

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.816

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 34.7

Optimal Cycle: 81 Level Of Service: C

Street Name: El Dorado St

Alpine Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Include

Include

Min. Green: 4 4 0

4 4 0

4 4 0

4 4 0

Lanes: 1 0 1 1 0

1 0 1 1 0

1 0 1 1 0

1 0 1 1 0

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Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol: 116 1226 99 125 583 39 69 379 67 116 378 128

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 116 1226 99 125 583 39 69 379 67 116 378 128

Added Vol: 0 10 10 0 5 14 24 25 0 6 14 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 116 1236 109 125 588 53 93 404 67 122 392 128

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 126 1343 118 136 639 58 101 439 73 133 426 139

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 126 1343 118 136 639 58 101 439 73 133 426 139

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 126 1343 118 136 639 58 101 439 73 133 426 139

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.92 0.92 0.93 0.92 0.92 0.93 0.91 0.91 0.93 0.90 0.90

Lanes: 1.00 1.84 0.16 1.00 1.83 0.17 1.00 1.72 0.28 1.00 1.51 0.49

Final Sat.: 1769 3212 283 1769 3206 289 1769 2971 493 1769 2568 839

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Capacity Analysis Module:

Vol/Sat: 0.07 0.42 0.42 0.08 0.20 0.20 0.06 0.15 0.15 0.07 0.17 0.17

Crit Moves: **** **** **** ****

Green/Cycle: 0.16 0.51 0.51 0.09 0.45 0.45 0.07 0.18 0.18 0.09 0.20 0.20

Volume/Cap: 0.45 0.82 0.82 0.82 0.45 0.45 0.82 0.82 0.82 0.82 0.82 0.82

Delay/Veh: 39.1 23.5 23.5 70.2 19.3 19.3 78.5 47.4 47.4 70.7 45.5 45.5

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 39.1 23.5 23.5 70.2 19.3 19.3 78.5 47.4 47.4 70.7 45.5 45.5

LOS by Move: D C C E B B E D D E D D

HCM2kAvgQ: 4 22 22 6 8 8 5 10 10 6 11 11

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: B[10.7]

Street Name:	Sutter St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
Volume Module: >> Count Date: 16 Nov 2011 <<												
Base Vol:	27	80	6	3	48	1	3	21	19	9	45	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	80	6	3	48	1	3	21	19	9	45	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	29	87	7	3	52	1	3	23	21	10	49	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	29	87	7	3	52	1	3	23	21	10	49	8

Critical Gap Module:	Sutter St						Essex St					
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	Sutter St						Essex St					
Cnflct Vol:	53	xxxx	xxxxx	93	xxxx	xxxxx	236	211	53	230	209	90
Potent Cap.:	1552	xxxx	xxxxx	1501	xxxx	xxxxx	718	686	1015	725	688	968
Move Cap.:	1552	xxxx	xxxxx	1501	xxxx	xxxxx	662	671	1015	681	674	968
Volume/Cap:	0.02	xxxx	xxxxx	0.00	xxxx	xxxxx	0.00	0.03	0.02	0.01	0.07	0.01

Level Of Service Module:	Sutter St						Essex St					
2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	788	xxxxx	xxxx	699	xxxxx
SharedQueue:	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	9.9	xxxxxx	xxxxxx	10.7	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx			9.9			10.7				
ApproachLOS:	*	*			A			B				

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 6.3 Worst Case Level Of Service: B[11.2]

Street Name:	Sutter St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
Volume Module: >> Count Date: 16 Nov 2011 <<												
Base Vol:	27	80	6	3	48	1	3	21	19	9	45	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	27	80	6	3	48	1	3	21	19	9	45	7
Added Vol:	0	2	4	0	1	1	2	45	0	3	26	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	82	10	3	49	2	5	66	19	12	71	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	29	89	11	3	53	2	5	72	21	13	77	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	29	89	11	3	53	2	5	72	21	13	77	8

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	55	xxxx	xxxxx	100	xxxx	xxxxx	257	220	54	260	215	95
Potent Cap.:	1549	xxxx	xxxxx	1493	xxxx	xxxxx	697	679	1013	693	683	962
Move Cap.:	1549	xxxx	xxxxx	1493	xxxx	xxxxx	620	664	1013	612	668	962
Volume/Cap:	0.02	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.11	0.02	0.02	0.12	0.01

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	713	xxxxx	xxxx	676	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	0.5	xxxxx	xxxxxx	0.5	xxxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	10.8	xxxxx	xxxxxx	11.2	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	10.8				11.2	
ApproachLOS:	*	*	*	*	*	*	B				B	

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.200
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.9
Optimal Cycle: 0 Level Of Service: A

Street Name:	Sutter St						Churchill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol:	37	113	6	2	62	11	7	13	31	1	6	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	113	6	2	62	11	7	13	31	1	6	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	40	123	7	2	67	12	8	14	34	1	7	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	40	123	7	2	67	12	8	14	34	1	7	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	40	123	7	2	67	12	8	14	34	1	7	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.72	0.04	0.02	0.83	0.15	0.14	0.25	0.61	0.11	0.67	0.22
Final Sat.:	201	615	33	23	702	125	113	211	503	86	516	172

Capacity Analysis Module:

Vol/Sat:	0.20	0.20	0.20	0.10	0.10	0.10	0.07	0.07	0.07	0.01	0.01	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	8.2	8.2	8.2	7.6	7.6	7.6	7.4	7.4	7.4	7.5	7.5	7.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	8.2	7.6	7.6	7.6	7.4	7.4	7.4	7.5	7.5	7.5
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			7.6			7.4			7.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			7.6			7.4			7.5		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.201

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.9

Optimal Cycle: 0 Level Of Service: A

Street Name: Sutter St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol: 37 113 6 2 62 11 7 13 31 1 6 2

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 37 113 6 2 62 11 7 13 31 1 6 2

Added Vol: 0 0 0 0 0 4 7 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 37 113 6 2 62 15 14 13 31 1 6 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 40 123 7 2 67 16 15 14 34 1 7 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 40 123 7 2 67 16 15 14 34 1 7 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 40 123 7 2 67 16 15 14 34 1 7 2

-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.24 0.72 0.04 0.03 0.78 0.19 0.24 0.22 0.54 0.11 0.67 0.22

Final Sat.: 200 612 32 22 667 161 196 182 434 85 512 171

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Capacity Analysis Module:

Vol/Sat: 0.20 0.20 0.20 0.10 0.10 0.10 0.08 0.08 0.08 0.01 0.01 0.01

Crit Moves: **** **** **** ****

Delay/Veh: 8.2 8.2 8.2 7.6 7.6 7.6 7.5 7.5 7.5 7.5 7.5 7.5

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.2 8.2 8.2 7.6 7.6 7.6 7.5 7.5 7.5 7.5 7.5 7.5

LOS by Move: A A A A A A A A A A A A

ApproachDel: 8.2 7.6 7.5 7.5

Delay Adj: 1.00 1.00 1.00 1.00

ApprAdjDel: 8.2 7.6 7.5 7.5

LOS by Appr: A A A A

AllWayAvgQ: 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 6.8 Worst Case Level Of Service: A[9.7]

Street Name:		Alvarado St						Essex St					
Approach:		North Bound			South Bound			East Bound			West Bound		
Movement:		L	T	R	L	T	R	L	T	R	L	T	R
Control:		Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:		Include			Include			Include			Include		
Lanes:		0	0	1! 0	0	0	0 1 0	0	0	1! 0	0	0	0 1 0
Volume Module:	>> Count Date: 16 Nov 2011 <<												
Base Vol:		42	5	1	0	3	2	2	2	23	0	2	0
Growth Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:		42	5	1	0	3	2	2	2	23	0	2	0
User Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:		0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:		46	5	1	0	3	2	2	2	25	0	2	0
Reduct Vol:		0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:		46	5	1	0	3	2	2	2	25	0	2	0
Critical Gap Module:													
Critical Gp:		4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.1	6.5	6.2	xxxxx	6.5	xxxxx
FollowUpTim:		2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	4.0	xxxxx
Capacity Module:													
Cnflct Vol:		5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	103	102	4	xxxx	103	xxxxx
Potent Cap.:		1616	xxxx	xxxxx	xxxxx	xxxx	xxxxx	878	788	1079	xxxx	787	xxxxx
Move Cap.:		1616	xxxx	xxxxx	xxxxx	xxxx	xxxxx	857	765	1079	xxxx	765	xxxxx
Volume/Cap:		0.03	xxxx	xxxx	xxxxx	xxxx	xxxxx	0.00	0.00	0.02	xxxx	0.00	xxxx
Level Of Service Module:													
2Way95thQ:		0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0.0	xxxxx
Control Del:		7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.7	xxxxx
LOS by Move:		A	*	*	*	*	*	*	*	*	*	A	*
Movement:		LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:		xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	1028	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:		*	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:		xxxxxx			xxxxxx			8.6				9.7	
ApproachLOS:		*			*			A				A	

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 3.4 Worst Case Level Of Service: B[11.4]

Street Name:	Alvarado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	0

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol:	42	5	1	0	3	2	2	2	23	0	2	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	5	1	0	3	2	2	2	23	0	2	0
Added Vol:	0	115	0	0	67	29	49	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	42	120	1	0	70	31	51	2	23	0	2	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	46	130	1	0	76	34	55	2	25	0	2	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	46	130	1	0	76	34	55	2	25	0	2	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	7.1	6.5	6.2	xxxxxx	6.5	xxxxxx
FollowUpTim:	2.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	3.5	4.0	3.3	xxxxxx	4.0	xxxxxx

Capacity Module:

Cnflct Vol:	110	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	316	316	93	xxxx	332	xxxxxx
Potent Cap.:	1480	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	636	600	964	xxxx	588	xxxxxx
Move Cap.:	1480	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	619	581	964	xxxx	569	xxxxxx
Volume/Cap:	0.03	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	0.09	0.00	0.03	xxxx	0.00	xxxxxx

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	0.0	xxxxxx	
Control Del:	7.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	11.4	xxxxxx	
LOS by Move:	A	*	*	*	*	*	*	*	*	*	B	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxx	693	xxxxxx	xxxx	xxxx	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	xxxx	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.9	xxxxxx	xxxxxx	xxxx	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	B	*	*	*	*	
ApproachDel:	xxxxxx			xxxxxx				10.9				11.4	
ApproachLOS:	*			*				B				B	

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: E[39.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0

Volume Module:	>>	Count	Date:	12 Oct 2011	<<
Base Vol:	0	0	0	65	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	65	0
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	71	0
Reduct Vol:	0	0	0	0	0
FinalVolume:	0	0	0	71	0

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1258	1699	403	805	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	163	91	597	815	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	157	87	597	815	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.45	0.00	0.06	0.05	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	205	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	2.6	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	39.3	xxxxx	9.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	E	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			39.3			xxxxxx			xxxxxx		
ApproachLOS:	*			E			*			*		

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 13.2 Worst Case Level Of Service: F[147.0]

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0

Volume Module: >> Count Date: 12 Oct 2011 <<

Base Vol:	0	0	0	65	0	31	37	811	0	0	615	126
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	65	0	31	37	811	0	0	615	126
Added Vol:	0	0	0	47	0	20	34	0	0	0	0	81
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	112	0	51	71	811	0	0	615	207
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	122	0	55	77	882	0	0	668	225
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	122	0	55	77	882	0	0	668	225

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1376	1817	447	893	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	136	77	559	755	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	125	69	559	755	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxxx	0.97	0.00	0.10	0.10	xxxx	xxxxx	xxxx	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.3	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	165	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	8.9	xxxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	147	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*			
ApproachDel:	xxxxxxx			147.0			xxxxxxx			xxxxxxx					
ApproachLOS:	*			F			*			*					

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.973
Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 49.8
Optimal Cycle: 130 Level Of Service: D

Street Name:	West Lane						Alpine Ave											
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Control:	Protected						Protected						Protected					
Rights:	Include						Include						Include					
Min. Green:	4		4		0	4		4		0	4		4		0			
Lanes:	1	0	1	1	0	1	0	2	0	1	2	0	1	1	0			

Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol:	134	1023	50	290	724	295	461	329	123	41	311	293
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	134	1023	50	290	724	295	461	329	123	41	311	293
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	146	1112	54	315	787	321	501	358	134	45	338	318
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	146	1112	54	315	787	321	501	358	134	45	338	318
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	146	1112	54	315	787	321	501	358	134	45	338	318

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.92	0.92	0.93	0.93	0.83	0.90	0.89	0.89	0.93	0.86	0.86
Lanes:	1.00	1.91	0.09	1.00	2.00	1.00	2.00	1.46	0.54	1.00	1.03	0.97
Final Sat.:	1769	3349	164	1769	3538	1583	3432	2470	923	1769	1689	1591

Capacity Analysis Module:

Vol/Sat:	0.08	0.33	0.33	0.18	0.22	0.20	0.15	0.14	0.14	0.03	0.20	0.20
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.34	0.34	0.18	0.38	0.38	0.15	0.28	0.28	0.08	0.21	0.21
Volume/Cap:	0.58	0.97	0.97	0.97	0.58	0.53	0.97	0.52	0.52	0.33	0.97	0.97
Delay/Veh:	43.6	52.3	52.3	83.2	25.2	24.8	75.0	30.9	30.9	45.1	67.4	67.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.6	52.3	52.3	83.2	25.2	24.8	75.0	30.9	30.9	45.1	67.4	67.4
LOS by Move:	D	D	D	F	C	C	E	C	C	D	E	E
HCM2kAvgQ:	5	25	25	14	10	8	12	7	7	2	16	16

Note: Queue reported is the number of cars per lane.

EXISTING PLUS PROJECT LOS

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.991

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 52.7

Optimal Cycle: 130 Level Of Service: D

Street Name: West Lane Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 1 1 0

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Volume Module: >> Count Date: 16 Nov 2011 <<

Base Vol: 134 1023 50 290 724 295 461 329 123 41 311 293

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 134 1023 50 290 724 295 461 329 123 41 311 293

Added Vol: 13 0 0 0 0 0 40 23 16 7 0 28 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 147 1023 50 290 724 335 484 345 130 41 339 293

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 160 1112 54 315 787 364 526 375 141 45 368 318

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 160 1112 54 315 787 364 526 375 141 45 368 318

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 160 1112 54 315 787 364 526 375 141 45 368 318

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.92 0.92 0.93 0.93 0.83 0.90 0.89 0.89 0.93 0.87 0.87

Lanes: 1.00 1.91 0.09 1.00 2.00 1.00 2.00 1.45 0.55 1.00 1.07 0.93

Final Sat.: 1769 3349 164 1769 3538 1583 3432 2464 929 1769 1765 1525

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Capacity Analysis Module:

Vol/Sat: 0.09 0.33 0.33 0.18 0.22 0.23 0.15 0.15 0.15 0.03 0.21 0.21

Crit Moves: **** **** **** ****

Green/Cycle: 0.15 0.33 0.33 0.18 0.37 0.37 0.15 0.29 0.29 0.08 0.21 0.21

Volume/Cap: 0.62 0.99 0.99 0.99 0.60 0.62 0.99 0.53 0.53 0.33 0.99 0.99

Delay/Veh: 44.9 57.1 57.1 88.9 26.3 27.9 78.9 30.3 30.3 45.2 71.3 71.3

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 44.9 57.1 57.1 88.9 26.3 27.9 78.9 30.3 30.3 45.2 71.3 71.3

LOS by Move: D E E F C C E C C D E E

HCM2kAvgQ: 6 25 25 15 11 10 13 7 7 2 17 17

Note: Queue reported is the number of cars per lane.

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EX AM

Command: Default Command
Volume: EX AM
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: AM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for AM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total % Of Trips Total
1	CALAVERAS ES	77.00	SF RES	0.19	0.56	15	43	58 100.0
	Zone 1 Subtotal					15	43	58 100.0
TOTAL						15	43	58 100.0

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0

 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 AM PEAK

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 El Dorado / Fargo St													
Base	3	990	3	14	1098	4	7	0	7	6	0	16	2148
Added	0	12	0	0	4	0	0	0	0	1	0	1	18
Total	3	1002	3	14	1102	4	7	0	7	7	0	17	2166
#2 El Dorado St / Essex St													
Base	6	942	6	60	1045	2	7	1	3	3	1	57	2133
Added	0	0	0	4	1	0	0	0	0	1	0	12	18
Total	6	942	6	64	1046	2	7	1	3	4	1	69	2151
#3 El Dorado St / Chruchill St													
Base	26	860	20	26	1082	14	35	5	13	22	10	28	2141
Added	0	1	0	0	3	0	0	0	0	1	0	0	5
Total	26	861	20	26	1085	14	35	5	13	23	10	28	2146
#4 El Dorado St / Alpine Ave													
Base	76	645	108	176	852	30	64	387	55	177	353	81	3004
Added	0	0	1	0	1	3	1	2	0	3	7	0	18
Total	76	645	109	176	853	33	65	389	55	180	360	81	3022
#5 Sutter St / Essex St													
Base	30	65	2	1	93	2	5	16	34	10	27	2	287
Added	0	0	0	0	0	0	0	5	0	1	13	0	19
Total	30	65	2	1	93	2	5	21	34	11	40	2	306
#6 Sutter St / Churchill St													
Base	24	92	4	1	133	14	5	7	28	6	12	0	326
Added	0	0	0	0	0	1	0	0	0	0	0	0	1
Total	24	92	4	1	133	15	5	7	28	6	12	0	327
#7 Alvarado St / Essex St													
Base	16	4	1	0	3	0	1	1	17	0	3	0	46
Added	0	9	0	0	26	14	5	0	0	0	0	0	54
Total	16	13	1	0	29	14	6	1	17	0	3	0	100
#8 Alvarado St / Alpine Ave													
Base	0	0	0	51	0	33	29	476	0	0	778	77	1444
Added	0	0	0	16	0	10	3	0	0	0	0	6	35
Total	0	0	0	67	0	43	32	476	0	0	778	83	1479
#9 West Lane / Alpine Ave													
Base	83	732	32	154	777	417	234	229	104	42	371	212	3387
Added	1	0	0	0	0	3	8	6	3	0	2	0	23
Total	84	732	32	154	777	420	242	235	107	42	373	212	3410

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / No
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / No

 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	3		1002		3	14		1102		4	7		0		7	7		0		17

Major Street Volume: 2128

Minor Approach Volume: 24

Minor Approach Volume Threshold: 25 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	
Initial Vol:	6		942		6	64		1046		2	7		1		3	

Major Street Volume: 2066

Minor Approach Volume: 74

Minor Approach Volume Threshold: 35 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	30		65		2	1		93		2	5		21		34	11		40		2

Major Street Volume: 193
 Minor Approach Volume: 60
 Minor Approach Volume Threshold: 658

 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R	
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign				
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	1!	0	0	0	1	0
Initial Vol:	24		92	4		1	133	15		5		7	28		6	12	0

 Major Street Volume: 269
 Minor Approach Volume: 40
 Minor Approach Volume Threshold: 570

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	
Initial Vol:	16		13		1	0		29		14	6		1		17	
	0		0		0	0		0		0	0		0		0	

Major Street Volume: 73
 Minor Approach Volume: 24
 Minor Approach Volume Threshold: 917

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	67	0	43			32	476	0			0	778	83		
Major Street Volume:					1369															
Minor Approach Volume:					110															
Minor Approach Volume Threshold:					177															

SIGNAL WARRANT DISCLAIMER

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EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EX PM

Command: Default Command
Volume: EX PM
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: PM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for PM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total % Of Trips Total
1	CALAVERAS ES	77.00	SF RES	0.64	0.37	49	28	77 100.0
	Zone 1 Subtotal					49	28	77 100.0
TOTAL						49	28	77 100.0

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

			To Gates			
	1	2	3	4	5	6
Zone	-----	-----	-----	-----	-----	-----
1	30.0	19.0	13.0	6.0	23.0	9.0

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 PM PEAK

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 El Dorado / Fargo St													
Base	5	1536	6	11	815	8	4	1	5	2	0	10	2403
Added	0	8	2	1	13	0	0	0	0	1	0	1	26
Total	5	1544	8	12	828	8	4	1	5	3	0	11	2429
#2 El Dorado St / Essex St													
Base	11	1481	6	40	766	17	12	0	6	3	1	54	2397
Added	0	2	2	13	1	0	0	0	0	1	0	8	27
Total	11	1483	8	53	767	17	12	0	6	4	1	62	2424
#3 El Dorado St / Chruchill St													
Base	10	1476	32	29	803	7	9	4	7	17	4	32	2430
Added	0	3	2	0	2	0	0	0	0	1	0	0	8
Total	10	1479	34	29	805	7	9	4	7	18	4	32	2438
#4 El Dorado St / Alpine Ave													
Base	116	1226	99	125	583	39	69	379	67	116	378	128	3325
Added	0	1	3	0	1	2	3	8	0	2	5	0	25
Total	116	1227	102	125	584	41	72	387	67	118	383	128	3350
#5 Sutter St / Essex St													
Base	27	80	6	3	48	1	3	21	19	9	45	7	269
Added	0	0	2	0	0	0	0	15	0	1	8	0	26
Total	27	80	8	3	48	1	3	36	19	10	53	7	295
#6 Sutter St / Churchill St													
Base	37	113	6	2	62	11	7	13	31	1	6	2	291
Added	0	0	0	0	0	1	2	0	0	0	0	0	3
Total	37	113	6	2	62	12	9	13	31	1	6	2	294
#7 Alvarado St / Essex St													
Base	42	5	1	0	3	2	2	2	23	0	2	0	82
Added	0	30	0	0	17	9	16	0	0	0	0	0	72
Total	42	35	1	0	20	11	18	2	23	0	2	0	154
#8 Alvarado St / Alpine Ave													
Base	0	0	0	65	0	31	37	811	0	0	615	126	1685
Added	0	0	0	11	0	6	11	0	0	0	0	19	47
Total	0	0	0	76	0	37	48	811	0	0	615	145	1732
#9 West Lane / Alpine Ave													
Base	134	1023	50	290	724	295	461	329	123	41	311	293	4074
Added	3	0	0	0	0	9	5	4	2	0	6	0	29
Total	137	1023	50	290	724	304	466	333	125	41	317	293	4103

EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / No
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / No

 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	5	15	44		8	12	82	8		8	4	1	5		5	3	0	11		11

Major Street Volume: 2405

Minor Approach Volume: 14

Minor Approach Volume Threshold: -17 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	11	1483			8	53	767			17	12	0			6	4	1			62

Major Street Volume: 2339

Minor Approach Volume: 67

Minor Approach Volume Threshold: -8 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	27		80		8	3		48		1	3		36		19	10		53		7

Major Street Volume: 167
 Minor Approach Volume: 70
 Minor Approach Volume Threshold: 697

SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	1!	0	0	0	1!	0
Initial Vol:	37	113		6	2	62		12	9	13		31	1	6		2

 Major Street Volume: 232
 Minor Approach Volume: 53
 Minor Approach Volume Threshold: 609

SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0
Initial Vol:	42	35	1		0	20	11		18	2	23		0	2	0	

Major Street Volume: 109

Minor Approach Volume: 43

Minor Approach Volume Threshold: 811

 SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS 77 unit subdivision - SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	76	0	37			48	811	0			0	615	145		

Major Street Volume: 1619
 Minor Approach Volume: 113
 Minor Approach Volume Threshold: 119

 SIGNAL WARRANT DISCLAIMER

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EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EX AM

Command: Default Command
Volume: EX AM
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: AM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for AM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.19	0.56	15	43	58	23.1
	Zone 1 Subtotal					15	43	58	23.1
2	WEST ANNEXAT	114.00	LDR	0.19	0.56	22	64	86	34.3
2	WEST ANNEXAT	57.00	GP LDR	0.00	0.00	0	0	0	0.0
	Zone 2 Subtotal					22	64	86	34.3
3	EAST ANNEXAT	142.00	MDR	0.19	0.56	27	80	107	42.6
	Zone 3 Subtotal					27	80	107	42.6
TOTAL						64	187	251	100.0

EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
2	30.0	19.0	13.0	6.0	23.0	9.0
3	30.0	19.0	13.0	6.0	23.0	9.0

