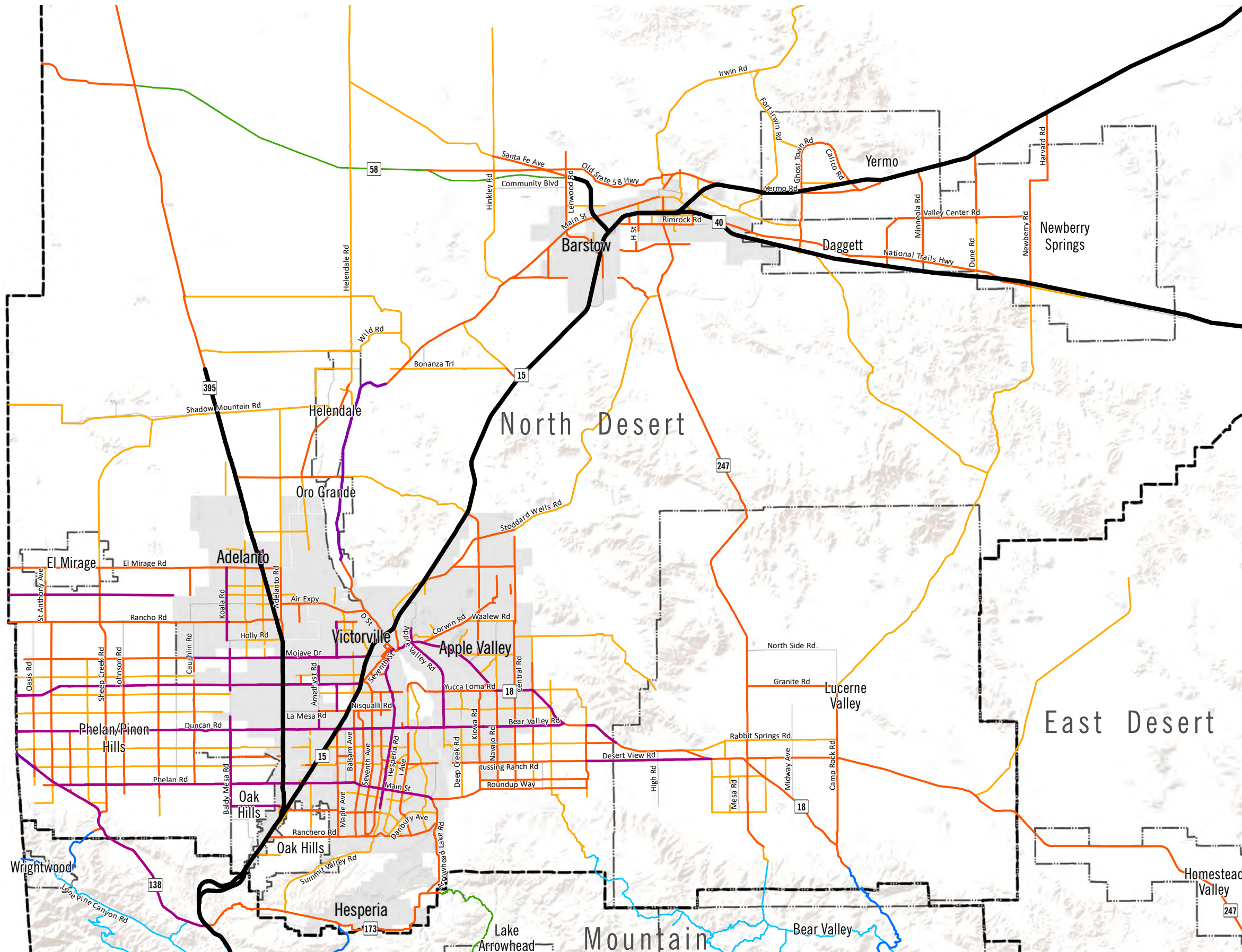
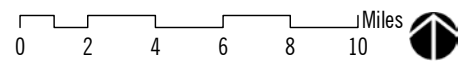
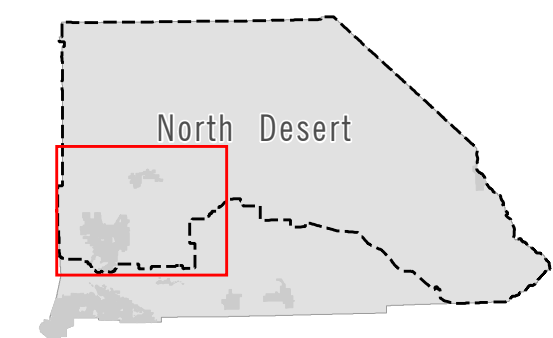


# Policy Map TM-1C Roadway Network | North Desert Region, Victor Valley & Barstow



- County Region
- Community Planning Area
- Incorporated City/Town
- Major Roadway w/o Designation
- Roadway Designation**
- Freeway
- Major Divided Highway
- Major Arterial Highway
- Major Highway
- Secondary Highway
- Controlled/Limited Access Collector
- Mountain Major Highway
- Mountain Secondary Highway
- State Highway (Special Standards or Conditions)



Date: 10/27/20 Created by PlaceWorks, Fehr & Peers | Source: County of San Bernardino 2018

**DRAFT**



COUNTYWIDE PLAN  
POLICY PLAN

## APPENDIX B

### EXISTING TRAFFIC COUNTS AND MODEL VOLUMES

County of San Bernardino  
 N/S: Oasis Road  
 E/W: SR-138  
 Weather: Clear

File Name : 01\_CSB\_Oasis\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

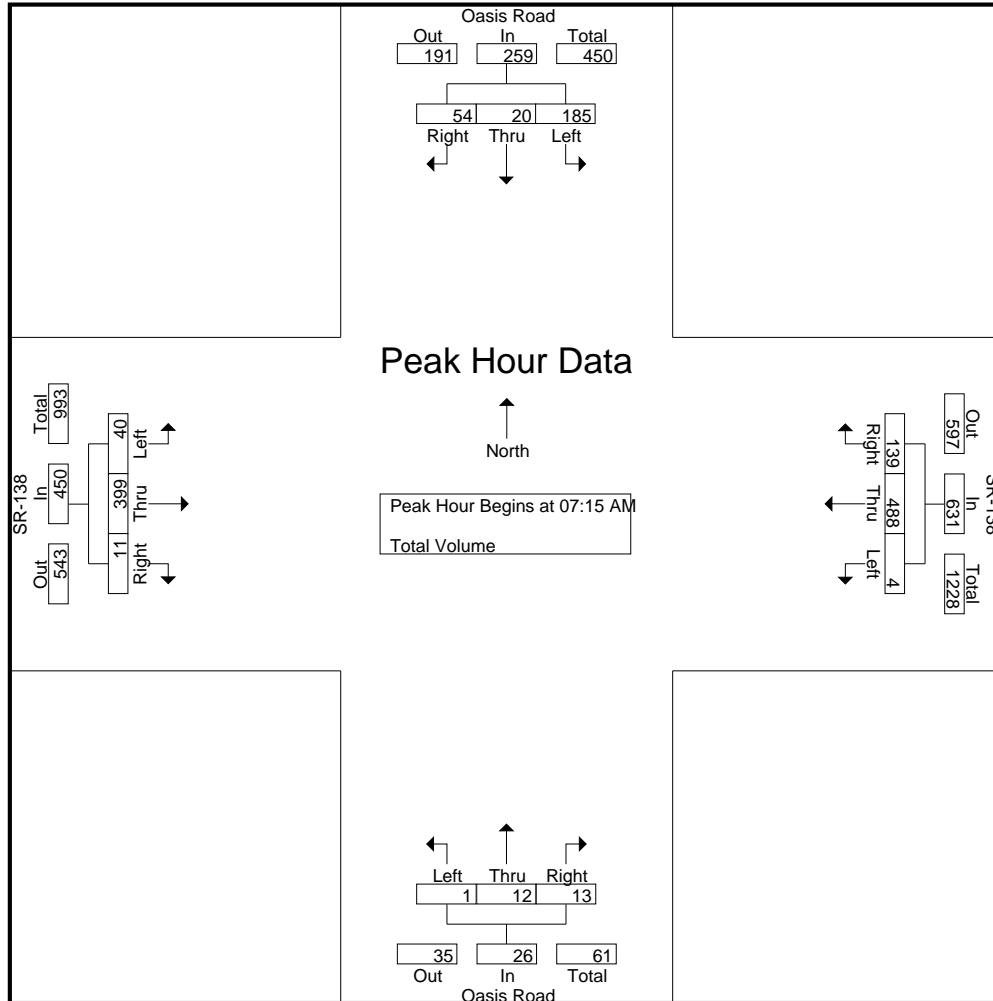
Groups Printed- Total Volume

Start Time	Oasis Road Southbound				SR-138 Westbound				Oasis Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	17	0	3	20	0	122	23	145	0	0	1	1	2	74	1	77	243
07:15 AM	22	2	2	26	2	124	23	149	0	0	2	2	0	87	8	95	272
07:30 AM	51	5	20	76	1	117	40	158	0	4	3	7	13	117	2	132	373
07:45 AM	67	9	18	94	0	129	61	190	1	5	3	9	14	95	1	110	403
Total	157	16	43	216	3	492	147	642	1	9	9	19	29	373	12	414	1291
08:00 AM	45	4	14	63	1	118	15	134	0	3	5	8	13	100	0	113	318
08:15 AM	34	3	5	42	1	91	11	103	0	2	3	5	2	90	6	98	248
08:30 AM	30	4	7	41	1	113	15	129	0	2	2	4	2	97	7	106	280
08:45 AM	23	0	3	26	3	110	7	120	2	1	2	5	2	90	0	92	243
Total	132	11	29	172	6	432	48	486	2	8	12	22	19	377	13	409	1089
Grand Total	289	27	72	388	9	924	195	1128	3	17	21	41	48	750	25	823	2380
Apprch %	74.5	7	18.6		0.8	81.9	17.3		7.3	41.5	51.2		5.8	91.1	3		
Total %	12.1	1.1	3	16.3	0.4	38.8	8.2	47.4	0.1	0.7	0.9	1.7	2	31.5	1.1	34.6	

Start Time	Oasis Road Southbound				SR-138 Westbound				Oasis Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	22	2	2	26	2	124	23	149	0	0	2	2	0	87	8	95	272
07:30 AM	51	5	20	76	1	117	40	158	0	4	3	7	13	117	2	132	373
07:45 AM	67	9	18	94	0	129	61	190	1	5	3	9	14	95	1	110	403
08:00 AM	45	4	14	63	1	118	15	134	0	3	5	8	13	100	0	113	318
Total Volume	185	20	54	259	4	488	139	631	1	12	13	26	40	399	11	450	1366
% App. Total	71.4	7.7	20.8		0.6	77.3	22		3.8	46.2	50		8.9	88.7	2.4		
PHF	.690	.556	.675	.689	.500	.946	.570	.830	.250	.600	.650	.722	.714	.853	.344	.852	.847

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:00 AM				07:30 AM				07:30 AM			
+0 mins.	51	5	20	76	0	122	23	145	0	4	3	7	13	117	2	132
+15 mins.	67	9	18	94	2	124	23	149	1	5	3	9	14	95	1	110
+30 mins.	45	4	14	63	1	117	40	158	0	3	5	8	13	100	0	113
+45 mins.	34	3	5	42	0	129	61	190	0	2	3	5	2	90	6	98
Total Volume	197	21	57	275	3	492	147	642	1	14	14	29	42	402	9	453
% App. Total	71.6	7.6	20.7		0.5	76.6	22.9		3.4	48.3	48.3		9.3	88.7	2	
PHF	.735	.583	.713	.731	.375	.953	.602	.845	.250	.700	.700	.806	.750	.859	.375	.858

County of San Bernardino  
 N/S: Oasis Road  
 E/W: SR-138  
 Weather: Clear

File Name : 01\_CSB\_Oasis\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

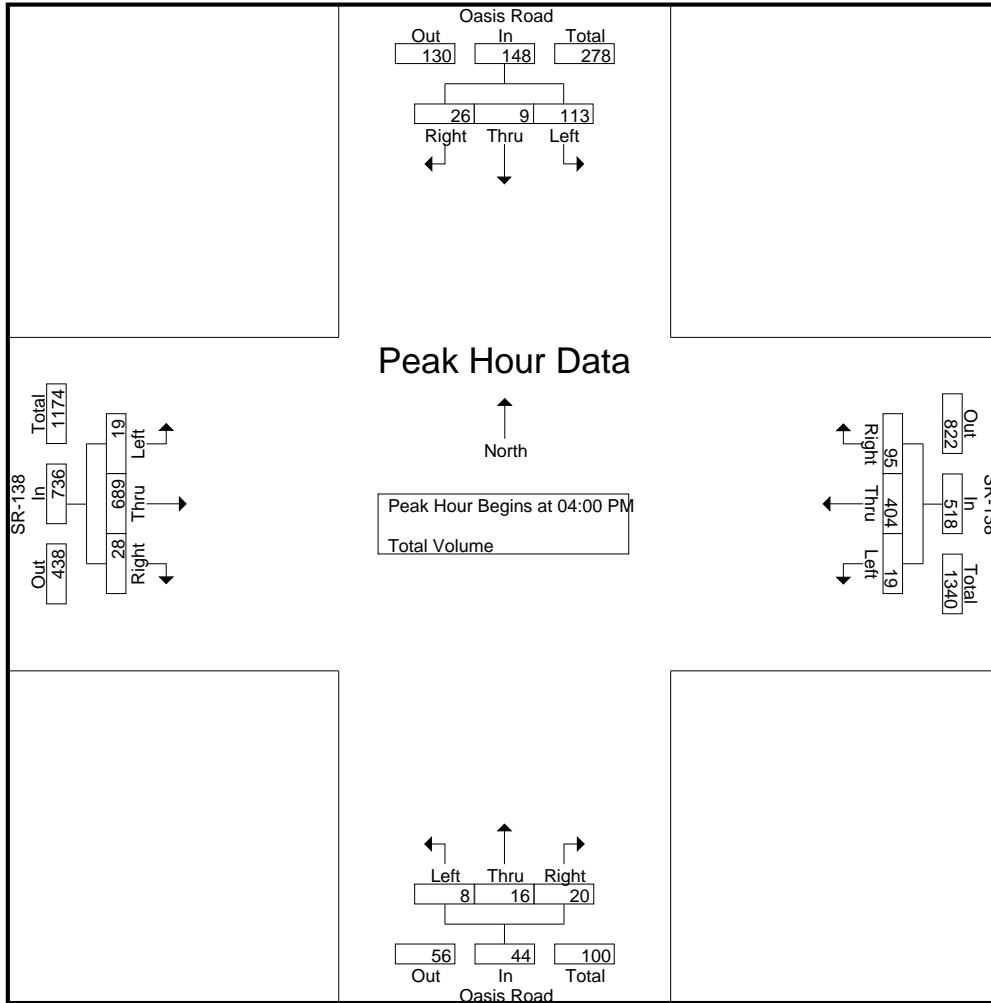
Groups Printed- Total Volume

Start Time	Oasis Road Southbound				SR-138 Westbound				Oasis Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	27	5	5	37	8	105	27	140	4	5	4	13	4	177	7	188	378
04:15 PM	25	2	7	34	5	106	23	134	3	5	12	20	8	156	9	173	361
04:30 PM	31	1	7	39	2	94	28	124	1	3	4	8	6	171	4	181	352
04:45 PM	30	1	7	38	4	99	17	120	0	3	0	3	1	185	8	194	355
Total	113	9	26	148	19	404	95	518	8	16	20	44	19	689	28	736	1446
05:00 PM	20	5	5	30	5	99	17	121	2	2	2	6	1	192	3	196	353
05:15 PM	17	2	4	23	4	85	18	107	1	2	0	3	1	155	3	159	292
05:30 PM	19	3	8	30	4	99	17	120	2	5	2	9	5	183	0	188	347
05:45 PM	10	0	5	15	6	94	18	118	1	2	4	7	7	201	0	208	348
Total	66	10	22	98	19	377	70	466	6	11	8	25	14	731	6	751	1340
Grand Total	179	19	48	246	38	781	165	984	14	27	28	69	33	1420	34	1487	2786
Apprch %	72.8	7.7	19.5		3.9	79.4	16.8		20.3	39.1	40.6		2.2	95.5	2.3		
Total %	6.4	0.7	1.7	8.8	1.4	28	5.9	35.3	0.5	1	1	2.5	1.2	51	1.2	53.4	

Start Time	Oasis Road Southbound				SR-138 Westbound				Oasis Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	27	<b>5</b>	5	37	<b>8</b>	105	27	<b>140</b>	<b>4</b>	<b>5</b>	4	13	4	177	7	188	<b>378</b>
04:15 PM	25	2	7	34	5	<b>106</b>	23	134	3	5	<b>12</b>	<b>20</b>	<b>8</b>	156	<b>9</b>	173	361
04:30 PM	<b>31</b>	1	7	<b>39</b>	2	94	<b>28</b>	124	1	3	4	8	6	171	4	181	352
04:45 PM	30	1	7	38	4	99	17	120	0	3	0	3	1	<b>185</b>	8	<b>194</b>	355
Total Volume	113	9	26	148	19	404	95	518	8	16	20	44	19	689	28	736	1446
% App. Total	76.4	6.1	17.6		3.7	78	18.3		18.2	36.4	45.5		2.6	93.6	3.8		
PHF	.911	.450	.929	.949	.594	.953	.848	.925	.500	.800	.417	.550	.594	.931	.778	.948	.956

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				05:00 PM			
+0 mins.	27	5	5	37	8	105	27	140	4	5	4	13	1	192	3	196
+15 mins.	25	2	7	34	5	106	23	134	3	5	12	20	1	155	3	159
+30 mins.	31	1	7	39	2	94	28	124	1	3	4	8	5	183	0	188
+45 mins.	30	1	7	38	4	99	17	120	0	3	0	3	7	201	0	208
Total Volume	113	9	26	148	19	404	95	518	8	16	20	44	14	731	6	751
% App. Total	76.4	6.1	17.6		3.7	78	18.3		18.2	36.4	45.5		1.9	97.3	0.8	
PHF	.911	.450	.929	.949	.594	.953	.848	.925	.500	.800	.417	.550	.500	.909	.500	.903

County of San Bernardino  
 N/S: Oasis Road  
 E/W: Buckthorne Road  
 Weather: Clear

File Name : 02\_CSB\_Oasis\_Buck AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	Oasis Road Southbound				US Postal Service Driveway Westbound				Oasis Road Northbound				Buckthorne Road Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0	0	3
07:15 AM	0	3	0	3	0	0	4	4	0	0	0	0	0	0	0	0	0	7
07:30 AM	0	5	1	6	1	0	2	3	0	3	0	3	0	0	1	1	1	13
07:45 AM	0	10	0	10	0	0	7	7	0	2	0	2	0	0	0	0	0	19
Total	0	20	1	21	1	0	13	14	0	6	0	6	0	0	1	1	1	42
08:00 AM	0	5	0	5	0	0	8	8	0	1	0	1	0	0	0	0	0	14
08:15 AM	0	6	0	6	0	0	1	1	0	3	0	3	0	0	0	0	0	10
08:30 AM	0	7	0	7	0	0	7	7	0	0	0	0	0	0	0	0	0	14
08:45 AM	0	3	0	3	0	0	3	3	0	1	0	1	0	0	0	0	0	7
Total	0	21	0	21	0	0	19	19	0	5	0	5	0	0	0	0	0	45
Grand Total	0	41	1	42	1	0	32	33	0	11	0	11	0	0	1	1	1	87
Apprch %	0	97.6	2.4		3	0	97		0	100	0		0	0	100			
Total %	0	47.1	1.1	48.3	1.1	0	36.8	37.9	0	12.6	0	12.6	0	0	1.1	1.1		

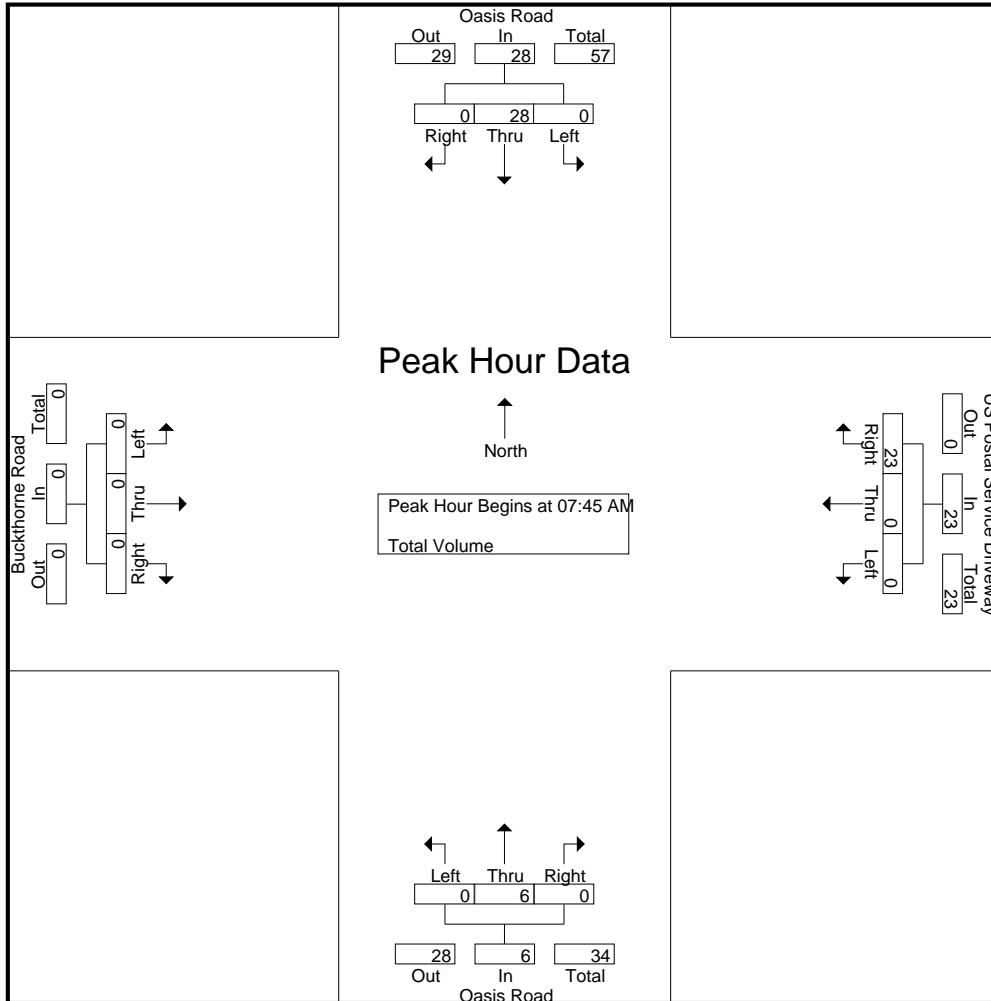
Start Time	Oasis Road Southbound				US Postal Service Driveway Westbound				Oasis Road Northbound				Buckthorne Road Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:45 AM	0	10	0	10	0	0	7	7	0	2	0	2	0	0	0	0	0	19
08:00 AM	0	5	0	5	0	0	8	8	0	1	0	1	0	0	0	0	0	14
08:15 AM	0	6	0	6	0	0	1	1	0	3	0	3	0	0	0	0	0	10
08:30 AM	0	7	0	7	0	0	7	7	0	0	0	0	0	0	0	0	0	14
Total Volume	0	28	0	28	0	0	23	23	0	6	0	6	0	0	0	0	0	57
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0			
PHF	.000	.700	.000	.700	.000	.000	.719	.719	.000	.500	.000	.500	.000	.000	.000	.000	.000	.750

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45 AM

County of San Bernardino  
 N/S: Oasis Road  
 E/W: Buckthorne Road  
 Weather: Clear

File Name : 02\_CSB\_Oasis\_Buck AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:30 AM				07:00 AM			
+0 mins.	0	10	0	10	0	0	7	7	0	3	0	3	0	0	0	0
+15 mins.	0	5	0	5	0	0	8	8	0	2	0	2	0	0	0	0
+30 mins.	0	6	0	6	0	0	1	1	0	1	0	1	0	0	1	1
+45 mins.	0	7	0	7	0	0	7	7	0	3	0	3	0	0	0	0
Total Volume	0	28	0	28	0	0	23	23	0	9	0	9	0	0	1	1
% App. Total	0	100	0	100	0	0	100	100	0	100	0	100	0	0	100	100
PHF	.000	.700	.000	.700	.000	.000	.719	.719	.000	.750	.000	.750	.000	.000	.250	.250

County of San Bernardino  
 N/S: Oasis Road  
 E/W: Buckthorne Road  
 Weather: Clear

File Name : 02\_CSB\_Oasis\_Buck PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	Oasis Road Southbound				US Postal Service Driveway Westbound				Oasis Road Northbound				Buckthorne Road Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:00 PM	0	17	0	17	0	0	13	13	0	2	0	2	0	0	0	0	0	32
04:15 PM	0	12	0	12	0	0	12	12	0	2	0	2	0	0	0	0	0	26
04:30 PM	0	6	0	6	2	0	6	8	0	0	0	0	0	0	0	0	0	14
04:45 PM	0	5	0	5	0	0	4	4	0	0	0	0	0	0	0	0	0	9
Total	0	40	0	40	2	0	35	37	0	4	0	4	0	0	0	0	0	81
05:00 PM	0	10	1	11	1	0	6	7	0	0	0	0	0	0	0	0	0	18
05:15 PM	0	5	1	6	0	0	4	4	0	2	0	2	0	0	0	0	0	12
05:30 PM	0	7	0	7	1	0	5	6	0	3	0	3	0	0	0	0	0	16
05:45 PM	0	6	0	6	1	0	4	5	0	2	0	2	1	0	0	1	1	14
Total	0	28	2	30	3	0	19	22	0	7	0	7	1	0	0	1	1	60
Grand Total	0	68	2	70	5	0	54	59	0	11	0	11	1	0	0	1	1	141
Apprch %	0	97.1	2.9		8.5	0	91.5		0	100	0		100	0	0			
Total %	0	48.2	1.4	49.6	3.5	0	38.3	41.8	0	7.8	0	7.8	0.7	0	0	0.7		

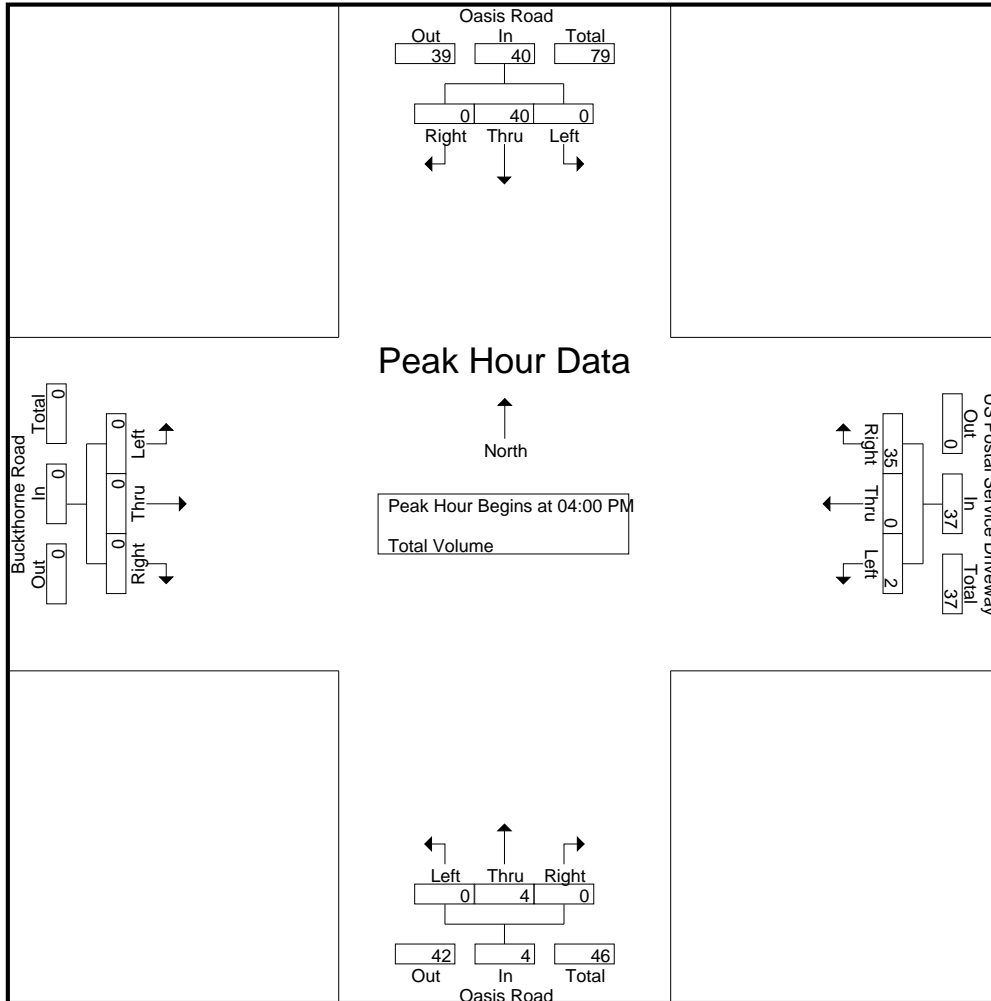
Start Time	Oasis Road Southbound				US Postal Service Driveway Westbound				Oasis Road Northbound				Buckthorne Road Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:00 PM	0	17	0	17	0	0	13	13	0	2	0	2	0	0	0	0	0	32
04:15 PM	0	12	0	12	0	0	12	12	0	2	0	2	0	0	0	0	0	26
04:30 PM	0	6	0	6	2	0	6	8	0	0	0	0	0	0	0	0	0	14
04:45 PM	0	5	0	5	0	0	4	4	0	0	0	0	0	0	0	0	0	9
Total Volume	0	40	0	40	2	0	35	37	0	4	0	4	0	0	0	0	0	81
% App. Total	0	100	0		5.4	0	94.6		0	100	0		0	0	0			
PHF	.000	.588	.000	.588	.250	.000	.673	.712	.000	.500	.000	.500	.000	.000	.000	.000	.000	.633

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

County of San Bernardino  
 N/S: Oasis Road  
 E/W: Buckthorne Road  
 Weather: Clear

File Name : 02\_CSB\_Oasis\_Buck PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	17	0	17	0	0	13	13	0	0	0	0	0	0	0	0
+15 mins.	0	12	0	12	0	0	12	12	0	2	0	2	0	0	0	0
+30 mins.	0	6	0	6	2	0	6	8	0	3	0	3	0	0	0	0
+45 mins.	0	5	0	5	0	0	4	4	0	2	0	2	1	0	0	1
Total Volume	0	40	0	40	2	0	35	37	0	7	0	7	1	0	0	1
% App. Total	0	100	0		5.4	0	94.6		0	100	0		100	0	0	
PHF	.000	.588	.000	.588	.250	.000	.673	.712	.000	.583	.000	.583	.250	.000	.000	.250

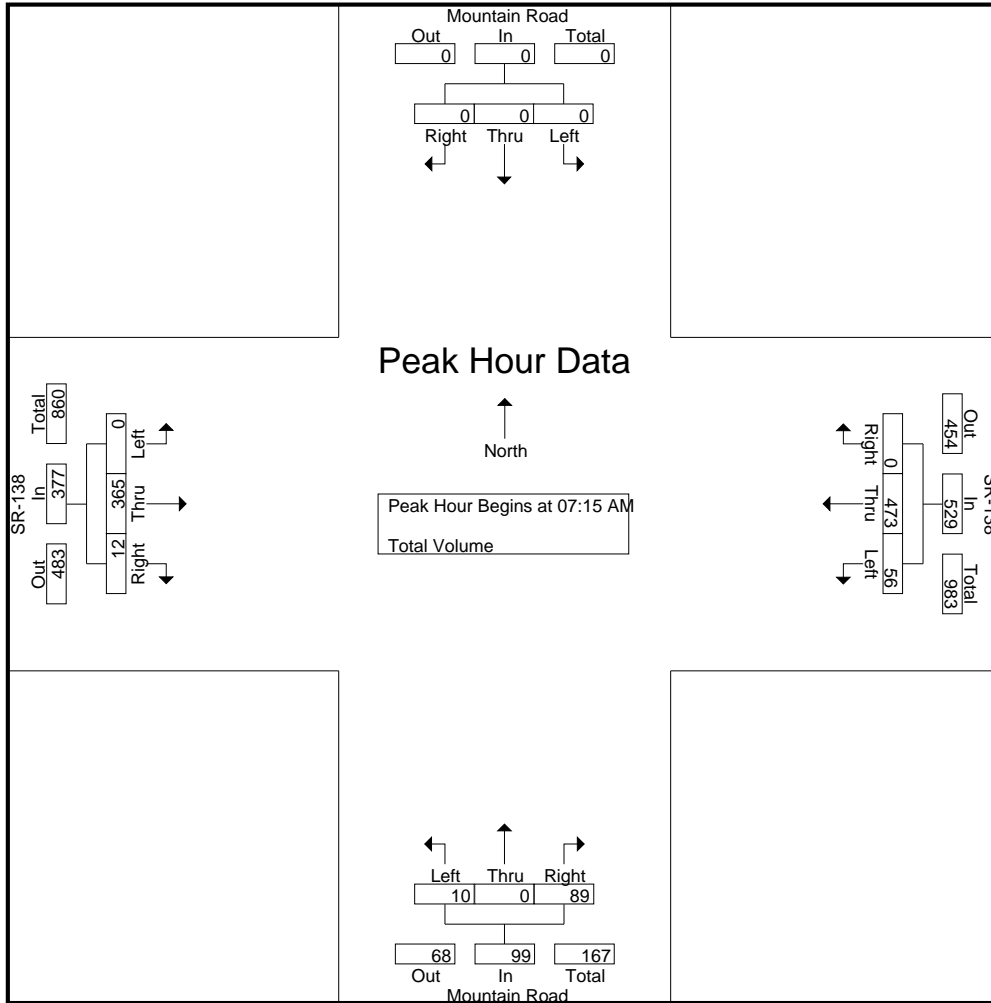
County of San Bernardino  
 N/S: Mountain Road  
 E/W: SR-138  
 Weather: Clear

