

Appendix E

Intersection Analysis

- **TMC Data**
- **Synchro and Sim Traffic Reports**
- **Screenline Growth Rates**
- **Signal Warrant Analysis**

15 MIN REPORT

Count ID: 9,953

PRESTONVALE RD @ REGIONAL HIGHWAY 2

Municipality: Clarington

Date: 31-Oct-2012

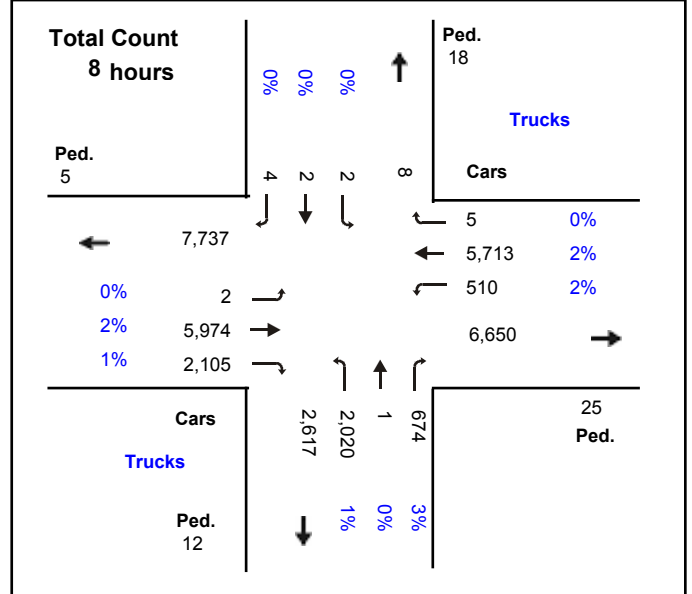
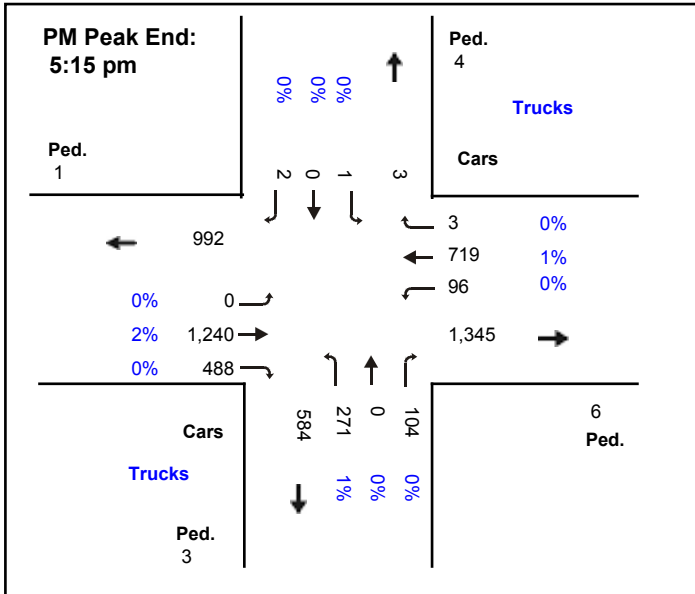
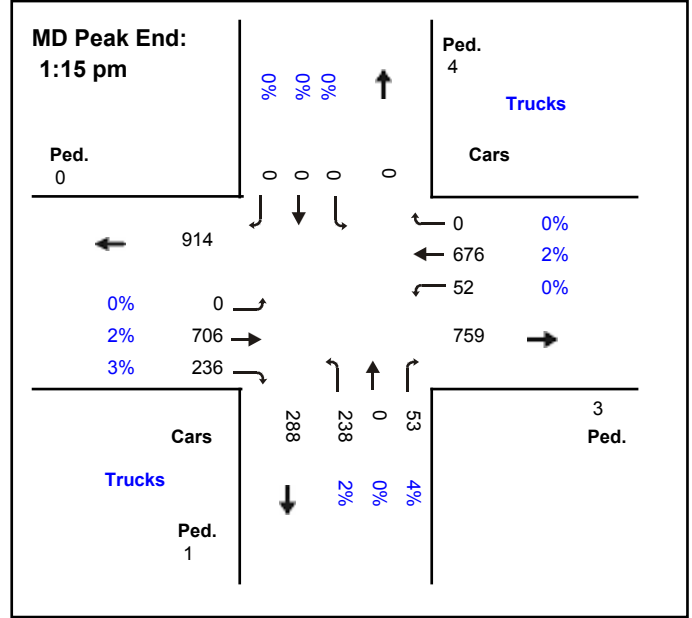
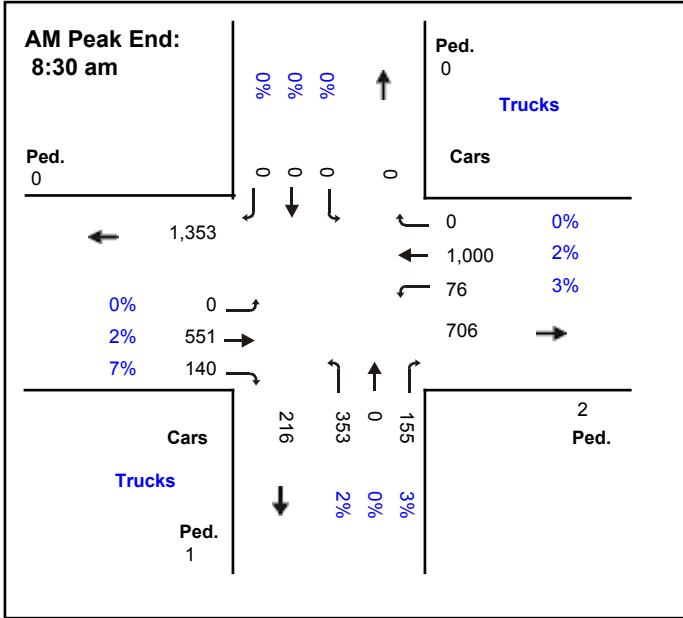
Time	NORTH APPROACH				EAST APPROACH				SOUTH APPROACH				WEST APPROACH				Total																									
	Cars		Trucks		Heavies		Ped	Cars		Trucks		Heavies		Ped	Cars			Trucks		Heavies		Ped																				
	Left	ThruRight	Left	Thru Right	Left	Thru Right		Left	ThruRight	Left	ThruRight	Left	ThruRight		Left	ThruRight		Left	Thru Right	Left	Thru Right																					
Period1																																										
6:15	0	0	1	0	0	0	0	0	0	0	2	70	0	0	3	0	0	0	0	0	22	0	4	0	0	0	0	0	0	0	0	0	43	5	0	2	0	0	0	0	0	152
6:30	0	0	0	0	0	0	0	0	0	0	0	102	0	0	1	0	0	0	0	0	35	0	7	1	0	0	0	0	0	1	0	54	11	0	2	0	0	0	0	0	214	
6:45	0	0	0	0	0	0	0	0	0	0	2	145	0	0	4	0	0	0	0	0	37	0	3	1	0	0	0	0	0	0	0	64	10	0	0	0	0	0	0	0	266	
7:00	0	0	0	0	0	0	0	0	0	0	5	126	0	0	2	0	0	0	0	2	46	0	10	0	0	0	0	0	0	0	0	76	22	0	3	0	0	0	0	0	292	
7:15	0	0	0	0	0	0	0	0	0	0	7	149	0	0	4	0	0	0	0	0	53	0	8	0	0	0	0	0	0	0	0	70	23	0	4	2	0	0	0	0	320	
7:30	0	0	0	0	0	0	0	0	0	0	4	190	0	0	5	0	0	0	0	0	64	0	16	1	0	1	0	0	0	0	0	75	24	0	2	1	0	0	0	0	383	
7:45	0	0	0	0	0	0	0	0	0	0	11	231	0	0	2	0	0	0	0	1	102	0	16	2	0	0	0	0	0	0	0	120	27	0	1	3	0	0	0	0	516	
8:00	0	0	0	0	0	0	0	0	0	0	13	242	0	2	4	0	0	0	0	0	93	0	49	1	0	2	0	0	0	1	0	145	26	0	1	3	0	0	0	0	582	
8:15	0	0	0	0	0	0	0	0	0	0	30	242	0	0	3	0	0	0	0	0	77	0	54	2	0	3	0	0	0	0	0	142	33	0	7	2	0	0	0	0	595	
8:30	0	0	0	0	0	0	0	0	0	0	20	265	0	0	11	0	0	0	0	1	75	0	31	1	0	0	0	0	0	0	0	134	44	0	1	2	0	0	0	0	585	
8:45	0	0	0	0	0	0	0	0	0	0	9	248	0	0	3	0	0	0	0	2	70	0	24	1	0	1	0	0	0	0	0	112	40	0	3	3	0	0	0	0	516	
9:00	0	0	0	0	0	0	0	0	0	0	27	217	0	1	8	0	0	0	0	0	74	0	18	2	0	2	0	0	0	0	0	116	64	0	5	2	0	0	0	0	536	
Period2																																										
11:45	0	0	0	0	0	0	0	0	0	1	10	180	0	0	4	0	0	0	0	0	54	0	18	1	0	0	0	0	0	1	0	181	47	0	7	1	0	0	0	0	505	
12:00	0	0	0	0	0	0	0	0	0	1	18	167	0	0	4	0	0	0	0	0	47	0	22	0	0	1	0	0	0	0	0	156	51	0	3	0	0	0	0	1	471	
12:15	0	0	0	0	0	0	0	0	0	1	7	167	0	1	8	0	0	0	0	1	54	0	13	1	0	1	0	0	0	1	0	176	44	0	2	2	0	0	0	0	479	
12:30	0	0	0	0	0	0	0	0	0	1	11	174	0	0	2	0	0	0	0	0	45	0	17	0	0	1	0	0	0	0	0	180	62	0	0	1	0	0	0	0	494	
12:45	0	0	0	0	0	0	0	0	0	0	12	148	0	0	3	0	0	0	0	0	56	0	11	3	0	0	0	0	0	1	0	180	59	0	6	0	0	0	0	0	479	
13:00	0	0	0	0	0	0	0	0	0	1	10	153	0	0	6	0	0	0	0	2	66	0	11	2	0	0	0	0	0	0	0	149	56	0	3	2	0	0	0	0	461	
13:15	0	0	0	0	0	0	0	0	0	2	19	186	0	0	4	0	0	0	0	1	66	0	12	0	0	1	0	0	0	0	0	186	53	0	2	3	0	0	0	0	535	
13:30	0	0	0	0	0	0	0	0	0	0	5	163	0	0	1	0	0	0	0	0	44	0	15	0	0	4	0	0	0	1	0	190	63	0	2	0	0	0	0	1	489	
Period3																																										
15:15	0	0	0	0	0	0	0	0	0	0	27	192	0	0	2	0	0	0	0	2	51	0	24	0	0	0	0	0	0	0	0	238	78	0	3	0	0	0	0	1	618	
15:30	0	0	0	0	0	0	0	0	0	0	16	169	2	2	6	0	0	0	0	1	53	0	18	1	0	0	0	0	0	1	0	251	95	0	4	1	0	0	0	0	620	
15:45	0	1	0	0	0	0	0	0	0	2	19	173	0	1	4	0	0	0	0	2	81	0	25	2	0	1	0	0	0	0	0	266	88	0	2	2	0	0	0	0	669	
16:00	0	1	0	0	0	0	0	0	0	3	18	166	0	0	5	0	0	0	0	1	102	1	30	2	0	1	0	0	0	0	0	265	107	0	8	0	0	0	0	1	711	
16:15	0	0	0	0	0	0	0	0	0	1	27	164	0	0	1	0	0	0	0	0	83	0	27	1	0	0	0	0	0	1	0	264	107	0	7	0	0	0	0	0	683	
16:30	0	0	1	0	0	0	0	0	0	0	22	179	1	0	1	0	0	0	0	0	63	0	38	1	0	0	0	0	0	1	0	314	130	0	7	1	0	0	0	0	759	
16:45	0	0	0	0	0	0	0	0	0	0	24	183	0	0	2	0	0	0	0	4	71	0	21	1	0	0	0	0	0	1	0	305	122	0	6	0	0	0	0	0	740	
17:00	1	0	1	0	0	0	0	0	0	2	26	188	2	0	1	0	0	0	0	1	74	0	26	0	0	0	0	0	0	1	0	311	113	0	3	0	0	0	0	1	751	
17:15	0	0	0	0	0	0	0	0	0	2	24	164	0	0	1	0	0	0	0	1	61	0	19	0	0	0	0	0	0	0	0	291	122	0	3	0	0	0	0	0	688	
17:30	0	0	0	0	0	0	0	0	0	0	29	157	0	0	0	0	0	0	0	2	66	0	26	1	0	0	0	0	0	1	1	288	143	0	4	0	0	0	0	0	718	
17:45	0	0	0	0	0	0	0	0	0	1	28	145	0	1	2	0	0	0	0	1	53	0	19	0	0	0	0	0	0	0	0	281	105	0	2	0	0	0	0	0	638	
18:00	1	0	1	0	0	0	0	0	0	0	20	160	0	0	1	0	0	0	0	0	54	0	23	0	0	0	0	0	0	0	1	243	100	0	3	0	0	0	0	0	607	



