

# City of Central Point Urban Growth Boundary Amendment

## APPENDICES A-I

July 27, 2020

Prepared By:

*SOUTHERN OREGON TRANSPORTATION ENGINEERING, LLC*

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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix A

Traffic Counts,  
Seasonal Adjustments,  
Volume Development

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Node #	Intersection	Count Date	AM Peak Hour	PM Peak Hour	Seasonal Trend Table			Seasonal Adjustment	Characteristics Table	Seasonal Adjustment
					Month	Date				
East Side										
50	Table Rock/Biddle	8/28/2019	7:30-8:30	4:15-5:15	August	1-Aug	1.016			
55	Vilas/Table Rock	6/19/2019	7:15-8:15	3:30-4:30	June	15-Jun	1.000			
45	Wilson/Table Rock	6/18/2019	7:15-8:15	3:30-4:30	June	15-Jun	1.000			
60	Hamrick/Biddle	8/1/2019	7:30-8:30	3:45-4:45	August	1-Aug	1.016			
65	Hamrick/Beebe	8/7/2019	7:30-8:30	3:30-4:30	August	1-Aug	1.016			
115	Future Gebhard/Pine									
120	Future Gebhard/Beebe									
125	Futute Peninger/Beebe									
70	Peninger/Pine	7/31/2019	7:30-8:30	4:30-5:30	August	1-Aug	1.016			
35	Peninger/Upton	5/31/2017	7:15-8:15	4:15-5:15	June	15-Jun	1.000			
40	Upton/Wilson	10/1/2019	7:30-8:30	3:30-4:30	September	15-Sep	1.032			
Central										
5	I-5 NB Ramps/Pine	8/6/2019	7:30-8:30	4:30-5:30	August	1-Aug		ATR# 15-019	1.02	
10	I-5 SB Ramps/Pine	8/6/2019	7:30-8:30	4:15-5:15	August	1-Aug		ATR# 15-019	1.02	
West Side										
15	OR 99/Pine	9/17/2019	7:45-8:45	4:30-5:30	September	15-Sep		ATR# 15-014	1.07	
75	Haskell/Pine	9/17/2019	7:15-8:15	5:00-6:00	September	15-Sep	1.032			
30	Beall/OR 99	6/20/2019	7:30-8:30	4:45-5:45	June	15-Jun		ATR# 20-024	1.01	
80	Hanley/Beall	7/31/2019	7:30-8:30	4:45-5:45	August	1-Aug	1.016			
85	Grant/Beall	8/8/2019	7:30-8:30	5:00-6:00	August	1-Aug	1.016			
90	Grant (S leg) / Taylor	8/7/2019	8:00-9:00	4:45-5:45	August	1-Aug	1.016			
95	Grant (N leg) / Taylor	8/7/2019	8:00-9:00	4:45-5:45	August	1-Aug	1.016			
100	Grant / Twin Creeks Crossing	9/11/2019	7:15-8:15	5:00-6:00	September	15-Sep	1.032			
20	Twin Creeks Crossing/OR 99	9/24/2019	7:30-8:30	3:45-4:45	September	15-Sep		ATR# 15-014	1.07	
105	Taylor/Haskell	9/10/2019	7:15-8:15	4:30-5:30	September	15-Sep	1.032			
110	Grant / Scenic Ave	9/12/2019	7:30-8:30	4:00-5:00	September	15-Sep	1.032			
25	Scenic Ave / OR 99	7/16/2019	7:15-8:15	4:15-5:15	July	15-Jul		ATR# 15-014	1.05	
		Global Peak	7:30-8:30	4:30-5:30						

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: Table Rock Road  
 East-West: Biddle Road  
 Weather: Clear, Warm  
 Vehicle: All Vehicles

File Name : Table Rock-Biddle\_AM-PM  
 Site Code : 00000007  
 Start Date : 8/28/2019  
 Page No : 1

### Groups Printed- Unshifted

Start Time	Table Rock Rd From North					Biddle Rd From East					Table Rock Rd From South					Biddle Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	20	41	12	0	73	1	18	22	0	41	12	37	1	0	50	28	37	10	0	75	239
06:45 AM	25	52	10	0	87	0	20	31	0	51	7	55	0	0	62	44	65	14	0	123	323
<b>Total</b>	<b>45</b>	<b>93</b>	<b>22</b>	<b>0</b>	<b>160</b>	<b>1</b>	<b>38</b>	<b>53</b>	<b>0</b>	<b>92</b>	<b>19</b>	<b>92</b>	<b>1</b>	<b>0</b>	<b>112</b>	<b>72</b>	<b>102</b>	<b>24</b>	<b>0</b>	<b>198</b>	<b>562</b>
07:00 AM	36	37	18	0	91	1	27	21	0	49	12	30	0	0	42	35	56	12	0	103	285
07:15 AM	36	52	15	0	103	2	15	33	0	50	12	54	0	0	66	47	53	22	0	122	341
07:30 AM	49	66	17	0	132	2	29	32	0	63	11	33	1	0	45	53	88	29	0	170	410
07:45 AM	49	69	28	0	146	1	30	44	0	75	10	71	1	0	82	61	108	19	1	189	492
<b>Total</b>	<b>170</b>	<b>224</b>	<b>78</b>	<b>0</b>	<b>472</b>	<b>6</b>	<b>101</b>	<b>130</b>	<b>0</b>	<b>237</b>	<b>45</b>	<b>188</b>	<b>2</b>	<b>0</b>	<b>235</b>	<b>196</b>	<b>305</b>	<b>82</b>	<b>1</b>	<b>584</b>	<b>1528</b>
08:00 AM	51	52	28	0	131	2	37	27	0	66	11	29	3	0	43	34	72	19	1	126	366
08:15 AM	49	46	19	0	114	5	44	42	2	93	15	52	2	0	69	40	66	15	0	121	397
08:30 AM	4	85	19	0	108	1	28	29	3	61	9	70	4	0	83	51	20	60	1	132	384
08:45 AM	0	113	21	0	134	0	24	10	0	34	23	79	0	0	102	48	1	65	0	114	384
<b>Total</b>	<b>104</b>	<b>296</b>	<b>87</b>	<b>0</b>	<b>487</b>	<b>8</b>	<b>133</b>	<b>108</b>	<b>5</b>	<b>254</b>	<b>58</b>	<b>230</b>	<b>9</b>	<b>0</b>	<b>297</b>	<b>173</b>	<b>159</b>	<b>159</b>	<b>2</b>	<b>493</b>	<b>1531</b>
*** BREAK ***																					
03:30 PM	49	105	14	0	168	7	94	57	0	158	23	98	3	0	124	39	77	39	0	155	605
03:45 PM	41	109	24	0	174	15	100	47	1	163	33	76	1	0	110	38	67	41	0	146	593
<b>Total</b>	<b>90</b>	<b>214</b>	<b>38</b>	<b>0</b>	<b>342</b>	<b>22</b>	<b>194</b>	<b>104</b>	<b>1</b>	<b>321</b>	<b>56</b>	<b>174</b>	<b>4</b>	<b>0</b>	<b>234</b>	<b>77</b>	<b>144</b>	<b>80</b>	<b>0</b>	<b>301</b>	<b>1198</b>
04:00 PM	41	116	21	1	179	8	93	61	0	162	25	82	5	0	112	34	70	23	0	127	580
04:15 PM	45	115	21	0	181	11	125	65	0	201	19	87	4	0	110	49	70	23	0	142	634
04:30 PM	46	118	25	0	189	7	102	69	0	178	50	92	2	0	144	41	77	27	0	145	656
04:45 PM	42	107	20	1	170	3	107	63	0	173	30	78	5	0	113	28	73	19	0	120	576
<b>Total</b>	<b>174</b>	<b>456</b>	<b>87</b>	<b>2</b>	<b>719</b>	<b>29</b>	<b>427</b>	<b>258</b>	<b>0</b>	<b>714</b>	<b>124</b>	<b>339</b>	<b>16</b>	<b>0</b>	<b>479</b>	<b>152</b>	<b>290</b>	<b>92</b>	<b>0</b>	<b>534</b>	<b>2446</b>
05:00 PM	43	110	19	0	172	16	126	59	0	201	41	79	3	0	123	27	78	28	0	133	629
05:15 PM	25	94	21	2	142	8	150	76	0	234	31	82	1	0	114	32	70	22	1	125	615
05:30 PM	25	86	21	0	132	9	98	58	0	165	19	58	5	1	83	32	66	35	0	133	513
05:45 PM	24	66	16	1	107	6	96	49	0	151	21	75	2	0	98	20	51	23	0	94	450
<b>Total</b>	<b>117</b>	<b>356</b>	<b>77</b>	<b>3</b>	<b>553</b>	<b>39</b>	<b>470</b>	<b>242</b>	<b>0</b>	<b>751</b>	<b>112</b>	<b>294</b>	<b>11</b>	<b>1</b>	<b>418</b>	<b>111</b>	<b>265</b>	<b>108</b>	<b>1</b>	<b>485</b>	<b>2207</b>
<b>Grand Total</b>	<b>700</b>	<b>1639</b>	<b>389</b>	<b>5</b>	<b>2733</b>	<b>105</b>	<b>1363</b>	<b>895</b>	<b>6</b>	<b>2369</b>	<b>414</b>	<b>1317</b>	<b>43</b>	<b>1</b>	<b>1775</b>	<b>781</b>	<b>1265</b>	<b>545</b>	<b>4</b>	<b>2595</b>	<b>9472</b>
<b>Apprch %</b>	<b>25.6</b>	<b>60</b>	<b>14.2</b>	<b>0.2</b>		<b>4.4</b>	<b>57.5</b>	<b>37.8</b>	<b>0.3</b>		<b>23.3</b>	<b>74.2</b>	<b>2.4</b>	<b>0.1</b>		<b>30.1</b>	<b>48.7</b>	<b>21</b>	<b>0.2</b>		
<b>Total %</b>	<b>7.4</b>	<b>17.3</b>	<b>4.1</b>	<b>0.1</b>	<b>28.9</b>	<b>1.1</b>	<b>14.4</b>	<b>9.4</b>	<b>0.1</b>	<b>25</b>	<b>4.4</b>	<b>13.9</b>	<b>0.5</b>	<b>0</b>	<b>18.7</b>	<b>8.2</b>	<b>13.4</b>	<b>5.8</b>	<b>0</b>	<b>27.4</b>	

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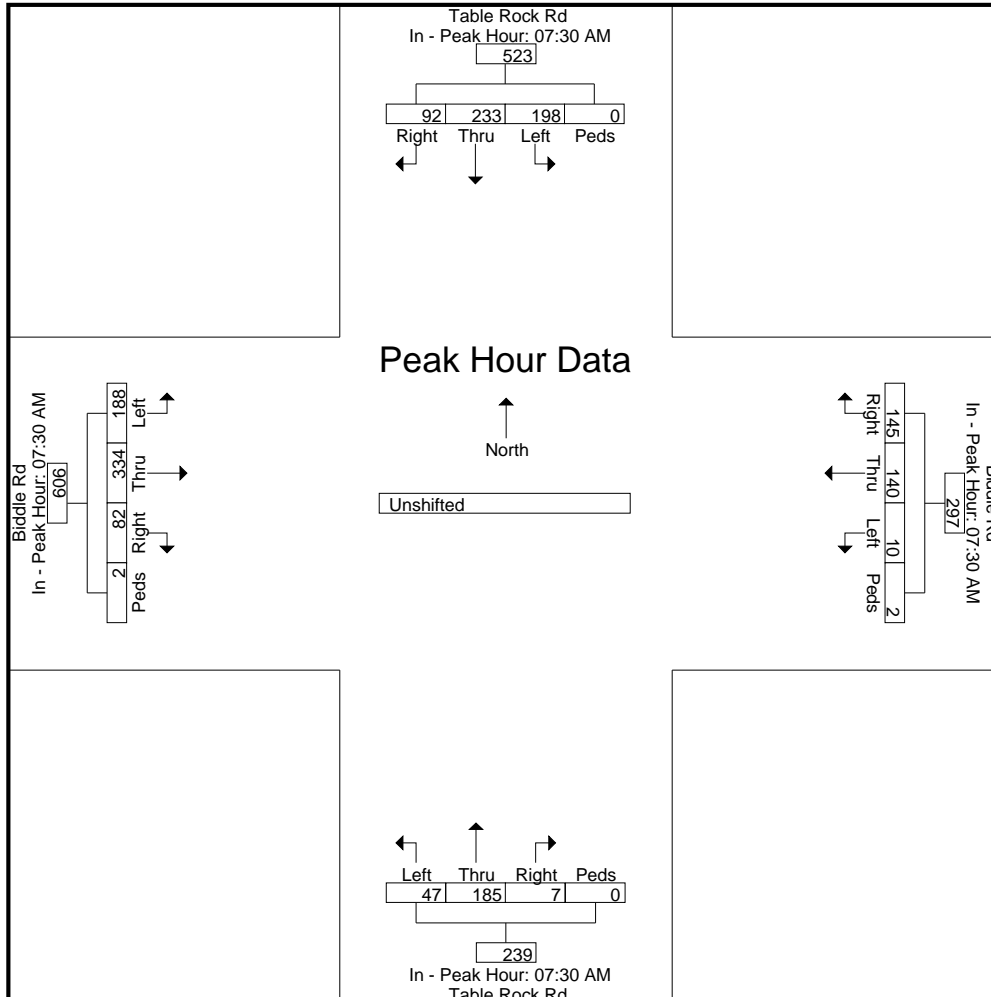
File Name : Table Rock-Biddle\_AM-PM  
 Site Code : 00000007  
 Start Date : 8/28/2019  
 Page No : 2

Start Time	Table Rock Rd From North					Biddle Rd From East					Table Rock Rd From South					Biddle Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	49	66	17	0	132	2	29	32	0	63	11	33	1	0	45	53	88	29	0	170
+15 mins.	49	69	28	0	146	1	30	44	0	75	10	71	1	0	82	61	108	19	1	189
+30 mins.	51	52	28	0	131	2	37	27	0	66	11	29	3	0	43	34	72	19	1	126
+45 mins.	49	46	19	0	114	5	44	42	2	93	15	52	2	0	69	40	66	15	0	121
Total Volume	198	233	92	0	523	10	140	145	2	297	47	185	7	0	239	188	334	82	2	606
% App. Total	37.9	44.6	17.6	0		3.4	47.1	48.8	0.7		19.7	77.4	2.9	0		31	55.1	13.5	0.3	
PHF	.971	.844	.821	.000	.896	.500	.795	.824	.250	.798	.783	.651	.583	.000	.729	.770	.773	.707	.500	.802

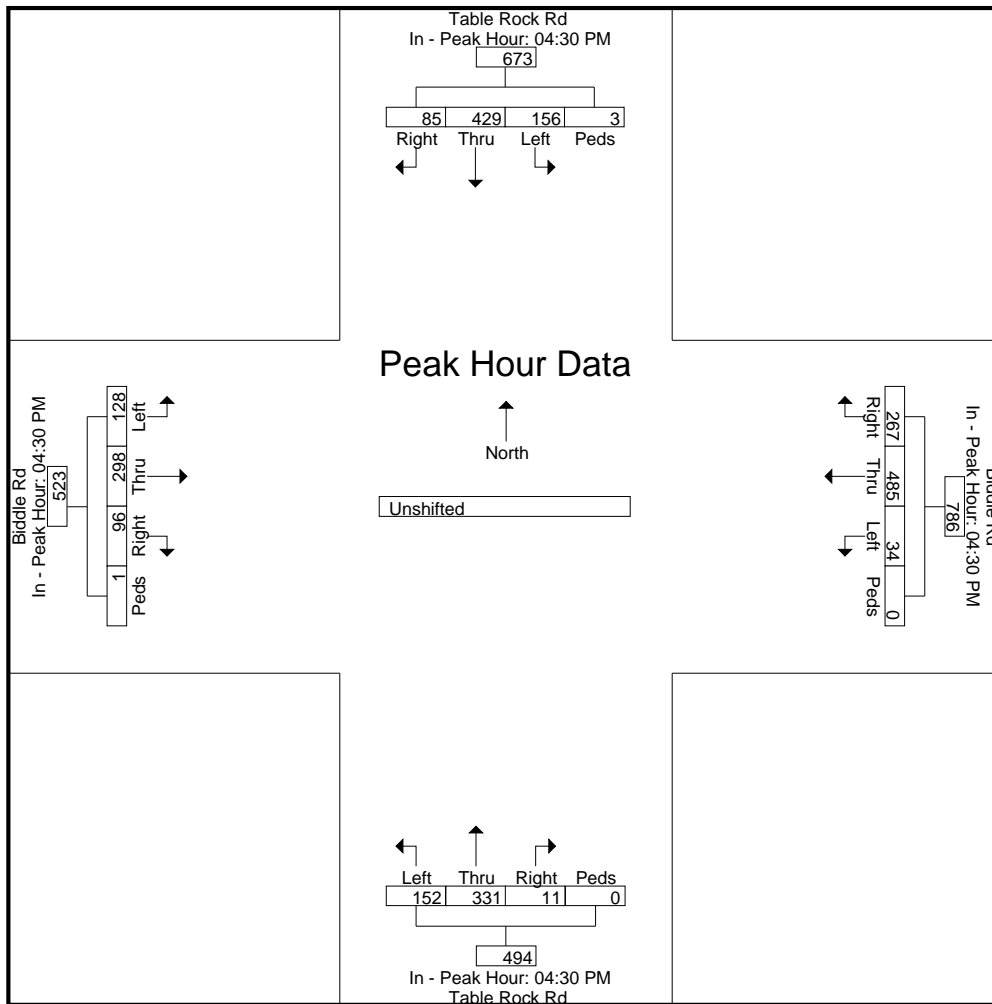


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File Name : Table Rock-Biddle\_AM-PM  
 Site Code : 00000007  
 Start Date : 8/28/2019  
 Page No : 3

Start Time	Table Rock Rd From North					Biddle Rd From East					Table Rock Rd From South					Biddle Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					04:30 PM					04:30 PM					04:30 PM					
+0 mins.	46	118	25	0	189	7	102	69	0	178	50	92	2	0	144	41	77	27	0	145	
+15 mins.	42	107	20	1	170	3	107	63	0	173	30	78	5	0	113	28	73	19	0	120	
+30 mins.	43	110	19	0	172	16	126	59	0	201	41	79	3	0	123	27	78	28	0	133	
+45 mins.	25	94	21	2	142	8	150	76	0	234	31	82	1	0	114	32	70	22	1	125	
Total Volume	156	429	85	3	673	34	485	267	0	786	152	331	11	0	494	128	298	96	1	523	
% App. Total	23.2	63.7	12.6	0.4		4.3	61.7	34	0		30.8	67	2.2	0		24.5	57	18.4	0.2		
PHF	.848	.909	.850	.375	.890	.531	.808	.878	.000	.840	.760	.899	.550	.000	.858	.780	.955	.857	.250	.902	



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North-South: Table Rock Road  
 East-West: Vilas Road  
 Weather: Sunny, Warm  
 Veh Type: All Vehicles

File Name : Vilas-Table Rock  
 Site Code : 00000002  
 Start Date : 6/19/2019  
 Page No : 1

**Groups Printed- Unshifted**

Start Time	Table Rock From North					Vilas Road From East					Table Rock From South					Vilas Road From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	20	75	36	1	132	21	28	15	1	65	6	62	30	0	98	40	40	5	0	85	380
06:45 AM	33	70	30	0	133	22	38	26	0	86	9	93	25	0	127	36	70	10	0	116	462
<b>Total</b>	<b>53</b>	<b>145</b>	<b>66</b>	<b>1</b>	<b>265</b>	<b>43</b>	<b>66</b>	<b>41</b>	<b>1</b>	<b>151</b>	<b>15</b>	<b>155</b>	<b>55</b>	<b>0</b>	<b>225</b>	<b>76</b>	<b>110</b>	<b>15</b>	<b>0</b>	<b>201</b>	<b>842</b>
07:00 AM	24	78	22	0	124	25	31	21	1	78	11	55	25	0	91	36	35	6	0	77	370
07:15 AM	37	71	36	0	144	26	35	11	0	72	7	59	33	0	99	44	53	6	0	103	418
07:30 AM	16	75	30	0	121	26	38	5	0	69	9	72	41	1	123	50	69	13	0	132	445
07:45 AM	37	102	42	1	182	34	40	12	0	86	15	91	52	0	158	52	82	7	0	141	567
<b>Total</b>	<b>114</b>	<b>326</b>	<b>130</b>	<b>1</b>	<b>571</b>	<b>111</b>	<b>144</b>	<b>49</b>	<b>1</b>	<b>305</b>	<b>42</b>	<b>277</b>	<b>151</b>	<b>1</b>	<b>471</b>	<b>182</b>	<b>239</b>	<b>32</b>	<b>0</b>	<b>453</b>	<b>1800</b>
08:00 AM	23	56	27	3	109	27	34	13	0	74	10	53	54	0	117	32	69	12	0	113	413
08:15 AM	22	69	30	0	121	13	52	21	1	87	5	63	43	0	111	25	47	8	0	80	399
08:30 AM	32	56	26	1	115	29	43	12	1	85	4	55	46	0	105	27	55	5	1	88	393
08:45 AM	22	78	45	0	145	32	40	15	0	87	12	61	38	0	111	27	45	8	0	80	423
<b>Total</b>	<b>99</b>	<b>259</b>	<b>128</b>	<b>4</b>	<b>490</b>	<b>101</b>	<b>169</b>	<b>61</b>	<b>2</b>	<b>333</b>	<b>31</b>	<b>232</b>	<b>181</b>	<b>0</b>	<b>444</b>	<b>111</b>	<b>216</b>	<b>33</b>	<b>1</b>	<b>361</b>	<b>1628</b>
09:00 AM	32	83	34	0	149	22	40	20	0	82	13	60	29	1	103	23	44	4	0	71	405
09:15 AM	10	27	9	0	46	13	14	9	0	36	16	38	13	0	67	14	15	7	0	36	185
*** BREAK ***																					
<b>Total</b>	<b>42</b>	<b>110</b>	<b>43</b>	<b>0</b>	<b>195</b>	<b>35</b>	<b>54</b>	<b>29</b>	<b>0</b>	<b>118</b>	<b>29</b>	<b>98</b>	<b>42</b>	<b>1</b>	<b>170</b>	<b>37</b>	<b>59</b>	<b>11</b>	<b>0</b>	<b>107</b>	<b>590</b>
*** BREAK ***																					
03:00 PM	23	124	48	1	196	47	52	27	0	126	14	129	50	0	193	29	37	7	0	73	588
03:15 PM	36	96	39	1	172	37	80	28	1	146	12	123	43	0	178	44	37	6	0	87	583
03:30 PM	37	120	59	1	217	48	79	27	0	154	14	106	40	0	160	54	61	8	0	123	654
03:45 PM	27	105	42	0	174	49	64	38	0	151	15	105	52	0	172	48	45	7	0	100	597
<b>Total</b>	<b>123</b>	<b>445</b>	<b>188</b>	<b>3</b>	<b>759</b>	<b>181</b>	<b>275</b>	<b>120</b>	<b>1</b>	<b>577</b>	<b>55</b>	<b>463</b>	<b>185</b>	<b>0</b>	<b>703</b>	<b>175</b>	<b>180</b>	<b>28</b>	<b>0</b>	<b>383</b>	<b>2422</b>
04:00 PM	45	118	65	1	229	47	75	22	0	144	16	108	46	0	170	31	47	4	0	82	625
04:15 PM	26	103	38	0	167	49	77	14	1	141	18	121	56	0	195	49	45	2	0	96	599
04:30 PM	29	105	61	0	195	43	88	18	0	149	15	108	38	0	161	43	45	7	0	95	600
04:45 PM	24	73	54	0	151	42	86	26	0	154	13	95	53	0	161	45	48	3	0	96	562
<b>Total</b>	<b>124</b>	<b>399</b>	<b>218</b>	<b>1</b>	<b>742</b>	<b>181</b>	<b>326</b>	<b>80</b>	<b>1</b>	<b>588</b>	<b>62</b>	<b>432</b>	<b>193</b>	<b>0</b>	<b>687</b>	<b>168</b>	<b>185</b>	<b>16</b>	<b>0</b>	<b>369</b>	<b>2386</b>
05:00 PM	43	93	53	0	189	67	81	37	1	186	19	134	37	0	190	36	43	6	0	85	650
05:15 PM	17	67	39	0	123	42	85	39	1	167	23	116	48	0	187	37	50	9	0	96	573
05:30 PM	21	74	35	2	132	33	55	29	1	118	8	114	40	0	162	35	29	5	0	69	481
05:45 PM	14	56	38	0	108	21	52	19	0	92	13	98	36	0	147	34	43	6	0	83	430
<b>Total</b>	<b>95</b>	<b>290</b>	<b>165</b>	<b>2</b>	<b>552</b>	<b>163</b>	<b>273</b>	<b>124</b>	<b>3</b>	<b>563</b>	<b>63</b>	<b>462</b>	<b>161</b>	<b>0</b>	<b>686</b>	<b>142</b>	<b>165</b>	<b>26</b>	<b>0</b>	<b>333</b>	<b>2134</b>
<b>Grand Total</b>	<b>650</b>	<b>1974</b>	<b>938</b>	<b>12</b>	<b>3574</b>	<b>815</b>	<b>1307</b>	<b>504</b>	<b>9</b>	<b>2635</b>	<b>297</b>	<b>2119</b>	<b>968</b>	<b>2</b>	<b>3386</b>	<b>891</b>	<b>1154</b>	<b>161</b>	<b>1</b>	<b>2207</b>	<b>11802</b>
<b>Apprch %</b>	<b>18.2</b>	<b>55.2</b>	<b>26.2</b>	<b>0.3</b>		<b>30.9</b>	<b>49.6</b>	<b>19.1</b>	<b>0.3</b>		<b>8.8</b>	<b>62.6</b>	<b>28.6</b>	<b>0.1</b>		<b>40.4</b>	<b>52.3</b>	<b>7.3</b>	<b>0</b>		
<b>Total %</b>	<b>5.5</b>	<b>16.7</b>	<b>7.9</b>	<b>0.1</b>	<b>30.3</b>	<b>6.9</b>	<b>11.1</b>	<b>4.3</b>	<b>0.1</b>	<b>22.3</b>	<b>2.5</b>	<b>18</b>	<b>8.2</b>	<b>0</b>	<b>28.7</b>	<b>7.5</b>	<b>9.8</b>	<b>1.4</b>	<b>0</b>	<b>18.7</b>	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Table Rock Road  
 East-West: Vilas Road  
 Weather: Sunny, Warm  
 Veh Type: All Vehicles

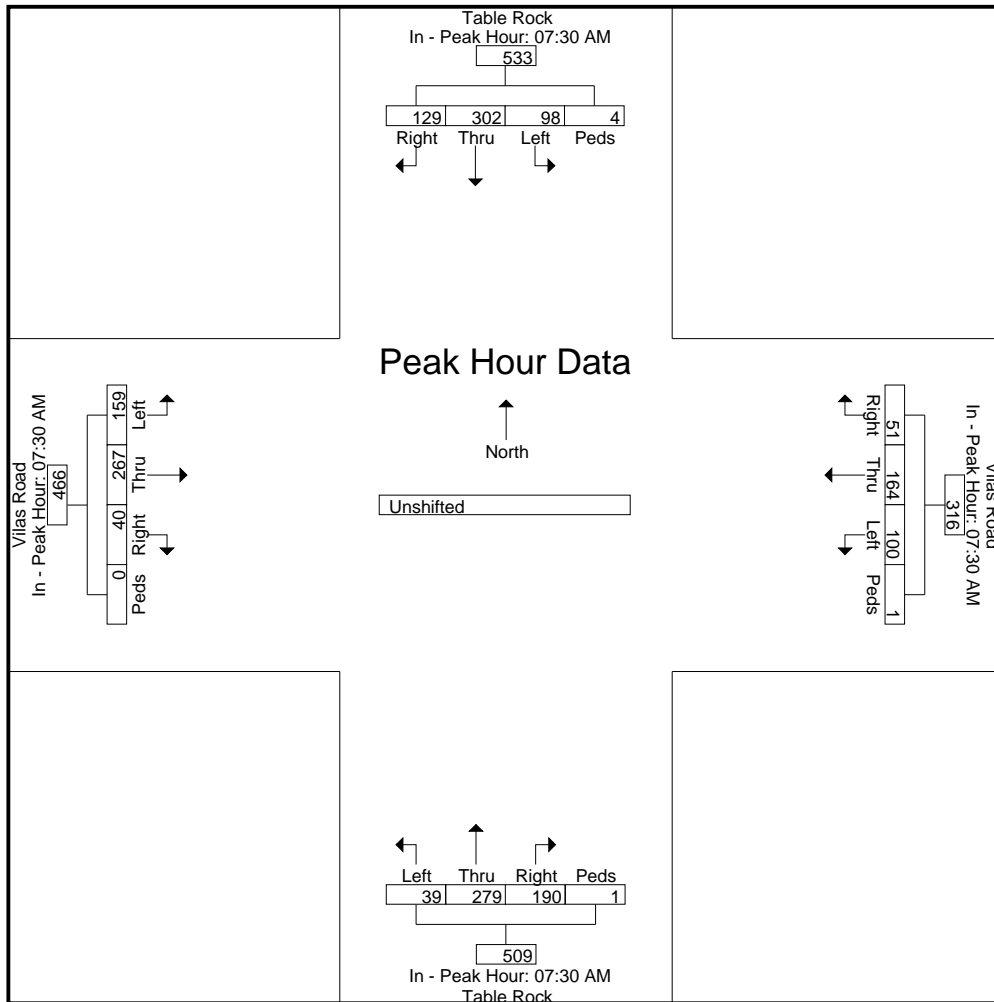
File Name : Vilas-Table Rock  
 Site Code : 00000002  
 Start Date : 6/19/2019  
 Page No : 2

Start Time	Table Rock From North					Vilas Road From East					Table Rock From South					Vilas Road From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	16	75	30	0	121	26	38	5	0	69	9	72	41	1	123	50	69	13	0	132
+15 mins.	37	102	42	1	182	34	40	12	0	86	15	91	52	0	158	52	82	7	0	141
+30 mins.	23	56	27	3	109	27	34	13	0	74	10	53	54	0	117	32	69	12	0	113
+45 mins.	22	69	30	0	121	13	52	21	1	87	5	63	43	0	111	25	47	8	0	80
Total Volume	98	302	129	4	533	100	164	51	1	316	39	279	190	1	509	159	267	40	0	466
% App. Total	18.4	56.7	24.2	0.8		31.6	51.9	16.1	0.3		7.7	54.8	37.3	0.2		34.1	57.3	8.6	0	
PHF	.662	.740	.768	.333	.732	.735	.788	.607	.250	.908	.650	.766	.880	.250	.805	.764	.814	.769	.000	.826





# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Table Rock Road  
 East-West: Vilas Road  
 Weather: Sunny, Warm  
 Veh Type: All Vehicles

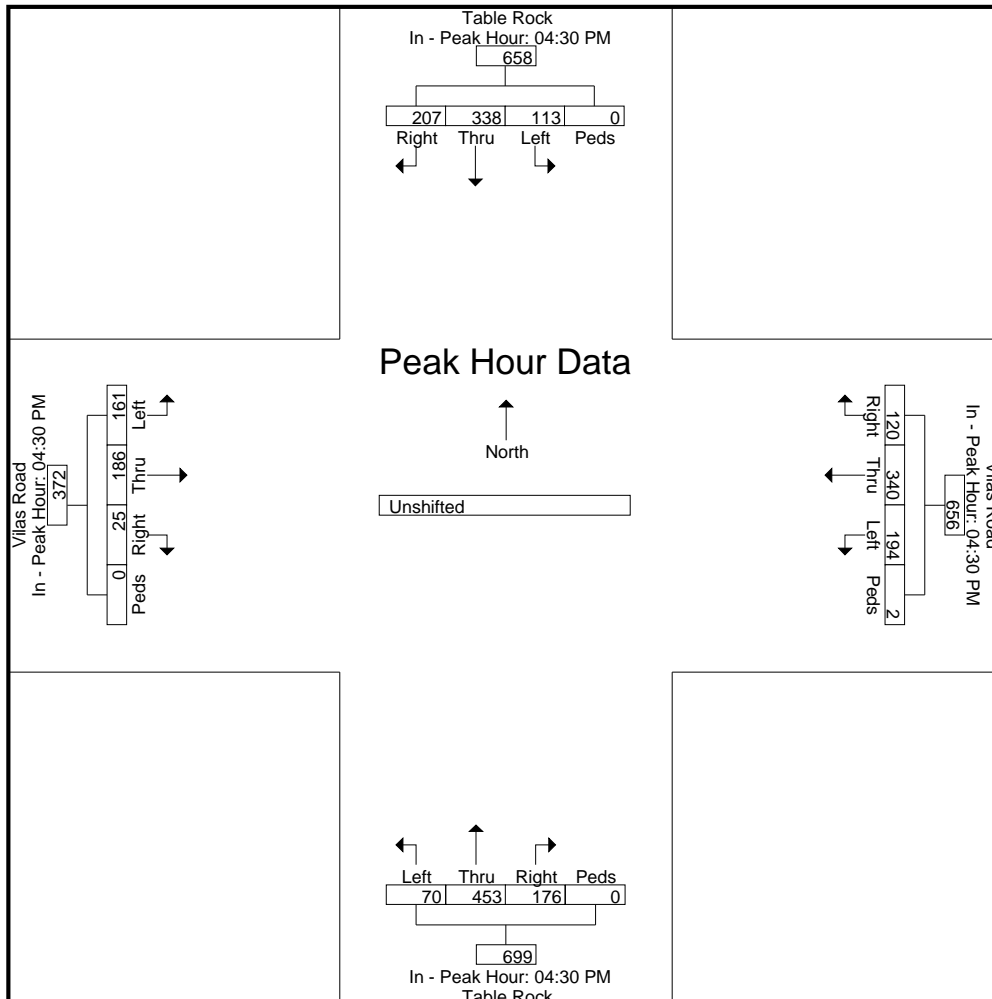
File Name : Vilas-Table Rock  
 Site Code : 00000002  
 Start Date : 6/19/2019  
 Page No : 3

Start Time	Table Rock From North					Vilas Road From East					Table Rock From South					Vilas Road From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	29	105	61	0	195	43	88	18	0	149	15	108	38	0	161	43	45	7	0	95
+15 mins.	24	73	54	0	151	42	86	26	0	154	13	95	53	0	161	45	48	3	0	96
+30 mins.	43	93	53	0	189	67	81	37	1	186	19	134	37	0	190	36	43	6	0	85
+45 mins.	17	67	39	0	123	42	85	39	1	167	23	116	48	0	187	37	50	9	0	96
Total Volume	113	338	207	0	658	194	340	120	2	656	70	453	176	0	699	161	186	25	0	372
% App. Total	17.2	51.4	31.5	0		29.6	51.8	18.3	0.3		10	64.8	25.2	0		43.3	50	6.7	0	
PHF	.657	.805	.848	.000	.844	.724	.966	.769	.500	.882	.761	.845	.830	.000	.920	.894	.930	.694	.000	.969



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Table Rock Road  
 East-West: Wilson Road  
 Weather: Sunny, Warm  
 Veh Type: All Vehicles

File Name : Wilson-Table Rock  
 Site Code : 00000001  
 Start Date : 6/18/2019  
 Page No : 1

### Groups Printed- Unshifted

Start Time	Table Rock From North					From East					Table Rock From South					Wilson Road From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	0	125	10	0	135	0	0	0	0	0	6	100	0	0	106	19	0	10	0	29	270
06:45 AM	0	139	6	0	145	0	0	0	0	0	2	117	0	0	119	16	0	10	0	26	290
Total	0	264	16	0	280	0	0	0	0	0	8	217	0	0	225	35	0	20	0	55	560
07:00 AM	0	122	8	0	130	0	0	0	0	0	5	89	0	0	94	12	0	7	0	19	243
07:15 AM	0	135	11	1	147	0	0	0	0	0	9	119	0	0	128	16	0	16	0	32	307
07:30 AM	0	153	13	0	166	0	0	0	0	0	6	121	0	0	127	26	0	17	0	43	336
07:45 AM	0	190	11	0	201	0	0	0	0	0	5	134	0	0	139	23	0	30	0	53	393
Total	0	600	43	1	644	0	0	0	0	0	25	463	0	0	488	77	0	70	0	147	1279
08:00 AM	0	131	14	1	146	0	0	0	0	0	9	105	0	0	114	17	0	13	0	30	290
08:15 AM	0	124	9	0	133	0	0	0	0	0	6	91	0	0	97	12	0	13	0	25	255
08:30 AM	0	100	11	0	111	0	0	0	0	0	11	114	0	0	125	7	0	15	0	22	258
08:45 AM	0	106	6	0	112	0	0	0	0	0	3	104	0	0	107	7	0	12	0	19	238
Total	0	461	40	1	502	0	0	0	0	0	29	414	0	0	443	43	0	53	0	96	1041
09:00 AM	0	96	6	1	103	0	0	0	0	0	3	92	0	0	95	5	0	12	0	17	215
09:15 AM	0	34	1	0	35	0	0	0	0	0	3	37	0	0	40	5	0	8	0	13	88
*** BREAK ***																					
Total	0	130	7	1	138	0	0	0	0	0	6	129	0	0	135	10	0	20	0	30	303
*** BREAK ***																					
03:00 PM	0	48	4	0	52	0	0	0	0	0	6	51	0	0	57	5	0	11	0	16	125
03:15 PM	0	155	13	0	168	0	0	0	0	0	16	156	0	1	173	23	0	15	0	38	379
03:30 PM	0	207	26	0	233	0	0	0	0	0	13	167	0	0	180	15	0	12	0	27	440
03:45 PM	0	188	16	1	205	0	0	0	0	0	20	161	0	0	181	23	0	8	0	31	417
Total	0	598	59	1	658	0	0	0	0	0	55	535	0	1	591	66	0	46	0	112	1361
04:00 PM	0	173	24	0	197	0	0	0	0	0	21	162	0	1	184	21	0	8	0	29	410
04:15 PM	0	155	24	0	179	0	0	0	0	0	7	148	0	0	155	12	0	13	0	25	359
04:30 PM	0	206	21	0	227	0	0	0	0	0	13	153	1	0	167	16	0	15	0	31	425
04:45 PM	0	142	24	0	166	0	0	0	0	0	12	170	0	0	182	21	0	13	0	34	382
Total	0	676	93	0	769	0	0	0	0	0	53	633	1	1	688	70	0	49	0	119	1576
05:00 PM	0	142	17	0	159	0	0	0	0	0	19	220	0	0	239	17	0	15	0	32	430
05:15 PM	0	119	13	0	132	0	0	0	0	0	18	204	0	0	222	20	0	7	0	27	381
05:30 PM	0	107	18	0	125	0	0	0	0	0	8	200	0	0	208	13	0	9	0	22	355
05:45 PM	0	81	15	3	99	0	0	0	0	0	18	170	0	0	188	14	0	11	0	25	312
Total	0	449	63	3	515	0	0	0	0	0	63	794	0	0	857	64	0	42	0	106	1478
Grand Total	0	3178	321	7	3506	0	0	0	0	0	239	3185	1	2	3427	365	0	300	0	665	7598
Apprch %	0	90.6	9.2	0.2		0	0	0	0		7	92.9	0	0.1		54.9	0	45.1	0		
Total %	0	41.8	4.2	0.1	46.1	0	0	0	0	0	3.1	41.9	0	0	45.1	4.8	0	3.9	0	8.8	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Table Rock Road  
 East-West: Wilson Road  
 Weather: Sunny, Warm  
 Veh Type: All Vehicles

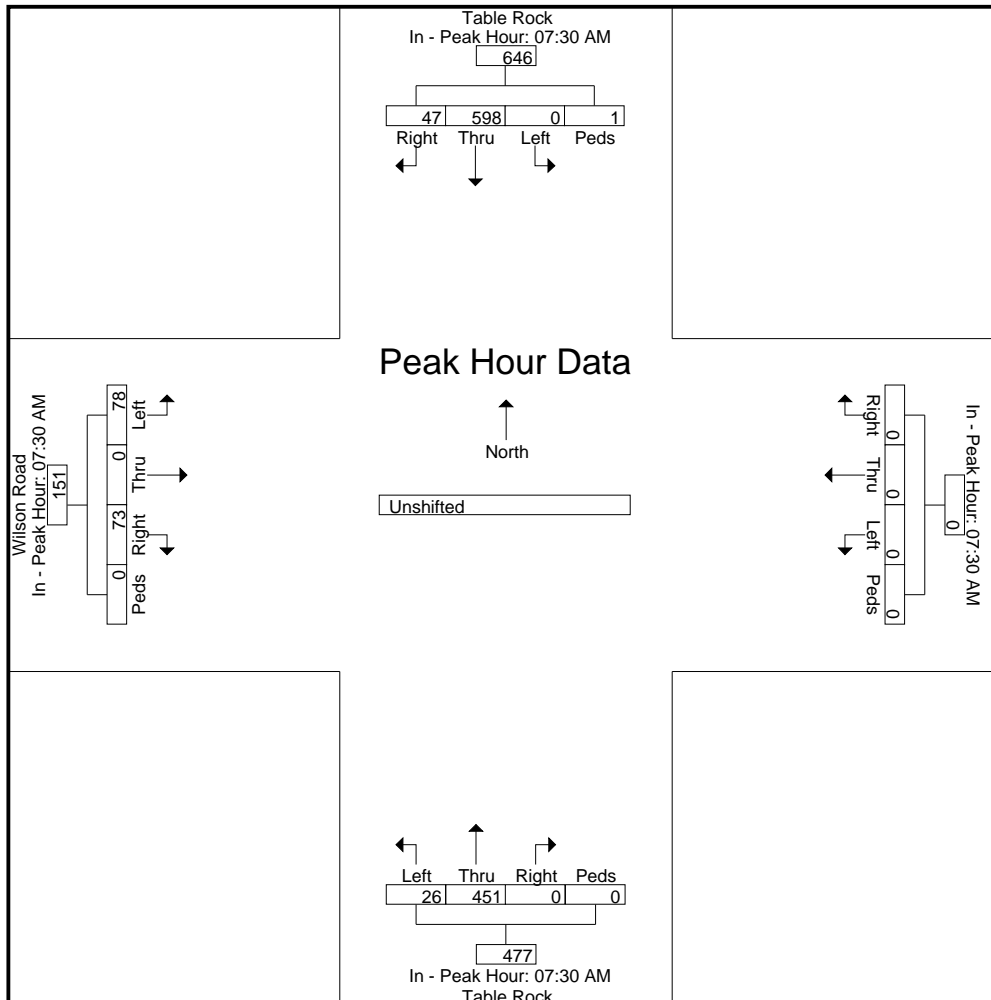
File Name : Wilson-Table Rock  
 Site Code : 00000001  
 Start Date : 6/18/2019  
 Page No : 2

Start Time	Table Rock From North					From East					Table Rock From South					Wilson Road From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	0	153	13	0	166	0	0	0	0	0	6	121	0	0	127	26	0	17	0	43
+15 mins.	0	190	11	0	201	0	0	0	0	0	5	134	0	0	139	23	0	30	0	53
+30 mins.	0	131	14	1	146	0	0	0	0	0	9	105	0	0	114	17	0	13	0	30
+45 mins.	0	124	9	0	133	0	0	0	0	0	6	91	0	0	97	12	0	13	0	25
Total Volume	0	598	47	1	646	0	0	0	0	0	26	451	0	0	477	78	0	73	0	151
% App. Total	0	92.6	7.3	0.2		0	0	0	0		5.5	94.5	0	0		51.7	0	48.3	0	
PHF	.000	.787	.839	.250	.803	.000	.000	.000	.000	.000	.722	.841	.000	.000	.858	.750	.000	.608	.000	.712



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Table Rock Road  
 East-West: Wilson Road  
 Weather: Sunny, Warm  
 Veh Type: All Vehicles

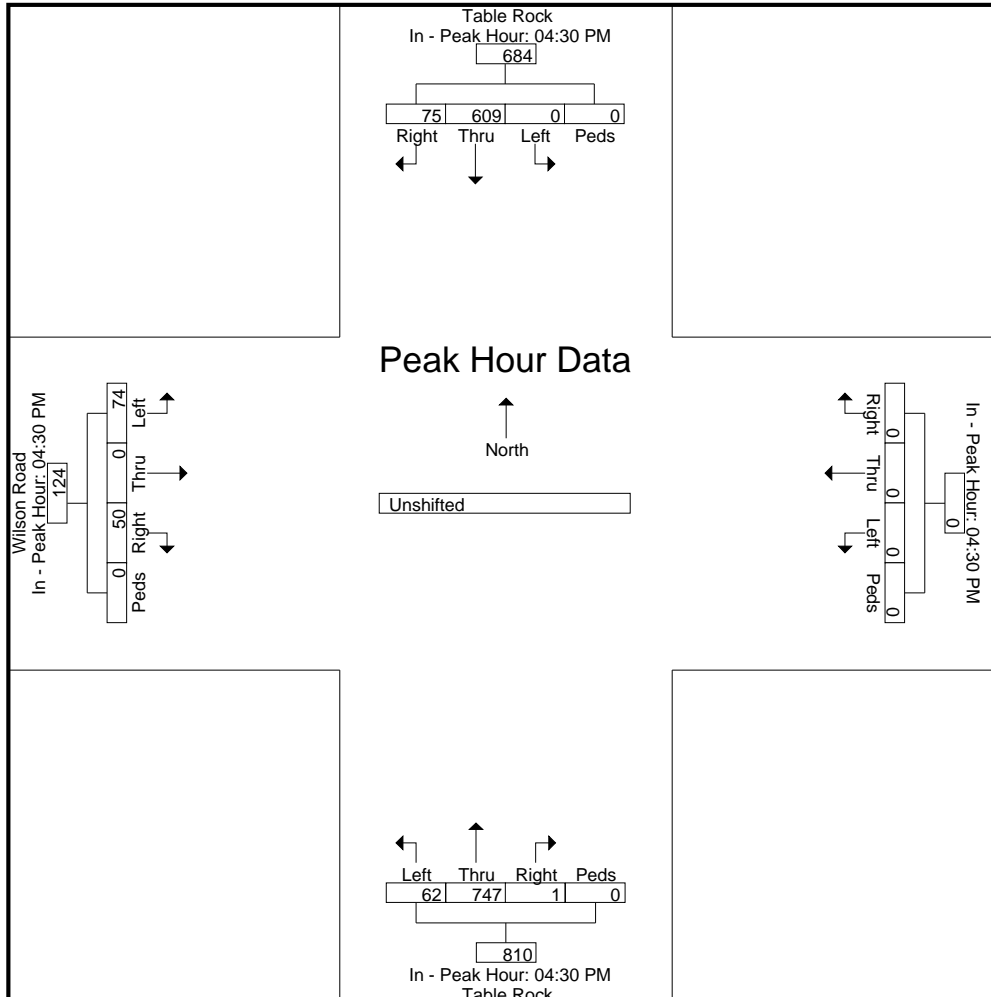
File Name : Wilson-Table Rock  
 Site Code : 00000001  
 Start Date : 6/18/2019  
 Page No : 3

Start Time	Table Rock From North					From East					Table Rock From South					Wilson Road From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	0	206	21	0	227	0	0	0	0	0	13	153	1	0	167	16	0	15	0	31
+15 mins.	0	142	24	0	166	0	0	0	0	0	12	170	0	0	182	21	0	13	0	34
+30 mins.	0	142	17	0	159	0	0	0	0	0	19	220	0	0	239	17	0	15	0	32
+45 mins.	0	119	13	0	132	0	0	0	0	0	18	204	0	0	222	20	0	7	0	27
Total Volume	0	609	75	0	684	0	0	0	0	0	62	747	1	0	810	74	0	50	0	124
% App. Total	0	89	11	0		0	0	0	0		7.7	92.2	0.1	0		59.7	0	40.3	0	
PHF	.000	.739	.781	.000	.753	.000	.000	.000	.000	.000	.816	.849	.250	.000	.847	.881	.000	.833	.000	.912



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Hamrick Road  
East-West: Biddle Road  
Weather: Clear, Hot  
Vehicle: All Vehicles

File Name : Hamrick-Biddle  
Site Code : 00000002  
Start Date : 8/1/2019  
Page No : 1

### Groups Printed- All

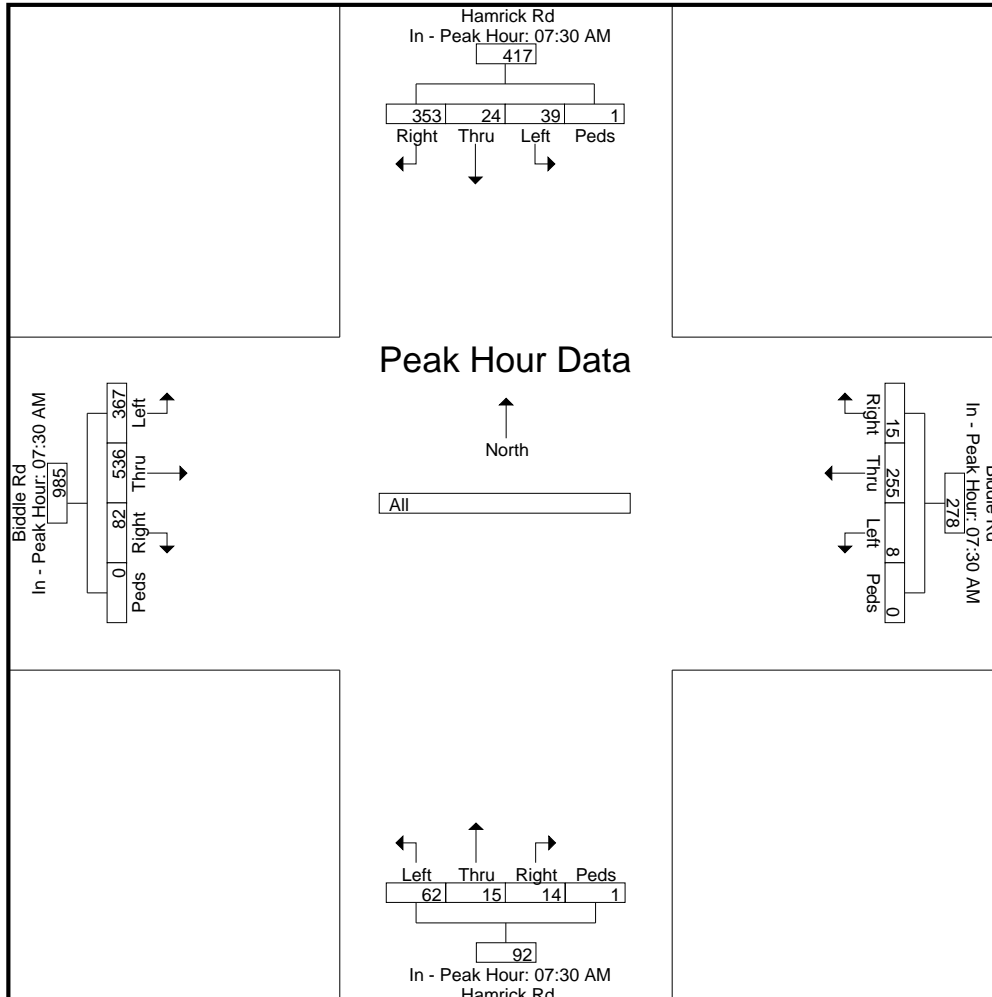
Start Time	Hamrick Rd From North					Biddle Rd From East					Hamrick Rd From South					Biddle Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	3	3	67	0	73	0	40	4	0	44	14	2	2	0	18	73	83	18	0	174	309
06:45 AM	7	3	65	0	75	1	31	2	0	34	10	3	0	0	13	96	93	24	0	213	335
<b>Total</b>	10	6	132	0	148	1	71	6	0	78	24	5	2	0	31	169	176	42	0	387	644
07:00 AM	10	4	71	0	85	1	52	5	0	58	15	4	2	0	21	62	78	21	0	161	325
07:15 AM	13	1	73	0	87	0	55	4	0	59	9	2	0	0	11	71	85	26	0	182	339
07:30 AM	17	4	94	1	116	2	49	2	0	53	16	5	3	0	24	110	162	20	0	292	485
07:45 AM	9	8	87	0	104	2	70	4	0	76	12	3	3	0	18	108	149	32	0	289	487
<b>Total</b>	49	17	325	1	392	5	226	15	0	246	52	14	8	0	74	351	474	99	0	924	1636
08:00 AM	2	5	76	0	83	2	58	6	0	66	16	2	1	0	19	77	112	20	0	209	377
08:15 AM	11	7	96	0	114	2	78	3	0	83	18	5	7	1	31	72	113	10	0	195	423
08:30 AM	6	5	83	2	96	4	75	4	0	83	16	8	6	0	30	52	109	8	1	170	379
08:45 AM	6	4	90	0	100	0	91	4	0	95	27	11	1	0	39	79	137	16	0	232	466
<b>Total</b>	25	21	345	2	393	8	302	17	0	327	77	26	15	1	119	280	471	54	1	806	1645
09:00 AM	7	2	74	0	83	3	64	5	0	72	22	3	3	0	28	82	113	16	0	211	394
09:15 AM	7	19	14	0	40	1	11	2	0	14	9	6	0	0	15	15	24	3	0	42	111
*** BREAK ***																					
<b>Total</b>	14	21	88	0	123	4	75	7	0	86	31	9	3	0	43	97	137	19	0	253	505
*** BREAK ***																					
03:00 PM	11	3	96	0	110	2	116	8	1	127	44	15	2	0	61	102	118	55	0	275	573
03:15 PM	5	8	101	0	114	1	137	10	0	148	56	6	0	0	62	92	130	56	0	278	602
03:30 PM	10	10	133	0	153	3	130	7	0	140	77	4	7	0	88	87	136	55	0	278	659
03:45 PM	9	4	119	0	132	2	141	9	0	152	44	5	3	0	52	111	150	46	0	307	643
<b>Total</b>	35	25	449	0	509	8	524	34	1	567	221	30	12	0	263	392	534	212	0	1138	2477
04:00 PM	14	7	125	0	146	4	149	10	1	164	53	6	1	0	60	96	125	45	0	266	636
04:15 PM	8	6	112	0	126	1	153	12	1	167	62	7	2	0	71	86	139	51	0	276	640
04:30 PM	8	2	130	0	140	2	160	8	0	170	54	12	4	0	70	106	132	43	0	281	661
04:45 PM	7	2	119	0	128	3	131	8	0	142	59	15	5	0	79	77	113	50	1	241	590
<b>Total</b>	37	17	486	0	540	10	593	38	2	643	228	40	12	0	280	365	509	189	1	1064	2527
05:00 PM	6	5	111	0	122	1	145	8	0	154	55	9	1	0	65	100	138	50	0	288	629
05:15 PM	8	6	110	0	124	2	156	12	0	170	48	8	1	0	57	103	104	63	0	270	621
05:30 PM	7	13	96	0	116	1	115	12	0	128	66	10	1	0	77	86	114	42	0	242	563
05:45 PM	11	3	102	0	116	1	132	12	4	149	56	10	1	0	67	97	90	35	0	222	554
<b>Total</b>	32	27	419	0	478	5	548	44	4	601	225	37	4	0	266	386	446	190	0	1022	2367
<b>Grand Total</b>	202	134	2244	3	2583	41	2339	161	7	2548	858	161	56	1	1076	2040	2747	805	2	5594	11801
<b>Apprch %</b>	7.8	5.2	86.9	0.1		1.6	91.8	6.3	0.3		79.7	15	5.2	0.1		36.5	49.1	14.4	0		
<b>Total %</b>	1.7	1.1	19	0	21.9	0.3	19.8	1.4	0.1	21.6	7.3	1.4	0.5	0	9.1	17.3	23.3	6.8	0	47.4	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

File Name : Hamrick-Biddle  
 Site Code : 00000002  
 Start Date : 8/1/2019  
 Page No : 2

Start Time	Hamrick Rd From North					Biddle Rd From East					Hamrick Rd From South					Biddle Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					07:30 AM					07:30 AM					07:30 AM					
+0 mins.	17	4	94	1	116	2	49	2	0	53	16	5	3	0	24	110	162	20	0	292	
+15 mins.	9	8	87	0	104	2	70	4	0	76	12	3	3	0	18	108	149	32	0	289	
+30 mins.	2	5	76	0	83	2	58	6	0	66	16	2	1	0	19	77	112	20	0	209	
+45 mins.	11	7	96	0	114	2	78	3	0	83	18	5	7	1	31	72	113	10	0	195	
Total Volume	39	24	353	1	417	8	255	15	0	278	62	15	14	1	92	367	536	82	0	985	
% App. Total	9.4	5.8	84.7	0.2		2.9	91.7	5.4	0		67.4	16.3	15.2	1.1		37.3	54.4	8.3	0		
PHF	.574	.750	.919	.250	.899	1.000	.817	.625	.000	.837	.861	.750	.500	.250	.742	.834	.827	.641	.000	.843	



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

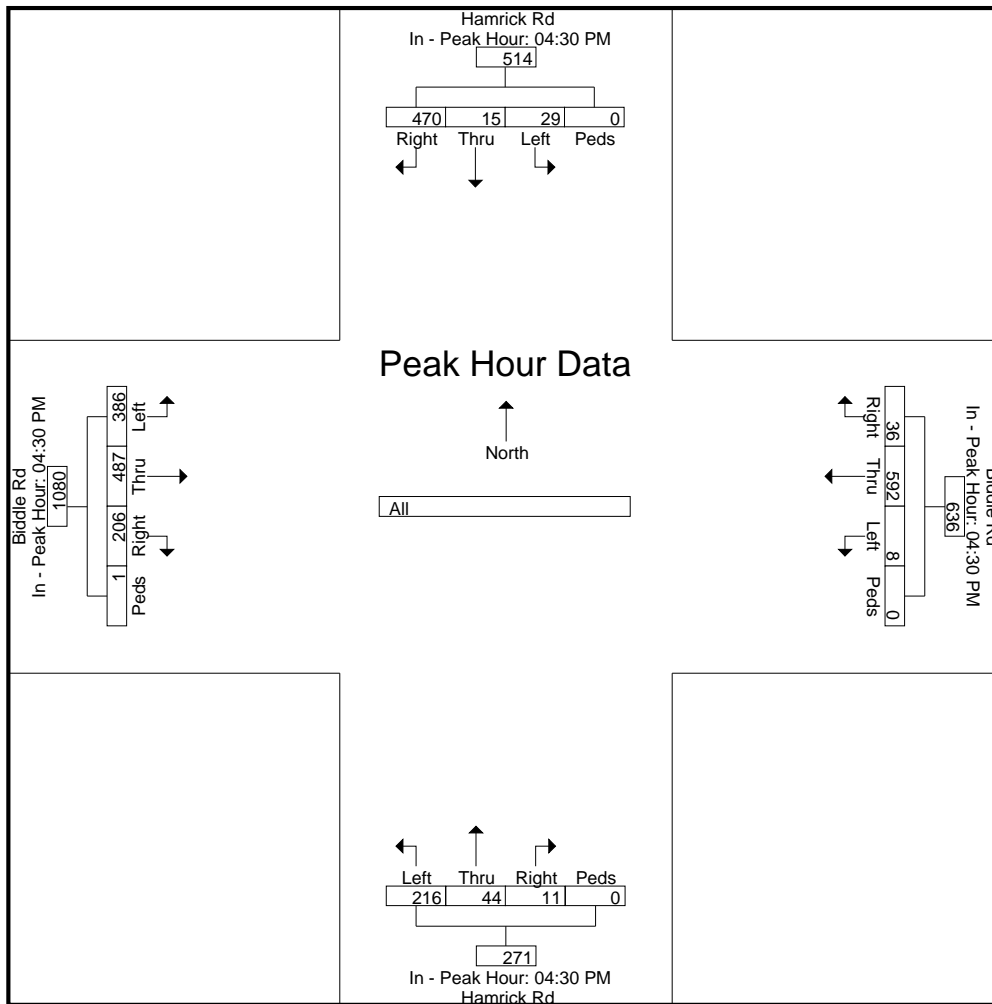
Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

File Name : Hamrick-Biddle  
 Site Code : 00000002  
 Start Date : 8/1/2019  
 Page No : 3

Start Time	Hamrick Rd From North					Biddle Rd From East					Hamrick Rd From South					Biddle Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	8	2	130	0	140	2	160	8	0	170	54	12	4	0	70	106	132	43	0	281
+15 mins.	7	2	119	0	128	3	131	8	0	142	59	15	5	0	79	77	113	50	1	241
+30 mins.	6	5	111	0	122	1	145	8	0	154	55	9	1	0	65	100	138	50	0	288
+45 mins.	8	6	110	0	124	2	156	12	0	170	48	8	1	0	57	103	104	63	0	270
Total Volume	29	15	470	0	514	8	592	36	0	636	216	44	11	0	271	386	487	206	1	1080
% App. Total	5.6	2.9	91.4	0		1.3	93.1	5.7	0		79.7	16.2	4.1	0		35.7	45.1	19.1	0.1	
PHF	.906	.625	.904	.000	.918	.667	.925	.750	.000	.935	.915	.733	.550	.000	.858	.910	.882	.817	.250	.938



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: Hamrick Rd  
East-West: Beebe Rd  
Weather: Clear, Hot  
Vehicle: All Vehicles

File Name : Beebe-Hamrick  
Site Code : 00000006  
Start Date : 8/7/2019  
Page No : 1

### Groups Printed- All

Start Time	Hamrick Rd From North					Beebe Rd From East					Hamrick Rd From South					Beebe Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	98	1	0	99	0	0	5	0	5	3	61	1	0	65	0	0	12	0	12	181
07:15 AM	2	90	0	0	92	2	0	6	0	8	2	88	0	1	91	1	1	10	0	12	203
07:30 AM	0	112	2	0	114	0	0	2	0	2	4	111	2	0	117	2	0	16	0	18	251
07:45 AM	0	98	3	0	101	1	0	7	0	8	3	126	0	0	129	0	0	7	0	7	245
<b>Total</b>	<b>2</b>	<b>398</b>	<b>6</b>	<b>0</b>	<b>406</b>	<b>3</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>23</b>	<b>12</b>	<b>386</b>	<b>3</b>	<b>1</b>	<b>402</b>	<b>3</b>	<b>1</b>	<b>45</b>	<b>0</b>	<b>49</b>	<b>880</b>
08:00 AM	2	88	0	0	90	1	0	4	0	5	3	89	1	1	94	1	0	3	0	4	193
08:15 AM	1	93	1	0	95	1	0	9	0	10	5	87	2	0	94	0	0	11	0	11	210
08:30 AM	1	86	2	0	89	1	0	2	0	3	3	82	1	0	86	1	1	13	0	15	193
08:45 AM	4	89	0	1	94	1	0	2	0	3	4	69	2	0	75	2	0	9	0	11	183
<b>Total</b>	<b>8</b>	<b>356</b>	<b>3</b>	<b>1</b>	<b>368</b>	<b>4</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>21</b>	<b>15</b>	<b>327</b>	<b>6</b>	<b>1</b>	<b>349</b>	<b>4</b>	<b>1</b>	<b>36</b>	<b>0</b>	<b>41</b>	<b>779</b>
*** BREAK ***																					
03:00 PM	4	129	1	0	134	1	0	4	0	5	7	93	1	0	101	3	0	3	0	6	246
03:15 PM	5	121	0	0	126	3	0	3	0	6	15	95	0	0	110	0	0	9	0	9	251
03:30 PM	3	142	5	0	150	1	1	1	0	3	10	108	2	0	120	0	0	9	0	9	282
03:45 PM	5	131	1	0	137	5	1	2	0	8	16	110	4	0	130	1	1	7	0	9	284
<b>Total</b>	<b>17</b>	<b>523</b>	<b>7</b>	<b>0</b>	<b>547</b>	<b>10</b>	<b>2</b>	<b>10</b>	<b>0</b>	<b>22</b>	<b>48</b>	<b>406</b>	<b>7</b>	<b>0</b>	<b>461</b>	<b>4</b>	<b>1</b>	<b>28</b>	<b>0</b>	<b>33</b>	<b>1063</b>
04:00 PM	9	135	2	1	147	2	0	4	0	6	14	106	2	1	123	1	1	11	0	13	289
04:15 PM	2	141	3	0	146	0	1	4	0	5	8	91	2	1	102	0	0	12	0	12	265
04:30 PM	4	134	1	0	139	3	0	5	0	8	13	95	4	0	112	1	0	11	0	12	271
04:45 PM	5	123	0	0	128	3	0	4	0	7	15	90	5	0	110	0	1	12	0	13	258
<b>Total</b>	<b>20</b>	<b>533</b>	<b>6</b>	<b>1</b>	<b>560</b>	<b>8</b>	<b>1</b>	<b>17</b>	<b>0</b>	<b>26</b>	<b>50</b>	<b>382</b>	<b>13</b>	<b>2</b>	<b>447</b>	<b>2</b>	<b>2</b>	<b>46</b>	<b>0</b>	<b>50</b>	<b>1083</b>
05:00 PM	4	141	1	1	147	1	1	3	0	5	9	83	4	0	96	0	0	14	0	14	262
05:15 PM	7	132	7	0	146	1	1	3	0	5	18	100	5	0	123	0	2	9	0	11	285
05:30 PM	6	108	1	0	115	3	0	3	0	6	11	90	2	1	104	2	0	12	0	14	239
05:45 PM	6	80	0	0	86	0	0	2	0	2	12	87	4	0	103	0	1	9	0	10	201
<b>Total</b>	<b>23</b>	<b>461</b>	<b>9</b>	<b>1</b>	<b>494</b>	<b>5</b>	<b>2</b>	<b>11</b>	<b>0</b>	<b>18</b>	<b>50</b>	<b>360</b>	<b>15</b>	<b>1</b>	<b>426</b>	<b>2</b>	<b>3</b>	<b>44</b>	<b>0</b>	<b>49</b>	<b>987</b>
<b>Grand Total</b>	<b>70</b>	<b>2271</b>	<b>31</b>	<b>3</b>	<b>2375</b>	<b>30</b>	<b>5</b>	<b>75</b>	<b>0</b>	<b>110</b>	<b>175</b>	<b>1861</b>	<b>44</b>	<b>5</b>	<b>2085</b>	<b>15</b>	<b>8</b>	<b>199</b>	<b>0</b>	<b>222</b>	<b>4792</b>
<b>Apprch %</b>	<b>2.9</b>	<b>95.6</b>	<b>1.3</b>	<b>0.1</b>		<b>27.3</b>	<b>4.5</b>	<b>68.2</b>	<b>0</b>		<b>8.4</b>	<b>89.3</b>	<b>2.1</b>	<b>0.2</b>		<b>6.8</b>	<b>3.6</b>	<b>89.6</b>	<b>0</b>		
<b>Total %</b>	<b>1.5</b>	<b>47.4</b>	<b>0.6</b>	<b>0.1</b>	<b>49.6</b>	<b>0.6</b>	<b>0.1</b>	<b>1.6</b>	<b>0</b>	<b>2.3</b>	<b>3.7</b>	<b>38.8</b>	<b>0.9</b>	<b>0.1</b>	<b>43.5</b>	<b>0.3</b>	<b>0.2</b>	<b>4.2</b>	<b>0</b>	<b>4.6</b>	



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

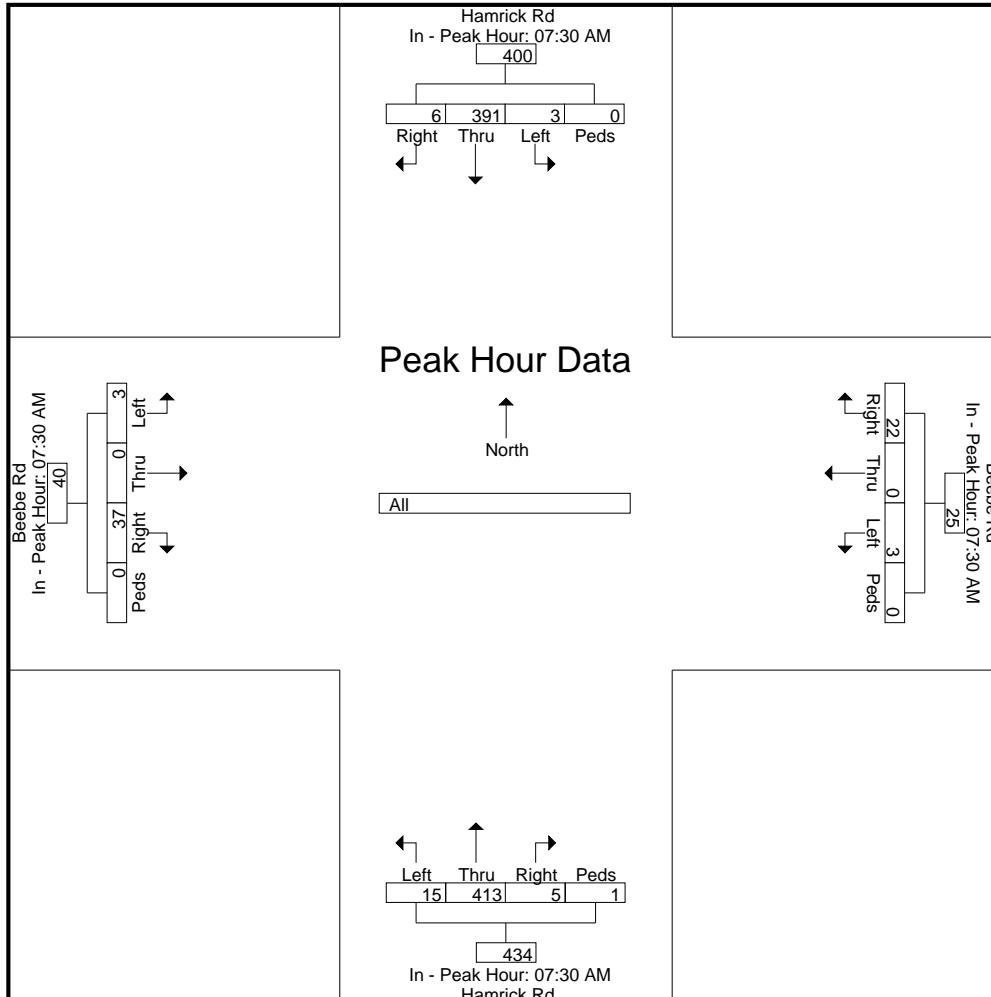
Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

File Name : Beebe-Hamrick  
 Site Code : 00000006  
 Start Date : 8/7/2019  
 Page No : 2

Start Time	Hamrick Rd From North					Beebe Rd From East					Hamrick Rd From South					Beebe Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	0	112	2	0	114	0	0	2	0	2	4	111	2	0	117	2	0	16	0	18
+15 mins.	0	98	3	0	101	1	0	7	0	8	3	126	0	0	129	0	0	7	0	7
+30 mins.	2	88	0	0	90	1	0	4	0	5	3	89	1	1	94	1	0	3	0	4
+45 mins.	1	93	1	0	95	1	0	9	0	10	5	87	2	0	94	0	0	11	0	11
Total Volume	3	391	6	0	400	3	0	22	0	25	15	413	5	1	434	3	0	37	0	40
% App. Total	0.8	97.8	1.5	0		12	0	88	0		3.5	95.2	1.2	0.2		7.5	0	92.5	0	
PHF	.375	.873	.500	.000	.877	.750	.000	.611	.000	.625	.750	.819	.625	.250	.841	.375	.000	.578	.000	.556

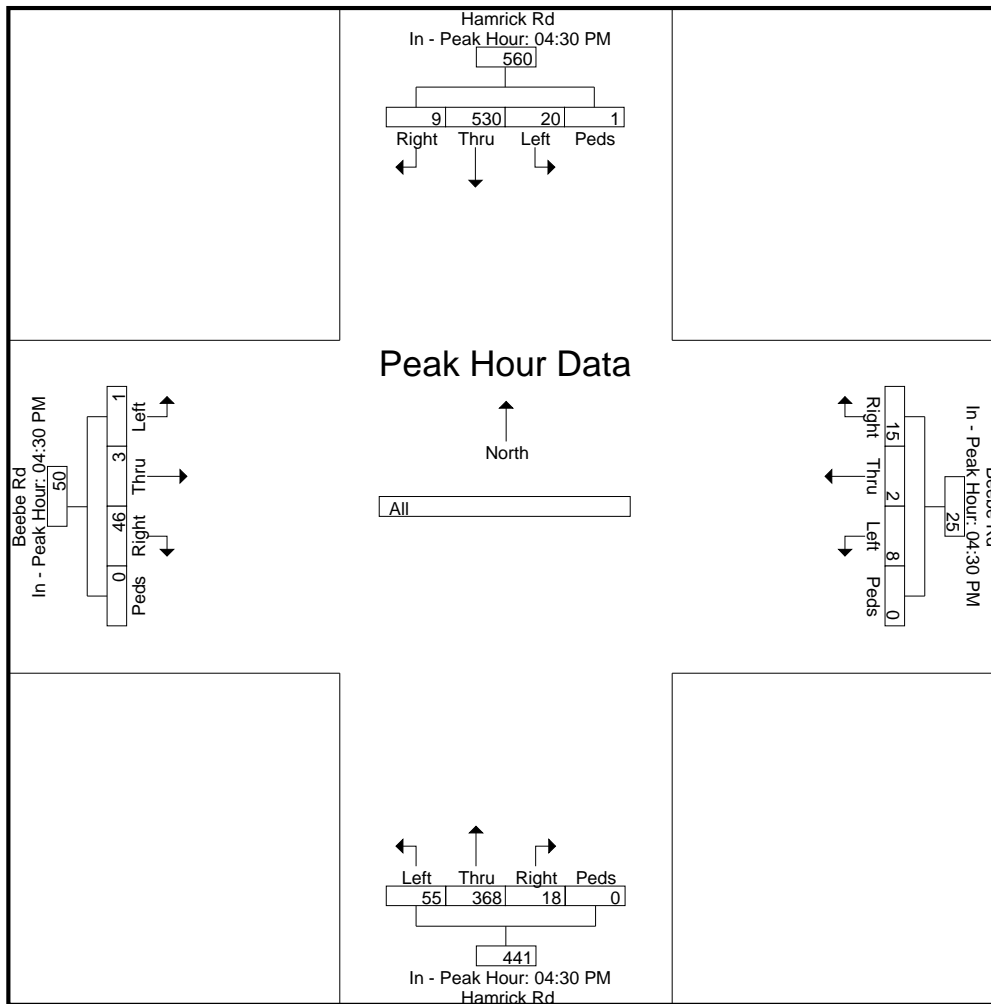


# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

File Name : Beebe-Hamrick  
 Site Code : 00000006  
 Start Date : 8/7/2019  
 Page No : 3

Start Time	Hamrick Rd From North					Beebe Rd From East					Hamrick Rd From South					Beebe Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					04:30 PM					04:30 PM					04:30 PM					
+0 mins.	4	134	1	0	139	3	0	5	0	8	13	95	4	0	112	1	0	11	0	12	
+15 mins.	5	123	0	0	128	3	0	4	0	7	15	90	5	0	110	0	1	12	0	13	
+30 mins.	4	141	1	1	147	1	1	3	0	5	9	83	4	0	96	0	0	14	0	14	
+45 mins.	7	132	7	0	146	1	1	3	0	5	18	100	5	0	123	0	2	9	0	11	
Total Volume	20	530	9	1	560	8	2	15	0	25	55	368	18	0	441	1	3	46	0	50	
% App. Total	3.6	94.6	1.6	0.2		32	8	60	0		12.5	83.4	4.1	0		2	6	92	0		
PHF	.714	.940	.321	.250	.952	.667	.500	.750	.000	.781	.764	.920	.900	.000	.896	.250	.375	.821	.000	.893	



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Peninger Road  
East-West: E Pine Street  
Weather: Clear, Warm  
Vehicle: All Vehicles

File Name : Peninger-Pine  
Site Code : 00000003  
Start Date : 7/31/2019  
Page No : 1

Groups Printed- All

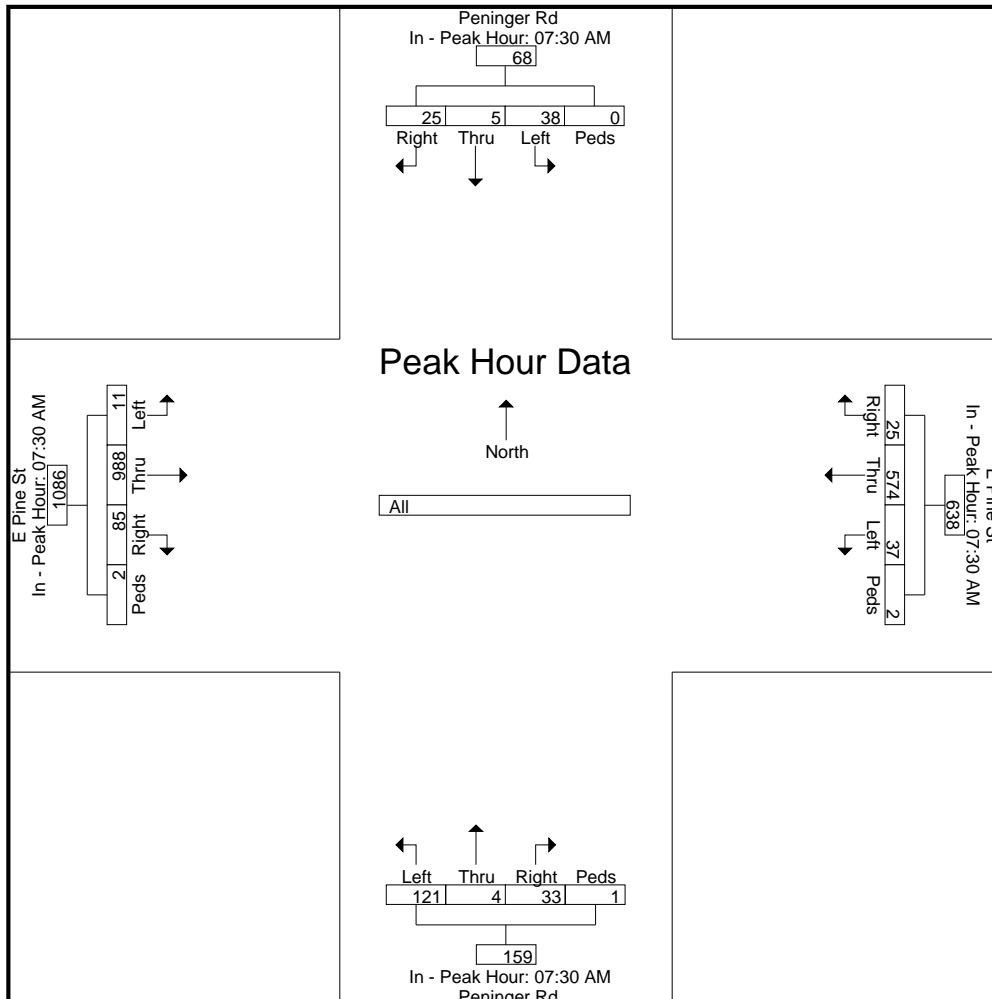
Start Time	Peninger Rd From North					E Pine St From East					Peninger Rd From South					E Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	5	1	6	0	12	2	95	5	0	102	24	1	10	0	35	3	168	14	1	186	335
06:45 AM	8	0	7	0	15	3	105	2	0	110	28	1	11	1	41	3	193	28	1	225	391
Total	13	1	13	0	27	5	200	7	0	212	52	2	21	1	76	6	361	42	2	411	726
07:00 AM	10	1	1	0	12	6	114	3	0	123	29	1	13	1	44	3	143	15	1	162	341
07:15 AM	9	1	2	0	12	2	133	2	0	137	23	1	7	0	31	4	206	20	1	231	411
07:30 AM	8	1	5	0	14	6	133	8	0	147	29	0	10	0	39	6	243	27	1	277	477
07:45 AM	10	2	6	0	18	10	153	5	1	169	27	1	12	0	40	1	311	21	1	334	561
Total	37	5	14	0	56	24	533	18	1	576	108	3	42	1	154	14	903	83	4	1004	1790
08:00 AM	14	0	4	0	18	15	138	4	0	157	35	1	8	0	44	4	215	19	0	238	457
08:15 AM	6	2	10	0	18	6	150	8	1	165	30	2	3	1	36	0	219	18	0	237	456
08:30 AM	11	1	6	0	18	3	152	4	15	174	35	0	9	0	44	4	190	31	0	225	461
08:45 AM	13	0	4	0	17	9	164	4	0	177	29	0	13	0	42	6	172	28	0	206	442
Total	44	3	24	0	71	33	604	20	16	673	129	3	33	1	166	14	796	96	0	906	1816
*** BREAK ***																					
03:00 PM	12	3	9	0	24	6	245	19	1	271	45	1	7	1	54	12	253	35	0	300	649
03:15 PM	9	7	8	0	24	8	284	21	0	313	50	0	14	1	65	11	264	25	0	300	702
03:30 PM	9	1	7	0	17	8	298	19	1	326	38	3	13	1	55	16	271	34	0	321	719
03:45 PM	14	3	8	0	25	18	275	17	0	310	42	1	15	0	58	20	259	39	0	318	711
Total	44	14	32	0	90	40	1102	76	2	1220	175	5	49	3	232	59	1047	133	0	1239	2781
04:00 PM	19	4	11	0	34	9	305	16	1	331	35	1	15	0	51	19	250	34	0	303	719
04:15 PM	9	5	8	0	22	11	296	12	1	320	43	4	8	0	55	15	261	26	1	303	700
04:30 PM	12	1	12	1	26	13	303	15	2	333	35	5	8	0	48	12	253	53	0	318	725
04:45 PM	10	5	10	0	25	10	317	18	2	347	38	6	7	1	52	13	254	36	2	305	729
Total	50	15	41	1	107	43	1221	61	6	1331	151	16	38	1	206	59	1018	149	3	1229	2873
05:00 PM	14	7	10	0	31	11	295	19	5	330	41	7	12	0	60	20	275	26	0	321	742
05:15 PM	15	4	8	0	27	13	278	26	1	318	62	5	12	0	79	12	234	32	2	280	704
05:30 PM	11	2	5	0	18	10	266	11	1	288	46	3	17	1	67	15	216	65	4	300	673
05:45 PM	11	0	11	0	22	8	243	15	0	266	35	6	10	0	51	11	206	38	0	255	594
Total	51	13	34	0	98	42	1082	71	7	1202	184	21	51	1	257	58	931	161	6	1156	2713
Grand Total	239	51	158	1	449	187	4742	253	32	5214	799	50	234	8	1091	210	5056	664	15	5945	12699
Apprch %	53.2	11.4	35.2	0.2		3.6	90.9	4.9	0.6		73.2	4.6	21.4	0.7		3.5	85	11.2	0.3		
Total %	1.9	0.4	1.2	0	3.5	1.5	37.3	2	0.3	41.1	6.3	0.4	1.8	0.1	8.6	1.7	39.8	5.2	0.1	46.8	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

File Name : Peninger-Pine  
 Site Code : 00000003  
 Start Date : 7/31/2019  
 Page No : 2

Start Time	Peninger Rd From North					E Pine St From East					Peninger Rd From South					E Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					07:30 AM					07:30 AM					07:30 AM					
+0 mins.	8	1	5	0	14	6	133	8	0	147	29	0	10	0	39	6	243	27	1	277	
+15 mins.	10	2	6	0	18	10	153	5	1	169	27	1	12	0	40	1	311	21	1	334	
+30 mins.	14	0	4	0	18	15	138	4	0	157	35	1	8	0	44	4	215	19	0	238	
+45 mins.	6	2	10	0	18	6	150	8	1	165	30	2	3	1	36	0	219	18	0	237	
Total Volume	38	5	25	0	68	37	574	25	2	638	121	4	33	1	159	11	988	85	2	1086	
% App. Total	55.9	7.4	36.8	0		5.8	90	3.9	0.3		76.1	2.5	20.8	0.6		1	91	7.8	0.2		
PHF	.679	.625	.625	.000	.944	.617	.938	.781	.500	.944	.864	.500	.688	.250	.903	.458	.794	.787	.500	.813	

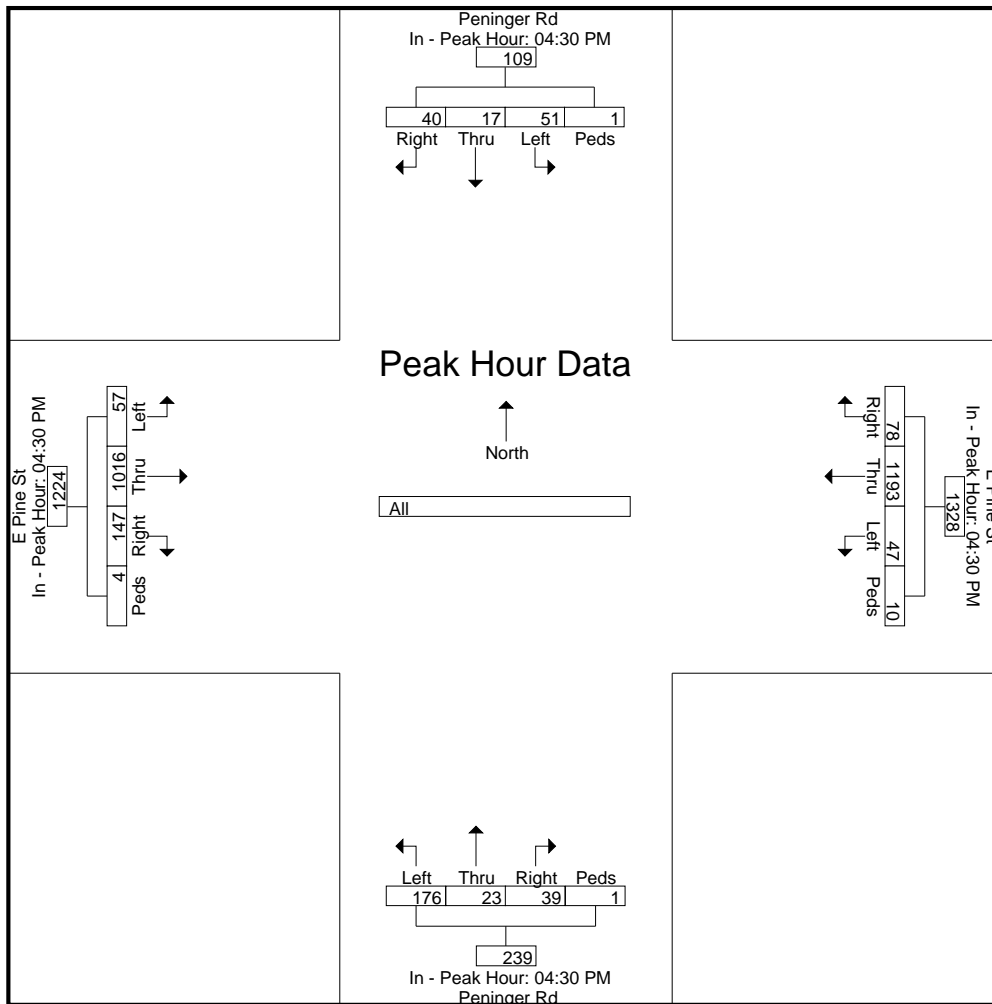


# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

File Name : Peninger-Pine  
 Site Code : 00000003  
 Start Date : 7/31/2019  
 Page No : 3

Start Time	Peninger Rd From North					E Pine St From East					Peninger Rd From South					E Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																					
Peak Hour for Each Approach Begins at:																					
	04:30 PM					04:30 PM					04:30 PM					04:30 PM					
+0 mins.	12	1	12	1	26	13	303	15	2	333	35	5	8	0	48	12	253	53	0	318	
+15 mins.	10	5	10	0	25	10	317	18	2	347	38	6	7	1	52	13	254	36	2	305	
+30 mins.	14	7	10	0	31	11	295	19	5	330	41	7	12	0	60	20	275	26	0	321	
+45 mins.	15	4	8	0	27	13	278	26	1	318	62	5	12	0	79	12	234	32	2	280	
Total Volume	51	17	40	1	109	47	1193	78	10	1328	176	23	39	1	239	57	1016	147	4	1224	
% App. Total	46.8	15.6	36.7	0.9		3.5	89.8	5.9	0.8		73.6	9.6	16.3	0.4		4.7	83	12	0.3		
PHF	.850	.607	.833	.250	.879	.904	.941	.750	.500	.957	.710	.821	.813	.250	.756	.713	.924	.693	.500	.953	



# SOUTHERN OREGON

## TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Peninger Rd  
 East-West: Upton Rd  
 Weather: Overcast, warm  
 Veh Type: All Vehicles

File Name : Upton\_Peninger  
 Site Code : 00000001  
 Start Date : 5/31/2017  
 Page No : 1

Groups Printed- Unshifted

Start Time	Upton Rd From North					Peninger Rd From East					Upton Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	5	19	0	0	24	2	0	2	0	4	0	26	5	0	31	0	0	0	0	0	59
07:15 AM	10	40	0	0	50	1	0	4	0	5	0	24	9	0	33	0	0	0	0	0	88
07:30 AM	11	37	0	1	49	4	0	3	1	8	0	36	11	0	47	0	0	0	0	0	104
07:45 AM	7	33	0	0	40	10	0	3	0	13	0	35	8	0	43	0	0	0	0	0	96
<b>Total</b>	<b>33</b>	<b>129</b>	<b>0</b>	<b>1</b>	<b>163</b>	<b>17</b>	<b>0</b>	<b>12</b>	<b>1</b>	<b>30</b>	<b>0</b>	<b>121</b>	<b>33</b>	<b>0</b>	<b>154</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>347</b>
08:00 AM	8	24	0	0	32	13	0	2	0	15	0	31	6	0	37	0	0	0	0	0	84
08:15 AM	5	17	0	0	22	2	0	4	0	6	0	23	6	0	29	0	0	0	0	0	57
08:30 AM	8	17	0	0	25	3	0	3	0	6	0	15	4	0	19	0	0	0	0	0	50
08:45 AM	7	26	0	0	33	3	0	4	0	7	0	19	4	0	23	0	0	0	0	0	63
<b>Total</b>	<b>28</b>	<b>84</b>	<b>0</b>	<b>0</b>	<b>112</b>	<b>21</b>	<b>0</b>	<b>13</b>	<b>0</b>	<b>34</b>	<b>0</b>	<b>88</b>	<b>20</b>	<b>0</b>	<b>108</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>254</b>
*** BREAK ***																					
03:00 PM	10	47	0	0	57	6	0	5	0	11	0	40	3	0	43	0	0	0	0	0	111
03:15 PM	5	53	0	0	58	11	0	8	0	19	0	22	4	0	26	0	0	0	0	0	103
03:30 PM	14	51	0	0	65	10	0	7	0	17	0	59	15	1	75	0	0	0	0	0	157
03:45 PM	7	50	0	1	58	13	0	10	0	23	0	84	19	0	103	0	0	0	0	0	184
<b>Total</b>	<b>36</b>	<b>201</b>	<b>0</b>	<b>1</b>	<b>238</b>	<b>40</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>70</b>	<b>0</b>	<b>205</b>	<b>41</b>	<b>1</b>	<b>247</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>555</b>
04:00 PM	8	39	0	0	47	10	0	11	0	21	0	81	8	2	91	0	0	0	0	0	159
04:15 PM	9	48	0	0	57	12	0	11	0	23	0	58	7	0	65	0	0	0	0	0	145
04:30 PM	8	58	0	0	66	15	0	5	0	20	0	34	5	0	39	0	0	0	0	0	125
04:45 PM	5	52	0	0	57	18	0	12	0	30	0	47	9	1	57	0	0	0	0	0	144
<b>Total</b>	<b>30</b>	<b>197</b>	<b>0</b>	<b>0</b>	<b>227</b>	<b>55</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>94</b>	<b>0</b>	<b>220</b>	<b>29</b>	<b>3</b>	<b>252</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>573</b>
05:00 PM	4	65	0	0	69	12	0	15	0	27	0	41	6	0	47	0	0	0	0	0	143
05:15 PM	6	50	0	0	56	25	0	5	0	30	0	40	10	0	50	0	0	0	0	0	136
05:30 PM	12	49	0	0	61	15	0	17	0	32	0	45	11	0	56	0	0	0	0	0	149
05:45 PM	7	39	0	0	46	17	0	7	0	24	0	38	5	0	43	0	0	0	0	0	113
<b>Total</b>	<b>29</b>	<b>203</b>	<b>0</b>	<b>0</b>	<b>232</b>	<b>69</b>	<b>0</b>	<b>44</b>	<b>0</b>	<b>113</b>	<b>0</b>	<b>164</b>	<b>32</b>	<b>0</b>	<b>196</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>541</b>
<b>Grand Total</b>	<b>156</b>	<b>814</b>	<b>0</b>	<b>2</b>	<b>972</b>	<b>202</b>	<b>0</b>	<b>138</b>	<b>1</b>	<b>341</b>	<b>0</b>	<b>798</b>	<b>155</b>	<b>4</b>	<b>957</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2270</b>
<b>Apprch %</b>	<b>16</b>	<b>83.7</b>	<b>0</b>	<b>0.2</b>		<b>59.2</b>	<b>0</b>	<b>40.5</b>	<b>0.3</b>		<b>0</b>	<b>83.4</b>	<b>16.2</b>	<b>0.4</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total %</b>	<b>6.9</b>	<b>35.9</b>	<b>0</b>	<b>0.1</b>	<b>42.8</b>	<b>8.9</b>	<b>0</b>	<b>6.1</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>35.2</b>	<b>6.8</b>	<b>0.2</b>	<b>42.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Peninger Rd  
 East-West: Upton Rd  
 Weather: Overcast, warm  
 Veh Type: All Vehicles

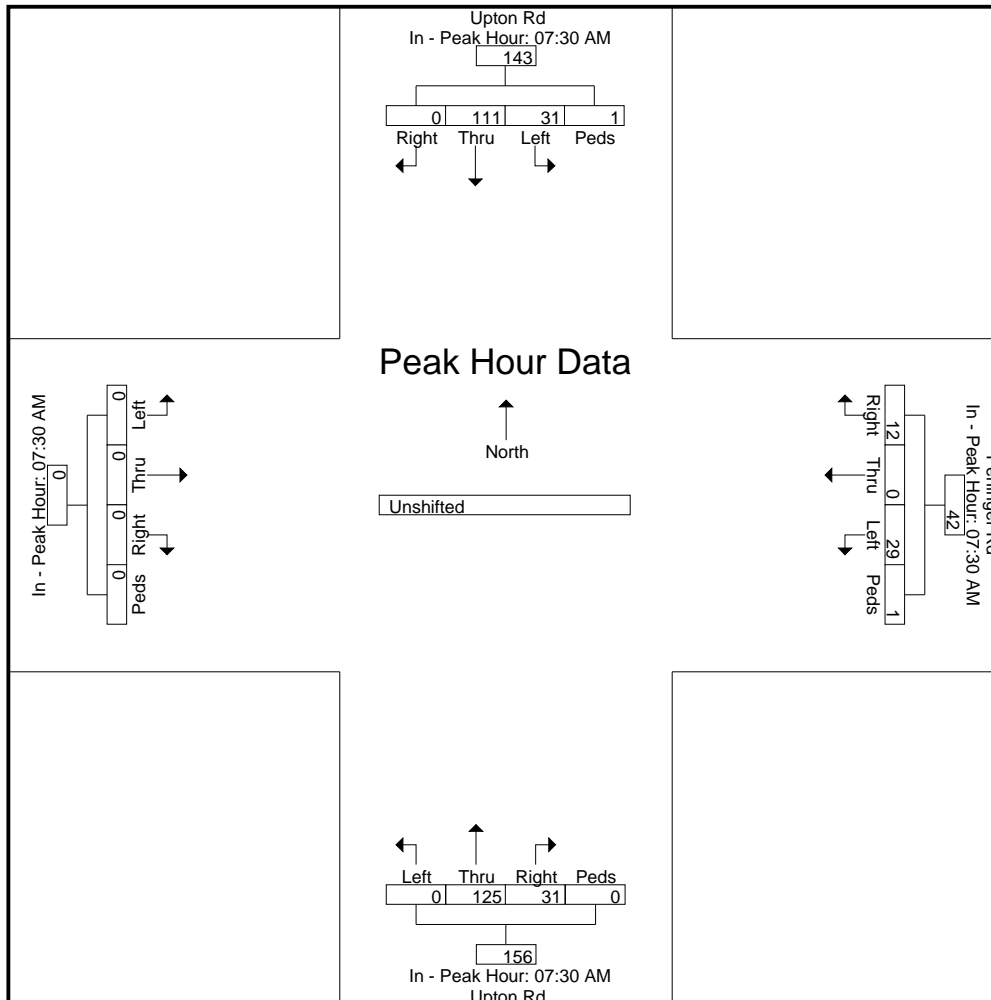
File Name : Upton\_Peninger  
 Site Code : 00000001  
 Start Date : 5/31/2017  
 Page No : 2

