

**72 Hour Traffic Count**  
**Simon's Run**  
**0.13 Miles West of entrance to A.C. Moore**  
**Friday, September 13, 2013**

START TIME	DIR	CYCLE	CARS	2A-4T	BUSES	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	OTHER	TOTAL
12:00 AM	EB	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
	WB	0	6	0	0	0	0	0	0	0	0	0	0	0	1	7
	Both	0	7	1	0	0	0	0	0	0	0	0	0	0	1	9
1:00 AM	EB	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	WB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	Both	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
2:00 AM	EB	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	WB	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	Both	0	4	0	0	0	0	0	0	0	0	0	0	0	0	4
3:00 AM	EB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	Both	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00 AM	EB	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7
	WB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Both	0	5	2	0	0	0	0	0	0	0	0	0	0	0	7
5:00 AM	EB	0	9	1	0	0	0	0	0	0	0	0	0	0	0	10
	WB	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	Both	0	9	2	0	0	0	0	0	0	0	0	0	0	0	11
6:00 AM	EB	0	14	5	0	0	0	0	0	0	0	0	0	0	0	19
	WB	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
	Both	0	17	6	0	0	0	0	0	0	0	0	0	0	0	23
7:00 AM	EB	0	51	7	0	0	0	0	0	0	0	0	0	0	0	58
	WB	0	7	1	0	0	0	0	0	0	0	0	0	0	0	8
	Both	0	58	8	0	0	0	0	0	0	0	0	0	0	0	66
8:00 AM	EB	0	81	6	0	0	1	0	0	0	0	0	0	0	0	88
	WB	0	19	5	0	0	0	0	0	0	0	0	0	0	1	25
	Both	0	100	11	0	0	1	0	0	0	0	0	0	0	1	113
9:00 AM	EB	0	106	10	0	1	0	0	0	0	0	0	0	0	0	117
	WB	0	37	7	0	0	0	0	0	0	0	0	0	0	0	44
	Both	0	143	17	0	1	0	0	0	0	0	0	0	0	0	161
10:00 AM	EB	0	101	20	0	0	1	0	0	0	0	0	0	0	1	123
	WB	0	63	12	0	0	0	0	0	0	0	0	0	0	0	75
	Both	0	164	32	0	0	1	0	0	0	0	0	0	0	1	198
11:00 AM	EB	3	112	19	0	0	0	0	1	0	0	0	0	0	1	136
	WB	0	79	18	0	1	0	0	1	0	0	0	0	0	0	99
	Both	3	191	37	0	1	0	0	2	0	0	0	0	0	1	235
12:00 PM	EB	0	139	16	0	0	0	0	0	0	0	0	0	0	0	155
	WB	4	97	21	0	0	0	0	0	0	0	0	0	0	2	124
	Both	4	236	37	0	0	0	0	0	0	0	0	0	0	2	279
1:00 PM	EB	0	130	19	0	0	0	0	1	0	0	0	0	0	1	151
	WB	3	108	16	0	0	0	1	1	0	0	0	0	0	1	130
	Both	3	238	35	0	0	0	1	2	0	0	0	0	0	2	281
2:00 PM	EB	1	117	26	0	0	0	0	0	0	0	0	0	0	3	147
	WB	0	135	21	0	0	0	0	0	0	0	0	0	0	3	159
	Both	1	252	47	0	0	0	0	0	0	0	0	0	0	6	306
3:00 PM	EB	0	99	17	0	0	0	0	0	0	0	0	0	0	0	116
	WB	5	142	13	0	1	0	0	0	0	0	0	0	0	3	164
	Both	5	241	30	0	1	0	0	0	0	0	0	0	0	3	280
4:00 PM	EB	0	140	16	0	0	0	0	0	0	0	0	0	0	1	157
	WB	4	143	7	0	0	0	0	0	0	0	0	0	0	3	157
	Both	4	283	23	0	0	0	0	0	0	0	0	0	0	4	314
5:00 PM	EB	0	131	27	0	0	0	0	0	0	0	0	0	0	0	158
	WB	1	124	27	0	0	0	0	0	0	0	0	0	0	3	155
	Both	1	255	54	0	0	0	0	0	0	0	0	0	0	3	313
6:00 PM	EB	0	160	14	2	3	0	0	0	0	0	0	0	0	2	181
	WB	2	113	15	0	0	0	0	1	0	0	0	0	0	3	134
	Both	2	273	29	2	3	0	0	1	0	0	0	0	0	5	315
7:00 PM	EB	2	131	14	1	1	0	0	0	0	0	0	0	0	1	150
	WB	4	108	12	0	0	0	0	0	0	0	0	0	0	9	133
	Both	6	239	26	1	1	0	0	0	0	0	0	0	0	10	283
8:00 PM	EB	0	61	7	0	0	0	0	0	0	0	0	0	0	2	70
	WB	0	103	14	0	0	0	0	0	0	0	0	0	0	15	132
	Both	0	164	21	0	0	0	0	0	0	0	0	0	0	17	202
9:00 PM	EB	0	31	3	0	0	0	0	0	0	0	0	0	0	0	34
	WB	2	71	5	0	0	0	0	1	0	0	0	0	0	25	104
	Both	2	102	8	0	0	0	0	1	0	0	0	0	0	25	138
10:00 PM	EB	0	18	6	0	0	0	0	0	0	0	0	0	0	0	24
	WB	0	47	11	0	0	0	0	0	0	0	0	0	0	8	66
	Both	0	65	17	0	0	0	0	0	0	0	0	0	0	8	90
11:00 PM	EB	0	18	3	0	0	0	0	0	0	0	0	0	0	0	21
	WB	3	19	3	0	0	0	0	0	0	0	0	0	0	6	31
	Both	3	37	6	0	0	0	0	0	0	0	0	0	0	6	52
<b>EB Total:</b>		6	1659	239	3	5	2	0	2	0	0	0	0	0	12	1928
<b>WB Total:</b>		28	1427	211	0	2	0	1	4	0	0	0	0	0	83	1756
<b>Total:</b>		34	3086	450	3	7	2	1	6	0	0	0	0	0	95	3684

**72 Hour Traffic Count**  
**Simon's Run**  
**0.13 Miles West of entrance to A.C. Moore**  
**Saturday, September 14, 2013**

START TIME	DIR	CYCLE	CARS	2A-4T	BUSES	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	OTHER	TOTAL
12:00 AM	EB	0	8	2	0	0	0	0	0	0	0	0	0	0	0	10
	WB	0	6	3	0	0	0	0	0	0	0	0	0	0	2	11
	Both	0	14	5	0	0	0	0	0	0	0	0	0	0	2	21
1:00 AM	EB	0	7	1	0	0	0	0	0	0	0	0	0	0	0	8
	WB	0	10	1	0	0	0	0	0	0	0	0	0	0	2	13
	Both	0	17	2	0	0	0	0	0	0	0	0	0	0	2	21
2:00 AM	EB	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
	WB	0	5	0	0	0	0	0	0	0	0	0	0	0	1	6
	Both	0	8	0	0	0	0	0	0	0	0	0	0	0	1	9
3:00 AM	EB	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
	WB	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
	Both	0	4	3	0	0	0	0	0	0	0	0	0	0	0	7
4:00 AM	EB	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
	WB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	Both	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
5:00 AM	EB	0	6	2	0	0	0	0	0	0	0	0	0	0	0	8
	WB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	Both	0	7	2	0	0	0	0	0	0	0	0	0	0	0	9
6:00 AM	EB	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
	WB	0	4	1	0	0	1	0	0	0	0	0	0	0	1	7
	Both	0	14	1	0	0	1	0	0	0	0	0	0	0	1	17
7:00 AM	EB	1	30	2	0	0	0	0	0	0	0	0	0	0	0	33
	WB	0	3	2	0	1	0	0	0	0	0	0	0	0	0	6
	Both	1	33	4	0	1	0	0	0	0	0	0	0	0	0	39
8:00 AM	EB	1	45	5	0	0	0	0	0	0	0	0	0	0	0	51
	WB	0	16	4	0	0	0	0	0	0	0	0	0	0	2	22
	Both	1	61	9	0	0	0	0	0	0	0	0	0	0	2	73
9:00 AM	EB	1	120	7	0	0	0	0	0	0	0	0	0	0	0	128
	WB	0	29	5	0	1	0	0	0	0	0	0	0	0	3	38
	Both	1	149	12	0	1	0	0	0	0	0	0	0	0	3	166
10:00 AM	EB	1	158	14	0	0	0	0	0	0	0	0	0	0	2	175
	WB	1	76	16	0	2	0	0	0	0	0	0	0	0	1	96
	Both	2	234	30	0	2	0	0	0	0	0	0	0	0	3	271
11:00 AM	EB	1	145	23	2	1	0	0	0	0	0	0	0	0	0	172
	WB	1	92	11	0	2	0	0	0	0	0	0	0	0	6	112
	Both	2	237	34	2	3	0	0	0	0	0	0	0	0	6	284
12:00 PM	EB	1	170	23	0	0	0	1	0	0	0	0	0	0	2	197
	WB	3	122	11	0	0	0	1	0	0	0	0	0	0	3	140
	Both	4	292	34	0	0	0	2	0	0	0	0	0	0	5	337
1:00 PM	EB	1	151	18	0	1	0	0	0	0	0	0	0	0	1	172
	WB	4	126	11	1	1	0	0	0	0	0	0	0	0	0	143
	Both	5	277	29	1	2	0	0	0	0	0	0	0	0	1	315
2:00 PM	EB	1	134	20	1	1	0	0	0	0	0	0	0	0	0	157
	WB	4	131	21	0	4	0	0	0	0	0	0	0	0	2	162
	Both	5	265	41	1	5	0	0	0	0	0	0	0	0	2	319
3:00 PM	EB	1	149	17	0	1	0	0	0	0	0	0	0	0	1	169
	WB	1	139	16	0	3	0	0	0	0	0	0	0	0	10	169
	Both	2	288	33	0	4	0	0	0	0	0	0	0	0	11	338
4:00 PM	EB	2	152	17	0	1	0	0	0	0	0	0	0	0	0	172
	WB	1	143	23	0	1	0	0	0	0	0	0	0	0	7	175
	Both	3	295	40	0	2	0	0	0	0	0	0	0	0	7	347
5:00 PM	EB	1	150	17	0	1	0	0	0	0	0	0	0	0	2	171
	WB	1	140	17	0	4	0	0	1	0	0	0	0	0	7	170
	Both	2	290	34	0	5	0	0	1	0	0	0	0	0	9	341
6:00 PM	EB	3	110	18	1	0	0	0	0	0	0	0	0	0	0	132
	WB	3	92	13	0	1	0	0	1	0	0	0	0	0	12	122
	Both	6	202	31	1	1	0	0	1	0	0	0	0	0	12	254
7:00 PM	EB	1	107	19	0	1	0	0	1	0	0	0	0	0	0	129
	WB	2	104	16	0	0	0	1	1	0	0	0	0	0	17	141
	Both	3	211	35	0	1	0	1	2	0	0	0	0	0	17	270
8:00 PM	EB	2	64	13	0	0	0	1	1	0	0	0	0	0	0	81
	WB	2	70	22	0	1	0	0	0	0	0	0	0	0	29	124
	Both	4	134	35	0	1	0	1	1	0	0	0	0	0	29	205
9:00 PM	EB	1	52	7	0	0	0	0	1	0	0	0	0	0	1	62
	WB	6	60	14	0	0	0	0	0	0	0	0	0	0	20	100
	Both	7	112	21	0	0	0	0	1	0	0	0	0	0	21	162
10:00 PM	EB	0	24	3	0	1	0	0	0	0	0	0	0	0	2	30
	WB	4	32	4	0	0	0	0	0	0	0	0	0	0	11	51
	Both	4	56	7	0	1	0	0	0	0	0	0	0	0	13	81
11:00 PM	EB	0	9	2	0	0	0	0	0	0	0	0	0	0	0	11
	WB	4	21	4	0	0	0	0	0	0	0	0	0	0	7	36
	Both	4	30	6	0	0	0	0	0	0	0	0	0	0	7	47
<b>EB Total:</b>		19	1809	232	4	8	0	2	3	0	0	0	0	0	11	2088
<b>WB Total:</b>		37	1424	217	1	21	1	2	3	0	0	0	0	0	143	1849
<b>Total:</b>		56	3233	449	5	29	1	4	6	0	0	0	0	0	154	3937

**72 Hour Traffic Count**  
**Simon's Run**  
**0.13 Miles West of entrance to A.C. Moore**  
**Sunday, September 15, 2013**

START TIME	DIR	CYCLE	CARS	2A-4T	BUSES	2A-SU	3A-SU	4A-SU	4A-ST	5A-ST	6A-ST	5A-MT	6A-MT	7A-MT	OTHER	TOTAL
12:00 AM	EB	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7
	WB	1	8	1	0	0	0	0	0	0	0	0	0	0	2	12
	Both	1	15	1	0	0	0	0	0	0	0	0	0	0	2	19
1:00 AM	EB	1	3	1	0	0	0	0	0	0	0	0	0	0	0	5
	WB	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
	Both	1	8	1	0	0	0	0	0	0	0	0	0	0	0	10
2:00 AM	EB	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
	WB	0	4	1	0	0	0	0	0	0	0	0	0	0	0	5
	Both	0	8	2	0	0	0	0	0	0	0	0	0	0	0	10
3:00 AM	EB	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
	WB	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
	Both	0	2	1	0	0	0	0	0	0	0	0	0	0	2	5
4:00 AM	EB	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	WB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Both	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 AM	EB	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
	WB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Both	0	5	1	0	0	0	0	0	0	0	0	0	0	0	6
6:00 AM	EB	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
	WB	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
	Both	0	8	1	0	0	0	0	0	0	0	0	0	0	0	9
7:00 AM	EB	1	12	2	0	0	0	0	0	0	0	0	0	0	0	15
	WB	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
	Both	1	14	2	0	0	0	0	0	0	0	0	0	0	0	17
8:00 AM	EB	0	27	8	0	0	0	0	0	0	0	0	0	0	0	35
	WB	0	12	0	0	0	0	0	0	0	0	0	0	0	1	13
	Both	0	39	8	0	0	0	0	0	0	0	0	0	0	1	48
9:00 AM	EB	0	50	9	0	0	0	0	0	0	0	0	0	0	0	59
	WB	0	21	4	0	0	0	0	0	0	0	0	0	0	0	25
	Both	0	71	13	0	0	0	0	0	0	0	0	0	0	0	84
10:00 AM	EB	1	110	11	0	0	0	0	0	0	0	0	0	0	0	122
	WB	0	38	4	0	1	0	0	0	0	0	0	0	0	1	44
	Both	1	148	15	0	1	0	0	0	0	0	0	0	0	1	166
11:00 AM	EB	2	164	25	0	1	0	0	0	0	0	0	0	0	2	194
	WB	1	79	15	0	0	0	0	0	0	0	0	0	0	1	96
	Both	3	243	40	0	1	0	0	0	0	0	0	0	0	3	290
12:00 PM	EB	0	153	26	2	0	0	0	0	0	0	0	0	0	0	181
	WB	3	89	15	0	0	0	0	0	0	0	0	0	0	4	111
	Both	3	242	41	2	0	0	0	0	0	0	0	0	0	4	292
1:00 PM	EB	1	162	20	0	0	0	0	0	0	0	0	0	0	1	184
	WB	1	118	12	0	1	0	0	0	0	0	0	0	0	4	136
	Both	2	280	32	0	1	0	0	0	0	0	0	0	0	5	320
2:00 PM	EB	1	148	18	1	0	0	0	0	0	0	0	0	0	2	170
	WB	1	110	26	0	1	0	0	0	0	0	0	0	0	6	144
	Both	2	258	44	1	1	0	0	0	0	0	0	0	0	8	314
3:00 PM	EB	0	122	13	0	0	0	1	0	0	0	0	0	0	0	136
	WB	3	134	20	0	0	0	0	0	0	0	0	0	0	5	162
	Both	3	256	33	0	0	0	1	0	0	0	0	0	0	5	298
4:00 PM	EB	2	116	13	0	0	0	0	0	0	0	0	0	0	1	132
	WB	0	116	29	0	1	0	0	0	0	0	0	0	0	6	152
	Both	2	232	42	0	1	0	0	0	0	0	0	0	0	7	284
5:00 PM	EB	1	94	18	0	0	0	0	1	0	0	0	0	0	0	114
	WB	5	122	19	0	0	0	0	0	0	0	0	0	0	2	148
	Both	6	216	37	0	0	0	0	1	0	0	0	0	0	2	262
6:00 PM	EB	0	77	8	0	0	0	0	0	0	0	0	0	0	0	85
	WB	2	96	15	0	0	0	0	0	0	0	0	0	0	5	118
	Both	2	173	23	0	0	0	0	0	0	0	0	0	0	5	203
7:00 PM	EB	0	46	9	1	0	0	0	0	0	0	0	0	0	0	56
	WB	2	69	11	0	0	0	1	0	0	0	0	0	0	6	89
	Both	2	115	20	1	0	0	1	0	0	0	0	0	0	6	145
8:00 PM	EB	0	38	1	0	1	0	0	0	0	0	0	0	0	0	40
	WB	3	42	7	0	0	0	0	0	0	0	0	0	0	3	55
	Both	3	80	8	0	1	0	0	0	0	0	0	0	0	3	95
9:00 PM	EB	0	15	2	0	0	0	0	0	0	0	0	0	0	0	17
	WB	0	34	5	0	0	0	0	0	0	0	0	0	0	2	41
	Both	0	49	7	0	0	0	0	0	0	0	0	0	0	2	58
10:00 PM	EB	0	11	1	0	0	0	0	0	0	0	0	0	0	0	12
	WB	2	14	1	0	0	0	0	0	0	0	0	0	0	1	18
	Both	2	25	2	0	0	0	0	0	0	0	0	0	0	1	30
11:00 PM	EB	0	7	2	0	0	0	0	0	0	0	0	0	0	0	9
	WB	0	5	0	0	0	0	0	0	0	0	0	0	0	0	5
	Both	0	12	2	0	0	0	0	0	0	0	0	0	0	0	14
<b>EB Total:</b>		10	1379	190	4	2	0	1	1	0	0	0	0	0	6	1593
<b>WB Total:</b>		24	1121	186	0	4	0	1	0	0	0	0	0	0	51	1387
<b>Total:</b>		34	2500	376	4	6	0	2	1	0	0	0	0	0	57	2980