PRESTONVALE RD @ REGIONAL HIGHWAY 2
Clarington

Count Date: 31-Oct-2012

Count Day: Wednesday



TMC Tabular Report

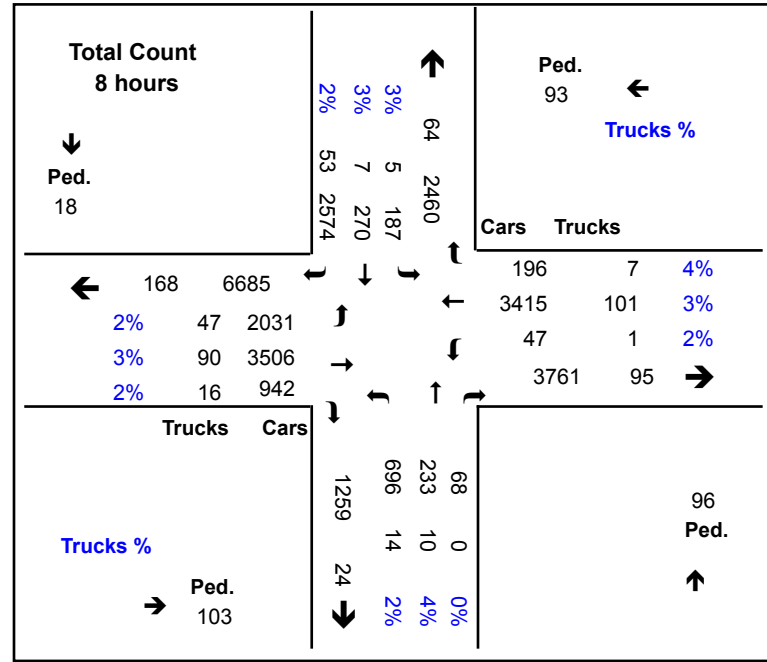
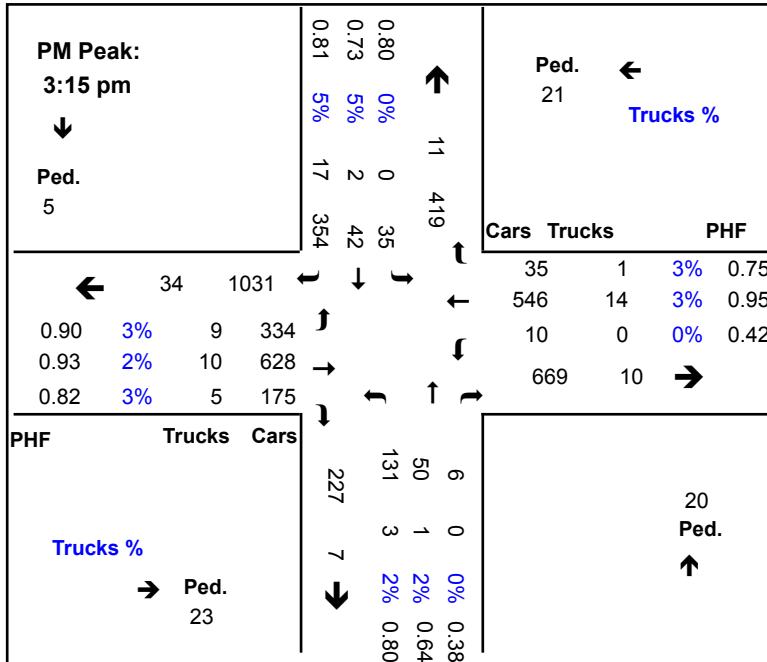
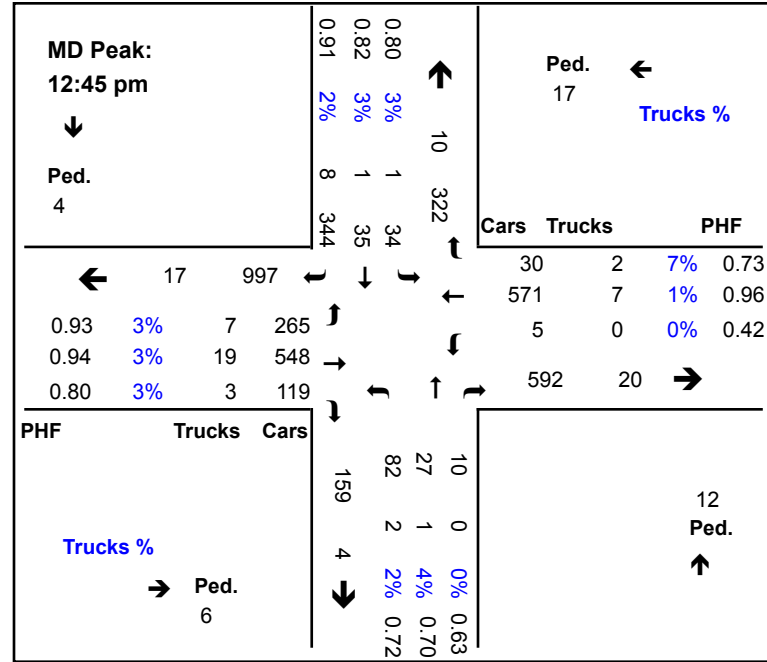
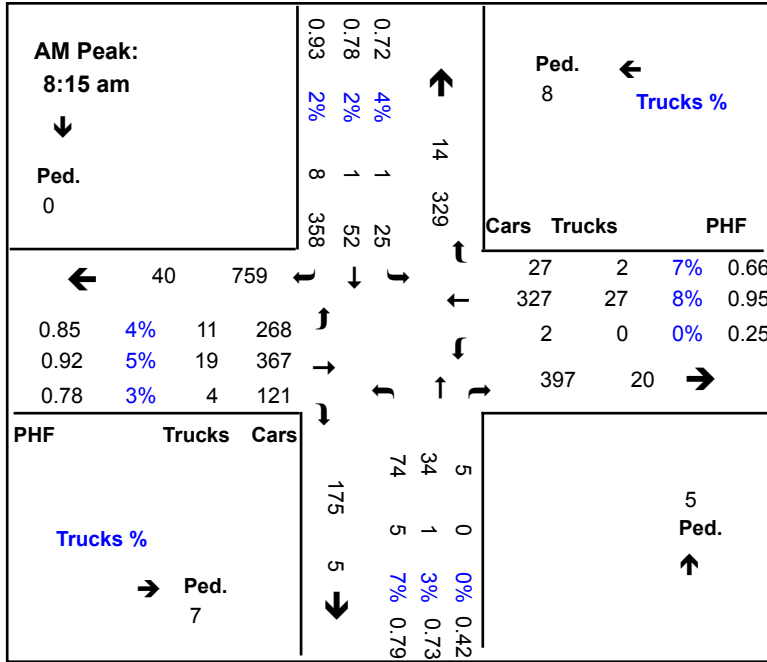
KING ST W @ SCUGOG ST