Start Time	Upton Rd From North					Peninger Rd From East					Upton Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM					
+0 mins.	11	37	0	1	49	4	0	3	1	8	0	36	11	0	47	0	0	0	0	0	0
+15 mins.	7	33	0	0	40	10	0	3	0	13	0	35	8	0	43	0	0	0	0	0	0
+30 mins.	8	24	0	0	32	13	0	2	0	15	0	31	6	0	37	0	0	0	0	0	0
+45 mins.	5	17	0	0	22	2	0	4	0	6	0	23	6	0	29	0	0	0	0	0	0
Total Volume	31	111	0	1	143	29	0	12	1	42	0	125	31	0	156	0	0	0	0	0	0
% App. Total	21.7	77.6	0	0.7		69	0	28.6	2.4		0	80.1	19.9	0		0	0	0	0	0	
PHF	.705	.750	.000	.250	.730	.558	.000	.750	.250	.700	.000	.868	.705	.000	.830	.000	.000	.000	.000	.000	.000



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North-South: Peninger Rd  
 East-West: Upton Rd  
 Weather: Overcast, warm  
 Veh Type: All Vehicles

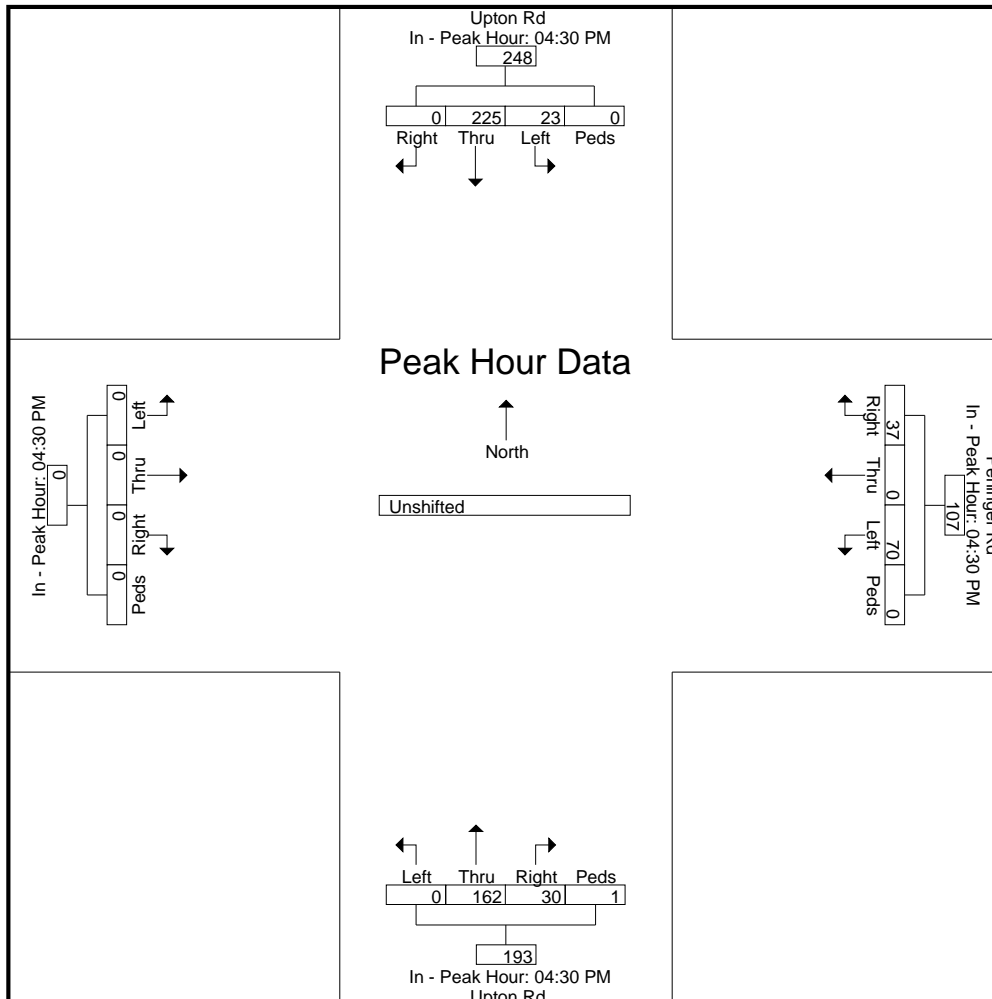
File Name : Upton\_Peninger  
 Site Code : 00000001  
 Start Date : 5/31/2017  
 Page No : 3

Start Time	Upton Rd From North					Peninger Rd From East					Upton Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	8	58	0	0	66	15	0	5	0	20	0	34	5	0	39	0	0	0	0	0
+15 mins.	5	52	0	0	57	18	0	12	0	30	0	47	9	1	57	0	0	0	0	0
+30 mins.	4	65	0	0	69	12	0	15	0	27	0	41	6	0	47	0	0	0	0	0
+45 mins.	6	50	0	0	56	25	0	5	0	30	0	40	10	0	50	0	0	0	0	0
Total Volume	23	225	0	0	248	70	0	37	0	107	0	162	30	1	193	0	0	0	0	0
% App. Total	9.3	90.7	0	0		65.4	0	34.6	0		0	83.9	15.5	0.5		0	0	0	0	
PHF	.719	.865	.000	.000	.899	.700	.000	.617	.000	.892	.000	.862	.750	.250	.846	.000	.000	.000	.000	.000





# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Upton Road  
East-West: Wilson Road  
Weather: Sunny, Cool  
Vehicle: All Vehicles

File Name : Wilson-Upton  
Site Code : 00000001  
Start Date : 10/1/2019  
Page No : 1

### Groups Printed- Unshifted

Start Time	Upton Rd From North					Wilson Rd From East					Upton Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	5	21	0	0	26	14	0	6	0	20	0	12	20	0	32	0	0	0	0	0	78
07:15 AM	3	21	0	0	24	31	0	11	0	42	0	8	24	0	32	0	0	0	0	0	98
07:30 AM	2	27	0	0	29	31	0	7	0	38	0	13	45	0	58	0	0	0	0	0	125
07:45 AM	1	19	0	0	20	20	0	5	0	25	0	13	37	0	50	0	0	0	0	0	95
<b>Total</b>	<b>11</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>99</b>	<b>96</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>125</b>	<b>0</b>	<b>46</b>	<b>126</b>	<b>0</b>	<b>172</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>396</b>
08:00 AM	4	13	0	0	17	17	0	3	0	20	0	7	28	0	35	0	0	0	0	0	72
08:15 AM	0	27	0	0	27	41	0	2	0	43	0	11	31	0	42	0	0	0	0	0	112
08:30 AM	2	14	0	0	16	28	0	3	0	31	0	12	33	0	45	0	0	0	0	0	92
08:45 AM	3	7	0	0	10	13	0	1	0	14	0	7	23	0	30	0	0	0	0	0	54
<b>Total</b>	<b>9</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>99</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>108</b>	<b>0</b>	<b>37</b>	<b>115</b>	<b>0</b>	<b>152</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>330</b>
*** BREAK ***																					
03:00 PM	4	10	0	0	14	23	0	4	0	27	0	14	19	0	33	0	0	0	0	0	74
03:15 PM	5	17	0	0	22	30	0	4	0	34	0	12	25	0	37	0	0	0	0	0	93
03:30 PM	2	26	0	0	28	30	0	11	0	41	0	18	28	0	46	0	0	0	0	0	115
03:45 PM	5	25	0	0	30	20	0	9	0	29	0	30	40	0	70	0	0	0	0	0	129
<b>Total</b>	<b>16</b>	<b>78</b>	<b>0</b>	<b>0</b>	<b>94</b>	<b>103</b>	<b>0</b>	<b>28</b>	<b>0</b>	<b>131</b>	<b>0</b>	<b>74</b>	<b>112</b>	<b>0</b>	<b>186</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>411</b>
04:00 PM	3	22	0	1	26	42	0	3	0	45	1	18	51	0	70	0	0	0	0	0	141
04:15 PM	9	28	0	1	38	23	0	5	1	29	0	22	40	0	62	0	0	0	0	0	129
04:30 PM	9	20	0	0	29	29	0	6	0	35	0	12	26	0	38	0	0	0	0	0	102
04:45 PM	9	18	0	0	27	29	0	8	0	37	0	24	19	0	43	0	0	0	0	0	107
<b>Total</b>	<b>30</b>	<b>88</b>	<b>0</b>	<b>2</b>	<b>120</b>	<b>123</b>	<b>0</b>	<b>22</b>	<b>1</b>	<b>146</b>	<b>1</b>	<b>76</b>	<b>136</b>	<b>0</b>	<b>213</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>479</b>
05:00 PM	8	25	0	0	33	41	0	5	0	46	1	25	26	0	52	0	0	0	0	0	131
05:15 PM	13	19	0	0	32	41	0	7	0	48	0	18	24	1	43	0	0	0	0	0	123
05:30 PM	22	17	0	0	39	32	0	5	0	37	0	16	31	0	47	0	1	0	0	1	124
05:45 PM	5	11	0	0	16	25	0	5	0	30	0	12	19	0	31	0	0	1	0	1	78
<b>Total</b>	<b>48</b>	<b>72</b>	<b>0</b>	<b>0</b>	<b>120</b>	<b>139</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>161</b>	<b>1</b>	<b>71</b>	<b>100</b>	<b>1</b>	<b>173</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>456</b>
<b>Grand Total</b>	<b>114</b>	<b>387</b>	<b>0</b>	<b>2</b>	<b>503</b>	<b>560</b>	<b>0</b>	<b>110</b>	<b>1</b>	<b>671</b>	<b>2</b>	<b>304</b>	<b>589</b>	<b>1</b>	<b>896</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>2072</b>
<b>Apprch %</b>	<b>22.7</b>	<b>76.9</b>	<b>0</b>	<b>0.4</b>		<b>83.5</b>	<b>0</b>	<b>16.4</b>	<b>0.1</b>		<b>0.2</b>	<b>33.9</b>	<b>65.7</b>	<b>0.1</b>		<b>0</b>	<b>50</b>	<b>50</b>	<b>0</b>		
<b>Total %</b>	<b>5.5</b>	<b>18.7</b>	<b>0</b>	<b>0.1</b>	<b>24.3</b>	<b>27</b>	<b>0</b>	<b>5.3</b>	<b>0</b>	<b>32.4</b>	<b>0.1</b>	<b>14.7</b>	<b>28.4</b>	<b>0</b>	<b>43.2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.1</b>	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Upton Road  
 East-West: Wilson Road  
 Weather: Sunny, Cool  
 Vehicle: All Vehicles

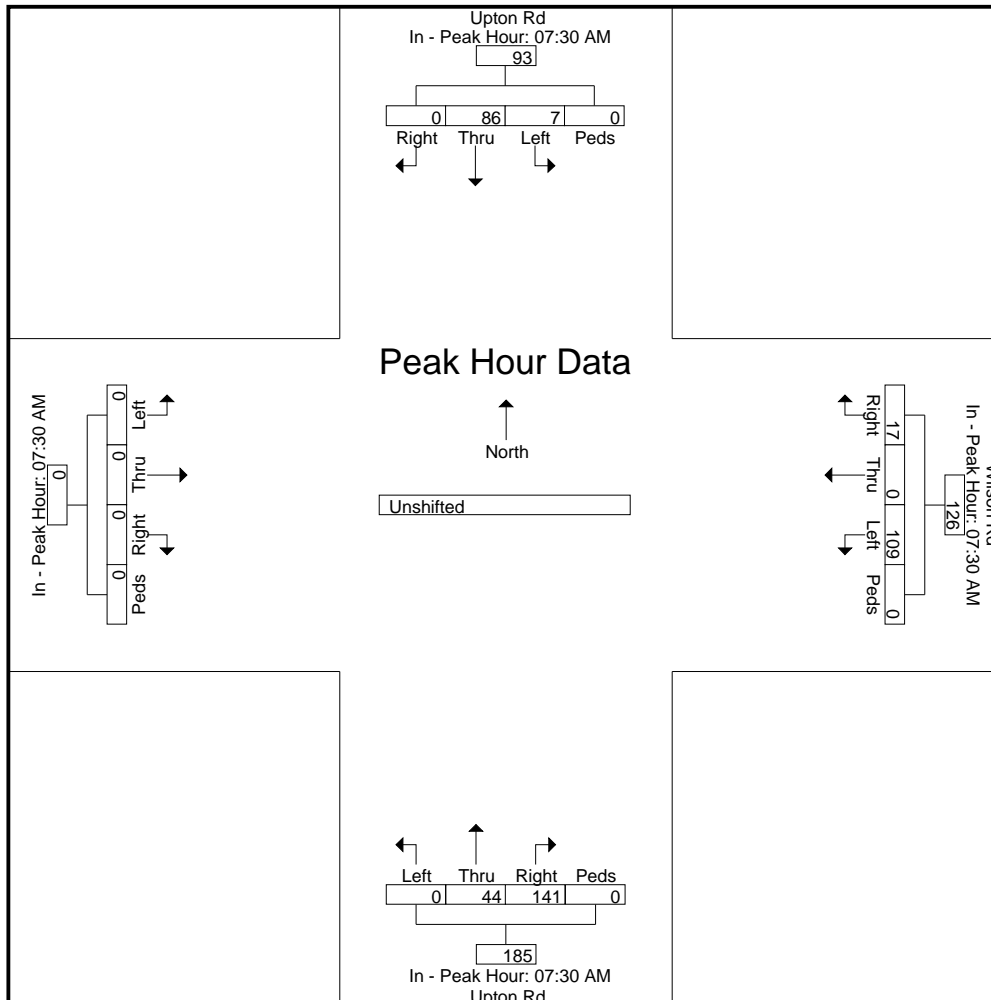
File Name : Wilson-Upton  
 Site Code : 00000001  
 Start Date : 10/1/2019  
 Page No : 2

Start Time	Upton Rd From North					Wilson Rd From East					Upton Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	2	27	0	0	29	31	0	7	0	38	0	13	45	0	58	0	0	0	0	0
+15 mins.	1	19	0	0	20	20	0	5	0	25	0	13	37	0	50	0	0	0	0	0
+30 mins.	4	13	0	0	17	17	0	3	0	20	0	7	28	0	35	0	0	0	0	0
+45 mins.	0	27	0	0	27	41	0	2	0	43	0	11	31	0	42	0	0	0	0	0
Total Volume	7	86	0	0	93	109	0	17	0	126	0	44	141	0	185	0	0	0	0	0
% App. Total	7.5	92.5	0	0		86.5	0	13.5	0		0	23.8	76.2	0		0	0	0	0	
PHF	.438	.796	.000	.000	.802	.665	.000	.607	.000	.733	.000	.846	.783	.000	.797	.000	.000	.000	.000	.000



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Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Upton Road  
East-West: Wilson Road  
Weather: Sunny, Cool  
Vehicle: All Vehicles

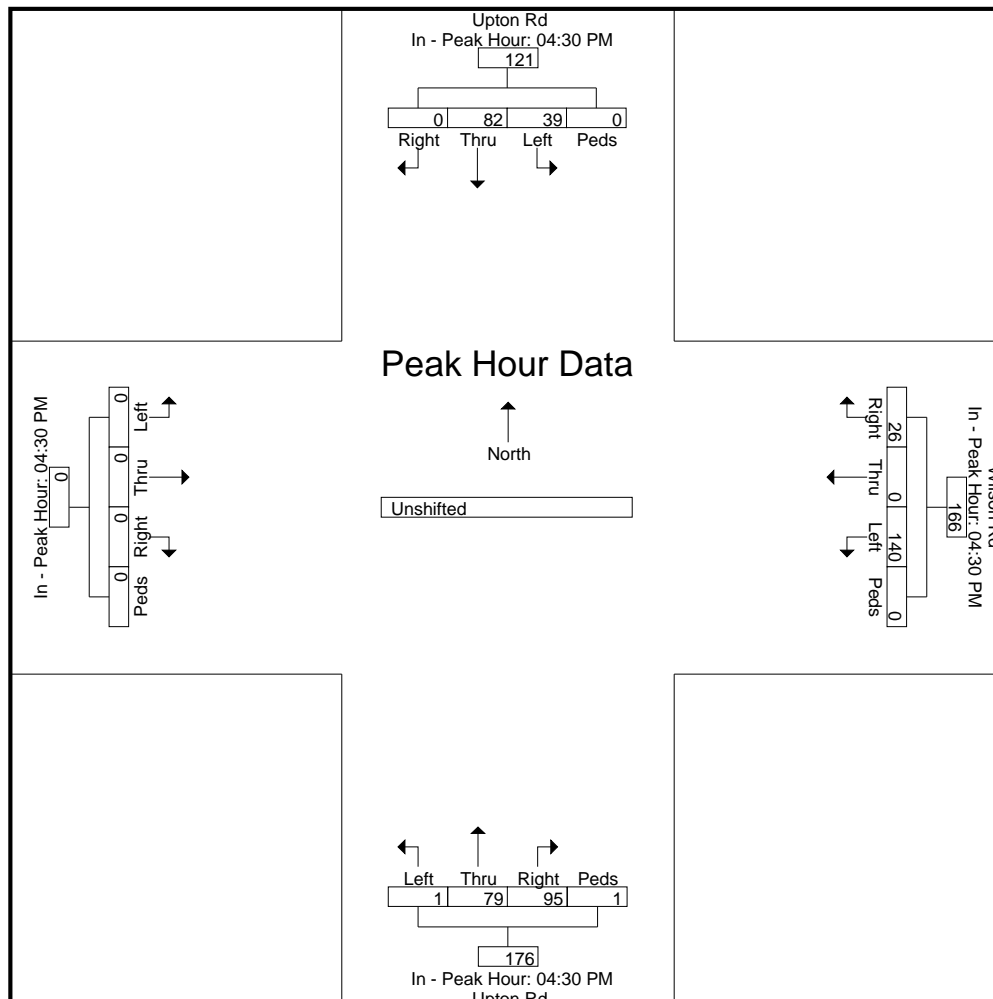
File Name : Wilson-Upton  
Site Code : 00000001  
Start Date : 10/1/2019  
Page No : 3

Start Time	Upton Rd From North					Wilson Rd From East					Upton Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	9	20	0	0	29	29	0	6	0	35	0	12	26	0	38	0	0	0	0	0
+15 mins.	9	18	0	0	27	29	0	8	0	37	0	24	19	0	43	0	0	0	0	0
+30 mins.	8	25	0	0	33	41	0	5	0	46	1	25	26	0	52	0	0	0	0	0
+45 mins.	13	19	0	0	32	41	0	7	0	48	0	18	24	1	43	0	0	0	0	0
Total Volume	39	82	0	0	121	140	0	26	0	166	1	79	95	1	176	0	0	0	0	0
% App. Total	32.2	67.8	0	0		84.3	0	15.7	0		0.6	44.9	54	0.6		0	0	0	0	
PHF	.750	.820	.000	.000	.917	.854	.000	.813	.000	.865	.250	.790	.913	.250	.846	.000	.000	.000	.000	.000



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: I-5 NB Ramps  
East-West: Pine Street  
Weather: Clear, Hot  
Vehicle: All Vehicles

File Name : I-5NB-Pine  
Site Code : 00000004  
Start Date : 8/6/2019  
Page No : 1

### Groups Printed- All

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	0	0	0	0	0	0	93	23	0	116	24	0	32	0	56	18	159	0	0	177	349
06:45 AM	0	0	0	0	0	0	101	42	0	143	24	0	51	0	75	10	222	0	0	232	450
Total	0	0	0	0	0	0	194	65	0	259	48	0	83	0	131	28	381	0	0	409	799
07:00 AM	0	0	0	0	0	0	114	36	0	150	18	0	37	0	55	14	151	0	0	165	370
07:15 AM	0	0	0	1	1	0	132	33	0	165	26	0	43	0	69	7	179	2	1	189	424
07:30 AM	0	0	0	0	0	0	138	26	1	165	43	0	52	0	95	17	221	0	0	238	498
07:45 AM	0	0	0	1	1	0	163	35	0	198	42	0	53	0	95	9	210	0	1	220	514
Total	0	0	0	2	2	0	547	130	1	678	129	0	185	0	314	47	761	2	2	812	1806
08:00 AM	0	0	0	0	0	0	137	42	0	179	42	0	55	0	97	10	201	0	0	211	487
08:15 AM	0	0	0	0	0	0	160	43	0	203	49	0	43	0	92	8	178	0	0	186	481
08:30 AM	0	0	0	0	0	0	138	42	0	180	39	0	46	0	85	14	164	0	0	178	443
08:45 AM	0	0	0	0	0	0	149	59	0	208	46	0	47	0	93	11	201	0	0	212	513
Total	0	0	0	0	0	0	584	186	0	770	176	0	191	0	367	43	744	0	0	787	1924
09:00 AM	0	0	0	0	0	0	144	50	0	194	40	0	50	0	90	12	170	0	0	182	466
09:15 AM	0	0	0	0	0	0	157	63	2	222	37	1	47	1	86	14	187	0	0	201	509
*** BREAK ***																					
Total	0	0	0	0	0	0	301	113	2	416	77	1	97	1	176	26	357	0	0	383	975
*** BREAK ***																					
03:00 PM	0	0	0	0	0	0	218	64	0	282	59	1	88	0	148	23	197	0	0	220	650
03:15 PM	0	0	0	0	0	0	201	75	1	277	61	1	89	0	151	19	199	6	0	224	652
03:30 PM	0	0	0	1	1	0	217	70	2	289	62	0	95	0	157	31	194	0	1	226	673
03:45 PM	0	0	0	0	0	0	217	68	1	286	68	0	96	0	164	14	204	0	0	218	668
Total	0	0	0	1	1	0	853	277	4	1134	250	2	368	0	620	87	794	6	1	888	2643
04:00 PM	0	0	0	0	0	0	209	77	0	286	78	0	76	0	154	15	214	0	1	230	670
04:15 PM	0	0	0	0	0	0	210	79	1	290	63	0	100	1	164	15	192	0	0	207	661
04:30 PM	0	0	0	0	0	0	243	106	1	350	73	0	69	1	143	19	227	0	0	246	739
04:45 PM	0	0	0	0	0	0	231	97	0	328	106	0	84	0	190	27	202	0	0	229	747
Total	0	0	0	0	0	0	893	359	2	1254	320	0	329	2	651	76	835	0	1	912	2817
05:00 PM	0	0	0	0	0	0	194	122	8	324	84	1	71	0	156	23	214	5	0	242	722
05:15 PM	0	0	0	0	0	0	253	113	0	366	83	0	69	0	152	36	196	0	0	232	750
05:30 PM	0	0	0	0	0	0	199	80	0	279	88	0	111	0	199	16	210	0	0	226	704
05:45 PM	0	0	0	0	0	0	171	102	8	281	96	0	100	0	196	19	167	0	0	186	663
Total	0	0	0	0	0	0	817	417	16	1250	351	1	351	0	703	94	787	5	0	886	2839
Grand Total	0	0	0	3	3	0	4189	1547	25	5761	1351	4	1604	3	2962	401	4659	13	4	5077	13803
Apprch %	0	0	0	100		0	72.7	26.9	0.4		45.6	0.1	54.2	0.1		7.9	91.8	0.3	0.1		
Total %	0	0	0	0	0	0	30.3	11.2	0.2	41.7	9.8	0	11.6	0	21.5	2.9	33.8	0.1	0	36.8	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: I-5 NB Ramps  
 East-West: Pine Street  
 Weather: Clear, Hot  
 Vehicle: All Vehicles

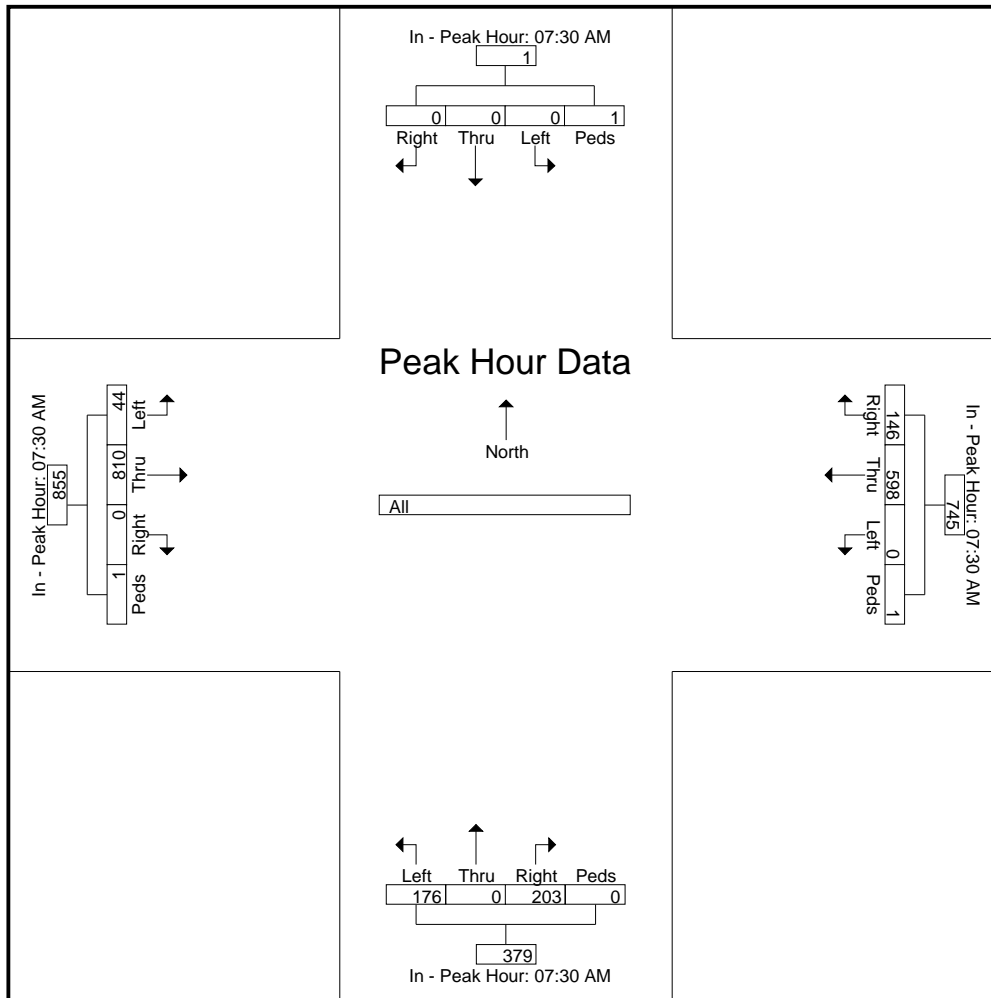
File Name : I-5NB-Pine  
 Site Code : 00000004  
 Start Date : 8/6/2019  
 Page No : 2

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	0	0	0	0	0	0	138	26	1	165	43	0	52	0	95	17	221	0	0	238
+15 mins.	0	0	0	1	1	0	163	35	0	198	42	0	53	0	95	9	210	0	1	220
+30 mins.	0	0	0	0	0	0	137	42	0	179	42	0	55	0	97	10	201	0	0	211
+45 mins.	0	0	0	0	0	0	160	43	0	203	49	0	43	0	92	8	178	0	0	186
Total Volume	0	0	0	1	1	0	598	146	1	745	176	0	203	0	379	44	810	0	1	855
% App. Total	0	0	0	100		0	80.3	19.6	0.1		46.4	0	53.6	0		5.1	94.7	0	0.1	
PHF	.000	.000	.000	.250	.250	.000	.917	.849	.250	.917	.898	.000	.923	.000	.977	.647	.916	.000	.250	.898



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Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: I-5 NB Ramps  
East-West: Pine Street  
Weather: Clear, Hot  
Vehicle: All Vehicles

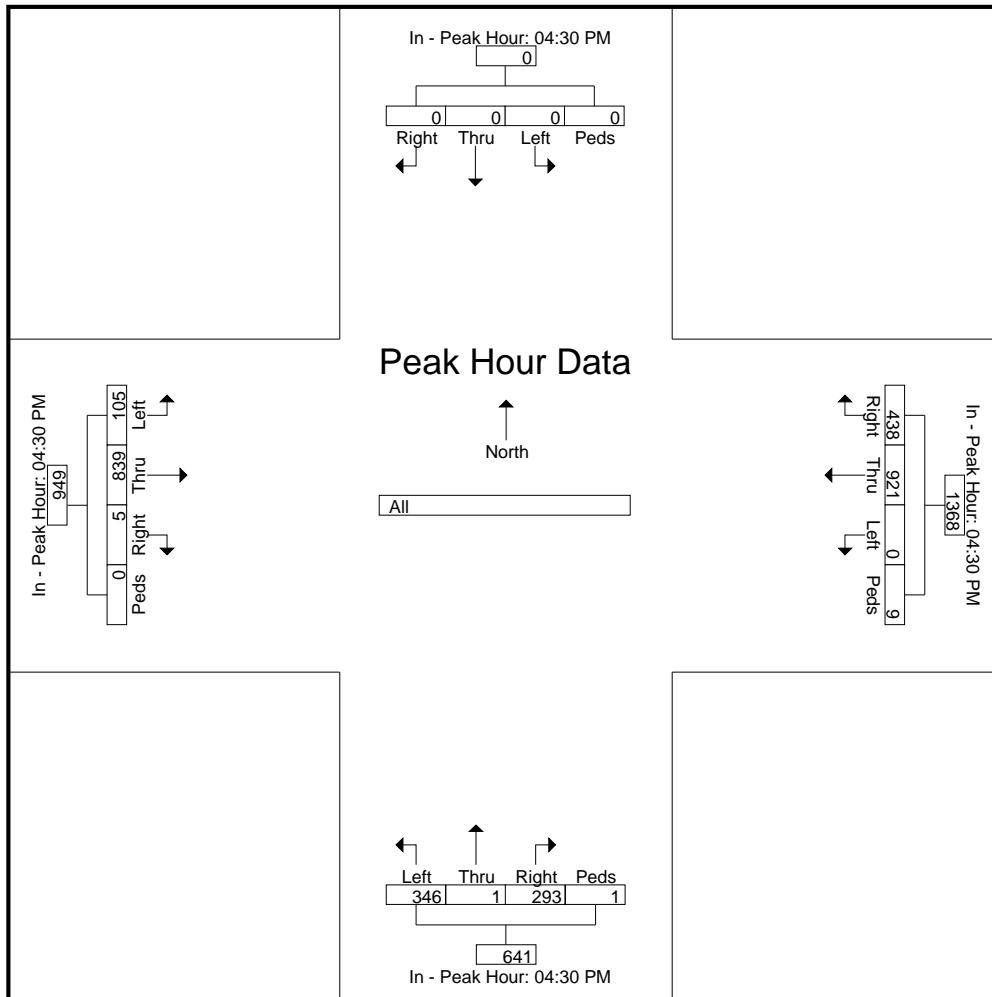
File Name : I-5NB-Pine  
Site Code : 00000004  
Start Date : 8/6/2019  
Page No : 3

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	0	0	0	0	0	0	243	106	1	350	73	0	69	1	143	19	227	0	0	246
+15 mins.	0	0	0	0	0	0	231	97	0	328	106	0	84	0	190	27	202	0	0	229
+30 mins.	0	0	0	0	0	0	194	122	8	324	84	1	71	0	156	23	214	5	0	242
+45 mins.	0	0	0	0	0	0	253	113	0	366	83	0	69	0	152	36	196	0	0	232
Total Volume	0	0	0	0	0	0	921	438	9	1368	346	1	293	1	641	105	839	5	0	949
% App. Total	0	0	0	0	0	0	67.3	32	0.7		54	0.2	45.7	0.2		11.1	88.4	0.5	0	
PHF	.000	.000	.000	.000	.000	.000	.910	.898	.281	.934	.816	.250	.872	.250	.843	.729	.924	.250	.000	.964



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: I-5 SB Ramps  
East-West: Pine Street  
Weather: Clear, Hot  
Vehicle: All Vehicles

File Name : I-5SB-Pine  
Site Code : 00000005  
Start Date : 8/6/2019  
Page No : 1

**Groups Printed- All**

Start Time	I-5 SB Off From North					Pine St From East					I-5 SB On From South					Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	61	1	11	0	73	44	73	0	0	117	0	0	0	0	0	0	121	76	0	197	387
06:45 AM	68	1	18	0	87	45	85	0	0	130	0	0	0	0	0	0	142	88	0	230	447
Total	129	2	29	0	160	89	158	0	0	247	0	0	0	0	0	0	263	164	0	427	834
07:00 AM	67	0	18	0	85	58	80	0	0	138	0	0	0	0	0	0	96	87	0	183	406
07:15 AM	71	0	16	1	88	54	97	0	1	152	0	0	0	0	0	0	111	113	0	224	464
07:30 AM	84	0	33	0	117	64	106	0	1	171	0	0	0	0	0	0	163	135	0	298	586
07:45 AM	98	0	33	2	133	73	154	0	2	229	0	0	0	0	0	0	140	120	0	260	622
Total	320	0	100	3	423	249	437	0	4	690	0	0	0	0	0	0	510	455	0	965	2078
08:00 AM	71	0	32	0	103	52	121	0	0	173	0	0	0	0	0	0	107	84	0	191	467
08:15 AM	58	1	18	0	77	65	135	0	0	200	0	0	0	0	0	0	134	93	0	227	504
08:30 AM	50	0	27	0	77	47	119	0	0	166	0	0	0	0	0	0	119	88	0	207	450
08:45 AM	61	2	17	0	80	52	143	0	0	195	0	0	0	0	0	0	144	94	0	238	513
Total	240	3	94	0	337	216	518	0	0	734	0	0	0	0	0	0	504	359	0	863	1934
09:00 AM	53	0	21	0	74	42	152	0	0	194	0	0	0	0	0	4	126	51	0	181	449
09:15 AM	63	0	27	0	90	48	159	0	0	207	0	0	0	0	0	1	162	55	0	218	515
*** BREAK ***																					
Total	116	0	48	0	164	90	311	0	0	401	0	0	0	0	0	5	288	106	0	399	964
*** BREAK ***																					
03:00 PM	57	1	29	0	87	67	217	0	0	284	0	0	0	0	0	0	161	56	0	217	588
03:15 PM	56	1	23	2	82	51	217	0	3	271	0	0	0	0	0	0	161	52	0	213	566
03:30 PM	62	0	21	0	83	66	217	0	1	284	0	0	0	0	0	0	160	80	0	240	607
03:45 PM	49	1	28	0	78	55	249	0	0	304	0	0	0	0	0	0	174	68	1	243	625
Total	224	3	101	2	330	239	900	0	4	1143	0	0	0	0	0	0	656	256	1	913	2386
04:00 PM	60	0	29	0	89	48	239	0	0	287	0	0	0	0	0	0	167	70	0	237	613
04:15 PM	56	0	26	0	82	67	225	0	0	292	0	0	0	0	0	0	148	73	0	221	595
04:30 PM	73	0	27	0	100	55	261	0	1	317	0	0	0	0	0	0	166	58	1	225	642
04:45 PM	64	0	28	1	93	60	277	0	1	338	0	0	0	0	0	0	156	69	0	225	656
Total	253	0	110	1	364	230	1002	0	2	1234	0	0	0	0	0	0	637	270	1	908	2506
05:00 PM	65	0	19	0	84	68	253	0	0	321	0	0	0	0	0	0	188	81	0	269	674
05:15 PM	54	0	21	0	75	53	296	0	0	349	0	0	0	0	0	0	176	86	0	262	686
05:30 PM	60	1	21	0	82	47	236	0	1	284	0	0	0	0	0	2	142	70	0	214	580
05:45 PM	58	0	22	0	80	62	239	0	1	302	0	0	0	0	0	0	130	65	0	195	577
Total	237	1	83	0	321	230	1024	0	2	1256	0	0	0	0	0	2	636	302	0	940	2517
Grand Total	1519	9	565	6	2099	1343	4350	0	12	5705	0	0	0	0	0	7	3494	1912	2	5415	13219
Apprch %	72.4	0.4	26.9	0.3		23.5	76.2	0	0.2		0	0	0	0		0.1	64.5	35.3	0		
Total %	11.5	0.1	4.3	0	15.9	10.2	32.9	0	0.1	43.2	0	0	0	0		0.1	26.4	14.5	0	41	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: I-5 SB Ramps  
 East-West: Pine Street  
 Weather: Clear, Hot  
 Vehicle: All Vehicles

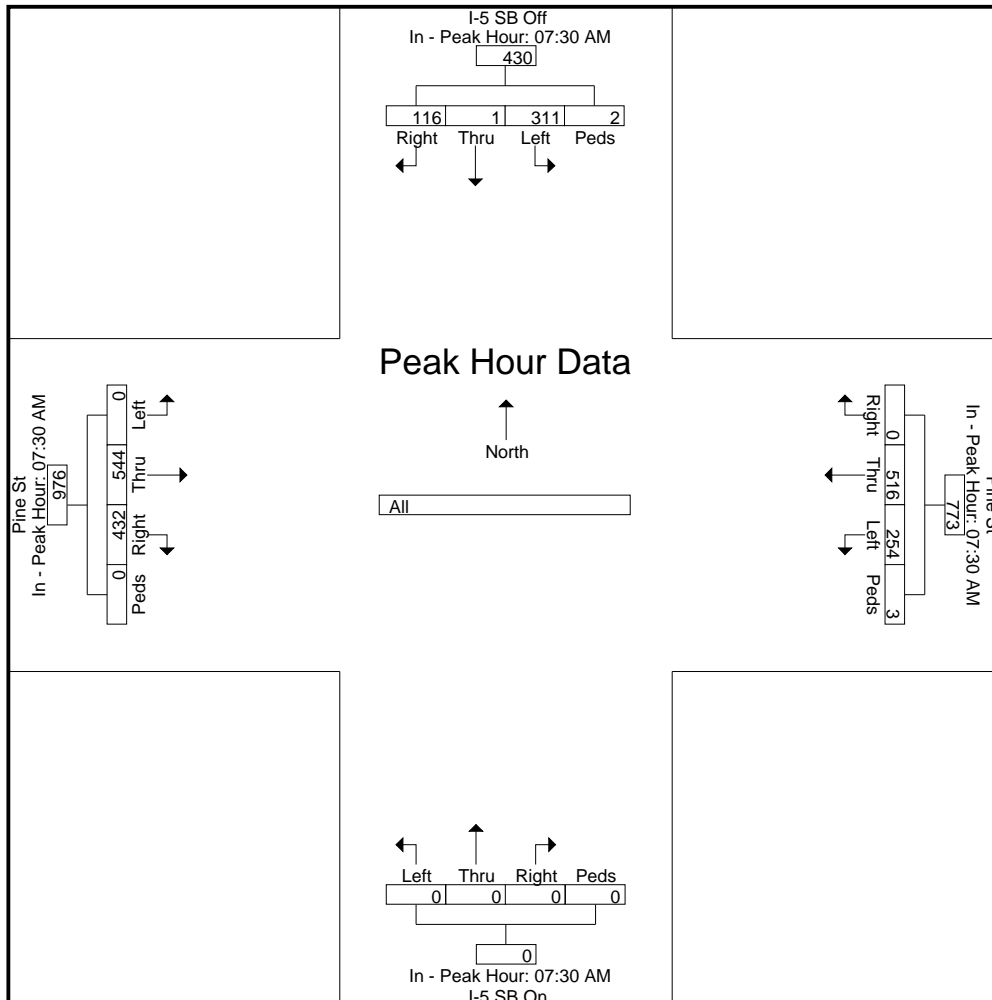
File Name : I-5SB-Pine  
 Site Code : 00000005  
 Start Date : 8/6/2019  
 Page No : 2

Start Time	I-5 SB Off From North					Pine St From East					I-5 SB On From South					Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM									
+0 mins.	84	0	33	0	117	64	106	0	1	171	0	0	0	0	0	0	163	135	0	298	0	140	120	0	260
+15 mins.	98	0	33	2	133	73	154	0	2	229	0	0	0	0	0	0	140	120	0	260	0	107	84	0	191
+30 mins.	71	0	32	0	103	52	121	0	0	173	0	0	0	0	0	0	107	84	0	191	0	134	93	0	227
+45 mins.	58	1	18	0	77	65	135	0	0	200	0	0	0	0	0	0	134	93	0	227	0	544	432	0	976
Total Volume	311	1	116	2	430	254	516	0	3	773	0	0	0	0	0	0	544	432	0	976	0	55.7	44.3	0	
% App. Total	72.3	0.2	27	0.5		32.9	66.8	0	0.4		0	0	0	0		0	55.7	44.3	0						
PHF	.793	.250	.879	.250	.808	.870	.838	.000	.375	.844	.000	.000	.000	.000	.000	.000	.834	.800	.000	.819					





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North-South: I-5 SB Ramps  
East-West: Pine Street  
Weather: Clear, Hot  
Vehicle: All Vehicles

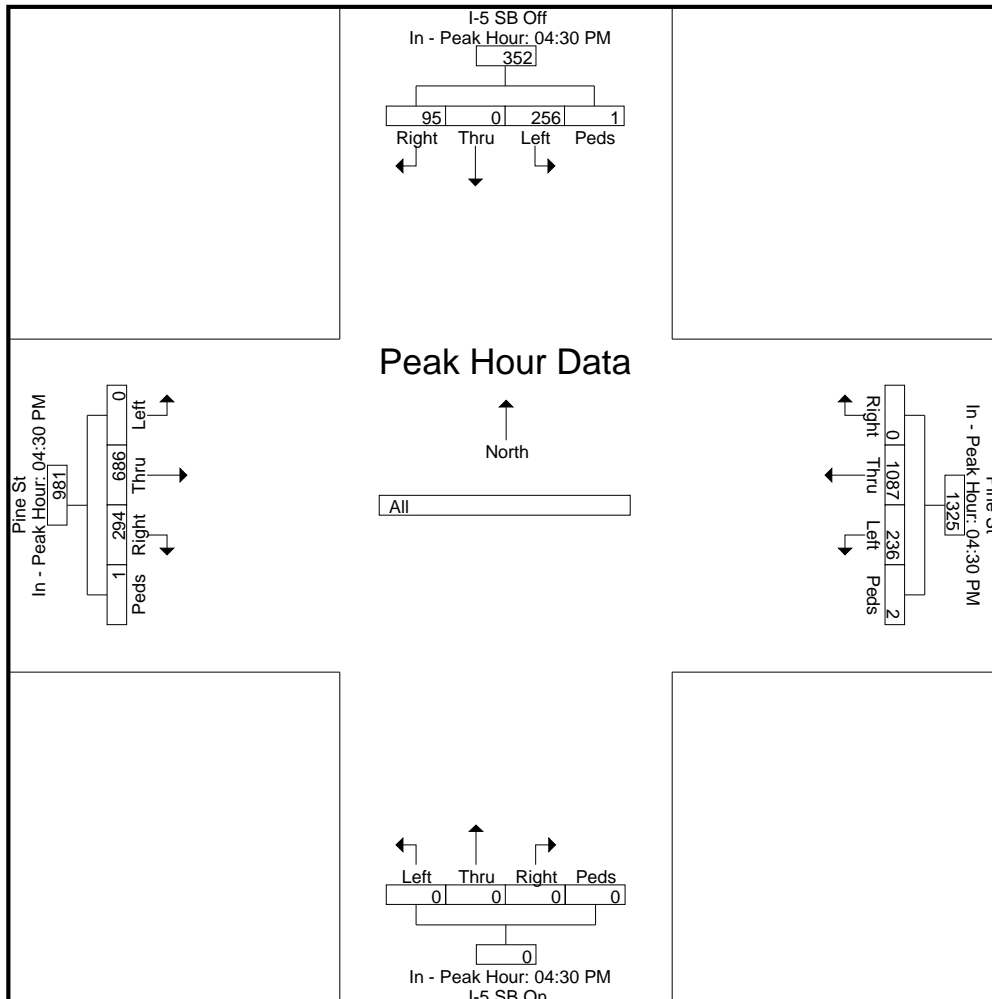
File Name : I-5SB-Pine  
Site Code : 00000005  
Start Date : 8/6/2019  
Page No : 3

Start Time	I-5 SB Off From North					Pine St From East					I-5 SB On From South					Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	73	0	27	0	100	55	261	0	1	317	0	0	0	0	0	0	166	58	1	225
+15 mins.	64	0	28	1	93	60	277	0	1	338	0	0	0	0	0	0	156	69	0	225
+30 mins.	65	0	19	0	84	68	253	0	0	321	0	0	0	0	0	0	188	81	0	269
+45 mins.	54	0	21	0	75	53	296	0	0	349	0	0	0	0	0	0	176	86	0	262
Total Volume	256	0	95	1	352	236	1087	0	2	1325	0	0	0	0	0	0	686	294	1	981
% App. Total	72.7	0	27	0.3		17.8	82	0	0.2		0	0	0	0		0	69.9	30	0.1	
PHF	.877	.000	.848	.250	.880	.868	.918	.000	.500	.949	.000	.000	.000	.000	.000	.000	.912	.855	.250	.912



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: OR 99  
 East-West: Pine Street  
 Weather: Overcast, 65 deg  
 Vehicle: All Vehicles

File Name : Pine-99  
 Site Code : 00000001  
 Start Date : 9/17/2019  
 Page No : 1

**Groups Printed- All**

Start Time	OR 99 From North					Pine St From East					OR 99 From South					Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:00 AM	2	25	4	0	31	9	13	1	0	23	7	27	11	1	46	13	43	16	1	73	173
06:15 AM	2	27	8	1	38	12	17	10	2	41	12	24	8	0	44	14	42	11	0	67	190
06:30 AM	7	56	10	0	73	20	21	6	0	47	24	17	7	0	48	25	60	20	0	105	273
06:45 AM	10	40	11	4	65	25	40	4	0	69	31	40	14	1	86	25	68	22	1	116	336
<b>Total</b>	<b>21</b>	<b>148</b>	<b>33</b>	<b>5</b>	<b>207</b>	<b>66</b>	<b>91</b>	<b>21</b>	<b>2</b>	<b>180</b>	<b>74</b>	<b>108</b>	<b>40</b>	<b>2</b>	<b>224</b>	<b>77</b>	<b>213</b>	<b>69</b>	<b>2</b>	<b>361</b>	<b>972</b>
07:00 AM	10	48	12	0	70	14	37	1	1	53	15	50	14	0	79	18	66	19	0	103	305
07:15 AM	21	70	12	0	103	25	45	8	0	78	26	58	16	0	100	29	82	22	1	134	415
07:30 AM	12	79	6	0	97	24	43	4	0	71	34	48	18	0	100	42	112	38	0	192	460
07:45 AM	21	77	10	0	108	44	71	13	0	128	36	65	22	0	123	48	135	53	2	238	597
<b>Total</b>	<b>64</b>	<b>274</b>	<b>40</b>	<b>0</b>	<b>378</b>	<b>107</b>	<b>196</b>	<b>26</b>	<b>1</b>	<b>330</b>	<b>111</b>	<b>221</b>	<b>70</b>	<b>0</b>	<b>402</b>	<b>137</b>	<b>395</b>	<b>132</b>	<b>3</b>	<b>667</b>	<b>1777</b>
08:00 AM	19	72	24	0	115	31	30	12	0	73	39	86	30	0	155	51	80	45	2	178	521
08:15 AM	17	60	7	0	84	36	30	13	1	80	26	98	20	0	144	50	71	31	0	152	460
08:30 AM	22	72	11	0	105	49	55	16	0	120	23	81	28	1	133	45	54	23	1	123	481
08:45 AM	19	75	14	0	108	39	60	10	0	109	24	61	31	0	116	31	61	30	1	123	456
<b>Total</b>	<b>77</b>	<b>279</b>	<b>56</b>	<b>0</b>	<b>412</b>	<b>155</b>	<b>175</b>	<b>51</b>	<b>1</b>	<b>382</b>	<b>112</b>	<b>326</b>	<b>109</b>	<b>1</b>	<b>548</b>	<b>177</b>	<b>266</b>	<b>129</b>	<b>4</b>	<b>576</b>	<b>1918</b>
*** BREAK ***																					
03:00 PM	24	71	15	0	110	35	71	19	1	126	40	80	37	1	158	32	53	45	1	131	525
03:15 PM	17	46	23	0	86	30	87	16	0	133	36	91	41	0	168	29	74	21	0	124	511
03:30 PM	18	43	20	2	83	48	82	10	2	142	26	75	39	1	141	40	85	23	0	148	514
03:45 PM	19	64	25	3	111	59	94	10	5	168	39	79	39	3	160	30	62	25	1	118	557
<b>Total</b>	<b>78</b>	<b>224</b>	<b>83</b>	<b>5</b>	<b>390</b>	<b>172</b>	<b>334</b>	<b>55</b>	<b>8</b>	<b>569</b>	<b>141</b>	<b>325</b>	<b>156</b>	<b>5</b>	<b>627</b>	<b>131</b>	<b>274</b>	<b>114</b>	<b>2</b>	<b>521</b>	<b>2107</b>
04:00 PM	26	63	34	0	123	42	91	17	1	151	48	114	41	0	203	22	70	29	0	121	598
04:15 PM	20	52	25	0	97	30	117	23	3	173	64	90	39	0	193	25	66	24	2	117	580
04:30 PM	25	54	21	0	100	37	102	24	1	164	58	92	28	0	178	28	75	14	2	119	561
04:45 PM	31	55	26	0	112	47	125	16	2	190	58	91	34	0	183	23	69	18	2	112	597
<b>Total</b>	<b>102</b>	<b>224</b>	<b>106</b>	<b>0</b>	<b>432</b>	<b>156</b>	<b>435</b>	<b>80</b>	<b>7</b>	<b>678</b>	<b>228</b>	<b>387</b>	<b>142</b>	<b>0</b>	<b>757</b>	<b>98</b>	<b>280</b>	<b>85</b>	<b>6</b>	<b>469</b>	<b>2336</b>
05:00 PM	16	54	23	0	93	39	121	12	3	175	66	98	30	0	194	33	56	26	0	115	577
05:15 PM	19	58	22	0	99	30	135	16	0	181	78	96	28	0	202	22	79	27	1	129	611
05:30 PM	13	48	22	0	83	22	145	9	2	178	65	73	29	0	167	24	69	29	1	123	551
05:45 PM	20	43	17	2	82	33	89	14	0	136	55	80	39	1	175	28	83	26	1	138	531
<b>Total</b>	<b>68</b>	<b>203</b>	<b>84</b>	<b>2</b>	<b>357</b>	<b>124</b>	<b>490</b>	<b>51</b>	<b>5</b>	<b>670</b>	<b>264</b>	<b>347</b>	<b>126</b>	<b>1</b>	<b>738</b>	<b>107</b>	<b>287</b>	<b>108</b>	<b>3</b>	<b>505</b>	<b>2270</b>
<b>Grand Total</b>	<b>410</b>	<b>1352</b>	<b>402</b>	<b>12</b>	<b>2176</b>	<b>780</b>	<b>1721</b>	<b>284</b>	<b>24</b>	<b>2809</b>	<b>930</b>	<b>1714</b>	<b>643</b>	<b>9</b>	<b>3296</b>	<b>727</b>	<b>1715</b>	<b>637</b>	<b>20</b>	<b>3099</b>	<b>11380</b>
<b>Apprch %</b>	<b>18.8</b>	<b>62.1</b>	<b>18.5</b>	<b>0.6</b>		<b>27.8</b>	<b>61.3</b>	<b>10.1</b>	<b>0.9</b>		<b>28.2</b>	<b>52</b>	<b>19.5</b>	<b>0.3</b>		<b>23.5</b>	<b>55.3</b>	<b>20.6</b>	<b>0.6</b>		
<b>Total %</b>	<b>3.6</b>	<b>11.9</b>	<b>3.5</b>	<b>0.1</b>	<b>19.1</b>	<b>6.9</b>	<b>15.1</b>	<b>2.5</b>	<b>0.2</b>	<b>24.7</b>	<b>8.2</b>	<b>15.1</b>	<b>5.7</b>	<b>0.1</b>	<b>29</b>	<b>6.4</b>	<b>15.1</b>	<b>5.6</b>	<b>0.2</b>	<b>27.2</b>	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: OR 99  
East-West: Pine Street  
Weather: Overcast, 65 deg  
Vehicle: All Vehicles

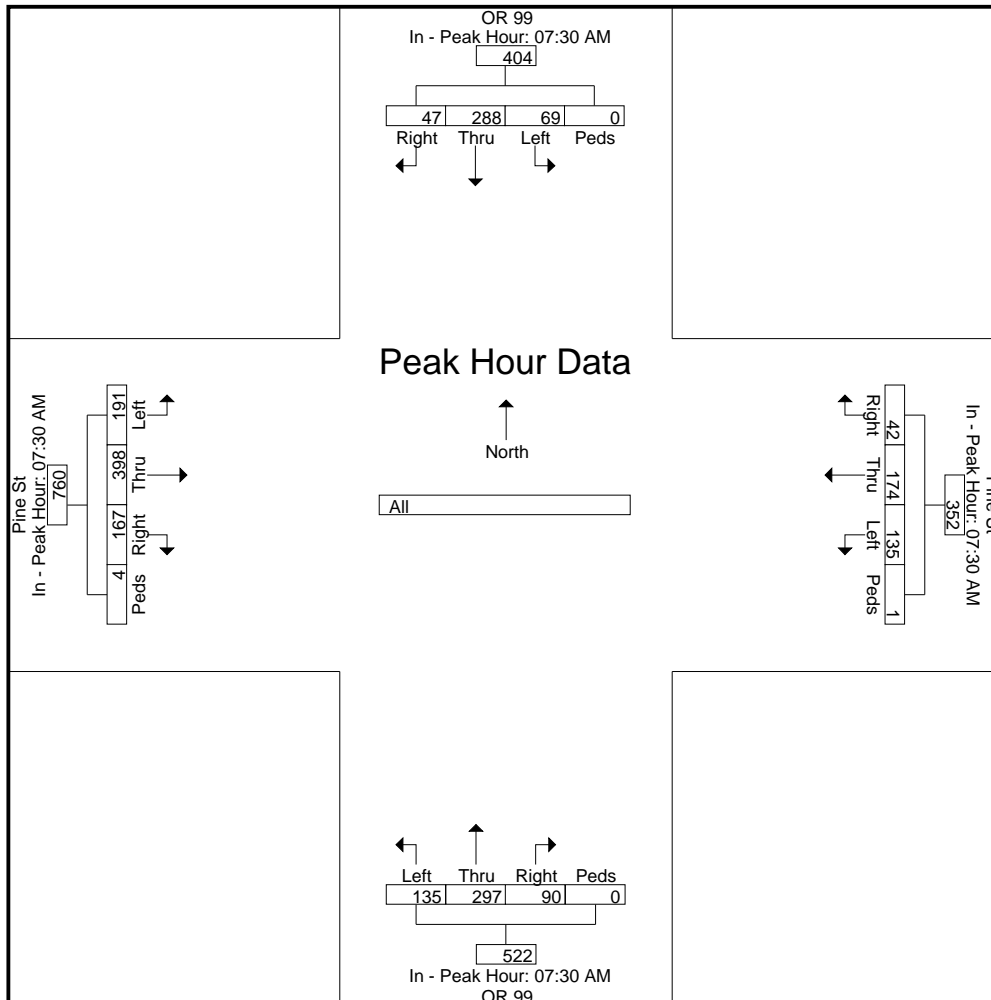
File Name : Pine-99  
Site Code : 00000001  
Start Date : 9/17/2019  
Page No : 2

Start Time	OR 99 From North					Pine St From East					OR 99 From South					Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	12	79	6	0	97	24	43	4	0	71	34	48	18	0	100	42	112	38	0	192
+15 mins.	21	77	10	0	108	44	71	13	0	128	36	65	22	0	123	48	135	53	2	238
+30 mins.	19	72	24	0	115	31	30	12	0	73	39	86	30	0	155	51	80	45	2	178
+45 mins.	17	60	7	0	84	36	30	13	1	80	26	98	20	0	144	50	71	31	0	152
Total Volume	69	288	47	0	404	135	174	42	1	352	135	297	90	0	522	191	398	167	4	760
% App. Total	17.1	71.3	11.6	0		38.4	49.4	11.9	0.3		25.9	56.9	17.2	0		25.1	52.4	22	0.5	
PHF	.821	.911	.490	.000	.878	.767	.613	.808	.250	.688	.865	.758	.750	.000	.842	.936	.737	.788	.500	.798



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North-South: OR 99  
East-West: Pine Street  
Weather: Overcast, 65 deg  
Vehicle: All Vehicles

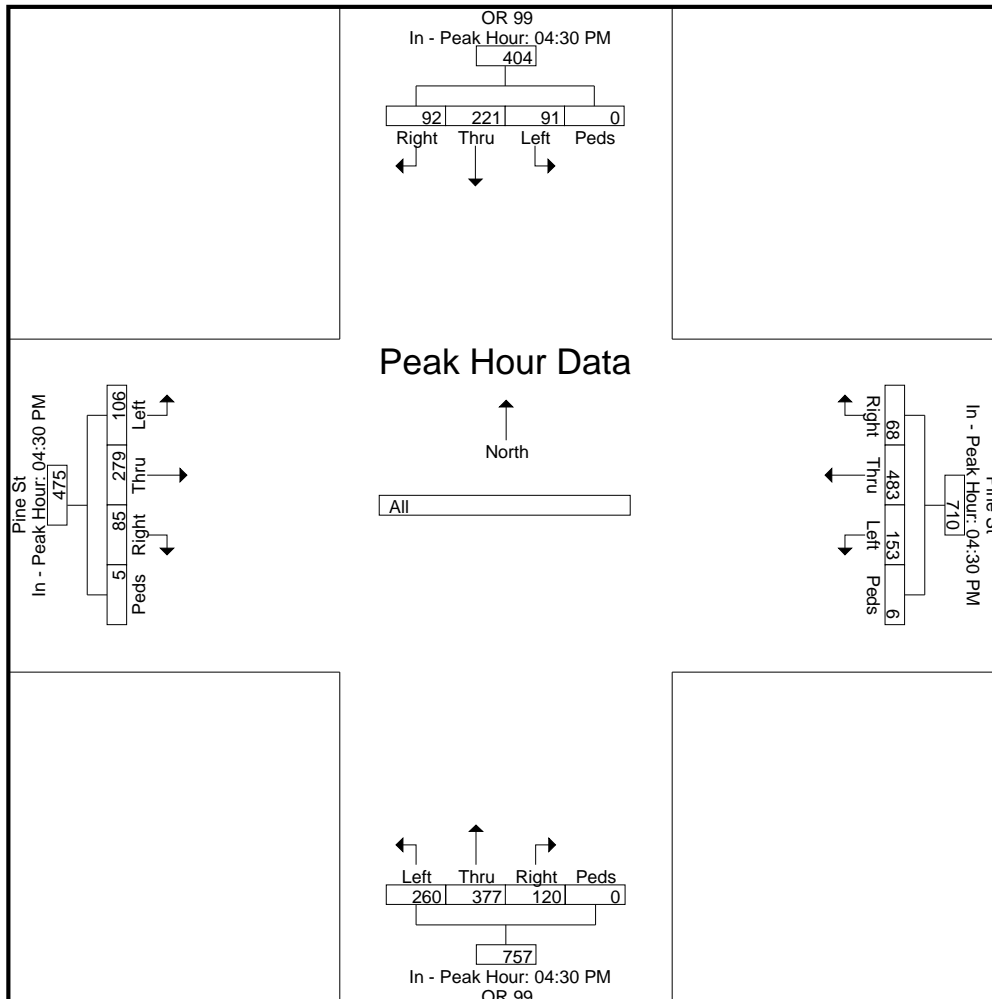
File Name : Pine-99  
Site Code : 00000001  
Start Date : 9/17/2019  
Page No : 3

Start Time	OR 99 From North					Pine St From East					OR 99 From South					Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	25	54	21	0	100	37	102	24	1	164	58	92	28	0	178	28	75	14	2	119
+15 mins.	31	55	26	0	112	47	125	16	2	190	58	91	34	0	183	23	69	18	2	112
+30 mins.	16	54	23	0	93	39	121	12	3	175	66	98	30	0	194	33	56	26	0	115
+45 mins.	19	58	22	0	99	30	135	16	0	181	78	96	28	0	202	22	79	27	1	129
Total Volume	91	221	92	0	404	153	483	68	6	710	260	377	120	0	757	106	279	85	5	475
% App. Total	22.5	54.7	22.8	0		21.5	68	9.6	0.8		34.3	49.8	15.9	0		22.3	58.7	17.9	1.1	
PHF	.734	.953	.885	.000	.902	.814	.894	.708	.500	.934	.833	.962	.882	.000	.937	.803	.883	.787	.625	.921



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Haskell Street  
East-West: W Pine Street  
Weather: Overcast, 65 deg  
Vehicle: All Vehicles

File Name : Haskell-Pine  
Site Code : 00000002  
Start Date : 9/17/2019  
Page No : 1

### Groups Printed- All

Start Time	Haskell St From North					W Pine St From East					Haskell St From South					W Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:15 AM	24	0	1	0	25	5	21	16	0	42	0	0	5	3	8	3	38	0	0	41	116
06:30 AM	36	2	3	1	42	2	24	28	1	55	0	0	9	0	9	2	62	1	1	66	172
06:45 AM	34	0	1	0	35	14	26	36	0	76	1	0	12	0	13	2	65	1	0	68	192
Total	94	2	5	1	102	21	71	80	1	173	1	0	26	3	30	7	165	2	1	175	480
07:00 AM	28	1	1	1	31	12	31	19	2	64	0	0	15	0	15	2	69	0	1	72	182
07:15 AM	55	0	8	5	68	17	34	42	1	94	1	0	18	0	19	11	75	2	0	88	269
07:30 AM	93	2	11	19	125	10	32	47	2	91	0	2	31	0	33	11	73	1	1	86	335
07:45 AM	80	4	7	29	120	18	45	54	3	120	1	5	31	0	37	20	113	1	0	134	411
Total	256	7	27	54	344	57	142	162	8	369	2	7	95	0	104	44	330	4	2	380	1197
08:00 AM	94	2	7	18	121	12	35	29	1	77	3	0	21	0	24	7	82	0	2	91	313
08:15 AM	55	1	6	0	62	9	44	27	0	80	0	0	17	0	17	1	82	1	1	85	244
08:30 AM	39	0	3	0	42	7	46	34	0	87	0	3	14	0	17	0	64	1	0	65	211
08:45 AM	48	3	5	0	56	21	54	29	0	104	1	2	9	0	12	0	61	3	1	65	237
Total	236	6	21	18	281	49	179	119	1	348	4	5	61	0	70	8	289	5	4	306	1005
*** BREAK ***																					
03:00 PM	51	3	4	2	60	16	65	53	1	135	0	1	17	0	18	6	68	0	0	74	287
03:15 PM	42	2	2	0	46	15	79	52	1	147	3	2	17	0	22	3	63	3	0	69	284
03:30 PM	67	2	10	1	80	16	67	62	1	146	2	0	27	0	29	2	87	3	0	92	347
03:45 PM	49	1	2	0	52	15	92	76	1	184	4	1	17	1	23	3	66	0	0	69	328
Total	209	8	18	3	238	62	303	243	4	612	9	4	78	1	92	14	284	6	0	304	1246
04:00 PM	54	0	5	1	60	15	80	73	3	171	3	1	16	3	23	6	63	1	2	72	326
04:15 PM	38	0	7	6	51	7	109	90	0	206	2	2	13	1	18	5	56	2	0	63	338
04:30 PM	39	1	6	6	52	13	83	82	6	184	1	2	14	0	17	8	69	5	3	85	338
04:45 PM	37	1	4	5	47	21	97	78	0	196	0	4	11	1	16	14	55	1	1	71	330
Total	168	2	22	18	210	56	369	323	9	757	6	9	54	5	74	33	243	9	6	291	1332
05:00 PM	52	5	12	17	86	16	87	103	6	212	0	1	15	0	16	18	57	4	1	80	394
05:15 PM	55	1	10	15	81	24	111	105	4	244	2	1	18	0	21	9	68	3	1	81	427
05:30 PM	52	5	9	19	85	23	96	100	1	220	0	1	12	1	14	9	56	0	2	67	386
05:45 PM	77	0	13	16	106	17	62	81	3	163	2	1	15	0	18	11	62	2	1	76	363
Total	236	11	44	67	358	80	356	389	14	839	4	4	60	1	69	47	243	9	5	304	1570
Grand Total	1199	36	137	161	1533	325	1420	1316	37	3098	26	29	374	10	439	153	1554	35	18	1760	6830
Apprch %	78.2	2.3	8.9	10.5		10.5	45.8	42.5	1.2		5.9	6.6	85.2	2.3		8.7	88.3	2	1		
Total %	17.6	0.5	2	2.4	22.4	4.8	20.8	19.3	0.5	45.4	0.4	0.4	5.5	0.1	6.4	2.2	22.8	0.5	0.3	25.8	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Haskell Street  
 East-West: W Pine Street  
 Weather: Overcast, 65 deg  
 Vehicle: All Vehicles

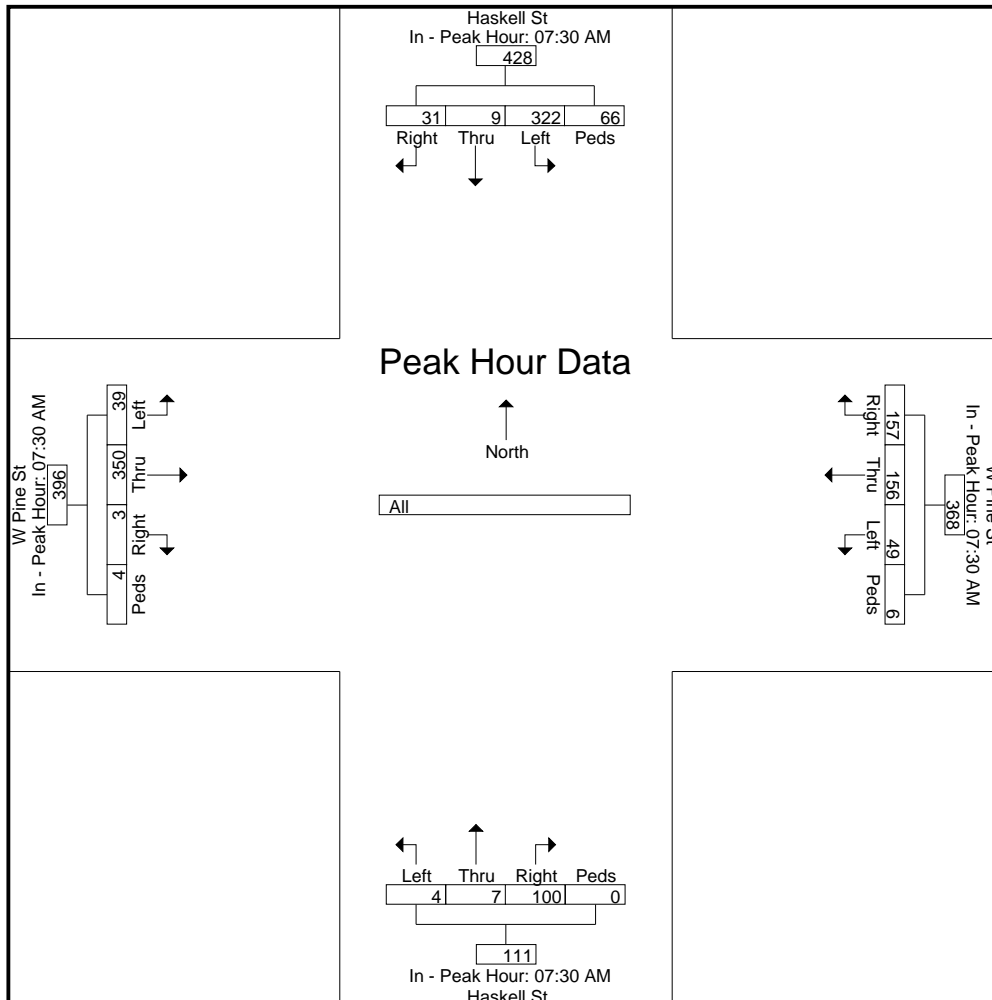
File Name : Haskell-Pine  
 Site Code : 00000002  
 Start Date : 9/17/2019  
 Page No : 2

Start Time	Haskell St From North					W Pine St From East					Haskell St From South					W Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	93	2	11	19	125	10	32	47	2	91	0	2	31	0	33	11	73	1	1	86
+15 mins.	80	4	7	29	120	18	45	54	3	120	1	5	31	0	37	20	113	1	0	134
+30 mins.	94	2	7	18	121	12	35	29	1	77	3	0	21	0	24	7	82	0	2	91
+45 mins.	55	1	6	0	62	9	44	27	0	80	0	0	17	0	17	1	82	1	1	85
Total Volume	322	9	31	66	428	49	156	157	6	368	4	7	100	0	111	39	350	3	4	396
% App. Total	75.2	2.1	7.2	15.4		13.3	42.4	42.7	1.6		3.6	6.3	90.1	0		9.8	88.4	0.8	1	
PHF	.856	.563	.705	.569	.856	.681	.867	.727	.500	.767	.333	.350	.806	.000	.750	.488	.774	.750	.500	.739



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Haskell Street  
 East-West: W Pine Street  
 Weather: Overcast, 65 deg  
 Vehicle: All Vehicles

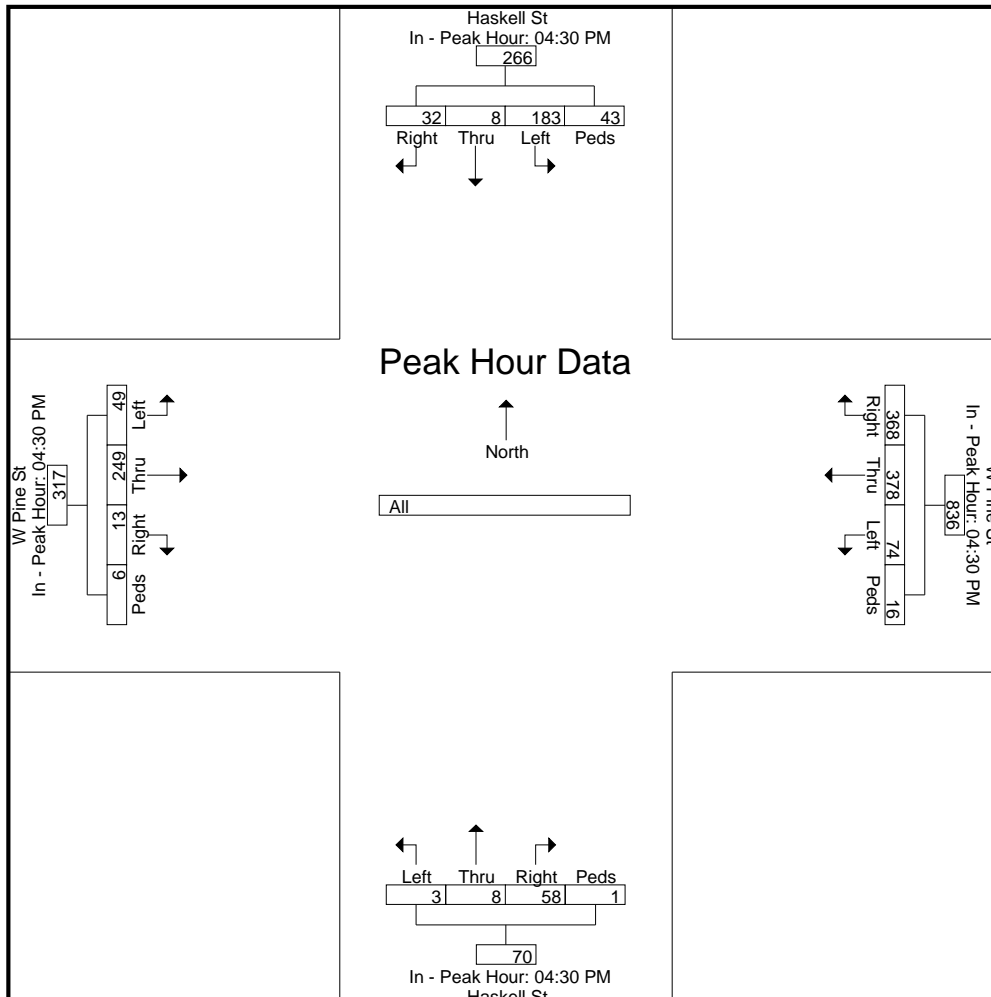
File Name : Haskell-Pine  
 Site Code : 00000002  
 Start Date : 9/17/2019  
 Page No : 3

Start Time	Haskell St From North					W Pine St From East					Haskell St From South					W Pine St From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	39	1	6	6	52	13	83	82	6	184	1	2	14	0	17	8	69	5	3	85
+15 mins.	37	1	4	5	47	21	97	78	0	196	0	4	11	1	16	14	55	1	1	71
+30 mins.	52	5	12	17	86	16	87	103	6	212	0	1	15	0	16	18	57	4	1	80
+45 mins.	55	1	10	15	81	24	111	105	4	244	2	1	18	0	21	9	68	3	1	81
Total Volume	183	8	32	43	266	74	378	368	16	836	3	8	58	1	70	49	249	13	6	317
% App. Total	68.8	3	12	16.2		8.9	45.2	44	1.9		4.3	11.4	82.9	1.4		15.5	78.5	4.1	1.9	
PHF	.832	.400	.667	.632	.773	.771	.851	.876	.667	.857	.375	.500	.806	.250	.833	.681	.902	.650	.500	.932



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: OR 99  
East-West: Beall Lane  
Weather: Sunny, warm  
Veh Type: All Vehicles

File Name : Beall-OR99  
Site Code : 00000003  
Start Date : 6/20/2019  
Page No : 1

**Groups Printed- Unshifted**

Start Time	OR 99 From North					Beall Ln From East					OR 99 From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:30 AM	3	83	2	0	88	27	0	10	0	37	14	37	8	0	59	6	5	31	0	42	226
06:45 AM	1	86	7	0	94	22	9	9	0	40	16	61	8	0	85	7	16	39	0	62	281
<b>Total</b>	<b>4</b>	<b>169</b>	<b>9</b>	<b>0</b>	<b>182</b>	<b>49</b>	<b>9</b>	<b>19</b>	<b>0</b>	<b>77</b>	<b>30</b>	<b>98</b>	<b>16</b>	<b>0</b>	<b>144</b>	<b>13</b>	<b>21</b>	<b>70</b>	<b>0</b>	<b>104</b>	<b>507</b>
07:00 AM	2	66	7	0	75	18	4	3	0	25	15	58	11	1	85	7	10	43	0	60	245
07:15 AM	2	81	3	0	86	37	6	14	0	57	9	60	19	0	88	12	15	58	0	85	316
07:30 AM	2	102	9	0	113	38	7	17	1	63	22	89	12	0	123	15	19	67	0	101	400
07:45 AM	8	111	8	1	128	31	17	11	2	61	19	103	12	0	134	17	12	71	1	101	424
<b>Total</b>	<b>14</b>	<b>360</b>	<b>27</b>	<b>1</b>	<b>402</b>	<b>124</b>	<b>34</b>	<b>45</b>	<b>3</b>	<b>206</b>	<b>65</b>	<b>310</b>	<b>54</b>	<b>1</b>	<b>430</b>	<b>51</b>	<b>56</b>	<b>239</b>	<b>1</b>	<b>347</b>	<b>1385</b>
08:00 AM	7	81	5	0	93	28	12	15	0	55	22	78	23	0	123	8	13	46	1	68	339
08:15 AM	14	105	7	0	126	23	9	11	1	44	20	79	18	0	117	8	16	39	1	64	351
08:30 AM	6	110	8	0	124	35	23	13	0	71	13	95	20	0	128	15	9	50	0	74	397
08:45 AM	7	96	9	0	112	26	13	11	0	50	33	82	15	0	130	15	17	37	0	69	361
<b>Total</b>	<b>34</b>	<b>392</b>	<b>29</b>	<b>0</b>	<b>455</b>	<b>112</b>	<b>57</b>	<b>50</b>	<b>1</b>	<b>220</b>	<b>88</b>	<b>334</b>	<b>76</b>	<b>0</b>	<b>498</b>	<b>46</b>	<b>55</b>	<b>172</b>	<b>2</b>	<b>275</b>	<b>1448</b>
09:00 AM	8	100	10	0	118	32	9	9	0	50	19	87	21	0	127	12	14	37	0	63	358
09:15 AM	7	68	7	0	82	25	13	6	0	44	14	61	9	0	84	12	13	39	0	64	274
*** BREAK ***																					
<b>Total</b>	<b>15</b>	<b>168</b>	<b>17</b>	<b>0</b>	<b>200</b>	<b>57</b>	<b>22</b>	<b>15</b>	<b>0</b>	<b>94</b>	<b>33</b>	<b>148</b>	<b>30</b>	<b>0</b>	<b>211</b>	<b>24</b>	<b>27</b>	<b>76</b>	<b>0</b>	<b>127</b>	<b>632</b>
*** BREAK ***																					
03:00 PM	10	119	9	1	139	24	21	15	0	60	39	171	34	0	244	11	16	25	0	52	495
03:15 PM	9	98	7	0	114	20	19	11	0	50	69	155	38	0	262	10	11	36	0	57	483
03:30 PM	11	130	13	1	155	37	22	10	0	69	44	144	41	0	229	13	12	33	0	58	511
03:45 PM	12	113	6	0	131	22	11	15	0	48	38	175	48	0	261	10	21	27	0	58	498
<b>Total</b>	<b>42</b>	<b>460</b>	<b>35</b>	<b>2</b>	<b>539</b>	<b>103</b>	<b>73</b>	<b>51</b>	<b>0</b>	<b>227</b>	<b>190</b>	<b>645</b>	<b>161</b>	<b>0</b>	<b>996</b>	<b>44</b>	<b>60</b>	<b>121</b>	<b>0</b>	<b>225</b>	<b>1987</b>
04:00 PM	7	127	13	0	147	29	22	16	0	67	54	161	34	0	249	7	13	31	0	51	514
04:15 PM	12	99	7	1	119	31	20	11	1	63	40	159	41	0	240	12	17	28	2	59	481
04:30 PM	6	116	12	0	134	22	23	12	0	57	39	148	48	0	235	9	24	35	0	68	494
04:45 PM	11	116	13	0	140	38	30	9	0	77	44	153	42	0	239	8	17	33	0	58	514
<b>Total</b>	<b>36</b>	<b>458</b>	<b>45</b>	<b>1</b>	<b>540</b>	<b>120</b>	<b>95</b>	<b>48</b>	<b>1</b>	<b>264</b>	<b>177</b>	<b>621</b>	<b>165</b>	<b>0</b>	<b>963</b>	<b>36</b>	<b>71</b>	<b>127</b>	<b>2</b>	<b>236</b>	<b>2003</b>
05:00 PM	10	98	20	0	128	28	36	17	0	81	67	165	43	0	275	5	16	23	0	44	528
05:15 PM	9	108	10	0	127	28	24	11	0	63	68	180	47	0	295	5	24	36	0	65	550
05:30 PM	7	116	10	0	133	38	27	5	0	70	68	150	46	0	264	9	13	41	0	63	530
05:45 PM	6	86	10	0	102	38	31	6	0	75	53	129	45	0	227	11	19	35	0	65	469
<b>Total</b>	<b>32</b>	<b>408</b>	<b>50</b>	<b>0</b>	<b>490</b>	<b>132</b>	<b>118</b>	<b>39</b>	<b>0</b>	<b>289</b>	<b>256</b>	<b>624</b>	<b>181</b>	<b>0</b>	<b>1061</b>	<b>30</b>	<b>72</b>	<b>135</b>	<b>0</b>	<b>237</b>	<b>2077</b>
Grand Total	177	2415	212	4	2808	697	408	267	5	1377	839	2780	683	1	4303	244	362	940	5	1551	10039
Apprch %	6.3	86	7.5	0.1		50.6	29.6	19.4	0.4		19.5	64.6	15.9	0		15.7	23.3	60.6	0.3		
Total %	1.8	24.1	2.1	0	28	6.9	4.1	2.7	0	13.7	8.4	27.7	6.8	0	42.9	2.4	3.6	9.4	0	15.4	



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: OR 99  
East-West: Beall Lane  
Weather: Sunny, warm  
Veh Type: All Vehicles

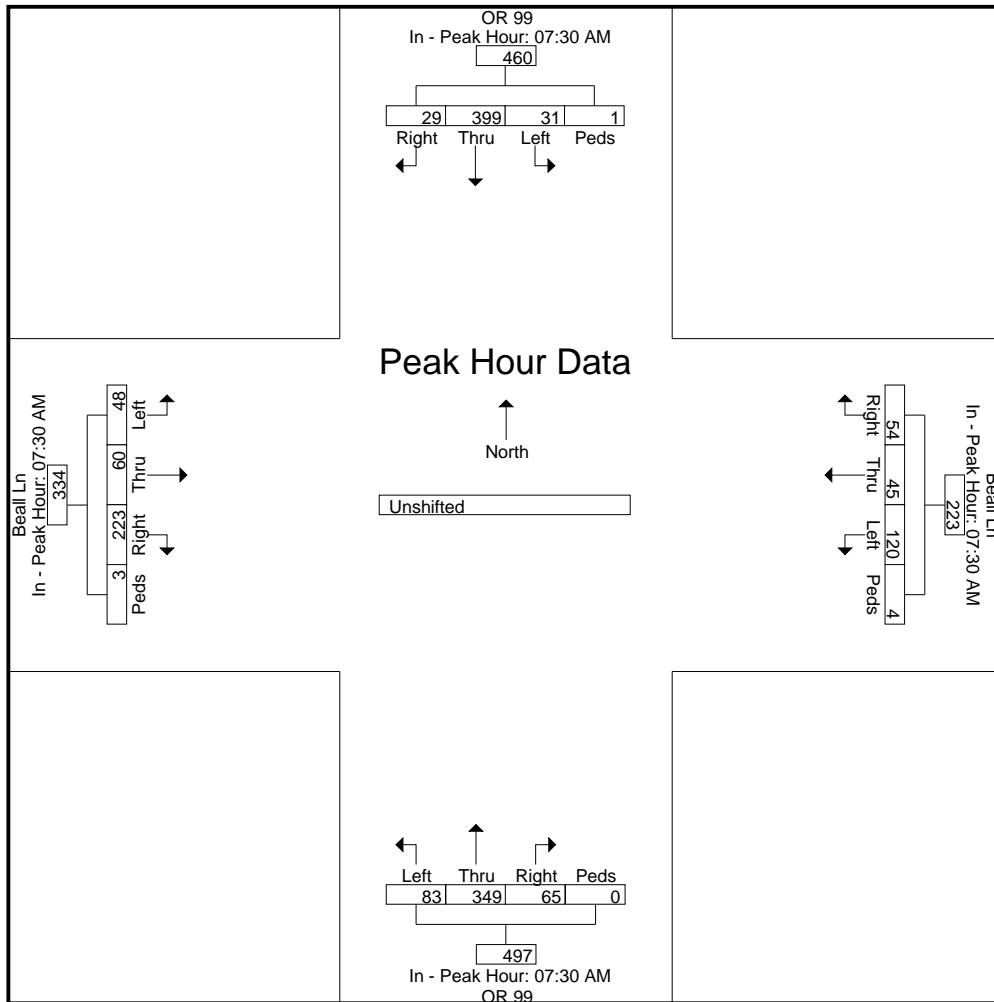
File Name : Beall-OR99  
Site Code : 00000003  
Start Date : 6/20/2019  
Page No : 2

Start Time	OR 99 From North					Beall Ln From East					OR 99 From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	2	102	9	0	113	38	7	17	1	63	22	89	12	0	123	15	19	67	0	101
+15 mins.	8	111	8	1	128	31	17	11	2	61	19	103	12	0	134	17	12	71	1	101
+30 mins.	7	81	5	0	93	28	12	15	0	55	22	78	23	0	123	8	13	46	1	68
+45 mins.	14	105	7	0	126	23	9	11	1	44	20	79	18	0	117	8	16	39	1	64
Total Volume	31	399	29	1	460	120	45	54	4	223	83	349	65	0	497	48	60	223	3	334
% App. Total	6.7	86.7	6.3	0.2		53.8	20.2	24.2	1.8		16.7	70.2	13.1	0		14.4	18	66.8	0.9	
PHF	.554	.899	.806	.250	.898	.789	.662	.794	.500	.885	.943	.847	.707	.000	.927	.706	.789	.785	.750	.827



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: OR 99  
East-West: Beall Lane  
Weather: Sunny, warm  
Veh Type: All Vehicles

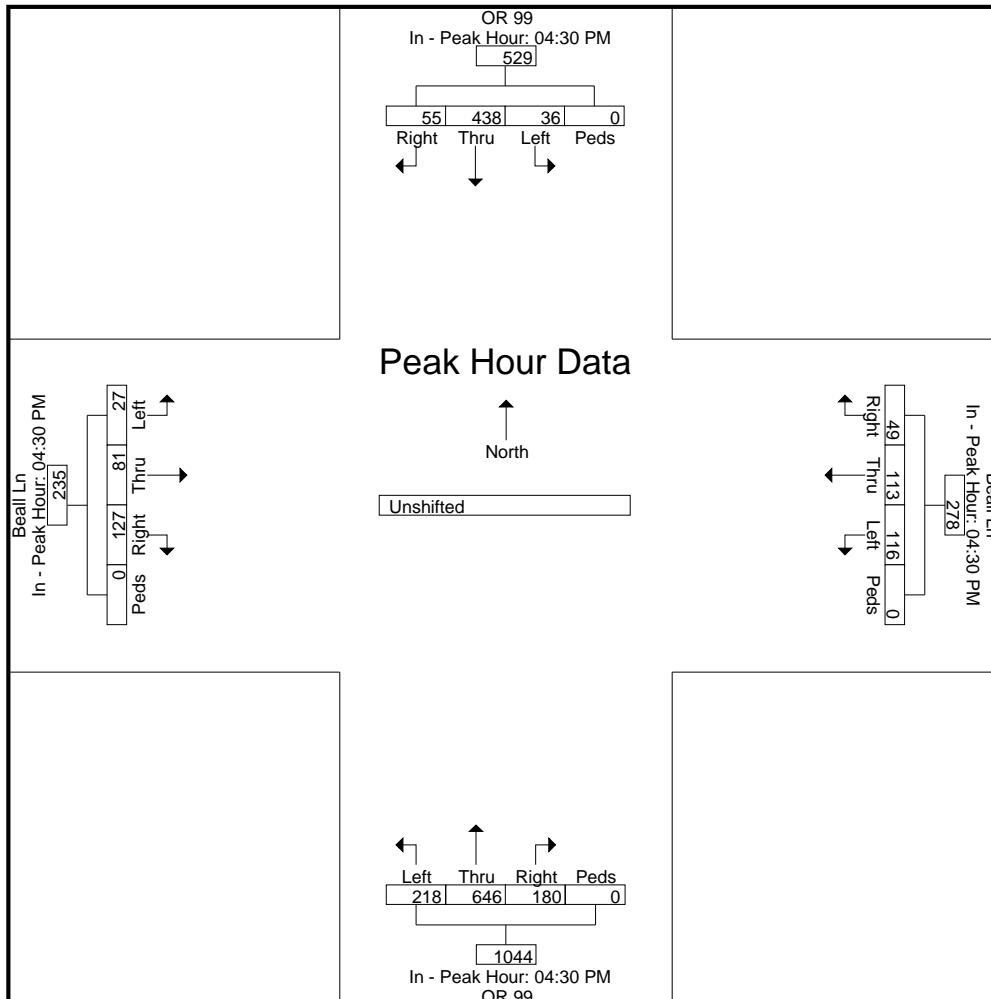
File Name : Beall-OR99  
Site Code : 00000003  
Start Date : 6/20/2019  
Page No : 3

Start Time	OR 99 From North					Beall Ln From East					OR 99 From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	6	116	12	0	134	22	23	12	0	57	39	148	48	0	235	9	24	35	0	68
+15 mins.	11	116	13	0	140	38	30	9	0	77	44	153	42	0	239	8	17	33	0	58
+30 mins.	10	98	20	0	128	28	36	17	0	81	67	165	43	0	275	5	16	23	0	44
+45 mins.	9	108	10	0	127	28	24	11	0	63	68	180	47	0	295	5	24	36	0	65
Total Volume	36	438	55	0	529	116	113	49	0	278	218	646	180	0	1044	27	81	127	0	235
% App. Total	6.8	82.8	10.4	0		41.7	40.6	17.6	0		20.9	61.9	17.2	0		11.5	34.5	54	0	
PHF	.818	.944	.688	.000	.945	.763	.785	.721	.000	.858	.801	.897	.938	.000	.885	.750	.844	.882	.000	.864



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Hanley Road  
East-West: Beall Lane  
Weather: Clear, Warm  
Vehicle: All Vehicles

File Name : Hanley-Beall  
Site Code : 00000001  
Start Date : 7/31/2019  
Page No : 1

### Groups Printed- All

Start Time	Hanley Rd From North					Beall Ln From East					Hanley Rd From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	20	3	3	26	6	9	4	0	19	7	14	3	0	24	2	16	9	0	27	96
07:15 AM	5	17	2	1	25	12	5	4	1	22	5	15	8	0	28	3	19	8	0	30	105
07:30 AM	5	32	2	0	39	9	9	2	0	20	8	22	10	0	40	9	26	16	0	51	150
07:45 AM	8	36	6	0	50	11	10	3	2	26	4	16	12	0	32	4	38	18	0	60	168
Total	18	105	13	4	140	38	33	13	3	87	24	67	33	0	124	18	99	51	0	168	519
08:00 AM	3	22	2	0	27	8	7	0	0	15	7	22	2	0	31	4	23	8	0	35	108
08:15 AM	3	15	5	0	23	12	12	0	1	25	1	15	12	0	28	11	17	9	0	37	113
08:30 AM	1	12	7	0	20	12	11	3	0	26	4	22	5	0	31	3	24	7	0	34	111
08:45 AM	7	20	4	0	31	9	13	3	1	26	10	26	5	0	41	8	22	11	0	41	139
Total	14	69	18	0	101	41	43	6	2	92	22	85	24	0	131	26	86	35	0	147	471
*** BREAK ***																					
04:00 PM	4	24	6	0	34	13	27	3	0	43	11	29	16	0	56	9	19	9	1	38	171
04:15 PM	2	27	11	0	40	13	20	4	1	38	12	35	14	0	61	4	18	10	0	32	171
04:30 PM	6	33	6	0	45	18	25	9	0	52	16	26	11	0	53	4	18	8	0	30	180
04:45 PM	3	39	13	0	55	13	28	8	0	49	11	29	8	0	48	3	13	7	0	23	175
Total	15	123	36	0	174	57	100	24	1	182	50	119	49	0	218	20	68	34	1	123	697
05:00 PM	5	24	7	0	36	16	26	4	0	46	15	37	14	0	66	7	18	10	0	35	183
05:15 PM	4	34	20	0	58	6	38	14	0	58	20	27	8	0	55	4	20	13	0	37	208
05:30 PM	2	18	9	1	30	17	28	3	0	48	21	26	10	0	57	4	33	12	0	49	184
05:45 PM	3	20	7	1	31	10	30	4	0	44	14	19	7	0	40	3	20	10	0	33	148
Total	14	96	43	2	155	49	122	25	0	196	70	109	39	0	218	18	91	45	0	154	723
Grand Total	61	393	110	6	570	185	298	68	6	557	166	380	145	0	691	82	344	165	1	592	2410
Apprch %	10.7	68.9	19.3	1.1		33.2	53.5	12.2	1.1		24	55	21	0		13.9	58.1	27.9	0.2		
Total %	2.5	16.3	4.6	0.2	23.7	7.7	12.4	2.8	0.2	23.1	6.9	15.8	6	0	28.7	3.4	14.3	6.8	0	24.6	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: Hanley Road  
East-West: Beall Lane  
Weather: Clear, Warm  
Vehicle: All Vehicles

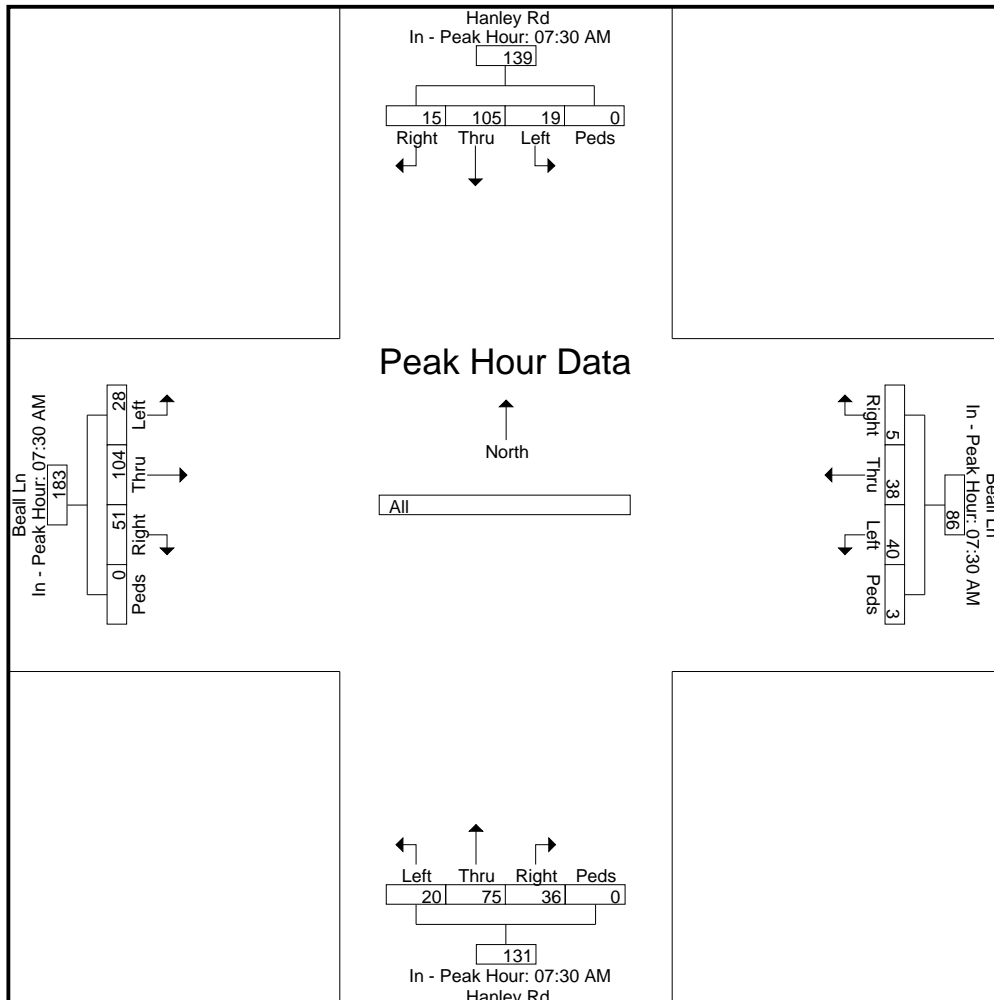
File Name : Hanley-Beall  
Site Code : 00000001  
Start Date : 7/31/2019  
Page No : 2