 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 AM PEAK

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 El Dorado / Fargo St													
Base	3	990	3	14	1098	4	7	0	7	6	0	16	2148
Added	0	36	6	7	12	0	0	0	0	18	0	20	99
Total	3	1026	9	21	1110	4	7	0	7	24	0	36	2247
#2 El Dorado St / Essex St													
Base	6	942	6	60	1045	2	7	1	3	3	1	57	2133
Added	0	6	2	12	18	0	0	0	0	6	0	36	80
Total	6	948	8	72	1063	2	7	1	3	9	1	93	2213
#3 El Dorado St / Chruchill St													
Base	26	860	20	26	1082	14	35	5	13	22	10	28	2141
Added	0	8	2	0	24	0	0	0	0	6	0	0	40
Total	26	868	22	26	1106	14	35	5	13	28	10	28	2181
#4 El Dorado St / Alpine Ave													
Base	76	645	108	176	852	30	64	387	55	177	353	81	3004
Added	0	3	3	0	8	21	7	7	0	8	22	0	79
Total	76	648	111	176	860	51	71	394	55	185	375	81	3083
#5 Sutter St / Essex St													
Base	30	65	2	1	93	2	5	16	34	10	27	2	287
Added	0	1	1	0	2	2	1	13	0	4	40	0	64
Total	30	66	3	1	95	4	6	29	34	14	67	2	351
#6 Sutter St / Churchill St													
Base	24	92	4	1	133	14	5	7	28	6	12	0	326
Added	0	0	0	0	0	6	2	0	0	0	0	0	8
Total	24	92	4	1	133	20	7	7	28	6	12	0	334
#7 Alvarado St / Essex St													
Base	16	4	1	0	3	0	1	1	17	0	3	0	46
Added	0	35	0	0	101	43	15	0	0	0	0	0	194
Total	16	39	1	0	104	43	16	1	17	0	3	0	240
#8 Alvarado St / Alpine Ave													
Base	0	0	0	51	0	33	29	476	0	0	778	77	1444
Added	0	0	0	71	0	30	10	0	0	0	0	24	135
Total	0	0	0	122	0	63	39	476	0	0	778	101	1579
#9 West Lane / Alpine Ave													
Base	83	732	32	154	777	417	234	229	104	42	371	212	3387
Added	4	0	0	0	0	12	36	24	11	0	8	0	95
Total	87	732	32	154	777	429	270	253	115	42	379	212	3482

EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / No	??? / No
# 2 El Dorado St / Essex St	??? / No	??? / Yes
# 5 Sutter St / Essex St	??? / No	??? / No
# 6 Sutter St / Churchill St	No	No
# 7 Alvarado St / Essex St	??? / No	??? / No
# 8 Alvarado St / Alpine Ave	??? / No	??? / Yes

 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	3		990		3	14		1098		4	7		0		7	6		0		16

Major Street Volume: 2112

Minor Approach Volume: 22

Minor Approach Volume Threshold: 27 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	3	0	26		9	21	11	10		4	7		0		7	24		0		36

Major Street Volume: 2173

Minor Approach Volume: 60

Minor Approach Volume Threshold: 17 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #2 El Dorado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	6		942		6	60		1045		2	7		1		3	3		1		57

Major Street Volume: 2061
 Minor Approach Volume: 61
 Minor Approach Volume Threshold: 36 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	6		948		8	72		1063		2	7		1		3	9		1		93

Major Street Volume: 2099

Minor Approach Volume: 103

Minor Approach Volume Threshold: 29 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	
Initial Vol:	30		65		2	1		93		2	5		16		34	

Major Street Volume: 193
 Minor Approach Volume: 55
 Minor Approach Volume Threshold: 658

 SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	30	66		3		1	95		4		6	29		34		14	67		2	

Major Street Volume: 199

Minor Approach Volume: 83

Minor Approach Volume Threshold: 650

SIGNAL WARRANT DISCLAIMER

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 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	1	0	0	0	0	1	0	0	0	
Initial Vol:	24		92		4	1		133		14	5		7		28	
	6		12		0											
Major Street Volume:					268											
Minor Approach Volume:					40											
Minor Approach Volume Threshold:					571											

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0
Initial Vol:	24		92		4	1		133		20	7		7		28	6		12		0

Major Street Volume: 274
 Minor Approach Volume: 42
 Minor Approach Volume Threshold: 565

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 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #7 Alvarado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	16		4		1	0		3		0	1		1		17	0		3		0

Major Street Volume: 24
 Minor Approach Volume: 19
 Minor Approach Volume Threshold: 1214

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	0	1	0	0	1	0	0	0	1	0
Initial Vol:	16	39	1		0	104	43		16	1	17		0	3		0

Major Street Volume: 203
 Minor Approach Volume: 34
 Minor Approach Volume Threshold: 645

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 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	
Initial Vol:	0	0	0	0	0	51	0	33			29	476	0			
Major Street Volume:					1360											
Minor Approach Volume:					84											
Minor Approach Volume Threshold:					179											

SIGNAL WARRANT DISCLAIMER

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 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0
Initial Vol:	0	0	0	0	122	0	63			39	476	0		0	778	101

Major Street Volume: 1394

Minor Approach Volume: 185

Minor Approach Volume Threshold: 170

 SIGNAL WARRANT DISCLAIMER

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1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EX PM

Command: Default Command
Volume: EX PM
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: PM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for PM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.64	0.37	49	28	77	22.9
	Zone 1 Subtotal				49	28	77	22.9
2	WEST ANNEXAT	114.00	LDR	0.64	0.37	73	42	115	34.2
	Zone 2 Subtotal				73	42	115	34.2
3	EAST ANNEXAT	142.00	MDR	0.64	0.37	91	53	144	42.9
	Zone 3 Subtotal				91	53	144	42.9

TOTAL						213	123	336	100.0

EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
2	30.0	19.0	13.0	6.0	23.0	9.0
3	30.0	19.0	13.0	6.0	23.0	9.0

EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 PM PEAK

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 El Dorado / Fargo St													
Base	5	1536	6	11	815	8	4	1	5	2	0	10	2403
Added	0	23	20	23	41	0	0	0	0	12	0	13	132
Total	5	1559	26	34	856	8	4	1	5	14	0	23	2535
#2 El Dorado St / Essex St													
Base	11	1481	6	40	766	17	12	0	6	3	1	54	2397
Added	0	20	7	41	12	0	0	0	0	4	0	23	107
Total	11	1501	13	81	778	17	12	0	6	7	1	77	2504
#3 El Dorado St / Chruchill St													
Base	10	1476	32	29	803	7	9	4	7	17	4	32	2430
Added	0	27	7	0	16	0	0	0	0	4	0	0	54
Total	10	1503	39	29	819	7	9	4	7	21	4	32	2484
#4 El Dorado St / Alpine Ave													
Base	116	1226	99	125	583	39	69	379	67	116	378	128	3325
Added	0	10	10	0	5	14	24	25	0	6	14	0	108
Total	116	1236	109	125	588	53	93	404	67	122	392	128	3433
#5 Sutter St / Essex St													
Base	27	80	6	3	48	1	3	21	19	9	45	7	269
Added	0	2	4	0	1	1	2	45	0	3	26	0	84
Total	27	82	10	3	49	2	5	66	19	12	71	7	353
#6 Sutter St / Churchill St													
Base	37	113	6	2	62	11	7	13	31	1	6	2	291
Added	0	0	0	0	0	4	7	0	0	0	0	0	11
Total	37	113	6	2	62	15	14	13	31	1	6	2	302
#7 Alvarado St / Essex St													
Base	42	5	1	0	3	2	2	2	23	0	2	0	82
Added	0	115	0	0	67	29	49	0	0	0	0	0	260
Total	42	120	1	0	70	31	51	2	23	0	2	0	342
#8 Alvarado St / Alpine Ave													
Base	0	0	0	65	0	31	37	811	0	0	615	126	1685
Added	0	0	0	47	0	20	34	0	0	0	0	81	182
Total	0	0	0	112	0	51	71	811	0	0	615	207	1867
#9 West Lane / Alpine Ave													
Base	134	1023	50	290	724	295	461	329	123	41	311	293	4074
Added	13	0	0	0	0	40	23	16	7	0	28	0	127
Total	147	1023	50	290	724	335	484	345	130	41	339	293	4201

EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / No	??? / No
# 2 El Dorado St / Essex St	??? / No	??? / No
# 5 Sutter St / Essex St	??? / No	??? / No
# 6 Sutter St / Churchill St	No	No
# 7 Alvarado St / Essex St	??? / No	??? / No
# 8 Alvarado St / Alpine Ave	??? / No	??? / Yes

EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 El Dorado / Fargo St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	5	1536			6	11	815			8	4		1		5	2		0		10

Major Street Volume: 2381

Minor Approach Volume: 12

Minor Approach Volume Threshold: -14 [less than minimum of 100]

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 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Lanes:	1 0 1 1 0	1 0 1 1 0	0 0 1! 0 0	0 0 1! 0 0
Initial Vol:	5 1559 26	34 856 8	4 1 5	14 0 23

Major Street Volume: 2488

Minor Approach Volume: 37

Minor Approach Volume Threshold: -29 [less than minimum of 100]

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	11	1481			6	40	766			17	12	0			6	3	1			54

Major Street Volume: 2321

Minor Approach Volume: 58

Minor Approach Volume Threshold: -5 [less than minimum of 100]

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	11	15	01		13	81	77	8		17	12		0		6	7		1		77

Major Street Volume: 2401
 Minor Approach Volume: 85
 Minor Approach Volume Threshold: -17 [less than minimum of 100]

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Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	27	80		6		3	48		1		3	21	19		9	45		7		

Major Street Volume: 165
 Minor Approach Volume: 61
 Minor Approach Volume Threshold: 700

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
Initial Vol:	27	82	10	3	49	2	5	66	19	12	71	7

Major Street Volume: 173
 Minor Approach Volume: 90
 Minor Approach Volume Threshold: 687

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #6 Sutter St / Churchill St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	37	113		6		2	62		11		7	13		31		1	6		2	

Major Street Volume: 231
 Minor Approach Volume: 51
 Minor Approach Volume Threshold: 610

SIGNAL WARRANT DISCLAIMER

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Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	37	113		6		2	62	15			14	13	31			1	6	2		

Major Street Volume: 235
 Minor Approach Volume: 58
 Minor Approach Volume Threshold: 606

 SIGNAL WARRANT DISCLAIMER

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 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	
Initial Vol:	42		5		1	0		3		2	2		2		23	

Major Street Volume: 53
 Minor Approach Volume: 27
 Minor Approach Volume Threshold: 1003

SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	42	120			1	0	70			31	51	2			23	0	2			0

Major Street Volume: 264
 Minor Approach Volume: 76
 Minor Approach Volume Threshold: 575

SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	65	0	31			37	811	0			0	615	126		

Major Street Volume: 1589

Minor Approach Volume: 96

Minor Approach Volume Threshold: 125

SIGNAL WARRANT DISCLAIMER

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 EXISTING PLUS PROJECT 0 SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	
Initial Vol:	0	0	0	0	0	112	0	51			71	811	0			

Major Street Volume: 1704

Minor Approach Volume: 163

Minor Approach Volume Threshold: 101

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario:	EPAP AM
Command:	Default Command
Volume:	EPAP AM
Geometry:	EPAP
Impact Fee:	Default Impact Fee
Trip Generation:	AM PEAK
Trip Distribution:	AM
Paths:	CURRENT
Routes:	Default Route
Configuration:	Default Configuration

EPAP NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for AM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
4	Dama Estates	12.00	Approved SF lo	0.19	0.56	2	7	9	8.3
	Zone 4 Subtotal					2	7	9	8.3
5		152.00	employees	0.33	0.33	50	50	100	91.7
	Zone 5 Subtotal					50	50	100	91.7
TOTAL						52	57	109	100.0

EPAP NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
4	30.0	19.0	13.0	6.0	23.0	9.0
5	10.0	20.0	20.0	20.0	15.0	15.0

EPAP NO PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 AM PEAK

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 El Dorado / Fargo St													
Base	3	1000	3	14	1109	4	7	0	7	6	0	16	2169
Added	0	7	0	0	6	0	0	0	0	0	0	0	13
Total	3	1007	3	14	1115	4	7	0	7	6	0	16	2182
#2 El Dorado St / Essex St													
Base	6	951	6	61	1055	2	7	1	3	3	1	58	2154
Added	0	5	0	1	5	0	0	0	0	0	0	2	13
Total	6	956	6	62	1060	2	7	1	3	3	1	60	2167
#3 El Dorado St / Chruchill St													
Base	26	869	20	26	1093	26	35	5	13	22	10	28	2175
Added	0	5	0	0	5	0	0	0	0	0	0	0	10
Total	26	874	20	26	1098	26	35	5	13	22	10	28	2185
#4 El Dorado St / Alpine Ave													
Base	87	370	93	163	891	27	59	394	63	201	350	74	2772
Added	0	0	8	5	0	0	0	8	0	8	9	5	43
Total	87	370	101	168	891	27	59	402	63	209	359	79	2815
#5 Sutter St / Essex St													
Base	30	66	2	1	94	2	5	16	34	10	27	2	290
Added	0	0	0	0	0	0	0	1	0	0	2	0	3
Total	30	66	2	1	94	2	5	17	34	10	29	2	293
#6 Sutter St / Churchill St													
Base	24	93	4	1	134	14	5	7	28	6	12	0	329
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	24	93	4	1	134	14	5	7	28	6	12	0	329
#7 Alvarado St / Essex St													
Base	16	4	1	0	3	0	1	1	17	0	3	0	46
Added	3	0	0	0	0	0	0	0	1	0	0	0	4
Total	19	4	1	0	3	0	1	1	18	0	3	0	50
#8 Alvarado St / Alpine Ave													
Base	0	0	0	52	0	33	29	481	0	0	786	78	1458
Added	0	0	0	3	0	2	1	20	0	0	20	1	47
Total	0	0	0	55	0	35	30	501	0	0	806	79	1505
#9 West Lane / Alpine Ave													
Base	81	750	33	167	800	420	225	235	101	44	380	229	3465
Added	10	0	0	0	0	10	11	1	10	0	0	0	42
Total	91	750	33	167	800	430	236	236	111	44	380	229	3507

 EPAP NO PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
 Level Of Service

Intersection	Base			Future			Change in
	LOS	Del/ Veh	V/ C	LOS	Del/ Veh	V/ C	
# 1 El Dorado / Fargo St	F	55.2	0.000	F	56.2	0.000	+ 1.039 D/V
# 2 El Dorado St / Essex St	F	98.3	0.000	F	101.3	0.000	+ 2.980 D/V
# 3 El Dorado St / Chruchill St	B	11.0	0.492	B	11.0	0.494	-0.023 D/V
# 4 El Dorado St / Alpine Ave	C	32.2	0.675	C	32.5	0.683	+ 0.317 D/V
# 5 Sutter St / Essex St	B	10.9	0.000	B	11.0	0.000	+ 0.029 D/V
# 6 Sutter St / Churchill St	A	8.0	0.190	A	8.0	0.190	+ 0.000 V/C
# 7 Alvarado St / Essex St	A	9.3	0.000	A	9.4	0.000	+ 0.045 D/V
# 8 Alvarado St / Alpine Ave	D	31.1	0.000	D	34.4	0.000	+ 3.321 D/V
# 9 West Lane / Alpine Ave	C	31.6	0.698	C	32.1	0.709	+ 0.484 D/V

EPAP NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / No
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / No

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound								
Movement:	L	T	R		L	T	R		L	T	R		L	T	R						
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign								
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0	
Initial Vol:	3	1007			3	14	1115		4	7	0		7	6	0		16				

Major Street Volume: 2146

Minor Approach Volume: 22

Minor Approach Volume Threshold: 22 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	6		956		6	62		1060		2	7		1		3	3		1		60

Major Street Volume: 2093
 Minor Approach Volume: 64
 Minor Approach Volume Threshold: 30 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	30		66		2	1		94		2	5		17		34	10		29		2

Major Street Volume: 195
Minor Approach Volume: 57
Minor Approach Volume Threshold: 655

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	1	0	0	0	1	0	0	1	0	0
Initial Vol:	24		93	4	1		134	14	5		7	28	6		12	0

Major Street Volume: 271
 Minor Approach Volume: 40
 Minor Approach Volume Threshold: 568

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Initial Vol:	19		4	1	0		3	0	1		1	18	0		3	0

Major Street Volume: 27
 Minor Approach Volume: 20
 Minor Approach Volume Threshold: 1180

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	55	0	35			30	501	0			0	806	79		
Major Street Volume:					1416															
Minor Approach Volume:					90															
Minor Approach Volume Threshold:					165															

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: F[56.2]

Street Name:	El Dorado St					Fargo St				
Approach:	North Bound		South Bound		East Bound		West Bound			
Movement:	L	T	R	L	T	R	L	T	R	
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign			
Rights:	Include		Include		Include		Include			
Lanes:	1	0	1	1	0	1	0	0	0	

Volume Module:

Base Vol:	3	990	3	14	1098	4	7	0	7	6	0	16
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	3	1000	3	14	1109	4	7	0	7	6	0	16
Added Vol:	0	7	0	0	6	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	1007	3	14	1115	4	7	0	7	6	0	16
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	3	1094	3	15	1212	4	8	0	8	7	0	18
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	1094	3	15	1212	4	8	0	8	7	0	18

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1216	xxxx	xxxxxx	1098	xxxx	xxxxxx	1799	2349	608	1739	2350	549
Potent Cap.:	569	xxxx	xxxxxx	632	xxxx	xxxxxx	50	35	439	56	35	480
Move Cap.:	569	xxxx	xxxxxx	632	xxxx	xxxxxx	47	34	439	53	34	480
Volume/Cap:	0.01	xxxx	xxxx	0.02	xxxx	xxxx	0.16	0.00	0.02	0.12	0.00	0.04

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	11.4	xxxx	xxxxxx	10.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	85	xxxxxx	xxxx	151	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.6	xxxxxx	xxxxxx	0.6	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	56.2	xxxxxx	xxxxxx	33.3	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	D	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	56.2	xxxxxxx	xxxxxxx	xxxxxxx	33.3	xxxxxxx
ApproachLOS:	*	*	*	*	*	*	F	*	*	*	D	*

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: F[101.3]

Street Name:	El Dorado St				Essex St			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign	
Rights:	Include		Include		Include		Include	
Lanes:	1 0 1 1 0	1 0 1 1 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0

Volume Module:

Base Vol:	6 942	6 60 1045	2 7 1 3	3 1 57
Growth Adj:	1.01 1.01 1.01	1.01 1.01 1.01	1.01 1.01 1.01	1.01 1.01 1.01
Initial Bse:	6 951	6 61 1055	2 7 1 3	3 1 58
Added Vol:	0 5 0	1 5 0	0 0 0	0 0 2
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	6 956	6 62 1060	2 7 1 3	3 1 60
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.92 0.92 0.92	0.92 0.92 0.92	0.92 0.92 0.92	0.92 0.92 0.92
PHF Volume:	7 1040	7 67 1153	2 8 1 3	3 1 65
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
FinalVolume:	7 1040	7 67 1153	2 8 1 3	3 1 65

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxxx	4.1 xxxx xxxxx	7.5 6.5 6.9	7.5 6.5 6.9
FollowUpTim:	2.2 xxxx xxxxx	2.2 xxxx xxxxx	3.5 4.0 3.3	3.5 4.0 3.3

Capacity Module:

Cnflict Vol:	1155 xxxx xxxxx	1046 xxxx xxxxx	1821 2347 577	1767 2345 523
Potent Cap.:	601 xxxx xxxxx	661 xxxx xxxxx	48 36 459	53 36 499
Move Cap.:	601 xxxx xxxxx	661 xxxx xxxxx	37 32 459	47 32 499
Volume/Cap:	0.01 xxxx xxxxx	0.10 xxxx xxxxx	0.21 0.03 0.01	0.07 0.03 0.13

Level Of Service Module:

2Way95thQ:	0.0 xxxx xxxxx	0.3 xxxx xxxxx	xxxx xxxx xxxxx	xxxx xxxx xxxxx
Control Del:	11.1 xxxx xxxxx	11.1 xxxx xxxxx	xxxxxx xxxx xxxxx	xxxxxx xxxx xxxxx
LOS by Move:	B * *	B * *	* * *	* * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxxx	xxxx xxxx xxxxx	xxxx 49 xxxxx	xxxx 295 xxxxx
SharedQueue:	xxxxxx xxxx xxxxx	xxxxxx xxxx xxxxx	xxxxxx 0.8 xxxxx	xxxxxx 0.9 xxxxx
Shrd ConDel:	xxxxxx xxxx xxxxx	xxxxxx xxxx xxxxx	xxxxxx 101 xxxxx	xxxxxx 20.9 xxxxx
Shared LOS:	* * *	* * *	* F *	* C *
ApproachDel:	xxxxxxx	xxxxxxx	101.3	20.9
ApproachLOS:	*	*	F	C

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 El Dorado St / Chruchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.494

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 11.0

Optimal Cycle: 40 Level Of Service: B

Street Name: El Dorado St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 26 860 20 26 1082 26 35 5 13 22 10 28

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 26 869 20 26 1093 26 35 5 13 22 10 28

Added Vol: 0 5 0 0 5 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 26 874 20 26 1098 26 35 5 13 22 10 28

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 29 950 22 29 1193 29 38 5 14 24 11 31

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 29 950 22 29 1193 29 38 5 14 24 11 31

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 29 950 22 29 1193 29 38 5 14 24 11 31

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.92 0.92 0.92 0.90 0.90 0.90

Lanes: 1.00 1.95 0.05 1.00 1.95 0.05 0.66 0.09 0.25 0.36 0.17 0.47

Final Sat.: 1769 3447 80 1769 3445 82 1151 164 428 628 286 800

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Capacity Analysis Module:

Vol/Sat: 0.02 0.28 0.28 0.02 0.35 0.35 0.03 0.03 0.03 0.04 0.04 0.04

Crit Moves: **** **** **** ****

Green/Cycle: 0.04 0.64 0.64 0.09 0.70 0.70 0.07 0.07 0.07 0.07 0.08 0.08

Volume/Cap: 0.40 0.43 0.43 0.17 0.50 0.50 0.50 0.46 0.46 0.53 0.50 0.50

Delay/Veh: 50.6 9.0 9.0 42.3 7.2 7.2 48.3 47.2 47.2 49.2 47.2 47.2

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 50.6 9.0 9.0 42.3 7.2 7.2 48.3 47.2 47.2 49.2 47.2 47.2

LOS by Move: D A A D A A D D D D D D

HCM2kAvgQ: 1 8 8 1 9 9 2 2 2 3 3 3

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.683

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.5

Optimal Cycle: 57 Level Of Service: C

Street Name: El Dorado St Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 2 0 1

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Volume Module:

Base Vol: 87 370 93 163 891 27 59 394 63 201 350 74

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 87 370 93 163 891 27 59 394 63 201 350 74

Added Vol: 0 0 8 5 0 0 0 8 0 8 9 5

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 87 370 101 168 891 27 59 402 63 209 359 79

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 95 402 110 183 968 29 64 437 68 227 390 86

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 95 402 110 183 968 29 64 437 68 227 390 86

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 95 402 110 183 968 29 64 437 68 227 390 86

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.90 0.90 0.93 0.93 0.83 0.93 0.91 0.91 0.93 0.93 0.83

Lanes: 1.00 1.57 0.43 1.00 2.00 1.00 1.00 1.73 0.27 1.00 2.00 1.00

Final Sat.: 1769 2690 734 1769 3538 1583 1769 2997 470 1769 3538 1583

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Capacity Analysis Module:

Vol/Sat: 0.05 0.15 0.15 0.10 0.27 0.02 0.04 0.15 0.15 0.13 0.11 0.05

Crit Moves: **** **** **** ****

Green/Cycle: 0.08 0.28 0.28 0.20 0.40 0.40 0.11 0.21 0.21 0.19 0.29 0.29

Volume/Cap: 0.68 0.53 0.53 0.53 0.68 0.05 0.34 0.68 0.68 0.68 0.37 0.18

Delay/Veh: 58.1 30.8 30.8 37.6 26.1 18.3 42.5 38.9 38.9 43.6 28.2 26.5

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 58.1 30.8 30.8 37.6 26.1 18.3 42.5 38.9 38.9 43.6 28.2 26.5

LOS by Move: E C C D C B D D D D C C

HCM2kAvgQ: 4 7 7 6 14 1 2 9 9 8 5 2

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Sutter St / Essex St
*****Average Delay (sec/veh): 4.3 Worst Case Level Of Service: B[11.0]

Street Name:	Sutter St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	30	65	2	1	93	2	5	16	34	10	27	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	30	66	2	1	94	2	5	16	34	10	27	2
Added Vol:	0	0	0	0	0	0	0	1	0	0	2	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	66	2	1	94	2	5	17	34	10	29	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	33	71	2	1	102	2	5	19	37	11	32	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	33	71	2	1	102	2	5	19	37	11	32	2

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	104	xxxx	xxxxxx	74	xxxx	xxxxxx	261	245	103	272	245	72
Potent Cap.:	1487	xxxx	xxxxxx	1526	xxxx	xxxxxx	692	657	952	681	657	990
Move Cap.:	1487	xxxx	xxxxxx	1526	xxxx	xxxxxx	653	642	952	628	642	990
Volume/Cap:	0.02	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.03	0.04	0.02	0.05	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	802	xxxxxx	xxxx	650	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	0.2	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	9.9	xxxxxx	xxxxxx	11.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx		xxxxxx			9.9			11.0		
ApproachLOS:	*	*		*			A			B		

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.190

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.0

Optimal Cycle: 0 Level Of Service: A

Street Name: Sutter St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 1 0 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 24 92 4 1 133 14 5 7 28 6 12 0

