TRAFFIC IMPACT STUDY FOR

DRI #4173
POOLE MOUNTAIN RESIDENTIAL DEVELOPMENT

DATE:
September 4, 2024

LOCATION:
Gwinnett County, Georgia

PREPARED FOR:
St. Bourke
1031 Marietta Street NW
Atlanta, GA 30318

PREPARED BY:
NV5 Engineers and Consultants, Inc.
10745 Westside Way, Suite 300
Alpharetta, GA 30009
678.795.3600

NV5
nv5.com

A. Executive Summary

A new residential development comprising of 1,066 single-family detached homes is proposed for construction on undeveloped land parcels located along Mineral Springs Road, Clack Road, and Mt. Moriah Road in Gwinnett County, Georgia.

The development is expected to be built-out by 2034 and will generate a total of 8,902 new daily trips. Of these daily volumes, 642 new trips (167 entering and 475 exiting) are expected to occur during the AM peak hour while 919 new trips (579 entering and 340 exiting) are expected to occur during the PM peak hour.

The development will contain ten (10) access points in total:

- Five (5) full-access points along Mineral Springs Road
- Three (2) full-access points along Clack Road
- Two (2) full-access points along Mt. Moriah Road

Existing intersections adjacent to the planned development were evaluated to determine if new roadway geometries or traffic controls will be needed once the development is built. The following intersections were evaluated in addition to the new access points:

1. SR 124 (Braselton Highway) & Hamilton Mill Road / Hamilton Mill Parkway
2. SR 124 (Braselton Highway) & Jim Moore Road
3. SR 124 (Braselton Highway) & Mineral Springs Road / Spout Springs Road
4. SR 124 (Braselton Highway) & Mill Creek High School
5. SR 124 (Braselton Highway) & Hog Mountain Road
6. SR 124 (Braselton Highway) & Flowery Branch Road
7. SR 124 (Braselton Highway) & Mt. Moriah Road
8. Hog Mountain Road & Jim Moore Road
9. Hog Mountain Road & Mineral Springs Road
10. Fence Road & SR 324 (Auburn Road)
11. Fence Road & Clack Road
12. Clack Road & Mineral Springs Road
13. Clack Road & Mt. Moriah Road

In Existing Conditions, the overall traffic operations at the study intersections are satisfactory except for the intersection of SR 124 with Hamilton Mill Road / Hamilton Mill Parkway which operates at LOS E during both peak hours and the intersection of SR 324 with Fence Road which operates at LOS E during the morning peak. Additionally, several of the side street approaches experience high delay during the peak hours.

In No-Build Conditions, traffic operations at these intersection approaches are expected to worsen due

to the growth in background traffic and the addition of traffic from two developments along SR 124. Even with the current widening project along SR 124 west of Spout Springs Road, the increased traffic volumes in the area are expected to put many of the intersections over capacity.

In Build Conditions, the addition of project traffic is expected to mostly impact approaches that are already expected to experience high levels of delay without the proposed development traffic. Many of the approaches will continue to reach exponentially high delay with the current configurations of the roadways (and expected changes from projects already under construction). The biggest impacts are to the stop-controlled intersections in the immediate vicinity of the proposed development where the stop-controlled approaches are expected to operate at LOS F.

The site driveways are expected to operate adequately during both the AM and PM peak hours with the planned turn lanes at some of the access points as well as multiple outbound lanes at driveways 4 and 5 along the east side of Mineral Springs Road.

Table A summarizes the changes observed in intersections with undesirable Levels of Service (LOS) approaches between No-Build and Build Conditions during AM and PM peak hours. The table also compares a relationship between the percent of site traffic associated with future movements and approaches with LOS E or F in Build Conditions, and the capacity analysis results of Build Mitigation Conditions. No traffic control or signal timing improvements have been made between No-Build and Build Conditions.

Parameters evaluated for Build Mitigation Conditions are identified on the following pages of the Executive Summary, labeled as Recommended Advisory Condition Improvements. These parameters are also identified in Report Section D: Traffic Impact Analysis and Report Section F: Recommendations, for reference. Already planned projects to improve some of the intersections were included for reference purposes but are not to be considered as recommendations.

Table B summarizes where the turn storage lengths and taper lengths are exceeded by either existing or future through-movement traffic volumes where there is a LOS E or F present.

The general conditions and roadway improvement conditions that are recommended for DRI #4173 are on the pages following Table B results.

Table A: Capacity Analysis Result Summary – No-Build, Build, and Build Mitigation Condition Relationships

ID	Intersection	Existing Control	Mitigation Measure	Movement	AM									PM								
					No-Build		Build		Site Traffic	Total Traffic	% of Total Traffic	Build Mitigation		No-Build		Build		Site Traffic	Total Traffic	% of Total Traffic	Build Mitigation	
					LOS	Delay	LOS	Delay				LOS	Delay	LOS	Delay	LOS	Delay				LOS	Delay
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	Signal	Add Lanes	**Overall**	F	**104.6**	F	**127.3**	224	3908	6%	D	**48.1**	F	**96.2**	F	**116.5**	322	5413	6%	D	**48.5**
				EB	D	49.5	D	49.6	17	748	2%	D	42.0	E	75.8	F	83.4	58	1037	6%	E	55.0
				WB	F	161.0	F	203.8	166	1546	11%	D	40.2	E	76.0	F	88.7	119	1536	8%	D	38.8
				NB	F	84.3	F	54.3	8	566	1%	E	78.4	F	90.8	F	90.8	29	482	6%	E	77.8
				SB	E	66.7	E	74.3	33	1048	3%	D	54.6	F	123.8	F	160.2	116	2358	5%	D	48.2
2	SR 124 & Jim Moore Rd	Signal	None	**Overall**	**B**	**12.8**	**B**	**12.6**	224	2685	8%	**B**	**12.7**	**B**	**17.4**	**B**	**18.6**	322	3516	9%	**C**	**21.8**
				EB	A	7.7	A	7.9	58	1004	6%	A	8.2	B	13.6	B	15.9	203	1885	11%	C	22.0
				WB	A	4.6	A	5.1	166	1474	11%	A	5.1	A	7.6	A	9.0	119	1327	9%	A	9.0
				NB	E	73.2	E	73.2	0	207	0%	E	73.2	E	72.4	E	72.4	0	304	0%	E	72.4
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	Signal	Continue Widening	**Overall**	**E**	**68.9**	**F**	**91.0**	321	2937	11%	**D**	**40.0**	**F**	**83.1**	**F**	**106.9**	460	3775	12%	**D**	**47.1**
				EB	D	51.9	D	51.2	58	744	8%	D	40.1	E	66.2	E	61.3	203	1505	13%	D	44.7
				WB	E	76.5	F	113.8	95	913	10%	D	37.7	A	0.7	A	1.0	68	790	9%	B	17.3
				NB	F	86.6	F	117.5	143	521	27%	D	45.6	F	135.5	F	166.8	102	422	24%	E	79.8
				SB	E	60.9	E	65.3	25	759	3%	D	38.4	F	179.4	F	272.5	87	1058	8%	E	62.9
4	SR 124 & Mill Creek HS	Signal	Continue Widening	**Overall**	**C**	**30.6**	**D**	**47.6**	128	1970	6%	**B**	**17.0**	**B**	**12.8**	**B**	**12.4**	184	2246	8%	**B**	**11.2**
				EB	C	23.6	D	40.1	33	750	4%	A	9.8	A	2.2	A	2.1	116	1301	9%	A	1.5
				WB	C	31.6	D	48.4	95	944	10%	A	19.9	B	11.1	B	12.1	68	750	9%	A	8.8
				SB	D	44.3	E	63.5	0	276	0%	C	27.5	E	72.2	E	72.2	0	195	0%	E	72.6
5	SR 124 & Hog Mountain Rd	Stop-Control	Continue Widening	NB	F	225.9	F	407.3	24	177	14%	C	16.1	F	528.6	F	1178.9	17	266	6%	D	21.9
				SB	E	36.2	F	50.3	0	16	0%	C	19.9	F	73.2	F	329.0	0	7	0%	D	26.7
				EBL	A	9.6	B	10.0	0	6	0%	B	10.0	A	9.0	A	9.3	0	2	0%	A	9.3
				WBL	A	9.1	A	9.3	9	105	9%	A	9.3	B	11.3	B	12.8	29	167	17%	B	12.8
6	SR 214 & Flowery Branch Rd	Signal	Continue Widening	**Overall**	**E**	**62.5**	**F**	**99.2**	193	2067	9%	**B**	**14.3**	**D**	**39.4**	**E**	**59.5**	276	2676	10%	**B**	**17.4**
				EB	C	24.1	C	23.9	57	560	10%	A	5.5	C	20.4	C	30.0	133	1131	12%	B	13.2
				WB	E	73.1	F	144.2	128	1094	12%	A	0.5	B	16.7	D	48.0	114	1058	11%	A	0.6
				SB	F	94.2	F	99.1	8	413	2%	E	67.3	F	124.3	F	148.9	29	487	6%	E	62.0
7	SR 124 & Mt. Moriah Rd	Signal	Continue Widening	**Overall**	**C**	**23.2**	**C**	**28.1**	256	2160	12%	**C**	**25.0**	**C**	**23.9**	**D**	**46.6**	367	3041	12%	**B**	**17.4**
				EB	A	0.9	A	6.3	65	649	10%	A	5.6	B	13.2	C	34.6	162	1406	12%	A	2.9
				WB	B	18.2	C	25.8	25	785	3%	B	19.5	B	18.9	D	36.6	86	1059	8%	B	15.5
				NB	D	50.9	D	47.7	166	639	26%	D	45.8	E	59.5	F	93.0	119	518	23%	D	51.5
				SB	E	69.4	E	70.3	0	87	0%	E	69.1	E	66.7	E	66.8	0	58	0%	E	66.7
8	Hog Mountain Rd & Jim Moore Rd	All-Way Stop Control	Add WB LT Lane	**Overall**	**C**	**22.6**	**D**	**34.5**	65	881	7%	**D**	**27.4**	**C**	**20.2**	**D**	**27.1**	92	1195	8%	**C**	**22.9**
				EB	B	12.9	B	13.8	9	256	4%	B	14.0	C	21.5	D	29.0	29	460	6%	D	29.4
				WB	D	31.1	F	51.1	48	471	10%	E	38.4	C	24.1	D	34.5	34	452	8%	C	23.3
				NB	B	11.3	B	12.0	8	130	6%	B	11.8	B	12.1	B	13.8	29	165	18%	B	13.5
				SB	A	9.7	B	10.1	0	24	0%	A	10.0	B	12.2	B	13.1	0	118	0%	B	12.9
9		Signal	Optimize	**Overall**	**C**	**21.5**	**C**	**26.7**	291	1505	19%	**C**	**24.0**	**C**	**20.6**	**C**	**34.4**	414	1899	22%	**C**	**28.4**

ID	Intersection	Existing Control	Mitigation Measure	Movement	AM									PM								
					No-Build		Build		Site Traffic	Total Traffic	% of Total Traffic	Build Mitigation		No-Build		Build		Site Traffic	Total Traffic	% of Total Traffic	Build Mitigation	
					LOS	Delay	LOS	Delay				LOS	Delay	LOS	Delay	LOS	Delay				LOS	Delay
	Hog Mountain Rd & Mineral Springs Rd			EB	B	19.0	C	21.6	17	277	6%	C	23.3	B	19.9	C	26.6	58	729	8%	C	32.0
				WB	C	26.3	C	29.1	9	241	4%	C	31.6	C	24.3	C	27.4	29	251	12%	C	30.8
				NB	B	18.2	C	25.5	215	754	29%	B	19.4	B	16.1	B	19.3	153	401	38%	B	18.5
				SB	C	26.9	C	32.4	50	233	21%	C	29.4	C	22.6	E	60.3	174	518	34%	C	30.6
10	SR 324 & Fence Rd	Signal	Remove Split Phasing & Add Turn Lane	**Overall**	F	**103.4**	F	**115.5**	64	1969	3%	**C**	**33.7**	F	**82.2**	F	**99.6**	92	2249	4%	**C**	**29.7**
				EB	D	52.6	E	56.5	3	435	1%	B	18.4	F	97.0	F	118.7	12	888	1%	C	22.2
				WB	F	115.3	F	121.4	5	628	1%	D	39.7	E	60.5	E	64.9	17	488	3%	C	31.8
				NB	F	92.2	F	94.4	8	228	4%	C	32.1	E	73.6	F	81.9	29	336	9%	D	37.9
				SB	F	130.9	F	155.5	48	678	7%	D	38.8	F	83.0	F	112.0	34	537	6%	C	34.6
11	Fence Rd & Clack Rd	Stop-Control	Roundabout	**Overall**	N/A		N/A		96	1173	8%	**A**	**9.0**	**A**		**9.0**		138	1306	11%	**A**	**9.0**
				EB	A	9.7	A	9.9	16	313	5%	A	6.1	A	8.4	A	8.7	58	501	12%	A	9.8
				WB	N/A		N/A		9	454	2%	B	10.5	B		10.5		29	225	13%	A	6.4
				SB	E	44.5	F	132.7	71	406	17%	A	9.8	F	209.9	F	>300	51	580	9%	A	9.3
12	Clack Rd & Mineral Springs Rd	Stop-Control	Roundabout	**Overall**	N/A		N/A		224	1093	20%	**A**	**7.8**	**A**		**7.8**		322	1247	26%	**A**	**8.3**
				EB	B	12.9	F	121.6	96	267	36%	A	6.5	C	18.5	F	199.1	138	565	24%	A	9.9
				NB	A	9.0	A	9.7	25	504	5%	A	7.8	A	8.1	A	8.7	87	420	21%	A	7.3
				SB	N/A		N/A		103	322	32%	A	9.2	A		9.2		97	262	37%	A	6.7
13	Clack Rd & Mt. Moriah Rd	Stop-Control	Add Turn Lanes	EB	C	8.5	F	68.3	98	190	52%	D	32.9	C	8.6	F	62.5	107	248	43%	D	30.9
				NBL	A	22.9	A	8.8	5	43	12%	A	8.8	A	20.7	A	9.1	17	33	52%	A	9.1

Table B: Queue Analysis Result Summary – Existing, No-Build, and Build Condition Relationships

ID	Intersection	LOS E/F Approach - Movement	50th (95th) Percentile Queues, in feet							
			Lengths (ft)		Existing		No-Build		Build	
			Storage	Taper	AM	PM	AM	PM	AM	PM
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	EB-L	350	90	181 (258)	198 (286)	201 (284)	288 (456)	209 (302)	306 (482)
		EB-T	N/A	N/A	130 (197)	207 (317)	166 (264)	403 (824)	180 (287)	660 (1,570)
		EB-TR	330	75	124 (202)	187 (295)	153 (259)	300 (444)	166 (264)	320 (464)
		WB-L	260	125	146 (437)	189 (433)	161 (462)	266 (503)	190 (487)	281 (510)
		WB-T	N/A	N/A	1,276 (2,661)	448 (803)	2,143 (4,269)	961 (2,296)	2,164 (4,287)	1,107 (2,235)
		WB-R	130	50	1,009 (2,712)	125 (404)	1,996 (4,410)	665 (2,198)	2,067 (4,424)	813 (2,162)
		NB-L	225	50	75 (204)	42 (120)	92 (236)	60 (193)	96 (239)	60 (180)
		NB-T	N/A	N/A	264 (424)	197 (323)	312 (468)	263 (453)	313 (465)	267 (449)
		NB-R	N/A	N/A	5 (34)	60 (147)	15 (77)	77 (155)	10 (47)	111 (209)
		SB-L	N/A	N/A	215 (299)	496 (828)	302 (432)	1,093 (1,405)	320 (447)	1,118 (1,394)
		SB-T	N/A	N/A	75 (144)	272 (659)	81 (160)	1,018 (1,584)	88 (161)	1,080 (1,542)
		SB-R	350	40	26 (84)	115 (275)	39 (112)	269 (531)	39 (113)	262 (512)
2	SR 124 & Jim Moore Rd	NB-L	100	50	98 (153)	121 (170)	112 (167)	133 (171)	107 (163)	135 (169)
		NB-R	N/A	N/A	68 (171)	142 (303)	148 (468)	187 (351)	113 (319)	192 (355)
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	EB-L	325	125	113 (206)	168 (316)	254 (433)	257 (433)	261 (448)	252 (418)
		EB-T	N/A	N/A	145 (294)	215 (435)	312 (821)	363 (970)	379 (896)	382 (1,048)
		EB-R	125	170	7 (22)	15 (92)	13 (109)	58 (446)	46 (261)	106 (560)
		WB-L	400	50	45 (216)	16 (42)	49 (228)	20 (52)	84 (341)	24 (61)
		WB-T	N/A	N/A	376 (669)	178 (315)	899 (1,877)	261 (420)	1,529 (3,001)	264 (441)
		WB-R	170	100	131 (331)	39 (147)	159 (355)	83 (251)	168 (361)	85 (248)
		NB-L	TWLT	TWLT	150 (106)	75 (174)	117 (197)	85 (181)	130 (197)	121 (192)
		NB-TR	N/A	N/A	272 (546)	713 (1,537)	487 (1,007)	489 (894)	1,340 (2,646)	1,239 (2,350)
		SB-L	475	100	133 (225)	333 (537)	222 (378)	543 (689)	248 (413)	545 (681)
		SB-T	N/A	N/A	66 (136)	222 (412)	100 (325)	1,531 (2,507)	103 (216)	1,630 (2,472)
		SB-R	370	135	190 (321)	102 (209)	Not Reported	24 (199)	3 (71)	91 (409)
4	SR 124 & Mill Creek HS	SB-L	N/A	N/A	80 (139)	71 (120)	95 (157)	77 (138)	106 (178)	83 (146)
		SB-R	N/A	N/A	76 (145)	41 (65)	96 (173)	47 (86)	111 (192)	50 (91)
5	SR 124 & Hog Mountain Rd	NB-LT	N/A	N/A	38 (83)	37 (85)	41 (94)	40 (95)	46 (110)	44 (95)
		NB-R	115	85	31 (59)	64 (117)	42 (81)	76 (138)	48 (96)	87 (156)
		SB-LTR	N/A	N/A	14 (36)	4 (18)	16 (42)	6 (23)	16 (39)	7 (26)
6	SR 214 & Flowery Branch Rd	WB-LTR	N/A	N/A	397 (798)	315 (566)	1,447 (2,455)	1,337 (2,433)	1,635 (2,480)	1,516 (2,453)
		SB-LTR	N/A	N/A	342 (558)	474 (748)	743 (1,178)	836 (1,164)	777 (1,163)	882 (1,170)
7	SR 124 & Mt. Moriah Rd	NB-L	N/A	N/A	291 (507)	198 (367)	396 (715)	426 (1,165)	593 (1,108)	1,780 (3,663)
		NB-TR	120	50	116 (220)	126 (211)	127 (228)	141 (218)	130 (233)	153 (223)
		SB-L	N/A	N/A	Not Existing	Not Existing	25 (60)	14 (40)	22 (58)	17 (47)
		SB-TR	N/A	N/A	Not Existing	Not Existing	46 (90)	36 (77)	50 (96)	36 (76)
8	Hog Mountain Rd & Jim Moore Rd	WB-LTR	N/A	N/A	99 (167)	86 (145)	113 (186)	85 (144)	139 (245)	89 (144)
9	Hog Mountain Rd & Mineral Springs	SB-L	140	85	15 (51)	28 (109)	24 (91)	15 (62)	30 (117)	26 (111)
		SB-TR	N/A	N/A	93 (180)	138 (265)	113 (208)	111 (235)	172 (303)	203 (356)
10	SR 324 & Fence Rd	EB-L	135	80	111 (201)	196 (271)	159 (251)	211 (253)	167 (260)	214 (247)
		EB-T	N/A	N/A	157 (350)	831 (1,754)	298 (698)	1,276 (2,139)	315 (656)	1,357 (2,117)
		EB-R	190	110	18 (101)	37 (196)	37 (179)	64 (266)	61 (248)	59 (257)
		WB-L	125	50	28 (108)	57 (154)	30 (119)	55 (152)	36 (132)	60 (164)
		WB-TR	N/A	N/A	608 (1,032)	254 (417)	1,529 (2,537)	338 (544)	1,247 (2,166)	369 (594)
		NB-L	120	75	54 (139)	61 (158)	72 (169)	84 (193)	70 (173)	89 (205)
		NB-TR	N/A	N/A	178 (315)	198 (320)	196 (334)	298 (532)	229 (390)	595 (1,109)
		SB-L	175	60	26 (124)	55 (189)	44 (178)	71 (217)	46 (176)	66 (213)
		SB-TR	N/A	N/A	776 (1,649)	353 (678)	1,296 (2460)	510 (977)	1,720 (3,263)	680 (1,443)
11	Fence Rd & Clack Rd	SB-LR	N/A	N/A	92 (197)	162 (334)	167 (353)	180 (354)	607 (1,308)	387 (929)
12	Clack Rd & Mineral Springs Rd	EB-LR	N/A	N/A	48 (84)	91 (156)	61 (120)	62 (161)	201 (434)	213 (416)
13	Clack Rd & Mt. Moriah Rd	EB-LR	N/A	N/A	46 (87)	48 (90)	51 (92)	51 (91)	96 (178)	80 (135)

To receive the Notice of Decision Request for Non-Expedited DRI #4173 – Poole Mountain Residential Development, the following General Conditions and Roadway Improvement Conditions of Approval are recommended.