Start Time	Hanley Rd From North					Beall Ln From East					Hanley Rd From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	5	32	2	0	39	9	9	2	0	20	8	22	10	0	40	9	26	16	0	51
+15 mins.	8	36	6	0	50	11	10	3	2	26	4	16	12	0	32	4	38	18	0	60
+30 mins.	3	22	2	0	27	8	7	0	0	15	7	22	2	0	31	4	23	8	0	35
+45 mins.	3	15	5	0	23	12	12	0	1	25	1	15	12	0	28	11	17	9	0	37
Total Volume	19	105	15	0	139	40	38	5	3	86	20	75	36	0	131	28	104	51	0	183
% App. Total	13.7	75.5	10.8	0		46.5	44.2	5.8	3.5		15.3	57.3	27.5	0		15.3	56.8	27.9	0	
PHF	.594	.729	.625	.000	.695	.833	.792	.417	.375	.827	.625	.852	.750	.000	.819	.636	.684	.708	.000	.763



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North-South: Hanley Road  
East-West: Beall Lane  
Weather: Clear, Warm  
Vehicle: All Vehicles

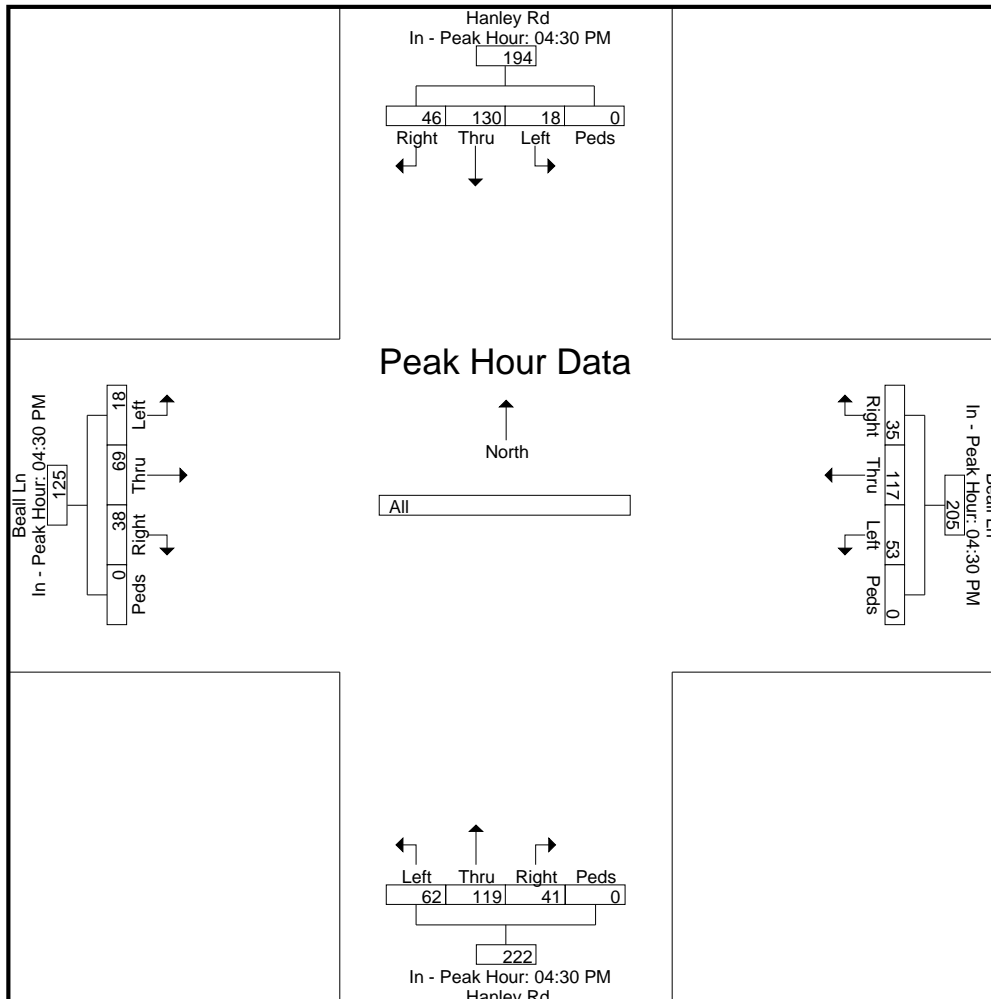
File Name : Hanley-Beall  
Site Code : 00000001  
Start Date : 7/31/2019  
Page No : 3

Start Time	Hanley Rd From North					Beall Ln From East					Hanley Rd From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	6	33	6	0	45	18	25	9	0	52	16	26	11	0	53	4	18	8	0	30
+15 mins.	3	39	13	0	55	13	28	8	0	49	11	29	8	0	48	3	13	7	0	23
+30 mins.	5	24	7	0	36	16	26	4	0	46	15	37	14	0	66	7	18	10	0	35
+45 mins.	4	34	20	0	58	6	38	14	0	58	20	27	8	0	55	4	20	13	0	37
Total Volume	18	130	46	0	194	53	117	35	0	205	62	119	41	0	222	18	69	38	0	125
% App. Total	9.3	67	23.7	0		25.9	57.1	17.1	0		27.9	53.6	18.5	0		14.4	55.2	30.4	0	
PHF	.750	.833	.575	.000	.836	.736	.770	.625	.000	.884	.775	.804	.732	.000	.841	.643	.863	.731	.000	.845



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Grant Rd  
East-West: Beall Ln  
Weather: Warm, Clear  
Vehicle: All Vehicles

File Name : Beall-Grant  
Site Code : 00000005  
Start Date : 8/8/2019  
Page No : 1

### Groups Printed- All

Start Time	Grant Rd From North					Beall Ln From East					From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	11	0	1	0	12	0	16	8	0	24	0	0	0	0	0	0	24	0	0	24	60
07:15 AM	9	0	1	0	10	0	15	7	0	22	0	0	0	0	0	0	30	0	0	30	62
07:30 AM	13	0	2	0	15	0	18	6	0	24	0	0	0	0	0	1	39	0	0	40	79
07:45 AM	14	0	0	0	14	0	15	8	0	23	0	0	0	0	0	1	45	0	0	46	83
Total	47	0	4	0	51	0	64	29	0	93	0	0	0	0	0	2	138	0	0	140	284
08:00 AM	12	0	1	0	13	0	11	8	0	19	0	0	0	0	0	2	25	0	0	27	59
08:15 AM	11	0	0	0	11	0	14	7	0	21	0	0	0	0	0	0	38	0	0	38	70
08:30 AM	12	0	1	0	13	0	17	8	0	25	0	0	0	0	0	0	31	1	1	33	71
08:45 AM	6	0	2	0	8	0	6	5	0	11	0	0	0	0	0	1	13	0	0	14	33
Total	41	0	4	0	45	0	48	28	0	76	0	0	0	0	0	3	107	1	1	112	233
*** BREAK ***																					
04:00 PM	12	0	0	0	12	0	33	17	0	50	0	0	0	0	0	0	15	1	0	16	78
04:15 PM	10	0	1	0	11	0	33	17	0	50	0	0	0	0	0	0	23	0	1	24	85
04:30 PM	5	0	1	0	6	0	34	12	1	47	0	0	0	0	0	0	26	0	0	26	79
04:45 PM	20	0	0	0	20	0	26	25	0	51	0	0	0	0	0	0	24	0	0	24	95
Total	47	0	2	0	49	0	126	71	1	198	0	0	0	0	0	0	88	1	1	90	337
05:00 PM	11	0	1	0	12	1	40	13	0	54	0	0	0	0	0	0	17	0	0	17	83
05:15 PM	12	0	2	0	14	0	55	25	0	80	0	0	0	0	0	1	17	0	0	18	112
05:30 PM	13	0	3	0	16	0	39	19	0	58	0	0	0	0	0	0	40	1	0	41	115
05:45 PM	12	0	0	0	12	0	40	21	0	61	0	0	0	0	0	1	23	0	0	24	97
Total	48	0	6	0	54	1	174	78	0	253	0	0	0	0	0	2	97	1	0	100	407
Grand Total	183	0	16	0	199	1	412	206	1	620	0	0	0	0	0	7	430	3	2	442	1261
Apprch %	92	0	8	0		0.2	66.5	33.2	0.2		0	0	0	0		1.6	97.3	0.7	0.5		
Total %	14.5	0	1.3	0	15.8	0.1	32.7	16.3	0.1	49.2	0	0	0	0	0	0.6	34.1	0.2	0.2	35.1	

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North-South: Grant Rd  
East-West: Beall Ln  
Weather: Warm, Clear  
Vehicle: All Vehicles

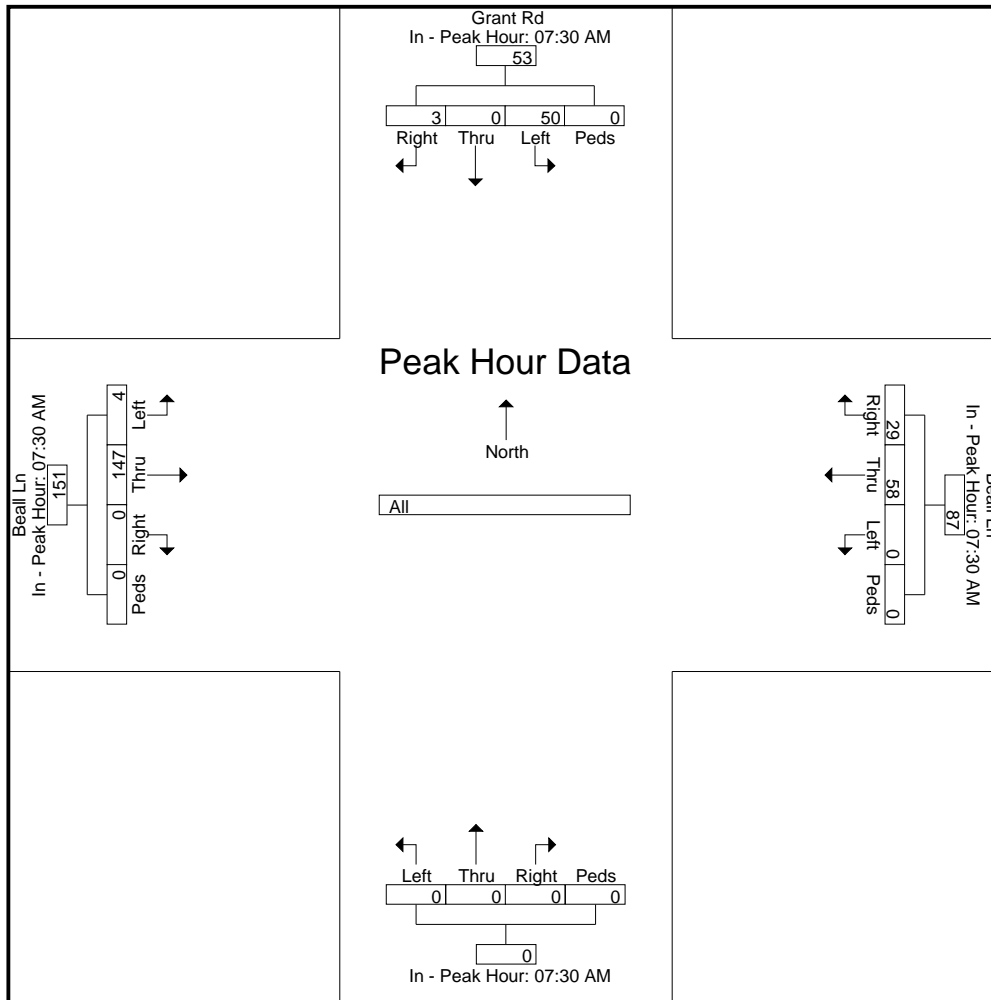
File Name : Beall-Grant  
Site Code : 00000005  
Start Date : 8/8/2019  
Page No : 2

Start Time	Grant Rd From North					Beall Ln From East					From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	13	0	2	0	15	0	18	6	0	24	0	0	0	0	0	1	39	0	0	40
+15 mins.	14	0	0	0	14	0	15	8	0	23	0	0	0	0	0	1	45	0	0	46
+30 mins.	12	0	1	0	13	0	11	8	0	19	0	0	0	0	0	2	25	0	0	27
+45 mins.	11	0	0	0	11	0	14	7	0	21	0	0	0	0	0	0	38	0	0	38
Total Volume	50	0	3	0	53	0	58	29	0	87	0	0	0	0	0	4	147	0	0	151
% App. Total	94.3	0	5.7	0		0	66.7	33.3	0		0	0	0	0		2.6	97.4	0	0	
PHF	.893	.000	.375	.000	.883	.000	.806	.906	.000	.906	.000	.000	.000	.000	.000	.500	.817	.000	.000	.821



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North-South: Grant Rd  
East-West: Beall Ln  
Weather: Warm, Clear  
Vehicle: All Vehicles

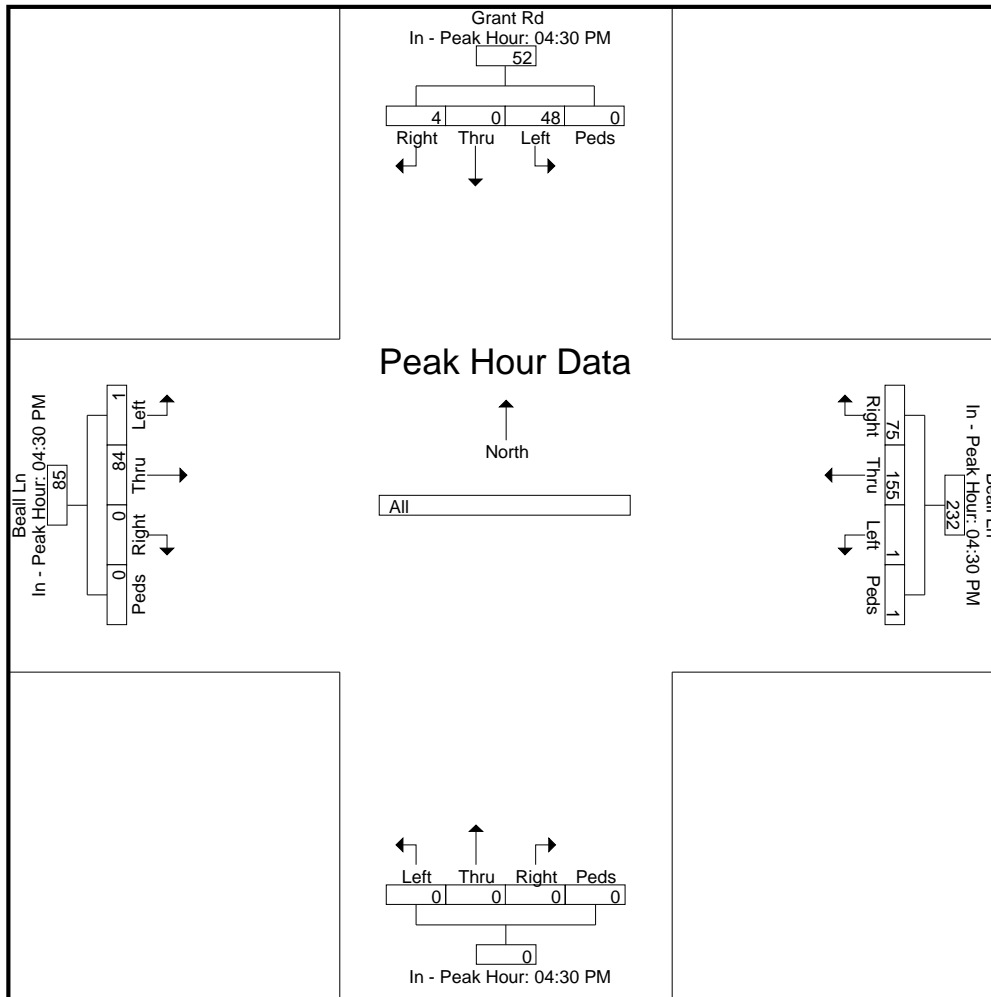
File Name : Beall-Grant  
Site Code : 00000005  
Start Date : 8/8/2019  
Page No : 3

Start Time	Grant Rd From North					Beall Ln From East					From South					Beall Ln From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	5	0	1	0	6	0	34	12	1	47	0	0	0	0	0	0	26	0	0	26
+15 mins.	20	0	0	0	20	0	26	25	0	51	0	0	0	0	0	0	24	0	0	24
+30 mins.	11	0	1	0	12	1	40	13	0	54	0	0	0	0	0	0	17	0	0	17
+45 mins.	12	0	2	0	14	0	55	25	0	80	0	0	0	0	0	1	17	0	0	18
Total Volume	48	0	4	0	52	1	155	75	1	232	0	0	0	0	0	1	84	0	0	85
% App. Total	92.3	0	7.7	0		0.4	66.8	32.3	0.4		0	0	0	0		1.2	98.8	0	0	
PHF	.600	.000	.500	.000	.650	.250	.705	.750	.250	.725	.000	.000	.000	.000	.000	.250	.808	.000	.000	.817





# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Grant Rd (south leg)  
 East-West: Taylor Rd  
 Weather: Clear, Hot  
 Vehicle: All Vehicles

File Name : Tayloy-Grant(south)  
 Site Code : 00000002  
 Start Date : 8/7/2019  
 Page No : 1

**Groups Printed- All**

Start Time	From North					Taylor From East					S Grant From South					Taylor From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	0	0	0	0	1	4	0	0	5	7	0	1	1	9	0	8	3	0	11	25
07:15 AM	0	0	0	0	0	3	6	0	0	9	5	0	1	0	6	0	10	6	0	16	31
07:30 AM	0	0	0	0	0	0	6	0	0	6	8	0	4	0	12	0	9	7	0	16	34
07:45 AM	0	0	0	0	0	4	4	0	0	8	8	0	4	0	12	0	11	2	0	13	33
<b>Total</b>	0	0	0	0	0	8	20	0	0	28	28	0	10	1	39	0	38	18	0	56	123
08:00 AM	0	0	0	0	0	1	6	0	0	7	5	0	4	0	9	0	19	8	0	27	43
08:15 AM	0	0	0	0	0	2	9	0	0	11	4	0	1	0	5	0	9	1	0	10	26
08:30 AM	0	0	0	0	0	1	10	0	0	11	4	0	4	0	8	0	10	4	0	14	33
08:45 AM	0	0	0	0	0	3	12	0	0	15	11	0	2	0	13	0	18	7	0	25	53
<b>Total</b>	0	0	0	0	0	7	37	0	0	44	24	0	11	0	35	0	56	20	0	76	155
*** BREAK ***																					
04:00 PM	0	0	0	0	0	5	15	0	0	20	7	0	1	1	9	0	10	8	0	18	47
04:15 PM	0	0	0	0	0	6	16	0	0	22	9	0	3	0	12	0	11	8	0	19	53
04:30 PM	0	0	0	0	0	3	16	0	0	19	4	0	3	0	7	0	9	8	0	17	43
04:45 PM	0	0	0	0	0	5	20	0	0	25	7	0	6	0	13	0	8	11	0	19	57
<b>Total</b>	0	0	0	0	0	19	67	0	0	86	27	0	13	1	41	0	38	35	0	73	200
05:00 PM	0	0	0	0	0	3	14	0	0	17	8	0	5	0	13	0	8	12	0	20	50
05:15 PM	0	0	0	0	0	4	16	0	0	20	10	0	3	0	13	0	19	9	0	28	61
05:30 PM	0	0	0	0	0	5	14	0	0	19	6	0	6	0	12	0	17	9	0	26	57
05:45 PM	0	0	0	0	0	5	20	0	0	25	11	0	4	0	15	0	12	3	0	15	55
<b>Total</b>	0	0	0	0	0	17	64	0	0	81	35	0	18	0	53	0	56	33	0	89	223
<b>Grand Total</b>	0	0	0	0	0	51	188	0	0	239	114	0	52	2	168	0	188	106	0	294	701
<b>Apprch %</b>	0	0	0	0		21.3	78.7	0	0		67.9	0	31	1.2		0	63.9	36.1	0		
<b>Total %</b>	0	0	0	0	0	7.3	26.8	0	0	34.1	16.3	0	7.4	0.3	24	0	26.8	15.1	0	41.9	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Grant Rd (south leg)  
 East-West: Taylor Rd  
 Weather: Clear, Hot  
 Vehicle: All Vehicles

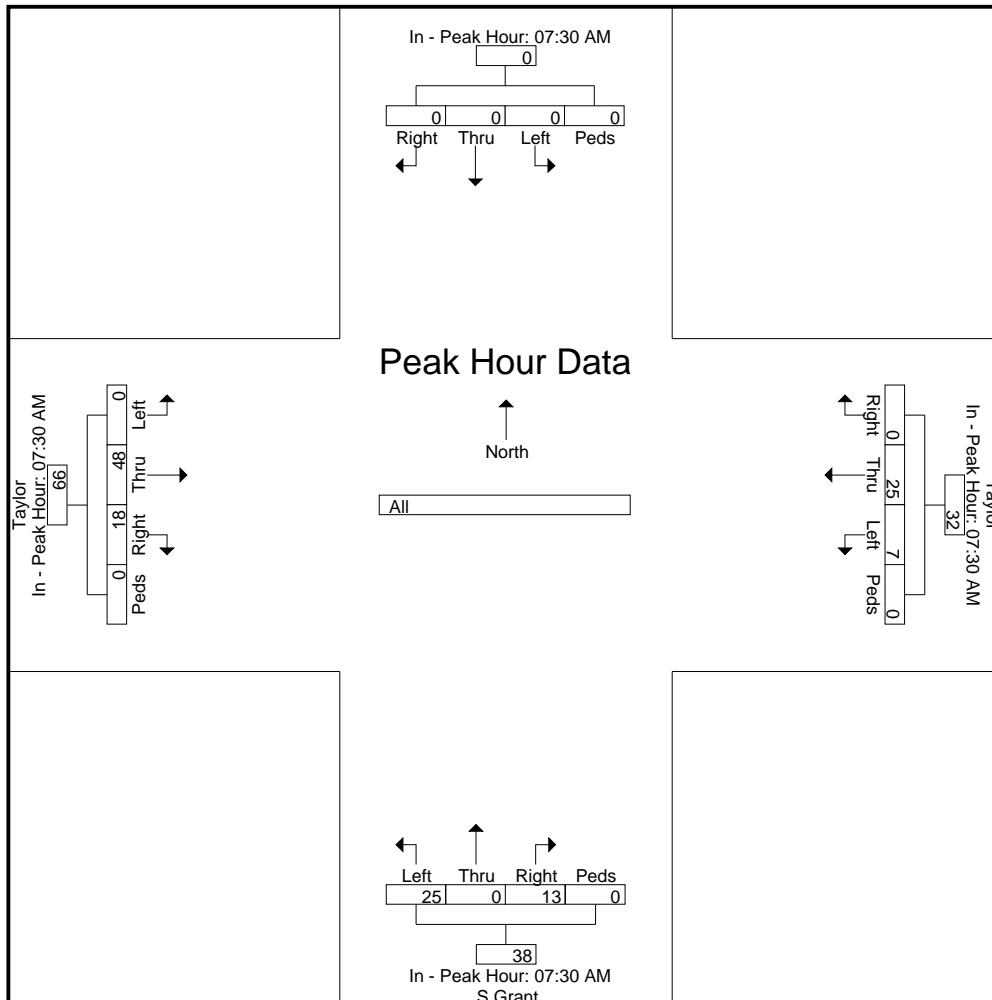
File Name : Tayloy-Grant(south)  
 Site Code : 00000002  
 Start Date : 8/7/2019  
 Page No : 2

Start Time	From North					Taylor From East					S Grant From South					Taylor From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	0	0	0	0	0	0	6	0	0	6	8	0	4	0	12	0	9	7	0	16
+15 mins.	0	0	0	0	0	4	4	0	0	8	8	0	4	0	12	0	11	2	0	13
+30 mins.	0	0	0	0	0	1	6	0	0	7	5	0	4	0	9	0	19	8	0	27
+45 mins.	0	0	0	0	0	2	9	0	0	11	4	0	1	0	5	0	9	1	0	10
Total Volume	0	0	0	0	0	7	25	0	0	32	25	0	13	0	38	0	48	18	0	66
% App. Total	0	0	0	0	0	21.9	78.1	0	0		65.8	0	34.2	0		0	72.7	27.3	0	
PHF	.000	.000	.000	.000	.000	.438	.694	.000	.000	.727	.781	.000	.813	.000	.792	.000	.632	.563	.000	.611



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North-South: Grant Rd (south leg)  
 East-West: Taylor Rd  
 Weather: Clear, Hot  
 Vehicle: All Vehicles

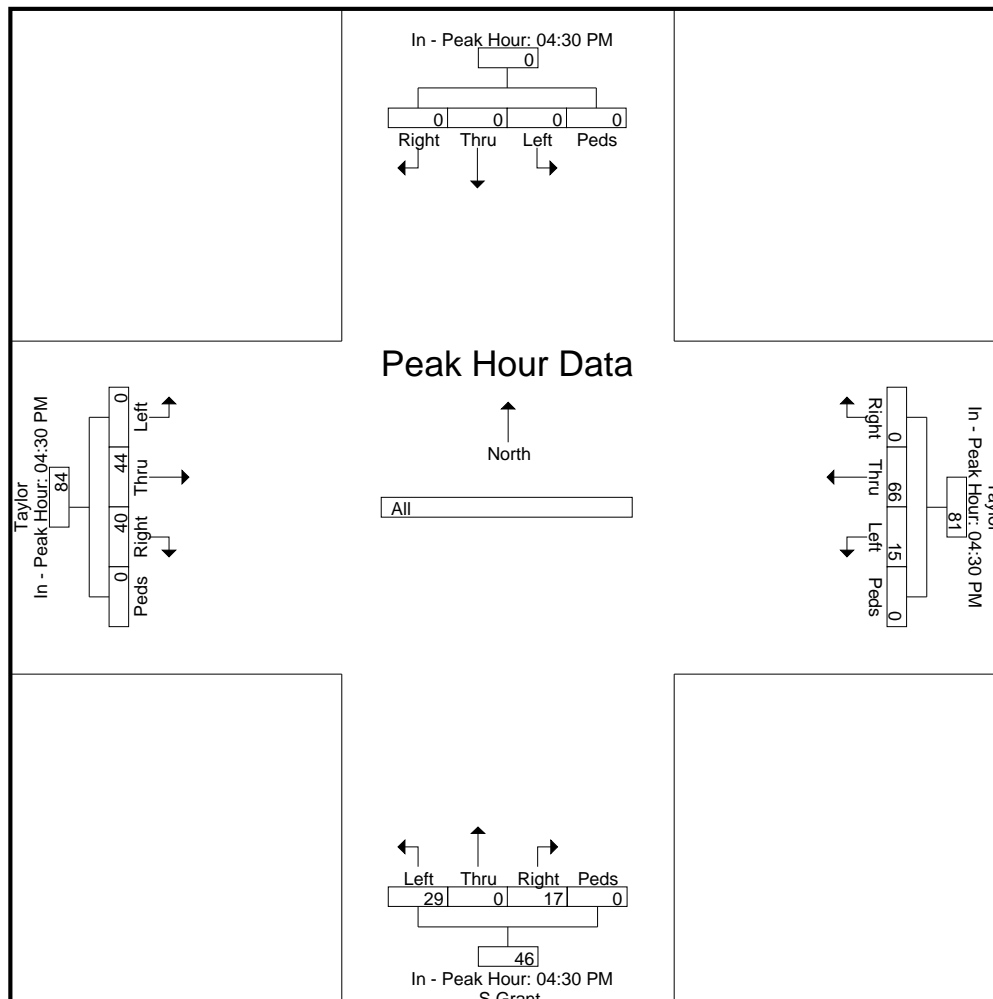
File Name : Tayloy-Grant(south)  
 Site Code : 00000002  
 Start Date : 8/7/2019  
 Page No : 3

Start Time	From North					Taylor From East					S Grant From South					Taylor From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	0	0	0	0	0	3	16	0	0	19	4	0	3	0	7	0	9	8	0	17
+15 mins.	0	0	0	0	0	5	20	0	0	25	7	0	6	0	13	0	8	11	0	19
+30 mins.	0	0	0	0	0	3	14	0	0	17	8	0	5	0	13	0	8	12	0	20
+45 mins.	0	0	0	0	0	4	16	0	0	20	10	0	3	0	13	0	19	9	0	28
Total Volume	0	0	0	0	0	15	66	0	0	81	29	0	17	0	46	0	44	40	0	84
% App. Total	0	0	0	0	0	18.5	81.5	0	0		63	0	37	0		0	52.4	47.6	0	
PHF	.000	.000	.000	.000	.000	.750	.825	.000	.000	.810	.725	.000	.708	.000	.885	.000	.579	.833	.000	.750



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Grant Rd (north)  
East-West: Taylor Rd  
Weather: Clear, Hot  
Vehicle: All Vehicles

File Name : Tayloy-Grant(north)  
Site Code : 00000001  
Start Date : 8/7/2019  
Page No : 1

### Groups Printed- All

Start Time	N Grant Rd From North					Taylor Rd From East					From South					Taylor Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	3	0	2	0	5	0	1	9	0	10	0	0	0	1	1	0	7	0	0	7	23
07:15 AM	5	0	1	0	6	0	4	7	0	11	0	0	0	0	0	0	11	0	0	11	28
07:30 AM	10	0	2	0	12	0	1	13	0	14	0	0	0	0	0	0	6	0	0	6	32
07:45 AM	5	0	1	0	6	0	3	9	0	12	0	0	0	0	0	1	8	0	0	9	27
<b>Total</b>	<b>23</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>9</b>	<b>38</b>	<b>0</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>32</b>	<b>0</b>	<b>0</b>	<b>33</b>	<b>110</b>
08:00 AM	9	0	1	0	10	0	8	3	0	11	0	0	0	0	0	2	18	0	0	20	41
08:15 AM	3	0	2	0	5	0	9	4	0	13	0	0	0	0	0	1	7	0	0	8	26
08:30 AM	3	0	1	0	4	0	6	8	0	14	0	0	0	0	0	3	10	0	0	13	31
08:45 AM	8	0	10	0	18	0	17	7	0	24	0	0	0	0	0	3	20	0	0	23	65
<b>Total</b>	<b>23</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>37</b>	<b>0</b>	<b>40</b>	<b>22</b>	<b>0</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>64</b>	<b>163</b>
*** BREAK ***																					
04:00 PM	11	0	10	0	21	0	15	9	0	24	0	0	0	0	0	4	9	0	0	13	58
04:15 PM	11	0	2	0	13	0	17	9	0	26	0	0	0	0	0	3	8	0	0	11	50
04:30 PM	4	0	3	0	7	0	10	10	0	20	0	0	0	0	0	0	13	0	0	13	40
04:45 PM	16	0	3	0	19	0	17	11	0	28	0	0	0	0	0	5	6	0	0	11	58
<b>Total</b>	<b>42</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>60</b>	<b>0</b>	<b>59</b>	<b>39</b>	<b>0</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>48</b>	<b>206</b>
05:00 PM	10	0	4	0	14	0	16	8	0	24	0	0	0	0	0	2	8	0	0	10	48
05:15 PM	7	0	4	0	11	0	18	8	0	26	0	0	0	0	0	4	19	0	0	23	60
05:30 PM	14	0	6	0	20	0	13	9	0	22	0	0	0	0	0	0	12	0	0	12	54
05:45 PM	8	0	3	0	11	0	16	15	0	31	0	0	0	0	0	3	7	0	0	10	52
<b>Total</b>	<b>39</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>63</b>	<b>40</b>	<b>0</b>	<b>103</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>46</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>214</b>
Grand Total	127	0	55	0	182	0	171	139	0	310	0	0	0	1	1	31	169	0	0	200	693
Apprch %	69.8	0	30.2	0		0	55.2	44.8	0		0	0	0	100		15.5	84.5	0	0		
Total %	18.3	0	7.9	0	26.3	0	24.7	20.1	0	44.7	0	0	0	0.1	0.1	4.5	24.4	0	0	28.9	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: Grant Rd (north)  
East-West: Taylor Rd  
Weather: Clear, Hot  
Vehicle: All Vehicles

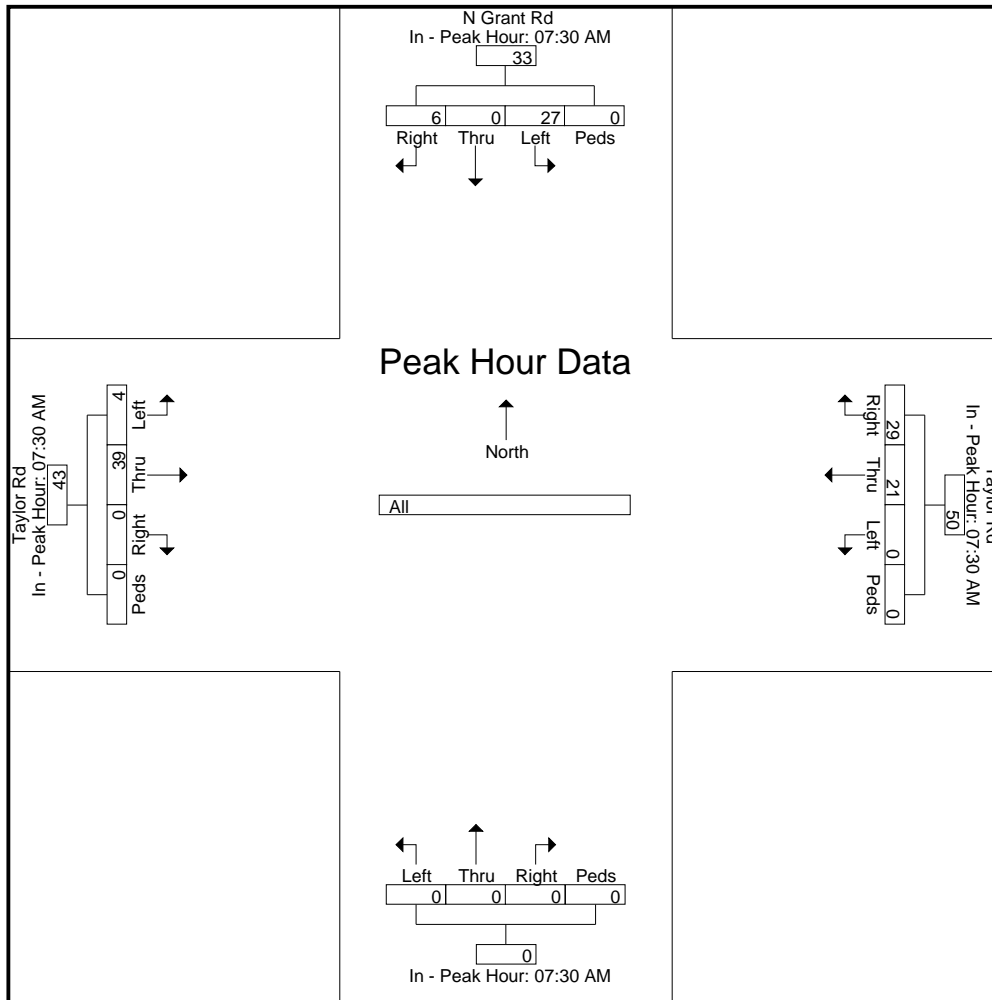
File Name : Tayloy-Grant(north)  
Site Code : 00000001  
Start Date : 8/7/2019  
Page No : 2

Start Time	N Grant Rd From North					Taylor Rd From East					From South					Taylor Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	10	0	2	0	12	0	1	13	0	14	0	0	0	0	0	0	6	0	0	6
+15 mins.	5	0	1	0	6	0	3	9	0	12	0	0	0	0	0	1	8	0	0	9
+30 mins.	9	0	1	0	10	0	8	3	0	11	0	0	0	0	0	2	18	0	0	20
+45 mins.	3	0	2	0	5	0	9	4	0	13	0	0	0	0	0	1	7	0	0	8
Total Volume	27	0	6	0	33	0	21	29	0	50	0	0	0	0	0	4	39	0	0	43
% App. Total	81.8	0	18.2	0		0	42	58	0		0	0	0	0		9.3	90.7	0	0	
PHF	.675	.000	.750	.000	.688	.000	.583	.558	.000	.893	.000	.000	.000	.000	.000	.500	.542	.000	.000	.538



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Grant Rd (north)  
 East-West: Taylor Rd  
 Weather: Clear, Hot  
 Vehicle: All Vehicles

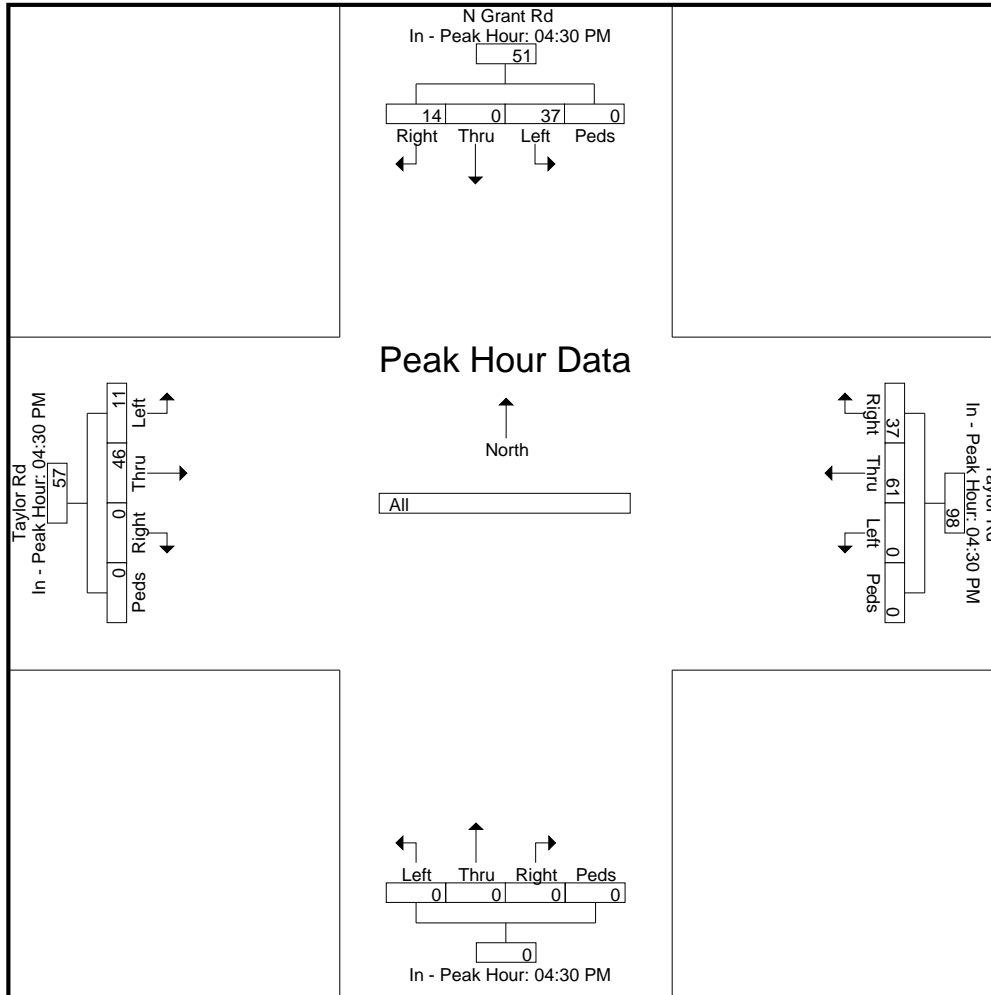
File Name : Tayloy-Grant(north)  
 Site Code : 00000001  
 Start Date : 8/7/2019  
 Page No : 3

Start Time	N Grant Rd From North					Taylor Rd From East					From South					Taylor Rd From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	4	0	3	0	7	0	10	10	0	20	0	0	0	0	0	0	13	0	0	13
+15 mins.	16	0	3	0	19	0	17	11	0	28	0	0	0	0	0	5	6	0	0	11
+30 mins.	10	0	4	0	14	0	16	8	0	24	0	0	0	0	0	2	8	0	0	10
+45 mins.	7	0	4	0	11	0	18	8	0	26	0	0	0	0	0	4	19	0	0	23
Total Volume	37	0	14	0	51	0	61	37	0	98	0	0	0	0	0	11	46	0	0	57
% App. Total	72.5	0	27.5	0		0	62.2	37.8	0		0	0	0	0	0	19.3	80.7	0	0	
PHF	.578	.000	.875	.000	.671	.000	.847	.841	.000	.875	.000	.000	.000	.000	.000	.550	.605	.000	.000	.620



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Grant Road  
East-West: Twin Creeks Crossing  
Weather: Warm, Clear  
Vehicle: All Vehicles

File Name : Twin Creeks-Grant  
Site Code : 00000002  
Start Date : 9/11/2019  
Page No : 1

### Groups Printed- All

Start Time	Grant Rd From North					Twin Creeks From East					Grant Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	1	3	0	0	4	1	0	0	0	1	0	6	2	1	9	0	1	0	0	1	15
07:15 AM	5	8	0	0	13	6	0	2	0	8	0	13	1	1	15	0	0	0	0	0	36
07:30 AM	5	9	0	0	14	5	0	2	0	7	0	10	1	0	11	0	0	0	0	0	32
07:45 AM	1	5	0	0	6	3	0	4	0	7	0	10	1	0	11	0	0	0	0	0	24
<b>Total</b>	<b>12</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>37</b>	<b>15</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>39</b>	<b>5</b>	<b>2</b>	<b>46</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>107</b>
08:00 AM	3	6	0	0	9	3	0	2	0	5	0	5	3	0	8	0	0	0	0	0	22
08:15 AM	2	7	0	0	9	2	0	4	0	6	0	7	6	0	13	0	0	0	0	0	28
08:30 AM	1	5	0	0	6	0	0	3	0	3	0	2	3	0	5	0	0	0	0	0	14
08:45 AM	1	6	0	0	7	1	0	0	0	1	1	3	0	0	4	0	0	0	0	0	12
<b>Total</b>	<b>7</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>31</b>	<b>6</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>15</b>	<b>1</b>	<b>17</b>	<b>12</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>76</b>
*** BREAK ***																					
04:00 PM	6	22	0	0	28	2	0	0	0	2	0	9	2	0	11	0	0	0	1	1	42
04:15 PM	4	12	0	0	16	0	1	3	0	4	0	8	4	0	12	0	1	0	1	2	34
04:30 PM	4	11	0	0	15	4	0	3	0	7	0	6	1	0	7	0	1	0	0	1	30
04:45 PM	5	12	0	0	17	1	0	2	0	3	0	8	3	0	11	0	0	0	0	0	31
<b>Total</b>	<b>19</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>76</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>31</b>	<b>10</b>	<b>0</b>	<b>41</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>137</b>
05:00 PM	13	22	0	0	35	1	0	3	0	4	0	10	4	1	15	0	0	0	0	0	54
05:15 PM	5	12	0	0	17	1	0	4	0	5	0	11	1	0	12	0	0	0	2	2	36
05:30 PM	5	12	0	0	17	3	0	6	0	9	0	10	2	0	12	0	0	0	0	0	38
05:45 PM	6	16	0	0	22	1	0	6	0	7	0	8	4	0	12	0	0	0	0	0	41
<b>Total</b>	<b>29</b>	<b>62</b>	<b>0</b>	<b>0</b>	<b>91</b>	<b>6</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>39</b>	<b>11</b>	<b>1</b>	<b>51</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>169</b>
<b>Grand Total</b>	<b>67</b>	<b>168</b>	<b>0</b>	<b>0</b>	<b>235</b>	<b>34</b>	<b>1</b>	<b>44</b>	<b>0</b>	<b>79</b>	<b>1</b>	<b>126</b>	<b>38</b>	<b>3</b>	<b>168</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>489</b>
<b>Apprch %</b>	<b>28.5</b>	<b>71.5</b>	<b>0</b>	<b>0</b>		<b>43</b>	<b>1.3</b>	<b>55.7</b>	<b>0</b>		<b>0.6</b>	<b>75</b>	<b>22.6</b>	<b>1.8</b>		<b>0</b>	<b>42.9</b>	<b>0</b>	<b>57.1</b>		
<b>Total %</b>	<b>13.7</b>	<b>34.4</b>	<b>0</b>	<b>0</b>	<b>48.1</b>	<b>7</b>	<b>0.2</b>	<b>9</b>	<b>0</b>	<b>16.2</b>	<b>0.2</b>	<b>25.8</b>	<b>7.8</b>	<b>0.6</b>	<b>34.4</b>	<b>0</b>	<b>0.6</b>	<b>0</b>	<b>0.8</b>	<b>1.4</b>	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Grant Road  
 East-West: Twin Creeks Crossing  
 Weather: Warm, Clear  
 Vehicle: All Vehicles

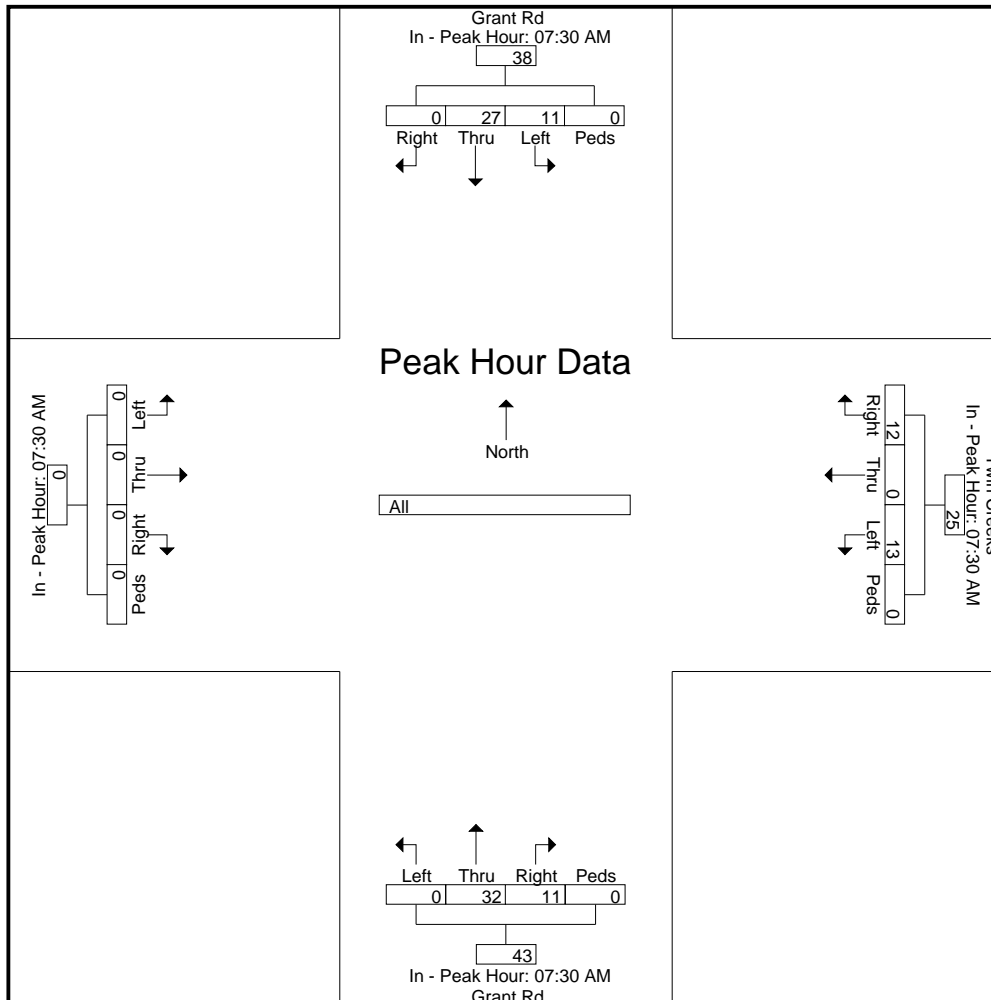
File Name : Twin Creeks-Grant  
 Site Code : 00000002  
 Start Date : 9/11/2019  
 Page No : 2

Start Time	Grant Rd From North					Twin Creeks From East					Grant Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	5	9	0	0	14	5	0	2	0	7	0	10	1	0	11	0	0	0	0	0
+15 mins.	1	5	0	0	6	3	0	4	0	7	0	10	1	0	11	0	0	0	0	0
+30 mins.	3	6	0	0	9	3	0	2	0	5	0	5	3	0	8	0	0	0	0	0
+45 mins.	2	7	0	0	9	2	0	4	0	6	0	7	6	0	13	0	0	0	0	0
Total Volume	11	27	0	0	38	13	0	12	0	25	0	32	11	0	43	0	0	0	0	0
% App. Total	28.9	71.1	0	0		52	0	48	0		0	74.4	25.6	0		0	0	0	0	
PHF	.550	.750	.000	.000	.679	.650	.000	.750	.000	.893	.000	.800	.458	.000	.827	.000	.000	.000	.000	.000





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North-South: Grant Road  
 East-West: Twin Creeks Crossing  
 Weather: Warm, Clear  
 Vehicle: All Vehicles

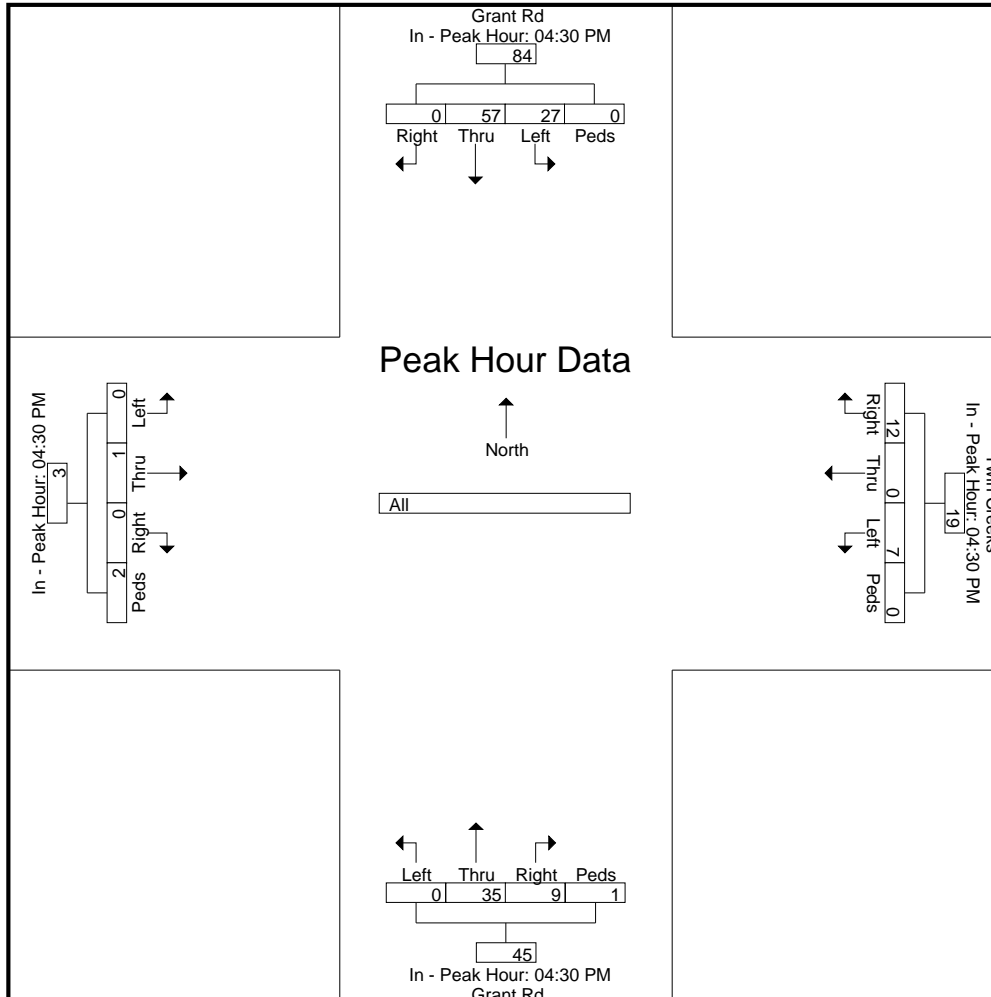
File Name : Twin Creeks-Grant  
 Site Code : 00000002  
 Start Date : 9/11/2019  
 Page No : 3

Start Time	Grant Rd From North					Twin Creeks From East					Grant Rd From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	4	11	0	0	15	4	0	3	0	7	0	6	1	0	7	0	1	0	0	1
+15 mins.	5	12	0	0	17	1	0	2	0	3	0	8	3	0	11	0	0	0	0	0
+30 mins.	13	22	0	0	35	1	0	3	0	4	0	10	4	1	15	0	0	0	0	0
+45 mins.	5	12	0	0	17	1	0	4	0	5	0	11	1	0	12	0	0	0	2	2
Total Volume	27	57	0	0	84	7	0	12	0	19	0	35	9	1	45	0	1	0	2	3
% App. Total	32.1	67.9	0	0		36.8	0	63.2	0		0	77.8	20	2.2		0	33.3	0	66.7	
PHF	.519	.648	.000	.000	.600	.438	.000	.750	.000	.679	.000	.795	.563	.250	.750	.000	.250	.000	.250	.375



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: OR 99  
 East-West: Twin Creeks Crossing  
 Weather: Sunny, Warm  
 Vehicle: All Vehicles

File Name : TwinCreeks-99  
 Site Code : 00000001  
 Start Date : 9/24/2019  
 Page No : 1

**Groups Printed- All**

Start Time	OR 99 From North					From East					OR 99 From South					Twin Creeks Crossing From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:00 AM	0	36	1	0	37	0	0	0	0	0	0	37	0	0	37	7	0	3	0	10	84
06:15 AM	0	33	0	0	33	0	0	0	0	0	1	28	0	1	30	1	0	5	0	6	69
06:30 AM	0	64	1	0	65	0	0	0	0	0	0	39	0	0	39	5	0	11	0	16	120
06:45 AM	0	60	3	0	63	0	0	0	0	0	1	50	0	0	51	9	0	11	0	20	134
<b>Total</b>	0	193	5	0	198	0	0	0	0	0	2	154	0	1	157	22	0	30	0	52	407
07:00 AM	0	69	2	0	71	0	0	0	0	0	3	60	0	0	63	6	0	17	1	24	158
07:15 AM	0	60	2	0	62	0	0	0	1	1	6	44	0	0	50	16	0	19	0	35	148
07:30 AM	0	109	8	0	117	0	0	0	0	0	6	79	0	0	85	15	0	28	1	44	246
07:45 AM	0	87	7	0	94	0	0	0	0	0	10	80	0	0	90	15	0	33	0	48	232
<b>Total</b>	0	325	19	0	344	0	0	0	1	1	25	263	0	0	288	52	0	97	2	151	784
08:00 AM	0	87	0	3	90	0	0	0	1	1	11	92	0	2	105	9	0	17	0	26	222
08:15 AM	0	62	2	0	64	0	0	0	0	0	8	97	0	1	106	14	0	14	4	32	202
08:30 AM	0	74	4	1	79	0	0	0	0	0	10	85	0	0	95	8	0	24	6	38	212
08:45 AM	0	32	1	0	33	0	0	0	0	0	9	52	0	0	61	3	0	13	0	16	110
<b>Total</b>	0	255	7	4	266	0	0	0	1	1	38	326	0	3	367	34	0	68	10	112	746
*** BREAK ***																					
03:00 PM	0	74	3	0	77	0	0	0	0	0	11	121	0	0	132	5	0	8	0	13	222
03:15 PM	0	70	2	0	72	0	0	0	0	0	13	95	0	0	108	4	0	12	0	16	196
03:30 PM	0	94	2	0	96	0	0	0	0	0	12	129	0	1	142	11	0	11	5	27	265
03:45 PM	0	75	7	0	82	0	0	0	0	0	22	119	0	1	142	8	0	17	9	34	258
<b>Total</b>	0	313	14	0	327	0	0	0	0	0	58	464	0	2	524	28	0	48	14	90	941
04:00 PM	0	89	7	0	96	0	0	0	0	0	13	116	0	1	130	9	0	17	2	28	254
04:15 PM	0	94	3	0	97	0	0	0	0	0	18	101	0	1	120	10	0	11	1	22	239
04:30 PM	0	99	6	0	105	0	0	0	0	0	15	108	0	31	154	9	0	14	37	60	319
04:45 PM	0	73	8	0	81	0	0	0	0	0	13	122	0	2	137	6	0	6	3	15	233
<b>Total</b>	0	355	24	0	379	0	0	0	0	0	59	447	0	35	541	34	0	48	43	125	1045
05:00 PM	0	100	10	0	110	0	0	0	0	0	12	110	0	1	123	7	0	12	1	20	253
05:15 PM	0	67	7	0	74	0	0	0	0	0	8	112	0	0	120	6	0	8	1	15	209
05:30 PM	0	70	5	0	75	0	0	0	0	0	19	98	0	0	117	4	0	8	22	34	226
05:45 PM	0	67	4	0	71	0	0	0	0	0	10	82	0	15	107	11	0	12	14	37	215
<b>Total</b>	0	304	26	0	330	0	0	0	0	0	49	402	0	16	467	28	0	40	38	106	903
<b>Grand Total</b>	0	1745	95	4	1844	0	0	0	2	2	231	2056	0	57	2344	198	0	331	107	636	4826
<b>Apprch %</b>	0	94.6	5.2	0.2		0	0	0	100		9.9	87.7	0	2.4		31.1	0	52	16.8		
<b>Total %</b>	0	36.2	2	0.1	38.2	0	0	0	0	0	4.8	42.6	0	1.2	48.6	4.1	0	6.9	2.2	13.2	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: OR 99  
 East-West: Twin Creeks Crossing  
 Weather: Sunny, Warm  
 Vehicle: All Vehicles

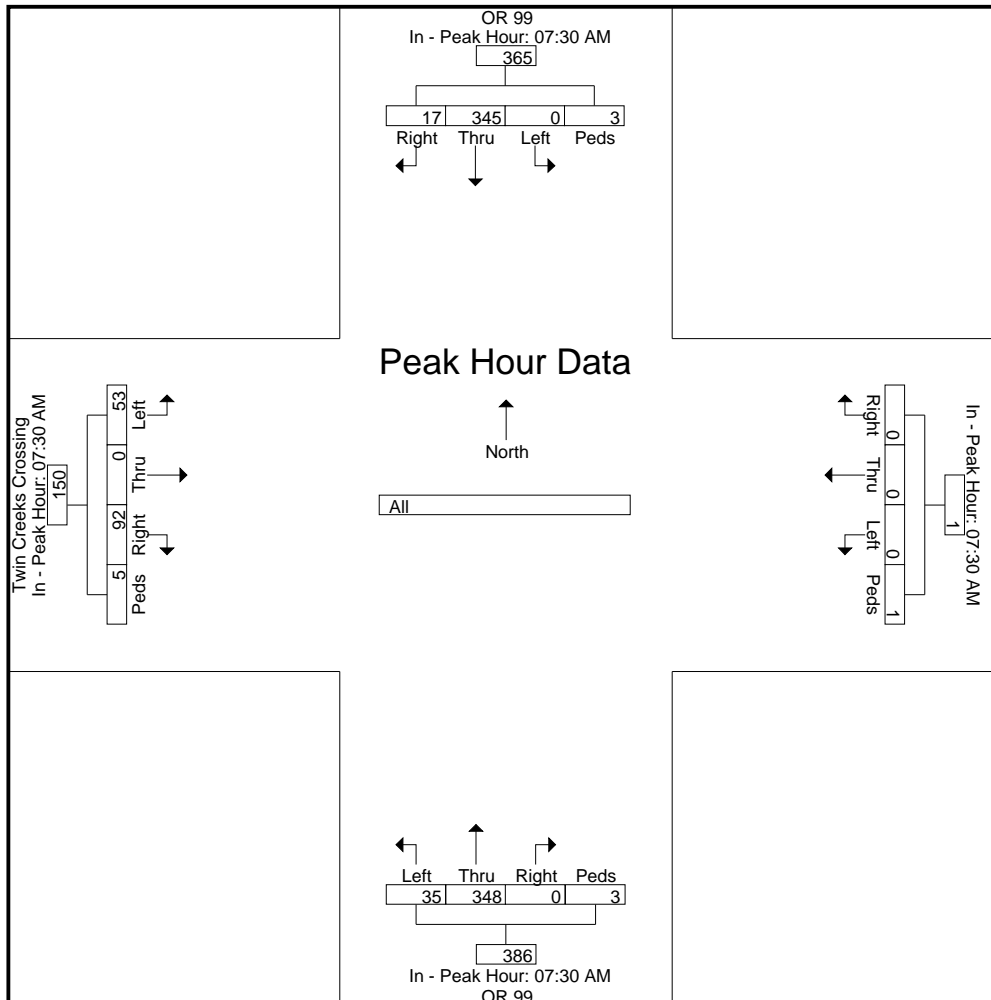
File Name : TwinCreeks-99  
 Site Code : 00000001  
 Start Date : 9/24/2019  
 Page No : 2

Start Time	OR 99 From North					From East					OR 99 From South					Twin Creeks Crossing From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	0	109	8	0	117	0	0	0	0	0	6	79	0	0	85	15	0	28	1	44
+15 mins.	0	87	7	0	94	0	0	0	0	0	10	80	0	0	90	15	0	33	0	48
+30 mins.	0	87	0	3	90	0	0	0	1	1	11	92	0	2	105	9	0	17	0	26
+45 mins.	0	62	2	0	64	0	0	0	0	0	8	97	0	1	106	14	0	14	4	32
Total Volume	0	345	17	3	365	0	0	0	1	1	35	348	0	3	386	53	0	92	5	150
% App. Total	0	94.5	4.7	0.8		0	0	0	100		9.1	90.2	0	0.8		35.3	0	61.3	3.3	
PHF	.000	.791	.531	.250	.780	.000	.000	.000	.250	.250	.795	.897	.000	.375	.910	.883	.000	.697	.313	.781



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North-South: OR 99  
 East-West: Twin Creeks Crossing  
 Weather: Sunny, Warm  
 Vehicle: All Vehicles

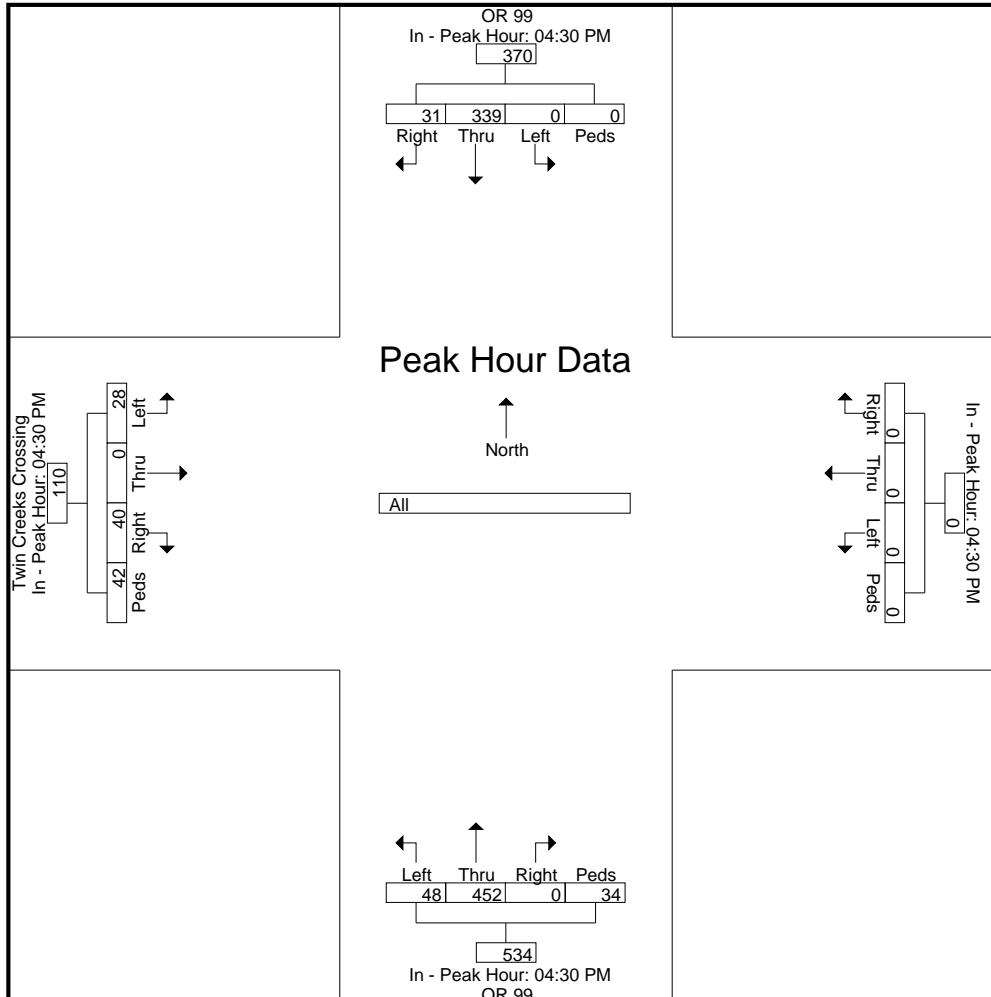
File Name : TwinCreeks-99  
 Site Code : 00000001  
 Start Date : 9/24/2019  
 Page No : 3

Start Time	OR 99 From North					From East					OR 99 From South					Twin Creeks Crossing From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM									
+0 mins.	0	99	6	0	105	0	0	0	0	0	15	108	0	31	154	9	0	14	37	60
+15 mins.	0	73	8	0	81	0	0	0	0	0	13	122	0	2	137	6	0	6	3	15
+30 mins.	0	100	10	0	110	0	0	0	0	0	12	110	0	1	123	7	0	12	1	20
+45 mins.	0	67	7	0	74	0	0	0	0	0	8	112	0	0	120	6	0	8	1	15
Total Volume	0	339	31	0	370	0	0	0	0	0	48	452	0	34	534	28	0	40	42	110
% App. Total	0	91.6	8.4	0		0	0	0	0		9	84.6	0	6.4		25.5	0	36.4	38.2	
PHF	.000	.848	.775	.000	.841	.000	.000	.000	.000	.000	.800	.926	.000	.274	.867	.778	.000	.714	.284	.458



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

Medford, Oregon 97504 | Kim.parducci@gmail.com | (541) 941-4148 Cell

North-South: Haskell Street  
 East-West: Taylor Road  
 Weather: Warm, overcast  
 Vehicle: All Vehicles

File Name : Taylor-Haskell  
 Site Code : 00000001  
 Start Date : 9/10/2019  
 Page No : 1

### Groups Printed- All

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	18	0	1	19	0	0	0	0	0	7	8	0	0	15	1	0	26	2	29	63
07:15 AM	0	27	0	1	28	0	0	0	0	0	10	11	0	0	21	1	0	37	0	38	87
07:30 AM	0	30	0	1	31	0	0	0	0	0	13	13	0	1	27	5	0	51	1	57	115
07:45 AM	0	34	0	1	35	0	0	0	0	0	19	11	0	0	30	1	0	51	1	53	118
<b>Total</b>	0	109	0	4	113	0	0	0	0	0	49	43	0	1	93	8	0	165	4	177	383
08:00 AM	0	17	0	0	17	0	0	0	0	0	24	19	0	0	43	3	0	30	0	33	93
08:15 AM	0	16	0	1	17	0	0	0	0	0	6	9	0	0	15	4	0	39	2	45	77
08:30 AM	0	20	0	0	20	0	0	0	0	0	23	13	0	0	36	2	0	24	0	26	82
08:45 AM	0	10	1	0	11	0	0	0	0	0	20	18	0	0	38	0	0	23	0	23	72
<b>Total</b>	0	63	1	1	65	0	0	0	0	0	73	59	0	0	132	9	0	116	2	127	324
*** BREAK ***																					
03:00 PM	0	18	1	0	19	0	0	0	0	0	43	18	0	0	61	1	0	27	0	28	108
03:15 PM	0	22	3	0	25	0	0	0	0	0	29	23	0	0	52	2	0	25	0	27	104
03:30 PM	0	31	3	2	36	0	0	0	0	0	42	28	0	0	70	3	0	31	2	36	142
03:45 PM	0	11	0	2	13	0	1	0	0	1	34	23	0	0	57	1	0	17	0	18	89
<b>Total</b>	0	82	7	4	93	0	1	0	0	1	148	92	0	0	240	7	0	100	2	109	443
04:00 PM	0	12	2	1	15	0	0	0	0	0	40	37	0	1	78	2	0	35	0	37	130
04:15 PM	0	24	4	0	28	0	0	0	0	0	44	26	0	0	70	1	0	21	0	22	120
04:30 PM	0	20	3	3	26	0	0	0	0	0	41	26	0	0	67	3	0	26	0	29	122
04:45 PM	0	9	0	0	9	0	0	0	0	0	47	36	0	0	83	0	0	38	0	38	130
<b>Total</b>	0	65	9	4	78	0	0	0	0	0	172	125	0	1	298	6	0	120	0	126	502
05:00 PM	0	24	3	0	27	0	0	0	0	0	48	30	0	0	78	2	0	33	0	35	140
05:15 PM	0	16	1	0	17	0	0	0	0	0	60	42	0	0	102	4	0	26	1	31	150
05:30 PM	0	18	1	0	19	0	0	0	0	0	33	31	0	0	64	1	0	30	0	31	114
05:45 PM	0	26	2	0	28	0	0	0	0	0	39	43	0	0	82	2	0	30	0	32	142
<b>Total</b>	0	84	7	0	91	0	0	0	0	0	180	146	0	0	326	9	0	119	1	129	546
<b>Grand Total</b>	0	403	24	13	440	0	1	0	0	1	622	465	0	2	1089	39	0	620	9	668	2198
<b>Apprch %</b>	0	91.6	5.5	3		0	100	0	0		57.1	42.7	0	0.2		5.8	0	92.8	1.3		
<b>Total %</b>	0	18.3	1.1	0.6	20	0	0	0	0	0	28.3	21.2	0	0.1	49.5	1.8	0	28.2	0.4	30.4	

# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: Haskell Street  
 East-West: Taylor Road  
 Weather: Warm, overcast  
 Vehicle: All Vehicles

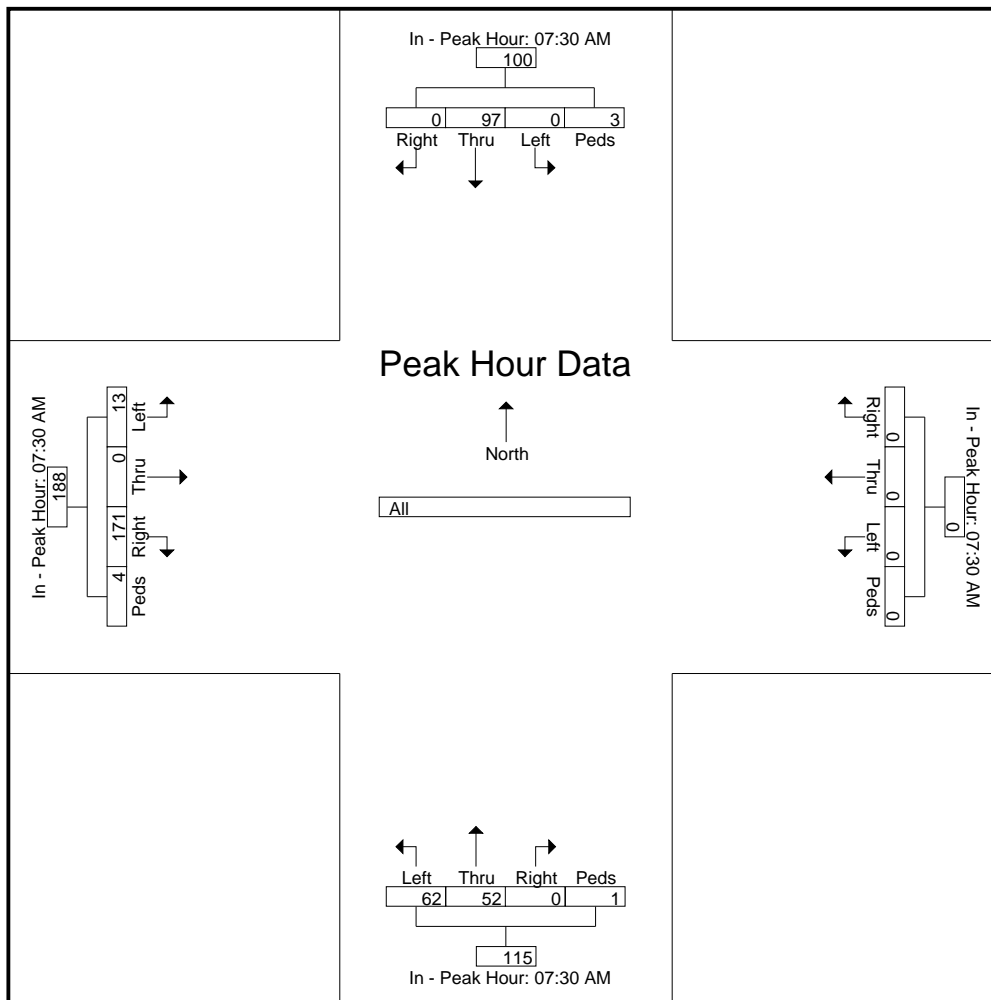
File Name : Taylor-Haskell  
 Site Code : 00000001  
 Start Date : 9/10/2019  
 Page No : 2

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	0	30	0	1	31	0	0	0	0	0	13	13	0	1	27	5	0	51	1	57
+15 mins.	0	34	0	1	35	0	0	0	0	0	19	11	0	0	30	1	0	51	1	53
+30 mins.	0	17	0	0	17	0	0	0	0	0	24	19	0	0	43	3	0	30	0	33
+45 mins.	0	16	0	1	17	0	0	0	0	0	6	9	0	0	15	4	0	39	2	45
Total Volume	0	97	0	3	100	0	0	0	0	0	62	52	0	1	115	13	0	171	4	188
% App. Total	0	97	0	3		0	0	0	0		53.9	45.2	0	0.9		6.9	0	91	2.1	
PHF	.000	.713	.000	.750	.714	.000	.000	.000	.000	.000	.646	.684	.000	.250	.669	.650	.000	.838	.500	.825



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North-South: Haskell Street  
 East-West: Taylor Road  
 Weather: Warm, overcast  
 Vehicle: All Vehicles

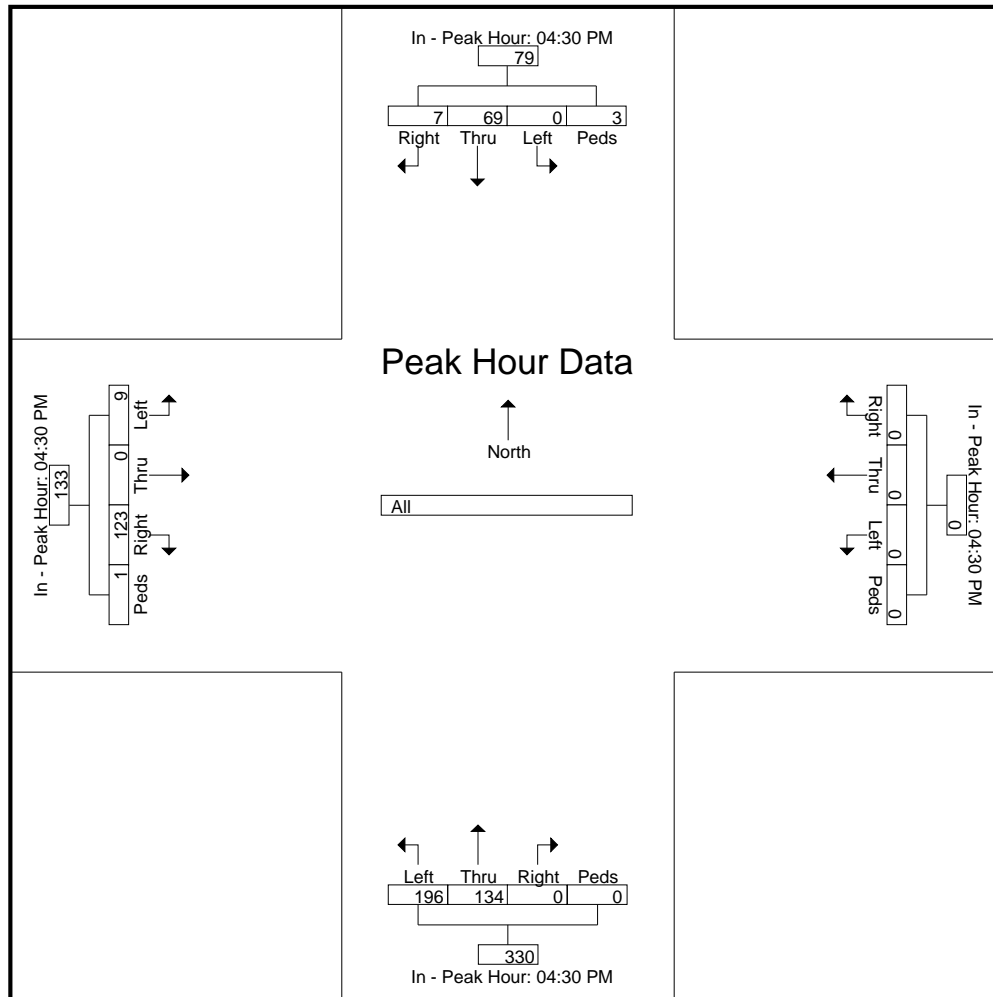
File Name : Taylor-Haskell  
 Site Code : 00000001  
 Start Date : 9/10/2019  
 Page No : 3

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM																								
+0 mins.	0	20	3	3	26	0	0	0	0	0	41	26	0	0	67	3	0	26	0	29	0	9	0	0	9	0	0	0	0	0	47	36	0	0	83	2	0	38	0	38
+15 mins.	0	24	3	0	27	0	0	0	0	0	48	30	0	0	78	2	0	33	0	35	0	16	1	0	17	0	0	0	0	0	60	42	0	0	102	4	0	26	1	31
+30 mins.	0	69	7	3	79	0	0	0	0	0	196	134	0	0	330	9	0	123	1	133	0	87.3	8.9	3.8	0	0	0	0	0	59.4	40.6	0	0	6.8	0	92.5	0.8			
Total Volume	0	69	7	3	79	0	0	0	0	0	196	134	0	0	330	9	0	123	1	133	% App. Total	0	87.3	8.9	3.8	0	0	0	0	0	59.4	40.6	0	0	6.8	0	92.5	0.8		
PHF	.000	.719	.583	.250	.731	.000	.000	.000	.000	.000	.817	.798	.000	.000	.809	.563	.000	.809	.250	.875																				



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: Grant Rd  
East-West: Scenic Ave  
Weather: Clear, Warm  
Vehicle: All Vehicles

File Name : Scenic-Grant  
Site Code : 00000003  
Start Date : 9/12/2019  
Page No : 1

### Groups Printed- All

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	0	0	0	0	5	5	0	0	10	1	0	5	0	6	0	1	3	0	4	20
07:15 AM	0	0	0	0	0	4	5	0	0	9	2	0	17	0	19	0	11	0	0	11	39
07:30 AM	0	0	0	0	0	12	5	0	0	17	1	0	14	0	15	0	37	2	0	39	71
07:45 AM	0	0	0	0	0	7	5	0	0	12	1	0	7	0	8	0	24	2	0	26	46
<b>Total</b>	0	0	0	0	0	28	20	0	0	48	5	0	43	0	48	0	73	7	0	80	176
08:00 AM	0	0	0	0	0	9	9	0	0	18	1	0	13	0	14	0	13	0	0	13	45
08:15 AM	0	0	0	0	0	13	11	0	0	24	2	0	18	0	20	0	21	1	0	22	66
08:30 AM	0	0	0	0	0	10	12	0	0	22	0	0	10	0	10	0	18	4	0	22	54
08:45 AM	0	0	0	0	0	7	14	0	0	21	1	0	8	0	9	0	18	1	0	19	49
<b>Total</b>	0	0	0	0	0	39	46	0	0	85	4	0	49	0	53	0	70	6	0	76	214
*** BREAK ***																					
04:00 PM	0	0	0	1	1	14	23	0	0	37	4	0	8	0	12	0	10	1	0	11	61
04:15 PM	0	0	0	0	0	19	25	0	0	44	1	0	5	0	6	0	12	3	0	15	65
04:30 PM	0	0	0	0	0	18	21	0	0	39	1	0	10	0	11	0	6	3	0	9	59
04:45 PM	0	0	0	0	0	13	19	0	0	32	3	0	6	0	9	0	4	3	0	7	48
<b>Total</b>	0	0	0	1	1	64	88	0	0	152	9	0	29	0	38	0	32	10	0	42	233
05:00 PM	0	0	0	0	0	7	13	0	0	20	3	0	9	0	12	0	8	3	0	11	43
05:15 PM	0	0	0	0	0	7	11	0	0	18	5	0	10	0	15	0	12	4	0	16	49
05:30 PM	0	0	0	0	0	10	32	0	0	42	2	0	8	0	10	0	18	2	0	20	72
05:45 PM	0	0	0	0	0	17	15	0	0	32	0	0	6	0	6	0	19	2	0	21	59
<b>Total</b>	0	0	0	0	0	41	71	0	0	112	10	0	33	0	43	0	57	11	0	68	223
<b>Grand Total</b>	0	0	0	1	1	172	225	0	0	397	28	0	154	0	182	0	232	34	0	266	846
<b>Apprch %</b>	0	0	0	100		43.3	56.7	0	0		15.4	0	84.6	0		0	87.2	12.8	0		
<b>Total %</b>	0	0	0	0.1	0.1	20.3	26.6	0	0	46.9	3.3	0	18.2	0	21.5	0	27.4	4	0	31.4	



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North-South: Grant Rd  
East-West: Scenic Ave  
Weather: Clear, Warm  
Vehicle: All Vehicles

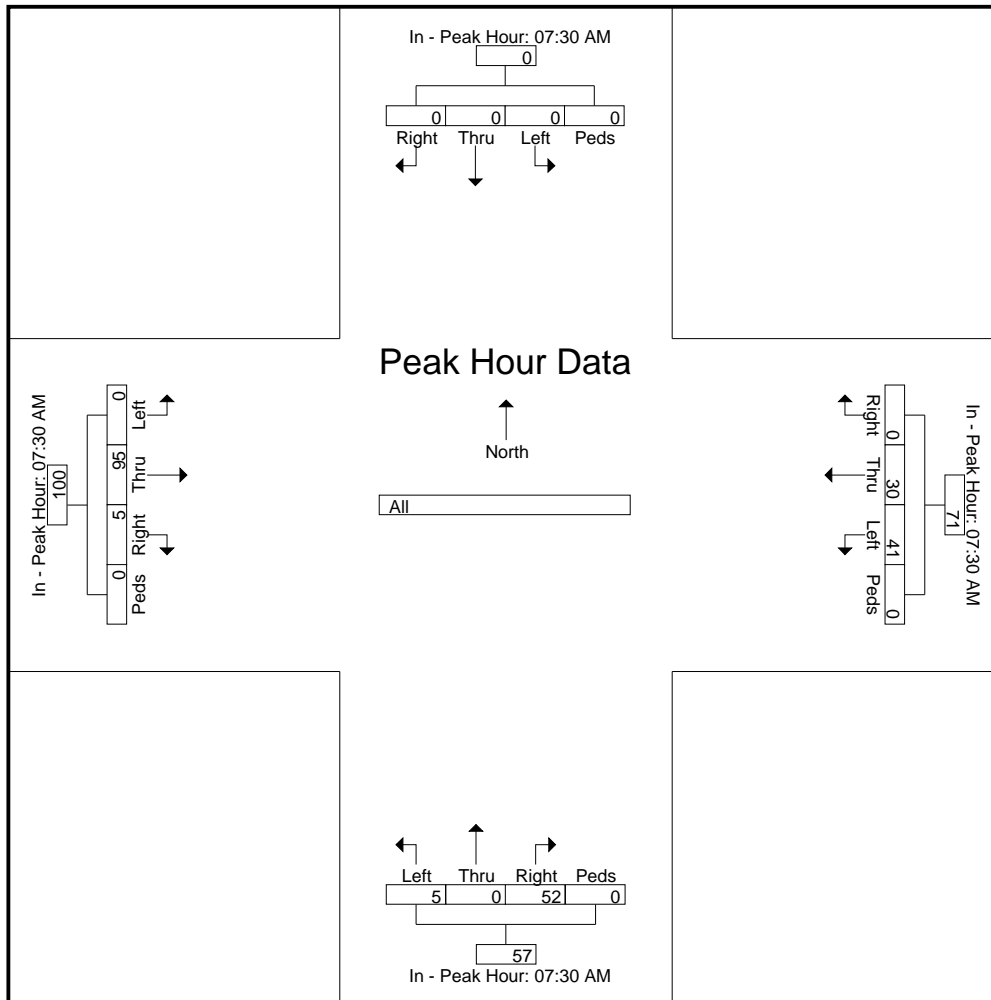
File Name : Scenic-Grant  
Site Code : 00000003  
Start Date : 9/12/2019  
Page No : 2

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	0	0	0	0	0	12	5	0	0	17	1	0	14	0	15	0	37	2	0	39
+15 mins.	0	0	0	0	0	7	5	0	0	12	1	0	7	0	8	0	24	2	0	26
+30 mins.	0	0	0	0	0	9	9	0	0	18	1	0	13	0	14	0	13	0	0	13
+45 mins.	0	0	0	0	0	13	11	0	0	24	2	0	18	0	20	0	21	1	0	22
Total Volume	0	0	0	0	0	41	30	0	0	71	5	0	52	0	57	0	95	5	0	100
% App. Total	0	0	0	0	0	57.7	42.3	0	0		8.8	0	91.2	0		0	95	5	0	
PHF	.000	.000	.000	.000	.000	.788	.682	.000	.000	.740	.625	.000	.722	.000	.713	.000	.642	.625	.000	.641



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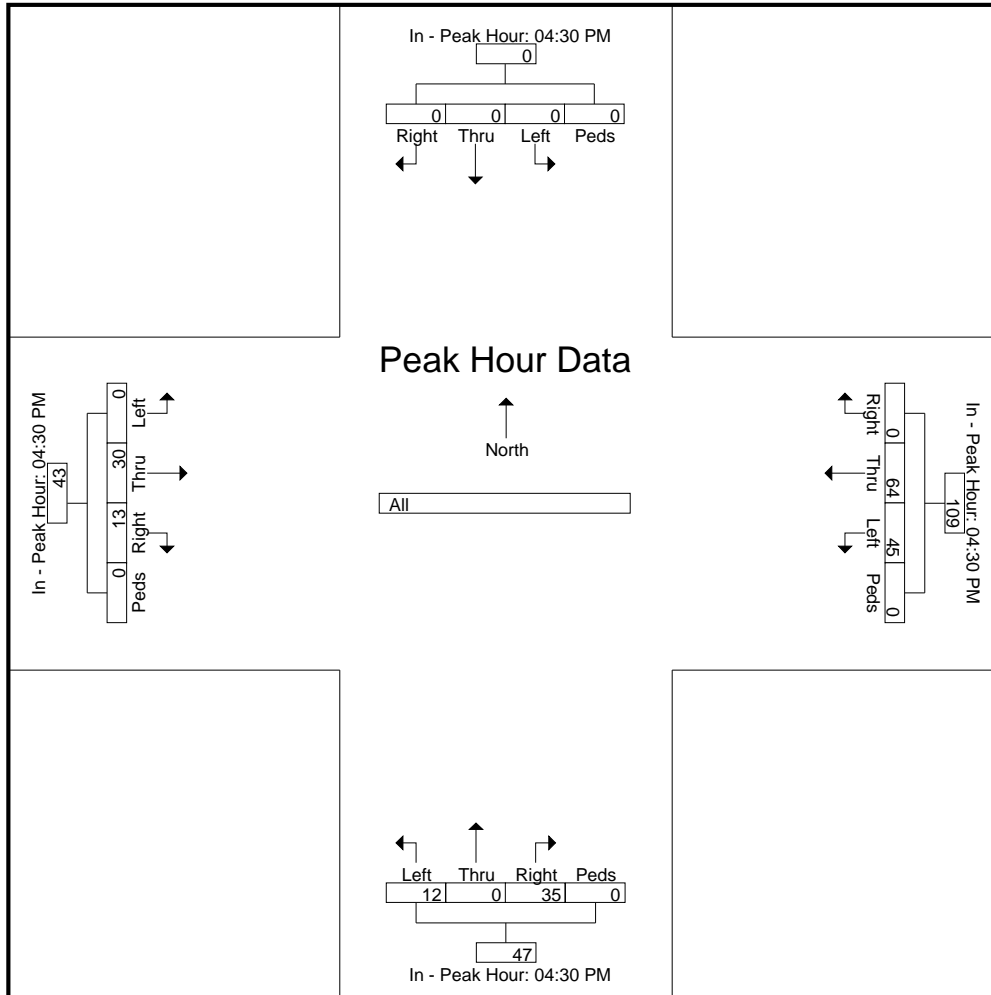
File Name : Scenic-Grant  
Site Code : 00000003  
Start Date : 9/12/2019  
Page No : 3

Start Time	From North					From East					From South					From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	0	0	0	0	0	18	21	0	0	39	1	0	10	0	11	0	6	3	0	9
+15 mins.	0	0	0	0	0	13	19	0	0	32	3	0	6	0	9	0	4	3	0	7
+30 mins.	0	0	0	0	0	7	13	0	0	20	3	0	9	0	12	0	8	3	0	11
+45 mins.	0	0	0	0	0	7	11	0	0	18	5	0	10	0	15	0	12	4	0	16
Total Volume	0	0	0	0	0	45	64	0	0	109	12	0	35	0	47	0	30	13	0	43
% App. Total	0	0	0	0	0	41.3	58.7	0	0		25.5	0	74.5	0		0	69.8	30.2	0	
PHF	.000	.000	.000	.000	.000	.625	.762	.000	.000	.699	.600	.000	.875	.000	.783	.000	.625	.813	.000	.672



# SOUTHERN OREGON TRANSPORTATION ENGINEERING

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North-South: OR 99  
East-West: Scenic Avenue  
Weather: Clear, Warm  
Vehicle: All Vehicles

File Name : Scenic-99\_2019  
Site Code : 00000001  
Start Date : 7/16/2019  
Page No : 1

Groups Printed- All Veh

Start Time	OR 99 From North					Scenic Ave From East					OR 99 From South					Scenic Ave From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:00 AM	3	31	1	0	35	3	3	3	0	9	0	30	4	0	34	2	4	3	0	9	87
06:15 AM	6	30	0	0	36	4	1	4	0	9	2	27	1	0	30	1	7	1	0	9	84
06:30 AM	8	40	2	1	51	9	3	9	0	21	1	32	6	1	40	5	15	3	0	23	135
06:45 AM	3	45	5	0	53	7	11	4	0	22	3	35	3	0	41	8	10	5	0	23	139
Total	20	146	8	1	175	23	18	20	0	61	6	124	14	1	145	16	36	12	0	64	445
07:00 AM	3	36	6	0	45	4	2	10	1	17	3	34	6	0	43	6	10	0	0	16	121
07:15 AM	13	49	0	0	62	10	7	12	0	29	2	26	6	0	34	8	12	5	0	25	150
07:30 AM	5	58	1	0	64	7	8	11	0	26	3	47	9	0	59	6	7	9	0	22	171
07:45 AM	4	50	2	0	56	12	10	5	0	27	3	46	10	0	59	8	11	5	0	24	166
Total	25	193	9	0	227	33	27	38	1	99	11	153	31	0	195	28	40	19	0	87	608
08:00 AM	6	39	4	0	49	8	6	7	0	21	4	35	3	0	42	3	13	4	0	20	132
08:15 AM	4	43	5	0	52	5	4	7	0	16	2	52	3	0	57	6	2	4	0	12	137
08:30 AM	3	37	1	0	41	18	8	3	0	29	8	28	4	0	40	5	12	6	0	23	133
08:45 AM	3	17	1	0	21	7	4	2	0	13	4	18	3	0	25	1	4	3	0	8	67
Total	16	136	11	0	163	38	22	19	0	79	18	133	13	0	164	15	31	17	0	63	469
*** BREAK ***																					
03:00 PM	15	43	4	0	62	11	19	8	0	38	8	64	15	0	87	1	6	6	0	13	200
03:15 PM	11	56	4	0	71	8	16	13	0	37	3	69	20	0	92	2	8	3	0	13	213
03:30 PM	11	55	2	0	68	11	11	12	0	34	8	86	10	0	104	4	10	2	0	16	222
03:45 PM	15	47	4	0	66	13	12	10	0	35	5	64	20	0	89	4	18	6	0	28	218
Total	52	201	14	0	267	43	58	43	0	144	24	283	65	0	372	11	42	17	0	70	853
04:00 PM	10	59	6	0	75	11	10	2	0	23	11	91	17	0	119	6	4	7	0	17	234
04:15 PM	8	90	2	0	100	15	14	17	0	46	7	68	22	0	97	4	7	4	0	15	258
04:30 PM	12	67	8	0	87	9	14	19	0	42	1	79	14	0	94	4	8	2	0	14	237
04:45 PM	13	54	6	0	73	19	11	13	0	43	11	67	24	0	102	5	7	8	0	20	238
Total	43	270	22	0	335	54	49	51	0	154	30	305	77	0	412	19	26	21	0	66	967
05:00 PM	14	53	3	0	70	19	21	12	0	52	6	94	18	0	118	7	19	9	1	36	276
05:15 PM	16	53	7	0	76	12	22	12	0	46	9	75	21	0	105	3	15	6	0	24	251
05:30 PM	7	48	8	0	63	3	20	17	0	40	5	76	12	0	93	5	12	4	0	21	217
05:45 PM	9	38	6	0	53	12	20	10	0	42	8	48	13	0	69	6	5	8	0	19	183
Total	46	192	24	0	262	46	83	51	0	180	28	293	64	0	385	21	51	27	1	100	927
Grand Total	202	1138	88	1	1429	237	257	222	1	717	117	1291	264	1	1673	110	226	113	1	450	4269
Apprch %	14.1	79.6	6.2	0.1		33.1	35.8	31	0.1		7	77.2	15.8	0.1		24.4	50.2	25.1	0.2		
Total %	4.7	26.7	2.1	0	33.5	5.6	6	5.2	0	16.8	2.7	30.2	6.2	0	39.2	2.6	5.3	2.6	0	10.5	