File Name : 05\_CSB\_Mtn\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	Mountain Road Southbound				SR-138 Westbound				Mountain Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	6	134	0	140	4	0	6	10	0	74	0	74	224
07:15 AM	0	0	0	0	3	125	0	128	2	0	20	22	0	81	5	86	236
07:30 AM	0	0	0	0	15	118	0	133	2	0	30	32	0	105	3	108	273
07:45 AM	0	0	0	0	18	123	0	141	2	0	21	23	0	100	2	102	266
Total	0	0	0	0	42	500	0	542	10	0	77	87	0	360	10	370	999
08:00 AM	0	0	0	0	20	107	0	127	4	0	18	22	0	79	2	81	230
08:15 AM	0	0	0	0	7	95	0	102	4	0	17	21	0	80	4	84	207
08:30 AM	0	0	0	0	10	109	0	119	1	0	25	26	0	85	2	87	232
08:45 AM	0	0	0	0	11	98	0	109	2	0	13	15	0	77	5	82	206
Total	0	0	0	0	48	409	0	457	11	0	73	84	0	321	13	334	875
Grand Total	0	0	0	0	90	909	0	999	21	0	150	171	0	681	23	704	1874
Apprch %	0	0	0		9	91	0		12.3	0	87.7		0	96.7	3.3		
Total %	0	0	0	0	4.8	48.5	0	53.3	1.1	0	8	9.1	0	36.3	1.2	37.6	

Start Time	Mountain Road Southbound				SR-138 Westbound				Mountain Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	3	<b>125</b>	0	128	2	0	20	22	0	81	<b>5</b>	86	236
07:30 AM	0	0	0	0	15	118	0	133	2	0	<b>30</b>	<b>32</b>	0	<b>105</b>	3	<b>108</b>	<b>273</b>
07:45 AM	0	0	0	0	18	123	0	<b>141</b>	2	0	21	23	0	100	2	102	266
08:00 AM	0	0	0	0	<b>20</b>	107	0	127	<b>4</b>	0	18	22	0	79	2	81	230
Total Volume	0	0	0	0	56	473	0	529	10	0	89	99	0	365	12	377	1005
% App. Total	0	0	0		10.6	89.4	0		10.1	0	89.9		0	96.8	3.2		
PHF	.000	.000	.000	.000	.700	.946	.000	.938	.625	.000	.742	.773	.000	.869	.600	.873	.920



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	6	<b>134</b>	0	140	2	0	20	22	0	81	5	86
+15 mins.	0	0	0	0	3	125	0	128	2	0	<b>30</b>	<b>32</b>	0	<b>105</b>	3	<b>108</b>
+30 mins.	0	0	0	0	15	118	0	133	2	0	21	23	0	100	2	102
+45 mins.	0	0	0	0	<b>18</b>	123	0	<b>141</b>	<b>4</b>	0	18	22	0	79	2	81
Total Volume	0	0	0	0	42	500	0	542	10	0	89	99	0	365	12	377
% App. Total	0	0	0	0	7.7	92.3	0		10.1	0	89.9		0	96.8	3.2	
PHF	.000	.000	.000	.000	.583	.933	.000	.961	.625	.000	.742	.773	.000	.869	.600	.873

County of San Bernardino  
 N/S: Mountain Road  
 E/W: SR-138  
 Weather: Clear

File Name : 05\_CSB\_Mtn\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	Mountain Road Southbound				SR-138 Westbound				Mountain Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	1	1	14	105	0	119	4	0	19	23	0	174	9	183	326
04:15 PM	0	0	0	0	21	85	1	107	2	0	20	22	0	129	7	136	265
04:30 PM	0	0	0	0	20	88	0	108	0	0	18	18	0	158	5	163	289
04:45 PM	0	0	0	0	16	86	0	102	1	0	16	17	0	190	9	199	318
Total	0	0	1	1	71	364	1	436	7	0	73	80	0	651	30	681	1198
05:00 PM	0	0	0	0	19	85	0	104	3	0	22	25	0	170	3	173	302
05:15 PM	0	0	0	0	22	70	0	92	3	0	18	21	0	150	5	155	268
05:30 PM	0	0	0	0	15	90	0	105	2	0	23	25	0	160	14	174	304
05:45 PM	0	0	0	0	22	84	0	106	1	0	14	15	0	180	3	183	304
Total	0	0	0	0	78	329	0	407	9	0	77	86	0	660	25	685	1178
Grand Total	0	0	1	1	149	693	1	843	16	0	150	166	0	1311	55	1366	2376
Apprch %	0	0	100		17.7	82.2	0.1		9.6	0	90.4		0	96	4		
Total %	0	0	0	0	6.3	29.2	0	35.5	0.7	0	6.3	7	0	55.2	2.3	57.5	

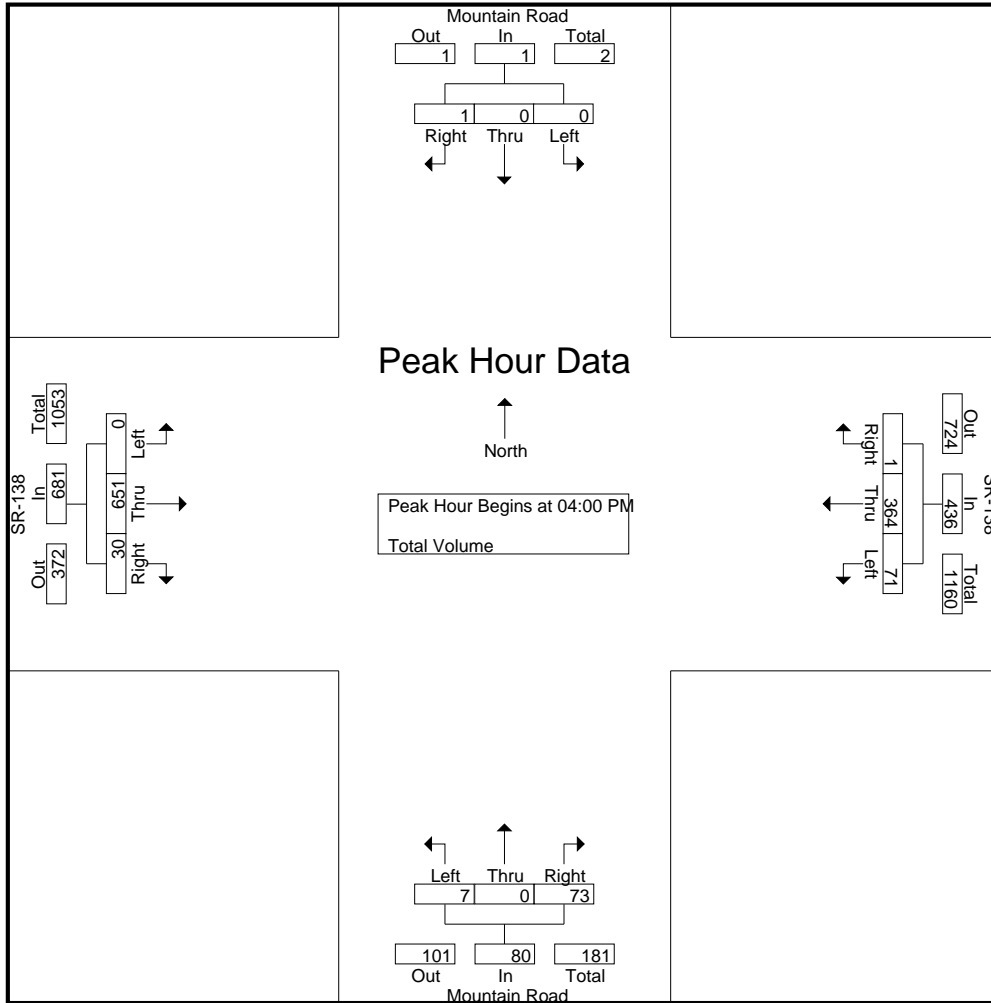
Start Time	Mountain Road Southbound				SR-138 Westbound				Mountain Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	1	1	14	<b>105</b>	0	<b>119</b>	4	0	19	<b>23</b>	0	174	<b>9</b>	183	<b>326</b>
04:15 PM	0	0	0	0	21	85	1	107	2	0	<b>20</b>	22	0	129	7	136	265
04:30 PM	0	0	0	0	20	88	0	108	0	0	18	18	0	158	5	163	289
04:45 PM	0	0	0	0	16	86	0	102	1	0	16	17	0	<b>190</b>	<b>9</b>	<b>199</b>	318
Total Volume	0	0	1	1	71	364	1	436	7	0	73	80	0	651	30	681	1198
% App. Total	0	0	100		16.3	83.5	0.2		8.8	0	91.2		0	95.6	4.4		
PHF	.000	.000	.250	.250	.845	.867	.250	.916	.438	.000	.913	.870	.000	.857	.833	.856	.919

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

County of San Bernardino  
 N/S: Mountain Road  
 E/W: SR-138  
 Weather: Clear

File Name : 05\_CSB\_Mtn\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:45 PM				04:45 PM			
+0 mins.	0	0	1	1	14	<b>105</b>	0	<b>119</b>	1	0	16	17	0	<b>190</b>	9	<b>199</b>
+15 mins.	0	0	0	0	21	85	1	107	3	0	22	<b>25</b>	0	170	3	173
+30 mins.	0	0	0	0	20	88	0	108	3	0	18	21	0	150	5	155
+45 mins.	0	0	0	0	16	86	0	102	2	0	<b>23</b>	25	0	160	<b>14</b>	174
Total Volume	0	0	1	1	71	364	1	436	9	0	79	88	0	670	31	701
% App. Total	0	0	100		16.3	83.5	0.2		10.2	0	89.8		0	95.6	4.4	
PHF	.000	.000	.250	.250	.845	.867	.250	.916	.750	.000	.859	.880	.000	.882	.554	.881

County of San Bernardino  
 N/S: Soledad Road  
 E/W: SR-138  
 Weather: Clear

File Name : 06\_CSB\_Sol\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

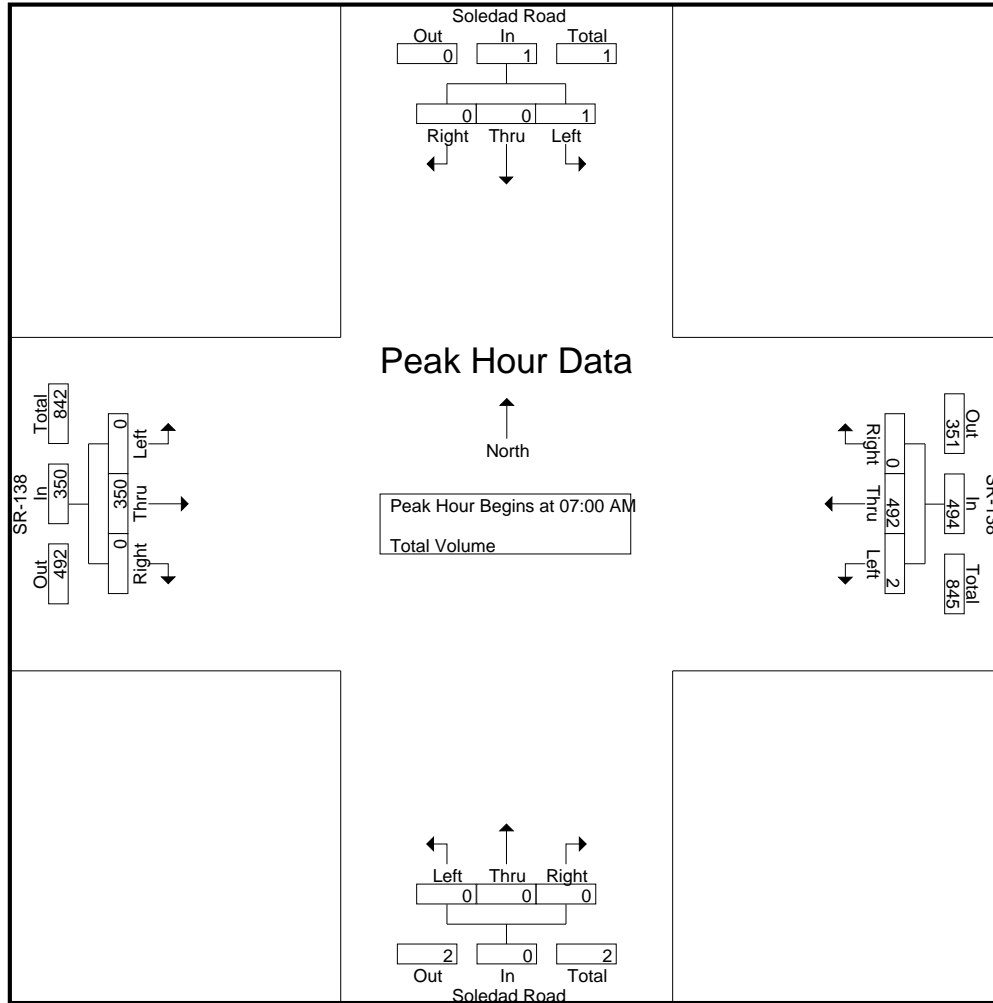
Groups Printed- Total Volume

Start Time	Soledad Road Southbound				SR-138 Westbound				Soledad Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	0	0	1	0	127	0	127	0	0	0	0	0	68	0	68	196
07:15 AM	0	0	0	0	1	120	0	121	0	0	0	0	0	89	0	89	210
07:30 AM	0	0	0	0	1	122	0	123	0	0	0	0	0	88	0	88	211
07:45 AM	0	0	0	0	0	123	0	123	0	0	0	0	0	105	0	105	228
Total	1	0	0	1	2	492	0	494	0	0	0	0	0	350	0	350	845
08:00 AM	0	0	0	0	0	102	1	103	0	0	0	0	0	77	0	77	180
08:15 AM	1	0	0	1	0	100	1	101	0	0	0	0	0	82	0	82	184
08:30 AM	2	0	0	2	1	108	0	109	0	0	0	0	0	81	0	81	192
08:45 AM	0	0	0	0	0	98	0	98	0	0	0	0	0	86	0	86	184
Total	3	0	0	3	1	408	2	411	0	0	0	0	0	326	0	326	740
Grand Total	4	0	0	4	3	900	2	905	0	0	0	0	0	676	0	676	1585
Apprch %	100	0	0		0.3	99.4	0.2		0	0	0		0	100	0		
Total %	0.3	0	0	0.3	0.2	56.8	0.1	57.1	0	0	0	0	0	42.6	0	42.6	

Start Time	Soledad Road Southbound				SR-138 Westbound				Soledad Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	0	0	1	0	127	0	127	0	0	0	0	0	68	0	68	196
07:15 AM	0	0	0	0	1	120	0	121	0	0	0	0	0	89	0	89	210
07:30 AM	0	0	0	0	1	122	0	123	0	0	0	0	0	88	0	88	211
07:45 AM	0	0	0	0	0	123	0	123	0	0	0	0	0	105	0	105	228
Total Volume	1	0	0	1	2	492	0	494	0	0	0	0	0	350	0	350	845
% App. Total	100	0	0		0.4	99.6	0		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.500	.969	.000	.972	.000	.000	.000	.000	.000	.833	.000	.833	.927

County of San Bernardino  
 N/S: Soledad Road  
 E/W: SR-138  
 Weather: Clear

File Name : 06\_CSB\_Sol\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	0	0	0	0	0	<b>127</b>	0	<b>127</b>	0	0	0	0	0	89	0	89
+15 mins.	0	0	0	0	1	120	0	121	0	0	0	0	0	88	0	88
+30 mins.	1	0	0	1	1	122	0	123	0	0	0	0	0	<b>105</b>	0	<b>105</b>
+45 mins.	<b>2</b>	0	0	<b>2</b>	0	123	0	123	0	0	0	0	0	77	0	77
Total Volume	3	0	0	3	2	492	0	494	0	0	0	0	0	359	0	359
% App. Total	100	0	0	0	0.4	99.6	0	0	0	0	0	0	0	100	0	0
PHF	.375	.000	.000	.375	.500	.969	.000	.972	.000	.000	.000	.000	.000	.855	.000	.855

County of San Bernardino  
 N/S: Soledad Road  
 E/W: SR-138  
 Weather: Clear

File Name : 06\_CSB\_Sol\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	Soledad Road Southbound				SR-138 Westbound				Soledad Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	3	100	1	104	0	0	0	0	1	172	0	173	277
04:15 PM	0	0	0	0	0	90	1	91	0	0	0	0	0	143	1	144	235
04:30 PM	0	0	0	0	0	87	0	87	0	0	0	0	0	149	0	149	236
04:45 PM	1	0	0	1	0	80	0	80	0	0	0	0	0	205	0	205	286
Total	1	0	0	1	3	357	2	362	0	0	0	0	1	669	1	671	1034
05:00 PM	1	0	0	1	0	88	0	88	0	0	0	0	0	166	0	166	255
05:15 PM	0	0	0	0	0	82	0	82	0	0	0	0	1	161	0	162	244
05:30 PM	1	0	0	1	0	90	2	92	0	0	0	0	0	192	0	192	285
05:45 PM	0	0	0	0	1	85	1	87	0	0	0	0	0	151	0	151	238
Total	2	0	0	2	1	345	3	349	0	0	0	0	1	670	0	671	1022
Grand Total	3	0	0	3	4	702	5	711	0	0	0	0	2	1339	1	1342	2056
Apprch %	100	0	0		0.6	98.7	0.7		0	0	0		0.1	99.8	0.1		
Total %	0.1	0	0	0.1	0.2	34.1	0.2	34.6	0	0	0	0	0.1	65.1	0	65.3	

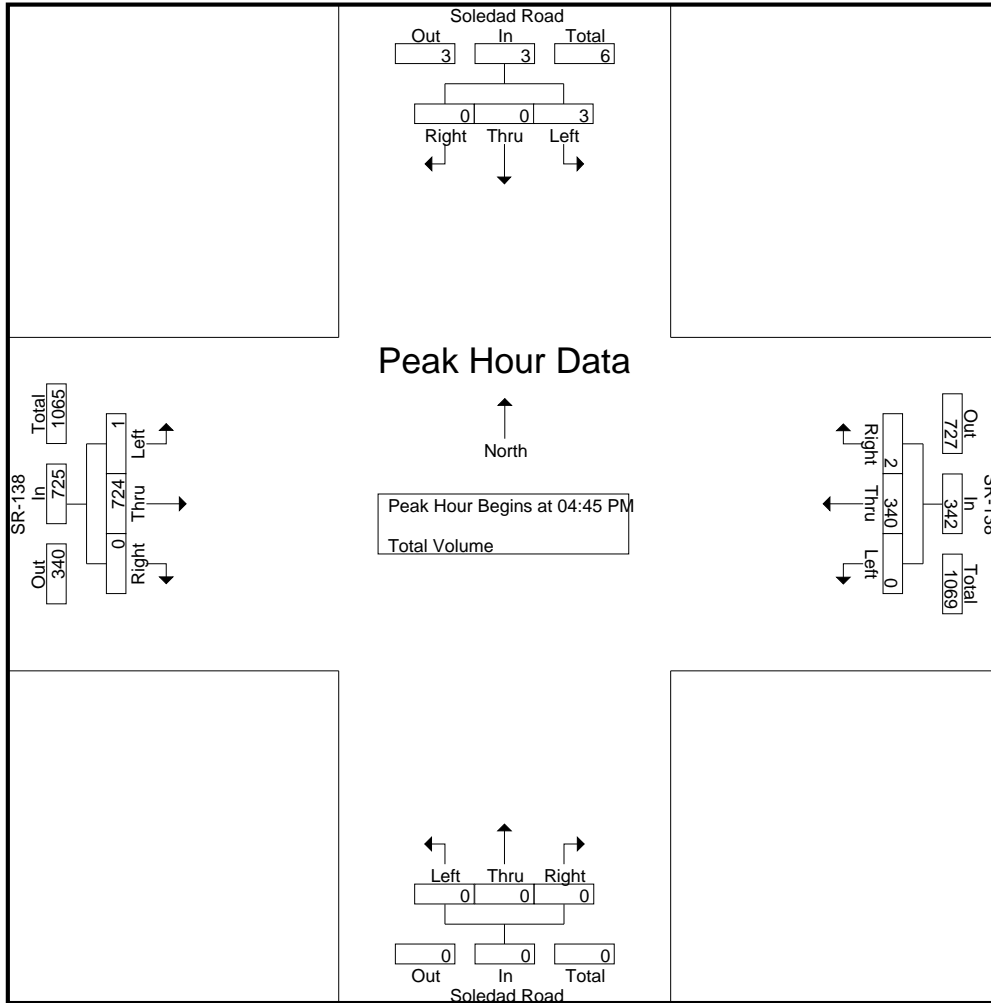
Start Time	Soledad Road Southbound				SR-138 Westbound				Soledad Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:45 PM	1	0	0	1	0	80	0	80	0	0	0	0	0	205	0	205	286
05:00 PM	1	0	0	1	0	88	0	88	0	0	0	0	0	166	0	166	255
05:15 PM	0	0	0	0	0	82	0	82	0	0	0	0	1	161	0	162	244
05:30 PM	1	0	0	1	0	90	2	92	0	0	0	0	0	192	0	192	285
Total Volume	3	0	0	3	0	340	2	342	0	0	0	0	1	724	0	725	1070
% App. Total	100	0	0		0	99.4	0.6		0	0	0		0.1	99.9	0		
PHF	.750	.000	.000	.750	.000	.944	.250	.929	.000	.000	.000	.000	.250	.883	.000	.884	.935

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

County of San Bernardino  
 N/S: Soledad Road  
 E/W: SR-138  
 Weather: Clear

File Name : 06\_CSB\_Sol\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				04:00 PM				04:45 PM			
+0 mins.	1	0	0	1	3	100	1	104	0	0	0	0	0	205	0	205
+15 mins.	1	0	0	1	0	90	1	91	0	0	0	0	0	166	0	166
+30 mins.	0	0	0	0	0	87	0	87	0	0	0	0	1	161	0	162
+45 mins.	1	0	0	1	0	80	0	80	0	0	0	0	0	192	0	192
Total Volume	3	0	0	3	3	357	2	362	0	0	0	0	1	724	0	725
% App. Total	100	0	0		0.8	98.6	0.6		0	0	0		0.1	99.9	0	
PHF	.750	.000	.000	.750	.250	.893	.500	.870	.000	.000	.000	.000	.250	.883	.000	.884

County of San Bernardino  
 N/S: 263rd Street E  
 E/W: SR-138  
 Weather: Clear

File Name : 07\_CSB\_263rd E\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	263rd Street E Southbound			SR-138 Westbound			SR-138 Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	7	0	7	120	6	126	0	65	65	198
07:15 AM	6	0	6	115	3	118	0	78	78	202
07:30 AM	4	1	5	139	0	139	0	93	93	237
07:45 AM	14	0	14	105	4	109	0	92	92	215
Total	31	1	32	479	13	492	0	328	328	852
08:00 AM	8	1	9	102	9	111	0	70	70	190
08:15 AM	5	2	7	96	1	97	0	77	77	181
08:30 AM	6	0	6	104	1	105	0	74	74	185
08:45 AM	2	0	2	92	5	97	0	83	83	182
Total	21	3	24	394	16	410	0	304	304	738
Grand Total	52	4	56	873	29	902	0	632	632	1590
Apprch %	92.9	7.1		96.8	3.2		0	100		
Total %	3.3	0.3	3.5	54.9	1.8	56.7	0	39.7	39.7	

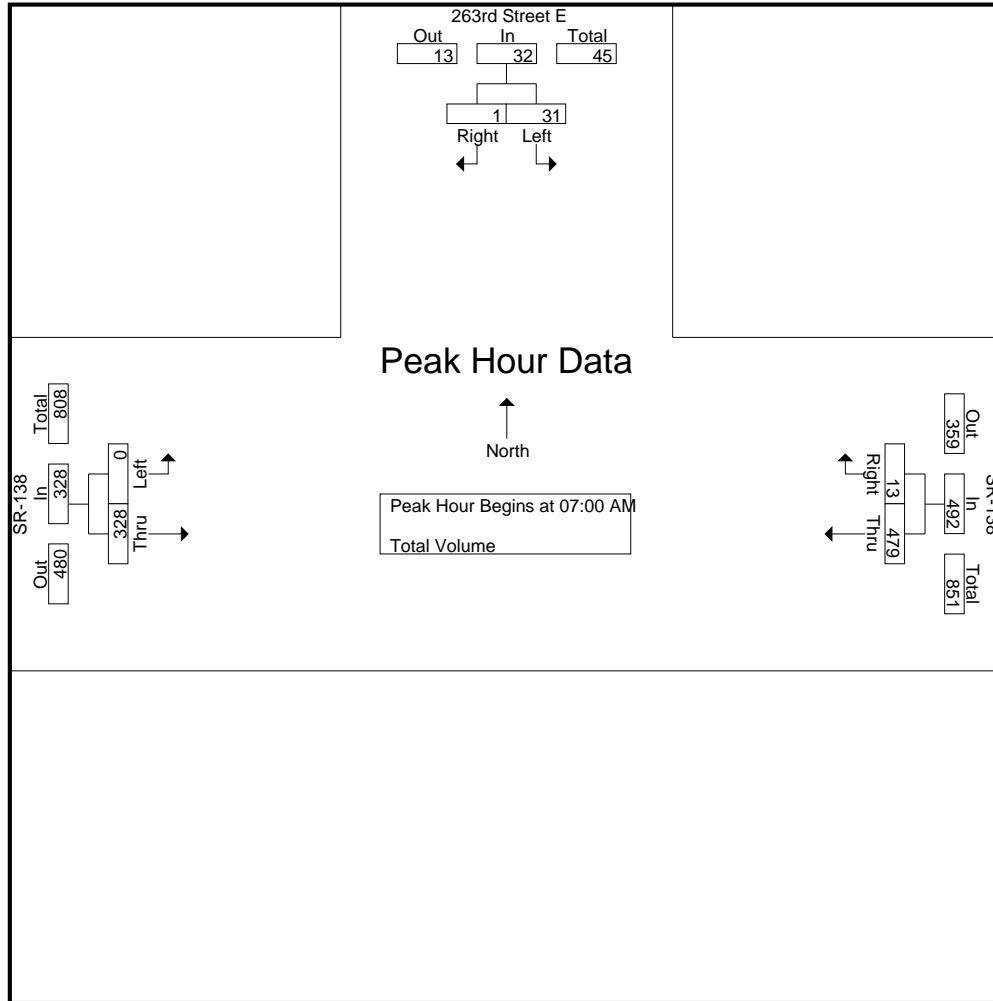
Start Time	263rd Street E Southbound			SR-138 Westbound			SR-138 Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	7	0	7	120	<b>6</b>	126	0	65	65	198
07:15 AM	6	0	6	115	3	118	0	78	78	202
07:30 AM	4	<b>1</b>	5	<b>139</b>	0	<b>139</b>	0	<b>93</b>	<b>93</b>	<b>237</b>
07:45 AM	<b>14</b>	0	<b>14</b>	105	4	109	0	92	92	215
Total Volume	31	1	32	479	13	492	0	328	328	852
% App. Total	96.9	3.1		97.4	2.6		0	100		
PHF	.554	.250	.571	.862	.542	.885	.000	.882	.882	.899

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

County of San Bernardino  
 N/S: 263rd Street E  
 E/W: SR-138  
 Weather: Clear

File Name : 07\_CSB\_263rd E\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:45 AM			07:00 AM			07:15 AM		
+0 mins.	14	0	14	120	6	126	0	78	78
+15 mins.	8	1	9	115	3	118	0	93	93
+30 mins.	5	2	7	139	0	139	0	92	92
+45 mins.	6	0	6	105	4	109	0	70	70
Total Volume	33	3	36	479	13	492	0	333	333
% App. Total	91.7	8.3		97.4	2.6		0	100	
PHF	.589	.375	.643	.862	.542	.885	.000	.895	.895

County of San Bernardino  
 N/S: 263rd Street E  
 E/W: SR-138  
 Weather: Clear

File Name : 07\_CSB\_263rd E\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	263rd Street E Southbound			SR-138 Westbound			SR-138 Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	5	2	7	89	7	96	0	171	171	274
04:15 PM	1	1	2	81	7	88	1	140	141	231
04:30 PM	4	0	4	74	7	81	2	150	152	237
04:45 PM	4	1	5	80	6	86	1	196	197	288
Total	14	4	18	324	27	351	4	657	661	1030
05:00 PM	1	1	2	76	11	87	1	172	173	262
05:15 PM	3	0	3	75	7	82	0	157	157	242
05:30 PM	2	1	3	79	12	91	1	185	186	280
05:45 PM	1	0	1	68	9	77	0	152	152	230
Total	7	2	9	298	39	337	2	666	668	1014
Grand Total	21	6	27	622	66	688	6	1323	1329	2044
Apprch %	77.8	22.2		90.4	9.6		0.5	99.5		
Total %	1	0.3	1.3	30.4	3.2	33.7	0.3	64.7	65	

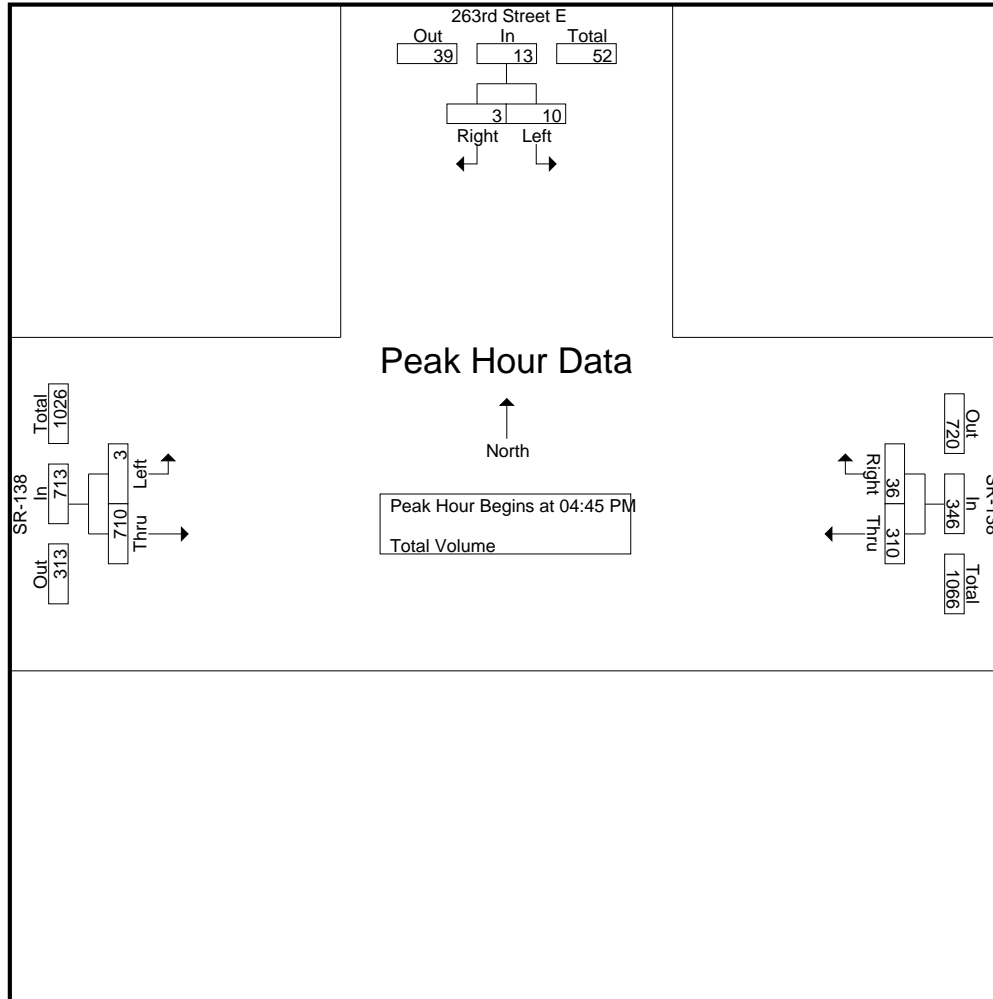
Start Time	263rd Street E Southbound			SR-138 Westbound			SR-138 Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:45 PM	4	1	5	80	6	86	1	196	197	288
05:00 PM	1	1	2	76	11	87	1	172	173	262
05:15 PM	3	0	3	75	7	82	0	157	157	242
05:30 PM	2	1	3	79	12	91	1	185	186	280
Total Volume	10	3	13	310	36	346	3	710	713	1072
% App. Total	76.9	23.1		89.6	10.4		0.4	99.6		
PHF	.625	.750	.650	.969	.750	.951	.750	.906	.905	.931