File Name: X:\Jobs 2013\13-038.va\_Wards Ferry Lynchburg (Final-TrafX)\Final for Client\Wards Ferry Rd. and Simons Run AM.ppd

Start Date: 2/21/2013

Start Time: 7:00:00 AM

Site Code: 00002960

Comment 1: Default Comments

Comment 2: Change These in The Preferences Window

Comment 3: Select File/Preference in the Main Scree

Comment 4: Then Click the Comments Tab

Start Time	Wards Ferry Rd. Southbound				Simons Run Westbound				Wards Ferry Rd. Northbound				Simons Run Eastbound			
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
07:00 AM	2	27	1	0	0	1	1	0	0	38	3	0	0	1	1	0
07:15 AM	0	41	3	0	2	1	1	0	3	34	4	0	0	2	2	0
07:30 AM	0	41	1	0	2	2	2	0	5	61	4	0	0	4	1	0
07:45 AM	2	36	10	0	2	0	2	0	6	79	7	0	0	1	1	0
08:00 AM	0	28	6	0	4	0	0	0	0	45	4	0	0	6	6	0
08:15 AM	2	30	3	0	4	0	1	0	4	41	10	0	0	6	0	0
08:30 AM	2	21	12	0	4	2	3	0	9	53	9	0	0	8	3	0
08:45 AM	3	35	9	0	7	5	3	0	8	35	14	0	0	11	5	0



File Name: X:\Jobs 2013\13-038.va\_Wards Ferry Lynchburg (Final-TrafX)\Final for Client\Wards Ferry Rd. and Simons Run AM.ppd

Start Date: 2/21/2013

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Start Time	Wards Ferry Rd. Southbound				Simons Run Westbound				Wards Ferry Rd. Northbound				Simons Run Eastbound			
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
07:00 AM	2	27	1	0	0	1	1	0	0	39	3	0	0	1	1	0
07:15 AM	0	41	3	0	2	1	1	0	3	35	4	0	0	2	2	0
07:30 AM	1	42	1	0	2	3	3	0	6	61	4	0	0	4	1	0
07:45 AM	2	37	10	0	2	0	2	0	7	79	7	0	0	1	1	0
08:00 AM	0	28	6	0	4	0	0	0	0	46	4	0	0	6	6	0
08:15 AM	2	32	3	0	6	0	2	0	6	41	10	0	0	6	0	0
08:30 AM	3	23	12	0	4	3	4	0	9	53	9	0	0	8	3	0
08:45 AM	3	35	9	0	7	5	3	0	9	35	14	0	0	11	5	0

File Name: X:\Jobs 2013\13-038.va\_Wards Ferry Lynchburg (Final-TrafX)\Final for Client\Wards Ferry Rd. and Simons Run PM.ppd

Start Date: 2/21/2013

Start Time: 4:00:00 PM

Site Code: 00002960

Comment 1: Default Comments

Comment 2: Change These in The Preferences Window

Comment 3: Select File/Preference in the Main Scree

Comment 4: Then Click the Comments Tab

Start Time	Wards Ferry Rd. Southbound				Simons Run Westbound				Wards Ferry Rd. Northbound				Simons Run Eastbound			
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
04:00 PM	11	61	11	0	16	26	20	0	9	40	54	0	3	25	14	0
04:15 PM	15	52	13	0	9	25	20	0	9	50	46	0	1	21	4	0
04:30 PM	13	70	17	0	13	16	18	0	24	52	42	0	2	21	2	0
04:45 PM	15	69	23	0	13	25	28	0	14	62	42	0	5	20	9	0
05:00 PM	10	89	14	0	17	23	26	0	20	55	57	0	1	20	10	0
05:15 PM	15	66	14	0	28	21	19	0	17	57	44	0	7	17	11	0
05:30 PM	13	67	21	0	19	20	24	0	17	72	43	0	1	27	10	0
05:45 PM	4	88	16	0	20	21	23	0	23	59	53	0	2	21	8	0





File Name: X:\Jobs 2013\13-038.va\_Wards Ferry Lynchburg (Final-TrafX)\Final for Client\Wards Ferry Rd. and Simons Run PM.ppd

Start Date: 2/21/2013

Start Time: 4:00:00 PM

Site Code: 00002960

Comment 1: Default Comments

Comment 2: Change These in The Preferences Window

Comment 3: Select File/Preference in the Main Scree

Comment 4: Then Click the Comments Tab

Start Time	Wards Ferry Rd. Southbound				Simons Run Westbound				Wards Ferry Rd. Northbound				Simons Run Eastbound			
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
04:00 PM	11	62	11	0	16	26	20	0	11	40	54	0	3	25	14	0
04:15 PM	15	52	13	0	9	25	20	0	10	50	46	0	1	21	4	0
04:30 PM	14	70	17	0	13	16	19	0	24	53	42	0	2	21	2	0
04:45 PM	15	70	23	0	13	26	28	0	14	63	42	0	5	20	9	0
05:00 PM	10	89	14	0	17	23	26	0	20	57	58	0	1	20	10	0
05:15 PM	15	67	14	0	28	21	19	0	17	57	44	0	7	17	11	0
05:30 PM	13	67	21	0	19	20	24	0	17	75	43	0	1	27	10	0
05:45 PM	5	88	16	0	20	22	23	0	23	59	53	0	2	21	8	0

Wards Ferry Rd. Southbound				Simons Run Westbound				Wards Ferry Rd. Northbound				Simons Run Eastbound			
Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds
43	311	65	0	84	86	92	0	77	248	198	0	11	85	39	0

Leesville Rd @ Airport Rd/Greenview Dr

	Greenview Dr EB			Leesville Rd NB			Airport Rd WB			Leesville Rd SB			
<b>8/4/2014</b>	EBL	EBT	EBR	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	
4:00-4:15	32	109	13	18	32	22	57	123	15	19	39	33	
4:15-4:30	26	103	16	16	34	20	60	111	20	23	52	25	
4:30-4:45	26	87	13	9	45	38	80	132	14	17	61	26	
<b>4:45-5:00</b>	<b>27</b>	<b>96</b>	<b>13</b>	<b>10</b>	<b>46</b>	<b>27</b>	<b>66</b>	<b>99</b>	<b>26</b>	<b>25</b>	<b>67</b>	<b>37</b>	<b>539</b>
<b>5:00-5:15</b>	<b>36</b>	<b>109</b>	<b>13</b>	<b>21</b>	<b>53</b>	<b>28</b>	<b>88</b>	<b>102</b>	<b>28</b>	<b>25</b>	<b>64</b>	<b>39</b>	<b>606</b>
<b>5:15-5:30</b>	<b>25</b>	<b>110</b>	<b>21</b>	<b>24</b>	<b>47</b>	<b>27</b>	<b>101</b>	<b>110</b>	<b>26</b>	<b>38</b>	<b>57</b>	<b>41</b>	<b>627</b>
<b>5:30-5:45</b>	<b>30</b>	<b>84</b>	<b>24</b>	<b>26</b>	<b>47</b>	<b>19</b>	<b>80</b>	<b>126</b>	<b>19</b>	<b>33</b>	<b>67</b>	<b>44</b>	<b>599</b>
	<b>118</b>	<b>399</b>	<b>71</b>	<b>81</b>	<b>193</b>	<b>101</b>	<b>335</b>	<b>437</b>	<b>99</b>	<b>121</b>	<b>255</b>	<b>161</b>	<b>2371</b>

	Greenview Dr EB			Leesville Rd NB			Airport Rd WB			Leesville Rd SB			
<b>8/5/2014</b>	EBL	EBT	EBR	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	
7:00-7:15	12	64	8	10	30	28	15	56	12	1	16	5	
7:15-7:30	7	74	8	21	47	36	24	42	10	19	11	1	
<b>7:30-7:45</b>	<b>12</b>	<b>137</b>	<b>6</b>	<b>16</b>	<b>59</b>	<b>39</b>	<b>33</b>	<b>61</b>	<b>23</b>	<b>28</b>	<b>28</b>	<b>8</b>	<b>450</b>
<b>7:45-8:00</b>	<b>21</b>	<b>155</b>	<b>16</b>	<b>18</b>	<b>66</b>	<b>50</b>	<b>43</b>	<b>81</b>	<b>27</b>	<b>20</b>	<b>31</b>	<b>13</b>	<b>541</b>
<b>8:00-8:15</b>	<b>17</b>	<b>96</b>	<b>4</b>	<b>19</b>	<b>41</b>	<b>27</b>	<b>28</b>	<b>80</b>	<b>15</b>	<b>30</b>	<b>24</b>	<b>14</b>	<b>395</b>
<b>8:15-8:30</b>	<b>16</b>	<b>70</b>	<b>17</b>	<b>21</b>	<b>39</b>	<b>41</b>	<b>27</b>	<b>70</b>	<b>15</b>	<b>19</b>	<b>21</b>	<b>13</b>	<b>369</b>
8:30-8:45	17	68	2	13	42	35	22	84	16	22	27	14	
	<b>66</b>	<b>458</b>	<b>43</b>	<b>74</b>	<b>205</b>	<b>157</b>	<b>131</b>	<b>292</b>	<b>80</b>	<b>97</b>	<b>104</b>	<b>48</b>	<b>1755</b>























Leesville Rd @ Simons Rn

	Leesville Rd NB		Simons Run WB		Leesville Rd SB		
<b>8/4/2014</b>	NBT	NBR	WBL	WBR	SBL	SBT	
4:00-4:15	66	20	41	6	3	61	
4:15-4:30	54	20	30	7	7	85	
4:30-4:45	66	26	23	4	6	88	
<b>4:45-5:00</b>	<b>75</b>	<b>30</b>	<b>34</b>	<b>4</b>	<b>2</b>	<b>87</b>	<b>232</b>
<b>5:00-5:15</b>	<b>73</b>	<b>27</b>	<b>36</b>	<b>5</b>	<b>5</b>	<b>106</b>	<b>252</b>
<b>5:15-5:30</b>	<b>83</b>	<b>26</b>	<b>26</b>	<b>7</b>	<b>3</b>	<b>122</b>	<b>267</b>
<b>5:30-5:45</b>	<b>83</b>	<b>27</b>	<b>37</b>	<b>4</b>	<b>4</b>	<b>103</b>	<b>258</b>
5:45-6:00	68	35	34	1	6	81	
	<b>314</b>	<b>110</b>	<b>133</b>	<b>20</b>	<b>14</b>	<b>418</b>	<b>1009</b>

	Leesville Rd NB		Simons Run WB		Leesville Rd SB		
<b>8/5/2014</b>	NBT	NBR	WBL	WBR	SBL	SBT	
7:00-7:15	55	4	0	1	0	28	
7:15-7:30	68	8	2	0	0	44	
<b>7:30-7:45</b>	<b>95</b>	<b>10</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>49</b>	<b>159</b>
<b>7:45-8:00</b>	<b>99</b>	<b>20</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>182</b>
<b>8:00-8:15</b>	<b>74</b>	<b>7</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>54</b>	<b>143</b>
<b>8:15-8:30</b>	<b>63</b>	<b>13</b>	<b>5</b>	<b>0</b>	<b>3</b>	<b>42</b>	<b>126</b>
8:30-8:45	65	10	5	3	1	48	
8:45-9:00	70	8	5	0	0	42	
	<b>331</b>	<b>50</b>	<b>15</b>	<b>2</b>	<b>7</b>	<b>205</b>	<b>610</b>

HCM 2010 Signalized Intersection Summary  
3: Simons Run & Wards Ferry Rd

Existing Conditions AM Peak Hour  
9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	21	0	8	3	16	30	219	22	31	120	7
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	11	23	0	9	3	17	33	238	24	34	130	8
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	332	154	0	331	19	109	585	524	446	498	527	448
Arrive On Green	0.02	0.08	0.00	0.02	0.08	0.08	0.05	0.28	0.28	0.06	0.28	0.28
Sat Flow, veh/h	1774	1863	0	1774	243	1377	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	11	23	0	9	0	20	33	238	24	34	130	8
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	0	1620	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.2	0.4	0.0	0.2	0.0	0.4	0.4	3.7	0.4	0.5	1.9	0.1
Cycle Q Clear(g_c), s	0.2	0.4	0.0	0.2	0.0	0.4	0.4	3.7	0.4	0.5	1.9	0.1
Prop In Lane	1.00		0.00	1.00		0.85	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	332	154	0	331	0	128	585	524	446	498	527	448
V/C Ratio(X)	0.03	0.15	0.00	0.03	0.00	0.16	0.06	0.45	0.05	0.07	0.25	0.02
Avail Cap(c_a), veh/h	1545	2097	0	1549	0	1824	1737	3146	2674	1647	3146	2674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	15.1	0.0	14.6	0.0	15.3	8.0	10.5	9.3	8.1	9.8	9.2
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.0	0.0	0.6	0.0	0.6	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	0.0	0.1	0.0	0.2	0.2	2.0	0.2	0.2	1.0	0.1
LnGrp Delay(d),s/veh	14.5	15.6	0.0	14.6	0.0	15.8	8.1	11.1	9.4	8.2	10.1	9.2
LnGrp LOS	B	B		B		B	A	B	A	A	B	A
Approach Vol, veh/h		34			29			295			172	
Approach Delay, s/veh		15.2			15.4			10.6			9.7	
Approach LOS		B			B			B			A	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.0	15.0	5.6	7.9	6.9	15.0	5.7	7.8				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	25.0	60.0	25.0	40.0	25.0	60.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	2.5	5.7	2.2	2.4	2.4	3.9	2.2	2.4				
Green Ext Time (p_c), s	0.1	2.3	0.0	0.2	0.0	2.3	0.0	0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			10.9									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	15	2	331	50	7	205
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	-	123	-	-
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	16	2	360	54	8	223

Major/Minor	Minor1	Minor2	Major1	Major2
Conflicting Flow All	487	180	0	0
Stage 1	360	-	-	-
Stage 2	127	-	-	-
Critical Hdwy	6.84	6.94	-	-
Critical Hdwy Stg 1	5.84	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-
Follow-up Hdwy	3.52	3.32	-	-
Pot Cap-1 Maneuver	510	832	-	-
Stage 1	677	-	-	-
Stage 2	885	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	506	832	-	-
Mov Cap-2 Maneuver	506	-	-	-
Stage 1	677	-	-	-
Stage 2	878	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	506	832	1195	-
HCM Lane V/C Ratio	-	-	0.032	0.003	0.006	-
HCM Control Delay (s)	-	-	12.4	9.3	8	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

**Intersection**

Int Delay, s/veh 1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	67	0	0	0	0	271	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	73	0	0	0	0	295	7

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	271	425	124	422	422	151	124	0	0
Stage 1	124	124	-	298	298	-	-	-	-
Stage 2	147	301	-	124	124	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	671	520	926	529	522	869	1463	-	-
Stage 1	880	793	-	687	666	-	-	-	-
Stage 2	841	664	-	880	793	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	671	520	926	487	522	869	1463	-	-
Mov Cap-2 Maneuver	671	520	-	487	522	-	-	-	-
Stage 1	880	793	-	687	666	-	-	-	-
Stage 2	841	664	-	811	793	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.2	0	0
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1463	-	-	926	-	-	1257	-
HCM Lane V/C Ratio	-	-	-	0.079	-	-	-	-
HCM Control Delay (s)	0	-	-	9.2	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	-	-	0	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	0	114	14
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	124	15

**Major/Minor Major2**

Conflicting Flow All	301	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1257	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	1257	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach SB**


















HCM Control Delay, s 0

HCM LOS

**Minor Lane/Major Mvmt**

HCM 2010 Signalized Intersection Summary  
25: Greenview Dr/Airport Rd & Leesville Rd

Existing Conditions AM Peak Hour  
9/12/2014























												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	66	458	43	131	292	80	74	205	157	97	104	48
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	72	498	47	142	317	87	80	223	171	105	113	52
Adj No. of Lanes	0	2	0	1	1	0	0	2	0	0	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	85	613	61	454	360	99	95	267	216	136	155	73
Arrive On Green	0.21	0.21	0.21	0.26	0.26	0.26	0.17	0.17	0.17	0.10	0.10	0.10
Sat Flow, veh/h	408	2954	292	1774	1408	386	568	1604	1296	1324	1502	709
Grp Volume(v), veh/h	325	0	292	142	0	404	258	0	216	142	0	128
Grp Sat Flow(s),veh/h/ln	1842	0	1811	1774	0	1795	1834	0	1634	1797	0	1738
Q Serve(g_s), s	14.0	0.0	12.5	5.3	0.0	17.8	11.3	0.0	10.4	6.4	0.0	5.9
Cycle Q Clear(g_c), s	14.0	0.0	12.5	5.3	0.0	17.8	11.3	0.0	10.4	6.4	0.0	5.9
Prop In Lane	0.22		0.16	1.00		0.22	0.31		0.79	0.74		0.41
Lane Grp Cap(c), veh/h	382	0	376	454	0	459	306	0	272	185	0	179
V/C Ratio(X)	0.85	0.00	0.78	0.31	0.00	0.88	0.85	0.00	0.79	0.77	0.00	0.71
Avail Cap(c_a), veh/h	427	0	420	528	0	534	334	0	298	205	0	198
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	30.8	24.8	0.0	29.5	33.3	0.0	32.9	36.0	0.0	35.8
Incr Delay (d2), s/veh	13.9	0.0	8.0	0.4	0.0	14.2	16.7	0.0	12.6	14.8	0.0	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.6	0.0	7.1	2.7	0.0	10.6	7.1	0.0	5.6	3.9	0.0	3.3
LnGrp Delay(d),s/veh	45.3	0.0	38.8	25.2	0.0	43.6	50.0	0.0	45.5	50.8	0.0	45.9
LnGrp LOS	D		D	C		D	D		D	D		D
Approach Vol, veh/h		617			546			474			270	
Approach Delay, s/veh		42.3			38.8			48.0			48.5	
Approach LOS		D			D			D			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		19.2		22.6		14.0		26.6				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		15.0		19.1		9.4		24.5				
Max Q Clear Time (g_c+I1), s		13.3		16.0		8.4		19.8				
Green Ext Time (p_c), s		0.5		1.1		0.1		1.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				43.6								
HCM 2010 LOS				D								