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 Weather: Clear, Warm  
 Vehicle: All Vehicles

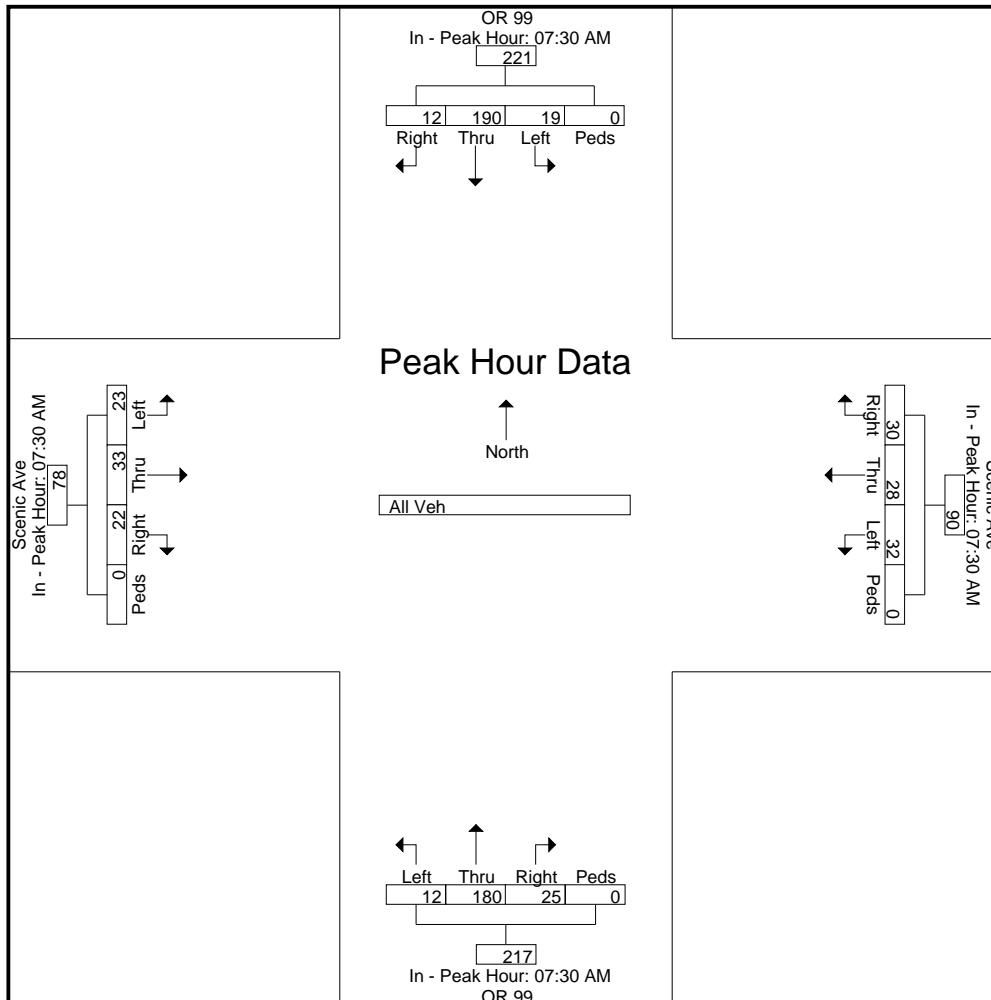
File Name : Scenic-99\_2019  
 Site Code : 00000001  
 Start Date : 7/16/2019  
 Page No : 2

Start Time	OR 99 From North					Scenic Ave From East					OR 99 From South					Scenic Ave From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:30 AM					07:30 AM				
+0 mins.	5	58	1	0	64	7	8	11	0	26	3	47	9	0	59	6	7	9	0	22
+15 mins.	4	50	2	0	56	12	10	5	0	27	3	46	10	0	59	8	11	5	0	24
+30 mins.	6	39	4	0	49	8	6	7	0	21	4	35	3	0	42	3	13	4	0	20
+45 mins.	4	43	5	0	52	5	4	7	0	16	2	52	3	0	57	6	2	4	0	12
Total Volume	19	190	12	0	221	32	28	30	0	90	12	180	25	0	217	23	33	22	0	78
% App. Total	8.6	86	5.4	0		35.6	31.1	33.3	0		5.5	82.9	11.5	0		29.5	42.3	28.2	0	
PHF	.792	.819	.600	.000	.863	.667	.700	.682	.000	.833	.750	.865	.625	.000	.919	.719	.635	.611	.000	.813



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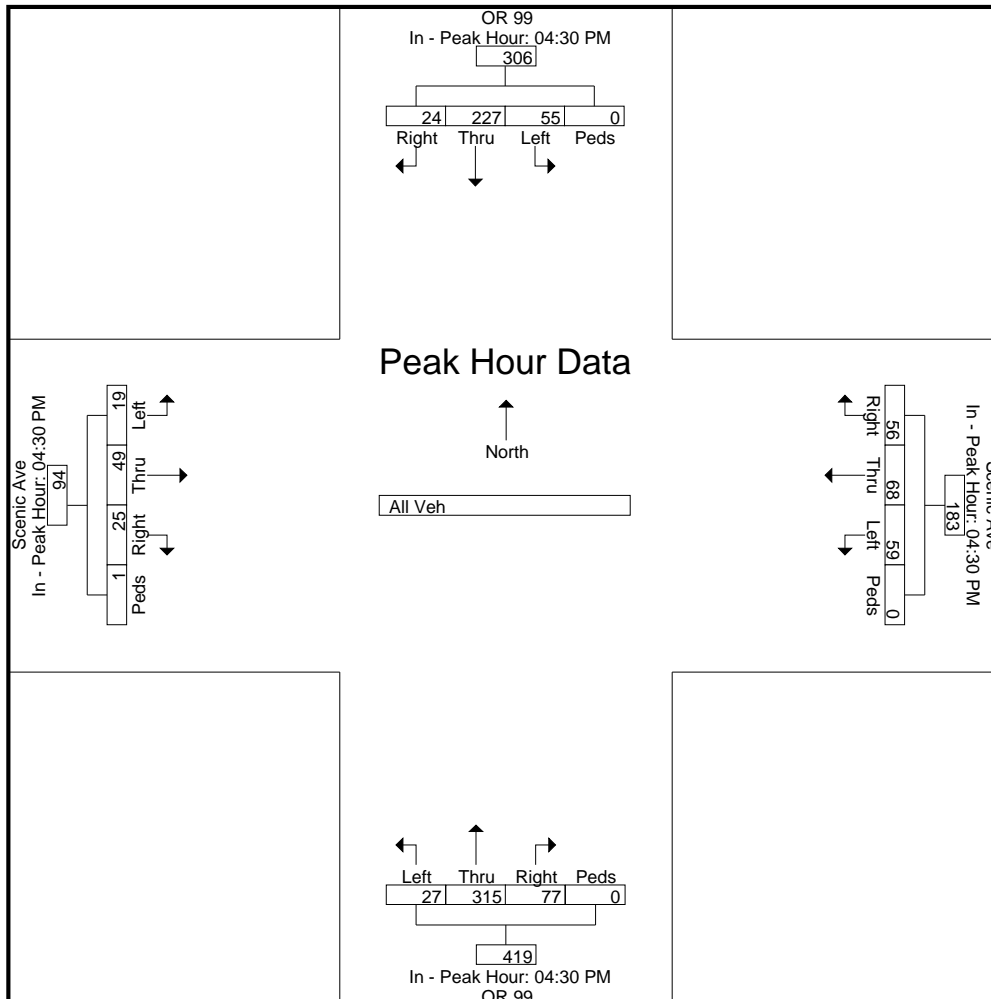
File Name : Scenic-99\_2019  
Site Code : 00000001  
Start Date : 7/16/2019  
Page No : 3

Start Time	OR 99 From North					Scenic Ave From East					OR 99 From South					Scenic Ave From West					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM					04:30 PM					04:30 PM					04:30 PM				
+0 mins.	12	67	8	0	87	9	14	19	0	42	1	79	14	0	94	4	8	2	0	14
+15 mins.	13	54	6	0	73	19	11	13	0	43	11	67	24	0	102	5	7	8	0	20
+30 mins.	14	53	3	0	70	19	21	12	0	52	6	94	18	0	118	7	19	9	1	36
+45 mins.	16	53	7	0	76	12	22	12	0	46	9	75	21	0	105	3	15	6	0	24
Total Volume	55	227	24	0	306	59	68	56	0	183	27	315	77	0	419	19	49	25	1	94
% App. Total	18	74.2	7.8	0		32.2	37.2	30.6	0		6.4	75.2	18.4	0		20.2	52.1	26.6	1.1	
PHF	.859	.847	.750	.000	.879	.776	.773	.737	.000	.880	.614	.838	.802	.000	.888	.679	.645	.694	.250	.653



## Seasonal Adjustments

North of Pine Street

Seasonal Adjustment Using ATR #15-014

	2013	2014	2015	2016	2017	Average
Peak Month (July-August)	113	125	115	116	117	116
Count Month (July)	110	112	113	111	110	111
<i>Scenic-99</i>					Adj	1.05

South of Pine Street

Seasonal Adjustment Using ATR #20-024

	2013	2014	2015	2016	2017	Average
Peak Month (July-August)	115	116	113	114	118	115
Count Month (June)	112	116	113	114	118	114
<i>Beall Ln-99</i>					Adj	1.01

Interstate 5

Seasonal Adjustment Using ATR #15-019

	2013	2014	2015	2016	2017	Average
Peak Month (July-August)	116	116	116	114	116	116
Count Month (August)	115	116	113	114	116	114
<i>I-5 Ramps</i>					Adj	1.02

North of Pine Street

Seasonal Adjustment Using ATR #15-014

	2013	2014	2015	2016	2017	Average
Peak Month (July-August)	113	125	115	116	117	116
Count Month (September)	109	108	111	111	106	109
<i>Pine-99</i>					Adj	1.07

*Twin Ck/99*

TREND	SEASONAL TREND TABLE (Updated: 6/26/19)																Seasonal Trend Peak Period Factor									
	1-Jan	15-Jan	1-Feb	15-Feb	1-Mar	15-Mar	1-Apr	15-Apr	1-May	15-May	1-Jun	15-Jun	1-Jul	15-Jul	1-Aug	15-Aug		1-Sep	15-Sep	1-Oct	15-Oct	1-Nov	15-Nov	1-Dec	15-Dec	
INTERSTATE URBANIZED	1.0419	1.0728	1.0640	1.0552	1.0259	0.9986	0.9836	0.9625	0.9768	0.9711	0.9538	0.9404	0.9581	0.9718	0.9804	0.9800	0.9860	0.9830	0.9864	0.9859	0.9900	1.0055	1.0213	1.0436	1.0659	0.9404
INTERSTATE NONURBANIZED	1.2583	1.3379	1.2862	1.2545	1.1572	1.0600	1.0383	1.0166	0.9863	0.9561	0.9075	0.8568	0.8422	0.8236	0.8325	0.8394	0.8606	0.8218	0.8559	0.8900	1.0158	1.0416	1.0416	1.1192	1.1989	0.8256
COMMUTER	1.0577	1.0500	1.0844	1.0538	1.0406	1.0173	0.9975	0.9777	0.9711	0.9645	0.9542	0.9438	0.9544	0.9649	0.9592	0.9535	0.9637	0.9738	0.9737	0.9737	0.9676	1.0215	1.0520	1.0825	1.0825	0.8438
COASTAL DESTINATION	1.2069	1.2238	1.1889	1.1540	1.0066	1.0472	1.0504	1.0536	1.0125	0.9714	0.9394	0.9074	0.8574	0.8074	0.8100	0.8126	0.8635	0.9145	0.9648	1.0152	1.0683	1.1214	1.1636	1.2058	1.2058	0.8074
COASTAL DESTINATION ROUTE	1.3738	1.4059	1.3653	1.3267	1.2268	1.1268	1.1203	1.1138	1.0308	0.9478	0.9031	0.8594	0.7781	0.6978	0.7080	0.7102	0.7932	0.8652	0.9574	1.0466	1.1248	1.2030	1.2836	1.3642	1.3642	0.6978
AGRICULTURE	1.4390	1.5942	1.4606	1.4171	1.3208	1.2246	1.1445	1.0643	0.9843	0.9043	0.8736	0.8429	0.8259	0.8056	0.8114	0.8140	0.7847	0.7554	0.8267	0.8880	0.9759	1.0778	1.2559	1.4339	1.4339	0.7554
RECREATIONAL SUMMER	1.6144	1.6289	1.6571	1.6403	1.4909	1.3379	1.2642	1.1909	1.0325	0.8742	0.8171	0.7611	0.7019	0.6656	0.6933	0.7239	0.7536	0.7567	0.8699	0.9635	1.1028	1.2216	1.3720	1.5220	1.5220	0.6656
RECREATIONAL SUMMER WINTER	1.6152	1.6289	1.6571	1.6403	1.4909	1.3379	1.2642	1.1909	1.0325	0.8742	0.8171	0.7611	0.7019	0.6656	0.6933	0.7239	0.7536	0.7567	0.8699	0.9635	1.1028	1.2216	1.3720	1.5220	1.5220	0.6656
RECREATIONAL WINTER	0.8176	0.8598	0.7315	0.8102	0.8330	0.8549	0.8558	1.2568	1.1918	1.1270	1.1295	1.1323	1.0094	0.8897	0.9344	1.0003	1.0933	1.1646	1.2964	1.4323	1.6965	2.1047	4.4326	0.7615	0.8528	
SUMMER < 2600	1.2007	1.2609	1.2387	1.2125	1.1528	1.0932	1.0592	1.0262	0.9810	0.9368	0.9061	0.8753	0.8535	0.8317	0.8437	0.8557	0.8972	0.9168	0.9502	0.9816	1.0276	1.0737	1.1341	1.1945	1.1945	0.8317
SUMMER < 2600	1.2437	1.3130	1.2856	1.2586	1.1886	1.1186	1.0667	1.0147	0.9592	0.9036	0.8816	0.8595	0.8489	0.8382	0.8564	0.8746	0.8721	0.8696	0.9064	0.9491	1.0234	1.0977	1.1930	1.2883	1.2883	0.8382

\*Seasonal Trend Table factors are based on previous year ATR data. The table is updated yearly.

\*Grey shading indicates months were seasonal factor is greater than or less than 30%.

15-Jun			15-Jul			15-Aug			15-Sep		
Commuter	Peak	Adj	Commuter	Peak	Adj	Commuter	Peak	Adj	Commuter	Peak	Adj
0.9438	0.9438	1.000	0.9649	0.9438	1.022	0.9592	0.9438	1.016	0.9738	0.9438	1.032

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts	Existing	Existing	Base Year	Seasonal	30th Highest Hour	Volume Balancing Adjustments	2019	
						1-Hr Volume AM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage	Adjustment Factor	Adjustment Factor	Adjusted 1-Hr Volume AM Peak		Balanced Volumes AM Peak	
1	5	I-5 NB Ramps / Pine	EB	EBL	EBL	10	44	4	9%	1.00	1.02	45	0	45
				EBT	EBT	10	810	79	10%	1.00	1.02	825	0	825
				EBR	EBR	10	0	0	0%	1.00	1.02	0	0	0
			WB	WBL	WBL	10	0	0	0%	1.00	1.02	0	0	0
				WBT	WBT	10	598	99	17%	1.00	1.02	610	0	610
				WBR	WBR	10	146	48	33%	1.00	1.02	150	0	150
			NB	NBL	NBL	10	176	7	4%	1.00	1.02	180	0	180
				NBT	NBT	10	0	0	0%	1.00	1.02	0	0	0
				NBR	NBR	10	203	35	17%	1.00	1.02	205	0	205
			SB	SBL	SBL	10	0	0	0%	1.00	1.02	0	0	0
				SBT	SBT	10	0	0	0%	1.00	1.02	0	0	0
				SBR	SBR	10	0	0	0%	1.00	1.02	0	0	0
			TEV	TEV				1977					2015	0
Count date: 08/06/2019														
AM Peak Hour: 7:30-8:30 AM														
AM Peak Hour Used: 7:30-8:30 AM														
PHF: 0.96														
2	10	I-5 SB Ramps / Pine	EB	EBL	EBL	20	0	0%	1.00	1.02	0	0	0	
				EBT	EBT	20	544	37	7%	1.00	1.02	555	0	555
				EBR	EBR	20	432	19	4%	1.00	1.02	440	0	440
			WB	WBL	WBL	20	254	72	28%	1.00	1.02	260	0	260
				WBT	WBT	20	516	48	9%	1.00	1.02	525	0	525
				WBR	WBR	20	0	0	0%	1.00	1.02	0	0	0
			NB	NBL	NBL	20	0	0	0%	1.00	1.02	0	0	0
				NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0
				NBR	NBR	20	0	0	0%	1.00	1.02	0	0	0
			SB	SBL	SBL	20	311	55	18%	1.00	1.02	315	0	315
				SBT	SBT	20	1	0	0%	1.00	1.02	0	0	0
				SBR	SBR	20	116	8	7%	1.00	1.02	120	0	120
			TEV	TEV				2174					2215	0
Count date: 08/06/2019														
AM Peak Hour: 7:30-8:30 AM														
AM Peak Hour Used: 7:30-8:30 AM														
PHF: 0.88														
3	15	OR 99 / Pine St	EB	EBL	EBL	30	191	6	3%	1.00	1.07	205	0	205
				EBT	EBT	30	398	20	5%	1.00	1.07	425	0	425
				EBR	EBR	30	167	10	6%	1.00	1.07	180	0	180
			WB	WBL	WBL	30	135	15	11%	1.00	1.07	145	0	145
				WBT	WBT	30	174	22	13%	1.00	1.07	185	0	185
				WBR	WBR	30	42	3	7%	1.00	1.07	45	0	45
			NB	NBL	NBL	30	135	5	4%	1.00	1.07	145	0	145
				NBT	NBT	30	297	24	8%	1.00	1.07	320	0	320
				NBR	NBR	30	90	12	13%	1.00	1.07	95	0	95
			SB	SBL	SBL	30	69	2	3%	1.00	1.07	75	0	75
				SBT	SBT	30	288	25	9%	1.00	1.07	310	0	310
				SBR	SBR	30	47	4	9%	1.00	1.07	50	0	50
			TEV	TEV				2033					2180	0
Count date: 09/17/2019														
AM Peak Hour: 7:45-8:45 AM														
AM Peak Hour Used: 7:30-8:30 AM														
PHF: 0.85														
4	20	Twin Creeks Crossing / OR 99	EB	EBL	EBL	40	53	4	8%	1.00	1.07	55	0	55
				EBT	EBT	40	0	0	0%	1.00	1.07	0	0	0
				EBR	EBR	40	92	5	5%	1.00	1.07	100	0	100
			WB	WBL	WBL	40	0	0	0%	1.00	1.07	0	0	0
				WBT	WBT	40	0	0	0%	1.00	1.07	0	0	0
				WBR	WBR	40	0	0	0%	1.00	1.07	0	0	0
			NB	NBL	NBL	40	35	2	6%	1.00	1.07	35	0	35
				NBT	NBT	40	348	48	14%	1.00	1.07	370	0	370
				NBR	NBR	40	0	0	0%	1.00	1.07	0	0	0
			SB	SBL	SBL	40	0	0	0%	1.00	1.07	0	0	0
				SBT	SBT	40	345	31	9%	1.00	1.07	370	0	370
				SBR	SBR	40	17	1	6%	1.00	1.07	20	0	20
			TEV	TEV				890					950	0
Count date: 09/24/2019														
AM Peak Hour: 7:30-8:30 AM														
AM Peak Hour Used: 7:30-8:30 AM														
PHF: 0.92														
5	25	Scenic Ave / OR 99	EB	EBL	EBL	50	23	3	13%	1.00	1.05	25	0	25
				EBT	EBT	50	33	6	18%	1.00	1.05	35	70	105
				EBR	EBR	50	22	4	18%	1.00	1.05	25	0	25
			WB	WBL	WBL	50	32	0	0%	1.00	1.05	35	0	35
				WBT	WBT	50	28	1	4%	1.00	1.05	30	10	40
				WBR	WBR	50	30	2	7%	1.00	1.05	30	0	30
			NB	NBL	NBL	50	12	0	0%	1.00	1.05	15	0	15
				NBT	NBT	50	180	27	15%	1.00	1.05	190	0	190
				NBR	NBR	50	25	2	8%	1.00	1.05	25	0	25
			SB	SBL	SBL	50	19	0	0%	1.00	1.05	20	0	20
				SBT	SBT	50	190	31	16%	1.00	1.05	200	0	200
				SBR	SBR	50	12	2	17%	1.00	1.05	15	0	15
			TEV	TEV				606					645	80
Count date: 07/16/2019														
AM Peak Hour: 7:15-8:15 AM														
AM Peak Hour Used: 7:30-8:30 AM														
PHF: 0.89														
6	30	Beall / OR 99	EB	EBL	EBL	60	48	1	2%	1.00	1.01	50	0	50
				EBT	EBT	60	60	3	5%	1.00	1.01	60	0	60
				EBR	EBR	60	223	8	4%	1.00	1.01	225	0	225
			WB	WBL	WBL	60	120	5	4%	1.00	1.01	120	0	120
				WBT	WBT	60	45	0	0%	1.00	1.01	45	0	45
				WBR	WBR	60	54	9	17%	1.00	1.01	55	0	55
			NB	NBL	NBL	60	83	6	7%	1.00	1.01	85	0	85
				NBT	NBT	60	349	47	13%	1.00	1.01	350	0	350
				NBR	NBR	60	65	5	8%	1.00	1.01	65	0	65
			SB	SBL	SBL	60	31	4	13%	1.00	1.01	30	0	30
				SBT	SBT	60	399	28	7%	1.00	1.01	405	0	405
				SBR	SBR	60	29	3	10%	1.00	1.01	30	0	30
			TEV	TEV				1506					1520	0
Count date: 06/20/2019														
AM Peak Hour: 7:30-8:30 AM														
AM Peak Hour Used: 7:30-8:30 AM														
PHF: 0.89														
7	35	Peninger / Upton	EB	EBL	EBL	60	0	0	0%	1.02	1.00	0	0	0
				EBT	EBT	60	0	0	0%	1.02	1.00	0	0	0
				EBR	EBR	60	0	0	0%	1.02	1.00	0	0	0
			WB	WBL	WBL	60	29	0	0%	1.02	1.00	30	0	30
				WBT	WBT	60	0	0	0%	1.02	1.00	0	0	0
				WBR	WBR	60	12	1	8%	1.02	1.00	10	0	10
			NB	NBL	NBL	60	0	0	0%	1.02	1.00	0	0	0
				NBT	NBT	60	125	17	14%	1.02	1.00	130	50	180
				NBR	NBR	60	31	3	10%	1.02	1.00	30	0	30
			SB	SBL	SBL	60	31	2	6%	1.02	1.00	30	0	30
				SBT	SBT	60	111	7	6%	1.02	1.00	115	55	170
				SBR	SBR	60	0	0	0%	1.02	1.00	0	0	0
			TEV	TEV				339					345	105
Count date: 05/31/2017														
AM Peak Hour: 7:15-8:15 AM														
AM Peak Hour Used: 7:30-8:30 AM														
PHF: 0.82														
8	40	Upton / Wilson	EB	EBL	EBL	70	0	0%	1.00	1.03	0	0	0	
				EBT	EBT	70	0	0%	1.00	1.03	0	0	0	



N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts	Existing	Existing	Base Year	Seasonal	30th Highest Hour Adjusted	Volume Balancing	2019		
						1-Hr Volume AM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage	Adjustment Factor	Adjustment Factor	1-Hr Volume AM Peak	Adjustments	Balanced Volumes AM Peak		
40		Count date: 10/01/2019	WB	EBR	EBR	70	0	0%	1.00	1.03	0	0	0		
40				WBL	WBL	70	109	9	8%	1.00	1.03	110	0	110	
40			WB	WBT	WBT	70	0	0%	1.00	1.03	0	0	0		
40				WBR	WBR	70	17	2	12%	1.00	1.03	20	0	20	
40		AM Peak Hour: 7:30-8:30 AM	NB	NBL	NBL	70	0	0%	1.00	1.03	0	0	0		
40		AM Peak Hour Used: 7:30-8:30 AM		NBT	NBT	70	44	0	0%	1.00	1.03	45	0	45	
40			NB	NBR	NBR	70	141	8	6%	1.00	1.03	145	0	145	
40				SBL	SBL	70	7	0	0%	1.00	1.03	5	0	5	
40		PHF: 0.81	SB	SBT	SBT	70	86	5	6%	1.00	1.03	90	0	90	
40				SBR	SBR	70	0	0	0%	1.00	1.03	0	0	0	
			TEV	TEV		404					415	0	415		
9	45	Wilson / Table Rock Count date: 06/18/2019 AM Peak Hour: 7:15-8:15 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.81	EB	EBL	EBL	80	78	5	6%	1.00	1.00	80	0	80	
45				EBT	EBT	80	0	0	0%	1.00	1.00	0	0	0	
45				EBR	EBR	80	73	4	5%	1.00	1.00	75	0	75	
45				WB	WBL	WBL	80	0	0	0%	1.00	1.00	0	0	0
45					WBT	WBT	80	0	0	0%	1.00	1.00	0	0	0
45					WBR	WBR	80	0	0	0%	1.00	1.00	0	0	0
45				NB	NBL	NBL	80	26	4	15%	1.00	1.00	25	0	25
45					NBT	NBT	80	451	53	12%	1.00	1.00	450	0	450
45					NBR	NBR	80	0	0	0%	1.00	1.00	0	0	0
45				SB	SBL	SBL	80	0	0	0%	1.00	1.00	0	0	0
45			SBT		SBT	80	598	48	8%	1.00	1.00	600	0	600	
45			SBR		SBR	80	47	2	4%	1.00	1.00	45	0	45	
			TEV	TEV		1273					1275	0	1275		
10	50	Table Rock / Biddle Count date: 07/31/2019 AM Peak Hour: 7:30-8:30 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.85	EB	EBL	EBL	90	188	25	13%	1.00	1.02	190	0	190	
50				EBT	EBT	90	334	16	5%	1.00	1.02	340	0	340	
50				EBR	EBR	90	82	4	5%	1.00	1.02	85	0	85	
50				WB	WBL	WBL	90	10	0	0%	1.00	1.02	10	0	10
50					WBT	WBT	90	140	10	7%	1.00	1.02	140	0	140
50					WBR	WBR	90	145	8	6%	1.00	1.02	145	0	145
50				NB	NBL	NBL	90	47	11	23%	1.00	1.02	50	0	50
50					NBT	NBT	90	185	26	14%	1.00	1.02	190	0	190
50					NBR	NBR	90	7	0	0%	1.00	1.02	5	0	5
50				SB	SBL	SBL	90	198	10	5%	1.00	1.02	200	0	200
50					SBT	SBT	90	233	29	12%	1.00	1.02	235	0	235
50					SBR	SBR	90	92	31	34%	1.00	1.02	95	0	95
			TEV	TEV		1661					1685	0	1685		
11	55	Vilas / Table Rock Count date: 06/19/2019 AM Peak Hour: 7:15-8:15 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.80	EB	EBL	EBL	20	159	11	7%	1.00	1.00	160	0	160	
55				EBT	EBT	20	267	26	10%	1.00	1.00	265	0	265	
55				EBR	EBR	20	40	0	0%	1.00	1.00	40	0	40	
55				WB	WBL	WBL	20	100	10	10%	1.00	1.00	100	0	100
55					WBT	WBT	20	164	27	16%	1.00	1.00	165	0	165
55					WBR	WBR	20	51	11	22%	1.00	1.00	50	0	50
55				NB	NBL	NBL	20	39	2	5%	1.00	1.00	40	0	40
55					NBT	NBT	20	279	39	14%	1.00	1.00	280	0	280
55					NBR	NBR	20	190	29	15%	1.00	1.00	190	0	190
55				SB	SBL	SBL	20	98	15	15%	1.00	1.00	100	0	100
55					SBT	SBT	20	302	34	11%	1.00	1.00	300	0	300
55					SBR	SBR	20	129	17	13%	1.00	1.00	130	0	130
			TEV	TEV		1818					1820	0	1820		
12	60	Hamrick / Biddle Count date: 08/01/2019 AM Peak Hour: 7:30-8:30 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.91	EB	EBL	EBL	20	367	33	9%	1.00	1.02	375	0	375	
60				EBT	EBT	20	536	39	7%	1.00	1.02	545	0	545	
60				EBR	EBR	20	82	13	16%	1.00	1.02	85	0	85	
60				WB	WBL	WBL	20	8	0	0%	1.00	1.02	10	0	10
60					WBT	WBT	20	255	41	16%	1.00	1.02	260	0	260
60					WBR	WBR	20	15	0	0%	1.00	1.02	15	0	15
60				NB	NBL	NBL	20	62	20	32%	1.00	1.02	65	0	65
60					NBT	NBT	20	15	4	27%	1.00	1.02	15	0	15
60					NBR	NBR	20	14	3	21%	1.00	1.02	15	0	15
60				SB	SBL	SBL	20	39	1	3%	1.00	1.02	40	0	40
60					SBT	SBT	20	24	2	8%	1.00	1.02	25	0	25
60					SBR	SBR	20	353	58	16%	1.00	1.02	360	0	360
			TEV	TEV		1770					1810	0	1810		
13	65	Hamrick / Beebe Count date: 08/07/2019 AM Peak Hour: 7:30-8:30 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.90	EB	EBL	EBL	20	3	1	33%	1.00	1.02	5	0	5	
65				EBT	EBT	20	0	0	0%	1.00	1.02	0	0	0	
65				EBR	EBR	20	37	0	0%	1.00	1.02	40	-30	10	
65				WB	WBL	WBL	20	3	0	0%	1.00	1.02	5	0	5
65					WBT	WBT	20	0	0	0%	1.00	1.02	0	0	0
65					WBR	WBR	20	22	2	9%	1.00	1.02	20	0	20
65				NB	NBL	NBL	20	15	1	7%	1.00	1.02	15	0	15
65					NBT	NBT	20	413	27	7%	1.00	1.02	420	0	420
65					NBR	NBR	20	5	1	20%	1.00	1.02	5	0	5
65				SB	SBL	SBL	20	3	0	0%	1.00	1.02	5	0	5
65					SBT	SBT	20	395	26	7%	1.00	1.02	395	0	395
65					SBR	SBR	20	6	1	17%	1.00	1.02	5	0	5
			TEV	TEV		898					915	-30	885		
14	70	Peninger / Pine Count date: 07/31/2019 AM Peak Hour: 7:30-8:30 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.87	EB	EBL	EBL	20	11	1	9%	1.00	1.02	10	0	10	
70				EBT	EBT	20	988	68	7%	1.00	1.02	1005	0	1005	
70				EBR	EBR	20	85	40	47%	1.00	1.02	85	0	85	
70				WB	WBL	WBL	20	37	7	19%	1.00	1.02	40	0	40
70					WBT	WBT	20	574	55	10%	1.00	1.02	585	0	585
70					WBR	WBR	20	25	6	24%	1.00	1.02	25	0	25
70				NB	NBL	NBL	20	121	56	46%	1.00	1.02	125	0	125
70					NBT	NBT	20	4	0	0%	1.00	1.02	5	0	5
70					NBR	NBR	20	33	6	18%	1.00	1.02	35	0	35
70				SB	SBL	SBL	20	38	2	5%	1.00	1.02	40	0	40
70					SBT	SBT	20	5	1	20%	1.00	1.02	5	0	5
70					SBR	SBR	20	25	1	4%	1.00	1.02	25	0	25
			TEV	TEV		1946					1985	0	1985		
15	75	Haskell / Pine Count date: 09/17/2019	EB	EBL	EBL	20	39	0	0%	1.00	1.03	40	0	40	
75				EBT	EBT	20	350	15	4%	1.00	1.03	360	15	375	
75				EBR	EBR	20	3	0	0%	1.00	1.03	5	0	5	
75				WBL	WBL	20	49	0	0%	1.00	1.03	50	0	50	

Job #:

Subject: AM Turning Movement Volumes

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts	Existing	Existing	Base Year	Seasonal	30th Highest Hour	Volume Balancing Adjustments	2019	
						1-Hr Volume AM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage	Adjustment Factor	Adjustment Factor	Adjusted 1-Hr Volume AM Peak		Balanced Volumes AM Peak	
75	AM Peak Hour: 7:15-8:15 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.79		WB	WBT	WBT	20	156	14	9%	1.00	1.03	160	10	170
				WBR	WBR	20	157	9	6%	1.00	1.03	160	0	160
			NB	NBL	NBL	20	4	0	0%	1.00	1.03	5	0	5
				NBT	NBT	20	7	0	0%	1.00	1.03	5	0	5
			SB	NBR	NBR	20	100	3	3%	1.00	1.03	105	0	105
				SBL	SBL	20	322	11	3%	1.00	1.03	330	0	330
			SBT	SBT	20	9	0	0%	1.00	1.03	10	0	10	
			SBR	SBR	20	31	2	6%	1.00	1.03	30	0	30	
			TEV	TEV				1227						1260
16	Hanley / Beall Count date: 07/31/2019 AM Peak Hour: 7:30-8:30 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.80		EB	EBL	EBL	20	28	4	14%	1.00	1.02	30	0	30
				EBT	EBT	20	104	1	1%	1.00	1.02	105	15	120
				EBR	EBR	20	51	2	4%	1.00	1.02	50	0	50
			WB	WBL	WBL	20	40	0	0%	1.00	1.02	40	0	40
				WBT	WBT	20	38	1	3%	1.00	1.02	40	15	55
				WBR	WBR	20	5	0	0%	1.00	1.02	5	0	5
			NB	NBL	NBL	20	20	3	15%	1.00	1.02	20	0	20
				NBT	NBT	20	75	6	8%	1.00	1.02	75	0	75
				NBR	NBR	20	36	1	3%	1.00	1.02	35	0	35
			SB	SBL	SBL	20	19	0	0%	1.00	1.02	20	0	20
				SBT	SBT	20	105	10	10%	1.00	1.02	105	0	105
				SBR	SBR	20	15	1	7%	1.00	1.02	15	0	15
TEV	TEV				536					540	30	570		
17	Grant / Beall Count date: 08/08/2019 AM Peak Hour: 7:30-8:30 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.88		EB	EBL	EBL	20	4	2	50%	1.00	1.02	5	0	5
				EBT	EBT	20	147	5	3%	1.00	1.02	150	0	150
				EBR	EBR	20	0	0	0%	1.00	1.02	0	0	0
			WB	WBL	WBL	20	0	0	0%	1.00	1.02	0	0	0
				WBT	WBT	20	58	5	9%	1.00	1.02	60	0	60
				WBR	WBR	20	29	2	7%	1.00	1.02	30	0	30
			NB	NBL	NBL	20	0	0	0%	1.00	1.02	0	0	0
				NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0
				NBR	NBR	20	0	0	0%	1.00	1.02	0	0	0
			SB	SBL	SBL	20	50	4	8%	1.00	1.02	50	0	50
				SBT	SBT	20	0	0	0%	1.00	1.02	0	0	0
				SBR	SBR	20	3	1	33%	1.00	1.02	5	0	5
TEV	TEV				291					300	0	300		
18	Grant (S Leg) / Taylor Count date: 08/07/2019 AM Peak Hour: 8:00-9:00 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.79		EB	EBL	EBL	20	0	1	0%	1.00	1.02	0	0	0
				EBT	EBT	20	48	1	2%	1.00	1.02	50	0	50
				EBR	EBR	20	18	0	0%	1.00	1.02	20	0	20
			WB	WBL	WBL	20	7	0	0%	1.00	1.02	5	0	5
				WBT	WBT	20	25	4	16%	1.00	1.02	25	0	25
				WBR	WBR	20	0	0	0%	1.00	1.02	0	0	0
			NB	NBL	NBL	20	25	0	0%	1.00	1.02	25	0	25
				NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0
				NBR	NBR	20	13	1	8%	1.00	1.02	15	0	15
			SB	SBL	SBL	20	0	0	0%	1.00	1.02	0	0	0
				SBT	SBT	20	0	0	0%	1.00	1.02	0	0	0
				SBR	SBR	20	0	0	0%	1.00	1.02	0	0	0
TEV	TEV				136					140	0	140		
19	Grant (N Leg) / Taylor Count date: 08/07/2019 AM Peak Hour: 8:00-9:00 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.77		EB	EBL	EBL	20	4	0	0%	1.00	1.02	5	0	5
				EBT	EBT	20	39	0	0%	1.00	1.02	40	0	40
				EBR	EBR	20	0	0	0%	1.00	1.02	0	0	0
			WB	WBL	WBL	20	0	1	0%	1.00	1.02	0	0	0
				WBT	WBT	20	21	3	5%	1.00	1.02	20	0	20
				WBR	WBR	20	29	3	10%	1.00	1.02	30	0	30
			NB	NBL	NBL	20	0	0	0%	1.00	1.02	0	0	0
				NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0
				NBR	NBR	20	0	0	0%	1.00	1.02	0	0	0
			SB	SBL	SBL	20	27	1	4%	1.00	1.02	25	0	25
				SBT	SBT	20	0	0	0%	1.00	1.02	0	0	0
				SBR	SBR	20	6	0	0%	1.00	1.02	5	0	5
TEV	TEV				126					125	0	125		
20	Grant / Twin Creeks Crossing Count date: 09/11/2019 AM Peak Hour: 7:15-8:15 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.83		EB	EBL	EBL	20	0	0	0%	1.00	1.03	0	0	0
				EBT	EBT	20	0	0	0%	1.00	1.03	0	0	0
				EBR	EBR	20	0	0	0%	1.00	1.03	0	0	0
			WB	WBL	WBL	20	13	1	8%	1.00	1.03	15	0	15
				WBT	WBT	20	0	0	0%	1.00	1.03	0	0	0
				WBR	WBR	20	12	1	8%	1.00	1.03	10	0	10
			NB	NBL	NBL	20	0	0	0%	1.00	1.03	0	0	0
				NBT	NBT	20	32	7	22%	1.00	1.03	35	0	35
				NBR	NBR	20	11	1	9%	1.00	1.03	10	0	10
			SB	SBL	SBL	20	11	3	27%	1.00	1.03	10	0	10
				SBT	SBT	20	27	3	11%	1.00	1.03	30	0	30
				SBR	SBR	20	0	0	0%	1.00	1.03	0	0	0
TEV	TEV				106					110	0	110		
21	Taylor / Haskell Count date: 09/10/2019 AM Peak Hour: 7:15-8:15 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.85		EB	EBL	EBL	20	13	0	0%	1.00	1.03	15	0	15
				EBT	EBT	20	0	0	0%	1.00	1.03	0	0	0
				EBR	EBR	20	171	8	5%	1.00	1.03	175	0	175
			WB	WBL	WBL	20	0	0	0%	1.00	1.03	0	0	0
				WBT	WBT	20	0	0	0%	1.00	1.03	0	0	0
				WBR	WBR	20	0	0	0%	1.00	1.03	0	0	0
			NB	NBL	NBL	20	62	4	6%	1.00	1.03	65	0	65
				NBT	NBT	20	52	3	6%	1.00	1.03	55	0	55
				NBR	NBR	20	0	0	0%	1.00	1.03	0	0	0
			SB	SBL	SBL	20	0	0	0%	1.00	1.03	0	0	0
				SBT	SBT	20	97	2	2%	1.00	1.03	100	0	100
				SBR	SBR	20	0	0	0%	1.00	1.03	0	0	0
TEV	TEV				395					410	0	410		
22	Grant / Scenic Ave Count date: 09/12/2019		EB	EBL	EBL	20	0	4	0%	1.00	1.03	0	0	0
				EBT	EBT	20	95	1	4%	1.00	1.03	100	0	100
				EBR	EBR	20	5	1	20%	1.00	1.03	5	0	5
			WB	WBL	WBL	20	41	2	5%	1.00	1.03	40	0	40
				WBT	WBT	20	30	3	10%	1.00	1.03	30	0	30
				WBR	WBR	20	0	0	0%	1.00	1.03	0	0	0

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts	Existing	Existing	Base Year	Seasonal	30th Highest Hour	Volume Balancing Adjustments	2019			
						1-Hr Volume AM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage	Adjustment Factor	Adjustment Factor	1-Hr Volume AM Peak		Balanced Volumes AM Peak			
110	AM Peak Hour: 7:30-8:30 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.80		NB	NBL	NBL	20	5	3	60%	1.00	1.03	5	0	5		
				NBT	NBT	20	0	0	0%	1.00	1.03	0	0	0		
				NBR	NBR	20	52	3	6%	1.00	1.03	55	0	55		
			SB	SBL	SBL	20	0	0	0%	1.00	1.03	0	0	0	0	0
				SBT	SBT	20	0	0	0%	1.00	1.03	0	0	0	0	0
				SBR	SBR	20	0	0	0%	1.00	1.03	0	0	0	0	0
			TEV	TEV					228					235	0	235
23	Future Gebhard / Pine Count date: AM Peak Hour: AM Peak Hour Used: 7:30-8:30 AM PHF:		EB	EBL	EBL	20	0	0	0%	1.00	1.18	0	0	0		
				EBT	EBT	20	0	0	0%	1.00	1.18	0	1080	1080		
				EBR	EBR	20	0	0	0%	1.00	1.18	0	0	0		
			WB	WBL	WBL	20	0	0	0%	1.00	1.18	0	0	0	0	0
				WBT	WBT	20	0	0	0%	1.00	1.18	0	650	650		
				WBR	WBR	20	0	0	0%	1.00	1.18	0	0	0		
			NB	NBL	NBL	20	0	0	0%	1.00	1.18	0	0	0	0	0
				NBT	NBT	20	0	0	0%	1.00	1.18	0	0	0	0	0
				NBR	NBR	20	0	0	0%	1.00	1.18	0	0	0	0	0
			SB	SBL	SBL	20	0	0	0%	1.00	1.18	0	0	0	0	0
				SBT	SBT	20	0	0	0%	1.00	1.18	0	0	0	0	0
				SBR	SBR	20	0	0	0%	1.00	1.18	0	0	0	0	0
			TEV	TEV					0					0	1730	1730
			24	Future Gebhard / Beebe Count date: AM Peak Hour: AM Peak Hour Used: 7:30-8:30 AM PHF:		EB	EBL	EBL	20	0	0	0%	1.00	1.18	0	0
EBT	EBT	20					0	0	0%	1.00	1.18	0	0	0		
EBR	EBR	20					0	0	0%	1.00	1.18	0	0	0		
WB	WBL	WBL				20	0	0	0%	1.00	1.18	0	0	0	0	0
	WBT	WBT				20	0	0	0%	1.00	1.18	0	0	0	0	0
	WBR	WBR				20	0	0	0%	1.00	1.18	0	0	0		
NB	NBL	NBL				20	0	0	0%	1.00	1.18	0	0	0	0	0
	NBT	NBT				20	0	0	0%	1.00	1.18	0	0	0	0	0
	NBR	NBR				20	0	0	0%	1.00	1.18	0	0	0	0	0
SB	SBL	SBL				20	0	0	0%	1.00	1.18	0	0	0	0	0
	SBT	SBT				20	0	0	0%	1.00	1.18	0	0	0	0	0
	SBR	SBR				20	0	0	0%	1.00	1.18	0	0	0	0	0
TEV	TEV								0					0	0	0
25	Future Penninger / Beebe Count date: AM Peak Hour: AM Peak Hour Used: 7:30-8:30 AM PHF:					EB	EBL	EBL	20	0	0	0%	1.00	1.18	0	0
			EBT	EBT	20		0	0	0%	1.00	1.18	0	70	70		
			EBR	EBR	20		0	0	0%	1.00	1.18	0	0	0		
			WB	WBL	WBL	20	0	0	0%	1.00	1.18	0	0	0	0	0
				WBT	WBT	20	0	0	0%	1.00	1.18	0	40	40		
				WBR	WBR	20	0	0	0%	1.00	1.18	0	0	0		
			NB	NBL	NBL	20	0	0	0%	1.00	1.18	0	0	0	0	0
				NBT	NBT	20	0	0	0%	1.00	1.18	0	0	0	0	0
				NBR	NBR	20	0	0	0%	1.00	1.18	0	0	0		
			SB	SBL	SBL	20	0	0	0%	1.00	1.18	0	0	0	0	0
				SBT	SBT	20	0	0	0%	1.00	1.18	0	0	0	0	0
				SBR	SBR	20	0	0	0%	1.00	1.18	0	0	0	0	0
			TEV	TEV					0					0	110	110
			26	Upton Rd / Scenic Rd Count date: October 9, 2018 AM Peak Hour: 7:45-8:45 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.93		EB	EBL	EBL	20	97	7	7%	1.00	1.03	100	-20
EBT	EBT	20					231	9	4%	1.00	1.03	240	30	270		
EBR	EBR	20					1	0	0%	1.00	1.03	0	2	2		
WB	WBL	WBL				20	4	0	0%	1.00	1.03	5	-5	0		
	WBT	WBT				20	124	8	6%	1.00	1.03	130	5	135		
	WBR	WBR				20	121	5	4%	1.00	1.03	125	-25	100		
NB	NBL	NBL				20	7	0	0%	1.00	1.03	5	1	6		
	NBT	NBT				20	1	0	0%	1.00	1.03	2	2	2		
	NBR	NBR				20	9	0	0%	1.00	1.03	10	-5	5		
SB	SBL	SBL				20	153	6	4%	1.00	1.03	160	-10	150		
	SBT	SBT				20	3	0	0%	1.00	1.03	5	0	5		
	SBR	SBR				20	88	7	8%	1.00	1.03	90	-30	60		
TEV	TEV								839					870	-55	815
27	Gebhard / Wilson Rd Count date: July 11, 2017 AM Peak Hour: 7:15-8:15 AM AM Peak Hour Used: 7:30-8:30 AM PHF: 0.80					EB	EBL	EBL	20	0	0	0%	1.00	1.02	0	0
			EBT	EBT	20		83	5	6%	1.00	1.02	85	55	140		
			EBR	EBR	20		8	0	0%	1.00	1.02	10	0	10		
			WB	WBL	WBL	20	5	0	0%	1.00	1.02	5	0	5		
				WBT	WBT	20	69	3	4%	1.00	1.02	70	0	70		
				WBR	WBR	20	1	0	0%	1.00	1.02	0	1	1		
			NB	NBL	NBL	20	13	0	0%	1.00	1.02	15	10	25		
				NBT	NBT	20	1	0	0%	1.00	1.02	0	1	1		
				NBR	NBR	20	17	3	18%	1.00	1.02	15	0	15		
			SB	SBL	SBL	20	2	0	0%	1.00	1.02	0	2	2		
				SBT	SBT	20	0	0	0%	1.00	1.02	0	0	0		
				SBR	SBR	20	0	0	0%	1.00	1.02	0	0	0		
			TEV	TEV					199					200	69	269

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts Year 2019	Existing	Existing	Base Year Adjustment Factor	Seasonal Adjustment Factor	30th Highest Hour Adjusted	Volume Balancing Adjustments	2019	
						1-Hr Volume PM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage			1-Hr Volume PM Peak	Volume	Balanced Volumes PM Peak	
1	5	I-5 NB Ramps / Pine	EB	EBL	EBL	10	105	5	5%	1.00	1.02	105	0	105
				EBT	EBT	10	839	66	8%	1.00	1.02	855	0	855
				EBR	EBR	10	0	0	0%	1.00	1.02	0	0	0
			WB	WBL	WBL	10	0	0	0%	1.00	1.02	0	0	0
				WBT	WBT	10	921	48	5%	1.00	1.02	940	0	940
				WBR	WBR	10	438	65	15%	1.00	1.02	445	0	445
			NB	NBL	NBL	10	346	4	1%	1.00	1.02	355	20	375
				NBT	NBT	10	1	1	100%	1.00	1.02	0	1	1
				NBR	NBR	10	293	49	17%	1.00	1.02	300	50	350
			SB	SBL	SBL	10	0	0	0%	1.00	1.02	0	0	0
				SBT	SBT	10	0	0	0%	1.00	1.02	0	0	0
				SBR	SBR	10	0	0	0%	1.00	1.02	0	0	0
TEV	TEV				2943					3000	71	3071		
Count date: 08/06/2019														
PM Peak Hour: 4:30-5:30 PM														
PM Peak Hour Used: 4:30-5:30 PM														
PHF: 0.99														
2	10	I-5 SB Ramps / Pine	EB	EBL	EBL	20	0	0	0%	1.00	1.02	0	0	0
				EBT	EBT	20	686	18	3%	1.00	1.02	700	0	700
				EBR	EBR	20	294	5	2%	1.00	1.02	300	0	300
			WB	WBL	WBL	20	236	31	13%	1.00	1.02	240	0	240
				WBT	WBT	20	1087	26	2%	1.00	1.02	1110	-35	1075
				WBR	WBR	20	0	0	0%	1.00	1.02	0	0	0
			NB	NBL	NBL	20	0	0	0%	1.00	1.02	0	0	0
				NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0
				NBR	NBR	20	0	0	0%	1.00	1.02	0	0	0
			SB	SBL	SBL	20	256	65	25%	1.00	1.02	260	0	260
				SBT	SBT	20	0	0	0%	1.00	1.02	0	0	0
				SBR	SBR	20	95	4	4%	1.00	1.02	95	10	105
TEV	TEV				2654					2705	-25	2680		
Count date: 08/06/2019														
PM Peak Hour: 4:30-5:30 PM														
PM Peak Hour Used: 4:30-5:30 PM														
PHF: 0.97														
3	15	OR 99 / Pine St	EB	EBL	EBL	30	106	3	3%	1.00	1.07	115	0	115
				EBT	EBT	30	279	6	2%	1.00	1.07	300	0	300
				EBR	EBR	30	85	1	1%	1.00	1.07	90	0	90
			WB	WBL	WBL	30	153	2	1%	1.00	1.00	155	0	155
				WBT	WBT	30	483	8	2%	1.00	1.00	485	0	485
				WBR	WBR	30	68	1	1%	1.00	1.00	70	0	70
			NB	NBL	NBL	30	260	3	1%	1.00	1.02	265	0	265
				NBT	NBT	30	377	11	3%	1.00	1.07	405	0	405
				NBR	NBR	30	120	1	1%	1.00	1.07	130	0	130
			SB	SBL	SBL	30	91	1	1%	1.00	1.07	95	0	95
				SBT	SBT	30	221	15	7%	1.00	1.07	235	0	235
				SBR	SBR	30	92	9	10%	1.00	1.05	95	0	95
TEV	TEV				2335					2440	0	2440		
Count date: 09/17/2019														
PM Peak Hour: 4:30-5:30 PM														
PM Peak Hour Used: 4:30-5:30 PM														
PHF: 0.96														
4	20	Twin Creeks Crossing / OR 99	EB	EBL	EBL	40	28	0	0%	1.00	1.07	30	0	30
				EBT	EBT	40	0	0	0%	1.00	1.07	0	0	0
				EBR	EBR	40	40	1	3%	1.00	1.07	45	0	45
			WB	WBL	WBL	40	0	0	0%	1.00	1.07	0	0	0
				WBT	WBT	40	0	0	0%	1.00	1.07	0	0	0
				WBR	WBR	40	0	0	0%	1.00	1.07	0	0	0
			NB	NBL	NBL	40	48	0	0%	1.00	1.07	50	0	50
				NBT	NBT	40	452	19	4%	1.00	1.07	485	0	485
				NBR	NBR	40	0	0	0%	1.00	1.07	0	0	0
			SB	SBL	SBL	40	0	0	0%	1.00	1.07	0	0	0
				SBT	SBT	40	339	17	5%	1.00	1.07	365	0	365
				SBR	SBR	40	31	0	0%	1.00	1.07	35	0	35
TEV	TEV				938					1010	0	1010		
Count date: 09/24/2019														
PM Peak Hour: 3:45-4:45 PM														
PM Peak Hour Used: 4:30-5:30 PM														
PHF: 0.80														
5	25	Scenic Ave / OR 99	EB	EBL	EBL	50	19	1	5%	1.00	1.05	20	0	20
				EBT	EBT	50	49	1	2%	1.00	1.05	50	0	50
				EBR	EBR	50	25	0	0%	1.00	1.05	25	0	25
			WB	WBL	WBL	50	59	1	2%	1.00	1.05	60	0	60
				WBT	WBT	50	68	4	6%	1.00	1.05	70	0	70
				WBR	WBR	50	56	2	4%	1.00	1.05	60	0	60
			NB	NBL	NBL	50	27	3	11%	1.00	1.05	30	0	30
				NBT	NBT	50	315	17	5%	1.00	1.05	330	75	405
				NBR	NBR	50	77	1	1%	1.00	1.05	80	0	80
			SB	SBL	SBL	50	55	3	5%	1.00	1.05	60	0	60
				SBT	SBT	50	227	20	9%	1.00	1.05	240	75	315
				SBR	SBR	50	24	3	13%	1.00	1.05	25	0	25
TEV	TEV				1001					1050	150	1200		
Count date: 07/16/2019														
PM Peak Hour: 4:15-5:15 PM														
PM Peak Hour Used: 4:30-5:30 PM														
PHF: 0.91														
6	30	Beall / OR 99	EB	EBL	EBL	60	27	1	4%	1.00	1.01	25	0	25
				EBT	EBT	60	81	3	4%	1.00	1.01	80	0	80
				EBR	EBR	60	127	6	5%	1.00	1.01	130	0	130
			WB	WBL	WBL	60	116	0	0%	1.00	1.01	115	0	115
				WBT	WBT	60	113	2	2%	1.00	1.01	115	0	115
				WBR	WBR	60	49	0	0%	1.00	1.01	50	0	50
			NB	NBL	NBL	60	218	5	2%	1.00	1.01	220	0	220
				NBT	NBT	60	646	26	4%	1.00	1.01	650	0	650
				NBR	NBR	60	180	6	3%	1.00	1.01	180	0	180
			SB	SBL	SBL	60	36	2	6%	1.00	1.01	35	0	35
				SBT	SBT	60	438	26	6%	1.00	1.01	440	0	440
				SBR	SBR	60	55	2	4%	1.00	1.01	55	0	55
TEV	TEV				2086					2095	0	2095		
Count date: 06/20/2019														
PM Peak Hour: 4:45-5:45 PM														
PM Peak Hour Used: 4:30-5:30 PM														
PHF: 0.95														
7	35	Peninger / Upton	EB	EBL	EBL	60	0	0	0%	1.00	1.00	0	0	0
				EBT	EBT	60	162	5	3%	1.00	1.00	160	0	160
				EBR	EBR	60	30	1	3%	1.00	1.00	30	0	30
			WB	WBL	WBL	60	23	0	0%	1.00	1.00	25	0	25
				WBT	WBT	60	225	10	4%	1.00	1.00	225	0	225
				WBR	WBR	60	0	0	0%	1.00	1.00	0	0	0
			NB	NBL	NBL	60	70	3	4%	1.00	1.00	70	0	70
				NBT	NBT	60	0	0	0%	1.00	1.00	0	0	0
				NBR	NBR	60	37	3	8%	1.00	1.00	35	0	35
			SB	SBL	SBL	60	0	0	0%	1.00	1.00	0	0	0
				SBT	SBT	60	0	0	0%	1.00	1.00	0	0	0
				SBR	SBR	60	0	0	0%	1.00	1.00	0	0	0
TEV	TEV				547					545	0	545		
Count date: 05/31/2017														
PM Peak Hour: 4:15-5:15 PM														
PM Peak Hour Used: 4:30-5:30 PM														
PHF: 0.95														
8	40	Upton / Wilson	EBL	EBL	70	0	0	0%	1.00	1.03	0	0	0	
			EBT	EBT	70	0	0	0%	1.00	1.03	0	0	0	

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts	Existing	Existing	Base	Seasonal	30th Highest Hour	Volume Balancing	2019				
						Year 2019	Heavy Vehicle	Heavy Vehicle	Year	Adjustment	Adjusted	Adjustments	Balanced Volumes				
						1-Hr Volume	Count	Percentage	Factor	Factor	1-Hr Volume		PM Peak				
40	Count date: 10/01/2019		WB	EBR	EBR	70	0	0%	1.00	1.03	0	0	0				
				WBL	WBL	70	140	4	3%	1.00	1.03	145	0	145			
				WBT	WBT	70	0	0	0%	1.00	1.03	0	0	0			
			NB	WBR	WBR	70	26	3	12%	1.00	1.03	25	0	25			
				NBL	NBL	70	0	0	0%	1.00	1.03	0	0	0			
				NBT	NBT	70	79	2	3%	1.00	1.03	80	0	80			
			SB	NBR	NBR	70	95	2	2%	1.00	1.03	100	0	100			
				SBL	SBL	70	39	2	5%	1.00	1.03	40	0	40			
				SBT	SBT	70	82	2	2%	1.00	1.03	85	0	85			
			TEV	TEV				461					475	0	475		
			9	Wilson / Table Rock		EB	EBL	EBL	80	50	3	6%	1.00	1.00	50	0	50
							EBT	EBT	80	0	0	0%	1.00	1.00	0	0	0
							EBR	EBR	80	74	4	5%	1.00	1.00	75	0	75
WB	WBL	WBL				80	0	0	0%	1.00	1.00	0	0	0			
	WBT	WBT				80	0	0	0%	1.00	1.00	0	0	0			
	WBR	WBR				80	0	0	0%	1.00	1.00	0	0	0			
NB	NBL	NBL				80	62	8	13%	1.00	1.00	60	0	60			
	NBT	NBT				80	747	51	7%	1.00	1.00	745	0	745			
	NBR	NBR				80	0	0	0%	1.00	1.00	0	0	0			
SB	SBL	SBL				80	0	0	0%	1.00	1.00	0	0	0			
	SBT	SBT				80	609	31	5%	1.00	1.00	610	0	610			
	SBR	SBR				80	75	4	5%	1.00	1.00	75	0	75			
TEV	TEV							1617					1615	0	1615		
10	Table Rock / Biddle		EB	EBL	EBL	90	128	24	19%	1.00	1.00	130	0	130			
				EBT	EBT	90	298	5	2%	1.00	1.00	300	0	300			
				EBR	EBR	90	96	4	4%	1.00	1.00	95	0	95			
			WB	WBL	WBL	90	34	0	0%	1.00	1.00	35	0	35			
				WBT	WBT	90	485	7	1%	1.00	1.00	485	0	485			
				WBR	WBR	90	267	12	4%	1.00	1.00	265	0	265			
			NB	NBL	NBL	90	152	3	2%	1.00	1.00	150	0	150			
				NBT	NBT	90	331	17	5%	1.00	1.00	330	0	330			
				NBR	NBR	90	11	0	0%	1.00	1.00	10	0	10			
			SB	SBL	SBL	90	156	4	3%	1.00	1.00	155	0	155			
				SBT	SBT	90	429	15	3%	1.00	1.00	430	0	430			
				SBR	SBR	90	85	9	11%	1.00	1.00	85	0	85			
			TEV	TEV				2472					2470	0	2470		
11	Vilas / Table Rock		EB	EBL	EBL	20	161	9	6%	1.00	1.00	160	0	160			
				EBT	EBT	20	186	19	10%	1.00	1.00	185	0	185			
				EBR	EBR	20	25	0	0%	1.00	1.00	25	0	25			
			WB	WBL	WBL	20	194	12	6%	1.00	1.00	195	0	195			
				WBT	WBT	20	340	17	5%	1.00	1.00	340	0	340			
				WBR	WBR	20	120	5	4%	1.00	1.00	120	0	120			
			NB	NBL	NBL	20	70	1	1%	1.00	1.00	70	0	70			
				NBT	NBT	20	453	30	7%	1.00	1.00	455	0	455			
				NBR	NBR	20	176	17	10%	1.00	1.00	175	0	175			
			SB	SBL	SBL	20	113	8	7%	1.00	1.00	115	0	115			
				SBT	SBT	20	338	23	7%	1.00	1.00	340	0	340			
				SBR	SBR	20	207	11	5%	1.00	1.00	205	0	205			
			TEV	TEV				2383					2385	0	2385		
12	Hamrick / Biddle		EB	EBL	EBL	20	386	29	8%	1.00	1.02	390	0	390			
				EBT	EBT	20	487	28	6%	1.00	1.02	495	0	495			
				EBR	EBR	20	206	24	12%	1.00	1.02	210	0	210			
			WB	WBL	WBL	20	8	0	0%	1.00	1.02	10	0	10			
				WBT	WBT	20	592	25	4%	1.00	1.02	600	0	600			
				WBR	WBR	20	36	1	3%	1.00	1.02	35	0	35			
			NB	NBL	NBL	20	216	7	3%	1.00	1.02	220	0	220			
				NBT	NBT	20	44	2	5%	1.00	1.02	45	0	45			
				NBR	NBR	20	11	0	0%	1.00	1.02	10	0	10			
			SB	SBL	SBL	20	29	0	0%	1.00	1.02	30	0	30			
				SBT	SBT	20	15	2	13%	1.00	1.02	15	0	15			
				SBR	SBR	20	470	20	4%	1.00	1.02	480	0	480			
			TEV	TEV				2500					2540	0	2540		
13	Hamrick / Beebe		EB	EBL	EBL	20	1	0	0%	1.00	1.02	0	5	5			
				EBT	EBT	20	3	0	0%	1.00	1.02	5	0	5			
				EBR	EBR	20	46	0	0%	1.00	1.02	45	0	45			
			WB	WBL	WBL	20	8	0	0%	1.00	1.02	10	0	10			
				WBT	WBT	20	2	0	0%	1.00	1.02	0	5	5			
				WBR	WBR	20	15	0	0%	1.00	1.02	15	0	15			
			NB	NBL	NBL	20	55	2	4%	1.00	1.02	55	0	55			
				NBT	NBT	20	368	15	4%	1.00	1.02	375	0	375			
				NBR	NBR	20	18	0	0%	1.00	1.02	20	0	20			
			SB	SBL	SBL	20	20	0	0%	1.00	1.02	20	0	20			
				SBT	SBT	20	530	20	4%	1.00	1.02	540	0	540			
				SBR	SBR	20	9	0	0%	1.00	1.02	10	0	10			
			TEV	TEV				1075					1095	10	1105		
14	Peninger / Pine		EB	EBL	EBL	20	57	2	4%	1.00	1.02	60	0	60			
				EBT	EBT	20	1015	54	5%	1.00	1.02	1030	-30	1000			
				EBR	EBR	20	147	38	26%	1.00	1.02	150	-5	145			
			WB	WBL	WBL	20	47	6	13%	1.00	1.02	50	0	50			
				WBT	WBT	20	1193	35	3%	1.00	1.02	1210	-40	1170			
				WBR	WBR	20	78	1	1%	1.00	1.02	80	0	80			
			NB	NBL	NBL	20	176	34	19%	1.00	1.02	180	0	180			
				NBT	NBT	20	23	0	0%	1.00	1.02	25	0	25			
				NBR	NBR	20	39	5	13%	1.00	1.02	40	0	40			
			SB	SBL	SBL	20	51	1	2%	1.00	1.02	50	0	50			
				SBT	SBT	20	17	0	0%	1.00	1.02	15	0	15			
				SBR	SBR	20	40	0	0%	1.00	1.02	40	-5	35			
			TEV	TEV				2883					2930	-80	2850		
15	Haskell / Pine		EB	EBL	EBL	20	49	0	0%	1.00	1.03	50	0	50			
				EBT	EBT	20	249	8	3%	1.00	1.03	255	0	255			
				EBR	EBR	20	13	3	23%	1.00	1.03	15	0	15			
			WBL	WBL	20	74	2	3%	1.00	1.03	75	0	75				

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts	Existing	Existing	Base Year	Seasonal	30th Highest Hour	Volume Balancing	2019		
						Year 2019	Heavy Vehicle Count	Heavy Vehicle Percentage	Adjustment Factor	Adjustment Factor	Adjusted 1-Hr Volume PM Peak	Adjustments	Balanced Volumes PM Peak		
75	PM Peak Hour: 5:00-6:00 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.87	WB	EBL	EBL	20	378	10	3%	1.00	1.03	390	0	390		
			EBT	EBT	20	368	3	1%	1.00	1.03	380	0	380		
			NBL	NBL	20	3	0	0%	1.00	1.03	5	0	5		
			NBT	NBT	20	8	2	25%	1.00	1.03	10	0	10		
			NBR	NBR	20	58	4	7%	1.00	1.03	60	0	60		
			SBL	SBL	20	183	4	2%	1.00	1.03	190	0	190		
			SBT	SBT	20	8	0	0%	1.00	1.03	10	0	10		
			SBR	SBR	20	32	0	0%	1.00	1.03	35	0	35		
			TEV	TEV				1423					1475	0	1475
			16	Hanley / Beall Count date: 07/31/2019 PM Peak Hour: 4:45-5:45 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.90	EB	EBL	EBL	20	18	0	0%	1.00	1.02	20	0
EBT	EBT	20				69	1	1%	1.00	1.02	70	0	70		
EBR	EBR	20				38	2	5%	1.00	1.02	40	0	40		
WB	WBL	WBL			20	53	0	0%	1.00	1.02	55	0	55		
	WBT	WBT			20	117	2	2%	1.00	1.02	120	0	120		
	WBR	WBR			20	35	1	3%	1.00	1.02	35	0	35		
NB	NBL	NBL			20	62	2	3%	1.00	1.02	65	0	65		
	NBT	NBT			20	119	4	3%	1.00	1.02	120	0	120		
	NBR	NBR			20	41	1	2%	1.00	1.02	40	0	40		
SB	SBL	SBL			20	18	1	6%	1.00	1.02	20	0	20		
	SBT	SBT	20	130	5	4%	1.00	1.02	130	0	130				
	SBR	SBR	20	46	2	4%	1.00	1.02	45	0	45				
TEV	TEV				746					760	0	760			
17	Grant / Beall Count date: 08/08/2019 PM Peak Hour: 5:00-6:00 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.82	EB	EBL	EBL	20	1	0	0%	1.00	1.02	0	5	5		
			EBT	EBT	20	84	4	5%	1.00	1.02	85	-5	80		
			EBR	EBR	20	0	0	0%	1.00	1.02	0	0	0		
		WB	WBL	WBL	20	0	0	0%	1.00	1.02	0	0	0		
			WBT	WBT	20	155	3	2%	1.00	1.02	155	0	155		
			WBR	WBR	20	75	1	1%	1.00	1.02	75	0	75		
		NB	NBL	NBL	20	0	0	0%	1.00	1.02	0	0	0		
			NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0		
			NBR	NBR	20	0	0	0%	1.00	1.02	0	0	0		
		SB	SBL	SBL	20	48	2	4%	1.00	1.02	50	0	50		
SBT	SBT		20	0	0	0%	1.00	1.02	0	0	0				
SBR	SBR		20	4	0	0%	1.00	1.02	5	0	5				
TEV	TEV				367					370	0	370			
18	Grant (S Leg) / Taylor Count date: 08/07/2019 PM Peak Hour: 4:45-5:45 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.86	EB	EBL	EBL	20	0	0	0%	1.00	1.02	0	0	0		
			EBT	EBT	20	44	3	7%	1.00	1.02	45	0	45		
			EBR	EBR	20	40	1	3%	1.00	1.02	40	0	40		
		WB	WBL	WBL	20	15	0	0%	1.00	1.02	15	0	15		
			WBT	WBT	20	66	3	5%	1.00	1.02	65	0	65		
			WBR	WBR	20	0	0	0%	1.00	1.02	0	0	0		
		NB	NBL	NBL	20	29	0	0%	1.00	1.02	30	0	30		
			NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0		
			NBR	NBR	20	17	2	12%	1.00	1.02	15	0	15		
		SB	SBL	SBL	20	0	0	0%	1.00	1.02	0	0	0		
SBT	SBT		20	0	0	0%	1.00	1.02	0	0	0				
SBR	SBR		20	0	0	0%	1.00	1.02	0	0	0				
TEV	TEV				211					210	0	210			
19	Grant (N Leg) / Taylor Count date: 08/07/2019 PM Peak Hour: 4:45-5:45 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.86	EB	EBL	EBL	20	11	1	9%	1.00	1.02	10	0	10		
			EBT	EBT	20	46	1	2%	1.00	1.02	45	0	45		
			EBR	EBR	20	0	0	0%	1.00	1.02	0	0	0		
		WB	WBL	WBL	20	0	0	0%	1.00	1.02	0	0	0		
			WBT	WBT	20	61	1	2%	1.00	1.02	60	0	60		
			WBR	WBR	20	37	2	5%	1.00	1.02	40	-5	35		
		NB	NBL	NBL	20	0	0	0%	1.00	1.02	0	0	0		
			NBT	NBT	20	0	0	0%	1.00	1.02	0	0	0		
			NBR	NBR	20	0	0	0%	1.00	1.02	0	0	0		
		SB	SBL	SBL	20	37	0	0%	1.00	1.02	40	0	40		
SBT	SBT		20	0	0	0%	1.00	1.02	0	0	0				
SBR	SBR		20	14	0	0%	1.00	1.02	15	10	25				
TEV	TEV				206					210	5	215			
20	Grant / Twin Creeks Crossing Count date: 09/11/2019 PM Peak Hour: 5:00-6:00 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.70	EB	EBL	EBL	20	0	0	0%	1.00	1.03	0	0	0		
			EBT	EBT	20	1	0	0%	1.00	1.03	0	0	0		
			EBR	EBR	20	0	0	0%	1.00	1.03	0	0	0		
		WB	WBL	WBL	20	7	1	14%	1.00	1.03	5	0	5		
			WBT	WBT	20	0	0	0%	1.00	1.03	0	0	0		
			WBR	WBR	20	12	1	8%	1.00	1.03	10	0	10		
		NB	NBL	NBL	20	0	0	0%	1.00	1.03	0	0	0		
			NBT	NBT	20	35	1	3%	1.00	1.03	35	0	35		
			NBR	NBR	20	9	0	0%	1.00	1.03	10	0	10		
		SB	SBL	SBL	20	27	0	0%	1.00	1.03	30	0	30		
SBT	SBT		20	57	2	4%	1.00	1.03	60	0	60				
SBR	SBR		20	0	0	0%	1.00	1.03	0	0	0				
TEV	TEV				148					150	0	150			
21	Taylor / Haskell Count date: 09/10/2019 PM Peak Hour: 4:30-5:30 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.90	EB	EBL	EBL	20	9	0	0%	1.00	1.03	10	0	10		
			EBT	EBT	20	0	0	0%	1.00	1.03	0	0	0		
			EBR	EBR	20	123	1	1%	1.00	1.03	125	0	125		
		WB	WBL	WBL	20	0	0	0%	1.00	1.03	0	0	0		
			WBT	WBT	20	0	0	0%	1.00	1.03	0	0	0		
			WBR	WBR	20	0	0	0%	1.00	1.03	0	0	0		
		NB	NBL	NBL	20	196	3	2%	1.00	1.03	200	0	200		
			NBT	NBT	20	134	3	2%	1.00	1.03	140	0	140		
			NBR	NBR	20	0	0	0%	1.00	1.03	0	0	0		
		SB	SBL	SBL	20	0	0	0%	1.00	1.03	0	0	0		
SBT	SBT		20	69	4	6%	1.00	1.03	70	10	80				
SBR	SBR		20	7	0	0%	1.00	1.03	5	0	5				
TEV	TEV				538					550	10	560			
22	Grant / Scenic Ave Count date: 09/12/2019	EB	EBL	EBL	20	0	0	0%	1.00	1.03	0	0	0		
			EBT	EBT	20	30	0	0%	1.00	1.03	30	25	55		
			EBR	EBR	20	13	1	8%	1.00	1.03	15	0	15		
		WB	WBL	WBL	20	45	2	4%	1.00	1.03	45	5	50		
			WBT	WBT	20	64	2	3%	1.00	1.03	65	10	75		
WBR	WBR	20	0	0	0%	1.00	1.03	0	0	0					

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts Year 2019 1-Hr Volume PM Peak	Existing Heavy Vehicle Count	Existing Heavy Vehicle Percentage	Base Year Adjustment Factor	Seasonal Adjustment Factor	30th Highest Hour Adjusted 1-Hr Volume PM Peak	Volume Balancing Adjustments	2019 Balanced Volumes PM Peak	
110	PM Peak Hour: 4:00-5:00 PM	Intersection	NB	NBL	20	12	0	0%	1.00	1.03	10	0	10	
110	PM Peak Hour Used: 4:30-5:30 PM			NBT	20	0	0	0%	1.00	1.03	0	0	0	0
110				NBR	20	35	2	6%	1.00	1.03	35	5	40	40
110	PHF: 0.84		SB	SBL	20	0	0	0%	1.00	1.03	0	0	0	0
110				SBT	20	0	0	0%	1.00	1.03	0	0	0	0
110				SBR	20	0	0	0%	1.00	1.03	0	0	0	0
<b>TEV</b>			<b>TEV</b>			<b>199</b>				<b>200</b>	<b>45</b>	<b>245</b>		
23	Future Gebhard / Pine	Intersection	EB	EBL	20	0	0	0%	1.00	1.00	0	0	0	
115	Count date:			EBT	20	0	0	0%	1.00	1.00	0	0	0	0
115				EBR	20	0	0	0%	1.00	1.00	0	0	0	0
115			WBL	20	0	0	0%	1.00	1.00	0	0	0	0	
115	PM Peak Hour: PM Peak Hour Used: 4:30-5:30 PM		WB	WBT	20	0	0	0%	1.00	1.00	0	0	0	0
115				WBR	20	0	0	0%	1.00	1.00	0	0	0	0
115				NBL	20	0	0	0%	1.00	1.00	0	0	0	0
115	PHF:		NB	NBT	20	0	0	0%	1.00	1.00	0	0	0	0
115				NBR	20	0	0	0%	1.00	1.00	0	0	0	0
115				SBL	20	0	0	0%	1.00	1.00	0	0	0	0
<b>TEV</b>			<b>TEV</b>			<b>0</b>				<b>0</b>	<b>0</b>	<b>0</b>		
24	Future Gebhard / Beebe		Intersection	EB	EBL	20	0	0	0%	1.00	1.00	0	0	0
120	Count date:	EBT			20	0	0	0%	1.00	1.00	0	0	0	0
120		EBR			20	0	0	0%	1.00	1.00	0	0	0	0
120		WBL		20	0	0	0%	1.00	1.00	0	0	0	0	
120	PM Peak Hour: PM Peak Hour Used: 4:30-5:30 PM	WB		WBT	20	0	0	0%	1.00	1.00	0	0	0	0
120				WBR	20	0	0	0%	1.00	1.00	0	0	0	0
120				NBL	20	0	0	0%	1.00	1.00	0	0	0	0
120	PHF:	NB		NBT	20	0	0	0%	1.00	1.00	0	0	0	0
120				NBR	20	0	0	0%	1.00	1.00	0	0	0	0
120				SBL	20	0	0	0%	1.00	1.00	0	0	0	0
<b>TEV</b>				<b>TEV</b>			<b>0</b>				<b>0</b>	<b>0</b>	<b>0</b>	
25	Future Penninger / Beebe	Intersection		EB	EBL	20	0	0	0%	1.00	1.00	0	0	0
125	Count date:		EBT		20	0	0	0%	1.00	1.00	0	0	0	0
125			EBR		20	0	0	0%	1.00	1.00	0	0	0	0
125			WBL	20	0	0	0%	1.00	1.00	0	0	0	0	
125	PM Peak Hour: PM Peak Hour Used: 4:30-5:30 PM		WB	WBT	20	0	0	0%	1.00	1.00	0	0	0	0
125				WBR	20	0	0	0%	1.00	1.00	0	0	0	0
125				NBL	20	0	0	0%	1.00	1.00	0	0	0	0
125	PHF:		NB	NBT	20	0	0	0%	1.00	1.00	0	0	0	0
125				NBR	20	0	0	0%	1.00	1.00	0	0	0	0
125				SBL	20	0	0	0%	1.00	1.00	0	0	0	0
<b>TEV</b>			<b>TEV</b>			<b>0</b>				<b>0</b>	<b>0</b>	<b>0</b>		
26	Upton Rd / Scenic Rd		Intersection	EB	EBL	20	105	6	6%	1.00	1.03	110	0	110
130	Count date: October 9, 2018	EBT			20	135	0	0%	1.00	1.03	140	0	140	
130		EBR			20	4	0	0%	1.00	1.03	5	0	5	
130		WBL		20	7	0	0%	1.00	1.03	5	0	5		
130	PM Peak Hour: 3:30-4:30 PM PM Peak Hour Used: 4:30-5:30 PM	WB		WBT	20	190	0	0%	1.00	1.03	195	0	195	
130				WBR	20	141	3	2%	1.00	1.03	145	0	145	
130				NBL	20	1	0	0%	1.00	1.03	0	1	1	
130	PHF: 0.90	NB		NBT	20	2	0	0%	1.00	1.03	0	2	2	
130				NBR	20	2	0	0%	1.00	1.03	0	2	2	
130				SBL	20	196	2	1%	1.00	1.03	200	0	200	
<b>TEV</b>				<b>TEV</b>			<b>918</b>				<b>940</b>	<b>5</b>	<b>945</b>	
27	Gebhard / Wilson Rd	Intersection		EB	EBL	20	2	0	0%	1.00	1.02	0	5	5
135	Count date: July 11, 2017		EBT		20	119	5	4%	1.00	1.02	120	0	120	
135			EBR		20	14	0	0%	1.00	1.02	15	0	15	
135			WBL	20	14	0	0%	1.00	1.02	15	0	15		
135	PM Peak Hour: 4:15-5:15 PM PM Peak Hour Used: 4:30-5:30 PM		WB	WBT	20	116	6	5%	1.00	1.02	120	10	130	
135				WBR	20	7	0	0%	1.00	1.02	5	5	10	
135				NBL	20	11	0	0%	1.00	1.02	10	10	20	
135	PHF: 0.89		NB	NBT	20	2	0	0%	1.00	1.02	0	2	2	
135				NBR	20	8	0	0%	1.00	1.02	10	0	10	
135				SBL	20	1	0	0%	1.00	1.02	0	1	1	
<b>TEV</b>			<b>TEV</b>			<b>295</b>				<b>295</b>	<b>38</b>	<b>333</b>		
28	Freeman/10th/Pine		Intersection	EB	EBL	20	25	0	0%	1.00	1.01	25	0	25
140	Count date: Feb 15, 2018	EBT			20	478	4	1%	1.00	1.01	485	0	485	
140		EBR			20	76	0	0%	1.00	1.01	75	0	75	
140		WBL		20	452	2	0%	1.00	1.01	455	0	455		
140	PM Peak Hour: 4:45-5:45 PM PM Peak Hour Used: 4:30-5:30 PM	WB		WBT	20	594	3	1%	1.00	1.01	600	0	600	
140				WBR	20	172	1	1%	1.00	1.01	175	0	175	
140				NBL	20	82	0	0%	1.00	1.01	85	0	85	
140	PHF: 0.98	NB		NBT	20	113	0	0%	1.00	1.01	115	0	115	
140				NBR	20	408	1	0%	1.00	1.01	410	0	410	
140				SBL	20	171	0	0%	1.00	1.01	175	0	175	
<b>TEV</b>				<b>TEV</b>			<b>2724</b>				<b>2750</b>	<b>5</b>	<b>2755</b>	
29	Meadowbrook/Biddle	Intersection		EB	EBL	20	59	0	0%	1.00	1.00	60	-20	40
145	Count date: Aug. 8, 2019		EBT		20	496	27	5%	1.00	1.00	495	-5	490	
145			EBR		20	2	0	0%	1.00	1.00	0	5	5	
145			WBL	20	4	0	0%	1.00	1.00	5	5	10		

N-S ID	Synchro ID	Intersection	Direction	Movement	Int ID	Existing Counts Year 2019			Base Year Adjustment Factor	Seasonal Adjustment Factor	30th Highest Hour Adjusted 1-Hr Volume PM Peak	Volume Balancing Adjustments	2019 Balanced Volumes PM Peak		
						1-Hr Volume PM Peak	Heavy Vehicle Count	Heavy Vehicle Percentage							
145		PM Peak Hour: 4:30-5:30 PM PM Peak Hour Used: 4:30-5:30 PM PHF: 0.95	WB	WBT	WBT	20	624	15	2%	1.00	1.00	625	-25	600	
145				WBR	WBR	20	56	0	0%	1.00	1.00	55	5	60	
145				NB	NBL	NBL	20	1	0	0%	1.00	1.00	0	5	5
145					NBT	NBT	20	0	0	0%	1.00	1.00	0	0	0
145					NBR	NBR	20	2	0	0%	1.00	1.00	0	5	5
145				SB	SBL	SBL	20	28	0	0%	1.00	1.00	30	0	30
145					SBT	SBT	20	0	0	0%	1.00	1.00	0	0	0
145					SBR	SBR	20	41	0	0%	1.00	1.00	40	0	40
				TEV	TEV			1313					1310	-25	1285
30	150		Hamrick/Table Rock	EB	EBL	EBL	20	125	0	0%	1.00	1.00	125	0	125
150			EBT		EBT	20	0	0	0%	1.00	1.00	0	0	0	
150		Count date: Jan 30, 2018	EBR		EBR	20	80	0	0%	1.00	1.00	80	0	80	
150			WB	WBL	WBL	20	0	0	0%	1.00	1.00	0	0	0	
150				WBT	WBT	20	0	0	0%	1.00	1.00	0	0	0	
150				WBR	WBR	20	0	0	0%	1.00	1.00	0	0	0	
150			NB	NBL	NBL	20	20	0	0%	1.00	1.00	20	0	20	
150		PM Peak Hour: 4:15-5:15 PM		NBT	NBT	20	365	0	0%	1.00	1.00	365	0	365	
150		PM Peak Hour Used: 4:30-5:30 PM		NBR	NBR	20	0	0	0%	1.00	1.00	0	0	0	
150			SB	SBL	SBL	20	0	0	0%	1.00	1.00	0	0	0	
150		PHF: 0.95		SBT	SBT	20	535	0	0%	1.00	1.00	535	0	535	
150				SBR	SBR	20	25	0	0%	1.00	1.00	25	0	25	
			TEV	TEV			1150					1150	0	1150	



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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix B

Crash Data,  
Travel Demand Model Output

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
CONTINUOUS SYSTEM CRASH LISTING

Intersectional Crashes at Pine St & Interstate 5, Pacific Hwy (001), SB Ramps  
January 1, 2013 through December 31, 2017

UNLOC?	D C J L K	S E A / C O	G H R DAY/TIME	W	DATE	COUNTY	URBAN AREA	RD#	FC	CONN #	STREET	INT-TYP	RD CHAR	INT-REL	OFFRD	WTHR	CRASH TYP	SPL USE	TRLR QTY	MOVE	OWNER	FROM	PRFC	INJ	A S	E X	RES	LOC	ERROR	ACTN EVENT	CAUSE		
03062	N	N	N	N	N	12/11/2017	JACKSON	1	16	2		CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT												07	
						Mon	12P	CN	0			TRF SIGNAL	N	DRY	REAR		PRVTE	E	W											000	00		
No	42	22	43.40	-122	54	24.17		32.63				1	06	1	N	DAY	INJ	PSNGR	CAR				01	DRVR	NONE	24	M	OR-Y	043	000	07		
																															OR<25		
02261	N	N	N	N	N	11/23/2014	JACKSON	1	16	2		CROSS	N	N	CLD	PED	01	NONE	0	TURN-R												02	
						Sun	3P	CN	0			TRF SIGNAL	N	DRY	INJ		PRVTE	N	W												000	00	
No	42	22	43.40	-122	54	24.17		32.63				1	05	1	N	DAY	INJ	PSNGR	CAR				01	DRVR	NONE	44	F	OR-Y	029	000	02		
																															OR<25		
00934	N	N	N	N	N	05/14/2015	JACKSON	1	16	2		CROSS	N	N	CLR	PED	01	NONE	0	TURN-R												02	
						Thu	2P	CN	0			TRF SIGNAL	N	DRY	INJ		PRVTE	N	W												000	00	
No	42	22	43.40	-122	54	24.17		32.63				0	05	0	N	DAY	INJ	PSNGR	CAR				01	DRVR	NONE	67	M	OR-Y	029	000	02		
																															OR<25		
00542	N	N	N	N	N	03/07/2016	JACKSON	1	16	2		CROSS	N	N	CLR	S-1STOP	01	NONE	0	STRGHT												27	
						Mon	6P	CN	0			TRF SIGNAL	N	DRY	REAR		RENTL	W	E												000	00	
No	42	22	43.40	-122	54	24.17		32.63				1	06	1	N	DLIT	INJ	PSNGR	CAR				01	DRVR	INJC	47	F	OR-Y	016,026	038	27		
																															OR>25		
01463	N	N	N	N	N	06/22/2017	JACKSON	1	16	2		CROSS	N	N	CLR	S-OTHER	01	NONE	1	TURN-L												26	
						Thu	2P	CN	0			TRF SIGNAL	N	DRY	TURN		PRVTE	N	E												007	092	
No	42	22	43.40	-122	54	24.17		32.63				1	01	1	N	DAY	INJ	SEMI	TOW				01	DRVR	NONE	48	M	OTH-Y	080	000	26		
																															N-RES		
																																000	00
																																000	00









OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 COUNTY ROAD CRASH LISTING

Intersectional Crashes at Pine St & Interstate 5, Pacific Hwy (001), SB Ramps  
 January 1, 2013 through December 31, 2017

JACKSON COUNTY

SER#	INVEST UNLOC?	EA / H R DAY / TIME	MILEPNT DIST FROM INTERSECT	COUNTY ROADS FIRST STREET SECOND STREET	INT-TYP (MEDIAN) INT-REL TRAF-CONTL	OFF-RD WTHR SURE LIGHT SVRVTY	CRASH COLL TYP	SPL USE TRLR QTY V# OMNER	MOVE FROM TO	PRIC INJ SVRVTY	A S G E LICNS PED	ACTN	EVEN	CAUSE
00547	N N N N	3/23/2015	0.67	E PINE ST	CROSS N	N	CLD S-1STOP	01 NONE	0 STRGHT	01 DRVR NONE	20 M	OR-Y	043	07
		Mon 9A			TRF SIGNAL N	N	DRY REAR	PRVTE W E				000		00
		42 22 43.40	-122 54 24.17				DAY PDO	PSNGR CAR				000		07
								02 NONE	0 STOP			011		00
								PRVTE W E				000		00
								PSNGR CAR		01 DRVR NONE	41 F	OR-Y	000	00
												OR<25		

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
CONTINUOUS SYSTEM CRASH LISTING

PINE ST at FRONT ST, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
Total Crash Records = 17  
\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

Table with columns: SER.#, INVEST, RD DPT UNLOC?, SPEED, ALCOHOL, DRUG, MARIJUANA, SCH ZONE, WORK ZONE, DATE TIME, COUNTY, RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT, CONN # FIRST STREET SECOND STREET LRS, RD CHAR DIRECT LOCTN, INT-TYP (MEDIAN) LEGS (# LANES), INT-REL TRAF-CONTL, OFF RD WTHR CRASH SURF COLL SVRTY, VEHICLE #, SPLIT USE TRLR CITY OWNER TYPE, MOVE FROM TO, PART #, INJURY SEVERITY, AGE, SEX, RES, NON-MTRST LOCATION, ERROR, ACTION VEHICLE (PARTICIPANT), EVENT VEHICLE, CRASH PARTICIPANT, CAUSE VEHICLE, PARTICIPANT.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 CONTINUOUS SYSTEM CRASH LISTING  
 PINE ST at FRONT ST, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
 Total Crash Records = 17  
 \*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER.# ID #	INVEST RD DPT UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCH ZONE	WORK ZONE	DATE DAY TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCNT	INT-TYP (MEDIAN) # LANS	INT-REL (TRAF-CONTL DRVWY)	OFF RD RNDET DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	VEHICLE #	SPL USE TRLR QTY OWNER TYPE	MOVE FROM TO	PART #	PARTC TYPE	INJURY SEVERITY	AGE	SEX	LICNS RES	NON-MTRST LOCATION	ERROR	ACTION VEHICLE (PARTICIPANT)	EVENT	VEHICLE		CAUSE									
																															CRASH	PARTICIPANT		CRASH	PARTICIPANT							
01305 158757	N	N	N	N	N	N	N	N	Jackson Central Point MEDFORD UA -122.91794	Non-ODOT Roadway 14-Urb 0th Pfm Art Not on st. sys.	FRONT ST PINE ST	INTER CN 01	CROSS 0 0	N	N	CLR DRY DAY	O-1 L-TURN TURN INJ	2981789	NONE PRVTE PSNGR CAR	TURN-L SW-NW	1	DRVR	NONE	18	M	OR-Y OR<25	004-LT In Front Of Onmg 028-No ROW	000-No Action (000-No Action)	08-Improper Turn 02-Failed Yield ROW	000-No Code 000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code							
02854 165081	N	N	N	N	N	N	N	N	Jackson Central Point MEDFORD UA -122.91794	Non-ODOT Roadway 14-Urb 0th Pfm Art Not on st. sys.	FRONT ST PINE ST	INTER CN 01	CROSS 0 0	N	N	CLD DRY DAY	ANGI-OTH ANGL PDO	3126692	NONE PRVTE PSNGR CAR	STRGHT NE-SW	1	DRVR	NONE	17	F	OR-Y OR<25	020-Disrg Traffic Signal	000-No Action (000-No Action)	04-Disregard Traf. Signal	000-No Code 000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code				
00959 NONE	N	N	N	N	N	N	N	N	Jackson Central Point MEDFORD UA -122.91794	Non-ODOT Roadway 14-Urb 0th Pfm Art Not on st. sys.	FRONT ST PINE ST	INTER CN 02	CROSS 0 0	N	N	CLR DRY DAY	O-1 L-TURN TURN PDO	2962114	NONE PRVTE PSNGR CAR	TURN-L NW-NE	1	DRVR	NONE	45	M	OR-Y OR<25	000-No Error	000-No Action (000-No Action)	010-Subseq Overtum	000-No Code 000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code			
03107 1760232	N	N	N	N	N	N	N	N	Jackson Central Point MEDFORD UA -122.91794	Non-ODOT Roadway 14-Urb 0th Pfm Art Not on st. sys.	FRONT ST PINE ST	INTER CN 02	CROSS 0 0	N	N	CLR DRY DLIT	O-OTHER TURN PDO	3319437	NONE N/A PSNGR CAR	TURN-R SE-NE	1	DRVR	NONE	0	UNK	UNK	000-No Error	016-Turn on red after stop (000-No Action)	02-Failed Yield ROW	000-No Code 000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code			
02564 1529329	N	N	N	N	N	N	N	N	Jackson Central Point MEDFORD UA -122.91794	Non-ODOT Roadway 16-Urb Min Art Not on st. sys.	FRONT ST PINE ST	INTER CN 03	CROSS 0 0	N	N	CLD DRY DAY	ANGI-OTH ANGL PDO	2889372	NONE PRVTE PSNGR CAR	STRGHT NW-SE	1	DRVR	NONE	62	F	OR-Y OR<25	000-No Error	000-No Action (000-No Action)	04-Disregard Traf. Signal	000-No Code 000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code			
01172 1624202	N	N	N	N	N	N	N	N	Jackson Central Point MEDFORD UA -122.91794	Non-ODOT Roadway 14-Urb 0th Pfm Art Not on st. sys.	FRONT ST PINE ST	INTER CN 03	CROSS 0 0	N	N	CLR DRY DAY	ANGI-OTH ANGL INJ	3067903	NONE PRVTE PSNGR CAR	STRGHT NE-SW	1	DRVR	NONE	29	F	OR-Y OR<25	016-Initiation 020-Disrg Traffic Signal	000-No Action (038-Driver Distracted)	083-Caiphone-Police	000-No Code 000-No Code	004-Disregard Traf. Signal 27-Initiation	000-No Code 000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code	000-No Code

**OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION**  
**TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT**  
**CONTINUOUS SYSTEM CRASH LISTING**  
 PINE ST at FRONT ST, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
 Total Crash Records = 17  
 \*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER #	INVEST	RD DPT	UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCH ZONE	WORK ZONE	DATE	COUNTY	CITY	URB AREA	LONG	RD #	FUNCTIONAL CLASS	COMPONENT	MILEAGE TYPE	MILEPOINT	CONN #	FIRST STREET	SECOND STREET	LR#	RD CHAR	DIRECT	LOCTN	RD REL	INT-REL	TRAFF-CONTR	DRWY	DRVWY	LIGHT	SVRTY	VEHICLE #	SPLCL USE	TRLR CITY	OWNER	TYPE	MOVE	FROM	TO	PART #	PARTC TYPE	INJURY	SEVERITY	AGE	SEX	LICNS	RES	NON-MTRST	LOCATION	ERROR	ACTION	EVENT		CAUSE	
																																																						VEHICLE	PARTICIPANT	VEHICLE	PARTICIPANT
02593	N	N	N	N	N	N	N	N	N	11/28/2015	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art			FRONT ST	PINE ST			INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL-OTH	3074808	NONE	0	PRVTE	NW-SE	STRGHT	1	DRVR	INJIB	40	F	OR-Y	OR-25	000-No Error	000-No Action (000-No Action)	04-Disregard Traf. Signal	00-No Code	00-No Code						
1627964	N	N	N	N	N	N	N	N	N	Saturday	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art			FRONT ST	PINE ST			INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL	3074809	NONE	0	PRVTE	NE-SW	STRGHT	1	DRVR	INJIB	65	M	OR-Y	OR-25	020-Disrg Traffic Signal	000-No Action (000-No Action)	04-Disregard Traf. Signal	00-No Code	04-Disregard Traf. Signal						
	N	N	N	N	N	N	N	N	N	42.37383	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art							INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL-OTH	3075207	NONE	0	PRVTE	NE-SE	TURN-L	1	DRVR	INJIB	76	M	OR-Y	OR-25	000-No Error	000-No Action (000-No Action)	04-Disregard Traf. Signal	00-No Code	00-No Code						
02748	N	N	N	N	N	N	N	N	N	12/16/2015	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art			FRONT ST	PINE ST			INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL-OTH	3075206	NONE	0	PRVTE	SE-SW	TURN-L	1	DRVR	INJIB	56	F	OR-Y	OR-25	000-No Error	000-No Action (000-No Action)	04-Disregard Traf. Signal	00-No Code	00-No Code						
1628183	N	N	N	N	N	N	N	N	N	Wednesday	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art			FRONT ST	PINE ST			INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL	3075207	NONE	0	PRVTE	NE-SW	TURN-L	1	DRVR	INJIB	49	F	OR-Y	OR-25	020-Disrg Traffic Signal	000-No Action (000-No Action)	04-Disregard Traf. Signal	00-No Code	04-Disregard Traf. Signal						
	N	N	N	N	N	N	N	N	N	42.37383	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art							INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL	3142382	NONE	0	PRVTE	NE-SW	STRGHT	1	DRVR	NONE	36	M	OR-Y	OR-25	016-Inattention 020-Disrg Traffic Signal	000-No Action (008-Driver Distracted)	27-Inattention 04-Disregard Traf. Signal	00-No Code	27-Inattention 04-Disregard Traf. Signal						
01248	N	N	N	N	N	N	N	N	N	05/31/2016	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art			FRONT ST	PINE ST			INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL-OTH	3142391	NONE	0	PRVTE	NW-SE	STRGHT	1	DRVR	INJIB	17	F	OR-Y	OR-25	000-No Error	000-No Action (000-No Action)	04-Disregard Traf. Signal	00-No Code	00-No Code						
1664468	N	N	N	N	N	N	N	N	N	Tuesday	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art			FRONT ST	PINE ST			INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL	3142391	NONE	0	PRVTE	NE-SW	STRGHT	1	DRVR	INJIB	36	M	OR-Y	OR-25	016-Inattention 020-Disrg Traffic Signal	000-No Action (008-Driver Distracted)	27-Inattention 04-Disregard Traf. Signal	00-No Code	27-Inattention 04-Disregard Traf. Signal						
	N	N	N	N	N	N	N	N	N	42.37383	Jackson	Central Point			Non-ODOT Roadway		14-Urb 0th Pfm Art							INTER	CN	03		N	TRF SIGNAL	N	N	CLR	ANGL	3142391	NONE	0	PRVTE	NE-SW	STRGHT	1	DRVR	INJIB	36	M	OR-Y	OR-25	016-Inattention 020-Disrg Traffic Signal	000-No Action (008-Driver Distracted)	27-Inattention 04-Disregard Traf. Signal	00-No Code	27-Inattention 04-Disregard Traf. Signal						

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 CONTINUOUS SYSTEM CRASH LISTING

Highway 063 ALL ROAD TYPES, MP 1.3 to 1.5, Both Add and Non-Add mileage, 01/01/2013 to 12/31/2017  
 Total Crash Records = 18

\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER.# ID#	RD DPT	UNLOC?	SPEED	ALCOHOL	DRUG	SCH ZONE	MARIJUANA	WORK ZONE	DATE DAY TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) # LANES)	INT-REL (TRAF-CONTL)	OFF RD RNDET DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	VEHICLE #	SPCL USE TRLR QTY OWNER TYPE	MOVE FROM TO	PART #	INJURY SEVERITY	AGE	SEX	LINES RES	NON-MTRST LOCATION	ERROR	ACTION VEHICLE (PARTICIPANT)	EVENT		CAUSE	
																														VEHICLE	PARTICIPANT	VEHICLE	PARTICIPANT
01799	N	N	N	N	N	N	N	N	07/28/2017	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	STRGHT UN	(NONE)	UNKNOWN	N	CLR	S-TURN TURN	3271057	NONE	STRGHT N-S	1	DRVR	NONE	22	F	OR-Y	000-No Code (000-No Action)	000-No Code (000-No Action)	08-Improper Turn	00-No Code		
1694631	N	N	N	N	N	N	N	N	03/20/2017	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	STRGHT UN	(NONE)	UNKNOWN	N	DRY	TURN INJ	3271058	NONE	U-TURN N-N	1	DRVR	INJC	27	M	OR-Y	008-Illegal U-Turn (000-No Action)	000-No Code (000-No Action)	08-Improper Turn	00-No Code		
02428	N	N	N	N	N	N	N	N	10/03/2016	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER E	CROSS	N	STOP SIGN	N	RAIN	S-STOP REAR	3190406	NONE	STRGHT E-W	1	DRVR	NONE	0	UNK	UNK	000-No Error	000-No Action (000-No Action)	27-Intention	00-No Code	
00243	Y	N	N	N	N	N	N	N	01/30/2016	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER E	CROSS	N	STOP SIGN	N	WET	TURN PDO	3190407	NONE	STOP E-W	1	DRVR	INJC	0	UNK	UNK	000-No Error	01-Stop In Traf-No Lturn (000-No Action)	00-No Code	00-No Code	
1694631	N	N	N	N	N	N	N	N	03/20/2017	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER E	CROSS	N	STOP SIGN	N	RAIN	ANGL-STP TURN	3190064	NONE	TURN-R S-E	1	DRVR	NONE	0	UNK	UNK	000-No Error	001-Skidded (000-No Action)	01-Too Fast For Cond	00-No Code	
02428	N	N	N	N	N	N	N	N	10/01/2015	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER W	CROSS	N	FLASHCON-A	Y	CLR	FIX OBJ FIX	3124860	NONE	STRGHT S-N	1	DRVR	NONE	18	F	OR-Y	000-No Error	007-Avoiding Maneuver (000-No Action)	08-Phantom Vehicle	00-No Code	
00639	N	N	N	N	N	N	N	N	03/22/2017	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER CN	CROSS	N	STOP SIGN	N	CLD	ANGL-OTH TURN	3263914	NONE	STRGHT E-W	1	DRVR	NONE	43	M	OR-Y	000-No Error	000-No Action (000-No Action)	02-Failed Yield ROW	00-No Code	
1518010	N	N	N	N	N	N	N	N	03/23/2013	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER CN	CROSS	N	STOP SIGN	N	DRY	ANGL INJ	3263915	NONE	STRGHT N-S	1	DRVR	INJC	69	F	OR-Y	028-No ROW	000-No Action (000-No Action)	02-Failed Yield ROW	00-No Code	
00512	N	N	N	N	N	N	N	N	03/20/2013	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER CN	CROSS	N	STOP SIGN	N	CLR	ANGL-OTH TURN	2870063	NONE	STRGHT S-N	1	DRVR	NONE	48	M	OR-Y	000-No Error	000-No Action (000-No Action)	02-Failed Yield ROW	00-No Code	
1587820	N	N	N	N	N	N	N	N	09/15/2014	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER CN	CROSS	N	STOP SIGN	N	CLR	ANGL-OTH TURN	2870064	NONE	TURN-L E-S	1	DRVR	INJB	19	F	OR-Y	028-No ROW	015-Processed After Stop (000-No Action)	013-Forced By Impact	00-No Code	
00512	N	N	N	N	N	N	N	N	09/15/2014	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER CN	CROSS	N	STOP SIGN	N	CLR	ANGL-OTH TURN	2870065	NONE	STOP N-S	1	DRVR	INJB	18	M	OR-Y	000-No Error	012-Stop For Left Turn (000-No Action)	00-No Code	00-No Code	
1587820	N	N	N	N	N	N	N	N	09/15/2014	Jackson	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art	006300100500	INTER CN	CROSS	N	STOP SIGN	N	CLR	ANGL-OTH TURN	2998789	NONE	STRGHT E-W	1	DRVR	INJB	17	M	OR-Y	028-No ROW	015-Processed After Stop (000-No Action)	02-Failed Yield ROW	00-No Code	



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CONTINUOUS SYSTEM CRASH LISTING

Highway 063 ALL ROAD TYPES, MP 1.3 to 1.5, Both Add and Non-Add mileage, 01/01/2013 to 12/31/2017
Total Crash Records = 18

\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

Table with columns: SER.#, INVEST RD DPT UNLOC?, COUNTY, CITY, URB AREA, LONG, DATE, TIME, LAT, WORK ZONE, SCH ZONE, MARIJUANA, DRUG, ALCOHOL, SPEED, RD #, FUNCTIONAL CLASS, COMPONENT, MILEAGE TYPE, WILEPOINT, CONN #, FIRST STREET, SECOND STREET, LRS, RD CHAR, DIRECT LOCTN, INT-TYP, # LANS, INT-REL, TRAF-CONTL, DRVWY, OFF RD, WTHR, CRASH, COLL, SVRTY, VEHICLE #, SPL USE, TRLR CITY, OWNER, TYPE, MOVE, FROM, TO, PART #, PARTC TYPE, INJURY, SEVERITY, AGE, SEX, LICNS, RES, NON-MTRST, LOCATION, ERROR, ACTION, VEHICLE, PARTICIPANT, CRASH, VEHICLE, CAUSE, PARTICIPANT.



OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
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CONTINUOUS SYSTEM CRASH LISTING

Highway 063 ALL ROAD TYPES, MP 3.65 to 3.8, Both Add and Non-Add mileage, 01/01/2013 to 12/31/2017  
Total Crash Records = 21  
\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

Table with columns: SER.#, INVEST RD DPT UNLOC?, COUNTY, CITY, URB AREA LONG, DATE, TIME, WORK ZONE, SCHED ZONE, MARIJUANA, DRUG, ALCOHOL, SPEED UNLOC?, RD # FUNCTIONAL CLASS COMPONENT TYPE MILEAGE POINT, CONN # FIRST STREET SECOND STREET LRS, RD CHAR DIRECT LOCTN, INT-TYP (MEDIAN) LEGS (# LANES) TRAF-CONTL, INT-REL TRAF-CONTL, OFF RD WTHR CRASH COLL SVRTY, SPLIT USE TRLR QTY OWNER TYPE, MOVE FROM TO, PART #, INJURY SEVERITY, AGE, SEX, LICNS RES, ERROR, ACTION VEHICLE PARTICIPANT, EVENT VEHICLE PARTICIPANT, CRASH VEHICLE CAUSE PARTICIPANT.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
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CONTINUOUS SYSTEM CRASH LISTING

Highway 063 ALL ROAD TYPES, MP 3.65 to 3.8, Both Aid and Non-Aid mileage, 01/01/2013 to 12/31/2017  
Total Crash Records = 21  
\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*

SER.# ID #	RD DPT UNLOC?	SPEED	ALCOHOL	DRUG	SCH ZONE	MARIJUANA	WORK ZONE	DATE DAY TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCNT	INT-TYP (MEDIAM) # LANES	INT-REL TRAF-CONTL	OFF RD WTHR RNDET	CRASH SURF COLL	VEHICLE #	SPL USE TRLR QTY OWNER TYPE	MOVE FROM TO	PARTC #	INJURY SEVERITY	AGE	SEX	LICS RES	NON-MTRST LOCATION	ERROR	ACTION VEHICLE (PARTICIPANT)	EVENT	VEHICLE CAUSE	PARTICIPANT CRASH	VEHICLE CAUSE	PARTICIPANT			
																																	INTER W	CROSS	TRF SIGNAL
00666 1730279 STATE N								03/24/2017 Friday 8A 42.36263	Jackson MEDFORD UA -122.90789	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art 0-Mainline	006300100500	06	0	N	N	WET DAY	S-1STOP REAR INJ	3264136 0 PRVTE PSNGR CAR	STRGHT S-N	1	DRVR	NONE	58	M	OR-Y OR-25	016-Inattention 043-Following Too Close 014-Impropr Start Fr Stop	000-No Action (038-Driver Distracted)		000-No Code	27-Inattention 07-Followed too Closely	000-No Code	00-No Code			
00666 1730279 STATE N								03/24/2017 Friday 8A 42.36263	Jackson MEDFORD UA -122.90789	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art 0-Mainline	006300100500	06	0	N	N	WET DAY	S-1STOP REAR INJ	3264137 0 PRVTE PSNGR CAR	STOP S-N	1	DRVR	INJC	36	F	OR-Y OR-25	000-No Error	011-Stop In Traf-No Lturn (000-No Action)	000-No Code	00-No Code	00-No Code	00-No Code	00-No Code	00-No Code	00-No Code	
00359 1669233 OTHER N								11/05/2015 Tuesday 3A 42.36263	Jackson MEDFORD UA -122.90789	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art 0-Mainline	006300100500	05	0	N	N	CLR DLIT	FX OBJ PK PDO	3126569 1 PRVTE SEMI TOW	TURN-R N-W	1	DRVR	NONE	26	M	OR-Y OR-25	002-Cut Corner	088-Other (000-No Action)	117-Rail crossing gate 043-Guardrail	000-No Code	08-Improper Turn	000-No Code	08-Improper Turn	000-No Code	08-Improper Turn	
00163 1501338 STATE N								01/21/2013 Monday 2P 42.36263	Jackson MEDFORD UA -122.90789	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art 0-Mainline	006300100500	01	0	N	N	CLR DAY	O-1 L-TURN TURN INJ	2837300 0 PRVTE PSNGR CAR	TURN-L S-W	1	DRVR	INJC	58	M	OR-Y OR-25	020-Disrg Traffic Signal	000-No Action (000-No Action)	04-Disregard Traf. Signal	000-No Code	04-Disregard Traf. Signal	000-No Code	00-No Code	00-No Code	00-No Code	
01867 1592890 STATE N								10/02/2014 Thursday 7A 42.36263	Jackson MEDFORD UA -122.90789	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art 0-Mainline	006300100500	02	0	N	N	CLR DAY	ANGL-OTH ANGL INJ	3008407 0 PRVTE PSNGR CAR	STRGHT E-W	1	DRVR	NONE	63	F	OR-Y OR-25	020-Disrg Traffic Signal	000-No Action (000-No Action)	04-Disregard Traf. Signal	000-No Code	04-Disregard Traf. Signal	000-No Code	00-No Code	00-No Code	00-No Code	
02023 1666988 STATE N								08/24/2016 Wednesday 10P 42.36263	Jackson MEDFORD UA -122.90789	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art 0-Mainline	006300100500	02	0	N	N	CLR DLIT	ANGL-OTH ANGL INJ	3147207 0 PRVTE MITR CYCLE	STRGHT S-N	1	DRVR	INJA	46	M	OTH-Y NHRES	097-UnkGuilt Disrgd TCD	000-No Action (000-No Action)	04-Disregard Traf. Signal	000-No Code	04-Disregard Traf. Signal	000-No Code	00-No Code	00-No Code	00-No Code	00-No Code
00282 1729344 STATE N								02/03/2017 Friday 9A 42.36263	Jackson MEDFORD UA -122.90789	1-Undiv Hwy or +Mile of Div Hwy 14-Urb Oth Pfm Art 0-Mainline	006300100500	02	0	N	N	RAIN WET DAY	ANGL-OTH ANGL INJ	3262403 0 PRVTE PSNGR CAR	STRGHT S-N	1	DRVR	INJC	27	M	OR-Y OR-25	052-Careless Driving 020-Disrg Traffic Signal	000-No Action (025-Driver Sleepy/Aleep)	16-Driver sleepy 32-Careless Driving 04-Disregard Traf. Signal	000-No Code	00-No Code	00-No Code	00-No Code	00-No Code	00-No Code	00-No Code

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Highway 063 ALL ROAD TYPES, MP 3.65 to 3.8, Both Add and Non-Add mileage, 01/01/2013 to 12/31/2017  
 Total Crash Records = 21

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SER.#	INVEST	RD DPT	UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCH ZONE	WORK ZONE	DATE	COUNTY	RD #	FUNCTIONAL CLASS	CONN #	RD CHAR	INT-TYP	INT-REL	OFF RD	WTHR	CRASH	VEHICLE #	SPL USE	MOVE	PART #	INJURY	AGE	SEX	LICNS	ERROR	ACTION	EVENT	CRASH	VEHICLE	CAUSE	PARTICIPANT				
RD #	FUNCTIONAL CLASS	COMPONENT	MILEAGE TYPE	WILEPOINT	CONN #	RD CHAR	INT-TYP	INT-REL	OFF RD	WTHR	CRASH	VEHICLE #	SPL USE	MOVE	PART #	INJURY	AGE	SEX	LICNS	ERROR	ACTION	VEHICLE	CAUSE	PARTICIPANT	VEHICLE	CAUSE	PARTICIPANT												
00003	N	N	N	N	N	N	N	N	N	01/01/2013	Jackson	1-Undiv Hwy or +Mile of Div Hwy	1-Undiv Hwy or +Mile of Div Hwy	2837295	INTER	CROSS	N	TRF SIGNAL	N	CLR	ANGL-OTH	0	STRGHT	1	DRVR	INJB	62	F	OR-Y	020-Dierg Traffic Signal	000-No Action	04-Dierregard Traf. Signal	00-No Code	04-Dierregard Traf. Signal	00-No Code	04-Dierregard Traf. Signal			
1501336	N	N	N	N	N	N	N	N	N	12/05/2013	Jackson	14-Urb Oth Prm Art	14-Urb Oth Prm Art	006300100500	CN	0	0	N	DRY	ANGL	0	PRVTE	S-N	0	0	0	OR-Y	020-Dierg Traffic Signal	000-No Action	04-Dierregard Traf. Signal	00-No Code	04-Dierregard Traf. Signal	00-No Code	04-Dierregard Traf. Signal	00-No Code	04-Dierregard Traf. Signal			
1543203	N	N	N	N	N	N	N	N	N	10/31/2013	Jackson	1-Undiv Hwy or +Mile of Div Hwy	1-Undiv Hwy or +Mile of Div Hwy	006300100500	CN	0	0	N	DRY	ANGL	1	PRVTE	S-N	1	DRVR	NONE	59	M	OR-Y	000-No Error	000-No Action	02-Failed Yield ROW	00-No Code	02-Failed Yield ROW	00-No Code	02-Failed Yield ROW	00-No Code	02-Failed Yield ROW	
00082	N	N	N	N	N	N	N	N	N	01/13/2015	Jackson	1-Undiv Hwy or +Mile of Div Hwy	1-Undiv Hwy or +Mile of Div Hwy	006300100500	UN	STRGHT	(NONE)	Y	L-TURN REF	N	CLR	S-1STOP	0	STRGHT	1	DRVR	NONE	49	M	OR-Y	026-Faild Avoid Stop Veh	000-No Action	29-Fall avoid veh. Ahead	00-No Code	29-Fall avoid veh. Ahead	00-No Code	29-Fall avoid veh. Ahead		
1543203	N	N	N	N	N	N	N	N	N	10/31/2013	Jackson	1-Undiv Hwy or +Mile of Div Hwy	1-Undiv Hwy or +Mile of Div Hwy	006300100500	UN	STRGHT	(NONE)	Y	UNKNOWN	N	CLR	S-1STOP	0	STRGHT	1	DRVR	INJA	59	F	OR-Y	026-Faild Avoid Stop Veh	000-No Action	10-Other Driver Error	00-No Code	10-Other Driver Error	00-No Code	10-Other Driver Error	00-No Code	10-Other Driver Error
01855	N	N	N	N	N	N	N	N	N	08/04/2017	Jackson	1-Undiv Hwy or +Mile of Div Hwy	1-Undiv Hwy or +Mile of Div Hwy	006300100500	UN	STRGHT	(NONE)	N	L-GRN-SIG	N	CLR	S-1STOP	0	STRGHT	1	DRVR	NONE	33	M	OTH-Y	043-Following Too Close	000-No Action	07-Followed too Closely	00-No Code	07-Followed too Closely	00-No Code	07-Followed too Closely	00-No Code	07-Followed too Closely
02180	N	N	N	N	N	N	N	N	N	09/06/2016	Jackson	1-Undiv Hwy or +Mile of Div Hwy	1-Undiv Hwy or +Mile of Div Hwy	006300100500	UN	STRGHT	(NONE)	N	UNKNOWN	N	CLR	S-STRGHT	0	STRGHT	1	DRVR	NONE	0	UNK	UNK	000-No Error	000-No Action	13-Improper Lane Chng	00-No Code	13-Improper Lane Chng	00-No Code	13-Improper Lane Chng	00-No Code	13-Improper Lane Chng
1563856	N	N	N	N	N	N	N	N	N	04/12/2014	Jackson	1-Undiv Hwy or +Mile of Div Hwy	1-Undiv Hwy or +Mile of Div Hwy	006300100500	UN	STRGHT	(NONE)	N	UNKNOWN	N	CLR	S-1STOP	0	STRGHT	1	DRVR	NONE	49	F	SUSP	051-Reckless Driving	000-No Action	33-Reckless Driving	00-No Code	33-Reckless Driving	00-No Code	33-Reckless Driving	00-No Code	33-Reckless Driving

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
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 Highway 063 ALL ROAD TYPES, MP 3.65 to 3.8, Both Add and Non-Add mileage, 01/01/2013 to 12/31/2017  
 Total Crash Records = 21  
 \*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER.#	ID #	INVEST	RD DPT	UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCH ZONE	WORK ZONE	DATE	DAY	COUNTY	CITY	URB AREA	LONG	RD #	FUNCTIONAL CLASS	COMPONENT	MILEAGE TYPE	MILEPOINT	CONN #	FIRST STREET	SECOND STREET	LRS	RD CHAS	DIRECT	LOCTN	RD CHAR	(MEDIAN)	NT-TYP	# LANS)	TRAF-CONTL	INT-REL	OFF RD	WTHR	SURF	COLL	SVRTY	VEHICLE #	SPCL USE	TRLR QTY	OWNER	TYPE	MOVE	FROM	TO	PART #	PARTC TYPE	INJURY	SEVERITY	AGE	SEX	LICNS	RES	NON-MTRST	LOCATION	ERROR	ACTION	EVENT		CAUSE				
																																																												VEHICLE	PARTICIPANT	VEHICLE	PARTICIPANT	VEHICLE	PARTICIPANT	
00040	1501358		N		N						01/06/2013	Sunday	Jackson				14-Urb	Hwy	0-Mainline		3.77	006300100500				INTER	CN	02		3-LEG	N		STOP SIGN	N						0	PRVTE	PSNGR CAR	S-N	STRGHT	1	DRVR	INJIB	47	M	OR-Y	OR-K-25			000-No Action (000-No Action)			00-No Code	00-No Code					02-Failed Yield ROW		00-No Code	00-No Code
		N			N						01/06/2013	Sunday	Jackson				14-Urb	Hwy	0-Mainline		3.77	006300100500				INTER	CN	02		3-LEG	N		STOP SIGN	N				0	PRVTE	PSNGR CAR	S-N	STRGHT	1	DRVR	INJIB	47	M	OR-Y	OR-K-25			000-No Action (000-No Action)			00-No Code	00-No Code			015-Process After Stop (000-No Action)		00-No Code	00-No Code				
01159	1572335		N		N						06/27/2014	Friday	Jackson				14-Urb	Hwy	0-Mainline		3.78	006300100500				STRGHT	JN	06		(NONE)	(NONE)	UNKNOWN	N						0	PRVTE	PSNGR CAR	SENW	STRGHT	1	DRVR	NONE	80	F	OR-Y	OR-K-25			000-No Action (000-No Action)			00-No Code	00-No Code	07-Followed too Closely 23-Fail avoid veh. Ahead		00-No Code	00-No Code					
		N			N						06/27/2014	Friday	Jackson				14-Urb	Hwy	0-Mainline		3.78	006300100500				STRGHT	JN	06		(NONE)	(NONE)	UNKNOWN	N					0	PRVTE	PSNGR CAR	SENW	STRGHT	1	DRVR	NONE	80	F	OR-Y	OR-K-25			000-No Action (000-No Action)			00-No Code	00-No Code	07-Followed too Closely 23-Fail avoid veh. Ahead		00-No Code	00-No Code						
		N			N						06/27/2014	Friday	Jackson				14-Urb	Hwy	0-Mainline		3.78	006300100500				STRGHT	JN	06		(NONE)	(NONE)	UNKNOWN	N					0	PRVTE	PSNGR CAR	SENW	STRGHT	1	DRVR	INJIC	37	M	OTH-Y	NRES			01-Stop In Traf-No Lturn (000-No Action)			00-No Code	00-No Code					00-No Code	00-No Code				
		N			N						06/27/2014	Friday	Jackson				14-Urb	Hwy	0-Mainline		3.78	006300100500				STRGHT	JN	06		(NONE)	(NONE)	UNKNOWN	N					0	PRVTE	PSNGR CAR	SENW	STRGHT	2	PSNG	INJC	39	F	OTH-Y	NRES			000-No Error			00-No Code	00-No Code					00-No Code	00-No Code				



JACKSON COUNTY  
Intersectional Crashes at Table Rock Rd & Vilas Rd  
January 1, 2013 & December 31, 2017

SER#	P E A / C O DATE	MILEPNT	COUNTY ROADS	RD CHAR	INT-TYP	INT-REL	OFF-RD	WTHR	CRASH TYP	SPCL USE	MOVE	PRIC INJ	A S	LOC ERROR	ACTN EVENT	CAUSE
UNLOC? D C J L K	L A T / L O N G	DIST FROM INTERSECT	FIRST STREET SECOND STREET INTERSECT INTERSECTION SEQ #	DIRECT LOCTN	(#LANES)	CONTL	DRVWY	LIGHT SVRTY	COLL TYP	V# OWNER	TRLR QTY	FROM	E X RES	LOC ERROR	ACTN EVENT	CAUSE
NO RPT	N N N	7/6/2017	VILAS RD WEST	INTER	3-LEG	N	CLR	S-1STOP	01 NONE	9	STRGHT	01	DRVR	NONE	00	U UNK
NO	42 23	21.63	-122 53 6.98	W	1	TRF SIGNAL	N	DRY	SS-O	N/A	W E	01	DRVR	NONE	00	U UNK
				06			DAY	PDO		PSNGR CAR				000	000	00
														000	011	00
														000	000	00
														000	000	00
														000	000	00
														000	000	00





TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 URBAN NON-SYSTEM CRASH LISTING  
 Intersectional Crashes at Table Rock Rd & Vilas Rd  
 January 1, 2013 & December 31, 2017

SER#	INVEST UNLOC?	D C J L K	E A / C O	G S W	DATE	FC	DISTNC	CITY STREET	INT-TYP	INT-REL	OFF-RD	WTHR	CRASH TYP	SFCL USE	MOVE FROM	TRLR QTY	V#	OWNER	PRTC INJ	A G E	S X RES	PED LOC	ERROR	ACTN EVENT	CAUSE			
					LAT/LONG			INTERSECTION SEQ #	(#LANES)	CONTL	DRVMY	LIGHT	SVRTY	COLL TYP		TO			TYPE									
02502	N N N N	N N N N	12/22/2014	16	21.63 -122 53 6.98	0		TABLE ROCK RD VILAS RD	CROSS	N	CLD	N	S-1STOP	02 NONE PRVTE	STOP E W	0	STRGHT	01	NONE	0	DRVR	NONE	22	M	OR-Y	000	00	00
No	42 23	21.63	-122 53	6.98				1	1	TRF SIGNAL	N	WET	REAR	PSNGR CAR											000	00	00	
00098	N N N N	N N N N	01/15/2015	16	21.63 -122 53 6.98	0		TABLE ROCK RD VILAS RD	CROSS	N	CLR	N	S-1STOP	02 NONE PRVTE	STOP E W	0	STRGHT	01	NONE	0	DRVR	INJC	50	F	OR-Y	000	00	00
No	42 23	21.63	-122 53	6.98				1	0	TRF SIGNAL	N	DRY	REAR	PSNGR CAR											000	00	00	
01381	N N N N	N N N N	06/14/2017	16	21.63 -122 53 6.98	0		TABLE ROCK RD VILAS RD	CROSS	N	CLR	N	S-1STOP	01 NONE N/A	STOP E W	9	STRGHT	01	NONE	9	DRVR	NONE	00	U	UNK	000	00	29
No	42 23	21.63	-122 53	6.98				1	1	UNKNOWN	N	DRY	REAR	PSNGR CAR											000	00	00	
00923	N N N N	N N N N	05/12/2015	16	21.63 -122 53 6.98	0		TABLE ROCK RD VILAS RD	CROSS	N	CLR	N	S-1STOP	02 NONE N/A	STOP E W	9	STRGHT	01	NONE	9	DRVR	NONE	00	U	UNK	000	00	00
No RPT	42 23	21.63	-122 53	6.98				1	1	YIELD	N	DRY	REAR	PSNGR CAR											000	00	00	
00691	N N N N	N N N N	04/22/2013	16	21.63 -122 53 6.98	0		TABLE ROCK RD VILAS RD	CROSS	N	CLR	N	S-1STOP	02 NONE PRVTE	STOP SW NE	0	STRGHT	01	NONE	0	DRVR	NONE	57	M	OR-Y	000	00	00
No	42 23	21.63	-122 53	6.98				1	1	YIELD	N	DRY	REAR	PSNGR CAR											000	00	00	
																									052,043	32,07	32,07	

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
URBAN NON-SYSTEM CRASH LISTING

Intersectional Crashes at Table Rock Rd & Vilas Rd  
January 1, 2013 & December 31, 2017

CITY OF MEDFORD, JACKSON COUNTY

SER#	INVEST UNLOC?	D C J L K	E A / C O	G S W	DATE	FC	DISTNC	CITY STREET	INT-TYP (MEDIAN) LEGS (#LANES)	INT-REL TRAF-CONTL	OFF-RD RNDBT DRVWY	WTHR SURF LIGHT	CRASH TYP COLL SVRTY	SFCL USE	MOVE FROM TO	TRLR QTY	V# OWNER	PRTC INJ SVRTY	A G E LICNS	S X RES	LOC ERROR	ACTN EVENT	CAUSE
01477	N N N	N N N	08/13/2014	16	Wed 5P	0	6.98	TABLE ROCK RD VILAS RD	CROSS N YIELD	N	N CLR N DRY	S-1STOP REAR	STRGHT SW NE	02 NONE PRVTE	STOP SW NE	01	DRVR INJC	59 M	OR-Y	OR<25	000	011	00
No	42 23	21.63	-122 53	6.98					1		N DAY	INJ	PSNGR CAR				01	DRVR NONE	35 M	OR-Y	026	000	07,29
00108	N N N	N N N	01/17/2015	16	Sat 5P	0	6.98	TABLE ROCK RD VILAS RD	CROSS N YIELD	N	N CLR N DRY	S-1TURN REAR	STRGHT SW NE	01 NONE PRVTE	STOP SW NE	01	DRVR INJC	54 F	OR-Y	OR<25	000	011	00
No	42 23	21.63	-122 53	6.98					1		N DLIT	INJ	PSNGR CAR				01	DRVR NONE	69 M	OR-Y	026	000	07,29
00263	N N N	N N N	02/11/2015	16	Wed 8A	0	6.98	TABLE ROCK RD VILAS RD	CROSS N YIELD	N	N CLR N DRY	S-1STOP REAR	STRGHT SW NE	01 NONE PRVTE	STOP SW NE	01	DRVR INJC	64 M	OR-Y	OR<25	000	013	00
No	42 23	21.63	-122 53	6.98					1		N DAY	INJ	PSNGR CAR				02	PSNG INJC	58 F		000	000	07,29
00577	N N N	N N N	03/13/2017	16	Mon 1P	0	6.98	TABLE ROCK RD VILAS RD	CROSS N YIELD	N	N CLR N DRY	S-OTHER REAR	TURN-R S NE	02 NONE PRVTE	STOP SW NE	01	DRVR INJC	39 M	OR-Y	OR<25	000	011	00
No	42 23	21.63	-122 53	6.98					1		N DAY	INJ	PSNGR CAR				01	DRVR NONE	55 M	OR-Y	043	000	07
00757	N N N	N N N	04/04/2017	16	Tue 4P	0	6.98	TABLE ROCK RD VILAS RD	CROSS N YIELD	N	N UNK N UNK	S-OTHER REAR	TURN-R S NE	02 NONE PRVTE	TURN-R S NE	01	DRVR INJC	85 F	NONE	OR<25	000	006	00
No RPT	42 23	21.63	-122 53	6.98					1		N DAY	INJ	PSNGR CAR				02	PSNG INJC	62 F		000	000	29
No	42 23	21.63	-122 53	6.98					1		N DAY	INJ	PSNGR CAR				01	DRVR NONE	00 U	UNK	026	000	29

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
URBAN NON-SYSTEM CRASH LISTING

Intersectional Crashes at Table Rock Rd & Vilas Rd  
January 1, 2013 & December 31, 2017

CITY OF MEDFORD, JACKSON COUNTY

SER#	INVEST UNLOC?	D C J L K	E A / G O	H R DAY/TIME	F C DISTNC	CITY STREET	INT-TYP (MEDIAN) LEGS (#LANES)	INT-REL TRAF-CONTL	OFF-RD RNDBT	WTHR SURF LIGHT	CRASH TYP COLL SVRTY	SFCL USE	MOVE FROM TO	PRTC INJ SVRTY	A S E X RES	LICNS	PED LOC ERROR	ACTN EVENT	CAUSE
02265	N N N	N N N	09/21/2017	16 Thu 7P 0	6.98	TABLE ROCK RD VILAS RD	CROSS N UNKNOWN	N	RAIN WET	S-1STOP REAR	01 NONE N/A	9 STRGHT N S	01 DRIVER	INJC	25 F	OR-Y	000	006	00
No	42 23	21.63	-122 53	6.98		1						PSNGR CAR	01 DRIVER	NONE	00 U	UNK	000	000	00
												02 NONE N/A	9 STOP N S					011	00
												PSNGR CAR	01 DRIVER	NONE	00 U	UNK	000	000	00
00088	N N N	N N N	01/14/2015	16 Wed 11A 0	6.98	TABLE ROCK RD VILAS RD	CROSS N TRF SIGNAL	N	CLR DRY	S-1STOP REAR	01 NONE PRVTE	9 STRGHT S N							
No	42 23	21.63	-122 53	6.98		1						PSNGR CAR	01 DRIVER	NONE	27 F	OR-Y	026	000	07,29
												02 PSNG NO<5	03 M				000	000	00
												03 PSNG NO<5	01 M				000	000	00
01770	N N N	N N N	07/24/2017	16 Mon 5P 0	6.98	TABLE ROCK RD VILAS RD	CROSS N TRF SIGNAL	N	CLR DRY	S-1STOP REAR	01 NONE N/A	9 STRGHT S N							
No	42 23	21.63	-122 53	6.98		1						PSNGR CAR	01 DRIVER	NONE	00 U	UNK	000	000	00
												02 NONE N/A	9 STOP S N						
												PSNGR CAR	01 DRIVER	INJC	42 F	OR-Y	000	011	00
												PSNGR CAR	01 DRIVER	NONE	00 U	UNK	000	000	00
02640	N N N	N N N	12/13/2013	16 Fri 3P 0	6.98	TABLE ROCK RD VILAS RD	CROSS N TRF SIGNAL	N	CLD ICE	S-1STOP REAR	01 NONE PRVTE	9 STRGHT W E							
No	42 23	21.63	-122 53	6.98		1						PSNGR CAR	01 DRIVER	NONE	00 F	UNK	026	000	07
												02 NONE N/A	9 STOP S N						
												PSNGR CAR	01 DRIVER	NONE	00 U	UNK	000	011	00
												PSNGR CAR	01 DRIVER	NONE	00 U	UNK	000	000	00
02568	N N N	N N N	12/26/2013	16 Thu 5P 0	6.98	TABLE ROCK RD VILAS RD	CROSS N TRF SIGNAL	N	FOG DRY	S-1STOP REAR	01 NONE PRVTE	9 STRGHT W E							
No	42 23	21.63	-122 53	6.98		1						PSNGR CAR	01 DRIVER	NONE	25 M	OR-Y	000	011	00
												PSNGR CAR	01 DRIVER	NONE	30 F	OR-Y	026	000	07
												02 NONE N/A	9 STOP S N						
												PSNGR CAR	01 DRIVER	NONE	00 F	OR-Y	000	000	00

CITY OF MEDFORD, JACKSON COUNTY

Intersectional Crashes at Table Rock Rd & Vilas Rd

January 1, 2013 & December 31, 2017

SER#	INVEST UNLOC?	E L M H R D C J	N N N N	DATE	FC	DISTNC	CITY STREET	INTERSECTION SEQ #	RD CHAR	INT-TYP (MEDIAN)	LEGS (#LANES)	CONTL	DRVMY	LIGHT	SURF	WTHR	S-1STOP	CRASH TYP	COLL TYP	SPL USE	MOVE FROM TO	PRTC INJ	SVRTY	E X RES	LICNS	LOC	ERROR	ACTN	EVENT	CAUSE					
																															W	E	W	E	W
01143				06/25/2014	16		TABLE ROCK RD VILAS RD	1	INTER	CROSS	N	TRF SIGNAL	N	RAIN	N	WET	S-1STOP REAR	STRGHT	STRGHT	01	NONE	STRGHT	W	E	01	DRVR	NONE	37	F	OR-Y	OR<25	000	000	00	00
No	42	23	21.63	-122 53	6.98				06	0	0	0	INJ	N	DAY	INJ				PSNGR CAR	STRGHT	W	E	01	DRVR	NONE	53	F	OR-Y	OR<25	043	000	000	07,29	
01378				07/29/2014	16		TABLE ROCK RD VILAS RD	1	INTER	CROSS	N	TRF SIGNAL	N	CLR	N	DRY	S-1STOP REAR	STRGHT	STRGHT	01	NONE	STRGHT	W	E	01	DRVR	NONE	52	F	OR-Y	OR<25	000	000	00	00
No RPT				Tue 7P	0				06	0	0	0	PDO	N	DAY	PDO				PSNGR CAR	STRGHT	W	E	01	DRVR	NONE	19	F	OR-Y	OR<25	026	000	000	07,29	
01670				08/14/2015	16		TABLE ROCK RD VILAS RD	1	INTER	CROSS	N	TRF SIGNAL	N	CLR	N	DRY	S-1STOP REAR	STRGHT	STRGHT	01	NONE	STRGHT	W	E	01	DRVR	NONE	40	F	OR-Y	OR<25	000	000	00	00
No	42	23	21.63	-122 53	6.98				06	1	1	0	PDO	N	DAY	PDO				PSNGR CAR	STRGHT	W	E	01	DRVR	NONE	21	F	OR-Y	OR<25	043	000	000	07	
00518				03/02/2017	16		TABLE ROCK RD VILAS RD	1	INTER	CROSS	N	TRF SIGNAL	N	CLD	N	DRY	S-1STOP REAR	STRGHT	STRGHT	01	NONE	STRGHT	W	E	01	DRVR	NONE	49	M	OR-Y	OR<25	000	000	00	00
No RPT				Thu 5P	0				06	1	1	0	PDO	N	DAY	PDO				PSNGR CAR	STRGHT	W	E	01	DRVR	NONE	00	U	UNK	UNK	000	000	00	29	
No	42	23	21.63	-122 53	6.98				06	1	1	0	PDO	N	DAY	PDO				PSNGR CAR	STRGHT	W	E	01	DRVR	NONE	00	U	UNK	UNK	000	000	00	00	
01002				05/23/2015	16		TABLE ROCK RD VILAS RD	1	INTER	CROSS	N	TRF SIGNAL	N	CLR	N	DRY	O-1 L-TURN TURN	STRGHT	STRGHT	01	NONE	TURN-L	S	W	01	DRVR	NONE	20	F	OR-Y	OR<25	000	000	00	08
No	42	23	21.63	-122 53	6.98				01	0	0	0	INJ	N	DLIT	INJ				PSNGR CAR	TURN-L	S	W	01	DRVR	NONE	20	F	OR-Y	OR<25	004	000	000	08	











OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 URBAN NON-SYSTEM CRASH LISTING

Intersectional Crashes at Table Rock Rd & Vilas Rd  
 January 1, 2013 & December 31, 2017

CITY OF MEDFORD, JACKSON COUNTY

SER#	INVEST UNLOC?	E A / D C J	H M C	R L K	DATE	DAY	TIME	FC	DISTNC	CITY STREET	RD CHAR	INT-TYP	INT-REL	OFF-RD	WTHR	CRASH TYP	COLL TYP	SVRTY	V#	OWNER	TRLR QTY	MOVE FROM TO	P#	TYPE	SVRTY	E X	RES	LOC	ERROR	ACTN	EVENT	CAUSE
02509	N	N	N	N	10/16/2017	16	Mon	10A	0	TABLE ROCK RD	INTER CN	CROSS	N	N	CLR	S-OTHER	TURN	PSNGR CAR	01	NONE	9	TURN-R	01	DRVR	NONE	00	U	UNK	000	013	000	00
NONE										VILAS RD		YIELD	N	DRY	TURN				N/A		S	E										
No	42	23	21.63	-122	53	6.98				1	09	1	N	DAY	PDO				PSNGR CAR	01	TURN-R	01	DRVR	NONE	00	U	UNK	000	000	000	00	
																			N/A		S	E										
																			PSNGR CAR	01	TURN-R	01	DRVR	NONE	00	U	UNK	000	000	000	00	

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
CONTINUOUS SYSTEM CRASH LISTING

HAMRICK RD at BIDDLE RD, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
Total Crash Records = 4

\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER.# ID # RD DPT UNLOC?	SPED ALCOHOL DRUG MARIJUANA SCH ZONE WKR ZONE	DATE DAY TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) LEGS # LANES)	TRAFFIC CONTROL TRAF-CONTL	OFF RD RNDEBT DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	VEHICLE # TRLR CITY OWNER TYPE	MOVE FROM TO	PART #	PARTC TYPE	INJURY SEVERITY	AGE	SEX	LICNS RES	NON-MTRST LOCATION	ERROR	ACTION		EVENT		CAUSE			
																						VEHICLE (PARTICIPANT)	VEHICLE (PARTICIPANT)	CRASH	CRASH	VEHICLE (PARTICIPANT)	VEHICLE (PARTICIPANT)		
01988 1519883 CITY N False	N N N N N N	03/21/2013 Thursday 3P <u>42.37.668</u>	Jackson Central Point MEDFORD UA -122.89295	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	BIDDLE RD HAMRICK RD	INTER CN 01	CROSS 0 0 0	N TRF SIGNAL N	N N N	CLR DRY DAY	ANGLO-TH TURN INJ	2871722 NONE PRVTE PSNGR CAR	STRGHT E-W	1	DRVR	INJC	42	F	OR-Y OR<25	097-UnkGuilt Disgrd TCD	000-No Action (000-No Action)	000-No Code	04-Disregard Traf. Signal	000-No Code	000-No Code	00-No Code	00-No Code	00-No Code	
01988 1644953 N N False	N N N N N N	10/27/2013 Monday 8P <u>42.37.668</u>	Jackson Central Point MEDFORD UA -122.89295	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	BIDDLE RD HAMRICK RD	INTER CN 02	CROSS 0 0 0	N TRF SIGNAL N	N N N	CLR DRY DLIT	O-1 L-TURN TURN INJ	2917766 NONE PRVTE PSNGR CAR	TURN-L W-N	1	DRVR	INJUB	68	F	OR-Y OR<25	004-LT In Front OfOncmg 028-No ROW	000-No Action (000-No Action)	000-No Code	02-Failed Yield ROW	000-No Code	000-No Code	02-Failed Yield ROW	00-No Code	00-No Code	
01839 1544953 NO RPT N False	N N N N N N	09/07/2013 Saturday 4P <u>42.37.668</u>	Jackson Central Point MEDFORD UA -122.89295	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	BIDDLE RD HAMRICK RD	INTER CN 02	CROSS 0 0 0	N TRF SIGNAL N	N N N	CLR DRY DAY	O-1 L-TURN TURN PDO	2918265 NONE PRVTE PSNGR CAR	STRGHT E-W	1	DRVR	NONE	0	UNK UNK			004-LT In Front OfOncmg 020-Disrg Traffic Signal	000-No Action (000-No Action)	000-No Code	02-Failed Yield ROW 04-Disregard Traf. Signal	000-No Code	000-No Code	00-No Code	00-No Code	00-No Code
01235 1624205 N N False	N N N N N N	06/21/2015 Sunday 1P <u>42.37.668</u>	Jackson Central Point MEDFORD UA -122.89295	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	BIDDLE RD HAMRICK RD	INTER CN 02	CROSS 0 0 0	N TRF SIGNAL N	N N N	CLR DRY DAY	O-1 L-TURN TURN INJ	3067910 NONE PRVTE PSNGR CAR	TURN-L W-N	1	DRVR	INJUB	21	F	OR-Y OR<25	004-LT In Front OfOncmg 028-No ROW	000-No Action (000-No Action)	000-No Code	02-Failed Yield ROW 08-Improper Turn	000-No Code	000-No Code	02-Failed Yield ROW 08-Improper Turn	000-No Code	00-No Code	00-No Code

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 CONTINUOUS SYSTEM CRASH LISTING

HAMRICK RD at BEEBE RD, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017

Total Crash Records = 1

\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER.#	ID #	INVEST	RD DPT	UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCH ZONE	WORK ZONE	DATE	TIME	LAT	LONG	COUNTY	CITY	URB AREA	RD #	FUNCTIONAL CLASS	COMPONENT	MILEAGE TYPE	WILEPOINT	CONN #	FIRST STREET	SECOND STREET	LRS	RD CHAR	DIRECT	LOCTN	INT-TYP	(MEDIAN)	LEGS	# LANES)	TRAFFIC	CONTL	DRVWY	DRVWY	OFF RD	WTHR	CRASH	WTHR	SURF	COLL	SVRTY	VEHICLE #	SPCL USE	TRLR QTY	OWNER	TYPE	MOVE	FROM	TO	PARTC #	PARTC TYPE	INJURY	SEVERITY	AGE	SEX	LICNS	RES	NON-MTRST	LOCATION	ERROR	ACTION	VEHICLE	(PARTICIPANT)	EVENT	VEHICLE	PARTICIPANT	CRASH	VEHICLE	CAUSE	PARTICIPANT		
																																																																										00953	1568403
00953	1568403	N	N	N	N	N	N	N	N	N	05/30/2014	Friday	5P	42.38264	-122.89297	Jackson	Central Point	MEDFORD UA	Non-ODOT Roadway	16-Lrb Min Art	Not on st. sys.	Not on st. sys.	BEEBE RD	HAMRICK RD		INTER	CN	03	INTER	CROSS	N	STOP SIGN	N	N	N	N	CLR	DRY	DAY	CLR	ANGLOTH	2962090	0	PRVTE	PSNGR CAR	TURN	TURN	PDO	TURN	ANGLOTH	2962091	0	PRVTE	PSNGR CAR	STRGHT	S-N	1	DRVR	NONE	45	F	OR-Y	OR-K25	000-No Error	015-Processed After Stop	(000-No Action)	028-No ROW	02-Failed Yield ROW	00-No Code	02-Failed Yield ROW	00-No Code	000-No Action	(000-No Action)	000-No Code	00-No Code



OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
COUNTY ROAD CRASH LISTING

Intersectional Crashes at Pine St & Peninger Rd  
January 1, 2013 & December 31, 2017

JACKSON COUNTY  
D  
R

SR#	EA / C O DATE	MILEPNT	COUNTY ROADS	INT-TYP	INT-REL	OFF-RD WTHR	CRASH TYP	MOVE	SPCL	PRIC INJ	A S	ACTN	EVENT	CAUSE
UNLOC? D C J L K LAT/LONG	INVEST E L M H R DAY/TIME	DIST FROM INTERSECT	FIRST STREET	(#LANES)	CONTL	DRVMY	LIGHT SVRTY	TRLR QTY FROM TO	USE	TYPE SVRTY	E X RES	LOC	ERROR	CAUSE
01087	N N N N 6/20/2013	0.94	E PINE ST	CROSS N	TRF SIGNAL N	CLR DRY	S-1STOP SS-O	01 NONE 0 STRGHT	02 NONE 0 STOP	01 DRVR INJUB	59 F OR-Y	000	011 013	00
CITY	N Thu 4P							PRVTE E W	PSNGR CAR				000	00
No	42 22 43.38 -122 53 59.79			0		N DAY	PDO	PSNGR CAR		01 DRVR INJC	58 F OR-Y	000	022	00
								PRVTE S N					032	00
								SEMI TOW	PSNGR CAR				000	00
								01 DRVR NONE	01 NONE 1 TURN-R				000	08
								W S	PRVTE W S				000	00
										01 DRVR NONE	57 M OTH-Y	001	000	08
														N-RES
01326	N N N 7/28/2013	0.94	E PINE ST	CROSS N	TRF SIGNAL N	CLR DRY	S-1STOP REAR	02 NONE 1 STOP	02 NONE STOP	01 DRVR NONE	44 M OTH-Y	000	011	00
CITY	N Sun 11A							PRVTE W E	PSNGR CAR				000	00
No	42 22 43.38 -122 53 59.79			0		N DAY	INJ	PSNGR CAR		01 DRVR NONE	21 M OR-Y	043	000	07
														OR<25
										01 DRVR INJC	69 F OR-Y	000	011	00
													000	00
														OR<25
01210	N N N N 7/4/2014	0.94	E PINE ST	CROSS N	TRF SIGNAL N	CLR DRY	S-1STOP REAR	01 NONE STRGHT	01 NONE STRGHT	01 DRVR INJC	45 M OR-Y	043	000	07,29
CITY	N Fri 12P							PRVTE W E	PSNGR CAR				000	00
No	42 22 43.38 -122 53 59.79			0		N DAY	INJ	PSNGR CAR		01 DRVR INJC	45 M OR-Y	043	000	07,29
														OR<25
										01 DRVR INJC	30 M OR-Y	000	011	00
													000	00
														OR<25
										02 PSNG INJA	28 F	000	000	00
										03 PSNG INJA	09 M	000	000	00
										04 PSNG INJA	11 F	000	000	00
										05 PSNG NO<5	02 F	000	000	00
										06 PSNG NO<5	04 M	000	000	00



Intersectional Crashes at Pine St & Peninger Rd  
January 1, 2013 & December 31, 2017

SR#	E A / C O DATE	MILEPNT DIST FROM INTERSECT	COUNTY ROADS FIRST STREET SECOND STREET INTERSECTION SEQ #	RD CHAR DIRECT LOC	INT-TYP (MEDIAN LEGS #LANES)	INT-REL TRAF- CONTL	OFF-RD RNDBT DRVMY	WTHR SURF LIGHT	CRASH TYP COLL TYP SVRTY	MOVE FROM TO	SPL USE TRLR QTY V#	PRIC INJ TYPE SVRTY	A S G E LICNS E X RES	ACTN EVENT	CAUSE							
																CROSS	TRF SIGNAL	N	CLR	O-1 L-TURN	01 NONE	9 STRGHT
03066	N N N N 12/7/2016	0.94	E PINE ST	INTER CN	CROSS	N	N	CLR	O-1 L-TURN	01 NONE	9 STRGHT	W	E	N/A	01 DRIVER	NONE	00 U UNK	UNK	000	00	00	
No	42 22 43.38	-122 53 59.79																		000	00	00
01633	N N N N 7/11/2017	0.94	E PINE ST	INTER CN	CROSS	N	N	CLR	O-1 L-TURN	01 NONE	0 STRGHT	W	E	PSNGR CAR	01 DRIVER	NONE	00 U UNK	UNK	000	00	00	
NO RPT	N Tue 12P																			000	00	00
No	42 22 43.38	-122 53 59.79																		000	00	00
00844	N Y N N 5/16/2013	0.94	E PINE ST	INTER CN	CROSS	N	N	CLR	O-1 L-TURN	01 NONE	0 STRGHT	W	E	PSNGR CAR	01 DRIVER	NONE	73 F OR-Y	OR<25	000	00	00	
COUNTY	N Thu 8P																			000	00	00
No	42 22 43.38	-122 53 59.79																		028,004	00	02
02085	N N N N 10/28/2014	0.94	E PINE ST	INTER CN	CROSS	N	N	RAIN	ANGL-OTH	01 NONE	9 STRGHT	S	N	PSNGR CAR	01 DRIVER	NONE	41 M OR-Y	OR<25	000	00	00	
CITY	N Tue 6P																			000	00	00
No	42 22 43.38	-122 53 59.79																		016,020	038	04,27
01677	N N N N 7/15/2017	0.94	E PINE ST	INTER CN	CROSS	N	N	CLR	ANGL-OTH	01 NONE	9 STRGHT	W	E	TRUCK	01 DRIVER	NONE	50 M OR-Y	OR<25	000	00	00	
COUNTY	N Sat 10A																			000	00	00
No	42 22 43.38	-122 53 59.79																		000	00	00
01677	N N N N 7/15/2017	0.94	E PINE ST	INTER CN	CROSS	N	N	CLR	ANGL-OTH	01 NONE	9 STRGHT	S	N	PSNGR CAR	01 DRIVER	NONE	00 U UNK	UNK	000	00	00	
COUNTY	N Sat 10A																			000	00	00
No	42 22 43.38	-122 53 59.79																		000	00	00
01677	N N N N 7/15/2017	0.94	E PINE ST	INTER CN	CROSS	N	N	CLR	ANGL-OTH	01 NONE	9 STRGHT	S	N	PSNGR CAR	01 DRIVER	NONE	00 U UNK	UNK	000	00	00	
COUNTY	N Sat 10A																			000	00	00
No	42 22 43.38	-122 53 59.79																		000	00	00





**OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
CONTINUOUS SYSTEM CRASH LISTING**

HASKELL ST at PINE ST, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
Total Crash Records = 16

\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER.# ID # RD DPT UNLOC?	SPEED ALCOHOL DRUG MARIJUANA SCH ZONE WORK ZONE	DATE DAY TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) LEGS # LANES)	INT-REL (TRAFFIC CONTROL)	OFF RD RNDBT DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	VEHICLE #	SPL USE TRLR CITY OWNER TYPE	MOVE FROM TO	PARTC #	INJURY SEVERITY	AGE	SEX	LICNS RES	NON-MTRST LOCATION	ERROR	ACTION		EVENT		CAUSE	
																						VEHICLE (PARTICIPANT)	VEHICLE (PARTICIPANT)	VEHICLE (PARTICIPANT)	VEHICLE (PARTICIPANT)	VEHICLE (PARTICIPANT)	VEHICLE (PARTICIPANT)
00434	N	N	N	N	N	HASKELL ST PINE ST	INTER NE 05	CROSS 0 0	N UNKNOWN N	N N DAY	CLR REAR PDO	S-1STOP REAR PDO	2870845	NONE 0 PSNGR CAR	STRGHT SW-NE	1	DRVR	NONE	21	M	OR-Y OR-25	026-Failed Avoid Stop Veh	000-No Action (000-No Action)	07-Followed too Closely	000-No Code	07-Followed too Closely	000-No Code
00760	N	N	N	N	N	HASKELL ST PINE ST	INTER NE 06	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR REAR PDO	S-1STOP REAR PDO	2962056	NONE 0 PSNGR CAR	STRGHT NE-SW	1	DRVR	NONE	64	F	OR-Y OR-25	026-Failed Avoid Stop Veh	000-No Action (000-No Action)	29-Fall avoid veh. Ahead	000-No Code	29-Fall avoid veh. Ahead	000-No Code
02669	N	N	N	N	N	HASKELL ST PINE ST	INTER NE 06	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR DRY DAY	S-1STOP REAR PDO	3191303	NONE 9-Unknown N/A PSNGR CAR	STRGHT NE-SW	1	DRVR	NONE	0	UNK UNK	UNK UNK	000-No Error	000-No Action (000-No Action)	07-Followed too Closely	000-No Code	07-Followed too Closely	000-No Code
01683	N	N	N	N	N	HASKELL ST PINE ST	INTER SW 05	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR DRY DAY	S-OTHER TURN PDO	3001181	NONE 1 PRVTE SEMI TOW PSNGR CAR	TURN-R NW-SW	1	DRVR	NONE	51	M	OTH-Y N-HES	003-Failed To Obey TCD 007-Turn Into Wrong Ln	000-No Action (000-No Action)	08-Improper Turn	000-No Code	08-Improper Turn	000-No Code
00948	N	N	N	N	N	HASKELL ST PINE ST	INTER SW 05	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR DRY DAY	S-OTHER TURN PDO	3191304	NONE 9-Unknown N/A PSNGR CAR	STOP NE-SW	1	DRVR	NONE	0	UNK UNK	UNK UNK	000-No Error	011-Stop In Traf-No Lturm (000-No Action)	000-No Code	000-No Code	000-No Code	000-No Code
00948	N	N	N	N	N	HASKELL ST PINE ST	INTER SW 05	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR DRY DAY	ANGLOTH TURN PDO	3122636	NONE 0 PRVTE PSNGR CAR	TURN-L SE-SW	1	DRVR	NONE	31	F	OR-Y OR-25	042-FailSlowForSlowVeh	000-No Action (000-No Action)	29-Fall avoid veh. Ahead	000-No Code	29-Fall avoid veh. Ahead	000-No Code
03110	N	N	N	N	N	HASKELL ST PINE ST	INTER SW 05	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR DRY DARK	S-1STOP REAR PDO	3153941	NONE 0 PRVTE PSNGR CAR	TURN-L SE-SW	1	DRVR	NONE	44	M	OR-Y OR-25	026-Failed Yld ROW Ped	000-No Action (000-No Action)	02-Failed Yield ROW 40-View obscured 19-Not visible: dark clothing	000-No Code	02-Failed Yield ROW 40-View obscured 19-Not visible: dark clothing	000-No Code
01419	N	N	N	N	N	HASKELL ST PINE ST	INTER SW 06	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR DRY DAY	S-1STOP REAR PDO	3123786	NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	1	DRVR	NONE	57	F	OR-Y OR-25	043-Following Too Close 026-Failed Avoid Stop Veh	000-No Action (000-No Action)	07-Followed too Closely	000-No Code	07-Followed too Closely	000-No Code
1654540	N	N	N	N	N	HASKELL ST PINE ST	INTER SW 06	CROSS 0 0	N TRF SIGNAL N	N N DAY	CLR DRY DAY	S-1STOP REAR PDO	3123787	NONE 0 PRVTE PSNGR CAR	STOP SW-NE	1	DRVR	NONE	41	F	OR-Y OR-25	000-No Error	011-Stop In Traf-No Lturm (000-No Action)	000-No Code	000-No Code	000-No Code	000-No Code

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 CONTINUOUS SYSTEM CRASH LISTING

HASKELL ST at PINE ST, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
 Total Crash Records = 16

\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER.# ID #	INVEST RD DPT UNLOC?	SPEED ALCOHOL DRUG MARIJUANA SCH ZONE WKR ZONE	DATE TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) # LANES	INT-REL (TRAF-CONTL)	OFF RD RNDET DRWY	WTHR SURF LIGHT	CRASH COLL SVRTY	VEHICLE #	SPL USE TRLR CITY OWNER TYPE	MOVE FROM TO	PARTC #	INJURY SEVERITY	AGE	SEX	LICNS RES	NON-MTRST LOCATION	ERROR	ACTION VEHICLE (PARTICIPANT)	EVENT VEHICLE (PARTICIPANT)	CRASH VEHICLE (PARTICIPANT)	CAUSE VEHICLE (PARTICIPANT)	
																											DRVR
01889 1544673 CITY N N N N N False			10/11/2013 Friday 12P 42.37283	Jackson Central Point MEDFORD UA -122.91985	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	HASKELL ST PINE ST	INTER CN 05	CROSS (0) (0)	N TRF SIGNAL N	Y N N	CLR DRY DAY	FIX OBJ FIX PDO	2917763 NONE 1 PRVTE SEMI TOW	TURN-R NE-NW	1 DRVR	NONE 66	M	OR-Y OR-25	002-Cut Corner 080-Fall To Maintain Lane	000-No Action (000-No Action)	055-Pole-Traffic Signal	08-Improper Turn	00-No Code	08-Improper Turn	00-No Code		
02452 1689600 CITY N N N N N False			10/05/2016 Wednesday 1P 42.37284	Jackson Central Point MEDFORD UA -122.91987	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	HASKELL ST PINE ST	INTER CN 02	CROSS (0) (0)	N TRF SIGNAL N	N N N	CLD DRY DAY	S-HSTOP REAR INJ	3150235 NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	1 DRVR	NONE 65	F	OR-Y OR-25	043-Following Too Close	000-No Action (000-No Action)	07-Followed too Closely	00-No Code	07-Followed too Closely	00-No Code			
03107 1690223 NONE N N N N N False			12/09/2016 Friday 2P 42.37284	Jackson Central Point MEDFORD UA -122.91987	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	HASKELL ST PINE ST	INTER CN 02	CROSS (0) (0)	N TRF SIGNAL N	N N N	RAIN WET DAY	S-HSTOP REAR PDO	3191403 NONE 0 N/A PSNGR CAR	STRGHT SW-NE	1 DRVR	NONE 0	UNK UNK	000-No Error	000-No Error	000-No Action (000-No Action)	29-Fall avoid veh. Ahead	00-No Code	00-No Code	00-No Code			
01402 1722816 CITY N N N N N False			06/16/2017 Friday 6P 42.37284	Jackson Central Point MEDFORD UA -122.91987	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	HASKELL ST PINE ST	INTER CN 02	CROSS (0) (0)	N TRF SIGNAL N	N N N	CLR DRY DAY	O-1 L-TURN TURN INJ	3268604 NONE 0 RENTL PSNGR CAR	STRGHT SE-NW	1 DRVR	INJC 57	M	OTHY NRES	000-No Error	000-No Action (000-No Action)	02-Failed Yield ROW	00-No Code	00-No Code	00-No Code			
02545 1759177 NONE N N N N N False			10/20/2017 Friday 7A 42.37284	Jackson Central Point MEDFORD UA -122.91987	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	HASKELL ST PINE ST	INTER CN 03	CROSS (0) (0)	N TRF SIGNAL N	N N N	RAIN WET DLIT	O-OTHER TURN PDO	3317538 NONE 0 N/A PSNGR CAR	TURN-L SE-SW	1 DRVR	NONE 0	UNK UNK	000-No Error	000-No Error	000-No Action (000-No Action)	02-Failed Yield ROW	00-No Code	00-No Code	00-No Code	02-Failed Yield ROW	00-No Code	
01181 1578701 N N N N N False			07/02/2014 Wednesday 7A 42.37283	Jackson Central Point MEDFORD UA -122.91985	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	HASKELL ST PINE ST	INTER CN 04	CROSS (0) (0)	N TRF SIGNAL N	N N N	CLR DRY DAY	O-1 L-TURN TURN PDO	2981673 NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	1 DRVR	NONE 65	F	OR-Y OR-25	000-No Error	000-No Action (000-No Action)	08-Improper Turn	00-No Code	00-No Code	00-No Code	08-Improper Turn	00-No Code	
01550 1583763 CITY N N N N N False			08/23/2014 Saturday 2P 42.37283	Jackson Central Point MEDFORD UA -122.91985	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	HASKELL ST PINE ST	INTER CN 04	CROSS (0) (0)	N TRF SIGNAL N	N N N	CLR DRY DAY	O-1 L-TURN TURN PDO	2991200 NONE 0 PRVTE PSNGR CAR	STRGHT SW-NE	1 DRVR	NONE 47	M	OR-Y OR-25	000-No Error	000-No Action (000-No Action)	08-Improper Turn 02-Failed Yield ROW	00-No Code	00-No Code	00-No Code	00-No Code	02-Failed Yield ROW 08-Improper Turn	00-No Code



OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 CONTINUOUS SYSTEM CRASH LISTING

SCENIC AVE at UPTON RD, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
 Total Crash Records = 2

\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*

SER.# ID # INVEST RD DPT UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCH ZONE	WORK ZONE	DATE DAY TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) LEGS # LANES	INT-REL   TRAF-CONTL	OFF RD RNDEBT DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	VEHICLE #	SPCL USE TRLR QTY OWNER TYPE	MOVE FROM TO	PART #	PARTC TYPE	INJURY SEVERITY	AGE	SEX	LICNS RES	NON-MTRST LOCATION	ERROR	ACTION VEHICLE (PARTICIPANT)	EVENT		CAUSE	
																													VEHICLE	PARTICIPANT	VEHICLE	PARTICIPANT
02573 1689521 STATE N False	N	N	N	N	N	N	10/18/2016 Tuesday 7A 42.38771	Jackson Central Point MEDFORD UA -122.92076	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	SCENIC AVE UPTON RD	INTER N 05	3-LEG 0 0	N STOP SIGN N	N N N	RAIN WET DAY	ANGLOTH TURN PDO	3190139 9-Unknown N/A PSNGR CAR	TUR-N NW-N	TURN-L NW-N	1	DRVR	NONE	0	UNK	UNK	000-No Error	000-No Action (000-No Action)	08-Improper Turn	00-No Code	00-No Code		
02486 695665 N False	N	N	N	N	N	N	10/04/2016 Tuesday 8A 42.38771	Jackson Central Point MEDFORD UA -122.92076	Non-ODOT Roadway 16-Urb Min Art Not on st. sys. Not on st. sys.	SCENIC AVE UPTON RD	INTER N 06	3-LEG 0 0	N STOP SIGN N	N N N	CLR WET DLIT	BIKE TURN INJ	3150363 0 0 DRVTE PSNGR CAR	TUR-N N-NW	TUR-N N-NW	1	DRVR	NONE	72	M	OR-Y OR-25	027-Failed Yld ROW Bike	015-Processed After Stop (000-No Action)	02-Failed Yield ROW	00-No Code	02-Failed Yield ROW		
																	3190140 9-Unknown N/A PSNGR CAR	STOP N-S	STOP N-S	1	DRVR	NONE	0	UNK	UNK	000-No Error	011-Stop In Traf-No Lturn (000-No Action)		00-No Code	00-No Code		
																	0	0	STRGHT SE-NW	1	BIKE	INJIB	65	M	I-XWLK	000-No Error	(046-Walk/Run/Ride w/traf)		00-No Code	00-No Code		

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
CONTINUOUS SYSTEM CRASH LISTING

PINE ST at 10TH ST, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017  
Total Crash Records = 11  
\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*

Table with columns: SER.#, INVEST, RD DPT, UNLOC?, SPEED, ALCOHOL, DRUG, MARIJUANA, SCH ZONE, WORK ZONE, DATE, COUNTY, CITY, URB AREA, LONG, RD #, FUNCTIONAL CLASS, COMPONENT, MILEAGE TYPE, WILEPOINT, CONN #, FIRST STREET, SECOND STREET, LRS, RD CHAR, DIRECT, LOCTN, INT-TYP, CROSS, TRF SIGNAL, N, TRF SIGNAL, N, INT-REL, TRAF-CONTL, DRWY, OFF RD, RNDBT, DRWY, WTHR, SURF, COLL, CRASH, WTHR, SURF, COLL, SVRTY, VEHICLE #, SPLCL USE, TRLR QTY, OWNER, TYPE, MOVE, FROM, TO, PARTC #, PARTC TYPE, INJURY, SEVERITY, AGE, SEX, LICNS, RES, NON-MTRST, LOCATION, ERROR, ACTION, VEHICLE, PARTICIPANT, EVENT, VEHICLE, PARTICIPANT, CRASH, CAUSE, PARTICIPANT.



OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION  
 TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT  
 CONTINUOUS SYSTEM CRASH LISTING

HASKELL ST at TWIN CRK CROSSING LP, City of Central Point, Jackson County, 01/01/2013 to 12/31/2017

Total Crash Records = 1

\*\*\*\*\*CRASH DE-CODER V6.0.0 PRC REPORT PRINTABLE EQUIVALENT\*\*\*\*\*

SER #	ID #	INVEST UNLOC?	SPEED	ALCOHOL	DRUG	MARIJUANA	SCH ZONE	WORK ZONE	DATE DAY TIME LAT	COUNTY CITY URB AREA LONG	RD # FUNCTIONAL CLASS COMPONENT MILEAGE TYPE MILEPOINT	CONN # FIRST STREET SECOND STREET LRS	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) # LANES	INT-REL TRAF-CONTL	OFF RD RNDBT DRVWY	WTHR SURF LIGHT	CRASH COLL SVRTY	VEHICLE #	SPCL USE TRLR QTY OWNER TYPE	MOVE FROM TO	PART #	PARTC TYPE	INJURY SEVERITY	AGE	SEX	LICNS RES	NON-MTRST LOCATION	ERROR	ACTION		EVENT		CAUSE		
																														VEHICLE (PARTICIPANT)	(PARTICIPANT)	VEHICLE	(PARTICIPANT)	VEHICLE	(PARTICIPANT)	VEHICLE
02884	1670160	N	N	N	N	N	N	N	11/18/2016	Jackson Central Point MEDFORD UA	Non-ODOT Roadway 18-Urb Min Coll Not on st. sys. Not on st. sys.	TWIN CRK CROSSING INTER N HASKELL ST	W 06	3-LEG (0) (0)	N NONE	Y	CLR DRY DLIT	FIX FIX INJ	3153167 0	NONE 0	STRGHT SE-NW	1	DRVR	INJB	23	F	OR-Y OR-25	079-Fall negotiate curve 081-Ran Off Road	000-No Action (025-Driver Sleepy/Asleep)	040-Curb 100-Unknown Fixed Obj 128-Curve @ location	040-Curb 100-Unknown Fixed Obj 128-Curve @ location	00-No Code	16-Driver sleepy	00-No Code	16-Driver sleepy	00-No Code
2 PSNG NO<5 1 F 000-No Error (000-No Action) 00-No Code																																				



## ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
014	EMR V PKD	EMERGENCY VEHICLE LEGALLY PARKED IN THE ROADWAY
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRCT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO.
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN!
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHTF	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER
51	FAIL LN	FAILED TO MAINTAIN LANE
52	OFF RD	RAN OFF ROAD

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN, ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED
4	EXP	EXPIRED
8	N-VAL	OTHER NON-VALID LICENSE
9	UNK	UNKNOWN IF DRIVER WAS LICENSED AT TIME OF CRASH

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS
042	F/SIO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL IN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHICLE)
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIRE FALL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTH CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY
134	TORRENTIAL	TORRENTIAL RAIN (EXCEPTIONALLY HEAVY RAIN)
135	RAIL OCC	INJURED OCCUPANT OF RAILWAY TRAIN, LIGHT RAIL, STREET CAR OR CABLE CAR



FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

SHORT CODE	DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY (K)
2	INJA	SUSPECTED SERIOUS INJURY (A)
3	INJB	SUSPECTED MINOR INJURY (B)
4	INJC	POSSIBLE INJURY (C)
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE
9	NONE	NO APPARENT INJURY (O)

LIGHT CONDITION CODE TRANSLATION LIST

SHORT CODE	DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

SHORT CODE	DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIYMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

**MOVEMENT TYPE CODE TRANSLATION LIST**

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY
9	PARKNG	PARKING MANEUVER

**NON-MOTORIST LOCATION CODE TRANSLATION LIST**

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE
18	OTHER, NOT IN ROADWAY
99	UNKNOWN LOCATION

**ROAD CHARACTER CODE TRANSLATION LIST**

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

**PARTICIPANT TYPE CODE TRANSLATION LIST**

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA.
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	OTHR	OTHER TYPE OF NON-MOTORIST

**TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST**

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHCN-R	FLASHING BEACON - RED (STOP)
003	FLASHCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING
095	BUS STPFSN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER, MOTOR BIKE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH



Peninger	W of Peninger	WB	295	291	515	538	2.7%	84.9%	4.5%	224	519	522	1%	520	520
Peninger	E of Peninger	EB	195	170	325	341	3.1%	100.6%	4.9%	155	350	373	6%	361	361
E of Peninger	Peninger	WB	250	202	392	412	3.2%	104.0%	5.0%	190	440	486	10%	463	463
S of Upton	Upton	NB	105	163	206	210	0.9%	28.8%	2.1%	43	148	132	11%	140	148
Upton	S of Upton	SB	55	49	80	83	2.2%	69.4%	4.0%	31	86	90	4%	88	88
Upton	E of Upton	EB	140	41	91	96	4.2%	134.1%	5.7%	50	190	310	48%	250	190
E of Upton	Upton	WB	170	58	152	162	5.6%	179.3%	6.4%	94	264	446	51%	355	264
S of Wilson	Wilson	NB	180	142	272	285	3.1%	100.7%	4.9%	130	310	344	11%	327	310
Wilson	S of Wilson	SB	230	182	388	409	3.9%	124.7%	5.5%	206	436	490	12%	463	436
Wilson	N of Wilson	NB	105	127	285	301	4.3%	137.0%	5.7%	158	263	235	11%	249	263
N of Wilson	Wilson	SB	125	150	340	360	4.4%	140.0%	5.8%	190	315	284	11%	299	315
W of TR	TR	EB	125	35	165	178	12.8%	408.6%	8.1%	130	255	588	79%	421	255
TR	W of TR	WB	135	95	304	326	7.6%	243.2%	7.1%	209	344	432	23%	388	344
S of Wilson	Wilson	NB	805	713	816	1013	0.5%	42.1%	24.1%	103	908	922	1%	915	915
Wilson	S of Wilson	SB	685	778	891	1026	0.5%	31.9%	15.2%	113	798	784	2%	791	791
Wilson	N of Wilson	NB	795	651	953	984	1.6%	51.2%	3.3%	302	1097	1164	6%	1130	1130
N of Wilson	Wilson	SB	685	728	1013	1042	1.3%	43.1%	2.9%	285	970	953	2%	961	961
W of TR	TR	EB	525	432	688	714	2.0%	65.3%	3.8%	256	781	836	7%	808	808
TR	W of TR	WB	720	573	994	1037	2.5%	81.0%	4.4%	421	1141	1248	9%	1194	1194
TR	E of TR	EB	465	495	803	835	2.1%	68.7%	4.0%	308	773	754	2%	764	764
E of TR	TR	NB	785	708	1089	1128	1.9%	59.3%	3.6%	381	1166	1207	3%	1186	1186
S of Biddle	Biddle	WB	490	263	523	550	3.4%	109.1%	5.1%	260	750	975	26%	862	750
Biddle	S of Biddle	SB	560	344	738	779	4.0%	126.5%	5.5%	394	954	1202	23%	1078	954
Biddle	N of Biddle	NB	725	862	1137	1167	1.2%	37.0%	2.6%	285	1010	968	4%	989	989
N of Biddle	Biddle	SB	670	860	1372	1425	2.1%	65.7%	3.9%	512	1182	1069	10%	1125	1182
W of TR	TR	EB	370	271	503	527	3.0%	94.5%	4.8%	232	602	687	13%	644	602
TR	W of TR	WB	615	458	620	637	1.2%	39.1%	2.7%	162	777	833	7%	805	805
TR	E of TR	EB	475	429	809	848	3.1%	97.7%	4.9%	380	855	895	5%	875	875
E of TR	TR	NB	655	542	1105	1163	3.6%	114.6%	5.3%	563	1218	1335	9%	1276	1276
S of Biddle	Biddle	WB	700	834	1100	1128	1.1%	35.3%	2.5%	266	966	924	5%	945	945
Biddle	S of Biddle	SB	560	815	1285	1334	2.0%	63.7%	3.8%	470	1030	883	15%	957	1030
Biddle	N of Biddle	NB	735	736	996	1023	1.2%	39.0%	2.7%	260	995	995	0%	995	995
N of Biddle	Biddle	SB	660	792	1000	1022	0.9%	29.0%	2.2%	208	868	834	4%	851	851
W of Hamrick	Hamrick	EB	1095	797	1034	1058	1.0%	32.7%	2.4%	237	1332	1420	6%	1376	1376
Hamrick	W of Hamrick	WB	1300	984	1518	1573	1.9%	59.9%	3.6%	534	1834	2005	9%	1919	1919
Hamrick	E of Hamrick	EB	535	426	653	677	1.8%	58.9%	3.6%	227	762	821	7%	792	792
E of Hamrick	Hamrick	WB	645	537	951	994	2.7%	85.1%	4.5%	414	1059	1142	8%	1101	1101
S of Biddle	Biddle	NB	275	113	288	306	5.3%	170.8%	6.3%	175	450	701	44%	575	450
Biddle	S of Biddle	SB	235	109	159	164	1.6%	50.5%	3.2%	50	285	342	18%	314	285
Biddle	N of Biddle	NB	470	488	488	488	0.0%	0.0%	0.0%	0	470	470	0%	470	470
N of Biddle	Biddle	SB	525	561	545	543	-0.1%	-3.2%	-0.3%	-16	509	510	0%	509	509
W of Hamrick	Hamrick	EB	55	102	235	249	4.5%	144.1%	5.9%	133	188	127	39%	158	188
Hamrick	W of Hamrick	WB	70	145	142	142	-0.1%	-2.1%	-0.2%	-3	67	69	2%	68	68
Hamrick	E of Hamrick	EB	45	95	95	95	0.0%	0.0%	0.0%	0	45	45	0%	45	45
E of Hamrick	Hamrick	WB	30	67	67	67	0.0%	0.0%	0.0%	0	30	30	0%	30	30
S of Beebe	Beebe	NB	450	488	488	488	0.0%	0.0%	0.0%	0	450	450	0%	450	450
Beebe	S of Beebe	SB	595	561	545	543	-0.1%	-3.2%	-0.3%	-16	579	578	0%	578	578
Beebe	N of Beebe	NB	395	311	643	677	3.7%	117.7%	5.3%	332	727	816	12%	771	727
N of Beebe	Beebe	SB	570	455	642	661	1.4%	45.3%	3.0%	187	757	804	6%	780	780
W of Peninger	Peninger	EB	1205	906	1385	1434	1.8%	58.3%	3.6%	479	1684	1841	9%	1762	1762
Peninger	W of Peninger	WB	1385	1013	1704	1775	2.4%	75.2%	4.2%	691	2076	2329	12%	2026	2076
Peninger	E of Peninger	EB	1090	792	949	965	0.7%	21.8%	1.7%	157	1247	1306	5%	1276	1276
E of Peninger	Peninger	WB	1300	990	1413	1457	1.5%	47.2%	3.1%	423	1723	1856	7%	1789	1789

S of Pine	Pine	NB	245	131	154	156	0.6%	19.1%	1.5%	23	268	287	7%	278	278
Pine	S of Pine	SB	210	106	121	123	0.5%	16.0%	1.3%	15	225	241	6%	233	233
Pine	N of Pine	NB	165	164	565	607	8.4%	270.1%	7.3%	401	566	569	0%	568	568
N of Pine	Pine	SB	100	49	388	423	23.9%	763.3%	9.0%	339	439	792	57%	615	439
Haskell/Pine	Haskell	SB	320	173	218	223	0.9%	28.9%	2.1%	45	365	404	10%	365	365
		WB	430	303	397	407	1.1%	34.3%	2.5%	94	524	564	7%	544	544
		EB	505	550	438	426	-0.7%	-22.5%	-2.7%	-112	393	402	2%	397	397
		WB	845	800	892	901	0.4%	12.6%	1.1%	92	937	942	1%	939	939
		NB	75	129	153	155	0.6%	20.2%	1.6%	24	99	89	11%	94	99
Pine	S of Pine	SB	100	190	223	226	0.6%	18.9%	1.5%	33	133	117	12%	125	133
Pine	N of Pine	NB	440	279	342	348	0.8%	24.7%	1.9%	63	503	539	7%	521	521
N of Pine	Pine	SB	235	180	134	129	-0.9%	-28.3%	-3.6%	-46	189	175	8%	182	182
Hanley/Beall	Hanley	EB	130	185	129	123	-1.0%	-33.5%	-4.5%	-56	74	91	20%	82	74
		WB	230	301	221	213	-0.9%	-29.2%	-3.7%	-80	150	169	12%	160	150
		EB	130	154	191	195	0.8%	26.6%	2.0%	37	167	161	4%	164	164
		WB	210	236	314	322	1.1%	36.4%	2.6%	78	288	279	3%	284	284
		NB	225	239	327	336	1.3%	40.6%	2.8%	88	313	308	2%	310	310
Grant/Beall	Beall	SB	225	231	357	370	1.9%	60.2%	3.7%	126	351	348	1%	349	349
		NB	175	178	193	195	0.3%	9.6%	0.8%	15	190	190	0%	190	190
		SB	195	205	262	268	1.0%	30.7%	2.3%	57	252	249	1%	251	251
		EB	85	96	120	123	0.9%	28.1%	2.1%	24	109	107	3%	108	108
		WB	160	142	206	213	1.6%	50.0%	3.2%	64	224	233	4%	228	228
S Grant/Taylor	Grant	EB	130	185	129	123	-1.0%	-33.5%	-4.5%	-56	74	91	20%	82	74
		WB	230	301	221	213	-0.9%	-29.2%	-3.7%	-80	150	169	12%	160	150
		NB	55	166	265	275	2.1%	65.7%	3.9%	99	154	88	55%	121	154
		SB	80	96	189	199	3.4%	107.3%	5.1%	93	173	158	9%	166	166
		EB	85	162	180	182	0.4%	12.3%	1.0%	18	103	95	9%	99	99
N Grant/Taylor	Grant	WB	95	189	194	194	0.1%	2.6%	0.2%	5	100	97	2%	98	98
		EB	60	100	75	72	-0.9%	-28.0%	-3.5%	-25	35	45	26%	40	35
		WB	80	103	136	139	1.1%	35.0%	2.5%	33	113	105	7%	109	109
		NB	45	109	183	191	2.4%	75.2%	4.2%	74	119	76	45%	97	119
		SB	55	85	231	246	5.9%	189.4%	6.5%	146	201	149	29%	175	201
Grant	Grant	EB	55	33	43	44	1.0%	33.3%	2.4%	10	65	72	10%	68	68
		WB	85	45	67	69	1.7%	53.3%	3.4%	22	107	126	17%	116	107
		EB	85	162	180	182	0.4%	12.3%	1.0%	18	103	95	9%	99	99

Project: Central Point UGB  
 Job #: ODOT0000-0799  
 Subject: Future Baseline Traffic Forecasts - 2042 NB  
 PM Volumes

Scenario - PM  
 2039 Build

Road	From	To	Direction	Existing Volumes	Baseline Model	Interpolated Model	(Build) Future Ref Model	2010-2042 Model Comparison			2010-2039 Model Comparison			2039 Volume Estimates			Forecast Used			
								Annual Growth	Total Growth	Volume Difference	Annual Growth	Total Growth	Volume Difference	Volume Growth	Volume Difference	Volume Growth		Volume Difference	Absolute Difference	Average
I-5 NB Ramps	W of I-5	I-5 NB Ramp	EB	960	581	977	1018	2.4%	75.2%	396	4.2%	1356	1614	17%	1485	1356				
	I-5 NB Ramp	W of I-5	WB	1315	1284	1931	1998	1.7%	55.6%	647	3.5%	1962	1978	1%	1970	1970				
	I-5 NB Ramp	Peninger	EB	1205	1016	1501	1562	2.3%	72.4%	595	4.1%	1800	1996	10%	1898	1800				
	I-5 NB Ramp	I-5 NB Ramp	WB	1385	1013	1780	1859	2.6%	83.5%	767	4.5%	2152	2433	12%	2292	2152				
	I-5	Pine	WB	726	854	1255	1297	1.6%	51.9%	401	3.3%	1127	1067	5%	1097	1097				
	I-5	I-5	NB	551	258	581	614	4.3%	138.0%	323	5.7%	874	1240	35%	1057	874				
	I-5 SB Ramps	W of I-5	I-5 SB Ramp	EB	1000	749	986	1010	1.1%	34.8%	237	2.5%	1237	1316	6%	1276	1276			
	I-5 SB Ramp	W of I-5	WB	1180	934	1896	1995	3.5%	113.6%	962	5.2%	2142	2395	11%	2268	2142				
	I-5 SB Ramp	E of I-5	EB	960	581	977	1018	2.4%	75.2%	396	4.2%	1356	1614	17%	1485	1356				
	I-5 SB Ramp	E of I-5	WB	1315	1284	1931	1998	1.7%	55.6%	647	3.5%	1962	1978	1%	1970	1970				
OR99 / Pine	I-5	Pine	SB	365	239	445	466	3.0%	95.0%	206	4.8%	571	679	17%	625	571				
	Pine	I-5	SB	540	751	1046	1076	1.4%	43.3%	295	2.9%	835	752	10%	793	835				
	Haskell	OR99	EB	505	550	536	535	-0.1%	-2.7%	-14	-0.3%	491	493	0%	492	492				
	OR99	Haskell	WB	845	800	1030	1054	1.0%	31.8%	230	2.3%	1075	1088	1%	1082	1082				
	OR99	1st	EB	525	314	515	536	2.2%	70.7%	201	4.0%	726	861	17%	794	726				
	1st	OR99	WB	710	463	813	849	2.6%	83.4%	350	4.5%	1060	1246	16%	1153	1060				
	S of Pine	Pine	NB	800	652	1102	1148	2.4%	76.1%	450	4.2%	1250	1352	8%	1301	1301				
	Pine	S of Pine	SB	480	412	589	607	1.5%	47.3%	177	3.1%	657	686	4%	671	671				
	Pine	N of Pine	NB	590	464	1073	1136	4.5%	144.8%	609	5.9%	1199	1364	13%	1282	1199				
	N of Pine	Pine	SB	425	367	759	800	3.7%	118.0%	392	5.3%	817	879	7%	848	848				
Twin Creeks/OR99	Haskell	OR99	EB	75	67	418	454	18.1%	577.6%	351	8.7%	426	468	9%	447	447				
	OR99	Haskell	WB	85	136	625	676	12.4%	397.1%	489	8.1%	574	391	38%	483	574				
	S of Twin Creeks	Twin Creeks	NB	535	554	1023	1071	2.9%	93.3%	469	4.7%	1004	987	2%	995	995				
	Twin Creeks	S of Twin Creeks	SB	410	228	554	588	4.9%	157.9%	326	6.1%	736	997	30%	866	736				
	Twin Creeks	N of Twin Creeks	NB	515	430	655	678	1.8%	57.7%	225	3.6%	740	784	6%	762	762				
	N of Twin Creeks	Twin Creeks	SB	400	209	398	417	3.1%	99.5%	189	4.9%	589	761	26%	675	589				
	Grant	OR99	EB	95	167	245	253	1.6%	51.5%	78	3.3%	173	139	22%	156	173				
	Grant	Grant	WB	125	221	488	516	4.2%	133.5%	267	5.7%	392	276	35%	334	392				
	OR99	E of OR99	EB	190	105	217	229	3.7%	118.1%	112	5.3%	302	393	26%	348	302				
	E of OR99	OR99	WB	160	112	275	292	5.0%	160.7%	163	6.1%	323	393	20%	358	323				
S of OR99	Scenic	NB	515	295	338	605	0.5%	105.1%	43	79.1%	558	590	6%	574	574					
Scenic	S of OR99	SB	370	152	161	358	0.2%	135.5%	9	122.6%	379	391	3%	385	385					
Scenic	N of OR99	NB	485	411	715	746	2.5%	81.5%	304	4.4%	789	843	7%	816	816					
N of OR99	Scenic	SB	400	316	664	700	3.8%	121.5%	348	5.4%	748	841	12%	794	748					
Beall/OR99	W of OR99	OR99	EB	235	244	335	344	1.3%	41.0%	91	2.8%	326	322	1%	324	324				
	OR99	W of OR99	WB	390	386	584	604	1.8%	56.5%	198	3.5%	588	590	0%	589	589				
	OR99	E of OR99	EB	295	267	392	405	1.6%	51.7%	125	3.3%	420	433	3%	427	427				
	E of OR99	OR99	WB	280	178	306	319	2.5%	79.2%	128	4.3%	408	481	16%	444	408				
	S of OR99	Beall	NB	1050	1181	1713	1768	1.6%	49.7%	532	3.2%	1582	1523	4%	1552	1552				
	Beall	S of OR99	SB	685	743	991	1017	1.2%	36.9%	248	2.6%	933	914	2%	924	924				
	Beall	N of OR99	NB	725	603	1001	1042	2.3%	72.8%	398	4.1%	1123	1203	7%	1163	1163				
	N of OR99	Beall	SB	530	449	618	636	1.3%	41.6%	169	2.8%	699	730	4%	715	715				
	W of Peninger	Peninger	EB	190	146	422	451	6.5%	208.9%	276	6.8%	466	550	16%	508	466				

Peninger	W of Peninger	WB	295	291	596	628	3.6%	115.8%	5.3%	305	600	605	1%	603	603
Peninger	E of Peninger	EB	195	170	523	559	7.2%	228.8%	7.0%	353	548	599	9%	573	573
E of Peninger	Peninger	WB	250	202	495	525	5.0%	159.9%	6.1%	293	543	612	12%	577	543
S of Upton	Upton	NB	105	163	341	359	3.8%	120.2%	5.4%	178	283	219	25%	251	283
Upton	S of Upton	SB	55	49	138	147	6.3%	200.0%	6.7%	89	144	155	7%	149	149
Upton	E of Upton	EB	140	41	198	214	13.2%	422.0%	8.2%	157	297	675	78%	486	297
E of Upton	Upton	WB	170	58	340	369	16.8%	536.2%	8.6%	282	452	996	75%	724	452
S of Wilson	Wilson	NB	180	142	378	402	5.7%	183.1%	6.5%	236	416	479	14%	447	416
Wilson	S of Wilson	SB	230	182	661	711	9.1%	290.7%	7.5%	479	709	836	16%	773	709
Wilson	N of Wilson	NB	105	127	290	307	4.4%	141.7%	5.8%	163	268	240	11%	254	268
N of Wilson	Wilson	SB	125	150	432	461	6.5%	207.3%	6.8%	282	407	360	12%	383	407
W of TR	TR	EB	125	35	135	145	9.8%	314.3%	7.7%	100	225	481	73%	353	225
TR	W of TR	WB	135	95	326	350	8.4%	268.4%	7.3%	231	366	463	23%	415	366
S of Wilson	Wilson	NB	805	713	816	1130	0.5%	58.5%	38.4%	103	908	922	1%	915	915
Wilson	S of Wilson	SB	685	778	891	1062	0.5%	36.5%	19.2%	113	798	784	2%	791	791
Wilson	N of Wilson	NB	795	651	943	973	1.5%	49.5%	3.2%	292	1087	1151	6%	1119	1119
N of Wilson	Wilson	SB	685	728	1012	1041	1.3%	43.0%	2.9%	284	969	952	2%	960	960
W of TR	TR	EB	525	432	785	822	2.8%	90.3%	4.7%	353	878	955	8%	916	916
TR	W of TR	WB	720	573	160	117	-2.5%	-79.6%	-26.8%	-413	307	201	42%	254	307
TR	E of TR	EB	465	495	840	876	2.4%	77.0%	4.3%	345	810	789	3%	800	800
E of TR	TR	WB	785	708	1176	1224	2.3%	72.9%	4.1%	468	1253	1303	4%	1278	1278
S of Biddle	Biddle	NB	490	263	510	535	3.2%	103.4%	5.0%	247	737	949	25%	843	737
Biddle	S of Biddle	SB	560	344	723	762	3.8%	121.5%	5.4%	379	939	1177	22%	1058	939
Biddle	N of Biddle	NB	725	852	1169	1202	1.3%	41.1%	2.8%	317	1042	995	5%	1019	1019
N of Biddle	Biddle	SB	670	860	1378	1432	2.1%	66.5%	3.9%	518	1188	1074	10%	1131	1188
W of TR	TR	EB	370	271	537	564	3.4%	108.1%	5.1%	266	636	733	14%	684	636
TR	W of TR	WB	615	458	644	663	1.4%	44.8%	3.0%	186	801	864	8%	833	833
TR	E of TR	EB	475	429	119	87	-2.5%	-79.7%	-26.9%	-310	165	132	22%	148	165
E of TR	TR	WB	655	542	1141	1203	3.8%	122.0%	5.4%	599	1254	1379	9%	1316	1316
S of Biddle	Biddle	NB	700	834	1135	1166	1.2%	39.8%	2.7%	301	1001	953	5%	977	977
Biddle	S of Biddle	SB	560	815	1292	1341	2.0%	64.5%	3.8%	477	1037	888	16%	962	1037
Biddle	N of Biddle	NB	735	736	1113	1152	1.8%	56.5%	3.5%	377	1112	1111	0%	1112	1112
N of Biddle	Biddle	SB	660	792	1066	1094	1.2%	38.1%	2.7%	274	934	888	5%	911	911
W of Hamrick	Hamrick	EB	1095	797	1150	1187	1.5%	48.9%	3.2%	353	1448	1581	9%	1515	1515
Hamrick	W of Hamrick	WB	1300	984	1689	1762	2.5%	79.1%	4.3%	705	2005	2231	11%	2118	2005
Hamrick	E of Hamrick	EB	535	426	754	788	2.7%	85.0%	4.5%	328	863	947	9%	905	905
E of Hamrick	Hamrick	WB	645	537	1076	1132	3.5%	110.8%	5.2%	539	1184	1293	9%	1238	1238
S of Biddle	Biddle	NB	275	113	342	366	7.0%	223.9%	6.9%	229	504	833	49%	669	504
Biddle	S of Biddle	SB	235	109	178	185	2.2%	69.7%	4.0%	69	304	383	23%	344	304
Biddle	N of Biddle	NB	470	488	475	474	-0.1%	-2.9%	-0.3%	-13	457	458	0%	458	458
N of Biddle	Biddle	SB	525	561	527	524	-0.2%	-6.6%	-0.7%	-34	491	494	0%	493	493
W of Hamrick	Hamrick	EB	55	102	282	301	6.1%	195.1%	6.6%	180	235	152	43%	194	235
Hamrick	W of Hamrick	WB	70	145	184	188	0.9%	29.7%	2.2%	39	109	89	20%	99	109
Hamrick	E of Hamrick	EB	45	95	110	112	0.6%	17.9%	1.4%	15	60	52	14%	56	60
E of Hamrick	Hamrick	WB	30	67	74	75	0.4%	11.9%	1.0%	7	37	33	11%	35	37
S of Beebe	Beebe	NB	450	488	475	474	-0.1%	-2.9%	-0.3%	-13	437	438	0%	438	438
Beebe	S of Beebe	SB	595	561	527	524	-0.2%	-6.6%	-0.7%	-34	561	559	0%	560	560
Beebe	N of Beebe	NB	395	311	674	712	4.0%	128.9%	5.6%	363	758	857	12%	807	758
N of Beebe	Beebe	SB	570	455	576	589	0.9%	29.5%	2.2%	121	691	722	4%	707	707
W of Peninger	Peninger	EB	1205	906	1501	1562	2.3%	72.4%	4.1%	595	1800	1996	10%	1898	1800
Peninger	W of Peninger	WB	1385	1013	1780	1859	2.6%	83.5%	4.5%	767	2152	2433	12%	2152	2152
Peninger	E of Peninger	EB	1090	792	1002	1024	0.9%	29.3%	2.2%	210	1300	1379	6%	1340	1340
E of Peninger	Peninger	WB	1300	990	1475	1525	1.7%	54.0%	3.4%	485	1785	1937	8%	1861	1861





**Department of Transportation  
Transportation Development Division**  
Mill Creek Office Park  
555 13th Street NE Suite 2  
Salem, Oregon 97301-4178  
(503) 986-4120, FAX (503) 986-4174

Request Number: 113

Date: November 22, 2019

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**TO: Stephanie Holtey, CFM, Principal Planner**  
City of Central Point, Oregon

**FROM: Jin Ren, P.E. Senior Transportation Analyst/Modeler**  
**Katie Brown, Transportation Analyst/Modeler**  
**Transportation Planning Analysis Unit (TPAU)**

**SUBJECT: 2027/2042 RVMPO Travel Demand Model No Build/Build Scenarios**

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*Model Request Summary*

A model request was submitted by Stephanie Holtey, City of Central Point on November 6<sup>th</sup>, 2019 to utilize the latest RVMPO travel demand forecasting model. The purpose of the project is described below:

“TPAU ran RVMPO Travel Demand Scenarios to help the City of Central Point evaluate alternative boundary scenarios for a pending Urban Growth Boundary (UGB) Amendment in April and July 2019. The July 2019 model run incorporated revised land use and boundary locations, as well as accounted for all existing and planned infrastructure. Based on review of the model results by our traffic engineer, there is a gap in the northwest quadrant that needs further evaluation to understand traffic flow now and in the future. Since the base model can't be changed we are requesting an interim year (2027) model run with no-build and build conditions and a subsequent run of the future year (2042) no-build/build conditions. All land use and boundary assumptions are based on the CP Alt 2.0 (Request 111).”