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 24 93 4 1 134 14 5 7 28 6 12 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 24 93 4 1 134 14 5 7 28 6 12 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 26 101 4 1 146 15 5 8 31 7 13 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 26 101 4 1 146 15 5 8 31 7 13 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 26 101 4 1 146 15 5 8 31 7 13 0

-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.20 0.77 0.03 0.01 0.90 0.09 0.13 0.17 0.70 0.33 0.67 0.00

Final Sat.: 166 638 28 6 768 81 101 142 567 243 486 0

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.16 0.16 0.16 0.19 0.19 0.19 0.05 0.05 0.05 0.03 0.03 xxxx

Crit Moves: **** **** ****

Delay/Veh: 8.0 8.0 8.0 8.1 8.1 8.1 7.4 7.4 7.4 7.8 7.8 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.0 8.0 8.0 8.1 8.1 8.1 7.4 7.4 7.4 7.8 7.8 0.0

LOS by Move: A A A A A A A A A A A *

ApproachDel: 8.0 8.1 7.4 7.8

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 8.0 8.1 7.4 7.8

LOS by Appr: A A A A

AllWayAvgQ: 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 6.7 Worst Case Level Of Service: A[9.4]

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*****
Street Name:          Alvarado St                      Essex St
Approach:             North Bound          South Bound      East Bound      West Bound
Movement:             L - T - R            L - T - R          L - T - R          L - T - R
-----|-----|-----|-----|-----|
Control:              Uncontrolled          Uncontrolled        Stop Sign          Stop Sign
Rights:               Include              Include             Include            Include
Lanes:                0 0 1! 0 0           0 0 1 0 0          0 0 1! 0 0        0 0 1 0 0
-----|-----|-----|-----|-----|
Volume Module:
Base Vol:             16   4   1   0   3   0           1   1  17   0   3   0
Growth Adj:           1.01 1.01  1.01  1.01 1.01  1.01  1.01 1.01  1.01 1.01 1.01  1.01
Initial Bse:          16   4   1   0   3   0           1   1  17   0   3   0
Added Vol:            3   0   0   0   0   0           0   0   1   0   0   0
PasserByVol:          0   0   0   0   0   0           0   0   0   0   0   0
Initial Fut:          19   4   1   0   3   0           1   1  18   0   3   0
User Adj:             1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:              0.92 0.92  0.92  0.92 0.92  0.92  0.92 0.92  0.92 0.92 0.92  0.92
PHF Volume:           21   4   1   0   3   0           1   1  20   0   3   0
Reduct Vol:           0   0   0   0   0   0           0   0   0   0   0   0
FinalVolume:          21   4   1   0   3   0           1   1  20   0   3   0
-----|-----|-----|-----|-----|
Critical Gap Module:
Critical Gp:          4.1 xxxx xxxxxx xxxxxx xxxx xxxxxx  7.1  6.5  6.2 xxxxxx  6.5 xxxxxx
FollowUpTim:          2.2 xxxx xxxxxx xxxxxx xxxx xxxxxx  3.5  4.0  3.3 xxxxxx  4.0 xxxxxx
-----|-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:           3 xxxx xxxxxx xxxxxx xxxx xxxxxx  52  50   3  xxxx  50 xxxxxx
Potent Cap.:          1619 xxxx xxxxxx xxxxxx xxxx xxxxxx  948 841 1080  xxxx 842 xxxxxx
Move Cap.:            1619 xxxx xxxxxx xxxxxx xxxx xxxxxx  935 830 1080  xxxx 831 xxxxxx
Volume/Cap:           0.01 xxxx xxxxxx xxxxxx xxxx xxxxxx  0.00 0.00 0.02  xxxx 0.00 xxxxxx
-----|-----|-----|-----|-----|
Level Of Service Module:
2Way95thQ:           0.0 xxxx xxxxxx xxxxxx xxxx xxxxxx  xxxx xxxx xxxxxx  xxxx 0.0 xxxxxx
Control Del:          7.3 xxxx xxxxxx xxxxxx xxxx xxxxxx  xxxxxx xxxx xxxxxx  xxxxxx 9.4 xxxxxx
LOS by Move:          A   *   *   *   *   *   *   *   *   *   *   *   A   *
Movement:             LT - LTR - RT        LT - LTR - RT        LT - LTR - RT        LT - LTR - RT
Shared Cap.:          xxxx xxxx xxxxxx xxxxxx xxxx xxxxxx  xxxx 1056 xxxxxx  xxxx xxxx xxxxxx
SharedQueue:          xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx  xxxxxx 0.1 xxxxxx  xxxx xxxx xxxxxx
Shrd ConDel:          xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx  xxxxxx 8.5 xxxxxx  xxxx xxxx xxxxxx
Shared LOS:           *   *   *   *   *   *   *   *   *   *   *   *   *
ApproachDel:          xxxxxx          xxxxxx          8.5          9.4
ApproachLOS:          *   *   *   *   *   *   *   *   *   *   *   *
*****
Note: Queue reported is the number of cars per lane.
*****

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: D[34.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	51	0	33	29	476	0	0	778	77
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	52	0	33	29	481	0	0	786	78
Added Vol:	0	0	0	3	0	2	1	20	0	0	20	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	55	0	35	30	501	0	0	806	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	59	0	38	33	544	0	0	876	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	59	0	38	33	544	0	0	876	86

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1257	1529	481	961	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	163	116	531	711	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	157	111	531	711	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.38	0.00	0.07	0.05	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	218	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	2.1	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	34.4	xxxxx	10.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	B	*	*	*	*	*
ApproachDel:	xxxxxx				34.4		xxxxxx				xxxxxx	
ApproachLOS:	*				D		*				*	

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.709

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.1

Optimal Cycle: 61 Level Of Service: C

Street Name: West Lane Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 81 750 33 167 800 420 225 235 101 44 380 229

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 81 750 33 167 800 420 225 235 101 44 380 229

Added Vol: 10 0 0 0 0 0 11 1 10 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 91 750 33 167 800 430 236 236 111 44 380 229

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 99 815 36 182 870 467 257 257 121 48 413 249

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 99 815 36 182 870 467 257 257 121 48 413 249

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 99 815 36 182 870 467 257 257 121 48 413 249

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.83 0.90 0.89 0.89 0.93 0.88 0.88

Lanes: 1.00 1.92 0.08 1.00 2.00 1.00 2.00 1.36 0.64 1.00 1.25 0.75

Final Sat.: 1769 3368 148 1769 3538 1583 3432 2291 1077 1769 2084 1256

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Capacity Analysis Module:

Vol/Sat: 0.06 0.24 0.24 0.10 0.25 0.30 0.07 0.11 0.11 0.03 0.20 0.20

Crit Moves: **** **** **** ****

Green/Cycle: 0.08 0.35 0.35 0.15 0.42 0.42 0.11 0.28 0.28 0.10 0.28 0.28

Volume/Cap: 0.71 0.70 0.70 0.70 0.59 0.71 0.71 0.39 0.39 0.27 0.71 0.71

Delay/Veh: 60.5 29.8 29.8 48.5 23.2 27.8 49.7 29.2 29.2 42.3 34.9 34.9

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 60.5 29.8 29.8 48.5 23.2 27.8 49.7 29.2 29.2 42.3 34.9 34.9

LOS by Move: E C C D C C D C C D C C

HCM2kAvgQ: 4 13 13 7 11 13 5 5 5 2 11 11

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario:	EPAP PM
Command:	Default Command
Volume:	EPAP PM
Geometry:	EPAP
Impact Fee:	Default Impact Fee
Trip Generation:	PM PEAK
Trip Distribution:	AM
Paths:	CURRENT
Routes:	Default Route
Configuration:	Default Configuration

EPAP NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for PM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
4	Dama Estates	12.00	Approved SF lo	0.64	0.37	8	4	12	10.7
	Zone 4 Subtotal					8	4	12	10.7
5		152.00	employees	0.33	0.33	50	50	100	89.3
	Zone 5 Subtotal					50	50	100	89.3
TOTAL						58	54	112	100.0

EPAP NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
4	30.0	19.0	13.0	6.0	23.0	9.0
5	10.0	20.0	20.0	20.0	15.0	15.0

EPAP NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
PM PEAK

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 El Dorado / Fargo St													
Base	5	1551	6	11	823	8	4	1	5	2	0	10	2427
Added	0	6	0	0	7	0	0	0	0	0	0	0	13
Total	5	1557	6	11	830	8	4	1	5	2	0	10	2440
#2 El Dorado St / Essex St													
Base	11	1496	6	40	774	17	12	0	6	3	1	55	2421
Added	0	5	0	2	5	0	0	0	0	0	0	1	13
Total	11	1501	6	42	779	17	12	0	6	3	1	56	2434
#3 El Dorado St / Chruchill St													
Base	10	1491	32	29	811	7	9	4	7	17	4	32	2454
Added	0	5	1	0	5	0	0	0	0	0	0	0	11
Total	10	1496	33	29	816	7	9	4	7	17	4	32	2465
#4 El Dorado St / Alpine Ave													
Base	135	1273	120	112	605	33	59	380	78	139	373	113	3420
Added	0	0	8	5	0	0	0	9	0	8	8	5	43
Total	135	1273	128	117	605	33	59	389	78	147	381	118	3463
#5 Sutter St / Essex St													
Base	27	81	6	3	48	1	3	21	19	9	45	7	272
Added	0	0	1	0	0	0	0	2	0	0	1	0	4
Total	27	81	7	3	48	1	3	23	19	9	46	7	276
#6 Sutter St / Churchill St													
Base	37	114	6	2	63	11	7	13	31	1	6	2	294
Added	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	37	114	6	2	63	11	8	13	31	1	6	2	295
#7 Alvarado St / Essex St													
Base	42	5	1	0	3	0	2	2	23	0	2	0	81
Added	1	0	0	0	0	0	0	0	3	0	0	0	4
Total	43	5	1	0	3	0	2	2	26	0	2	0	85
#8 Alvarado St / Alpine Ave													
Base	0	0	0	66	0	31	37	819	0	0	621	127	1702
Added	0	0	0	2	0	1	2	20	0	0	20	3	48
Total	0	0	0	68	0	32	39	839	0	0	641	130	1750
#9 West Lane / Alpine Ave													
Base	131	1051	52	310	743	296	464	337	121	43	318	314	4180
Added	10	0	0	0	0	12	11	1	10	0	1	0	45
Total	141	1051	52	310	743	308	475	338	131	43	319	314	4225

 EPAP NO PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
 Level Of Service

Intersection	Base			Future			Change in
	Del/	V/		Del/	V/		
	LOS	Veh	C	LOS	Veh	C	
# 1 El Dorado / Fargo St	F	64.5	0.000	F	65.8	0.000	+ 1.365 D/V
# 2 El Dorado St / Essex St	F	106.6	0.000	F	111.4	0.000	+ 4.843 D/V
# 3 El Dorado St / Chruchill St	A	9.0	0.608	A	9.0	0.610	+ 0.004 D/V
# 4 El Dorado St / Alpine Ave	C	33.0	0.832	C	34.0	0.848	+ 1.002 D/V
# 5 Sutter St / Essex St	B	10.7	0.000	B	10.7	0.000	+ 0.022 D/V
# 6 Sutter St / Churchill St	A	7.9	0.202	A	7.9	0.202	+ 0.000 V/C
# 7 Alvarado St / Essex St	A	9.7	0.000	A	9.7	0.000	+ 0.016 D/V
# 8 Alvarado St / Alpine Ave	E	40.8	0.000	E	46.3	0.000	+ 5.451 D/V
# 9 West Lane / Alpine Ave	E	55.6	1.010	E	56.3	1.014	+ 0.758 D/V

EPAP NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / No
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / No

EPAP NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	5	1557		6		11	830		8		4	1		5		2	0		10	

Major Street Volume: 2418

Minor Approach Volume: 12

Minor Approach Volume Threshold: -19 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	11	15	01		6	42	77	9	17		12	0		6		3	1		56	

Major Street Volume: 2356
 Minor Approach Volume: 60
 Minor Approach Volume Threshold: -10 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	27		81		7	3		48		1	3		23		19	9		46		7

Major Street Volume: 168
 Minor Approach Volume: 63
 Minor Approach Volume Threshold: 696

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Initial Vol:	37	114	6		2	63	11		8	13	31		1	6	2	

Major Street Volume: 233
 Minor Approach Volume: 53
 Minor Approach Volume Threshold: 608

SIGNAL WARRANT DISCLAIMER

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EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound									
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign									
Lanes:	0	0	1	!	0	0	0	0	1	0	0	0	0	1	!	0	0	0	0	1	0	0
Initial Vol:	43		5		1	0		3		0	2		2		26	0		2		0		
Major Street Volume:					53																	
Minor Approach Volume:					30																	
Minor Approach Volume Threshold:					1005																	

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	68	0	32			39	839	0			0	641	130		
Major Street Volume:					1650															
Minor Approach Volume:					100															
Minor Approach Volume Threshold:					112															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: F[65.8]

Street Name:	El Dorado St						Fargo St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	5	1536	6	11	815	8	4	1	5	2	0	10
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	5	1551	6	11	823	8	4	1	5	2	0	10
Added Vol:	0	6	0	0	7	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	1557	6	11	830	8	4	1	5	2	0	10
User Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	6	1710	7	12	911	9	4	1	6	2	0	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	1710	7	12	911	9	4	1	6	2	0	11

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflict Vol:	920	xxxx	xxxxxx	1716	xxxx	xxxxxx	1806	2668	460	2205	2669	858
Potent Cap.:	738	xxxx	xxxxxx	365	xxxx	xxxxxx	50	22	548	25	22	300
Move Cap.:	738	xxxx	xxxxxx	365	xxxx	xxxxxx	46	21	548	23	21	300
Volume/Cap:	0.01	xxxx	xxxx	0.03	xxxx	xxxx	0.10	0.05	0.01	0.10	0.00	0.04

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	9.9	xxxx	xxxxxx	15.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	70	xxxxxx	xxxx	99	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	0.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	65.8	xxxxxx	xxxxxx	47.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	E	*
ApproachDel:	xxxxxx	xxxxxx			65.8			47.0				
ApproachLOS:	*	*			F			E				

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 El Dorado St / Essex St
*****Average Delay (sec/veh): 2.1 Worst Case Level Of Service: F[111.4]

Street Name:	El Dorado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:	El Dorado St			El Dorado St			Essex St			Essex St		
Base Vol:	11	1481	6	40	766	17	12	0	6	3	1	54
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	11	1496	6	40	774	17	12	0	6	3	1	55
Added Vol:	0	5	0	2	5	0	0	0	0	0	0	1
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	1501	6	42	779	17	12	0	6	3	1	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	12	1631	7	46	846	19	13	0	7	3	1	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	1631	7	46	846	19	13	0	7	3	1	60

Critical Gap Module:	El Dorado St			El Dorado St			Essex St			Essex St		
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	El Dorado St			El Dorado St			Essex St			Essex St		
Cnflict Vol:	865	xxxx	xxxxx	1638	xxxx	xxxxx	1788	2610	433	2174	2616	819
Potent Cap.:	774	xxxx	xxxxx	392	xxxx	xxxxx	51	24	571	26	24	319
Move Cap.:	774	xxxx	xxxxx	392	xxxx	xxxxx	36	21	571	23	21	319
Volume/Cap:	0.02	xxxx	xxxxx	0.12	xxxx	xxxxx	0.37	0.00	0.01	0.14	0.05	0.19

Level Of Service Module:	El Dorado St			El Dorado St			Essex St			Essex St		
2Way95thQ:	0.0	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.7	xxxx	xxxxx	15.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	52	xxxxx	xxxx	168	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.4	xxxxx	xxxxx	1.7	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	111	xxxxx	xxxxx	39.2	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	E	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	111.4		xxxxxxx	39.2		
ApproachLOS:	*	*	*	*	*	*	F		*	E		

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 El Dorado St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.610
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 9.0
 Optimal Cycle: 49 Level Of Service: A

Street Name: El Dorado St Churchill St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0
 Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1 0 0 0 0 0 1 0 0
 -----|-----|-----|-----|

Volume Module:
 Base Vol: 10 1476 32 29 803 7 9 4 7 17 4 32
 Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
 Initial Bse: 10 1491 32 29 811 7 9 4 7 17 4 32
 Added Vol: 0 5 1 0 5 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 10 1496 33 29 816 7 9 4 7 17 4 32
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 11 1626 36 32 887 8 10 4 8 19 4 35
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 11 1626 36 32 887 8 10 4 8 19 4 35
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 11 1626 36 32 887 8 10 4 8 19 4 35
 -----|-----|-----|-----|

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.91 0.91 0.91 0.89 0.89 0.89
 Lanes: 1.00 1.96 0.04 1.00 1.98 0.02 0.45 0.20 0.35 0.32 0.08 0.60
 Final Sat.: 1769 3450 77 1769 3504 30 781 347 607 539 127 1016
 -----|-----|-----|-----|

Capacity Analysis Module:
 Vol/Sat: 0.01 0.47 0.47 0.02 0.25 0.25 0.01 0.01 0.01 0.03 0.03 0.03
 Crit Moves: **** **** **** ****
 Green/Cycle: 0.11 0.75 0.75 0.04 0.68 0.68 0.04 0.05 0.05 0.05 0.05 0.05
 Volume/Cap: 0.06 0.63 0.63 0.45 0.37 0.37 0.32 0.27 0.27 0.73 0.63 0.63
 Delay/Veh: 40.2 6.6 6.6 51.4 7.0 7.0 49.3 47.7 47.7 75.8 59.7 59.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 40.2 6.6 6.6 51.4 7.0 7.0 49.3 47.7 47.7 75.8 59.7 59.7
 LOS by Move: D A A D A A D D D E E E
 HCM2kAvgQ: 0 13 13 2 6 6 1 1 1 3 3 3

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.848
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 34.0
 Optimal Cycle: 90 Level Of Service: C

Street Name: El Dorado St Alpine Ave
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0
 Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 1 0 1 0 2 0 1
 -----|-----|-----|-----|

Volume Module:

Base Vol:	135	1273	120	112	605	33	59	380	78	139	373	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	135	1273	120	112	605	33	59	380	78	139	373	113
Added Vol:	0	0	8	5	0	0	0	9	0	8	8	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	135	1273	128	117	605	33	59	389	78	147	381	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	147	1384	139	127	658	36	64	423	85	160	414	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	1384	139	127	658	36	64	423	85	160	414	128
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	1384	139	127	658	36	64	423	85	160	414	128

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.92	0.92	0.93	0.93	0.83	0.93	0.91	0.91	0.93	0.93	0.83
Lanes:	1.00	1.82	0.18	1.00	2.00	1.00	1.00	1.67	0.33	1.00	2.00	1.00
Final Sat.:	1769	3170	319	1769	3538	1583	1769	2873	576	1769	3538	1583

Capacity Analysis Module:

Vol/Sat:	0.08	0.44	0.44	0.07	0.19	0.02	0.04	0.15	0.15	0.09	0.12	0.08
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.19	0.52	0.52	0.08	0.41	0.41	0.07	0.17	0.17	0.11	0.21	0.21
Volume/Cap:	0.45	0.85	0.85	0.85	0.45	0.05	0.51	0.85	0.85	0.85	0.56	0.39
Delay/Veh:	37.2	24.9	24.9	78.9	21.3	17.6	48.1	50.9	50.9	72.3	36.4	34.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.2	24.9	24.9	78.9	21.3	17.6	48.1	50.9	50.9	72.3	36.4	34.8
LOS by Move:	D	C	C	E	C	B	D	D	D	E	D	C
HCM2kAvgQ:	4	24	24	6	8	1	3	11	11	7	7	4

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: B[10.7]

Street Name:	Sutter St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	Sutter St			Sutter St			Essex St			Essex St		
Base Vol:	27	80	6	3	48	1	3	21	19	9	45	7
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	27	81	6	3	48	1	3	21	19	9	45	7
Added Vol:	0	0	1	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	81	7	3	48	1	3	23	19	9	46	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	30	88	8	3	53	1	3	25	21	10	50	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	30	88	8	3	53	1	3	25	21	10	50	8

Critical Gap Module:	Sutter St			Sutter St			Essex St			Essex St		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	Sutter St			Sutter St			Essex St			Essex St		
Cnflct Vol:	54	xxxx	xxxxxx	96	xxxx	xxxxxx	240	215	53	234	211	92
Potent Cap.:	1552	xxxx	xxxxxx	1498	xxxx	xxxxxx	714	683	1014	721	686	966
Move Cap.:	1552	xxxx	xxxxxx	1498	xxxx	xxxxxx	657	668	1014	674	671	966
Volume/Cap:	0.02	xxxx	xxxxxx	0.00	xxxx	xxxxxx	0.01	0.04	0.02	0.01	0.08	0.01

Level Of Service Module:	Sutter St			Sutter St			Essex St			Essex St		
2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	780	xxxxxx	xxxx	696	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.2	xxxxxx	xxxxxx	0.3	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	9.9	xxxxxx	xxxxxx	10.7	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.9				10.7	
ApproachLOS:	*	*	*	*	*	*	A				B	

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.202
 Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.9
 Optimal Cycle: 0 Level Of Service: A

Sutter St						Churchill St						
North Bound			South Bound			East Bound			West Bound			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	0	0	1! 0	0	0	1! 0	0	0	1! 0	0	0	1! 0

Volume Module:

Base Vol:	37	113	6	2	62	11	7	13	31	1	6	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	37	114	6	2	63	11	7	13	31	1	6	2
Added Vol:	0	0	0	0	0	0	1	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	114	6	2	63	11	8	13	31	1	6	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	41	124	7	2	68	12	9	14	34	1	7	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	124	7	2	68	12	9	14	34	1	7	2
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	124	7	2	68	12	9	14	34	1	7	2

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.72	0.04	0.02	0.83	0.15	0.15	0.25	0.60	0.11	0.67	0.22
Final Sat.:	201	614	33	23	701	124	127	206	491	86	514	171

Capacity Analysis Module:

Vol/Sat:	0.20	0.20	0.20	0.10	0.10	0.10	0.07	0.07	0.07	0.01	0.01	0.01
Crit Moves:	****			****			****			****		
Delay/Veh:	8.2	8.2	8.2	7.6	7.6	7.6	7.4	7.4	7.4	7.5	7.5	7.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	8.2	7.6	7.6	7.6	7.4	7.4	7.4	7.5	7.5	7.5
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			7.6			7.4			7.5		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			7.6			7.4			7.5		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 7.0 Worst Case Level Of Service: A[9.7]

Street Name:	Alvarado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1 0 0	0	0	1! 0 0	0	0	1 0 0

Volume Module:

Base Vol:	42	5	1	0	3	0	2	2	23	0	2	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	42	5	1	0	3	0	2	2	23	0	2	0
Added Vol:	1	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	5	1	0	3	0	2	2	26	0	2	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	47	5	1	0	3	0	2	2	29	0	2	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	47	5	1	0	3	0	2	2	29	0	2	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.1	6.5	6.2	xxxxx	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	4.0	xxxxx

Capacity Module:

Cnflict Vol:	3	xxxx	xxxxx	xxxx	xxxx	xxxxx	105	104	3	xxxx	104	xxxxx
Potent Cap.:	1619	xxxx	xxxxx	xxxx	xxxx	xxxxx	875	786	1080	xxxx	786	xxxxx
Move Cap.:	1619	xxxx	xxxxx	xxxx	xxxx	xxxxx	853	762	1080	xxxx	763	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.03	xxxx	0.00	xxxx

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0.0	xxxxx
Control Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.7	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	A	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1033	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.6	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	8.6	xxxxxx	xxxxxx	9.7	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	A	*	*	A	*	*

Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: E[46.3]

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	65	0	31	37	811	0	0	615	126
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	66	0	31	37	819	0	0	621	127
Added Vol:	0	0	0	2	0	1	2	20	0	0	20	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	68	0	32	39	839	0	0	641	130
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	74	0	35	43	912	0	0	697	142
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	74	0	35	43	912	0	0	697	142

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	1309	1765	419	838	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	151	83	583	792	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	144	78	583	792	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxxx	0.51	0.00	0.06	0.05	xxxx	xxxxx	xxxx	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	191	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	3.1	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	46.3	xxxxx	9.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	E	*	A	*	*	*	*	*			
ApproachDel:	xxxxxx			46.3			xxxxxx			xxxxxx					
ApproachLOS:	*			E			*			*					

 Note: Queue reported is the number of cars per lane.