General Conditions:

Pedestrian, Bicycle, and Transit Facilities

- Provide pedestrian connectivity between all buildings and uses.
- Provide pedestrian crossings across all driveways along Mineral Springs Road, Clack Road, and Mt. Moriah Road in coordination with the Gwinnett County Department of Transportation.
- Provide trail markers and accessible connections between internal pedestrian sidewalks and the trail infrastructure within the proposed development.
- Consider providing additional trail markers and accessible connections between external pedestrian sidewalks and trail infrastructure to the proposed development.

Recommended Roadway Improvement Conditions of Approval:

Driveways 1 / 5 at Mineral Springs Road

- Install a side street stop-control sign at Driveways 1 & 5 for site traffic exiting the development towards Mineral Springs Road.
- Install northbound and southbound right-turn lanes and left-turn lanes for site traffic entering the development from Mineral Springs Road.
- Install separate lanes for westbound right-turns and left-turns for site traffic exiting the development.

Driveways 2 / 4 at Mineral Springs Road

- Install a side street stop-control sign at Driveways 2 & 4 for site traffic exiting the development towards Mineral Springs Road.
- Install northbound and southbound right-turn lanes and left-turn lanes for site traffic entering the development from Mineral Springs Road.

Driveway 3 at Mineral Springs Road

- Install a side street stop-control sign at Driveway 3 for site traffic exiting the development towards Mineral Springs Road.

Driveway 6 at Mt. Moriah Road

- Install a side street stop-control sign at Driveway 6 for site traffic exiting the development towards Mt. Moriah Road.
- Install a southbound right-turn lane and for site traffic entering the development from Mt. Moriah Road.

Driveway 7 at Mt. Moriah Road

- Install a side street stop-control sign at Driveway 7 for site traffic exiting the development towards Mt. Moriah Road.
- Install a northbound left-turn lane and a southbound right-turn lane and for site traffic entering the development from Mt. Moriah Road.

Driveways 8 / 9 at Clack Road

- Install a side street stop-control sign at Driveways 8 & 9 for site traffic exiting the development towards Clack Road.
- Install eastbound and westbound right-turn lanes and for site traffic entering the development from Clack Road.

Driveway 10 at Clack Road

- Install a side street stop-control sign at Driveway 10 for site traffic exiting the development towards Clack Road.

Recommended Roadway Improvement Advisory Conditions:

SR 124 at Hamilton Mill Road / Hamilton Mill Parkway

- Install additional through lanes for the westbound and northbound approaches.
- Install a separate eastbound right-turn lane.
- Install an additional southbound left-turn lane
- Optimize the signal timings.

Intersections along SR 124

- Continue the widening project east of Spout Springs Road and include any appropriate turn lanes and signal timing adjustments.

Hog Mountain Road at Jim Moore Road

- Install a westbound left-turn lane to reduce delay for left-turning vehicles at the intersection.

Hog Mountain Road at Mineral Springs Road

- Optimize the signal timings.

SR 324 at Fence Road

- Re-Grade Fence Road to allow for the split-phase signal timing to be removed and timings to be optimized.
- Install a southbound right-turn lane for traffic leaving Fence Road.

Fence Road at Clack Road

- Install a single lane roundabout at the intersection.

Clack Road at Mineral Springs Road

- Install a single lane roundabout at the intersection.

Clack Road at Mt. Moriah Road

- Install a southbound right-turn deceleration lane for vehicles leaving Mt. Moriah Road and an eastbound right-turn deceleration lane for vehicles leaving Clack Road.

These conditions are based on the approved Methodology Meeting inputs and parameters identified in the Georgia Regional Transportation Authority (GRTA) Letter of Understanding (LOU), dated Wednesday, June 5, 2024. The GRTA LOU is provided at the end of this report for reference.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

A. Introduction

A new residential development comprising of 1,066 single-family detached homes is proposed for construction on undeveloped land parcels located along Mineral Springs Road, Clack Road, and Mt. Moriah Road in Gwinnett County, Georgia. The development will contain ten (10) access points in total:

- Five (5) full-access points along Mineral Springs Road
- Three (2) full-access points along Clack Road
- Two (2) full-access points along Mt. Moriah Road

The purpose of this assessment is to identify the traffic expected to be generated by new vehicular trips when the development is complete in the year 2034. The traffic study includes existing traffic volumes, future traffic volumes (2034), trip generation, directional distribution, and anticipated traffic impacts at the following existing intersections in addition to the ten access points:

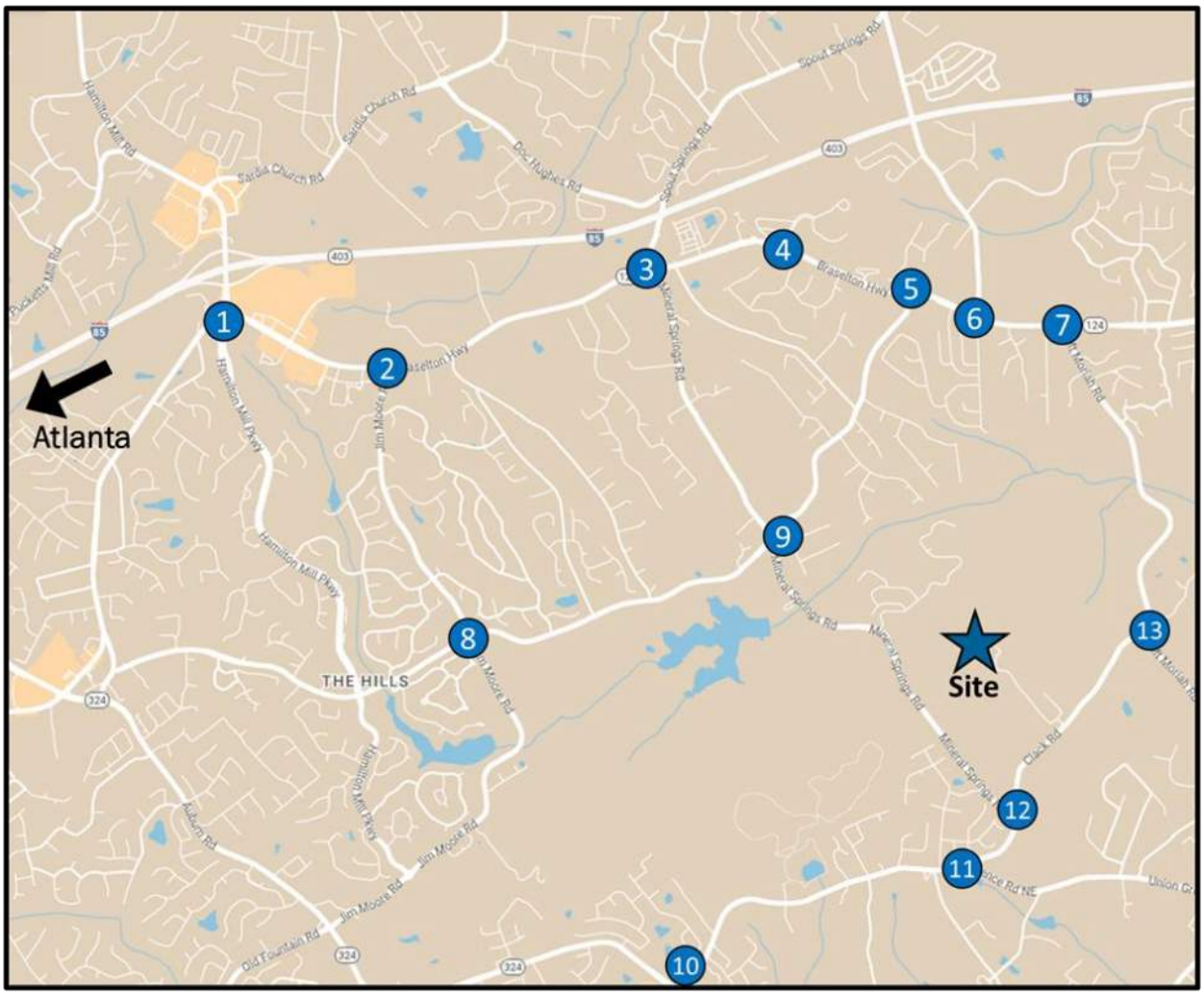
1. SR 124 (Braselton Highway) & Hamilton Mill Road / Hamilton Mill Parkway
2. SR 124 (Braselton Highway) & Jim Moore Road
3. SR 124 (Braselton Highway) & Mineral Springs Road / Spout Springs Road
4. SR 124 (Braselton Highway) & Mill Creek High School
5. SR 124 (Braselton Highway) & Hog Mountain Road
6. SR 124 (Braselton Highway) & Flowery Branch Road
7. SR 124 (Braselton Highway) & Mt. Moriah Road
8. Hog Mountain Road & Jim Moore Road
9. Hog Mountain Road & Mineral Springs Road
10. Fence Road & SR 324 (Auburn Road)
11. Fence Road & Clack Road
12. Clack Road & Mineral Springs Road
13. Clack Road & Mt. Moriah Road

Figure 1 shows the site location and study intersections mentioned above. Figure 2 shows the proposed development with associated driveway locations. Access to the site will be via ten (10) outlets shown in Figure 2 and mentioned above. The proposed site plan is provided in Appendix A.

A.1. Programmed & Planned Regional Transportation Improvements

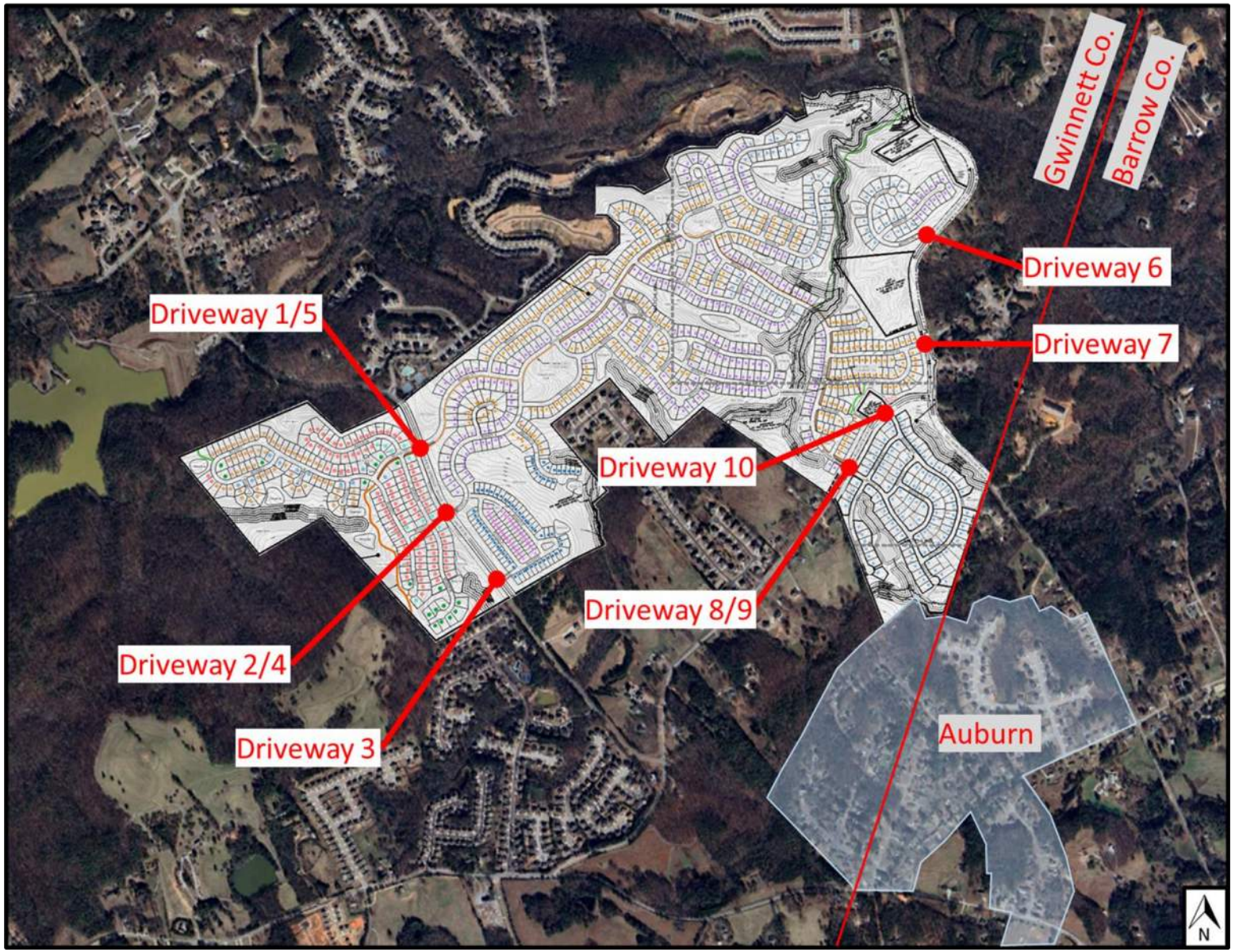
Regional transportation improvements were investigated using the Atlanta Regional Commission's (ARC's) Transportation Improvement Program (TIP) database to verify if any large-scale infrastructure projects are planned for in the immediate area. There is one project currently under construction that will widen SR 124 between Pine Road and Spout Springs Road / Mineral Springs Road. It is expected to be completed before the proposed site's build out year of 2034. There is also a programmed project that will continue the widening of SR 124 from Spout Springs Road / Mineral Springs Road to the Gwinnett County Line, but the project currently has a timeline of 2040 according to the Georgia Department of Transportation, though the county may accelerate the timeline depending on available funding for the project.

Figure 1. Vicinity Map



1. SR 124 (Braselton Highway) & Hamilton Mill Road / Hamilton Mill Parkway
2. SR 124 (Braselton Highway) & Jim Moore Road
3. SR 124 (Braselton Highway) & Mineral Springs Road / Spout Springs Road
4. SR 124 (Braselton Highway) & Mill Creek High School
5. SR 124 (Braselton Highway) & Hog Mountain Road
6. SR 124 (Braselton Highway) & Flowery Branch Road
7. SR 124 (Braselton Highway) & Mt. Moriah Road
8. Hog Mountain Road & Jim Moore Road
9. Hog Mountain Road & Mineral Springs Road
10. Fence Road & SR 324 (Auburn Road)
11. Fence Road & Clack Road
12. Clack Road & Mineral Springs Road
13. Clack Road & Mt. Moriah Road

Figure 2. Site Access Points



B. Existing Conditions

B.1. Project Phasing

While the timeframe for construction will over the next ten years, for the purposes of the traffic study, the development will be considered as completed in a single phase by 2034. However, mitigation will be analyzed to see what percentage of the total development pushes mitigation to be needed at nearby intersections.

B.2. Transportation Facilities and LOS Standards

SR 124 (Braselton Highway) is a two-lane undivided minor arterial roadway located north of the planned development. SR 124 is located approximately 1.2 miles from the site via Mt. Moriah Road, or approximately 2.1 miles via Mineral Springs Road and Hog Mountain Road. It has a posted speed limit of 45 miles per hour (MPH) and runs west towards Hamilton Mill Parkway and east towards SR 211, both of which have access points to Interstate 85. There are also two school zones along SR 124 between Mineral Springs Road and Hog Mountain Road that reduce the speed limit to 35 MPH during school zone hours.

Spout Springs Road is a two-lane undivided major collector roadway that runs north-south with some dedicated left turn lanes to side streets. Spout Springs Road eventually connects to SR 347 (Friendship Road) to the north and eventually Interstate 985. Spout Springs Road has a posted speed limit of 40 MPH and provides access to several residential neighborhoods and churches.

Mineral Springs Road is a two-lane undivided local road that runs between Clack Road to the south and SR 124 to the north with some dedicated left-turn and right turn lanes. It has a posted speed limit of 40 MPH and provides access to multiple residential developments and one access for Little Mulberry Park. In total, Mineral Springs Road traverses approximately 3 miles before becoming Spout Springs Road on the north side of SR 124. Mineral Springs Road will provide five (5) access points for the proposed development.

Hog Mountain Road is a two-lane undivided local roadway that runs east-west between Hog Mountain Church Road to the west and SR 124 to the east. It has a posted limit of 40 MPH and provides access to multiple residential land uses as well as multiple access points to Little Mulberry Park and one church.

Mt. Moriah Road is a two-lane undivided major collector roadway that runs north-south between SR 124 to the north and Auburn, Georgia to the south. SR 124 is approximately 1.1 miles from the more north of the two (2) proposed access points for the project. It has a posted speed limit of 35 MPH and provides access to residential land uses and one church.

Clack Road is a two-lane undivided local roadway that runs east-west between Fence Road to the west and Mt. Moriah Road to the east. Clack Road traverses approximately 1.3 miles and will provide three (3) access points for the proposed development. The roadway has a posted speed limit of 35 miles per hour and provides access to multiple residential land uses.

Fence Road is a two-lane undivided local major collector that runs east-west between SR 316 and the Barrow County Line before becoming Union Grove Church Road. Fence Road has a posted speed limit of 40 MPH and provides access to multiple residential land uses, a church, Little Mulberry Park, and a commercial development.

LOS D is considered the minimum standard unless existing conditions are lower.

B.3. Pedestrian and Multi-Use Facilities

There is little pedestrian infrastructure along Mineral Springs Road, Clack Road, and Mt. Moriah Road, though there are sidewalks throughout the study network. Refer to Figure 3 for existing pedestrian and multi-use path infrastructure that surround the proposed development. This development will include additional trails and sidewalks throughout the site and include connections to the nearby Little Mulberry Park. The pedestrian facilities are not expected to reduce site traffic since there are not many prospective pedestrian destinations within a mile of the site.

B.4. Transit and Bicycle Facilities

There are currently no public transit routes that serve the study area. The nearest transit stop is at the Hamilton Mill Park & Ride Station, located approximately 5.5 miles from the proposed site. There are also no dedicated bike lanes on the roads in the study area, though bikes are permitted to use the roads. The Gwinnett County Trails Master Plan includes future trails along SR 124 and Fence Road. The Fence Road Trail will connect to the existing trail network around Little Mulberry Park. Refer to Figure 4 for existing and proposed trails that surround the proposed development.