*Analysis Approach*

- The land use assumptions were documented in the last memo from TPAU to Central Point on July 22<sup>nd</sup>, 2019.
- In the 2027 No Build/Build Scenarios, the 2027 land use assumptions are kept the same for both scenarios, but there are two network assumptions:

- No Build – basically the same 2027 RTP scenario (with minor revisions), which will be reflected on the model output plot Fig. 1; and
- Build – with updated internal northwest quadrant network changes, which will be reflected on the model output plot Fig. 2, as stated in the Central Point model request on Nov. 6, 2019, as extracted below:

“The requested changes to the RVMPO Travel Demand Model are specific to the northwest quadrant of the City. However, the model run is requested to model the impacts of the Central Point UGB Amendment on local and regional transportation network....”

- In the 2042 No Build/Build Scenarios, there are two sets of 2042 land use assumptions:
  - No Build is kept the same as the original 2042 RVMPO\_v4.3 RTP land use scenario; and
  - Build is the Central Point Alt. 2.0, documented on the TPAU-to-Central Point technical memo on July 22nd, 2019.
- In addition, there are two 2042 network assumptions:
  - No Build – basically the same 2042 RTP network scenario with minor revisions (Fig. 3), and
  - Build – with updated internal northwest quadrant network changes (Fig. 4) the same as the 2027 model Build internal network scenario.

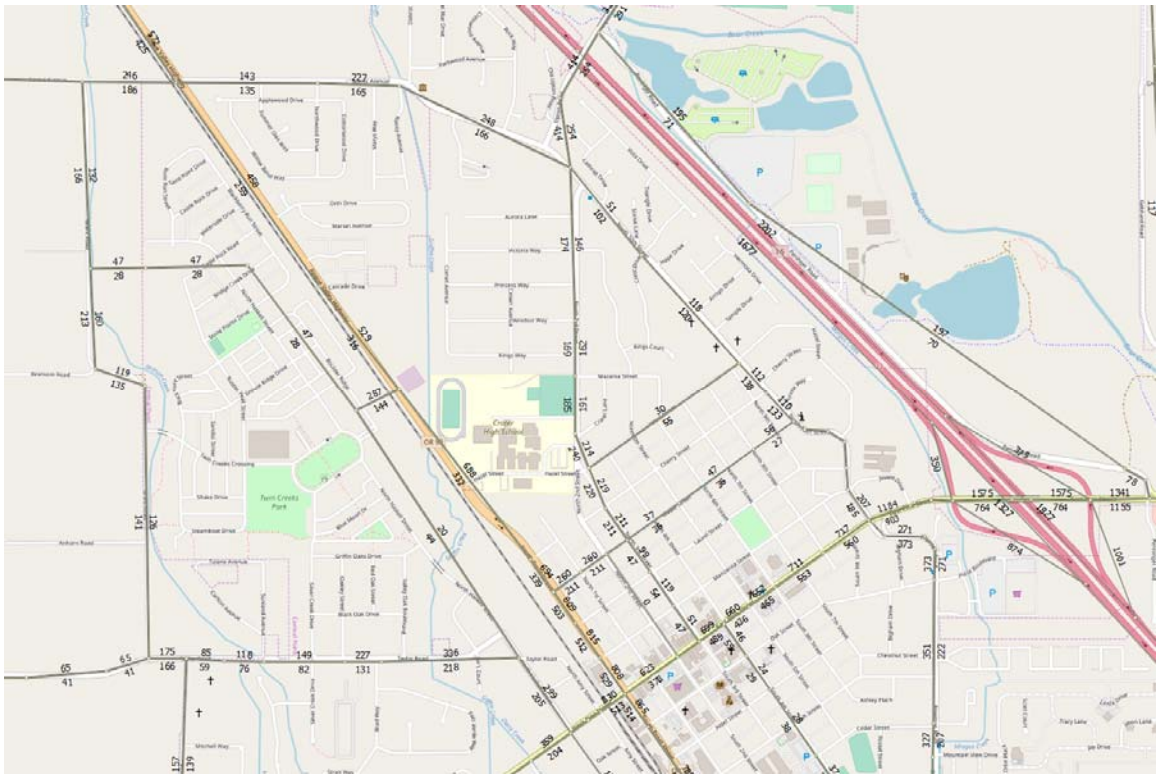
### ***Discussion of Results***

The modeling results are focused on the Northwest Quadrant of the City of Central Point. The following Fig. 1 through Fig. 4 highlight the focused area PM peak hour traffic forecasts.

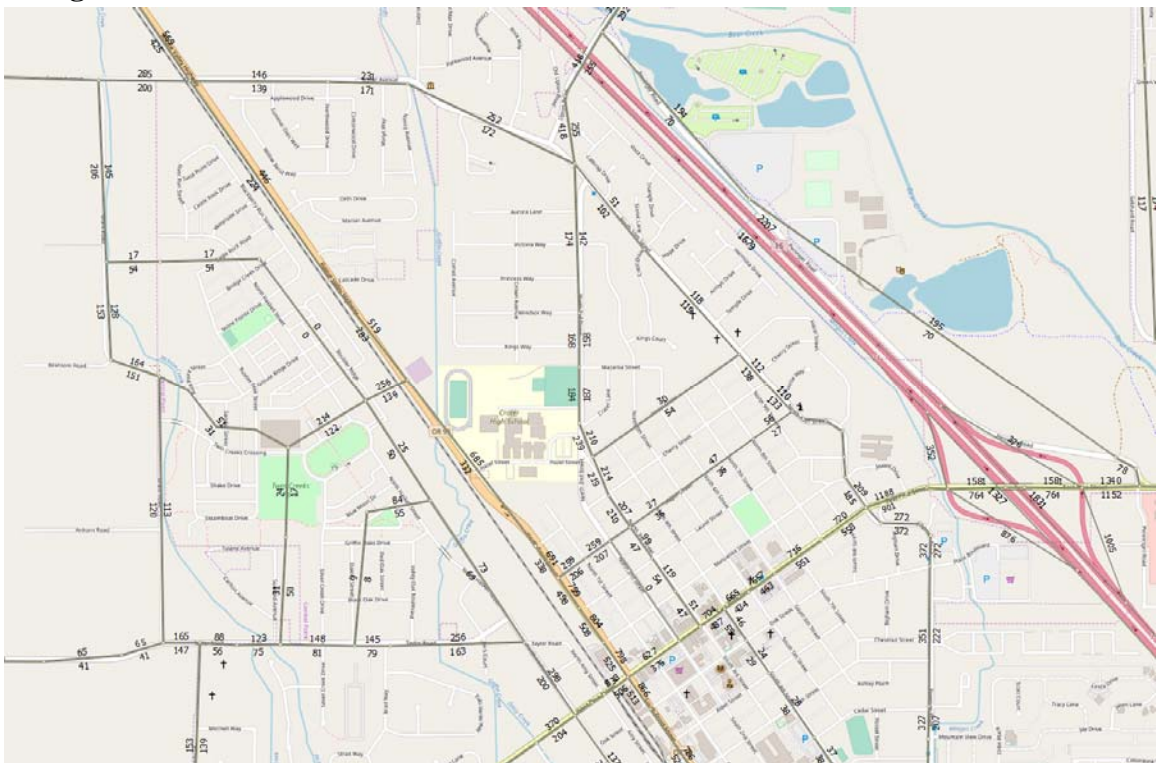
Note that travel models provide only generalized travel forecasts because they are based on generalized land use patterns and transportation networks. Since models do not represent individual land uses, driveways or neighborhood-scale streets, the forecasts produced are not sensitive to these specific land use and transportation characteristics.

Raw model results can be used for regional screening level analysis and understanding. For further project analysis it is inappropriate to use raw model outputs as the basis for transportation and land use decisions; post-processing of model outputs to account for the influence of specific transportation and land use characteristics is mandatory. Methods used for post-processing must conform to specifications provided within the ODOT Analysis Procedures Manual - <https://www.oregon.gov/ODOT/Planning/Pages/APM.aspx>. The results provided are specific to this request and should not be used for other purposes or projects.

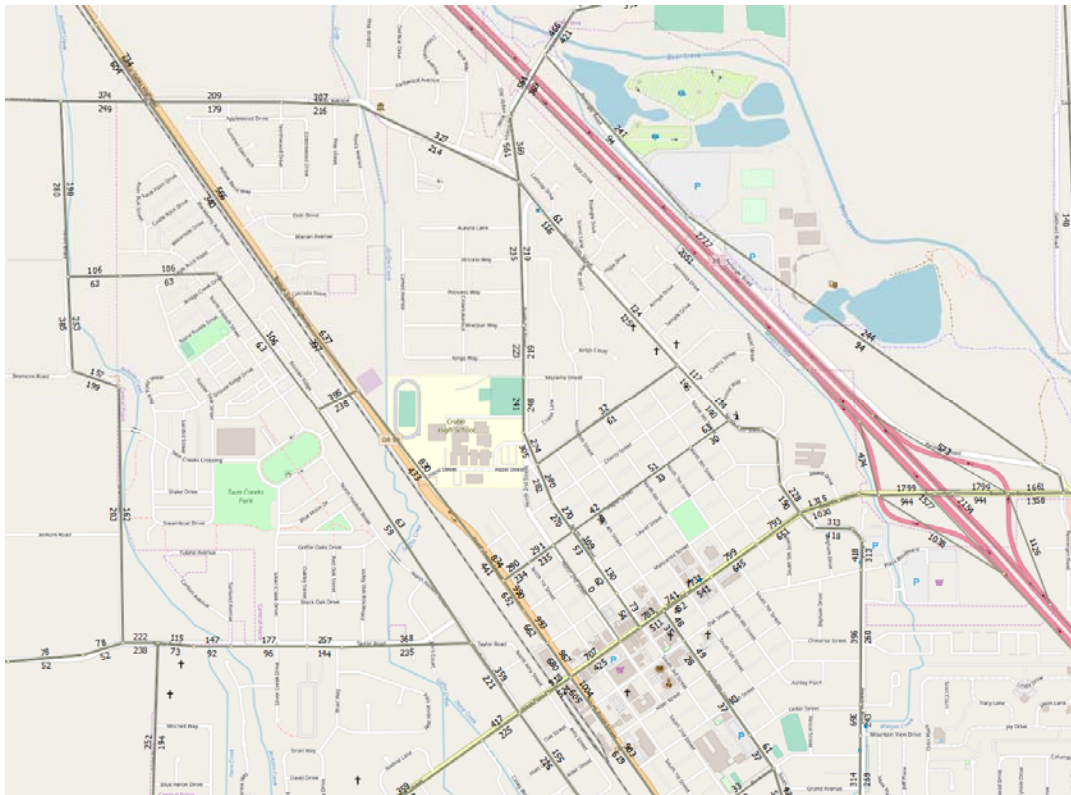
**Figure 1: 2027 RVMPO\_v4.3 Model No Build Network PM Peak Traffic Forecasts**



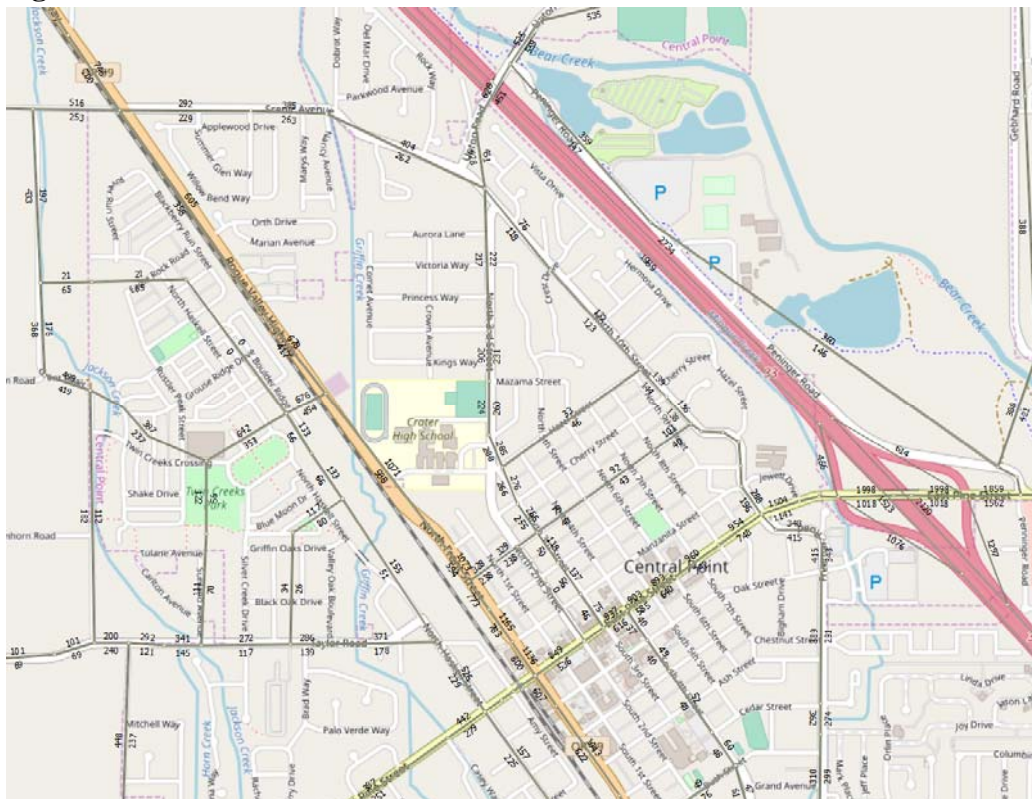
**Figure 2: 2027 RVMPO\_v4.3 Model Build Network PM Peak Traffic Forecasts**



**Figure 3: 2042 RVMPO\_v4.3 Model No Build Network PM Peak Traffic Forecasts**



**Fig. 4: 2042 RVMPO\_v4.3 Model Build Network PM Peak Traffic Forecasts**



***Requested Output / Next Steps / Follow-up***

The following output is provided with this memo:

	<b>Requested Information</b>	<b>File Name</b>
1	2027 No Build Peak Hour Link Volumes	2027NoBuild.pdf
1	2027 Build Peak Hour Link Volumes	2027_Build.pdf
1	2042 No Build Peak Hour Link Volumes	2042No_Build.pdf
1	2042 Build Peak Hour Link Volumes	2042_Build.pdf

If there are any questions or comments, please contact Jin Ren at 503-986-4120 or Katie Brown at 503-986-3367.

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Cc: Brian Dunn, Transportation Planning Analysis Unit  
TPAU Analysis Team PM, Transportation Planning Analysis Unit File

Proposed Future 2042 Build Model Runs (Staff Alternatives 1A and 1B)							
TAZ Information		RVMPO 2010 to 2042			Staff Alternatives for UGB Amendment		
TAZ	DistName	HH_10	POP_10	HH_42	POP_42	Alternative 1A Adjusted TAZ HH Future 2042 Build	Alternative 1B Adjusted TAZ HH Future 2042 Build
165	CentralPointURA	56	157	133	375	150	150
863	CentralPointURA	20	56	155	445	802	572
876	CentralPointURA	82	198	350	846	941	1032
877	CentralPointURA	20	36	467	840	1089	1010
942	CentralPointURA	9	21	66	160	NA	193
<b>TOTALS</b>		<b>187.0</b>	<b>468.0</b>	<b>1171.0</b>	<b>2666.0</b>	<b>2982.0</b>	<b>2957.0</b>

\*Proposed roadway revisions to be include in both Staff Alternatives 1A and 1B

- 1) Connect Gebhard Road to East Pine Street ( future traffic signal)
- 2) Extend Beebe Road across Bear Creek to Peninger Road
- 3) Connect Twin Creeks Crossing to intersect with OR 99 (future traffic signal)

(See Attached Aerials)

Nodes:

- 1) Gebhard Road to E Pine Street: Connect node 2058 to node 2461. New Traffic Signal at node 2461.  
New link to be the same as Gebhard Road; FC 4 (collector), speed 45 mph, 1-lane per direction
- 2) Beebe Road to Peninger Road: Connect node 1704 to node 3696. New link to be the same as Beebe Road;  
FC 4 (collector), speed 45 mph, 1-lane per direction
- 3) Twin Creeks Road from Grant Road to OR 99: Connect node 3921 to 5113 to 5112. New Traffic Signal at node 5112.  
New link to be FC 4 (collector), speed 40 mph, 1-lane per direction

1) Connect Gebhard Road to East Pine Street (future traffic signal)



2) Extend Beebe Road across Bear Creek to Peninger Road





3) Connect Twin Creeks Crossing to intersect with OR 99 (future traffic signal)



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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix C

Existing Year 2019 No-Build  
Synchro Output

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# HCM Signalized Intersection Capacity Analysis

## 5: I-5 NB Ramps & E Pine St

05/25/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	45	825	0	0	610	150	180	0	205	0	0	0	
Future Volume (vph)	45	825	0	0	610	150	180	0	205	0	0	0	
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5				
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	0.88				
Frbp, ped/bikes	1.00	1.00			1.00	0.98	1.00	1.00	0.98				
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00				
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85				
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (prot)	1525	3023			2842	1093	1517	1517	2186				
Flt Permitted	0.37	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (perm)	600	3023			2842	1093	1517	1517	2186				
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Adj. Flow (vph)	47	859	0	0	635	156	188	0	214	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	46	0	0	187	0	0	0	
Lane Group Flow (vph)	47	859	0	0	635	110	94	94	27	0	0	0	
Confl. Peds. (#/hr)	1					1	1					1	
Confl. Bikes (#/hr)						1			1				
Heavy Vehicles (%)	9%	10%	0%	0%	17%	33%	4%	0%	17%	0%	0%	0%	
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm				
Protected Phases	5	2			6			8					
Permitted Phases	2					6	8		8				
Actuated Green, G (s)	85.4	85.4			76.1	76.1	13.6	13.6	13.6				
Effective Green, g (s)	85.4	85.4			76.1	76.1	13.6	13.6	13.6				
Actuated g/C Ratio	0.79	0.79			0.70	0.70	0.13	0.13	0.13				
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5				
Vehicle Extension (s)	2.5	4.6			4.6	4.6	2.5	2.5	2.5				
Lane Grp Cap (vph)	515	2390			2002	770	191	191	275				
v/s Ratio Prot	0.00	c0.28			0.22								
v/s Ratio Perm	0.07					0.10	c0.06	0.06	0.01				
v/c Ratio	0.09	0.36			0.32	0.14	0.49	0.49	0.10				
Uniform Delay, d1	2.7	3.3			6.1	5.2	44.0	44.0	41.8				
Progression Factor	0.78	0.54			0.61	0.22	1.00	1.00	1.00				
Incremental Delay, d2	0.1	0.4			0.4	0.4	1.5	1.5	0.1				
Delay (s)	2.2	2.2			4.1	1.5	45.4	45.4	41.9				
Level of Service	A	A			A	A	D	D	D				
Approach Delay (s)		2.2			3.6			43.5			0.0		
Approach LOS		A			A			D			A		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			10.6									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.40										
Actuated Cycle Length (s)			108.0									Sum of lost time (s)	13.5
Intersection Capacity Utilization			65.5%									ICU Level of Service	C
Analysis Period (min)			15										
c Critical Lane Group													

# HCM Signalized Intersection Capacity Analysis

## 10: I-5 SB Ramps & E Pine St

05/25/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑					↑	↑	↑
Traffic Volume (vph)	0	555	440	260	525	0	0	0	0	315	0	120
Future Volume (vph)	0	555	440	260	525	0	0	0	0	315	0	120
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95					0.95	0.95	1.00
Frbp, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3107	1430	1299	3050					1338	1338	1370
Flt Permitted		1.00	1.00	0.35	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3107	1430	473	3050					1338	1338	1370
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	631	500	295	597	0	0	0	0	358	0	136
RTOR Reduction (vph)	0	0	215	0	0	0	0	0	0	0	0	111
Lane Group Flow (vph)	0	631	285	295	597	0	0	0	0	179	179	25
Confl. Peds. (#/hr)						3						2
Confl. Bikes (#/hr)						1						
Heavy Vehicles (%)	0%	7%	4%	28%	9%	0%	0%	0%	0%	18%	0%	7%
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2	6						4		4
Actuated Green, G (s)		61.0	61.0	79.8	79.8					19.2	19.2	19.2
Effective Green, g (s)		61.5	61.5	80.3	80.3					19.7	19.7	19.7
Actuated g/C Ratio		0.57	0.57	0.74	0.74					0.18	0.18	0.18
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		4.6	4.6	2.5	4.6					2.5	2.5	2.5
Lane Grp Cap (vph)		1769	814	464	2267					244	244	249
v/s Ratio Prot		0.20		c0.09	0.20							
v/s Ratio Perm			0.20	c0.38						c0.13	0.13	0.02
v/c Ratio		0.36	0.35	0.64	0.26					0.73	0.73	0.10
Uniform Delay, d1		12.6	12.5	5.7	4.4					41.7	41.7	36.8
Progression Factor		1.00	1.00	2.11	1.46					1.00	1.00	1.00
Incremental Delay, d2		0.6	1.2	2.4	0.3					10.3	10.3	0.1
Delay (s)		13.1	13.7	14.4	6.7					51.9	51.9	36.9
Level of Service		B	B	B	A					D	D	D
Approach Delay (s)		13.4			9.3			0.0			47.8	
Approach LOS		B			A			A			D	

### Intersection Summary

HCM 2000 Control Delay	18.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	108.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
20: OR 99 & Twin Creeks

05/25/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	55	100	35	370	370	20
Future Volume (vph)	55	100	35	370	370	20
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1539	1393	1568	2917	3050	1372
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1539	1393	1568	2917	3050	1372
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	109	38	402	402	22
RTOR Reduction (vph)	0	92	0	0	0	12
Lane Group Flow (vph)	60	17	38	402	402	10
Confl. Peds. (#/hr)		5				3
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	8%	5%	6%	14%	9%	6%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	8		1	6	2	
Permitted Phases		8				2
Actuated Green, G (s)	5.7	5.7	1.1	22.9	17.8	17.8
Effective Green, g (s)	5.7	5.7	1.1	22.9	17.8	17.8
Actuated g/C Ratio	0.15	0.15	0.03	0.61	0.47	0.47
Clearance Time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	5.2	5.2	5.2
Lane Grp Cap (vph)	233	211	45	1776	1443	649
v/s Ratio Prot	c0.04		c0.02	0.14	c0.13	
v/s Ratio Perm		0.01				0.01
v/c Ratio	0.26	0.08	0.84	0.23	0.28	0.02
Uniform Delay, d1	14.1	13.7	18.2	3.3	6.0	5.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.1	76.1	0.1	0.2	0.0
Delay (s)	14.5	13.8	94.3	3.5	6.2	5.3
Level of Service	B	B	F	A	A	A
Approach Delay (s)	14.1			11.3	6.2	
Approach LOS	B			B	A	

Intersection Summary

HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	37.6	Sum of lost time (s)	13.0
Intersection Capacity Utilization	35.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

30: OR 99 & W Pine St

05/25/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↰	↑	↱	↰	↑↓		↰	↑↓		↰	↑↑	↱
Traffic Volume (vph)	205	425	180	145	185	45	145	320	95	75	310	50
Future Volume (vph)	205	425	180	145	185	45	145	320	95	75	310	50
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.0		4.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1613	1667	1381	1497	2879		1599	2941		1614	3050	1365
Flt Permitted	0.58	1.00	1.00	0.19	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	992	1667	1381	292	2879		1599	2941		1614	3050	1365
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	241	500	212	171	218	53	171	376	112	88	365	59
RTOR Reduction (vph)	0	0	110	0	14	0	0	25	0	0	0	47
Lane Group Flow (vph)	241	500	102	171	257	0	171	463	0	88	365	12
Confl. Peds. (#/hr)	1		4	4		1						
Heavy Vehicles (%)	3%	5%	6%	11%	13%	7%	4%	8%	13%	3%	9%	9%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	47.3	36.5	36.5	50.5	38.1		15.9	28.6		9.1	21.8	21.8
Effective Green, g (s)	47.3	36.5	36.5	50.5	38.1		15.9	28.6		9.1	21.8	21.8
Actuated g/C Ratio	0.46	0.35	0.35	0.49	0.37		0.15	0.28		0.09	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5		2.5	5.2		2.5	5.2	5.2
Lane Grp Cap (vph)	517	587	486	286	1058		245	811		141	641	287
v/s Ratio Prot	0.05	c0.30		c0.07	0.09		c0.11	c0.16		0.05	0.12	
v/s Ratio Perm	0.16		0.07	0.22								0.01
v/c Ratio	0.47	0.85	0.21	0.60	0.24		0.70	0.57		0.62	0.57	0.04
Uniform Delay, d1	18.0	31.0	23.5	18.8	22.7		41.6	32.2		45.6	36.7	32.6
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.5	11.3	0.2	2.8	0.1		7.7	1.6		7.2	2.0	0.1
Delay (s)	18.5	42.3	23.6	21.6	22.8		49.3	33.9		52.8	38.7	32.7
Level of Service	B	D	C	C	C		D	C		D	D	C
Approach Delay (s)		32.1			22.3			37.9			40.4	
Approach LOS		C			C			D			D	

## Intersection Summary

HCM 2000 Control Delay	33.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	103.6	Sum of lost time (s)	17.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
45: Table Rock Rd & Wilson Rd

05/25/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	80	75	25	450	600	45
Future Volume (vph)	80	75	25	450	600	45
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0		4.0	5.0	5.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frbp, ped/bikes	1.00		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.93		1.00	1.00	0.99	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1511		1446	2969	3050	
Flt Permitted	0.97		0.26	1.00	1.00	
Satd. Flow (perm)	1511		400	2969	3050	
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	99	93	31	556	741	56
RTOR Reduction (vph)	46	0	0	0	5	0
Lane Group Flow (vph)	146	0	31	556	792	0
Confl. Peds. (#/hr)			1			1
Confl. Bikes (#/hr)						1
Heavy Vehicles (%)	6%	5%	15%	12%	8%	4%
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.4		29.4	29.4	23.2	
Effective Green, g (s)	10.4		29.4	29.4	23.2	
Actuated g/C Ratio	0.21		0.60	0.60	0.48	
Clearance Time (s)	4.0		4.0	5.0	5.0	
Vehicle Extension (s)	2.5		2.5	4.2	4.2	
Lane Grp Cap (vph)	322		288	1788	1450	
v/s Ratio Prot	c0.10		0.00	c0.19	c0.26	
v/s Ratio Perm			0.06			
v/c Ratio	0.45		0.11	0.31	0.55	
Uniform Delay, d1	16.7		4.4	4.7	9.1	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.7		0.1	0.2	0.6	
Delay (s)	17.5		4.6	4.9	9.6	
Level of Service	B		A	A	A	
Approach Delay (s)	17.5			4.9	9.6	
Approach LOS	B			A	A	



























Intersection Summary

HCM 2000 Control Delay	8.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	48.8	Sum of lost time (s)	13.0
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

## 50: Table Rock Rd & Biddle Rd

05/25/2020























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Traffic Volume (vph)	190	340	85	10	140	145	50	190	5	200	235	95
Future Volume (vph)	190	340	85	10	140	145	50	190	5	200	235	95
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1396	3260	1410	1661	3292	1411	1630	3159		1614	3021	
Flt Permitted	0.47	1.00	1.00	0.54	1.00	1.00	0.54	1.00		0.46	1.00	
Satd. Flow (perm)	692	3260	1410	937	3292	1411	929	3159		784	3021	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	202	362	90	11	149	154	53	202	5	213	250	101
RTOR Reduction (vph)	0	0	61	0	0	129	0	2	0	0	47	0
Lane Group Flow (vph)	202	362	29	11	149	25	53	205	0	213	304	0
Confl. Peds. (#/hr)	2		2	2		2						
Heavy Vehicles (%)	19%	2%	4%	0%	1%	4%	2%	5%	0%	3%	3%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	24.8	20.0	20.0	10.9	10.1	10.1	14.5	11.5		25.0	18.0	
Effective Green, g (s)	24.8	20.0	20.0	10.9	10.1	10.1	14.5	11.5		25.0	18.0	
Actuated g/C Ratio	0.40	0.32	0.32	0.18	0.16	0.16	0.23	0.19		0.40	0.29	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Vehicle Extension (s)	1.5	4.6	4.6	1.5	3.8	3.8	1.5	3.5		1.5	3.5	
Lane Grp Cap (vph)	399	1055	456	174	538	230	251	587		444	879	
v/s Ratio Prot	c0.09	0.11		0.00	0.05		0.01	0.07		c0.07	0.10	
v/s Ratio Perm	c0.12		0.02	0.01		0.02	0.04			c0.12		
v/c Ratio	0.51	0.34	0.06	0.06	0.28	0.11	0.21	0.35		0.48	0.35	
Uniform Delay, d1	13.1	15.9	14.4	21.1	22.7	22.0	18.7	21.9		12.8	17.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.4	0.4	0.1	0.1	0.4	0.3	0.2	0.4		0.3	0.3	
Delay (s)	13.5	16.3	14.5	21.2	23.0	22.3	18.9	22.3		13.1	17.5	
Level of Service	B	B	B	C	C	C	B	C		B	B	
Approach Delay (s)		15.2			22.6			21.6			15.9	
Approach LOS		B			C			C			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	17.6			HCM 2000 Level of Service				B				
HCM 2000 Volume to Capacity ratio	0.57											
Actuated Cycle Length (s)	61.8			Sum of lost time (s)				20.0				
Intersection Capacity Utilization	51.2%			ICU Level of Service				A				
Analysis Period (min)	15											
c Critical Lane Group												



# HCM Signalized Intersection Capacity Analysis

## 55: Table Rock Rd & Vilas Rd

05/25/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	265	40	100	165	50	40	280	190	100	300	130
Future Volume (vph)	160	265	40	100	165	50	40	280	190	100	300	130
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	5.0	5.0	3.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.96		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1553	1578		1511	1434		1582	2917	1265	1445	2821	
Flt Permitted	0.41	1.00		0.44	1.00		0.33	1.00	1.00	0.52	1.00	
Satd. Flow (perm)	673	1578		707	1434		542	2917	1265	784	2821	
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	200	331	50	125	206	62	50	350	238	125	375	162
RTOR Reduction (vph)	0	4	0	0	10	0	0	0	192	0	35	0
Lane Group Flow (vph)	200	377	0	125	259	0	50	350	46	125	503	0
Confl. Peds. (#/hr)	1						1	4		1	1	4
Confl. Bikes (#/hr)							1					
Heavy Vehicles (%)	7%	10%	0%	10%	16%	22%	5%	14%	15%	15%	11%	13%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	30.1	20.7		23.5	17.1		14.4	12.3	12.3	25.5	18.4	
Effective Green, g (s)	30.1	20.7		23.5	17.1		14.4	12.3	12.3	25.5	18.4	
Actuated g/C Ratio	0.47	0.33		0.37	0.27		0.23	0.19	0.19	0.40	0.29	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	5.0	5.0	3.0	5.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	2.5	2.5	1.0	2.5	
Lane Grp Cap (vph)	456	513		342	385		157	564	244	399	816	
v/s Ratio Prot	c0.07	c0.24		0.04	0.18		0.01	0.12		c0.04	c0.18	
v/s Ratio Perm	0.14			0.10			0.06		0.04	0.09		
v/c Ratio	0.44	0.73		0.37	0.67		0.32	0.62	0.19	0.31	0.62	
Uniform Delay, d1	10.5	19.0		13.9	20.8		23.3	23.5	21.5	14.1	19.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	4.7		0.2	3.6		0.4	1.8	0.3	0.2	1.2	
Delay (s)	10.7	23.7		14.1	24.4		23.8	25.3	21.7	14.2	20.7	
Level of Service	B	C		B	C		C	C	C	B	C	
Approach Delay (s)		19.2			21.1			23.9			19.5	
Approach LOS		B			C			C			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			20.9			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			63.6			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			55.9%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

60: Hamrick Rd & E Pine St

05/25/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	375	545	85	10	260	15	65	15	15	40	25	360
Future Volume (vph)	375	545	85	10	260	15	65	15	15	40	25	360
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0		4.0	5.0			4.5	4.5		4.5	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00			1.00	0.99		1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.98		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1525	3011		1662	2865			1282	1213		1617	1278
Flt Permitted	0.45	1.00		0.39	1.00			0.72	1.00		0.76	1.00
Satd. Flow (perm)	720	3011		680	2865			957	1213		1268	1278
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	412	599	93	11	286	16	71	16	16	44	27	396
RTOR Reduction (vph)	0	8	0	0	4	0	0	0	14	0	0	137
Lane Group Flow (vph)	412	684	0	11	298	0	0	87	2	0	71	259
Confl. Peds. (#/hr)							1		1	1		1
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	9%	7%	16%	0%	16%	0%	32%	27%	21%	3%	8%	16%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases	2			6			8		8	4	4	4
Actuated Green, G (s)	41.0	36.5		15.5	15.0			8.3	8.3		8.3	30.3
Effective Green, g (s)	41.0	36.5		15.5	15.0			8.3	8.3		8.3	30.3
Actuated g/C Ratio	0.70	0.62		0.26	0.26			0.14	0.14		0.14	0.52
Clearance Time (s)	4.0	5.0		4.0	5.0			4.5	4.5		4.5	4.0
Vehicle Extension (s)	2.5	4.3		2.5	4.0			2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	803	1869		187	730			135	171		178	658
v/s Ratio Prot	c0.19	0.23		0.00	0.10							0.15
v/s Ratio Perm	c0.17			0.01				c0.09	0.00		0.06	0.06
v/c Ratio	0.51	0.37		0.06	0.41			0.64	0.01		0.40	0.39
Uniform Delay, d1	3.9	5.5		16.2	18.2			23.9	21.7		23.0	8.7
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	0.4	0.2		0.1	0.5			9.0	0.0		1.1	0.3
Delay (s)	4.4	5.7		16.3	18.7			32.8	21.7		24.0	9.0
Level of Service	A	A		B	B			C	C		C	A
Approach Delay (s)		5.2			18.6			31.1			11.2	
Approach LOS		A			B			C			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	10.1			HCM 2000 Level of Service				B				
HCM 2000 Volume to Capacity ratio	0.57											
Actuated Cycle Length (s)	58.8			Sum of lost time (s)				13.5				
Intersection Capacity Utilization	53.7%			ICU Level of Service				A				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

70: Peninger Rd & E Pine St

05/25/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	1005	85	40	585	25	125	5	35	40	5	25
Future Volume (vph)	10	1005	85	40	585	25	125	5	35	40	5	25
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.98	1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.87		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1524	3107	986	1397	3023	1170	1139	1297		1582	1436	
Flt Permitted	0.39	1.00	1.00	0.17	1.00	1.00	0.73	1.00		0.78	1.00	
Satd. Flow (perm)	621	3107	986	247	3023	1170	880	1297		1306	1436	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	11	1155	98	46	672	29	144	6	40	46	6	29
RTOR Reduction (vph)	0	0	39	0	0	10	0	37	0	0	27	0
Lane Group Flow (vph)	11	1155	59	46	672	19	144	9	0	46	8	0
Confl. Peds. (#/hr)	2		2	2		2			1	1		
Confl. Bikes (#/hr)			2			1						
Heavy Vehicles (%)	9%	7%	47%	19%	10%	24%	46%	0%	18%	5%	20%	4%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	65.8	64.6	64.6	73.8	68.6	68.6	22.2	6.6		19.2	5.1	
Effective Green, g (s)	66.8	65.1	65.1	74.8	69.1	69.1	22.2	7.1		19.2	5.6	
Actuated g/C Ratio	0.62	0.60	0.60	0.69	0.64	0.64	0.21	0.07		0.18	0.05	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.0	4.5		4.0	4.5	
Vehicle Extension (s)	2.5	1.0	1.0	2.5	1.0	1.0	3.0	2.5		3.0	4.0	
Lane Grp Cap (vph)	398	1872	594	231	1934	748	218	85		268	74	
v/s Ratio Prot	0.00	c0.37		c0.01	0.22		c0.10	0.01		0.02	0.01	
v/s Ratio Perm	0.02		0.06	0.13		0.02	c0.04			0.01		
v/c Ratio	0.03	0.62	0.10	0.20	0.35	0.02	0.66	0.10		0.17	0.10	
Uniform Delay, d1	7.9	13.6	9.1	7.8	9.0	7.1	38.6	47.5		37.8	48.8	
Progression Factor	0.99	1.01	0.94	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	1.5	0.3	0.3	0.5	0.1	7.3	0.4		0.3	0.8	
Delay (s)	7.9	15.2	8.9	8.1	9.5	7.2	45.8	47.8		38.1	49.6	
Level of Service	A	B	A	A	A	A	D	D		D	D	
Approach Delay (s)		14.7			9.3			46.3			43.1	
Approach LOS		B			A			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			16.6			HCM 2000 Level of Service		B				
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			108.0			Sum of lost time (s)		16.0				
Intersection Capacity Utilization			56.9%			ICU Level of Service		B				
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

75: Haskell St & W Pine St




















05/25/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	375	5	50	170	160	5	5	105	330	10	30
Future Volume (vph)	40	375	5	50	170	160	5	5	105	330	10	30
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.97		1.00		1.00	0.93	
Flpb, ped/bikes	0.99	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	1.00		1.00	1.00	0.85		0.88		1.00	0.89	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1652	1680		1658	1606	1357		1485		1614	1380	
Flt Permitted	0.58	1.00		0.25	1.00	1.00		0.99		0.71	1.00	
Satd. Flow (perm)	1006	1680		437	1606	1357		1479		1205	1380	
Peak-hour factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	51	475	6	63	215	203	6	6	133	418	13	38
RTOR Reduction (vph)	0	1	0	0	0	131	0	64	0	0	18	0
Lane Group Flow (vph)	51	480	0	63	215	72	0	81	0	418	33	0
Confl. Peds. (#/hr)	6		4	4		6	66					66
Confl. Bikes (#/hr)						4						4
Heavy Vehicles (%)	0%	4%	0%	0%	9%	6%	0%	0%	3%	3%	0%	6%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Actuated Green, G (s)	23.0	23.0		23.0	23.0	23.0		33.7		33.7	33.7	
Effective Green, g (s)	23.0	23.0		23.0	23.0	23.0		33.7		33.7	33.7	
Actuated g/C Ratio	0.36	0.36		0.36	0.36	0.36		0.52		0.52	0.52	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)	357	597		155	570	482		770		627	718	
v/s Ratio Prot		c0.29			0.13						0.02	
v/s Ratio Perm	0.05			0.14		0.05		0.05		c0.35		
v/c Ratio	0.14	0.80		0.41	0.38	0.15		0.11		0.67	0.05	
Uniform Delay, d1	14.2	18.8		15.7	15.5	14.2		7.9		11.4	7.6	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.1	7.5		1.3	0.3	0.1		0.0		2.4	0.0	
Delay (s)	14.3	26.4		17.0	15.8	14.3		7.9		13.8	7.6	
Level of Service	B	C		B	B	B		A		B	A	
Approach Delay (s)		25.2			15.3			7.9			13.1	
Approach LOS		C			B			A			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	17.3			HCM 2000 Level of Service				B				
HCM 2000 Volume to Capacity ratio	0.72											
Actuated Cycle Length (s)	64.7			Sum of lost time (s)				8.0				
Intersection Capacity Utilization	62.4%			ICU Level of Service				B				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

86: Beall Ln & OR 99

05/25/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	60	225	120	45	55	85	350	65	30	405	30
Future Volume (vph)	50	60	225	120	45	55	85	350	65	30	405	30
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Lane Util. Factor		1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		0.99		1.00	0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		0.91		1.00	0.92		1.00	0.98		1.00	0.99	
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1503		1598	1456		1554	2893		1471	3064	
Flt Permitted		0.94		0.31	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1422		529	1456		1554	2893		1471	3064	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	56	67	253	135	51	62	96	393	73	34	455	34
RTOR Reduction (vph)	0	68	0	0	33	0	0	13	0	0	4	0
Lane Group Flow (vph)	0	308	0	135	80	0	96	453	0	34	485	0
Confl. Peds. (#/hr)	4		3	3		4						1
Confl. Bikes (#/hr)			3			2						1
Heavy Vehicles (%)	2%	5%	4%	4%	0%	17%	7%	13%	8%	13%	7%	10%
Turn Type	Perm	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases		8		7	4		1	6		5	2	
Permitted Phases	8			4								
Actuated Green, G (s)		23.7		37.9	37.9		8.4	27.2		3.8	23.1	
Effective Green, g (s)		23.7		37.9	37.9		8.4	27.2		3.8	23.1	
Actuated g/C Ratio		0.29		0.46	0.46		0.10	0.33		0.05	0.28	
Clearance Time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Vehicle Extension (s)		2.5		2.5	2.5		2.5	5.2		2.5	5.2	
Lane Grp Cap (vph)		408		369	669		158	954		67	858	
v/s Ratio Prot				c0.04	0.05		c0.06	0.16		0.02	c0.16	
v/s Ratio Perm		c0.22		0.13								
v/c Ratio		0.75		0.37	0.12		0.61	0.47		0.51	0.56	
Uniform Delay, d1		26.7		15.4	12.7		35.4	21.9		38.4	25.4	
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		7.4		0.4	0.1		5.5	0.8		4.3	1.5	
Delay (s)		34.1		15.8	12.8		40.9	22.8		42.7	26.8	
Level of Service		C		B	B		D	C		D	C	
Approach Delay (s)		34.1			14.4			25.9			27.9	
Approach LOS		C			B			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			26.6				HCM 2000 Level of Service			C		
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			82.4				Sum of lost time (s)			18.0		
Intersection Capacity Utilization			63.0%				ICU Level of Service			B		
Analysis Period (min)			15									
c	Critical Lane Group											

**Intersection**

Int Delay, s/veh 6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	
Traffic Vol, veh/h	25	105	25	35	40	30	15	190	25	20	200	15
Future Vol, veh/h	25	105	25	35	40	30	15	190	25	20	200	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	350	-	0	325	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	13	18	18	0	4	7	0	15	8	0	16	17
Mvmt Flow	28	118	28	39	45	34	17	213	28	22	225	17

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	441	553	121	463	533	107	242	0	0	241	0	0
Stage 1	278	278	-	247	247	-	-	-	-	-	-	-
Stage 2	163	275	-	216	286	-	-	-	-	-	-	-
Critical Hdwy	7.76	6.86	7.26	7.5	6.58	7.04	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.76	5.86	-	6.5	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.76	5.86	-	6.5	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.63	4.18	3.48	3.5	4.04	3.37	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	475	407	859	487	447	911	1336	-	-	1337	-	-
Stage 1	675	641	-	741	696	-	-	-	-	-	-	-
Stage 2	792	643	-	772	669	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	412	395	859	355	434	911	1336	-	-	1337	-	-
Mov Cap-2 Maneuver	412	395	-	355	434	-	-	-	-	-	-	-
Stage 1	666	631	-	731	687	-	-	-	-	-	-	-
Stage 2	704	635	-	597	658	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6.6	15.2	0.5	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1336	-	-	436	469	1337	-	-
HCM Lane V/C Ratio	0.013	-	-	0.399	0.252	0.017	-	-
HCM Control Delay (s)	7.7	-	-	18.6	15.2	7.7	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.9	1	0.1	-	-

**Intersection**

Int Delay, s/veh 1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y	Y	T	T	Y	Y
Traffic Vol, veh/h	30	10	180	30	30	170
Future Vol, veh/h	30	10	180	30	30	170
Conflicting Peds, #/hr	0	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	180	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	8	14	10	6	6
Mvmt Flow	37	12	220	37	37	207

**Major/Minor**

	Minor1	Major1	Major2		
Conflicting Flow All	520	240	0	0	257
Stage 1	239	-	-	-	-
Stage 2	281	-	-	-	-
Critical Hdwy	6.4	6.28	-	-	4.16
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.53	3.372	-	-	2.254
Pot Cap-1 Maneuve	520	784	-	-	1285
Stage 1	805	-	-	-	-
Stage 2	771	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuve	505	783	-	-	1285
Mov Cap-2 Maneuve	505	-	-	-	-
Stage 1	805	-	-	-	-
Stage 2	749	-	-	-	-

**Approach**

	WB	NB	SB
HCM Control Delay, s	12.1	0	1.2
HCM LOS	B		

**Minor Lane/Major Mvmt**

	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	554	1285	-
HCM Lane V/C Ratio	-	-	0.088	0.028	-
HCM Control Delay (s)	-	-	12.1	7.9	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

**Intersection**

Int Delay, s/veh 3.7

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	W	R	T	R	S	T
Traffic Vol, veh/h	110	20	45	145	5	90
Future Vol, veh/h	110	20	45	145	5	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	8	12	0	6	0	6
Mvmt Flow	136	25	56	179	6	111

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	269	146	0	0	235	0
Stage 1	146	-	-	-	-	-
Stage 2	123	-	-	-	-	-
Critical Hdwy	6.48	6.32	-	-	4.1	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.57	3.408	-	-	2.2	-
Pot Cap-1 Maneuver	708	875	-	-	1344	-
Stage 1	867	-	-	-	-	-
Stage 2	888	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	704	875	-	-	1344	-
Mov Cap-2 Maneuver	704	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	884	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay	14.4	0	0.4
HCM LOS	B		

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	726	1344	-
HCM Lane V/C Ratio	-	-	0.221	0.005	-
HCM Control Delay (s)	-	-	11.4	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-



**Intersection**

Int Delay, s/veh 1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔			↕	↕↔	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	5	0	40	5	0	20	15	420	5	5	395	5
Future Vol, veh/h	5	0	40	5	0	20	15	420	5	5	395	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	125	250	-	260	250	-	80
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	33	0	0	0	0	9	7	7	20	0	7	17
Mvmt Flow	6	0	44	6	0	22	17	467	6	6	439	6

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	966	959	439	978	959	468	445	0	0	474	0	0
Stage 1	451	451	-	502	502	-	-	-	-	-	-	-
Stage 2	515	508	-	476	457	-	-	-	-	-	-	-
Critical Hdwy	7.43	6.5	6.2	7.1	6.5	6.29	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	6.43	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.43	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.797	4	3.3	3.5	4.381	2.263	-	-	2.2	-	-	-
Pot Cap-1 Maneuve	206	259	622	232	259	581	1089	-	-	1099	-	-
Stage 1	532	574	-	555	545	-	-	-	-	-	-	-
Stage 2	490	542	-	574	571	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuve	195	253	622	212	253	580	1089	-	-	1098	-	-
Mov Cap-2 Maneuve	195	253	-	212	253	-	-	-	-	-	-	-
Stage 1	523	571	-	546	536	-	-	-	-	-	-	-
Stage 2	464	533	-	530	568	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	13.7	0.3	0.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn	WBLn	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1089	-	-	500	212	580	1098	-	-
HCM Lane V/C Ratio	0.015	-	-	0.10	0.026	0.038	0.005	-	-
HCM Control Delay (s)	8.4	-	-	13	22.4	11.5	8.3	-	-
HCM Lane LOS	A	-	-	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0.1	0	-	-

**Intersection**

Int Delay, s/veh 4.5

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	40	15	15	70	85	40
Future Vol, veh/h	40	15	15	70	85	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	16	16	76	92	43

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	281	54	0	0	92	0
Stage 1	54	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	709	1013	-	-	1503	-
Stage 1	969	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	664	1013	-	-	1503	-
Mov Cap-2 Maneuver	664	-	-	-	-	-
Stage 1	969	-	-	-	-	-
Stage 2	760	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s 10.3 0 5.1  
HCM LOS B

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	733	1503	-
HCM Lane V/C Ratio	-	-	0.082	0.061	-
HCM Control Delay (s)	-	-	10.3	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2	-

**Intersection**

Int Delay, s/veh 2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	5	150	60	30	50	5
Future Vol, veh/h	5	150	60	30	50	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	0	-	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	50	3	9	7	8	33
Mvmt Flow	6	170	68	34	57	6

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	102	0	0 267 85
Stage 1	-	-	- 85 -
Stage 2	-	-	- 182 -
Critical Hdwy	4.6	-	- 6.48 6.53
Critical Hdwy Stg 1	-	-	- 5.48 -
Critical Hdwy Stg 2	-	-	- 5.48 -
Follow-up Hdwy	2.65	-	- 3.57 3.597
Pot Cap-1 Maneuver	1238	-	- 709 895
Stage 1	-	-	- 923 -
Stage 2	-	-	- 835 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1238	-	- 705 895
Mov Cap-2 Maneuver	-	-	- 705 -
Stage 1	-	-	- 918 -
Stage 2	-	-	- 835 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1238	-	-	-	719
HCM Lane V/C Ratio	0.005	-	-	-	-0.087
HCM Control Delay (s)	7.9	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

**Intersection**

Int Delay, s/veh 2.9

**Movement** EBT EBR WBL WBT NBL NBR

Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	50	20	5	25	25	15
Future Vol, veh/h	50	20	5	25	25	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	0	0	16	0	8
Mvmt Flow	63	25	6	32	32	19

**Major/Minor** Major1 Major2 Minor1

Conflicting Flow All	0	0	88	0	120	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	44	-
Critical Hdwy	-	-	4.1	-	6.4	6.28
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.372
Pot Cap-1 Maneuver	-	-	1520	-	880	969
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	984	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1520	-	876	969
Mov Cap-2 Maneuver	-	-	-	-	876	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	980	-

**Approach** EB WB NB

HCM Control Delay, s	0	1.2	9.2
HCM LOS			A

**Minor Lane/Major MvmNBLn1** EBT EBR WBL WBT

Capacity (veh/h)	909	-	-	1520	-
HCM Lane V/C Ratio	0.056	-	-	0.004	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

**Intersection**

Int Delay, s/veh 2.5

**Movement EBL EBT WBT WBR SBL SBR**

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	5	40	20	30	25	5
Future Vol, veh/h	5	40	20	30	25	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	5	10	4	0
Mvmt Flow	6	52	26	39	32	6

**Major/Minor Major1 Major2 Minor2**

Conflicting Flow All	65	0	-	0	110	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	64	-
Critical Hdwy	4.1	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.2	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	1550	-	-	-	882	1029
Stage 1	-	-	-	-	971	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1550	-	-	-	878	1029
Mov Cap-2 Maneuver	-	-	-	-	878	-
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	954	-

**Approach EB WB SB**

HCM Control Delay, s	9.8	0	9.2
HCM LOS			A

**Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1**

Capacity (veh/h)	1550	-	-	-	900
HCM Lane V/C Ratio	0.004	-	-	-	-0.043
HCM Control Delay (s)	7.3	0	-	-	9.2
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

**Intersection**

Int Delay, s/veh 2.8

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	15	10	35	10	10	30
Future Vol, veh/h	15	10	35	10	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	8	8	22	9	27	11
Mvmt Flow	18	12	42	12	12	36

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	108	48	0	0	54	0
Stage 1	48	-	-	-	-	-
Stage 2	60	-	-	-	-	-
Critical Hdwy	6.48	6.28	-	-	4.37	-
Critical Hdwy Stg 1	5.48	-	-	-	-	-
Critical Hdwy Stg 2	5.48	-	-	-	-	-
Follow-up Hdwy	3.57	3.37	-	-	2.44	-
Pot Cap-1 Maneuve	875	1004	-	-	1406	-
Stage 1	959	-	-	-	-	-
Stage 2	948	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuve	867	1004	-	-	1406	-
Mov Cap-2 Maneuve	867	-	-	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	939	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s	9.1	0	1.9
HCM LOS	A		

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	917	1406	-
HCM Lane V/C Ratio	-	-	0.033	0.009	-
HCM Control Delay (s)	-	-	9.1	7.6	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

**Intersection**

Int Delay, s/veh 6.1

**Movement** EBL EBR NBL NBT SBT SBR

Lane Configurations	Y				4	1
Traffic Vol, veh/h	15	175	65	55	100	0
Future Vol, veh/h	15	175	65	55	100	0
Conflicting Peds, #/hr	0	4	3	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	5	6	6	2	0
Mvmt Flow	18	206	76	65	118	0

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All	338	125	121	0	-	0
Stage 1	121	-	-	-	-	-
Stage 2	217	-	-	-	-	-
Critical Hdwy	6.4	6.25	4.16	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.34	2.25	-	-	-
Pot Cap-1 Maneuve	662	918	1442	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	824	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	622	912	1438	-	-	-
Mov Cap-2 Maneuve	622	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	822	-	-	-	-	-

**Approach** EB NB SB

HCM Control Delay	10.5	4.1	0
HCM LOS	B		

**Minor Lane/Major Mvmt** NBL NBEBLn1 SBT SBR

Capacity (veh/h)	1438	-	880	-	-
HCM Lane V/C Ratio	0.053	-	0.254	-	-
HCM Control Delay (s)	7.6	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1	-	-

**Intersection**

Int Delay, s/veh 3.7

**Movement EBT EBR WBL WBT NBL NBR**

Lane Configurations	↶				↷	↷
Traffic Vol, veh/h	100	5	40	30	5	55
Future Vol, veh/h	100	5	40	30	5	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	4	20	5	10	60	6
Mvmt Flow	125	6	50	38	6	69

**Major/Minor Major1 Major2 Minor1**

Conflicting Flow All	0	0	131	0	266	128
Stage 1	-	-	-	-	128	-
Stage 2	-	-	-	-	138	-
Critical Hdwy	-	-	4.15	-	7	6.26
Critical Hdwy Stg 1	-	-	-	-	6	-
Critical Hdwy Stg 2	-	-	-	-	6	-
Follow-up Hdwy	-	-2.245	-	-4.04	3.354	
Pot Cap-1 Maneuver	-	-	1436	-	614	911
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1436	-	592	911
Mov Cap-2 Maneuver	-	-	-	-	592	-
Stage 1	-	-	-	-	773	-
Stage 2	-	-	-	-	736	-

**Approach EB WB NB**

HCM Control Delay, s	0	4.3	9.5
HCM LOS			A

**Minor Lane/Major MvmNBLn1 EBT EBR WBL WBT**

Capacity (veh/h)	872	-	-	1436	-
HCM Lane V/C Ratio	0.086	-	-	0.035	-
HCM Control Delay (s)	9.5	-	-	7.6	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-



**Intersection**

Int Delay, s/veh 10.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↶	↷		↶	↷		↶	↷		↶	↷	
Traffic Vol, veh/h	100	240	1	5	130	125	5	1	10	160	5	90
Future Vol, veh/h	100	240	1	5	130	125	5	1	10	160	5	90
Conflicting Peds, #/hr	35	0	17	17	0	35	2	0	65	65	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	125	-	-	50	-	-	250	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	0
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	3	7	0	0	1	6	0	0	0	1	0	8
Mvmt Flow	108	258	1	5	140	134	5	1	11	172	5	97

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	309	0	0	276
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.227	-	-	2.2
Pot Cap-1 Maneuver	246	-	-	1299
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	204	-	-	1278
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	0.2	13.9	32.6
HCM LOS			B	D

Minor Lane/Major Mvm	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	254	579	1204	-	-	1278	-	-	252	697
HCM Lane V/C Ratio	0.021	0.020	0.089	-	-	0.004	-	-	0.683	0.147
HCM Control Delay (s)	19.5	11.3	8.3	-	-	7.8	-	-	45.3	11.1
HCM Lane LOS	C	B	A	-	-	A	-	-	E	B
HCM 95th %tile Q(veh)	0.1	0.1	0.3	-	-	0	-	-	4.5	0.5

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	140	10	5	70	1	25	1	15	2	0	0
Future Vol, veh/h	0	140	10	5	70	1	25	1	15	2	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	6	0	0	4	0	0	0	20	0	0	0
Mvmt Flow	0	175	13	6	88	1	31	1	19	3	0	0

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	90	0	0	188
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	1518	-	-	1398
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1517	-	-	1398
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	10.4	10.6
HCM LOS			B	B

Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	715	1517	-	-	1398	-	-	641
HCM Lane V/C Ratio	0.072	-	-	-0.004	-	-	-0.004	-
HCM Control Delay (s)	10.4	0	-	-	7.6	0	-	10.6
HCM Lane LOS	B	A	-	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

**Intersection**

Intersection Delay, s/veh 10.1  
Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	120	50	40	55	5	20	75	35	20	105	15
Future Vol, veh/h	30	120	50	40	55	5	20	75	35	20	105	15
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles, %	14	1	4	0	3	0	15	8	3	0	10	7
Mvmt Flow	38	150	63	50	69	6	25	94	44	25	131	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	9.4	9.9	9.8
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	15%	40%	14%
Vol Thru, %	58%	60%	55%	75%
Vol Right, %	27%	25%	5%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	200	100	140
LT Vol	20	30	40	20
Through Vol	75	120	55	105
RT Vol	35	50	5	15
Lane Flow Rate	162	250	125	175
Geometry Grp	1	1	1	1
Degree of Util (X)	0.235	0.349	0.178	0.244
Departure Headway (Hd)	5.199	5.031	5.135	5.027
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	683	708	690	705
Service Time	3.29	3.114	3.233	3.118
HCM Lane V/C Ratio	0.237	0.353	0.181	0.248
HCM Control Delay	9.9	10.8	9.4	9.8
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	0.9	1.6	0.6	1

# HCM Signalized Intersection Capacity Analysis

## 5: I-5 NB Ramps & E Pine St

02/06/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	855	0	0	940	445	375	1	350	0	0	0
Future Volume (vph)	105	855	0	0	940	445	375	1	350	0	0	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	0.88			
Frbp, ped/bikes	1.00	1.00			1.00	0.96	1.00	1.00	0.97			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1582	3079			3167	1240	1564	1560	2179			
Flt Permitted	0.24	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	399	3079			3167	1240	1564	1560	2179			
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	106	864	0	0	949	449	379	1	354	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	163	0	0	230	0	0	0
Lane Group Flow (vph)	106	864	0	0	949	286	189	191	124	0	0	0
Confl. Peds. (#/hr)	9					9			1	1		
Confl. Bikes (#/hr)						3			2			
Heavy Vehicles (%)	5%	8%	0%	0%	5%	15%	1%	100%	17%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2					6	8		8			
Actuated Green, G (s)	80.4	80.4			68.8	68.8	18.6	18.6	18.6			
Effective Green, g (s)	80.4	80.4			68.8	68.8	18.6	18.6	18.6			
Actuated g/C Ratio	0.74	0.74			0.64	0.64	0.17	0.17	0.17			
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	2.5	4.6			4.6	4.6	2.5	2.5	2.5			
Lane Grp Cap (vph)	374	2292			2017	789	269	268	375			
v/s Ratio Prot	0.02	c0.28			c0.30							
v/s Ratio Perm	0.19					0.23	0.12	0.12	0.06			
v/c Ratio	0.28	0.38			0.47	0.36	0.70	0.71	0.33			
Uniform Delay, d1	5.1	4.9			10.2	9.3	42.1	42.2	39.2			
Progression Factor	0.44	0.38			0.43	0.08	1.00	1.00	1.00			
Incremental Delay, d2	0.3	0.4			0.6	1.1	7.5	8.1	0.4			
Delay (s)	2.5	2.3			5.1	1.8	49.6	50.3	39.6			
Level of Service	A	A			A	A	D	D	D			
Approach Delay (s)		2.3			4.0			45.0			0.0	
Approach LOS		A			A			D			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			13.2				HCM 2000 Level of Service		B			
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			108.0			Sum of lost time (s)		13.5				
Intersection Capacity Utilization			60.1%			ICU Level of Service		B				
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

## 10: I-5 SB Ramps & E Pine St

02/06/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑					↑	↑	↑
Traffic Volume (vph)	0	700	300	240	1075	0	0	0	0	260	0	105
Future Volume (vph)	0	700	300	240	1075	0	0	0	0	260	0	105
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95					0.95	0.95	1.00
Frbp, ped/bikes		1.00	0.98	1.00	1.00					1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3228	1427	1471	3260					1264	1264	1411
Flt Permitted		1.00	1.00	0.32	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3228	1427	495	3260					1264	1264	1411
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	722	309	247	1108	0	0	0	0	268	0	108
RTOR Reduction (vph)	0	0	116	0	0	0	0	0	0	0	0	91
Lane Group Flow (vph)	0	722	193	247	1108	0	0	0	0	134	134	18
Confl. Peds. (#/hr)	2		1	1		2	1					1
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	0%	3%	2%	13%	2%	0%	0%	0%	0%	25%	0%	4%
Turn Type		NA	Perm	pm+pt	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2	6						4		4
Actuated Green, G (s)		66.8	66.8	82.0	82.0					17.0	17.0	17.0
Effective Green, g (s)		67.3	67.3	82.5	82.5					17.5	17.5	17.5
Actuated g/C Ratio		0.62	0.62	0.76	0.76					0.16	0.16	0.16
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		4.6	4.6	2.5	4.6					2.5	2.5	2.5
Lane Grp Cap (vph)		2011	889	479	2490					204	204	228
v/s Ratio Prot		0.22		c0.05	0.34							
v/s Ratio Perm			0.13	c0.34						c0.11	0.11	0.01
v/c Ratio		0.36	0.22	0.52	0.44					0.66	0.66	0.08
Uniform Delay, d1		9.9	8.9	4.6	4.6					42.4	42.4	38.4
Progression Factor		0.63	0.50	1.31	1.41					1.00	1.00	1.00
Incremental Delay, d2		0.4	0.5	0.6	0.5					6.6	6.6	0.1
Delay (s)		6.6	4.9	6.6	7.0					49.1	49.1	38.5
Level of Service		A	A	A	A					D	D	D
Approach Delay (s)		6.1			6.9			0.0			46.0	
Approach LOS		A			A			A			D	

### Intersection Summary

HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	108.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	60.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

20: OR 99 & Twin Creeks

02/06/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	45	50	485	365	35
Future Volume (vph)	30	45	50	485	365	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	0.97	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1662	1398	1662	3197	3167	1488
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1662	1398	1662	3197	3167	1488
Peak-hour factor, PHF	0.80	0.80	0.80	0.80	0.80	0.80
Adj. Flow (vph)	38	56	62	606	456	44
RTOR Reduction (vph)	0	51	0	0	0	21
Lane Group Flow (vph)	38	5	63	606	456	23
Confl. Peds. (#/hr)		42				
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	3%	0%	4%	5%	0%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	8		1	6	2	
Permitted Phases		8				2
Actuated Green, G (s)	3.7	3.7	2.7	28.7	22.0	22.0
Effective Green, g (s)	3.7	3.7	2.7	28.7	22.0	22.0
Actuated g/C Ratio	0.09	0.09	0.07	0.69	0.53	0.53
Clearance Time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	5.2	5.2	5.2
Lane Grp Cap (vph)	148	124	108	2216	1682	790
v/s Ratio Prot	c0.02		c0.04	c0.19	0.14	
v/s Ratio Perm		0.00				0.02
v/c Ratio	0.26	0.04	0.58	0.27	0.27	0.03
Uniform Delay, d1	17.6	17.2	18.8	2.4	5.3	4.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	6.5	0.2	0.2	0.0
Delay (s)	18.2	17.3	25.3	2.6	5.5	4.7
Level of Service	B	B	C	A	A	A
Approach Delay (s)	17.7			4.7	5.4	
Approach LOS	B			A	A	

## Intersection Summary

HCM 2000 Control Delay	6.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	41.4	Sum of lost time (s)	13.0
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

30: OR 99 & W Pine St

02/06/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	115	300	90	155	485	70	265	405	130	95	235	95
Future Volume (vph)	115	300	90	155	485	70	265	405	130	95	235	95
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.0		4.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1613	1716	1448	1645	3194		1646	3126		1646	3107	1352
Flt Permitted	0.26	1.00	1.00	0.30	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	444	1716	1448	528	3194		1646	3126		1646	3107	1352
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	120	312	94	161	505	73	276	422	135	99	245	99
RTOR Reduction (vph)	0	0	71	0	9	0	0	24	0	0	0	78
Lane Group Flow (vph)	120	313	24	161	569	0	276	533	0	99	245	21
Confl. Peds. (#/hr)	6		5	5		6						
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	3%	2%	1%	1%	2%	1%	1%	3%	1%	1%	7%	10%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8								6
Actuated Green, G (s)	31.9	22.2	22.2	33.1	22.8		20.8	30.4		8.9	18.5	18.5
Effective Green, g (s)	31.9	22.2	22.2	33.1	22.8		20.8	30.4		8.9	18.5	18.5
Actuated g/C Ratio	0.36	0.25	0.25	0.37	0.26		0.23	0.34		0.10	0.21	0.21
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5		2.5	5.2		2.5	5.2	5.2
Lane Grp Cap (vph)	287	429	362	326	820		385	1070		164	647	281
v/s Ratio Prot	0.05	c0.18		c0.06	0.18		c0.17	c0.17		0.06	0.08	
v/s Ratio Perm	0.10		0.02	0.13								0.02
v/c Ratio	0.42	0.73	0.06	0.49	0.69		0.72	0.50		0.60	0.38	0.07
Uniform Delay, d1	20.2	30.5	25.4	20.1	29.8		31.3	23.1		38.3	30.2	28.3
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	5.8	0.1	0.9	2.4		5.8	0.8		5.2	0.8	0.2
Delay (s)	20.9	36.3	25.4	21.0	32.2		37.1	24.0		43.5	31.0	28.5
Level of Service	C	D	C	C	C		D	C		D	C	C
Approach Delay (s)		30.9			29.8			28.3			33.3	
Approach LOS		C			C			C			C	

## Intersection Summary

HCM 2000 Control Delay	30.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	88.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
45: Table Rock Rd & Wilson Rd

02/06/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	50	75	60	745	610	75
Future Volume (vph)	50	75	60	745	610	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0		4.0	5.0	5.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frbp, ped/bikes	1.00		1.00	1.00	1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.92		1.00	1.00	0.98	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1496		1471	3107	3107	
Flt Permitted	0.98		0.30	1.00	1.00	
Satd. Flow (perm)	1496		466	3107	3107	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	53	80	64	793	649	80
RTOR Reduction (vph)	69	0	0	0	9	0
Lane Group Flow (vph)	64	0	64	793	720	0
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	6%	5%	13%	7%	5%	5%
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	6.0		30.2	30.2	22.4	
Effective Green, g (s)	6.0		30.2	30.2	22.4	
Actuated g/C Ratio	0.13		0.67	0.67	0.50	
Clearance Time (s)	4.0		4.0	5.0	5.0	
Vehicle Extension (s)	2.5		2.5	4.2	4.2	
Lane Grp Cap (vph)	198		395	2075	1539	
v/s Ratio Prot	c0.04		0.01	c0.26	c0.23	
v/s Ratio Perm			0.09			
v/c Ratio	0.32		0.16	0.38	0.47	
Uniform Delay, d1	17.8		2.9	3.3	7.5	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	0.7		0.1	0.2	0.3	
Delay (s)	18.4		3.1	3.5	7.8	
Level of Service	B		A	A	A	
Approach Delay (s)	18.4			3.5	7.8	
Approach LOS	B			A	A	

Intersection Summary

HCM 2000 Control Delay	6.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	45.2	Sum of lost time (s)	13.0
Intersection Capacity Utilization	43.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



# HCM Signalized Intersection Capacity Analysis

## 50: Table Rock Rd & Biddle Rd























02/06/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	300	95	35	485	265	150	330	10	155	430	85
Future Volume (vph)	130	300	95	35	485	265	150	330	10	155	430	85
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1397	3260	1410	1662	3292	1430	1629	3157		1614	3100	
Flt Permitted	0.30	1.00	1.00	0.56	1.00	1.00	0.41	1.00		0.44	1.00	
Satd. Flow (perm)	445	3260	1410	977	3292	1430	695	3157		743	3100	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	138	319	101	37	516	282	160	351	11	165	457	90
RTOR Reduction (vph)	0	0	66	0	0	211	0	2	0	0	18	0
Lane Group Flow (vph)	138	319	35	37	516	71	160	360	0	165	529	0
Confl. Peds. (#/hr)			1	1			3					3
Confl. Bikes (#/hr)			1									3
Heavy Vehicles (%)	19%	2%	4%	0%	1%	4%	2%	5%	0%	3%	3%	11%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)	32.5	25.6	25.6	21.6	18.7	18.7	22.7	16.7		28.3	19.5	
Effective Green, g (s)	32.5	25.6	25.6	21.6	18.7	18.7	22.7	16.7		28.3	19.5	
Actuated g/C Ratio	0.44	0.35	0.35	0.29	0.25	0.25	0.31	0.23		0.38	0.26	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Vehicle Extension (s)	1.5	4.6	4.6	1.5	3.8	3.8	1.5	3.5		1.5	3.5	
Lane Grp Cap (vph)	321	1127	487	312	831	361	288	712		387	816	
v/s Ratio Prot	c0.06	0.10		0.00	c0.16		c0.04	0.11		c0.05	c0.17	
v/s Ratio Perm	0.13		0.02	0.03		0.05	0.12			0.11		
v/c Ratio	0.43	0.28	0.07	0.12	0.62	0.20	0.56	0.51		0.43	0.65	
Uniform Delay, d1	13.4	17.5	16.2	19.0	24.5	21.7	19.7	25.0		15.8	24.2	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.2	0.1	0.1	1.6	0.3	1.3	0.7		0.3	1.9	
Delay (s)	13.8	17.8	16.3	19.0	26.1	22.1	21.1	25.7		16.1	26.1	
Level of Service	B	B	B	B	C	C	C	C		B	C	
Approach Delay (s)		16.5			24.4			24.3			23.8	
Approach LOS		B			C			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			22.5			HCM 2000 Level of Service		C				
HCM 2000 Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			74.0			Sum of lost time (s)		20.0				
Intersection Capacity Utilization			64.4%			ICU Level of Service		C				
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

## 55: Table Rock Rd & Vilas Rd

02/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	185	25	195	340	120	70	455	175	115	340	205
Future Volume (vph)	160	185	25	195	340	120	70	455	175	115	340	205
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	3.0	5.0		3.0	5.0		3.0	5.0	5.0	3.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95	1.00	1.00	0.95	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.96		1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1568	1580		1568	1600		1646	3107	1352	1554	2953	
Flt Permitted	0.22	1.00		0.61	1.00		0.31	1.00	1.00	0.29	1.00	
Satd. Flow (perm)	361	1580		1007	1600		530	3107	1352	479	2953	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	201	27	212	370	130	76	495	190	125	370	223
RTOR Reduction (vph)	0	4	0	0	12	0	0	0	148	0	85	0
Lane Group Flow (vph)	174	224	0	212	488	0	76	495	42	125	508	0
Confl. Peds. (#/hr)	2					2						
Heavy Vehicles (%)	6%	10%	0%	6%	5%	4%	1%	7%	10%	7%	7%	5%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		
Actuated Green, G (s)	39.8	29.2		36.4	27.5		21.1	17.3	17.3	25.5	19.5	
Effective Green, g (s)	39.8	29.2		36.4	27.5		21.1	17.3	17.3	25.5	19.5	
Actuated g/C Ratio	0.51	0.38		0.47	0.36		0.27	0.22	0.22	0.33	0.25	
Clearance Time (s)	3.0	5.0		3.0	5.0		3.0	5.0	5.0	3.0	5.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0		1.0	2.5	2.5	1.0	2.5	
Lane Grp Cap (vph)	350	596		538	568		199	694	302	241	743	
v/s Ratio Prot	c0.07	0.14		0.05	c0.31		0.02	0.16		c0.04	c0.17	
v/s Ratio Perm	0.19			0.14			0.09		0.03	0.13		
v/c Ratio	0.50	0.38		0.39	0.86		0.38	0.71	0.14	0.52	0.68	
Uniform Delay, d1	12.4	17.5		12.6	23.2		21.6	27.8	24.1	19.3	26.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.1		0.2	11.9		0.4	3.2	0.2	0.8	2.4	
Delay (s)	12.8	17.6		12.7	35.1		22.1	31.0	24.2	20.1	28.6	
Level of Service	B	B		B	D		C	C	C	C	C	
Approach Delay (s)		15.5			28.4			28.4			27.1	
Approach LOS		B			C			C			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	26.1			HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio	0.74											
Actuated Cycle Length (s)	77.4			Sum of lost time (s)				16.0				
Intersection Capacity Utilization	73.6%			ICU Level of Service				D				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

60: Hamrick Rd & E Pine St

02/06/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	390	495	210	10	600	35	220	45	10	30	15	480
Future Volume (vph)	390	495	210	10	600	35	220	45	10	30	15	480
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0		4.0	5.0			4.5	4.5		4.5	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	1.00		1.00	1.00
Frbp, ped/bikes	1.00	0.99		1.00	1.00			1.00	1.00		1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Frt	1.00	0.96		1.00	0.99			1.00	0.85		1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00			0.96	1.00		0.97	1.00
Satd. Flow (prot)	1662	3157		1662	3297			1614	1488		1671	1478
Flt Permitted	0.20	1.00		0.37	1.00			0.73	1.00		0.73	1.00
Satd. Flow (perm)	349	3157		647	3297			1225	1488		1255	1478
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	411	521	221	11	632	37	232	47	11	32	16	505
RTOR Reduction (vph)	0	35	0	0	4	0	0	0	8	0	0	22
Lane Group Flow (vph)	411	707	0	11	665	0	0	279	3	0	48	483
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	4%	4%	0%	0%	4%	0%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases	2			6			8		8	4	4	4
Actuated Green, G (s)	58.3	53.7		27.1	26.5			25.2	25.2		25.2	53.0
Effective Green, g (s)	58.3	53.7		27.1	26.5			25.2	25.2		25.2	53.0
Actuated g/C Ratio	0.63	0.58		0.29	0.28			0.27	0.27		0.27	0.57
Clearance Time (s)	4.0	5.0		4.0	5.0			4.5	4.5		4.5	4.0
Vehicle Extension (s)	2.5	4.3		2.5	4.0			2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	611	1822		195	939			331	403		340	842
v/s Ratio Prot	c0.20	0.22		0.00	0.20							0.17
v/s Ratio Perm	c0.22			0.02				c0.23	0.00		0.04	0.16
v/c Ratio	0.67	0.39		0.06	0.71			0.84	0.01		0.14	0.57
Uniform Delay, d1	13.8	10.7		23.5	29.8			32.0	24.8		25.7	12.8
Progression Factor	1.00	1.00		1.00	1.00			1.00	1.00		1.00	1.00
Incremental Delay, d2	2.7	0.2		0.1	2.7			17.2	0.0		0.1	0.8
Delay (s)	16.4	10.9		23.6	32.4			49.2	24.8		25.8	13.6
Level of Service	B	B		C	C			D	C		C	B
Approach Delay (s)		12.9			32.3			48.3			14.6	
Approach LOS		B			C			D			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	22.0			HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio	0.75											
Actuated Cycle Length (s)	93.0			Sum of lost time (s)				13.5				
Intersection Capacity Utilization	78.6%			ICU Level of Service				D				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

70: Peninger Rd & E Pine St























02/06/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	1000	145	50	1170	80	180	25	40	50	15	35
Future Volume (vph)	60	1000	145	50	1170	80	180	25	40	50	15	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.96	1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1598	3167	1146	1471	3228	1412	1396	1458		1628	1550	
Flt Permitted	0.16	1.00	1.00	0.22	1.00	1.00	0.72	1.00		0.71	1.00	
Satd. Flow (perm)	277	3167	1146	337	3228	1412	1063	1458		1223	1550	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	61	1020	148	51	1194	82	184	26	41	51	15	36
RTOR Reduction (vph)	0	0	60	0	0	33	0	37	0	0	34	0
Lane Group Flow (vph)	61	1020	88	51	1194	49	184	30	0	51	17	0
Confl. Peds. (#/hr)	10		4	4		10	1		1	1		1
Confl. Bikes (#/hr)			3			3						
Heavy Vehicles (%)	4%	5%	26%	13%	3%	1%	19%	0%	13%	2%	0%	0%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2		2	6		6	4			8		
Actuated Green, G (s)	69.3	63.9	63.9	69.1	63.8	63.8	23.4	8.9		19.2	6.8	
Effective Green, g (s)	70.3	64.4	64.4	70.1	64.3	64.3	23.4	9.4		19.2	7.3	
Actuated g/C Ratio	0.65	0.60	0.60	0.65	0.60	0.60	0.22	0.09		0.18	0.07	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.0	4.5		4.0	4.5	
Vehicle Extension (s)	2.5	1.0	1.0	2.5	1.0	1.0	3.0	2.5		3.0	4.0	
Lane Grp Cap (vph)	252	1888	683	279	1921	840	275	126		263	104	
v/s Ratio Prot	c0.01	0.32		0.01	c0.37		c0.09	0.02		0.02	0.01	
v/s Ratio Perm	0.14		0.08	0.11		0.03	c0.06			0.01		
v/c Ratio	0.24	0.54	0.13	0.18	0.62	0.06	0.67	0.23		0.19	0.17	
Uniform Delay, d1	8.9	13.0	9.5	8.0	14.0	9.2	37.9	45.9		38.1	47.5	
Progression Factor	0.90	0.98	0.98	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	1.1	0.4	0.2	1.5	0.1	6.1	0.7		0.4	1.0	
Delay (s)	8.4	13.8	9.8	8.2	15.6	9.3	44.0	46.6		38.5	48.5	
Level of Service	A	B	A	A	B	A	D	D		D	D	
Approach Delay (s)		13.1			14.9			44.7			43.5	
Approach LOS		B			B			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			17.7			HCM 2000 Level of Service		B				
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			108.0			Sum of lost time (s)		16.0				
Intersection Capacity Utilization			66.2%			ICU Level of Service		C				
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

75: Haskell St & W Pine St

02/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	255	15	75	390	380	5	10	60	190	10	35
Future Volume (vph)	50	255	15	75	390	380	5	10	60	190	10	35
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.96		0.99		1.00	0.96	
Flpb, ped/bikes	0.99	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.99		1.00	1.00	0.85		0.89		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00	1.00		1.00		0.95	1.00	
Satd. Flow (prot)	1650	1665		1607	1699	1420		1412		1629	1482	
Flt Permitted	0.42	1.00		0.56	1.00	1.00		0.99		0.70	1.00	
Satd. Flow (perm)	736	1665		942	1699	1420		1398		1202	1482	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	57	293	17	86	448	437	6	11	69	218	11	40
RTOR Reduction (vph)	0	3	0	0	0	226	0	46	0	0	27	0
Lane Group Flow (vph)	57	307	0	86	448	211	0	40	0	218	24	0
Confl. Peds. (#/hr)	16		6	6		16	43		1	1		43
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	0%	3%	23%	3%	3%	1%	0%	25%	7%	2%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8				4
Permitted Phases	2			6		6	8			4		
Actuated Green, G (s)	20.3	20.3		20.3	20.3	20.3		13.8		13.8	13.8	
Effective Green, g (s)	20.3	20.3		20.3	20.3	20.3		13.8		13.8	13.8	
Actuated g/C Ratio	0.48	0.48		0.48	0.48	0.48		0.33		0.33	0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)	354	802		454	819	684		458		394	485	
v/s Ratio Prot		0.18			c0.26							0.02
v/s Ratio Perm	0.08			0.09		0.15		0.03		c0.18		
v/c Ratio	0.16	0.38		0.19	0.55	0.31		0.09		0.55	0.05	
Uniform Delay, d1	6.1	6.9		6.2	7.7	6.6		9.8		11.6	9.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.2		0.1	0.6	0.2		0.1		1.3	0.0	
Delay (s)	6.3	7.1		6.4	8.3	6.8		9.8		13.0	9.7	
Level of Service	A	A		A	A	A		A		B	A	
Approach Delay (s)		7.0			7.4			9.8			12.3	
Approach LOS		A			A			A			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	8.3			HCM 2000 Level of Service				A				
HCM 2000 Volume to Capacity ratio	0.55											
Actuated Cycle Length (s)	42.1			Sum of lost time (s)				8.0				
Intersection Capacity Utilization	58.5%			ICU Level of Service				B				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

86: Beall Ln & OR 99

02/06/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Volume (vph)	25	80	130	115	115	50	220	650	180	35	440	55
Future Volume (vph)	25	80	130	115	115	50	220	650	180	35	440	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Lane Util. Factor		1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		0.93		1.00	0.95		1.00	0.97		1.00	0.98	
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1540		1662	1641		1630	3086		1568	3083	
Flt Permitted		0.96		0.31	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1479		549	1641		1630	3086		1568	3083	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	26	84	137	121	121	53	232	684	189	37	463	58
RTOR Reduction (vph)	0	44	0	0	15	0	0	19	0	0	8	0
Lane Group Flow (vph)	0	203	0	121	159	0	232	854	0	37	513	0
Confl. Bikes (#/hr)							1		1			3
Heavy Vehicles (%)	4%	4%	5%	0%	2%	0%	2%	4%	3%	6%	6%	4%
Turn Type	Perm	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases		8		7	4		1	6		5	2	
Permitted Phases	8			4								
Actuated Green, G (s)		16.5		26.7	26.7		16.7	36.1		3.9	23.8	
Effective Green, g (s)		16.5		26.7	26.7		16.7	36.1		3.9	23.8	
Actuated g/C Ratio		0.21		0.33	0.33		0.21	0.45		0.05	0.30	
Clearance Time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Vehicle Extension (s)		2.5		2.5	2.5		2.5	5.2		2.5	5.2	
Lane Grp Cap (vph)		304		261	546		339	1389		76	914	
v/s Ratio Prot				c0.03	0.10		c0.14	c0.28		0.02	0.17	
v/s Ratio Perm		c0.14		0.12								
v/c Ratio		0.67		0.46	0.29		0.68	0.61		0.49	0.56	
Uniform Delay, d1		29.3		20.7	19.8		29.3	16.8		37.2	23.8	
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		4.9		0.9	0.2		5.2	1.2		3.5	1.4	
Delay (s)		34.2		21.6	20.0		34.5	18.0		40.7	25.2	
Level of Service		C		C	B		C	B		D	C	
Approach Delay (s)		34.2			20.7			21.4			26.2	
Approach LOS		C			C			C			C	

## Intersection Summary

HCM 2000 Control Delay	24.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	80.2	Sum of lost time (s)	18.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis

140: Freeman Rd/N 10th St & Pine St

02/06/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	485	75	455	600	175	85	115	410	175	125	30
Future Volume (vph)	25	485	75	455	600	175	85	115	410	175	125	30
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.95		1.00	1.00	1.00	1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	0.99		1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	0.97		1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1662	4622		1660	3164		1662	1750	1488	1662	1693	
Flt Permitted	0.95	1.00		0.43	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1662	4622		745	3164		1662	1750	1488	1662	1693	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	26	495	77	464	612	179	87	117	418	179	128	31
RTOR Reduction (vph)	0	18	0	0	20	0	0	0	371	0	8	0
Lane Group Flow (vph)	26	554	0	464	771	0	87	117	47	179	151	0
Confl. Peds. (#/hr)	1		5	5		1	3					3
Confl. Bikes (#/hr)												2
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Prot	NA		pm+pt	NA		Prot	NAcustom		Prot	NA	
Protected Phases	5	2		1	6		7		4	3	8	
Permitted Phases				6				4	4			
Actuated Green, G (s)	4.6	35.9		58.9	58.9		11.5	12.2	12.2	16.3	17.0	
Effective Green, g (s)	4.6	35.9		58.9	58.9		11.5	12.2	12.2	16.3	17.0	
Actuated g/C Ratio	0.04	0.33		0.55	0.55		0.11	0.11	0.11	0.15	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	2.5	4.6		2.5	4.6		2.5	2.5	2.5	2.5	2.5	
Lane Grp Cap (vph)	70	1536		640	1725		176	197	168	250	266	
v/s Ratio Prot	0.02	c0.12		c0.19	0.24		0.05			c0.11	c0.09	
v/s Ratio Perm				c0.21				0.07	0.03			
v/c Ratio	0.37	0.36		0.72	0.45		0.49	0.59	0.28	0.72	0.57	
Uniform Delay, d1	50.3	27.3		20.1	14.8		45.5	45.5	43.9	43.6	42.1	
Progression Factor	1.00	1.00		0.56	0.36		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.4	0.7		3.6	0.8		1.6	4.0	0.7	8.8	2.2	
Delay (s)	52.7	28.0		14.8	6.1		47.1	49.5	44.6	52.4	44.3	
Level of Service	D	C		B	A		D	D	D	D	D	
Approach Delay (s)		29.1			9.3			45.8			48.6	
Approach LOS		C			A			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			26.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			108.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			80.3%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

**Intersection**

Int Delay, s/veh 13

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑	↕	↕	↑↑	
Traffic Vol, veh/h	20	50	25	60	70	60	30	405	80	60	315	25
Future Vol, veh/h	20	50	25	60	70	60	30	405	80	60	315	25
Conflicting Peds, #/hr	0	0	1	1	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	350	-	0	325	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	5	2	0	2	6	4	11	5	1	5	9	0
Mvmt Flow	22	55	27	66	77	66	33	445	88	66	346	27

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	819	1091	188	845
Stage 1	492	492	-	511
Stage 2	327	599	-	334
Critical Hdwy	7.6	6.54	6.9	7.54
Critical Hdwy Stg 1	6.6	5.54	-	6.54
Critical Hdwy Stg 2	6.6	5.54	-	6.54
Follow-up Hdwy	3.55	4.02	3.3	3.52
Pot Cap-1 Maneuver	262	213	828	256
Stage 1	519	546	-	514
Stage 2	651	489	-	653
Platoon blocked, %				
Mov Cap-1 Maneuver	160	193	827	180
Mov Cap-2 Maneuver	160	193	-	180
Stage 1	504	511	-	499
Stage 2	491	475	-	526

Approach	EB	WB	NB	SB
HCM Control Delay (s)	33.3	61.2	0.5	1.3
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1120	-	-	229	255	1010	-	-
HCM Lane V/C Ratio	0.029	-	-	0.456	0.819	0.065	-	-
HCM Control Delay (s)	8.3	-	-	33.3	61.2	8.8	-	-
HCM Lane LOS	A	-	-	D	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	6.4	0.2	-	-



**Intersection**

Int Delay, s/veh 2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	70	35	160	30	25	225
Future Vol, veh/h	70	35	160	30	25	225
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- None	- None	- None	- None	- None	- None
Storage Length	0	-	-	-	180	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	8	3	3	0	4
Mvmt Flow	74	37	168	32	26	237

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	474	185	0	0	201	0
Stage 1	185	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Critical Hdwy	6.44	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.372	-	-	2.2	-
Pot Cap-1 Maneuve	545	842	-	-	1383	-
Stage 1	842	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuve	534	841	-	-	1382	-
Mov Cap-2 Maneuve	534	-	-	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	608	1382	-
HCM Lane V/C Ratio	-	-0.182	0.019	-	-
HCM Control Delay (s)	-	-	12.2	7.7	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

**Intersection**

Int Delay, s/veh 5.2

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	Y		B			A
Traffic Vol, veh/h	145	25	80	100	40	85
Future Vol, veh/h	145	25	80	100	40	85
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- None		- None		- None	
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	3	12	3	2	5	2
Mvmt Flow	165	28	91	114	45	97

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	336	149	0	0	206	0
Stage 1	149	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	6.43	6.32	-	-	4.15	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.408	-	-	2.245	-
Pot Cap-1 Maneuve	657	872	-	-	1348	-
Stage 1	876	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuve	633	871	-	-	1347	-
Mov Cap-2 Maneuve	633	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	813	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s 12.7 0 2.5  
HCM LOS B

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	660	1347	-
HCM Lane V/C Ratio	-	-	0.293	0.034	-
HCM Control Delay (s)	-	-	12.7	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-

**Intersection**

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	5	5	45	10	5	15	55	375	20	20	540	10
Future Vol, veh/h	5	5	45	10	5	15	55	375	20	20	540	10
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	125	250	-	260	250	-	80
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	4	4	0	0	4	0
Mvmt Flow	5	5	48	11	5	16	59	399	21	21	574	11

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow	All 1155	1155	575	1165
Stage 1	617	617	-	517
Stage 2	538	538	-	648
Critical Hdwy	7.1	6.5	6.2	7.1
Critical Hdwy Stg 1	6.1	5.5	-	6.1
Critical Hdwy Stg 2	6.1	5.5	-	6.1
Follow-up Hdwy	3.5	4	3.3	3.5
Pot Cap-1 Maneuver	175	199	521	173
Stage 1	481	484	-	545
Stage 2	531	526	-	462
Platoon blocked, %				
Mov Cap-1 Maneuver	157	183	521	145
Mov Cap-2 Maneuver	157	183	-	145
Stage 1	452	475	-	512
Stage 2	482	494	-	407

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.3	20.7	1.1	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn	WBLn	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	978	-	-	378	156	655	1150	-	-
HCM Lane V/C Ratio	0.06	-	-	0.155	0.102	0.024	0.019	-	-
HCM Control Delay (s)	8.9	-	-	16.3	30.7	10.6	8.2	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.3	0.1	0.1	-	-

**Intersection**

Int Delay, s/veh 3.8

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	Y		B			A
Traffic Vol, veh/h	45	40	125	35	40	20
Future Vol, veh/h	45	40	125	35	40	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	49	43	136	38	43	22

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	263	155	0	0	174	0
Stage 1	155	-	-	-	-	-
Stage 2	108	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	726	891	-	-	1403	-
Stage 1	873	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	703	891	-	-	1403	-
Mov Cap-2 Maneuver	703	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	888	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s 10.2 0 5.1  
HCM LOS B

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	780	1403	-
HCM Lane V/C Ratio	-	-	0.118	0.031	-
HCM Control Delay (s)	-	-	10.2	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	5	80	155	75	50	5
Future Vol, veh/h	5	80	155	75	50	5
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	0	5	2	1	4	0
Mvmt Flow	6	98	189	91	61	6

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	281	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	293	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	292	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	9.5	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1292	-	-	-	654
HCM Lane V/C Ratio	0.005	-	-	-	-0.103
HCM Control Delay (s)	7.8	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

**Intersection**

Int Delay, s/veh 2.6

**Movement EBT EBR WBL WBT NBL NBR**

Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	45	40	15	65	30	15
Future Vol, veh/h	45	40	15	65	30	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	7	3	0	5	0	12
Mvmt Flow	52	47	17	76	35	17

**Major/Minor Major1 Major2 Minor1**

Conflicting Flow All	0	0	99	0	186	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	110	-
Critical Hdwy	-	-	4.1	-	6.4	6.32
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.408
Pot Cap-1 Maneuver	-	-	1507	-	808	958
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	920	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1507	-	798	958
Mov Cap-2 Maneuver	-	-	-	-	798	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	909	-

**Approach EB WB NB**

HCM Control Delay, s	0	1.4	9.5
HCM LOS			A

**Minor Lane/Major MvmNBLn1 EBT EBR WBL WBT**

Capacity (veh/h)	845	-	-	1507	-
HCM Lane V/C Ratio	0.062	-	-	0.012	-
HCM Control Delay (s)	9.5	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

**Intersection**

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	10	45	60	35	40	25
Future Vol, veh/h	10	45	60	35	40	25
Conflicting Peds, #/hr	1	0	0	1	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	9	2	2	5	0	0
Mvmt Flow	12	52	70	41	47	29

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	112	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.19	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.281	-	-
Pot Cap-1 Maneuver	435	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	434	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	4.4	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1434	-	-	-	870
HCM Lane V/C Ratio	0.008	-	-	-	-0.087
HCM Control Delay (s)	7.5	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

**Intersection**

Int Delay, s/veh 2.4

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	5	10	35	10	30	60
Future Vol, veh/h	5	10	35	10	30	60
Conflicting Peds, #/hr	0	2	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	14	8	3	0	0	4
Mvmt Flow	7	14	50	14	43	86

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	230	60	0	0	65	0
Stage 1	58	-	-	-	-	-
Stage 2	172	-	-	-	-	-
Critical Hdwy	6.54	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.54	-	-	-	-	-
Critical Hdwy Stg 2	5.54	-	-	-	-	-
Follow-up Hdwy	3.626	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	732	989	-	-	1550	-
Stage 1	935	-	-	-	-	-
Stage 2	830	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	710	986	-	-	1549	-
Mov Cap-2 Maneuver	710	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	806	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s 9.2 0 2.5  
 HCM LOS A

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	873	1549	-
HCM Lane V/C Ratio	-	-	0.025	0.028	-
HCM Control Delay (s)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-



**Intersection**

Int Delay, s/veh 5.3

**Movement** EBL EBR NBL NBT SBT SBR

Lane Configurations	Y				Y	Y
Traffic Vol, veh/h	10	125	200	140	80	5
Future Vol, veh/h	10	125	200	140	80	5
Conflicting Peds, #/hr	0	1	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	0	1	2	2	6	0
Mvmt Flow	11	139	222	156	89	6

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All	695	96	98	0	-	0
Stage 1	95	-	-	-	-	-
Stage 2	600	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.53	3.09	2.218	-	-	-
Pot Cap-1 Maneuver	111	963	1495	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	842	959	1491	-	-	-
Mov Cap-2 Maneuver	842	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	550	-	-	-	-	-

**Approach** EB NB SB

HCM Control Delay, s	10.2	4.6	0
HCM LOS	B		

**Minor Lane/Major Mvmt** NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1491	-	846	-	-
HCM Lane V/C Ratio	0.149	-	0.177	-	-
HCM Control Delay (s)	7.8	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.6	-	-

**Intersection**

Int Delay, s/veh 3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	55	15	50	75	10	40
Future Vol, veh/h	55	15	50	75	10	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	8	4	3	0	6
Mvmt Flow	65	18	60	89	12	48

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	83
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1501
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1501
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3	9.3
HCM LOS			A

Minor Lane/Major Mvm	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	899	-	-	1501	-
HCM Lane V/C Ratio	0.066	-	-	0.04	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	120	15	15	130	10	20	2	10	1	0	5
Future Vol, veh/h	5	120	15	15	130	10	20	2	10	1	0	5
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	135	17	17	146	11	22	2	11	1	0	6

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	158	0	0	152
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	1422	-	-	1429
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1421	-	-	1429
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.3	0.7	10.7	9.4
HCM LOS			B	A

Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	665	1421	-	-	1429	-	-	821
HCM Lane V/C Ratio	0.054	0.004	-	-	-0.012	-	-	-0.008
HCM Control Delay (s)	10.7	7.5	0	-	7.5	0	-	9.4
HCM Lane LOS	B	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

**Intersection**

Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	70	40	55	120	35	65	120	40	20	130	45
Future Vol, veh/h	20	70	40	55	120	35	65	120	40	20	130	45
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	1	5	0	2	3	3	3	2	6	4	4
Mvmt Flow	22	78	44	61	133	39	72	133	44	22	144	50
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	11.2	11.4	10.9
HCM LOS	A	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	15%	26%	10%
Vol Thru, %	53%	54%	57%	67%
Vol Right, %	18%	31%	17%	23%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	225	130	210	195
LT Vol	65	20	55	20
Through Vol	120	70	120	130
RT Vol	40	40	35	45
Lane Flow Rate	250	144	233	217
Geometry Grp	1	1	1	1
Degree of Util (X)	0.367	0.217	0.347	0.32
Departure Headway (Hd)	5.285	5.396	5.348	5.319
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	680	664	672	674
Service Time	3.324	3.441	3.387	3.36
HCM Lane V/C Ratio	0.368	0.217	0.347	0.322
HCM Control Delay	11.4	9.9	11.2	10.9
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	1.7	0.8	1.6	1.4

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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix D

Existing Year 2019 No-Build  
SimTraffic Output

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Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:30	8:30	8:30	8:30	8:30	8:30
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	10946	10965	10784	10819	11342	10972
Vehs Exited	11003	10982	10864	10851	11433	11020
Starting Vehs	680	652	707	671	692	673
Ending Vehs	623	635	627	639	601	614
Travel Distance (mi)	14490	14773	14418	14509	14799	14598
Travel Time (hr)	740.9	750.9	757.6	874.2	698.0	764.3
Total Delay (hr)	312.3	315.8	332.0	446.7	259.8	333.3
Total Stops	15006	15477	14801	15098	15649	15193
Fuel Used (gal)	536.7	544.3	536.5	567.8	531.9	543.4