EPAP NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.014

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 56.3

Optimal Cycle: 130 Level Of Service: E

Street Name: West Lane Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 131 1051 52 310 743 296 464 337 121 43 318 314

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 131 1051 52 310 743 296 464 337 121 43 318 314

Added Vol: 10 0 0 0 0 0 11 1 10 0 1 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 141 1051 52 310 743 308 475 338 131 43 319 314

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 153 1142 57 337 808 335 516 367 142 47 347 341

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 153 1142 57 337 808 335 516 367 142 47 347 341

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 153 1142 57 337 808 335 516 367 142 47 347 341

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.92 0.92 0.93 0.93 0.83 0.90 0.89 0.89 0.93 0.86 0.86

Lanes: 1.00 1.91 0.09 1.00 2.00 1.00 2.00 1.44 0.56 1.00 1.01 0.99

Final Sat.: 1769 3347 166 1769 3538 1583 3432 2443 947 1769 1651 1625

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Capacity Analysis Module:

Vol/Sat: 0.09 0.34 0.34 0.19 0.23 0.21 0.15 0.15 0.15 0.03 0.21 0.21

Crit Moves: **** **** **** ****

Green/Cycle: 0.14 0.34 0.34 0.19 0.38 0.38 0.15 0.28 0.28 0.07 0.21 0.21

Volume/Cap: 0.60 1.01 1.01 1.01 0.60 0.56 1.01 0.54 0.54 0.35 1.01 1.01

Delay/Veh: 44.0 62.8 62.8 93.5 25.7 25.5 86.0 31.0 31.0 45.6 77.7 77.7

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 44.0 62.8 62.8 93.5 25.7 25.5 86.0 31.0 31.0 45.6 77.7 77.7

LOS by Move: D E E F C C F C C D E E

HCM2kAvgQ: 5 27 27 16 11 9 13 7 7 2 17 17

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EPAP AM
Command: Default Command
Volume: EPAP AM
Geometry: EPAP
Impact Fee: Default Impact Fee
Trip Generation: AM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for AM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.19	0.56	15	43	58	16.1
	Zone 1 Subtotal					15	43	58	16.1
2	WEST ANNEXAT	114.00	LDR	0.19	0.56	22	64	86	23.9
2	WEST ANNEXAT	57.00	GP LDR	0.00	0.00	0	0	0	0.0
	Zone 2 Subtotal					22	64	86	23.9
3	EAST ANNEXAT	142.00	MDR	0.19	0.56	27	80	107	29.7
	Zone 3 Subtotal					27	80	107	29.7
4	Dama Estates	12.00	Approved SF lo	0.19	0.56	2	7	9	2.5
	Zone 4 Subtotal					2	7	9	2.5
5		152.00	employees	0.33	0.33	50	50	100	27.8
	Zone 5 Subtotal					50	50	100	27.8
TOTAL						116	244	360	100.0

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
2	30.0	19.0	13.0	6.0	23.0	9.0
3	30.0	19.0	13.0	6.0	23.0	9.0
4	30.0	19.0	13.0	6.0	23.0	9.0
5	10.0	20.0	20.0	20.0	15.0	15.0

 EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 AM PEAK

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 El Dorado / Fargo St													
Base	3	1000	3	14	1109	4	7	0	7	6	0	16	2169
Added	0	43	6	7	18	0	0	0	0	18	0	20	112
Total	3	1043	9	21	1127	4	7	0	7	24	0	36	2281
#2 El Dorado St / Essex St													
Base	6	951	6	61	1055	2	7	1	3	3	1	58	2154
Added	0	11	2	13	23	0	0	0	0	6	0	38	93
Total	6	962	8	74	1078	2	7	1	3	9	1	96	2247
#3 El Dorado St / Chruchill St													
Base	26	869	20	26	1093	26	35	5	13	22	10	28	2175
Added	0	13	2	0	29	0	0	0	0	6	0	0	50
Total	26	882	22	26	1122	26	35	5	13	28	10	28	2225
#4 El Dorado St / Alpine Ave													
Base	87	370	93	163	891	27	59	394	63	201	350	74	2772
Added	0	3	11	5	8	22	7	15	0	16	30	5	122
Total	87	373	104	168	899	49	66	409	63	217	380	79	2894
#5 Sutter St / Essex St													
Base	30	66	2	1	94	2	5	16	34	10	27	2	290
Added	0	1	1	0	2	2	1	14	0	4	42	0	67
Total	30	67	3	1	96	4	6	30	34	14	69	2	357
#6 Sutter St / Churchill St													
Base	24	93	4	1	134	14	5	7	28	6	12	0	329
Added	0	0	0	0	0	6	2	0	0	0	0	0	8
Total	24	93	4	1	134	20	7	7	28	6	12	0	337
#7 Alvarado St / Essex St													
Base	16	4	1	0	3	0	1	1	17	0	3	0	46
Added	3	35	0	0	101	43	15	0	1	0	0	0	198
Total	19	39	1	0	104	43	16	1	18	0	3	0	244
#8 Alvarado St / Alpine Ave													
Base	0	0	0	52	0	33	29	481	0	0	786	78	1458
Added	0	0	0	74	0	32	11	20	0	0	20	25	182
Total	0	0	0	126	0	65	40	501	0	0	806	103	1640
#9 West Lane / Alpine Ave													
Base	81	750	33	167	800	420	225	235	101	44	380	229	3465
Added	14	0	0	0	0	23	47	25	22	0	9	0	140
Total	95	750	33	167	800	443	272	260	123	44	389	229	3605

 EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 El Dorado / Fargo St	F	55.2 0.000	F	87.8 0.000	+32.646 D/V
# 2 El Dorado St / Essex St	F	98.3 0.000	F	127.3 0.000	+28.936 D/V
# 3 El Dorado St / Chruchill St	B	11.0 0.492	B	11.3 0.506	+ 0.246 D/V
# 4 El Dorado St / Alpine Ave	C	32.2 0.675	C	32.7 0.694	+ 0.503 D/V
# 5 Sutter St / Essex St	B	10.9 0.000	B	11.6 0.000	+ 0.688 D/V
# 6 Sutter St / Churchill St	A	8.0 0.190	A	8.0 0.197	+ 0.007 V/C
# 7 Alvarado St / Essex St	A	9.3 0.000	B	10.6 0.000	+ 1.279 D/V
# 8 Alvarado St / Alpine Ave	D	31.1 0.000	F	132.7 0.000	+101.636 D/V
# 9 West Lane / Alpine Ave	C	31.6 0.698	C	32.9 0.739	+ 1.334 D/V

EPAP PLUS PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / Yes
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / Yes

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	3	10	43		9	21	11	27		4	7		0		7	24		0		36

Major Street Volume: 2207

Minor Approach Volume: 60

Minor Approach Volume Threshold: 12 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	6	962		8		74	1078		2		7	1		3		9	1		96	

Major Street Volume: 2131

Minor Approach Volume: 106

Minor Approach Volume Threshold: 24 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	30		67		3	1		96		4	6		30		34	14		69		2
Major Street Volume:					201															
Minor Approach Volume:					85															
Minor Approach Volume Threshold:					647															

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0
Initial Vol:	24		93		4	1		134		20	7		7		28	6		12		0
Major Street Volume:					277															
Minor Approach Volume:					42															
Minor Approach Volume Threshold:					562															

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	19		39		1	0		104		43	16		1		18	0		3		0

Major Street Volume: 206
 Minor Approach Volume: 35
 Minor Approach Volume Threshold: 640

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report (Urban)

Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0		0		0	126		0		65	40	501			0	0	806			103
Major Street Volume:					1450															
Minor Approach Volume:					191															
Minor Approach Volume Threshold:					157															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: F[87.8]

Street Name:	El Dorado St				Fargo St			
Approach:	North Bound		South Bound		East Bound		West Bound	
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled		Uncontrolled		Stop Sign		Stop Sign	
Rights:	Include		Include		Include		Include	
Lanes:	1 0 1 1 0	1 0 1 1 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0

Volume Module:

Base Vol:	3 990	3 14 1098	4 7 0 7	6 0 16
Growth Adj:	1.01 1.01 1.01	1.01 1.01 1.01	1.01 1.01 1.01	1.01 1.01 1.01
Initial Bse:	3 1000	3 14 1109	4 7 0 7	6 0 16
Added Vol:	0 43	6 7 18	0 0 0 0	18 0 20
PasserByVol:	0 0	0 0 0	0 0 0 0	0 0 0
Initial Fut:	3 1043	9 21 1127	4 7 0 7	24 0 36
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.92 0.92 0.92	0.92 0.92 0.92	0.92 0.92 0.92	0.92 0.92 0.92
PHF Volume:	3 1134	10 23 1225	4 8 0 8	26 0 39
Reduct Vol:	0 0	0 0 0	0 0 0 0	0 0 0
FinalVolume:	3 1134	10 23 1225	4 8 0 8	26 0 39

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxxx	4.1 xxxx xxxxx	7.5 6.5 6.9	7.5 6.5 6.9
FollowUpTim:	2.2 xxxx xxxxx	2.2 xxxx xxxxx	3.5 4.0 3.3	3.5 4.0 3.3

Capacity Module:

Cnflict Vol:	1229 xxxx xxxxx	1143 xxxx xxxxx	1847 2423	615 1804 2420	572
Potent Cap.:	563 xxxx xxxxx	607 xxxx xxxxx	46 32 434	50 32 463	
Move Cap.:	563 xxxx xxxxx	607 xxxx xxxxx	41 30 434	47 31 463	
Volume/Cap:	0.01 xxxx xxxxx	0.04 xxxx xxxxx	0.19 0.00 0.02	0.55 0.00 0.08	

Level Of Service Module:

2Way95thQ:	0.0 xxxx xxxxx	0.1 xxxx xxxxx	xxxx xxxx xxxxx	xxxx xxxx xxxxx
Control Del:	11.4 xxxx xxxxx	11.2 xxxx xxxxx	xxxxxx xxxx xxxxx	xxxxxx xxxx xxxxx
LOS by Move:	B * *	B * *	* * *	* * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxxx	xxxx xxxx xxxxx	xxxx 75 xxxxx	xxxx 103 xxxxx
SharedQueue:	xxxxxx xxxx xxxxx	xxxxxx xxxx xxxxx	xxxxxx 0.7 xxxxx	xxxxxx 3.1 xxxxx
Shrd ConDel:	xxxxxx xxxx xxxxx	xxxxxx xxxx xxxxx	xxxxxx 65.2 xxxxx	xxxxxx 87.8 xxxxx
Shared LOS:	* * *	* * *	* F *	* F *
ApproachDel:	xxxxxxx	xxxxxxx	65.2	87.8
ApproachLOS:	*	*	F	F

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: F[127.3]

Street Name:	El Dorado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module:	El Dorado St			El Dorado St			Essex St			Essex St		
Base Vol:	6	942	6	60	1045	2	7	1	3	3	1	57
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	6	951	6	61	1055	2	7	1	3	3	1	58
Added Vol:	0	11	2	13	23	0	0	0	0	6	0	38
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	962	8	74	1078	2	7	1	3	9	1	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	7	1046	9	80	1172	2	8	1	3	10	1	104
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	7	1046	9	80	1172	2	8	1	3	10	1	104

Critical Gap Module:	El Dorado St			El Dorado St			Essex St			Essex St		
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:	El Dorado St			El Dorado St			Essex St			Essex St		
Cnflict Vol:	1174	xxxx	xxxxxx	1055	xxxx	xxxxxx	1870	2401	587	1810	2398	527
Potent Cap.:	590	xxxx	xxxxxx	656	xxxx	xxxxxx	44	33	453	49	33	495
Move Cap.:	590	xxxx	xxxxxx	656	xxxx	xxxxxx	31	29	453	43	29	495
Volume/Cap:	0.01	xxxx	xxxx	0.12	xxxx	xxxx	0.25	0.04	0.01	0.23	0.04	0.21

Level Of Service Module:	El Dorado St			El Dorado St			Essex St			Essex St		
2Way95thQ:	0.0	xxxx	xxxxxx	0.4	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	11.2	xxxx	xxxxxx	11.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	41	xxxxxx	xxxx	240	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1.0	xxxxxx	xxxxxx	2.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	127	xxxxxx	xxxxxx	33.0	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	D	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	127.3		xxxxxxx	33.0		
ApproachLOS:	*	*	*	*	*	*	F		*	D		

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 El Dorado St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.506

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 11.3

Optimal Cycle: 41 Level Of Service: B

Street Name: El Dorado St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1 0 0

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 860 20 26 1082 26 35 5 13 22 10 28

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 26 869 20 26 1093 26 35 5 13 22 10 28

Added Vol: 0 13 2 0 29 0 0 0 0 6 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 26 882 22 26 1122 26 35 5 13 28 10 28

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 29 958 24 29 1219 29 38 5 14 31 11 31

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 29 958 24 29 1219 29 38 5 14 31 11 31

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 29 958 24 29 1219 29 38 5 14 31 11 31

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.92 0.92 0.92 0.90 0.90 0.90

Lanes: 1.00 1.95 0.05 1.00 1.95 0.05 0.66 0.09 0.25 0.43 0.15 0.42

Final Sat.: 1769 3437 87 1769 3447 81 1151 164 428 728 261 730

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Capacity Analysis Module:

Vol/Sat: 0.02 0.28 0.28 0.02 0.35 0.35 0.03 0.03 0.03 0.04 0.04 0.04

Crit Moves: **** **** **** ****

Green/Cycle: 0.04 0.64 0.64 0.09 0.69 0.69 0.07 0.07 0.07 0.08 0.08 0.08

Volume/Cap: 0.40 0.44 0.44 0.18 0.51 0.51 0.51 0.46 0.46 0.56 0.51 0.51

Delay/Veh: 50.6 9.1 9.1 42.4 7.5 7.5 49.1 47.3 47.3 49.8 47.1 47.1

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 50.6 9.1 9.1 42.4 7.5 7.5 49.1 47.3 47.3 49.8 47.1 47.1

LOS by Move: D A A D A A D D D D D D

HCM2kAvgQ: 1 8 8 1 10 10 2 2 2 3 3 3

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.694

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.7

Optimal Cycle: 59 Level Of Service: C

Street Name: El Dorado St

Alpine Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 87 370 93 163 891 27 59 394 63 201 350 74

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 87 370 93 163 891 27 59 394 63 201 350 74

Added Vol: 0 3 11 5 8 22 7 15 0 16 30 5

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 87 373 104 168 899 49 66 409 63 217 380 79

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 95 405 113 183 977 53 72 445 68 236 413 86

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 95 405 113 183 977 53 72 445 68 236 413 86

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 95 405 113 183 977 53 72 445 68 236 413 86

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.90 0.90 0.93 0.93 0.83 0.93 0.91 0.91 0.93 0.93 0.83

Lanes: 1.00 1.56 0.44 1.00 2.00 1.00 1.00 1.73 0.27 1.00 2.00 1.00

Final Sat.: 1769 2675 746 1769 3538 1583 1769 3004 463 1769 3538 1583

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Capacity Analysis Module:

Vol/Sat: 0.05 0.15 0.15 0.10 0.28 0.03 0.04 0.15 0.15 0.13 0.12 0.05

Crit Moves: **** **** **** ****

Green/Cycle: 0.08 0.28 0.28 0.19 0.40 0.40 0.10 0.21 0.21 0.19 0.30 0.30

Volume/Cap: 0.69 0.54 0.54 0.54 0.69 0.08 0.39 0.69 0.69 0.69 0.39 0.18

Delay/Veh: 59.4 30.9 30.9 38.1 26.6 18.8 43.1 39.2 39.2 43.8 27.9 26.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 59.4 30.9 30.9 38.1 26.6 18.8 43.1 39.2 39.2 43.8 27.9 26.0

LOS by Move: E C C D C B D D D D C C

HCM2kAvgQ: 4 8 8 6 14 1 2 9 9 8 5 2

Note: Queue reported is the number of cars per lane.

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1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 5.5 Worst Case Level Of Service: B[11.6]

Street Name: Sutter St Essex St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0
-----|-----|-----|-----|

Volume Module:

Base Vol:	30	65	2	1	93	2	5	16	34	10	27	2
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	30	66	2	1	94	2	5	16	34	10	27	2
Added Vol:	0	1	1	0	2	2	1	14	0	4	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	30	67	3	1	96	4	6	30	34	14	69	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	33	72	3	1	104	4	7	33	37	15	75	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	33	72	3	1	104	4	7	33	37	15	75	2

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	109	xxxx	xxxxx	76	xxxx	xxxxx	287	250	106	284	251	74
Potent Cap.:	1482	xxxx	xxxxx	1523	xxxx	xxxxx	665	653	948	669	652	988
Move Cap.:	1482	xxxx	xxxxx	1523	xxxx	xxxxx	593	637	948	606	637	988
Volume/Cap:	0.02	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.05	0.04	0.03	0.12	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.5	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	752	xxxxx	xxxx	637	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	0.5	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.3	xxxxx	xxxxx	11.6	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.3	xxxxxx	xxxxxx	xxxxxx	11.6	xxxxxx
ApproachLOS:	*	*	*	*	*	*	B	*	*	*	B	*

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.197
 Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.0
 Optimal Cycle: 0 Level Of Service: A

Street Name: Sutter St Churchill St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Stop Sign Stop Sign Stop Sign Stop Sign
 Rights: Include Include Include Include
 Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0
 Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0

Volume Module:
 Base Vol: 24 92 4 1 133 14 5 7 28 6 12 0
 Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01
 Initial Bse: 24 93 4 1 134 14 5 7 28 6 12 0
 Added Vol: 0 0 0 0 0 6 2 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 24 93 4 1 134 20 7 7 28 6 12 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
 PHF Volume: 26 101 4 1 146 22 8 8 31 7 13 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 26 101 4 1 146 22 8 8 31 7 13 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 FinalVolume: 26 101 4 1 146 22 8 8 31 7 13 0

Saturation Flow Module:
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.20 0.77 0.03 0.01 0.86 0.13 0.16 0.17 0.67 0.33 0.67 0.00
 Final Sat.: 166 636 28 6 740 111 133 134 535 242 483 0

Capacity Analysis Module:
 Vol/Sat: 0.16 0.16 0.16 0.20 0.20 0.20 0.06 0.06 0.06 0.03 0.03 xxxx
 Crit Moves: **** **** ****
 Delay/Veh: 8.0 8.0 8.0 8.1 8.1 8.1 7.5 7.5 7.5 7.8 7.8 0.0
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.0 8.0 8.0 8.1 8.1 8.1 7.5 7.5 7.5 7.8 7.8 0.0
 LOS by Move: A A A A A A A A A A A *
 ApproachDel: 8.0 8.1 7.5 7.8
 Delay Adj: 1.00 1.00 1.00
 ApprAdjDel: 8.0 8.1 7.5 7.8
 LOS by Appr: A A A A
 AllWayAvgQ: 0.2 0.2 0.2 0.2 0.2 0.2 0.1 0.1 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: B[10.6]

Street Name:	Alvarado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	1

Volume Module:

Base Vol:	16	4	1	0	3	0	1	1	17	0	3	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	16	4	1	0	3	0	1	1	17	0	3	0
Added Vol:	3	35	0	0	101	43	15	0	1	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	19	39	1	0	104	43	16	1	18	0	3	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	21	42	1	0	113	47	17	1	20	0	3	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	21	42	1	0	113	47	17	1	20	0	3	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.1	6.5	6.2	xxxxx	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	4.0	xxxxx

Capacity Module:

Cnflct Vol:	160	xxxx	xxxxx	xxxx	xxxx	xxxxx	223	222	136	xxxx	244	xxxxx
Potent Cap.:	1419	xxxx	xxxxx	xxxx	xxxx	xxxxx	733	677	912	xxxx	658	xxxxx
Move Cap.:	1419	xxxx	xxxxx	xxxx	xxxx	xxxxx	722	667	912	xxxx	648	xxxxx
Volume/Cap:	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	0.02	0.00	0.02	xxxx	0.01	xxxx

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0.0	xxxxx
Control Del:	7.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.6	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	B	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	807	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.7	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	A	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				9.7			10.6	
ApproachLOS:	*			*				A			B	

Note: Queue reported is the number of cars per lane.

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1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 15.7 Worst Case Level Of Service: F[132.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	51	0	33	29	476	0	0	778	77
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	52	0	33	29	481	0	0	786	78
Added Vol:	0	0	0	74	0	32	11	20	0	0	20	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	126	0	65	40	501	0	0	806	103
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	136	0	71	44	544	0	0	876	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	136	0	71	44	544	0	0	876	112

Critical Gap Module:

Critical Gp:xxxxx	xxxx	xxxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:xxxxx	xxxx	xxxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1291	1564	494	988	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	155	111	521	695	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	147	103	521	695	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.93	0.00	0.14	0.06	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	195	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
SharedQueue:xxxxx	xxxx	xxxx	xxxxx	xxxxx	9.6	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shrd ConDel:xxxxx	xxxx	xxxx	xxxxx	xxxxx	133	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*	
ApproachDel:	xxxxxx				132.7		xxxxxx			xxxxxx			
ApproachLOS:	*				F		*			*			

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.739

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 32.9

Optimal Cycle: 65 Level Of Service: C

Street Name: West Lane Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 81 750 33 167 800 420 225 235 101 44 380 229

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 81 750 33 167 800 420 225 235 101 44 380 229

Added Vol: 14 0 0 0 0 0 23 47 25 22 0 9 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 95 750 33 167 800 443 272 260 123 44 389 229

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 103 815 36 182 870 482 296 283 134 48 423 249

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 103 815 36 182 870 482 296 283 134 48 423 249

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 103 815 36 182 870 482 296 283 134 48 423 249

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.83 0.90 0.89 0.89 0.93 0.88 0.88

Lanes: 1.00 1.92 0.08 1.00 2.00 1.00 2.00 1.36 0.64 1.00 1.26 0.74

Final Sat.: 1769 3368 148 1769 3538 1583 3432 2286 1082 1769 2102 1238

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Capacity Analysis Module:

Vol/Sat: 0.06 0.24 0.24 0.10 0.25 0.30 0.09 0.12 0.12 0.03 0.20 0.20

Crit Moves: **** **** **** ****

Green/Cycle: 0.08 0.34 0.34 0.15 0.41 0.41 0.12 0.29 0.29 0.10 0.27 0.27

Volume/Cap: 0.74 0.70 0.70 0.70 0.60 0.74 0.74 0.42 0.42 0.28 0.74 0.74

Delay/Veh: 63.7 30.2 30.2 49.0 23.6 29.3 49.8 28.7 28.7 43.0 36.4 36.4

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 63.7 30.2 30.2 49.0 23.6 29.3 49.8 28.7 28.7 43.0 36.4 36.4

LOS by Move: E C C D C C D C C D D D

HCM2kAvgQ: 5 13 13 7 11 14 6 6 6 2 11 11

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EPAP PM
Command: Default Command
Volume: EPAP PM
Geometry: EPAP
Impact Fee: Default Impact Fee
Trip Generation: PM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for PM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.64	0.37	49	28	77	17.2
	Zone 1 Subtotal					49	28	77	17.2
2	WEST ANNEXAT	114.00	LDR	0.64	0.37	73	42	115	25.7
	Zone 2 Subtotal					73	42	115	25.7
3	EAST ANNEXAT	142.00	MDR	0.64	0.37	91	53	144	32.1
	Zone 3 Subtotal					91	53	144	32.1
4	Dama Estates	12.00	Approved SF lo	0.64	0.37	8	4	12	2.7
	Zone 4 Subtotal					8	4	12	2.7
5	ace maintena	152.00	employees	0.33	0.33	50	50	100	22.3
	Zone 5 Subtotal					50	50	100	22.3
TOTAL						271	177	448	100.0

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
2	30.0	19.0	13.0	6.0	23.0	9.0
3	30.0	19.0	13.0	6.0	23.0	9.0
4	30.0	19.0	13.0	6.0	23.0	9.0
5	10.0	20.0	20.0	20.0	15.0	15.0

EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
PM PEAK

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 El Dorado / Fargo St													
Base	5	1551	6	11	823	8	4	1	5	2	0	10	2427
Added	0	30	20	23	48	0	0	0	0	12	0	13	146
Total	5	1581	26	34	871	8	4	1	5	14	0	23	2573
#2 El Dorado St / Essex St													
Base	11	1496	6	40	774	17	12	0	6	3	1	55	2421
Added	0	25	7	43	17	0	0	0	0	4	0	25	121
Total	11	1521	13	83	791	17	12	0	6	7	1	80	2542
#3 El Dorado St / Chruchill St													
Base	10	1491	32	29	811	7	9	4	7	17	4	32	2454
Added	0	32	7	0	21	0	0	0	0	4	0	0	64
Total	10	1523	39	29	832	7	9	4	7	21	4	32	2518
#4 El Dorado St / Alpine Ave													
Base	135	1273	120	112	605	33	59	380	78	139	373	113	3420
Added	0	10	18	5	6	14	25	34	0	13	22	5	152
Total	135	1283	138	117	611	47	84	414	78	152	395	118	3572
#5 Sutter St / Essex St													
Base	27	81	6	3	48	1	3	21	19	9	45	7	272
Added	0	2	5	0	1	1	2	47	0	3	27	0	88
Total	27	83	11	3	49	2	5	68	19	12	72	7	360
#6 Sutter St / Churchill St													
Base	37	114	6	2	63	11	7	13	31	1	6	2	294
Added	0	0	0	0	0	4	7	0	0	0	0	0	11
Total	37	114	6	2	63	15	14	13	31	1	6	2	305
#7 Alvarado St / Essex St													
Base	42	5	1	0	3	0	2	2	23	0	2	0	81
Added	1	115	0	0	67	29	49	0	3	0	0	0	264
Total	43	120	1	0	70	29	51	2	26	0	2	0	345
#8 Alvarado St / Alpine Ave													
Base	0	0	0	66	0	31	37	819	0	0	621	127	1702
Added	0	0	0	48	0	21	36	20	0	0	20	84	229
Total	0	0	0	114	0	52	73	839	0	0	641	211	1931
#9 West Lane / Alpine Ave													
Base	131	1051	52	310	743	296	464	337	121	43	318	314	4180
Added	23	0	0	0	0	52	34	17	18	0	29	0	173
Total	154	1051	52	310	743	348	498	354	139	43	347	314	4353

 EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
 Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C	
# 1 El Dorado / Fargo St	F	64.5 0.000	F	280.6 0.000	+216.146 D/V
# 2 El Dorado St / Essex St	F	106.6 0.000	F	207.4 0.000	+100.811 D/V
# 3 El Dorado St / Chruchill St	A	9.0 0.608	A	9.4 0.624	+ 0.335 D/V
# 4 El Dorado St / Alpine Ave	C	33.0 0.832	D	35.5 0.868	+ 2.534 D/V
# 5 Sutter St / Essex St	B	10.7 0.000	B	11.3 0.000	+ 0.564 D/V
# 6 Sutter St / Churchill St	A	7.9 0.202	A	7.9 0.203	+ 0.001 V/C
# 7 Alvarado St / Essex St	A	9.7 0.000	B	11.4 0.000	+ 1.649 D/V
# 8 Alvarado St / Alpine Ave	E	40.8 0.000	F	187.2 0.000	+146.401 D/V
# 9 West Lane / Alpine Ave	E	55.6 1.010	E	59.5 1.032	+ 3.954 D/V

EPAP PLUS PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / No
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / Yes

 EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	5	1581		26		34	871		8		4	1		5		14	0		23	

Major Street Volume: 2526
 Minor Approach Volume: 37
 Minor Approach Volume Threshold: -34 [less than minimum of 100]

 SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R				
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	11	1521		13		83	791		17		12	0		6		7	1		80	

Major Street Volume: 2436
Minor Approach Volume: 88
Minor Approach Volume Threshold: -22 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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 EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	R	L	-	T	R	L	-	T	R	L	-	T	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0
Initial Vol:	27	83	11		3	49	2		5	68	19		12	72	7	

Major Street Volume: 176
 Minor Approach Volume: 92
 Minor Approach Volume Threshold: 683

 SIGNAL WARRANT DISCLAIMER

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 EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
Initial Vol:	37	114		6	2	63		15	14	13		31	1	6	2	

Major Street Volume: 237
 Minor Approach Volume: 59
 Minor Approach Volume Threshold: 603

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	
Initial Vol:	43	120		1		0	70		29		51	2		26		
Major Street Volume:													264			
Minor Approach Volume:													79			
Minor Approach Volume Threshold:													575			

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	114	0	52			73	839	0			0	641	211		

Major Street Volume: 1765
 Minor Approach Volume: 166
 Minor Approach Volume Threshold: 89 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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EPAP PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 4.6 Worst Case Level Of Service: F[280.6]

Street Name: El Dorado St Fargo St

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	5	1536	6	11	815	8	4	1	5	2	0	10
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	5	1551	6	11	823	8	4	1	5	2	0	10
Added Vol:	0	30	20	23	48	0	0	0	0	12	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	1581	26	34	871	8	4	1	5	14	0	23
User Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	6	1736	29	37	956	9	4	1	6	15	0	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	6	1736	29	37	956	9	4	1	6	15	0	25

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	965	xxxx	xxxxxx	1765	xxxx	xxxxxx	1915	2811	483	2315	2802	882
Potent Cap.:	709	xxxx	xxxxxx	350	xxxx	xxxxxx	41	18	530	20	18	289
Move Cap.:	709	xxxx	xxxxxx	350	xxxx	xxxxxx	34	16	530	17	16	289
Volume/Cap:	0.01	xxxx	xxxxxx	0.11	xxxx	xxxxxx	0.13	0.07	0.01	0.89	0.00	0.09

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.4	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	10.1	xxxx	xxxxxx	16.5	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	B	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	53	xxxxxx	xxxx	42	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.7	xxxxxx	xxxxxx	3.8	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	90.8	xxxxxx	xxxxxx	281	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	90.8	xxxxxx	xxxxxx	280.6	xxxxxx	xxxxxx
ApproachLOS:	*	*	*	*	*	*	F	*	*	F	*	*

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: F[207.4]

Street Name:	El Dorado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	0	1	0	1	0	0	0

Volume Module:

Base Vol:	11	1481	6	40	766	17	12	0	6	3	1	54
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	11	1496	6	40	774	17	12	0	6	3	1	55
Added Vol:	0	25	7	43	17	0	0	0	0	4	0	25
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	11	1521	13	83	791	17	12	0	6	7	1	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	12	1653	14	91	859	19	13	0	7	8	1	86
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	12	1653	14	91	859	19	13	0	7	8	1	86

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	878	xxxx	xxxxx	1667	xxxx	xxxxx	1901	2741	439	2295	2744	834
Potent Cap.:	765	xxxx	xxxxx	382	xxxx	xxxxx	42	20	566	21	20	312
Move Cap.:	765	xxxx	xxxxx	382	xxxx	xxxxx	23	15	566	17	15	312
Volume/Cap:	0.02	xxxx	xxxx	0.24	xxxx	xxxx	0.57	0.00	0.01	0.46	0.07	0.28

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.8	xxxx	xxxxx	17.4	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	C	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	34	xxxxx	xxxx	118	xxxxx
SharedQueue:	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	2.0	xxxxxx	xxxxxx	4.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxx	xxxxxx	xxxx	xxxxx	xxxxxx	207	xxxxxx	xxxxxx	106	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	207.4				106.4	
ApproachLOS:	*	*	*	*	*	*	F				F	

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 El Dorado St / Chruchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.624

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 9.4

Optimal Cycle: 51 Level Of Service: A

Street Name: El Dorado St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 10 1476 32 29 803 7 9 4 7 17 4 32

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 10 1491 32 29 811 7 9 4 7 17 4 32

Added Vol: 0 32 7 0 21 0 0 0 0 4 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 10 1523 39 29 832 7 9 4 7 21 4 32

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 11 1655 43 32 904 8 10 4 8 23 4 35

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 11 1655 43 32 904 8 10 4 8 23 4 35

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 11 1655 43 32 904 8 10 4 8 23 4 35

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.91 0.91 0.91 0.89 0.89 0.89

Lanes: 1.00 1.95 0.05 1.00 1.98 0.02 0.45 0.20 0.35 0.37 0.07 0.56

Final Sat.: 1769 3435 89 1769 3504 30 781 347 607 622 119 949

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Capacity Analysis Module:

Vol/Sat: 0.01 0.48 0.48 0.02 0.26 0.26 0.01 0.01 0.01 0.04 0.04 0.04

Crit Moves: **** **** **** ****

Green/Cycle: 0.11 0.74 0.74 0.04 0.68 0.68 0.04 0.05 0.05 0.05 0.06 0.06

Volume/Cap: 0.06 0.65 0.65 0.45 0.38 0.38 0.32 0.26 0.26 0.76 0.65 0.65

Delay/Veh: 40.4 7.0 7.0 51.4 7.1 7.1 49.3 47.5 47.5 80.7 60.6 60.6

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 40.4 7.0 7.0 51.4 7.1 7.1 49.3 47.5 47.5 80.7 60.6 60.6

LOS by Move: D A A D A A D D D F E E

HCM2kAvgQ: 0 14 14 2 6 6 1 1 1 4 3 3

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 35.5

Optimal Cycle: 96 Level Of Service: D

Street Name: El Dorado St Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 135 1273 120 112 605 33 59 380 78 139 373 113

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 135 1273 120 112 605 33 59 380 78 139 373 113

Added Vol: 0 10 18 5 6 14 25 34 0 13 22 5

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 135 1283 138 117 611 47 84 414 78 152 395 118

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 147 1395 150 127 664 51 91 450 85 165 429 128

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 147 1395 150 127 664 51 91 450 85 165 429 128

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 147 1395 150 127 664 51 91 450 85 165 429 128

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.92 0.92 0.93 0.93 0.83 0.93 0.91 0.91 0.93 0.93 0.83

Lanes: 1.00 1.81 0.19 1.00 2.00 1.00 1.00 1.68 0.32 1.00 2.00 1.00

Final Sat.: 1769 3146 338 1769 3538 1583 1769 2905 547 1769 3538 1583

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Capacity Analysis Module:

Vol/Sat: 0.08 0.44 0.44 0.07 0.19 0.03 0.05 0.15 0.15 0.09 0.12 0.08

Crit Moves: **** **** **** ****

Green/Cycle: 0.18 0.51 0.51 0.08 0.41 0.41 0.09 0.18 0.18 0.11 0.20 0.20

Volume/Cap: 0.46 0.87 0.87 0.87 0.46 0.08 0.60 0.87 0.87 0.87 0.60 0.40

Delay/Veh: 37.5 26.3 26.3 83.8 21.5 17.9 50.9 52.4 52.4 75.7 37.8 35.6

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 37.5 26.3 26.3 83.8 21.5 17.9 50.9 52.4 52.4 75.7 37.8 35.6

LOS by Move: D C C F C B D D D E D D

HCM2kAvgQ: 4 25 25 6 8 1 4 11 11 8 7 4

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 6.3 Worst Case Level Of Service: B[11.3]

Street Name:	Sutter St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:

Base Vol:	27	80	6	3	48	1	3	21	19	9	45	7
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	27	81	6	3	48	1	3	21	19	9	45	7
Added Vol:	0	2	5	0	1	1	2	47	0	3	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	27	83	11	3	49	2	5	68	19	12	72	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	30	90	12	3	54	2	5	74	21	13	79	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	30	90	12	3	54	2	5	74	21	13	79	8

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	56	xxxx	xxxxxx	102	xxxx	xxxxxx	260	223	55	264	218	96
Potent Cap.:	1549	xxxx	xxxxxx	1490	xxxx	xxxxxx	693	676	1012	688	680	960
Move Cap.:	1549	xxxx	xxxxxx	1490	xxxx	xxxxxx	615	661	1012	606	666	960
Volume/Cap:	0.02	xxxx	xxxxxx	0.00	xxxx	xxxxxx	0.01	0.11	0.02	0.02	0.12	0.01

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	710	xxxxxx	xxxx	673	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.5	xxxxxx	xxxxxx	0.5	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.9	xxxxxx	xxxxxx	11.3	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	10.9				11.3	
ApproachLOS:	*	*	*	*	*	*	B				B	

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.203

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 7.9

Optimal Cycle: 0 Level Of Service: A

Street Name: Sutter St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module:

Base Vol: 37 113 6 2 62 11 7 13 31 1 6 2

Growth Adj: 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01 1.01

Initial Bse: 37 114 6 2 63 11 7 13 31 1 6 2

Added Vol: 0 0 0 0 0 4 7 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 37 114 6 2 63 15 14 13 31 1 6 2

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 41 124 7 2 68 16 15 14 34 1 7 2

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 41 124 7 2 68 16 15 14 34 1 7 2

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 41 124 7 2 68 16 15 14 34 1 7 2

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Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.24 0.72 0.04 0.03 0.78 0.19 0.24 0.22 0.54 0.11 0.67 0.22

Final Sat.: 200 611 32 21 666 161 195 182 434 85 512 171

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Capacity Analysis Module:

Vol/Sat: 0.20 0.20 0.20 0.10 0.10 0.10 0.08 0.08 0.08 0.01 0.01 0.01

Crit Moves: **** **** **** ****

Delay/Veh: 8.2 8.2 8.2 7.6 7.6 7.6 7.5 7.5 7.5 7.5 7.5 7.5

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.2 8.2 8.2 7.6 7.6 7.6 7.5 7.5 7.5 7.5 7.5 7.5

LOS by Move: A A A A A A A A A A A A

ApproachDel: 8.2 7.6 7.5 7.5

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 8.2 7.6 7.5 7.5

LOS by Appr: A A A A

AllWayAvgQ: 0.2 0.2 0.2 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 3.5 Worst Case Level Of Service: B[11.4]

Street Name:	Alvarado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	0	0

Volume Module:

Base Vol:	42	5	1	0	3	0	2	2	23	0	2	0
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	42	5	1	0	3	0	2	2	23	0	2	0
Added Vol:	1	115	0	0	67	29	49	0	3	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	120	1	0	70	29	51	2	26	0	2	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	47	130	1	0	76	32	55	2	29	0	2	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	47	130	1	0	76	32	55	2	29	0	2	0

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.1	6.5	6.2	xxxxx	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	4.0	xxxxx

Capacity Module:

Cnflct Vol:	108	xxxx	xxxxx	xxxx	xxxx	xxxxx	318	318	92	xxxx	333	xxxxx
Potent Cap.:	1483	xxxx	xxxxx	xxxx	xxxx	xxxxx	634	598	965	xxxx	587	xxxxx
Move Cap.:	1483	xxxx	xxxxx	xxxx	xxxx	xxxxx	617	579	965	xxxx	568	xxxxx
Volume/Cap:	0.03	xxxx	xxxx	xxxx	xxxx	xxxx	0.09	0.00	0.03	xxxx	0.00	xxxx

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	0.0	xxxxx
Control Del:	7.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.4	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	B	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	699	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	10.9	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx				10.9			11.4	
ApproachLOS:	*			*				B			B	

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 16.5 Worst Case Level Of Service: F[187.2]

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Rights:	Include				Include				Include				Include							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0

Volume Module:

Base Vol:	0	0	0	65	0	31	37	811	0	0	615	126
Growth Adj:	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Initial Bse:	0	0	0	66	0	31	37	819	0	0	621	127
Added Vol:	0	0	0	48	0	21	36	20	0	0	20	84
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	114	0	52	73	839	0	0	641	211
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	124	0	57	80	912	0	0	697	230
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	124	0	57	80	912	0	0	697	230

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1427	1883	463	927	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	126	70	545	733	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	115	62	545	733	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	1.07	0.00	0.10	0.11	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	153	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	10.1	xxxxx	0.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	187	xxxxx	10.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*			
ApproachDel:	xxxxxx			187.2			xxxxxx			xxxxxx					
ApproachLOS:	*			F			*			*					

Note: Queue reported is the number of cars per lane.

EPAP PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.032

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 59.5

Optimal Cycle: 130 Level Of Service: E

Street Name: West Lane Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 2 0 1 1 0 1 0 1 1 0

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Volume Module:

Base Vol: 131 1051 52 310 743 296 464 337 121 43 318 314

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 131 1051 52 310 743 296 464 337 121 43 318 314

Added Vol: 23 0 0 0 0 0 52 34 17 18 0 29 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 154 1051 52 310 743 348 498 354 139 43 347 314

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 167 1142 57 337 808 378 541 385 151 47 377 341

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 167 1142 57 337 808 378 541 385 151 47 377 341

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 167 1142 57 337 808 378 541 385 151 47 377 341

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.92 0.92 0.93 0.93 0.83 0.90 0.89 0.89 0.93 0.86 0.86

Lanes: 1.00 1.91 0.09 1.00 2.00 1.00 2.00 1.44 0.56 1.00 1.05 0.95

Final Sat.: 1769 3347 166 1769 3538 1583 3432 2434 956 1769 1725 1561

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Capacity Analysis Module:

Vol/Sat: 0.09 0.34 0.34 0.19 0.23 0.24 0.16 0.16 0.16 0.03 0.22 0.22

Crit Moves: **** **** **** ****

Green/Cycle: 0.15 0.33 0.33 0.18 0.37 0.37 0.15 0.29 0.29 0.07 0.21 0.21

Volume/Cap: 0.65 1.03 1.03 1.03 0.62 0.65 1.03 0.54 0.54 0.36 1.03 1.03

Delay/Veh: 45.9 68.4 68.4 99.1 26.7 28.7 90.1 30.5 30.5 45.8 82.0 82.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 45.9 68.4 68.4 99.1 26.7 28.7 90.1 30.5 30.5 45.8 82.0 82.0

LOS by Move: D E E F C C F C C D F F

HCM2kAvgQ: 6 28 28 17 11 10 14 8 8 2 18 18

Note: Queue reported is the number of cars per lane.

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EPAP AM

Command: Default Command
Volume: EPAP AM
Geometry: EPAP
Impact Fee: Default Impact Fee
Trip Generation: AM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for AM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.19	0.56	15	43	58	34.7
	Zone 1 Subtotal					15	43	58	34.7
4	Dama Estates	12.00	Approved SF lo	0.19	0.56	2	7	9	5.4
	Zone 4 Subtotal					2	7	9	5.4
5		152.00	employees	0.33	0.33	50	50	100	59.9
	Zone 5 Subtotal					50	50	100	59.9
TOTAL						67	100	167	100.0

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
4	30.0	19.0	13.0	6.0	23.0	9.0
5	10.0	20.0	20.0	20.0	15.0	15.0

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 AM PEAK

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 El Dorado / Fargo St													
Base	3	1000	3	14	1109	4	7	0	7	6	0	16	2169
Added	0	19	0	0	10	0	0	0	0	1	0	1	31
Total	3	1019	3	14	1119	4	7	0	7	7	0	17	2200
#2 El Dorado St / Essex St													
Base	6	951	6	61	1055	2	7	1	3	3	1	58	2154
Added	0	5	0	5	6	0	0	0	0	1	0	14	31
Total	6	956	6	66	1061	2	7	1	3	4	1	72	2185
#3 El Dorado St / Chruchill St													
Base	26	869	20	26	1093	26	35	5	13	22	10	28	2175
Added	0	6	1	0	8	0	0	0	0	2	0	0	17
Total	26	875	21	26	1101	26	35	5	13	24	10	28	2192
#4 El Dorado St / Alpine Ave													
Base	87	370	93	163	891	27	59	394	63	201	350	74	2772
Added	0	0	9	5	1	3	1	10	0	11	16	5	61
Total	87	370	102	168	892	30	60	404	63	212	366	79	2833
#5 Sutter St / Essex St													
Base	30	66	2	1	94	2	5	16	34	10	27	2	290
Added	0	0	1	0	0	0	0	5	0	2	15	0	23
Total	30	66	3	1	94	2	5	21	34	12	42	2	313
#6 Sutter St / Churchill St													
Base	24	93	4	1	134	14	5	7	28	6	12	0	329
Added	0	0	0	0	0	2	1	0	0	0	0	0	3
Total	24	93	4	1	134	16	6	7	28	6	12	0	332
#7 Alvarado St / Essex St													
Base	16	4	1	0	3	0	1	1	17	0	3	0	46
Added	3	9	0	0	26	14	5	0	1	0	0	0	58
Total	19	13	1	0	29	14	6	1	18	0	3	0	104
#8 Alvarado St / Alpine Ave													
Base	0	0	0	52	0	33	29	481	0	0	786	78	1458
Added	0	0	0	19	0	11	4	20	0	0	20	6	80
Total	0	0	0	71	0	44	33	501	0	0	806	84	1538
#9 West Lane / Alpine Ave													
Base	81	750	33	167	800	420	225	235	101	44	380	229	3465
Added	11	0	0	0	0	13	20	7	13	0	2	0	66
Total	92	750	33	167	800	433	245	242	114	44	382	229	3531

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / No
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / No

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	1	0	0	0	1	1	0
Initial Vol:	3	10	19		3	14	11	19		4	7		0		7	7		0		17

Major Street Volume: 2162

Minor Approach Volume: 24

Minor Approach Volume Threshold: 19 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	6		956		6	66		1061		2	7		1		3	4		1		72

Major Street Volume: 2098
 Minor Approach Volume: 77
 Minor Approach Volume Threshold: 30 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
Initial Vol:	30	66	3	1	94	2	5	21	34	12	42	2

Major Street Volume: 196
 Minor Approach Volume: 61
 Minor Approach Volume Threshold: 654

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0
Initial Vol:	24	93		4	1	134		16	6	7		28	6	12		0				
Major Street Volume:					273															
Minor Approach Volume:					41															
Minor Approach Volume Threshold:					566															

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	19		13		1	0		29		14	6		1		18	0		3		0

Major Street Volume: 76
 Minor Approach Volume: 25
 Minor Approach Volume Threshold: 906

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

 Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	
Initial Vol:	0	0	0		71	0	44		33	501	0		0	806	84	

Major Street Volume: 1424
 Minor Approach Volume: 115
 Minor Approach Volume Threshold: 163

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: EPAP PM
Command: Default Command
Volume: EPAP PM
Geometry: EPAP
Impact Fee: Default Impact Fee
Trip Generation: PM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Generation Report

Forecast for PM PEAK

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Total
1	CALAVERAS ES	77.00	SF RES	0.64	0.37	49	28	77	40.7
	Zone 1 Subtotal					49	28	77	40.7
4	Dama Estates	12.00	Approved SF lo	0.64	0.37	8	4	12	6.3
	Zone 4 Subtotal					8	4	12	6.3
5		152.00	employees	0.33	0.33	50	50	100	52.9
	Zone 5 Subtotal					50	50	100	52.9
TOTAL						107	82	189	100.0

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Trip Distribution Report

Percent Of Trips AM

Zone	To Gates					
	1	2	3	4	5	6
1	30.0	19.0	13.0	6.0	23.0	9.0
4	30.0	19.0	13.0	6.0	23.0	9.0
5	10.0	20.0	20.0	20.0	15.0	15.0

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Turning Movement Report
 PM PEAK

Volume Type	Northbound			Southbound			Eastbound			Westbound			Total Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
#1 El Dorado / Fargo St													
Base	5	1551	6	11	823	8	4	1	5	2	0	10	2427
Added	0	14	2	1	21	0	0	0	0	1	0	1	40
Total	5	1565	8	12	844	8	4	1	5	3	0	11	2467
#2 El Dorado St / Essex St													
Base	11	1496	6	40	774	17	12	0	6	3	1	55	2421
Added	0	7	2	16	6	0	0	0	0	1	0	9	41
Total	11	1503	8	56	780	17	12	0	6	4	1	64	2462
#3 El Dorado St / Chruchill St													
Base	10	1491	32	29	811	7	9	4	7	17	4	32	2454
Added	0	8	2	0	7	0	0	0	0	1	0	0	18
Total	10	1499	34	29	818	7	9	4	7	18	4	32	2472
#4 El Dorado St / Alpine Ave													
Base	135	1273	120	112	605	33	59	380	78	139	373	113	3420
Added	0	1	11	5	1	2	4	17	0	10	13	5	69
Total	135	1274	131	117	606	35	63	397	78	149	386	118	3489
#5 Sutter St / Essex St													
Base	27	81	6	3	48	1	3	21	19	9	45	7	272
Added	0	0	2	0	0	0	0	17	0	1	10	0	30
Total	27	81	8	3	48	1	3	38	19	10	55	7	302
#6 Sutter St / Churchill St													
Base	37	114	6	2	63	11	7	13	31	1	6	2	294
Added	0	0	0	0	0	1	2	0	0	0	0	0	3
Total	37	114	6	2	63	12	9	13	31	1	6	2	297
#7 Alvarado St / Essex St													
Base	42	5	1	0	3	0	2	2	23	0	2	0	81
Added	1	30	0	0	17	9	16	0	3	0	0	0	76
Total	43	35	1	0	20	9	18	2	26	0	2	0	157
#8 Alvarado St / Alpine Ave													
Base	0	0	0	66	0	31	37	819	0	0	621	127	1702
Added	0	0	0	12	0	7	13	20	0	0	20	22	94
Total	0	0	0	78	0	38	50	839	0	0	641	149	1796
#9 West Lane / Alpine Ave													
Base	131	1051	52	310	743	296	464	337	121	43	318	314	4180
Added	13	0	0	0	0	21	16	4	12	0	7	0	73
Total	144	1051	52	310	743	317	480	341	133	43	325	314	4253

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / ???	??? / No
# 2 El Dorado St / Essex St	??? / ???	??? / No
# 5 Sutter St / Essex St	??? / ???	??? / No
# 6 Sutter St / Churchill St	???	No
# 7 Alvarado St / Essex St	??? / ???	??? / No
# 8 Alvarado St / Alpine Ave	??? / ???	??? / Yes

EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	5	1565			8	12	844			8	4	1			5	3	0			11
Major Street Volume:	2443																			
Minor Approach Volume:	14																			
Minor Approach Volume Threshold:	-23 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	T	R		L	T	R		L	T	R		L	T	R			
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign					
Lanes:	1	0	1	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	11	1503		8	56	780		17	12	0		6	4	1		64		
Major Street Volume:					2375													
Minor Approach Volume:					69													
Minor Approach Volume Threshold:					-13 [less than minimum of 100]													

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	1!	0	0	0	0	0	1!	0	0	
Initial Vol:	27	81	8		3	48	1		3	38	19		10	55	7	
Major Street Volume:					169											
Minor Approach Volume:					73											
Minor Approach Volume Threshold:					694											

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	
Initial Vol:	37		114		6	2		63		12	9		13		31	
Major Street Volume:					234											
Minor Approach Volume:					54											
Minor Approach Volume Threshold:					606											

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	
Initial Vol:	43		35		1	0		20		9	18		2		26	
Major Street Volume:					109											
Minor Approach Volume:					46											
Minor Approach Volume Threshold:					812											

SIGNAL WARRANT DISCLAIMER

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EPAP PLUS 77 du's TRAFFIC SIGNAL WARRANTS
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Future Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	
Initial Vol:	0	0	0	0	78	0	38	50	839	0	0	641	149			
Major Street Volume:					1680											
Minor Approach Volume:					116											
Minor Approach Volume Threshold:					106											

SIGNAL WARRANT DISCLAIMER

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2035 AM

Tue Dec 6, 2011 13:31:38

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2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: 2035 AM

Command: Default Command
Volume: 2035 AM
Geometry: GENERAL PLAN
Impact Fee: Default Impact Fee
Trip Generation: GP AM
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

2035 NO PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Intersection Volume Report
 Base Volume Alternative

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1	El Dorado / F	2	840	3	23	1678	5	6	0	8	26	0	57
2	El Dorado St	5	773	4	75	1635	3	7	1	3	4	1	85
3	El Dorado St	32	686	18	36	1646	27	40	6	18	20	12	21
4	El Dorado St	63	511	147	219	1388	23	56	580	108	282	259	57
5	Sutter St / E	33	63	2	2	104	3	7	23	33	13	53	3
6	Sutter St / C	10	92	8	1	155	5	4	10	33	36	20	4
7	Alvarado St /	15	15	1	2	40	3	2	0	16	1	2	2
8	Alvarado St /	0	0	0	105	0	48	24	439	0	0	863	109
9	West Lane / A	86	702	42	237	1674	503	215	289	183	99	491	261

2035 NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 El Dorado / Fargo St	F 163.8 0.000	F 163.8 0.000	+ 0.000 D/V
# 2 El Dorado St / Essex St	F 376.4 0.000	F 376.4 0.000	+ 0.000 D/V
# 3 El Dorado St / Chruchill St	B 11.7 0.691	B 11.7 0.691	+ 0.000 D/V
# 4 El Dorado St / Alpine Ave	D 49.3 0.972	D 49.3 0.972	+ 0.000 D/V
# 5 Sutter St / Essex St	B 11.5 0.000	B 11.5 0.000	+ 0.000 D/V
# 6 Sutter St / Churchill St	A 8.2 0.214	A 8.2 0.214	+ 0.000 V/C
# 7 Alvarado St / Essex St	A 9.1 0.000	A 9.1 0.000	+ 0.000 D/V
# 8 Alvarado St / Alpine Ave	F 83.2 0.000	F 83.2 0.000	+ 0.000 D/V
# 9 West Lane / Alpine Ave	C 31.3 0.792	C 31.3 0.792	+ 0.000 D/V

2035 NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / No	??? / ???
# 2 El Dorado St / Essex St	??? / No	??? / ???
# 5 Sutter St / Essex St	??? / No	??? / ???
# 6 Sutter St / Churchill St	No	???
# 7 Alvarado St / Essex St	??? / No	??? / ???
# 8 Alvarado St / Alpine Ave	??? / No	??? / ???