TMC No. : 0702200000

Intersection ID : 4517

Count ID: 28912013136

Count Date: 5/16/2013



TMC 15 Min Report

KING ST W @ SCUGOG ST

Time	NORTH APPROACH									EAST APPROACH									SOUTH APPROACH									WEST APPROACH									Total			
	Cars			Trucks			Heavies			Ped	Cars			Trucks			Heavies			Ped	Cars			Trucks			Heavies			Ped										
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right							
Period 1																																								
6:15	0	5	36	1	0	1	0	0	0	1	1	23	1	0	3	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	7	18	5	0	1	0	0	0	0	0
6:30	0	3	39	0	0	1	0	0	0	2	0	27	3	0	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	8	24	15	1	1	0	0	0	0	1
6:45	0	5	64	0	0	1	0	0	0	1	0	39	0	0	2	0	0	0	0	2	3	2	0	1	0	0	0	0	0	2	19	40	8	0	1	0	0	0	0	0
7:00	1	6	45	0	0	0	0	0	0	2	0	35	1	0	9	0	0	0	0	1	6	4	1	1	2	0	0	0	0	0	13	39	20	1	0	0	0	0	0	0
7:15	1	5	51	0	0	1	0	0	0	0	0	38	2	0	3	0	0	0	0	1	7	4	0	0	0	0	0	0	0	1	22	44	4	0	1	0	0	0	0	0
7:30	1	4	71	0	0	1	0	0	0	1	0	48	2	0	3	0	0	0	0	0	11	2	0	0	0	0	0	0	0	2	18	43	15	2	1	0	0	0	0	1
7:45	3	3	98	0	0	3	0	0	0	0	0	66	0	0	2	0	0	0	0	2	16	4	0	0	0	0	0	0	0	1	30	47	13	1	5	0	0	0	0	0
8:00	3	5	94	0	0	3	0	0	0	0	0	62	1	0	5	0	0	0	0	4	10	1	1	0	0	0	0	0	0	6	40	87	28	3	10	0	0	0	0	0
8:15	8	15	97	1	1	1	0	0	0	3	0	75	11	0	9	0	0	0	0	1	15	7	0	1	0	0	0	0	0	1	59	75	30	1	10	0	0	0	0	0
8:30	9	17	91	0	0	1	0	0	0	3	0	85	3	0	4	2	0	0	0	3	23	10	0	2	0	0	0	0	0	2	73	99	38	4	6	2	0	0	0	0
8:45	2	10	84	0	0	4	0	0	0	1	0	82	6	0	6	0	0	0	0	1	17	6	3	1	0	0	0	0	0	1	57	92	21	3	3	1	0	0	0	0
9:00	6	10	86	0	0	2	0	0	0	1	2	85	7	0	8	0	0	0	0	0	19	11	2	1	1	0	0	0	0	3	78	101	32	3	0	1	0	0	0	0
Period 2																																								
11:45	17	6	78	1	1	0	0	0	0	3	1	143	10	0	4	0	0	0	0	2	17	7	4	2	0	0	0	0	0	5	52	130	32	2	1	0	0	0	0	2
12:00	6	6	81	1	0	2	0	0	0	4	15	132	9	1	5	0	0	0	0	3	24	10	2	0	1	0	0	0	0	10	59	130	23	1	4	0	0	0	0	0
12:15	6	7	79	0	0	1	0	0	0	9	6	165	7	0	3	1	0	0	0	3	28	18	3	0	1	0	0	0	0	5	47	131	21	2	0	0	0	0	0	0
12:30	9	6	70	0	0	1	0	0	0	6	1	142	7	0	1	0	0	0	0	3	27	6	4	0	1	0	0	0	0	5	54	118	43	1	2	2	0	0	0	0
12:45	11	6	81	0	0	2	0	0	0	6	1	149	8	0	1	1	0	0	0	1	29	9	4	0	1	0	0	0	0	0	68	142	37	3	2	1	0	0	0	0
13:00	8	8	94	0	1	3	0	0	0	4	3	137	10	0	3	1	0	0	0	0	11	7	2	2	0	0	0	0	0	0	61	142	32	1	9	1	0	0	0	0
13:15	8	10	92	1	0	2	0	0	0	2	0	142	8	0	2	0	0	0	0	6	23	6	0	0	0	0	0	0	0	6	66	123	30	0	4	0	0	0	0	2
13:30	7	11	77	0	0	1	0	0	0	5	1	136	4	0	1	0	0	0	0	5	19	5	4	0	0	0	0	0	0	0	70	132	20	3	4	1	0	0	0	2
Period 3																																								
15:15	10	12	70	0	0	4	0	0	0	7	0	140	12	0	5	0	0	0	0	4	35	15	1	1	0	0	0	0	0	4	71	143	43	4	3	2	0	0	0	3
15:30	5	9	112	0	0	3	0	0	0	2	6	142	11	0	5	0	0	0	0	6	40	20	0	2	0	0	0	0	0	8	95	151	54	0	4	1	0	0	0	0
15:45	11	8	96	0	0	3	0	0	0	7	1	144	7	0	3	1	0	0	0	7	34	7	1	0	1	0	0	0	0	9	87	170	33	2	1	0	0	0	0	0
16:00	9	13	76	0	2	7	0	0	0	5	3	120	5	0	1	0	0	0	0	3	22	8	4	0	0	0	0	0	0	2	81	164	45	3	2	2	0	0	0	2
16:15	1	10	75	0	1	1	0	0	0	4	0	112	10	0	0	1	0	0	0	7	20	4	5	0	0	0	0	0	0	12	79	144	28	0	1	1	0	0	0	1
16:30	7	11	76	0	1	0	0	0	0	0	0	121	12	0	2	0	0	0	0	5	23	5	3	0	0	0	0	0	0	8	93	131	33	0	4	0	0	0	0	2
16:45	3	6	118	0	0	1	0	0	0	2	1	133	11	0	0	0	0	0	0	2	37	4	3	0	0	0	0	0	0	0	110	154	41	3	1	0	0	0	0	0
17:00	8	12	89	0	0	0	0	0	0	2	3	160	4	0	4	0	0	0	0	2	23	12	8	0	0	0	0	0	0	3	103	159	40	0	1	0	0	0	0	1
17:15	4	10	86	0	0	2	0	0	0	4	1	142	6	0	3	0	0	0	0	8	45	16	3	0	0	0	0	0	0	1	109	143	38	1	1	1	0	0	0	0
17:30	9	9	87	0	0	0	0	0	0	3	1	102	4	0	1	0	0	0	0	5	22	5	2	0	0	0	0	0	0	0	97	129	44	1	1	0	0	0	0	0
17:45	10	4	79	0	0	1	0	0	0	3	0	163	8	0	2	0	0	0	0	6	53	8	1	0	0	0	0	0	0	3	91	145	44	1	2	0	0	0	0	1
18:00	4	18	102	0	0	0	0	0	0	0	0	125	6	0	0	0	0	0	0	3	27	8	7	0	2	0	0	0	0	3	114	116	32	0	4	0	0	0	0	0
18:00	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0