HCM 2010 Signalized Intersection Summary  
3: Simons Run & Wards Ferry Rd

Existing Conditions PM Peak Hour

9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	39	85	11	92	86	84	198	248	77	65	311	43
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	42	92	12	100	93	91	215	270	84	71	338	47
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	210	27	409	147	144	470	592	503	489	519	441
Arrive On Green	0.06	0.13	0.13	0.10	0.17	0.17	0.12	0.32	0.32	0.08	0.28	0.28
Sat Flow, veh/h	1774	1615	211	1774	866	847	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	42	0	104	100	0	184	215	270	84	71	338	47
Grp Sat Flow(s),veh/h/ln	1774	0	1826	1774	0	1713	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	1.1	0.0	2.9	2.5	0.0	5.4	4.5	6.3	2.1	1.4	8.7	1.2
Cycle Q Clear(g_c), s	1.1	0.0	2.9	2.5	0.0	5.4	4.5	6.3	2.1	1.4	8.7	1.2
Prop In Lane	1.00		0.12	1.00		0.49	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	323	0	237	409	0	291	470	592	503	489	519	441
V/C Ratio(X)	0.13	0.00	0.44	0.24	0.00	0.63	0.46	0.46	0.17	0.15	0.65	0.11
Avail Cap(c_a), veh/h	1030	0	1341	1046	0	1259	1065	2053	1745	1154	2053	1745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	0.0	21.9	17.2	0.0	21.0	11.9	14.8	13.4	11.7	17.3	14.6
Incr Delay (d2), s/veh	0.2	0.0	1.3	0.3	0.0	2.3	0.7	0.5	0.2	0.1	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	1.5	1.2	0.0	2.7	2.2	3.3	0.9	0.7	4.6	0.5
LnGrp Delay(d),s/veh	18.6	0.0	23.1	17.5	0.0	23.3	12.6	15.4	13.5	11.8	18.7	14.7
LnGrp LOS	B		C	B		C	B	B	B	B	B	B
Approach Vol, veh/h		146			284			569			456	
Approach Delay, s/veh		21.8			21.3			14.1			17.2	
Approach LOS		C			C			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.6	22.3	10.5	12.1	11.8	20.2	8.3	14.2				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	25.0	60.0	25.0	40.0	25.0	60.0	25.0	40.0				
Max Q Clear Time (g_c+I1), s	3.4	8.3	4.5	4.9	6.5	10.7	3.1	7.4				
Green Ext Time (p_c), s	0.1	4.5	0.2	1.8	0.5	4.5	0.1	1.8				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			17.2									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 2.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	133	20	314	110	14	418
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	-	123	-	-
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	145	22	341	120	15	454

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	599	171	0 0 341 0
Stage 1	341	-	- - - -
Stage 2	258	-	- - - -
Critical Hdwy	6.84	6.94	- - 4.14 -
Critical Hdwy Stg 1	5.84	-	- - - -
Critical Hdwy Stg 2	5.84	-	- - - -
Follow-up Hdwy	3.52	3.32	- - 2.22 -
Pot Cap-1 Maneuver	433	843	- - 1215 -
Stage 1	692	-	- - - -
Stage 2	761	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	426	843	- - 1215 -
Mov Cap-2 Maneuver	426	-	- - - -
Stage 1	692	-	- - - -
Stage 2	748	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	426	843	1215	-
HCM Lane V/C Ratio	-	-	0.339	0.026	0.013	-
HCM Control Delay (s)	-	-	17.7	9.4	8	0.1
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0.1	0	-

**Intersection**

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	322	0	0	32	0	491	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	350	0	0	35	0	534	22

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	569	857	272	847	847	278	272	0	0
Stage 1	302	302	-	545	545	-	-	-	-
Stage 2	267	555	-	302	302	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	419	294	766	268	298	720	1291	-	-
Stage 1	706	664	-	491	518	-	-	-	-
Stage 2	716	512	-	706	664	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	394	290	766	144	294	720	1291	-	-
Mov Cap-2 Maneuver	394	290	-	144	294	-	-	-	-
Stage 1	706	654	-	491	518	-	-	-	-
Stage 2	681	512	-	378	654	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	13.6	10.3	0
HCM LOS	B	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1291	-	-	766	-	720	1011	-
HCM Lane V/C Ratio	-	-	-	0.457	-	0.048	0.015	-
HCM Control Delay (s)	0	-	-	13.6	0	10.3	8.6	-
HCM Lane LOS	A	-	-	B	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	2.4	-	0.2	0	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	14	250	150
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	15	272	163

**Major/Minor Major2**

Conflicting Flow All	555	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1011	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	1011	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach SB**


















HCM Control Delay, s 0.5

HCM LOS

**Minor Lane/Major Mvmt**























HCM 2010 Signalized Intersection Summary  
25: Greenview Dr/Airport Rd & Leesville Rd

Existing Conditions PM Peak Hour  
9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	118	399	71	335	437	99	81	193	101	121	255	161
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	124	420	75	353	460	104	85	203	106	127	268	169
Adj No. of Lanes	0	2	0	1	1	0	0	2	0	0	2	0
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	455	85	564	468	106	97	238	130	125	271	180
Arrive On Green	0.18	0.18	0.18	0.32	0.32	0.32	0.13	0.13	0.13	0.16	0.16	0.16
Sat Flow, veh/h	692	2459	458	1774	1471	333	735	1801	980	758	1644	1092
Grp Volume(v), veh/h	328	0	291	353	0	564	211	0	183	306	0	258
Grp Sat Flow(s),veh/h/ln	1828	0	1782	1774	0	1804	1826	0	1690	1825	0	1670
Q Serve(g_s), s	19.5	0.0	17.5	18.6	0.0	34.1	12.5	0.0	11.6	18.1	0.0	16.8
Cycle Q Clear(g_c), s	19.5	0.0	17.5	18.6	0.0	34.1	12.5	0.0	11.6	18.1	0.0	16.8
Prop In Lane	0.38		0.26	1.00		0.18	0.40		0.58	0.42		0.65
Lane Grp Cap(c), veh/h	338	0	329	564	0	573	241	0	223	301	0	275
V/C Ratio(X)	0.97	0.00	0.88	0.63	0.00	0.98	0.87	0.00	0.82	1.02	0.00	0.94
Avail Cap(c_a), veh/h	338	0	329	564	0	573	244	0	226	301	0	275
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.5	0.0	43.6	31.9	0.0	37.2	46.8	0.0	46.4	45.9	0.0	45.3
Incr Delay (d2), s/veh	40.6	0.0	23.7	2.2	0.0	33.3	27.6	0.0	20.2	56.1	0.0	38.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	0.0	10.7	9.5	0.0	22.2	8.1	0.0	6.6	13.7	0.0	10.7
LnGrp Delay(d),s/veh	85.1	0.0	67.3	34.1	0.0	70.5	74.3	0.0	66.6	102.1	0.0	83.4
LnGrp LOS	F		E	C		E	E		E	F		F
Approach Vol, veh/h		619			917			394			564	
Approach Delay, s/veh		76.7			56.5			70.7			93.5	
Approach LOS		E			E			E			F	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		20.0		25.8		23.6		40.4				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		14.7		20.3		18.1		34.9				
Max Q Clear Time (g_c+I1), s		14.5		21.5		20.1		36.1				
Green Ext Time (p_c), s		0.1		0.0		0.0		0.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				72.1								
HCM 2010 LOS				E								

HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 1 AM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	64	0	9	9	18	43	242	24	34	133	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	35	70	0	10	10	20	47	263	26	37	145	23
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	301	0	376	69	137	532	488	415	437	465	395
Arrive On Green	0.06	0.16	0.00	0.02	0.12	0.12	0.07	0.26	0.26	0.06	0.25	0.25
Sat Flow, veh/h	1774	1863	0	1774	556	1111	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	35	70	0	10	0	30	47	263	26	37	145	23
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	0	1667	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.7	1.3	0.0	0.2	0.0	0.6	0.7	4.9	0.5	0.6	2.5	0.4
Cycle Q Clear(g_c), s	0.7	1.3	0.0	0.2	0.0	0.6	0.7	4.9	0.5	0.6	2.5	0.4
Prop In Lane	1.00		0.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	427	301	0	376	0	206	532	488	415	437	465	395
V/C Ratio(X)	0.08	0.23	0.00	0.03	0.00	0.15	0.09	0.54	0.06	0.08	0.31	0.06
Avail Cap(c_a), veh/h	726	558	0	742	0	499	804	1395	1186	731	1395	1186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	14.6	0.0	14.8	0.0	15.7	9.6	12.7	11.1	10.0	12.2	11.4
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	0.0	0.3	0.1	0.9	0.1	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.7	0.0	0.1	0.0	0.3	0.3	2.6	0.2	0.3	1.3	0.2
LnGrp Delay(d),s/veh	13.8	15.0	0.0	14.9	0.0	16.0	9.6	13.6	11.2	10.1	12.6	11.5
LnGrp LOS	B	B		B		B	A	B	B	B	B	B
Approach Vol, veh/h		105			40			336			205	
Approach Delay, s/veh		14.6			15.7			12.9			12.0	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	15.5	5.7	11.5	7.9	15.0	7.3	9.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	9.0	30.0	9.0	12.0	9.0	30.0	9.0	12.0				
Max Q Clear Time (g_c+I1), s	2.6	6.9	2.2	3.3	2.7	4.5	2.7	2.6				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.2	0.0	2.5	0.0	0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	147	7	366	202	21	226
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	-	123	-	-
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	160	8	398	220	23	246

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	566	199	0 0 398 0
Stage 1	398	-	- - - -
Stage 2	168	-	- - - -
Critical Hdwy	6.84	6.94	- - 4.14 -
Critical Hdwy Stg 1	5.84	-	- - - -
Critical Hdwy Stg 2	5.84	-	- - - -
Follow-up Hdwy	3.52	3.32	- - 2.22 -
Pot Cap-1 Maneuver	454	809	- - 1157 -
Stage 1	647	-	- - - -
Stage 2	844	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	444	809	- - 1157 -
Mov Cap-2 Maneuver	444	-	- - - -
Stage 1	647	-	- - - -
Stage 2	825	-	- - - -

Approach	WB	NB	SB
HCM Control Delay, s	17.2	0	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	444	809	1157	-
HCM Lane V/C Ratio	-	-	0.36	0.009	0.02	-
HCM Control Delay (s)	-	-	17.6	9.5	8.2	0.1
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	1.6	0	0.1	-

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	106	0	0	0	0	309	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	115	0	0	0	0	336	8

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	306	481	138	478	478	172	138	0	0
Stage 1	138	138	-	340	340	-	-	-	-
Stage 2	168	343	-	138	138	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	635	484	910	484	486	842	1446	-	-
Stage 1	865	782	-	649	639	-	-	-	-
Stage 2	818	637	-	865	782	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	635	484	910	423	486	842	1446	-	-
Mov Cap-2 Maneuver	635	484	-	423	486	-	-	-	-
Stage 1	865	782	-	649	639	-	-	-	-
Stage 2	818	637	-	755	782	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1446	-	-	910	-	-	1213	-
HCM Lane V/C Ratio	-	-	-	0.127	-	-	-	-
HCM Control Delay (s)	0	-	-	9.5	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	-	-	0	-



**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	0	127	15
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	138	16

**Major/Minor Major2**

Conflicting Flow All	343	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1213	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	1213	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach SB**

























HCM Control Delay, s 0

HCM LOS

**Minor Lane/Major Mvmt**























HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 1 AM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd

9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	92	506	47	145	323	160	82	283	173	217	129	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	100	550	51	158	351	174	89	308	188	236	140	65
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	806	361	394	851	381	173	572	256	288	803	359
Arrive On Green	0.10	0.23	0.23	0.11	0.24	0.24	0.10	0.16	0.16	0.16	0.23	0.23
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	100	550	51	158	351	174	89	308	188	236	140	65
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.5	9.4	1.7	2.8	5.5	6.2	3.1	5.3	7.5	8.5	2.1	2.2
Cycle Q Clear(g_c), s	3.5	9.4	1.7	2.8	5.5	6.2	3.1	5.3	7.5	8.5	2.1	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	181	806	361	394	851	381	173	572	256	288	803	359
V/C Ratio(X)	0.55	0.68	0.14	0.40	0.41	0.46	0.51	0.54	0.73	0.82	0.17	0.18
Avail Cap(c_a), veh/h	272	992	444	417	880	393	258	697	312	497	1174	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	23.3	20.3	27.1	21.1	21.4	28.3	25.4	26.3	26.7	20.5	20.6
Incr Delay (d2), s/veh	2.6	1.4	0.2	0.7	0.3	0.9	2.4	0.8	6.9	5.7	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.7	0.8	1.4	2.7	2.8	1.6	2.6	3.7	4.6	1.0	1.0
LnGrp Delay(d),s/veh	30.8	24.7	20.5	27.8	21.5	22.2	30.7	26.2	33.2	32.4	20.6	20.8
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		701			683			585			441	
Approach Delay, s/veh		25.3			23.1			29.1			26.9	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.2	16.2	13.1	20.5	11.9	20.5	12.2	21.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	18.5	13.0	8.0	18.5	9.6	21.9	10.1	16.4				
Max Q Clear Time (g_c+I1), s	10.5	9.5	4.8	11.4	5.1	4.2	5.5	8.2				
Green Ext Time (p_c), s	0.4	1.2	0.1	3.7	0.1	3.2	0.1	4.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			25.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 1 PM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	69	149	12	102	165	93	292	274	85	72	343	84
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	75	162	13	111	179	101	317	298	92	78	373	91
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	315	25	393	222	125	458	630	536	463	493	419
Arrive On Green	0.08	0.19	0.19	0.09	0.20	0.20	0.15	0.34	0.34	0.08	0.26	0.26
Sat Flow, veh/h	1774	1702	137	1774	1120	632	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	75	0	175	111	0	280	317	298	92	78	373	91
Grp Sat Flow(s),veh/h/ln	1774	0	1839	1774	0	1751	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.1	0.0	5.6	3.2	0.0	10.1	7.9	8.3	2.7	2.0	12.1	3.0
Cycle Q Clear(g_c), s	2.1	0.0	5.6	3.2	0.0	10.1	7.9	8.3	2.7	2.0	12.1	3.0
Prop In Lane	1.00		0.07	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	0	340	393	0	347	458	630	536	463	493	419
V/C Ratio(X)	0.25	0.00	0.51	0.28	0.00	0.81	0.69	0.47	0.17	0.17	0.76	0.22
Avail Cap(c_a), veh/h	347	0	446	417	0	425	533	848	721	508	678	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	24.2	18.6	0.0	25.2	14.5	17.2	15.3	14.9	22.3	18.9
Incr Delay (d2), s/veh	0.4	0.0	1.2	0.4	0.0	9.1	3.1	0.6	0.2	0.2	3.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.0	1.6	0.0	5.7	4.2	4.3	1.2	1.0	6.7	1.3
LnGrp Delay(d),s/veh	19.7	0.0	25.4	19.0	0.0	34.3	17.6	17.7	15.5	15.0	25.6	19.2
LnGrp LOS	B		C	B		C	B	B	B	B	C	B
Approach Vol, veh/h		250			391			707			542	
Approach Delay, s/veh		23.7			30.0			17.4			23.0	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	27.3	11.1	17.2	15.2	22.4	10.2	18.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	30.0	7.0	16.0	13.0	24.0	7.0	16.0				
Max Q Clear Time (g_c+I1), s	4.0	10.3	5.2	7.6	9.9	14.1	4.1	12.1				
Green Ext Time (p_c), s	0.0	4.5	0.0	1.7	0.3	3.3	0.0	1.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			22.4									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 18.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	337	35	347	298	26	462
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	-	123	-	-
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	366	38	377	324	28	502

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	685	189	0
Stage 1	377	-	-
Stage 2	308	-	-
Critical Hdwy	6.84	6.94	-
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	-
Pot Cap-1 Maneuver	382	821	-
Stage 1	663	-	-
Stage 2	719	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	369	821	-
Mov Cap-2 Maneuver	369	-	-
Stage 1	663	-	-
Stage 2	695	-	-

Approach	WB	NB	SB
HCM Control Delay, s	72.6	0	0.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	369	821	1178	-
HCM Lane V/C Ratio	-	-	0.993	0.046	0.024	-
HCM Control Delay (s)	-	-	79.1	9.6	8.1	0.1
HCM Lane LOS	-	-	F	A	A	A
HCM 95th %tile Q(veh)	-	-	11.6	0.1	0.1	-

**Intersection**

Int Delay, s/veh 5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	394	0	0	35	0	616	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	428	0	0	38	0	670	24

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	668	1026	300	1015	1015	347	300	0	0
Stage 1	333	333	-	682	682	-	-	-	-
Stage 2	335	693	-	333	333	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	358	234	739	204	238	650	1261	-	-
Stage 1	680	643	-	407	449	-	-	-	-
Stage 2	653	444	-	680	643	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	332	230	739	85	234	650	1261	-	-
Mov Cap-2 Maneuver	332	230	-	85	234	-	-	-	-
Stage 1	680	632	-	407	449	-	-	-	-
Stage 2	615	444	-	281	632	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	16.4	10.9	0
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1261	-	-	739	-	650	898	-
HCM Lane V/C Ratio	-	-	-	0.58	-	0.059	0.018	-
HCM Control Delay (s)	0	-	-	16.4	0	10.9	9.1	-
HCM Lane LOS	A	-	-	C	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	3.8	-	0.2	0.1	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	15	276	166
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	16	300	180

**Major/Minor Major2**

Conflicting Flow All	693	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	898	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	898	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach SB**

























HCM Control Delay, s 0.5

HCM LOS

**Minor Lane/Major Mvmt**























HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 1 PM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd