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	2		840		3	23		1678		5	6		0		8	26		0		57
Major Street Volume:					2551															
Minor Approach Volume:					83															
Minor Approach Volume Threshold:	-38 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	5		773		4	75		1635		3	7		1		3	4		1		85
Major Street Volume:	2495																			
Minor Approach Volume:	90																			
Minor Approach Volume Threshold:	-30 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	33		63		2	2		104		3	7		23		33	13		53		3
Major Street Volume:					207															
Minor Approach Volume:					69															
Minor Approach Volume Threshold:					639															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	
Initial Vol:	10		92		8	1		155		5	4		10		33	
Major Street Volume:					271											
Minor Approach Volume:					60											
Minor Approach Volume Threshold:					568											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	
Initial Vol:	15		15		1	2		40		3	2		0		16	
Major Street Volume:					76											
Minor Approach Volume:					18											
Minor Approach Volume Threshold:					907											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	105	0	48			24	439	0			0	863	109		
Major Street Volume:					1435															
Minor Approach Volume:					153															
Minor Approach Volume Threshold:					160															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 4.4 Worst Case Level Of Service: F[163.8]

Street Name:	El Dorado St						Fargo St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module: General Plan AM

Base Vol:	2	840	3	23	1678	5	6	0	8	26	0	57
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	840	3	23	1678	5	6	0	8	26	0	57
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	2	913	3	25	1824	5	7	0	9	28	0	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	2	913	3	25	1824	5	7	0	9	28	0	62

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1829	xxxx	xxxxx	916	xxxx	xxxxx	2338	2797	915	1881	2798	458
Potent Cap.:	330	xxxx	xxxxx	740	xxxx	xxxxx	19	18	275	44	18	550
Move Cap.:	330	xxxx	xxxxx	740	xxxx	xxxxx	17	17	275	41	17	550
Volume/Cap:	0.01	xxxx	xxxx	0.03	xxxx	xxxx	0.39	0.00	0.03	0.69	0.00	0.11

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	
Control Del:	16.0	xxxx	xxxxx	10.0	xxxx	xxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
LOS by Move:	C	*	*	B	*	*	*	*	*	*	*	*	
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	36	xxxxxx	xxxx	112	xxxxxx	
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1.4	xxxxxx	xxxxxx	4.6	xxxxxx	
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	164	xxxxxx	xxxxxx	110	xxxxxx	
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*	
ApproachDel:	xxxxxx			xxxxxx			163.8			109.6			
ApproachLOS:	*			*			F			F			

 Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: F[376.4]

Street Name: El Dorado St

Essex St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Uncontrolled

Uncontrolled

Stop Sign

Stop Sign

Rights: Include

Include

Include

Include

Lanes: 1 0 1 1 0

1 0 1 1 0

0 0 1! 0 0

0 0 1! 0 0

Volume Module:

Base Vol: 5 773 4 75 1635 3 7 1 3 4 1 85

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 5 773 4 75 1635 3 7 1 3 4 1 85

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 5 840 4 82 1777 3 8 1 3 4 1 92

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Volume: 5 840 4 82 1777 3 8 1 3 4 1 92

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.5 6.5 6.9 7.5 6.5 6.9

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:

Cnflct Vol: 1780 xxxx xxxxx 845 xxxx xxxxx 2373 2797 890 1905 2797 422

Potent Cap.: 345 xxxx xxxxx 788 xxxx xxxxx 18 18 286 42 18 580

Move Cap.: 345 xxxx xxxxx 788 xxxx xxxxx 13 16 286 36 16 580

Volume/Cap: 0.02 xxxx xxxxx 0.10 xxxx xxxxx 0.57 0.07 0.01 0.12 0.07 0.16

Level Of Service Module:

2Way95thQ: 0.0 xxxx xxxxx 0.3 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Control Del: 15.6 xxxx xxxxx 10.1 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: C * * B * * * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 18 xxxxx xxxx 280 xxxxx

SharedQueue:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 1.8 xxxxx xxxxx 1.5 xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx 376 xxxxx xxxxx 24.6 xxxxx

Shared LOS: * * * * * * * F * * C *

ApproachDel: xxxxxx xxxxxx 376.4 24.6

ApproachLOS: * * F C

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 El Dorado St / Chrchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.691

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 11.7

Optimal Cycle: 58 Level Of Service: B

Street Name: El Dorado St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

-----|-----|-----|-----|

Volume Module:General Plan AM

Base Vol: 32 686 18 36 1646 27 40 6 18 20 12 21

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 32 686 18 36 1646 27 40 6 18 20 12 21

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 35 746 20 39 1789 29 43 7 20 22 13 23

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 35 746 20 39 1789 29 43 7 20 22 13 23

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 35 746 20 39 1789 29 43 7 20 22 13 23

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.91 0.91 0.91 0.91 0.91 0.91

Lanes: 1.00 1.95 0.05 1.00 1.97 0.03 0.63 0.09 0.28 0.38 0.23 0.39

Final Sat.: 1769 3434 90 1769 3474 57 1086 163 489 653 392 685

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Capacity Analysis Module:

Vol/Sat: 0.02 0.22 0.22 0.02 0.52 0.52 0.04 0.04 0.04 0.03 0.03 0.03

Crit Moves: **** **** **** ****

Green/Cycle: 0.04 0.65 0.65 0.12 0.74 0.74 0.06 0.06 0.06 0.05 0.05 0.05

Volume/Cap: 0.49 0.33 0.33 0.18 0.70 0.70 0.70 0.70 0.70 0.70 0.70 0.70

Delay/Veh: 52.3 7.7 7.7 40.0 8.1 8.1 66.3 66.3 66.3 70.5 70.5 70.5

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 52.3 7.7 7.7 40.0 8.1 8.1 66.3 66.3 66.3 70.5 70.5 70.5

LOS by Move: D A A D A A E E E E E E

HCM2kAvgQ: 2 5 5 1 17 17 4 4 4 3 3 3

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.972

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 49.3

Optimal Cycle: 130 Level Of Service: D

Street Name: El Dorado St Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|-----|

Volume Module: General Plan AM

Base Vol: 63 511 147 219 1388 23 56 580 108 282 259 57

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 63 511 147 219 1388 23 56 580 108 282 259 57

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 68 555 160 238 1509 25 61 630 117 307 282 62

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 68 555 160 238 1509 25 61 630 117 307 282 62

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 68 555 160 238 1509 25 61 630 117 307 282 62

-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.90 0.90 0.93 0.93 0.83 0.93 0.91 0.91 0.93 0.93 0.83

Lanes: 1.00 1.55 0.45 1.00 2.00 1.00 1.00 1.69 0.31 1.00 2.00 1.00

Final Sat.: 1769 2657 764 1769 3538 1583 1769 2911 542 1769 3538 1583

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Capacity Analysis Module:

Vol/Sat: 0.04 0.21 0.21 0.13 0.43 0.02 0.03 0.22 0.22 0.17 0.08 0.04

Crit Moves: **** **** **** ****

Green/Cycle: 0.04 0.29 0.29 0.19 0.44 0.44 0.13 0.22 0.22 0.18 0.27 0.27

Volume/Cap: 0.97 0.72 0.72 0.72 0.97 0.04 0.26 0.97 0.97 0.97 0.30 0.15

Delay/Veh: 143.5 34.3 34.3 45.5 44.0 16.0 39.4 64.1 64.1 83.7 29.4 28.1

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 143.5 34.3 34.3 45.5 44.0 16.0 39.4 64.1 64.1 83.7 29.4 28.1

LOS by Move: F C C D D B D E E F C C

HCM2kAvgQ: 5 12 12 8 30 0 2 17 17 14 4 1

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 5.0 Worst Case Level Of Service: B[11.5]

Street Name: Sutter St

Essex St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Uncontrolled

Uncontrolled

Stop Sign

Stop Sign

Rights: Include

Include

Include

Include

Lanes: 0 0 1! 0 0

0 0 1! 0 0

0 0 1! 0 0

0 0 1! 0 0

-----|-----|-----|-----|

Volume Module: General Plan AM

Base Vol: 33 63 2

2 104 3

7 23 33

13 53 3

Growth Adj: 1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

Initial Bse: 33 63 2

2 104 3

7 23 33

13 53 3

User Adj: 1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92

0.92 0.92 0.92

0.92 0.92 0.92

0.92 0.92 0.92

PHF Volume: 36 68 2

2 113 3

8 25 36

14 58 3

Reduct Vol: 0 0 0

0 0 0

0 0 0

0 0 0

Final Volume: 36 68 2

2 113 3

8 25 36

14 58 3

-----|-----|-----|-----|

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx

4.1 xxxx xxxxx

7.1 6.5 6.2

7.1 6.5 6.2

FollowUpTim: 2.2 xxxx xxxxx

2.2 xxxx xxxxx

3.5 4.0 3.3

3.5 4.0 3.3

-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 116 xxxx xxxxx

71 xxxx xxxxx

291 261 115

291 262 70

Potent Cap.: 1472 xxxx xxxxx

1530 xxxx xxxxx

661 643 938

661 643 993

Move Cap.: 1472 xxxx xxxxx

1530 xxxx xxxxx

601 627 938

604 626 993

Volume/Cap: 0.02 xxxx xxxxx

0.00 xxxx xxxxx

0.01 0.04 0.04

0.02 0.09 0.00

-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: 0.1 xxxx xxxxx

0.0 xxxx xxxxx

xxxx xxxx xxxxx

xxxx xxxx xxxxx

Control Del: 7.5 xxxx xxxxx

7.4 xxxx xxxxx

xxxxxx xxxx xxxxx

xxxxxx xxxx xxxxx

LOS by Move: A * *

A * *

* * *

* * *

Movement: LT - LTR - RT

LT - LTR - RT

LT - LTR - RT

LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx

xxxx xxxx xxxxx

xxxx 754 xxxxx

xxxx 632 xxxxx

SharedQueue:xxxxxx xxxx xxxxx

xxxxxx xxxx xxxxx

xxxxxx 0.3 xxxxx

xxxxxx 0.4 xxxxx

Shrd ConDel:xxxxxx xxxx xxxxx

xxxxxx xxxx xxxxx

xxxxxx 10.3 xxxxx

xxxxxx 11.5 xxxxx

Shared LOS: * * *

* * *

* B *

* B *

ApproachDel: xxxxxx

xxxxxx

10.3

11.5

ApproachLOS: *

*

B

B

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.214

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.2

Optimal Cycle: 0 Level Of Service: A

Street Name: Sutter St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Stop Sign Stop Sign Stop Sign Stop Sign

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

-----|-----|-----|-----|

Volume Module: General Plan AM

Base Vol: 10 92 8 1 155 5 4 10 33 36 20 4

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 10 92 8 1 155 5 4 10 33 36 20 4

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 11 100 9 1 168 5 4 11 36 39 22 4

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 11 100 9 1 168 5 4 11 36 39 22 4

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 11 100 9 1 168 5 4 11 36 39 22 4

-----|-----|-----|-----|

Saturation Flow Module:

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 0.09 0.84 0.07 0.01 0.96 0.03 0.09 0.21 0.70 0.60 0.33 0.07

Final Sat.: 73 673 58 5 786 25 68 169 559 434 241 48

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Capacity Analysis Module:

Vol/Sat: 0.15 0.15 0.15 0.21 0.21 0.21 0.06 0.06 0.06 0.09 0.09 0.09

Crit Moves: **** **** **** ****

Delay/Veh: 8.1 8.1 8.1 8.4 8.4 8.4 7.5 7.5 7.5 8.1 8.1 8.1

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 8.1 8.1 8.1 8.4 8.4 8.4 7.5 7.5 7.5 8.1 8.1 8.1

LOS by Move: A A A A A A A A A A A A

ApproachDel: 8.1 8.4 7.5 8.1

Delay Adj: 1.00 1.00 1.00

ApprAdjDel: 8.1 8.4 7.5 8.1

LOS by Appr: A A A A

AllWayAvgQ: 0.2 0.2 0.2 0.3 0.3 0.3 0.1 0.1 0.1 0.1 0.1 0.1

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 3.3 Worst Case Level Of Service: A[9.1]

Street Name: Alvarado St

Essex St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Uncontrolled

Uncontrolled

Stop Sign

Stop Sign

Rights: Include

Include

Include

Include

Lanes: 0 0 1! 0 0

0 0 1! 0 0

0 0 1! 0 0

0 0 1! 0 0

-----|-----|-----|-----|

Volume Module: General Plan AM

Base Vol: 15 15 1

2 40 3

2 0 16

1 2 2

Growth Adj: 1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

Initial Bse: 15 15 1

2 40 3

2 0 16

1 2 2

User Adj: 1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92

0.92 0.92 0.92

0.92 0.92 0.92

0.92 0.92 0.92

PHF Volume: 16 16 1

2 43 3

2 0 17

1 2 2

Reduct Vol: 0 0 0

0 0 0

0 0 0

0 0 0

Final Volume: 16 16 1

2 43 3

2 0 17

1 2 2

-----|-----|-----|-----|

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx

4.1 xxxx xxxxx

7.1 6.5 6.2

7.1 6.5 6.2

FollowUpTim: 2.2 xxxx xxxxx

2.2 xxxx xxxxx

3.5 4.0 3.3

3.5 4.0 3.3

-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 47 xxxx xxxxx

17 xxxx xxxxx

101 99 45

108 101 17

Potent Cap.: 1561 xxxx xxxxx

1600 xxxx xxxxx

880 791 1025

871 789 1062

Move Cap.: 1561 xxxx xxxxx

1600 xxxx xxxxx

868 781 1025

849 780 1062

Volume/Cap: 0.01 xxxx xxxxx

0.00 xxxx xxxxx

0.00 0.00 0.02

0.00 0.00 0.00

-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: 0.0 xxxx xxxxx

0.0 xxxx xxxxx

xxxx xxxx xxxxx

xxxx xxxx xxxxx

Control Del: 7.3 xxxx xxxxx

7.3 xxxx xxxxx

xxxx xxxx xxxxx

xxxx xxxx xxxxx

LOS by Move: A * *

A * *

* * *

* * *

Movement: LT - LTR - RT

LT - LTR - RT

LT - LTR - RT

LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx

xxxx xxxx xxxxx

xxxx 1005 xxxxx

xxxx 889 xxxxx

SharedQueue:xxxx xxxx xxxxx

xxxx xxxx xxxxx

xxxx 0.1 xxxxx

xxxx 0.0 xxxxx

Shrd ConDel:xxxx xxxx xxxxx

xxxx xxxx xxxxx

xxxx 8.7 xxxxx

xxxx 9.1 xxxxx

Shared LOS: * * *

* * *

* A *

* A *

ApproachDel: xxxxxx

xxxxxx

8.7

9.1

ApproachLOS: *

*

A

A

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 8.2 Worst Case Level Of Service: F[83.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0

Volume Module: General Plan AM

Base Vol:	0	0	0	105	0	48	24	439	0	0	863	109
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	105	0	48	24	439	0	0	863	109
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	114	0	52	26	477	0	0	938	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	114	0	52	26	477	0	0	938	118

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	1288	1527	528	1057	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	156	117	495	655	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	151	112	495	655	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxxx	0.76	0.00	0.11	0.04	xxxx	xxxxx	xxxx	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	193	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	6.4	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	83.2	xxxxx	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*
ApproachDel:	xxxxxx			83.2			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

 Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.792

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 31.3

Optimal Cycle: 75 Level Of Service: C

Street Name:	West Lane						Alpine Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	2	0	4	0	1		2	0	3	0	1	

Volume Module: General Plan AM

Base Vol:	86	702	42	237	1674	503	215	289	183	99	491	261
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	86	702	42	237	1674	503	215	289	183	99	491	261
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	93	763	46	258	1820	547	234	314	199	108	534	284
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	93	763	46	258	1820	547	234	314	199	108	534	284
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	93	763	46	258	1820	547	234	314	199	108	534	284

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.89	0.83	0.90	0.89	0.83	0.90	0.88	0.88	0.90	0.88	0.88
Lanes:	2.00	4.00	1.00	2.00	3.00	1.00	2.00	1.22	0.78	2.00	1.31	0.69
Final Sat.:	3432	6778	1583	3432	5083	1583	3432	2041	1292	3432	2190	1164

Capacity Analysis Module:

Vol/Sat:	0.03	0.11	0.03	0.08	0.36	0.35	0.07	0.15	0.15	0.03	0.24	0.24
Crit Moves:	****			****			****			****		
Green/Cycle:	0.04	0.29	0.29	0.20	0.45	0.45	0.09	0.31	0.31	0.08	0.31	0.31
Volume/Cap:	0.68	0.38	0.10	0.38	0.80	0.77	0.80	0.50	0.50	0.39	0.80	0.80
Delay/Veh:	60.4	28.3	25.8	35.3	25.7	28.3	59.0	28.5	28.5	44.5	36.3	36.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	60.4	28.3	25.8	35.3	25.7	28.3	59.0	28.5	28.5	44.5	36.3	36.3
LOS by Move:	E	C	C	D	C	C	E	C	C	D	D	D
HCM2kAvgQ:	3	5	1	4	19	16	6	7	7	2	14	14

Note: Queue reported is the number of cars per lane.

2035 PM

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2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: 2035 PM
Command: Default Command
Volume: 2035 PM
Geometry: GENERAL PLAN
Impact Fee: Default Impact Fee
Trip Generation: GP PM
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Intersection Volume Report
Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 El Dorado / F	6	2063	36	49	721	7	3	3	3	7	0	40
2 El Dorado St	10	2008	10	78	637	18	14	0	4	2	1	76
3 El Dorado St	18	1959	26	26	665	14	27	8	12	18	10	61
4 El Dorado St	166	1664	171	93	503	24	55	382	78	254	589	189
5 Sutter St / E	30	88	9	6	49	2	5	53	24	8	63	10
6 Sutter St / C	61	131	47	4	71	5	1	15	21	8	17	4
7 Alvarado St /	42	47	1	0	23	4	5	1	22	1	1	3
8 Alvarado St /	0	0	0	117	0	26	36	1006	0	0	608	206
9 West Lane / A	200	1702	116	425	857	278	557	555	168	75	452	474

2035 NO PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 El Dorado / Fargo St	F 683.4 0.000	F 683.4 0.000	+ 0.000 D/V
# 2 El Dorado St / Essex St	F 542.8 0.000	F 542.8 0.000	+ 0.000 D/V
# 3 El Dorado St / Chruchill St	B 14.8 0.811	B 14.8 0.811	+ 0.000 D/V
# 4 El Dorado St / Alpine Ave	E 60.7 1.057	E 60.7 1.057	+ 0.000 D/V
# 5 Sutter St / Essex St	B 11.2 0.000	B 11.2 0.000	+ 0.000 D/V
# 6 Sutter St / Churchill St	A 8.4 0.301	A 8.4 0.301	+ 0.000 V/C
# 7 Alvarado St / Essex St	A 9.1 0.000	A 9.1 0.000	+ 0.000 D/V
# 8 Alvarado St / Alpine Ave	F 150.5 0.000	F 150.5 0.000	+ 0.000 D/V
# 9 West Lane / Alpine Ave	D 54.7 1.022	D 54.7 1.022	+ 0.000 D/V

2035 NO PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / No	??? / ???
# 2 El Dorado St / Essex St	??? / No	??? / ???
# 5 Sutter St / Essex St	??? / No	??? / ???
# 6 Sutter St / Churchill St	No	???
# 7 Alvarado St / Essex St	??? / No	??? / ???
# 8 Alvarado St / Alpine Ave	??? / Yes	??? / ???