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:45 PM

County of San Bernardino  
 N/S: 263rd Street E  
 E/W: SR-138  
 Weather: Clear

File Name : 07\_CSB\_263rd E\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:45 PM		
+0 mins.	<b>5</b>	<b>2</b>	<b>7</b>	<b>89</b>	<b>7</b>	<b>96</b>	<b>1</b>	<b>196</b>	<b>197</b>
+15 mins.	1	1	2	81	7	88	1	172	173
+30 mins.	4	0	4	74	7	81	0	157	157
+45 mins.	4	1	5	80	6	86	1	185	186
Total Volume	14	4	18	324	27	351	3	710	713
% App. Total	77.8	22.2		92.3	7.7		0.4	99.6	
PHF	.700	.500	.643	.910	.964	.914	.750	.906	.905

County of San Bernardino  
 N/S: Ponderosa Road  
 E/W: SR-138  
 Weather: Clear

File Name : 08\_CSB\_Pond\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	SR-138 Westbound			Ponderosa Road Northbound			SR-138 Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:00 AM	0	135	135	0	0	0	93	0	93	228
07:15 AM	1	158	159	0	0	0	107	0	107	266
07:30 AM	0	160	160	2	1	3	157	1	158	321
07:45 AM	0	182	182	0	0	0	163	0	163	345
Total	1	635	636	2	1	3	520	1	521	1160
08:00 AM	0	137	137	0	0	0	146	0	146	283
08:15 AM	0	103	103	0	0	0	116	0	116	219
08:30 AM	0	130	130	0	0	0	126	0	126	256
08:45 AM	0	108	108	0	0	0	126	0	126	234
Total	0	478	478	0	0	0	514	0	514	992
Grand Total	1	1113	1114	2	1	3	1034	1	1035	2152
Apprch %	0.1	99.9		66.7	33.3		99.9	0.1		
Total %	0	51.7	51.8	0.1	0	0.1	48	0	48.1	

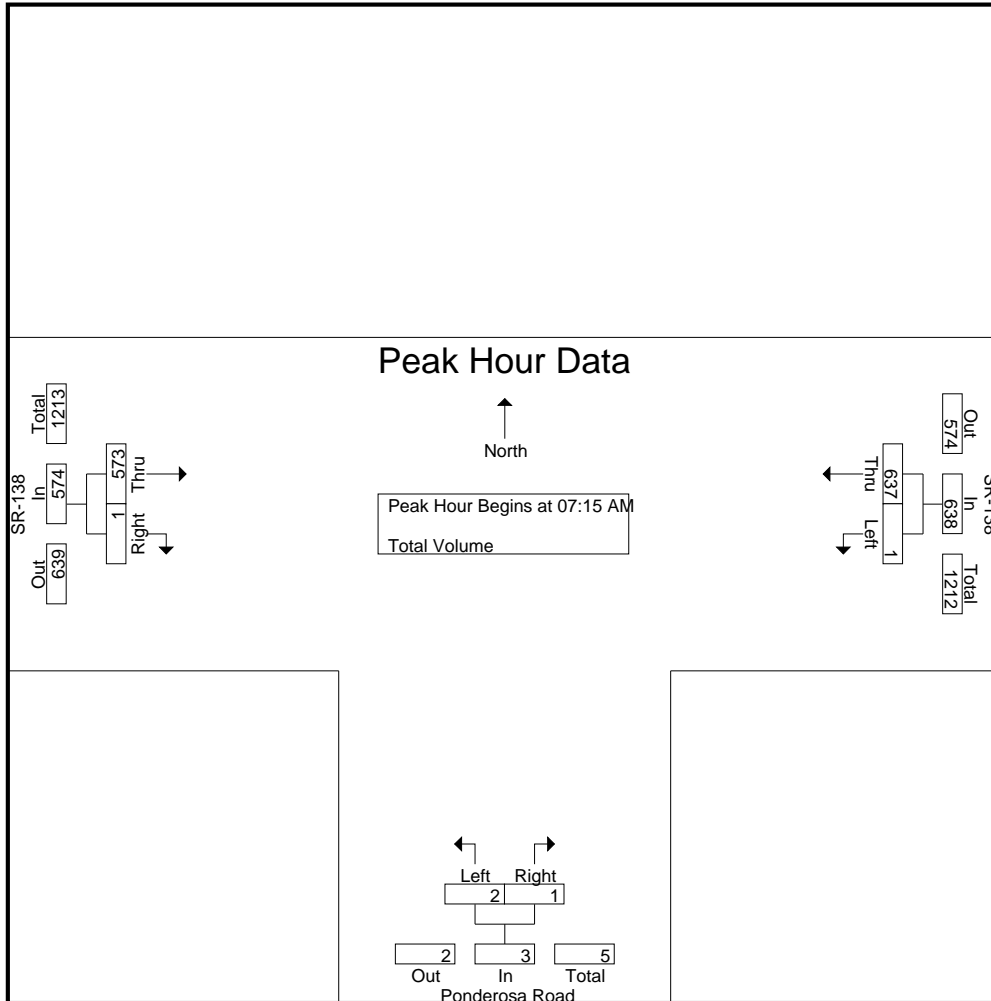
Start Time	SR-138 Westbound			Ponderosa Road Northbound			SR-138 Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
07:15 AM	1	158	159	0	0	0	107	0	107	266
07:30 AM	0	160	160	2	1	3	157	1	158	321
07:45 AM	0	<b>182</b>	<b>182</b>	0	0	0	<b>163</b>	0	<b>163</b>	<b>345</b>
08:00 AM	0	137	137	0	0	0	146	0	146	283
Total Volume	1	637	638	2	1	3	573	1	574	1215
% App. Total	0.2	99.8		66.7	33.3		99.8	0.2		
PHF	.250	.875	.876	.250	.250	.250	.879	.250	.880	.880

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

County of San Bernardino  
 N/S: Ponderosa Road  
 E/W: SR-138  
 Weather: Clear

File Name : 08\_CSB\_Pond\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM			07:00 AM			07:30 AM		
+0 mins.	1	158	159	0	0	0	157	1	158
+15 mins.	0	160	160	0	0	0	163	0	163
+30 mins.	0	182	182	2	1	3	146	0	146
+45 mins.	0	137	137	0	0	0	116	0	116
Total Volume	1	637	638	2	1	3	582	1	583
% App. Total	0.2	99.8		66.7	33.3		99.8	0.2	
PHF	.250	.875	.876	.250	.250	.250	.893	.250	.894

County of San Bernardino  
 N/S: Ponderosa Road  
 E/W: SR-138  
 Weather: Clear

File Name : 08\_CSB\_Pond\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

Groups Printed- Total Volume

Start Time	SR-138 Westbound			Ponderosa Road Northbound			SR-138 Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:00 PM	0	122	122	0	1	1	206	1	207	330
04:15 PM	0	133	133	0	0	0	191	0	191	324
04:30 PM	1	112	113	0	0	0	219	0	219	332
04:45 PM	0	122	122	0	0	0	225	0	225	347
Total	1	489	490	0	1	1	841	1	842	1333
05:00 PM	1	120	121	0	0	0	223	1	224	345
05:15 PM	0	103	103	0	0	0	179	0	179	282
05:30 PM	0	123	123	0	0	0	215	0	215	338
05:45 PM	1	118	119	0	1	1	228	0	228	348
Total	2	464	466	0	1	1	845	1	846	1313
Grand Total	3	953	956	0	2	2	1686	2	1688	2646
Apprch %	0.3	99.7		0	100		99.9	0.1		
Total %	0.1	36	36.1	0	0.1	0.1	63.7	0.1	63.8	

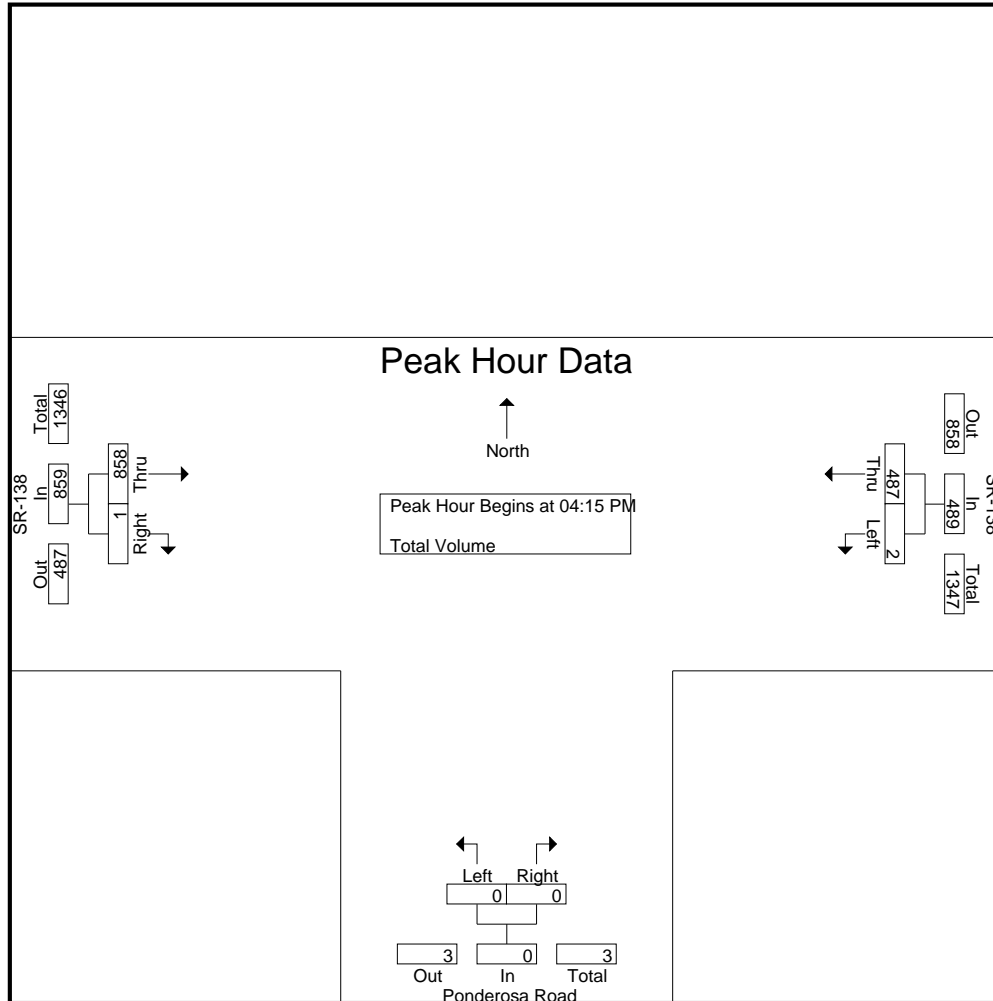
Start Time	SR-138 Westbound			Ponderosa Road Northbound			SR-138 Eastbound			Int. Total
	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	
04:15 PM	0	<b>133</b>	<b>133</b>	0	0	0	191	0	191	324
04:30 PM	1	112	113	0	0	0	219	0	219	332
04:45 PM	0	122	122	0	0	0	<b>225</b>	0	<b>225</b>	<b>347</b>
05:00 PM	1	120	121	0	0	0	223	1	224	345
Total Volume	2	487	489	0	0	0	858	1	859	1348
% App. Total	0.4	99.6		0	0		99.9	0.1		
PHF	.500	.915	.919	.000	.000	.000	.953	.250	.954	.971

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:15 PM

County of San Bernardino  
 N/S: Ponderosa Road  
 E/W: SR-138  
 Weather: Clear

File Name : 08\_CSB\_Pond\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:15 PM		
+0 mins.	0	122	122	0	1	1	191	0	191
+15 mins.	0	133	133	0	0	0	219	0	219
+30 mins.	1	112	113	0	0	0	225	0	225
+45 mins.	0	122	122	0	0	0	223	1	224
Total Volume	1	489	490	0	1	1	858	1	859
% App. Total	0.2	99.8		0	100		99.9	0.1	
PHF	.250	.919	.921	.000	.250	.250	.953	.250	.954

County of San Bernardino  
 N/S: Desert View Road  
 E/W: SR-138  
 Weather: Clear

File Name : 09\_CSB\_Des V\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

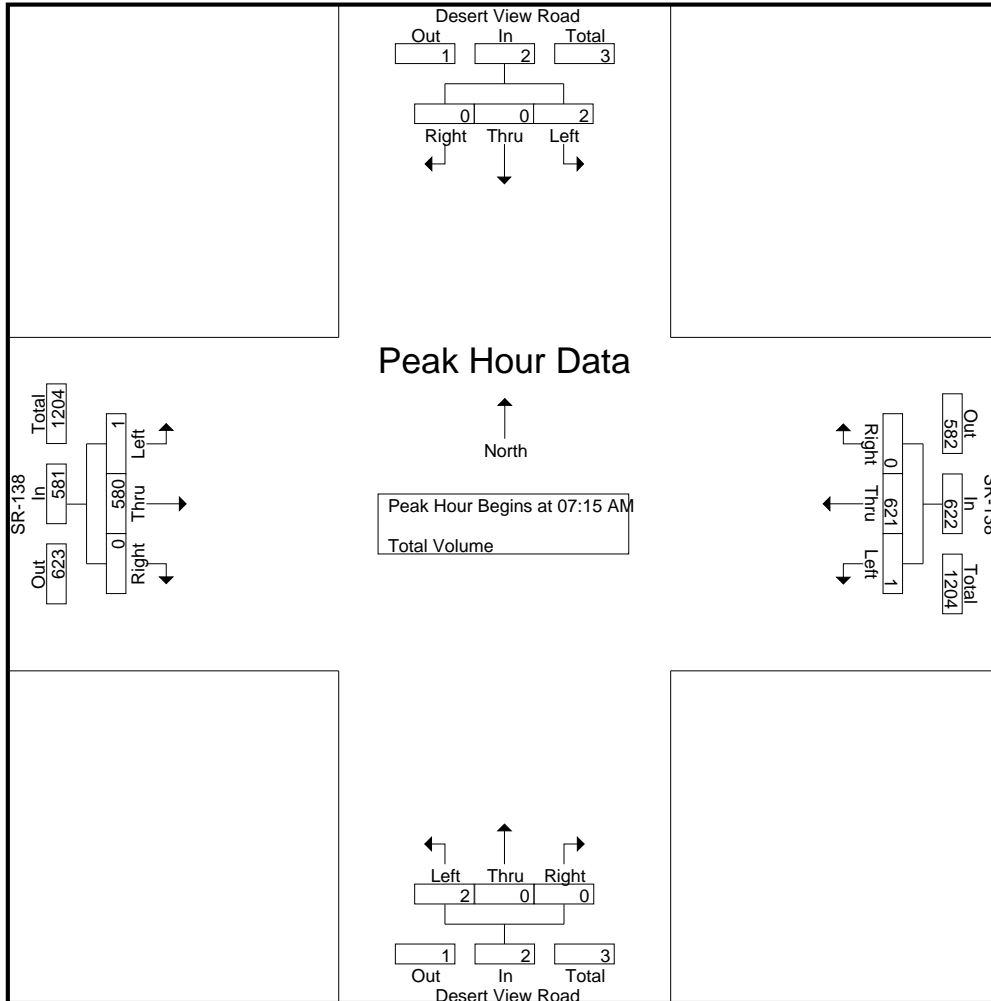
Groups Printed- Total Volume

Start Time	Desert View Road Southbound				SR-138 Westbound				Desert View Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	143	0	143	0	0	0	0	0	95	0	95	238
07:15 AM	1	0	0	1	0	147	0	147	1	0	0	1	0	108	0	108	257
07:30 AM	0	0	0	0	0	163	0	163	0	0	0	0	1	163	0	164	327
07:45 AM	0	0	0	0	1	182	0	183	0	0	0	0	0	163	0	163	346
Total	1	0	0	1	1	635	0	636	1	0	0	1	1	529	0	530	1168
08:00 AM	1	0	0	1	0	129	0	129	1	0	0	1	0	146	0	146	277
08:15 AM	0	0	0	0	0	107	0	107	0	0	1	1	0	122	1	123	231
08:30 AM	0	0	1	1	1	131	0	132	0	0	0	0	1	127	0	128	261
08:45 AM	0	0	0	0	0	109	0	109	1	0	0	1	0	110	0	110	220
Total	1	0	1	2	1	476	0	477	2	0	1	3	1	505	1	507	989
Grand Total	2	0	1	3	2	1111	0	1113	3	0	1	4	2	1034	1	1037	2157
Apprch %	66.7	0	33.3		0.2	99.8	0		75	0	25		0.2	99.7	0.1		
Total %	0.1	0	0	0.1	0.1	51.5	0	51.6	0.1	0	0	0.2	0.1	47.9	0	48.1	

Start Time	Desert View Road Southbound				SR-138 Westbound				Desert View Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	1	0	0	1	0	147	0	147	1	0	0	1	0	108	0	108	257
07:30 AM	0	0	0	0	0	163	0	163	0	0	0	0	1	163	0	164	327
07:45 AM	0	0	0	0	1	182	0	183	0	0	0	0	0	163	0	163	346
08:00 AM	1	0	0	1	0	129	0	129	1	0	0	1	0	146	0	146	277
Total Volume	2	0	0	2	1	621	0	622	2	0	0	2	1	580	0	581	1207
% App. Total	100	0	0		0.2	99.8	0		100	0	0		0.2	99.8	0		
PHF	.500	.000	.000	.500	.250	.853	.000	.850	.500	.000	.000	.500	.250	.890	.000	.886	.872

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				08:00 AM				07:30 AM			
+0 mins.	1	0	0	1	0	143	0	143	1	0	0	1	1	163	0	164
+15 mins.	0	0	0	0	0	147	0	147	0	0	1	1	0	163	0	163
+30 mins.	0	0	0	0	0	163	0	163	0	0	0	0	0	146	0	146
+45 mins.	1	0	0	1	1	182	0	183	1	0	0	1	0	122	1	123
Total Volume	2	0	0	2	1	635	0	636	2	0	1	3	1	594	1	596
% App. Total	100	0	0	0	0.2	99.8	0	0	66.7	0	33.3	0	0.2	99.7	0.2	0
PHF	.500	.000	.000	.500	.250	.872	.000	.869	.500	.000	.250	.750	.250	.911	.250	.909

County of San Bernardino  
 N/S: Desert View Road  
 E/W: SR-138  
 Weather: Clear

File Name : 09\_CSB\_Des V\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

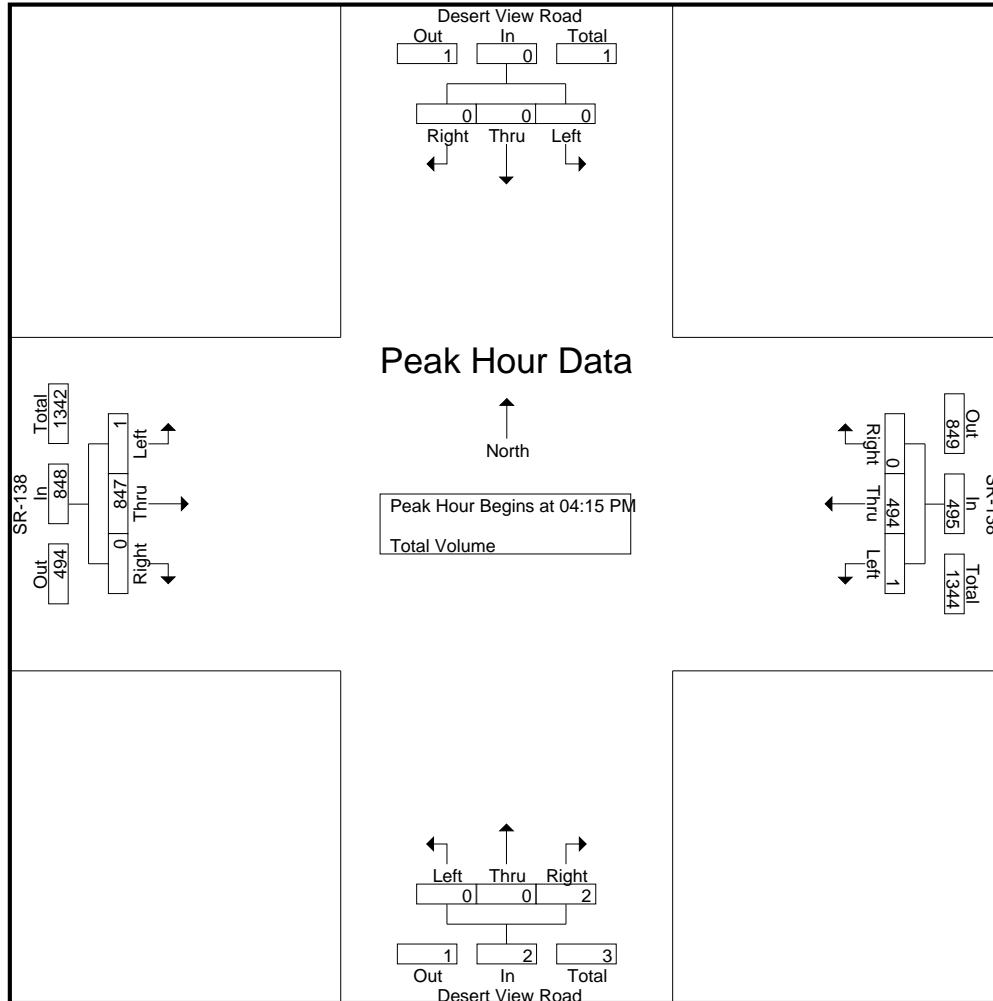
Groups Printed- Total Volume

Start Time	Desert View Road Southbound				SR-138 Westbound				Desert View Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	126	0	127	0	0	0	0	0	211	0	211	338
04:15 PM	0	0	0	0	0	134	0	134	0	0	0	0	0	197	0	197	331
04:30 PM	0	0	0	0	1	113	0	114	0	0	0	0	0	207	0	207	321
04:45 PM	0	0	0	0	0	126	0	126	0	0	1	1	1	213	0	214	341
Total	0	0	0	0	2	499	0	501	0	0	1	1	1	828	0	829	1331
05:00 PM	0	0	0	0	0	121	0	121	0	0	1	1	0	230	0	230	352
05:15 PM	0	0	0	0	1	104	0	105	0	0	0	0	1	171	0	172	277
05:30 PM	0	0	0	0	0	123	0	123	0	0	1	1	0	206	1	207	331
05:45 PM	0	0	0	0	0	123	0	123	0	0	0	0	0	223	0	223	346
Total	0	0	0	0	1	471	0	472	0	0	2	2	1	830	1	832	1306
Grand Total	0	0	0	0	3	970	0	973	0	0	3	3	2	1658	1	1661	2637
Apprch %	0	0	0		0.3	99.7	0		0	0	100		0.1	99.8	0.1		
Total %	0	0	0		0.1	36.8	0	36.9	0	0	0.1	0.1	0.1	62.9	0	63	

Start Time	Desert View Road Southbound				SR-138 Westbound				Desert View Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	<b>134</b>	0	<b>134</b>	0	0	0	0	0	197	0	197	331
04:30 PM	0	0	0	0	1	113	0	114	0	0	0	0	0	207	0	207	321
04:45 PM	0	0	0	0	0	126	0	126	0	0	<b>1</b>	<b>1</b>	<b>1</b>	213	0	214	341
05:00 PM	0	0	0	0	0	121	0	121	0	0	1	1	0	<b>230</b>	0	<b>230</b>	<b>352</b>
Total Volume	0	0	0	0	1	494	0	495	0	0	2	2	1	847	0	848	1345
% App. Total	0	0	0		0.2	99.8	0		0	0	100		0.1	99.9	0		
PHF	.000	.000	.000	.000	.250	.922	.000	.924	.000	.000	.500	.500	.250	.921	.000	.922	.955

County of San Bernardino  
 N/S: Desert View Road  
 E/W: SR-138  
 Weather: Clear

File Name : 09\_CSB\_Des V\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:45 PM				04:15 PM			
+0 mins.	0	0	0	0	1	126	0	127	0	0	1	1	0	197	0	197
+15 mins.	0	0	0	0	0	134	0	134	0	0	1	1	0	207	0	207
+30 mins.	0	0	0	0	1	113	0	114	0	0	0	0	1	213	0	214
+45 mins.	0	0	0	0	0	126	0	126	0	0	1	1	0	230	0	230
Total Volume	0	0	0	0	2	499	0	501	0	0	3	3	1	847	0	848
% App. Total	0	0	0	0	0.4	99.6	0	0	0	0	100	0	0.1	99.9	0	0
PHF	.000	.000	.000	.000	.500	.931	.000	.935	.000	.000	.750	.750	.250	.921	.000	.922

County of San Bernardino  
 N/S: Acorn Road  
 E/W: SR-138  
 Weather: Clear

File Name : 10\_CSB\_Acorn\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

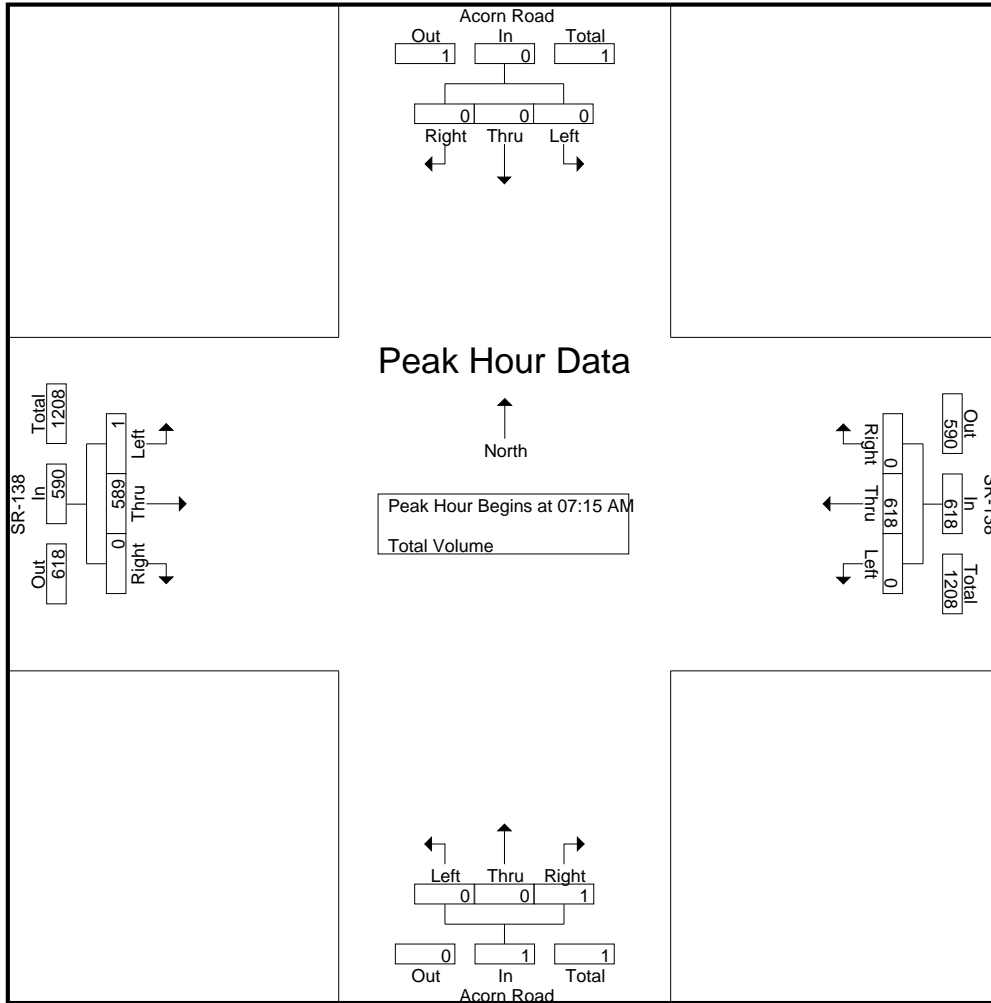
Groups Printed- Total Volume

Start Time	Acorn Road Southbound				SR-138 Westbound				Acorn Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	158	0	158	0	0	0	0	0	95	0	95	253
07:15 AM	0	0	0	0	0	144	0	144	0	0	0	0	0	109	0	109	253
07:30 AM	0	0	0	0	0	168	0	168	0	0	0	0	0	168	0	168	336
07:45 AM	0	0	0	0	0	184	0	184	0	0	1	1	1	165	0	166	351
Total	0	0	0	0	0	654	0	654	0	0	1	1	1	537	0	538	1193
08:00 AM	0	0	0	0	0	122	0	122	0	0	0	0	0	147	0	147	269
08:15 AM	0	0	0	0	0	112	0	112	0	0	0	0	0	135	0	135	247
08:30 AM	0	0	0	0	0	130	0	130	0	0	0	0	0	134	0	134	264
08:45 AM	0	0	0	0	0	113	0	113	0	0	0	0	0	110	0	110	223
Total	0	0	0	0	0	477	0	477	0	0	0	0	0	526	0	526	1003
Grand Total	0	0	0	0	0	1131	0	1131	0	0	1	1	1	1063	0	1064	2196
Apprch %	0	0	0		0	100	0		0	0	100		0.1	99.9	0		
Total %	0	0	0		0	51.5	0		0	0	0		0	48.4	0		

Start Time	Acorn Road Southbound				SR-138 Westbound				Acorn Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	144	0	144	0	0	0	0	0	109	0	109	253
07:30 AM	0	0	0	0	0	168	0	168	0	0	0	0	0	168	0	168	336
07:45 AM	0	0	0	0	0	184	0	184	0	0	1	1	1	165	0	166	351
08:00 AM	0	0	0	0	0	122	0	122	0	0	0	0	0	147	0	147	269
Total Volume	0	0	0	0	0	618	0	618	0	0	1	1	1	589	0	590	1209
% App. Total	0	0	0		0	100	0		0	0	100		0.2	99.8	0		
PHF	.000	.000	.000	.000	.000	.840	.000	.840	.000	.000	.250	.250	.250	.876	.000	.878	.861

County of San Bernardino  
 N/S: Acorn Road  
 E/W: SR-138  
 Weather: Clear

File Name : 10\_CSB\_Acorn\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:30 AM			
+0 mins.	0	0	0	0	0	158	0	158	0	0	0	0	0	168	0	168
+15 mins.	0	0	0	0	0	144	0	144	0	0	0	0	1	165	0	166
+30 mins.	0	0	0	0	0	168	0	168	0	0	0	0	0	147	0	147
+45 mins.	0	0	0	0	0	184	0	184	0	0	1	1	0	135	0	135
Total Volume	0	0	0	0	0	654	0	654	0	0	1	1	1	615	0	616
% App. Total	0	0	0	0	0	100	0	100	0	0	100		0.2	99.8	0	
PHF	.000	.000	.000	.000	.000	.889	.000	.889	.000	.000	.250	.250	.250	.915	.000	.917