9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	156	441	78	370	483	219	89	254	112	256	324	204
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	164	464	82	389	508	231	94	267	118	269	341	215
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	694	310	511	806	360	179	474	212	323	763	341
Arrive On Green	0.12	0.20	0.20	0.15	0.23	0.23	0.10	0.13	0.13	0.18	0.22	0.22
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	164	464	82	389	508	231	94	267	118	269	341	215
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.8	7.9	2.8	7.0	8.4	8.6	3.3	4.6	4.5	9.5	5.4	8.0
Cycle Q Clear(g_c), s	5.8	7.9	2.8	7.0	8.4	8.6	3.3	4.6	4.5	9.5	5.4	8.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	694	310	511	806	360	179	474	212	323	763	341
V/C Ratio(X)	0.79	0.67	0.26	0.76	0.63	0.64	0.53	0.56	0.56	0.83	0.45	0.63
Avail Cap(c_a), veh/h	342	791	354	716	846	378	268	628	281	506	1102	493
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	24.1	22.1	26.5	22.6	22.6	27.7	26.3	26.3	25.6	22.1	23.1
Incr Delay (d2), s/veh	6.6	1.8	0.4	3.1	1.4	3.4	2.4	1.1	2.3	6.7	0.4	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	4.0	1.3	3.6	4.3	4.1	1.7	2.3	2.1	5.2	2.7	3.6
LnGrp Delay(d),s/veh	34.5	25.9	22.6	29.6	24.0	26.0	30.1	27.4	28.5	32.3	22.5	25.0
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		710			1128			479			825	
Approach Delay, s/veh		27.5			26.4			28.2			26.3	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.3	14.2	15.1	18.2	12.0	19.5	13.1	20.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	18.5	11.5	13.5	14.5	9.8	20.2	12.5	15.5				
Max Q Clear Time (g_c+I1), s	11.5	6.6	9.0	9.9	5.3	10.0	7.8	10.6				
Green Ext Time (p_c), s	0.4	2.1	0.6	2.9	0.1	3.5	0.2	3.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			26.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 2 AM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	40	0	9	9	18	42	242	24	34	132	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	22	43	0	10	10	20	46	263	26	37	143	22
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	236	0	365	60	119	557	508	432	460	487	414
Arrive On Green	0.04	0.13	0.00	0.02	0.11	0.11	0.07	0.27	0.27	0.06	0.26	0.26
Sat Flow, veh/h	1774	1863	0	1774	556	1111	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	22	43	0	10	0	30	46	263	26	37	143	22
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	0	1667	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.4	0.8	0.0	0.2	0.0	0.6	0.7	4.6	0.5	0.6	2.4	0.4
Cycle Q Clear(g_c), s	0.4	0.8	0.0	0.2	0.0	0.6	0.7	4.6	0.5	0.6	2.4	0.4
Prop In Lane	1.00		0.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	236	0	365	0	179	557	508	432	460	487	414
V/C Ratio(X)	0.06	0.18	0.00	0.03	0.00	0.17	0.08	0.52	0.06	0.08	0.29	0.05
Avail Cap(c_a), veh/h	730	535	0	750	0	479	848	1509	1283	771	1509	1283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	14.9	0.0	14.7	0.0	15.5	8.8	11.8	10.3	9.2	11.3	10.6
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	0.0	0.4	0.1	0.8	0.1	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	0.0	0.1	0.0	0.3	0.3	2.5	0.2	0.3	1.2	0.2
LnGrp Delay(d),s/veh	14.2	15.3	0.0	14.7	0.0	16.0	8.9	12.6	10.4	9.3	11.6	10.6
LnGrp LOS	B	B		B		B	A	B	B	A	B	B
Approach Vol, veh/h		65			40			335			202	
Approach Delay, s/veh		14.9			15.7			11.9			11.1	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	15.4	5.7	9.9	7.7	15.0	6.5	9.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	9.0	31.0	9.0	11.0	9.0	31.0	9.0	11.0				
Max Q Clear Time (g_c+I1), s	2.6	6.6	2.2	2.8	2.7	4.4	2.4	2.6				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.2	0.0	2.5	0.0	0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			12.2									
HCM 2010 LOS			B									



**Intersection**

Int Delay, s/veh 1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	71	4	366	191	20	226
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	-	123	-	-
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	77	4	398	208	22	246

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	564	199	0	0	398	0
Stage 1	398	-	-	-	-	-
Stage 2	166	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	456	809	-	-	1157	-
Stage 1	647	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	446	809	-	-	1157	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	827	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.5	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	446	809	1157	-
HCM Lane V/C Ratio	-	-	0.173	0.005	0.019	-
HCM Control Delay (s)	-	-	14.8	9.5	8.2	0.1
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	0.1	-

**Intersection**

Int Delay, s/veh 1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	87	0	0	0	0	308	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	95	0	0	0	0	335	8

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	304	479	137	476	476	171	137	0	0
Stage 1	137	137	-	339	339	-	-	-	-
Stage 2	167	342	-	137	137	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	637	485	911	485	487	844	1447	-	-
Stage 1	866	783	-	650	639	-	-	-	-
Stage 2	819	637	-	866	783	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	637	485	911	435	487	844	1447	-	-
Mov Cap-2 Maneuver	637	485	-	435	487	-	-	-	-
Stage 1	866	783	-	650	639	-	-	-	-
Stage 2	819	637	-	776	783	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.4	0	0
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1447	-	-	911	-	-	1214	-
HCM Lane V/C Ratio	-	-	-	0.104	-	-	-	-
HCM Control Delay (s)	0	-	-	9.4	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	-	-	0	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	0	126	15
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	137	16

**Major/Minor**

Major2

Conflicting Flow All	342	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1214	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	1214	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach**

























SB

HCM Control Delay, s	0
HCM LOS	

**Minor Lane/Major Mvmt**























HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 2 AM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd

9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	90	506	47	145	323	155	82	279	173	153	121	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	98	550	51	158	351	168	89	303	188	166	132	61
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	185	846	378	411	899	402	178	602	270	214	673	301
Arrive On Green	0.10	0.24	0.24	0.12	0.25	0.25	0.10	0.17	0.17	0.12	0.19	0.19
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	98	550	51	158	351	168	89	303	188	166	132	61
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.3	8.8	1.6	2.7	5.2	5.6	3.0	4.9	7.0	5.7	2.0	2.0
Cycle Q Clear(g_c), s	3.3	8.8	1.6	2.7	5.2	5.6	3.0	4.9	7.0	5.7	2.0	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	846	378	411	899	402	178	602	270	214	673	301
V/C Ratio(X)	0.53	0.65	0.13	0.38	0.39	0.42	0.50	0.50	0.70	0.78	0.20	0.20
Avail Cap(c_a), veh/h	297	1101	492	466	988	442	272	818	366	438	1151	515
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	21.5	18.8	25.5	19.4	19.5	26.7	23.6	24.5	26.8	21.4	21.4
Incr Delay (d2), s/veh	2.3	0.8	0.2	0.6	0.3	0.7	2.2	0.7	3.6	6.0	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	4.4	0.7	1.3	2.5	2.5	1.6	2.4	3.3	3.1	1.0	0.9
LnGrp Delay(d),s/veh	29.0	22.3	18.9	26.1	19.6	20.2	28.9	24.3	28.1	32.7	21.5	21.7
LnGrp LOS	C	C	B	C	B	C	C	C	C	C	C	C
Approach Vol, veh/h		699			677			580			359	
Approach Delay, s/veh		23.0			21.3			26.2			26.7	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.1	16.2	13.0	20.5	11.8	17.4	12.0	21.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	15.5	14.5	8.5	19.5	9.6	20.4	10.5	17.5				
Max Q Clear Time (g_c+I1), s	7.7	9.0	4.7	10.8	5.0	4.0	5.3	7.6				
Green Ext Time (p_c), s	0.2	1.7	0.2	4.2	0.1	3.0	0.1	4.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			23.9									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 2 PM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	67	145	12	102	143	93	270	274	85	72	343	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	73	158	13	111	155	101	293	298	92	78	373	79
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	296	24	389	199	130	455	624	530	465	506	430
Arrive On Green	0.08	0.17	0.17	0.09	0.19	0.19	0.15	0.33	0.33	0.08	0.27	0.27
Sat Flow, veh/h	1774	1698	140	1774	1054	687	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	73	0	171	111	0	256	293	298	92	78	373	79
Grp Sat Flow(s),veh/h/ln	1774	0	1838	1774	0	1741	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.0	0.0	5.4	3.1	0.0	8.9	7.1	8.1	2.6	1.9	11.6	2.4
Cycle Q Clear(g_c), s	2.0	0.0	5.4	3.1	0.0	8.9	7.1	8.1	2.6	1.9	11.6	2.4
Prop In Lane	1.00		0.08	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	0	320	389	0	329	455	624	530	465	506	430
V/C Ratio(X)	0.24	0.00	0.53	0.29	0.00	0.78	0.64	0.48	0.17	0.17	0.74	0.18
Avail Cap(c_a), veh/h	363	0	462	416	0	438	503	877	746	514	760	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	23.9	18.4	0.0	24.5	14.1	16.8	15.0	14.0	21.1	17.8
Incr Delay (d2), s/veh	0.4	0.0	1.4	0.4	0.0	6.3	2.4	0.6	0.2	0.2	2.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.8	1.5	0.0	4.8	3.7	4.2	1.2	0.9	6.2	1.1
LnGrp Delay(d),s/veh	19.4	0.0	25.3	18.8	0.0	30.8	16.5	17.3	15.1	14.2	23.2	18.0
LnGrp LOS	B		C	B		C	B	B	B	B	C	B
Approach Vol, veh/h		244			367			683			530	
Approach Delay, s/veh		23.5			27.2			16.7			21.1	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	26.3	11.0	16.1	14.3	22.3	10.1	17.0				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	30.0	7.0	16.0	11.0	26.0	7.0	16.0				
Max Q Clear Time (g_c+I1), s	3.9	10.1	5.1	7.4	9.1	13.6	4.0	10.9				
Green Ext Time (p_c), s	0.0	4.5	0.0	1.7	0.2	3.7	0.0	1.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			21.0									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 15.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	325	34	347	243	23	462
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	-	123	-	-
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	353	37	377	264	25	502

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	678	189	0	0	377	0
Stage 1	377	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	386	821	-	-	1178	-
Stage 1	663	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	375	821	-	-	1178	-
Mov Cap-2 Maneuver	375	-	-	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	704	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	61.3	0	0.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	375	821	1178	-
HCM Lane V/C Ratio	-	-	0.942	0.045	0.021	-
HCM Control Delay (s)	-	-	66.7	9.6	8.1	0.1
HCM Lane LOS	-	-	F	A	A	A
HCM 95th %tile Q(veh)	-	-	10.2	0.1	0.1	-

**Intersection**

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	392	0	0	35	0	594	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	426	0	0	38	0	646	24

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	656	1003	300	991	991	335	300	0	0
Stage 1	333	333	-	658	658	-	-	-	-
Stage 2	323	670	-	333	333	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	364	241	739	212	245	662	1261	-	-
Stage 1	680	643	-	420	460	-	-	-	-
Stage 2	664	455	-	680	643	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	339	237	739	89	241	662	1261	-	-
Mov Cap-2 Maneuver	339	237	-	89	241	-	-	-	-
Stage 1	680	632	-	420	460	-	-	-	-
Stage 2	626	455	-	283	632	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	16.3	10.8	0
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1261	-	-	739	-	662	916	-
HCM Lane V/C Ratio	-	-	-	0.577	-	0.057	0.018	-
HCM Control Delay (s)	0	-	-	16.3	0	10.8	9	-
HCM Lane LOS	A	-	-	C	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	3.7	-	0.2	0.1	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	15	276	166
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	16	300	180

**Major/Minor Major2**

Conflicting Flow All	670	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	916	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	916	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

**Approach SB**

























HCM Control Delay, s	0.5
HCM LOS	

**Minor Lane/Major Mvmt**

























HCM 2010 Signalized Intersection Summary BD Cond. Exist. Geom. Scenario 2 PM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd

9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	148	441	78	370	483	186	89	241	112	248	321	202
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	156	464	82	389	508	196	94	254	118	261	338	213
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	697	312	513	810	362	180	473	212	316	744	333
Arrive On Green	0.12	0.20	0.20	0.15	0.23	0.23	0.10	0.13	0.13	0.18	0.21	0.21
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	156	464	82	389	508	196	94	254	118	261	338	213
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.5	7.8	2.8	7.0	8.3	7.0	3.2	4.3	4.5	9.1	5.4	7.9
Cycle Q Clear(g_c), s	5.5	7.8	2.8	7.0	8.3	7.0	3.2	4.3	4.5	9.1	5.4	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	697	312	513	810	362	180	473	212	316	744	333
V/C Ratio(X)	0.75	0.67	0.26	0.76	0.63	0.54	0.52	0.54	0.56	0.83	0.45	0.64
Avail Cap(c_a), veh/h	318	800	358	724	910	407	271	634	284	511	1114	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	23.8	21.8	26.2	22.3	21.8	27.4	26.0	26.0	25.4	22.1	23.1
Incr Delay (d2), s/veh	5.4	1.7	0.4	3.0	1.1	1.3	2.3	1.0	2.3	5.9	0.4	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	4.0	1.3	3.5	4.2	3.1	1.7	2.1	2.1	4.9	2.6	3.6
LnGrp Delay(d),s/veh	32.9	25.6	22.3	29.2	23.4	23.0	29.7	26.9	28.3	31.3	22.6	25.2
LnGrp LOS	C	C	C	C	C	C	C	C	C	C	C	C
Approach Vol, veh/h		702			1093			466			812	
Approach Delay, s/veh		26.8			25.4			27.8			26.1	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.9	14.1	15.1	18.1	12.0	19.0	13.0	20.2				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	18.5	11.5	13.5	14.5	9.8	20.2	11.5	16.5				
Max Q Clear Time (g_c+I1), s	11.1	6.5	9.0	9.8	5.2	9.9	7.5	10.3				
Green Ext Time (p_c), s	0.4	2.1	0.6	2.9	0.1	3.4	0.1	3.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			26.3									
HCM 2010 LOS			C									

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 1 AM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	64	0	9	9	18	43	242	24	34	132	21
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	35	70	0	10	10	20	47	263	26	37	143	23
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	301	0	376	69	137	534	488	415	437	465	395
Arrive On Green	0.06	0.16	0.00	0.02	0.12	0.12	0.07	0.26	0.26	0.06	0.25	0.25
Sat Flow, veh/h	1774	1863	0	1774	556	1111	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	35	70	0	10	0	30	47	263	26	37	143	23
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	0	1667	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.7	1.3	0.0	0.2	0.0	0.6	0.7	4.9	0.5	0.6	2.5	0.4
Cycle Q Clear(g_c), s	0.7	1.3	0.0	0.2	0.0	0.6	0.7	4.9	0.5	0.6	2.5	0.4
Prop In Lane	1.00		0.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	427	301	0	376	0	206	534	488	415	437	465	395
V/C Ratio(X)	0.08	0.23	0.00	0.03	0.00	0.15	0.09	0.54	0.06	0.08	0.31	0.06
Avail Cap(c_a), veh/h	726	558	0	742	0	499	806	1395	1186	731	1395	1186
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	14.6	0.0	14.8	0.0	15.7	9.6	12.7	11.1	10.0	12.2	11.4
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	0.0	0.3	0.1	0.9	0.1	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.7	0.0	0.1	0.0	0.3	0.3	2.6	0.2	0.3	1.3	0.2
LnGrp Delay(d),s/veh	13.8	15.0	0.0	14.9	0.0	16.0	9.6	13.6	11.2	10.1	12.6	11.5
LnGrp LOS	B	B		B		B	A	B	B	B	B	B
Approach Vol, veh/h		105			40			336			203	
Approach Delay, s/veh		14.6			15.7			12.9			12.0	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	15.5	5.7	11.5	7.9	15.0	7.3	9.9				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	9.0	30.0	9.0	12.0	9.0	30.0	9.0	12.0				
Max Q Clear Time (g_c+I1), s	2.6	6.9	2.2	3.3	2.7	4.5	2.7	2.6				
Green Ext Time (p_c), s	0.0	2.4	0.0	0.2	0.0	2.5	0.0	0.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			13.1									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	121	7	366	21	21	226
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	-	123	-	-
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	132	8	398	23	23	246

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	566	199	0
Stage 1	398	-	-
Stage 2	168	-	-
Critical Hdwy	6.84	6.94	4.14
Critical Hdwy Stg 1	5.84	-	-
Critical Hdwy Stg 2	5.84	-	-
Follow-up Hdwy	3.52	3.32	2.22
Pot Cap-1 Maneuver	454	809	1157
Stage 1	647	-	-
Stage 2	844	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	444	809	1157
Mov Cap-2 Maneuver	444	-	-
Stage 1	647	-	-
Stage 2	825	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.1	0	0.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	444	809	1157	-
HCM Lane V/C Ratio	-	-	0.296	0.009	0.02	-
HCM Control Delay (s)	-	-	16.5	9.5	8.2	0.1
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0	0.1	-

**Intersection**

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	106	0	0	0	0	309	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	115	0	0	0	0	336	8

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	305	480	137	477	477	172	137	0	0
Stage 1	137	137	-	340	340	-	-	-	-
Stage 2	168	343	-	137	137	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	636	484	911	485	486	842	1447	-	-
Stage 1	866	783	-	649	639	-	-	-	-
Stage 2	818	637	-	866	783	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	636	484	911	424	486	842	1447	-	-
Mov Cap-2 Maneuver	636	484	-	424	486	-	-	-	-
Stage 1	866	783	-	649	639	-	-	-	-
Stage 2	818	637	-	756	783	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1447	-	-	911	-	-	1213	-
HCM Lane V/C Ratio	-	-	-	0.126	-	-	-	-
HCM Control Delay (s)	0	-	-	9.5	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	-	-	0	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	0	126	15
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	137	16

**Major/Minor Major2**

Conflicting Flow All	343	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1213	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	1213	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

