TMC Tabular Report

REGIONAL RD 57 @ CONCESSION RD 3

TMC No. : 0570700000

Intersection ID : 3423

Count ID: 25132013107

Count Date: 4/17/2013

<p>AM Peak: 7:30 am</p> <p>↓</p> <p>Ped. 0</p>	<p>0.00 0.92 0.68 0% 5% 12%</p> <p>0 13 5 0 277 41</p> <p>18 251 ↑</p>	<p>Ped. ← 2</p> <p>Trucks %</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Cars</th> <th>Trucks</th> <th>PHF</th> </tr> <tr> <td>61</td> <td>1</td> <td>2%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>141</td> <td>8</td> <td>6%</td> </tr> <tr> <td>79</td> <td>5</td> <td>→</td> </tr> </table>	Cars	Trucks	PHF	61	1	2%	0	0	0%	141	8	6%	79	5	→																				
Cars	Trucks	PHF																																				
61	1	2%																																				
0	0	0%																																				
141	8	6%																																				
79	5	→																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>←</td> <td>0</td> <td>0</td> <td>↓</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> </table>	←	0	0	↓	↑	0.00	0%	0	0	↑	0.00	0%	0	0	↑	0.00	0%	0	0	↑	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PHF</th> <th>Trucks</th> <th>Cars</th> </tr> <tr> <td>38</td> <td>0</td> <td>0</td> </tr> <tr> <td>190</td> <td>17</td> <td>9%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>418</td> <td>21</td> <td>→</td> </tr> </table>	PHF	Trucks	Cars	38	0	0	190	17	9%	0	0	0%	418	21	→	<p>0 Ped. ↑</p>	<p>0 Ped. ↑</p>
←	0	0	↓	↑																																		
0.00	0%	0	0	↑																																		
0.00	0%	0	0	↑																																		
0.00	0%	0	0	↑																																		
PHF	Trucks	Cars																																				
38	0	0																																				
190	17	9%																																				
0	0	0%																																				
418	21	→																																				

<p>MD Peak: 12:00 pm</p> <p>↓</p> <p>Ped. 0</p>	<p>0.00 0.90 0.73 0% 8% 12%</p> <p>0 15 3 0 180 26</p> <p>14 215 ↑</p>	<p>Ped. ← 1</p> <p>Trucks %</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Cars</th> <th>Trucks</th> <th>PHF</th> </tr> <tr> <td>40</td> <td>1</td> <td>3%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>52</td> <td>4</td> <td>8%</td> </tr> <tr> <td>83</td> <td>5</td> <td>→</td> </tr> </table>	Cars	Trucks	PHF	40	1	3%	0	0	0%	52	4	8%	83	5	→																				
Cars	Trucks	PHF																																				
40	1	3%																																				
0	0	0%																																				
52	4	8%																																				
83	5	→																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>←</td> <td>0</td> <td>0</td> <td>↓</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> </table>	←	0	0	↓	↑	0.00	0%	0	0	↑	0.00	0%	0	0	↑	0.00	0%	0	0	↑	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PHF</th> <th>Trucks</th> <th>Cars</th> </tr> <tr> <td>57</td> <td>2</td> <td>4%</td> </tr> <tr> <td>175</td> <td>13</td> <td>7%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>232</td> <td>19</td> <td>→</td> </tr> </table>	PHF	Trucks	Cars	57	2	4%	175	13	7%	0	0	0%	232	19	→	<p>1 Ped. ↑</p>	<p>0 Ped. ↑</p>
←	0	0	↓	↑																																		
0.00	0%	0	0	↑																																		
0.00	0%	0	0	↑																																		
0.00	0%	0	0	↑																																		
PHF	Trucks	Cars																																				
57	2	4%																																				
175	13	7%																																				
0	0	0%																																				
232	19	→																																				

<p>PM Peak: 5:15 pm</p> <p>↓</p> <p>Ped. 0</p>	<p>0.00 0.95 0.87 0% 3% 0%</p> <p>0 9 0 0 294 80</p> <p>6 303 ↑</p>	<p>Ped. ← 1</p> <p>Trucks %</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Cars</th> <th>Trucks</th> <th>PHF</th> </tr> <tr> <td>56</td> <td>1</td> <td>2%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>76</td> <td>2</td> <td>3%</td> </tr> <tr> <td>169</td> <td>2</td> <td>→</td> </tr> </table>	Cars	Trucks	PHF	56	1	2%	0	0	0%	76	2	3%	169	2	→																				
Cars	Trucks	PHF																																				
56	1	2%																																				
0	0	0%																																				
76	2	3%																																				
169	2	→																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>←</td> <td>0</td> <td>0</td> <td>↓</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0.00</td> <td>0%</td> <td>0</td> <td>0</td> <td>↑</td> </tr> </table>	←	0	0	↓	↑	0.00	0%	0	0	↑	0.00	0%	0	0	↑	0.00	0%	0	0	↑	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PHF</th> <th>Trucks</th> <th>Cars</th> </tr> <tr> <td>89</td> <td>2</td> <td>2%</td> </tr> <tr> <td>247</td> <td>5</td> <td>2%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>370</td> <td>11</td> <td>→</td> </tr> </table>	PHF	Trucks	Cars	89	2	2%	247	5	2%	0	0	0%	370	11	→	<p>0 Ped. ↑</p>	<p>0 Ped. ↑</p>
←	0	0	↓	↑																																		
0.00	0%	0	0	↑																																		
0.00	0%	0	0	↑																																		
0.00	0%	0	0	↑																																		
PHF	Trucks	Cars																																				
89	2	2%																																				
247	5	2%																																				
0	0	0%																																				
370	11	→																																				

<p>Total Count 8 hours</p> <p>↓</p> <p>Ped. 0</p>	<p>0.00 0.95 0.86 0% 5% 5%</p> <p>0 88 17 0 1842 357</p> <p>86 1909 ↑</p>	<p>Ped. ← 13</p> <p>Trucks %</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Cars</th> <th>Trucks</th> <th>PHF</th> </tr> <tr> <td>351</td> <td>17</td> <td>5%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>583</td> <td>25</td> <td>4%</td> </tr> <tr> <td>829</td> <td>31</td> <td>→</td> </tr> </table>	Cars	Trucks	PHF	351	17	5%	0	0	0%	583	25	4%	829	31	→																				
Cars	Trucks	PHF																																				
351	17	5%																																				
0	0	0%																																				
583	25	4%																																				
829	31	→																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>←</td> <td>0</td> <td>0</td> <td>↓</td> <td>↑</td> </tr> <tr> <td>0%</td> <td>0</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0%</td> <td>0</td> <td>0</td> <td>0</td> <td>↑</td> </tr> <tr> <td>0%</td> <td>0</td> <td>0</td> <td>0</td> <td>↑</td> </tr> </table>	←	0	0	↓	↑	0%	0	0	0	↑	0%	0	0	0	↑	0%	0	0	0	↑	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PHF</th> <th>Trucks</th> <th>Cars</th> </tr> <tr> <td>472</td> <td>14</td> <td>3%</td> </tr> <tr> <td>1558</td> <td>69</td> <td>4%</td> </tr> <tr> <td>0</td> <td>0</td> <td>0%</td> </tr> <tr> <td>2425</td> <td>113</td> <td>→</td> </tr> </table>	PHF	Trucks	Cars	472	14	3%	1558	69	4%	0	0	0%	2425	113	→	<p>4 Ped. ↑</p>	<p>0 Ped. ↑</p>
←	0	0	↓	↑																																		
0%	0	0	0	↑																																		
0%	0	0	0	↑																																		
0%	0	0	0	↑																																		
PHF	Trucks	Cars																																				
472	14	3%																																				
1558	69	4%																																				
0	0	0%																																				
2425	113	→																																				