Interval #0 Information Seeding

Start Time	7:15
End Time	7:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:30
End Time	7:45
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	3150	3273	3202	3173	3162	3187
Vehs Exited	3092	3176	3187	3106	3142	3143
Starting Vehs	680	652	707	671	692	673
Ending Vehs	738	749	722	738	712	717
Travel Distance (mi)	4008	4237	4108	4076	3980	4082
Travel Time (hr)	175.8	183.4	185.8	184.2	171.9	180.2
Total Delay (hr)	57.3	58.0	64.3	63.5	54.3	59.5
Total Stops	4495	4918	4524	4810	4528	4658
Fuel Used (gal)	141.5	148.5	146.7	145.9	139.7	144.5

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Interval #2 Information Recording

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Start Time 7:45

End Time 8:30

Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	7796	7692	7582	7646	8180	7774
Vehs Exited	7911	7806	7677	7745	8291	7884
Starting Vehs	738	749	722	738	712	717
Ending Vehs	623	635	627	639	601	614
Travel Distance (mi)	10481	10536	10311	10432	10819	10516
Travel Time (hr)	565.1	567.5	571.7	690.0	526.1	584.1
Total Delay (hr)	255.1	257.8	267.7	383.2	205.5	273.9
Total Stops	10511	10559	10277	10288	11121	10548
Fuel Used (gal)	395.2	395.8	389.8	421.8	392.3	399.0

Intersection: 5: I-5 NB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	86	208	218	196	163	106	148	165	105
Average Queue (ft)	25	80	86	66	43	33	58	79	6
95th Queue (ft)	64	172	176	156	121	83	118	132	48
Link Distance (ft)		1266	1266	480	480			807	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	250					260	380		375
Storage Blk Time (%)		0							
Queuing Penalty (veh)		0							

Intersection: 10: I-5 SB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	T	T	L	LT	R
Maximum Queue (ft)	210	174	194	381	206	157	228	273	175
Average Queue (ft)	97	50	52	150	49	64	107	140	66
95th Queue (ft)	175	134	126	285	136	129	187	226	164
Link Distance (ft)	756	756	756		1266	1266		958	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)				375			550		100
Storage Blk Time (%)				0				27	0
Queuing Penalty (veh)				1				77	0

Intersection: 20: OR 99 & Twin Creeks

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	88	53	55	83	108	96	98	37
Average Queue (ft)	28	25	20	21	34	32	25	5
95th Queue (ft)	65	45	47	62	87	75	70	23
Link Distance (ft)		459		3266	3266	3517	3517	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	500		500					250
Storage Blk Time (%)								
Queuing Penalty (veh)								



Intersection: 25: OR 99 & Scenic Ave

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	R	L	T	TR
Maximum Queue (ft)	84	88	9	1	2	24	14	2	3
Average Queue (ft)	39	25	0	0	0	1	1	0	0
95th Queue (ft)	77	58	4	1	1	8	7	1	2
Link Distance (ft)	763	1977		3517	3517	3517		3073	3073
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			350				325		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 30: OR 99 & W Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	TR	L	T	TR	L	T	T
Maximum Queue (ft)	270	430	200	190	170	150	211	198	237	144	138	140
Average Queue (ft)	114	230	45	82	75	62	96	88	116	57	69	76
95th Queue (ft)	267	424	156	145	134	117	168	161	194	114	125	129
Link Distance (ft)		526	526		268	268		4922	4922		3266	3266
Upstream Blk Time (%)		1	0									
Queuing Penalty (veh)		4	1									
Storage Bay Dist (ft)	375			200			300			300		
Storage Blk Time (%)	0	4		0	0		0					0
Queuing Penalty (veh)	0	9		0	0		0					0

Intersection: 30: OR 99 & W Pine St

Movement	SB
Directions Served	R
Maximum Queue (ft)	54
Average Queue (ft)	20
95th Queue (ft)	48
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	150
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 35: Upton Rd & Peninger Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	53	40
Average Queue (ft)	13	6
95th Queue (ft)	35	26
Link Distance (ft)	4545	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	180	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: Upton Rd & Wilson Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	82	21
Average Queue (ft)	40	1
95th Queue (ft)	68	7
Link Distance (ft)	2392	442
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 45: Table Rock Rd & Wilson Rd

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LR	L	T	T	T	TR
Maximum Queue (ft)	114	57	89	59	123	118
Average Queue (ft)	53	10	46	7	43	35
95th Queue (ft)	95	37	90	34	97	82
Link Distance (ft)	3878		2493	2493	442	442
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	525					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 50: Table Rock Rd & Biddle Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	TR	L
Maximum Queue (ft)	167	105	119	10	24	55	52	52	61	103	92	170
Average Queue (ft)	77	40	52	0	4	19	15	15	19	46	37	74
95th Queue (ft)	139	85	95	7	18	42	39	40	45	85	74	134
Link Distance (ft)		1125	1125			3558	3558			982	982	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	550			275	150			200	250			250
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 50: Table Rock Rd & Biddle Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	99	126
Average Queue (ft)	45	61
95th Queue (ft)	81	105
Link Distance (ft)	3564	3564
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 55: Table Rock Rd & Vilas Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	TR
Maximum Queue (ft)	154	255	114	172	80	124	121	116	131	140	180
Average Queue (ft)	62	114	43	82	27	53	55	23	51	51	69
95th Queue (ft)	115	210	84	147	65	95	102	83	100	103	132
Link Distance (ft)		1241		243		282	282			2493	2493
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	250		225		225			225	225		
Storage Blk Time (%)	0										
Queuing Penalty (veh)	1										

Intersection: 60: Hamrick Rd & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LT	R	LT	R
Maximum Queue (ft)	196	109	130	31	120	123	134	68	80	140
Average Queue (ft)	81	30	35	6	45	43	55	12	33	58
95th Queue (ft)	154	76	89	23	90	89	108	41	68	109
Link Distance (ft)		666	666		796	796	474		1383	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	550			400				450		300
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 65: Hamrick Rd & Beebe Rd

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	LT	R	L	R	L
Maximum Queue (ft)	60	25	56	28	6	24
Average Queue (ft)	16	4	13	4	0	3
95th Queue (ft)	41	18	38	19	4	14
Link Distance (ft)	1215	659				
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			125	250	260	250
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 70: Peninger Rd & E Pine St

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	L	TR	L	TR
Maximum Queue (ft)	32	227	166	82	86	138	166	245	222	105	63
Average Queue (ft)	3	90	61	20	27	44	54	125	39	31	23
95th Queue (ft)	19	182	138	60	65	106	121	214	136	73	50
Link Distance (ft)		480	480			1098	1098		1036		1745
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	400			230	225			175		325	
Storage Blk Time (%)			0					8	3	0	
Queuing Penalty (veh)			0					2	1	0	

Intersection: 74: Haskell St & Twin Creeks

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	62	45
Average Queue (ft)	26	8
95th Queue (ft)	50	32
Link Distance (ft)	459	165
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 75: Haskell St & W Pine St

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	L	TR
Maximum Queue (ft)	119	294	102	285	88	83	285	117
Average Queue (ft)	25	123	35	72	43	34	121	23
95th Queue (ft)	65	233	78	209	79	66	275	102
Link Distance (ft)		3017		526		1871	1103	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	125		125		250			150
Storage Blk Time (%)	0	7	0	1			7	
Queuing Penalty (veh)	0	3	0	2			3	

Intersection: 80: Hanley Rd & Beall Ln

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	82	66	83	89
Average Queue (ft)	42	37	37	44
95th Queue (ft)	65	60	62	74
Link Distance (ft)	334	5926	867	2121
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 85: Beall Ln & Grant Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	5	59
Average Queue (ft)	0	25
95th Queue (ft)	4	48
Link Distance (ft)	3230	2651
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 86: Beall Ln & OR 99

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	252	108	78	120	171	177	64	147	193
Average Queue (ft)	106	35	21	35	80	63	14	65	86
95th Queue (ft)	200	75	60	87	148	132	43	125	147
Link Distance (ft)	5926		3932		995	995		4922	4922
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		50		225			225		
Storage Blk Time (%)		4	2						
Queuing Penalty (veh)		4	2						

Intersection: 90: S Grant Rd & Taylor Rd

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	5	42
Average Queue (ft)	0	19
95th Queue (ft)	4	39
Link Distance (ft)	2937	1714
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: Taylor Rd & N Grant Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	10	45
Average Queue (ft)	0	16
95th Queue (ft)	5	38
Link Distance (ft)	1729	2113
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 100: N Grant Rd & Twin Creeks

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	44	11
Average Queue (ft)	11	1
95th Queue (ft)	29	9
Link Distance (ft)	708	394
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 105: Haskell St & Taylor Rd

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	91	46
Average Queue (ft)	43	6
95th Queue (ft)	72	29
Link Distance (ft)	2937	1103
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 110: Grant Rd & Scenic Ave

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	36	69
Average Queue (ft)	3	28
95th Queue (ft)	19	54
Link Distance (ft)	763	2553
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 135: Gebhard Rd & Wilson Rd

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	5	51	31
Average Queue (ft)	0	23	3
95th Queue (ft)	4	45	17
Link Distance (ft)	3878	4951	333
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 111
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Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:15	4:15	4:15	4:15	4:15	4:15
End Time	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	13425	13475	13052	13510	13599	13410
Vehs Exited	13400	13480	13068	13565	13599	13426
Starting Vehs	901	877	927	881	913	879
Ending Vehs	926	872	911	826	913	875
Travel Distance (mi)	20553	20331	20064	20206	20493	20329
Travel Time (hr)	1049.0	872.2	1048.3	869.4	937.7	955.3
Total Delay (hr)	447.1	275.6	460.8	277.1	337.0	359.5
Total Stops	22996	23245	22240	23190	22979	22925
Fuel Used (gal)	762.4	717.9	751.3	717.3	737.6	737.3

Interval #0 Information Seeding

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	3619	3706	3616	3667	3648	3651
Vehs Exited	3533	3592	3561	3634	3573	3580
Starting Vehs	901	877	927	881	913	879
Ending Vehs	987	991	982	914	988	949
Travel Distance (mi)	5492	5507	5422	5459	5376	5451
Travel Time (hr)	257.8	233.4	238.3	231.2	233.7	238.9
Total Delay (hr)	98.1	71.8	79.9	71.5	76.6	79.6
Total Stops	6224	6437	6317	6379	6286	6323
Fuel Used (gal)	198.3	194.4	193.3	193.3	190.7	194.0

Interval #2 Information Recording

Start Time 4:45  
End Time 5:30  
Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	9806	9769	9436	9843	9951	9757
Vehs Exited	9867	9888	9507	9931	10026	9841
Starting Vehs	987	991	982	914	988	949
Ending Vehs	926	872	911	826	913	875
Travel Distance (mi)	15061	14824	14642	14747	15117	14878
Travel Time (hr)	791.2	638.8	810.0	638.2	704.0	716.4
Total Delay (hr)	348.9	203.8	380.9	205.6	260.4	279.9
Total Stops	16772	16808	15923	16811	16693	16603
Fuel Used (gal)	564.1	523.5	558.0	524.0	546.8	543.3

Intersection: 5: I-5 NB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R	R
Maximum Queue (ft)	150	190	223	270	246	171	221	223	186	60
Average Queue (ft)	60	73	97	110	74	73	116	121	34	3
95th Queue (ft)	115	158	193	226	177	139	187	191	132	35
Link Distance (ft)		1266	1266	480	480			807		
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	250					260	380		375	375
Storage Blk Time (%)		0			0					
Queuing Penalty (veh)		0			0					

Intersection: 10: I-5 SB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	T	T	L	LT	R
Maximum Queue (ft)	198	175	138	224	205	194	214	256	175
Average Queue (ft)	48	41	12	99	94	85	89	124	60
95th Queue (ft)	125	117	63	177	185	168	166	217	138
Link Distance (ft)	717	717	717		1266	1266		958	
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)				375			550		100
Storage Blk Time (%)								17	0
Queuing Penalty (veh)								40	1

Intersection: 20: OR 99 & Twin Creeks

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	51	40	83	172	212	139	138	39
Average Queue (ft)	13	13	36	55	71	55	59	12
95th Queue (ft)	38	30	74	131	158	109	115	35
Link Distance (ft)		459		3266	3266	3517	3517	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	500		500					250
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 25: OR 99 & Scenic Ave

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	R	L	T	TR
Maximum Queue (ft)	77	284	25	1	3	30	56	2	14
Average Queue (ft)	23	90	1	0	0	2	6	0	1
95th Queue (ft)	54	212	10	1	2	14	29	1	6
Link Distance (ft)	763	1977		3517	3517	3517		3073	3073
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			350				325		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 30: OR 99 & W Pine St

Movement	EB	EB	EB	WB	WB	WB	B83	B83	NB	NB	NB	SB
Directions Served	L	T	R	L	T	TR	T	T	L	T	TR	L
Maximum Queue (ft)	157	278	49	241	320	330	173	124	334	252	236	167
Average Queue (ft)	75	149	20	138	225	214	29	17	187	111	136	75
95th Queue (ft)	136	248	41	293	370	361	127	91	297	197	214	141
Link Distance (ft)		526	526		268	268	2497	2497		4922	4922	
Upstream Blk Time (%)				0	19	15						
Queuing Penalty (veh)				0	67	52						
Storage Bay Dist (ft)	375			200					300			300
Storage Blk Time (%)				1	33				1			
Queuing Penalty (veh)				2	50				2			

Intersection: 30: OR 99 & W Pine St

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	140	159	134
Average Queue (ft)	65	69	54
95th Queue (ft)	124	129	113
Link Distance (ft)	3266	3266	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)		1	0
Queuing Penalty (veh)		1	0

Intersection: 35: Upton Rd & Peninger Rd

Movement	WB	SB
Directions Served	LR	L
Maximum Queue (ft)	100	29
Average Queue (ft)	30	5
95th Queue (ft)	62	23
Link Distance (ft)	4545	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	180	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 40: Upton Rd & Wilson Rd

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	104	53
Average Queue (ft)	45	8
95th Queue (ft)	74	32
Link Distance (ft)	2392	442
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 45: Table Rock Rd & Wilson Rd

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LR	L	T	T	T	TR
Maximum Queue (ft)	139	69	142	114	115	99
Average Queue (ft)	55	27	61	18	43	38
95th Queue (ft)	102	58	123	70	90	79
Link Distance (ft)	3878		2493	2493	442	442
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	525					
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 50: Table Rock Rd & Biddle Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	TR	L
Maximum Queue (ft)	179	108	121	45	57	142	150	110	128	131	135	161
Average Queue (ft)	72	43	53	3	14	69	80	39	57	63	72	66
95th Queue (ft)	138	91	103	23	39	124	135	81	105	112	119	123
Link Distance (ft)		1125	1125			3490	3490			982	982	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	550			275	400			275	400			250
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 50: Table Rock Rd & Biddle Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	170	220
Average Queue (ft)	85	106
95th Queue (ft)	145	178
Link Distance (ft)	3564	3564
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 55: Table Rock Rd & Vilas Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	TR
Maximum Queue (ft)	146	181	201	241	79	141	156	114	128	174	203
Average Queue (ft)	69	93	74	142	36	84	92	22	57	75	105
95th Queue (ft)	124	158	137	222	71	135	142	82	105	139	173
Link Distance (ft)		1241		243		282	282			2493	2493
Upstream Blk Time (%)			0	0							
Queuing Penalty (veh)			0	3							
Storage Bay Dist (ft)	250		225		225			225	225		
Storage Blk Time (%)			0	1							
Queuing Penalty (veh)			0	1							

Intersection: 60: Hamrick Rd & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LT	R	LT	R
Maximum Queue (ft)	336	230	261	27	276	288	336	34	90	210
Average Queue (ft)	149	60	85	6	138	154	159	7	29	95
95th Queue (ft)	277	151	183	22	234	260	275	27	71	170
Link Distance (ft)		666	666		796	796	474		1383	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	550			400				450		300
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 65: Hamrick Rd & Beebe Rd

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	54	38	34	61	26
Average Queue (ft)	19	11	10	14	4
95th Queue (ft)	41	33	29	44	19
Link Distance (ft)	1215	659			
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			125	250	250
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 70: Peninger Rd & E Pine St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	L	TR	L	TR
Maximum Queue (ft)	88	206	180	79	105	301	320	125	244	281	118	88
Average Queue (ft)	32	98	86	30	31	128	153	17	141	55	43	34
95th Queue (ft)	68	178	157	67	73	249	287	84	234	163	92	70
Link Distance (ft)		480	480			1098	1098			1036		1745
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	400			230	225			50	175			325
Storage Blk Time (%)			0			1	23	0	8	0		
Queuing Penalty (veh)			0			1	18	0	5	0		

Intersection: 74: Haskell St & Twin Creeks

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	86	48
Average Queue (ft)	39	7
95th Queue (ft)	70	30
Link Distance (ft)	459	165
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 75: Haskell St & W Pine St

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	L	TR
Maximum Queue (ft)	86	149	138	238	139	75	168	45
Average Queue (ft)	36	70	42	106	66	25	70	13
95th Queue (ft)	73	128	96	190	109	57	132	35
Link Distance (ft)		3017		526		1871	1103	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	125		125		250			150
Storage Blk Time (%)		1	0	3			0	
Queuing Penalty (veh)		0	1	16			0	

Intersection: 80: Hanley Rd & Beall Ln

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	65	87	79	94
Average Queue (ft)	34	50	42	47
95th Queue (ft)	53	77	68	81
Link Distance (ft)	334	5926	867	2121
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				



Intersection: 85: Beall Ln & Grant Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	21	63
Average Queue (ft)	1	25
95th Queue (ft)	8	49
Link Distance (ft)	3230	2651
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 86: Beall Ln & OR 99

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	178	100	136	170	210	226	81	184	203
Average Queue (ft)	83	39	43	86	104	111	16	77	92
95th Queue (ft)	155	82	98	146	179	197	52	150	162
Link Distance (ft)	5926		3932		995	995		4922	4922
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		50		225			225		
Storage Blk Time (%)		6	8		0			0	
Queuing Penalty (veh)		10	9		0			0	

Intersection: 90: S Grant Rd & Taylor Rd

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	20	57
Average Queue (ft)	1	19
95th Queue (ft)	9	43
Link Distance (ft)	2937	1714
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 95: Taylor Rd & N Grant Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	20	41
Average Queue (ft)	1	23
95th Queue (ft)	8	38
Link Distance (ft)	1729	2113
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 100: N Grant Rd & Twin Creeks

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	26	29
Average Queue (ft)	6	2
95th Queue (ft)	20	12
Link Distance (ft)	708	394
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 105: Haskell St & Taylor Rd

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	62	66
Average Queue (ft)	33	17
95th Queue (ft)	50	50
Link Distance (ft)	2937	1103
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 110: Grant Rd & Scenic Ave

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	29	34
Average Queue (ft)	5	21
95th Queue (ft)	22	40
Link Distance (ft)	763	2553
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 130: Upton Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	112	48	16	73	15	30	190	74
Average Queue (ft)	30	5	1	17	1	4	78	39
95th Queue (ft)	72	27	10	52	6	21	149	63
Link Distance (ft)		1315		487		177		1094
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	125		125		50		250	
Storage Blk Time (%)	0						0	
Queuing Penalty (veh)	0						0	

Intersection: 135: Gebhard Rd & Wilson Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	5	28	39	31
Average Queue (ft)	0	2	18	5
95th Queue (ft)	4	12	41	23
Link Distance (ft)	2392	3878	4951	333
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 140: Freeman Rd/N 10th St & Pine St

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	70	173	188	190	366	235	192	142	194	163	174	312
Average Queue (ft)	26	78	82	83	169	68	85	70	93	21	115	144
95th Queue (ft)	60	147	156	157	299	164	164	122	158	105	188	262
Link Distance (ft)		2497	2497			717	717		589			775
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225			235	350			200		150	100	
Storage Blk Time (%)		0	0	0	1	0			2	1	18	19
Queuing Penalty (veh)		0	0	0	2	0			9	1	27	34

Zone Summary

Zone wide Queuing Penalty: 356

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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix E

Future Year 2039 No-Build  
Synchro Output

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# HCM Signalized Intersection Capacity Analysis

## 5: I-5 NB Ramps & E Pine St

06/11/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	135	1190	0	0	1360	740	455	0	500	0	0	0	
Future Volume (vph)	135	1190	0	0	1360	740	455	0	500	0	0	0	
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5				
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	0.88				
Frbp, ped/bikes	1.00	1.00			1.00	0.96	1.00	1.00	0.97				
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00				
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85				
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (prot)	1583	3079			3167	1237	1564	1564	2180				
Flt Permitted	0.12	1.00			1.00	1.00	0.95	0.95	1.00				
Satd. Flow (perm)	200	3079			3167	1237	1564	1564	2180				
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	
Adj. Flow (vph)	136	1202	0	0	1374	747	460	0	505	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	284	0	0	148	0	0	0	
Lane Group Flow (vph)	136	1202	0	0	1374	463	230	230	357	0	0	0	
Confl. Peds. (#/hr)	9					9			1	1			
Confl. Bikes (#/hr)						3			2				
Heavy Vehicles (%)	5%	8%	0%	0%	5%	15%	1%	100%	17%	0%	0%	0%	
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm				
Protected Phases	5	2			6			8					
Permitted Phases	2					6	8		8				
Actuated Green, G (s)	87.2	87.2			74.3	74.3	23.8	23.8	23.8				
Effective Green, g (s)	87.2	87.2			74.3	74.3	23.8	23.8	23.8				
Actuated g/C Ratio	0.73	0.73			0.62	0.62	0.20	0.20	0.20				
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5				
Vehicle Extension (s)	2.5	4.6			4.6	4.6	2.5	2.5	2.5				
Lane Grp Cap (vph)	242	2237			1960	765	310	310	432				
v/s Ratio Prot	0.04	c0.39			c0.43								
v/s Ratio Perm	0.37					0.37	0.15	0.15	c0.16				
v/c Ratio	0.56	0.54			0.70	0.60	0.74	0.74	0.83				
Uniform Delay, d1	11.6	7.4			15.4	13.9	45.2	45.2	46.1				
Progression Factor	1.17	0.66			0.52	1.66	1.00	1.00	1.00				
Incremental Delay, d2	2.0	0.8			1.8	3.1	8.8	8.8	12.0				
Delay (s)	15.6	5.6			9.9	26.1	54.0	54.0	58.2				
Level of Service	B	A			A	C	D	D	E				
Approach Delay (s)		6.6			15.6			56.2			0.0		
Approach LOS		A			B			E			A		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			21.7									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.73										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	13.5
Intersection Capacity Utilization			84.0%									ICU Level of Service	E
Analysis Period (min)			15										
c Critical Lane Group													

# HCM Signalized Intersection Capacity Analysis

## 10: I-5 SB Ramps & E Pine St

06/11/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑	↑
Traffic Volume (vph)	0	920	440	335	1480	0	0	0	0	405	0	180
Future Volume (vph)	0	920	440	335	1480	0	0	0	0	405	0	180
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	0.97	0.95					0.95	0.95	1.00
Frbp, ped/bikes		1.00	0.99	1.00	1.00					1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3228	1439	2854	3260					1264	1264	1411
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3228	1439	2854	3260					1264	1264	1411
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	948	454	345	1526	0	0	0	0	418	0	186
RTOR Reduction (vph)	0	0	213	0	0	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	948	241	345	1526	0	0	0	0	209	209	142
Confl. Peds. (#/hr)	2		1	1		2	1					1
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	0%	3%	2%	13%	2%	0%	0%	0%	0%	25%	0%	4%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		63.3	63.3	18.7	86.5					24.5	24.5	24.5
Effective Green, g (s)		63.8	63.8	19.2	87.0					25.0	25.0	25.0
Actuated g/C Ratio		0.53	0.53	0.16	0.72					0.21	0.21	0.21
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		4.6	4.6	2.5	4.6					2.5	2.5	2.5
Lane Grp Cap (vph)		1716	765	456	2363					263	263	293
v/s Ratio Prot		0.29		c0.12	c0.47							
v/s Ratio Perm			0.17							c0.17	0.17	0.10
v/c Ratio		0.55	0.32	0.76	0.65					0.79	0.79	0.49
Uniform Delay, d1		18.6	15.8	48.2	8.5					45.1	45.1	41.8
Progression Factor		1.00	1.00	0.94	0.80					1.00	1.00	1.00
Incremental Delay, d2		1.3	1.1	5.1	1.0					14.7	14.7	0.9
Delay (s)		19.9	16.9	50.3	7.9					59.8	59.8	42.8
Level of Service		B	B	D	A					E	E	D
Approach Delay (s)		18.9			15.7			0.0			54.5	
Approach LOS		B			B			A			D	

### Intersection Summary

HCM 2000 Control Delay	22.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
 20: OR 99 & Twin Creeks

06/11/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	110	200	215	615	455	120
Future Volume (vph)	110	200	215	615	455	120
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	0.97	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1662	1396	1662	3197	3167	1488
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1662	1396	1662	3197	3167	1488
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	116	211	226	647	479	126
RTOR Reduction (vph)	0	174	0	0	0	86
Lane Group Flow (vph)	116	37	226	647	479	40
Confl. Peds. (#/hr)		42				
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	3%	0%	4%	5%	0%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	8		1	6	2	
Permitted Phases		8				2
Actuated Green, G (s)	9.1	9.1	12.9	33.4	16.5	16.5
Effective Green, g (s)	9.1	9.1	12.9	33.4	16.5	16.5
Actuated g/C Ratio	0.18	0.18	0.25	0.65	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	5.2	5.2	5.2
Lane Grp Cap (vph)	293	246	416	2073	1014	476
v/s Ratio Prot	c0.07		c0.14	0.20	c0.15	
v/s Ratio Perm		0.03				0.03
v/c Ratio	0.40	0.15	0.54	0.31	0.47	0.08
Uniform Delay, d1	18.8	17.9	16.7	4.0	14.0	12.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.6	0.2	1.1	0.2	0.8	0.2
Delay (s)	19.4	18.1	17.9	4.2	14.8	12.4
Level of Service	B	B	B	A	B	B
Approach Delay (s)	18.6			7.7	14.3	
Approach LOS	B			A	B	

**Intersection Summary**

HCM 2000 Control Delay	11.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	51.5	Sum of lost time (s)	13.0
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



# HCM Signalized Intersection Capacity Analysis

25: OR 99 & Scenic Ave

06/11/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑	↗	↘	↑	↗
Traffic Volume (vph)	100	60	35	85	95	145	25	565	95	155	395	150
Future Volume (vph)	100	60	35	85	95	145	25	565	95	155	395	150
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1607			1560		1498	1667	1473	1583	1606	1488
Flt Permitted		0.59			0.86		0.51	1.00	1.00	0.22	1.00	1.00
Satd. Flow (perm)		980			1362		800	1667	1473	371	1606	1488
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	105	63	37	89	100	153	26	595	100	163	416	158
RTOR Reduction (vph)	0	9	0	0	35	0	0	0	49	0	0	74
Lane Group Flow (vph)	0	196	0	0	307	0	26	595	51	163	416	84
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	5%	2%	0%	2%	6%	4%	11%	5%	1%	5%	9%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)		22.4			22.4		38.6	36.7	36.7	48.0	42.1	42.1
Effective Green, g (s)		22.4			22.4		38.6	36.7	36.7	48.0	42.1	42.1
Actuated g/C Ratio		0.28			0.28		0.49	0.46	0.46	0.60	0.53	0.53
Clearance Time (s)		4.0			4.0		4.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)		2.5			2.5		2.5	5.2	5.2	2.5	5.2	5.2
Lane Grp Cap (vph)		276			384		405	770	680	335	851	788
v/s Ratio Prot							0.00	c0.36		c0.04	0.26	
v/s Ratio Perm		0.20			c0.23		0.03		0.03	0.25		0.06
v/c Ratio		0.71			0.80		0.06	0.77	0.08	0.49	0.49	0.11
Uniform Delay, d1		25.6			26.4		10.7	17.9	11.9	10.2	11.8	9.3
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		7.5			10.7		0.0	5.7	0.1	0.8	1.0	0.1
Delay (s)		33.1			37.1		10.7	23.6	12.0	11.0	12.8	9.4
Level of Service		C			D		B	C	B	B	B	A
Approach Delay (s)		33.1			37.1			21.5			11.7	
Approach LOS		C			D			C			B	

## Intersection Summary

HCM 2000 Control Delay	21.8	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	79.4	Sum of lost time (s)	13.0
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis

30: OR 99 & W Pine St

06/11/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↗	↕		↖	↕	↗
Traffic Volume (vph)	125	255	50	200	555	155	235	605	175	225	400	115
Future Volume (vph)	125	255	50	200	555	155	235	605	175	225	400	115
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	5.0		4.0	5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.97		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1614	3176		1644	3146		1646	3133		1646	3107	1352
Flt Permitted	0.15	1.00		0.49	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	260	3176		847	3146		1646	3133		1646	3107	1352
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	130	266	52	208	578	161	245	630	182	234	417	120
RTOR Reduction (vph)	0	14	0	0	22	0	0	22	0	0	0	84
Lane Group Flow (vph)	130	304	0	208	717	0	245	790	0	234	417	36
Confl. Peds. (#/hr)	6		5	5		6						
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	3%	2%	1%	1%	2%	1%	1%	3%	1%	1%	7%	10%
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								6
Actuated Green, G (s)	37.5	29.4		37.1	29.2		19.6	32.5		18.9	31.8	31.8
Effective Green, g (s)	37.5	29.4		37.1	29.2		19.6	32.5		18.9	31.8	31.8
Actuated g/C Ratio	0.35	0.28		0.35	0.28		0.19	0.31		0.18	0.30	0.30
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	5.2		2.5	5.2	5.2
Lane Grp Cap (vph)	196	883		356	869		305	963		294	934	406
v/s Ratio Prot	c0.05	0.10		0.04	c0.23		c0.15	c0.25		0.14	0.13	
v/s Ratio Perm	0.18			0.16								0.03
v/c Ratio	0.66	0.34		0.58	0.83		0.80	0.82		0.80	0.45	0.09
Uniform Delay, d1	25.7	30.5		26.3	35.9		41.2	33.9		41.6	29.8	26.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.4	0.2		2.0	6.3		13.8	6.4		13.4	0.8	0.2
Delay (s)	33.1	30.6		28.3	42.2		55.0	40.3		55.0	30.6	26.8
Level of Service	C	C		C	D		D	D		D	C	C
Approach Delay (s)		31.3			39.1			43.7			37.4	
Approach LOS		C			D			D			D	

## Intersection Summary

HCM 2000 Control Delay	39.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	105.7	Sum of lost time (s)	17.0
Intersection Capacity Utilization	82.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
45: Table Rock Rd & Wilson Rd

06/11/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	150	95	70	940	705	275
Future Volume (vph)	150	95	70	940	705	275
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0		4.0	5.0	5.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frbp, ped/bikes	1.00		1.00	1.00	0.99	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.95		1.00	1.00	0.96	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1524		1471	3107	3014	
Flt Permitted	0.97		0.16	1.00	1.00	
Satd. Flow (perm)	1524		254	3107	3014	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	158	100	74	989	742	289
RTOR Reduction (vph)	30	0	0	0	41	0
Lane Group Flow (vph)	228	0	74	989	990	0
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	6%	5%	13%	7%	5%	5%
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	14.7		38.1	38.1	28.6	
Effective Green, g (s)	14.7		38.1	38.1	28.6	
Actuated g/C Ratio	0.24		0.62	0.62	0.46	
Clearance Time (s)	4.0		4.0	5.0	5.0	
Vehicle Extension (s)	2.5		2.5	4.2	4.2	
Lane Grp Cap (vph)	362		264	1915	1394	
v/s Ratio Prot	c0.15		0.02	c0.32	c0.33	
v/s Ratio Perm			0.15			
v/c Ratio	0.63		0.28	0.52	0.71	
Uniform Delay, d1	21.1		6.5	6.7	13.3	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	2.9		0.4	0.3	1.9	
Delay (s)	24.0		6.9	7.0	15.2	
Level of Service	C		A	A	B	
Approach Delay (s)	24.0			7.0	15.2	
Approach LOS	C			A	B	

Intersection Summary





























HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	61.8	Sum of lost time (s)	13.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis

## 50: Table Rock Rd & Biddle Rd



























06/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  			 			 	
Traffic Volume (vph)	185	475	150	55	720	345	245	475	20	220	680	175
Future Volume (vph)	185	475	150	55	720	345	245	475	20	220	680	175
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1397	3260	1410	1662	4730	1430	1630	3154		1614	3069	
Flt Permitted	0.95	1.00	1.00	0.47	1.00	1.00	0.12	1.00		0.39	1.00	
Satd. Flow (perm)	1397	3260	1410	820	4730	1430	198	3154		656	3069	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	195	500	158	58	758	363	258	500	21	232	716	184
RTOR Reduction (vph)	0	0	103	0	0	284	0	3	0	0	19	0
Lane Group Flow (vph)	195	500	55	58	758	79	258	518	0	232	881	0
Confl. Peds. (#/hr)			1	1			3					3
Confl. Bikes (#/hr)			1									3
Heavy Vehicles (%)	19%	2%	4%	0%	1%	4%	2%	5%	0%	3%	3%	11%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8			4		
Actuated Green, G (s)	17.8	39.4	39.4	27.8	24.7	24.7	52.7	37.4		48.7	35.4	
Effective Green, g (s)	17.8	39.4	39.4	27.8	24.7	24.7	52.7	37.4		48.7	35.4	
Actuated g/C Ratio	0.16	0.35	0.35	0.25	0.22	0.22	0.47	0.33		0.43	0.31	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Vehicle Extension (s)	1.5	4.6	4.6	1.5	3.8	3.8	1.5	3.5		1.5	3.5	
Lane Grp Cap (vph)	219	1134	490	224	1032	312	285	1042		394	959	
v/s Ratio Prot	c0.14	0.15		0.01	c0.16		c0.12	0.16		0.07	0.29	
v/s Ratio Perm			0.04	0.06		0.06	c0.30			0.18		
v/c Ratio	0.89	0.44	0.11	0.26	0.73	0.25	0.91	0.50		0.59	0.92	
Uniform Delay, d1	46.7	28.4	25.0	33.4	41.2	36.6	29.3	30.4		21.7	37.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	32.3	0.5	0.2	0.2	2.9	0.6	29.3	0.4		1.5	13.6	
Delay (s)	79.1	28.9	25.2	33.6	44.1	37.2	58.6	30.8		23.1	51.1	
Level of Service	E	C	C	C	D	D	E	C		C	D	
Approach Delay (s)		39.7			41.4			40.0			45.4	
Approach LOS		D			D			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			41.9		HCM 2000 Level of Service					D		
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			113.2		Sum of lost time (s)				20.0			
Intersection Capacity Utilization			84.2%		ICU Level of Service				E			
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

## 55: Table Rock Rd & Vilas Rd

06/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				 				 			 	
Traffic Volume (vph)	205	360	45	460	550	235	70	555	325	190	495	185
Future Volume (vph)	205	360	45	460	550	235	70	555	325	190	495	185
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	3.0	5.0		3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1568	1580		3043	1667	1409	1646	3107	1352	1554	2996	
Flt Permitted	0.22	1.00		0.95	1.00	1.00	0.28	1.00	1.00	0.21	1.00	
Satd. Flow (perm)	357	1580		3043	1667	1409	490	3107	1352	338	2996	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	216	379	47	484	579	247	74	584	342	200	521	195
RTOR Reduction (vph)	0	4	0	0	0	121	0	0	262	0	32	0
Lane Group Flow (vph)	216	422	0	484	579	126	74	584	80	200	684	0
Confl. Peds. (#/hr)	2					2						
Heavy Vehicles (%)	6%	10%	0%	6%	5%	4%	1%	7%	10%	7%	7%	5%
Turn Type	pm+pt	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4					8	2		2	6		
Actuated Green, G (s)	41.3	30.5		19.2	38.9	38.9	27.2	23.5	23.5	37.6	30.9	
Effective Green, g (s)	41.3	30.5		19.2	38.9	38.9	27.2	23.5	23.5	37.6	30.9	
Actuated g/C Ratio	0.41	0.30		0.19	0.39	0.39	0.27	0.23	0.23	0.37	0.31	
Clearance Time (s)	3.0	5.0		3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.5	2.5	1.0	2.5	
Lane Grp Cap (vph)	277	480		582	646	546	175	727	316	261	922	
v/s Ratio Prot	0.08	0.27		c0.16	c0.35		0.02	0.19		c0.08	0.23	
v/s Ratio Perm	0.24					0.09	0.10		0.06	c0.20		
v/c Ratio	0.78	0.88		0.83	0.90	0.23	0.42	0.80	0.25	0.77	0.74	
Uniform Delay, d1	21.9	33.1		39.0	28.8	20.6	28.1	36.2	31.3	23.8	31.1	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	11.9	16.1		9.4	14.7	0.1	0.6	6.2	0.3	11.4	3.1	
Delay (s)	33.8	49.2		48.4	43.5	20.7	28.7	42.5	31.6	35.2	34.2	
Level of Service	C	D		D	D	C	C	D	C	D	C	
Approach Delay (s)		44.0			41.0			37.7			34.4	
Approach LOS		D			D			D			C	

### Intersection Summary





























HCM 2000 Control Delay	39.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	100.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	86.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis

60: Hamrick Rd & E Pine St























06/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		 	 		 			 	 	
Traffic Volume (vph)	375	745	230	15	1050	50	365	50	20	30	15	470
Future Volume (vph)	375	745	230	15	1050	50	365	50	20	30	15	470
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0		4.0	5.0		4.5	4.5		4.5	4.5	4.0
Lane Util. Factor	0.97	0.95		1.00	0.95		0.97	1.00		1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.99		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	2986	2971		1662	3177		3125	1618		1662	1549	1422
Flt Permitted	0.95	1.00		0.19	1.00		0.75	1.00		0.71	1.00	1.00
Satd. Flow (perm)	2986	2971		337	3177		2457	1618		1240	1549	1422
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	395	784	242	16	1105	53	384	53	21	32	16	495
RTOR Reduction (vph)	0	20	0	0	3	0	0	13	0	0	0	30
Lane Group Flow (vph)	395	1006	0	16	1155	0	384	61	0	32	16	465
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	8%	6%	12%	0%	4%	3%	3%	5%	0%	0%	13%	4%
Turn Type	Prot	NA		pm+pt	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases				6			8			4	4	4
Actuated Green, G (s)	30.1	80.9		52.9	52.9		23.5	23.5		23.5	23.5	53.6
Effective Green, g (s)	30.1	80.9		52.9	52.9		23.5	23.5		23.5	23.5	53.6
Actuated g/C Ratio	0.25	0.67		0.44	0.44		0.20	0.20		0.20	0.20	0.45
Clearance Time (s)	4.0	5.0		4.0	5.0		4.5	4.5		4.5	4.5	4.0
Vehicle Extension (s)	2.5	4.3		2.5	4.0		2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	748	2002		171	1400		481	316		242	303	682
v/s Ratio Prot	0.13	0.34		0.00	c0.36			0.04			0.01	c0.17
v/s Ratio Perm				0.04			c0.16			0.03		0.16
v/c Ratio	0.53	0.50		0.09	0.83		0.80	0.19		0.13	0.05	0.68
Uniform Delay, d1	38.8	9.6		20.0	29.5		46.0	40.3		39.8	39.2	26.4
Progression Factor	0.76	0.45		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	0.7		0.2	5.7		8.7	0.2		0.2	0.1	2.6
Delay (s)	30.1	5.0		20.2	35.1		54.7	40.5		40.0	39.3	29.0
Level of Service	C	A		C	D		D	D		D	D	C
Approach Delay (s)		12.0			34.9			52.4			29.9	
Approach LOS		B			C			D			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	27.3			HCM 2000 Level of Service				C				
HCM 2000 Volume to Capacity ratio	0.79											
Actuated Cycle Length (s)	120.0			Sum of lost time (s)				13.5				
Intersection Capacity Utilization	87.5%			ICU Level of Service				E				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

65: Hamrick Rd & Beebe Rd













06/11/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	5	30	10	5	35	5	510	20	40	545	60
Future Volume (vph)	160	5	30	10	5	35	5	510	20	40	545	60
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.87		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1662	1523		1662	1519		1598	1683	1488	1662	1683	1454
Flt Permitted	0.44	1.00		0.89	1.00		0.35	1.00	1.00	0.32	1.00	1.00
Satd. Flow (perm)	778	1523		1556	1519		585	1683	1488	552	1683	1454
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	168	5	32	11	5	37	5	537	21	42	574	63
RTOR Reduction (vph)	0	27	0	0	34	0	0	0	11	0	0	30
Lane Group Flow (vph)	168	10	0	11	8	0	5	537	10	42	574	33
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	4%	4%	0%	0%	4%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	14.7	9.4		5.3	4.5		31.2	30.4	30.4	35.2	32.4	32.4
Effective Green, g (s)	14.7	9.4		5.3	4.5		31.2	30.4	30.4	35.2	32.4	32.4
Actuated g/C Ratio	0.24	0.15		0.09	0.07		0.50	0.49	0.49	0.57	0.52	0.52
Clearance Time (s)	4.5	5.0		4.5	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)	3.0	2.5		3.0	2.5		2.5	4.2	4.2	2.5	4.2	4.2
Lane Grp Cap (vph)	266	231		134	110		307	826	730	364	880	761
v/s Ratio Prot	c0.06	0.01		0.00	0.01		0.00	0.32		c0.01	c0.34	
v/s Ratio Perm	c0.09			0.01			0.01		0.01	0.06		0.02
v/c Ratio	0.63	0.04		0.08	0.07		0.02	0.65	0.01	0.12	0.65	0.04
Uniform Delay, d1	20.2	22.4		26.0	26.7		8.0	11.8	8.1	6.8	10.7	7.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.8	0.1		0.3	0.2		0.0	2.1	0.0	0.1	2.0	0.0
Delay (s)	25.0	22.5		26.3	26.9		8.0	13.9	8.1	6.9	12.7	7.2
Level of Service	C	C		C	C		A	B	A	A	B	A
Approach Delay (s)		24.6			26.8			13.6			11.8	
Approach LOS		C			C			B			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			14.8				HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			61.9				Sum of lost time (s)			18.5		
Intersection Capacity Utilization			60.7%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

70: Peninger Rd & E Pine St

06/11/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↑↑	↗	↖	↑↑↑	↗	↖		↗			↗	
Traffic Volume (vph)	0	1515	175	45	1615	175	215	0	60	0	0	270	
Future Volume (vph)	0	1515	175	45	1615	175	215	0	60	0	0	270	
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0		4.5			4.5	
Lane Util. Factor		0.95	1.00	1.00	0.91	1.00	1.00		1.00			1.00	
Frbp, ped/bikes		1.00	0.97	1.00	1.00	0.96	1.00		0.99			0.99	
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00		0.85			0.86	
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95		1.00			1.00	
Satd. Flow (prot)		3167	1145	1471	4638	1409	1395		1299			1493	
Flt Permitted		1.00	1.00	0.11	1.00	1.00	0.95		1.00			1.00	
Satd. Flow (perm)		3167	1145	165	4638	1409	1395		1299			1493	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	
Adj. Flow (vph)	0	1546	179	46	1648	179	219	0	61	0	0	276	
RTOR Reduction (vph)	0	0	55	0	0	25	0	0	58	0	0	111	
Lane Group Flow (vph)	0	1546	124	46	1648	154	219	0	3	0	0	165	
Confl. Peds. (#/hr)	10		4	4		10	1		1	1		1	
Confl. Bikes (#/hr)			3			3							
Heavy Vehicles (%)	4%	5%	26%	13%	3%	1%	19%	0%	13%	0%	0%	0%	
Turn Type		NA	Perm	pm+pt	NA	Perm	pm+pt		Perm			Perm	
Protected Phases		2		1	6		7						
Permitted Phases			2	6		6	4		8			4	
Actuated Green, G (s)		78.8	78.8	86.9	86.9	86.9	24.6		5.2			24.1	
Effective Green, g (s)		79.3	79.3	87.4	87.4	87.4	24.6		5.2			24.1	
Actuated g/C Ratio		0.66	0.66	0.73	0.73	0.73	0.21		0.04			0.20	
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.0		4.5			4.5	
Vehicle Extension (s)		1.0	1.0	2.5	1.0	1.0	3.0		4.0			2.5	
Lane Grp Cap (vph)		2092	756	164	3378	1026	285		56			299	
v/s Ratio Prot		c0.49		0.01	c0.36		c0.10						
v/s Ratio Perm			0.11	0.19		0.11	0.06		0.00			0.11	
v/c Ratio		0.74	0.16	0.28	0.49	0.15	0.77		0.05			0.55	
Uniform Delay, d1		13.5	7.7	19.6	6.9	5.0	43.3		55.0			43.1	
Progression Factor		0.67	0.67	0.03	0.03	0.00	1.00		1.00			1.00	
Incremental Delay, d2		1.9	0.4	0.1	0.0	0.0	11.8		0.5			1.8	
Delay (s)		10.9	5.6	0.7	0.3	0.0	55.0		55.5			44.9	
Level of Service		B	A	A	A	A	E		E			D	
Approach Delay (s)		10.4			0.3			55.1			44.9		
Approach LOS		B			A			E			D		
<b>Intersection Summary</b>													
HCM 2000 Control Delay			11.1									HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.78										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	17.0
Intersection Capacity Utilization			75.5%									ICU Level of Service	D
Analysis Period (min)			15										
c Critical Lane Group													



# HCM Signalized Intersection Capacity Analysis

75: Haskell St & W Pine St

06/11/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖		↕		↖	↗	
Traffic Volume (vph)	75	260	35	85	440	380	15	20	60	110	15	55
Future Volume (vph)	75	260	35	85	440	380	15	20	60	110	15	55
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.97		0.99		1.00	0.96	
Flpb, ped/bikes	0.99	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		0.91		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)	1651	1626		1608	1699	1421		1430		1629	1482	
Flt Permitted	0.41	1.00		0.55	1.00	1.00		0.95		0.86	1.00	
Satd. Flow (perm)	721	1626		938	1699	1421		1371		1476	1482	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	86	299	40	98	506	437	17	23	69	126	17	63
RTOR Reduction (vph)	0	5	0	0	0	194	0	52	0	0	48	0
Lane Group Flow (vph)	86	334	0	98	506	243	0	57	0	126	32	0
Confl. Peds. (#/hr)	16		6	6		16	43		1	1		43
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	0%	3%	23%	3%	3%	1%	0%	25%	7%	2%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Actuated Green, G (s)	22.2	22.2		22.2	22.2	22.2		9.7		9.7	9.7	
Effective Green, g (s)	22.2	22.2		22.2	22.2	22.2		9.7		9.7	9.7	
Actuated g/C Ratio	0.56	0.56		0.56	0.56	0.56		0.24		0.24	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)	401	904		521	945	790		333		358	360	
v/s Ratio Prot		0.21			c0.30						0.02	
v/s Ratio Perm	0.12			0.10		0.17		0.04		c0.09		
v/c Ratio	0.21	0.37		0.19	0.54	0.31		0.17		0.35	0.09	
Uniform Delay, d1	4.5	4.9		4.4	5.6	4.7		11.9		12.5	11.7	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.2		0.1	0.5	0.2		0.2		0.4	0.1	
Delay (s)	4.7	5.1		4.5	6.0	4.9		12.1		12.9	11.8	
Level of Service	A	A		A	A	A		B		B	B	
Approach Delay (s)		5.0			5.4			12.1			12.5	
Approach LOS		A			A			B			B	

## Intersection Summary

HCM 2000 Control Delay	6.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	39.9	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

86: Beall Ln & OR 99

06/11/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Volume (vph)	35	85	165	120	125	60	275	920	185	35	540	75
Future Volume (vph)	35	85	165	120	125	60	275	920	185	35	540	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Lane Util. Factor		1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		0.92		1.00	0.95		1.00	0.97		1.00	0.98	
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1533		1662	1636		1630	3111		1568	3078	
Flt Permitted		0.94		0.28	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1450		484	1636		1630	3111		1568	3078	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	37	89	174	126	132	63	289	968	195	37	568	79
RTOR Reduction (vph)	0	49	0	0	17	0	0	12	0	0	9	0
Lane Group Flow (vph)	0	251	0	126	178	0	289	1151	0	37	638	0
Confl. Bikes (#/hr)							1		1			3
Heavy Vehicles (%)	4%	4%	5%	0%	2%	0%	2%	4%	3%	6%	6%	4%
Turn Type	Perm	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases		8		7	4		1	6		5	2	
Permitted Phases	8			4								
Actuated Green, G (s)		21.3		31.5	31.5		21.8	47.8		4.0	30.5	
Effective Green, g (s)		21.3		31.5	31.5		21.8	47.8		4.0	30.5	
Actuated g/C Ratio		0.22		0.33	0.33		0.23	0.49		0.04	0.32	
Clearance Time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Vehicle Extension (s)		2.5		2.5	2.5		2.5	5.2		2.5	5.2	
Lane Grp Cap (vph)		319		226	532		367	1536		64	969	
v/s Ratio Prot				c0.03	0.11		c0.18	c0.37		0.02	0.21	
v/s Ratio Perm		c0.17		0.15								
v/c Ratio		0.79		0.56	0.33		0.79	0.75		0.58	0.66	
Uniform Delay, d1		35.6		25.9	24.7		35.3	19.7		45.6	28.6	
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		11.6		2.4	0.3		10.3	2.5		10.0	2.3	
Delay (s)		47.2		28.2	25.0		45.6	22.2		55.5	30.9	
Level of Service		D		C	C		D	C		E	C	
Approach Delay (s)		47.2			26.3			26.9			32.3	
Approach LOS		D			C			C			C	

## Intersection Summary

HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	96.8	Sum of lost time (s)	18.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 115: Commercial Node/Gebhard Rd & E Pine St

06/11/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↘		↗	↘	
Traffic Volume (vph)	410	1150	15	15	1740	130	10	10	10	190	5	85
Future Volume (vph)	410	1150	15	15	1740	130	10	10	10	190	5	85
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.93		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3104		1662	3197		1662	1619		1630	1474	
Flt Permitted	0.07	1.00		0.16	1.00		0.65	1.00		0.74	1.00	
Satd. Flow (perm)	114	3104		275	3197		1142	1619		1275	1474	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	432	1211	16	16	1832	137	11	11	11	200	5	89
RTOR Reduction (vph)	0	1	0	0	5	0	0	9	0	0	76	0
Lane Group Flow (vph)	432	1226	0	16	1964	0	11	13	0	200	18	0
Heavy Vehicles (%)	2%	7%	0%	0%	3%	2%	0%	0%	0%	2%	0%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	86.5	86.5		62.3	62.3		18.0	18.0		18.0	18.0	
Effective Green, g (s)	86.5	86.5		62.3	62.3		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.72	0.72		0.52	0.52		0.15	0.15		0.15	0.15	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	413	2237		165	1659		171	242		191	221	
v/s Ratio Prot	c0.23	0.40		0.00	c0.61			0.01			0.01	
v/s Ratio Perm	0.53			0.05			0.01			c0.16		
v/c Ratio	1.05	0.55		0.10	1.18		0.06	0.05		1.05	0.08	
Uniform Delay, d1	43.3	7.7		15.5	28.9		43.8	43.7		51.0	43.9	
Progression Factor	0.63	0.16		0.83	0.81		1.00	1.00		1.00	1.00	
Incremental Delay, d2	50.1	0.7		0.2	87.0		0.2	0.1		78.1	0.2	
Delay (s)	77.5	2.0		13.0	110.3		43.9	43.8		129.1	44.1	
Level of Service	E	A		B	F		D	D		F	D	
Approach Delay (s)		21.6			109.5			43.8			101.9	
Approach LOS		C			F			D			F	

Intersection Summary			
HCM 2000 Control Delay	71.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	110.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

**Intersection**

Int Delay, s/veh 2.8

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	Y		P		Y	↑
Traffic Vol, veh/h	95	50	265	50	40	390
Future Vol, veh/h	95	50	265	50	40	390
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	180	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	8	3	3	0	4
Mvmt Flow	100	53	279	53	42	411

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	802	307	0	0	333	0
Stage 1	307	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Critical Hdwy	6.44	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.372	-	-	2.2	-
Pot Cap-1 Maneuve	850	719	-	-	1238	-
Stage 1	742	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuve	838	718	-	-	1237	-
Mov Cap-2 Maneuve	749	-	-	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	587	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s 14.9 0 0.7  
HCM LOS B

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	516	1237	-
HCM Lane V/C Ratio	-	-	0.296	0.034	-
HCM Control Delay (s)	-	-	14.9	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-

**Intersection**

Int Delay, s/veh 8.4

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	195	55	205	110	80	235
Future Vol, veh/h	195	55	205	110	80	235
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	12	3	2	5	2
Mvmt Flow	205	58	216	116	84	247

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	690	275	0	0	333	0
Stage 1	275	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.43	6.32	-	-	4.15	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.408	-	-	2.245	-
Pot Cap-1 Maneuver	109	740	-	-	1210	-
Stage 1	769	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	375	739	-	-	1209	-
Mov Cap-2 Maneuver	375	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	610	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay	26.8	0	2.1
HCM LOS	D		

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	421	1209	-
HCM Lane V/C Ratio	-	-	0.625	0.07	-
HCM Control Delay (s)	-	-	26.8	8.2	0
HCM Lane LOS	-	-	D	A	A
HCM 95th %tile Q(veh)	-	-	4.1	0.2	-

**Intersection**

Int Delay, s/veh 6.7

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	↶	↷	↶			↷
Traffic Vol, veh/h	120	215	55	210	100	10
Future Vol, veh/h	120	215	55	210	100	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	234	60	228	109	11

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	403	174	0	0	288	0
Stage 1	174	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuve	603	869	-	-	1274	-
Stage 1	856	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuve	551	869	-	-	1274	-
Mov Cap-2 Maneuve	551	-	-	-	-	-
Stage 1	856	-	-	-	-	-
Stage 2	739	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay	14.7	0	7.4
HCM LOS	B		

**Minor Lane/Major Mvmt** NBT NBR WBLn1 WBLn2 SBL SBT

Capacity (veh/h)	-	-	551	869	1274	-
HCM Lane V/C Ratio	-	-	0.237	0.269	0.085	-
HCM Control Delay (s)	-	-	13.5	10.7	8.1	0
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.9	1.1	0.3	-

**Intersection**

Int Delay, s/veh 2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	25	85	170	80	60	20
Future Vol, veh/h	25	85	170	80	60	20
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	5	2	1	4	0
Mvmt Flow	27	92	185	87	65	22

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	273	0	0
Stage 1	-	-	230
Stage 2	-	-	146
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	5.44
Critical Hdwy Stg 2	-	-	5.44
Follow-up Hdwy	2.2	-	-3.536
Pot Cap-1 Maneuver	802	-	-
Stage 1	-	-	803
Stage 2	-	-	876
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	801	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	785
Stage 2	-	-	875

Approach	EB	WB	SB
HCM Control Delay, s	4.8	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1301	-	-	-	647
HCM Lane V/C Ratio	0.021	-	-	-	-0.134
HCM Control Delay (s)	7.8	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

**Intersection**

Int Delay, s/veh 6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	30	30	35	50	15	30	15	60	25	15	30
Future Vol, veh/h	10	30	30	35	50	15	30	15	60	25	15	30
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	2	2	2	2	5	2	2	2	0	2	0
Mvmt Flow	11	32	32	37	53	16	32	16	63	26	16	32

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	70	0	0	64
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.19	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.281	-	-	2.218
Pot Cap-1 Maneuver	1487	-	-	1538
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1486	-	-	1538
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	4.1	2.6	10	10.2
HCM LOS			B	B

Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	833	1486	-	-	1538	-	-	762
HCM Lane V/C Ratio	0.133	0.007	-	-	-0.024	-	-	-0.097
HCM Control Delay (s)	10	7.4	0	-	7.4	0	-	10.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0	-	-	0.1	-	-	0.3



**Intersection**

Int Delay, s/veh 6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	15	15	5	60	55	0	40	0	80	50	65
Future Vol, veh/h	10	15	15	5	60	55	0	40	0	80	50	65
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	14	2	8	2	3	0	0	4	2
Mvmt Flow	12	18	18	6	71	65	0	47	0	94	59	76

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	402	333	97	351	371	50	135	0	0	48	0	0
Stage 1	285	285	-	48	48	-	-	-	-	-	-	-
Stage 2	117	48	-	303	323	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.24	6.52	6.28	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.24	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.24	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.626	4.018	3.372	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuve	559	587	959	582	559	1002	1449	-	-	1572	-	-
Stage 1	722	676	-	936	855	-	-	-	-	-	-	-
Stage 2	888	855	-	681	650	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuve	445	548	959	529	522	999	1449	-	-	1571	-	-
Mov Cap-2 Maneuve	445	548	-	529	522	-	-	-	-	-	-	-
Stage 1	722	632	-	935	854	-	-	-	-	-	-	-
Stage 2	760	854	-	608	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	11.8	0	3.1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1449	-	-	611	669	1571	-	-
HCM Lane V/C Ratio	-	-	-	0.077	0.211	0.06	-	-
HCM Control Delay (s)	0	-	-	11.4	11.8	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.8	0.2	-	-

**Intersection**

Int Delay, s/veh 5.1

**Movement** EBL EBR NBL NBT SBT SBR

Lane Configurations	Y				4	1
Traffic Vol, veh/h	50	65	200	175	95	55
Future Vol, veh/h	50	65	200	175	95	55
Conflicting Peds, #/hr	0	1	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	2	2	6	0
Mvmt Flow	53	68	211	184	100	58

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All	738	133	161	0	-	0
Stage 1	132	-	-	-	-	-
Stage 2	606	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.218	-	-	-
Pot Cap-1 Maneuve	888	919	1418	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	822	916	1414	-	-	-
Mov Cap-2 Maneuve	822	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	546	-	-	-	-	-

**Approach** EB NB SB

HCM Control Delay	4.3	4.3	0
HCM LOS	B		

**Minor Lane/Major Mvmt** NBL NBEBLn1 SBT SBR

Capacity (veh/h)	1414	-	508	-	-
HCM Lane V/C Ratio	0.149	-	0.238	-	-
HCM Control Delay (s)	8	0	14.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.9	-	-

**Intersection**

Int Delay, s/veh 4.8

**Movement EBT EBR WBL WBT NBL NBR**

Lane Configurations	↶			↷	↶	↷
Traffic Vol, veh/h	100	25	170	100	10	95
Future Vol, veh/h	100	25	170	100	10	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	8	4	3	0	6
Mvmt Flow	109	27	185	109	11	103

**Major/Minor Major1 Major2 Minor1**

Conflicting Flow All	0	0	136	0	602	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	479	-
Critical Hdwy	-	-	4.14	-	6.4	6.26
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.354
Pot Cap-1 Maneuver	-	-	1436	-	466	917
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	627	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1436	-	402	917
Mov Cap-2 Maneuver	-	-	-	-	402	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	541	-

**Approach EB WB NB**

HCM Control Delay, s 0 5 10.1  
HCM LOS B

**Minor Lane/Major MvmNBLn1 EBT EBR WBL WBT**

Capacity (veh/h)	817	-	-	1436	-
HCM Lane V/C Ratio	0.14	-	-	0.129	-
HCM Control Delay (s)	10.1	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.4	-

**Intersection**

Int Delay, s/veh 4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	20	10	125	5	60	10	120	325	155	30	90	45
Future Vol, veh/h	20	10	125	5	60	10	120	325	155	30	90	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	11	132	5	63	11	126	342	163	32	95	47

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow All	896	940	119	930
Stage 1	183	183	-	676
Stage 2	713	757	-	254
Critical Hdwy	7.12	6.52	6.22	7.12
Critical Hdwy Stg 1	6.12	5.52	-	6.12
Critical Hdwy Stg 2	6.12	5.52	-	6.12
Follow-up Hdwy	3.518	4.018	3.318	3.518
Pot Cap-1 Maneuve	261	264	933	248
Stage 1	819	748	-	443
Stage 2	423	416	-	750
Platoon blocked, %				
Mov Cap-1 Maneuve	190	234	933	188
Mov Cap-2 Maneuve	190	234	-	188
Stage 1	748	726	-	404
Stage 2	322	380	-	616

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	22.7	1.5	1.5
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn	EBLn2	WBLn	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1441	-	-	190	764	188	277	1060	-	-
HCM Lane V/C Ratio	0.088	-	-	0.111	0.186	0.028	0.266	0.03	-	-
HCM Control Delay (s)	7.7	-	-	26.3	10.8	24.7	22.6	8.5	-	-
HCM Lane LOS	A	-	-	D	B	C	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.7	0.1	1	0.1	-	-

**Intersection**

Int Delay, s/veh 7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↑	↗	↘	↗
Traffic Vol, veh/h	80	10	85	90	260	60
Future Vol, veh/h	80	10	85	90	260	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	200	0	100
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	5	5	0	0	0
Mvmt Flow	84	11	89	95	274	63

**Major/Minor**

	Major1	Major2	Minor2
Conflicting Flow All	184	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1403	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1403	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach**

	EB	WB	SB
HCM Control Delay, s	6.9	0	12.5
HCM LOS			B

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1403	-	-	-	708	975
HCM Lane V/C Ratio	0.06	-	-	-	-0.387	0.065
HCM Control Delay (s)	7.7	-	-	-	13.3	8.9
HCM Lane LOS	A	-	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	-	1.8	0.2

**Intersection**

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	
Traffic Vol, veh/h	15	155	225	0	0	95
Future Vol, veh/h	15	155	225	0	0	95
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	163	237	0	0	100

**Major/Minor**

	Major1	Major2	Minor2
Conflicting Flow All	237	0	432
Stage 1	-	-	237
Stage 2	-	-	195
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.318
Pot Cap-1 Maneuver	830	-	802
Stage 1	-	-	802
Stage 2	-	-	838
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	830	-	574
Mov Cap-2 Maneuver	-	-	633
Stage 1	-	-	792
Stage 2	-	-	838

**Approach**

	EB	WB	SB
HCM Control Delay, s	7.7	0	10.1
HCM LOS			B

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1330	-	-	-	802
HCM Lane V/C Ratio	0.012	-	-	-	-0.125
HCM Control Delay (s)	7.7	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

**Intersection**

Int Delay, s/veh 41.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	135	175	5	3	235	180	1	3	1	235	5	165
Future Vol, veh/h	135	175	5	3	235	180	1	3	1	235	5	165
Conflicting Peds, #/hr	35	0	17	17	0	35	2	0	65	65	0	2
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	125	-	-	50	-	-	250	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	0
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	0	0	0	0	2	0	0	0	1	0	2
Mvmt Flow	142	184	5	3	247	189	1	3	1	247	5	174

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	471	0	0	206
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.16	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.254	-	-	2.2
Pot Cap-1 Maneuver	1070	-	-	1377
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1034	-	-	1355
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.9	0.1	21	112.7
HCM LOS			C	F

Minor Lane/Major Mvm	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	158	256	1034	-	-	1355	-	-	202	614
HCM Lane V/C Ratio	0.007	0.016	0.137	-	-	0.002	-	-	1.225	0.291
HCM Control Delay (s)	27.9	19.3	9	-	-	7.7	-	-	184.6	13.3
HCM Lane LOS	D	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	0	0.1	0.5	-	-	0	-	-	12.9	1.2

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	5	125	60	180	155	10	90	10	115	5	0	5
Future Vol, veh/h	5	125	60	180	155	10	90	10	115	5	0	5
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	4	0	0	5	0	0	0	0	0	0	0
Mvmt Flow	5	132	63	189	163	11	95	11	121	5	0	5

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	175	0	0	195
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	14	-	-	1390
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	13	-	-	1390
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	4.2	15.6	15.2
HCM LOS			C	C

Minor Lane/Major Mvm	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	301	764	1413	-	-	1390	-	-	365
HCM Lane V/C Ratio	0.315	0.172	0.004	-	-	0.136	-	-	0.029
HCM Control Delay (s)	22.4	10.7	7.6	0	-	8	0	-	15.2
HCM Lane LOS	C	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.3	0.6	0	-	-	0.5	-	-	0.1



**Intersection**

Intersection Delay, s/veh 13.6  
 Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	25	75	45	100	130	45	65	145	95	30	175	55
Future Vol, veh/h	25	75	45	100	130	45	65	145	95	30	175	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	1	5	0	2	3	3	3	2	6	4	4
Mvmt Flow	26	79	47	105	137	47	68	153	100	32	184	58
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.3	14.1	14.3	13.4
HCM LOS	B	B	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	17%	36%	12%
Vol Thru, %	48%	52%	47%	67%
Vol Right, %	31%	31%	16%	21%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	305	145	275	260
LT Vol	65	25	100	30
Through Vol	145	75	130	175
RT Vol	95	45	45	55
Lane Flow Rate	321	153	289	274
Geometry Grp	1	1	1	1
Degree of Util (X)	0.501	0.26	0.47	0.44
Departure Headway (Hd)	5.617	6.121	5.851	5.784
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	636	591	611	616
Service Time	3.71	4.121	3.944	3.88
HCM Lane V/C Ratio	0.505	0.259	0.473	0.445
HCM Control Delay	14.3	11.3	14.1	13.4
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	2.8	1	2.5	2.2

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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix F

Future Year 2039 No-Build  
SimTraffic Output

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Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:15	4:15	4:15	4:15	4:15	4:15
End Time	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	15916	15977	16108	15709	16067	15944
Vehs Exited	15905	15885	15924	15660	16069	15889
Starting Vehs	1348	1349	1357	1356	1372	1341
Ending Vehs	1359	1441	1541	1405	1370	1398
Travel Distance (mi)	26953	27225	27453	26959	27405	27199
Travel Time (hr)	1824.0	1827.1	1979.3	1972.9	1921.6	1905.0
Total Delay (hr)	1036.3	1030.2	1178.1	1183.7	1119.2	1109.5
Total Stops	35155	37012	37848	36031	37769	36760
Fuel Used (gal)	1108.5	1118.2	1157.6	1138.2	1138.6	1132.2

Interval #0 Information Seeding

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	4277	4259	4270	4299	4339	4280
Vehs Exited	4178	4165	4201	4133	4194	4175
Starting Vehs	1348	1349	1357	1356	1372	1341
Ending Vehs	1447	1443	1426	1522	1517	1458
Travel Distance (mi)	7102	7083	7113	6947	7129	7075
Travel Time (hr)	387.7	380.0	402.3	386.4	411.2	393.5
Total Delay (hr)	179.7	172.2	194.8	182.5	202.4	186.3
Total Stops	9281	9433	9475	9395	10073	9527
Fuel Used (gal)	270.5	269.5	274.3	266.5	275.7	271.3

Interval #2 Information Recording

Start Time	4:45
End Time	5:30
Total Time (min)	45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	11639	11718	11838	11410	11728	11667
Vehs Exited	11727	11720	11723	11527	11875	11719
Starting Vehs	1447	1443	1426	1522	1517	1458
Ending Vehs	1359	1441	1541	1405	1370	1398
Travel Distance (mi)	19851	20142	20339	20012	20276	20124
Travel Time (hr)	1436.3	1447.1	1577.0	1586.4	1510.4	1511.4
Total Delay (hr)	856.6	858.0	983.3	1001.2	916.8	923.2
Total Stops	25874	27579	28373	26636	27696	27225
Fuel Used (gal)	838.0	848.8	883.3	871.7	862.8	860.9

Intersection: 5: I-5 NB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R	R
Maximum Queue (ft)	201	216	195	325	317	294	277	272	266	187
Average Queue (ft)	82	67	71	175	137	148	159	154	106	30
95th Queue (ft)	158	163	161	298	260	277	245	231	253	141
Link Distance (ft)		1265	1265	468	468	468		801		
Upstream Blk Time (%)						0				
Queuing Penalty (veh)						0				
Storage Bay Dist (ft)	250						380		375	375
Storage Blk Time (%)	0	0								
Queuing Penalty (veh)	1	0								

Intersection: 10: I-5 SB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LT	R
Maximum Queue (ft)	246	219	185	210	262	514	491	327	388	175
Average Queue (ft)	98	80	45	113	152	203	174	178	234	126
95th Queue (ft)	230	202	130	174	298	570	525	289	362	213
Link Distance (ft)	715	715	715			1265	1265		951	
Upstream Blk Time (%)						0	0			
Queuing Penalty (veh)						2	2			
Storage Bay Dist (ft)				375	375			550		100
Storage Blk Time (%)						5			37	9
Queuing Penalty (veh)						15			143	35

Intersection: 20: OR 99 & Twin Creeks

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	101	89	236	196	182	193	184	83
Average Queue (ft)	41	41	112	85	70	86	78	34
95th Queue (ft)	85	75	193	177	156	151	144	66
Link Distance (ft)		461		3266	3266	2949	2949	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	500		500					250
Storage Blk Time (%)							0	
Queuing Penalty (veh)							0	

Intersection: 25: OR 99 & Scenic Ave

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	211	261	209	474	273	118	213	52
Average Queue (ft)	75	141	21	201	22	42	86	23
95th Queue (ft)	160	241	104	393	146	93	173	46
Link Distance (ft)	763	2023		528			3072	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				1				
Storage Bay Dist (ft)			350		200	325		200
Storage Blk Time (%)				10			0	
Queuing Penalty (veh)				12			1	

Intersection: 30: OR 99 & W Pine St

Movement	EB	EB	EB	WB	WB	WB	B83	B83	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	T	T	L	T	TR	L
Maximum Queue (ft)	199	133	158	267	354	362	402	394	346	371	384	277
Average Queue (ft)	91	63	77	174	264	264	109	101	182	198	222	168
95th Queue (ft)	181	114	138	328	397	399	415	396	299	310	331	272
Link Distance (ft)		526	526		268	268	2497	2497		4922	4922	
Upstream Blk Time (%)				0	30	34						
Queuing Penalty (veh)				0	148	164						
Storage Bay Dist (ft)	375			200					300			300
Storage Blk Time (%)				1	47				1	1		1
Queuing Penalty (veh)				4	94				3	2		1

Intersection: 30: OR 99 & W Pine St

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	224	233	197
Average Queue (ft)	109	114	56
95th Queue (ft)	194	184	129
Link Distance (ft)	3266	3266	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)	0	3	0
Queuing Penalty (veh)	0	3	0

Intersection: 35: Upton Rd & Peninger Rd

Movement	WB	NB	SB
Directions Served	LR	TR	L
Maximum Queue (ft)	127	4	34
Average Queue (ft)	52	0	8
95th Queue (ft)	99	3	29
Link Distance (ft)	4545	1094	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			180
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 40: Upton Rd & Wilson Rd

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	201	10	81
Average Queue (ft)	77	0	25
95th Queue (ft)	146	5	65
Link Distance (ft)	2386	1355	442
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 45: Table Rock Rd & Wilson Rd

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LR	L	T	T	T	TR
Maximum Queue (ft)	197	93	157	183	287	237
Average Queue (ft)	96	39	54	69	94	80
95th Queue (ft)	161	77	125	140	192	163
Link Distance (ft)	3872		2476	2476	423	423
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)		525				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 50: Table Rock Rd & Biddle Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	
Directions Served	L	T	T	R	L	T	T	T	R	L	T	TR	
Maximum Queue (ft)	273	161	167	86	143	231	249	205	208	278	183	217	
Average Queue (ft)	146	78	92	15	31	145	154	106	80	132	104	123	
95th Queue (ft)	254	141	154	60	85	213	228	190	156	224	168	196	
Link Distance (ft)		1125	1125			3491	3491	3491			982	982	
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)	550			275	150				200	250			
Storage Blk Time (%)						9	0			0	1		
Queuing Penalty (veh)						5	0			1	2		

Intersection: 50: Table Rock Rd & Biddle Rd

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	314	380	403
Average Queue (ft)	128	210	255
95th Queue (ft)	233	337	384
Link Distance (ft)		3552	3552
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)	0	5	
Queuing Penalty (veh)	1	10	



Intersection: 55: Table Rock Rd & Vilas Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	298	451	243	255	461	259	105	259	318	276	252	277
Average Queue (ft)	112	206	124	142	224	85	43	156	167	97	122	145
95th Queue (ft)	227	368	196	211	380	220	88	245	263	213	222	249
Link Distance (ft)		1241		7829	7829			276	276			2476
Upstream Blk Time (%)								0	1	0		
Queuing Penalty (veh)								0	2	0		
Storage Bay Dist (ft)	250		200			200	225			225	225	
Storage Blk Time (%)	0	5	1	1	11	0		1	3	0	2	1
Queuing Penalty (veh)	2	10	2	3	25	0		1	8	1	5	2

Intersection: 55: Table Rock Rd & Vilas Rd

Movement	SB
Directions Served	TR
Maximum Queue (ft)	306
Average Queue (ft)	167
95th Queue (ft)	270
Link Distance (ft)	2476
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 60: Hamrick Rd & E Pine St

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	L	TR	L	T
Maximum Queue (ft)	234	194	148	185	474	787	800	460	467	527	85	509
Average Queue (ft)	125	90	60	85	108	615	639	365	382	341	25	92
95th Queue (ft)	196	163	115	151	422	958	962	547	554	676	62	385
Link Distance (ft)			652	652		792	792			468		1370
Upstream Blk Time (%)						9	12	1	11	33		
Queuing Penalty (veh)						50	66	0	0	138		
Storage Bay Dist (ft)	500	500			400			450	450		200	
Storage Blk Time (%)					0	51		5	19	33		
Queuing Penalty (veh)					0	8		4	13	119		

Intersection: 60: Hamrick Rd & E Pine St

Movement	SB
Directions Served	R
Maximum Queue (ft)	375
Average Queue (ft)	258
95th Queue (ft)	405
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	12
Queuing Penalty (veh)	5

Intersection: 65: Hamrick Rd & Beebe Rd

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	R	L	T	R
Maximum Queue (ft)	109	41	36	55	30	179	29	56	180	88
Average Queue (ft)	54	10	8	18	2	66	5	19	72	15
95th Queue (ft)	93	29	29	40	15	143	22	49	144	56
Link Distance (ft)		1210		658		1370	1370		1372	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	100		125		250			250		80
Storage Blk Time (%)	0	0							3	
Queuing Penalty (veh)	0	0							3	

Intersection: 70: Peninger Rd & E Pine St

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	R	L	T	T	T	R	L	R	R
Maximum Queue (ft)	454	439	224	93	95	79	143	50	249	521	218
Average Queue (ft)	204	149	37	32	29	24	46	2	185	132	109
95th Queue (ft)	360	298	113	71	74	59	110	26	281	416	190
Link Distance (ft)	468	468			1091	1091	1091			1036	551
Upstream Blk Time (%)	0	0									
Queuing Penalty (veh)	1	0									
Storage Bay Dist (ft)			230	225				50	175		
Storage Blk Time (%)		1					9		29	0	
Queuing Penalty (veh)		2					15		17	0	

Intersection: 74: Haskell St & Twin Creeks

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	LT
Maximum Queue (ft)	81	98	14	54
Average Queue (ft)	40	49	1	15
95th Queue (ft)	70	83	6	39
Link Distance (ft)	461	461	156	148
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 75: Haskell St & W Pine St

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	L	TR
Maximum Queue (ft)	131	179	146	237	151	83	124	49
Average Queue (ft)	45	74	42	115	65	33	44	18
95th Queue (ft)	95	140	99	203	111	66	91	41
Link Distance (ft)		3017		526		1871	1109	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	125		125		250			150
Storage Blk Time (%)	0	1	0	5			0	
Queuing Penalty (veh)	0	1	0	22			0	

Intersection: 80: Hanley Rd & Beall Ln

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	85	117	106	126
Average Queue (ft)	37	63	55	53
95th Queue (ft)	60	101	89	93
Link Distance (ft)	334	5926	867	2121
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 85: Beall Ln & Grant Rd

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	58	64
Average Queue (ft)	8	29
95th Queue (ft)	33	50
Link Distance (ft)	3231	3008
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 86: Beall Ln & OR 99

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	250	117	153	296	323	324	77	246	247
Average Queue (ft)	119	42	57	151	171	174	14	112	129
95th Queue (ft)	214	90	121	258	295	297	49	208	218
Link Distance (ft)	5926		3932		995	995		4922	4922
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		50		225			225		
Storage Blk Time (%)		7	13	2	3			0	
Queuing Penalty (veh)		13	16	9	8			0	

Intersection: 95: S Grant Rd/N Grant Rd & Taylor Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	16	26	59	46
Average Queue (ft)	1	2	31	23
95th Queue (ft)	7	16	51	36
Link Distance (ft)	1713	3254	1532	2116
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 100: N Grant Rd & Twin Creeks Crossing

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	44	82	40
Average Queue (ft)	22	28	4
95th Queue (ft)	44	56	22
Link Distance (ft)	504	710	384
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 105: Haskell St & Taylor Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	80	81	13
Average Queue (ft)	21	26	1
95th Queue (ft)	50	65	6
Link Distance (ft)	3254	1109	1903
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 110: Grant Rd & Scenic Ave

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	4	57	76
Average Queue (ft)	0	15	34
95th Queue (ft)	3	44	58
Link Distance (ft)	1048	763	2553
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 115: Commercial Node/Gebhard Rd & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	518	460	286	150	690	690	54	56	275	203
Average Queue (ft)	330	86	46	20	622	636	12	14	153	55
95th Queue (ft)	541	354	174	86	756	747	38	42	257	150
Link Distance (ft)		1091	1091		652	652		232		1474
Upstream Blk Time (%)					4	7				
Queuing Penalty (veh)					39	65				
Storage Bay Dist (ft)	500			100			50		250	
Storage Blk Time (%)	4	0			43		1	2	3	0
Queuing Penalty (veh)	20	1			6		0	0	2	0

Intersection: 120: Gebhard Rd & Beebe Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	40	74	30	66	55	21	46	13
Average Queue (ft)	14	38	3	34	14	1	11	1
95th Queue (ft)	40	61	18	57	44	8	37	6
Link Distance (ft)		448		1210		1474		303
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		100	
Storage Blk Time (%)		0					0	
Queuing Penalty (veh)		0					0	

Intersection: 125: Peninger Rd & Beebe Rd

Movement	EB	WB	SB	SB
Directions Served	L	R	L	R
Maximum Queue (ft)	52	13	104	41
Average Queue (ft)	13	0	46	15
95th Queue (ft)	40	5	83	28
Link Distance (ft)			305	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	100	200		100
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Intersection: 126: Beebe Rd & Local Gebhard

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	25	57
Average Queue (ft)	2	34
95th Queue (ft)	16	57
Link Distance (ft)		377
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 127: Local Gebhard/Gebhard Rd

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	38	12	66
Average Queue (ft)	2	1	7
95th Queue (ft)	16	7	37
Link Distance (ft)	589	282	4253
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 130: Scenic Ave & Upton Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	96	49	10	125	20	30	249	99
Average Queue (ft)	41	7	1	29	1	5	111	48
95th Queue (ft)	83	33	6	83	8	24	205	82
Link Distance (ft)		1315		487		177		1094
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	125		125		50		250	
Storage Blk Time (%)	0			0			1	
Queuing Penalty (veh)	0			0			2	

Intersection: 135: Gebhard Rd & Wilson Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	16	76	80	67	46
Average Queue (ft)	1	27	33	35	10
95th Queue (ft)	10	62	61	58	36
Link Distance (ft)	2386	3872		4253	333
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100		
Storage Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	

Zone Summary

Zone wide Queuing Penalty: 1363



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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix G























Future Year 2039 Build  
Synchro Output

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# HCM Signalized Intersection Capacity Analysis

## 5: I-5 NB Ramps & E Pine St

07/30/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 				 			
Traffic Volume (vph)	140	1230	0	0	1540	740	535	0	570	0	0	0
Future Volume (vph)	140	1230	0	0	1540	740	535	0	570	0	0	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Lane Util. Factor	1.00	0.95			0.95	1.00	0.95	0.95	0.88			
Frbp, ped/bikes	1.00	1.00			1.00	0.96	1.00	1.00	0.97			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	1.00	1.00	1.00			
Frt	1.00	1.00			1.00	0.85	1.00	1.00	0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (prot)	1583	3079			3167	1237	1564	1564	2181			
Flt Permitted	0.08	1.00			1.00	1.00	0.95	0.95	1.00			
Satd. Flow (perm)	127	3079			3167	1237	1564	1564	2181			
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	141	1242	0	0	1556	747	540	0	576	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	285	0	0	126	0	0	0
Lane Group Flow (vph)	141	1242	0	0	1556	462	270	270	450	0	0	0
Confl. Peds. (#/hr)	9					9			1	1		
Confl. Bikes (#/hr)						3			2			
Heavy Vehicles (%)	5%	8%	0%	0%	5%	15%	1%	100%	17%	0%	0%	0%
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2					6	8		8			
Actuated Green, G (s)	83.3	83.3			68.1	68.1	27.7	27.7	27.7			
Effective Green, g (s)	83.3	83.3			68.1	68.1	27.7	27.7	27.7			
Actuated g/C Ratio	0.69	0.69			0.57	0.57	0.23	0.23	0.23			
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5	4.5	4.5			
Vehicle Extension (s)	2.5	4.6			4.6	4.6	2.5	2.5	2.5			
Lane Grp Cap (vph)	217	2137			1797	701	361	361	503			
v/s Ratio Prot	0.06	c0.40			c0.49							
v/s Ratio Perm	0.39					0.37	0.17	0.17	c0.21			
v/c Ratio	0.65	0.58			0.87	0.66	0.75	0.75	0.89			
Uniform Delay, d1	35.3	9.4			22.1	17.9	42.9	42.9	44.7			
Progression Factor	1.33	1.55			0.74	0.51	1.00	1.00	1.00			
Incremental Delay, d2	4.8	0.9			4.7	3.8	7.8	7.8	18.0			
Delay (s)	51.7	15.6			21.1	12.9	50.7	50.7	62.8			
Level of Service	D	B			C	B	D	D	E			
Approach Delay (s)		19.3			18.4			56.9			0.0	
Approach LOS		B			B			E			A	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			27.6									HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			120.0									Sum of lost time (s) 13.5
Intersection Capacity Utilization			86.7%									ICU Level of Service E
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

## 10: I-5 SB Ramps & E Pine St

07/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑	↑
Traffic Volume (vph)	0	965	485	345	1730	0	0	0	0	405	0	240
Future Volume (vph)	0	965	485	345	1730	0	0	0	0	405	0	240
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0	4.0	4.0	4.0					4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	0.97	0.95					0.95	0.95	1.00
Frbp, ped/bikes		1.00	0.99	1.00	1.00					1.00	1.00	0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00					1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00					1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (prot)		3228	1439	2854	3260					1264	1264	1411
Flt Permitted		1.00	1.00	0.95	1.00					0.95	0.95	1.00
Satd. Flow (perm)		3228	1439	2854	3260					1264	1264	1411
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	995	500	356	1784	0	0	0	0	418	0	247
RTOR Reduction (vph)	0	0	236	0	0	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	995	264	356	1784	0	0	0	0	209	209	203
Confl. Peds. (#/hr)	2		1	1		2	1					1
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	0%	3%	2%	13%	2%	0%	0%	0%	0%	25%	0%	4%
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Actuated Green, G (s)		62.9	62.9	19.1	86.5					24.5	24.5	24.5
Effective Green, g (s)		63.4	63.4	19.6	87.0					25.0	25.0	25.0
Actuated g/C Ratio		0.53	0.53	0.16	0.72					0.21	0.21	0.21
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Vehicle Extension (s)		4.6	4.6	2.5	4.6					2.5	2.5	2.5
Lane Grp Cap (vph)		1705	760	466	2363					263	263	293
v/s Ratio Prot		0.31		0.12	c0.55							
v/s Ratio Perm			0.18							c0.17	0.17	0.14
v/c Ratio		0.58	0.35	0.76	0.75					0.79	0.79	0.69
Uniform Delay, d1		19.3	16.4	48.0	10.0					45.1	45.1	44.0
Progression Factor		1.00	1.00	0.91	1.20					1.00	1.00	1.00
Incremental Delay, d2		1.5	1.3	4.1	1.3					14.7	14.7	6.4
Delay (s)		20.8	17.6	47.7	13.4					59.8	59.8	50.4
Level of Service		C	B	D	B					E	E	D
Approach Delay (s)		19.7			19.1			0.0			56.3	
Approach LOS		B			B			A			E	

### Intersection Summary

HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	86.7%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
 20: OR 99 & Twin Creeks

07/30/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	145	310	400	590	435	175
Future Volume (vph)	145	310	400	590	435	175
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	0.96	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1662	1393	1662	3197	3167	1488
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1662	1393	1662	3197	3167	1488
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	153	326	421	621	458	184
RTOR Reduction (vph)	0	268	0	0	0	131
Lane Group Flow (vph)	153	58	421	621	458	53
Confl. Peds. (#/hr)		42				
Confl. Bikes (#/hr)		2				
Heavy Vehicles (%)	0%	3%	0%	4%	5%	0%
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	8		1	6	2	
Permitted Phases		8				2
Actuated Green, G (s)	10.5	10.5	18.2	39.1	16.9	16.9
Effective Green, g (s)	10.5	10.5	18.2	39.1	16.9	16.9
Actuated g/C Ratio	0.18	0.18	0.31	0.67	0.29	0.29
Clearance Time (s)	4.0	4.0	4.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	5.2	5.2	5.2
Lane Grp Cap (vph)	297	249	516	2133	913	429
v/s Ratio Prot	c0.09		c0.25	0.19	c0.14	
v/s Ratio Perm		0.04				0.04
v/c Ratio	0.52	0.23	0.82	0.29	0.50	0.12
Uniform Delay, d1	21.7	20.6	18.7	4.0	17.3	15.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	0.4	9.4	0.2	1.0	0.3
Delay (s)	22.9	21.0	28.1	4.2	18.3	15.7
Level of Service	C	C	C	A	B	B
Approach Delay (s)	21.6			13.8	17.6	
Approach LOS	C			B	B	

Intersection Summary

HCM 2000 Control Delay	16.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	58.6	Sum of lost time (s)	13.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

25: OR 99 & Scenic Ave

07/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↖	↗	↖	↖	↗
Traffic Volume (vph)	95	75	35	85	155	175	35	565	95	200	430	200
Future Volume (vph)	95	75	35	85	155	175	35	565	95	200	430	200
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0			4.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Util. Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.98			0.94		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1618			1566		1498	1667	1473	1583	1606	1488
Flt Permitted		0.59			0.89		0.43	1.00	1.00	0.19	1.00	1.00
Satd. Flow (perm)		973			1406		671	1667	1473	319	1606	1488
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	100	79	37	89	163	184	37	595	100	211	453	211
RTOR Reduction (vph)	0	8	0	0	29	0	0	0	52	0	0	109
Lane Group Flow (vph)	0	208	0	0	407	0	37	595	48	211	453	102
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	5%	2%	0%	2%	6%	4%	11%	5%	1%	5%	9%	0%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6		6	2		2
Actuated Green, G (s)		28.8			28.8		40.1	37.2	37.2	48.5	41.6	41.6
Effective Green, g (s)		28.8			28.8		40.1	37.2	37.2	48.5	41.6	41.6
Actuated g/C Ratio		0.33			0.33		0.46	0.43	0.43	0.56	0.48	0.48
Clearance Time (s)		4.0			4.0		4.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)		2.5			2.5		2.5	5.2	5.2	2.5	5.2	5.2
Lane Grp Cap (vph)		324			469		339	718	634	286	774	717
v/s Ratio Prot							0.00	c0.36		c0.06	0.28	
v/s Ratio Perm		0.21			c0.29		0.05		0.03	0.35		0.07
v/c Ratio		0.64			0.87		0.11	0.83	0.08	0.74	0.59	0.14
Uniform Delay, d1		24.4			27.0		12.9	21.7	14.4	13.9	16.1	12.4
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		3.8			15.3		0.1	8.8	0.1	9.0	1.8	0.2
Delay (s)		28.2			42.3		13.0	30.6	14.6	23.0	18.0	12.6
Level of Service		C			D		B	C	B	C	B	B
Approach Delay (s)		28.2			42.3			27.5			17.9	
Approach LOS		C			D			C			B	

Intersection Summary			
HCM 2000 Control Delay	26.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	86.3	Sum of lost time (s)	13.0
Intersection Capacity Utilization	82.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

# HCM Signalized Intersection Capacity Analysis

30: OR 99 & W Pine St

07/30/2020

















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↗	↕		↖	↕	↗
Traffic Volume (vph)	125	280	80	205	650	200	260	715	190	255	415	160
Future Volume (vph)	125	280	80	205	650	200	260	715	190	255	415	160
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	5.0		4.0	5.0	5.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.96		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1614	3146		1644	3137		1646	3139		1646	3107	1352
Flt Permitted	0.11	1.00		0.44	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	194	3146		765	3137		1646	3139		1646	3107	1352
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	130	292	83	214	677	208	271	745	198	266	432	167
RTOR Reduction (vph)	0	22	0	0	25	0	0	20	0	0	0	114
Lane Group Flow (vph)	130	353	0	214	860	0	271	923	0	266	432	53
Confl. Peds. (#/hr)	6		5	5		6						
Confl. Bikes (#/hr)			1			2						
Heavy Vehicles (%)	3%	2%	1%	1%	2%	1%	1%	3%	1%	1%	7%	10%
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8								6
Actuated Green, G (s)	42.2	35.0		41.4	34.6		21.1	37.6		20.4	36.9	36.9
Effective Green, g (s)	42.2	35.0		41.4	34.6		21.1	37.6		20.4	36.9	36.9
Actuated g/C Ratio	0.36	0.30		0.35	0.30		0.18	0.32		0.17	0.32	0.32
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	5.0		4.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	5.2		2.5	5.2	5.2
Lane Grp Cap (vph)	157	942		322	929		297	1010		287	981	427
v/s Ratio Prot	c0.05	0.11		0.04	c0.27		c0.16	c0.29		0.16	0.14	
v/s Ratio Perm	0.25			0.20								0.04
v/c Ratio	0.83	0.38		0.66	0.93		0.91	0.91		0.93	0.44	0.12
Uniform Delay, d1	29.2	32.3		30.7	39.9		46.9	38.0		47.5	31.7	28.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	28.2	0.2		4.6	14.7		30.5	13.0		34.1	0.7	0.3
Delay (s)	57.4	32.5		35.3	54.6		77.4	51.1		81.5	32.5	28.7
Level of Service	E	C		D	D		E	D		F	C	C
Approach Delay (s)		38.9			50.8			57.0			46.8	
Approach LOS		D			D			E			D	

## Intersection Summary

HCM 2000 Control Delay	50.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	116.8	Sum of lost time (s)	17.0
Intersection Capacity Utilization	91.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
45: Table Rock Rd & Wilson Rd

07/30/2020

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				 	 	 
Traffic Volume (vph)	165	145	165	950	705	310
Future Volume (vph)	165	145	165	950	705	310
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0		4.0	5.0	5.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frbp, ped/bikes	1.00		1.00	1.00	0.99	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	
Frt	0.94		1.00	1.00	0.95	
Flt Protected	0.97		0.95	1.00	1.00	
Satd. Flow (prot)	1513		1471	3107	3001	
Flt Permitted	0.97		0.13	1.00	1.00	
Satd. Flow (perm)	1513		207	3107	3001	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	174	153	174	1000	742	326
RTOR Reduction (vph)	41	0	0	0	52	0
Lane Group Flow (vph)	286	0	174	1000	1016	0
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	6%	5%	13%	7%	5%	5%
Turn Type	Prot		pm+pt	NA	NA	
Protected Phases	4		5	2	6	
Permitted Phases			2			
Actuated Green, G (s)	18.2		42.1	42.1	29.8	
Effective Green, g (s)	18.2		42.1	42.1	29.8	
Actuated g/C Ratio	0.26		0.61	0.61	0.43	
Clearance Time (s)	4.0		4.0	5.0	5.0	
Vehicle Extension (s)	2.5		2.5	4.2	4.2	
Lane Grp Cap (vph)	397		277	1887	1290	
v/s Ratio Prot	c0.19		c0.08	0.32	c0.34	
v/s Ratio Perm			0.31			
v/c Ratio	0.72		0.63	0.53	0.79	
Uniform Delay, d1	23.2		9.6	7.9	17.0	
Progression Factor	1.00		1.00	1.00	1.00	
Incremental Delay, d2	5.7		3.8	0.4	3.5	
Delay (s)	29.0		13.4	8.3	20.5	
Level of Service	C		B	A	C	
Approach Delay (s)	29.0			9.0	20.5	
Approach LOS	C			A	C	
<b>Intersection Summary</b>						
HCM 2000 Control Delay			16.4		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.74			
Actuated Cycle Length (s)			69.3		Sum of lost time (s)	13.0
Intersection Capacity Utilization			72.3%		ICU Level of Service	C
Analysis Period (min)			15			
c Critical Lane Group						

# HCM Signalized Intersection Capacity Analysis

## 50: Table Rock Rd & Biddle Rd

07/30/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	550	150	55	900	345	265	500	20	220	700	200
Future Volume (vph)	190	550	150	55	900	345	265	500	20	220	700	200
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1397	3260	1409	1662	4730	1430	1630	3154		1614	3054	
Flt Permitted	0.95	1.00	1.00	0.43	1.00	1.00	0.09	1.00		0.39	1.00	
Satd. Flow (perm)	1397	3260	1409	759	4730	1430	154	3154		668	3054	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	200	579	158	58	947	363	279	526	21	232	737	211
RTOR Reduction (vph)	0	0	101	0	0	250	0	2	0	0	19	0
Lane Group Flow (vph)	200	579	57	58	947	113	279	545	0	232	929	0
Confl. Peds. (#/hr)			1	1			3					3
Confl. Bikes (#/hr)			1									3
Heavy Vehicles (%)	19%	2%	4%	0%	1%	4%	2%	5%	0%	3%	3%	11%
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2	6		6	8			4		
Actuated Green, G (s)	20.5	47.3	47.3	33.0	29.9	29.9	65.7	47.2		56.7	42.2	
Effective Green, g (s)	20.5	47.3	47.3	33.0	29.9	29.9	65.7	47.2		56.7	42.2	
Actuated g/C Ratio	0.16	0.36	0.36	0.25	0.23	0.23	0.50	0.36		0.43	0.32	
Clearance Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Vehicle Extension (s)	1.5	4.6	4.6	1.5	3.8	3.8	1.5	3.5		1.5	3.5	
Lane Grp Cap (vph)	216	1167	504	210	1070	323	294	1126		390	975	
v/s Ratio Prot	c0.14	0.18		0.01	c0.20		c0.14	0.17		0.07	0.30	
v/s Ratio Perm			0.04	0.06		0.08	c0.33			0.19		
v/c Ratio	0.93	0.50	0.11	0.28	0.89	0.35	0.95	0.48		0.59	0.95	
Uniform Delay, d1	55.1	33.1	28.4	38.5	49.4	42.9	39.8	33.0		25.3	44.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	40.3	0.6	0.2	0.3	9.1	0.9	38.2	0.4		1.6	18.5	
Delay (s)	95.4	33.7	28.5	38.8	58.6	43.8	78.0	33.4		26.9	62.5	
Level of Service	F	C	C	D	E	D	E	C		C	E	
Approach Delay (s)		46.0			53.8			48.4			55.5	
Approach LOS		D			D			D			E	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	51.5			HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio	0.95											
Actuated Cycle Length (s)	132.1			Sum of lost time (s)				20.0				
Intersection Capacity Utilization	90.9%			ICU Level of Service				E				
Analysis Period (min)	15											
c Critical Lane Group												