Figure 3. Alternative Transportation Map – Pedestrian & Multi-Use Path Infrastructure

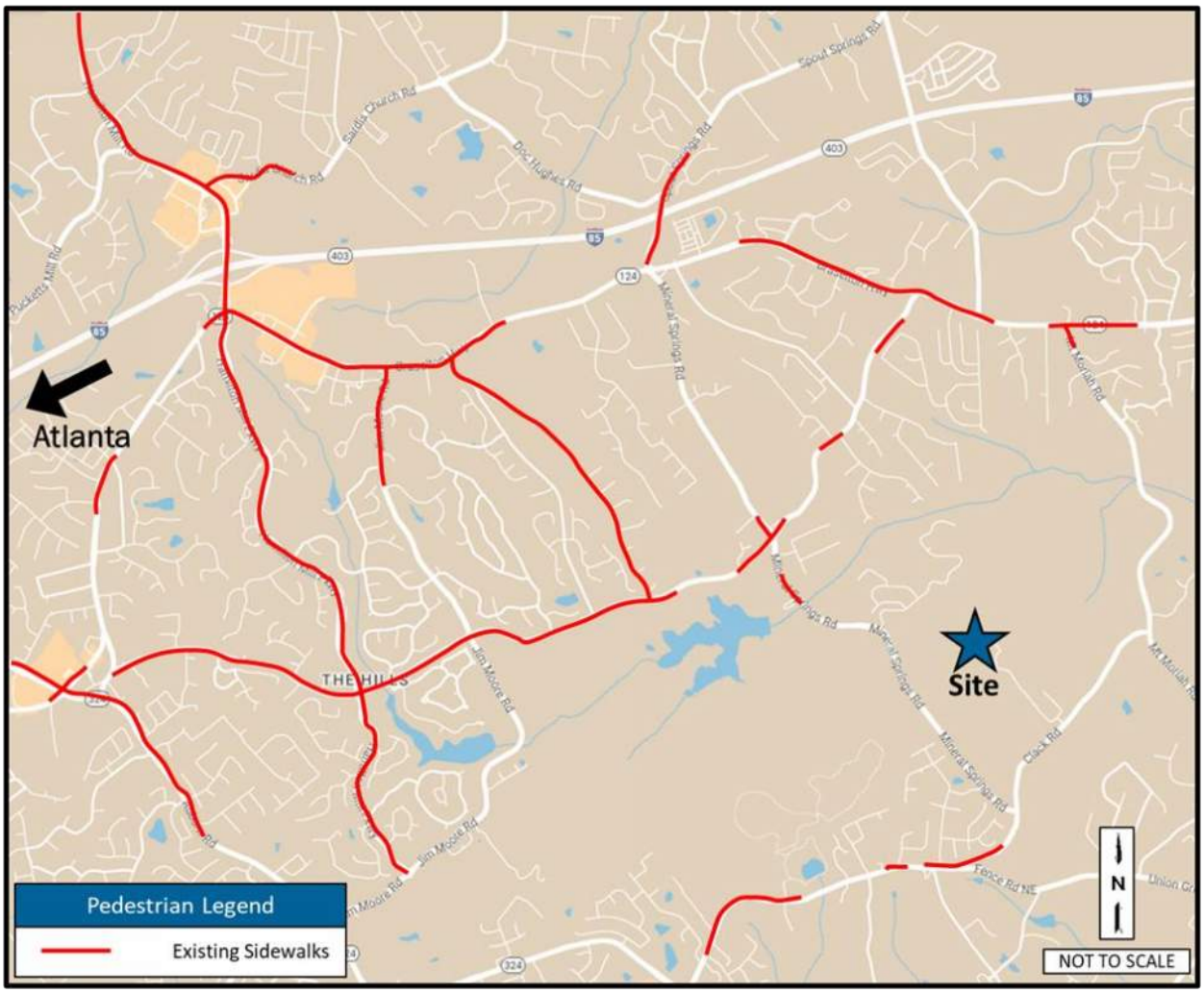
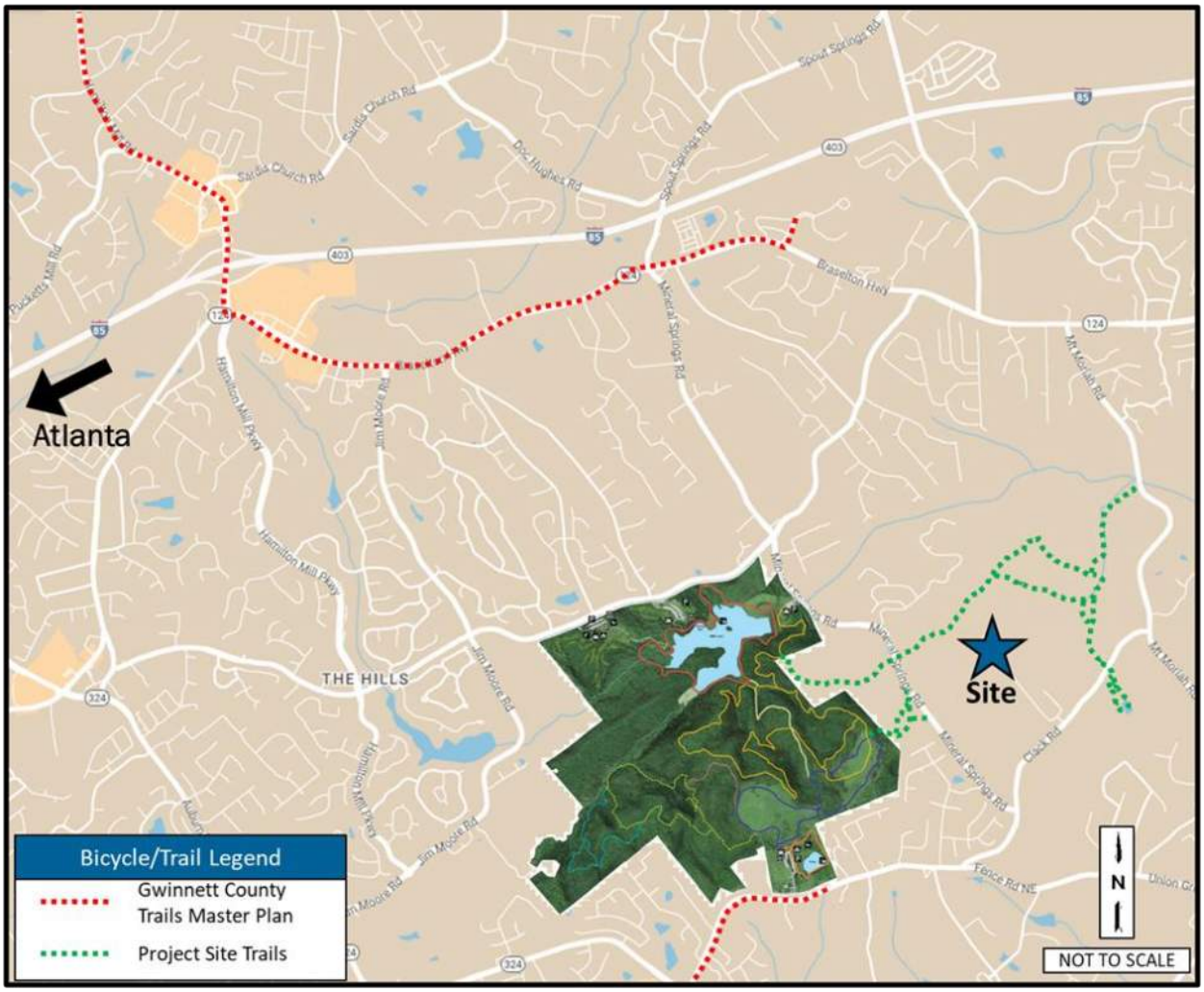


Figure 4. Alternative Transportation Map – Trail & Bicycle Infrastructure Services



B.5. Traffic Counts

Turning movement counts (TMCs) were collected on Tuesday, April 30, 2024, at the study intersections. Also, 24-hour bi-directional counts were collected along Mineral Springs Road, Clack Road and Mt. Moriah Road near the proposed site driveways. Average daily weekday traffic the three roadways is 5,000 vehicles, 2,840 vehicles, and 8,740 vehicles, respectively.

Traffic count data is provided in Appendix B and depicted in Figure 5: Existing Traffic Volumes.

Figure 5. Existing Traffic Volumes

C. Future Conditions

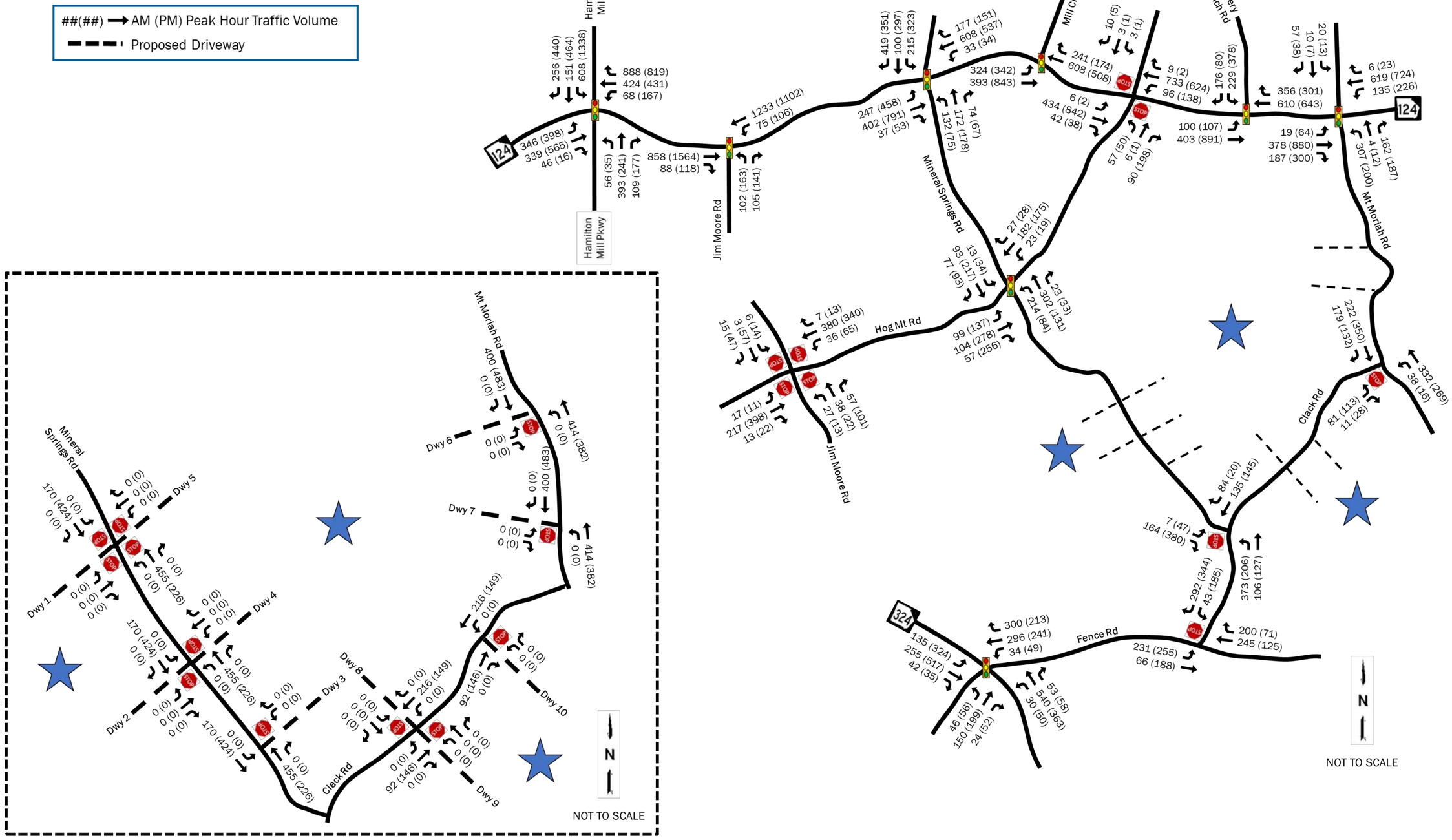
C.1. Background Growth

The growth rate in the study area is based on an analysis of US Census data. The project will be built out in 2034. To account for future traffic growth, the existing base year traffic volumes are grown by 1.3% for ten (10) years to develop the 2034 No-Build and 2034 Build traffic volumes. Supporting census data used in this analysis are provided in Appendix C.

Additionally, two adjacent developments called MFT Braselton Highway Tract (DRI #3077) and Kennedy Tracts Residential is expected to be completed in the study area before the project build out date of 2034. Trips generated by this development have been included in the 2034 No-Build traffic volumes in addition to background growth.

Figure 6 depicts the 2034 No-Build traffic volumes.

Figure 6. 2034 No-Build Traffic Volumes



C.2. Project Trip Generation

Table 1 summarizes the project trip generation calculated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, 2021.

Table 1: Project Trip Generation

LAND USE	PERIOD	TOTAL	IN	OUT
Single-Family Detached Housing, LUC 210 (1,066 Units)	Daily	8,902	4,451	4,451
	AM Peak Hour	642	167	475
	PM Peak Hour	919	579	340

The development will generate a total of 642 new trips (167 entering and 475 exiting) in the AM peak hour and 919 new trips (579 entering and 340 exiting) in the PM peak hour.

C.3. Trip Distribution and Assignment

The assignment and directional distribution of new project trips is based on existing traffic patterns observed in the overall study area and based on a collaboration with the Georgia Regional Transportation Authority (GRTA) and Georgia Department of Transportation (GDOT) during the DRI MMP Meetings held for this development.

From the trips generated, the following distribution of traffic is expected through the site:

Personal Vehicle (Auto) Trips

- 10% of traffic will enter and exit the site from the northwest via SR 124
- 20% of traffic will enter and exit the site from the northwest via Hamilton Mill Road
- 5% of traffic will enter and exit the site from the northwest via Hamilton Mill Parkway
- 10% of traffic will enter and exit the site from the north via Spout Springs Road
- 5% of traffic will enter and exit the site from the north via Flowery Branch Road
- 15% of traffic will enter and exit the site from the northeast via SR 124
- 5% of traffic will enter and exit the site from the southeast via Mt. Moriah Road
- 5% of traffic will enter and exit the site from the west via Hog Mountain Road
- 5% of traffic will enter and exit the site from the west via Jim Moore Road
- 5% of traffic will enter and exit the site from the south via Fence Road
- 5% of traffic will enter and exit the site from the southwest via Fence Road
- 3% of traffic will enter and exit the site from the southwest via SR 324 (westbound)
- 2% of traffic will enter and exit the site from the southwest via SR 324 (eastbound)

Figure 7 depicts the Trip Distribution for the single-family detached homes. Figure 8 depicts the Trip Assignments for the site. Figure 9 depicts the 2034 Build Traffic Volumes for the site (No Build + Project Trips).

Figure 7. Site Traffic Distribution

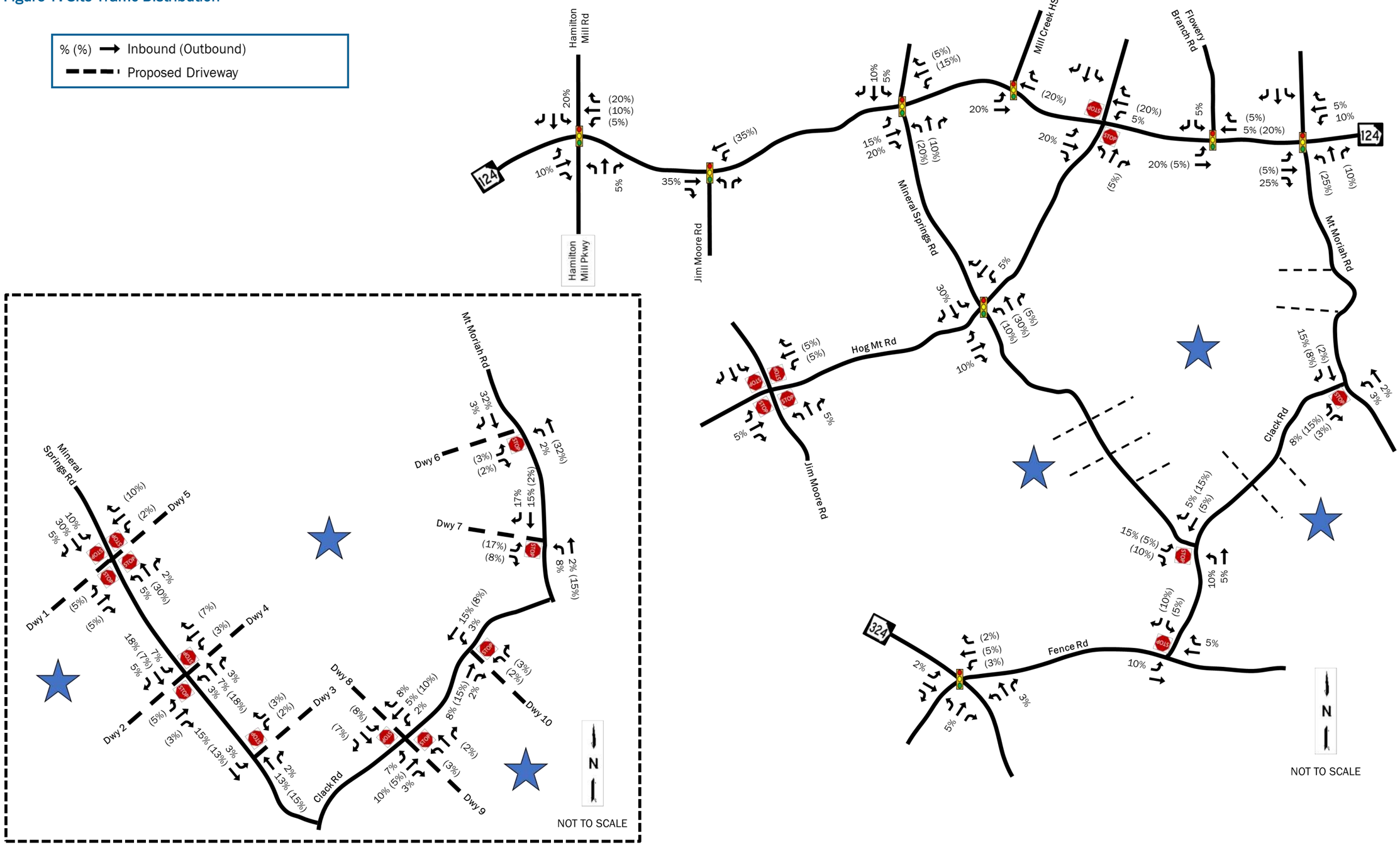
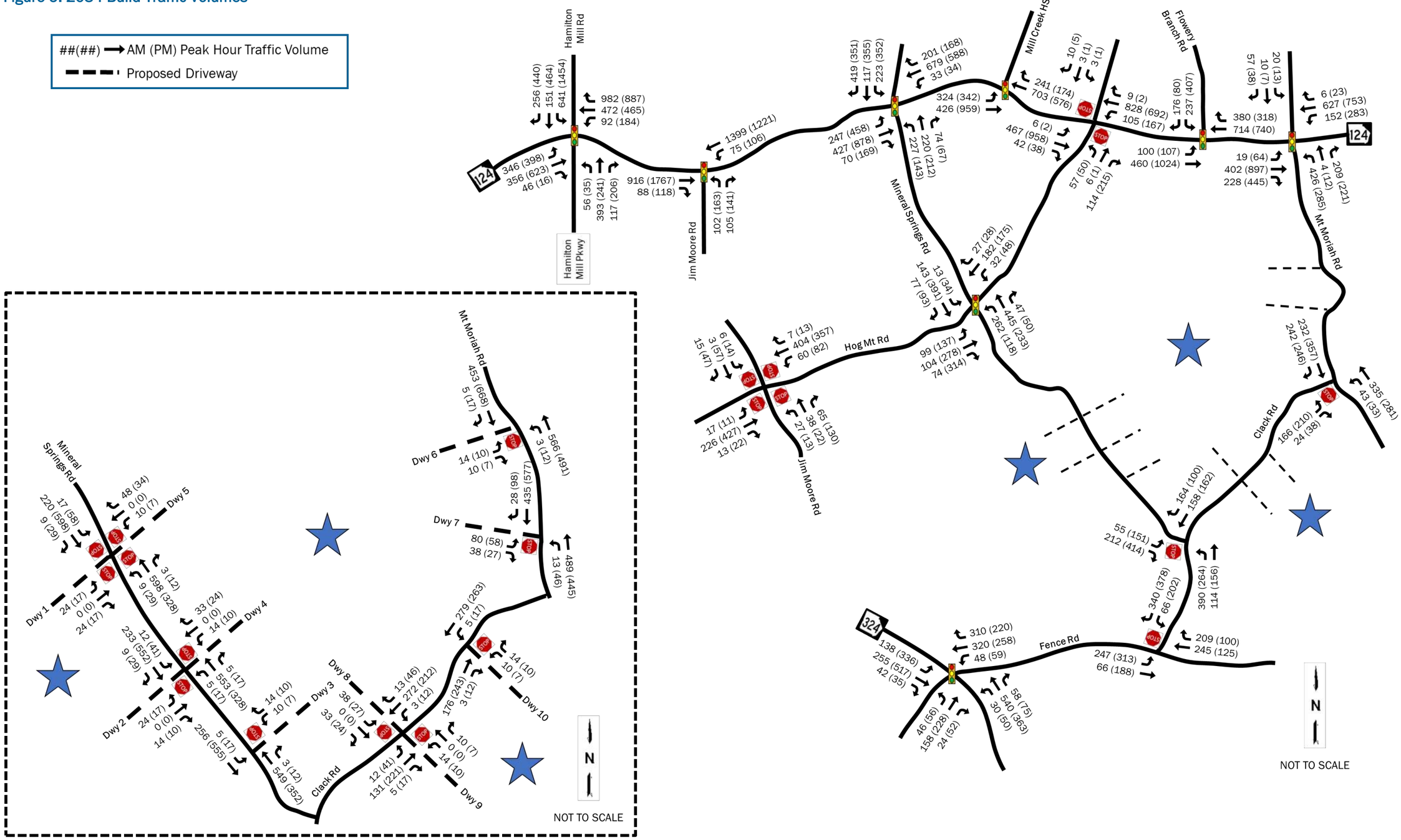


Figure 8. Trip Assignment

Figure 9. 2034 Build Traffic Volumes



D. Traffic Impact Analysis

The analysis in each of the scenarios for the study was performed using the traffic analysis software Synchro® 12. Average vehicular delays are calculated and reported as Levels of Service (LOS) as defined by the Highway Capacity Manual, 7th Edition (HCM 7).