Count Date: 4/17/2013

TMC 15 Min Report

REGIONAL RD 57 @ CONCESSION RD 3

Time	NORTH APPROACH									EAST APPROACH									SOUTH APPROACH									WEST APPROACH									Total						
	Cars			Trucks			Heavies			Ped	Cars			Trucks			Heavies			Ped	Cars			Trucks			Heavies			Ped													
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right										
Period 1																																											
6:15	2	31	0	0	4	0	0	0	0	0	13	0	6	0	0	0	0	0	0	0	0	20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
6:30	0	42	0	0	1	0	0	0	0	0	20	0	2	0	0	1	0	0	0	0	0	19	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89
6:45	3	52	0	0	1	0	0	0	0	1	18	0	12	0	0	0	0	0	0	0	0	20	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116
7:00	4	58	0	0	2	0	0	0	0	0	16	0	9	0	0	0	0	0	0	0	0	26	18	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136
7:15	5	48	0	0	2	0	0	0	0	2	26	0	15	2	0	0	0	0	0	0	0	47	7	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157
7:30	9	58	0	0	3	0	0	0	0	0	35	0	16	2	0	0	0	0	0	0	0	52	6	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185
7:45	7	72	0	1	2	0	0	0	0	2	36	0	18	1	0	0	0	0	0	0	0	50	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197
8:00	13	70	0	4	6	0	0	0	0	0	28	0	13	2	0	0	0	0	0	0	0	41	18	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	199
8:15	12	77	0	0	2	0	0	0	0	0	42	0	14	3	0	1	0	0	0	0	0	47	9	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	213
8:30	5	51	0	0	5	0	0	0	0	0	24	0	13	0	0	2	0	0	0	1	0	46	19	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
8:45	14	55	0	2	1	0	0	0	0	0	29	0	13	2	0	1	0	0	0	0	0	45	13	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	177
9:00	7	54	0	2	5	0	0	0	0	1	22	0	11	0	0	2	0	0	0	0	0	35	7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	148
Period 2																																											
11:45	10	39	0	0	1	0	0	0	0	0	13	0	7	1	0	1	0	0	0	0	0	27	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	112
12:00	9	45	0	1	4	0	0	0	0	0	17	0	16	1	0	0	0	0	0	0	0	46	18	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
12:15	5	52	0	2	2	0	0	0	0	0	17	0	8	1	0	0	0	0	0	0	0	44	18	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	151
12:30	6	41	0	0	3	0	0	0	0	1	8	0	10	2	0	0	0	0	0	1	0	42	12	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132
12:45	6	42	0	0	6	0	0	0	0	0	10	0	6	0	0	1	0	0	0	0	0	43	9	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127
13:00	5	45	0	1	3	0	0	0	0	0	8	0	7	1	0	1	0	0	0	0	0	32	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	111
13:15	8	38	0	0	1	0	0	0	0	0	11	0	11	1	0	0	0	0	0	0	0	55	11	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137
13:30	7	45	0	0	5	0	0	0	0	0	10	0	6	0	0	0	0	0	0	0	0	42	14	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	131
Period 3																																											
15:15	19	45	0	1	3	0	0	0	0	0	10	0	9	1	0	0	0	0	0	0	0	63	31	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	186
15:30	17	67	0	0	1	0	0	0	0	0	13	0	11	1	0	2	0	0	0	0	0	61	25	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203
15:45	12	73	0	0	2	0	0	0	0	1	20	0	10	1	0	1	0	0	0	1	0	62	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202
16:00	16	59	0	1	2	0	0	0	0	3	13	0	9	0	0	1	0	0	0	0	0	74	17	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197
16:15	11	63	0	0	3	0	0	0	0	1	10	0	12	0	0	0	0	0	0	1	0	73	20	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	196
16:30	24	87	0	0	3	0	0	0	0	0	11	0	10	0	0	1	0	0	0	0	0	60	15	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	214
16:45	15	74	0	1	5	0	0	0	0	0	15	0	10	1	0	0	0	0	0	0	0	75	17	0	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	219
17:00	26	65	0	1	1	0	0	0	0	0	12	0	11	0	0	1	0	0	0	0	0	64	24	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	207
17:15	21	72	0	0	2	0	0	0	0	0	16	0	12	2	0	0	0	0	0	0	0	62	28	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	217
17:30	16	80	0	0	0	0	0	0	0	0	24	0	9	0	0	0	0	0	0	0	0	63	17	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211
17:45	20	73	0	0	5	0	0	0	0	1	16	0	15	0	0	0	0	0	0	0	0	66	20	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	218
18:00	23	69	0	0	2	0	0	0	0	0	20	0	20	0	0	1	0	0	0	0	0	56	24	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	216
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TMC 15 Min Report

REGIONAL RD 57 @ CONCESSION RD 3

Time	NORTH APPROACH									EAST APPROACH									SOUTH APPROACH									WEST APPROACH									Total			
	Cars			Trucks			Heavies			Ped	Cars			Trucks			Heavies			Ped	Cars			Trucks			Heavies			Ped										
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		Left	Thru	Right							
Period 1																																								
6:15	2	45	0	0	3	0	0	0	0	0	15	0	5	0	0	0	0	0	0	0	0	23	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98
6:30	4	43	0	0	1	0	0	0	0	0	14	0	6	1	0	0	0	0	0	0	0	30	6	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	107
6:45	3	43	0	0	5	0	0	0	0	0	16	0	15	1	0	0	0	0	0	0	0	32	16	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132
7:00	6	47	0	0	7	0	0	0	0	0	16	0	8	2	0	1	0	0	0	0	0	37	25	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156
7:15	11	57	0	2	12	0	0	0	0	0	22	0	12	0	0	0	0	0	0	0	0	48	8	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	182
7:30	18	63	0	7	3	0	0	0	0	0	30	0	13	2	0	0	0	0	0	0	0	57	10	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	209
7:45	8	76	0	1	5	0	0	0	0	0	30	0	13	1	0	1	0	0	0	0	0	60	22	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228
8:00	6	82	0	2	15	0	0	0	0	0	32	0	11	2	0	5	0	0	0	0	0	44	20	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225
8:15	15	79	0	3	5	0	0	0	0	0	26	0	10	4	0	2	0	0	0	0	0	44	9	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208
8:30	5	47	0	1	9	0	0	0	0	1	18	0	17	5	0	1	0	0	0	1	0	61	18	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	193
8:45	8	45	0	2	13	0	0	0	0	0	24	0	13	0	0	4	0	0	0	0	0	49	15	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182
9:00	9	61	0	3	4	0	0	0	0	0	25	0	9	1	0	2	0	0	0	2	0	46	9	0	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	179
Period 2																																								
11:45	1	43	0	1	7	0	0	0	0	0	8	0	5	2	0	2	0	0	0	0	0	40	9	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126
12:00	16	38	0	2	8	0	0	0	0	0	17	0	7	1	0	1	0	0	0	0	0	36	18	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	151
12:15	9	30	0	0	11	0	0	0	0	0	9	0	10	2	0	2	0	0	0	0	0	29	16	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	123
12:30	3	43	0	4	13	0	0	0	0	0	19	0	9	0	0	0	0	0	0	0	0	31	16	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	144
12:45	8	67	0	2	11	0	0	0	0	0	10	0	7	0	0	1	0	0	0	0	0	45	6	0	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	168
13:00	8	42	0	4	11	0	0	0	0	0	20	0	9	4	0	2	0	0	0	2	0	39	21	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
13:15	12	44	0	3	8	0	0	0	0	0	12	0	15	1	0	2	0	0	0	0	0	43	19	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	167
13:30	6	53	0	1	13	0	0	0	0	0	12	0	9	1	0	1	0	0	0	0	0	45	11	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156
Period 3																																								
15:15	14	49	0	4	6	0	0	0	0	0	10	0	9	2	0	0	0	0	0	0	0	47	24	0	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	174
15:30	8	47	0	1	6	0	0	0	0	0	21	0	6	1	0	2	0	0	0	0	0	52	20	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	171
15:45	26	62	0	2	10	0	0	0	0	0	20	0	14	1	0	3	0	0	0	0	0	63	13	0	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	223
16:00	13	53	0	1	13	0	0	0	0	0	12	0	14	2	0	3	0	0	0	0	0	70	30	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	214
16:15	14	58	0	1	8	0	0	0	0	0	13	0	13	1	0	1	0	0	0	0	0	60	21	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197
16:30	16	65	0	2	7	0	0	0	0	0	15	0	10	2	0	1	0	0	0	0	0	68	26	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	217
16:45	22	72	0	1	9	0	0	0	0	0	12	0	9	1	0	0	0	0	0	0	0	65	23	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	221
17:00	31	76	0	3	5	0	0	0	0	0	16	0	12	0	0	0	0	0	0	0	0	53	22	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	221
17:15	20	63	0	0	1	0	0	0	0	0	17	0	8	3	0	0	0	0	0	0	0	75	35	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	223
17:30	26	84	0	0	1	0	0	0	0	0	27	0	9	1	0	2	0	0	0	0	0	74	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	254
17:45	21	69	0	0	7	0	0	0	0	0	25	0	14	0	0	1	0	0	0	0	0	75	22	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	237
18:00	14	83	0	0	4	0	0	0	0	0	26	0	14	2	0	1	0	0	0	4	0	55	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230
18:00	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

HCM Signalized Intersection Capacity Analysis

3: Highway 2 & Prestonvale Road

4/24/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↗	↖	↖	↗↗	↖	↖	↗			↕	
Volume (vph)	0	1240	488	96	719	3	271	0	104	1	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.7	6.7	6.7	6.7	6.7	6.2	6.2			6.2	
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.85			0.91	
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.98	
Satd. Flow (prot)		3579	1633	1825	3614	1633	1807	1633			1720	
Flt Permitted		1.00	1.00	0.12	1.00	1.00	0.76	1.00			0.95	
Satd. Flow (perm)		3579	1633	230	3614	1633	1438	1633			1669	
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)	0	1292	508	100	749	3	282	0	108	1	0	2
RTOR Reduction (vph)	0	0	162	0	0	1	0	30	0	0	1	0
Lane Group Flow (vph)	0	1292	346	100	749	2	282	78	0	0	2	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)		41.8	41.8	41.8	41.8	41.8	28.4	28.4			28.4	
Effective Green, g (s)		41.8	41.8	41.8	41.8	41.8	28.4	28.4			28.4	
Actuated g/C Ratio		0.50	0.50	0.50	0.50	0.50	0.34	0.34			0.34	
Clearance Time (s)		6.7	6.7	6.7	6.7	6.7	6.2	6.2			6.2	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)		1800	821	116	1818	821	491	558			570	
v/s Ratio Prot		0.36			0.21			0.05				
v/s Ratio Perm			0.21	c0.43		0.00	c0.20				0.00	
v/c Ratio		0.72	0.42	0.86	0.41	0.00	0.57	0.14			0.00	
Uniform Delay, d1		16.1	13.0	18.1	12.9	10.3	22.4	18.9			18.0	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2		1.4	0.4	44.0	0.2	0.0	4.8	0.5			0.0	
Delay (s)		17.5	13.4	62.1	13.1	10.3	27.2	19.4			18.0	
Level of Service		B	B	E	B	B	C	B			B	
Approach Delay (s)		16.3			18.8			25.1			18.0	
Approach LOS		B			B			C			B	