County of San Bernardino  
 N/S: Acorn Road  
 E/W: SR-138  
 Weather: Clear

File Name : 10\_CSB\_Acorn\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

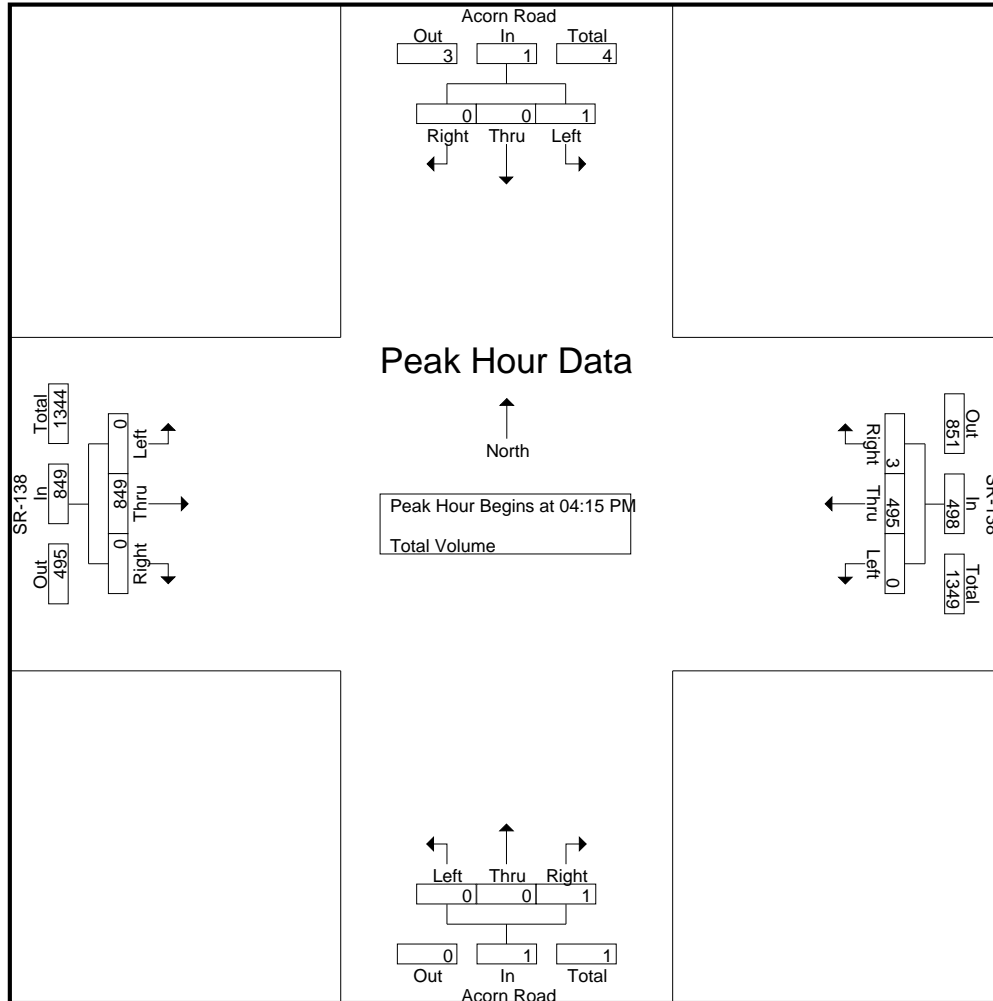
Groups Printed- Total Volume

Start Time	Acorn Road Southbound				SR-138 Westbound				Acorn Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	133	0	133	0	0	0	0	0	213	0	213	346
04:15 PM	1	0	0	1	0	135	1	136	0	0	0	0	0	205	0	205	342
04:30 PM	0	0	0	0	0	113	0	113	0	0	1	1	0	201	0	201	315
04:45 PM	0	0	0	0	0	125	1	126	0	0	0	0	0	204	0	204	330
Total	1	0	0	1	0	506	2	508	0	0	1	1	0	823	0	823	1333
05:00 PM	0	0	0	0	0	122	1	123	0	0	0	0	0	239	0	239	362
05:15 PM	0	0	0	0	0	105	0	105	0	0	1	1	0	160	0	160	266
05:30 PM	0	0	0	0	0	122	0	122	0	0	0	0	0	208	0	208	330
05:45 PM	0	0	0	0	0	128	0	128	0	0	0	0	0	225	0	225	353
Total	0	0	0	0	0	477	1	478	0	0	1	1	0	832	0	832	1311
Grand Total	1	0	0	1	0	983	3	986	0	0	2	2	0	1655	0	1655	2644
Apprch %	100	0	0		0	99.7	0.3		0	0	100		0	100	0		
Total %	0	0	0		0	37.2	0.1	37.3	0	0	0.1	0.1	0	62.6	0	62.6	

Start Time	Acorn Road Southbound				SR-138 Westbound				Acorn Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	0	0	1	0	135	1	136	0	0	0	0	0	205	0	205	342
04:30 PM	0	0	0	0	0	113	0	113	0	0	1	1	0	201	0	201	315
04:45 PM	0	0	0	0	0	125	1	126	0	0	0	0	0	204	0	204	330
05:00 PM	0	0	0	0	0	122	1	123	0	0	0	0	0	239	0	239	362
Total Volume	1	0	0	1	0	495	3	498	0	0	1	1	0	849	0	849	1349
% App. Total	100	0	0		0	99.4	0.6		0	0	100		0	100	0		
PHF	.250	.000	.000	.250	.000	.917	.750	.915	.000	.000	.250	.250	.000	.888	.000	.888	.932

County of San Bernardino  
 N/S: Acorn Road  
 E/W: SR-138  
 Weather: Clear

File Name : 10\_CSB\_Acorn\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:30 PM				04:15 PM			
+0 mins.	0	0	0	0	0	133	0	133	0	0	1	1	0	205	0	205
+15 mins.	1	0	0	1	0	<b>135</b>	1	<b>136</b>	0	0	0	0	0	201	0	201
+30 mins.	0	0	0	0	0	113	0	113	0	0	0	0	0	204	0	204
+45 mins.	0	0	0	0	0	125	1	126	0	0	1	1	0	<b>239</b>	0	<b>239</b>
Total Volume	1	0	0	1	0	506	2	508	0	0	2	2	0	849	0	849
% App. Total	100	0	0	0	0	99.6	0.4	0	0	0	100	0	0	100	0	0
PHF	.250	.000	.000	.250	.000	.937	.500	.934	.000	.000	.500	.500	.000	.888	.000	.888

County of San Bernardino  
 N/S: Green Road/Phelan Road  
 E/W: SR-138  
 Weather: Clear

File Name : 11\_CSB\_Green\_SR138 AM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

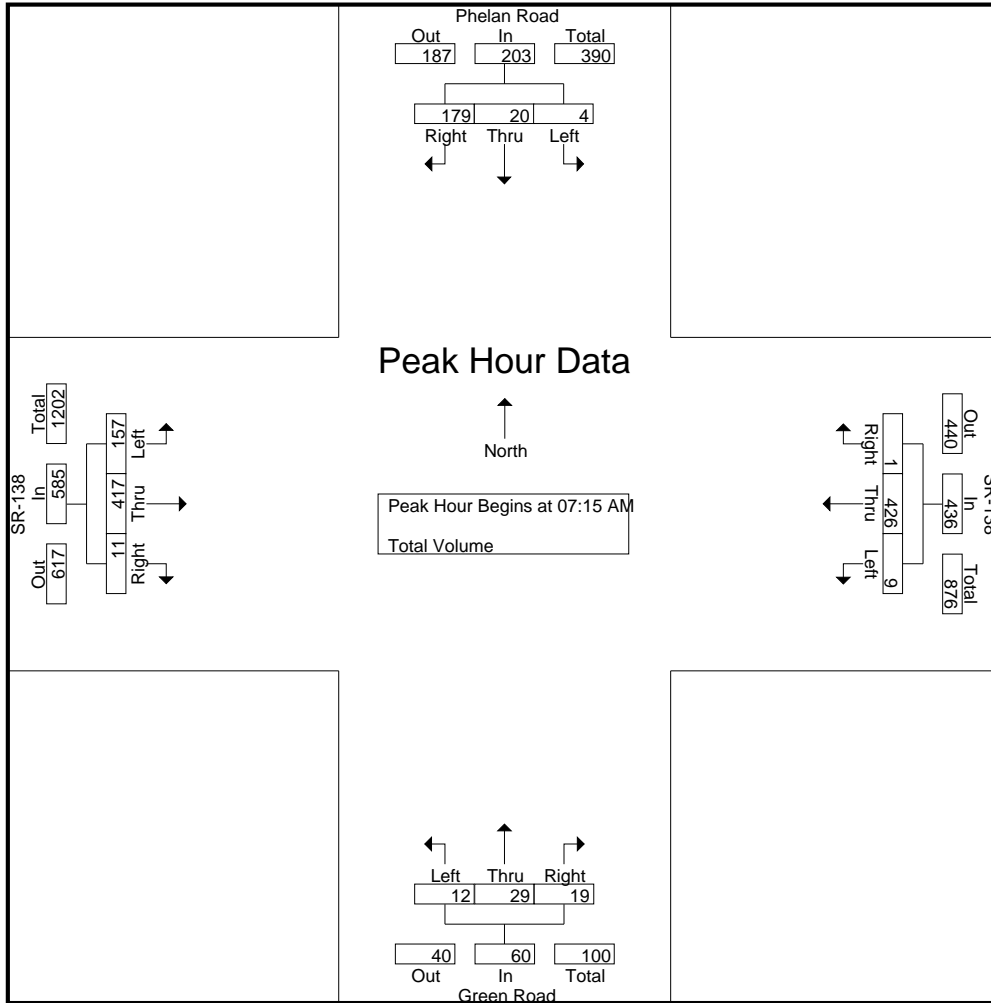
Groups Printed- Total Volume

Start Time	Phelan Road Southbound				SR-138 Westbound				Green Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	5	33	41	2	115	0	117	1	6	6	13	14	83	0	97	268
07:15 AM	0	6	38	44	1	117	0	118	3	8	5	16	30	83	1	114	292
07:30 AM	1	3	40	44	2	107	1	110	4	11	6	21	43	113	5	161	336
07:45 AM	1	4	58	63	3	120	0	123	3	6	6	15	41	120	3	164	365
Total	5	18	169	192	8	459	1	468	11	31	23	65	128	399	9	536	1261
08:00 AM	2	7	43	52	3	82	0	85	2	4	2	8	43	101	2	146	291
08:15 AM	2	2	26	30	2	90	1	93	2	4	4	10	35	89	2	126	259
08:30 AM	2	4	32	38	0	90	2	92	2	10	7	19	41	91	3	135	284
08:45 AM	0	3	28	31	2	85	0	87	1	8	3	12	29	90	2	121	251
Total	6	16	129	151	7	347	3	357	7	26	16	49	148	371	9	528	1085
Grand Total	11	34	298	343	15	806	4	825	18	57	39	114	276	770	18	1064	2346
Apprch %	3.2	9.9	86.9		1.8	97.7	0.5		15.8	50	34.2		25.9	72.4	1.7		
Total %	0.5	1.4	12.7	14.6	0.6	34.4	0.2	35.2	0.8	2.4	1.7	4.9	11.8	32.8	0.8	45.4	

Start Time	Phelan Road Southbound				SR-138 Westbound				Green Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:15 AM	0	6	38	44	1	117	0	118	3	8	5	16	30	83	1	114	292
07:30 AM	1	3	40	44	2	107	1	110	4	11	6	21	43	113	5	161	336
07:45 AM	1	4	<b>58</b>	<b>63</b>	3	<b>120</b>	0	<b>123</b>	3	6	6	15	41	<b>120</b>	3	<b>164</b>	<b>365</b>
08:00 AM	2	7	43	52	3	82	0	85	2	4	2	8	43	101	2	146	291
Total Volume	4	20	179	203	9	426	1	436	12	29	19	60	157	417	11	585	1284
% App. Total	2	9.9	88.2		2.1	97.7	0.2		20	48.3	31.7		26.8	71.3	1.9		
PHF	.500	.714	.772	.806	.750	.888	.250	.886	.750	.659	.792	.714	.913	.869	.550	.892	.879

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:00 AM				07:00 AM				07:30 AM			
+0 mins.	0	6	38	44	2	115	0	117	1	6	6	13	43	113	5	161
+15 mins.	1	3	40	44	1	117	0	118	3	8	5	16	41	120	3	164
+30 mins.	1	4	58	63	2	107	1	110	4	11	6	21	43	101	2	146
+45 mins.	2	7	43	52	3	120	0	123	3	6	6	15	35	89	2	126
Total Volume	4	20	179	203	8	459	1	468	11	31	23	65	162	423	12	597
% App. Total	2	9.9	88.2		1.7	98.1	0.2		16.9	47.7	35.4		27.1	70.9	2	
PHF	.500	.714	.772	.806	.667	.956	.250	.951	.688	.705	.958	.774	.942	.881	.600	.910

County of San Bernardino  
 N/S: Green Road/Phelan Road  
 E/W: SR-138  
 Weather: Clear

File Name : 11\_CSB\_Green\_SR138 PM  
 Site Code : 23624355  
 Start Date : 4/24/2024  
 Page No : 1

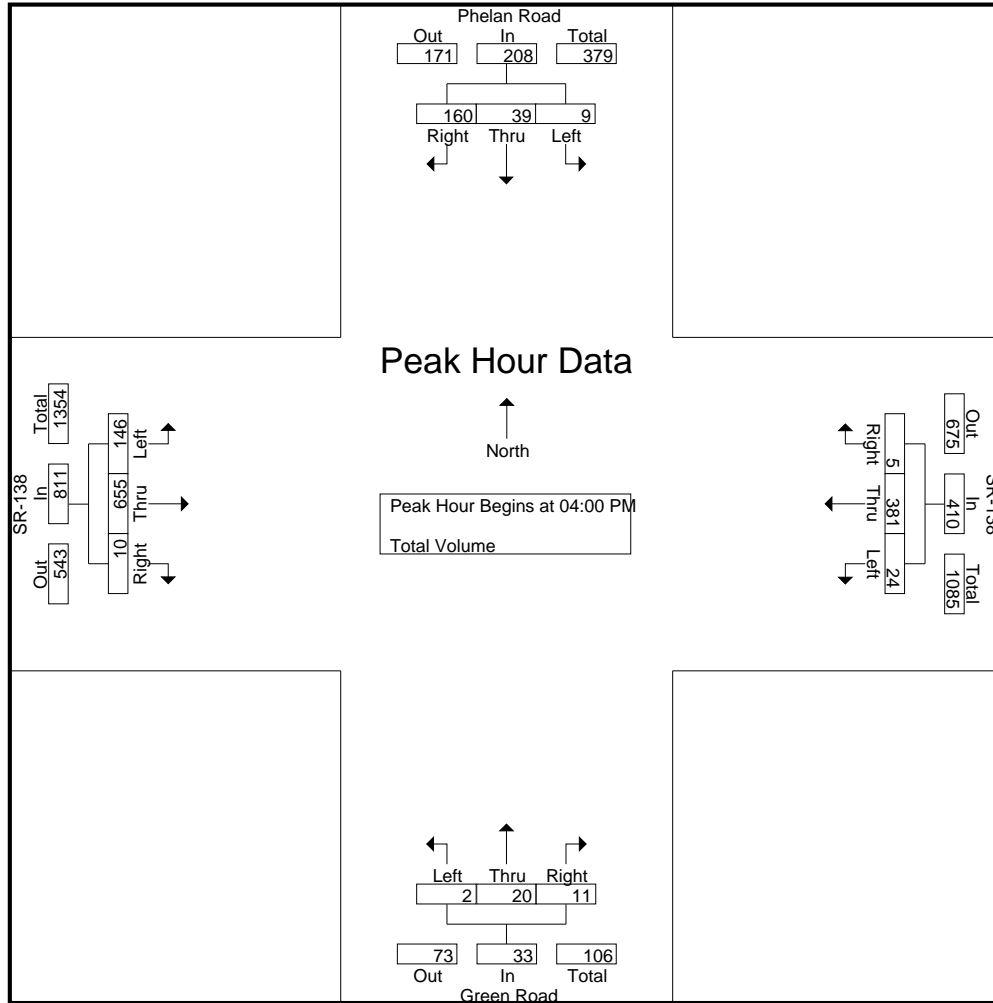
Groups Printed- Total Volume

Start Time	Phelan Road Southbound				SR-138 Westbound				Green Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	6	45	51	6	110	0	116	0	5	2	7	32	189	1	222	396
04:15 PM	1	14	50	65	8	89	3	100	0	6	4	10	37	153	6	196	371
04:30 PM	6	11	34	51	2	85	1	88	0	7	3	10	48	155	2	205	354
04:45 PM	2	8	31	41	8	97	1	106	2	2	2	6	29	158	1	188	341
Total	9	39	160	208	24	381	5	410	2	20	11	33	146	655	10	811	1462
05:00 PM	0	8	21	29	5	98	1	104	0	7	2	9	40	175	1	216	358
05:15 PM	2	9	40	51	8	80	0	88	2	3	2	7	34	136	1	171	317
05:30 PM	3	4	26	33	5	84	0	89	2	8	2	12	45	151	7	203	337
05:45 PM	2	10	47	59	8	90	4	102	0	8	3	11	32	197	1	230	402
Total	7	31	134	172	26	352	5	383	4	26	9	39	151	659	10	820	1414
Grand Total	16	70	294	380	50	733	10	793	6	46	20	72	297	1314	20	1631	2876
Apprch %	4.2	18.4	77.4		6.3	92.4	1.3		8.3	63.9	27.8		18.2	80.6	1.2		
Total %	0.6	2.4	10.2	13.2	1.7	25.5	0.3	27.6	0.2	1.6	0.7	2.5	10.3	45.7	0.7	56.7	

Start Time	Phelan Road Southbound				SR-138 Westbound				Green Road Northbound				SR-138 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	6	45	51	6	<b>110</b>	0	<b>116</b>	0	5	2	7	32	<b>189</b>	1	<b>222</b>	<b>396</b>
04:15 PM	1	<b>14</b>	<b>50</b>	<b>65</b>	<b>8</b>	89	<b>3</b>	100	0	6	<b>4</b>	<b>10</b>	37	153	<b>6</b>	196	371
04:30 PM	<b>6</b>	11	34	51	2	85	1	88	0	<b>7</b>	3	10	<b>48</b>	155	2	205	354
04:45 PM	2	8	31	41	8	97	1	106	<b>2</b>	2	2	6	29	158	1	188	341
Total Volume	9	39	160	208	24	381	5	410	2	20	11	33	146	655	10	811	1462
% App. Total	4.3	18.8	76.9		5.9	92.9	1.2		6.1	60.6	33.3		18	80.8	1.2		
PHF	.375	.696	.800	.800	.750	.866	.417	.884	.250	.714	.688	.825	.760	.866	.417	.913	.923

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				05:00 PM				05:00 PM			
+0 mins.	0	6	45	51	6	<b>110</b>	0	<b>116</b>	0	7	2	9	40	175	1	216
+15 mins.	1	<b>14</b>	<b>50</b>	<b>65</b>	<b>8</b>	89	<b>3</b>	100	<b>2</b>	3	2	7	34	136	1	171
+30 mins.	<b>6</b>	11	34	51	2	85	1	88	2	<b>8</b>	2	<b>12</b>	<b>45</b>	151	7	203
+45 mins.	2	8	31	41	8	97	1	106	0	8	<b>3</b>	11	32	<b>197</b>	1	<b>230</b>
Total Volume	9	39	160	208	24	381	5	410	4	26	9	39	151	659	10	820
% App. Total	4.3	18.8	76.9		5.9	92.9	1.2		10.3	66.7	23.1		18.4	80.4	1.2	
PHF	.375	.696	.800	.800	.750	.866	.417	.884	.500	.813	.750	.813	.839	.836	.357	.891

# Counts Unlimited, Inc.

County of San Bernardino  
 Oasis Road  
 B/ State Route 138 - Buckthorne Road  
 24 Hour Directional Volume Count

PO Box 1178  
 Corona, CA 92878  
 Phone: (951) 268-6268  
 email: counts@countsunlimited.com

CSB001  
 Site Code: 236-24355

Start Time	4/24/2024 Wed	Northbound		Hour Totals		Southbound		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		0	12			0	17				
12:15		0	13			1	11				
12:30		0	14			0	13				
12:45		0	19	0	58	0	19	1	60	1	118
01:00		0	17			0	17				
01:15		1	14			0	10				
01:30		0	12			0	12				
01:45		0	17	1	60	0	15	0	54	1	114
02:00		0	18			0	25				
02:15		0	10			0	11				
02:30		0	14			0	14				
02:45		1	14	1	56	0	21	0	71	1	127
03:00		0	22			0	24				
03:15		0	18			0	15				
03:30		0	17			0	17				
03:45		0	14	0	71	0	11	0	67	0	138
04:00		0	15			0	17				
04:15		0	14			0	12				
04:30		0	6			0	6				
04:45		0	4	0	39	0	5	0	40	0	79
05:00		0	6			0	11				
05:15		0	6			0	6				
05:30		0	8			0	7				
05:45		0	7	0	27	0	6	0	30	0	57
06:00		3	5			2	4				
06:15		0	3			0	2				
06:30		0	3			2	3				
06:45		1	2	4	13	0	2	4	11	8	24
07:00		1	0			2	1				
07:15		4	1			3	1				
07:30		5	1			6	1				
07:45		9	1	19	3	10	0	21	3	40	6
08:00		9	0			5	2				
08:15		4	2			6	2				
08:30		7	0			7	0				
08:45		4	1	24	3	3	1	21	5	45	8
09:00		7	0			10	0				
09:15		10	0			8	1				
09:30		4	0			10	1				
09:45		10	0	31	0	9	1	37	3	68	3
10:00		11	0			8	0				
10:15		6	1			13	1				
10:30		19	0			16	1				
10:45		14	0	50	1	15	0	52	2	102	3
11:00		12	0			15	0				
11:15		23	0			24	0				
11:30		23	0			15	0				
11:45		10	0	68	0	9	0	63	0	131	0
<b>Total</b>		<b>198</b>	<b>331</b>	<b>198</b>	<b>331</b>	<b>199</b>	<b>346</b>	<b>199</b>	<b>346</b>	<b>397</b>	<b>677</b>
<b>Combined Total</b>		<b>529</b>		<b>529</b>		<b>545</b>		<b>545</b>		<b>1074</b>	
AM Peak	-	10:45	-	-	-	10:30	-	-	-	-	-
Vol.	-	72	-	-	-	70	-	-	-	-	-
P.H.F.	-	0.783	-	-	-	0.729	-	-	-	-	-
PM Peak	-	-	02:45	-	-	-	02:45	-	-	-	-
Vol.	-	-	71	-	-	-	77	-	-	-	-
P.H.F.	-	-	0.807	-	-	-	0.802	-	-	-	-
Percentage		37.4%	62.6%			36.5%	63.5%				
ADT/AADT		ADT 1,074		AADT 1,074							

## APPENDIX C

### HCM ANALYSIS WORKSHEETS

EXISTING  
TRAFFIC CONDITION

**Intersection Level Of Service Report**  
**Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	29.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.583

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇑⇓			⇑⇓⇐			⇑⇓⇐			⇑⇓⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Input [veh/h]	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	12	13	185	20	54	40	399	11	4	488	139
Peak Hour Factor	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	4	4	55	6	16	12	118	3	1	144	41
Total Analysis Volume [veh/h]	1	14	15	218	24	64	47	471	13	5	576	164
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	14.0	0.0	0.0	14.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	23.0	0.0	9.0	23.0	0.0	9.0	39.0	0.0	9.0	39.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0.1	22.6	11.4	33.9	3.2	29.4	29.4	0.5	26.7	26.7
g / C, Green / Cycle	0.00	0.28	0.14	0.42	0.04	0.37	0.37	0.01	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.12	0.05	0.03	0.25	0.01	0.00	0.30	0.10
s, saturation flow rate [veh/h]	1810	1741	1810	1684	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	3	493	257	714	73	699	594	12	635	540
d1, Uniform Delay [s]	39.90	20.90	33.47	14.01	37.80	21.24	16.11	39.58	25.45	19.74
k, delay calibration	0.11	0.50	0.16	0.50	0.11	0.11	0.11	0.11	0.21	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	68.20	0.23	10.79	0.35	8.95	1.14	0.01	21.01	9.37	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.37	0.06	0.85	0.12	0.64	0.67	0.02	0.41	0.91	0.30
d, Delay for Lane Group [s/veh]	108.10	21.12	44.26	14.37	46.75	22.38	16.12	60.59	34.82	20.05
Lane Group LOS	F	C	D	B	D	C	B	E	C	C
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.07	0.40	4.50	0.89	1.14	8.05	0.17	0.16	10.75	2.06
50th-Percentile Queue Length [ft/ln]	1.75	9.91	112.39	22.14	28.42	201.27	4.16	4.06	268.71	51.40
95th-Percentile Queue Length [veh/ln]	0.13	0.71	7.97	1.59	2.05	12.70	0.30	0.29	16.13	3.70
95th-Percentile Queue Length [ft/ln]	3.14	17.83	199.32	39.85	51.16	317.61	7.48	7.30	403.13	92.51

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	108.10	21.12	21.12	44.26	14.37	14.37	46.75	22.38	16.12	60.59	34.82	20.05
Movement LOS	F	C	C	D	B	B	D	C	B	E	C	C
d_A, Approach Delay [s/veh]	24.02			35.66			24.39			31.74		
Approach LOS	C			D			C			C		
d_I, Intersection Delay [s/veh]	29.92											
Intersection LOS	C											
Intersection V/C	0.583											

**Emissions**

Vehicle Miles Traveled [mph]	0.06	1.69	6.24	2.52	16.72	167.56	4.62	1.48	170.63	48.58
Stops [stops/h]	3.14	17.83	202.30	39.85	51.16	362.29	7.48	7.30	483.68	92.51
Fuel consumption [US gal/h]	0.06	0.40	5.93	1.08	1.71	14.76	0.39	0.22	17.22	3.72
CO [g/h]	4.41	28.26	414.51	75.62	119.23	1031.65	27.32	15.61	1203.70	259.77
NOx [g/h]	0.86	5.50	80.65	14.71	23.20	200.72	5.31	3.04	234.20	50.54
VOC [g/h]	1.02	6.55	96.07	17.53	27.63	239.09	6.33	3.62	278.97	60.21

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.51	31.51	31.51	31.51
I_p,int, Pedestrian LOS Score for Intersectio	1.971	2.252	2.127	2.715
Crosswalk LOS	A	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	475	475	875	875
d_b, Bicycle Delay [s]	23.26	23.26	12.66	12.66
I_b,int, Bicycle LOS Score for Intersection	1.609	2.065	2.436	2.789
Bicycle LOS	A	B	B	C

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report  
Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 8.4  
 Level Of Service: A  
 Volume to Capacity (v/c): 0.029

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	6	0	0	28	0	0	0	0	0	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	6	0	0	28	0	0	0	0	0	0	23
Peak Hour Factor	1.0000	0.7500	0.7500	1.0000	0.7500	0.7500	1.0000	1.0000	0.7500	1.0000	1.0000	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	0	0	9	0	0	0	0	0	0	8
Total Analysis Volume [veh/h]	0	8	0	0	37	0	0	0	0	0	0	31
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	7.21	0.00	0.00	8.94	9.23	8.46	8.84	9.33	8.43
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.22	2.22	2.22
d_A, Approach Delay [s/veh]	0.00			0.00			8.88			8.43		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.44											
Intersection LOS	A											

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 24.8  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.055

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	10	0	89	0	0	0	0	365	12	56	473	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	0	89	0	0	0	0	365	12	56	473	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	24	0	0	0	0	99	3	15	129	0
Total Analysis Volume [veh/h]	11	0	97	0	0	0	0	397	13	61	514	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.06	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.01	0.00
d_M, Delay for Movement [s/veh]	24.80	23.09	12.26	27.90	21.50	11.38	8.39	0.00	0.00	8.28	0.00	0.00
Movement LOS	C	C	B	D	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.76	0.76	0.76	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00
95th-Percentile Queue Length [ft/ln]	18.96	18.96	18.96	0.00	0.00	0.00	0.00	0.00	0.00	4.16	0.00	0.00
d_A, Approach Delay [s/veh]	13.54			20.26			0.00			0.88		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	1.80											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 13.1  
 Level Of Service: B  
 Volume to Capacity (v/c): 0.002

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	1	0	0	0	350	0	2	492	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	1	0	0	0	350	0	2	492	0
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	94	0	1	133	0
Total Analysis Volume [veh/h]	0	0	0	1	0	0	0	378	0	2	531	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	13.08	13.12	10.35	13.10	13.15	11.54	8.44	0.00	0.00	8.03	0.00	0.00
Movement LOS	B	B	B	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.17	0.17	0.17	0.00	0.00	0.00	0.13	0.00	0.00
d_A, Approach Delay [s/veh]	12.18			13.10			0.00			0.03		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.03											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.068

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	31	1	0	328	479	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	1	0	328	479	13
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	0	0	91	133	4
Total Analysis Volume [veh/h]	34	1	0	365	533	14
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	12.76	12.14	8.49	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.22	0.22	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.62	5.62	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.74		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.47					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	2	1	573	1	1	637
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	573	1	1	637
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	163	0	0	181
Total Analysis Volume [veh/h]	2	1	651	1	1	724
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	14.86	12.70	0.00	0.00	8.82	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.57	0.57	0.00	0.00	0.08	0.00
d_A, Approach Delay [s/veh]	14.14		0.00		0.01	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	16.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⊕			⊕			⊕			⊕		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	0	0	2	0	0	1	580	0	1	621	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	0	0	2	0	0	1	580	0	1	621	0
Peak Hour Factor	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	0	0	166	0	0	178	0
Total Analysis Volume [veh/h]	2	0	0	2	0	0	1	665	0	1	712	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.50	16.02	12.84	16.50	16.01	13.33	9.02	0.00	0.00	8.86	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.48	0.48	0.48	0.48	0.48	0.48	0.08	0.00	0.00	0.08	0.00	0.00
d_A, Approach Delay [s/veh]	16.50			16.50			0.01			0.01		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.06											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 13.0  
 Level Of Service: B  
 Volume to Capacity (v/c): 0.002

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	0	0	0	1	589	0	0	618	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	0	0	0	1	589	0	0	618	0
Peak Hour Factor	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	171	0	0	179	0
Total Analysis Volume [veh/h]	0	0	1	0	0	0	1	684	0	0	718	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	15.58	15.17	12.98	16.61	16.08	13.33	9.04	0.00	0.00	8.92	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.17	0.17	0.17	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.98			15.34			0.01			0.00		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	0.02											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	20.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.468

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐⇐⇐			⇐⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	350.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	12	29	19	4	20	179	157	417	11	9	426	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	29	19	4	20	179	157	417	11	9	426	1
Peak Hour Factor	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	8	5	1	6	51	45	119	3	3	121	0
Total Analysis Volume [veh/h]	14	33	22	5	23	204	179	474	13	10	485	1
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	17	0	0	17	0	15	18	0	13	16	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	14.0	0.0	0.0	14.0	0.0	31.0	37.0	0.0	9.0	15.0	0.0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29.6	29.6	7.7	17.6	17.6	0.8	10.6	10.6
g / C, Green / Cycle	0.49	0.49	0.13	0.29	0.29	0.01	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.04	0.14	0.10	0.13	0.01	0.01	0.13	0.00
s, saturation flow rate [veh/h]	1664	1642	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	892	870	236	1062	474	25	640	286
d1, Uniform Delay [s]	8.03	8.99	25.17	17.23	15.10	29.33	23.47	20.34
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.17	0.75	4.94	0.30	0.02	9.86	1.87	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.08	0.27	0.76	0.45	0.03	0.40	0.76	0.00
d, Delay for Lane Group [s/veh]	8.20	9.74	30.11	17.53	15.12	39.19	25.34	20.34
Lane Group LOS	A	A	C	B	B	D	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.39	1.37	2.41	2.16	0.10	0.19	2.88	0.01
50th-Percentile Queue Length [ft/ln]	9.78	34.33	60.22	54.05	2.62	4.84	72.04	0.25
95th-Percentile Queue Length [veh/ln]	0.70	2.47	4.34	3.89	0.19	0.35	5.19	0.02
95th-Percentile Queue Length [ft/ln]	17.61	61.80	108.40	97.30	4.72	8.72	129.67	0.45

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	8.20	8.20	8.20	9.74	9.74	9.74	30.11	17.53	15.12	39.19	25.34	20.34
Movement LOS	A	A	A	A	A	A	C	B	B	D	C	C
d_A, Approach Delay [s/veh]	8.20			9.74			20.86			25.61		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	20.11											
Intersection LOS	C											
Intersection V/C	0.468											

**Emissions**

Vehicle Miles Traveled [mph]	5.71	21.40	139.82	370.25	10.15	1.11	53.84	0.11
Stops [stops/h]	23.47	82.40	144.53	259.45	6.29	11.63	345.78	0.60
Fuel consumption [US gal/h]	0.60	2.71	8.46	18.90	0.50	0.33	10.72	0.02
CO [g/h]	42.13	189.18	591.27	1320.80	34.71	23.26	749.67	1.33
NOx [g/h]	8.20	36.81	115.04	256.98	6.75	4.53	145.86	0.26
VOC [g/h]	9.76	43.84	137.03	306.11	8.04	5.39	173.74	0.31

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	333	1100	367
d_b, Bicycle Delay [s]	20.83	20.83	6.08	20.01
I_b,int, Bicycle LOS Score for Intersection	1.673	1.942	2.109	1.969
Bicycle LOS	A	A	B	A

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report  
Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	31.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.581

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇑⇒			⇑⇒⇐			⇑⇒⇐			⇑⇒⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	8	16	20	113	9	26	19	689	28	19	404	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	16	20	113	9	26	19	689	28	19	404	95
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	4	5	30	2	7	5	180	7	5	106	25
Total Analysis Volume [veh/h]	8	17	21	118	9	27	20	721	29	20	423	99
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	14.0	0.0	0.0	14.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	23.0	0.0	9.0	23.0	0.0	19.0	49.0	0.0	9.0	39.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0.9	27.9	7.5	34.5	2.0	36.6	36.6	2.0	36.6	36.6
g / C, Green / Cycle	0.01	0.31	0.08	0.38	0.02	0.41	0.41	0.02	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.07	0.02	0.01	0.38	0.02	0.01	0.22	0.06
s, saturation flow rate [veh/h]	1810	1731	1810	1678	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	19	537	149	642	42	774	657	40	772	656
d1, Uniform Delay [s]	44.26	21.88	40.51	17.53	43.43	25.49	16.11	43.51	20.41	16.90
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.25	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.38	0.25	8.92	0.17	8.36	11.64	0.03	9.31	0.61	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.42	0.07	0.79	0.06	0.48	0.93	0.04	0.50	0.55	0.15
d, Delay for Lane Group [s/veh]	58.64	22.14	49.43	17.70	51.79	37.14	16.13	52.83	21.02	17.01
Lane Group LOS	E	C	D	B	D	D	B	D	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.25	0.57	2.76	0.45	0.56	17.93	0.40	0.52	6.14	1.18
50th-Percentile Queue Length [ft/ln]	6.14	14.24	68.93	11.23	13.99	448.32	9.93	13.03	153.45	29.59
95th-Percentile Queue Length [veh/ln]	0.44	1.03	4.96	0.81	1.01	24.88	0.71	0.94	10.20	2.13
95th-Percentile Queue Length [ft/ln]	11.05	25.63	124.07	20.22	25.18	621.95	17.87	23.46	255.03	53.26