Performance Criteria pertaining to the HCM methodology is shown in Table 2. The study considers an LOS D as a benchmark for acceptable intersection operation unless existing operations are LOS E. Synchro® output reports for the study intersections are included in Appendix D.

Table 2: HCM Level-of-Service Performance Criteria

Levels of Service	Average Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	> 10.1 – 20.0	> 10.1 – 15.0
C	> 20.1 – 35.0	> 15.1 – 25.0
D	> 35.1 – 55.0	> 25.1 – 35.0
E	> 55.1 – 80.0	> 35.1 – 50.0
F	> 80.0	> 50.0

D.1. Existing Capacity Analysis

The capacity analysis results of the Existing Conditions are shown in Table 3, representing volumes presented in Figure 5.

Table 3: Capacity Analysis Results –Existing Conditions

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	Signal	**Overall**	**E**	**75.5**	**E**	**58.3**
			EB	D	46.4	E	62.4
			WB	F	103.1	D	50.2
			NB	F	81.3	F	87.6
			SB	D	54.5	E	57.0
2	SR 124 & Jim Moore Rd	Signal	**Overall**	**B**	**12.4**	**B**	**14.9**
			EB	A	5.9	B	10.1
			WB	A	3.1	A	4.6
			NB	E	76.9	E	71.8
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	Signal	**Overall**	**D**	**45.2**	**D**	**48.8**
			EB	B	19.1	B	17.4
			WB	C	32.2	A	3.5
			NB	D	40.7	F	108.9
			SB	F	84.1	F	98.6
4	SR 124 & Mill Creek HS	Signal	**Overall**	**B**	**17.2**	**B**	**12.0**
			EB	A	9.9	A	1.7
			WB	C	20.3	A	7.7
			SB	C	27.0	E	73.9
5	SR 124 & Hog Mountain Rd	Stop-Control	NB	F	64.6	F	127.1
			SB	C	23.6	D	32.3
			EBL	A	9.0	A	8.6
			WBL	A	8.6	B	10.0
6	SR 214 & Flowery Branch Rd	Signal	**Overall**	**C**	**23.9**	**C**	**25.6**
			EB	B	10.2	B	15.3
			WB	A	5.8	A	4.5
			SB	F	84.7	F	85.5
7	SR 124 & Mt. Moriah Rd	Signal	**Overall**	**C**	**22.5**	**B**	**17.2**
			EB	A	0.4	A	1.0
			WB	A	8.4	A	6.0
			NB	E	69.6	F	85.4
8	Hog Mountain Rd & Jim Moore Rd	All-Way Stop Control	**Overall**	**C**	**15.2**	**B**	**14.2**
			EB	B	11.2	B	15.0
			WB	C	18.8	C	15.9
			NB	B	10.3	B	10.6

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
			SB	A	9.1	B	10.7
9	Hog Mountain Rd & Mineral Springs Rd	Signal	**Overall**	**B**	**19.3**	**B**	**18.8**
			EB	B	17.6	B	18.0
			WB	C	23.6	C	21.0
			NB	B	16.0	B	15.6
			SB	C	23.9	C	21.3
10	SR 324 & Fence Rd	Signal	**Overall**	**E**	**68..8**	**D**	**49.3**
			EB	D	38.7	D	44.7
			WB	E	76.4	D	47.1
			NB	F	83.7	E	55.6
			SB	E	76.9	E	55.0
11	Fence Rd & Clack Rd	Stop-Control	SB	C	24.2	F	81.9
			EBL	A	9.2	A	8.2
12	Clack Rd & Mineral Springs Rd	Stop-Control	EB	B	11.6	B	14.9
			NBL	A	8.6	A	8.0
13	Clack Rd & Mt. Moriah Rd	Stop-Control	EB	C	18.0	C	16.6
			NBL	A	8.3	A	8.4

As shown in Table 3, all study intersections operate at acceptable overall Levels of Service (LOS) D or better during the AM and PM peak hours except for the following intersections and their associated movements:

SR 124 at Hamilton Mill Road / Hamilton Mill Parkway

The overall traffic conditions currently operate with high levels of service during both peak hours due to high traffic volumes moving through the intersection. The northbound traffic suffers the most because the other approaches have much higher volumes. It is likely that improvements are needed to give more capacity to the adjacent roadways with how much traffic is at the intersection.

SR 124 at Jim Moore Road

The northbound approach operates at LOS E during both the AM and PM peak hours. This is due to the signal timings favoring the eastbound and westbound movements that have a much higher traffic volume and is not an indication of a major problem at the intersection.

SR 124 at Spout Springs Road / Mineral Springs Road

The northbound approach operates at LOS F during PM peak hour and the southbound approach operates at LOS F during both peak hours. The southbound traffic has a very high volume of traffic attempting to turn right that backs up traffic. The northbound approach has a much lower traffic volume, however signal timings that favor traffic along the highway create large delays in the evening.

SR 124 at Mill Creek High-School

The southbound approach operates at LOS E during the PM peak hour though this approach is a very low volume of traffic compared to the traffic moving along SR 124.

SR 124 at Hog Mountain Road

The northbound movement, which is a side-street stop, operates at LOS F during both peak hours because there is too much traffic along SR 124, giving few gaps for traffic to turn left onto the highway.

SR 124 at Flowery Branch Road

The southbound approach operates at LOS F during both the AM and PM peak hours since there is only one southbound lane with several hundred vehicles trying to access SR 124 during the peak hours. Additional lanes are likely needed to accommodate the existing traffic.

SR 124 at Mt. Moriah Road

The northbound approach operates at LOS E during the AM peak hour and LOS F during the PM peak hour. Like other intersections along SR 124, this is due to signal timings favoring traffic already on the highway.

SR 324 at Fence Road

The overall traffic operations during the AM peak hour operate with slightly high delay due to several approaches not having enough time for vehicles to clear the intersection. In particular, the northbound and southbound approaches experience high delay during both peak periods due to the split phased signal timings.

Fence Road at Clack Road

The southbound, stop-controlled approach operates at LOS F during the PM peak hour with a large amount of traffic trying to turn onto Fence Road with only a single lane of travel. There are no turn lanes at the intersection with a large amount of left-turning traffic coming off of Fence Road.

D.2. 2034 No-Build Capacity Analysis

The results of the 2034 No-Build Condition capacity analysis are shown in Table 4 and include analysis of the volumes presented in Figure 6. Between the Existing Conditions and the No-Build Conditions, widening is expected along SR 124 west of Spout Springs Road. Additionally, a nearby development is expected to add a fourth leg to the intersection of SR 124 with Mt. Moriah Road that may include signal timing adjustments. Where no changes are expected, existing signal timings were used.

Table 4: Capacity Analysis Results –2034 No-Build Conditions

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	Signal	**Overall**	**F**	**104.6**	**F**	**96.2**
			EB	D	49.5	E	75.8
			WB	F	161.0	E	76.0
			NB	F	84.3	F	90.8
			SB	E	66.7	F	123.8
2	SR 124 & Jim Moore Rd	Signal	**Overall**	**B**	**12.8**	**B**	**17.4**
			EB	A	7.7	B	13.6
			WB	A	4.6	A	7.6
			NB	E	73.2	E	72.4
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	Signal	**Overall**	**E**	**68.9**	**F**	**83.1**
			EB	D	51.9	E	66.2
			WB	E	76.5	A	0.7
			NB	F	86.6	F	135.5
			SB	E	60.9	F	179.4
4	SR 124 & Mill Creek HS	Signal	**Overall**	**C**	**30.6**	**B**	**12.8**
			EB	C	23.6	A	2.2
			WB	C	31.6	B	11.1
			SB	D	44.3	E	72.2
5	SR 124 & Hog Mountain Rd	Stop-Control	NB	F	225.9	F	528.6
			SB	E	36.2	F	73.2
			EBL	A	9.6	A	9.0
			WBL	A	9.1	B	11.3
6	SR 214 & Flowery Branch Rd	Signal	**Overall**	**E**	**62.5**	**D**	**39.4**
			EB	C	24.1	C	20.4
			WB	E	73.1	B	16.7
			SB	F	94.2	F	124.3
7	SR 124 & Mt. Moriah Rd	Signal	**Overall**	**C**	**23.2**	**C**	**23.9**
			EB	A	0.9	B	13.2
			WB	B	18.2	B	18.9
			NB	D	50.9	E	59.5
			SB	E	69.4	E	66.7

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
8	Hog Mountain Rd & Jim Moore Rd	All-Way Stop Control	**Overall**	**C**	**22.6**	**C**	**20.2**
			EB	B	12.9	C	21.5
			WB	D	31.1	C	24.1
			NB	B	11.3	B	12.1
			SB	A	9.7	B	12.2
9	Hog Mountain Rd & Mineral Springs Rd	Signal	**Overall**	**C**	**21.5**	**C**	**20.6**
			EB	B	19.0	B	19.9
			WB	C	26.3	C	24.3
			NB	B	18.2	B	16.1
			SB	C	26.9	C	22.6
10	SR 324 & Fence Rd	Signal	**Overall**	**F**	**103.4**	**F**	**82.2**
			EB	D	52.6	F	97.0
			WB	F	115.3	E	60.5
			NB	F	92.2	E	73.6
			SB	F	130.9	F	83.0
11	Fence Rd & Clack Rd	Stop-Control	SB	E	44.5	F	209.9
			EBL	A	9.7	A	8.4
12	Clack Rd & Mineral Springs Rd	Stop-Control	EB	B	12.9	C	18.5
			NBL	A	9.0	A	8.1
13	Clack Rd & Mt. Moriah Rd	Stop-Control	EB	C	8.5	C	8.6
			NBL	A	22.9	A	20.7

As shown in Table 4, with the applied background growth rate, operations at the study intersections are expected to worsen slightly with due to the growth in the study area. The following intersections are expected to operate with unsatisfactory levels of service:

SR 124 at Hamilton Mill Road / Hamilton Mill Parkway

Traffic operations are expected to continue to worsen with the overall operations moving from LOS E to LOS F due to general background growth and additional developments in the area.

SR 124 at Jim Moore Road

Changes to intersection operations are not expected and the northbound approach is expected to continue to operate at LOS E.

SR 124 at Spout Springs Road / Mineral Springs Road

Although the project to widen SR 124 west of the intersection is expected to be complete, traffic growth along the side streets is expected to have a major impact on the intersection and will likely need additional widening work in order to alleviate the traffic.

SR 124 at Mill Creek High-School

Traffic operations are expected to remain similar to existing conditions with the southbound approach still operating at LOS E during the PM peak hour.

SR 124 at Hog Mountain Road

Increased traffic along SR 124 is expected to worsen side street traffic. In Future Conditions, background growth is expected to push the southbound approach to LOS E and F during the AM and PM peak hours, respectively. It is noted that this approach is for a single dog-spa business and is not an indication that mitigation is required. The northbound approach, which has more traffic, suffers from further reduced gaps for vehicles to turn onto the highway, though traffic volumes do not appear to be enough to warrant a traffic signal.

SR 124 at Flowery Branch Road

The large increase in westbound traffic from a nearby planned development is expected to push the intersection to operate at LOS E during the AM peak hour. The southbound approach is expected to continue to operate at LOS F during both peak hours.

SR 124 at Mt. Moriah Road

With improvements at the intersection by a development that will add a fourth leg, the northbound approach will benefit most from optimized signal timings, but will still operate at LOS E during the PM peak hour. The new southbound approach will operate at LOS E during both peak hours.

SR 324 at Fence Road

The overall performance of the intersection is expected to worsen to LOS F during both the AM and PM peak hours. All approaches are expected to see a large increase in delay with additional traffic from background growth.

Fence Road at Clack Road

The southbound stop-controlled approach is expected to change to LOS E during the AM peak hour and remain at LOS F during the PM peak hour.

D.3. 2034 Build Capacity Analysis

The results of the 2034 Build Condition capacity analysis are shown in Table 5 and includes analysis of the volumes presented in Figure 9. For the proposed access driveways, turn lanes were included depending on the warrants included in section E of this study.

Table 5: Capacity Analysis Results – 2034 Build Conditions

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	Signal	**Overall**	F	**127.3**	**F**	**116.5**
			EB	D	49.6	F	83.4
			WB	F	203.8	F	88.7
			NB	F	54.3	F	90.8
			SB	E	74.3	F	160.2
2	SR 124 & Jim Moore Rd	Signal	**Overall**	**B**	**12.6**	**B**	**18.6**
			EB	A	7.9	B	15.9
			WB	A	5.1	A	9.0
			NB	E	73.2	E	72.4
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	Signal	**Overall**	**F**	**91.0**	**F**	**106.9**
			EB	D	51.2	E	61.3
			WB	F	113.8	A	1.0
			NB	F	117.5	F	166.8
			SB	E	65.3	F	272.5
4	SR 124 & Mill Creek HS	Signal	**Overall**	**D**	**47.6**	**B**	**12.4**
			EB	D	40.1	A	2.1
			WB	D	48.4	B	12.1
			SB	E	63.5	E	72.2
5	SR 124 & Hog Mountain Rd	Stop-Control	NB	F	407.3	F	1178.9
			SB	F	50.3	F	329.0
			EBL	B	10.0	A	9.3
			WBL	A	9.3	B	12.8
6	SR 214 & Flowery Branch Rd	Signal	**Overall**	**F**	**99.2**	**E**	**59.5**
			EB	C	23.9	C	30.0
			WB	F	144.2	D	48.0
			SB	F	99.1	F	148.9
7	SR 124 & Mt. Moriah Rd	Signal	**Overall**	**C**	**28.1**	**D**	**46.6**
			EB	A	6.3	C	34.6
			WB	C	25.8	D	36.6
			NB	D	47.7	F	93.0
			SB	E	70.3	E	66.8
8	Hog Mountain Rd & Jim Moore Rd		**Overall**	**D**	**34.5**	**D**	**27.1**
			EB	B	13.8	D	29.0

ID	Intersection	Control	Movement	AM		PM	
				LOS	Delay	LOS	Delay
		All-Way Stop Control	WB	F	51.1	D	34.5
			NB	B	12.0	B	13.8
			SB	B	10.1	B	13.1
9	Hog Mountain Rd & Mineral Springs Rd	Signal	**Overall**	**C**	**26.7**	**C**	**34.4**
			EB	C	21.6	C	26.6
			WB	C	29.1	C	27.4
			NB	C	25.5	B	19.3
			SB	C	32.4	E	60.3
10	SR 324 & Fence Rd	Signal	**Overall**	**F**	**115.5**	**F**	**99.6**
			EB	E	56.5	F	118.7
			WB	F	121.4	E	64.9
			NB	F	94.4	F	81.9
			SB	F	155.5	F	112.0
11	Fence Rd & Clack Rd	Stop-Control	SB	F	132.7	F	>300
			EBL	A	9.9	A	8.7
12	Clack Rd & Mineral Springs Rd	Stop-Control	EB	F	121.6	F	199.1
			NBL	A	9.7	A	8.7
13	Clack Rd & Mt. Moriah Rd	Stop-Control	EB	F	68.3	F	62.5
			NBL	A	8.8	A	9.1
14	Mineral Springs Rd & Site Dwys 1 / 5	Stop-Control	EB	C	17.8	C	24.7
			WB	C	21.5	D	31.3
			NBL	A	7.7	A	9
			SBL	A	8.9	A	8.2
15	Mineral Springs Rd & Site Dwys 2 / 4	Stop-Control	EB	C	17.7	C	22.5
			WB	C	15.6	C	15.5
			NBL	A	7.8	A	8.8
			SBL	A	8.7	A	8.1
16	Mineral Springs Rd & Site Dwy 3	Stop-Control	WB	B	14.5	B	14.4
			SBL	A	8.7	A	8.1
17	Clack Rd & Site Dwys 8 / 9	Stop-Control	NB	B	11.3	B	12.6
			SB	B	12.1	B	12.7
			EBL	A	7.9	A	7.9
			WBL	A	7.5	A	7.8
18	Clack Rd & Site Dwy 10	Stop-Control	NB	B	10.5	B	11.1
			WBL	A	7.6	A	7.8
19	Mt. Moriah Rd & Site Dwy 7	Stop-Control	EB	C	25.0	D	33.4
			NBL	A	8.4	A	9.3
20	Mt. Moriah Rd & Site Dwy 6	Stop-Control	EB	C	17.8	C	21.8
			NBL	A	8.4	A	9.2

As shown in Table 5, with the addition of project traffic, the study intersections are expected see an increase in delay due to the addition of project traffic. The following intersections and/or approaches are expected to operate with unsatisfactory levels of service:

SR 124 at Hamilton Mill Road / Hamilton Mill Parkway
The overall operations are expected to change to LOS E during the PM peak hour.

SR 124 at Jim Moore Road
The northbound approach is expected to continue to operate at LOS E during both peak hours, similar to Existing and No-Build conditions.

SR 124 at Spout Springs Road / Mineral Springs Road
The approaches that were already experiencing high delays in the No-Build analysis are expected to continue to worsen with the overall LOS moving from E to F during the AM peak hour.

SR 124 at Hog Mountain Road
The northbound, stop-controlled approach is expected to change to LOS E during the PM peak hour.

SR 124 at Flowery Branch Road
The southbound approach is expected to change to LOS E during the AM peak hour. The overall traffic operations, southbound approach and westbound approach are expected to change to LOS E during the PM peak hour.

SR 124 at Mt. Moriah Road
The northbound approach is expected to change to LOS E during the PM peak hour.

SR 324 at Fence Road
The overall performance and all approaches are expected to be over capacity without any changes made to the intersection.

Fence Road at Clack Road
The southbound stop-controlled approach is expected to continue to operate at LOS F during both peak hours.

Clack Road at Mineral Springs Road
The eastbound stop-controlled approach is expected to change to LOS F during both peak hours.

Clack Road at Mt. Moriah Road
The eastbound stop-controlled approach is expected to change to LOS F during both peak hours.

The site driveways are expected to have little impact on traffic operations along Mineral Springs Road, Clack Road, and Mt. Moriah Road assuming all warranted turn lanes are included as part of the project, see Section E. All driveways are expected to operate well as side-street stops.