# HCM Signalized Intersection Capacity Analysis

## 55: Table Rock Rd & Vilas Rd






















07/30/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	215	370	45	460	565	280	70	605	325	210	525	185
Future Volume (vph)	215	370	45	460	565	280	70	605	325	210	525	185
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	3.0	5.0		3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	
Lane Util. Factor	1.00	1.00		0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1568	1581		3043	1667	1409	1646	3107	1352	1554	3001	
Flt Permitted	0.18	1.00		0.95	1.00	1.00	0.29	1.00	1.00	0.17	1.00	
Satd. Flow (perm)	304	1581		3043	1667	1409	498	3107	1352	271	3001	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	226	389	47	484	595	295	74	637	342	221	553	195
RTOR Reduction (vph)	0	3	0	0	0	170	0	0	262	0	29	0
Lane Group Flow (vph)	226	433	0	484	595	125	74	637	80	221	719	0
Confl. Peds. (#/hr)	2					2						
Heavy Vehicles (%)	6%	10%	0%	6%	5%	4%	1%	7%	10%	7%	7%	5%
Turn Type	pm+pt	NA		Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4					8	2		2	6		
Actuated Green, G (s)	44.4	33.0		19.9	41.5	41.5	29.0	25.3	25.3	41.8	35.1	
Effective Green, g (s)	44.4	33.0		19.9	41.5	41.5	29.0	25.3	25.3	41.8	35.1	
Actuated g/C Ratio	0.41	0.31		0.18	0.39	0.39	0.27	0.23	0.23	0.39	0.33	
Clearance Time (s)	3.0	5.0		3.0	5.0	5.0	3.0	5.0	5.0	3.0	5.0	
Vehicle Extension (s)	1.0	1.0		1.0	1.0	1.0	1.0	2.5	2.5	1.0	2.5	
Lane Grp Cap (vph)	259	484		562	642	542	173	729	317	266	978	
v/s Ratio Prot	0.09	0.27		c0.16	c0.36		0.01	0.20		c0.10	0.24	
v/s Ratio Perm	0.27					0.09	0.10		0.06	c0.22		
v/c Ratio	0.87	0.89		0.86	0.93	0.23	0.43	0.87	0.25	0.83	0.74	
Uniform Delay, d1	24.2	35.7		42.6	31.6	22.3	30.3	39.7	33.5	25.5	32.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	25.3	18.2		12.4	19.2	0.1	0.6	11.2	0.3	18.5	2.7	
Delay (s)	49.5	53.8		55.0	50.8	22.4	30.9	50.9	33.8	44.0	34.9	
Level of Service	D	D		D	D	C	C	D	C	D	C	
Approach Delay (s)		52.4			46.2			43.9			37.0	
Approach LOS		D			D			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	44.4			HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio	0.92											
Actuated Cycle Length (s)	107.7			Sum of lost time (s)				16.0				
Intersection Capacity Utilization	91.0%			ICU Level of Service				F				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

60: Hamrick Rd & E Pine St























07/30/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	375	845	250	15	1355	50	465	60	20	30	15	470
Future Volume (vph)	375	845	250	15	1355	50	465	60	20	30	15	470
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0		4.0	5.0		4.5	4.5		4.5	4.5	4.0
Lane Util. Factor	0.97	0.95		1.00	0.95		0.97	1.00		1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.99		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	2986	2977		1662	3181		3125	1623		1662	1549	1420
Flt Permitted	0.95	1.00		0.15	1.00		0.75	1.00		0.70	1.00	1.00
Satd. Flow (perm)	2986	2977		270	3181		2457	1623		1228	1549	1420
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	395	889	263	16	1426	53	489	63	21	32	16	495
RTOR Reduction (vph)	0	20	0	0	2	0	0	10	0	0	0	32
Lane Group Flow (vph)	395	1132	0	16	1477	0	489	74	0	32	16	463
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	8%	6%	12%	0%	4%	3%	3%	5%	0%	0%	13%	4%
Turn Type	Prot	NA		pm+pt	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases				6			8			4	4	4
Actuated Green, G (s)	22.6	77.6		56.6	56.6		27.3	27.3		27.3	27.3	49.9
Effective Green, g (s)	22.6	77.6		56.6	56.6		27.3	27.3		27.3	27.3	49.9
Actuated g/C Ratio	0.19	0.65		0.47	0.47		0.23	0.23		0.23	0.23	0.42
Clearance Time (s)	4.0	5.0		4.0	5.0		4.5	4.5		4.5	4.5	4.0
Vehicle Extension (s)	2.5	4.3		2.5	4.0		2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	562	1925		145	1500		558	369		279	352	637
v/s Ratio Prot	0.13	0.38		0.00	c0.46		0.05	0.05		0.01	0.01	c0.14
v/s Ratio Perm				0.05			c0.20			0.03		0.19
v/c Ratio	0.70	0.59		0.11	0.98		0.88	0.20		0.11	0.05	0.73
Uniform Delay, d1	45.6	12.1		18.7	31.3		44.7	37.5		36.8	36.2	29.3
Progression Factor	0.83	0.60		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	0.8		0.2	19.9		14.3	0.2		0.1	0.0	3.9
Delay (s)	40.0	8.1		19.0	51.1		59.0	37.7		36.9	36.2	33.2
Level of Service	D	A		B	D		E	D		D	D	C
Approach Delay (s)		16.3			50.8			55.9			33.5	
Approach LOS		B			D			E			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			36.4				HCM 2000 Level of Service			D		
HCM 2000 Volume to Capacity ratio			0.91									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			13.5		
Intersection Capacity Utilization			99.8%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

65: Hamrick Rd & Beebe Rd

07/30/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	190	5	30	10	5	35	15	510	20	40	545	75
Future Volume (vph)	190	5	30	10	5	35	15	510	20	40	545	75
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	5.0		4.5	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.87		1.00	0.87		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1662	1523		1662	1519		1598	1683	1488	1662	1683	1454
Flt Permitted	0.44	1.00		0.89	1.00		0.35	1.00	1.00	0.32	1.00	1.00
Satd. Flow (perm)	778	1523		1556	1519		582	1683	1488	553	1683	1454
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	200	5	32	11	5	37	16	537	21	42	574	79
RTOR Reduction (vph)	0	27	0	0	34	0	0	0	11	0	0	38
Lane Group Flow (vph)	200	10	0	11	8	0	16	537	10	42	574	41
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)												1
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	4%	4%	0%	0%	4%	0%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		4
Actuated Green, G (s)	14.7	9.4		5.3	4.5		31.3	30.4	30.4	35.1	32.3	32.3
Effective Green, g (s)	14.7	9.4		5.3	4.5		31.3	30.4	30.4	35.1	32.3	32.3
Actuated g/C Ratio	0.24	0.15		0.09	0.07		0.51	0.49	0.49	0.57	0.52	0.52
Clearance Time (s)	4.5	5.0		4.5	5.0		4.0	5.0	5.0	4.0	5.0	5.0
Vehicle Extension (s)	3.0	2.5		3.0	2.5		2.5	4.2	4.2	2.5	4.2	4.2
Lane Grp Cap (vph)	266	231		134	110		309	826	730	363	878	758
v/s Ratio Prot	c0.07	0.01		0.00	0.01		0.00	0.32		c0.01	c0.34	
v/s Ratio Perm	c0.11			0.01			0.03		0.01	0.06		0.03
v/c Ratio	0.75	0.04		0.08	0.07		0.05	0.65	0.01	0.12	0.65	0.05
Uniform Delay, d1	21.1	22.4		26.0	26.7		8.0	11.8	8.1	6.9	10.7	7.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	11.4	0.1		0.3	0.2		0.1	2.1	0.0	0.1	2.0	0.0
Delay (s)	32.5	22.5		26.3	26.9		8.1	13.9	8.1	7.0	12.8	7.3
Level of Service	C	C		C	C		A	B	A	A	B	A
Approach Delay (s)		30.9			26.8			13.5			11.8	
Approach LOS		C			C			B			B	
<b>Intersection Summary</b>												
HCM 2000 Control Delay	15.8			HCM 2000 Level of Service				B				
HCM 2000 Volume to Capacity ratio	0.73											
Actuated Cycle Length (s)	61.9			Sum of lost time (s)				18.5				
Intersection Capacity Utilization	62.5%			ICU Level of Service				B				
Analysis Period (min)	15											
c Critical Lane Group												

# HCM Signalized Intersection Capacity Analysis

70: Peninger Rd & E Pine St

07/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘	↑↑↑	↗	↘		↗			↗
Traffic Volume (vph)	0	1625	175	45	1615	520	215	0	60	0	0	450
Future Volume (vph)	0	1625	175	45	1615	520	215	0	60	0	0	450
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0	4.0		4.5			4.5
Lane Util. Factor		0.95	1.00	1.00	0.91	1.00	1.00		1.00			1.00
Frbp, ped/bikes		1.00	0.97	1.00	1.00	0.96	1.00		0.99			0.99
Flpb, ped/bikes		1.00	1.00	1.00	1.00	1.00	1.00		1.00			1.00
Frt		1.00	0.85	1.00	1.00	0.85	1.00		0.85			0.86
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95		1.00			1.00
Satd. Flow (prot)		3167	1144	1471	4638	1409	1396		1299			1494
Flt Permitted		1.00	1.00	0.06	1.00	1.00	0.95		1.00			1.00
Satd. Flow (perm)		3167	1144	87	4638	1409	1396		1299			1494
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	0	1658	179	46	1648	531	219	0	61	0	0	459
RTOR Reduction (vph)	0	0	62	0	0	67	0	0	58	0	0	100
Lane Group Flow (vph)	0	1658	117	46	1648	464	219	0	3	0	0	359
Confl. Peds. (#/hr)	10		4	4		10	1		1	1		1
Confl. Bikes (#/hr)			3			3						
Heavy Vehicles (%)	4%	5%	26%	13%	3%	1%	19%	0%	13%	0%	0%	0%
Turn Type		NA	Perm	pm+pt	NA	Perm	pm+pt		Perm			Perm
Protected Phases		2		1	6		7					
Permitted Phases			2	6		6	4		8			4
Actuated Green, G (s)		67.8	67.8	77.1	77.1	77.1	34.4		5.2			33.9
Effective Green, g (s)		68.3	68.3	77.6	77.6	77.6	34.4		5.2			33.9
Actuated g/C Ratio		0.57	0.57	0.65	0.65	0.65	0.29		0.04			0.28
Clearance Time (s)		4.5	4.5	4.5	4.5	4.5	4.0		4.5			4.5
Vehicle Extension (s)		1.0	1.0	2.5	1.0	1.0	3.0		4.0			2.5
Lane Grp Cap (vph)		1802	651	117	2999	911	400		56			422
v/s Ratio Prot		c0.52		0.02	c0.36		0.11					
v/s Ratio Perm			0.10	0.23		0.33	0.04		0.00			c0.24
v/c Ratio		0.92	0.18	0.39	0.55	0.51	0.55		0.05			0.85
Uniform Delay, d1		23.4	12.4	39.5	11.6	11.2	34.9		55.0			40.7
Progression Factor		0.74	1.25	0.38	0.29	0.12	1.00		1.00			1.00
Incremental Delay, d2		7.1	0.4	0.1	0.1	0.2	1.5		0.5			15.0
Delay (s)		24.4	16.0	15.1	3.5	1.5	36.4		55.5			55.6
Level of Service		C	B	B	A	A	D		E			E
Approach Delay (s)		23.6			3.2			40.6			55.6	
Approach LOS		C			A			D			E	

Intersection Summary			
HCM 2000 Control Delay	18.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	87.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

75: Haskell St & W Pine St

07/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘		↗	↘	↗		↕		↗	↘	
Traffic Volume (vph)	135	245	35	80	485	505	15	25	60	180	20	85
Future Volume (vph)	135	245	35	80	485	505	15	25	60	180	20	85
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.96		0.99		1.00	0.96	
Flpb, ped/bikes	0.99	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00	0.85		0.92		1.00	0.88	
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.99		0.95	1.00	
Satd. Flow (prot)	1651	1622		1607	1699	1418		1427		1629	1469	
Flt Permitted	0.34	1.00		0.54	1.00	1.00		0.96		0.79	1.00	
Satd. Flow (perm)	585	1622		918	1699	1418		1377		1356	1469	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	155	282	40	92	557	580	17	29	69	207	23	98
RTOR Reduction (vph)	0	6	0	0	0	284	0	47	0	0	67	0
Lane Group Flow (vph)	155	316	0	92	557	296	0	68	0	207	54	0
Confl. Peds. (#/hr)	16		6	6		16	43		1	1		43
Confl. Bikes (#/hr)			1			1						
Heavy Vehicles (%)	0%	3%	23%	3%	3%	1%	0%	25%	7%	2%	0%	0%
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6		6	8			4		
Actuated Green, G (s)	23.6	23.6		23.6	23.6	23.6		14.7		14.7	14.7	
Effective Green, g (s)	23.6	23.6		23.6	23.6	23.6		14.7		14.7	14.7	
Actuated g/C Ratio	0.51	0.51		0.51	0.51	0.51		0.32		0.32	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5		2.5		2.5	2.5	
Lane Grp Cap (vph)	298	826		467	866	722		437		430	466	
v/s Ratio Prot		0.19			c0.33							0.04
v/s Ratio Perm	0.27			0.10		0.21		0.05		c0.15		
v/c Ratio	0.52	0.38		0.20	0.64	0.41		0.16		0.48	0.12	
Uniform Delay, d1	7.6	6.9		6.2	8.3	7.0		11.3		12.7	11.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.2		0.2	1.5	0.3		0.1		0.6	0.1	
Delay (s)	8.8	7.1		6.3	9.7	7.3		11.5		13.3	11.3	
Level of Service	A	A		A	A	A		B		B	B	
Approach Delay (s)		7.7			8.3			11.5			12.6	
Approach LOS		A			A			B			B	






















## Intersection Summary

HCM 2000 Control Delay	9.0	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	46.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

# HCM Signalized Intersection Capacity Analysis

86: Beall Ln & OR 99

07/30/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	120	175	155	180	85	320	1035	255	55	595	90
Future Volume (vph)	45	120	175	155	180	85	320	1035	255	55	595	90
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Lane Util. Factor		1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt		0.93		1.00	0.95		1.00	0.97		1.00	0.98	
Flt Protected		0.99		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1548		1662	1637		1630	3096		1568	3073	
Flt Permitted		0.92		0.29	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1434		503	1637		1630	3096		1568	3073	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	47	126	184	163	189	89	337	1089	268	58	626	95
RTOR Reduction (vph)	0	35	0	0	15	0	0	16	0	0	10	0
Lane Group Flow (vph)	0	322	0	163	263	0	337	1341	0	58	711	0
Confl. Bikes (#/hr)							1			1		3
Heavy Vehicles (%)	4%	4%	5%	0%	2%	0%	2%	4%	3%	6%	6%	4%
Turn Type	Perm	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases		8		7	4		1	6		5	2	
Permitted Phases	8			4								
Actuated Green, G (s)		27.8		37.9	37.9		22.4	49.3		5.7	33.1	
Effective Green, g (s)		27.8		37.9	37.9		22.4	49.3		5.7	33.1	
Actuated g/C Ratio		0.26		0.36	0.36		0.21	0.46		0.05	0.31	
Clearance Time (s)		4.0		4.5	4.0		4.0	5.0		4.5	5.0	
Vehicle Extension (s)		2.5		2.5	2.5		2.5	5.2		2.5	5.2	
Lane Grp Cap (vph)		374		240	583		343	1434		84	955	
v/s Ratio Prot				c0.04	0.16		c0.21	c0.43		0.04	0.23	
v/s Ratio Perm		c0.22		0.21								
v/c Ratio		0.86		0.68	0.45		0.98	0.94		0.69	0.74	
Uniform Delay, d1		37.4		30.9	26.3		41.8	27.0		49.5	32.9	
Progression Factor		1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		17.4		6.8	0.4		43.6	12.0		20.1	3.9	
Delay (s)		54.8		37.7	26.7		85.4	39.0		69.6	36.8	
Level of Service		D		D	C		F	D		E	D	
Approach Delay (s)		54.8			30.7			48.3			39.2	
Approach LOS		D			C			D			D	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			44.5			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.94									
Actuated Cycle Length (s)			106.4			Sum of lost time (s)		18.0				
Intersection Capacity Utilization			95.8%			ICU Level of Service				F		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis  
 115: Commercial Node/Gebhard Rd & E Pine St

07/30/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↗↘		↗	↗↘		↗	↘		↗	↘	
Traffic Volume (vph)	520	1150	15	15	2050	225	10	10	10	310	5	120
Future Volume (vph)	520	1150	15	15	2050	225	10	10	10	310	5	120
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.93		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	3104		1662	3183		1662	1619		1630	1469	
Flt Permitted	0.07	1.00		0.15	1.00		0.55	1.00		0.74	1.00	
Satd. Flow (perm)	117	3104		269	3183		965	1619		1275	1469	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	547	1211	16	16	2158	237	11	11	11	326	5	126
RTOR Reduction (vph)	0	1	0	0	7	0	0	9	0	0	106	0
Lane Group Flow (vph)	547	1226	0	16	2388	0	11	13	0	326	25	0
Heavy Vehicles (%)	2%	7%	0%	0%	3%	2%	0%	0%	0%	2%	0%	2%
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	85.5	85.5		60.8	60.8		19.0	19.0		19.0	19.0	
Effective Green, g (s)	85.5	85.5		60.8	60.8		19.0	19.0		19.0	19.0	
Actuated g/C Ratio	0.71	0.71		0.51	0.51		0.16	0.16		0.16	0.16	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	420	2211		159	1612		152	256		201	232	
v/s Ratio Prot	c0.29	0.40		0.00	c0.75			0.01			0.02	
v/s Ratio Perm	0.64			0.05			0.01			c0.26		
v/c Ratio	1.30	0.55		0.10	1.48		0.07	0.05		1.62	0.11	
Uniform Delay, d1	43.1	8.2		16.4	29.6		43.0	42.8		50.5	43.2	
Progression Factor	0.61	0.11		0.91	0.78		1.00	1.00		1.00	1.00	
Incremental Delay, d2	144.8	0.5		0.1	218.0		0.2	0.1		301.5	0.2	
Delay (s)	171.0	1.4		15.0	241.0		43.2	42.9		352.0	43.4	
Level of Service	F	A		B	F		D	D		F	D	
Approach Delay (s)		53.7			239.5			43.0			263.6	
Approach LOS		D			F			D			F	

Intersection Summary

HCM 2000 Control Delay	170.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	137.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

**Intersection**

Int Delay, s/veh 6.3

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	Y		P		Y	↑
Traffic Vol, veh/h	95	150	325	50	175	545
Future Vol, veh/h	95	150	325	50	175	545
Conflicting Peds, #/hr	0	0	0	1	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	180	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	8	3	3	0	4
Mvmt Flow	100	158	342	53	184	574

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	1312	370	0	0	396	0
Stage 1	370	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Critical Hdwy	6.44	6.28	-	-	4.1	-
Critical Hdwy Stg 1	5.44	-	-	-	-	-
Critical Hdwy Stg 2	5.44	-	-	-	-	-
Follow-up Hdwy	3.536	3.372	-	-	2.2	-
Pot Cap-1 Maneuver	173	663	-	-	1174	-
Stage 1	694	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	146	662	-	-	1173	-
Mov Cap-2 Maneuver	152	-	-	-	-	-
Stage 1	693	-	-	-	-	-
Stage 2	317	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay	28.1	0	2.1
HCM LOS	D		

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	406	1173	-
HCM Lane V/C Ratio	-	-	0.635	0.157	-
HCM Control Delay (s)	-	-	28.1	8.6	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	4.2	0.6	-



**Intersection**

Int Delay, s/veh 16.8

**Movement** WBL WBR NBT NBR SBL SBT

Lane Configurations	Y		B			A
Traffic Vol, veh/h	245	55	210	115	95	275
Future Vol, veh/h	245	55	210	115	95	275
Conflicting Peds, #/hr	0	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	12	3	2	5	2
Mvmt Flow	258	58	221	121	100	289

**Major/Minor** Minor1 Major1 Major2

Conflicting Flow All	772	283	0	0	343	0
Stage 1	283	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	6.43	6.32	-	-	4.15	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.408	-	-	2.245	-
Pot Cap-1 Maneuve	866	733	-	-	1199	-
Stage 1	763	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuve	829	732	-	-	1198	-
Mov Cap-2 Maneuve	829	-	-	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	553	-	-	-	-	-

**Approach** WB NB SB

HCM Control Delay, s	53	0	2.1
HCM LOS	F		

**Minor Lane/Major Mvmt** NBT NBR WBLn1 SBL SBT

Capacity (veh/h)	-	-	366	1198	-
HCM Lane V/C Ratio	-	-	0.863	0.083	-
HCM Control Delay (s)	-	-	53	8.3	0
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	8.2	0.3	-

**Intersection**

Int Delay, s/veh 11.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	120	455	155	355	100	10
Future Vol, veh/h	120	455	155	355	100	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	495	168	386	109	11

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	590	361	0
Stage 1	361	-	-
Stage 2	229	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	705	684	-
Stage 1	705	-	-
Stage 2	809	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	705	684	-
Mov Cap-2 Maneuver	705	-	-
Stage 1	705	-	-
Stage 2	722	-	-

Approach	WB	NB	SB
HCM Control Delay	24.7	0	8.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBLn1	NBLn2	SBL	SBT
Capacity (veh/h)	-	-	419	684	1016
HCM Lane V/C Ratio	-	-	0.311	0.723	0.107
HCM Control Delay (s)	-	-	17.4	22.8	9
HCM Lane LOS	-	-	C	C	A
HCM 95th %tile Q(veh)	-	-	1.3	6.2	0.4

**Intersection**

Int Delay, s/veh 6.9

**Movement EBL EBT WBT WBR SBL SBR**

Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	25	85	170	230	255	20
Future Vol, veh/h	25	85	170	230	255	20
Conflicting Peds, #/hr	1	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	5	2	1	4	0
Mvmt Flow	27	92	185	250	277	22

**Major/Minor Major1 Major2 Minor2**

Conflicting Flow All	436	0	-	0	457	311
Stage 1	-	-	-	-	311	-
Stage 2	-	-	-	-	146	-
Critical Hdwy	4.1	-	-	-	6.44	6.2
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	2.2	-	-	-	3.536	3.3
Pot Cap-1 Maneuver	134	-	-	-	558	734
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	876	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	133	-	-	-	543	733
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	719	-
Stage 2	-	-	-	-	875	-

**Approach EB WB SB**

HCM Control Delay, s	4.9	0	18.9
HCM LOS			C

**Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1**

Capacity (veh/h)	1133	-	-	-	553
HCM Lane V/C Ratio	0.024	-	-	-	0.541
HCM Control Delay (s)	8.3	0	-	-	18.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	3.2

**Intersection**

Int Delay, s/veh 10.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	75	110	230	60	15	65	15	75	35	45	55
Future Vol, veh/h	10	75	110	230	60	15	65	15	75	35	45	55
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	2	2	2	2	5	2	2	2	0	2	0
Mvmt Flow	11	79	116	242	63	16	68	16	79	37	47	58

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	80	0	0	195
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.19	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.281	-	-	2.218
Pot Cap-1 Maneuver	1475	-	-	1378
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1474	-	-	1378
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	6.2	22.8	20.9
HCM LOS			C	C

Minor Lane/Major Mvm	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)		363	1474	-	-	1378	-	-
HCM Lane V/C Ratio		0.449	0.007	-	-	0.176	-	-
HCM Control Delay (s)		22.8	7.5	0	-	8.2	0	-
HCM Lane LOS		C	A	A	-	A	A	-
HCM 95th %tile Q(veh)		2.2	0	-	-	0.6	-	-

**Intersection**

Int Delay, s/veh 38.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	105	30	35	315	65	0	40	0	95	70	160
Future Vol, veh/h	10	105	30	35	315	65	0	40	0	95	70	160
Conflicting Peds, #/hr	0	0	0	0	0	2	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	85	92	85	92	85	85	85	85	92
Heavy Vehicles, %	2	2	2	14	2	8	2	3	0	0	4	2
Mvmt Flow	11	114	33	41	342	76	0	47	0	112	82	174

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	651	441	169	515	528	50	256	0	0	48	0	0
Stage 1	393	393	-	48	48	-	-	-	-	-	-	-
Stage 2	258	48	-	467	480	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.24	6.52	6.28	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.24	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.24	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.626	4.018	3.372	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuve	882	510	875	452	456	1002	1309	-	-	1572	-	-
Stage 1	632	606	-	936	855	-	-	-	-	-	-	-
Stage 2	747	855	-	554	554	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuve	105	466	875	331	417	999	1309	-	-	1571	-	-
Mov Cap-2 Maneuve	105	466	-	331	417	-	-	-	-	-	-	-
Stage 1	632	554	-	935	854	-	-	-	-	-	-	-
Stage 2	412	854	-	387	507	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.2	78.9	0	2.3
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1309	-	-	409	450	1571	-	-
HCM Lane V/C Ratio	-	-	-	0.385	1.022	0.071	-	-
HCM Control Delay (s)	0	-	-	19.2	78.9	7.5	0	-
HCM Lane LOS	A	-	-	C	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.8	13.8	0.2	-	-

**Intersection**

Int Delay, s/veh 6.1

**Movement EBL EBR NBL NBT SBT SBR**

Lane Configurations	Y				Y	Y
Traffic Vol, veh/h	45	140	270	280	125	50
Future Vol, veh/h	45	140	270	280	125	50
Conflicting Peds, #/hr	0	1	3	0	0	3
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	2	2	6	0
Mvmt Flow	47	147	284	295	132	53

**Major/Minor Minor2 Major1 Major2**

Conflicting Flow All	1025	163	188	0	-	0
Stage 1	162	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.53	3.09	2.218	-	-	-
Pot Cap-1 Maneuve	263	884	1386	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	416	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	197	881	1382	-	-	-
Mov Cap-2 Maneuve	197	-	-	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	415	-	-	-	-	-

**Approach EB NB SB**

HCM Control Delay	13.6	4.1	0
HCM LOS	C		

**Minor Lane/Major Mvmt NBL NBEBLn1 SBT SBR**

Capacity (veh/h)	1382	-	478	-	-
HCM Lane V/C Ratio	0.206	-	0.407	-	-
HCM Control Delay (s)	8.3	0	17.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.8	-	2	-	-

**Intersection**

Int Delay, s/veh 5.9

**Movement EBT EBR WBL WBT NBL NBR**

Lane Configurations	↶				↷	↷
Traffic Vol, veh/h	100	25	300	90	10	105
Future Vol, veh/h	100	25	300	90	10	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	8	4	3	0	6
Mvmt Flow	109	27	326	98	11	114

**Major/Minor Major1 Major2 Minor1**

Conflicting Flow All	0	0	136	0	873	123
Stage 1	-	-	-	-	123	-
Stage 2	-	-	-	-	750	-
Critical Hdwy	-	-	4.14	-	6.4	6.26
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.236	-	3.5	3.354
Pot Cap-1 Maneuver	-	-	1436	-	323	917
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	470	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1436	-	245	917
Mov Cap-2 Maneuver	-	-	-	-	245	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	357	-

**Approach EB WB NB**

HCM Control Delay, s	0	6.3	10.9
HCM LOS			B

**Minor Lane/Major MvmNBLn1 EBT EBR WBL WBT**

Capacity (veh/h)	740	-	-	1436	-
HCM Lane V/C Ratio	0.169	-	-	0.227	-
HCM Control Delay (s)	10.9	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.9	-

**Intersection**

Int Delay, s/veh 11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	40	10	265	5	75	15	170	480	155	60	105	75
Future Vol, veh/h	40	10	265	5	75	15	170	480	155	60	105	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	-	100	-	-	100	-	-	100	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	42	11	279	5	79	16	179	505	163	63	111	79

Major/Minor	Minor2	Minor1	Major1	Major2
Conflicting Flow	All1269	1303	151 1367	1261 587 190
Stage 1	277	277	- 945 945	- - -
Stage 2	992	1026	- 422 316	- - -
Critical Hdwy	7.12	6.52	6.22 7.12	6.52 6.22 4.12
Critical Hdwy Stg 1	6.12	5.52	- 6.12 5.52	- - -
Critical Hdwy Stg 2	6.12	5.52	- 6.12 5.52	- - -
Follow-up Hdwy	3.518	4.018	3.318 3.518	4.018 3.318 2.218
Pot Cap-1 Maneuver	145	161	895 124	170 510 1384
Stage 1	729	681	- 314 340	- - -
Stage 2	296	312	- 609 655	- - -
Platoon blocked, %				- - -
Mov Cap-1 Maneuver	67	131	895 69	138 510 1384
Mov Cap-2 Maneuver	67	131	- 69 138	- - -
Stage 1	635	635	- 273 296	- - -
Stage 2	183	272	- 384 610	- - -

Approach	EB	WB	NB	SB
HCM Control Delay (s)	23.1	58	1.7	2.3
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn	EBLn2	WBLn	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1384	-	-	67	738	69	157	922	-	-
HCM Lane V/C Ratio	0.129	-	-	0.628	0.392	0.076	0.603	0.069	-	-
HCM Control Delay (s)	8	-	-	124.1	13	61.4	57.8	9.2	-	-
HCM Lane LOS	A	-	-	F	B	F	F	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.7	1.9	0.2	3.2	0.2	-	-



**Intersection**

Int Delay, s/veh 6.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↘	↗	↗	↘	↘
Traffic Vol, veh/h	80	145	185	335	305	60
Future Vol, veh/h	80	145	185	335	305	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	100	-	-	200	0	100
Veh in Median Storage, #	0	0	-	0	-	
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	5	5	0	0	0
Mvmt Flow	84	153	195	353	321	63

**Major/Minor**

	Major1	Major2	Minor2
Conflicting Flow All	548	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.1	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.2	-	-
Pot Cap-1 Maneuver	1032	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1032	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach**

	EB	WB	SB
HCM Control Delay, s	3.1	0	17.8
HCM LOS			C

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1032	-	-	-	565	851
HCM Lane V/C Ratio	0.082	-	-	-	0.568	0.074
HCM Control Delay (s)	8.8	0	-	-	19.4	9.6
HCM Lane LOS	A	A	-	-	C	A
HCM 95th %tile Q(veh)	0.3	-	-	-	3.5	0.2

**Intersection**

Int Delay, s/veh 2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗		↖	
Traffic Vol, veh/h	30	315	320	0	0	130
Future Vol, veh/h	30	315	320	0	0	130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	0	-
Veh in Median Storage, #	0	0	-	0	-	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	332	337	0	0	137

**Major/Minor**

	Major1	Major2	Minor2
Conflicting Flow All	337	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1222	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1222	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach**

	EB	WB	SB
HCM Control Delay, s	0.7	0	11.3
HCM LOS			B

**Minor Lane/Major Mvmt**

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1222	-	-	-	705
HCM Lane V/C Ratio	0.026	-	-	-	-0.194
HCM Control Delay (s)	8	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

**Intersection**

Int Delay, s/veh 5.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↷	↶		↶	↷
Traffic Vol, veh/h	95	205	140	275	180	270
Future Vol, veh/h	95	205	140	275	180	270
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	100	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	100	216	147	289	189	284

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	954	292	0
Stage 1	292	-	-
Stage 2	662	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuve	287	747	-
Stage 1	758	-	-
Stage 2	513	-	-
Platoon blocked, %			
Mov Cap-1 Maneuve	239	747	-
Mov Cap-2 Maneuve	239	-	-
Stage 1	758	-	-
Stage 2	427	-	-

Approach	WB	NB	SB
HCM Control Delay	13.7	0	3.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	239	747	1124	-
HCM Lane V/C Ratio	-	-	0.418	0.289	0.169	-
HCM Control Delay (s)	-	-	30.5	11.8	8.9	-
HCM Lane LOS	-	-	D	B	A	-
HCM 95th %tile Q(veh)	-	-	1.9	1.2	0.6	-

**Intersection**

Int Delay, s/veh 164.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Traffic Vol, veh/h	140	230	5	3	285	230	1	3	1	350	5	205
Future Vol, veh/h	140	230	5	3	285	230	1	3	1	350	5	205
Conflicting Peds, #/hr35	0	17	17	0	35	2	0	65	65	0	2	
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	-	125	-	-	50	-	-	250	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	0
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	6	0	0	0	0	2	0	0	0	1	0	2
Mvmt Flow	147	242	5	3	300	242	1	3	1	368	5	216

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	577	0	0	264
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.16	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.254	-	-	2.2
Pot Cap-1 Maneuver	77	-	-	1312
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	44	-	-	1291
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	6	0	26.7	425.6
HCM LOS			D	F

Minor Lane/Major Mvm	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	103	201	944	-	-	1291	-	-	157	555
HCM Lane V/C Ratio	0.01	0.02	0.156	-	-	0.002	-	-	2.34	0.398
HCM Control Delay (s)	40.3	23.3	9.5	-	-	7.8	-	-	671.5	15.7
HCM Lane LOS	E	C	A	-	-	A	-	-	F	C
HCM 95th %tile Q(veh)	0	0.1	0.6	-	-	0	-	-	30.9	1.9

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 31.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	5	150	145	210	270	10	205	10	115	5	0	5
Future Vol, veh/h	5	150	145	210	270	10	205	10	115	5	0	5
Conflicting Peds, #/hr	1	0	0	0	0	1	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	0	-	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	4	0	0	5	0	0	0	0	0	0	0
Mvmt Flow	5	158	153	221	284	11	216	11	121	5	0	5

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	296	0	0	311
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.1	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2
Pot Cap-1 Maneuver	277	-	-	1261
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	276	-	-	1261
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	3.6	101	20.8
HCM LOS			F	C

Minor Lane/Major Mvm	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	191	647	1276	-	-	1261	-	-	239
HCM Lane V/C Ratio	1.13	0.203	0.004	-	-	0.175	-	-	0.044
HCM Control Delay (s)	155.2	12	7.8	0	-	8.5	0	-	20.8
HCM Lane LOS	F	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	10.7	0.8	0	-	-	0.6	-	-	0.1

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

**Intersection**

Int Delay, s/veh 3.6

**Movement** EBL EBR NBL NBT SBT SBR

Lane Configurations	Y			4	4	
Traffic Vol, veh/h	0	195	100	155	80	305
Future Vol, veh/h	0	195	100	155	80	305
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	212	109	168	87	332

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All	639	253	419	0	-	0
Stage 1	253	-	-	-	-	-
Stage 2	386	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	440	786	1140	-	-	-
Stage 1	789	-	-	-	-	-
Stage 2	687	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	694	786	1140	-	-	-
Mov Cap-2 Maneuver	694	-	-	-	-	-
Stage 1	706	-	-	-	-	-
Stage 2	687	-	-	-	-	-

**Approach** EB NB SB

HCM Control Delay	14.3	3.3	0
HCM LOS	B		

**Minor Lane/Major Mvmt** NBL NBT EBLn1 SBT SBR

Capacity (veh/h)	1140	-	786	-	-
HCM Lane V/C Ratio	0.095	-	0.27	-	-
HCM Control Delay (s)	8.5	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	1.1	-	-

**Intersection**

Int Delay, s/veh 4.5

**Movement EBT EBR WBL WBT NBL NBR**

Lane Configurations	↶			↷	↶	↷
Traffic Vol, veh/h	190	20	210	270	30	110
Future Vol, veh/h	190	20	210	270	30	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	- None		- None		- None	
Storage Length	-	-	-	-	0	-
Veh in Median Storage#	-	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	200	21	221	284	32	116

**Major/Minor Major1 Major2 Minor1**

Conflicting Flow All	0	0	221	0	937	211
Stage 1	-	-	-	-	211	-
Stage 2	-	-	-	-	726	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-2.218	-	-3.518	3.318	-
Pot Cap-1 Maneuver	-	-	1348	-	294	829
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1348	-	237	829
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	386	-

**Approach EB WB NB**

HCM Control Delay, s 0 3.6 14.2  
HCM LOS B

**Minor Lane/Major MvmNBLn1 EBT EBR WBL WBT**

Capacity (veh/h)	540	-	-	1348	-
HCM Lane V/C Ratio	0.273	-	-	0.164	-
HCM Control Delay (s)	14.2	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.6	-

**Intersection**

Int Delay, s/veh 1.5

**Movement** EBL EBR NBL NBT SBT SBR

Lane Configurations	Y		Y	↑	↑	
Traffic Vol, veh/h	5	25	100	325	325	30
Future Vol, veh/h	5	25	100	325	325	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	26	105	342	342	32

**Major/Minor** Minor2 Major1 Major2

Conflicting Flow All	910	358	374	0	-	0
Stage 1	358	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuve	805	686	1184	-	-	-
Stage 1	707	-	-	-	-	-
Stage 2	577	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuve	278	686	1184	-	-	-
Mov Cap-2 Maneuve	104	-	-	-	-	-
Stage 1	644	-	-	-	-	-
Stage 2	577	-	-	-	-	-

**Approach** EB NB SB

HCM Control Delay, s 14.2 2 0  
HCM LOS B

**Minor Lane/Major Mvmt** NBL NBEBLn1 SBT SBR

Capacity (veh/h)	1184	-	615	-	-
HCM Lane V/C Ratio	0.089	-	0.051	-	-
HCM Control Delay (s)	8.3	-	11.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	-	-



**Intersection**

Int Delay, s/veh 6.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		T			T
Traffic Vol, veh/h	170	20	305	170	20	500
Future Vol, veh/h	170	20	305	170	20	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- None		- None		- None	
Storage Length	0	-	-	-	-	-
Veh in Median Storage#	-	0	-	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	3
Mvmt Flow	179	21	321	179	21	526

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	979	411	0	0	500	0
Stage 1	411	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuve	280	645	-	-	1075	-
Stage 1	674	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuve	272	645	-	-	1075	-
Mov Cap-2 Maneuve	272	-	-	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	555	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	41	0	0.3
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	290	1075	-
HCM Lane V/C Ratio	-	-	0.69	0.02	-
HCM Control Delay (s)	-	-	41	8.4	0
HCM Lane LOS	-	-	E	A	A
HCM 95th %tile Q(veh)	-	-	4.7	0.1	-

**Intersection**

Intersection Delay, s/veh 25.2  
Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	55	160	125	75	275	40	70	135	80	15	175	55
Future Vol, veh/h	55	160	125	75	275	40	70	135	80	15	175	55
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	1	5	0	2	3	3	3	2	6	4	4
Mvmt Flow	58	168	132	79	289	42	74	142	84	16	184	58
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	24.5	32.1	21.6	19.3
HCM LOS	C	D	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	16%	19%	6%
Vol Thru, %	47%	47%	71%	71%
Vol Right, %	28%	37%	10%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	285	340	390	245
LT Vol	70	55	75	15
Through Vol	135	160	275	175
RT Vol	80	125	40	55
Lane Flow Rate	300	358	411	258
Geometry Grp	1	1	1	1
Degree of Util (X)	0.614	0.693	0.795	0.541
Departure Headway (Hd)	7.365	6.969	6.975	7.554
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	489	515	517	475
Service Time	5.453	5.056	5.058	5.649
HCM Lane V/C Ratio	0.613	0.695	0.795	0.543
HCM Control Delay	21.6	24.5	32.1	19.3
HCM Lane LOS	C	C	D	C
HCM 95th-tile Q	4.1	5.3	7.4	3.2

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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix H

Future Year 2039 Build  
Simtraffic Output

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Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:15	4:15	4:15	4:15	4:15	4:15
End Time	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	75	75	75	75	75	75
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	3	3	3	3	3	3
# of Recorded Intervals	2	2	2	2	2	2
Vehs Entered	18283	18057	18144	18066	18151	18144
Vehs Exited	17498	17239	17399	17040	17391	17312
Starting Vehs	1679	1728	1716	1553	1652	1653
Ending Vehs	2464	2546	2461	2579	2412	2486
Travel Distance (mi)	30524	30284	30036	30132	30293	30254
Travel Time (hr)	2852.1	3019.5	2938.6	2861.6	2873.2	2909.0
Total Delay (hr)	1955.8	2130.5	2054.4	1974.0	1980.7	2019.1
Total Stops	50460	51016	52159	49532	51040	50828
Fuel Used (gal)	1428.4	1458.6	1438.3	1420.8	1426.5	1434.5

Interval #0 Information Seeding

Start Time	4:15
End Time	4:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	4940	5029	5044	4984	5063	5006
Vehs Exited	4546	4596	4650	4588	4559	4588
Starting Vehs	1679	1728	1716	1553	1652	1653
Ending Vehs	2073	2161	2110	1949	2156	2078
Travel Distance (mi)	7858	7997	7966	7887	8043	7950
Travel Time (hr)	521.5	529.8	528.6	492.8	532.7	521.1
Total Delay (hr)	290.6	293.7	294.3	260.3	295.4	286.8
Total Stops	12455	13005	13286	12439	13006	12828
Fuel Used (gal)	320.4	326.0	326.9	316.2	327.6	323.4

Interval #2 Information Recording

Start Time 4:45  
End Time 5:30  
Total Time (min) 45

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg
Vehs Entered	13343	13028	13100	13082	13088	13132
Vehs Exited	12952	12643	12749	12452	12832	12726
Starting Vehs	2073	2161	2110	1949	2156	2078
Ending Vehs	2464	2546	2461	2579	2412	2486
Travel Distance (mi)	22666	22287	22070	22245	22250	22304
Travel Time (hr)	2330.6	2489.6	2410.1	2368.8	2340.5	2387.9
Total Delay (hr)	1665.2	1836.8	1760.1	1713.8	1685.3	1732.3
Total Stops	38005	38011	38873	37093	38034	37996
Fuel Used (gal)	1108.0	1132.6	1111.4	1104.6	1098.8	1111.1

Intersection: 5: I-5 NB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	T	T	R	L	LT	R	R
Maximum Queue (ft)	325	743	702	346	332	264	453	855	450	412
Average Queue (ft)	155	311	290	221	186	131	175	463	317	276
95th Queue (ft)	321	657	608	321	289	231	346	984	558	531
Link Distance (ft)		1265	1265	468	468	468		801		
Upstream Blk Time (%)					0			29		
Queuing Penalty (veh)					0			0		
Storage Bay Dist (ft)	250						380		375	375
Storage Blk Time (%)	0	21					0	1	36	21
Queuing Penalty (veh)	0	29					0	4	194	111

Intersection: 10: I-5 SB Ramps & E Pine St

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LT	R
Maximum Queue (ft)	271	301	162	187	357	603	554	489	569	175
Average Queue (ft)	112	96	48	100	146	237	225	205	280	144
95th Queue (ft)	260	248	129	162	321	554	521	396	490	217
Link Distance (ft)	715	715	715			1265	1265		951	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				375	375			550		100
Storage Blk Time (%)						5		0	35	18
Queuing Penalty (veh)						18		0	155	74

Intersection: 20: OR 99 & Twin Creeks

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	T	T	T	T	R
Maximum Queue (ft)	139	162	546	443	176	179	188	117
Average Queue (ft)	56	63	302	90	68	94	90	49
95th Queue (ft)	109	120	500	256	141	160	162	94
Link Distance (ft)		461		3266	3266	2949	2949	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	500		500					250
Storage Blk Time (%)			2					
Queuing Penalty (veh)			6					

Intersection: 25: OR 99 & Scenic Ave

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	R	L	T	R
Maximum Queue (ft)	280	345	67	435	275	200	280	156
Average Queue (ft)	106	168	17	220	23	82	131	41
95th Queue (ft)	240	295	48	379	147	173	249	125
Link Distance (ft)	763	2023		528			3072	
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)			350		200	325		200
Storage Blk Time (%)				11			2	
Queuing Penalty (veh)				15			9	

Intersection: 30: OR 99 & W Pine St

Movement	EB	EB	EB	WB	WB	WB	B83	B83	NB	NB	NB	SB
Directions Served	L	T	TR	L	T	TR	T	T	L	T	TR	L
Maximum Queue (ft)	318	268	176	267	362	372	1699	1686	375	597	544	369
Average Queue (ft)	174	97	95	247	338	340	1074	1068	272	319	308	221
95th Queue (ft)	364	259	159	348	371	375	1980	1973	409	585	535	351
Link Distance (ft)		526	526		268	268	2497	2497		4922	4922	
Upstream Blk Time (%)				1	78	85						
Queuing Penalty (veh)				0	477	523						
Storage Bay Dist (ft)	375			200					300			300
Storage Blk Time (%)	8	0		1	87				19	5		8
Queuing Penalty (veh)	12	0		3	179				69	13		16

Intersection: 30: OR 99 & W Pine St

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	338	270	194
Average Queue (ft)	123	123	74
95th Queue (ft)	273	245	147
Link Distance (ft)	3266	3266	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)		4	1
Queuing Penalty (veh)		6	3

Intersection: 35: Upton Rd & Peninger Rd

Movement	WB	NB	SB	SB	B51
Directions Served	LR	TR	L	T	T
Maximum Queue (ft)	2317	11	219	760	768
Average Queue (ft)	1122	0	164	513	234
95th Queue (ft)	2783	6	345	1171	852
Link Distance (ft)	4545	1094		849	1936
Upstream Blk Time (%)				33	
Queuing Penalty (veh)				216	
Storage Bay Dist (ft)			180		
Storage Blk Time (%)				58	
Queuing Penalty (veh)				100	

Intersection: 40: Upton Rd & Wilson Rd

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	202	18	96
Average Queue (ft)	83	1	23
95th Queue (ft)	152	9	65
Link Distance (ft)	1167	1032	442
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 45: Table Rock Rd & Wilson Rd

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LR	L	T	T	T	TR
Maximum Queue (ft)	228	151	154	179	245	254
Average Queue (ft)	112	70	65	83	117	115
95th Queue (ft)	196	123	135	154	204	220
Link Distance (ft)	3872		2476	2476	423	423
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		525				
Storage Blk Time (%)						
Queuing Penalty (veh)						



Intersection: 50: Table Rock Rd & Biddle Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	T	R	L	T	TR
Maximum Queue (ft)	333	190	211	79	224	831	832	839	275	325	766	696
Average Queue (ft)	159	90	106	14	117	436	444	423	174	250	307	234
95th Queue (ft)	297	161	174	57	279	784	792	816	338	386	707	562
Link Distance (ft)		1125	1125			3491	3491	3491			982	982
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	550			275	150				200	250		
Storage Blk Time (%)			0			69		34	3	43		0
Queuing Penalty (veh)			0			38		117	9	107		0

Intersection: 50: Table Rock Rd & Biddle Rd

Movement	SB	SB	SB
Directions Served	L	T	TR
Maximum Queue (ft)	325	538	586
Average Queue (ft)	151	296	348
95th Queue (ft)	303	480	539
Link Distance (ft)		3552	3552
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)	0	16	
Queuing Penalty (veh)	1	35	

Intersection: 55: Table Rock Rd & Vilas Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	TR	L	L	T	R	L	T	T	R	L	T
Maximum Queue (ft)	228	325	225	244	410	163	173	311	324	276	238	270
Average Queue (ft)	96	169	122	138	214	66	50	173	177	106	121	137
95th Queue (ft)	182	277	192	207	351	121	111	270	277	241	216	232
Link Distance (ft)		1241		7829	7829	7829		276	276			2476
Upstream Blk Time (%)							0	1	1	0		
Queuing Penalty (veh)							0	4	3	0		
Storage Bay Dist (ft)	250		200				225			225	225	
Storage Blk Time (%)	0	2	0	1				3	4	0	2	1
Queuing Penalty (veh)	0	4	1	3				2	12	1	5	1

Intersection: 55: Table Rock Rd & Vilas Rd

Movement	SB
Directions Served	TR
Maximum Queue (ft)	287
Average Queue (ft)	159
95th Queue (ft)	251
Link Distance (ft)	2476
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 60: Hamrick Rd & E Pine St

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	L	T	TR	L	T	TR	L	L	TR	L	T
Maximum Queue (ft)	280	235	166	192	475	837	828	465	467	534	66	1388
Average Queue (ft)	154	111	70	91	112	802	802	401	456	492	14	1138
95th Queue (ft)	247	208	127	163	436	856	846	578	487	566	45	1778
Link Distance (ft)			652	652		792	792			468		1370
Upstream Blk Time (%)						36	41	3	44	82		23
Queuing Penalty (veh)						257	291	0	0	444		130
Storage Bay Dist (ft)	500	500			400			450	450		200	
Storage Blk Time (%)						69		13	67	82		
Queuing Penalty (veh)						11		10	54	380		

Intersection: 60: Hamrick Rd & E Pine St

Movement	SB
Directions Served	R
Maximum Queue (ft)	375
Average Queue (ft)	369
95th Queue (ft)	421
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	300
Storage Blk Time (%)	82
Queuing Penalty (veh)	37

Intersection: 65: Hamrick Rd & Beebe Rd

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB	B32	B33
Directions Served	L	TR	L	TR	L	T	R	L	T	R	T	T
Maximum Queue (ft)	142	45	37	51	47	216	22	325	1231	155	526	173
Average Queue (ft)	65	10	9	18	7	61	1	68	565	72	85	25
95th Queue (ft)	114	30	28	40	29	157	12	258	1437	191	549	235
Link Distance (ft)		1210		658		1370	1370		1372		1190	1241
Upstream Blk Time (%)									12			4
Queuing Penalty (veh)									93			31
Storage Bay Dist (ft)	100		125		250			250		80		
Storage Blk Time (%)	3					0			51			
Queuing Penalty (veh)	1					0			57			

Intersection: 70: Peninger Rd & E Pine St

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	R	L	T	T	T	R	L	R	R
Maximum Queue (ft)	591	571	305	85	109	107	158	124	250	912	463
Average Queue (ft)	480	426	83	23	47	44	59	13	214	504	238
95th Queue (ft)	695	677	277	62	94	85	125	77	311	1124	469
Link Distance (ft)	468	468			1091	1091	1091			1036	551
Upstream Blk Time (%)	38	22								11	2
Queuing Penalty (veh)	340	194								0	10
Storage Bay Dist (ft)			230	100				50	175		
Storage Blk Time (%)		14	0	0	1		14		63		
Queuing Penalty (veh)		24	0	1	0		72		38		

Intersection: 74: Haskell St & Twin Creeks

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	LT
Maximum Queue (ft)	100	194	36	73
Average Queue (ft)	47	104	6	23
95th Queue (ft)	86	164	23	51
Link Distance (ft)	461	461	156	148
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 75: Haskell St & W Pine St

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	L	TR
Maximum Queue (ft)	156	291	139	245	197	101	172	72
Average Queue (ft)	80	83	38	113	71	36	71	29
95th Queue (ft)	147	197	103	205	133	78	134	59
Link Distance (ft)		3017		526		1871	1109	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	125		125		250			150
Storage Blk Time (%)	3	2		5			0	
Queuing Penalty (veh)	10	3		29			1	

Intersection: 80: Hanley Rd & Beall Ln

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	112	180	130	123
Average Queue (ft)	59	90	59	57
95th Queue (ft)	94	147	99	95
Link Distance (ft)	334	5926	867	2121
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 85: Beall Ln & Grant Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	56	17	126
Average Queue (ft)	11	1	60
95th Queue (ft)	40	7	104
Link Distance (ft)	3231	334	3016
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 86: Beall Ln & OR 99

Movement	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	401	124	275	300	886	848	165	294	316
Average Queue (ft)	189	72	112	275	569	543	33	157	179
95th Queue (ft)	343	135	225	357	1044	981	109	266	288
Link Distance (ft)	5926		3932		995	995		4922	4922
Upstream Blk Time (%)					5	1			
Queuing Penalty (veh)					0	0			
Storage Bay Dist (ft)		50		225			225		
Storage Blk Time (%)		17	23	52	12			2	
Queuing Penalty (veh)		46	36	270	38			1	

Intersection: 95: S Grant Rd/N Grant Rd & Taylor Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	29	81	101	79
Average Queue (ft)	2	29	42	34
95th Queue (ft)	15	66	75	62
Link Distance (ft)	1711	3254	1524	2116
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 100: N Grant Rd & Twin Creeks Crossing

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	83	236	48
Average Queue (ft)	42	88	7
95th Queue (ft)	68	175	30
Link Distance (ft)	1246	710	384
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 105: Haskell St & Taylor Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	78	112	9
Average Queue (ft)	31	37	0
95th Queue (ft)	64	86	6
Link Distance (ft)	3254	1109	1903
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 110: Grant Rd & Scenic Ave

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	66	76
Average Queue (ft)	25	34
95th Queue (ft)	57	59
Link Distance (ft)	763	2553
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 115: Commercial Node/Gebhard Rd & E Pine St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	975	1113	1141	172	699	690	44	56	325	1136
Average Queue (ft)	937	979	579	19	640	663	9	16	324	894
95th Queue (ft)	1088	1473	1363	90	737	679	33	45	326	1204
Link Distance (ft)		1091	1091		652	652		232		1474
Upstream Blk Time (%)		27	5		7	14				
Queuing Penalty (veh)		228	44		81	166				
Storage Bay Dist (ft)	900			100			50		250	
Storage Blk Time (%)	61	24			45		1	2	91	0
Queuing Penalty (veh)	346	124			7		0	0	114	1

Intersection: 120: Gebhard Rd & Beebe Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	57	109	24	68	70	15	62	21
Average Queue (ft)	21	47	2	33	22	2	22	1
95th Queue (ft)	51	79	15	63	57	10	52	11
Link Distance (ft)		448		1210		1474		303
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100		100		100	
Storage Blk Time (%)		0		0	0			
Queuing Penalty (veh)		0		0	0			

Intersection: 125: Peninger Rd & Beebe Rd

Movement	EB	EB	WB	SB	SB
Directions Served	L	LT	R	L	R
Maximum Queue (ft)	65	113	34	191	63
Average Queue (ft)	8	27	4	80	23
95th Queue (ft)	42	80	20	197	90
Link Distance (ft)		1099		305	
Upstream Blk Time (%)				2	
Queuing Penalty (veh)				8	
Storage Bay Dist (ft)	100		200		100
Storage Blk Time (%)	0	1		10	
Queuing Penalty (veh)	0	0		6	

Intersection: 126: Beebe Rd & Local Gebhard

Movement	EB	SB
Directions Served	L	LR
Maximum Queue (ft)	40	81
Average Queue (ft)	8	39
95th Queue (ft)	30	64
Link Distance (ft)		377
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	100	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 127: Local Gebhard/Gebhard Rd

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	51	34	71
Average Queue (ft)	4	4	11
95th Queue (ft)	24	22	48
Link Distance (ft)	589	282	2406
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			



Intersection: 128: Beebe Rd & CP-3

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	L	T
Maximum Queue (ft)	112	84	34	72	31
Average Queue (ft)	40	45	6	33	4
95th Queue (ft)	90	70	25	63	37
Link Distance (ft)	371	371	305		782
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				100	
Storage Blk Time (%)					1
Queuing Penalty (veh)					1

Intersection: 130: Scenic Ave & Upton Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	106	73	21	137	10	30	325	1105
Average Queue (ft)	48	10	1	40	1	5	310	927
95th Queue (ft)	87	44	11	95	8	21	386	1487
Link Distance (ft)		1315		487		177		1094
Upstream Blk Time (%)								26
Queuing Penalty (veh)								163
Storage Bay Dist (ft)	125		125		50		250	
Storage Blk Time (%)	0	0		0			89	0
Queuing Penalty (veh)	0	0		0			187	0

Intersection: 135: Gebhard Rd & Wilson Rd

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	LTR	L	TR	LTR
Maximum Queue (ft)	39	121	173	131	35
Average Queue (ft)	4	47	64	37	10
95th Queue (ft)	19	93	123	82	34
Link Distance (ft)	1162	3872		1791	333
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100		
Storage Blk Time (%)			6	0	
Queuing Penalty (veh)			7	0	

Intersection: 160: S Grant Rd & CP-6A

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	77	79	33
Average Queue (ft)	44	28	3
95th Queue (ft)	68	65	17
Link Distance (ft)	521	3016	1524
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 170: CP-2B & Wilson Rd

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	8	66	94
Average Queue (ft)	0	27	45
95th Queue (ft)	4	62	77
Link Distance (ft)	1167	1162	284
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 180: Gebhard Rd & CP-2B

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	45	58
Average Queue (ft)	21	19
95th Queue (ft)	47	46
Link Distance (ft)	625	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		100
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 6965

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Mitigated Conditions

2039 Build Scenario

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# HCM Signalized Intersection Capacity Analysis

130: Scenic Ave & Upton Rd

06/12/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↘		↗	↘		↗	↘		↗	↘	
Traffic Volume (vph)	140	230	5	3	285	230	1	3	1	350	5	205
Future Volume (vph)	140	230	5	3	285	230	1	3	1	350	5	205
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00		1.00	0.96		1.00	0.96		1.00	0.98	
Flpb, ped/bikes	1.00	1.00		0.98	1.00		1.00	1.00		0.94	1.00	
Frt	1.00	1.00		1.00	0.93		1.00	0.96		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1568	1743		1637	1550		1659	1617		1546	1430	
Flt Permitted	0.22	1.00		0.61	1.00		0.62	1.00		0.51	1.00	
Satd. Flow (perm)	362	1743		1044	1550		1083	1617		837	1430	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	147	242	5	3	300	242	1	3	1	368	5	216
RTOR Reduction (vph)	0	1	0	0	30	0	0	1	0	0	161	0
Lane Group Flow (vph)	147	246	0	3	512	0	1	3	0	368	60	0
Confl. Peds. (#/hr)	35		17	17		35	2		65	65		2
Heavy Vehicles (%)	6%	0%	0%	0%	0%	2%	0%	0%	0%	1%	0%	2%
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	44.3	38.8		34.1	33.1		10.6	9.6		25.6	20.1	
Effective Green, g (s)	44.3	38.8		34.1	33.1		10.6	9.6		25.6	20.1	
Actuated g/C Ratio	0.56	0.49		0.43	0.42		0.13	0.12		0.32	0.25	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	305	857		458	650		152	196		374	364	
v/s Ratio Prot	c0.04	0.14		0.00	c0.33		0.00	0.00		c0.14	0.04	
v/s Ratio Perm	0.23			0.00			0.00			c0.18		
v/c Ratio	0.48	0.29		0.01	0.79		0.01	0.02		0.98	0.16	
Uniform Delay, d1	11.4	11.9		12.7	19.9		29.6	30.5		25.3	22.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.2		0.0	6.3		0.0	0.0		42.0	0.2	
Delay (s)	12.6	12.1		12.7	26.2		29.6	30.5		67.3	23.1	
Level of Service	B	B		B	C		C	C		E	C	
Approach Delay (s)		12.3			26.1			30.3			50.7	
Approach LOS		B			C			C			D	

## Intersection Summary

HCM 2000 Control Delay	32.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	78.9	Sum of lost time (s)	18.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

**Intersection**

Int Delay, s/veh 3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		P		Y	↑
Traffic Vol, veh/h	170	20	305	170	20	500
Future Vol, veh/h	170	20	305	170	20	500
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- None		- None		- None	
Storage Length	0	-	-	-	100	-
Veh in Median Storage#		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	0	0	3
Mvmt Flow	179	21	321	179	21	526

**Major/Minor**

	Minor1	Major1	Major2		
Conflicting Flow All	979	411	0	0	500
Stage 1	411	-	-	-	-
Stage 2	568	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuve	280	645	-	-	1075
Stage 1	674	-	-	-	-
Stage 2	571	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuve	674	645	-	-	1075
Mov Cap-2 Maneuve	602	-	-	-	-
Stage 1	674	-	-	-	-
Stage 2	560	-	-	-	-

**Approach**

	WB	NB	SB
HCM Control Delay	24.2	0	0.3
HCM LOS	C		

**Minor Lane/Major Mvmt**
































	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	419	1075	-
HCM Lane V/C Ratio	-	-0.477	0.02	-	-
HCM Control Delay (s)	-	-	21.2	8.4	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.5	0.1	-

Intersection									
Intersection Delay, s/veh	6.6								
Intersection LOS	A								
Approach	EB		WB		NB		SB		
Entry Lanes	2		2		2		2		
Conflicting Circle Lanes	1		1		1		1		
Adj Approach Flow, veh/h	332		100		847		253		
Demand Flow Rate, veh/h	339		102		864		258		
Vehicles Circulating, veh/h	182		741		118		269		
Vehicles Exiting, veh/h	345		241		403		574		
Ped Vol Crossing Leg, #/h	0		0		0		0		
Ped Cap Adj	1.000		1.000		1.000		1.000		
Approach Delay, s/veh	5.0		6.4		7.8		4.6		
Approach LOS	A		A		A		A		
Lane	Left	Right	Left	Right	Left	Right	Left	Right	
Designated Moves	L	TR	L	TR	L	TR	L	TR	
Assumed Moves	L	TR	L	TR	L	TR	L	TR	
RT Channelized									
Lane Util	0.127	0.873	0.049	0.951	0.212	0.788	0.248	0.752	
Follow-Up Headway, s	2.535	2.535	2.535	2.535	2.535	2.535	2.535	2.535	
Critical Headway, s	4.544	4.544	4.544	4.544	4.544	4.544	4.544	4.544	
Entry Flow, veh/h	43	296	5	97	183	681	64	194	
Cap Entry Lane, veh/h	1203	1203	723	723	1276	1276	1112	1112	
Entry HV Adj Factor	0.977	0.979	1.000	0.984	0.978	0.981	0.984	0.978	
Flow Entry, veh/h	42	290	5	95	179	668	63	190	
Cap Entry, veh/h	1175	1178	723	712	1248	1251	1094	1088	
V/C Ratio	0.036	0.246	0.007	0.134	0.143	0.534	0.058	0.175	
Control Delay, s/veh	3.4	5.3	5.0	6.5	4.1	8.8	3.8	4.9	
LOS	A	A	A	A	A	A	A	A	
95th %tile Queue, veh	0	1	0	0	1	3	0	1	

# HCM Signalized Intersection Capacity Analysis

60: Hamrick Rd & E Pine St

06/12/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 		  	  		 			 	 	 
Traffic Volume (vph)	375	845	250	15	1355	50	465	60	20	30	15	470
Future Volume (vph)	375	845	250	15	1355	50	465	60	20	30	15	470
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	5.0		4.0	5.0		4.5	4.5		4.5	4.5	4.0
Lane Util. Factor	0.97	0.95		1.00	0.91		0.97	1.00		1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.99		1.00	0.96		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	2986	2977		1662	4571		3128	1623		1662	1549	1421
Flt Permitted	0.95	1.00		0.14	1.00		0.75	1.00		0.70	1.00	1.00
Satd. Flow (perm)	2986	2977		251	4571		2459	1623		1228	1549	1421
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	395	889	263	16	1426	53	489	63	21	32	16	495
RTOR Reduction (vph)	0	21	0	0	3	0	0	10	0	0	0	30
Lane Group Flow (vph)	395	1131	0	16	1476	0	489	74	0	32	16	465
Confl. Peds. (#/hr)							1					1
Confl. Bikes (#/hr)			1									
Heavy Vehicles (%)	8%	6%	12%	0%	4%	3%	3%	5%	0%	0%	13%	4%
Turn Type	Prot	NA		pm+pt	NA		Perm	NA		Perm	NA	pm+ov
Protected Phases	5	2		1	6		8	8		4	4	5
Permitted Phases				6			8			4	4	4
Actuated Green, G (s)	28.2	77.5		50.9	50.9		27.4	27.4		27.4	27.4	55.6
Effective Green, g (s)	28.2	77.5		50.9	50.9		27.4	27.4		27.4	27.4	55.6
Actuated g/C Ratio	0.23	0.65		0.42	0.42		0.23	0.23		0.23	0.23	0.46
Clearance Time (s)	4.0	5.0		4.0	5.0		4.5	4.5		4.5	4.5	4.0
Vehicle Extension (s)	2.5	4.3		2.5	4.0		2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	701	1922		125	1938		561	370		280	353	705
v/s Ratio Prot	0.13	0.38		0.00	c0.32		0.05	0.05		0.01	c0.15	
v/s Ratio Perm				0.05			c0.20			0.03		0.17
v/c Ratio	0.56	0.59		0.13	0.76		0.87	0.20		0.11	0.05	0.66
Uniform Delay, d1	40.5	12.1		21.9	29.4		44.6	37.4		36.7	36.1	24.9
Progression Factor	0.97	1.16		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.6	1.0		0.3	2.9		13.8	0.2		0.1	0.0	2.1
Delay (s)	40.1	15.1		22.3	32.3		58.4	37.6		36.8	36.1	27.0
Level of Service	D	B		C	C		E	D		D	D	C
Approach Delay (s)		21.5			32.2			55.4			27.8	
Approach LOS		C			C			E			C	
<b>Intersection Summary</b>												
HCM 2000 Control Delay			30.8				HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio			0.77									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			13.5		
Intersection Capacity Utilization			87.0%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

**Intersection**

Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	105	30	35	315	65	0	40	0	95	70	160
Future Vol, veh/h	10	105	30	35	315	65	0	40	0	95	70	160
Peak Hour Factor	0.92	0.92	0.92	0.85	0.92	0.85	0.92	0.85	0.85	0.85	0.85	0.92
Heavy Vehicles, %	2	2	2	14	2	8	2	3	0	0	4	2
Mvmt Flow	11	114	33	41	342	76	0	47	0	112	82	174
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.9	20.9	10.1	15.4
HCM LOS	B	C	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	7%	8%	29%
Vol Thru, %	100%	72%	76%	22%
Vol Right, %	0%	21%	16%	49%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	145	415	325
LT Vol	0	10	35	95
Through Vol	40	105	315	70
RT Vol	0	30	65	160
Lane Flow Rate	47	158	460	368
Geometry Grp	1	1	1	1
Degree of Util (X)	0.084	0.254	0.707	0.56
Departure Headway (Hd)	6.419	5.802	5.536	5.48
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	554	616	653	655
Service Time	4.509	3.871	3.587	3.538
HCM Lane V/C Ratio	0.085	0.256	0.704	0.562
HCM Control Delay	10.1	10.9	20.9	15.4
HCM Lane LOS	B	B	C	C
HCM 95th-tile Q	0.3	1	5.8	3.5



**Intersection**

Intersection Delay, s/veh 19.5  
 Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Traffic Vol, veh/h	5	150	145	210	270	10	205	10	115	5	0	5
Future Vol, veh/h	5	150	145	210	270	10	205	10	115	5	0	5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	4	0	0	5	0	0	0	0	0	0	0
Mvmt Flow	5	158	153	221	284	11	216	11	121	5	0	5
Number of Lanes	0	1	0	0	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	1	1
HCM Control Delay	13.8	27.1	13.6	10.2
HCM LOS	B	D	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	2%	43%	50%
Vol Thru, %	0%	8%	50%	55%	0%
Vol Right, %	0%	92%	48%	2%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	205	125	300	490	10
LT Vol	205	0	5	210	5
Through Vol	0	10	150	270	0
RT Vol	0	115	145	10	5
Lane Flow Rate	216	132	316	516	11
Geometry Grp	7	7	2	2	5
Degree of Util (X)	0.434	0.222	0.486	0.798	0.021
Departure Headway (Hd)	7.239	6.071	5.541	5.571	7.05
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	496	588	647	645	511
Service Time	5.005	3.836	3.61	3.63	5.05
HCM Lane V/C Ratio	0.435	0.224	0.488	0.8	0.022
HCM Control Delay	15.5	10.6	13.8	27.1	10.2
HCM Lane LOS	C	B	B	D	B
HCM 95th-tile Q	2.2	0.8	2.7	7.9	0.1

HCM Signalized Intersection Capacity Analysis  
 115: Commercial Node/Gebhard Rd & E Pine St

06/12/2020



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↔		↔	↑↑↔		↔	↔		↔↔	↔	
Traffic Volume (vph)	520	1150	15	15	2050	225	10	10	10	310	5	120
Future Volume (vph)	520	1150	15	15	2050	225	10	10	10	310	5	120
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lane Util. Factor	0.97	0.95		1.00	0.91		1.00	1.00		0.97	1.00	
Frt	1.00	1.00		1.00	0.99		1.00	0.93		1.00	0.86	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	3162	3104		1662	4574		1662	1619		3162	1469	
Flt Permitted	0.95	1.00		0.15	1.00		0.67	1.00		0.95	1.00	
Satd. Flow (perm)	3162	3104		260	4574		1178	1619		3162	1469	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	547	1211	16	16	2158	237	11	11	11	326	5	126
RTOR Reduction (vph)	0	1	0	0	10	0	0	10	0	0	108	0
Lane Group Flow (vph)	547	1226	0	16	2385	0	11	12	0	326	23	0
Heavy Vehicles (%)	2%	7%	0%	0%	3%	2%	0%	0%	0%	2%	0%	2%
Turn Type	Prot	NA		pm+pt	NA		pm+pt	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases				6			8					
Actuated Green, G (s)	20.2	81.6		64.1	64.1		7.2	6.2		11.5	16.7	
Effective Green, g (s)	20.2	81.6		64.1	64.1		7.2	6.2		11.5	16.7	
Actuated g/C Ratio	0.17	0.68		0.53	0.53		0.06	0.05		0.10	0.14	
Clearance Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	532	2110		170	2443		74	83		303	204	
v/s Ratio Prot	c0.17	0.40		0.00	c0.52		0.00	0.01		c0.10	c0.02	
v/s Ratio Perm				0.05			0.01					
v/c Ratio	1.03	0.58		0.09	0.98		0.15	0.14		1.08	0.11	
Uniform Delay, d1	49.9	10.2		15.2	27.2		53.4	54.4		54.2	45.2	
Progression Factor	0.63	0.31		0.61	0.84		1.00	1.00		1.00	1.00	
Incremental Delay, d2	36.7	0.7		0.2	10.7		0.9	0.8		73.4	0.2	
Delay (s)	67.9	3.8		9.3	33.6		54.3	55.1		127.6	45.4	
Level of Service	E	A		A	C		D	E		F	D	
Approach Delay (s)		23.6			33.4			54.8			104.0	
Approach LOS		C			C			D			F	

Intersection Summary

HCM 2000 Control Delay	36.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

**Intersection**

Intersection Delay, s/veh	16.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	105	30	35	315	65	0	40	0	95	70	160
Future Vol, veh/h	10	105	30	35	315	65	0	40	0	95	70	160
Peak Hour Factor	0.92	0.92	0.92	0.85	0.92	0.85	0.92	0.85	0.85	0.85	0.85	0.92
Heavy Vehicles, %	2	2	2	14	2	8	2	3	0	0	4	2
Mvmt Flow	11	114	33	41	342	76	0	47	0	112	82	174
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.9	20.9	10.1	15.4
HCM LOS	B	C	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	7%	8%	29%
Vol Thru, %	100%	72%	76%	22%
Vol Right, %	0%	21%	16%	49%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	145	415	325
LT Vol	0	10	35	95
Through Vol	40	105	315	70
RT Vol	0	30	65	160
Lane Flow Rate	47	158	460	368
Geometry Grp	1	1	1	1
Degree of Util (X)	0.084	0.254	0.707	0.56
Departure Headway (Hd)	6.419	5.802	5.536	5.48
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	554	616	653	655
Service Time	4.509	3.871	3.587	3.538
HCM Lane V/C Ratio	0.085	0.256	0.704	0.562
HCM Control Delay	10.1	10.9	20.9	15.4
HCM Lane LOS	B	B	C	C
HCM 95th-tile Q	0.3	1	5.8	3.5

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*SOUTHERN  
OREGON  
TRANSPORTATION  
ENGINEERING, LLC*

Appendix I

Scoping Requirements

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# Oregon

Kate Brown, Governor

Oregon Department of Transportation  
Region 3, District 8  
100 Antelope Road  
White City, OR 97503  
(541) 774-6316  
FAX (541) 774-6397

FILE CODE:

**Date:** July 5, 2017

**File:**

**Address:** Kimberly Parducci PE, PTOE  
Southern Oregon Transportation Engineering, LLC  
319 Eastwood Drive,  
Medford, Oregon 97501

**Subject:** Traffic Impact Study Scope of Work:  
Central Point UGB Comprehensive Plan Map Amendment

The purpose of this letter is to define the scope of work for a Traffic Impact Study (TIS), which evaluates the impact of comprehensive plan map amendment and zone change for properties (36S-2W-02D) in City of Central Point. The properties are currently zoned as EFU. They are being proposed as C-4. The total acreage is approximately 15 acres. The information identifying the limits of the project shall be defined in the TIS and shall be pre-approved by the Jackson County and ODOT before continuing the evaluation.

## Scope of Work:

### GENERAL

#### 1. Executive Summary

Provide a description of the development, site location and study area (including a site map). Briefly describe the purpose of the analysis, principal findings, recommendations and conclusions.

#### 2. Analysis Study Area

Provide a text description (including tax-lot descriptions) of the proposed development; and a graphic showing the intersections and accesses to be evaluated as part of this analysis.

##### **A. Major Intersections to be evaluated:**

- a) *I-5 SB On/Off Ramps & E Pine Street*
- b) *I-5 NB On/Off Ramps & E Pine Street*
- c) *Peninger Road & E Pine Street*

Note: The traffic distribution and volume determinations may expand the area of investigation or could eliminate some of the above indicated intersections.

## TRAFFIC DATA

### 1. Traffic Counts

For all major intersections where significant signal modifications or where signals are being proposed, the counts shall be a minimum of 16-hour long, with 15-minute breakdowns in the A.M. and P.M. peak hours, unless pre-approved for a lesser time. Justification for deviation from these counts will be required. For all other intersections and approaches, the counts must be at least 3-hours long, made during both the morning and afternoon peaks, with 15-minute breakdowns. The morning peak hour occurs during 6:30 AM to 9:30 AM and the afternoon peak occurs during 3:30 PM to 6:30 PM. ODOT and the City are not aware of any "false" peaks for this area of the City. If there are indications of problems during these time frames, the traffic evaluation shall address all concerns.

**If the zone change is anticipated to have peak hour trip generation other than the typical weekday AM or PM peak hours, that peak hour shall also be analyzed. The appropriate peak hour count shall be determined by 16-hour long count.**

Raw traffic volumes will not be accepted for use in traffic analysis. All traffic volumes shall be seasonally adjusted to represent 30<sup>th</sup> Highest Hour Volumes (30HV) for Current Year, each anticipated phase completion, and Future Year "background traffic" conditions, all with and with-out the development. For guidance, please refer to the *Developing Design Hour Volumes* document at:  
<http://www.oregon.gov/ODOT/TD/TP/docs/TAPM/DevDHFV.pdf>

### 2. Site Trip Generation, Distribution and Assignment

Site trip generation shall utilize the most recent edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual to estimate daily and peak hour trip volumes originating from and destined to the proposed zone change. In the case of an existing approval where specific land uses have not been identified, a reasonable worst-case land use scenario should be assumed based on the allowed uses under the current and requested zone(s). All assumptions and adjustments shall be documented and discussed in the TIS, or in an appendix. Trip generation may be adjusted with additional information and refinement. Pass-by, Diverted and Internal trips should be calculated based on ITE Trip Generation hand book.

This analysis should use available transportation models in conjunction with Jackson County Transportation System Plan and the Comprehensive Plan to estimate traffic distribution patterns. This TIS could be a significant amendment to the current Comprehensive Plan and the Transportation System Plan. Approved computer models, such as TRAFFIX, or manual calculations may also be used for determining trip assignments for site-generated traffic volumes on roadways within the study area. **Pre-approval of trip generation and distribution parameters shall be obtained prior to commencing further analysis. Please note: This is also a good time to verify all assumptions to be utilized in the traffic analysis or to discuss any abnormalities noted in the review of the development area.**

## **ANALYSIS PROCEDURES**

For ODOT's *Analysis Procedures Manual* Refer to:  
<http://www.oregon.gov/ODOT/TD/TP/TAPM.shtml>  
and for ODOT's *Development Review Guidelines* Refer to:  
<http://www.oregon.gov/ODOT/TD/TP/DRG.shtml>

### **1. Capacity Analysis**

Capacity analysis of signalized intersections, un-signalized intersections, and roadway segments shall follow the established methodologies of the current Highway Capacity Manual (HCM 2010). For signalized intersections, the overall intersection V/C shall be reported. For un-signalized intersections, the highest approach V/C shall be reported, along with an indication of its corresponding movement.

Attached **Table 3.3.7** lists the ODOT default values for use in signalized intersection analysis. If multiple intersections are analyzed, the traffic volumes shall be balanced between intersection nodes. All intersection capacity analyses shall include heavy vehicles percentages by approach, as determined from manual counts. Planning level mobility results (V/C) from the TIS will be compared against Highway Mobility Standards (Policy 1F) and the Maximum V/C Ratios provided in Table 6 of the 1999 Oregon Highway Plan (OHP).

Application of Computer software shall closely follow ODOT-approved analysis methodologies using ODOT standard parameter values. HCS2010 and Synchro/SimTraffic are examples of accepted analysis software. For further guidance, contact TPAU.

### **2. Queue Length Analysis**

Intersection operation analysis shall include the effects of queuing and blocking. Average queue lengths and 95<sup>th</sup> Percentile queue lengths shall be reported for all study area intersections. The 95<sup>th</sup> Percentile queuing shall be used for design purposes, and will be reported to the next highest 25 foot increment. Any methodology used to determine queue length shall be approved in advance by either TPAU or the Region Traffic Section.

## **ANALYSIS REQUIREMENTS**

### **1. Intersection Sight Distance**

Adequate intersection sight distance shall be verified for all proposed intersections and highway approaches as required in ODOT's 2012 Highway Design Manual. Refer to:  
[http://www.oregon.gov/ODOT/HWY/ENGSERVICES/pages/hwy\\_manuals.aspx](http://www.oregon.gov/ODOT/HWY/ENGSERVICES/pages/hwy_manuals.aspx)

For guidance, please contact the Region Access Management Engineer.

### **2. Right & Left Turn Lane Criteria**

Proposed right or left turn lanes at un-signalized intersections and private approach roads shall meet installation criteria contained in the current Highway Design Manual (HDM). For turn lane evaluation procedures, refer to:  
<http://www.oregon.gov/ODOT/TD/TP/TAPM.shtml>

### **3. Traffic Signal Installations & Modifications**

Analysis and recommendations related to new and/or modified traffic signals shall follow ODOT's Traffic Signal Policy and Guidelines, and all subsequent revisions. These documents can found on the web at:

<http://www.oregon.gov/ODOT/HWY/TRAFFIC/publications.shtml>

Any recommendations for traffic signals to be installed or modified as part of future mitigation should meet preliminary signal warrants (MUTCD Warrant #1, Case A & B).

New signal proposals for the Day of Opening shall show, but are not limited to, the following:

- a) A clear indication for the traffic signal; only after other enhancements to nearby signals or intersections are shown to be insufficient to mitigate the new highway related impacts resulting from the proposed development.
- b) An assessment of the ability of the existing, planned, and proposed public roads to accommodate development traffic at another location.
- c) A detailed description how the proposed development will affect the existing and proposed study area intersections.
- d) Documentation of traffic volumes and signal warrant satisfaction; if a new signal is determined to be the correct solution.

Clearly show how one or more of the eight warrants identified in the Millennium Edition of the Manual on Uniform Traffic Control Devices (MUTCD), Chapter 4C, Sections 1 through 9 are met, consistent with the requirements of OAR 734-020-0490. Traffic signal spacing requirements shall conform to the 1999 Oregon Highway Plan and all amendments.

All proposed signals shall show the need and warrants as described in Oregon Administrative Rule 734-020-0400-0500, the Oregon Traffic Manual section 6.34 and the above mentioned Traffic Signal Policy and Guidelines. For guidance, please contact TPAU or the Region Traffic Section, or refer to the Preliminary Signal Warrant Guidelines at:

[http://www.oregon.gov/ODOT/TD/TP/docs/TAPM/Signal\\_Warrant.pdf](http://www.oregon.gov/ODOT/TD/TP/docs/TAPM/Signal_Warrant.pdf)

**NOTE:** It is ultimately up to the State Traffic Engineer to approve all signal installations, modifications and deviations. Just because an intersection may meet the MUTCD Warrants does not insure it will be approved by the State Traffic Engineer.

## **ANALYSIS OUTPUT**

### **1. Existing Conditions**

Identify current year site conditions at the proposed development location. This includes, but is not limited to the following:

- a) A description of the site location, zoning, existing use(s), and proposed use(s) of subject property.
- b) A description of surrounding and anticipated land uses.
- c) A graphic identifying existing lane configurations and traffic control devices at the study area intersections



- d) A graphic showing existing 30HV traffic; reported as AM (6:30-9:30 a.m.) and PM (3:30-6:30 p.m.) Peak Hour Volumes (PHV), and also as average daily traffic (ADT). Also include in this graphic a list of heavy vehicle percentages by approach and growth rates used for future volumes.
- e) Identify all proposed road segments, public intersections, public or private approaches:
  - where the proposed project can be expected to add additional traffic volumes greater than 20 percent of the current traffic volumes,
  - or at a minimum 500 vehicle trips in a single day,
  - or more than 50 additional vehicle trips in any single hour.
- f) An analysis of existing intersection operations, reported in terms of both Volume to Capacity (V/C) and Level of Service (LOS).
- g) An analysis of at least 5-years worth of crash data; including information on all SPIS sites within or adjacent to the study area.

## **2. Traffic Volumes & Operations – Year of Opening and Years of Anticipated Phases; with & without Proposed Development**

An analysis shall be made of all study area intersections for the Year of Opening and each anticipated phase, with both “*background traffic*” and “*total traffic*” conditions. “*Total traffic*” conditions are considered “*background traffic*” volumes plus site generated trips and “pipe line” trips. This analysis should provide the following:

- a) A graphic showing Year of phase “*background traffic*” and “*total traffic*” volumes.
- b) A graphic or table showing V/C and LOS analysis results for both “*background traffic*” and “*total traffic*” volumes.
- c) A graphic or table itemizing storage length requirements for all approaches, rounded to the next nearest 25 foot increment.
- d) If applicable, a discussion of progression performance along the analysis corridor.

## **3. Traffic Volumes & Operations – Future-Year; with & without Proposed Development**

An analysis shall be made of all study area intersections for a **20-year horizon** including each completed phase, anticipated development in the surrounding area, and all anticipated improvements on the transportation system for both “*background traffic*” and “*total traffic*” conditions. This analysis should provide the following:

- a) A graphic showing Year of Opening “*background traffic*” and “*total traffic*” volumes.
- b) A graphic or table showing V/C and LOS analysis results for both “*background traffic*” and “*total traffic*” volumes.
- c) A graphic or table itemizing storage length requirements for all approaches, rounded to the next highest 25 foot increment.
- d) If applicable, a discussion of progression performance along the analysis corridor.

Planned transportation system improvements anticipated within the **20-year horizon** shall be incorporated into the Future Year analysis. Do not incorporate improvements that are proposed as mitigation for the development. For guidance,

please refer to the Transportation Planning Rule (TPR) OAR 660-012-0060 at <http://www.oregon.gov/ODOT/TD/TP/docs/TPR/adopt042005.pdf>

#### **4. Capacity & Operation Analysis Inputs**

A summary of traffic analysis variable inputs shall be provided in an appendix. In Synchro, the *Int: Lanes, Volumes, Timings* report is the output source for this information. TIS's submitted without an input summary will not be accepted by the Department.

#### **5. Conclusions and Recommendations**

Summarize existing and future conditions and discuss the proposed development's impacts. Identify any operational, capacity or safety deficiencies and recommend mitigation along with the effectiveness of the mitigation. Summarize how the proposed development complies with all operational, capacity and safety standards in the applicable approval criteria. Also summarize all proposed mitigations and the "assigned" proportionality to the development for all locations.

***Note: Signal timing adjustments will not be considered as mitigation.***

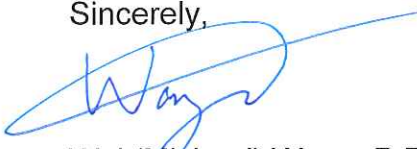
Please submit three stamped, final hard copy versions of the TIS for review to ODOT and two final hard copy versions to the Jackson County. Also, please submit all electronic analysis files for review to ODOT so staff can verify assumptions, default settings, and other values included in the traffic analysis. If the analysis performed used traffic software other than Trafficware's Synchro/Simtraffic software or Highway Capacity Manual 2010 software, please submit the appropriate UTDF files for review. You may contact the Region Traffic Analyst for details. ODOT staff will need a minimum of 30 days for review and comment on the TIS. The review period should be completed prior to initiation of the Jackson County land-use process.

**Please include this scope of work as an appendix item in the TIS.**

We hope this will provide enough information to get started on the analysis. We are pleased to work with you and your staff to answer any questions that arise during the course of your work. Additional coordination of traffic analysis data may be required during the TIS review process.

Please contact me directly at 541-774-6316 or Mr. Ron Hughes at 541-957-3696 if you have comments, questions, or require additional information regarding traffic engineering issues or contact Mr. Donald Morehouse, ODOT Development Review Planner, at 541-774-6399, if you have comments, questions, or require additional information regarding land use issues. Mr. Morehouse will serve as the lead ODOT Development Review contact for this project

Sincerely,



Wei (Michael) Wang, P.E. & M.S.  
Region 3 Development Review Engineer

**From:** Mike Kuntz [mailto:[KuntzM@jacksoncounty.org](mailto:KuntzM@jacksoncounty.org)]  
**Sent:** Wednesday, September 25, 2019 4:49 PM  
**To:** Stephanie Holtey; Nancy Coates; Charles Bennett; Tom Humphrey  
**Cc:** Charles DeJanvier; John Vial; Matt Samitore  
**Subject:** RE: RE: Urban Growth Boundary Amendment

Stephanie,

Thank you very much for this information, it is very helpful. I do not recall being consulted regarding the TIA scope of work. I would ask that the following intersections be added for analysis.

- Upton/Peninger
- Upton/Wilson
- Future intersection; Peninger/Beebe
- Future intersection; Gebhard/Biddle

Mike

**From:** Stephanie Holtey [mailto:[Stephanie.Holtey@centralpointoregon.gov](mailto:Stephanie.Holtey@centralpointoregon.gov)]  
**Sent:** Wednesday, September 25, 2019 4:26 PM  
**To:** Nancy Coates <[CoatesN@jacksoncounty.org](mailto:CoatesN@jacksoncounty.org)>; Charles Bennett <[BennetCH@jacksoncounty.org](mailto:BennetCH@jacksoncounty.org)>; Tom Humphrey <[Tom.Humphrey@centralpointoregon.gov](mailto:Tom.Humphrey@centralpointoregon.gov)>  
**Cc:** Charles DeJanvier <[DeJanvCA@jacksoncounty.org](mailto:DeJanvCA@jacksoncounty.org)>; Mike Kuntz <[KuntzM@jacksoncounty.org](mailto:KuntzM@jacksoncounty.org)>; John Vial <[VialJN@jacksoncounty.org](mailto:VialJN@jacksoncounty.org)>  
**Subject:** EXT: RE: Urban Growth Boundary Amendment

Hi Nancy,

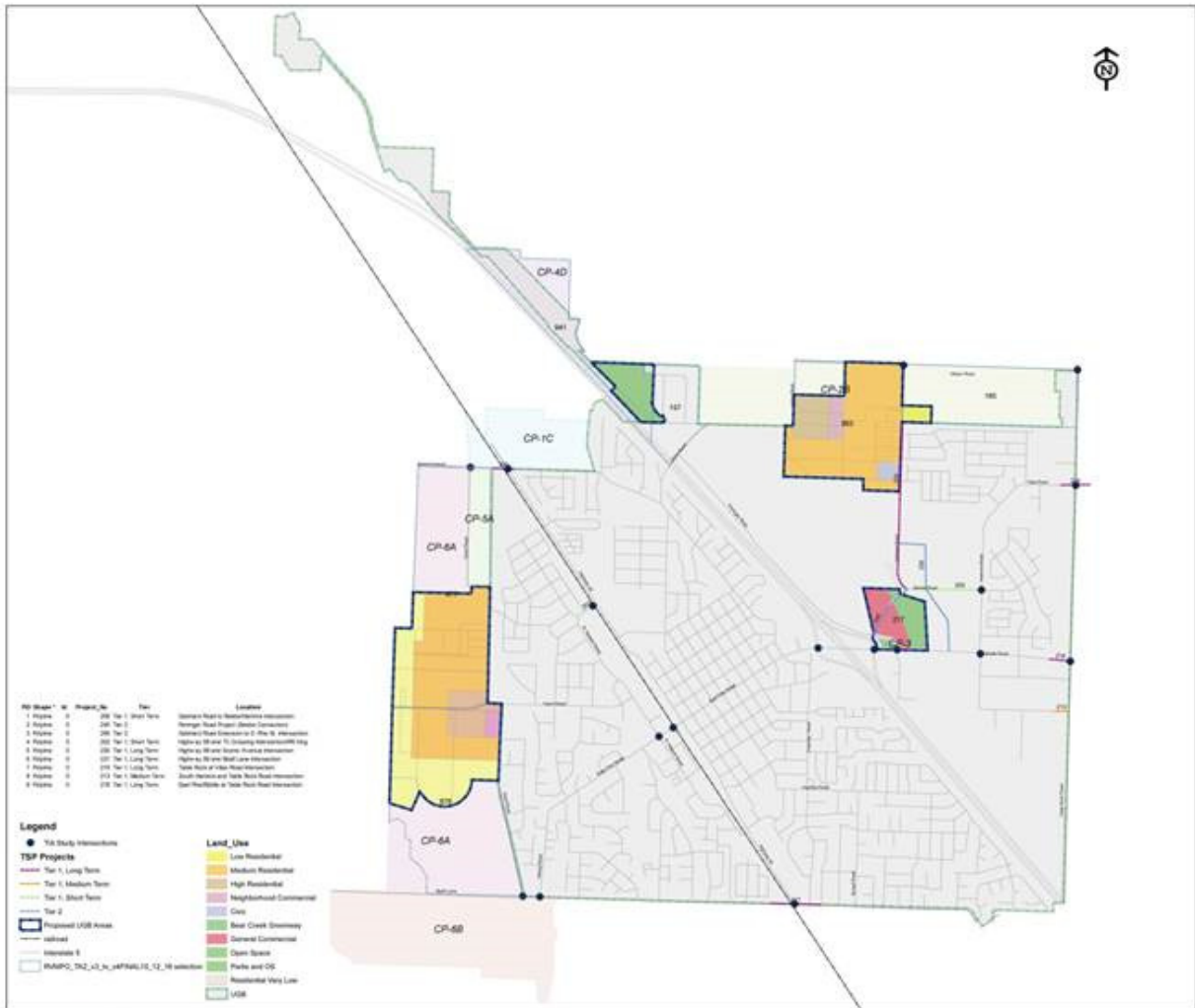
We are in the midst of completed a Traffic Impact Analysis for the proposed amendment. Provided below is an excerpt from the TIA Scope of Work, which includes a map and list of infrastructure being evaluated. The map labels are small so I attached the PDF to facilitate easier review on your part. If you need further information from the City to provide comments at the Pre-Application Conference, please let us know.

## SCOPE OF WORK

### 1. Overview

The City of Central Point is amending its Urban Growth Boundary (UGB) to include land for residential, employment (commercial), parks other uses. The proposed UGB Amendment and study intersections are shown in Figure 1 and listed in Table 1.

Figure 1. Central Point UGB Amendment



Central Point UGB Amendment Project  
Proposed UGB, 2019-2039

## 2. Traffic Impact Analysis Objectives

Southern Oregon Transportation Engineers has been selected to prepare a Traffic Impact Analysis (TIA) to evaluate impacts of the proposed UGB Amendment on major Oregon Department of Transportation (ODOT) and Jackson County intersections relative to existing and planned improvements during the planning period (Figure 1 and Table 1). The TIA will utilize data outputs from the Regional Transportation Model Runs performed by ODOT's Transportation Planning Analysis Unit (TPAU) in April and July 2019.

**Table 1. TIA Study Intersections (added Taylor/Grant T-intersections)**

No.	Intersection Name	Jurisdiction
1	Twin Creeks Crossing at Highway 99	City of Central Point
2	Grant Road at Scenic Avenue	Jackson County
3	Scenic Avenue at Highway 99	ODOT, County, City
4	Grant Road at Beall Lane	Jackson County
5	Hanley Road at Beall Lane	Jackson County
6	Haskell at West Pine Street	City of Central Point
7	Pine at Front Street (Highway 99)	City of Central Point
8	Highway 99 at Beall Lane	ODOT, Jackson County
9	Gebhard at Wilson Road	Jackson County
10	Table Rock at Wilson Road	Jackson County
11	Table Rock at Vilas Road	Jackson County
12	Beebe at Hamrick Road	City of Central Point, Jackson County
13	Hamrick at East Pine Street/Biddle Road	Jackson County
14	Biddle at Table Rock Road	Jackson County
15	East Pine Street at Peninger Road	ODOT, Jackson County, City
16	I-5 Northbound Ramps	ODOT
17	I-5 Southbound Ramps	ODOT

Results of the TIA will be used to:

- Evaluate UGB location alternatives;
- Determine if any existing or planned intersections will fail as a result of the UGB Amendment and what additional mitigation may be needed; and,
- Use this information as part of the City’s Environmental, Social, Economic and Energy (ESEE) consequences analysis to determine the City’s final UGB Amendment location for application purposes.

See Exhibit “C” for tasks.

**3. Timeline**

The target timeline for the UGB TIA is set forth in Table 2 below.

**Table 2. Project Timeline.**

Task	Description	Completion Date
1	Project Management / Coordination with staff	Through project
2	Gather Field Data (Traffic Counts)	Through second week in September
3	Traffic Analysis	End of September
4	Project Figures	End of September
5	Preparation of Draft Report	End of September
6	Preparation of Final Report / Appendices	Second week in October
7	Agency Coordination	In October
8	Report Production	Second week in October

Stephanie Holtey, CFM  
 Principal Planner  
 Community Development Department  
 (541) 423.1031 (direct)  
 140 South Third Street

Central Point, OR 97502  
[www.centralpointoregon.gov](http://www.centralpointoregon.gov)

**From:** Nancy Coates  
**Sent:** Wednesday, September 25, 2019 1:28 PM  
**To:** Charles Bennett <[BennetCH@jacksoncounty.org](mailto:BennetCH@jacksoncounty.org)>; Stephanie Holtey <[Stephanie.Holtey@centralpointoregon.gov](mailto:Stephanie.Holtey@centralpointoregon.gov)>; Tom Humphrey - City of Central Point ([Tom.Humphrey@centralpointoregon.gov](mailto:Tom.Humphrey@centralpointoregon.gov)) <[Tom.Humphrey@centralpointoregon.gov](mailto:Tom.Humphrey@centralpointoregon.gov)>  
**Cc:** Charles DeJanvier <[DeJanvCA@jacksoncounty.org](mailto:DeJanvCA@jacksoncounty.org)>; Mike Kuntz <[KuntzM@jacksoncounty.org](mailto:KuntzM@jacksoncounty.org)>; John Vial <[VialJN@jacksoncounty.org](mailto:VialJN@jacksoncounty.org)>  
**Subject:** Urban Growth Boundary Amendment

Hi,

Just wanted to follow-up with an email requesting a map with better detail. In order to make reasonable comments on this amendment, JC Roads is asking to see which roads are affected.

Thanks,  
**Nancy Coates**  
*Engineering Associate*

200 Antelope Road  
White City, OR 97503  
Office: 541-774-6261  
Fax: 541-774-6295  
[coatesn@jacksoncounty.org](mailto:coatesn@jacksoncounty.org)