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	58.64	22.14	22.14	49.43	17.70	17.70	51.79	37.14	16.13	52.83	21.02	17.01
Movement LOS	E	C	C	D	B	B	D	D	B	D	C	B
d_A, Approach Delay [s/veh]	28.48			42.01			36.73			21.46		
Approach LOS	C			D			D			C		
d_I, Intersection Delay [s/veh]	31.54											
Intersection LOS	C											
Intersection V/C	0.581											

**Emissions**

Vehicle Miles Traveled [mph]	0.47	2.21	3.38	1.03	7.11	256.49	10.32	5.92	125.31	29.33
Stops [stops/h]	9.82	22.78	110.28	17.98	22.39	717.31	15.89	20.85	245.52	47.34
Fuel consumption [US gal/h]	0.23	0.53	3.35	0.50	0.75	24.76	0.87	0.73	9.77	2.05
CO [g/h]	16.32	37.06	234.06	34.81	52.17	1730.49	60.94	51.27	683.22	143.39
NOx [g/h]	3.18	7.21	45.54	6.77	10.15	336.69	11.86	9.98	132.93	27.90
VOC [g/h]	3.78	8.59	54.24	8.07	12.09	401.06	14.12	11.88	158.34	33.23

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersectio	1.992	2.114	2.133	2.702
Crosswalk LOS	A	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	422	1000	778
d_b, Bicycle Delay [s]	28.01	28.01	11.25	16.81
I_b,int, Bicycle LOS Score for Intersection	1.636	1.814	2.830	2.454
Bicycle LOS	A	A	C	B

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.051

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	4	0	0	40	0	0	0	0	0	0	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	4	0	0	40	0	0	0	0	0	0	35
Peak Hour Factor	1.0000	0.6330	0.6330	1.0000	0.6330	0.6330	1.0000	1.0000	0.6330	1.0000	1.0000	0.6330
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	0	0	16	0	0	0	0	0	0	14
Total Analysis Volume [veh/h]	0	6	0	0	63	0	0	0	0	0	0	55
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	7.32	0.00	0.00	7.21	0.00	0.00	9.26	9.36	8.57	9.06	9.54	8.50
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.16	0.16
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.01	4.01	4.01
d_A, Approach Delay [s/veh]	0.00			0.00			9.06			8.50		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.77											
Intersection LOS	A											

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 35.5  
 Level Of Service: E  
 Volume to Capacity (v/c): 0.061

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	7	0	73	0	0	1	0	651	30	71	364	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	0	73	0	0	1	0	651	30	71	364	1
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	20	0	0	0	0	177	8	19	99	0
Total Analysis Volume [veh/h]	8	0	79	0	0	1	0	708	33	77	396	1
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.06	0.00	0.18	0.00	0.00	0.00	0.00	0.01	0.00	0.09	0.00	0.00
d_M, Delay for Movement [s/veh]	35.51	31.71	16.65	40.50	28.99	10.49	8.07	0.00	0.00	9.51	0.00	0.00
Movement LOS	E	D	C	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.95	0.95	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00	0.00
95th-Percentile Queue Length [ft/ln]	23.65	23.65	23.65	0.11	0.11	0.11	0.00	0.00	0.00	7.22	0.00	0.00
d_A, Approach Delay [s/veh]	18.39			10.49			0.00			1.55		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	1.80											
Intersection LOS	E											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 15.4  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.009

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	3	0	0	1	724	0	0	340	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	3	0	0	1	724	0	0	340	2
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	0	0	194	0	0	91	1
Total Analysis Volume [veh/h]	0	0	0	3	0	0	1	774	0	0	364	2
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	15.33	14.95	13.96	15.42	15.04	10.35	7.99	0.00	0.00	9.23	0.00	0.00
Movement LOS	C	B	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.65	0.65	0.65	0.06	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.75			15.42			0.01			0.00		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	0.05											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	10	3	3	710	310	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	3	3	710	310	36
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	1	191	83	10
Total Analysis Volume [veh/h]	11	3	3	763	333	39
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	14.11	10.44	8.01	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.42	2.42	0.13	0.13	0.00	0.00
d_A, Approach Delay [s/veh]	13.32		0.03		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.18					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	0	0	858	1	2	487
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	858	1	2	487
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	221	0	1	125
Total Analysis Volume [veh/h]	0	0	884	1	2	502
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	15.37	15.37	0.00	0.00	9.67	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.19	0.00
d_A, Approach Delay [s/veh]	15.37		0.00		0.04	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⊕			⊕			⊕			⊕		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	2	0	0	0	1	847	0	1	494	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	2	0	0	0	1	847	0	1	494	0
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	0	0	0	0	222	0	0	129	0
Total Analysis Volume [veh/h]	0	0	2	0	0	0	1	887	0	1	517	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.45	16.71	15.47	17.48	16.67	11.40	8.40	0.00	0.00	9.67	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.44	0.44	0.44	0.00	0.00	0.00	0.07	0.00	0.00	0.10	0.00	0.00
d_A, Approach Delay [s/veh]	15.47			15.18			0.01			0.02		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.03											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 17.8  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.004

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	1	0	0	0	849	0	0	495	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	1	0	0	0	849	0	0	495	3
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	228	0	0	133	1
Total Analysis Volume [veh/h]	0	0	1	1	0	0	0	911	0	0	531	3
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	16.85	16.11	15.77	17.81	16.96	11.58	8.45	0.00	0.00	9.76	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.22	0.27	0.27	0.27	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.77			17.81			0.00			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.02											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	21.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.432

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	350.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	20	11	9	39	160	146	655	10	24	381	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	20	11	9	39	160	146	655	10	24	381	5
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	3	2	11	43	40	177	3	7	103	1
Total Analysis Volume [veh/h]	2	22	12	10	42	173	158	710	11	26	413	5
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	11	0	0	11	0	27	32	0	5	10	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	15.0	0.0	0.0	15.0	0.0	31.0	36.0	0.0	9.0	14.0	0.0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	31.1	31.1	6.9	15.1	15.1	1.8	10.0	10.0
g / C, Green / Cycle	0.52	0.52	0.12	0.25	0.25	0.03	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.02	0.14	0.09	0.20	0.01	0.01	0.11	0.00
s, saturation flow rate [veh/h]	1775	1666	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	980	923	212	917	409	55	602	269
d1, Uniform Delay [s]	7.16	8.11	25.62	20.80	16.83	28.63	23.53	20.91
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.07	0.63	5.14	1.43	0.03	6.32	1.39	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.04	0.24	0.75	0.77	0.03	0.48	0.69	0.02
d, Delay for Lane Group [s/veh]	7.23	8.74	30.76	22.23	16.86	34.95	24.92	20.93
Lane Group LOS	A	A	C	C	B	C	C	C
Critical Lane Group	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.18	1.20	2.16	3.91	0.10	0.42	2.42	0.05
50th-Percentile Queue Length [ft/ln]	4.58	30.10	53.97	97.78	2.41	10.41	60.44	1.29
95th-Percentile Queue Length [veh/ln]	0.33	2.17	3.89	7.04	0.17	0.75	4.35	0.09
95th-Percentile Queue Length [ft/ln]	8.24	54.18	97.15	176.00	4.34	18.73	108.79	2.32

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	7.23	7.23	7.23	8.74	8.74	8.74	30.76	22.23	16.86	34.95	24.92	20.93
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	C
d_A, Approach Delay [s/veh]	7.23			8.74			23.70			25.46		
Approach LOS	A			A			C			C		
d_I, Intersection Delay [s/veh]	21.69											
Intersection LOS	C											
Intersection V/C	0.432											

**Emissions**

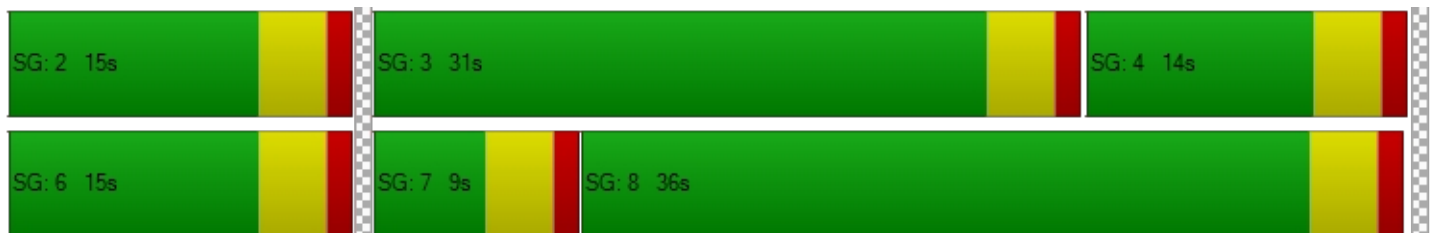
Vehicle Miles Traveled [mph]	2.98	20.76	123.42	554.60	8.59	2.89	45.85	0.56
Stops [stops/h]	10.99	72.24	129.53	469.33	5.79	24.98	290.12	3.09
Fuel consumption [US gal/h]	0.29	2.44	7.52	30.48	0.43	0.75	9.02	0.10
CO [g/h]	20.39	170.29	525.90	2130.73	30.24	52.11	630.30	6.80
NOx [g/h]	3.97	33.13	102.32	414.56	5.88	10.14	122.63	1.32
VOC [g/h]	4.73	39.47	121.88	493.82	7.01	12.08	146.08	1.58

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	367	367	1067	333
d_b, Bicycle Delay [s]	20.01	20.01	6.53	20.83
I_b,int, Bicycle LOS Score for Intersection	1.619	1.931	2.285	1.926
Bicycle LOS	A	A	B	A

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



OPENING YEAR  
TRAFFIC CONDITIONS

**Intersection Level Of Service Report**  
**Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	30.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.656

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Input [veh/h]	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	11	0	0	0	54	0	0	49	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	12	14	203	21	56	42	469	11	4	557	155
Peak Hour Factor	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	4	4	60	6	17	12	138	3	1	164	46
Total Analysis Volume [veh/h]	1	14	17	240	25	66	50	554	13	5	658	183
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	15.0	14.0	0.0	20.0	19.0	0.0	11.0	33.0	0.0	13.0	35.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0.2	18.2	12.6	30.6	3.4	32.7	32.7	0.6	29.9	29.9
g / C, Green / Cycle	0.00	0.23	0.16	0.38	0.04	0.41	0.41	0.01	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.13	0.05	0.03	0.29	0.01	0.00	0.35	0.11
s, saturation flow rate [veh/h]	1810	1732	1810	1684	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	4	393	285	643	77	776	660	13	710	603
d1, Uniform Delay [s]	39.83	24.35	32.74	16.17	37.73	19.75	14.11	39.52	24.01	17.70
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.18	0.11	0.11	0.31	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	24.18	0.39	6.69	0.46	9.06	2.06	0.01	16.36	13.97	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.23	0.08	0.84	0.14	0.65	0.71	0.02	0.37	0.93	0.30
d, Delay for Lane Group [s/veh]	64.01	24.75	39.43	16.63	46.79	21.81	14.12	55.88	37.98	17.98
Lane Group LOS	E	C	D	B	D	C	B	E	D	B
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.05	0.47	4.60	1.02	1.21	9.51	0.15	0.15	12.95	2.14
50th-Percentile Queue Length [ft/ln]	1.21	11.81	114.95	25.40	30.20	237.81	3.85	3.81	323.70	53.42
95th-Percentile Queue Length [veh/ln]	0.09	0.85	8.11	1.83	2.17	14.57	0.28	0.27	18.85	3.85
95th-Percentile Queue Length [ft/ln]	2.17	21.27	202.86	45.72	54.35	364.27	6.94	6.86	471.23	96.15

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	64.01	24.75	24.75	39.43	16.63	16.63	46.79	21.81	14.12	55.88	37.98	17.98
Movement LOS	E	C	C	D	B	B	D	C	B	E	D	B
d_A, Approach Delay [s/veh]	25.97			33.16			23.68			33.76		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	30.11											
Intersection LOS	C											
Intersection V/C	0.656											

**Emissions**

Vehicle Miles Traveled [mph]	0.06	1.80	6.87	2.61	17.79	197.08	4.62	1.48	194.92	54.21
Stops [stops/h]	2.17	21.27	206.90	45.72	54.35	428.06	6.94	6.86	582.66	96.15
Fuel consumption [US gal/h]	0.04	0.48	6.00	1.24	1.82	17.30	0.39	0.21	20.56	3.96
CO [g/h]	2.94	33.72	419.32	86.98	126.87	1208.96	26.95	14.80	1436.96	276.87
NOx [g/h]	0.57	6.56	81.58	16.92	24.68	235.22	5.24	2.88	279.58	53.87
VOC [g/h]	0.68	7.81	97.18	20.16	29.40	280.19	6.25	3.43	333.03	64.17

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		0.0		0.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		0.00		0.00	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		0.000		0.000		0.000	
Crosswalk LOS	F		F		F		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	250		375		725		775	
d_b, Bicycle Delay [s]	30.63		26.41		16.26		15.01	
I_b,int, Bicycle LOS Score for Intersection	1.612		2.106		2.578		2.956	
Bicycle LOS	A		B		B		C	

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.030

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	6	0	0	28	0	0	0	0	0	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	6	0	0	29	0	0	0	0	0	0	24
Peak Hour Factor	1.0000	0.7500	0.7500	1.0000	0.7500	0.7500	1.0000	1.0000	0.7500	1.0000	1.0000	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	0	0	10	0	0	0	0	0	0	8
Total Analysis Volume [veh/h]	0	8	0	0	39	0	0	0	0	0	0	32
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	7.21	0.00	0.00	8.96	9.24	8.40	8.76	9.34	8.42
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.28	2.28	2.28
d_A, Approach Delay [s/veh]	0.00			0.00			8.87			8.42		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.41											
Intersection LOS	A											

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 30.6  
 Level Of Service: D  
 Volume to Capacity (v/c): 0.071

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	10	0	89	0	0	0	0	365	12	56	473	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	54	0	0	49	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	0	93	0	0	0	0	434	12	58	541	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	25	0	0	0	0	118	3	16	147	0
Total Analysis Volume [veh/h]	11	0	101	0	0	0	0	472	13	63	588	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.07	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.00
d_M, Delay for Movement [s/veh]	30.56	27.71	13.54	35.18	25.44	12.02	8.61	0.00	0.00	8.51	0.00	0.00
Movement LOS	D	D	B	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.94	0.94	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	0.00
95th-Percentile Queue Length [ft/ln]	23.38	23.38	23.38	0.00	0.00	0.00	0.00	0.00	0.00	4.60	0.00	0.00
d_A, Approach Delay [s/veh]	15.21			24.21			0.00			0.82		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	1.80											
Intersection LOS	D											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 14.1  
 Level Of Service: B  
 Volume to Capacity (v/c): 0.003

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	1	0	0	0	350	0	2	492	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	54	0	0	49	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	1	0	0	0	418	0	2	561	0
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	113	0	1	151	0
Total Analysis Volume [veh/h]	0	0	0	1	0	0	0	451	0	2	605	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.05	13.95	10.88	14.08	13.98	12.20	8.66	0.00	0.00	8.22	0.00	0.00
Movement LOS	B	B	B	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.19	0.19	0.19	0.00	0.00	0.00	0.13	0.00	0.00
d_A, Approach Delay [s/veh]	12.96			14.08			0.00			0.03		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.03											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	13.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.105

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	31	1	0	328	479	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	43	39	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	1	0	384	537	24
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	0	0	107	149	7
Total Analysis Volume [veh/h]	48	1	0	427	597	27
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.11	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	13.85	13.18	8.72	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.36	0.36	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	8.96	8.96	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.83		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.62					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	16.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	2	1	573	1	1	637
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	65	0	0	59
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	661	1	1	722
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	188	0	0	205
Total Analysis Volume [veh/h]	2	1	751	1	1	820
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	16.20	13.79	0.00	0.00	9.16	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.65	0.65	0.00	0.00	0.09	0.00
d_A, Approach Delay [s/veh]	15.40		0.00		0.01	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.04					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	18.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⊕			⊕			⊕			⊕		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	0	0	2	0	0	1	580	0	1	621	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	65	0	0	59	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	0	0	2	0	0	1	668	0	1	705	0
Peak Hour Factor	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	1	0	0	0	192	0	0	202	0
Total Analysis Volume [veh/h]	2	0	0	2	0	0	1	766	0	1	808	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	18.32	17.50	13.97	18.32	17.50	14.47	9.36	0.00	0.00	9.21	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.55	0.55	0.55	0.55	0.55	0.55	0.09	0.00	0.00	0.09	0.00	0.00
d_A, Approach Delay [s/veh]	18.32			18.32			0.01			0.01		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.06											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 14.1  
 Level Of Service: B  
 Volume to Capacity (v/c): 0.003

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	0	0	0	1	589	0	0	618	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	65	0	0	59	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	0	0	0	1	678	0	0	702	0
Peak Hour Factor	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	197	0	0	204	0
Total Analysis Volume [veh/h]	0	0	1	0	0	0	1	787	0	0	815	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	17.19	16.47	14.14	18.47	17.58	14.46	9.39	0.00	0.00	9.28	0.00	0.00
Movement LOS	C	C	B	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.19	0.19	0.19	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.14			16.84			0.01			0.00		
Approach LOS	B			C			A			A		
d_I, Intersection Delay [s/veh]	0.01											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.555

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	350.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	12	29	19	4	20	179	157	417	11	9	426	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	5	0	5	30	36	29	0	5	29	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	36	25	4	26	216	199	463	11	14	472	1
Peak Hour Factor	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	10	7	1	7	61	57	132	3	4	134	0
Total Analysis Volume [veh/h]	14	41	28	5	30	246	226	527	13	16	537	1
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	17	0	0	17	0	16	18	0	13	15	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	14.0	0.0	0.0	14.0	0.0	24.0	37.0	0.0	9.0	22.0	0.0
Lead / Lag	-	-	-	-	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	27.2	27.2	9.5	11.5	11.5	9.3	11.3	11.3
g / C, Green / Cycle	0.45	0.45	0.16	0.19	0.19	0.16	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.05	0.17	0.12	0.15	0.01	0.01	0.15	0.00
s, saturation flow rate [veh/h]	1681	1643	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	831	805	286	696	311	280	684	305
d1, Uniform Delay [s]	9.42	10.83	24.29	22.90	19.72	21.62	23.17	19.74
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.24	1.19	4.84	1.71	0.05	0.08	2.04	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.10	0.35	0.79	0.76	0.04	0.06	0.79	0.00
d, Delay for Lane Group [s/veh]	9.66	12.03	29.13	24.62	19.78	21.71	25.21	19.75
Lane Group LOS	A	B	C	C	B	C	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.54	1.99	2.97	3.08	0.13	0.17	3.19	0.01
50th-Percentile Queue Length [ft/ln]	13.44	49.74	74.32	77.09	3.22	4.22	79.74	0.25
95th-Percentile Queue Length [veh/ln]	0.97	3.58	5.35	5.55	0.23	0.30	5.74	0.02
95th-Percentile Queue Length [ft/ln]	24.19	89.52	133.77	138.75	5.79	7.60	143.54	0.44

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	9.66	9.66	9.66	12.03	12.03	12.03	29.13	24.62	19.78	21.71	25.21	19.75
Movement LOS	A	A	A	B	B	B	C	C	B	C	C	B
d_A, Approach Delay [s/veh]	9.66			12.03			25.87			25.10		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	22.51											
Intersection LOS	C											
Intersection V/C	0.555											

**Emissions**

Vehicle Miles Traveled [mph]	6.87	25.92	176.53	411.65	10.15	1.78	59.61	0.11
Stops [stops/h]	32.25	119.37	178.36	370.01	7.72	10.14	382.77	0.59
Fuel consumption [US gal/h]	0.80	3.77	10.56	23.28	0.54	0.32	11.86	0.02
CO [g/h]	55.88	263.67	738.02	1627.50	37.43	22.26	828.96	1.31
NOx [g/h]	10.87	51.30	143.59	316.65	7.28	4.33	161.29	0.25
VOC [g/h]	12.95	61.11	171.04	377.19	8.67	5.16	192.12	0.30

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	333	1100	600
d_b, Bicycle Delay [s]	20.83	20.83	6.08	14.70
I_b,int, Bicycle LOS Score for Intersection	1.697	2.023	2.192	2.017
Bicycle LOS	A	B	B	B

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	33.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.644

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	8	16	20	113	9	26	19	689	28	19	404	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	10	0	0	0	48	0	0	52	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	17	21	128	9	27	20	765	29	20	472	110
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	4	5	33	2	7	5	200	8	5	123	29
Total Analysis Volume [veh/h]	8	18	22	134	9	28	21	800	30	21	494	115
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	5	19	0	5	19	0	15	45	0	5	35	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	14.0	0.0	0.0	14.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	15.0	23.0	0.0	15.0	23.0	0.0	17.0	43.0	0.0	9.0	35.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1.0	24.0	8.3	31.3	2.1	39.6	39.6	2.1	39.6	39.6
g / C, Green / Cycle	0.01	0.27	0.09	0.35	0.02	0.44	0.44	0.02	0.44	0.44
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.07	0.02	0.01	0.42	0.02	0.01	0.26	0.07
s, saturation flow rate [veh/h]	1810	1732	1810	1676	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	21	461	168	581	45	837	711	42	834	709
d1, Uniform Delay [s]	44.14	24.82	40.00	19.63	43.32	24.35	14.36	43.44	19.14	15.25
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.39	0.11	0.11	0.14	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.47	0.37	8.38	0.21	7.57	18.87	0.02	8.91	0.85	0.11
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.37	0.09	0.80	0.06	0.47	0.96	0.04	0.50	0.59	0.16
d, Delay for Lane Group [s/veh]	54.61	25.20	48.38	19.84	50.88	43.22	14.39	52.35	20.00	15.36
Lane Group LOS	D	C	D	B	D	D	B	D	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.23	0.65	3.09	0.50	0.58	21.59	0.39	0.54	7.02	1.29
50th-Percentile Queue Length [ft/ln]	5.81	16.32	77.30	12.47	14.49	539.65	9.63	13.56	175.39	32.14
95th-Percentile Queue Length [veh/ln]	0.42	1.17	5.57	0.90	1.04	29.21	0.69	0.98	11.36	2.31
95th-Percentile Queue Length [ft/ln]	10.45	29.37	139.13	22.44	26.07	730.14	17.34	24.41	283.99	57.85

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	54.61	25.20	25.20	48.38	19.84	19.84	50.88	43.22	14.39	52.35	20.00	15.36
Movement LOS	D	C	C	D	B	B	D	D	B	D	B	B
d_A, Approach Delay [s/veh]	30.10			42.21			42.39			20.23		
Approach LOS	C			D			D			C		
d_I, Intersection Delay [s/veh]	33.81											
Intersection LOS	C											
Intersection V/C	0.644											

**Emissions**

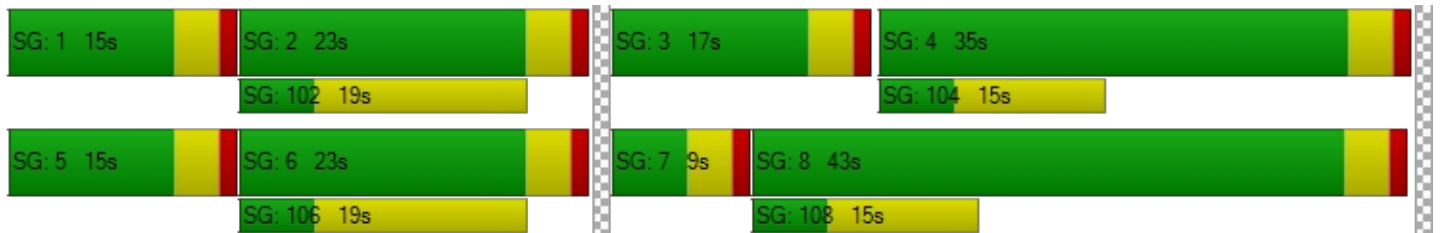
Vehicle Miles Traveled [mph]	0.47	2.33	3.84	1.06	7.47	284.60	10.67	6.22	146.34	34.07
Stops [stops/h]	9.29	26.11	123.67	19.95	23.18	863.45	15.41	21.69	280.63	51.42
Fuel consumption [US gal/h]	0.22	0.61	3.74	0.56	0.78	28.46	0.89	0.77	11.22	2.29
CO [g/h]	15.40	42.61	261.76	38.82	54.51	1989.32	62.30	53.48	784.17	160.04
NOx [g/h]	3.00	8.29	50.93	7.55	10.61	387.05	12.12	10.40	152.57	31.14
VOC [g/h]	3.57	9.87	60.67	9.00	12.63	461.04	14.44	12.39	181.74	37.09

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersectio	2.172	2.135	2.133	2.777
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	422	867	689
d_b, Bicycle Delay [s]	28.01	28.01	14.45	19.34
I_b,int, Bicycle LOS Score for Intersection	1.639	1.842	2.964	2.599
Bicycle LOS	A	A	C	B

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 8.5  
 Level Of Service: A  
 Volume to Capacity (v/c): 0.052

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	4	0	0	40	0	0	0	0	0	0	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	4	0	0	42	0	0	0	0	0	0	36
Peak Hour Factor	1.0000	0.6330	0.6330	1.0000	0.6330	0.6330	1.0000	1.0000	0.6330	1.0000	1.0000	0.6330
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	0	0	17	0	0	0	0	0	0	14
Total Analysis Volume [veh/h]	0	6	0	0	66	0	0	0	0	0	0	57
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	7.32	0.00	0.00	7.21	0.00	0.00	9.32	9.38	8.46	8.91	9.56	8.50
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.17	0.17
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.15	4.15	4.15
d_A, Approach Delay [s/veh]	0.00			0.00			9.05			8.50		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.75											
Intersection LOS	A											

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 45.5  
 Level Of Service: E  
 Volume to Capacity (v/c): 0.079

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	7	0	73	0	0	1	0	651	30	71	364	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	48	0	0	52	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	0	76	0	0	1	0	725	31	74	431	1
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	21	0	0	0	0	197	8	20	117	0
Total Analysis Volume [veh/h]	8	0	83	0	0	1	0	789	34	81	469	1
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.08	0.00	0.22	0.00	0.00	0.00	0.00	0.01	0.00	0.10	0.00	0.00
d_M, Delay for Movement [s/veh]	45.55	39.55	19.16	53.57	35.44	11.03	8.27	0.00	0.00	9.90	0.00	0.00
Movement LOS	E	E	C	F	E	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.20	1.20	1.20	0.01	0.01	0.01	0.00	0.00	0.00	0.33	0.00	0.00
95th-Percentile Queue Length [ft/ln]	30.05	30.05	30.05	0.13	0.13	0.13	0.00	0.00	0.00	8.24	0.00	0.00
d_A, Approach Delay [s/veh]	21.48			11.03			0.00			1.46		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	1.89											
Intersection LOS	E											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 16.7  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.010

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	3	0	0	1	724	0	0	340	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	48	0	0	52	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	3	0	0	1	801	0	0	406	2
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	0	0	214	0	0	109	1
Total Analysis Volume [veh/h]	0	0	0	3	0	0	1	857	0	0	434	2
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	16.61	16.00	15.00	16.72	16.11	10.87	8.18	0.00	0.00	9.54	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.03	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.73	0.73	0.73	0.07	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.87			16.72			0.01			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.04											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	15.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.056

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	10	3	3	710	310	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	0	38	41	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	3	3	777	364	48
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	1	1	209	98	13
Total Analysis Volume [veh/h]	21	3	3	835	391	52
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.06	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	15.28	11.22	8.20	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.19	0.19	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.87	4.87	0.13	0.13	0.00	0.00
d_A, Approach Delay [s/veh]	14.77		0.03		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.29					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	0	0	858	1	2	487
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	58	0	0	63
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	951	1	2	570
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	245	0	1	147
Total Analysis Volume [veh/h]	0	0	979	1	2	587
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	16.65	16.77	0.00	0.00	10.07	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.21	0.00
d_A, Approach Delay [s/veh]	16.71		0.00		0.03	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	16.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⊕			⊕			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	2	0	0	0	1	847	0	1	494	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	58	0	0	63	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	2	0	0	0	1	939	0	1	577	0
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	0	0	0	0	246	0	0	151	0
Total Analysis Volume [veh/h]	0	0	2	0	0	0	1	983	0	1	604	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	19.27	18.17	16.90	19.31	18.11	12.17	8.66	0.00	0.00	10.07	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.50	0.50	0.50	0.00	0.00	0.00	0.08	0.00	0.00	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	16.90			16.53			0.01			0.02		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.03											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 19.7  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.004

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	1	0	0	0	849	0	0	495	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	58	0	0	63	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	1	0	0	0	941	0	0	578	3
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	252	0	0	155	1
Total Analysis Volume [veh/h]	0	0	1	1	0	0	0	1010	0	0	620	3
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	18.55	17.45	17.30	19.73	18.49	12.40	8.72	0.00	0.00	10.19	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.26	0.26	0.26	0.31	0.31	0.31	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	17.30			19.73			0.00			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.02											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	21.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.497

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	350.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	20	11	9	39	160	146	655	10	24	381	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	6	0	5	29	24	34	0	6	34	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	25	17	9	46	195	176	715	10	31	430	5
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	7	5	2	12	53	48	194	3	8	116	1
Total Analysis Volume [veh/h]	2	27	18	10	50	211	191	775	11	34	466	5
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	10	0	0	10	0	28	33	0	5	10	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	22.0	0.0	0.0	22.0	0.0	19.0	23.0	0.0	15.0	19.0	0.0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29.8	29.8	8.0	16.0	16.0	2.2	10.2	10.2
g / C, Green / Cycle	0.50	0.50	0.13	0.27	0.27	0.04	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.16	0.11	0.21	0.01	0.02	0.13	0.00
s, saturation flow rate [veh/h]	1767	1664	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	937	886	243	964	430	69	617	275
d1, Uniform Delay [s]	7.86	9.13	25.14	20.54	16.25	28.27	23.69	20.70
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.10	0.89	5.55	1.62	0.02	5.26	1.91	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.05	0.31	0.79	0.80	0.03	0.49	0.76	0.02
d, Delay for Lane Group [s/veh]	7.96	10.02	30.69	22.16	16.27	33.54	25.60	20.73
Lane Group LOS	A	B	C	C	B	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.26	1.64	2.60	4.26	0.09	0.52	2.79	0.05
50th-Percentile Queue Length [ft/ln]	6.50	40.92	64.97	106.49	2.34	12.95	69.67	1.28
95th-Percentile Queue Length [veh/ln]	0.47	2.95	4.68	7.64	0.17	0.93	5.02	0.09
95th-Percentile Queue Length [ft/ln]	11.69	73.66	116.95	191.11	4.21	23.32	125.41	2.30

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	7.96	7.96	7.96	10.02	10.02	10.02	30.69	22.16	16.27	33.54	25.60	20.73
Movement LOS	A	A	A	B	B	B	C	C	B	C	C	C
d_A, Approach Delay [s/veh]	7.96			10.02			23.76			26.09		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	21.93											
Intersection LOS	C											
Intersection V/C	0.497											

**Emissions**

Vehicle Miles Traveled [mph]	3.89	25.00	149.19	605.37	8.59	3.77	51.73	0.56
Stops [stops/h]	15.59	98.21	155.94	511.16	5.62	31.09	334.42	3.07
Fuel consumption [US gal/h]	0.40	3.21	9.08	33.24	0.43	0.94	10.37	0.10
CO [g/h]	28.19	224.60	634.69	2323.48	29.93	65.41	724.85	6.76
NOx [g/h]	5.48	43.70	123.49	452.07	5.82	12.73	141.03	1.32
VOC [g/h]	6.53	52.05	147.10	538.49	6.94	15.16	167.99	1.57

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	600	633	500
d_b, Bicycle Delay [s]	14.70	14.70	14.01	16.88
I_b,int, Bicycle LOS Score for Intersection	1.637	2.007	2.366	1.976
Bicycle LOS	A	B	B	A

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



OPENING YEAR WITH PROJECT  
TRAFFIC CONDITIONS

**Intersection Level Of Service Report**  
**Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	34.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.688