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	6	2063		36		49	721		7		3	3		3		7	0		40	

Major Street Volume: 2882

Minor Approach Volume: 47

Minor Approach Volume Threshold: -80 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	10		2008		10	78		637		18	14		0		4	2		1		76

Major Street Volume: 2761

Minor Approach Volume: 79

Minor Approach Volume Threshold: -65 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	30		88		9	6		49		2	5		53		24	8		63		10
Major Street Volume:					184															
Minor Approach Volume:					82															
Minor Approach Volume Threshold:					671															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	61	131		47		4	71		5		1	15		21		8	17		4	
Major Street Volume:					319															
Minor Approach Volume:					37															
Minor Approach Volume Threshold:					524															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	0	1	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	42	47		1		0	23		4		5	1		22		1	1		3	
Major Street Volume:					117															
Minor Approach Volume:					28															
Minor Approach Volume Threshold:					792															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	117	0	26			36	1006	0			0	608	206		
Major Street Volume:					1856															
Minor Approach Volume:					143															
Minor Approach Volume Threshold:					72 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 12.6 Worst Case Level Of Service: F[683.4]

Street Name: El Dorado St Fargo St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

-----|-----|-----|-----|

Volume Module: General Plan PM

Base Vol: 6 2063 36 49 721 7 3 3 3 7 0 40

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 6 2063 36 49 721 7 3 3 3 7 0 40

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 7 2242 39 53 784 8 3 3 3 8 0 43

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Volume: 7 2242 39 53 784 8 3 3 3 8 0 43

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Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.5 6.5 6.9 7.5 6.5 6.9

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

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Capacity Module:

Cnflct Vol: 791 xxxx xxxxx 2282 xxxx xxxxx 2028 3189 396 2775 3173 1141

Potent Cap.: 825 xxxx xxxxx 219 xxxx xxxxx 34 10 604 9 10 194

Move Cap.: 825 xxxx xxxxx 219 xxxx xxxxx 21 8 604 5 8 194

Volume/Cap: 0.01 xxxx xxxxx 0.24 xxxx xxxxx 0.15 0.43 0.01 1.58 0.00 0.22

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Level Of Service Module:

2Way95thQ: 0.0 xxxx xxxxx 0.9 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Control Del: 9.4 xxxx xxxxx 26.6 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: A * * D * * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 16 xxxxx xxxx 28 xxxxx

Shared Queue: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 1.5 xxxxx xxxx 6.0 xxxxx

Shrd ConDel: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 391 xxxxx xxxx 683 xxxxx

Shared LOS: * * * * * * * F * F *

ApproachDel: xxxxxx xxxxxx 390.5 683.4

ApproachLOS: * * F F

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 7.9 Worst Case Level Of Service: F[542.8]

Street Name: El Dorado St

Essex St

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module: General Plan PM

Base Vol:	10	2008	10	78	637	18	14	0	4	2	1	76
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	2008	10	78	637	18	14	0	4	2	1	76
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	11	2183	11	85	692	20	15	0	4	2	1	83
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	11	2183	11	85	692	20	15	0	4	2	1	83

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	712	xxxx	xxxxx	2193	xxxx	xxxxx	1985	3087	356	2726	3091	1097
Potent Cap.:	884	xxxx	xxxxx	237	xxxx	xxxxx	36	12	640	10	12	208
Move Cap.:	884	xxxx	xxxxx	237	xxxx	xxxxx	14	7	640	7	7	208
Volume/Cap:	0.01	xxxx	xxxx	0.36	xxxx	xxxx	1.09	0.00	0.01	0.31	0.15	0.40

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	1.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.1	xxxx	xxxxx	28.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	D	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	18	xxxxx	xxxx	100	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.8	xxxxx	xxxxx	4.9	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	543	xxxxx	xxxxx	131	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*
ApproachDel:	xxxxxxx			xxxxxxx			542.8			131.4		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #3 El Dorado St / Chruchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.811
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 14.8
 Optimal Cycle: 80 Level Of Service: B

Street Name:		El Dorado St				Churchill St				
Approach:		North Bound		South Bound		East Bound		West Bound		
Movement:		L	T	R	L	T	R	L	T	R
Control:		Protected		Protected		Split Phase		Split Phase		
Rights:		Include		Include		Include		Include		
Min. Green:		4	4	0	4	4	0	4	4	0
Lanes:		1	0	1	1	0	0	0	1	0

Volume Module:General Plan PM

Base Vol:	18	1959	26	26	665	14	27	8	12	18	10	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	18	1959	26	26	665	14	27	8	12	18	10	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	20	2129	28	28	723	15	29	9	13	20	11	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	2129	28	28	723	15	29	9	13	20	11	66
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	20	2129	28	28	723	15	29	9	13	20	11	66

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.93	0.93	0.93	0.92	0.92	0.92	0.88	0.88	0.88
Lanes:	1.00	1.97	0.03	1.00	1.96	0.04	0.57	0.17	0.26	0.20	0.11	0.69
Final Sat.:	1769	3484	46	1769	3454	73	1004	298	446	339	188	1147

Capacity Analysis Module:

Vol/Sat:	0.01	0.61	0.61	0.02	0.21	0.21	0.03	0.03	0.03	0.06	0.06	0.06
Crit Moves:	****			****			****			****		
Green/Cycle:	0.12	0.73	0.73	0.04	0.65	0.65	0.04	0.04	0.04	0.07	0.07	0.07
Volume/Cap:	0.09	0.84	0.84	0.40	0.32	0.32	0.73	0.73	0.73	0.84	0.84	0.84
Delay/Veh:	39.0	11.9	11.9	50.5	8.0	8.0	79.6	79.6	79.6	84.5	84.5	84.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.0	11.9	11.9	50.5	8.0	8.0	79.6	79.6	79.6	84.5	84.5	84.5
LOS by Move:	D	B	B	D	A	A	E	E	E	F	F	F
HCM2kAvgQ:	1	26	26	1	5	5	3	3	3	5	5	5

 Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.057

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 60.7

Optimal Cycle: 130 Level Of Service: E

Street Name: El Dorado St Alpine Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 1 0 2 0 1

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Volume Module: General Plan PM

Base Vol: 166 1664 171 93 503 24 55 382 78 254 589 189

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 166 1664 171 93 503 24 55 382 78 254 589 189

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 180 1809 186 101 547 26 60 415 85 276 640 205

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 180 1809 186 101 547 26 60 415 85 276 640 205

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Volume: 180 1809 186 101 547 26 60 415 85 276 640 205

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.92 0.92 0.93 0.93 0.83 0.93 0.91 0.91 0.93 0.93 0.83

Lanes: 1.00 1.81 0.19 1.00 2.00 1.00 1.00 1.66 0.34 1.00 2.00 1.00

Final Sat.: 1769 3163 325 1769 3538 1583 1769 2864 585 1769 3538 1583

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Capacity Analysis Module:

Vol/Sat: 0.10 0.57 0.57 0.06 0.15 0.02 0.03 0.14 0.14 0.16 0.18 0.13

Crit Moves: **** **** **** ****

Green/Cycle: 0.24 0.54 0.54 0.05 0.36 0.36 0.05 0.14 0.14 0.15 0.23 0.23

Volume/Cap: 0.43 1.06 1.06 1.06 0.43 0.05 0.66 1.06 1.06 1.06 0.78 0.56

Delay/Veh: 33.2 60.6 60.6 155.5 24.6 21.0 62.5 100 100.3 114.0 40.5 35.7

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 33.2 60.6 60.6 155.5 24.6 21.0 62.5 100 100.3 114.0 40.5 35.7

LOS by Move: C E E F C C E F F F D D

HCM2kAvgQ: 5 45 45 7 7 1 3 14 14 15 12 6

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: B[11.2]

Street Name:	Sutter St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: General Plan PM

Base Vol:	30	88	9	6	49	2	5	53	24	8	63	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	88	9	6	49	2	5	53	24	8	63	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	33	96	10	7	53	2	5	58	26	9	68	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	33	96	10	7	53	2	5	58	26	9	68	11

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	55	xxxx	xxxxxx	105	xxxx	xxxxxx	273	238	54	275	234	101
Potent Cap.:	1549	xxxx	xxxxxx	1486	xxxx	xxxxxx	680	663	1013	677	666	955
Move Cap.:	1549	xxxx	xxxxxx	1486	xxxx	xxxxxx	606	646	1013	603	649	955
Volume/Cap:	0.02	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.09	0.03	0.01	0.11	0.01

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	719	xxxxxx	xxxx	670	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.4	xxxxxx	xxxxxx	0.5	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.7	xxxxxx	xxxxxx	11.2	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxx	xxxxxx		xxxxxx			10.7			11.2		
ApproachLOS:	*	*		*			B			B		

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.301

Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.4

Optimal Cycle: 0 Level Of Service: A

Sutter St				Churchill St											
Approach: North Bound				South Bound				East Bound				West Bound			
Movement: L - T - R				L - T - R				L - T - R				L - T - R			
Control: Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights: Include				Include				Include				Include			
Min. Green: 4 4 0				4 4 0				4 4 0				4 4 0			
Lanes: 0 0 1! 0 0				0 0 1! 0 0				0 0 1! 0 0				0 0 1! 0 0			

Volume Module: General Plan PM

Base Vol:	61	131	47	4	71	5	1	15	21	8	17	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	61	131	47	4	71	5	1	15	21	8	17	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	66	142	51	4	77	5	1	16	23	9	18	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	142	51	4	77	5	1	16	23	9	18	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	66	142	51	4	77	5	1	16	23	9	18	4

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.25	0.55	0.20	0.05	0.89	0.06	0.03	0.40	0.57	0.27	0.59	0.14
Final Sat.:	220	473	170	41	722	51	21	312	437	199	422	99

Capacity Analysis Module:

Vol/Sat:	0.30	0.30	0.30	0.11	0.11	0.11	0.05	0.05	0.05	0.04	0.04	0.04
Crit Moves:	****			****			****			****		
Delay/Veh:	8.8	8.8	8.8	7.8	7.8	7.8	7.6	7.6	7.6	7.9	7.9	7.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.8	8.8	8.8	7.8	7.8	7.8	7.6	7.6	7.6	7.9	7.9	7.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.8			7.8			7.6			7.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.8			7.8			7.6			7.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.4	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 4.0 Worst Case Level Of Service: A[9.1]

Street Name:	Alvarado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	0 1 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: General Plan PM

Base Vol:	42	47	1	0	23	4	5	1	22	1	1	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	42	47	1	0	23	4	5	1	22	1	1	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	46	51	1	0	25	4	5	1	24	1	1	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	46	51	1	0	25	4	5	1	24	1	1	3

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	29	xxxx	xxxxx	xxxxx	xxxx	xxxxx	172	171	27	183	172	52
Potent Cap.:	1584	xxxx	xxxxx	xxxxx	xxxx	xxxxx	791	722	1048	779	721	1016
Move Cap.:	1584	xxxx	xxxxx	xxxxx	xxxx	xxxxx	770	701	1048	743	700	1016
Volume/Cap:	0.03	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.01	0.00	0.02	0.00	0.00	0.00

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	968	xxxxx	xxxx	873	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.0	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.8	xxxxx	xxxxx	9.1	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	A	*	*	A	*			
ApproachDel:	xxxxxx			xxxxxx				8.8			9.1				
ApproachLOS:	*			*				A			A				

 Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 10.9 Worst Case Level Of Service: F[150.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0

Volume Module: General Plan PM

Base Vol:	0	0	0	117	0	26	36	1006	0	0	608	206
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	117	0	26	36	1006	0	0	608	206
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	127	0	28	39	1093	0	0	661	224
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	127	0	28	39	1093	0	0	661	224

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	1398	1945	442	885	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	132	64	563	761	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	126	61	563	761	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	1.01	0.00	0.05	0.05	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	147	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	8.2	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	150	xxxxx	10.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			150.5			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

 Note: Queue reported is the number of cars per lane.

2035 NO PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.022

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 54.7

Optimal Cycle: 130 Level Of Service: D

Street Name:	West Lane						Alpine Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	2	0	4	0	1		2	0	3	0	1	

Volume Module: General Plan PM

Base Vol:	200	1702	116	425	857	278	557	555	168	75	452	474
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	200	1702	116	425	857	278	557	555	168	75	452	474
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	217	1850	126	462	932	302	605	603	183	82	491	515
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	217	1850	126	462	932	302	605	603	183	82	491	515
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	217	1850	126	462	932	302	605	603	183	82	491	515

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.89	0.83	0.90	0.89	0.83	0.90	0.90	0.90	0.90	0.86	0.86
Lanes:	2.00	4.00	1.00	2.00	3.00	1.00	2.00	1.54	0.46	2.00	1.00	1.00
Final Sat.:	3432	6778	1583	3432	5083	1583	3432	2621	793	3432	1633	1633

Capacity Analysis Module:

Vol/Sat:	0.06	0.27	0.08	0.13	0.18	0.19	0.18	0.23	0.23	0.02	0.30	0.32
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.27	0.27	0.13	0.30	0.30	0.17	0.41	0.41	0.07	0.31	0.31
Volume/Cap:	0.64	1.02	0.30	1.02	0.61	0.64	1.02	0.56	0.56	0.33	0.97	1.02
Delay/Veh:	47.3	63.6	29.6	91.5	30.8	33.2	84.1	23.1	23.1	45.0	56.2	69.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.3	63.6	29.6	91.5	30.8	33.2	84.1	23.1	23.1	45.0	56.2	69.0
LOS by Move:	D	E	C	F	C	C	F	C	C	D	E	E
HCM2kAvgQ:	4	23	3	12	10	9	15	10	10	2	21	24

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: 2035 PP AM

Command: Default Command
Volume: 2035 PP AM
Geometry: GENERAL PLAN
Impact Fee: Default Impact Fee
Trip Generation: AM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

2035 PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Intersection Volume Report
 Base Volume Alternative

Node	Intersection	Northbound			Southbound			Eastbound			Westbound		
		L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1	El Dorado / F	3	840	8	41	1662	5	5	0	9	53	0	83
2	El Dorado St	5	773	4	74	1640	3	7	1	3	5	1	85
3	El Dorado St	35	693	24	38	1677	23	36	8	21	23	11	19
4	El Dorado St	66	519	146	207	1390	23	57	579	114	283	260	56
5	Sutter St / E	33	64	2	2	116	4	7	23	34	13	53	4
6	Sutter St / C	11	93	8	1	168	5	4	11	44	36	19	3
7	Alvarado St /	13	26	0	2	79	6	3	0	15	1	1	3
8	Alvarado St /	0	0	0	129	0	55	24	432	0	0	858	118
9	West Lane / A	89	706	44	237	1674	502	216	301	191	101	499	256

2035 PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 El Dorado / Fargo St	F 444.6 0.000	F 444.6 0.000	+ 0.000 D/V
# 2 El Dorado St / Essex St	F 378.9 0.000	F 378.9 0.000	+ 0.000 D/V
# 3 El Dorado St / Chruchill St	B 12.0 0.703	B 12.0 0.703	+ 0.000 D/V
# 4 El Dorado St / Alpine Ave	D 50.1 0.977	D 50.1 0.977	+ 0.000 D/V
# 5 Sutter St / Essex St	B 11.6 0.000	B 11.6 0.000	+ 0.000 D/V
# 6 Sutter St / Churchill St	A 8.3 0.234	A 8.3 0.234	+ 0.000 V/C
# 7 Alvarado St / Essex St	A 9.0 0.000	A 9.0 0.000	+ 0.000 D/V
# 8 Alvarado St / Alpine Ave	F 128.5 0.000	F 128.5 0.000	+ 0.000 D/V
# 9 West Lane / Alpine Ave	C 31.4 0.794	C 31.4 0.794	+ 0.000 D/V

2035 PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / Yes	??? / ???
# 2 El Dorado St / Essex St	??? / No	??? / ???
# 5 Sutter St / Essex St	??? / No	??? / ???
# 6 Sutter St / Churchill St	No	???
# 7 Alvarado St / Essex St	??? / No	??? / ???
# 8 Alvarado St / Alpine Ave	??? / Yes	??? / ???

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	3		840		8	41		1662		5	5		0		9	53		0		83

Major Street Volume: 2559

Minor Approach Volume: 136

Minor Approach Volume Threshold: -39 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	5		773		4	74		1640		3	7		1		3	5		1		85

Major Street Volume: 2499

Minor Approach Volume: 91

Minor Approach Volume Threshold: -31 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	33		64		2	2		116		4	7		23		34	13		53		4
Major Street Volume:					221															
Minor Approach Volume:					70															
Minor Approach Volume Threshold:					622															

SIGNAL WARRANT DISCLAIMER

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2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Lanes:	0	0	1	!	0	0	0	1	!	0	0	0	1	!	0	
Initial Vol:	11		93		8	1		168		5	4		11		44	
Major Street Volume:					286											
Minor Approach Volume:					59											
Minor Approach Volume Threshold:					553											

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1	
Initial Vol:	13	26	0		2	79	6		3	0	15		1	1	3	

Major Street Volume: 126

Minor Approach Volume: 18

Minor Approach Volume Threshold: 772

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled							
Lanes:	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0
Initial Vol:	0	0	0	0	0	129	0	55			24	432	0			0	858	118		
Major Street Volume:					1432															
Minor Approach Volume:					184															
Minor Approach Volume Threshold:					161															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 El Dorado / Fargo St

Average Delay (sec/veh): 23.3 Worst Case Level Of Service: F[444.6]

Street Name: El Dorado St

Fargo St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Uncontrolled

Uncontrolled

Stop Sign

Stop Sign

Rights: Include

Include

Include

Include

Lanes: 1 0 1 1 0

1 0 1 1 0

0 0 1! 0 0

0 0 1! 0 0

-----|-----|-----|-----|

Volume Module: 2035 PP

Base Vol: 3 840 8

41 1662 5

5 0 9

53 0 83

Growth Adj: 1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

Initial Bse: 3 840 8

41 1662 5

5 0 9

53 0 83

User Adj: 1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92

0.92 0.92 0.92

0.92 0.92 0.92

0.92 0.92 0.92

PHF Volume: 3 913 9

45 1807 5

5 0 10

58 0 90

Reduct Vol: 0 0 0

0 0 0

0 0 0

0 0 0

Final Volume: 3 913 9

45 1807 5

5 0 10

58 0 90

-----|-----|-----|-----|

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx

4.1 xxxx xxxxx

7.5 6.5 6.9

7.5 6.5 6.9

FollowUpTim: 2.2 xxxx xxxxx

2.2 xxxx xxxxx

3.5 4.0 3.3

3.5 4.0 3.3

-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 1812 xxxx xxxxx

922 xxxx xxxxx

2361 2827 906

1916 2825 461

Potent Cap.: 335 xxxx xxxxx

737 xxxx xxxxx

19 17 279

41 17 547

Move Cap.: 335 xxxx xxxxx

737 xxxx xxxxx

15 16 279

37 16 547

Volume/Cap: 0.01 xxxx xxxxx

0.06 xxxx xxxxx

0.37 0.00 0.04

1.54 0.00 0.16

-----|-----|-----|-----|

Level Of Service Module:

2Way95thQ: 0.0 xxxx xxxxx

0.2 xxxx xxxxx

xxxx xxxx xxxxx

xxxx xxxx xxxxx

Control Del: 15.8 xxxx xxxxx

10.2 xxxx xxxxx

xxxxxx xxxx xxxxx

xxxxxx xxxx xxxxx

LOS by Move: C * *

B * *

* * *

* * *

Movement: LT - LTR - RT

LT - LTR - RT

LT - LTR - RT

LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx

xxxx xxxx xxxxx

xxxx 38 xxxxx

xxxx 87 xxxxx

Shared Queue: xxxxx xxxx xxxxx

xxxxxx xxxx xxxxx

xxxxxx 1.4 xxxxx

xxxxxx 12.2 xxxxx

Shrd ConDel: xxxxx xxxx xxxxx

xxxxxx xxxx xxxxx

xxxxxx 154 xxxxx

xxxxxx 445 xxxxx

Shared LOS: * * *

* * *

* F *

* F *

ApproachDel: xxxxxx

xxxxxx

154.3

444.6

ApproachLOS: *

*

F

F

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #2 El Dorado St / Essex St

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: F[378.9]

Street Name:	El Dorado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module: 2035 PP

Base Vol:	5	773	4	74	1640	3	7	1	3	5	1	85
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	773	4	74	1640	3	7	1	3	5	1	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	5	840	4	80	1783	3	8	1	3	5	1	92
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	5	840	4	80	1783	3	8	1	3	5	1	92

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1786	xxxx	xxxxxx	845	xxxx	xxxxxx	2377	2801	893	1906	2800	422
Potent Cap.:	343	xxxx	xxxxxx	788	xxxx	xxxxxx	18	18	285	42	18	580
Move Cap.:	343	xxxx	xxxxxx	788	xxxx	xxxxxx	13	16	285	36	16	580
Volume/Cap:	0.02	xxxx	xxxx	0.10	xxxx	xxxx	0.58	0.07	0.01	0.15	0.07	0.16

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.3	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	15.7	xxxx	xxxxxx	10.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	C	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	18	xxxxxx	xxxx	260	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	1.8	xxxxxx	xxxxxx	1.7	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	379	xxxxxx	xxxxxx	27.1	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	D	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	378.9	xxxxxxx	xxxxxxx	27.1	xxxxxxx	xxxxxxx
ApproachLOS:	*	*	*	*	*	*	F	*	*	D	*	*

 Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 El Dorado St / Chrchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.703

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 12.0

Optimal Cycle: 60 Level Of Service: B

Street Name: El Dorado St Churchill St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

-----|-----|-----|-----|

Volume Module:2035 PP

Base Vol: 35 693 24 38 1677 23 36 8 21 23 11 19

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 35 693 24 38 1677 23 36 8 21 23 11 19

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 38 753 26 41 1823 25 39 9 23 25 12 21

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 38 753 26 41 1823 25 39 9 23 25 12 21

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 38 753 26 41 1823 25 39 9 23 25 12 21

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.91 0.91 0.91 0.91 0.91 0.91

Lanes: 1.00 1.93 0.07 1.00 1.97 0.03 0.56 0.12 0.32 0.43 0.21 0.36

Final Sat.: 1769 3402 118 1769 3483 48 959 213 560 753 360 622

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.22 0.22 0.02 0.52 0.52 0.04 0.04 0.04 0.03 0.03 0.03

Crit Moves: **** **** **** ****

Green/Cycle: 0.04 0.66 0.66 0.12 0.74 0.74 0.06 0.06 0.06 0.05 0.05 0.05

Volume/Cap: 0.54 0.34 0.34 0.20 0.71 0.71 0.71 0.71 0.71 0.71 0.71 0.71

Delay/Veh: 55.1 7.6 7.6 40.2 8.3 8.3 67.6 67.6 67.6 72.4 72.4 72.4

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 55.1 7.6 7.6 40.2 8.3 8.3 67.6 67.6 67.6 72.4 72.4 72.4

LOS by Move: E A A D A A E E E E E E

HCM2kAvgQ: 2 6 6 1 17 17 4 4 4 3 3 3

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.977
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 50.1
 Optimal Cycle: 130 Level Of Service: D

Street Name:	El Dorado St						Alpine Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module: 2035 PP

Base Vol:	66	519	146	207	1390	23	57	579	114	283	260	56
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	66	519	146	207	1390	23	57	579	114	283	260	56
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	72	564	159	225	1511	25	62	629	124	308	283	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	72	564	159	225	1511	25	62	629	124	308	283	61
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	72	564	159	225	1511	25	62	629	124	308	283	61

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.90	0.90	0.93	0.93	0.83	0.93	0.91	0.91	0.93	0.93	0.83
Lanes:	1.00	1.56	0.44	1.00	2.00	1.00	1.00	1.67	0.33	1.00	2.00	1.00
Final Sat.:	1769	2670	751	1769	3538	1583	1769	2882	567	1769	3538	1583

Capacity Analysis Module:

Vol/Sat:	0.04	0.21	0.21	0.13	0.43	0.02	0.04	0.22	0.22	0.17	0.08	0.04
Crit Moves:	****			****			****			****		
Green/Cycle:	0.04	0.30	0.30	0.18	0.44	0.44	0.13	0.22	0.22	0.18	0.27	0.27
Volume/Cap:	0.98	0.71	0.71	0.71	0.98	0.04	0.26	0.98	0.98	0.98	0.30	0.14
Delay/Veh:	144.8	33.5	33.5	45.7	45.3	16.1	39.5	65.3	65.3	85.2	29.3	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	144.8	33.5	33.5	45.7	45.3	16.1	39.5	65.3	65.3	85.2	29.3	28.1
LOS by Move:	F	C	C	D	D	B	D	E	E	F	C	C
HCM2kAvgQ:	5	12	12	8	31	0	2	17	17	14	4	1

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 4.9 Worst Case Level Of Service: B[11.6]

Sutter St						Essex St						
North Bound			South Bound			East Bound			West Bound			
Approach:	L	T	R	L	T	R	L	T	R	L	T	R
Movement:												
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0
Volume Module: 2035 PP												
Base Vol:	33	64	2	2	116	4	7	23	34	13	53	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	33	64	2	2	116	4	7	23	34	13	53	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	36	70	2	2	126	4	8	25	37	14	58	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	36	70	2	2	126	4	8	25	37	14	58	4

Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:												
Cnflct Vol:	130	xxxx	xxxxxx	72	xxxx	xxxxxx	306	276	128	306	277	71
Potent Cap.:	1455	xxxx	xxxxxx	1528	xxxx	xxxxxx	646	631	922	646	631	992
Move Cap.:	1455	xxxx	xxxxxx	1528	xxxx	xxxxxx	585	615	922	589	614	992
Volume/Cap:	0.02	xxxx	xxxxxx	0.00	xxxx	xxxxxx	0.01	0.04	0.04	0.02	0.09	0.00

Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.5	xxxx	xxxxxx	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	742	xxxxxx	xxxx	623	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.3	xxxxxx	xxxxxx	0.4	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.4	xxxxxx	xxxxxx	11.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	B	*
ApproachDel:	xxxxxxx	xxxxxxx			10.4			11.6				
ApproachLOS:	*	*			B			B				

 Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.234
 Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.3
 Optimal Cycle: 0 Level Of Service: A

Sutter St				Churchill St											
Approach: North Bound				South Bound				East Bound				West Bound			
Movement: L - T - R				L - T - R				L - T - R				L - T - R			
Control: Stop Sign				Stop Sign				Stop Sign				Stop Sign			
Rights: Include				Include				Include				Include			
Min. Green: 4 4 0				4 4 0				4 4 0				4 4 0			
Lanes: 0 0 1! 0 0				0 0 1! 0 0				0 0 1! 0 0				0 0 1! 0 0			

Volume Module: 2035 PP

Base Vol:	11	93	8	1	168	5	4	11	44	36	19	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	93	8	1	168	5	4	11	44	36	19	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	12	101	9	1	183	5	4	12	48	39	21	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	12	101	9	1	183	5	4	12	48	39	21	3
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	12	101	9	1	183	5	4	12	48	39	21	3