**Approach SB**

HCM Control Delay, s 0

HCM LOS

**Minor Lane/Major Mvmt**

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 1 AM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd 9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	73	530	47	162	331	75	82	226	246	217	115	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	79	576	51	176	360	82	89	246	267	236	125	58
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	158	788	352	376	859	384	165	702	314	283	938	419
Arrive On Green	0.09	0.22	0.22	0.11	0.24	0.24	0.09	0.20	0.20	0.16	0.26	0.26
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	79	576	51	176	360	82	89	246	267	236	125	58
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.0	10.7	1.8	3.4	6.1	2.9	3.4	4.2	11.5	9.1	1.9	2.0
Cycle Q Clear(g_c), s	3.0	10.7	1.8	3.4	6.1	2.9	3.4	4.2	11.5	9.1	1.9	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	788	352	376	859	384	165	702	314	283	938	419
V/C Ratio(X)	0.50	0.73	0.14	0.47	0.42	0.21	0.54	0.35	0.85	0.83	0.13	0.14
Avail Cap(c_a), veh/h	228	923	413	388	868	388	240	748	335	413	1092	489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	25.6	22.2	29.7	22.6	21.5	30.7	24.5	27.4	28.9	19.9	19.9
Incr Delay (d2), s/veh	2.4	2.5	0.2	0.9	0.3	0.3	2.7	0.3	17.6	9.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	5.5	0.8	1.7	3.0	1.3	1.8	2.1	6.6	5.2	0.9	0.9
LnGrp Delay(d),s/veh	33.3	28.1	22.3	30.6	23.0	21.7	33.4	24.8	45.0	38.1	19.9	20.0
LnGrp LOS	C	C	C	C	C	C	C	C	D	D	B	C
Approach Vol, veh/h		706			618			602			419	
Approach Delay, s/veh		28.3			25.0			35.0			30.2	
Approach LOS		C			C			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.8	19.6	13.3	21.3	12.1	24.3	11.8	22.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	16.5	15.0	8.0	18.5	9.6	21.9	9.1	17.4				
Max Q Clear Time (g_c+I1), s	11.1	13.5	5.4	12.7	5.4	4.0	5.0	8.1				
Green Ext Time (p_c), s	0.3	0.5	0.1	3.1	0.1	3.0	0.0	4.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			29.5									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	97	896	549	84	0	19
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	-	-	-	-	-
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	105	974	597	91	0	21























Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	688	0	344
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	902	-	652
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	902	-	652
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	902	-	-	-	652
HCM Lane V/C Ratio	0.117	-	-	-	0.032
HCM Control Delay (s)	9.5	-	-	-	10.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.1

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 1 PM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	69	149	12	102	165	93	292	274	85	72	343	84
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	75	162	13	111	179	101	317	298	92	78	373	91
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	300	315	25	393	222	125	458	630	536	463	493	419
Arrive On Green	0.08	0.19	0.19	0.09	0.20	0.20	0.15	0.34	0.34	0.08	0.26	0.26
Sat Flow, veh/h	1774	1702	137	1774	1120	632	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	75	0	175	111	0	280	317	298	92	78	373	91
Grp Sat Flow(s),veh/h/ln	1774	0	1839	1774	0	1751	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.1	0.0	5.6	3.2	0.0	10.1	7.9	8.3	2.7	2.0	12.1	3.0
Cycle Q Clear(g_c), s	2.1	0.0	5.6	3.2	0.0	10.1	7.9	8.3	2.7	2.0	12.1	3.0
Prop In Lane	1.00		0.07	1.00		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	300	0	340	393	0	347	458	630	536	463	493	419
V/C Ratio(X)	0.25	0.00	0.51	0.28	0.00	0.81	0.69	0.47	0.17	0.17	0.76	0.22
Avail Cap(c_a), veh/h	347	0	446	417	0	425	533	848	721	508	678	577
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.3	0.0	24.2	18.6	0.0	25.2	14.5	17.2	15.3	14.9	22.3	18.9
Incr Delay (d2), s/veh	0.4	0.0	1.2	0.4	0.0	9.1	3.1	0.6	0.2	0.2	3.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.0	1.6	0.0	5.7	4.2	4.3	1.2	1.0	6.7	1.3
LnGrp Delay(d),s/veh	19.7	0.0	25.4	19.0	0.0	34.3	17.6	17.7	15.5	15.0	25.6	19.2
LnGrp LOS	B		C	B		C	B	B	B	B	C	B
Approach Vol, veh/h		250			391			707			542	
Approach Delay, s/veh		23.7			30.0			17.4			23.0	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.3	27.3	11.1	17.2	15.2	22.4	10.2	18.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	30.0	7.0	16.0	13.0	24.0	7.0	16.0				
Max Q Clear Time (g_c+I1), s	4.0	10.3	5.2	7.6	9.9	14.1	4.1	12.1				
Green Ext Time (p_c), s	0.0	4.5	0.0	1.7	0.3	3.3	0.0	1.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			22.4									
HCM 2010 LOS			C									



**Intersection**

Int Delay, s/veh 6.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	213	35	347	47	26	462
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	-	123	-	-
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	232	38	377	51	28	502

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	685	189	0	0	377	0
Stage 1	377	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	382	821	-	-	1178	-
Stage 1	663	-	-	-	-	-
Stage 2	719	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	369	821	-	-	1178	-
Mov Cap-2 Maneuver	369	-	-	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	695	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26.9	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	369	821	1178	-
HCM Lane V/C Ratio	-	-	0.627	0.046	0.024	-
HCM Control Delay (s)	-	-	29.8	9.6	8.1	0.1
HCM Lane LOS	-	-	D	A	A	A
HCM 95th %tile Q(veh)	-	-	4.1	0.1	0.1	-

**Intersection**

Int Delay, s/veh 5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	394	0	0	35	0	616	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	428	0	0	38	0	670	24

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	668	1026	300	1015	1015	347	300	0	0
Stage 1	333	333	-	682	682	-	-	-	-
Stage 2	335	693	-	333	333	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	358	234	739	204	238	650	1261	-	-
Stage 1	680	643	-	407	449	-	-	-	-
Stage 2	653	444	-	680	643	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	332	230	739	85	234	650	1261	-	-
Mov Cap-2 Maneuver	332	230	-	85	234	-	-	-	-
Stage 1	680	632	-	407	449	-	-	-	-
Stage 2	615	444	-	281	632	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	16.4	10.9	0
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1261	-	-	739	-	650	898	-
HCM Lane V/C Ratio	-	-	-	0.58	-	0.059	0.018	-
HCM Control Delay (s)	0	-	-	16.4	0	10.9	9.1	-
HCM Lane LOS	A	-	-	C	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	3.8	-	0.2	0.1	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	15	276	166
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	16	300	180

**Major/Minor Major2**

Conflicting Flow All	693	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	898	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	898	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

























**Approach SB**

HCM Control Delay, s 0.5

HCM LOS

**Minor Lane/Major Mvmt**

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 1 PM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd 9/12/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	113	483	78	447	531	80	89	184	181	257	247	156
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	119	508	82	471	559	84	94	194	191	271	260	164
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	698	312	578	933	418	168	517	231	319	818	366
Arrive On Green	0.10	0.20	0.20	0.17	0.26	0.26	0.09	0.15	0.15	0.18	0.23	0.23
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	119	508	82	471	559	84	94	194	191	271	260	164
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.6	9.6	3.1	9.4	9.8	2.9	3.6	3.5	8.3	10.5	4.3	6.3
Cycle Q Clear(g_c), s	4.6	9.6	3.1	9.4	9.8	2.9	3.6	3.5	8.3	10.5	4.3	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	180	698	312	578	933	418	168	517	231	319	818	366
V/C Ratio(X)	0.66	0.73	0.26	0.81	0.60	0.20	0.56	0.38	0.83	0.85	0.32	0.45
Avail Cap(c_a), veh/h	236	770	344	700	1018	455	244	521	233	436	904	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	26.8	24.2	28.6	22.9	20.4	30.8	27.5	29.5	28.3	22.7	23.5
Incr Delay (d2), s/veh	4.2	3.1	0.4	6.2	0.8	0.2	2.9	0.5	20.8	11.1	0.2	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	5.0	1.4	4.9	4.9	1.3	1.9	1.8	5.0	6.1	2.2	2.9
LnGrp Delay(d),s/veh	35.0	29.9	24.7	34.8	23.8	20.6	33.7	27.9	50.4	39.4	23.0	24.4
LnGrp LOS	D	C	C	C	C	C	C	C	D	D	C	C
Approach Vol, veh/h		709			1114			479			695	
Approach Delay, s/veh		30.2			28.2			38.0			29.7	
Approach LOS		C			C			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.3	15.9	17.5	19.6	12.3	22.0	12.7	24.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	17.5	10.5	14.5	15.5	9.8	18.2	9.5	20.5				
Max Q Clear Time (g_c+I1), s	12.5	10.3	11.4	11.6	5.6	8.3	6.6	11.8				
Green Ext Time (p_c), s	0.3	0.1	0.6	2.5	0.1	2.8	0.1	4.7				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			30.6									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	112	809	933	139	0	125
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	-	-	-	-	-
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	122	879	1014	151	0	136























Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1165	0	1773
Stage 1	-	-	1090
Stage 2	-	-	683
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	595	-	74
Stage 1	-	-	284
Stage 2	-	-	463
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	595	-	59
Mov Cap-2 Maneuver	-	-	59
Stage 1	-	-	284
Stage 2	-	-	368

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	595	-	-	-	456
HCM Lane V/C Ratio	0.205	-	-	-	0.298
HCM Control Delay (s)	12.6	-	-	-	16.2
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.8	-	-	-	1.2

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 2 AM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	40	0	9	9	18	42	242	24	34	132	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	22	43	0	10	10	20	46	263	26	37	143	22
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	381	236	0	365	60	119	557	508	432	460	487	414
Arrive On Green	0.04	0.13	0.00	0.02	0.11	0.11	0.07	0.27	0.27	0.06	0.26	0.26
Sat Flow, veh/h	1774	1863	0	1774	556	1111	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	22	43	0	10	0	30	46	263	26	37	143	22
Grp Sat Flow(s),veh/h/ln	1774	1863	0	1774	0	1667	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	0.4	0.8	0.0	0.2	0.0	0.6	0.7	4.6	0.5	0.6	2.4	0.4
Cycle Q Clear(g_c), s	0.4	0.8	0.0	0.2	0.0	0.6	0.7	4.6	0.5	0.6	2.4	0.4
Prop In Lane	1.00		0.00	1.00		0.67	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	236	0	365	0	179	557	508	432	460	487	414
V/C Ratio(X)	0.06	0.18	0.00	0.03	0.00	0.17	0.08	0.52	0.06	0.08	0.29	0.05
Avail Cap(c_a), veh/h	730	535	0	750	0	479	848	1509	1283	771	1509	1283
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	14.9	0.0	14.7	0.0	15.5	8.8	11.8	10.3	9.2	11.3	10.6
Incr Delay (d2), s/veh	0.1	0.4	0.0	0.0	0.0	0.4	0.1	0.8	0.1	0.1	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.4	0.0	0.1	0.0	0.3	0.3	2.5	0.2	0.3	1.2	0.2
LnGrp Delay(d),s/veh	14.2	15.3	0.0	14.7	0.0	16.0	8.9	12.6	10.4	9.3	11.6	10.6
LnGrp LOS	B	B		B		B	A	B	B	A	B	B
Approach Vol, veh/h		65			40			335			202	
Approach Delay, s/veh		14.9			15.7			11.9			11.1	
Approach LOS		B			B			B			B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	15.4	5.7	9.9	7.7	15.0	6.5	9.1				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	9.0	31.0	9.0	11.0	9.0	31.0	9.0	11.0				
Max Q Clear Time (g_c+I1), s	2.6	6.6	2.2	2.8	2.7	4.4	2.4	2.6				
Green Ext Time (p_c), s	0.0	2.5	0.0	0.2	0.0	2.5	0.0	0.2				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			12.2									
HCM 2010 LOS			B									

**Intersection**

Int Delay, s/veh 1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	57	4	366	21	20	226
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	-	123	-	-
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	62	4	398	23	22	246

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	564	199	0	0	398	0
Stage 1	398	-	-	-	-	-
Stage 2	166	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	456	809	-	-	1157	-
Stage 1	647	-	-	-	-	-
Stage 2	846	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	446	809	-	-	1157	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	827	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	446	809	1157	-
HCM Lane V/C Ratio	-	-	0.139	0.005	0.019	-
HCM Control Delay (s)	-	-	14.4	9.5	8.2	0.1
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	0.1	-

**Intersection**

Int Delay, s/veh 1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	85	0	0	0	0	308	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	92	0	0	0	0	335	8

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	304	479	137	476	476	171	137	0	0
Stage 1	137	137	-	339	339	-	-	-	-
Stage 2	167	342	-	137	137	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	637	485	911	485	487	844	1447	-	-
Stage 1	866	783	-	650	639	-	-	-	-
Stage 2	819	637	-	866	783	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	637	485	911	436	487	844	1447	-	-
Mov Cap-2 Maneuver	637	485	-	436	487	-	-	-	-
Stage 1	866	783	-	650	639	-	-	-	-
Stage 2	819	637	-	778	783	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	9.4	0	0
HCM LOS	A	A	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1447	-	-	911	-	-	1214	-
HCM Lane V/C Ratio	-	-	-	0.101	-	-	-	-
HCM Control Delay (s)	0	-	-	9.4	0	0	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	-	-	0	-



**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	0	126	15
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	137	16

**Major/Minor Major2**

Conflicting Flow All	342	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	1214	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	1214	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

























**Approach SB**

HCM Control Delay, s 0

HCM LOS

**Minor Lane/Major Mvmt**

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 2 AM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd 9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	73	528	47	154	327	75	82	226	242	153	115	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	79	574	51	167	355	82	89	246	263	166	125	58
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	840	376	390	917	410	171	729	326	208	805	360
Arrive On Green	0.09	0.24	0.24	0.11	0.26	0.26	0.10	0.21	0.21	0.12	0.23	0.23
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	79	574	51	167	355	82	89	246	263	166	125	58
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.9	10.0	1.7	3.1	5.6	2.7	3.2	4.0	10.7	6.2	1.9	2.0
Cycle Q Clear(g_c), s	2.9	10.0	1.7	3.1	5.6	2.7	3.2	4.0	10.7	6.2	1.9	2.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	162	840	376	390	917	410	171	729	326	208	805	360
V/C Ratio(X)	0.49	0.68	0.14	0.43	0.39	0.20	0.52	0.34	0.81	0.80	0.16	0.16
Avail Cap(c_a), veh/h	250	1074	481	433	1022	457	255	865	387	328	1011	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.2	23.4	20.3	27.9	20.6	19.5	29.0	22.9	25.5	29.0	20.9	20.9
Incr Delay (d2), s/veh	2.2	1.2	0.2	0.7	0.3	0.2	2.5	0.3	10.2	7.0	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.0	0.8	1.5	2.7	1.2	1.7	2.0	5.6	3.4	0.9	0.9
LnGrp Delay(d),s/veh	31.4	24.7	20.5	28.7	20.9	19.8	31.5	23.2	35.8	36.1	21.0	21.1
LnGrp LOS	C	C	C	C	C	B	C	C	D	D	C	C
Approach Vol, veh/h		704			604			598			349	
Approach Delay, s/veh		25.1			22.9			29.9			28.2	
Approach LOS		C			C			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	19.4	13.2	21.5	12.0	20.9	11.7	23.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.5	16.5	8.5	20.5	9.7	19.3	9.5	19.5				
Max Q Clear Time (g_c+I1), s	8.2	12.7	5.1	12.0	5.2	4.0	4.9	7.6				
Green Ext Time (p_c), s	0.2	1.2	0.2	4.1	0.1	2.9	0.1	5.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			26.3									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	91	832	543	79	0	13
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	-	-	-	-	-
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	99	904	590	86	0	14























Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	676	0	338
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	6.94
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	3.32
Pot Cap-1 Maneuver	911	-	658
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	911	-	658
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	911	-	-	-	658
HCM Lane V/C Ratio	0.109	-	-	-	0.021
HCM Control Delay (s)	9.4	-	-	-	10.6
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.1

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 2 PM Peak Hour  
 3: Simons Run & Wards Ferry Rd

9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	67	145	12	102	143	93	270	274	85	72	343	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	73	158	13	111	155	101	293	298	92	78	373	79
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	310	296	24	389	199	130	455	624	530	465	506	430
Arrive On Green	0.08	0.17	0.17	0.09	0.19	0.19	0.15	0.33	0.33	0.08	0.27	0.27
Sat Flow, veh/h	1774	1698	140	1774	1054	687	1774	1863	1583	1774	1863	1583
Grp Volume(v), veh/h	73	0	171	111	0	256	293	298	92	78	373	79
Grp Sat Flow(s),veh/h/ln	1774	0	1838	1774	0	1741	1774	1863	1583	1774	1863	1583
Q Serve(g_s), s	2.0	0.0	5.4	3.1	0.0	8.9	7.1	8.1	2.6	1.9	11.6	2.4
Cycle Q Clear(g_c), s	2.0	0.0	5.4	3.1	0.0	8.9	7.1	8.1	2.6	1.9	11.6	2.4
Prop In Lane	1.00		0.08	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	310	0	320	389	0	329	455	624	530	465	506	430
V/C Ratio(X)	0.24	0.00	0.53	0.29	0.00	0.78	0.64	0.48	0.17	0.17	0.74	0.18
Avail Cap(c_a), veh/h	363	0	462	416	0	438	503	877	746	514	760	646
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	23.9	18.4	0.0	24.5	14.1	16.8	15.0	14.0	21.1	17.8
Incr Delay (d2), s/veh	0.4	0.0	1.4	0.4	0.0	6.3	2.4	0.6	0.2	0.2	2.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	2.8	1.5	0.0	4.8	3.7	4.2	1.2	0.9	6.2	1.1
LnGrp Delay(d),s/veh	19.4	0.0	25.3	18.8	0.0	30.8	16.5	17.3	15.1	14.2	23.2	18.0
LnGrp LOS	B		C	B		C	B	B	B	B	C	B
Approach Vol, veh/h		244			367			683			530	
Approach Delay, s/veh		23.5			27.2			16.7			21.1	
Approach LOS		C			C			B			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.2	26.3	11.0	16.1	14.3	22.3	10.1	17.0				
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Max Green Setting (Gmax), s	7.0	30.0	7.0	16.0	11.0	26.0	7.0	16.0				
Max Q Clear Time (g_c+I1), s	3.9	10.1	5.1	7.4	9.1	13.6	4.0	10.9				
Green Ext Time (p_c), s	0.0	4.5	0.0	1.7	0.2	3.7	0.0	1.1				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			21.0									
HCM 2010 LOS			C									