D.4. Queue Length Analysis

Queue length analysis was conducted for all intersection approaches with a failing LOS E or F where the project is adding additional trips to that approach. Queue length analysis results are modeled according to simulation results using the traffic analysis software SimTraffic® 12. Queue lengths reported on include 50th percentile (average) queues, 95th percentile queues, existing storage lengths, and existing taper lengths to intersection approaches.

Table 6 shows intersection queue results comparing Existing, No-Build, and Build Conditions where study intersections have failing LOS, and/or queues exceeding storage lengths under Future Conditions. An inventory of queue length output reports is included in Appendix E.

Table 6: Queue Analysis Comparisons

ID	Intersection	LOS E/F Approach - Movement	50th (95th) Percentile Queues, in feet							
			Lengths (ft)		Existing		No-Build		Build	
			Storage	Taper	AM	PM	AM	PM	AM	PM
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	EB-L	350	90	181 (258)	198 (286)	201 (284)	288 (456)	209 (302)	306 (482)
		EB-T	N/A	N/A	130 (197)	207 (317)	166 (264)	403 (824)	180 (287)	660 (1,570)
		EB-TR	330	75	124 (202)	187 (295)	153 (259)	300 (444)	166 (264)	320 (464)
		WB-L	260	125	146 (437)	189 (433)	161 (462)	266 (503)	190 (487)	281 (510)
		WB-T	N/A	N/A	1,276 (2,661)	448 (803)	2,143 (4,269)	961 (2,296)	2,164 (4,287)	1,107 (2,235)
		WB-R	130	50	1,009 (2,712)	125 (404)	1,996 (4,410)	665 (2,198)	2,067 (4,424)	813 (2,162)
		NB-L	225	50	75 (204)	42 (120)	92 (236)	60 (193)	96 (239)	60 (180)
		NB-T	N/A	N/A	264 (424)	197 (323)	312 (468)	263 (453)	313 (465)	267 (449)
		NB-R	N/A	N/A	5 (34)	60 (147)	15 (77)	77 (155)	10 (47)	111 (209)
		SB-L	N/A	N/A	215 (299)	496 (828)	302 (432)	1,093 (1,405)	320 (447)	1,118 (1,394)
		SB-T	N/A	N/A	75 (144)	272 (659)	81 (160)	1,018 (1,584)	88 (161)	1,080 (1,542)
		SB-R	350	40	26 (84)	115 (275)	39 (112)	269 (531)	39 (113)	262 (512)
2	SR 124 & Jim Moore Rd	NB-L	100	50	98 (153)	121 (170)	112 (167)	133 (171)	107 (163)	135 (169)
		NB-R	N/A	N/A	68 (171)	142 (303)	148 (468)	187 (351)	113 (319)	192 (355)
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	EB-L	325	125	113 (206)	168 (316)	254 (433)	257 (433)	261 (448)	252 (418)
		EB-T	N/A	N/A	145 (294)	215 (435)	312 (821)	363 (970)	379 (896)	382 (1,048)
		EB-R	125	170	7 (22)	15 (92)	13 (109)	58 (446)	46 (261)	106 (560)
		WB-L	400	50	45 (216)	16 (42)	49 (228)	20 (52)	84 (341)	24 (61)
		WB-T	N/A	N/A	376 (669)	178 (315)	899 (1,877)	261 (420)	1,529 (3,001)	264 (441)
		WB-R	170	100	131 (331)	39 (147)	159 (355)	83 (251)	168 (361)	85 (248)
		NB-L	TWLT	TWLT	150 (106)	75 (174)	117 (197)	85 (181)	130 (197)	121 (192)
		NB-TR	N/A	N/A	272 (546)	713 (1,537)	487 (1,007)	489 (894)	1,340 (2,646)	1,239 (2,350)
		SB-L	475	100	133 (225)	333 (537)	222 (378)	543 (689)	248 (413)	545 (681)
		SB-T	N/A	N/A	66 (136)	222 (412)	100 (325)	1,531 (2,507)	103 (216)	1,630 (2,472)
		SB-R	370	135	190 (321)	102 (209)	Not Reported	24 (199)	3 (71)	91 (409)
4	SR 124 & Mill Creek HS	SB-L	N/A	N/A	80 (139)	71 (120)	95 (157)	77 (138)	106 (178)	83 (146)
		SB-R	N/A	N/A	76 (145)	41 (65)	96 (173)	47 (86)	111 (192)	50 (91)
5	SR 124 & Hog Mountain Rd	NB-LT	N/A	N/A	38 (83)	37 (85)	41 (94)	40 (95)	46 (110)	44 (95)
		NB-R	115	85	31 (59)	64 (117)	42 (81)	76 (138)	48 (96)	87 (156)
		SB-LTR	N/A	N/A	14 (36)	4 (18)	16 (42)	6 (23)	16 (39)	7 (26)
6	SR 214 & Flowery Branch Rd	WB-LTR	N/A	N/A	397 (798)	315 (566)	1,447 (2,455)	1,337 (2,433)	1,635 (2,480)	1,516 (2,453)
		SB-LTR	N/A	N/A	342 (558)	474 (748)	743 (1,178)	836 (1,164)	777 (1,163)	882 (1,170)
7	SR 124 & Mt. Moriah Rd	NB-L	N/A	N/A	291 (507)	198 (367)	396 (715)	426 (1,165)	593 (1,108)	1,780 (3,663)
		NB-TR	120	50	116 (220)	126 (211)	127 (228)	141 (218)	130 (233)	153 (223)
		SB-L	N/A	N/A	Not Existing	Not Existing	25 (60)	14 (40)	22 (58)	17 (47)
		SB-TR	N/A	N/A	Not Existing	Not Existing	46 (90)	36 (77)	50 (96)	36 (76)
8	Hog Mountain Rd & Jim Moore Rd	WB-LTR	N/A	N/A	99 (167)	86 (145)	113 (186)	85 (144)	139 (245)	89 (144)
9	Hog Mountain Rd & Mineral Springs	SB-L	140	85	15 (51)	28 (109)	24 (91)	15 (62)	30 (117)	26 (111)
		SB-TR	N/A	N/A	93 (180)	138 (265)	113 (208)	111 (235)	172 (303)	203 (356)
10	SR 324 & Fence Rd	EB-L	135	80	111 (201)	196 (271)	159 (251)	211 (253)	167 (260)	214 (247)
		EB-T	N/A	N/A	157 (350)	831 (1,754)	298 (698)	1,276 (2,139)	315 (656)	1,357 (2,117)
		EB-R	190	110	18 (101)	37 (196)	37 (179)	64 (266)	61 (248)	59 (257)
		WB-L	125	50	28 (108)	57 (154)	30 (119)	55 (152)	36 (132)	60 (164)
		WB-TR	N/A	N/A	608 (1,032)	254 (417)	1,529 (2,537)	338 (544)	1,247 (2,166)	369 (594)
		NB-L	120	75	54 (139)	61 (158)	72 (169)	84 (193)	70 (173)	89 (205)
		NB-TR	N/A	N/A	178 (315)	198 (320)	196 (334)	298 (532)	229 (390)	595 (1,109)
		SB-L	175	60	26 (124)	55 (189)	44 (178)	71 (217)	46 (176)	66 (213)
		SB-TR	N/A	N/A	776 (1,649)	353 (678)	1,296 (2460)	510 (977)	1,720 (3,263)	680 (1,443)
11	Fence Rd & Clack Rd	SB-LR	N/A	N/A	92 (197)	162 (334)	167 (353)	180 (354)	607 (1,308)	387 (929)
12	Clack Rd & Mineral Springs Rd	EB-LR	N/A	N/A	48 (84)	91 (156)	61 (120)	62 (161)	201 (434)	213 (416)
13	Clack Rd & Mt. Moriah Rd	EB-LR	N/A	N/A	46 (87)	48 (90)	51 (92)	51 (91)	96 (178)	80 (135)

Queueing analysis suggests that several of the intersections that are already experiencing high delay will likely become overloaded under future traffic conditions, if they aren't already. The following intersection approaches exceed the associated storage length capacities or have significant queue lengths (>500 feet) in shared lane approaches during the AM and/or PM peak hours when compared with their 95th percentile queue lengths:

SR 124 at Hamilton Mill Road/Hamilton Mill Parkway

- Eastbound all lanes, PM peak hour (No-Build and Build Conditions)
- Westbound all lanes, AM & PM peak hours (Existing, No-Build and Build Conditions)
- Southbound left-turn lanes, PM peak hour (Existing, No-Build and Build Conditions)
- Southbound through lane, PM peak hour (Existing, No-Build and Build Conditions)
- Southbound right lane, PM peak hour (No-Build and Build Conditions)

SR 124 at Jim Moore Road

- Northbound left-turn lane, AM & PM peak hours (Existing, No-Build and Build Conditions)

SR 124 at Spout Springs Road/Mineral Springs Road

- Eastbound through lane, AM & PM peak hours (No-Build and Build Conditions)
- Westbound through lane, AM peak hour (Existing, No-Build and Build Conditions)
- Westbound right-turn lane, AM peak hour (Existing, No-Build and Build Conditions)
- Northbound through/right lane, AM & PM peak hours (Existing, No-Build and Build Conditions)
- Southbound left-turn lane, PM peak hour (Existing, No-Build and Build Conditions)
- Southbound through lane, PM peak hour (No-Build and Build Conditions)

SR 124 at Mill Creek High School

- Southbound queues do not appear to be excessive. Queuing at the intersection is more than likely caused by school traffic and intersections managed by police officers.

SR 124 at Hog Mountain Road

- Southbound and northbound queues do not appear to be excessive. Delay on the side streets appear to be due to traffic needing to wait for gaps, which is typical of a side-street stop intersection.

SR 124 at Flowery Branch Road

- Southbound shared left/thru/right lane, AM & PM peak hours (Existing, No-Build and Build Conditions)
- Westbound shared left/thru/right lane, AM & PM peak hours (Existing, No-Build and Build Conditions)

SR 124 at Mt. Moriah Road

- Northbound left-turn lane, AM peak hour (Existing, No-Build and Build Conditions) & PM peak hour (No-Build and Build Conditions)
- Northbound right-turn lane, AM & PM peak hours (Existing, No-Build and Build Conditions)

Hog Mountain Road at Jim Moore Road

- The westbound approach experiencing slightly high delay in the Build Conditions analysis does not appear to have excessive queuing at the intersection.

Hog Mountain Road at Mineral Springs Road

- The southbound approach experiencing slightly high delay in the Build Conditions analysis do not appear to have excessive queuing at the intersection.

SR 324 at Fence Road

- Eastbound left-turn lane, AM peak hour (No-Build and Build Conditions) & PM peak hour (Existing, No-Build and Build Conditions)
- Eastbound thru lane, AM peak hour (No-Build and Build Conditions) & PM peak hour (Existing, No-Build and Build Conditions)
- Westbound thru/right lane, AM peak hour (Existing, No-Build and Build Conditions) & PM peak hour (No-Build and Build Conditions)
- Northbound left-turn lane, PM peak hour (Build Conditions only)
- Northbound thru/right lane, PM peak hour (No-Build and Build Conditions)
- Southbound thru/right lane, AM & PM peak hours (Existing, No-Build and Build Conditions)

Fence Road at Clack Road

- Southbound left/right lane, AM & PM peak hours (Build Conditions only)

Clack Road at Mineral Springs Road

- While the eastbound traffic has high delay, the queuing does not appear to be overly excessive.

Clack Road at Mt. Moriah Road

- While the eastbound traffic has high delay, the queuing does not appear to be overly excessive.

The proposed development has the most impact on the intersections closest to the development that are stop-controlled. The traffic will have somewhat of an impact on the signalized intersections along SR 124 and SR 324, though those intersections are already experiencing issues and will continue to worsen even without the added traffic from the proposed residential development.

D.5. 2034 Build Mitigation Capacity Analysis

After analyzing the delays at the study intersections and the queuing analysis, different mitigations were analyzed at the intersections to improve the traffic flow and get the intersections back to at least operating similar to Existing Conditions. Every existing study intersection was analyzed with possible improvements to determine how feasible it would be to lower the levels of service back to acceptable (LOS D) levels except for the intersection of SR 124 at Jim Moore Road. The reason for leaving out the one intersection was that it is not expected to operate significantly differently from current conditions with the addition of background growth and development traffic. The likely solutions to the problems at the other intersections are as follows:

SR 124 at Hamilton Mill Road / Hamilton Mill Parkway

- Install a second westbound through lane.
- Install a second northbound through lane.
- Install a third southbound left-turn lane.
- Install an eastbound right-turn lane separate from the existing shared through/right lane.
- Optimize signal timings.

SR 124 at Jim Moore Road

- N/A – Mitigation will not improve current intersection operations with the addition of background growth and development traffic.

SR 124 at Spout Springs Road / Mineral Springs Road

- Continue widening SR 124 to the east of Mineral Springs Road.
- Optimize signal timings.

SR 124 at Mill Creek High School

- Continue widening SR 124 to four lanes through the intersection.
- Optimize signal timings.

SR 124 at Hog Mountain Road

- Continue widening SR 124 to four lanes through the intersection and include a median separation for vehicles to make a two-stage turn off of Hog Mountain Road if needed.

SR 124 at Flowery Branch Road

- Continue widening SR 124 to four lanes through the intersection including turn lanes along SR 124.
- Separate the southbound left and right-turning vehicles into two lanes.

- Optimize signal timings.

SR 124 at Mt. Moriah Road

- Continue widening SR 124 to four lanes through the intersection.
- Optimize signal timings.

Hog Mountain Road at Jim Moore Road

- A westbound left-turn lane could be installed to slightly lower westbound delay.

Hog Mountain Road at Mineral Springs Road

- Optimize signal timings.

SR 324 at Fence Road

- Re-grade Fence Road north of SR 324 to improve sight distance.
- Add a southbound right-turn lane.
- Remove the split-phase signal timing and optimize.

Fence Road at Clack Road

- Install a single-lane roundabout.

Clack Road at Mineral Springs Road

- Install a single-lane roundabout.

Clack Road at Mt. Moriah Road

- Install an eastbound right-turn lane.
- Install a southbound right-turn lane.

The capacity analysis results of the Build Condition with Mitigations are shown in Table 7. The Synchro® output reports for Build Mitigation Conditions are included in Appendix F.

Table 7: Capacity Analysis Results –2034 Build Mitigation Conditions

ID	Intersection	Mitigation	Movement	AM		PM	
				LOS	Delay	LOS	Delay
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	Add Lanes	**Overall**	**D**	**48.1**	**D**	**48.5**
			EB	D	42.0	E	55.0
			WB	D	40.2	D	38.8
			NB	E	78.4	E	77.8
			SB	D	54.6	D	48.2
2	SR 124 & Jim Moore Rd	None	**Overall**	**B**	**12.7**	**C**	**21.8**
			EB	A	8.2	C	22.0
			WB	A	5.1	A	9.0
			NB	E	73.2	E	72.4
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	Continue Widening	**Overall**	**D**	**40.0**	**D**	**47.1**
			EB	D	40.1	D	44.7
			WB	D	37.7	B	17.3
			NB	D	45.6	E	79.8
			SB	D	38.4	E	62.9
4	SR 124 & Mill Creek HS	Continue Widening	**Overall**	**B**	**17.0**	**B**	**11.2**
			EB	A	9.8	A	1.5
			WB	A	19.9	A	8.8
			SB	C	27.5	E	72.6
5	SR 124 & Hog Mountain Rd	Continue Widening	NB	C	16.1	D	21.9
			SB	C	19.9	D	26.7
			EBL	B	10.0	A	9.3
			WBL	A	9.3	B	12.8
6	SR 214 & Flowery Branch Rd	Continue Widening	**Overall**	**B**	**14.3**	**B**	**17.4**
			EB	A	5.5	B	13.2
			WB	A	0.5	A	0.6
			SB	E	67.3	E	62.0
7	SR 124 & Mt. Moriah Rd	Continue Widening	**Overall**	**C**	**25.0**	**B**	**17.4**
			EB	A	5.6	A	2.9
			WB	B	19.5	B	15.5
			NB	D	45.8	D	51.5
			SB	E	69.1	E	66.7
8	Hog Mountain Rd & Jim Moore Rd	Add WB LT Lane	**Overall**	**D**	**27.4**	**C**	**22.9**
			EB	B	14.0	D	29.4
			WB	E	38.4	C	23.3
			NB	B	11.8	B	13.5
			SB	A	10.0	B	12.9
9	Hog Mountain Rd & Mineral Springs Rd	Optimize	**Overall**	**C**	**24.0**	**C**	**28.4**
			EB	C	23.3	C	32.0
			WB	C	31.6	C	30.8
			NB	B	19.4	B	18.5

ID	Intersection	Mitigation	Movement	AM		PM	
				LOS	Delay	LOS	Delay
			SB	C	29.4	C	30.6
10	SR 324 & Fence Rd	Remove Split Phasing & Add Turn Lane	**Overall**	**C**	**33.7**	**C**	**29.7**
			EB	B	18.4	C	22.2
			WB	D	39.7	C	31.8
			NB	C	32.1	D	37.9
			SB	D	38.8	C	34.6
11	Fence Rd & Clack Rd	Roundabout	**Overall**	**A**	**9.0**	**A**	**9.0**
			EB	A	6.1	A	9.8
			WB	B	10.5	A	6.4
			SB	A	9.8	A	9.3
12	Clack Rd & Mineral Springs Rd	Roundabout	**Overall**	**A**	**7.8**	**A**	**8.3**
			EB	A	6.5	A	9.9
			NB	A	7.8	A	7.3
			SB	A	9.2	A	6.7
13	Clack Rd & Mt. Moriah Rd	Add Turn Lanes	EB	D	32.9	D	30.9
			NBL	A	8.8	A	9.1

As shown in Table 7, the possible improvements would allow for traffic operations to significantly improve over what was seen in the 2034 No-Build and 2034-Build Capacity Analyses. The majority of the improvements for the intersections along SR 124 are already planned, though construction is dependent on the availability of funding for the widening project. It is recommended that GDOT and/or Gwinnett County look into additional mitigation to improve the intersections of SR 124 at Hamilton Mill Road and SR 324 at Fence Road which currently operate with capacity issues. Likewise, it is recommended that the county consider making improvements at the intersection of Fence Road at Clack Road since there appears to be a large amount of side-street traffic without any turn lanes at the intersection.

The intersection of Hog Mountain Road at Jim Moore Road does not appear to have a significant queuing issue even though it is expected that project traffic will cause it to operate at LOS F during the AM peak hour. While adding a left-turn lane could reduce the delay to LOS E, it is not recommended to make changes to the intersection at this time as it may not be necessary once widening along SR 124 is completed.

While the intersection of Hog Mountain Road at Mineral Springs Road currently operates with "free" signal timings, it is recommended that the county continue to monitor the intersection after the development is complete to optimize the signal timings if needed.

The last two intersections that are most impacted by the proposed development are the two that are immediately adjacent to the proposed development and should be examined for improvements. With the majority of traffic moving between Clack Road and Mineral Springs Road, a single lane roundabout is likely the best solution for that intersection. Unlike that intersection, the intersection of Clack Road

at Mt. Moriah Road sees far less side-street traffic and could be improved with the addition of right-turn lanes at the intersection. Both of these improvements would bring levels down, though turn lanes would only bring the levels down to LOS E in the AM peak hour.

Since large-scale residential developments are normally constructed in phases, the study intersections were further analyzed to determine how many houses would need to be constructed before mitigation is needed. Most of the mitigation analyzed was for existing delay issues.