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.10	0.83	0.07	0.01	0.96	0.03	0.07	0.19	0.74	0.62	0.33	0.05
Final Sat.:	78	659	57	5	782	23	54	148	591	442	233	37

Capacity Analysis Module:

Vol/Sat:	0.15	0.15	0.15	0.23	0.23	0.23	0.08	0.08	0.08	0.09	0.09	0.09
Crit Moves:	****			****			****			****		
Delay/Veh:	8.2	8.2	8.2	8.6	8.6	8.6	7.6	7.6	7.6	8.2	8.2	8.2
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	8.2	8.2	8.2	8.6	8.6	8.6	7.6	7.6	7.6	8.2	8.2	8.2
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	8.2			8.6			7.6			8.2		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	8.2			8.6			7.6			8.2		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.2	0.2	0.2	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1

 Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Alvarado St / Essex St
*****Average Delay (sec/veh): 2.1 Worst Case Level Of Service: A[9.0]

Street Name:	Alvarado St						Essex St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	1	0	0	1	0	0	1
Volume Module: 2035 PP												
Base Vol:	13	26	0	2	79	6	3	0	15	1	1	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	26	0	2	79	6	3	0	15	1	1	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	14	28	0	2	86	7	3	0	16	1	1	3
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	14	28	0	2	86	7	3	0	16	1	1	3

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	92	xxxx	xxxxxx	28	xxxx	xxxxxx	152	150	89	158	153	28
Potent Cap.:	1502	xxxx	xxxxxx	1585	xxxx	xxxxxx	815	742	969	808	739	1047
Move Cap.:	1502	xxxx	xxxxxx	1585	xxxx	xxxxxx	805	734	969	788	731	1047
Volume/Cap:	0.01	xxxx	xxxx	0.00	xxxx	xxxx	0.00	0.00	0.02	0.00	0.00	0.00

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxxx	0.0	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Control Del:	7.4	xxxx	xxxxxx	7.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	937	xxxxxx	xxxx	908	xxxxxx
Shared Queue:	0.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	0.1	xxxxxx	xxxxxx	0.0	xxxxxx
Shrd ConDel:	7.4	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	8.9	xxxxxx	xxxxxx	9.0	xxxxxx
Shared LOS:	A	*	*	*	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	8.9	xxxxxxx	xxxxxxx	9.0	xxxxxxx	xxxxxxx
ApproachLOS:	*	*	*	*	*	*	A	A	A	A	A	A

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 14.8 Worst Case Level Of Service: F[128.5]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1

Volume Module:

Base Vol:	0	0	0	129	0	55	24	432	0	0	858	118
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	129	0	55	24	432	0	0	858	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	140	0	60	26	470	0	0	933	128
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	140	0	60	26	470	0	0	933	128

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	1284	1518	530	1061	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	157	118	493	652	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	152	113	493	652	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.92	0.00	0.12	0.04	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	191	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	9.2	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	129	xxxxx	10.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*
ApproachDel:	xxxxxx			128.5			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

 Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794
 Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 31.4
 Optimal Cycle: 76 Level Of Service: C

Street Name:	West Lane						Alpine Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	4	4	0	4	4	0	4	4	0	4	4	0
Lanes:	2	0	4	0	1	0	2	0	3	0	1	0

Volume Module: 2035 PP AM

Base Vol:	89	706	44	237	1674	502	216	301	191	101	499	256
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	89	706	44	237	1674	502	216	301	191	101	499	256
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	97	767	48	258	1820	546	235	327	208	110	542	278
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	767	48	258	1820	546	235	327	208	110	542	278
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	97	767	48	258	1820	546	235	327	208	110	542	278

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.89	0.83	0.90	0.89	0.83	0.90	0.88	0.88	0.90	0.88	0.88
Lanes:	2.00	4.00	1.00	2.00	3.00	1.00	2.00	1.22	0.78	2.00	1.32	0.68
Final Sat.:	3432	6778	1583	3432	5083	1583	3432	2039	1294	3432	2219	1138

Capacity Analysis Module:

Vol/Sat:	0.03	0.11	0.03	0.08	0.36	0.34	0.07	0.16	0.16	0.03	0.24	0.24
Crit Moves:	****			****			****			****		
Green/Cycle:	0.04	0.29	0.29	0.19	0.45	0.45	0.09	0.31	0.31	0.08	0.31	0.31
Volume/Cap:	0.70	0.39	0.10	0.39	0.80	0.77	0.80	0.51	0.51	0.41	0.80	0.80
Delay/Veh:	62.8	28.3	25.8	35.4	25.8	28.4	59.1	28.5	28.5	44.9	36.4	36.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	62.8	28.3	25.8	35.4	25.8	28.4	59.1	28.5	28.5	44.9	36.4	36.4
LOS by Move:	E	C	C	D	C	C	E	C	C	D	D	D
HCM2kAvgQ:	3	5	1	4	19	16	6	7	7	2	14	14

 Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Scenario Report

Scenario: 2035 PP PM

Command: Default Command
Volume: 2035 PP PM
Geometry: GENERAL PLAN
Impact Fee: Default Impact Fee
Trip Generation: AM PEAK
Trip Distribution: AM
Paths: CURRENT
Routes: Default Route
Configuration: Default Configuration

 2035 PLUS PROJECT
 1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Intersection Volume Report
 Base Volume Alternative

Node Intersection	Northbound			Southbound			Eastbound			Westbound		
	L	--	T -- R	L	--	T -- R	L	--	T -- R	L	--	T -- R
1 El Dorado / F	6	2036	61	92	726	7	3	5	3	12	0	71
2 El Dorado St	11	2015	11	76	646	17	14	0	4	2	1	75
3 El Dorado St	18	1960	26	26	673	14	28	8	12	18	10	59
4 El Dorado St	173	1672	171	91	511	25	55	383	81	251	587	182
5 Sutter St / E	33	94	11	7	54	1	5	52	24	9	61	9
6 Sutter St / C	59	143	47	4	76	5	1	15	21	8	16	4
7 Alvarado St /	41	91	1	2	44	5	6	0	22	1	0	3
8 Alvarado St /	0	0	0	135	0	28	39	995	0	0	593	245
9 West Lane / A	208	1704	118	420	859	280	559	565	173	77	466	471

2035 PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Impact Analysis Report
Level Of Service

Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in
# 1 El Dorado / Fargo St	F OVRFL 0.000	F OVRFL 0.000	+ 0.000 D/V
# 2 El Dorado St / Essex St	F 551.0 0.000	F 551.0 0.000	+ 0.000 D/V
# 3 El Dorado St / Chruchill St	B 14.7 0.811	B 14.7 0.811	+ 0.000 D/V
# 4 El Dorado St / Alpine Ave	E 60.8 1.058	E 60.8 1.058	+ 0.000 D/V
# 5 Sutter St / Essex St	B 11.4 0.000	B 11.4 0.000	+ 0.000 D/V
# 6 Sutter St / Churchill St	A 8.5 0.314	A 8.5 0.314	+ 0.000 V/C
# 7 Alvarado St / Essex St	A 9.2 0.000	A 9.2 0.000	+ 0.000 D/V
# 8 Alvarado St / Alpine Ave	F 210.4 0.000	F 210.4 0.000	+ 0.000 D/V
# 9 West Lane / Alpine Ave	D 54.6 1.015	D 54.6 1.015	+ 0.000 D/V

2035 PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Signal Warrant Summary Report

Intersection	Base Met [Del / Vol]	Future Met [Del / Vol]
# 1 El Dorado / Fargo St	??? / No	??? / ???
# 2 El Dorado St / Essex St	??? / No	??? / ???
# 5 Sutter St / Essex St	??? / No	??? / ???
# 6 Sutter St / Churchill St	No	???
# 7 Alvarado St / Essex St	??? / No	??? / ???
# 8 Alvarado St / Alpine Ave	??? / Yes	??? / ???

2035 PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #1 El Dorado / Fargo St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	T	R	L	R	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	6	2036		61		92	726		7		3	5		3		12	0		71	
Major Street Volume:	2928																			
Minor Approach Volume:	83																			
Minor Approach Volume Threshold:	-85 [less than minimum of 100]																			

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #2 El Dorado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	11	20	15		11	76	64	6	17	14		0		4	2		1		75	
Major Street Volume:					2776															
Minor Approach Volume:					78															
Minor Approach Volume Threshold:					-67 [less than minimum of 100]															

SIGNAL WARRANT DISCLAIMER

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2035 PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #5 Sutter St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Lanes:	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	
Initial Vol:	33	94	11		7	54	1		5	52	24		9	61	9	
Major Street Volume:					200											
Minor Approach Volume:					81											
Minor Approach Volume Threshold:					649											

SIGNAL WARRANT DISCLAIMER

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2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #6 Sutter St / Churchill St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign				Stop Sign				Stop Sign				Stop Sign							
Lanes:	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0	0	0	1!	0	0
Initial Vol:	59	143		47		4	76		5		1	15		21		8	16		4	
Major Street Volume:					334															
Minor Approach Volume:					37															
Minor Approach Volume Threshold:					512															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #7 Alvarado St / Essex St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound				South Bound				East Bound				West Bound							
Movement:	L	T	R		L	T	R		L	T	R		L	T	R					
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign							
Lanes:	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	0	0
Initial Vol:	41	91		1		2	44		5		6	0		22		1	0		3	
Major Street Volume:					184															
Minor Approach Volume:					28															
Minor Approach Volume Threshold:					671															

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

2035 PLUS PROJECT
1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Peak Hour Volume Signal Warrant Report [Urban]

Intersection #8 Alvarado St / Alpine Ave

Base Volume Alternative: Peak Hour Warrant Met

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Lanes:	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	
Initial Vol:	0	0	0		135	0	28		39	995	0		0	593	245	

Major Street Volume: 1872

Minor Approach Volume: 163

Minor Approach Volume Threshold: 69 [less than minimum of 100]

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 El Dorado / Fargo St
*****Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Street Name:	El Dorado St						Fargo St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	1	1	0	1	0	0	1	0	0	1

Volume Module: 2025 PP

Base Vol:	6	2036	61	92	726	7	3	5	3	12	0	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	2036	61	92	726	7	3	5	3	12	0	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	7	2213	66	100	789	8	3	5	3	13	0	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	7	2213	66	100	789	8	3	5	3	13	0	77

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	797	xxxx	xxxxx	2279	xxxx	xxxxx	2113	3285	398	2857	3256	1140
Potent Cap.:	821	xxxx	xxxxx	220	xxxx	xxxxx	29	9	601	8	9	195
Move Cap.:	821	xxxx	xxxxx	220	xxxx	xxxxx	11	5	601	0	5	195
Volume/Cap:	0.01	xxxx	xxxx	0.46	xxxx	xxxx	0.29	1.17	0.01	xxxx	0.00	0.40

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.4	xxxx	xxxxx	34.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	D	*	*	*	*	*	*	*	*
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	8	xxxxx	xxxx	0	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1098	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	F	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			1098.3			xxxxxx		
ApproachLOS:	*			*			F			F		

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 El Dorado St / Essex St
*****Average Delay (sec/veh): 7.9 Worst Case Level Of Service: F[551.0]

Street Name: El Dorado St Essex St

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Uncontrolled					Uncontrolled					Stop Sign					Stop Sign				
Rights:	Include					Include					Include					Include				
Lanes:	1	0	1	1	0	1	0	1	1	0	0	0	1	0	0	0	0	1	0	0

Volume Module: 2035 PP

Base Vol:	11	2015	11	76	646	17	14	0	4	2	1	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	11	2015	11	76	646	17	14	0	4	2	1	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	12	2190	12	83	702	18	15	0	4	2	1	82
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	12	2190	12	83	702	18	15	0	4	2	1	82

Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	721	xxxx	xxxxx	2202	xxxx	xxxxx	1996	3103	360	2736	3106	1101
Potent Cap.:	877	xxxx	xxxxx	236	xxxx	xxxxx	36	11	636	10	11	207
Move Cap.:	877	xxxx	xxxxx	236	xxxx	xxxxx	14	7	636	7	7	207
Volume/Cap:	0.01	xxxx	xxxx	0.35	xxxx	xxxx	1.10	0.00	0.01	0.32	0.15	0.39

Level Of Service Module:

2Way95thQ:	0.0	xxxx	xxxxx	1.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	9.2	xxxx	xxxxx	28.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A	*	*	D	*	*	*	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	18	xxxxx	xxxx	98	xxxxx			
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.8	xxxxx	xxxxx	4.9	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	551	xxxxx	xxxxx	134	xxxxx			
Shared LOS:	*	*	*	*	*	*	*	F	*	*	F	*			
ApproachDel:	xxxxxx			xxxxxx			551.0			133.9					
ApproachLOS:	*			*			F			F					

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 El Dorado St / Chruchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.811

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 14.7

Optimal Cycle: 80 Level Of Service: B

Street Name: El Dorado St

Churchill St

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R

L - T - R

L - T - R

L - T - R

Control: Protected

Protected

Split Phase

Split Phase

Rights: Include

Include

Include

Include

Min. Green: 4 4 0

4 4 0

4 4 0

4 4 0

Lanes: 1 0 1 1 0

1 0 1 1 0

0 0 1! 0 0

0 0 1! 0 0

Volume Module:2035 PP

Base Vol: 18 1960 26 26 673 14 28 8 12 18 10 59

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 18 1960 26 26 673 14 28 8 12 18 10 59

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 20 2130 28 28 732 15 30 9 13 20 11 64

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 20 2130 28 28 732 15 30 9 13 20 11 64

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 20 2130 28 28 732 15 30 9 13 20 11 64

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.93 0.93 0.93 0.93 0.93 0.92 0.92 0.92 0.88 0.88 0.88

Lanes: 1.00 1.97 0.03 1.00 1.96 0.04 0.58 0.17 0.25 0.21 0.11 0.68

Final Sat.: 1769 3485 46 1769 3455 72 1020 291 437 346 192 1135

Capacity Analysis Module:

Vol/Sat: 0.01 0.61 0.61 0.02 0.21 0.21 0.03 0.03 0.03 0.06 0.06 0.06

Crit Moves: **** **** **** ****

Green/Cycle: 0.12 0.73 0.73 0.04 0.65 0.65 0.04 0.04 0.04 0.07 0.07 0.07

Volume/Cap: 0.09 0.83 0.83 0.40 0.33 0.33 0.75 0.75 0.75 0.83 0.83 0.83

Delay/Veh: 39.1 11.7 11.7 50.5 7.9 7.9 82.5 82.5 82.5 84.9 84.9 84.9

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 39.1 11.7 11.7 50.5 7.9 7.9 82.5 82.5 82.5 84.9 84.9 84.9

LOS by Move: D B B D A A F F F F F F

HCM2kAvgQ: 1 26 26 1 5 5 3 3 3 5 5 5

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 El Dorado St / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.058

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 60.8

Optimal Cycle: 130 Level Of Service: E

Street Name: El Dorado St

Alpine Ave

Approach: North Bound

South Bound

East Bound

West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected

Protected

Protected

Protected

Rights: Include

Include

Include

Include

Min. Green: 4 4 0 4 4 0 4 4 0 4 4 0

Lanes: 1 0 1 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 173 1672 171 91 511 25 55 383 81 251 587 182

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 173 1672 171 91 511 25 55 383 81 251 587 182

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 188 1817 186 99 555 27 60 416 88 273 638 198

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 188 1817 186 99 555 27 60 416 88 273 638 198

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 188 1817 186 99 555 27 60 416 88 273 638 198

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.93 0.92 0.92 0.93 0.93 0.83 0.93 0.91 0.91 0.93 0.93 0.83

Lanes: 1.00 1.81 0.19 1.00 2.00 1.00 1.00 1.65 0.35 1.00 2.00 1.00

Final Sat.: 1769 3165 324 1769 3538 1583 1769 2844 602 1769 3538 1583

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Capacity Analysis Module:

Vol/Sat: 0.11 0.57 0.57 0.06 0.16 0.02 0.03 0.15 0.15 0.15 0.18 0.12

Crit Moves: **** **** **** ****

Green/Cycle: 0.24 0.54 0.54 0.05 0.36 0.36 0.05 0.14 0.14 0.15 0.23 0.23

Volume/Cap: 0.44 1.06 1.06 1.06 0.44 0.05 0.66 1.06 1.06 1.06 0.78 0.54

Delay/Veh: 33.0 60.8 60.8 156.9 24.9 21.2 62.5 100 100.4 114.8 40.6 35.2

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 33.0 60.8 60.8 156.9 24.9 21.2 62.5 100 100.4 114.8 40.6 35.2

LOS by Move: C E E F C C E F F F D D

HCM2kAvgQ: 5 45 45 7 7 1 3 14 14 14 12 6

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 Sutter St / Essex St

Average Delay (sec/veh): 5.8 Worst Case Level Of Service: B[11.4]

Street Name:

Sutter St

Essex St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module: 2035 PP

Base Vol: 33 94 11 7 54 1 5 52 24 9 61 9

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 33 94 11 7 54 1 5 52 24 9 61 9

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 36 102 12 8 59 1 5 57 26 10 66 10

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Volume: 36 102 12 8 59 1 5 57 26 10 66 10

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Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

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Capacity Module:

Cnflct Vol: 60 xxxx xxxxx 114 xxxx xxxxx 292 260 59 296 255 108

Potent Cap.: 1544 xxxx xxxxx 1475 xxxx xxxxx 660 644 1006 657 649 946

Move Cap.: 1544 xxxx xxxxx 1475 xxxx xxxxx 587 626 1006 582 630 946

Volume/Cap: 0.02 xxxx xxxxx 0.01 xxxx xxxxx 0.01 0.09 0.03 0.02 0.11 0.01

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Level Of Service Module:

2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Control Del: 7.4 xxxx xxxxx 7.5 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: A * * A * * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 702 xxxxx xxxx 649 xxxxx

SharedQueue:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0.4 xxxxx xxxx 0.5 xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 10.9 xxxxx xxxx 11.4 xxxxx

Shared LOS: * * * * * * * B * B *

ApproachDel: xxxxxx xxxxxx 10.9 11.4

ApproachLOS: * * B B

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

 Intersection #6 Sutter St / Churchill St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.314
 Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 8.5
 Optimal Cycle: 0 Level Of Service: A

Street Name:		Sutter St						Churchill St					
Approach:		North Bound			South Bound			East Bound			West Bound		
Movement:		L	T	R	L	T	R	L	T	R	L	T	R
Control:		Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:		Include			Include			Include			Include		
Min. Green:		4	4	0	4	4	0	4	4	0	4	4	0
Lanes:		0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:2035 PP

Base Vol:	59	143	47	4	76	5	1	15	21	8	16	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	59	143	47	4	76	5	1	15	21	8	16	4
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	64	155	51	4	83	5	1	16	23	9	17	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	64	155	51	4	83	5	1	16	23	9	17	4
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	64	155	51	4	83	5	1	16	23	9	17	4

Saturation Flow Module:

Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.24	0.57	0.19	0.05	0.89	0.06	0.03	0.40	0.57	0.29	0.57	0.14
Final Sat.:	204	495	163	38	726	48	21	309	433	204	408	102

Capacity Analysis Module:

Vol/Sat:	0.31	0.31	0.31	0.11	0.11	0.11	0.05	0.05	0.05	0.04	0.04	0.04
Crit Moves:	****			****			****			****		
Delay/Veh:	9.0	9.0	9.0	7.9	7.9	7.9	7.6	7.6	7.6	7.9	7.9	7.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.0	9.0	9.0	7.9	7.9	7.9	7.6	7.6	7.6	7.9	7.9	7.9
LOS by Move:	A	A	A	A	A	A	A	A	A	A	A	A
ApproachDel:	9.0			7.9			7.6			7.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	9.0			7.9			7.6			7.9		
LOS by Appr:	A			A			A			A		
AllWayAvgQ:	0.4	0.4	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0

 Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #7 Alvarado St / Essex St

Average Delay (sec/veh): 2.8 Worst Case Level Of Service: A[9.2]

Street Name: Alvarado St Essex St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

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Volume Module: 2035 PP

Base Vol: 41 91 1 2 44 5 6 0 22 1 0 3

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 41 91 1 2 44 5 6 0 22 1 0 3

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 45 99 1 2 48 5 7 0 24 1 0 3

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Volume: 45 99 1 2 48 5 7 0 24 1 0 3

-----|-----|-----|-----|

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxxx 4.1 xxxx xxxxx 7.1 6.5 6.2 7.1 6.5 6.2

FollowUpTim: 2.2 xxxx xxxxx 2.2 xxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

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Capacity Module:

Cnflct Vol: 53 xxxx xxxxx 100 xxxx xxxxx 245 244 51 255 246 99

Potent Cap.: 1552 xxxx xxxxx 1493 xxxx xxxxx 709 658 1018 698 656 956

Move Cap.: 1552 xxxx xxxxx 1493 xxxx xxxxx 690 638 1018 665 636 956

Volume/Cap: 0.03 xxxx xxxxx 0.00 xxxx xxxxx 0.01 0.00 0.02 0.00 0.00 0.00

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Level Of Service Module:

2Way95thQ: 0.1 xxxx xxxxx 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Control Del: 7.4 xxxx xxxxx 7.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: A * * A * * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 923 xxxxx xxxx 862 xxxxx

SharedQueue:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 0.1 xxxxx xxxxx 0.0 xxxxx

Shrd ConDel:xxxxx xxxx xxxxx xxxx xxxx xxxxx xxxx 9.0 xxxxx xxxxx 9.2 xxxxx

Shared LOS: * * * * * * * A * * A *

ApproachDel: xxxxxx xxxxxx 9.0 9.2

ApproachLOS: * * A A

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #8 Alvarado St / Alpine Ave

Average Delay (sec/veh): 17.0 Worst Case Level Of Service: F[210.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	1	1	0

Volume Module: 2-35 PP PM

Base Vol:	0	0	0	135	0	28	39	995	0	0	593	245
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	135	0	28	39	995	0	0	593	245
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	0	0	0	147	0	30	42	1082	0	0	645	266
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	0	0	0	147	0	30	42	1082	0	0	645	266

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	xxxx	xxxx	xxxxx	1403	1944	455	911	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	131	64	552	744	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	125	60	552	744	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	1.18	0.00	0.06	0.06	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	144	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared Queue:	xxxxx	xxxx	xxxxx	xxxxx	10.5	xxxxx	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	210	xxxxx	10.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	F	*	B	*	*	*	*	*
ApproachDel:	xxxxxx			210.4			xxxxxx			xxxxxx		
ApproachLOS:	*			F			*			*		

Note: Queue reported is the number of cars per lane.

2035 PLUS PROJECT

1247-01 CALAVERAS RIVER SUN, LLC: CALAVERAS UNIT #3 TIS Update

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 West Lane / Alpine Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.015

Loss Time (sec): 12 (Y+R=4.0 sec) Average Delay (sec/veh): 54.6

Optimal Cycle: 130 Level Of Service: D

Street Name:		West Lane						Alpine Ave								
Approach:		North Bound			South Bound			East Bound			West Bound					
Movement:		L	T	R	L	T	R	L	T	R	L	T	R			
Control:		Protected			Protected			Protected			Protected					
Rights:		Include			Include			Include			Include					
Min. Green:		4	4	0	4	4	0	4	4	0	4	4	0			
Lanes:		2	0	4	0	1	2	0	3	0	1	2	0	1	1	0

Volume Module:

Base Vol:	208	1704	118	420	859	280	559	565	173	77	466	471
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	208	1704	118	420	859	280	559	565	173	77	466	471
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	226	1852	128	457	934	304	608	614	188	84	507	512
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	226	1852	128	457	934	304	608	614	188	84	507	512
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	226	1852	128	457	934	304	608	614	188	84	507	512

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.90	0.89	0.83	0.90	0.89	0.83	0.90	0.90	0.90	0.90	0.86	0.86
Lanes:	2.00	4.00	1.00	2.00	3.00	1.00	2.00	1.53	0.47	2.00	1.00	1.00
Final Sat.:	3432	6778	1583	3432	5083	1583	3432	2614	800	3432	1636	1636

Capacity Analysis Module:

Vol/Sat:	0.07	0.27	0.08	0.13	0.18	0.19	0.18	0.23	0.23	0.02	0.31	0.31
Crit Moves:	****			****			****				****	
Green/Cycle:	0.10	0.27	0.27	0.13	0.30	0.30	0.17	0.41	0.41	0.07	0.31	0.31
Volume/Cap:	0.64	1.01	0.30	1.01	0.62	0.64	1.01	0.57	0.57	0.35	1.01	1.03
Delay/Veh:	47.2	61.3	29.4	89.6	30.9	33.6	81.8	23.3	23.3	45.2	66.9	70.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.2	61.3	29.4	89.6	30.9	33.6	81.8	23.3	23.3	45.2	66.9	70.0
LOS by Move:	D	E	C	F	C	C	F	C	C	D	E	E
HCM2kAvgQ:	5	23	3	12	10	9	15	10	10	2	23	24

Note: Queue reported is the number of cars per lane.