Intersection Summary

HCM Average Control Delay	18.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	83.1	Sum of lost time (s)	12.9
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: King Street & Scugog Street

6/4/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	343	638	180	10	560	36	134	51	6	35	44	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.7	5.7		5.7		5.7	5.7		5.7	5.7	
Lane Util. Factor	1.00	1.00	1.00		0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00	0.93		1.00		1.00	0.99		1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00		0.96	1.00	
Frt	1.00	1.00	0.85		0.99		1.00	0.98		1.00	0.87	
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1767	1883	1475		3482		1785	1842		1751	1558	
Flt Permitted	0.25	1.00	1.00		0.94		0.29	1.00		0.72	1.00	
Satd. Flow (perm)	459	1883	1475		3273		542	1842		1321	1558	
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)	373	693	196	11	609	39	146	55	7	38	48	403
RTOR Reduction (vph)	0	0	97	0	6	0	0	5	0	0	250	0
Lane Group Flow (vph)	373	693	99	0	653	0	146	57	0	38	201	0
Confl. Peds. (#/hr)	21		23	23		21	5		20	20		5
Heavy Vehicles (%)	3%	2%	3%	0%	3%	3%	2%	2%	0%	0%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	2	2	0	0	0	0	0	0
Turn Type	pm+pt		Perm	Perm			Perm			Perm		
Protected Phases	5	2			6			8				4
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	35.6	35.6	35.6		20.8		23.5	23.5		23.5	23.5	
Effective Green, g (s)	35.6	35.6	35.6		20.8		23.5	23.5		23.5	23.5	
Actuated g/C Ratio	0.50	0.50	0.50		0.30		0.33	0.33		0.33	0.33	
Clearance Time (s)	3.0	5.7	5.7		5.7		5.7	5.7		5.7	5.7	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	451	951	745		966		181	614		440	519	
v/s Ratio Prot	c0.14	0.37						0.03			0.13	
v/s Ratio Perm	c0.28		0.07		0.20		c0.27			0.03		
v/c Ratio	0.83	0.73	0.13		0.68		0.81	0.09		0.09	0.39	
Uniform Delay, d1	12.1	13.7	9.3		21.9		21.4	16.2		16.1	18.0	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	11.8	2.8	0.1		1.9		30.7	0.3		0.4	2.2	
Delay (s)	23.9	16.5	9.3		23.8		52.1	16.5		16.5	20.2	
Level of Service	C	B	A		C		D	B		B	C	
Approach Delay (s)		17.6			23.8			41.5			19.9	
Approach LOS		B			C			D			B	

Intersection Summary

HCM Average Control Delay	21.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	70.5	Sum of lost time (s)	8.7
Intersection Capacity Utilization	102.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

3: CR3 & RR57

4/16/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	78	57	252	91	80	303
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.68	0.94	0.81	0.87	0.95
Hourly flow rate (vph)	96	84	268	112	92	319
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	827	324			380	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	827	324			380	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	69	88			92	
cM capacity (veh/h)	314	717			1189	

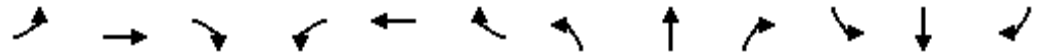
Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	180	380	92	319
Volume Left	96	0	92	0
Volume Right	84	112	0	0
cSH	425	1700	1189	1700
Volume to Capacity	0.42	0.22	0.08	0.19
Queue Length 95th (m)	15.7	0.0	1.9	0.0
Control Delay (s)	19.6	0.0	8.3	0.0
Lane LOS	C		A	
Approach Delay (s)	19.6	0.0	1.9	
Approach LOS	C			

Intersection Summary			
Average Delay		4.4	
Intersection Capacity Utilization		41.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

3: Highway 2 & Prestonvale Road

4/24/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘		↕	
Volume (vph)	0	1670	657	129	865	4	299	0	115	1	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.7	6.7	6.7	6.7	6.7	6.2	6.2			6.2	
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.85			0.90	
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.99	
Satd. Flow (prot)		3579	1633	1825	3614	1633	1807	1633			1705	
Flt Permitted		1.00	1.00	0.08	1.00	1.00	0.76	1.00			0.96	
Satd. Flow (perm)		3579	1633	157	3614	1633	1436	1633			1662	
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)	0	1740	684	134	901	4	311	0	120	1	0	3
RTOR Reduction (vph)	0	0	148	0	0	1	0	10	0	0	2	0
Lane Group Flow (vph)	0	1740	536	134	901	3	311	110	0	0	2	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Actuated Green, G (s)		49.1	49.1	49.1	49.1	49.1	28.0	28.0			28.0	
Effective Green, g (s)		49.1	49.1	49.1	49.1	49.1	28.0	28.0			28.0	
Actuated g/C Ratio		0.55	0.55	0.55	0.55	0.55	0.31	0.31			0.31	
Clearance Time (s)		6.7	6.7	6.7	6.7	6.7	6.2	6.2			6.2	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)		1953	891	86	1972	891	447	508			517	
v/s Ratio Prot		0.49			0.25			0.07				
v/s Ratio Perm			0.33	c0.86		0.00	c0.22				0.00	
v/c Ratio		0.89	0.60	1.56	0.46	0.00	0.70	0.22			0.00	
Uniform Delay, d1		18.1	13.8	20.4	12.4	9.3	27.3	22.9			21.4	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2		5.6	1.2	300.1	0.2	0.0	8.7	1.0			0.0	
Delay (s)		23.7	15.0	320.5	12.5	9.3	35.9	23.9			21.4	
Level of Service		C	B	F	B	A	D	C			C	
Approach Delay (s)		21.2			52.3			32.6			21.4	
Approach LOS		C			D			C			C	

Intersection Summary

HCM Average Control Delay	30.7	HCM Level of Service	C
HCM Volume to Capacity ratio	1.25		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.9
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

3: King Street & Scugog Street

6/4/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	510	948	267	10	560	36	180	69	8	35	44	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.7	5.7		5.7		5.7	5.7		5.7	5.7	
Lane Util. Factor	1.00	1.00	1.00		0.95		1.00	1.00		1.00	1.00	
Frbp, ped/bikes	1.00	1.00	0.92		1.00		1.00	0.99		1.00	0.98	
Flpb, ped/bikes	1.00	1.00	1.00		1.00		1.00	1.00		0.95	1.00	
Frt	1.00	1.00	0.85		0.99		1.00	0.98		1.00	0.87	
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1766	1883	1453		3481		1785	1842		1734	1556	
Flt Permitted	0.25	1.00	1.00		0.71		0.28	1.00		0.70	1.00	
Satd. Flow (perm)	474	1883	1453		2474		524	1842		1282	1556	
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)	554	1030	290	11	609	39	196	75	9	38	48	403
RTOR Reduction (vph)	0	0	124	0	5	0	0	5	0	0	263	0
Lane Group Flow (vph)	554	1030	166	0	654	0	196	79	0	38	188	0
Confl. Peds. (#/hr)	21		23	23		21	5		20	20		5
Heavy Vehicles (%)	3%	2%	3%	0%	3%	3%	2%	2%	0%	0%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	2	2	0	0	0	0	0	0
Turn Type	pm+pt		Perm	Perm			Perm			Perm		
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	47.3	47.3	47.3		29.3		31.3	31.3		31.3	31.3	
Effective Green, g (s)	47.3	47.3	47.3		29.3		31.3	31.3		31.3	31.3	
Actuated g/C Ratio	0.53	0.53	0.53		0.33		0.35	0.35		0.35	0.35	
Clearance Time (s)	3.0	5.7	5.7		5.7		5.7	5.7		5.7	5.7	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	464	990	764		805		182	641		446	541	
v/s Ratio Prot	c0.20	0.55						0.04			0.12	
v/s Ratio Perm	c0.43		0.11		0.26		c0.37			0.03		
v/c Ratio	1.19	1.04	0.22		0.81		1.08	0.12		0.09	0.35	
Uniform Delay, d1	16.0	21.4	11.4		27.8		29.4	20.0		19.7	21.8	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	106.8	39.7	0.1		6.3		88.7	0.4		0.4	1.8	
Delay (s)	122.8	61.0	11.6		34.1		118.0	20.4		20.1	23.5	
Level of Service	F	E	B		C		F	C		C	C	
Approach Delay (s)		71.6			34.1			88.7			23.3	
Approach LOS		E			C			F			C	

Intersection Summary

HCM Average Control Delay	58.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.7
Intersection Capacity Utilization	121.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis

3: CR3 & RR57

4/16/2014



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	78	57	208	135	119	367
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.68	0.94	0.81	0.87	0.95
Hourly flow rate (vph)	96	84	221	167	137	386
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	964	305			388	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	964	305			388	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	61	89			88	
cM capacity (veh/h)	249	735			1182	


