Table 8: Mitigation Timeline

ID	Intersection	Mitigation	Year Needed	Units Needed
1	SR 124 & Hamilton Mill Rd / Hamilton Mill Pkwy	Add WB & NB Through Lanes, a EB right-turn lane, & a SB left-turn lane	2024	0
3	SR 124 & Spout Springs Rd / Mineral Springs Rd	Continue widening of SR 124 and add turn lanes	2024	0
4	SR 124 & Mill Creek HS	Continue widening of SR 124	2024	0
5	SR 124 & Hog Mountain Rd	Continue widening of SR 124	2024	0
6	SR 214 & Flowery Branch Rd	Continue widening of SR 124 and add turn lanes	2024	0
7	SR 124 & Mt. Moriah Rd	Continue widening of SR 124	2024	0
8	Hog Mountain Rd & Jim Moore Rd	Add WB left-turn lane	2031	650
9	Hog Mountain Rd & Mineral Springs Rd	Optimize Signal Timings	2034	1025
10	SR 324 & Fence Rd	Re-grade Fence Road, remove split-phase timing & add SB right-turn lane	2024	0
11	Fence Rd & Clack Rd	Add Roundabout	2024	0
12	Clack Rd & Mineral Springs Rd	Add Roundabout	2029	500
13	Clack Rd & Mt. Moriah Rd	Add SB & EB right-turn lanes	2032	725

E. Driveway Turn Lane Analysis

E.1. GDOT Right-Turn Lane Analysis

The need for right-turn lanes at each proposed driveway was evaluated using methodologies from the Georgia Department of Transportation (GDOT) Access Manual. The speed limit along Mineral Springs Road is 40 miles per hour and the speed limit along Mt. Moriah Road and Clack Road is 35 Miles per hour. The ADT data collected along the three roadways shows that the average weekday traffic along Mineral Springs Road and Clack Road is under 6,000 vehicles per day and the traffic along Mt. Moriah Road is over 6,000 vehicles per day. The results of the evaluation are summarized in Table 8.

Table 9: GDOT Right-Turn Lane Analysis

ID	Intersection	Movement/ Turn Lane	Turn Volume	GDOT Volume Criteria	GDOT Criteria met?
14	Mineral Springs Rd & Site Driveways 1 / 5	NBR	89 RT/Day	150 RT/Day	NO
		SBR	223 RT/Day	150 RT/Day	YES
15	Mineral Springs Rd & Site Driveways 2 / 4	NBR	134 RT/Day	150 RT/Day	NO
		SBR	223 RT/Day	150 RT/Day	YES
16	Mineral Springs Rd & Site Driveway 3	NBR	89 RT/Day	150 RT/Day	NO
17	Mt. Moriah Rd & Site Driveway 6	SBR	134 RT/Day	100 RT/Day	YES
18	Mt. Moriah Rd & Site Driveway 7	SBR	757 RT/Day	100 RT/Day	YES
19	Clack Rd & Site Driveways 8 / 9	EBR	134 RT/Day	200 RT/Day	NO
		WBR	356 RT/Day	200 RT/Day	YES
20	Clack Rd & Site Driveway 10	EBR	89 RT/Day	200 RT/Day	NO

E.2. GCDOT Left-Turn Lane Analysis

The need for left-turn lanes at each proposed driveway was evaluated using methodologies from the Gwinnett County Department of Transportation (GCDOT) Criteria and Guidelines for Left-Turn Lanes. The results of the evaluation are summarized in Table 9.

Table 10: GCDOT Left-Turn Lane Analysis

ID	Intersection	Movement/ Turn Lane	# of Units using the driveway	GCDOT Volume Criteria	GDOT Criteria met?
14	Mineral Springs Rd & Site Driveways 1 / 5	NBL	107	100	YES
		SBL	128	100	YES
15	Mineral Springs Rd & Site Driveways 2 / 4	NBL	85	100	NO
		SBL	107	100	YES
16	Mineral Springs Rd & Site Driveway 3	SBL	53	100	NO
17	Mt. Moriah Rd & Site Driveway 6	NBL	53	75	NO
18	Mt. Moriah Rd & Site Driveway 7	NBL	267	75	YES
19	Clack Rd & Site Driveways 8 / 9	EBL	160	75	YES
		WBL	53	75	NO
20	Clack Rd & Site Driveway 10	WBL	53	75	NO

F. Conclusion

A new 1,066-unit residential development comprising of 955 single-family detached homes and 427 single-family attached homes (townhomes) is proposed for construction on undeveloped land parcels located along Mineral Springs Road, Clack Road, and Mt. Moriah Road in Gwinnett County, Georgia.

The development will contain ten (10) access points in total:

- Five (5) full-access points along Mineral Springs Road
- Three (2) full-access points along Clack Road
- Two (2) full-access points along Mt. Moriah Road

The development is expected to be built-out by 2034 and will generate a total of 8,902 new daily trips. Of these daily volumes, 642 new trips (167 entering and 475 exiting) are expected to occur during the AM peak hour while 919 new trips (579 entering and 340 exiting) are expected to occur during the PM peak hour.

Under Existing Conditions, many of the intersections operate with high delay, especially at the intersections along the major highways. The addition of traffic from background growth and already approved developments is expected to have the biggest impact on traffic operations in the area, likely needed additional lane capacity for future traffic. The residential development is expected to have an impact on traffic operations, though only minor impacts moving away from the site. A summary of the impacts are as follows:

SR 124 at Hamilton Mill Road / Hamilton Mill Parkway

The intersection already operates at LOS E during both the AM and PM peak hours with background traffic expected to push it to LOS F. Queuing analysis shows that traffic already backs up thousands of feet east of the intersection since there is not enough lane capacity. Future traffic without the addition of the proposed residential development is expected to have traffic backup past the ramps with I-85 as well.

SR 124 at Jim Moore Road

The northbound approach operates at LOS E during both the AM and PM peak hours likely due to the signal timings favoring the eastbound and westbound movements that have a much higher traffic volume. Queuing analysis shows that there does not appear to be a major issue at the intersection and that issues are likely caused with traffic backing up from the intersection with Hamilton Mill Road.

SR 124 at Spout Springs Road / Mineral Springs Road

The northbound and southbound approaches currently operate at LOS F during the AM and PM peak hours and the approaches along SR 124 are expected to worsen to LOS E with the addition of future traffic even after widening has been completed west of the intersection. This shows that the proposed widening east of the intersection is needed to increase capacity along the highway.

SR 124 at Mill Creek High School

The southbound approach currently operates at LOS E during the PM peak hour and is expected to operate at LOS E in the AM peak hour after the residential development is completed; however, the proposed widening along SR 124 is expected to mitigate the issues, though it is noted that officers controlling the traffic signals during school hours likely have a large impact on traffic operations.

SR 124 at Hog Mountain Road

The northbound approach currently operates at LOS F during the AM and PM peak hours, though this is somewhat expected for a side-street stop intersection at a major highway and queuing analysis doesn't appear to show excessive backup along Hog Mountain Road. Additional traffic with future growth is expected to push the southbound approach to LOS F, though this impacts very little traffic coming from a dog spa on the north side of the intersection.

SR 124 at Flowery Branch Road

Currently the southbound approach operates with very high delay likely due to there only being a single southbound lane rather than a separation of the left and right-turning vehicles. In future conditions the westbound approach is expected to reach capacity, backing traffic up past Mt. Moriah Road. These issues can be mitigated with the proposed widening project along SR 124.

SR 124 at Mt. Moriah Road

Currently the northbound approach operates with unsatisfactory delay during the peak hours with signal timings favoring traffic along SR 124. Traffic should improve with modifying the signal timings when the residential development is completed on the north side of the intersection but is expected to worsen again with the addition of project traffic. The same proposed widening of SR 124 to the county line would clear any of the issues at the intersection.

Hog Mountain Road at Jim Moore Road

The addition of traffic from the proposed 1,066-unit residential development may cause the westbound traffic at the intersection to experience slightly high delays during the AM peak hour, though if SR 124 is widened, traffic may divert back to the highway rather than using Hog Mountain Road.

Hog Mountain Road at Mineral Springs Road

The southbound approach may see slightly high delay during the PM peak hour with the addition of the proposed development, though that could be easily mitigated with adjusting the signal timings at the intersection.

SR 324 at Fence Road

The intersection currently operates with high delay on multiple approaches and is expected to be well over capacity with future background growth. The best way to mitigate traffic would be to remove the split-phase signal timings at the intersection, though this would require significant grading work on the

north side of the intersection to improve sight distance along Fence Road. Additionally, the lack of right-turn lanes at the intersection also slows down traffic.

Fence Road at Clack Road

Currently the southbound approach operates with very high delay, though this is somewhat expected for a side-street stop condition with somewhat high volume. There are no turn lanes at the intersection, which would improve traffic flow, though there is a large number of vehicles moving from Fence Road onto Clack Road, so a roundabout may be more appropriate at the intersection especially after background growth and the addition of project traffic.

Clack Road at Mineral Springs Road

The addition of project traffic is expected to make the stop-controlled approach operate with high delay during the peak hours. Since the majority of traffic is moving between Fence Road and Mineral Springs Road, the intersection may be a good candidate for a roundabout which would greatly improve traffic flow.

Clack Road at Mt. Moriah Road

The addition of project traffic is expected to make the stop-controlled approach operate with high delay during the peak hours, though not as extreme as the intersection with Mineral Springs Road. The addition of turn lanes at the intersection would lower delay at the intersection and make the intersection safer for traffic along Mt. Moriah Road.

The site driveways are expected to operate adequately during both the AM and PM peak hours as side-street stops with the inclusion of turn lanes at the driveways and outbound lanes shown on the proposed site plan.

G. Recommendations

From the conducted analysis, the following roadway improvement mitigations will be needed at the below study intersections:

Driveways 1 / 5 at Mineral Springs Road

- Install a side street stop-control sign at Driveways 1 & 5 for site traffic exiting the development towards Mineral Springs Road.
- Install northbound and southbound right-turn lanes and left-turn lanes for site traffic entering the development from Mineral Springs Road.
- Install separate lanes for westbound right-turns and left-turns for site traffic exiting the development.

Driveways 2 / 4 at Mineral Springs Road

- Install a side street stop-control sign at Driveways 2 & 4 for site traffic exiting the development towards Mineral Springs Road.
- Install northbound and southbound right-turn lanes and left-turn lanes for site traffic entering the development from Mineral Springs Road.

Driveway 3 at Mineral Springs Road

- Install a side street stop-control sign at Driveway 3 for site traffic exiting the development towards Mineral Springs Road.

Driveway 6 at Mt. Moriah Road

- Install a side street stop-control sign at Driveway 6 for site traffic exiting the development towards Mt. Moriah Road.
- Install a southbound right-turn lane and for site traffic entering the development from Mt. Moriah Road.

Driveway 7 at Mt. Moriah Road

- Install a side street stop-control sign at Driveway 7 for site traffic exiting the development towards Mt. Moriah Road.
- Install a northbound left-turn lane and a southbound right-turn lane and for site traffic entering the development from Mt. Moriah Road.

Driveways 8 / 9 at Clack Road

- Install a side street stop-control sign at Driveways 8 & 9 for site traffic exiting the development towards Clack Road.
- Install eastbound and westbound right-turn lanes and for site traffic entering the development from Clack Road.

Driveway 10 at Clack Road

- Install a side street stop-control sign at Driveway 10 for site traffic exiting the development towards Clack Road.

In addition to the roadway improvement mitigations mentioned above, all signalized study intersections should have optimized signal timing cycle length improvements to accommodate future traffic volumes during peak hours.

The county should also look into installing a roundabout at the intersection of Fence Road with Clack Road.

APPENDIX

APPENDIX A

SITE PLAN

CENTRAL TRACT SUMMARY

Total Area:	365.9 Acres
Existing Zoning:	100 - CSO
Proposed Total Lots:	768 Total Lots
Gross Density:	2.1 Lots Per Acre

Minimum Home Size:

Homes shall be 2,400 SF.
At least 200 homes shall be 2,600 SF minimum for one-story and 2,800 SF minimum for two-story.

Minimum Lot Size:

Minimum Lot Size: None

Lot Width:

Average Lot Width: 64 Feet

Setbacks:

Front Yard =	20'
Side Yard =	5'
Side Corner =	20'
Rear Corner =	20'

Open Space:

Minimum Required 40% or 146.3 Acres.
Open Space Proposed: 40% or 146.3 Acres

LOT SIZE LEGEND

Overall Total Lots	**1,066 Lots**
Central Tract Lots	**768 Lots**
45's	29 Lots
52's	64 Lots
60's	307 Lots
70's	297 Lots
80's	71 Lots
Western Tract	**193 Lots**
65's	58 Lots
73's	96 Lots
80's	4 Lots
85's	20 Lots
90's	15 Lots
Southern Tract Units	**105 Lots**
80's	105 Lots

WEST TRACT SUMMARY

Total Area:	96.5 Acres
Existing Zoning:	100 - CSO
Proposed Total Lots:	193 Total Lots
Gross Density:	2.0 Lots Per Acre

Minimum Home Size:

50% of homes shall be 3,000 SF.
The remaining homes shall be 2,600 SF.

Minimum Lot Size:

Minimum Lot Size: None

Lot Width:

Average Lot Width: 73 Feet

Setbacks:

Front Yard =	20'
Side Yard =	5'
Side Corner =	20'
Rear Corner =	20'

Open Space:

Minimum Required 40% or 38.6 Acres.
Open Space Proposed: 40% or 38.6 Acres

SOUTH TRACT SUMMARY

Total Area:	57.3 Acres
Existing Zoning:	R-100 Modified District
Proposed Total Lots:	105 Total Lots
Gross Density:	1.8 Lots Per Acre

Minimum Home Size:

2,600 SF for single story
2,800 SF for two-story

Minimum Lot Size:

Minimum Lot Size: 10,500 SF

Lot Width:

Minimum Lot Width: 80 Feet

Setbacks:

Front Yard =	25'
Side Yard =	7.5'
Side Corner =	25'
Rear Corner =	30'

Open Space:

No percentage minimum, but amount of lots reduced from standard 15,000 SF - must be shown as open space.
Lots Reduced by: 6.5 Acres.
Open Space Proposed: 6.5 Acres

PHASING PLAN

Phase 1 contains 479 lots, which includes all of the west tract (193 lots), the south tract (105 lots), and the Mineral Spring section of the central tract, containing 181 lots.

Phase 2 includes the remainder of the central tract, which is 597 lots.

CENTRAL TRACT
365.9 Acres

WEST TRACT
96.5 Acres

MATCHLINE

ADDITIONAL NOTES:

SIDEWALKS TO BE PROVIDED THROUGHOUT THE COMMUNITY PER GWINNETT COUNTY UNIFIED DEVELOPMENT ORDINANCE (Section 900-90).

THERE ARE NO CEMETERIES OR ARCHITECTURAL OR ARCHEOLOGICAL LANDMARKS ON THE PROPERTY.

PORTIONS OF THE SUBJECT PROPERTY ARE LOCATED WITHIN A DESIGNATED FLOOD HAZARD AREA PER GWINNETT COUNTY F.I.R.M. PANEL NO. 38 of 154, DATED 3/4/2013.

LAND LOTS 2, 3, & 4, DUNCANS G.M.D. 1749 & ROCKY CREEK G.M.D.1587, 2nd & 3rd DISTRICT, GWINNETT COUNTY, GEORGIA.

WATER AND SEWER SERVICE PROVIDED BY GWINNETT COUNTY.

LOCATION MAP NTS

DISCLAIMER: THIS MASTER PLAN IS SUBJECT TO CHANGE BASED UPON MARKET CONDITIONS AND FINAL ENGINEERING.

ST. BOURKE
Land Planning Development
Asset Management
stbourke.com

Traffic Consultant
NV5
Engineers and Consultants, Inc.
10745 Westside Way, Suite 300
Alpharetta, GA 30009
678.795.3600
DRI # 3965 & 4173

GEORGIA REGISTERED No.001335 DANIEL T. MASON LANDSCAPE ARCHITECT

SCALE: 1" = 200'
0' 100' 200' 400'

MASTER PLAN
Poole Mountain
GWINNETT COUNTY, GA
DRAPAC GROUP, 4 LLC

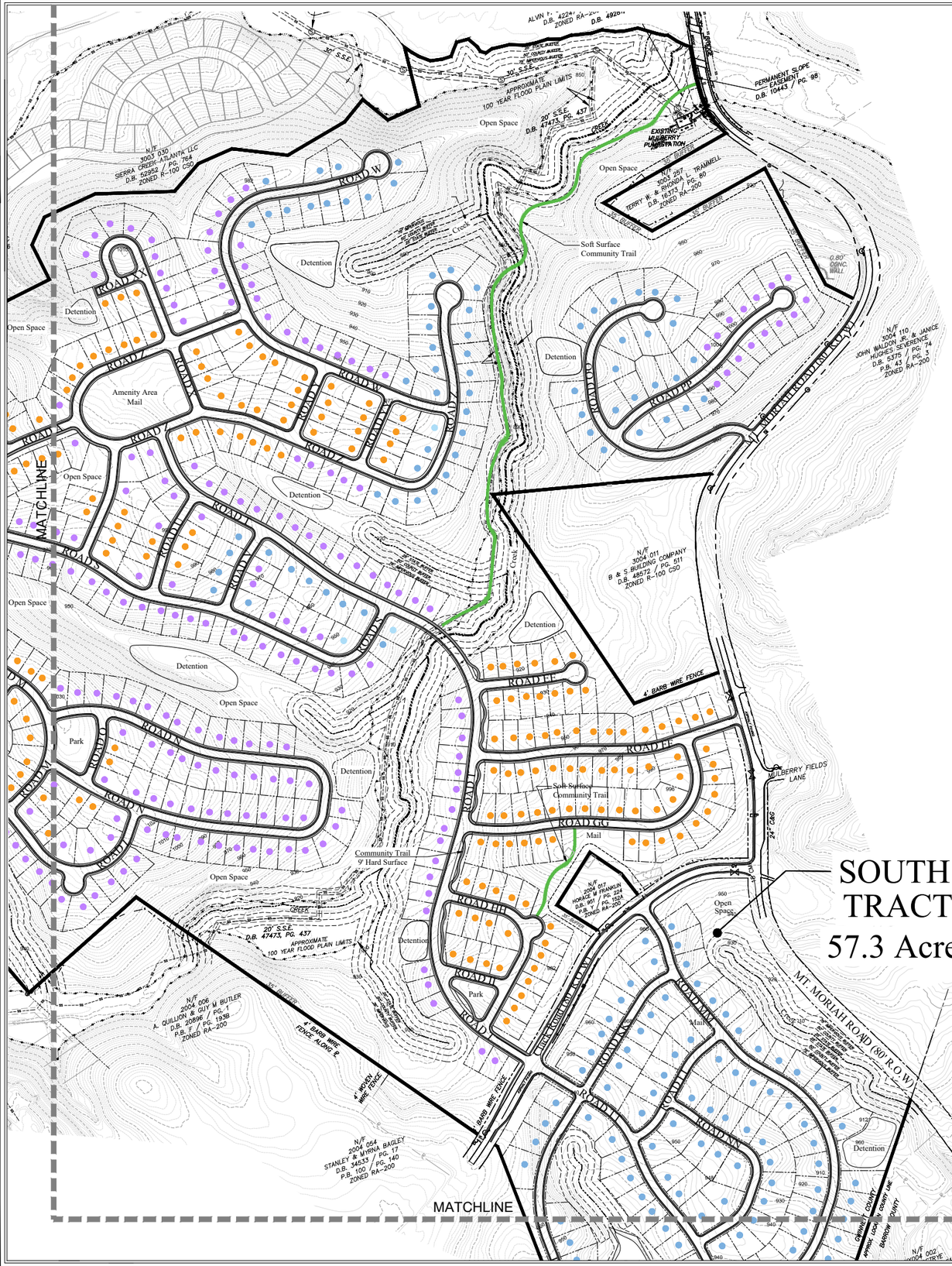
DRI # 3965 & 4173

May 3, 2024

REVISIONS

NO.	DATE	ISSUE

SHEET#: 1 of 2



ST. BOURKE
Land Planning Development
Asset Management
stbourke.com

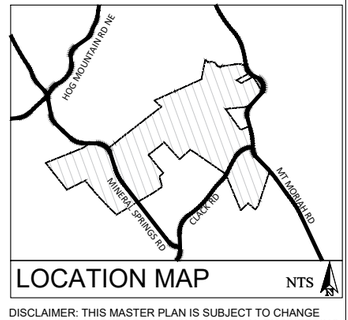
Traffic Consultant
NV5
Engineers and Consultants, Inc.
10745 Westside Way, Suite 300
Alpharetta, GA 30009
678.795.3600
DRI # 3965 & 4173

GEORGIA REGISTERED No.001335 LANDSCAPE ARCHITECT DANIEL T. MASON

SCALE: 1" = 200'
0' 100' 200' 400'

MASTER PLAN
Poole Mountain

GWINNETT COUNTY, GA
DRAPAC GROUP, 4 LLC



LOCATION MAP NTS

DISCLAIMER: THIS MASTER PLAN IS SUBJECT TO CHANGE BASED UPON MARKET CONDITIONS AND FINAL ENGINEERING.