**Intersection**

Int Delay, s/veh 5.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	205	34	347	47	23	462
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	-	123	-	-
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	223	37	377	51	25	502

Major/Minor	Minor1	Minor2	Major1	Major2	Major3	Major4
Conflicting Flow All	678	189	0	0	377	0
Stage 1	377	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	386	821	-	-	1178	-
Stage 1	663	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	375	821	-	-	1178	-
Mov Cap-2 Maneuver	375	-	-	-	-	-
Stage 1	663	-	-	-	-	-
Stage 2	704	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.1	0	0.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	375	821	1178	-
HCM Lane V/C Ratio	-	-	0.594	0.045	0.021	-
HCM Control Delay (s)	-	-	27.7	9.6	8.1	0.1
HCM Lane LOS	-	-	D	A	A	A
HCM 95th %tile Q(veh)	-	-	3.7	0.1	0.1	-

**Intersection**

Int Delay, s/veh 5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR
Vol, veh/h	0	0	392	0	0	35	0	594	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	0	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	426	0	0	38	0	646	24

Major/Minor	Minor2			Minor1			Major1		
Conflicting Flow All	656	1003	300	991	991	335	300	0	0
Stage 1	333	333	-	658	658	-	-	-	-
Stage 2	323	670	-	333	333	-	-	-	-
Critical Hdwy	7.33	6.53	6.23	7.33	6.53	6.93	4.12	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.53	5.53	-	-	-	-
Critical Hdwy Stg 2	6.53	5.53	-	6.13	5.53	-	-	-	-
Follow-up Hdwy	3.519	4.019	3.319	3.519	4.019	3.319	2.218	-	-
Pot Cap-1 Maneuver	364	241	739	212	245	662	1261	-	-
Stage 1	680	643	-	420	460	-	-	-	-
Stage 2	664	455	-	680	643	-	-	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	339	237	739	89	241	662	1261	-	-
Mov Cap-2 Maneuver	339	237	-	89	241	-	-	-	-
Stage 1	680	632	-	420	460	-	-	-	-
Stage 2	626	455	-	283	632	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	16.3	10.8	0
HCM LOS	C	B	

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	1261	-	-	739	-	662	916	-
HCM Lane V/C Ratio	-	-	-	0.577	-	0.057	0.018	-
HCM Control Delay (s)	0	-	-	16.3	0	10.8	9	-
HCM Lane LOS	A	-	-	C	A	B	A	-
HCM 95th %tile Q(veh)	0	-	-	3.7	-	0.2	0.1	-

**Intersection**

Int Delay, s/veh

Movement	SBL	SBT	SBR
Vol, veh/h	15	276	166
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	Free
Storage Length	102	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	16	300	180

**Major/Minor Major2**

Conflicting Flow All	670	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.14	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.22	-	-
Pot Cap-1 Maneuver	916	-	0
Stage 1	-	-	0
Stage 2	-	-	0
Platoon blocked, %		-	
Mov Cap-1 Maneuver	916	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

























**Approach SB**

HCM Control Delay, s 0.5

HCM LOS

**Minor Lane/Major Mvmt**

HCM 2010 Signalized Intersection Summary BD Cond. New Geom. Scenario 2 PM Peak Hour  
 25: Greenview Dr/Airport Rd & Leesville Rd 9/16/2014

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	113	476	78	444	529	80	89	184	169	249	247	156
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	119	501	82	467	557	84	94	194	178	262	260	164
Adj No. of Lanes	1	2	1	2	2	1	1	2	1	1	2	1
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	180	740	331	586	983	440	168	498	223	304	769	344
Arrive On Green	0.10	0.21	0.21	0.17	0.28	0.28	0.09	0.14	0.14	0.17	0.22	0.22
Sat Flow, veh/h	1774	3539	1583	3442	3539	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	119	501	82	467	557	84	94	194	178	262	260	164
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1770	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.6	9.3	3.1	9.3	9.6	2.9	3.6	3.6	7.8	10.2	4.4	6.4
Cycle Q Clear(g_c), s	4.6	9.3	3.1	9.3	9.6	2.9	3.6	3.6	7.8	10.2	4.4	6.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	180	740	331	586	983	440	168	498	223	304	769	344
V/C Ratio(X)	0.66	0.68	0.25	0.80	0.57	0.19	0.56	0.39	0.80	0.86	0.34	0.48
Avail Cap(c_a), veh/h	316	869	389	797	1058	473	244	551	247	321	769	344
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.8	26.0	23.5	28.4	22.1	19.6	30.8	27.8	29.7	28.7	23.6	24.4
Incr Delay (d2), s/veh	4.1	1.7	0.4	4.1	0.6	0.2	2.9	0.5	15.5	19.9	0.3	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	4.7	1.4	4.7	4.7	1.3	1.9	1.8	4.3	6.7	2.2	2.9
LnGrp Delay(d),s/veh	34.9	27.7	23.9	32.5	22.7	19.8	33.7	28.3	45.2	48.6	23.8	25.4
LnGrp LOS	C	C	C	C	C	B	C	C	D	D	C	C
Approach Vol, veh/h		702			1108			466			686	
Approach Delay, s/veh		28.4			26.6			35.9			33.6	
Approach LOS		C			C			D			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	17.7	15.5	17.6	20.4	12.3	21.0	12.7	25.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	12.9	11.1	16.5	17.5	9.8	14.2	12.7	21.3				
Max Q Clear Time (g_c+I1), s	12.2	9.8	11.3	11.3	5.6	8.4	6.6	11.6				
Green Ext Time (p_c), s	0.1	0.3	0.8	3.6	0.1	2.0	0.1	5.0				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			30.1									
HCM 2010 LOS			C									



**Intersection**

Int Delay, s/veh 1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	92	802	933	105	0	120
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	-	-	-	-	-
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	100	872	1014	114	0	130

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1128	0	1707
Stage 1	-	-	1071
Stage 2	-	-	636
Critical Hdwy	4.14	-	6.84
Critical Hdwy Stg 1	-	-	5.84
Critical Hdwy Stg 2	-	-	5.84
Follow-up Hdwy	2.22	-	3.52
Pot Cap-1 Maneuver	615	-	82
Stage 1	-	-	290
Stage 2	-	-	489
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	615	-	69
Mov Cap-2 Maneuver	-	-	69
Stage 1	-	-	290
Stage 2	-	-	409

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	15.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	615	-	-	-	469
HCM Lane V/C Ratio	0.163	-	-	-	0.278
HCM Control Delay (s)	12	-	-	-	15.6
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.6	-	-	-	1.1

TRANSPORTATION & MOBILITY PLANNING DIVISION  
STATEWIDE PLANNING LEVEL COST ESTIMATES

WORKING DRAFT

Costs Reflected as of January 2009

Inflation Rates

Statewide 3.0% annually  
NOVA/Hampton Roads 3.0% annually

Costs include 25% for PE and Construction Contingencies	Cost Per Mile	2009 - Proposed New		Old (Current) Costs Per Mile		
		Bristol, Culpeper, Fredericksburg, Lynchburg, Richmond, Salem, Staunton	NOVA Hampton Roads	Bristol Lynchburg	Richmond, Fredericksburg, Culpeper, Salem, Staunton	NOVA Hampton Roads

The following typical section estimates do not include bridge, right-of-way (ROW) or other improvement costs. Use the bridge unit costs, ROW percentages and other improvement costs (highlighted in gray) figures provided below to add these additional costs to the planning level construction estimate.

Urban Typical Sections				LOW	HIGH	LOW	HIGH			
Bike Lanes	4' pavement both sides		CPM	\$ 440,000	\$ 660,000	\$ 515,000	\$ 775,000	\$ 380,000	\$ 420,000	\$ 500,000
2 lanes	U2 26'-30' pavement	Reconstruct or New	CPM	\$ 3,600,000	\$ 540,000	\$ 4,500,000	\$ 6,750,000	\$ 2,700,000	\$ 3,000,000	\$ 3,500,000
3 lanes	U3 36'-40' pavement	Reconstruct or New	CPM	\$ 5,100,000	\$ 7,700,000	\$ 6,300,000	\$ 10,000,000	\$ 5,200,000	\$ 5,700,000	\$ 6,600,000
4 lanes	U4 40'-48' pavement	Reconstruct or New	CPM	\$ 8,400,000	\$ 12,500,000	\$ 10,200,000	\$ 15,000,000	\$ 6,200,000	\$ 6,800,000	\$ 7,900,000
4 lanes divided	U4D 48' pavement w/16' raised median	Reconstruct or New	CPM	\$ 8,900,000	\$ 13,500,000	\$ 10,600,000	\$ 16,000,000	\$ 6,900,000	\$ 7,600,000	\$ 8,800,000
4 lanes divided	U4D 48' pavement w/28' raised median	Reconstruct or New	CPM	\$ 9,700,000	\$ 14,500,000	\$ 11,600,000	\$ 17,500,000	\$ 7,400,000	\$ 8,200,000	\$ 9,400,000
6 lanes divided	U6D 72' pavement w/16' raised median	Reconstruct or New	CPM	\$ 10,600,000	\$ 14,200,000	\$ 13,200,000	\$ 20,000,000	\$ 8,900,000	\$ 9,800,000	\$ 11,300,000
6 lanes divided	U6D 72' pavement w/28' raised median	Reconstruct or New	CPM	\$ 11,100,000	\$ 14,700,000	\$ 13,700,000	\$ 21,000,000	\$ 9,700,000	\$ 10,600,000	\$ 12,300,000
8 lanes divided	U8D 96' pavement w/16' raised median	Reconstruct or New	CPM	\$ 12,000,000	\$ 16,700,000	\$ 14,700,000	\$ 22,000,000	\$ 11,100,000	\$ 12,200,000	\$ 14,200,000
8 lanes divided	U8D 96' pavement w/ 28' raised median	Reconstruct or New	CPM	\$ 12,500,000	\$ 17,200,000	\$ 15,200,000	\$ 23,000,000	\$ 11,800,000	\$ 12,900,000	\$ 14,900,000
Rural Typical Sections										
Bike Lanes	4' pavement both sides		CPM	\$ 440,000	\$ 650,000	\$ 515,000	\$ 775,000	\$ 220,000	\$ 240,000	\$ 280,000
1 lane	12' pavement		CPM	\$ 390,000	\$ 600,000	\$ 475,000	\$ 700,000	\$ 300,000	\$ 330,000	\$ 380,000
2 lanes	R2 18' pavement	Reconstruct or New	CPM	\$ 1,900,000	\$ 3,000,000	\$ 2,300,000	\$ 3,500,000	\$ 460,000	\$ 500,000	\$ 580,000
2 lanes	R2 20' pavement	Reconstruct or New	CPM	\$ 2,400,000	\$ 3,500,000	\$ 3,000,000	\$ 4,500,000	\$ 750,000	\$ 830,000	\$ 960,000
2 lanes	R2 22' pavement	Reconstruct or New	CPM	\$ 3,200,000	\$ 4,750,000	\$ 4,000,000	\$ 6,000,000	\$ 900,000	\$ 990,000	\$ 1,140,000
2 lanes	R2 24' pavement	Reconstruct or New	CPM	\$ 4,000,000	\$ 6,000,000	\$ 4,900,000	\$ 7,250,000	\$ 1,300,000	\$ 1,400,000	\$ 1,700,000
3 lanes	R3 36' pavement	Reconstruct or New	CPM	\$ 5,000,000	\$ 7,500,000	\$ 6,100,000	\$ 9,000,000	\$ 2,600,000	\$ 2,900,000	\$ 3,300,000
4 lanes divided	R4D 48' pavement	Reconstruct	CPM	\$ 5,500,000	\$ 7,700,000	\$ 7,000,000	\$ 10,000,000	\$ 3,500,000	\$ 3,900,000	\$ 4,500,000
4 lanes divided	R4D 48' pavement	New	CPM	\$ 7,000,000	\$ 9,700,000	\$ 8,900,000	\$ 13,000,000	\$ 5,300,000	\$ 5,900,000	\$ 6,800,000
4 lanes divided	R4D 48' pavement	Parallel	CPM	\$ 4,700,000	\$ 5,500,000	\$ 5,800,000	\$ 6,500,000	\$ 2,700,000	\$ 3,000,000	\$ 3,500,000
4 lanes divided	R4D 48' pavement w/16' raised median	Reconstruct or New	CPM	\$ 7,500,000	\$ 10,100,000	\$ 9,200,000	\$ 12,400,000	\$ 3,800,000	\$ 4,100,000	\$ 4,800,000
4 lanes divided	R4D 48' pavement w/28' raised median	Reconstruct or New	CPM	\$ 8,000,000	\$ 10,600,000	\$ 9,700,000	\$ 12,900,000	\$ 4,400,000	\$ 4,900,000	\$ 5,600,000
6 lanes divided	R6D 72' pavement widen 4-6 lanes	Reconstruct	CPM	\$ 5,800,000	\$ 8,500,000	\$ 6,700,000	\$ 10,200,000	\$ 4,900,000	\$ 5,400,000	\$ 6,300,000
6 lanes divided	R6D 72' pavement w/depress median	New	CPM	\$ 8,700,000	\$ 13,100,000	\$ 10,600,000	\$ 16,100,000	\$ 6,500,000	\$ 7,100,000	\$ 8,300,000
8 lanes divided	R8D 96' pavement widen 6-8 lanes	Reconstruct	CPM	\$ 5,800,000	\$ 8,500,000	\$ 6,700,000	\$ 10,200,000	\$ 4,900,000	\$ 5,400,000	\$ 6,300,000
8 lanes divided	R8D 96' pavement widen 4-8 lanes	Reconstruct	CPM	\$ 9,800,000	\$ 15,900,000	\$ 11,400,000	\$ 19,600,000	\$ 9,800,000	\$ 10,700,000	\$ 12,400,000
The following turn-lanes costs are for stand alone turn-lane projects. The standard typical section CPM figures above assume turn lanes - do not add these turn-lanes costs when developing a planning level estimate for a widening, reconstruction, or new location improvement.										
Right and Left Turn Lanes on a Four Lane Road										
Right turn lane	100' parallel and 100' taper	@		\$ 180,000	\$ 275,000	\$ 220,000	\$ 320,000	\$ 100,000	\$ 110,000	\$ 120,000
Left turn lane	200' parallel and 200' taper	@		\$ 210,000	\$ 310,000	\$ 270,000	\$ 400,000	\$ 120,000	\$ 130,000	\$ 150,000
Crossover		@		\$ 160,000	\$ 250,000	\$ 200,000	\$ 300,000	\$ 90,000	\$ 100,000	\$ 110,000
Provide new crossover with two right and two left turn lanes		@		\$ 750,000	\$ 1,250,000	\$ 1,000,000	\$ 1,500,000	\$ 510,000	\$ 570,000	\$ 650,000
Right and Left Center Turn Lane on a Two Lane Road										
Design speed 55 M.P.H.										
One left turn lane	500' parallel and two 700' taper	@	0.36 mi.	\$ 900,000	\$ 1,400,000	\$ 1,100,000	\$ 1,600,000	\$ 720,000	\$ 790,000	\$ 920,000
Two left turn lanes	900' parallel and two 700' taper	@	0.44 mi.	\$ 1,100,000	\$ 1,750,000	\$ 1,400,000	\$ 2,000,000	\$ 810,000	\$ 890,000	\$ 1,030,000
Right and left turn lane		@		\$ 1,100,000	\$ 1,750,000	\$ 1,400,000	\$ 2,000,000	\$ 810,000	\$ 890,000	\$ 1,030,000
Two right and two left turn lanes		@		\$ 1,400,000	\$ 2,000,000	\$ 1,700,000	\$ 2,500,000	\$ 1,000,000	\$ 1,100,000	\$ 1,280,000
As noted above, bridge costs are not included in the typical section CPM figures above. Bridges represent a significant cost and it is important to use the figures below to estimate bridge costs for a planned improvement. Estimates are calculated based on the square footage of the bridge -> Bridge Cost = (total bridge length in feet x total bridge width in feet) x Square Footage Costs										
Bridge Cost										
Over 25' to 200' in length	Widen Reconst or New	per sq ft		\$ 210	\$ 310	\$ 250	\$ 350	\$ 110	\$ 120	\$ 140
Over 200' in length	Widen Reconst or New	per sq ft		\$ 210	\$ 310	\$ 250	\$ 350	\$ 140	\$ 150	\$ 170
When applicable, the costs highlighted in gray should be added to the construction costs when developing a planning level estimate. All other improvement costs (not highlighted in gray) are for developing stand alone improvement cost estimates.										
Other Improvement Cost										
Estimate parking, restripe (both sides)		CPM		\$ 100,000	\$ 150,000	\$ 100,000	\$ 150,000	\$ 80,000	\$ 90,000	\$ 100,000
Provide signal at unsignalized intersection		@		\$ 120,000	\$ 200,000	\$ 400,000	\$ 600,000	\$ 230,000	\$ 260,000	\$ 300,000
Improve, replace signal at intersection		@		\$ 160,000	\$ 250,000	\$ 200,000	\$ 300,000	\$ 120,000	\$ 130,000	\$ 150,000
Improve phasing as system, signalized intersections		@		\$ 80,000	\$ 125,000	\$ 100,000	\$ 150,000	\$ 160,000	\$ 170,000	\$ 200,000
Provide pedestrian signal phase		@		\$ 40,000	\$ 40,000	\$ 50,000	\$ 75,000	\$ 30,000	\$ 30,000	\$ 40,000
Provide pedestrian crosswalk		@		\$ 19,000	\$ 19,000	\$ 24,000	\$ 36,000	\$ 9,000	\$ 10,000	\$ 12,000
Downtown signage		CPM		\$ 40,000	\$ 40,000	\$ 50,000	\$ 75,000	\$ 24,000	\$ 26,000	\$ 30,000
Close open ditch drainage and provide curb & gutter		CPM		\$ 2,400,000	\$ 2,400,000	\$ 3,000,000	\$ 4,500,000	\$ 1,300,000	\$ 1,400,000	\$ 1,700,000
Widen radius for truck turning		@		\$ 80,000	\$ 80,000	\$ 100,000	\$ 150,000	\$ 32,000	\$ 35,000	\$ 41,000
Install railroad warning lights (no gates)		@		\$ 80,000	\$ 80,000	\$ 100,000	\$ 150,000	\$ 32,000	\$ 35,000	\$ 41,000
Provide park & ride facility		COST PER PARKING SPACE		\$ 5,000	\$ 5,000	\$ 8,000	\$ 12,000	\$ 2,000	\$ 3,000	\$ 3,000
Provide 5 ft. sidewalk		CPM		\$ 240,000	\$ 240,000	\$ 300,000	\$ 450,000	\$ 80,000	\$ 90,000	\$ 110,000
Wide Curb Lane (2 additional feet of pavement in each direction)		CPM		\$ 240,000	\$ 240,000	\$ 300,000	\$ 450,000	\$ 200,000	\$ 200,000	\$ 300,000
Paved Shoulder (4 foot wide paved shoulder in both directions)		CPM		\$ 440,000	\$ 440,000	\$ 515,000	\$ 750,000	\$ 300,000	\$ 360,000	\$ 420,000
Provide 10 ft. paved shared use path off road		CPM		\$ 720,000	\$ 720,000	\$ 900,000	\$ 1,300,000	\$ 600,000	\$ 690,000	\$ 750,000
Sound barrier wall (multiply height x length)		per sq ft		\$ 70	\$ 70	\$ 70	\$ 100	\$ 35	\$ 35	\$ 35
Improve grade separated interchange		@		\$ 25,000,000	\$ 40,000,000	\$ 30,000,000	\$ 60,000,000	\$ 30,000,000	\$ 35,000,000	\$ 40,000,000
Provide new grade separated interchange (Rural) LOW		@		\$ 30,000,000	\$ 30,000,000	\$ 35,000,000	\$ 35,000,000	\$ 40,000,000	\$ 45,000,000	\$ 55,000,000
Provide new grade separated interchange (Rural) HIGH		@		\$ 55,000,000	\$ 55,000,000	\$ 65,000,000	\$ 65,000,000	\$ 50,000,000	\$ 55,000,000	\$ 65,000,000
Provide new grade separated interchange (Urban) LOW		@		\$ 35,000,000	\$ 35,000,000	\$ 40,000,000	\$ 40,000,000	\$ 50,000,000	\$ 60,000,000	\$ 70,000,000
Provide new grade separated interchange (Urban) HIGH		@		\$ 65,000,000	\$ 65,000,000	\$ 75,000,000	\$ 75,000,000	\$ 70,000,000	\$ 80,000,000	\$ 90,000,000
Roundabouts	1 lane			\$ 750,000	\$ 1,250,000	\$ 1,000,000	\$ 1,500,000			
Roundabouts	2 lanes			\$ 1,750,000	\$ 2,500,000	\$ 2,000,000	\$ 3,000,000			
Once a planning level construction estimate has been developed using the information above, use the following figures to estimate ROW costs based on the prevalent land use adjacent to the project. ROW costs are shown as a percentage of construction costs.										
Right of Way & Utilities Cost % of Cost Estimate										
Rural				25%	35%	30%	40%			
Residential/Suburban low density				50%	65%	55%	70%			
Outlying business/Suburban high density				60%	100%	75%	125%			
Central business district				100%	125%	125%	150%			