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Input [veh/h]	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	36	5	52	11	5	0	0	54	35	50	49	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	17	66	203	26	56	42	469	46	54	557	155
Peak Hour Factor	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470	0.8470
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	5	19	60	8	17	12	138	14	16	164	46
Total Analysis Volume [veh/h]	44	20	78	240	31	66	50	554	54	64	658	183
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	14.0	0.0	0.0	14.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	23.0	0.0	9.0	23.0	0.0	9.0	49.0	0.0	9.0	49.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3.3	22.9	13.7	33.3	3.6	33.2	33.2	4.1	33.8	33.8
g / C, Green / Cycle	0.04	0.25	0.15	0.37	0.04	0.37	0.37	0.05	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.02	0.06	0.13	0.06	0.03	0.29	0.03	0.04	0.35	0.11
s, saturation flow rate [veh/h]	1810	1666	1810	1696	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	67	426	274	628	72	701	596	83	713	606
d1, Uniform Delay [s]	42.76	26.48	37.34	18.92	42.68	25.29	18.53	42.49	26.88	19.82
k, delay calibration	0.11	0.50	0.19	0.50	0.11	0.15	0.11	0.11	0.22	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	10.35	1.26	14.04	0.52	11.49	2.73	0.06	14.18	10.33	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.66	0.23	0.87	0.15	0.70	0.79	0.09	0.77	0.92	0.30
d, Delay for Lane Group [s/veh]	53.11	27.73	51.38	19.44	54.17	28.02	18.60	56.66	37.21	20.10
Lane Group LOS	D	C	D	B	D	C	B	E	D	C
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.12	1.72	5.82	1.30	1.38	11.66	0.81	1.66	13.95	2.49
50th-Percentile Queue Length [ft/ln]	27.94	42.94	145.47	32.42	34.61	291.56	20.15	41.42	348.81	62.21
95th-Percentile Queue Length [veh/ln]	2.01	3.09	9.78	2.33	2.49	17.26	1.45	2.98	20.08	4.48
95th-Percentile Queue Length [ft/ln]	50.30	77.29	244.38	58.36	62.29	431.57	36.26	74.55	501.96	111.97

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	53.11	27.73	27.73	51.38	19.44	19.44	54.17	28.02	18.60	56.66	37.21	20.10
Movement LOS	D	C	C	D	B	B	D	C	B	E	D	C
d_A, Approach Delay [s/veh]	35.60			42.19			29.23			35.13		
Approach LOS	D			D			C			D		
d_I, Intersection Delay [s/veh]	34.43											
Intersection LOS	C											
Intersection V/C	0.688											

**Emissions**

Vehicle Miles Traveled [mph]	2.56	5.70	6.87	2.78	17.79	197.08	19.21	18.96	194.92	54.21
Stops [stops/h]	44.71	68.70	232.76	51.87	55.37	466.49	32.23	66.27	558.09	99.53
Fuel consumption [US gal/h]	1.12	1.60	7.06	1.44	1.89	18.00	1.65	2.39	20.08	4.09
CO [g/h]	78.23	112.03	493.68	100.67	132.12	1257.86	115.37	167.07	1403.37	286.01
NOx [g/h]	15.22	21.80	96.05	19.59	25.71	244.73	22.45	32.51	273.04	55.65
VOC [g/h]	18.13	25.97	114.41	23.33	30.62	291.52	26.74	38.72	325.24	66.29

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.45	36.45	36.45	36.45
I_p,int, Pedestrian LOS Score for Intersectio	2.239	2.293	2.133	2.854
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	422	422	1000	1000
d_b, Bicycle Delay [s]	28.01	28.01	11.25	11.25
I_b,int, Bicycle LOS Score for Intersection	1.794	2.116	2.645	3.053
Bicycle LOS	A	B	B	C

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.112

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	6	0	0	28	0	0	0	0	0	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	0	0	3	45	93	0	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	6	0	0	32	45	93	0	7	0	0	24
Peak Hour Factor	1.0000	0.7500	0.7500	1.0000	0.7500	0.7500	1.0000	1.0000	0.7500	1.0000	1.0000	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	0	0	11	15	23	0	2	0	0	8
Total Analysis Volume [veh/h]	10	8	0	0	43	60	93	0	9	0	0	32
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	7.41	0.00	0.00	7.21	0.00	0.00	9.94	10.16	9.15	8.95	9.85	8.42
Movement LOS	A	A	A	A	A	A	A	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.41	0.41	0.41	0.09	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.42	0.42	0.42	0.00	0.00	0.00	10.31	10.31	10.31	2.28	2.28	2.28
d_A, Approach Delay [s/veh]	4.12			0.00			9.87			8.42		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.30											
Intersection LOS	A											

**Intersection Level Of Service Report**  
**Intersection 3: Project Driveway #1/ Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

**Intersection Setup**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	50	0	0	0	0	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	0	0	0	0	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	0	0	0	7
Total Analysis Volume [veh/h]	50	0	0	0	0	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.75	8.36	7.25	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.90	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.75		3.63		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.61					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 4: Project Driveway #2/Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.055

**Intersection Setup**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	50	0	0	50	28	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	0	0	50	28	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	0	13	7	7
Total Analysis Volume [veh/h]	50	0	0	50	28	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.17	8.48	7.31	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.34	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.17		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.94					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 5: Oasis Rd/ Project Driveway #3**

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑		↑↓		↗	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	93	45	45	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	93	45	45	0	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	23	11	11	0	1
Total Analysis Volume [veh/h]	0	93	45	45	0	3
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.53
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.53	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 34.2  
 Level Of Service: D  
 Volume to Capacity (v/c): 0.080

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	10	0	89	0	0	0	0	365	12	56	473	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	84	0	5	80	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	0	98	0	0	0	0	464	12	63	572	0
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	27	0	0	0	0	126	3	17	155	0
Total Analysis Volume [veh/h]	11	0	107	0	0	0	0	504	13	68	622	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.08	0.00	0.19	0.00	0.00	0.00	0.00	0.01	0.00	0.06	0.01	0.00
d_M, Delay for Movement [s/veh]	34.22	30.63	14.34	40.19	27.84	12.34	8.72	0.00	0.00	8.63	0.00	0.00
Movement LOS	D	D	B	E	D	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	1.07	1.07	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00
95th-Percentile Queue Length [ft/ln]	26.86	26.86	26.86	0.00	0.00	0.00	0.00	0.00	0.00	5.14	0.00	0.00
d_A, Approach Delay [s/veh]	16.19			26.79			0.00			0.85		
Approach LOS	C			D			A			A		
d_I, Intersection Delay [s/veh]	1.88											
Intersection LOS	D											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 14.6  
 Level Of Service: B  
 Volume to Capacity (v/c): 0.016

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	1	0	0	0	350	0	2	492	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	5	0	0	0	79	0	0	75	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	6	0	0	0	443	0	2	587	5
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	2	0	0	0	119	0	1	158	1
Total Analysis Volume [veh/h]	0	0	0	6	0	0	0	478	0	2	633	5
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.46	14.32	11.09	14.63	14.46	12.62	8.77	0.00	0.00	8.29	0.00	0.00
Movement LOS	B	B	B	B	B	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.05	0.05	0.05	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.20	1.20	1.20	0.00	0.00	0.00	0.14	0.00	0.00
d_A, Approach Delay [s/veh]	13.29			14.63			0.00			0.03		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	0.09											
Intersection LOS	B											

**Intersection Level Of Service Report  
Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	14.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	31	1	0	328	479	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	0	0	63	60	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	48	1	0	404	558	29
Peak Hour Factor	0.8990	0.8990	0.8990	0.8990	0.8990	0.8990
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	0	112	155	8
Total Analysis Volume [veh/h]	53	1	0	449	621	32
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.12	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	14.30	13.62	8.82	0.00	0.00	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.41	0.41	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	10.36	10.36	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	14.28		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.67					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	17.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.007

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	2	1	573	1	1	637
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	117	0	0	109
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	1	713	1	1	772
Peak Hour Factor	0.8800	0.8800	0.8800	0.8800	0.8800	0.8800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	203	0	0	219
Total Analysis Volume [veh/h]	2	1	810	1	1	877
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	17.07	14.51	0.00	0.00	9.37	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.70	0.70	0.00	0.00	0.09	0.00
d_A, Approach Delay [s/veh]	16.21		0.00		0.01	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.03					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	20.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⊕			⊕			⊕			⊕		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	0	0	2	0	0	1	580	0	1	621	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	107	5	0	99	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	0	0	2	0	5	6	710	5	1	745	0
Peak Hour Factor	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720	0.8720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	0	1	0	1	2	204	1	0	214	0
Total Analysis Volume [veh/h]	8	0	0	2	0	6	7	814	6	1	854	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.01	0.00	0.02	0.01	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	20.16	18.93	14.98	19.65	18.64	15.24	9.57	0.00	0.00	9.41	0.00	0.00
Movement LOS	C	C	B	C	C	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.10	0.08	0.08	0.08	0.03	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.52	2.52	2.52	1.89	1.89	1.89	0.67	0.00	0.00	0.09	0.00	0.00
d_A, Approach Delay [s/veh]	20.16			16.34			0.08			0.01		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.22											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 18.6  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.022

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	0	0	0	1	589	0	0	618	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	97	5	0	89	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	1	0	0	5	6	710	5	0	732	0
Peak Hour Factor	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610	0.8610
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	0	0	1	2	206	1	0	213	0
Total Analysis Volume [veh/h]	6	0	1	0	0	6	7	825	6	0	850	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	18.57	17.53	14.95	19.58	18.54	15.07	9.56	0.00	0.00	9.44	0.00	0.00
Movement LOS	C	C	B	C	C	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.08	0.05	0.05	0.05	0.03	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.90	1.90	1.90	1.26	1.26	1.26	0.66	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.05			15.07			0.08			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.17											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.571

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	350.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	12	29	19	4	20	179	157	417	11	9	426	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	6	5	0	5	35	41	51	5	5	49	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	36	25	4	26	221	204	485	16	14	492	1
Peak Hour Factor	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790	0.8790
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	10	7	1	7	63	58	138	5	4	140	0
Total Analysis Volume [veh/h]	19	41	28	5	30	251	232	552	18	16	560	1
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	17	0	0	17	0	16	18	0	13	15	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	21.0	0.0	0.0	21.0	0.0	20.0	22.0	0.0	17.0	19.0	0.0
Lead / Lag	-	-	-	-	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	26.9	26.9	9.6	11.6	11.6	9.5	11.5	11.5
g / C, Green / Cycle	0.45	0.45	0.16	0.19	0.19	0.16	0.19	0.19
(v / s)_i Volume / Saturation Flow Rate	0.05	0.17	0.13	0.15	0.01	0.01	0.15	0.00
s, saturation flow rate [veh/h]	1665	1643	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	817	795	291	703	314	287	695	310
d1, Uniform Delay [s]	9.65	11.11	24.23	22.98	19.69	21.42	23.17	19.59
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.27	1.27	4.96	1.98	0.08	0.08	2.26	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.11	0.36	0.80	0.78	0.06	0.06	0.81	0.00
d, Delay for Lane Group [s/veh]	9.91	12.37	29.19	24.95	19.77	21.50	25.43	19.60
Lane Group LOS	A	B	C	C	B	C	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.58	2.07	3.06	3.26	0.18	0.17	3.35	0.01
50th-Percentile Queue Length [ft/ln]	14.53	51.78	76.42	81.52	4.45	4.20	83.73	0.25
95th-Percentile Queue Length [veh/ln]	1.05	3.73	5.50	5.87	0.32	0.30	6.03	0.02
95th-Percentile Queue Length [ft/ln]	26.16	93.21	137.55	146.74	8.01	7.56	150.72	0.44

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	9.91	9.91	9.91	12.37	12.37	12.37	29.19	24.95	19.77	21.50	25.43	19.60
Movement LOS	A	A	A	B	B	B	C	C	B	C	C	B
d_A, Approach Delay [s/veh]	9.91			12.37			26.06			25.31		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	22.77											
Intersection LOS	C											
Intersection V/C	0.571											

**Emissions**

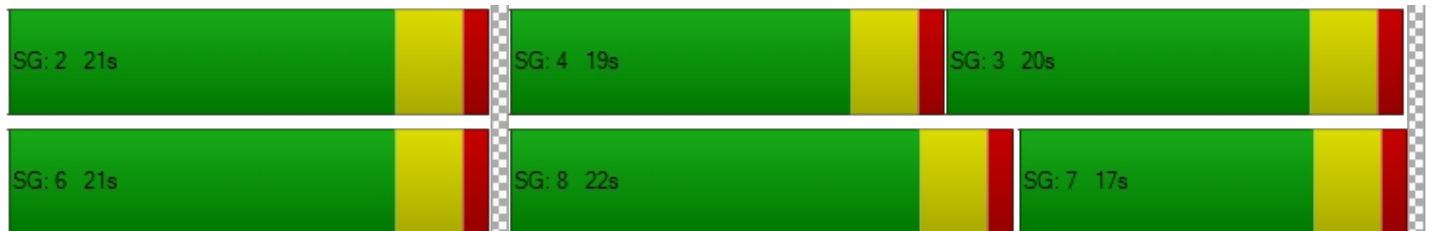
Vehicle Miles Traveled [mph]	7.28	26.38	181.22	431.18	14.06	1.78	62.17	0.11
Stops [stops/h]	34.88	124.28	183.40	391.32	10.68	10.08	401.92	0.59
Fuel consumption [US gal/h]	0.86	3.91	10.85	24.50	0.74	0.32	12.44	0.02
CO [g/h]	60.17	273.39	758.19	1712.24	51.81	22.13	869.76	1.30
NOx [g/h]	11.71	53.19	147.52	333.14	10.08	4.31	169.22	0.25
VOC [g/h]	13.95	63.36	175.72	396.83	12.01	5.13	201.58	0.30

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	567	567	600	500
d_b, Bicycle Delay [s]	15.41	15.41	14.70	16.88
I_b,int, Bicycle LOS Score for Intersection	1.705	2.032	2.221	2.036
Bicycle LOS	A	B	B	B

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report  
Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	34.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.703

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇑⇐			⇑⇐⇑			⇑⇑⇑			⇑⇑⇑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	8	16	20	113	9	26	19	689	28	19	404	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	5	46	10	5	0	0	48	35	50	52	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	22	67	128	14	27	20	765	64	70	472	110
Peak Hour Factor	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560	0.9560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	6	18	33	4	7	5	200	17	18	123	29
Total Analysis Volume [veh/h]	44	23	70	134	15	28	21	800	67	73	494	115
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	14.0	0.0	0.0	14.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	23.0	0.0	9.0	23.0	0.0	9.0	59.0	0.0	9.0	59.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3.5	25.3	9.1	30.8	2.2	44.6	44.6	5.0	47.4	47.4
g / C, Green / Cycle	0.04	0.25	0.09	0.31	0.02	0.45	0.45	0.05	0.47	0.47
(v / s)_i Volume / Saturation Flow Rate	0.02	0.06	0.07	0.03	0.01	0.42	0.04	0.04	0.26	0.07
s, saturation flow rate [veh/h]	1810	1677	1810	1704	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	64	425	163	525	40	848	721	90	901	766
d1, Uniform Delay [s]	47.68	29.52	44.68	24.55	48.35	26.46	15.98	47.02	18.68	14.89
k, delay calibration	0.11	0.50	0.11	0.50	0.11	0.30	0.11	0.17	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	12.27	1.18	9.67	0.31	9.97	13.57	0.06	22.22	0.52	0.09
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.69	0.22	0.82	0.08	0.52	0.94	0.09	0.81	0.55	0.15
d, Delay for Lane Group [s/veh]	59.95	30.71	54.36	24.86	58.33	40.03	16.04	69.24	19.21	14.98
Lane Group LOS	E	C	D	C	E	D	B	E	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.27	1.83	3.51	0.71	0.66	22.31	0.98	2.28	7.35	1.36
50th-Percentile Queue Length [ft/ln]	31.65	45.83	87.78	17.87	16.41	557.84	24.45	56.93	183.70	33.94
95th-Percentile Queue Length [veh/ln]	2.28	3.30	6.32	1.29	1.18	30.06	1.76	4.10	11.79	2.44
95th-Percentile Queue Length [ft/ln]	56.97	82.49	158.01	32.17	29.53	751.51	44.01	102.48	294.84	61.10

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	59.95	30.71	30.71	54.36	24.86	24.86	58.33	40.03	16.04	69.24	19.21	14.98
Movement LOS	E	C	C	D	C	C	E	D	B	E	B	B
d_A, Approach Delay [s/veh]	40.10			47.19			38.65			23.85		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	34.20											
Intersection LOS	C											
Intersection V/C	0.703											

**Emissions**

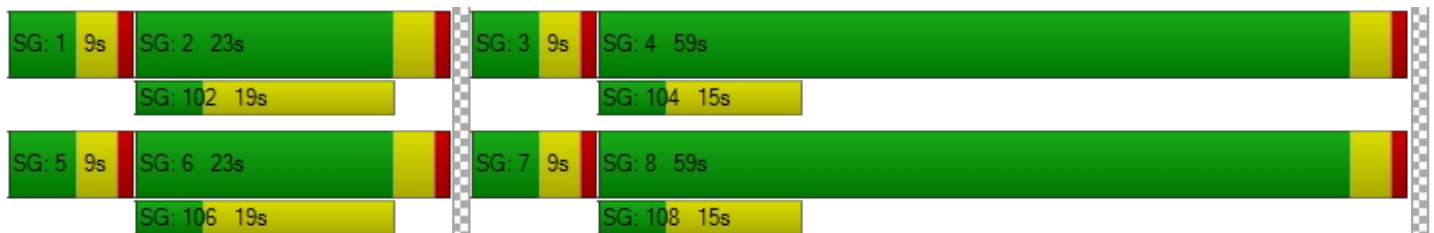
Vehicle Miles Traveled [mph]	2.56	5.41	3.84	1.23	7.47	284.60	23.83	21.62	146.34	34.07
Stops [stops/h]	45.57	65.99	126.41	25.74	23.62	803.29	35.21	81.98	264.53	48.88
Fuel consumption [US gal/h]	1.19	1.59	3.96	0.74	0.81	27.94	2.01	3.01	10.89	2.24
CO [g/h]	83.26	110.94	276.70	51.50	56.73	1953.01	140.71	210.48	761.35	156.69
NOx [g/h]	16.20	21.58	53.84	10.02	11.04	379.98	27.38	40.95	148.13	30.49
VOC [g/h]	19.30	25.71	64.13	11.94	13.15	452.63	32.61	48.78	176.45	36.31

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	41.41	41.41	41.41	41.41
I_p,int, Pedestrian LOS Score for Intersectio	2.244	2.147	2.138	2.823
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	380	380	1100	1100
d_b, Bicycle Delay [s]	32.81	32.81	10.13	10.13
I_b,int, Bicycle LOS Score for Intersection	1.786	1.852	3.025	2.685
Bicycle LOS	A	A	C	B

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	10.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.113

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+   +			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	4	0	0	40	0	0	0	0	0	0	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	0	0	3	45	85	0	6	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	4	0	0	45	45	85	0	6	0	0	36
Peak Hour Factor	1.0000	0.6330	0.6330	1.0000	0.6330	0.6330	1.0000	1.0000	0.6330	1.0000	1.0000	0.6330
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	0	0	18	18	21	0	2	0	0	14
Total Analysis Volume [veh/h]	10	6	0	0	71	71	85	0	9	0	0	57
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.05
d_M, Delay for Movement [s/veh]	7.49	0.00	0.00	7.21	0.00	0.00	10.44	10.41	9.31	9.11	10.16	8.50
Movement LOS	A	A	A	A	A	A	B	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.42	0.42	0.42	0.17	0.17	0.17
95th-Percentile Queue Length [ft/ln]	0.42	0.42	0.42	0.00	0.00	0.00	10.40	10.40	10.40	4.15	4.15	4.15
d_A, Approach Delay [s/veh]	4.68			0.00			10.34			8.50		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	4.95											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 3: Project Driveway #1/ Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.045

**Intersection Setup**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	45	0	0	0	0	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	0	0	0	0	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	0	0	0	7
Total Analysis Volume [veh/h]	45	0	0	0	0	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.73	8.36	7.25	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.49	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.73		3.63		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.38					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 4: Project Driveway #2/Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

**Intersection Setup**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	45	0	0	45	28	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	0	0	45	28	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	0	11	7	7
Total Analysis Volume [veh/h]	45	0	0	45	28	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.12	8.48	7.31	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.86	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.12		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.81					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 5: Oasis Rd/ Project Driveway #3**

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑		↑↔		↗	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	85	45	45	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	85	45	45	0	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	21	11	11	0	1
Total Analysis Volume [veh/h]	0	85	45	45	0	3
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.53
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.53	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 51.6  
 Level Of Service: F  
 Volume to Capacity (v/c): 0.090

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	7	0	73	0	0	1	0	651	30	71	364	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	78	0	5	81	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	0	81	0	0	1	0	755	31	79	460	1
Peak Hour Factor	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190	0.9190
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	22	0	0	0	0	205	8	21	125	0
Total Analysis Volume [veh/h]	8	0	88	0	0	1	0	822	34	86	501	1
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.09	0.00	0.24	0.00	0.00	0.00	0.00	0.01	0.00	0.11	0.01	0.00
d_M, Delay for Movement [s/veh]	51.65	44.30	20.71	62.24	39.15	11.29	8.36	0.00	0.00	10.09	0.00	0.00
Movement LOS	F	E	C	F	E	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	1.39	1.39	1.39	0.01	0.01	0.01	0.00	0.00	0.00	0.36	0.00	0.00
95th-Percentile Queue Length [ft/ln]	34.82	34.82	34.82	0.13	0.13	0.13	0.00	0.00	0.00	9.09	0.00	0.00
d_A, Approach Delay [s/veh]	23.28			11.29			0.00			1.48		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	2.02											
Intersection LOS	F											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 17.4  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.030

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇌			⇌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	3	0	0	1	724	0	0	340	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	5	0	0	0	73	0	0	76	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	8	0	0	1	826	0	0	430	7
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	2	0	0	0	221	0	0	115	2
Total Analysis Volume [veh/h]	0	0	0	9	0	0	1	883	0	0	460	7
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	17.07	16.38	15.35	17.44	16.74	11.35	8.26	0.00	0.00	9.65	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	2.33	2.33	2.33	0.07	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	16.27			17.44			0.01			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.12											
Intersection LOS	C											

**Intersection Level Of Service Report  
Intersection 8: 263rd Street East/ HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.075

**Intersection Setup**

Name	263rd Street East		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street East		HWY 138		HWY 138	
Base Volume Input [veh/h]	10	3	3	710	310	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	58	60	16
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	3	3	797	383	53
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	1	1	214	103	14
Total Analysis Volume [veh/h]	27	3	3	856	411	57
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.07	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	15.77	11.61	8.26	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.26	0.26	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	6.43	6.43	0.13	0.13	0.00	0.00
d_A, Approach Delay [s/veh]	15.35		0.03		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.36					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	0	0	858	1	2	487
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	104	0	0	113
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	997	1	2	620
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	257	0	1	160
Total Analysis Volume [veh/h]	0	0	1027	1	2	639
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	17.39	17.54	0.00	0.00	10.28	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.22	0.00
d_A, Approach Delay [s/veh]	17.47		0.00		0.03	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	20.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⊕			⊕			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	2	0	0	0	1	847	0	1	494	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	94	5	0	103	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	2	0	0	5	6	975	5	1	617	0
Peak Hour Factor	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550	0.9550
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	1	0	0	1	2	255	1	0	162	0
Total Analysis Volume [veh/h]	5	0	2	0	0	5	6	1021	5	1	646	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	20.80	19.40	17.90	20.49	19.08	12.66	8.82	0.00	0.00	10.27	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.09	0.03	0.03	0.03	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.18	2.18	2.18	0.80	0.80	0.80	0.48	0.00	0.00	0.11	0.00	0.00
d_A, Approach Delay [s/veh]	19.97			12.66			0.05			0.02		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.16											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 20.7  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.004

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	1	0	0	0	849	0	0	495	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	84	5	0	93	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	1	1	0	5	5	967	5	0	608	3
Peak Hour Factor	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320	0.9320
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	0	0	1	1	259	1	0	163	1
Total Analysis Volume [veh/h]	5	0	1	1	0	5	5	1038	5	0	652	3
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	19.72	18.40	18.10	20.70	19.30	12.79	8.84	0.00	0.00	10.34	0.00	0.00
Movement LOS	C	C	C	C	C	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.07	0.07	0.07	0.05	0.05	0.05	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.80	1.80	1.80	1.14	1.14	1.14	0.40	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.45			14.11			0.04			0.00		
Approach LOS	C			B			A			A		
d_I, Intersection Delay [s/veh]	0.14											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	22.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.512

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	350.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	20	11	9	39	160	146	655	10	24	381	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	4	6	0	5	34	29	50	5	6	54	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	7	25	17	9	46	200	181	731	15	31	450	5
Peak Hour Factor	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230	0.9230
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	7	5	2	12	54	49	198	4	8	122	1
Total Analysis Volume [veh/h]	8	27	18	10	50	217	196	792	16	34	488	5
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	26	0	0	26	0	10	17	0	5	12	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	21.0	0.0	0.0	10.0	0.0	0.0	7.0	0.0	0.0	7.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	30.0	0.0	0.0	30.0	0.0	14.0	21.0	0.0	9.0	16.0	0.0
Lead / Lag	-	-	-	-	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29.7	29.7	8.1	15.2	15.2	3.0	10.1	10.1
g / C, Green / Cycle	0.50	0.50	0.14	0.25	0.25	0.05	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.03	0.17	0.11	0.22	0.01	0.02	0.13	0.00
s, saturation flow rate [veh/h]	1691	1663	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	905	884	247	920	411	93	613	274
d1, Uniform Delay [s]	7.91	9.20	25.10	21.35	16.85	27.51	23.92	20.76
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.12	0.93	5.74	2.51	0.04	2.39	2.42	0.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.06	0.31	0.79	0.86	0.04	0.37	0.80	0.02
d, Delay for Lane Group [s/veh]	8.03	10.13	30.84	23.86	16.88	29.91	26.34	20.79
Lane Group LOS	A	B	C	C	B	C	C	C
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.30	1.68	2.68	4.59	0.14	0.47	2.98	0.05
50th-Percentile Queue Length [ft/ln]	7.39	42.10	66.89	114.66	3.51	11.77	74.49	1.28
95th-Percentile Queue Length [veh/ln]	0.53	3.03	4.82	8.10	0.25	0.85	5.36	0.09
95th-Percentile Queue Length [ft/ln]	13.30	75.79	120.41	202.46	6.32	21.19	134.07	2.31

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	8.03	8.03	8.03	10.13	10.13	10.13	30.84	23.86	16.88	29.91	26.34	20.79
Movement LOS	A	A	A	B	B	B	C	C	B	C	C	C
d_A, Approach Delay [s/veh]	8.03			10.13			25.11			26.52		
Approach LOS	A			B			C			C		
d_I, Intersection Delay [s/veh]	22.79											
Intersection LOS	C											
Intersection V/C	0.512											

**Emissions**

Vehicle Miles Traveled [mph]	4.38	25.55	153.10	618.65	12.50	3.77	54.17	0.56
Stops [stops/h]	17.73	101.05	160.54	550.35	8.42	28.25	357.53	3.08
Fuel consumption [US gal/h]	0.46	3.30	9.33	34.76	0.63	0.86	11.07	0.10
CO [g/h]	31.97	230.85	652.40	2429.97	44.00	59.97	773.73	6.78
NOx [g/h]	6.22	44.92	126.93	472.78	8.56	11.67	150.54	1.32
VOC [g/h]	7.41	53.50	151.20	563.17	10.20	13.90	179.32	1.57

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.68	21.68	0.00	21.68
I_p,int, Pedestrian LOS Score for Intersectio	1.807	2.147	0.000	2.849
Crosswalk LOS	A	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	867	867	567	400
d_b, Bicycle Delay [s]	9.63	9.63	15.41	19.20
I_b,int, Bicycle LOS Score for Intersection	1.647	2.017	2.388	1.994
Bicycle LOS	A	B	B	A

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HORIZON YEAR  
TRAFFIC CONDITIONS

**Intersection Level Of Service Report**  
**Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	32.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.833

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Input [veh/h]	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	11	0	0	0	54	0	0	49	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	17	19	278	29	78	72	768	20	7	922	259
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	4	5	70	7	20	18	192	5	2	231	65
Total Analysis Volume [veh/h]	1	17	19	278	29	78	72	768	20	7	922	259
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	7	10	0	7	10	0	5	22	0	5	22	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	68.0	0.0	9.0	68.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	0.1	10.7	17.0	27.7	5.0	55.3	55.3	0.9	51.2	51.2
g / C, Green / Cycle	0.00	0.11	0.17	0.28	0.05	0.55	0.55	0.01	0.51	0.51
(v / s)_i Volume / Saturation Flow Rate	0.00	0.02	0.15	0.06	0.04	0.40	0.01	0.00	0.49	0.16
s, saturation flow rate [veh/h]	1810	1738	1810	1683	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	2	188	307	465	90	1051	894	16	973	827
d1, Uniform Delay [s]	49.89	40.61	40.72	27.95	46.99	16.75	10.10	49.31	23.12	14.17
k, delay calibration	0.11	0.50	0.32	0.50	0.16	0.17	0.11	0.11	0.29	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	80.70	2.25	23.45	1.15	20.50	1.54	0.01	17.68	12.71	0.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.40	0.19	0.91	0.23	0.80	0.73	0.02	0.44	0.95	0.31
d, Delay for Lane Group [s/veh]	130.59	42.86	64.17	29.10	67.49	18.29	10.11	66.99	35.83	14.39
Lane Group LOS	F	D	E	C	E	B	B	E	D	B
Critical Lane Group	No	Yes	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.08	0.90	8.25	1.99	2.38	14.46	0.22	0.25	20.92	3.06
50th-Percentile Queue Length [ft/ln]	2.00	22.45	206.21	49.64	59.46	361.46	5.56	6.13	522.90	76.49
95th-Percentile Queue Length [veh/ln]	0.14	1.62	12.96	3.57	4.28	20.69	0.40	0.44	28.42	5.51
95th-Percentile Queue Length [ft/ln]	3.60	40.41	323.96	89.35	107.02	517.36	10.01	11.04	710.41	137.69

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	130.59	42.86	42.86	64.17	29.10	29.10	67.49	18.29	10.11	66.99	35.83	14.39
Movement LOS	F	D	D	E	C	C	E	B	B	E	D	B
d_A, Approach Delay [s/veh]	45.24			54.42			22.22			31.34		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	31.97											
Intersection LOS	C											
Intersection V/C	0.833											

**Emissions**

Vehicle Miles Traveled [mph]	0.06	2.10	7.96	3.06	25.61	273.21	7.11	2.07	273.13	76.72
Stops [stops/h]	2.88	32.33	296.94	71.48	85.62	520.51	8.01	8.83	752.98	110.15
Fuel consumption [US gal/h]	0.06	0.79	9.41	2.06	2.92	23.43	0.58	0.30	27.43	5.02
CO [g/h]	4.50	55.07	657.89	144.27	203.89	1637.45	40.32	21.00	1917.17	350.80
NOx [g/h]	0.88	10.71	128.00	28.07	39.67	318.59	7.84	4.09	373.01	68.25
VOC [g/h]	1.04	12.76	152.47	33.43	47.25	379.50	9.34	4.87	444.32	81.30

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0		0.0		0.0		0.0	
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00		0.00		0.00		0.00	
d_p, Pedestrian Delay [s]	0.00		0.00		0.00		0.00	
I_p,int, Pedestrian LOS Score for Intersectio	0.000		0.000		0.000		0.000	
Crosswalk LOS	F		F		F		F	
s_b, Saturation Flow Rate of the bicycle lane	2000		2000		2000		2000	
c_b, Capacity of the bicycle lane [bicycles/h]	200		200		1280		1280	
d_b, Bicycle Delay [s]	40.50		40.50		6.48		6.48	
I_b,int, Bicycle LOS Score for Intersection	1.621		2.195		2.979		3.520	
Bicycle LOS	A		B		C		D	

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 8.4  
 Level Of Service: A  
 Volume to Capacity (v/c): 0.030

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	6	0	0	28	0	0	0	0	0	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	9	0	0	40	0	0	0	0	0	0	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	0	0	10	0	0	0	0	0	0	8
Total Analysis Volume [veh/h]	0	9	0	0	40	0	0	0	0	0	0	33
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	7.22	0.00	0.00	8.98	9.25	8.40	8.77	9.36	8.43
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.35	2.35	2.35
d_A, Approach Delay [s/veh]	0.00			0.00			8.88			8.43		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.39											
Intersection LOS	A											

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 87.4  
 Level Of Service: F  
 Volume to Capacity (v/c): 0.257

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	10	0	89	0	0	0	0	365	12	56	473	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	54	0	0	49	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	0	129	0	0	0	0	707	21	100	895	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	32	0	0	0	0	177	5	25	224	0
Total Analysis Volume [veh/h]	14	0	129	0	0	0	0	707	21	100	895	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.26	0.00	0.30	0.00	0.00	0.00	0.00	0.01	0.00	0.11	0.01	0.00
d_M, Delay for Movement [s/veh]	87.36	72.36	29.49	99.30	56.96	15.52	9.70	0.00	0.00	9.59	0.00	0.00
Movement LOS	F	F	D	F	F	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	3.08	3.08	3.08	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.00	0.00
95th-Percentile Queue Length [ft/ln]	77.11	77.11	77.11	0.00	0.00	0.00	0.00	0.00	0.00	9.52	0.00	0.00
d_A, Approach Delay [s/veh]	35.16			57.26			0.00			0.96		
Approach LOS	E			F			A			A		
d_I, Intersection Delay [s/veh]	3.21											
Intersection LOS	F											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	19.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	1	0	0	0	350	0	2	492	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	54	0	0	49	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	1	0	0	0	680	0	4	929	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	170	0	1	232	0
Total Analysis Volume [veh/h]	0	0	0	1	0	0	0	680	0	4	929	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	19.01	17.99	12.92	19.10	18.08	16.06	9.84	0.00	0.00	8.92	0.00	0.00
Movement LOS	C	C	B	C	C	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.29	0.29	0.29	0.00	0.00	0.00	0.33	0.00	0.00
d_A, Approach Delay [s/veh]	16.64			19.10			0.00			0.04		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.03											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	18.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.174