DRI # 3965 & 4173

MAY 3, 2024

REVISIONS

NO.	DATE	ISSUE

SHEET#: 2 of 2

APPENDIX B

TRAFFIC COUNT DATA

Prepared by National Data & Surveying Services

Hamilton Mill Rd/Hamilton Mill Pkyw & SR 124/Braselton Hwy

Peak Hour Turning Movement Count

ID: 24-180106-001
City: Dacula

Day: Tuesday
Date: 4/30/2024

PEAK HOURS

AM	07:15 AM - 08:15 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

SOUTHBOUND — Hamilton Mill Rd/Hamilton Mill Pkyw

AM	225	133	485	0	1328	AM
NOON	0	0	0	0	0	NOON
PM	387	408	1057	0	1199	PM
	1	1	2	0		

EASTBOUND — SR 124/Braselton Hwy

AM	NOON	PM		
609	0	766		
0	0	0	0	
304	0	350	2	
279	0	452	1.5	
40	0	14	0.5	
AM	NOON	PM		

WESTBOUND — SR 124/Braselton Hwy

PM	NOON	AM		
637	0	679	2	
348	0	335	1	
133	0	48	1	
0	0	0	0	
1648	0	849		
PM	NOON	AM		

CONTROL

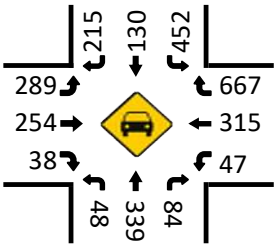
Signalized

TEV	3007 AM	0 NOON	4168 PM
PHF	0.95		0.98

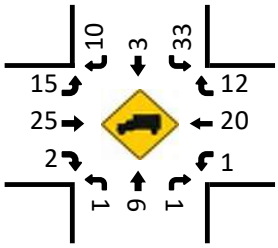
NORTHBOUND — Hamilton Mill Rd/Hamilton Mill Pkyw

PM	555	0	31	212	139	PM
NOON	0	0	0	0	0	NOON
AM	221	0	49	345	85	AM
		0	1	1	1	

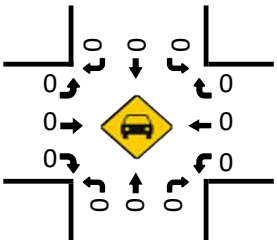
Cars (AM)



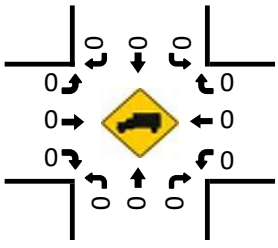
HT (AM)



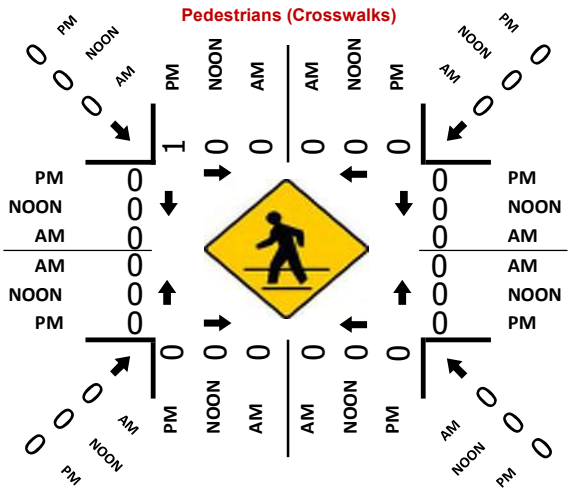
Cars (NOON)



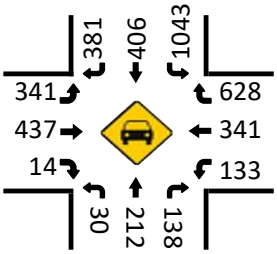
HT (NOON)



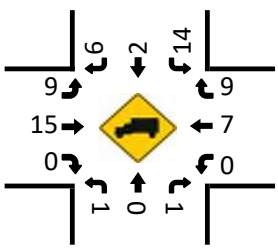
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Jim Moore Rd & SR 124/Braselton Hwy

Peak Hour Turning Movement Count

ID: 24-180106-002
City: Dacula

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
08:00 AM - 09:00 AM	7:00 AM - 09:00 AM
NONE	NONE
04:15 PM - 05:15 PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	1898	0	2449
PHF	0.95		0.94

SOUTHBOUND (Jim Moore Rd)

	L	T	R	U	
AM	0	0	0	0	0
NOON	0	0	0	0	0
PM	0	0	0	0	0

EASTBOUND (SR 124/Braselton Hwy)

	AM	NOON	PM
U	1015	0	979
L	0	0	0
T	0	0	0
R	672	0	1183
R	77	0	104

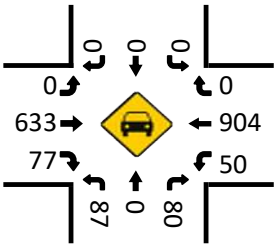
WESTBOUND (SR 124/Braselton Hwy)

	PM	NOON	AM
U	0	0	0
L	836	0	925
T	77	0	52
L	0	0	0
T	1289	0	754

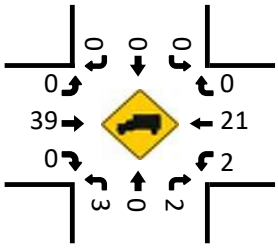
NORTHBOUND (Jim Moore Rd)

	L	T	R	U	
PM	181	0	143	0	106
NOON	0	0	0	0	0
AM	129	0	90	0	82

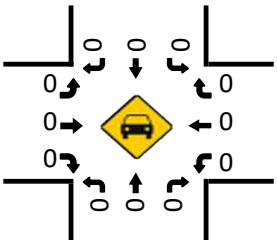
Cars (AM)



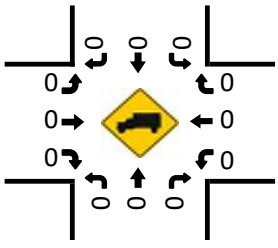
HT (AM)



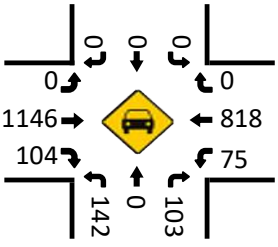
Cars (NOON)



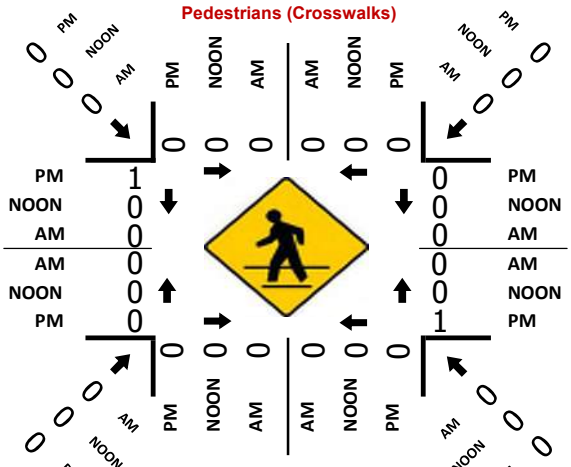
HT (NOON)



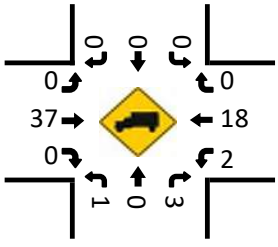
Cars (PM)



Pedestrians (Crosswalks)



HT (PM)



Prepared by National Data & Surveying Services

Spout Springs Rd/Mineral Springs Rd & SR 124/Braselton Hwy

Peak Hour Turning Movement Count

ID: 24-180106-003
City: Hoschton

Day: Tuesday
Date: 4/30/2024

PEAK HOURS

AM	08:00 AM - 09:00 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	2116	0	2677
PHF	0.94		0.96

SOUTHBOUND (Spout Springs Rd/Mineral Springs Rd)

	Left	Thru	Right	U-Turn	
AM	349	79	170	0	499 AM
NOON	0	0	0	0	0 NOON
PM	269	246	260	0	664 PM

EASTBOUND (SR 124/Braselton Hwy)

	AM	NOON	PM
U-Turn	0	0	0
Left	186	0	371
Thru	319	0	660
Right	29	0	45
	926	0	713

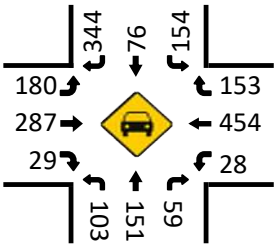
WESTBOUND (SR 124/Braselton Hwy)

	PM	NOON	AM
Left	135	0	159
Thru	396	0	473
Right	30	0	29
U-Turn	0	0	0
	979	0	554

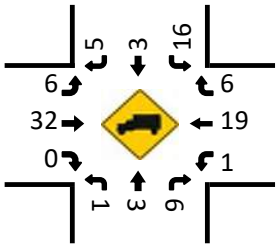
NORTHBOUND (Spout Springs Rd/Mineral Springs Rd)

	Left	Thru	Right	U-Turn	
PM	321	0	48	158	59 PM
NOON	0	0	0	0	0 NOON
AM	137	0	104	154	65 AM

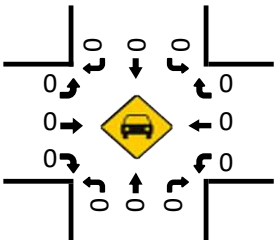
Cars (AM)



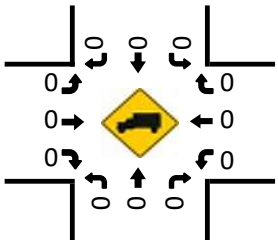
HT (AM)



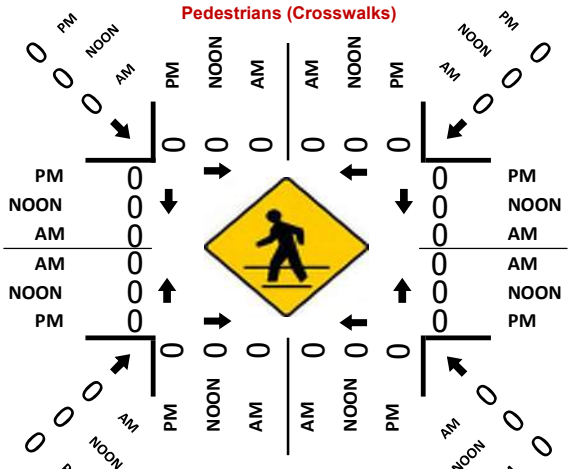
Cars (NOON)



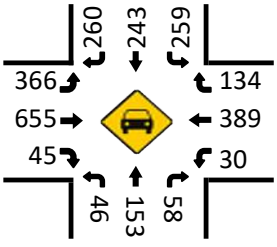
HT (NOON)



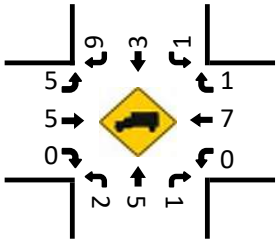
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Mill Creek High School East Pkg Dwy & SR 124/Braselton Hwy

Peak Hour Turning Movement Count

ID: 24-180106-004
City: Hoschton

Day: Tuesday
Date: 4/30/2024

PEAK HOURS		COUNT PERIODS
AM	08:00 AM - 09:00 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND – Mill Creek High School East Pkg Dwy

	Right	Thru	Left	U-Turn	Departing
AM	146	0	94	0	483
NOON	0	0	0	0	0
PM	97	0	66	0	445
Lanes	1	0	1	0	

EASTBOUND – SR 124/Braselton Hwy

	AM	NOON	PM	Lanes
Departing	630	0	490	
U-Turn	0	0	0	0
Left	271	0	292	1
Thru	308	0	678	1
Right	0	0	0	0

WESTBOUND – SR 124/Braselton Hwy

	PM	NOON	AM	Lanes
Right	153	0	212	1
Thru	393	0	484	1
Left	0	0	0	0
U-Turn	0	0	0	0
Departing	744	0	402	

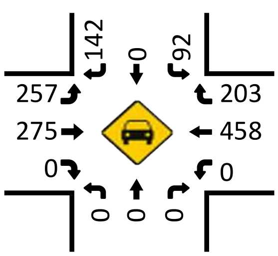
NORTHBOUND – Mill Creek High School East Pkg Dwy

	Departing	U-Turn	Left	Thru	Right
Lanes		0	0	0	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

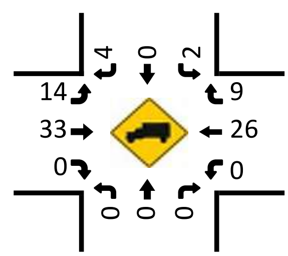
CONTROL: Signalized

	AM	NOON	PM
TEV	1515	0	1679
PHF	0.90		0.93

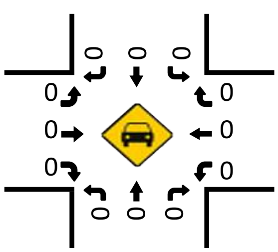
Cars (AM)



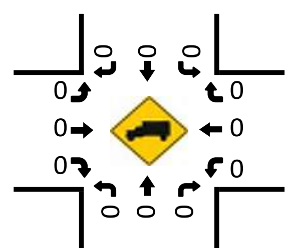
HT (AM)



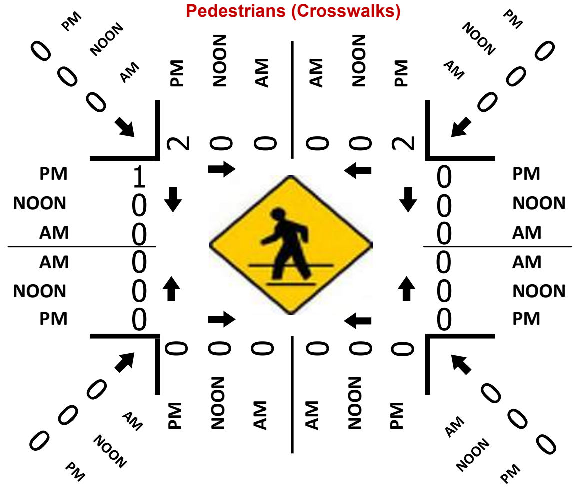
Cars (NOON)



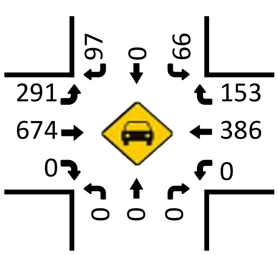
HT (NOON)



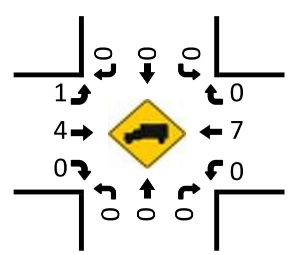
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Hog Mountain Rd NE & SR 124/Braselton Hwy

Peak Hour Turning Movement Count

ID: 24-180106-005
City: Hoschton

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
08:00 AM - 09:00 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

CONTROL: 1-Way Stop(NB)

	AM	NOON	PM
TEV	1213	0	1544
PHF	0.90		0.92

Hog Mountain Rd NE — SOUTHBOUND

	L	T	R	U	Total	
AM	9	3	3	0	18	AM
NOON	0	0	0	0	0	NOON
PM	4	1	1	0	5	PM

SR 124/Braselton Hwy — EASTBOUND

	L	T	R	U	
AM	653	0	543		
NOON	0	0	0	0	
PM	5	0	2	0	
AM	344	0	677	1	
NOON	37	0	33	0	
PM					

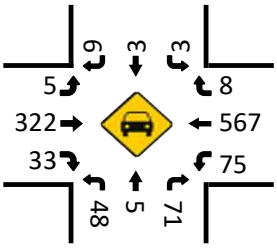
SR 124/Braselton Hwy — WESTBOUND

	L	T	R	U	
PM	2	0	8	1	
NOON	495	0	594	1	
AM	117	0	77	1	
PM	0	0	1	0	
NOON	845	0	425		
AM					

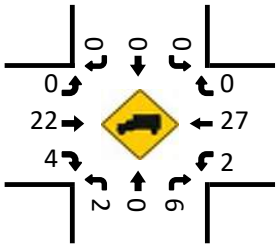
Hog Mountain Rd NE — NORTHBOUND

	L	T	R	U	Total	
PM	151	0	44	1	167	PM
NOON	0	0	0	0	0	NOON
AM	117	0	50	5	77	AM

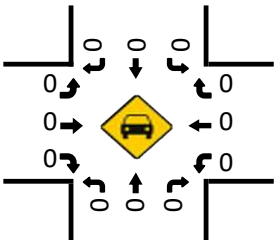
Cars (AM)



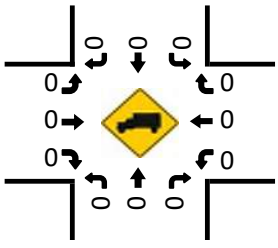
HT (AM)



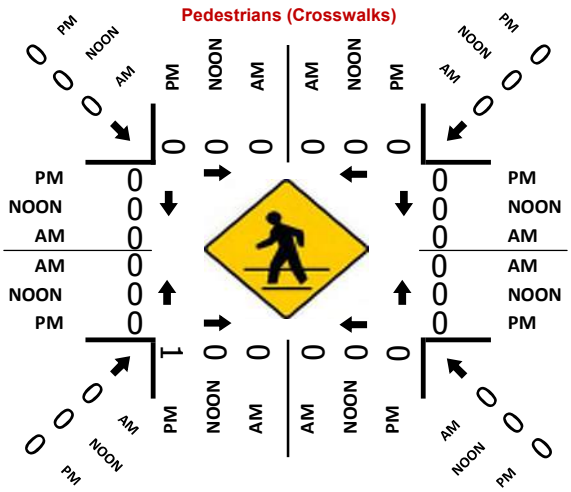
Cars (NOON)



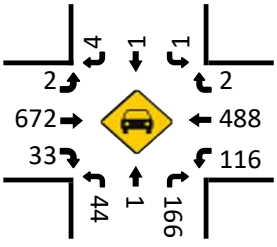
HT (NOON)



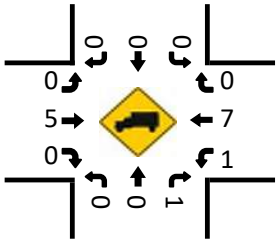
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Flowery Branch Rd & SR 124/Braselton Hwy

Peak Hour Turning Movement Count

ID: 24-180106-006
City: Hoschton

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
08:00 AM - 09:00 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	1536	0	1961
PHF	0.96	NOON	0.94

SOUTHBOUND (Flowery Branch Rd)

	L	T	R	U	
AM	155	0	197	0	389 AM
NOON	0	0	0	0	0 NOON
PM	70	0	320	0	351 PM

EASTBOUND (SR 124/Braselton Hwy)

	L	T	R	U	
AM	635	0	577	0	
NOON	0	1	0	0	
PM	0	0	0	0	0
	88	0	94		1
	315	0	713		1
	0	0	0		0

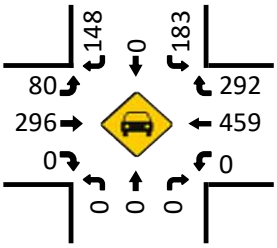
WESTBOUND (SR 124/Braselton Hwy)

	L	T	R	U	
PM	257	0	301	0	
NOON	507	0	480	1	
AM	0	0	0	0	
	0	0	0		0
	1033	0	512		

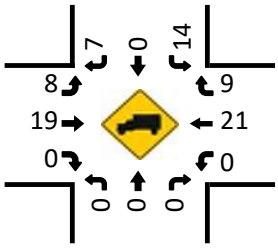
NORTHBOUND (Flowery Branch Rd)