Planning Level Cost Estimate = ((Typical Section CPM x project length in miles) + (Other Improvement Costs) x (ROW%+1)); Bridge Costs = (Bridge 1 total square footage x bridge unit cost)+(Bridge 2 total square footage x bridge unit cost)...

In the 2006 session, the General Assembly passed a bill directing local governments to include cost estimates when planning road improvements. HB 1521 directs local governments to include in their comprehensive plans maps showing costs for road and transportation improvements as those costs are available from VDOT. The legislation becomes effective July 1, 2006. District planners will act as the point-of-contact in assisting local governments, at their request, to develop planning level cost estimates for proposed transportation improvements in local comprehensive plans.

The Project Cost Estimation System (PCES) is VDOT's tool for calculating the costs for transportation improvements, and is generally used after the project's scoping phase. PCES is not always an ideal tool for determining costs at the planning level, given the number of planned improvements and the limited amount of detailed information known at the planning stage.

The Statewide Planning Level Cost Estimate Sheet above has been updated from 2002 to reflect higher costs in all districts due to cost increases in construction materials. This sheet shall be used to provide consistent planning level cost estimates when planners are contacted by local governments pursuant to HB 1521. For extremely complex improvements or improvements with unique characteristics, please work with your district Location and Design section or TMPD's Project Planning Group to develop the cost estimate. It is also recommended that when displaying planning level cost estimates for public review use ranges. If enough information is available to derive cost estimates using PCES, then you are encouraged to use that method to develop the planning level estimate.

60' ROW	Description	Build Cross Section	2009 Construction Costs Per Mile	Existing Geometry		Simons Run	
				Length	2015 Cost	Length	2015 Cost
	3-Lane Urban Section (41' wide)	Urban 3-Lane 36-40' pavement	\$6,904,960	0.76	\$6,266,000	0.32	\$2,638,000
	5' Sidewalk	5' Sidewalk	\$240,000	0.92	\$264,000	0.32	\$92,000
	<b>Total</b>	-	\$7,144,960	0.92	<b>\$6,530,000</b>	0.32	<b>\$2,730,000</b>

68' ROW	Description	Build Cross Section	2009 Construction Costs Per Mile	Existing Geometry		Simons Run	
				Length	2015 Cost	Length	2015 Cost
	3-Lane Urban Section (38' wide)	Urban 3-Lane 36-40' pavement	\$6,400,000	0.76	\$5,808,000	0.32	\$2,445,000
	10' Shared Use Path	10' Shared Use Path	\$720,000	0.92	\$791,000	0.32	\$275,000
	<b>Total</b>	-	\$7,120,000	0.92	<b>\$6,599,000</b>	0.32	<b>\$2,721,000</b>

\*Road construction cost include 25% markup for PE and Construction Contingencies

Source: VDOT TMPD

\*\* Road construction costs do not include ROW or Utilities.

Geometry Conditions	Travel Direction	Segment	Distance (mi)	Speed (MPH)	Travel Time (hr)	Average Delay (sec)	Average Delay (hr)	Wage (\$/hr)	Vehicle Travel Cost (\$/veh)	AM Trips	# Trips (veh/day)	Daily Travel Cost (\$/day)	Annual Travel Cost (\$/yr)
Existing Geometry	Development to Greenview Dr/Airport Rd & Leesville Rd	Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	103	1471	\$311.64	\$113,748.66
		Simons Run (W. Leg)	0.17	35	0.0049	16.2	0.0045	\$18.08	\$0.17	103	1471	\$248.93	\$90,860.21
		Leesville Rd	0.37	45	0.0082	0.0	0.0000	\$18.08	\$0.15	103	1471	\$218.74	\$79,839.85
		<b>Total</b>	-	-	<b>0.0248</b>	<b>16.2</b>	<b>0.0045</b>	<b>\$18.08</b>	<b>\$0.53</b>	<b>103</b>	<b>1471</b>	<b>\$779.31</b>	<b>\$284,448.71</b>
	Greenview Dr/Airport Rd & Leesville Rd to Development	Leesville Rd	0.37	45	0.0082	0.0	0.0000	\$18.08	\$0.15	192	2743	\$407.75	\$148,827.67
		Simons Run (W. Leg)	0.17	35	0.0049	0.0	0.0000	\$18.08	\$0.09	192	2743	\$240.87	\$87,917.51
		Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	192	2743	\$580.92	\$212,036.34
		<b>Total</b>	-	-	<b>0.0248</b>	<b>0.0</b>	<b>0.0000</b>	<b>\$18.08</b>	<b>\$0.45</b>	<b>192</b>	<b>2743</b>	<b>\$1,229.54</b>	<b>\$448,781.51</b>
	Development to US Route 460 Interchange	Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	72	1029	\$217.85	\$79,513.63
		Simons Run (W. Leg)	0.17	35	0.0049	16.2	0.0045	\$18.08	\$0.17	72	1029	\$174.01	\$63,513.93
		Leesville Rd	0.37	45	0.0082	32.6	0.0091	\$18.08	\$0.31	72	1029	\$321.31	\$117,277.21
		Airport Rd	0.40	35	0.0114	0.0	0.0000	\$18.08	\$0.21	72	1029	\$212.53	\$77,574.27
		<b>Total</b>	-	-	<b>0.0362</b>	<b>48.8</b>	<b>0.0136</b>	<b>18.08</b>	<b>\$0.90</b>	<b>72</b>	<b>1029</b>	<b>\$925.70</b>	<b>\$337,879.04</b>
	US Route 460 Interchange to Development	Airport Rd	0.40	35	0.0114	21.2	0.0059	\$18.08	\$0.31	79	1129	\$353.36	\$128,974.70
		Leesville Rd	0.37	45	0.0082	0.0	0.0000	\$18.08	\$0.15	79	1129	\$167.77	\$61,236.39
		Simons Run (W. Leg)	0.17	35	0.0049	0.0	0.0000	\$18.08	\$0.09	79	1129	\$99.11	\$36,174.39
		Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	79	1129	\$239.02	\$87,244.12
		<b>Total</b>	-	-	<b>0.0362</b>	<b>21.2</b>	<b>0.0059</b>	<b>18.08</b>	<b>\$0.76</b>	<b>79</b>	<b>1129</b>	<b>\$859.26</b>	<b>\$313,629.60</b>

Simons Run Extension Geometry	Development to Greenview Dr/Airport Rd & Leesville Rd	Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	103	1471	\$311.64	\$113,748.66
		Simons Run (W. Leg)	0.17	35	0.0049	15.0	0.0042	\$18.08	\$0.16	83	1186	\$193.45	\$70,609.20
		Leesville Rd	0.37	45	0.0082	0.0	0.0000	\$18.08	\$0.15	83	1186	\$176.27	\$64,336.96
		Simons Run (New Leg)	0.32	35	0.0091	10.6	0.0029	\$18.08	\$0.22	20	286	\$62.44	\$22,790.43
		Airport Rd	0.18	35	0.0051	0.0	0.0000	\$18.08	\$0.09	20	286	\$26.57	\$9,696.78
	<b>Total</b>	-	-	<b>0.0391</b>	<b>25.6</b>	<b>0.0071</b>	<b>\$18.08</b>	<b>\$0.84</b>	<b>103</b>	<b>1471</b>	<b>\$770.36</b>	<b>\$281,182.04</b>	
	Greenview Dr/Airport Rd & Leesville Rd to Development	Leesville Rd	0.37	45	0.0082	0.0	0.0000	\$18.08	\$0.15	21	300	\$44.60	\$16,278.03
		Simons Run (W. Leg)	0.17	35	0.0049	0.0	0.0000	\$18.08	\$0.09	21	300	\$26.35	\$9,615.98
		Airport Rd	0.18	35	0.0051	9.4	0.0026	\$18.08	\$0.14	91	1300	\$182.25	\$66,520.98
		Simons Run (New Leg)	0.32	35	0.0091	0.0	0.0000	\$18.08	\$0.17	91	1300	\$214.89	\$78,436.21
		Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	112	1600	\$338.87	\$123,687.86
	<b>Total</b>	-	-	<b>0.0391</b>	<b>9.4</b>	<b>0.0026</b>	<b>\$18.08</b>	<b>\$0.75</b>	<b>112</b>	<b>1600</b>	<b>\$806.96</b>	<b>\$294,539.06</b>	
	Development to US Route 460 Interchange	Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	72	1029	\$217.85	\$79,513.63
		Simons Run (W. Leg)	0.17	35	0.0049	15.0	0.0042	\$18.08	\$0.16	72	1029	\$167.81	\$61,251.35
		Leesville Rd	0.37	45	0.0082	34.6	0.0096	\$18.08	\$0.32	72	1029	\$331.38	\$120,953.91
		Airport Rd	0.40	35	0.0114	0.0	0.0000	\$18.08	\$0.21	72	1029	\$212.53	\$77,574.27
		<b>Total</b>	-	-	<b>0.0362</b>	<b>49.6</b>	<b>0.0138</b>	<b>18.08</b>	<b>\$0.90</b>	<b>72</b>	<b>1029</b>	<b>\$929.57</b>	<b>\$339,293.15</b>
	US Route 460 Interchange to Development	Airport Rd	0.22	35	0.0063	0.0	0.0000	\$18.08	\$0.11	80	1143	\$129.88	\$47,406.50
		Simons Run (New Leg)	0.32	45	0.0071	0.0	0.0000	\$18.08	\$0.13	80	1143	\$146.94	\$53,631.59
		Simons Run (N. Leg)	0.41	35	0.0117	0.0	0.0000	\$18.08	\$0.21	80	1143	\$242.05	\$88,348.47
<b>Total</b>		-	-	<b>0.0251</b>	<b>0.0</b>	<b>0.0000</b>	<b>18.08</b>	<b>\$0.45</b>	<b>80</b>	<b>1143</b>	<b>\$518.87</b>	<b>\$189,386.57</b>	

Geometry Conditions	2016 Travel Cost	2017 Travel Cost	2018 Travel Cost	2019 Travel Cost	2020 Travel Cost	2021 Travel Cost	2022 Travel Cost	2023 Travel Cost	2024 Travel Cost	2025 Travel Cost	2026 Travel Cost
Existing Geometry	\$120,675.95	\$124,296.23	\$128,025.12	\$131,865.87	\$135,821.85	\$139,896.50	\$144,093.40	\$148,416.20	\$152,868.69	\$157,454.75	\$162,178.39
	\$96,393.60	\$99,285.40	\$102,263.97	\$105,331.89	\$108,491.84	\$111,746.60	\$115,099.00	\$118,551.97	\$122,108.52	\$125,771.78	\$129,544.93
	\$84,702.09	\$87,243.15	\$89,860.45	\$92,556.26	\$95,332.95	\$98,192.94	\$101,138.73	\$104,172.89	\$107,298.08	\$110,517.02	\$113,832.53
	<b>\$301,771.64</b>	<b>\$310,824.79</b>	<b>\$320,149.53</b>	<b>\$329,754.02</b>	<b>\$339,646.64</b>	<b>\$349,836.04</b>	<b>\$360,331.12</b>	<b>\$371,141.05</b>	<b>\$382,275.29</b>	<b>\$393,743.55</b>	<b>\$405,555.85</b>
	\$157,891.28	\$162,628.02	\$167,506.86	\$172,532.06	\$177,708.02	\$183,039.26	\$188,530.44	\$194,186.36	\$200,011.95	\$206,012.31	\$212,192.67
	\$93,271.68	\$96,069.83	\$98,951.93	\$101,920.48	\$104,978.10	\$108,127.44	\$111,371.27	\$114,712.40	\$118,153.78	\$121,698.39	\$125,349.34
	\$224,949.35	\$231,697.83	\$238,648.76	\$245,808.23	\$253,182.47	\$260,777.95	\$268,601.29	\$276,659.33	\$284,959.11	\$293,507.88	\$302,313.11
	<b>\$476,112.31</b>	<b>\$490,395.68</b>	<b>\$505,107.55</b>	<b>\$520,260.77</b>	<b>\$535,868.60</b>	<b>\$551,944.66</b>	<b>\$568,503.00</b>	<b>\$585,558.08</b>	<b>\$603,124.83</b>	<b>\$621,218.57</b>	<b>\$639,855.13</b>
	\$84,356.01	\$86,886.69	\$89,493.29	\$92,178.09	\$94,943.43	\$97,791.73	\$100,725.48	\$103,747.25	\$106,859.66	\$110,065.45	\$113,367.42
	\$67,381.93	\$69,403.39	\$71,485.49	\$73,630.06	\$75,838.96	\$78,114.13	\$80,457.55	\$82,871.28	\$85,357.41	\$87,918.14	\$90,555.68
	\$124,419.39	\$128,151.98	\$131,996.53	\$135,956.43	\$140,035.12	\$144,236.18	\$148,563.26	\$153,020.16	\$157,610.77	\$162,339.09	\$167,209.26
	\$82,298.54	\$84,767.50	\$87,310.52	\$89,929.84	\$92,627.73	\$95,406.57	\$98,268.76	\$101,216.83	\$104,253.33	\$107,380.93	\$110,602.36
	<b>\$358,455.87</b>	<b>\$369,209.55</b>	<b>\$380,285.84</b>	<b>\$391,694.41</b>	<b>\$403,445.24</b>	<b>\$415,548.60</b>	<b>\$428,015.06</b>	<b>\$440,855.51</b>	<b>\$454,081.18</b>	<b>\$467,703.61</b>	<b>\$481,734.72</b>
	\$136,829.26	\$140,934.14	\$145,162.17	\$149,517.03	\$154,002.54	\$158,622.62	\$163,381.30	\$168,282.74	\$173,331.22	\$178,531.16	\$183,887.09
	\$64,965.68	\$66,914.65	\$68,922.09	\$70,989.75	\$73,119.45	\$75,313.03	\$77,572.42	\$79,899.59	\$82,296.58	\$84,765.48	\$87,308.44
\$38,377.41	\$39,528.73	\$40,714.59	\$41,936.03	\$43,194.11	\$44,489.94	\$45,824.64	\$47,199.37	\$48,615.36	\$50,073.82	\$51,576.03	
\$92,557.28	\$95,334.00	\$98,194.02	\$101,139.84	\$104,174.04	\$107,299.26	\$110,518.24	\$113,833.79	\$117,248.80	\$120,766.26	\$124,389.25	
<b>\$332,729.64</b>	<b>\$342,711.53</b>	<b>\$352,992.88</b>	<b>\$363,582.66</b>	<b>\$374,490.14</b>	<b>\$385,724.85</b>	<b>\$397,296.59</b>	<b>\$409,215.49</b>	<b>\$421,491.95</b>	<b>\$434,136.71</b>	<b>\$447,160.81</b>	
<b>Annual Total</b>	<b>\$1,469,069.46</b>	<b>\$1,513,141.55</b>	<b>\$1,558,535.79</b>	<b>\$1,605,291.87</b>	<b>\$1,653,450.62</b>	<b>\$1,703,054.14</b>	<b>\$1,754,145.77</b>	<b>\$1,806,770.14</b>	<b>\$1,860,973.24</b>	<b>\$1,916,802.44</b>	<b>\$1,974,306.52</b>