Direction, Lane #	WB 1	NB 1	SB 1	SB 2
Volume Total	180	388	137	386
Volume Left	96	0	137	0
Volume Right	84	167	0	0
cSH	360	1700	1182	1700
Volume to Capacity	0.50	0.23	0.12	0.23
Queue Length 95th (m)	20.4	0.0	3.0	0.0
Control Delay (s)	24.6	0.0	8.4	0.0
Lane LOS	C		A	
Approach Delay (s)	24.6	0.0	2.2	
Approach LOS	C			

Intersection Summary			
Average Delay		5.1	
Intersection Capacity Utilization		43.6%	ICU Level of Service A
Analysis Period (min)		15	

HCM Signalized Intersection Capacity Analysis

3: Highway 2 & Prestonvale Road

4/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 				 
Volume (vph)	0	1670	657	129	865	4	299	0	115	1	0	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0	6.0	4.0	6.0	6.0	6.0	6.0			6.0	
Lane Util. Factor		0.95	1.00	1.00	0.95	1.00	1.00	1.00			1.00	
Frt		1.00	0.85	1.00	1.00	0.85	1.00	0.85			0.90	
Flt Protected		1.00	1.00	0.95	1.00	1.00	0.95	1.00			0.99	
Satd. Flow (prot)		3579	1633	1825	3614	1633	1807	1633			1705	
Flt Permitted		1.00	1.00	0.08	1.00	1.00	0.76	1.00			0.96	
Satd. Flow (perm)		3579	1633	149	3614	1633	1436	1633			1651	
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)	0	1740	684	134	901	4	311	0	120	1	0	3
RTOR Reduction (vph)	0	0	149	0	0	1	0	72	0	0	2	0
Lane Group Flow (vph)	0	1740	535	134	901	3	311	48	0	0	2	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%
Turn Type	Perm		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)		47.6	47.6	55.6	55.6	55.6	22.0	22.0			22.0	
Effective Green, g (s)		47.6	47.6	55.6	55.6	55.6	22.0	22.0			22.0	
Actuated g/C Ratio		0.53	0.53	0.62	0.62	0.62	0.25	0.25			0.25	
Clearance Time (s)		6.0	6.0	4.0	6.0	6.0	6.0	6.0			6.0	
Vehicle Extension (s)		3.0	3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)		1901	868	167	2243	1013	353	401			405	
v/s Ratio Prot		c0.49		c0.04	0.25			0.03				
v/s Ratio Perm			0.33	0.46		0.00	c0.22				0.00	
v/c Ratio		0.92	0.62	0.80	0.40	0.00	0.88	0.12			0.00	
Uniform Delay, d1		19.2	14.6	18.6	8.6	6.5	32.5	26.3			25.5	
Progression Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Incremental Delay, d2		7.3	1.3	23.5	0.1	0.0	25.6	0.6			0.0	
Delay (s)		26.5	16.0	42.2	8.7	6.5	58.1	26.9			25.5	
Level of Service		C	B	D	A	A	E	C			C	
Approach Delay (s)		23.5			13.0			49.4			25.5	
Approach LOS		C			B			D			C	
Intersection Summary												
HCM Average Control Delay			23.6									C
HCM Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			89.6								16.0	
Intersection Capacity Utilization			89.9%									E
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: King Street & Scugog Street

6/4/2014



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	510	948	267	10	560	36	180	69	8	35	44	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	5.7	5.7		5.7		5.7	5.7		5.7	5.7	5.7
Lane Util. Factor	1.00	1.00	1.00		0.95		1.00	1.00		1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.92		1.00		1.00	0.99		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00		1.00		0.99	1.00		0.96	1.00	1.00
Frt	1.00	1.00	0.85		0.99		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1766	1883	1465		3482		1777	1843		1744	1830	1525
Flt Permitted	0.27	1.00	1.00		0.93		0.73	1.00		0.70	1.00	1.00
Satd. Flow (perm)	504	1883	1465		3247		1357	1843		1290	1830	1525
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)	554	1030	290	11	609	39	196	75	9	38	48	403
RTOR Reduction (vph)	0	0	110	0	5	0	0	5	0	0	0	308
Lane Group Flow (vph)	554	1030	180	0	654	0	196	79	0	38	48	95
Confl. Peds. (#/hr)	21		23	23		21	5		20	20		5
Heavy Vehicles (%)	3%	2%	3%	0%	3%	3%	2%	2%	0%	0%	5%	5%
Bus Blockages (#/hr)	0	0	0	0	2	2	0	0	0	0	0	0
Turn Type	pm+pt		Perm	Perm			Perm			Perm		Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6			8			4		4
Actuated Green, G (s)	49.4	49.4	49.4		27.2		18.7	18.7		18.7	18.7	18.7
Effective Green, g (s)	49.4	49.4	49.4		27.2		18.7	18.7		18.7	18.7	18.7
Actuated g/C Ratio	0.62	0.62	0.62		0.34		0.24	0.24		0.24	0.24	0.24
Clearance Time (s)	3.0	5.7	5.7		5.7		5.7	5.7		5.7	5.7	5.7
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	618	1170	910		1111		319	434		303	430	359
v/s Ratio Prot	0.22	c0.55						0.04			0.03	
v/s Ratio Perm	c0.34		0.12		0.20		c0.14			0.03		0.06
v/c Ratio	0.90	0.88	0.20		0.59		0.61	0.18		0.13	0.11	0.26
Uniform Delay, d1	12.0	12.6	6.5		21.5		27.2	24.3		24.0	23.9	24.8
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	15.6	8.0	0.1		0.8		8.6	0.9		0.9	0.5	1.8
Delay (s)	27.6	20.5	6.6		22.3		35.7	25.2		24.8	24.4	26.6
Level of Service	C	C	A		C		D	C		C	C	C
Approach Delay (s)		20.5			22.3			32.6			26.2	
Approach LOS		C			C			C			C	

Intersection Summary

HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	79.5	Sum of lost time (s)	11.4
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Summary of All Intervals

Run Number	1	2	3	Avg
Start Time	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intvls	1	1	1	1
Vehs Entered	2451	2393	2351	2399
Vehs Exited	2429	2387	2342	2386
Starting Vehs	22	18	23	20
Ending Vehs	44	24	32	33
Denied Entry Before	7	0	3	3
Denied Entry After	2	1	1	1
Travel Distance (km)	632	620	609	620
Travel Time (hr)	31.4	29.7	28.9	30.0
Total Delay (hr)	15.0	13.7	13.2	13.9
Total Stops	1771	1612	1596	1662
Fuel Used (l)	92.7	90.0	87.6	90.1

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	Avg
Vehs Entered	2451	2393	2351	2399
Vehs Exited	2429	2387	2342	2386
Starting Vehs	22	18	23	20
Ending Vehs	44	24	32	33
Denied Entry Before	7	0	3	3
Denied Entry After	2	1	1	1
Travel Distance (km)	632	620	609	620
Travel Time (hr)	31.4	29.7	28.9	30.0
Total Delay (hr)	15.0	13.7	13.2	13.9
Total Stops	1771	1612	1596	1662
Fuel Used (l)	92.7	90.0	87.6	90.1

Queuing and Blocking Report
 3: King Street & Scugog Street

6/4/2014

Intersection: 3: Int

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	LT	TR	L	TR	L	TR
Maximum Queue (m)	74.8	119.7	16.4	54.1	56.8	44.6	21.8	18.3	97.3
Average Queue (m)	36.3	52.2	2.4	28.3	31.6	20.3	7.9	4.6	37.6
95th Queue (m)	65.3	94.0	10.3	44.1	48.3	38.2	17.8	12.5	75.6
Link Distance (m)		125.6	125.6	114.8	114.8		95.4		125.3
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (m)	60.0					35.0		45.0	
Storage Blk Time (%)	1	2				2			7
Queuing Penalty (veh)	7	8				1			2

Network Summary

Network wide Queuing Penalty: 19

SimTraffic Simulation Summary
 3: King Street & Scugog Street

6/4/2014

Summary of All Intervals

Run Number	1	2	3	Avg
Start Time	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intvls	1	1	1	1
Vehs Entered	2724	2711	2665	2699
Vehs Exited	2713	2717	2649	2693
Starting Vehs	33	38	32	33
Ending Vehs	44	32	48	40
Denied Entry Before	24	18	1	14
Denied Entry After	388	370	340	365
Travel Distance (km)	705	703	687	698
Travel Time (hr)	231.2	225.8	197.5	218.2
Total Delay (hr)	213.1	207.6	179.8	200.2
Total Stops	2322	2308	2091	2240
Fuel Used (l)	271.4	267.0	240.2	259.5

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	Avg
Vehs Entered	2724	2711	2665	2699
Vehs Exited	2713	2717	2649	2693
Starting Vehs	33	38	32	33
Ending Vehs	44	32	48	40
Denied Entry Before	24	18	1	14
Denied Entry After	388	370	340	365
Travel Distance (km)	705	703	687	698
Travel Time (hr)	231.2	225.8	197.5	218.2
Total Delay (hr)	213.1	207.6	179.8	200.2
Total Stops	2322	2308	2091	2240
Fuel Used (l)	271.4	267.0	240.2	259.5