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	31	1	0	328	479	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	43	39	10
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	56	1	0	630	896	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	0	0	158	224	8
Total Analysis Volume [veh/h]	56	1	0	630	896	33
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.17	0.00	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	18.55	18.14	9.84	0.00	0.00	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.63	0.63	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	15.79	15.79	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	18.54		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.65					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	18.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	0	1	573	1	1	637
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	65	0	0	59
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1090	2	2	1199
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	273	1	1	300
Total Analysis Volume [veh/h]	0	1	1090	2	2	1199
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	22.54	18.71	0.00	0.00	10.58	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	0.29	0.29	0.00	0.00	0.23	0.00
d_A, Approach Delay [s/veh]	18.71		0.00		0.02	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.02					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	11.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	0	0	0	1	580	0	1	621	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	65	0	0	59	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	0	0	2	1103	0	2	1170	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	1	276	0	1	293	0
Total Analysis Volume [veh/h]	0	0	0	0	0	0	2	1103	0	2	1170	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	27.04	24.25	18.88	27.02	24.24	20.18	10.98	0.00	0.00	10.64	0.00	0.00
Movement LOS	D	C	C	D	C	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.23	0.00	0.00
d_A, Approach Delay [s/veh]	23.39			23.81			0.02			0.02		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.02											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 19.2  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.004

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	0	0	0	1	589	0	0	618	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	65	0	0	59	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	0	0	0	2	1119	0	0	1165	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	1	280	0	0	291	0
Total Analysis Volume [veh/h]	0	0	1	0	0	0	2	1119	0	0	1165	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	24.70	22.28	19.23	27.03	24.21	20.08	10.95	0.00	0.00	10.70	0.00	0.00
Movement LOS	C	C	C	D	C	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.30	0.30	0.30	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.23			23.77			0.02			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.02											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	19.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.743

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	2	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	199.61	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	12	29	19	4	20	179	157	417	11	9	426	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	6	5	0	5	30	36	29	0	5	29	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	17	48	32	6	34	289	317	775	20	21	791	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	12	8	2	9	72	79	194	5	5	198	1
Total Analysis Volume [veh/h]	17	48	32	6	34	289	317	775	20	21	791	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	10	0	0	10	0	25	33	0	5	13	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	14.0	0.0	0.0	14.0	0.0	29.0	37.0	0.0	9.0	17.0	0.0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19.4	19.4	12.6	27.1	27.1	1.5	15.9	15.9
g / C, Green / Cycle	0.32	0.32	0.21	0.45	0.45	0.03	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.06	0.20	0.18	0.21	0.01	0.01	0.22	0.00
s, saturation flow rate [veh/h]	1728	1642	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	629	592	384	1629	727	48	958	428
d1, Uniform Delay [s]	14.53	17.18	22.59	11.53	9.18	28.77	20.75	16.23
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.52	3.74	4.56	0.22	0.02	6.20	1.88	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.15	0.56	0.83	0.48	0.03	0.44	0.83	0.00
d, Delay for Lane Group [s/veh]	15.05	20.92	27.15	11.75	9.19	34.97	22.62	16.24
Lane Group LOS	B	C	C	B	A	C	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.88	3.60	4.00	2.58	0.11	0.34	4.41	0.02
50th-Percentile Queue Length [ft/ln]	22.04	89.97	99.90	64.45	2.67	8.55	110.20	0.42
95th-Percentile Queue Length [veh/ln]	1.59	6.48	7.19	4.64	0.19	0.62	7.85	0.03
95th-Percentile Queue Length [ft/ln]	39.68	161.94	179.82	116.01	4.81	15.39	196.28	0.76

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	15.05	15.05	15.05	20.92	20.92	20.92	27.15	11.75	9.19	34.97	22.62	16.24
Movement LOS	B	B	B	C	C	C	C	B	A	C	C	B
d_A, Approach Delay [s/veh]	15.05			20.92			16.09			22.93		
Approach LOS	B			C			B			C		
d_I, Intersection Delay [s/veh]	19.09											
Intersection LOS	B											
Intersection V/C	0.743											

**Emissions**

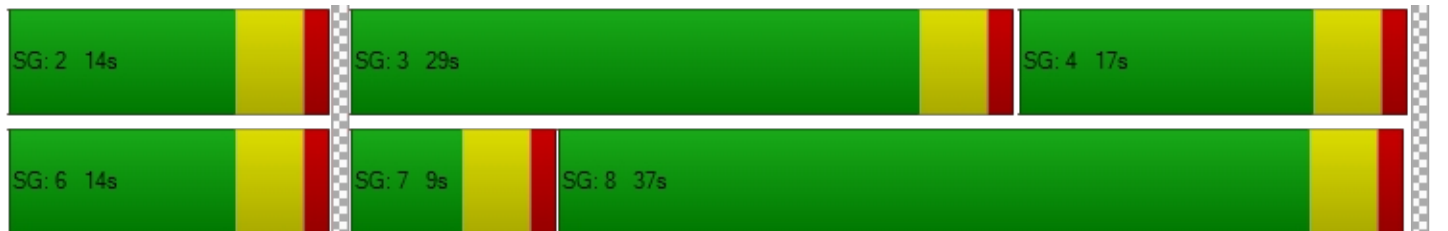
Vehicle Miles Traveled [mph]	8.03	30.35	247.62	605.37	15.62	2.33	87.81	0.22
Stops [stops/h]	52.91	215.92	239.76	309.35	6.41	20.53	528.97	1.02
Fuel consumption [US gal/h]	1.23	6.43	14.49	27.85	0.68	0.61	16.40	0.03
CO [g/h]	85.98	449.22	1012.71	1946.69	47.47	42.55	1146.69	2.30
NOx [g/h]	16.73	87.40	197.04	378.76	9.24	8.28	223.10	0.45
VOC [g/h]	19.93	104.11	234.70	451.16	11.00	9.86	265.76	0.53

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	333	1100	433
d_b, Bicycle Delay [s]	20.83	20.83	6.08	18.41
I_b,int, Bicycle LOS Score for Intersection	1.720	2.102	2.477	2.231
Bicycle LOS	A	B	B	B

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report  
Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	47.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.864

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇑			⇑⇐			⇑⇑⇑			⇑⇑⇑		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	8	16	20	113	9	26	19	689	28	19	404	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	10	0	0	0	48	0	0	52	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	22	27	162	12	35	34	1263	49	34	765	179
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	6	7	41	3	9	9	316	12	9	191	45
Total Analysis Volume [veh/h]	11	22	27	162	12	35	34	1263	49	34	765	179
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	220
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	24	29	0	5	10	0	5	15	0	5	15	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	24.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	28.0	33.0	0.0	9.0	14.0	0.0	159.0	169.0	0.0	9.0	19.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	220	220	220	220	220	220	220	220	220	220
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2.4	29.1	21.0	47.6	5.4	148.9	148.9	5.0	148.5	148.5
g / C, Green / Cycle	0.01	0.13	0.10	0.22	0.02	0.68	0.68	0.02	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.01	0.03	0.09	0.03	0.02	0.66	0.03	0.02	0.21	0.11
s, saturation flow rate [veh/h]	1810	1732	1810	1679	1810	1900	1615	1810	3618	1615
c, Capacity [veh/h]	20	229	172	364	45	1286	1093	41	2442	1090
d1, Uniform Delay [s]	108.22	85.22	98.89	69.47	106.65	34.25	11.84	107.07	14.73	13.07
k, delay calibration	0.11	0.50	0.39	0.50	0.11	0.40	0.11	0.18	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	21.10	2.12	46.33	0.73	23.08	18.63	0.02	46.74	0.07	0.07
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.55	0.21	0.94	0.13	0.76	0.98	0.04	0.83	0.31	0.16
d, Delay for Lane Group [s/veh]	129.32	87.34	145.22	70.20	129.73	52.88	11.86	153.81	14.81	13.14
Lane Group LOS	F	F	F	E	F	D	B	F	B	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.75	2.63	11.34	2.19	2.30	75.23	0.92	2.47	7.82	3.26
50th-Percentile Queue Length [ft/ln]	18.68	65.75	283.43	54.87	57.44	1880.78	23.12	61.80	195.47	81.40
95th-Percentile Queue Length [veh/ln]	1.35	4.73	16.86	3.95	4.14	89.46	1.66	4.45	12.40	5.86
95th-Percentile Queue Length [ft/ln]	33.63	118.35	421.49	98.77	103.40	2236.39	41.62	111.24	310.12	146.52

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	129.32	87.34	87.34	145.22	70.20	70.20	129.73	52.88	11.86	153.81	14.81	13.14
Movement LOS	F	F	F	F	E	E	F	D	B	F	B	B
d_A, Approach Delay [s/veh]	95.04			128.35			53.33			19.33		
Approach LOS	F			F			D			B		
d_I, Intersection Delay [s/veh]	47.52											
Intersection LOS	D											
Intersection V/C	0.864											

**Emissions**

Vehicle Miles Traveled [mph]	0.64	2.85	4.64	1.35	12.10	449.31	17.43	10.07	226.62	53.03
Stops [stops/h]	12.23	43.04	185.52	35.92	37.60	1231.05	15.14	40.45	255.89	53.28
Fuel consumption [US gal/h]	0.46	1.50	8.39	1.38	1.81	47.41	1.43	2.02	13.82	3.07
CO [g/h]	32.39	105.10	586.30	96.70	126.37	3314.18	99.99	141.35	966.16	214.74
NOx [g/h]	6.30	20.45	114.07	18.82	24.59	644.82	19.45	27.50	187.98	41.78
VOC [g/h]	7.51	24.36	135.88	22.41	29.29	768.09	23.17	32.76	223.92	49.77

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	101.18	101.18	0.00	101.18
l_p,int, Pedestrian LOS Score for Intersectio	2.230	2.247	0.000	3.132
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	264	91	1500	136
d_b, Bicycle Delay [s]	82.91	100.23	6.88	95.51
l_b,int, Bicycle LOS Score for Intersection	1.659	1.904	3.781	2.366
Bicycle LOS	A	A	D	B

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 8.5  
 Level Of Service: A  
 Volume to Capacity (v/c): 0.043

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	4	0	0	40	0	0	0	0	0	0	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	5	0	0	54	0	0	0	0	0	0	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	0	14	0	0	0	0	0	0	12
Total Analysis Volume [veh/h]	0	5	0	0	54	0	0	0	0	0	0	47
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	7.30	0.00	0.00	7.21	0.00	0.00	9.16	9.31	8.43	8.83	9.46	8.46
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.14	0.14
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.39	3.39	3.39
d_A, Approach Delay [s/veh]	0.00			0.00			8.97			8.46		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.75											
Intersection LOS	A											

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 198.9  
 Level Of Service: F  
 Volume to Capacity (v/c): 0.338

**Intersection Setup**

Name	Mountain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Mountain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	7	0	73	0	0	1	0	651	30	71	364	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	48	0	0	52	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	0	98	0	0	1	0	1196	53	125	694	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	25	0	0	0	0	299	13	31	174	1
Total Analysis Volume [veh/h]	9	0	98	0	0	1	0	1196	53	125	694	2
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.34	0.00	0.44	0.00	0.00	0.00	0.00	0.01	0.00	0.22	0.01	0.00
d_M, Delay for Movement [s/veh]	198.91	161.18	80.10	247.09	106.08	13.10	8.96	0.00	0.00	13.19	0.00	0.00
Movement LOS	F	F	F	F	F	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	4.73	4.73	4.73	0.01	0.01	0.01	0.00	0.00	0.00	0.84	0.00	0.00
95th-Percentile Queue Length [ft/ln]	118.34	118.34	118.34	0.17	0.17	0.17	0.00	0.00	0.00	21.03	0.00	0.00
d_A, Approach Delay [s/veh]	90.09			13.10			0.00			2.01		
Approach LOS	F			B			A			A		
d_I, Intersection Delay [s/veh]	5.19											
Intersection LOS	F											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 26.6  
 Level Of Service: D  
 Volume to Capacity (v/c): 0.023

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇌			⇌		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	3	0	0	1	724	0	0	340	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	48	0	0	52	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	4	0	0	2	1325	0	0	652	4
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	1	0	0	1	331	0	0	163	1
Total Analysis Volume [veh/h]	0	0	0	4	0	0	2	1325	0	0	652	4
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	26.09	23.21	23.71	26.58	23.70	13.16	8.83	0.00	0.00	11.82	0.00	0.00
Movement LOS	D	C	C	D	C	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.07	0.07	0.07	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.79	1.79	1.79	0.16	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	24.34			26.58			0.01			0.00		
Approach LOS	C			D			A			A		
d_I, Intersection Delay [s/veh]	0.06											
Intersection LOS	D											

**Intersection Level Of Service Report  
Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	23.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.103

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	10	3	3	710	310	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	0	38	41	11
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	23	4	5	1291	588	75
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	1	1	323	147	19
Total Analysis Volume [veh/h]	23	4	5	1291	588	75
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.10	0.01	0.01	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	22.98	14.22	8.85	0.00	0.00	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.37	0.37	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	9.26	9.26	0.21	0.21	0.00	0.00
d_A, Approach Delay [s/veh]	21.69		0.03		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.32					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	0	0	858	1	2	487
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	58	0	0	63
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1572	2	4	922
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	393	1	1	231
Total Analysis Volume [veh/h]	0	0	1572	2	4	922
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	27.26	31.24	0.00	0.00	13.57	0.00
Movement LOS	D	D	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.03	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.71	0.00
d_A, Approach Delay [s/veh]	29.25		0.00		0.06	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.02					
Intersection LOS	B					

**Intersection Level Of Service Report**  
**Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	31.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.021

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	2	0	0	0	1	847	0	1	494	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	58	0	0	63	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	3	0	0	0	2	1552	0	2	934	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	1	0	0	0	1	388	0	1	234	0
Total Analysis Volume [veh/h]	0	0	3	0	0	0	2	1552	0	2	934	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	34.91	29.84	31.05	35.26	29.47	16.08	9.87	0.00	0.00	13.36	0.00	0.00
Movement LOS	D	D	D	E	D	C	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.06	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.62	1.62	1.62	0.00	0.00	0.00	0.20	0.00	0.00	0.35	0.00	0.00
d_A, Approach Delay [s/veh]	31.05			26.94			0.01			0.03		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	0.06											
Intersection LOS	D											

**Intersection Level Of Service Report**  
**Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 30.8  
 Level Of Service: D  
 Volume to Capacity (v/c): 0.007

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	1	0	0	0	849	0	0	495	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	58	0	0	63	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1	1	0	0	0	1556	0	0	936	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0	0	389	0	0	234	1
Total Analysis Volume [veh/h]	0	0	1	1	0	0	0	1556	0	0	936	5
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	32.23	27.44	30.82	25.75	29.29	16.26	9.89	0.00	0.00	13.35	0.00	0.00
Movement LOS	D	D	D	D	D	C	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.54	0.54	0.54	0.43	0.43	0.43	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	30.82			25.75			0.00			0.00		
Approach LOS	D			D			A			A		
d_I, Intersection Delay [s/veh]	0.02											
Intersection LOS	D											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	20.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐⇐⇐			⇐⇐⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	2	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	199.61	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	20	11	9	39	160	146	655	10	24	381	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	4	6	0	5	29	24	34	0	6	34	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	31	21	12	57	244	282	1189	18	48	706	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	8	5	3	14	61	71	297	5	12	177	2
Total Analysis Volume [veh/h]	3	31	21	12	57	244	282	1189	18	48	706	9
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	10	0	0	10	0	26	33	0	5	12	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	14.0	0.0	0.0	14.0	0.0	30.0	37.0	0.0	9.0	16.0	0.0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	21.6	21.6	11.5	23.6	23.6	2.8	14.9	14.9
g / C, Green / Cycle	0.36	0.36	0.19	0.39	0.39	0.05	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.03	0.19	0.16	0.33	0.01	0.03	0.20	0.01
s, saturation flow rate [veh/h]	1763	1663	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	696	659	349	1425	636	85	897	401
d1, Uniform Delay [s]	12.72	15.17	23.15	16.42	11.15	27.99	21.08	17.06
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.22	2.44	4.45	1.35	0.02	5.73	1.57	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.08	0.47	0.81	0.83	0.03	0.56	0.79	0.02
d, Delay for Lane Group [s/veh]	12.94	17.61	27.60	17.77	11.16	33.72	22.65	17.08
Lane Group LOS	B	B	C	B	B	C	C	B
Critical Lane Group	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.45	3.01	3.59	5.65	0.11	0.72	3.92	0.08
50th-Percentile Queue Length [ft/ln]	11.15	75.23	89.78	141.34	2.85	18.02	98.06	1.98
95th-Percentile Queue Length [veh/ln]	0.80	5.42	6.46	9.55	0.20	1.30	7.06	0.14
95th-Percentile Queue Length [ft/ln]	20.08	135.41	161.60	238.83	5.12	32.44	176.51	3.57

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	12.94	12.94	12.94	17.61	17.61	17.61	27.60	17.77	11.16	33.72	22.65	17.08
Movement LOS	B	B	B	B	B	B	C	B	B	C	C	B
d_A, Approach Delay [s/veh]	12.94			17.61			19.55			23.28		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	20.27											
Intersection LOS	C											
Intersection V/C	0.679											

**Emissions**

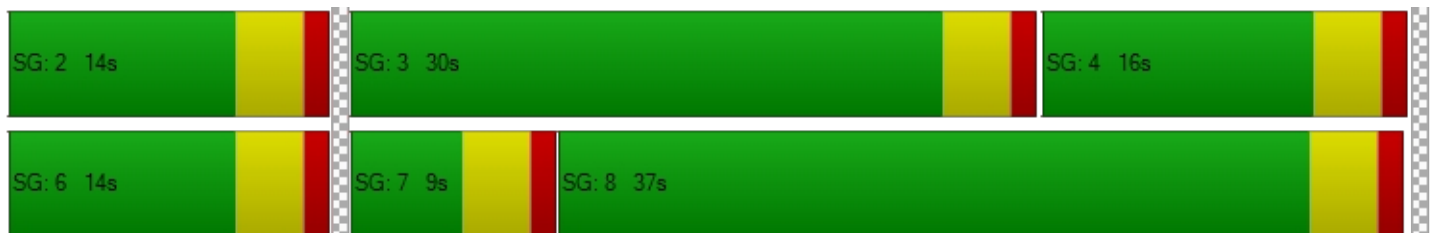
Vehicle Miles Traveled [mph]	4.55	28.87	220.28	928.76	14.06	5.33	78.38	1.00
Stops [stops/h]	26.77	180.55	215.47	678.43	6.83	43.26	470.69	4.76
Fuel consumption [US gal/h]	0.63	5.44	12.95	47.97	0.64	1.31	14.62	0.15
CO [g/h]	44.29	380.34	905.54	3353.06	44.61	91.65	1021.89	10.71
NOx [g/h]	8.62	74.00	176.18	652.38	8.68	17.83	198.82	2.08
VOC [g/h]	10.27	88.15	209.87	777.10	10.34	21.24	236.83	2.48

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	333	1100	400
d_b, Bicycle Delay [s]	20.83	20.83	6.08	19.20
I_b,int, Bicycle LOS Score for Intersection	1.650	2.076	2.788	2.189
Bicycle LOS	A	B	C	B

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HORIZON YEAR WITH PROJECT  
TRAFFIC CONDITIONS

**Intersection Level Of Service Report  
Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	43.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇑⇓			⇑⇓⇐			⇑⇓⇐			⇑⇓⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Input [veh/h]	1	12	13	185	20	54	40	399	11	4	488	139
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	36	5	52	11	5	0	0	54	35	50	49	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	37	22	71	278	34	78	72	768	55	57	922	259
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	6	18	70	9	20	18	192	14	14	231	65
Total Analysis Volume [veh/h]	37	22	71	278	34	78	72	768	55	57	922	259
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	12	29	0	9	26	0	5	21	0	5	21	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	24.0	0.0	0.0	21.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	12.0	33.0	0.0	9.0	30.0	0.0	69.0	79.0	0.0	9.0	19.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	130	130	130	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3.7	31.9	21.8	50.1	6.7	55.3	55.3	5.0	53.5	53.5
g / C, Green / Cycle	0.03	0.25	0.17	0.39	0.05	0.43	0.43	0.04	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.02	0.06	0.15	0.07	0.04	0.40	0.03	0.03	0.25	0.16
s, saturation flow rate [veh/h]	1810	1674	1810	1692	1810	1900	1615	1810	3618	1615
c, Capacity [veh/h]	51	412	303	652	94	808	686	70	1489	665
d1, Uniform Delay [s]	62.65	39.12	53.24	26.32	60.85	36.07	22.25	62.05	30.20	26.80
k, delay calibration	0.11	0.50	0.30	0.50	0.11	0.25	0.11	0.17	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	17.24	1.27	24.21	0.57	12.22	13.48	0.05	29.90	0.42	0.37
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.72	0.23	0.92	0.17	0.77	0.95	0.08	0.82	0.62	0.39
d, Delay for Lane Group [s/veh]	79.89	40.39	77.45	26.89	73.08	49.54	22.29	91.95	30.62	27.17
Lane Group LOS	E	D	E	C	E	D	C	F	C	C
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.44	2.48	10.59	2.28	2.77	27.80	1.10	2.40	10.89	5.45
50th-Percentile Queue Length [ft/ln]	35.91	61.91	264.70	57.12	69.26	695.01	27.60	59.96	272.15	136.32
95th-Percentile Queue Length [veh/ln]	2.59	4.46	15.92	4.11	4.99	36.45	1.99	4.32	16.30	9.28
95th-Percentile Queue Length [ft/ln]	64.64	111.44	398.11	102.81	124.67	911.18	49.67	107.93	407.42	232.06

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	79.89	40.39	40.39	77.45	26.89	26.89	73.08	49.54	22.29	91.95	30.62	27.17
Movement LOS	E	D	D	E	C	C	E	D	C	F	C	C
d_A, Approach Delay [s/veh]	51.63			62.93			49.76			32.72		
Approach LOS	D			E			D			C		
d_I, Intersection Delay [s/veh]	43.84											
Intersection LOS	D											
Intersection V/C	0.735											

**Emissions**

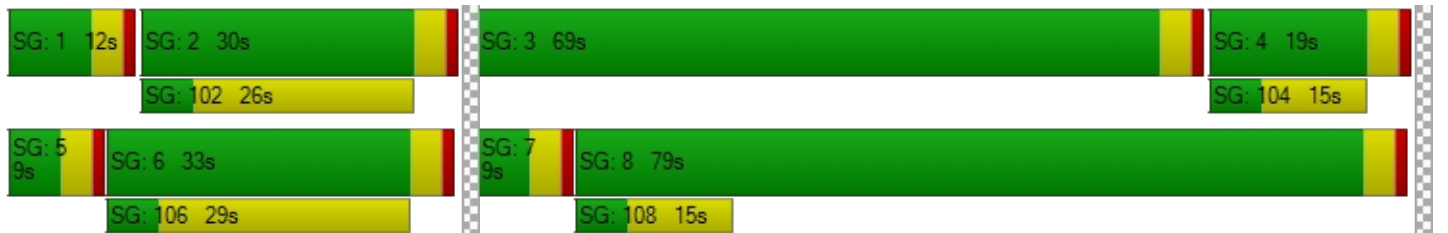
Vehicle Miles Traveled [mph]	2.15	5.41	7.96	3.21	25.61	273.21	19.57	16.89	273.13	76.72
Stops [stops/h]	39.78	68.58	293.20	63.27	76.72	769.85	30.57	66.42	602.91	151.00
Fuel consumption [US gal/h]	1.17	1.80	10.09	1.90	3.00	28.31	1.72	2.65	24.15	6.32
CO [g/h]	81.77	126.00	705.54	132.49	209.61	1978.81	120.40	185.34	1687.84	441.72
NOx [g/h]	15.91	24.51	137.27	25.78	40.78	385.00	23.43	36.06	328.39	85.94
VOC [g/h]	18.95	29.20	163.52	30.71	48.58	458.61	27.90	42.95	391.17	102.37

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.31	56.31	56.31	56.31
I_p,int, Pedestrian LOS Score for Intersectio	2.251	2.402	2.319	3.084
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	446	400	1154	231
d_b, Bicycle Delay [s]	39.23	41.60	11.63	50.87
I_b,int, Bicycle LOS Score for Intersection	1.774	2.203	3.036	2.581
Bicycle LOS	A	B	C	B

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.111

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	6	0	0	28	0	0	0	0	0	0	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	0	0	3	45	93	0	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	9	0	0	43	45	93	0	7	0	0	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	2	0	0	11	11	23	0	2	0	0	8
Total Analysis Volume [veh/h]	10	9	0	0	43	45	93	0	7	0	0	33
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.03
d_M, Delay for Movement [s/veh]	7.38	0.00	0.00	7.22	0.00	0.00	9.88	10.10	9.09	8.95	9.77	8.43
Movement LOS	A	A	A	A	A	A	A	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.40	0.40	0.40	0.09	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.42	0.42	0.42	0.00	0.00	0.00	10.01	10.01	10.01	2.35	2.35	2.35
d_A, Approach Delay [s/veh]	3.88			0.00			9.82			8.43		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.56											
Intersection LOS	A											

**Intersection Level Of Service Report**  
**Intersection 3: Project Driveway #1/ Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

**Intersection Setup**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	50	0	0	0	0	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	0	0	0	0	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	0	0	0	7
Total Analysis Volume [veh/h]	50	0	0	0	0	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.75	8.36	7.25	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.90	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.75		3.63		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.61					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 4: Project Driveway #2/Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.055

**Intersection Setup**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	50	0	0	50	28	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	50	0	0	50	28	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	0	0	13	7	7
Total Analysis Volume [veh/h]	50	0	0	50	28	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.17	8.48	7.31	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.34	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.17		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.94					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 5: Oasis Rd/ Project Driveway #3**

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑		↑↓		↗	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.5780	1.4454	1.4454	1.4454	1.5780	1.4454
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	93	45	45	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	93	45	45	0	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	23	11	11	0	1
Total Analysis Volume [veh/h]	0	93	45	45	0	3
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.53
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.53	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	101.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.292

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	10	0	89	0	0	0	0	365	12	56	473	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	84	0	5	80	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	0	134	0	0	0	0	737	21	105	926	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	34	0	0	0	0	184	5	26	232	0
Total Analysis Volume [veh/h]	14	0	134	0	0	0	0	737	21	105	926	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.29	0.00	0.32	0.00	0.00	0.00	0.00	0.01	0.00	0.12	0.01	0.00
d_M, Delay for Movement [s/veh]	101.18	83.38	34.82	115.67	63.08	15.96	9.82	0.00	0.00	9.75	0.00	0.00
Movement LOS	F	F	D	F	F	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	3.63	3.63	3.63	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	0.00
95th-Percentile Queue Length [ft/ln]	90.86	90.86	90.86	0.00	0.00	0.00	0.00	0.00	0.00	10.35	0.00	0.00
d_A, Approach Delay [s/veh]	41.10			64.90			0.00			0.99		
Approach LOS	E			F			A			A		
d_I, Intersection Delay [s/veh]	3.67											
Intersection LOS	F											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	20.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	1	0	0	0	350	0	2	492	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	5	0	0	0	79	0	0	75	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	6	0	0	0	705	0	4	955	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	2	0	0	0	176	0	1	239	1
Total Analysis Volume [veh/h]	0	0	0	6	0	0	0	705	0	4	955	5
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	19.58	18.47	13.19	19.98	18.84	16.79	9.97	0.00	0.00	9.01	0.00	0.00
Movement LOS	C	C	B	C	C	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.07	0.07	0.07	0.00	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.87	1.87	1.87	0.00	0.00	0.00	0.33	0.00	0.00
d_A, Approach Delay [s/veh]	17.08			19.98			0.00			0.04		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.09											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	19.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.195

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	31	1	0	328	479	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	16	0	0	63	60	15
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	61	1	0	650	917	38
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	0	0	163	229	10
Total Analysis Volume [veh/h]	61	1	0	650	917	38
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.19	0.00	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	19.29	18.91	9.95	0.00	0.00	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.72	0.72	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	18.07	18.07	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	19.29		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.72					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	19.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	0	1	573	1	1	637
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	117	0	0	109
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	1142	2	2	1249
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	286	1	1	312
Total Analysis Volume [veh/h]	0	1	1142	2	2	1249
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.01
d_M, Delay for Movement [s/veh]	23.67	19.70	0.00	0.00	10.84	0.00
Movement LOS	C	C	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.01	0.00
95th-Percentile Queue Length [ft/ln]	0.31	0.31	0.00	0.00	0.24	0.00
d_A, Approach Delay [s/veh]	19.70		0.00		0.02	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.02					
Intersection LOS	C					

**Intersection Level Of Service Report**  
**Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	30.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.054

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	0	0	2	0	0	1	580	0	1	621	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	107	5	0	99	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	0	0	3	0	5	7	1145	5	2	1210	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	0	1	0	1	2	286	1	1	303	0
Total Analysis Volume [veh/h]	8	0	0	3	0	5	7	1145	5	2	1210	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.02	0.00	0.02	0.01	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	30.62	27.05	21.11	29.45	26.31	21.85	11.24	0.00	0.00	10.87	0.00	0.00
Movement LOS	D	D	C	D	D	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.17	0.17	0.17	0.13	0.13	0.13	0.04	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	4.23	4.23	4.23	3.26	3.26	3.26	0.91	0.00	0.00	0.24	0.00	0.00
d_A, Approach Delay [s/veh]	30.62			24.70			0.07			0.02		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	0.23											
Intersection LOS	D											

**Intersection Level Of Service Report  
Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 21.1  
 Level Of Service: C  
 Volume to Capacity (v/c): 0.022

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	0	0	0	1	589	0	0	618	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	97	5	0	89	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	1	0	0	5	7	1151	5	0	1195	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	0	0	1	2	288	1	0	299	0
Total Analysis Volume [veh/h]	5	0	1	0	0	5	7	1151	5	0	1195	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.02	0.01	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	20.15	23.61	20.22	28.66	25.56	21.05	11.16	0.00	0.00	10.89	0.00	0.00
Movement LOS	C	C	C	D	D	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.08	0.08	0.08	0.07	0.07	0.07	0.04	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.89	1.89	1.89	1.67	1.67	1.67	0.90	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	20.17			21.05			0.07			0.00		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	0.13											
Intersection LOS	C											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	22.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.757

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	2	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	199.61	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	12	29	19	4	20	179	157	417	11	9	426	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	6	5	0	5	35	41	51	5	5	49	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	22	48	32	6	34	294	322	797	25	21	811	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	12	8	2	9	74	81	199	6	5	203	1
Total Analysis Volume [veh/h]	22	48	32	6	34	294	322	797	25	21	811	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	10	0	0	10	0	17	33	0	5	21	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	14.0	0.0	0.0	14.0	0.0	21.0	37.0	0.0	9.0	25.0	0.0
Lead / Lag	-	-	-	-	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19.2	19.2	12.7	16.4	16.4	12.4	16.0	16.0
g / C, Green / Cycle	0.32	0.32	0.21	0.27	0.27	0.21	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.06	0.20	0.18	0.22	0.02	0.01	0.22	0.00
s, saturation flow rate [veh/h]	1663	1641	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	605	586	384	991	442	373	969	433
d1, Uniform Delay [s]	14.72	17.42	22.64	20.29	16.07	19.12	20.73	16.10
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.60	3.99	4.89	1.59	0.05	0.06	2.01	0.00
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.17	0.57	0.84	0.80	0.06	0.06	0.84	0.00
d, Delay for Lane Group [s/veh]	15.32	21.41	27.53	21.87	16.12	19.18	22.74	16.11
Lane Group LOS	B	C	C	C	B	B	C	B
Critical Lane Group	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.94	3.71	4.09	4.36	0.21	0.20	4.55	0.02
50th-Percentile Queue Length [ft/ln]	23.51	92.78	102.28	108.95	5.30	5.05	113.75	0.42
95th-Percentile Queue Length [veh/ln]	1.69	6.68	7.36	7.78	0.38	0.36	8.05	0.03
95th-Percentile Queue Length [ft/ln]	42.32	167.00	184.11	194.54	9.55	9.09	201.21	0.76

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	15.32	15.32	15.32	21.41	21.41	21.41	27.53	21.87	16.12	19.18	22.74	16.11
Movement LOS	B	B	B	C	C	C	C	C	B	B	C	B
d_A, Approach Delay [s/veh]	15.32			21.41			23.34			22.63		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	22.49											
Intersection LOS	C											
Intersection V/C	0.757											

**Emissions**

Vehicle Miles Traveled [mph]	8.44	30.81	251.52	622.56	19.53	2.33	90.03	0.22
Stops [stops/h]	56.42	222.66	245.48	522.97	12.73	12.11	546.00	1.01
Fuel consumption [US gal/h]	1.31	6.62	14.78	34.09	0.97	0.38	16.91	0.03
CO [g/h]	91.49	462.87	1032.94	2382.71	67.92	26.91	1181.74	2.29
NOx [g/h]	17.80	90.06	200.97	463.59	13.22	5.24	229.92	0.45
VOC [g/h]	21.20	107.27	239.39	552.22	15.74	6.24	273.88	0.53