Simons Run Extension Geometry		\$124,296.23	\$128,025.12	\$131,865.87	\$135,821.85	\$139,896.50	\$144,093.40	\$148,416.20	\$152,868.69	\$157,454.75	\$162,178.39
		\$77,156.57	\$79,471.27	\$81,855.41	\$84,311.07	\$86,840.40	\$89,445.62	\$92,128.98	\$94,892.85	\$97,739.64	\$100,671.83
		\$70,302.74	\$72,411.82	\$74,584.17	\$76,821.70	\$79,126.35	\$81,500.14	\$83,945.14	\$86,463.50	\$89,057.40	\$91,729.12
		\$24,903.72	\$25,650.83	\$26,420.36	\$27,212.97	\$28,029.36	\$28,870.24	\$29,736.35	\$30,628.44	\$31,547.29	\$32,493.71
		\$10,595.94	\$10,913.82	\$11,241.23	\$11,578.47	\$11,925.82	\$12,283.60	\$12,652.10	\$13,031.67	\$13,422.62	\$13,825.29
		<b>\$307,255.20</b>	<b>\$316,472.86</b>	<b>\$325,967.04</b>	<b>\$335,746.06</b>	<b>\$345,818.44</b>	<b>\$356,192.99</b>	<b>\$366,878.78</b>	<b>\$377,885.14</b>	<b>\$389,221.70</b>	<b>\$400,898.35</b>
		\$17,787.44	\$18,321.06	\$18,870.69	\$19,436.82	\$20,019.92	\$20,620.52	\$21,239.13	\$21,876.31	\$22,532.60	\$23,208.57
		\$10,507.64	\$10,822.87	\$11,147.55	\$11,481.98	\$11,826.44	\$12,181.23	\$12,546.67	\$12,923.07	\$13,310.76	\$13,710.08
		\$72,689.27	\$74,869.95	\$77,116.05	\$79,429.53	\$81,812.42	\$84,266.79	\$86,794.80	\$89,398.64	\$92,080.60	\$94,843.02
		\$85,709.36	\$88,280.64	\$90,929.06	\$93,656.93	\$96,466.64	\$99,360.64	\$102,341.46	\$105,411.70	\$108,574.05	\$111,831.27
		\$135,157.07	\$139,211.78	\$143,388.13	\$147,689.78	\$152,120.47	\$156,684.08	\$161,384.61	\$166,226.14	\$171,212.93	\$176,349.32
		<b>\$321,850.78</b>	<b>\$331,506.30</b>	<b>\$341,451.49</b>	<b>\$351,695.04</b>	<b>\$362,245.89</b>	<b>\$373,113.26</b>	<b>\$384,306.66</b>	<b>\$395,835.86</b>	<b>\$407,710.94</b>	<b>\$419,942.27</b>
		\$86,886.69	\$89,493.29	\$92,178.09	\$94,943.43	\$97,791.73	\$100,725.48	\$103,747.25	\$106,859.66	\$110,065.45	\$113,367.42
		\$66,931.00	\$68,938.93	\$71,007.10	\$73,137.32	\$75,331.43	\$77,591.38	\$79,919.12	\$82,316.69	\$84,786.19	\$87,329.78
		\$132,169.60	\$136,134.69	\$140,218.73	\$144,425.29	\$148,758.05	\$153,220.79	\$157,817.42	\$162,551.94	\$167,428.50	\$172,451.35
	\$84,767.50	\$87,310.52	\$89,929.84	\$92,627.73	\$95,406.57	\$98,268.76	\$101,216.83	\$104,253.33	\$107,380.93	\$110,602.36	
	<b>\$370,754.79</b>	<b>\$381,877.43</b>	<b>\$393,333.76</b>	<b>\$405,133.77</b>	<b>\$417,287.78</b>	<b>\$429,806.42</b>	<b>\$442,700.61</b>	<b>\$455,981.63</b>	<b>\$469,661.08</b>	<b>\$483,750.91</b>	
	\$51,802.36	\$53,356.43	\$54,957.12	\$56,605.84	\$58,304.01	\$60,053.13	\$61,854.73	\$63,710.37	\$65,621.68	\$67,590.33	
	\$58,604.69	\$60,362.83	\$62,173.72	\$64,038.93	\$65,960.10	\$67,938.90	\$69,977.07	\$72,076.38	\$74,238.67	\$76,465.83	
	\$96,540.76	\$99,436.99	\$102,420.09	\$105,492.70	\$108,657.48	\$111,917.20	\$115,274.72	\$118,732.96	\$122,294.95	\$125,963.80	
	<b>\$206,947.81</b>	<b>\$213,156.25</b>	<b>\$219,550.93</b>	<b>\$226,137.46</b>	<b>\$232,921.59</b>	<b>\$239,909.23</b>	<b>\$247,106.51</b>	<b>\$254,519.71</b>	<b>\$262,155.30</b>	<b>\$270,019.96</b>	
<b>Annual Total</b>	<b>\$1,469,069.46</b>	<b>\$1,206,808.58</b>	<b>\$1,243,012.84</b>	<b>\$1,280,303.23</b>	<b>\$1,318,712.32</b>	<b>\$1,358,273.69</b>	<b>\$1,399,021.91</b>	<b>\$1,440,992.56</b>	<b>\$1,484,222.34</b>	<b>\$1,528,749.01</b>	<b>\$1,574,611.48</b>

<b>Annual Savings</b>	<b>\$0.00</b>	<b>\$38,291.62</b>	<b>\$78,880.74</b>	<b>\$121,870.74</b>	<b>\$167,369.15</b>	<b>\$215,487.78</b>	<b>\$266,342.90</b>	<b>\$320,055.38</b>	<b>\$376,750.91</b>	<b>\$388,053.43</b>	<b>\$399,695.04</b>
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2027 Travel Cost	2028 Travel Cost	2029 Travel Cost	2030 Travel Cost	2031 Travel Cost	2032 Travel Cost	2033 Travel Cost	2034 Travel Cost	2035 Travel Cost	2036 Travel Cost	2037 Travel Cost	Lifetime Travel Cost
\$167,043.74	\$172,055.05	\$177,216.71	\$182,533.21	\$188,009.20	\$193,649.48	\$199,458.96	\$205,442.73	\$211,606.01	\$217,954.19	\$224,492.82	\$3,564,379.11
\$133,431.28	\$137,434.22	\$141,557.25	\$145,803.96	\$150,178.08	\$154,683.43	\$159,323.93	\$164,103.65	\$169,026.76	\$174,097.56	\$179,320.48	\$2,847,156.48
\$117,247.50	\$120,764.93	\$124,387.88	\$128,119.51	\$131,963.10	\$135,921.99	\$139,999.65	\$144,199.64	\$148,525.63	\$152,981.40	\$157,570.84	\$2,501,827.07
<b>\$417,722.53</b>	<b>\$430,254.20</b>	<b>\$443,161.83</b>	<b>\$456,456.68</b>	<b>\$470,150.38</b>	<b>\$484,254.90</b>	<b>\$498,782.54</b>	<b>\$513,746.02</b>	<b>\$529,158.40</b>	<b>\$545,033.15</b>	<b>\$561,384.15</b>	<b>\$8,913,362.66</b>
\$218,558.45	\$225,115.21	\$231,868.66	\$238,824.72	\$245,989.47	\$253,369.15	\$260,970.22	\$268,799.33	\$276,863.31	\$285,169.21	\$293,724.29	\$4,663,599.98
\$129,109.82	\$132,983.12	\$136,972.61	\$141,081.79	\$145,314.24	\$149,673.67	\$154,163.88	\$158,788.79	\$163,552.46	\$168,459.03	\$173,512.80	\$2,754,945.16
\$311,382.51	\$320,723.98	\$330,345.70	\$340,256.07	\$350,463.76	\$360,977.67	\$371,807.00	\$382,961.21	\$394,450.05	\$406,283.55	\$418,472.05	\$6,644,279.51
<b>\$659,050.78</b>	<b>\$678,822.31</b>	<b>\$699,186.98</b>	<b>\$720,162.59</b>	<b>\$741,767.46</b>	<b>\$764,020.49</b>	<b>\$786,941.10</b>	<b>\$810,549.33</b>	<b>\$834,865.81</b>	<b>\$859,911.79</b>	<b>\$885,709.14</b>	<b>\$14,062,824.64</b>
\$116,768.44	\$120,271.49	\$123,879.64	\$127,596.03	\$131,423.91	\$135,366.63	\$139,427.62	\$143,610.45	\$147,918.77	\$152,356.33	\$156,927.02	\$2,491,604.81
\$93,272.35	\$96,070.52	\$98,952.64	\$101,921.22	\$104,978.85	\$108,128.22	\$111,372.07	\$114,713.23	\$118,154.62	\$121,699.26	\$125,350.24	\$1,990,245.31
\$172,225.54	\$177,392.30	\$182,714.07	\$188,195.50	\$193,841.36	\$199,656.60	\$205,646.30	\$211,815.69	\$218,170.16	\$224,715.26	\$231,456.72	\$3,674,948.29
\$113,920.43	\$117,338.04	\$120,858.18	\$124,483.93	\$128,218.45	\$132,065.00	\$136,026.95	\$140,107.76	\$144,310.99	\$148,640.32	\$153,099.53	\$2,430,833.97
<b>\$496,186.76</b>	<b>\$511,072.36</b>	<b>\$526,404.54</b>	<b>\$542,196.67</b>	<b>\$558,462.57</b>	<b>\$575,216.45</b>	<b>\$592,472.94</b>	<b>\$610,247.13</b>	<b>\$628,554.54</b>	<b>\$647,411.18</b>	<b>\$666,833.52</b>	<b>\$10,587,632.38</b>
\$189,403.70	\$195,085.51	\$200,938.39	\$206,966.54	\$213,175.54	\$219,570.80	\$226,157.93	\$232,942.66	\$239,930.94	\$247,128.87	\$254,542.74	\$4,041,495.92
\$89,927.70	\$92,625.53	\$95,404.29	\$98,266.42	\$101,214.42	\$104,250.85	\$107,378.37	\$110,599.72	\$113,917.72	\$117,335.25	\$120,855.31	\$1,918,877.07
\$53,123.31	\$54,717.01	\$56,358.52	\$58,049.28	\$59,790.76	\$61,584.48	\$63,432.01	\$65,334.97	\$67,295.02	\$69,313.87	\$71,393.29	\$1,133,545.14
\$128,120.93	\$131,964.56	\$135,923.49	\$140,001.20	\$144,201.23	\$148,527.27	\$152,983.09	\$157,572.58	\$162,299.76	\$167,168.75	\$172,183.81	\$2,733,844.17
<b>\$460,575.64</b>	<b>\$474,392.91</b>	<b>\$488,624.70</b>	<b>\$503,283.44</b>	<b>\$518,381.94</b>	<b>\$533,933.40</b>	<b>\$549,951.40</b>	<b>\$566,449.94</b>	<b>\$583,443.44</b>	<b>\$600,946.74</b>	<b>\$618,975.15</b>	<b>\$9,827,762.31</b>
<b>\$2,033,535.71</b>	<b>\$2,094,541.78</b>	<b>\$2,157,378.04</b>	<b>\$2,222,099.38</b>	<b>\$2,288,762.36</b>	<b>\$2,357,425.23</b>	<b>\$2,428,147.99</b>	<b>\$2,500,992.43</b>	<b>\$2,576,022.20</b>	<b>\$2,653,302.86</b>	<b>\$2,732,901.95</b>	<b>\$43,391,582.00</b>

\$167,043.74	\$172,055.05	\$177,216.71	\$182,533.21	\$188,009.20	\$193,649.48	\$199,458.96	\$205,442.73	\$211,606.01	\$217,954.19	\$224,492.82	\$3,564,379.11
\$103,691.98	\$106,802.74	\$110,006.83	\$113,307.03	\$116,706.24	\$120,207.43	\$123,813.65	\$127,528.06	\$131,353.90	\$135,294.52	\$139,353.36	\$2,212,579.40
\$94,481.00	\$97,315.43	\$100,234.89	\$103,241.94	\$106,339.20	\$109,529.37	\$112,815.25	\$116,199.71	\$119,685.70	\$123,276.27	\$126,974.56	\$2,016,035.41
\$33,468.52	\$34,472.58	\$35,506.75	\$36,571.96	\$37,669.12	\$38,799.19	\$39,963.16	\$41,162.06	\$42,396.92	\$43,668.83	\$44,978.89	\$714,151.26
\$14,240.05	\$14,667.26	\$15,107.27	\$15,560.49	\$16,027.31	\$16,508.13	\$17,003.37	\$17,513.47	\$18,038.87	\$18,580.04	\$19,137.44	\$303,854.25
<b>\$412,925.30</b>	<b>\$425,313.06</b>	<b>\$438,072.45</b>	<b>\$451,214.62</b>	<b>\$464,751.06</b>	<b>\$478,693.59</b>	<b>\$493,054.40</b>	<b>\$507,846.03</b>	<b>\$523,081.41</b>	<b>\$538,773.86</b>	<b>\$554,937.07</b>	<b>\$8,810,999.42</b>
\$23,904.83	\$24,621.98	\$25,360.64	\$26,121.45	\$26,905.10	\$27,712.25	\$28,543.62	\$29,399.93	\$30,281.92	\$31,190.38	\$32,126.09	\$510,081.25
\$14,121.39	\$14,545.03	\$14,981.38	\$15,430.82	\$15,893.75	\$16,370.56	\$16,861.67	\$17,367.52	\$17,888.55	\$18,425.21	\$18,977.96	\$301,322.13
\$97,688.31	\$100,618.96	\$103,637.52	\$106,746.65	\$109,949.05	\$113,247.52	\$116,644.95	\$120,144.30	\$123,748.62	\$127,461.08	\$131,284.92	\$2,084,472.95
\$115,186.21	\$118,641.80	\$122,201.05	\$125,867.08	\$129,643.10	\$133,532.39	\$137,538.36	\$141,664.51	\$145,914.45	\$150,291.88	\$154,800.64	\$2,457,843.23
\$181,639.80	\$187,088.99	\$192,701.66	\$198,482.71	\$204,437.19	\$210,570.31	\$216,887.42	\$223,394.04	\$230,095.86	\$236,998.74	\$244,108.70	\$3,875,829.71
<b>\$432,540.53</b>	<b>\$445,516.75</b>	<b>\$458,882.25</b>	<b>\$472,648.72</b>	<b>\$486,828.18</b>	<b>\$501,433.03</b>	<b>\$516,476.02</b>	<b>\$531,970.30</b>	<b>\$547,929.41</b>	<b>\$564,367.29</b>	<b>\$581,298.31</b>	<b>\$9,229,549.27</b>
\$116,768.44	\$120,271.49	\$123,879.64	\$127,596.03	\$131,423.91	\$135,366.63	\$139,427.62	\$143,610.45	\$147,918.77	\$152,356.33	\$156,927.02	\$2,491,604.81
\$89,949.67	\$92,648.16	\$95,427.61	\$98,290.44	\$101,239.15	\$104,276.32	\$107,404.61	\$110,626.75	\$113,945.55	\$117,363.92	\$120,884.84	\$1,919,345.99
\$177,624.89	\$182,953.64	\$188,442.25	\$194,095.52	\$199,918.38	\$205,915.93	\$212,093.41	\$218,456.21	\$225,009.90	\$231,760.20	\$238,713.00	\$3,790,159.69
\$113,920.43	\$117,338.04	\$120,858.18	\$124,483.93	\$128,218.45	\$132,065.00	\$136,026.95	\$140,107.76	\$144,310.99	\$148,640.32	\$153,099.53	\$2,430,833.97
<b>\$498,263.44</b>	<b>\$513,211.34</b>	<b>\$528,607.68</b>	<b>\$544,465.91</b>	<b>\$560,799.89</b>	<b>\$577,623.88</b>	<b>\$594,952.60</b>	<b>\$612,801.18</b>	<b>\$631,185.21</b>	<b>\$650,120.77</b>	<b>\$669,624.39</b>	<b>\$10,631,944.46</b>
\$69,618.04	\$71,706.58	\$73,857.78	\$76,073.51	\$78,355.72	\$80,706.39	\$83,127.58	\$85,621.41	\$88,190.05	\$90,835.75	\$93,560.82	\$1,485,509.65
\$78,759.80	\$81,122.60	\$83,556.28	\$86,062.96	\$88,644.85	\$91,304.20	\$94,043.32	\$96,864.62	\$99,770.56	\$102,763.68	\$105,846.59	\$1,680,576.57
\$129,742.71	\$133,634.99	\$137,644.04	\$141,773.36	\$146,026.57	\$150,407.36	\$154,919.58	\$159,567.17	\$164,354.19	\$169,284.81	\$174,363.36	\$2,768,449.79
<b>\$278,120.56</b>	<b>\$286,464.17</b>	<b>\$295,058.10</b>	<b>\$303,909.84</b>	<b>\$313,027.14</b>	<b>\$322,417.95</b>	<b>\$332,090.49</b>	<b>\$342,053.20</b>	<b>\$352,314.80</b>	<b>\$362,884.24</b>	<b>\$373,770.77</b>	<b>\$5,934,536.01</b>
<b>\$1,621,849.82</b>	<b>\$1,670,505.32</b>	<b>\$1,720,620.48</b>	<b>\$1,772,239.09</b>	<b>\$1,825,406.27</b>	<b>\$1,880,168.45</b>	<b>\$1,936,573.51</b>	<b>\$1,994,670.71</b>	<b>\$2,054,510.83</b>	<b>\$2,116,146.16</b>	<b>\$2,179,630.54</b>	<b>\$34,607,029.16</b>

<b>\$411,685.89</b>	<b>\$424,036.46</b>	<b>\$436,757.56</b>	<b>\$449,860.28</b>	<b>\$463,356.09</b>	<b>\$477,256.78</b>	<b>\$491,574.48</b>	<b>\$506,321.71</b>	<b>\$521,511.36</b>	<b>\$537,156.71</b>	<b>\$553,271.41</b>
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