Queuing and Blocking Report
 3: King Street & Scugog Street

6/4/2014

Intersection: 3: Int

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	LT	TR	L	TR	L	TR
Maximum Queue (m)	75.0	133.8	55.0	71.1	75.1	44.7	81.7	18.1	112.8
Average Queue (m)	63.6	116.6	4.6	35.6	38.5	27.8	14.3	5.1	41.9
95th Queue (m)	87.6	161.0	27.4	59.1	64.1	45.4	45.0	13.4	84.0
Link Distance (m)		125.6	125.6	114.8	114.8		95.4		125.3
Upstream Blk Time (%)		12	0				0		0
Queuing Penalty (veh)		0	0				0		0
Storage Bay Dist (m)	60.0					35.0		45.0	
Storage Blk Time (%)	15	15				6	0		6
Queuing Penalty (veh)	144	76				5	0		2

Network Summary

Network wide Queuing Penalty: 227

SimTraffic Simulation Summary
 3: King Street & Scugog Street

6/4/2014

Summary of All Intervals

Run Number	1	2	3	Avg
Start Time	3:57	3:57	3:57	3:57
End Time	5:00	5:00	5:00	5:00
Total Time (min)	63	63	63	63
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intvls	1	1	1	1
Vehs Entered	2801	2808	2768	2791
Vehs Exited	2792	2798	2777	2790
Starting Vehs	30	25	30	28
Ending Vehs	39	35	21	30
Denied Entry Before	18	7	2	9
Denied Entry After	294	200	197	230
Travel Distance (km)	724	724	718	722
Travel Time (hr)	169.0	127.6	124.4	140.4
Total Delay (hr)	150.7	109.2	106.2	122.0
Total Stops	1686	1746	1556	1660
Fuel Used (l)	219.4	184.4	180.2	194.7

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	5:00
Total Time (min)	60
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	Avg
Vehs Entered	2801	2808	2768	2791
Vehs Exited	2792	2798	2777	2790
Starting Vehs	30	25	30	28
Ending Vehs	39	35	21	30
Denied Entry Before	18	7	2	9
Denied Entry After	294	200	197	230
Travel Distance (km)	724	724	718	722
Travel Time (hr)	169.0	127.6	124.4	140.4
Total Delay (hr)	150.7	109.2	106.2	122.0
Total Stops	1686	1746	1556	1660
Fuel Used (l)	219.4	184.4	180.2	194.7

Queuing and Blocking Report
 3: King Street & Scugog Street

6/4/2014

Intersection: 3: Int

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	LT	TR	L	TR	L	T	R
Maximum Queue (m)	74.8	132.9	22.4	49.8	56.8	44.7	75.7	21.5	27.4	33.7
Average Queue (m)	43.7	80.5	6.7	28.2	30.0	30.1	21.4	6.6	8.3	3.0
95th Queue (m)	73.2	141.7	14.9	44.1	49.2	48.4	58.5	15.3	20.5	21.9
Link Distance (m)		128.3	128.3	114.8	114.8		95.4		127.9	
Upstream Blk Time (%)		3					0			
Queuing Penalty (veh)		0					0			
Storage Bay Dist (m)	60.0					35.0		45.0		60.0
Storage Blk Time (%)	1	7				11	0			
Queuing Penalty (veh)	5	37				8	1			

Network Summary

Network wide Queuing Penalty: 52

Clarington TMP
Screenline Growth Rates for Intersection Operational Analysis

Scenario Definitions:
11036: 2011 Base Network - PM Peak Hour
31241: 2031 Base Network - PM Peak Hour

Screenline Summary (2011 to 2031)

Screenline	Eastbound/Northbound			Westbound/Southbound		
	2011 Volumes	2031 Volumes	Annual Growth Rate	2011 Volumes	2031 Volumes	Annual Growth Rate
COURTICE						
South of Highway 2						
Townline Road South of Highway 2	140	159	0.6%	3	129	20.7%
Darlington Boulevard South of Highway 2	12	22	3.1%	63	49	-1.2%
Prestonvale Road South of Highway 2	309	279	-0.5%	459	553	0.9%
Sandringham Drive South of Highway 2	8	0	-100.0%	8	98	13.3%
Trulls Road South of Highway 2	240	206	-0.8%	385	475	1.1%
Courtice Road South of Highway 2	466	549	0.8%	308	325	0.3%
Total Screenline Volume	1,175	1,215	0.2%	1,226	1,629	1.4%
West of Prestonvale Road						
McLean Road West of Prestonvale Road	-	2	-	-	16	-
Islay Court West of Prestonvale Road	-	136	-	-	14	-
Nash Road West of Prestonvale Road	255	165	-2.2%	61	60	-0.1%
Highway 2 West of Prestonvale Road	1,450	1,535	0.3%	985	771	-1.2%
Glenabbey Drive West of Prestonvale Road	125	199	2.4%	38	15	-4.5%
Meadowglade Road West of Prestonvale Road	95	380	7.2%	44	182	7.4%
Bloor Street West of Prestonvale Road	321	548	2.7%	205	231	0.6%
Total Screenline Volume	2,246	2,965	1.4%	1,333	1,289	-0.2%
East of Prestonvale Road						
McLean Drive East of Prestonvale Road	-	2	-	-	16	-
Islay Court East of Prestonvale Road	-	136	-	-	14	-
Nash Road East of Prestonvale Road	255	165	-2.2%	61	60	-0.1%
Highway 2 East of Prestonvale Road	1,141	1,279	0.6%	827	788	-0.2%
Claret Road East of Prestonvale Road	324	322	0.0%	114	51	-3.9%
Glenabbey Drive East of Prestonvale Road	-	64	-	-	0	-
Meadowglade Road East of Prestonvale Road	-	332	-	-	136	-
Bloor Street East of Prestonvale Road	331	578	2.8%	282	435	2.2%
Total Screenline Volume	2,051	2,878	1.7%	1,284	1,500	0.8%
BOWMANVILLE						
North of Concession Road 3/Nash Road						
Green Road North of Nash Road	0	0	-	0	0	-
Old Scugog Road North of Concession Road 3	0	0	-	0	0	-
Regional Road 57 North of Concession Road 3	314	267	-0.8%	361	553	2.2%
Middle Road North of Concession Road 3	0	0	-	0	0	-
Liberty Street North of Concession Road 3	205	215	0.2%	89	19	-7.4%
Total Screenline Volume	519	482	-0.4%	450	572	1.2%
South of Concession Road 3/Nash Road						
Green Road South of Nash Road	0	0	-	0	54	-
Nash Road South of Nash Road	13	0	-100.0%	35	101	5.4%
Regional Road 57 South of Concession Road 3	358	541	2.1%	334	299	-0.6%
N Scugog Court South of Concession Road 3	19	17	-0.6%	69	153	4.1%
W Scugog Line South of Concession Road 3	0	0	-	0	0	-
Scugog Street South of Concession Road 3	42	32	-1.4%	36	10	-6.2%
Liberty Street South of Concession Road 3	306	186	-2.5%	164	51	-5.7%
Total Screenline Volume	738	776	0.3%	638	668	0.2%
East of Regional Road 57						
Concession Road 3 East of Regional Road 57	207	587	5.3%	137	60	-4.0%
Longworth Avenue East of Regional Road 57	546	839	2.2%	192	197	0.1%
Highway 2 East of Regional Road 57	1,011	1,217	0.9%	723	595	-1.0%
Total Screenline Volume	1,764	2,643	2.0%	1,052	852	-1.0%
East of Scugog Street						
Concession Road 3 East of Scugog Street	80	155	3.4%	66	63	-0.2%
Bons Avenue East of Scugog Street	0	0	-	0	0	-
Longworth Avenue East of Scugog Street	294	356	1.0%	71	56	-1.2%
Concession Street East of Scugog Street	385	463	0.9%	172	102	-2.6%
Wellington Street East of Scugog Street	13	24	3.1%	119	99	-0.9%
Highway 2 East of Scugog Street	364	534	1.9%	397	386	-0.1%
Queen Street East of Scugog Street	168	272	2.4%	166	109	-2.1%
Total Screenline Volume	1,304	1,804	1.6%	991	815	-1.0%
North of Highway 2						
Green Road North of Highway 2	15	394	17.8%	36	110	5.7%
Regional Road 57 North of Highway 2	819	1,298	2.3%	479	715	2.0%
Scugog Street North of Highway 2	621	724	0.8%	338	211	-2.3%
Liberty Street North of Highway 2	651	634	-0.1%	446	217	-3.5%
Total Screenline Volume	2,106	3,050	1.9%	1,299	1,253	-0.2%
South of Highway 2						
Green Road South of Highway 2	66	149	4.2%	128	335	4.9%
Clarington Boulevard South of Highway 2	103	344	6.2%	38	148	7.0%
Regional Road 57 South of Highway 2	760	1,036	1.6%	676	744	0.5%
Roenigk Drive South of Highway 2	214	313	1.9%	250	110	-4.0%
Scugog Street South of Highway 2	166	109	-2.1%	168	272	2.4%
Liberty Street South of Highway 2	633	641	0.1%	457	283	-2.4%
Total Screenline Volume	1,942	2,592	1.5%	1,717	1,892	0.5%