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	333	333	1100	700
d_b, Bicycle Delay [s]	20.83	20.83	6.08	12.68
I_b,int, Bicycle LOS Score for Intersection	1.728	2.111	2.503	2.248
Bicycle LOS	A	B	B	B

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report  
Intersection 1: Oasis Rd / Route 138**

Control Type:	Signalized	Delay (sec / veh):	48.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.935

**Intersection Setup**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	⇐⇑⇒			⇑⇒⇐			⇑⇒⇐			⇑⇒⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	120.00	100.00	100.00	525.00	100.00	525.00	525.00	100.00	525.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			55.00			0.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Oasis Road			Oasis Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	8	16	20	113	9	26	19	689	28	19	404	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	5	46	10	5	0	0	48	35	50	52	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	27	73	162	17	35	34	1263	84	84	765	179
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	7	18	41	4	9	9	316	21	21	191	45
Total Analysis Volume [veh/h]	45	27	73	162	17	35	34	1263	84	84	765	179
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	200
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

**Phasing & Timing (Basic)**

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	30	30	0	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	14.0	0.0	0.0	14.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	23.0	0.0	9.0	23.0	0.0	149.0	154.0	0.0	14.0	19.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	L	C	L	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	200	200	200	200	200	200	200	200	200	200
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6.4	19.1	19.3	32.0	4.9	135.6	135.6	10.0	140.7	140.7
g / C, Green / Cycle	0.03	0.10	0.10	0.16	0.02	0.68	0.68	0.05	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.02	0.06	0.09	0.03	0.02	0.66	0.05	0.05	0.40	0.11
s, saturation flow rate [veh/h]	1810	1683	1810	1698	1810	1900	1615	1810	1900	1615
c, Capacity [veh/h]	58	161	174	272	45	1288	1095	90	1336	1136
d1, Uniform Delay [s]	96.09	86.90	89.76	72.81	96.94	30.91	10.93	94.64	14.73	9.89
k, delay calibration	0.11	0.50	0.37	0.50	0.11	0.40	0.11	0.32	0.12	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	19.54	16.55	43.79	1.56	22.80	18.25	0.03	58.87	0.42	0.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.78	0.62	0.93	0.19	0.76	0.98	0.08	0.93	0.57	0.16
d, Delay for Lane Group [s/veh]	115.63	103.45	133.55	74.37	119.74	49.16	10.96	153.52	15.15	9.96
Lane Group LOS	F	F	F	E	F	D	B	F	B	A
Critical Lane Group	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.63	5.71	10.33	2.41	2.11	68.09	1.46	5.79	16.40	2.57
50th-Percentile Queue Length [ft/ln]	65.79	142.64	258.22	60.15	52.68	1702.37	36.42	144.87	410.05	64.35
95th-Percentile Queue Length [veh/ln]	4.74	9.62	15.60	4.33	3.79	81.63	2.62	9.74	23.04	4.63
95th-Percentile Queue Length [ft/ln]	118.42	240.58	389.99	108.27	94.82	2040.70	65.56	243.56	576.10	115.82

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	115.63	103.45	103.45	133.55	74.37	74.37	119.74	49.16	10.96	153.52	15.15	9.96
Movement LOS	F	F	F	F	E	E	F	D	B	F	B	A
d_A, Approach Delay [s/veh]	107.23			119.17			48.57			25.55		
Approach LOS	F			F			D			C		
d_I, Intersection Delay [s/veh]	48.56											
Intersection LOS	D											
Intersection V/C	0.935											

**Emissions**

Vehicle Miles Traveled [mph]	2.62	5.82	4.64	1.49	12.10	449.31	29.88	24.88	226.62	53.03
Stops [stops/h]	47.37	102.70	185.92	43.31	37.93	1225.71	26.23	104.30	295.24	46.33
Fuel consumption [US gal/h]	1.74	3.58	8.01	1.64	1.74	46.46	2.44	5.06	14.48	2.85
CO [g/h]	121.45	250.33	559.93	114.72	121.54	3247.33	170.34	353.56	1012.13	199.19
NOx [g/h]	23.63	48.70	108.94	22.32	23.65	631.81	33.14	68.79	196.92	38.75
VOC [g/h]	28.15	58.02	129.77	26.59	28.17	752.60	39.48	81.94	234.57	46.16

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	91.20	91.20	91.20	91.20
l_p,int, Pedestrian LOS Score for Intersectio	2.290	2.249	2.169	3.196
Crosswalk LOS	B	B	B	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	190	190	1500	150
d_b, Bicycle Delay [s]	81.90	81.90	6.25	85.56
l_b,int, Bicycle LOS Score for Intersection	1.799	1.913	3.838	3.256
Bicycle LOS	A	A	D	C

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report**  
**Intersection 2: Oasis Rd / Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.106

**Intersection Setup**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+ + +			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	45.00			45.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Oasis Road			Oasis Road			Buckthorne Road			Buckthorne Road		
Base Volume Input [veh/h]	0	4	0	0	40	0	0	0	0	0	0	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	10	0	0	0	3	45	85	0	6	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	5	0	0	57	45	85	0	6	0	0	47
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	1	0	0	14	11	21	0	2	0	0	12
Total Analysis Volume [veh/h]	10	5	0	0	57	45	85	0	6	0	0	47
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.01	0.00	0.00	0.04
d_M, Delay for Movement [s/veh]	7.41	0.00	0.00	7.21	0.00	0.00	10.06	10.15	9.12	9.01	9.87	8.46
Movement LOS	A	A	A	A	A	A	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.38	0.38	0.38	0.14	0.14	0.14
95th-Percentile Queue Length [ft/ln]	0.42	0.42	0.42	0.00	0.00	0.00	9.44	9.44	9.44	3.39	3.39	3.39
d_A, Approach Delay [s/veh]	4.94			0.00			10.00			8.46		
Approach LOS	A			A			B			A		
d_I, Intersection Delay [s/veh]	5.42											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 3: Project Driveway #1/ Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.045

**Intersection Setup**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #1		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	45	0	0	0	0	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	0	0	0	0	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	0	0	0	7
Total Analysis Volume [veh/h]	45	0	0	0	0	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.73	8.36	7.25	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.14	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.49	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.73		3.63		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.38					
Intersection LOS	A					

**Intersection Level Of Service Report**  
**Intersection 4: Project Driveway #2/Buckthorne Rd**

Control Type:	Two-way stop	Delay (sec / veh):	9.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.049

**Intersection Setup**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration	↵↵		↵		↵	
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	15.00		30.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Project Driveway #2		Buckthorne Road		Buckthorne Road	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	45	0	0	45	28	28
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	45	0	0	45	28	28
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	0	11	7	7
Total Analysis Volume [veh/h]	45	0	0	45	28	28
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.12	8.48	7.31	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.86	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	9.12		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.81					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 5: Oasis Rd/ Project Driveway #3**

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.003

**Intersection Setup**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration	↑		↑↓		↗	
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		45.00		15.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Oasis Road		Oasis Road		Project Driveway #3	
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.4428	1.3446	1.3446	1.3446	1.4428	1.3446
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	85	45	45	0	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	85	45	45	0	3
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	21	11	11	0	1
Total Analysis Volume [veh/h]	0	85	45	45	0	3
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	8.53
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.22
d_A, Approach Delay [s/veh]	0.00		0.00		8.53	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.14					
Intersection LOS	A					

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 238.9  
 Level Of Service: F  
 Volume to Capacity (v/c): 0.386

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	7	0	73	0	0	1	0	651	30	71	364	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	78	0	5	81	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	0	103	0	0	1	0	1226	53	130	723	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	26	0	0	0	0	307	13	33	181	1
Total Analysis Volume [veh/h]	9	0	103	0	0	1	0	1226	53	130	723	2
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.39	0.00	0.49	0.00	0.00	0.00	0.00	0.01	0.00	0.24	0.01	0.00
d_M, Delay for Movement [s/veh]	238.92	194.47	101.65	304.07	118.97	13.41	9.06	0.00	0.00	13.57	0.00	0.00
Movement LOS	F	F	F	F	F	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	5.53	5.53	5.53	0.01	0.01	0.01	0.00	0.00	0.00	0.91	0.00	0.00
95th-Percentile Queue Length [ft/ln]	138.17	138.17	138.17	0.18	0.18	0.18	0.00	0.00	0.00	22.84	0.00	0.00
d_A, Approach Delay [s/veh]	112.68			13.41			0.00			2.06		
Approach LOS	F			B			A			A		
d_I, Intersection Delay [s/veh]	6.41											
Intersection LOS	F											

**Intersection Level Of Service Report  
Intersection 7: Soledad Rd/ HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 28.1  
 Level Of Service: D  
 Volume to Capacity (v/c): 0.055

**Intersection Setup**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Soledad Rd			Soledad Rd			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	0	3	0	0	1	724	0	0	340	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	5	0	0	0	73	0	0	76	5
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	9	0	0	2	1350	0	0	676	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	2	0	0	1	338	0	0	169	2
Total Analysis Volume [veh/h]	0	0	0	9	0	0	2	1350	0	0	676	9
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	26.84	23.79	24.36	28.09	25.01	14.18	8.93	0.00	0.00	11.97	0.00	0.00
Movement LOS	D	C	C	D	D	B	A	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.17	0.17	0.17	0.01	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	4.29	4.29	4.29	0.16	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	25.00			28.09			0.01			0.00		
Approach LOS	C			D			A			A		
d_I, Intersection Delay [s/veh]	0.13											
Intersection LOS	D											

**Intersection Level Of Service Report**  
**Intersection 8: 263rd Street / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	24.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.129

**Intersection Setup**

Name	263rd Street		HWY 138		HWY 138	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	263rd Street		HWY 138		HWY 138	
Base Volume Input [veh/h]	10	3	3	710	310	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	58	60	16
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	4	5	1311	607	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	1	1	328	152	20
Total Analysis Volume [veh/h]	28	4	5	1311	607	80
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.13	0.01	0.01	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	23.99	15.02	8.93	0.00	0.00	0.00
Movement LOS	C	C	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.47	0.47	0.01	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	11.71	11.71	0.21	0.21	0.00	0.00
d_A, Approach Delay [s/veh]	22.87		0.03		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.38					
Intersection LOS	C					

**Intersection Level Of Service Report  
Intersection 9: Ponderosa Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	13.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

**Intersection Setup**

Name	Ponderosa Road		HWY 138		HWY 138	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	1	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	49.21	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

**Volumes**

Name	Ponderosa Road		HWY 138		HWY 138	
Base Volume Input [veh/h]	0	0	858	1	2	487
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	104	0	0	113
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	1618	2	4	972
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	405	1	1	243
Total Analysis Volume [veh/h]	0	0	1618	2	4	972
Pedestrian Volume [ped/h]	0		0		0	

**Intersection Settings**

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	Yes		
Number of Storage Spaces in Median	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.00	0.00	0.02	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	28.55	32.95	0.00	0.00	13.92	0.00
Movement LOS	D	D	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.03	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.74	0.00
d_A, Approach Delay [s/veh]	30.75		0.00		0.06	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	0.02					
Intersection LOS	B					

**Intersection Level Of Service Report  
Intersection 10: Desert View Rd / HWY 138**

Control Type:	Two-way stop	Delay (sec / veh):	36.5
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.041

**Intersection Setup**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Desert View Road			Desert View Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	2	0	0	0	1	847	0	1	494	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	94	5	0	103	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	3	0	0	5	7	1588	5	2	974	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	1	0	0	1	2	397	1	1	244	0
Total Analysis Volume [veh/h]	5	0	3	0	0	5	7	1588	5	2	974	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	2	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.00	0.02	0.00	0.00	0.02	0.01	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	36.46	32.87	33.80	37.81	31.34	16.87	10.08	0.00	0.00	13.67	0.00	0.00
Movement LOS	E	D	D	E	D	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.20	0.20	0.20	0.05	0.05	0.05	0.03	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	5.01	5.01	5.01	1.24	1.24	1.24	0.74	0.00	0.00	0.36	0.00	0.00
d_A, Approach Delay [s/veh]	35.46			16.87			0.04			0.03		
Approach LOS	E			C			A			A		
d_I, Intersection Delay [s/veh]	0.18											
Intersection LOS	E											

**Intersection Level Of Service Report  
Intersection 11: Acorn Rd / HWY 138**

Control Type: Two-way stop  
 Analysis Method: HCM 7th Edition  
 Analysis Period: 15 minutes

Delay (sec / veh): 36.6  
 Level Of Service: E  
 Volume to Capacity (v/c): 0.009

**Intersection Setup**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	0.00
Speed [mph]	30.00			30.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Acorn Road			Acorn Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	0	0	1	1	0	0	0	849	0	0	495	3
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	5	5	84	5	0	93	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	0	1	1	0	5	5	1582	5	0	966	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	0	0	1	1	396	1	0	242	1
Total Analysis Volume [veh/h]	5	0	1	1	0	5	5	1582	5	0	966	5
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	Yes	Yes		
Number of Storage Spaces in Median	3	2	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.04	0.00	0.01	0.01	0.00	0.02	0.01	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	35.20	29.88	33.06	36.56	30.87	16.97	10.05	0.00	0.00	13.58	0.00	0.00
Movement LOS	E	D	D	E	D	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.15	0.15	0.15	0.08	0.08	0.08	0.02	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	3.69	3.69	3.69	1.90	1.90	1.90	0.53	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	34.84			20.24			0.03			0.00		
Approach LOS	D			C			A			A		
d_I, Intersection Delay [s/veh]	0.15											
Intersection LOS	E											

**Intersection Level Of Service Report**  
**Intersection 12: Green Rd-Phelan Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.689

**Intersection Setup**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			⇐   ⇐			⇐   ⇐		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	360.00	100.00	445.00	635.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	1	0	2	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	1800.00	0.00	199.61	0.00	0.00	0.00
Speed [mph]	45.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Green Road			Phelan Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	2	20	11	9	39	160	146	655	10	24	381	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	4	6	0	5	34	29	50	5	6	54	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	31	21	12	57	249	287	1205	23	48	726	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	8	5	3	14	62	72	301	6	12	182	2
Total Analysis Volume [veh/h]	8	31	21	12	57	249	287	1205	23	48	726	9
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

**Phasing & Timing (Basic)**

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	10	0	0	10	0	17	33	0	5	21	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	0.0	21.0	0.0	0.0	21.0	0.0	19.0	26.0	0.0	13.0	20.0	0.0
Lead / Lag	-	-	-	-	-	-	Lag	-	-	Lag	-	-
Minimum Green [s]	0	10	0	0	10	0	5	10	0	5	10	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	R	L	C	R
C, Calculated Cycle Length [s]	60	60	60	60	60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22.4	22.4	11.4	21.6	21.6	3.9	14.1	14.1
g / C, Green / Cycle	0.37	0.37	0.19	0.36	0.36	0.07	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.03	0.19	0.16	0.33	0.01	0.03	0.20	0.01
s, saturation flow rate [veh/h]	1722	1662	1810	3618	1615	1810	3618	1615
c, Capacity [veh/h]	709	681	347	1304	582	121	854	381
d1, Uniform Delay [s]	12.23	14.60	23.30	18.40	12.45	26.82	21.91	17.61
k, delay calibration	0.50	0.50	0.11	0.11	0.11	0.11	0.11	0.11
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.23	2.29	5.32	3.30	0.03	2.08	2.49	0.02
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.08	0.47	0.83	0.92	0.04	0.40	0.85	0.02
d, Delay for Lane Group [s/veh]	12.46	16.89	28.62	21.70	12.47	28.90	24.40	17.63
Lane Group LOS	B	B	C	C	B	C	C	B
Critical Lane Group	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.47	2.95	3.74	6.60	0.16	0.64	4.26	0.08
50th-Percentile Queue Length [ft/ln]	11.82	73.85	93.54	164.90	3.98	15.99	106.39	2.04
95th-Percentile Queue Length [veh/ln]	0.85	5.32	6.73	10.81	0.29	1.15	7.64	0.15
95th-Percentile Queue Length [ft/ln]	21.27	132.93	168.37	270.20	7.17	28.78	190.98	3.67

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	12.46	12.46	12.46	16.89	16.89	16.89	28.62	21.70	12.47	28.90	24.40	17.63
Movement LOS	B	B	B	B	B	B	C	C	B	C	C	B
d_A, Approach Delay [s/veh]	12.46			16.89			22.87			24.60		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	22.43											
Intersection LOS	C											
Intersection V/C	0.689											

**Emissions**

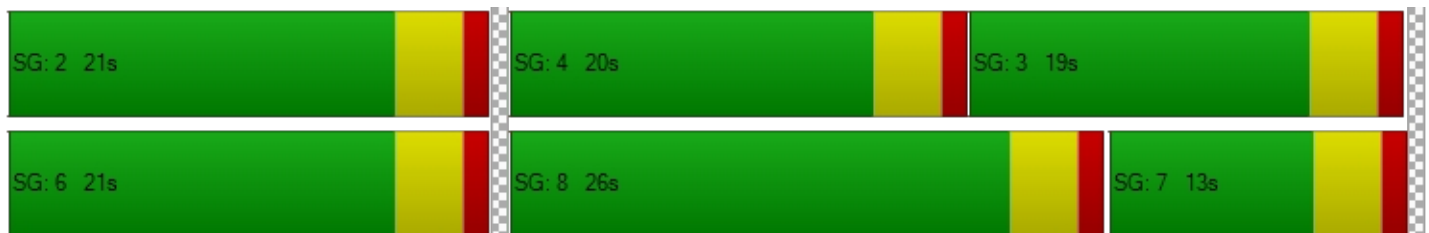
Vehicle Miles Traveled [mph]	4.96	29.34	224.18	941.25	17.97	5.33	80.60	1.00
Stops [stops/h]	28.37	177.24	224.49	791.53	9.56	38.38	510.69	4.89
Fuel consumption [US gal/h]	0.67	5.37	13.34	51.51	0.84	1.17	15.79	0.16
CO [g/h]	47.18	375.11	932.52	3600.58	58.50	82.02	1103.50	10.95
NOx [g/h]	9.18	72.98	181.43	700.54	11.38	15.96	214.70	2.13
VOC [g/h]	10.93	86.94	216.12	834.47	13.56	19.01	255.75	2.54

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	567	567	733	533
d_b, Bicycle Delay [s]	15.41	15.41	12.03	16.13
I_b,int, Bicycle LOS Score for Intersection	1.659	2.084	2.809	2.206
Bicycle LOS	A	B	C	B

**Sequence**

Ring 1	-	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



HORIZON YEAR WITH PROJECT WITH IMPROVEMENT  
TRAFFIC CONDITIONS

**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	16.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.611

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	10	0	89	0	0	0	0	365	12	56	473	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.4454	1.4454	1.4454	1.4454	1.4454	1.4454	1.7895	1.7895	1.7895	1.7895	1.7895	1.7895
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	84	0	5	80	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	0	134	0	0	0	0	737	21	105	926	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	34	0	0	0	0	184	5	26	232	0
Total Analysis Volume [veh/h]	14	0	134	0	0	0	0	737	21	105	926	0
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

**Phasing & Timing (Basic)**

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	10	10	0	10	10	0	5	52	0	5	52	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	37.0	0.0	20.0	48.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	Yes	No		Yes	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	L	C
C, Calculated Cycle Length [s]	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14.0	14.0	0.0	47.9	6.1	53.9
g / C, Green / Cycle	0.18	0.18	0.00	0.60	0.08	0.67
(v / s)_i Volume / Saturation Flow Rate	0.09	0.00	0.00	0.40	0.06	0.49
s, saturation flow rate [veh/h]	1659	1794	1810	1891	1810	1900
c, Capacity [veh/h]	391	389	2	1129	139	1279
d1, Uniform Delay [s]	28.96	0.00	0.00	10.83	36.17	8.33
k, delay calibration	0.50	0.11	0.11	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.78	0.00	0.00	3.19	7.95	3.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.38	0.00	0.00	0.67	0.75	0.72
d, Delay for Lane Group [s/veh]	31.74	0.00	0.00	14.02	44.12	11.92
Lane Group LOS	C	A	A	B	D	B
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.80	0.00	0.00	7.49	2.17	7.50
50th-Percentile Queue Length [ft/ln]	70.11	0.00	0.00	187.34	54.32	187.54
95th-Percentile Queue Length [veh/ln]	5.05	0.00	0.00	11.98	3.91	11.99
95th-Percentile Queue Length [ft/ln]	126.20	0.00	0.00	299.57	97.78	299.83

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	31.74	31.74	31.74	0.00	0.00	0.00	0.00	14.02	14.02	44.12	11.92	11.92
Movement LOS	C	C	C	A	A	A	A	B	B	D	B	B
d_A, Approach Delay [s/veh]	31.74			0.00			14.02			15.20		
Approach LOS	C			A			B			B		
d_I, Intersection Delay [s/veh]	16.00											
Intersection LOS	B											
Intersection V/C	0.611											

**Emissions**

Vehicle Miles Traveled [mph]	3.50	0.00	0.00	481.16	37.35	329.42
Stops [stops/h]	126.20	0.00	0.00	337.21	97.78	337.57
Fuel consumption [US gal/h]	1.80	0.00	0.00	23.45	3.69	18.46
CO [g/h]	125.62	0.00	0.00	1639.33	258.25	1290.33
NOx [g/h]	24.44	0.00	0.00	318.95	50.25	251.05
VOC [g/h]	29.11	0.00	0.00	379.93	59.85	299.05

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	475	475	825	1100
d_b, Bicycle Delay [s]	23.26	23.26	13.81	8.10
I_b,int, Bicycle LOS Score for Intersection	1.804	1.560	2.810	3.261
Bicycle LOS	A	A	C	C

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**Intersection Level Of Service Report  
Intersection 6: Mountain Rd/ HWY 138**

Control Type:	Signalized	Delay (sec / veh):	25.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.824

**Intersection Setup**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	+			+			↔			↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	120.00	100.00	100.00	250.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	1	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21	0.00	0.00	74.61
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	No			No			No			No		

**Volumes**

Name	Moutain Road			Mountain Road			HWY 138			HWY 138		
Base Volume Input [veh/h]	7	0	73	0	0	1	0	651	30	71	364	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.3446	1.3446	1.3446	1.3446	1.3446	1.3446	1.7641	1.7641	1.7641	1.7641	1.7641	1.7641
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	5	0	0	0	0	78	0	5	81	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	0	103	0	0	1	0	1226	53	130	723	2
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	26	0	0	0	0	307	13	33	181	1
Total Analysis Volume [veh/h]	9	0	103	0	0	1	0	1226	53	130	723	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	200
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

**Phasing & Timing (Basic)**

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	10	10	0	10	10	0	5	139	0	30	164	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

**Phasing & Timing: Pattern 1**

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	143.0	0.0	34.0	168.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5	10	0	5	10	0	5	10	0	5	10	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	Yes	No		Yes	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

**Exclusive Pedestrian Phase**

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

**Lane Group Calculations**

Lane Group	C	C	L	C	L	C
C, Calculated Cycle Length [s]	200	200	200	200	200	200
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	2.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14.3	14.3	0.0	157.2	16.5	173.6
g / C, Green / Cycle	0.07	0.07	0.00	0.79	0.08	0.87
(v / s)_i Volume / Saturation Flow Rate	0.07	0.00	0.00	0.68	0.07	0.38
s, saturation flow rate [veh/h]	1658	1390	1810	1886	1810	1899
c, Capacity [veh/h]	158	124	1	1481	150	1648
d1, Uniform Delay [s]	90.63	86.20	0.00	14.31	90.65	2.83
k, delay calibration	0.50	0.11	0.11	0.50	0.11	0.50
l, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	23.45	0.03	0.00	6.90	13.86	0.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

**Lane Group Results**

X, volume / capacity	0.71	0.01	0.00	0.86	0.87	0.44
d, Delay for Lane Group [s/veh]	114.08	86.22	0.00	21.21	104.51	3.68
Lane Group LOS	F	F	A	C	F	A
Critical Lane Group	Yes	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	6.81	0.05	0.00	35.03	7.19	4.54
50th-Percentile Queue Length [ft/ln]	170.15	1.24	0.00	875.87	179.63	113.45
95th-Percentile Queue Length [veh/ln]	11.08	0.09	0.00	44.74	11.58	8.03
95th-Percentile Queue Length [ft/ln]	277.12	2.23	0.00	1118.54	289.54	200.79

**Movement, Approach, & Intersection Results**

d_M, Delay for Movement [s/veh]	114.08	114.08	114.08	86.22	86.22	86.22	0.00	21.21	21.21	104.51	3.68	3.68
Movement LOS	F	F	F	F	F	F	A	C	C	F	A	A
d_A, Approach Delay [s/veh]	114.08			86.22			21.21			19.01		
Approach LOS	F			F			C			B		
d_I, Intersection Delay [s/veh]	25.03											
Intersection LOS	C											
Intersection V/C	0.824											

**Emissions**

Vehicle Miles Traveled [mph]	2.65	0.02	0.00	811.87	46.25	257.92
Stops [stops/h]	122.51	0.89	0.00	630.62	129.34	81.68
Fuel consumption [US gal/h]	3.39	0.02	0.00	42.39	6.30	10.43
CO [g/h]	236.64	1.64	0.00	2963.01	440.25	729.38
NOx [g/h]	46.04	0.32	0.00	576.49	85.66	141.91
VOC [g/h]	54.84	0.38	0.00	686.71	102.03	169.04

**Other Modes**

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	0.0	0.0
M_corner, Corner Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft <sup>2</sup> /ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	0.00	0.00
I_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	0.000	0.000
Crosswalk LOS	F	F	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	190	190	1390	1640
d_b, Bicycle Delay [s]	81.90	81.90	9.30	3.24
I_b,int, Bicycle LOS Score for Intersection	1.744	1.561	3.670	2.970
Bicycle LOS	A	A	D	C

**Sequence**

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



**APPENDIX D**

SIGNAL WARRANT REPORTS

## PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **AM**

Scenario: **HYP**

Major Street: **Route 138**

Minor Street: **Mountain Road**

Total of Both Approaches (VPH): **1789**

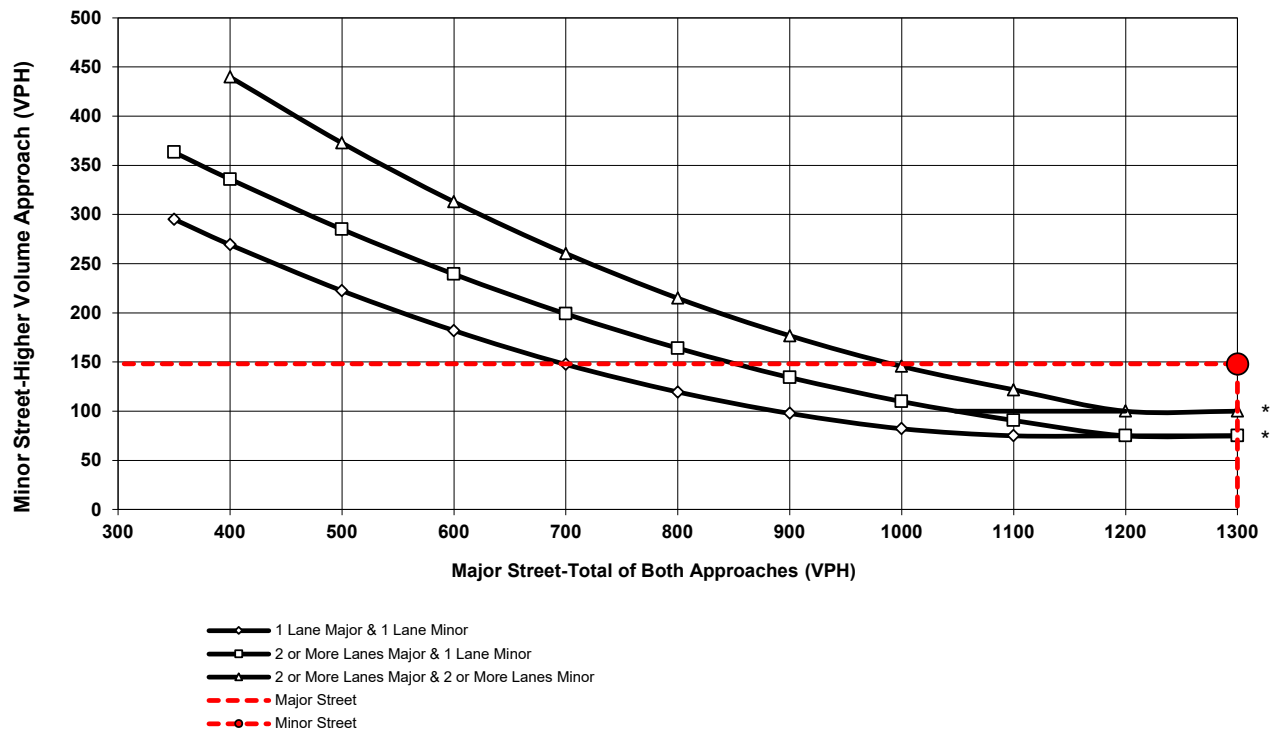
Higher Volume Approach (VPH): **148**

Number of Approach Lanes: **4**

Number of Approach Lanes: **1**

### SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



\* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**HYP Conditions**  
**AM Peak Hour Volume Warrant**  
**Route 138 / Mountain Road**

## PEAK HOUR VOLUME WARRANT RURAL CONDITIONS

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h (40 mph) ON MAJOR STREET)

Peak Hour: **PM**

Scenario: **HYP**

Major Street: **Route 138**

Minor Street: **Mountain Road**

Total of Both Approaches (VPH): **2134**

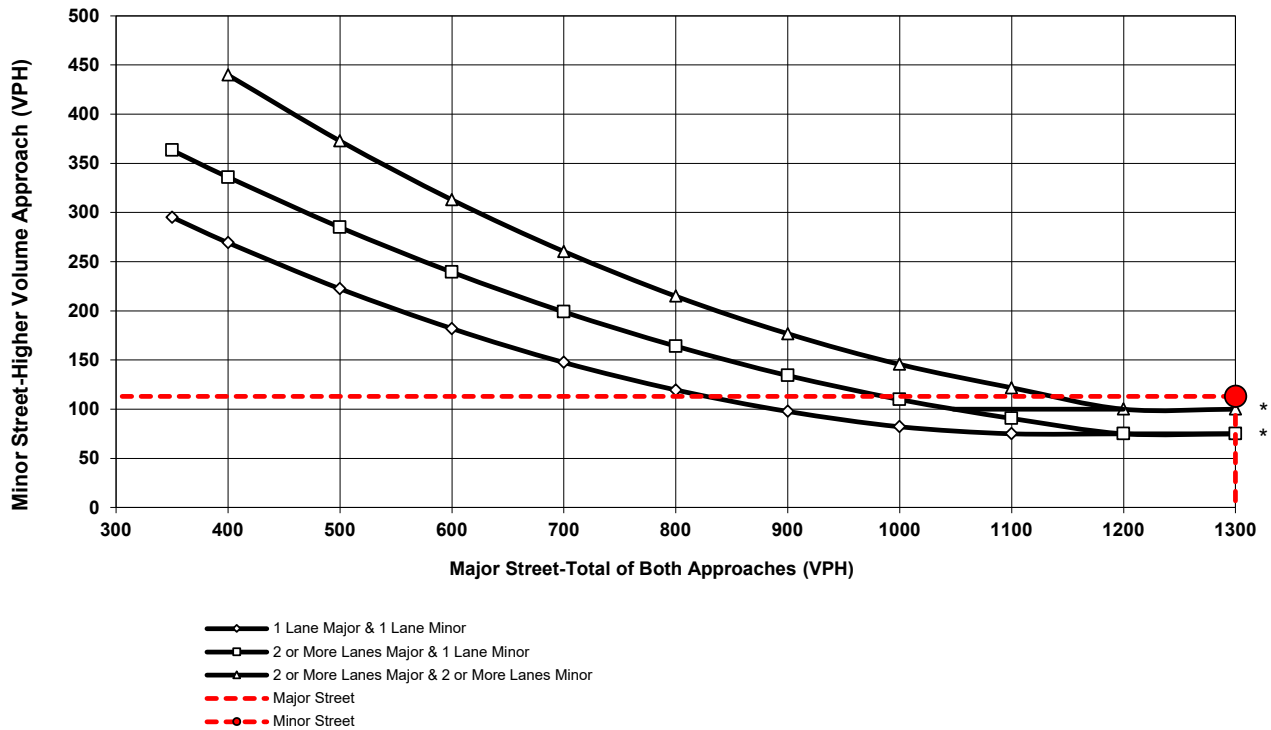
Higher Volume Approach (VPH): **113**

Number of Approach Lanes: **4**

Number of Approach Lanes: **1**

### SIGNAL WARRANT SATISFIED

Figure 4C-4. Peak Hour Warrant (Rural)



\* Note:

100 vph Applies as the Lower Threshold Volume for a Minor Street Approach with Two or More Lanes and 75 vph Applies as the Lower Threshold Volume for a Minor Street Approach with One Lane.

Source: MUTCD 2014 California Supplement Including Revision 3 (March 9, 2018)

**HYP Conditions  
PM Peak Hour Volume Warrant  
Route 138 / Mountain Road**