	L	T	R	U	
PM	0	0	0	0	0 PM
NOON	0	0	0	0	0 NOON
AM	0	0	0	0	0 AM

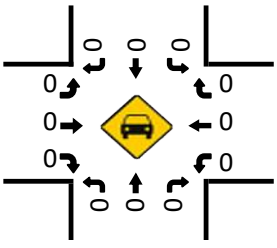
Cars (AM)



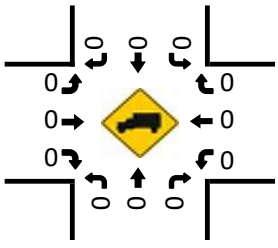
HT (AM)



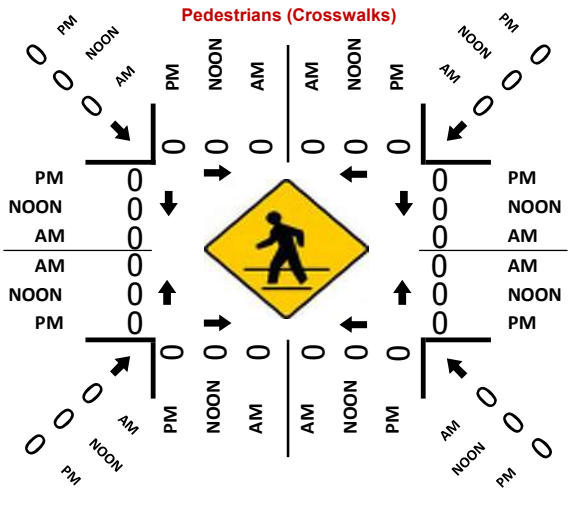
Cars (NOON)



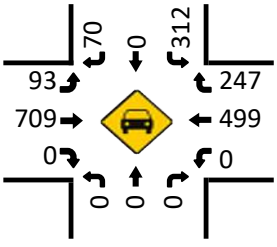
HT (NOON)



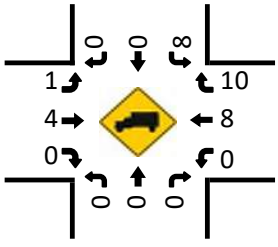
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Mt Moriah Rd & SR 124/Braselton Hwy

Peak Hour Turning Movement Count

ID: 24-180106-007
City: Auburn

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NONE	NONE
05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	1527 AM	0 NOON	2155 PM
TEV			
PHF	0.97		0.96

SOUTHBOUND (Mt Moriah Rd)

	L	T	R	U	Total
AM	1	0	0	0	0
NOON	0	0	0	0	0
PM	1	0	0	0	0

EASTBOUND (SR 124/Braselton Hwy)

	L	T	R	U
AM	0	797	781	0
NOON	0	0	0	0
PM	0	0	0	0

	L	T	R	U
AM	0	305	747	1
NOON	0	164	264	1
PM	0	463	176	164

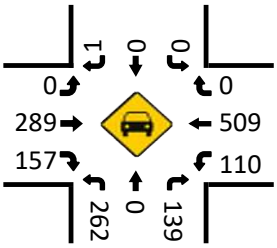
WESTBOUND (SR 124/Braselton Hwy)

	L	T	R	U
PM	0	0	0	0
NOON	1	604	0	526
AM	1	199	0	119
	0	0	0	0
		911	0	447

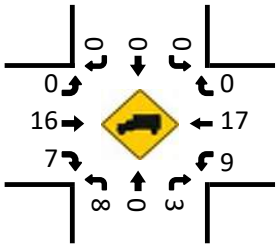
NORTHBOUND (Mt Moriah Rd)

	L	T	R	U	Total
PM	463	0	176	0	164
NOON	0	0	0	0	0
AM	283	0	270	0	142

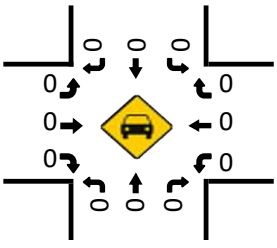
Cars (AM)



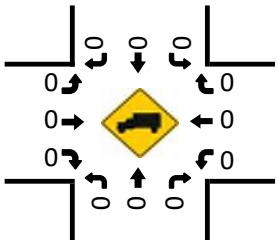
HT (AM)



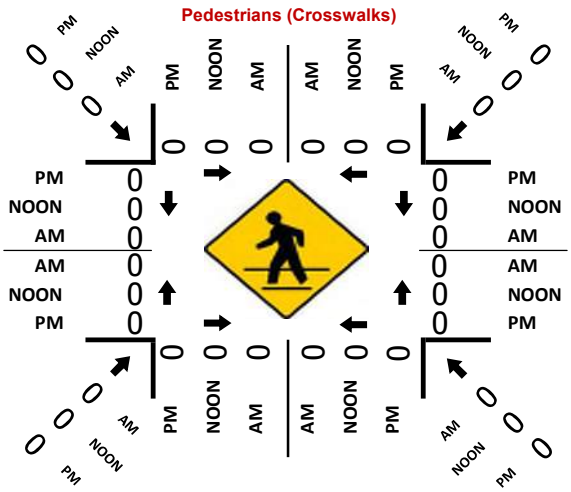
Cars (NOON)



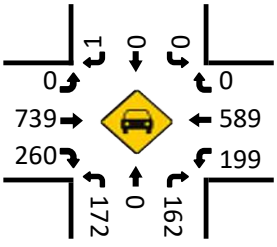
HT (NOON)



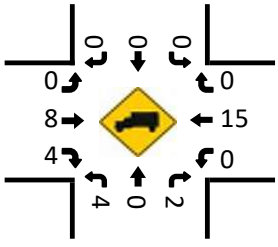
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Jim Moore Rd & Hog Mountain Rd NE

Peak Hour Turning Movement Count

ID: 24-180106-008
City: Dacula

Day: Tuesday
Date: 4/30/2024

PEAK HOURS		COUNT PERIODS
AM	07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

SOUTHBOUND – Jim Moore Rd

	Right	Thru	Left	U-Turn	Exit (⇧)
AM	13	3	5	0	54
NOON	0	0	0	0	0
PM	41	50	12	0	40
	0	1	0	0	

WESTBOUND – Hog Mountain Rd NE

		PM	NOON	AM
Right	0	11	0	6
Thru	1	294	0	328
Left	0	57	0	32
U-Turn	0	0	0	0
Exit (⇨)		444	0	244

EASTBOUND – Hog Mountain Rd NE

	AM	NOON	PM	
Exit (⇦)	365	0	346	
U-Turn	0	0	0	0
Left	15	0	10	0
Thru	189	0	343	1
Right	11	0	19	0

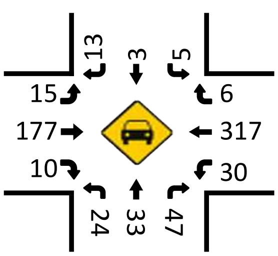
NORTHBOUND – Jim Moore Rd

	Exit (⇩)	U-Turn	Left	Thru	Right
		0	0	1	0
PM	126	0	11	19	89
NOON	0	0	0	0	0
AM	46	0	24	33	50

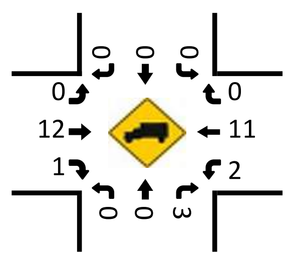
CONTROL: 4-Way Stop

	AM	NOON	PM
TEV	709	0	956
PHF	0.91		0.96

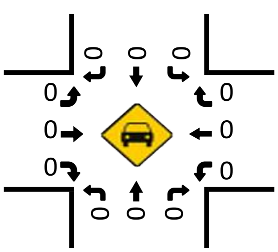
Cars (AM)



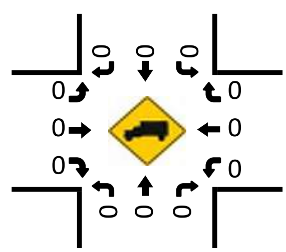
HT (AM)



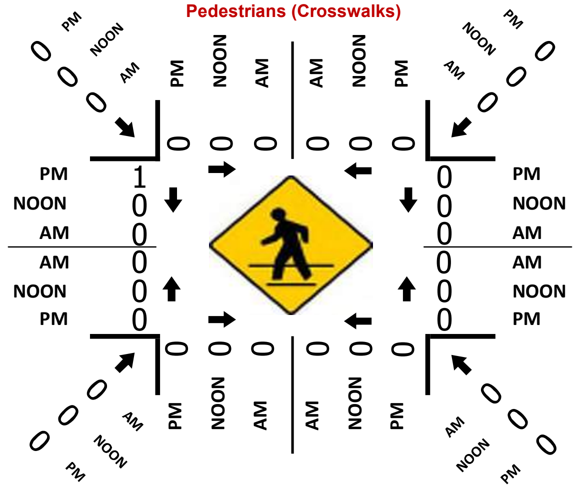
Cars (NOON)



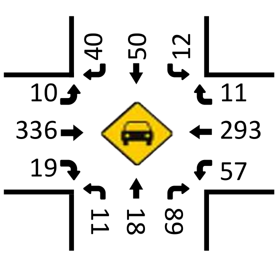
HT (NOON)



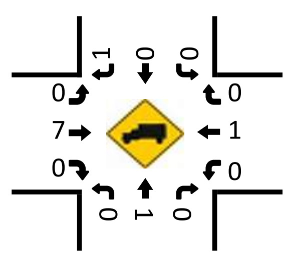
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Mineral Springs Rd & Hog Mountain Rd NE

Peak Hour Turning Movement Count

ID: 24-180106-009
City: Hoschton

Day: Tuesday
Date: 4/30/2024

PEAK HOURS		COUNT PERIODS
AM	07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NOON	NONE	NONE
PM	05:00 PM - 06:00 PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	1059	0	1294
PHF	0.96		0.94

SOUTHBOUND (Mineral Springs Rd)

	Left	Thru	Right	U-Turn	Total
AM	68	82	11	0	376
NOON	0	0	0	0	0
PM	82	191	30	0	260

EASTBOUND (Hog Mountain Rd NE)

	Left	Thru	Right	U-Turn
AM	410	0	305	0
NOON	0	0	0	0
PM	433	0	296	0

WESTBOUND (Hog Mountain Rd NE)

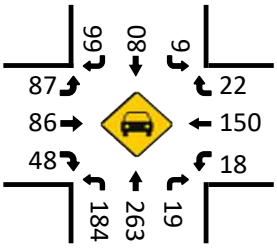
	Left	Thru	Right	U-Turn
AM	87	0	120	1
NOON	0	0	0	0
PM	149	0	154	1

NORTHBOUND (Mineral Springs Rd)

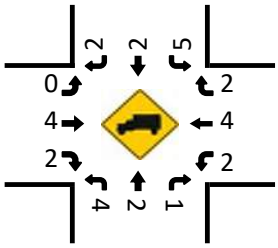
	Left	Thru	Right	U-Turn
AM	90	0	237	1
NOON	0	0	0	0
PM	17	0	20	1

	Left	Thru	Right	U-Turn
AM	50	0	225	1
NOON	0	0	0	0
PM	25	0	24	0

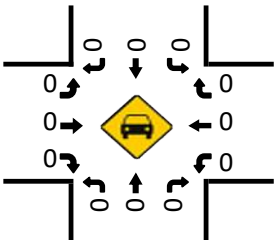
Cars (AM)



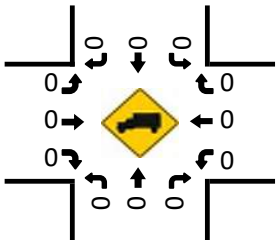
HT (AM)



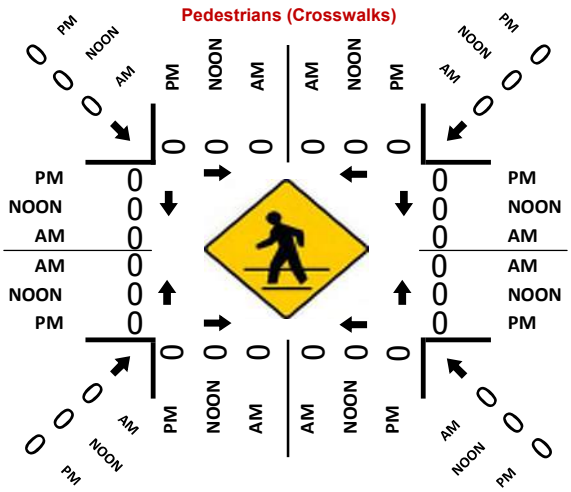
Cars (NOON)



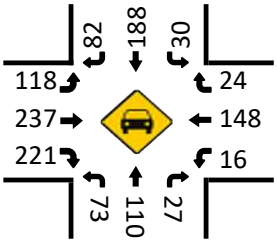
HT (NOON)



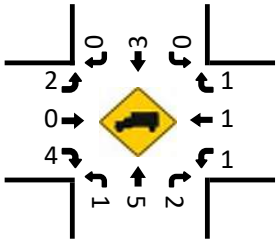
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Fence Rd NE & SR 324/Auburn Rd

Peak Hour Turning Movement Count

ID: 24-180106-010
City: Dacula

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

CONTROL: Signalized

	AM	NOON	PM
TEV	1675	0	1896
PHF	0.99		0.96

SOUTHBOUND (Fence Rd NE)

	L	T	R	U	Total	
AM	264	260	30	0	298	AM
NOON	0	0	0	0	0	NOON
PM	187	212	43	0	511	PM

EASTBOUND (SR 324/Auburn Rd)

AM	NOON	PM	
779	0	555	
0	0	0	0
119	0	285	1
224	0	454	1
37	0	31	1

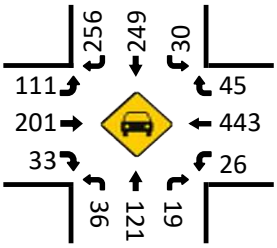
WESTBOUND (SR 324/Auburn Rd)

PM	NOON	AM	
51	0	47	0
319	0	475	1
44	0	26	1
0	0	0	0
543	0	275	

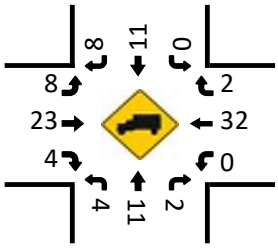
NORTHBOUND (Fence Rd NE)

	L	T	R	U	Total	
PM	287	0	49	175	46	PM
NOON	0	0	0	0	0	NOON
AM	323	0	40	132	21	AM

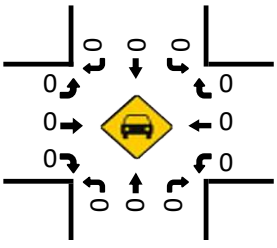
Cars (AM)



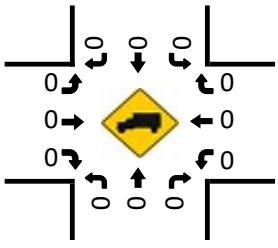
HT (AM)



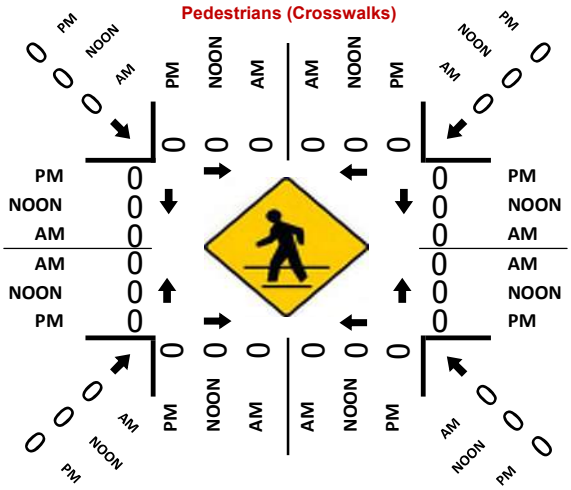
Cars (NOON)



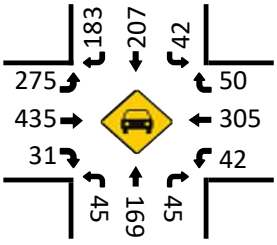
HT (NOON)



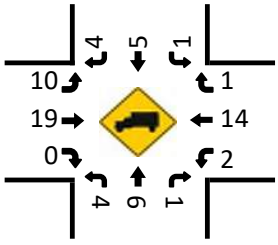
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Clack Rd & Fence Rd NE

Peak Hour Turning Movement Count

ID: 24-180106-011
City: Auburn

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Clack Rd)

	L	T	R	U	Total	
AM	257	0	38	0	379	AM
NOON	0	0	0	0	0	NOON
PM	302	0	163	0	286	PM

EASTBOUND (Fence Rd NE)

AM	NOON	PM	
472	0	412	⇦
0	0	0	↶ 0
203	0	224	↱ 0
58	0	165	→ 1
0	0	0	↷ 0
AM	NOON	PM	

WESTBOUND (Fence Rd NE)

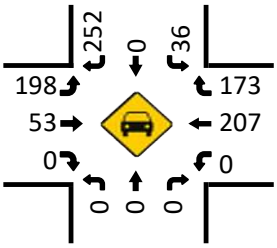
PM	NOON	AM	
62	0	176	0 ↰
110	0	215	1 ←
0	0	0	0 ↙
0	0	0	0 ↶
328	0	96	⇨
PM	NOON	AM	

NORTHBOUND (Clack Rd)

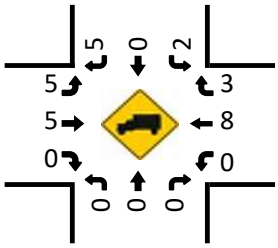
	L	T	R	U	Total	
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL			
1-Way Stop(SB)			
TEV	947 AM	0 NOON	1026 PM
PHF	0.93		0.92

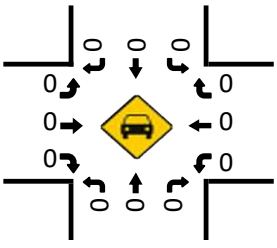
Cars (AM)



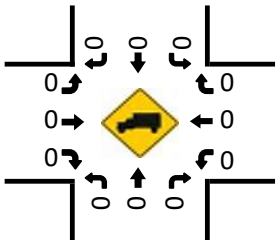
HT (AM)



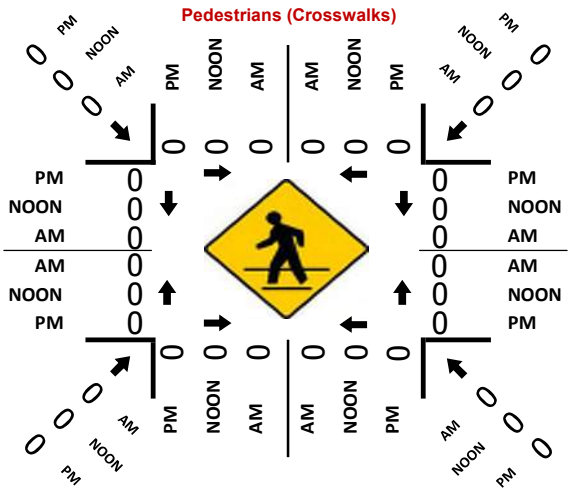
Cars (NOON)



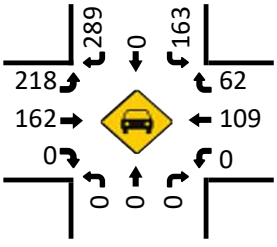
HT (NOON)



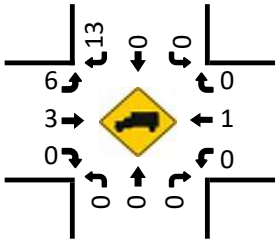
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Clack Rd & Mineral Springs Rd

Peak Hour Turning Movement Count

ID: 24-180106-012
City: Auburn

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Clack Rd)

AM	74	119	0	0	99	AM
NOON	0	0	0	0	0	NOON
PM	18	127	0	0	153	PM

EASTBOUND (Mineral Springs Rd)

AM	NOON	PM	
402	0	199	
0	0	0	0
6	0	41	0
0	0	0	1
144	0	334	0

WESTBOUND (Mineral Springs Rd)

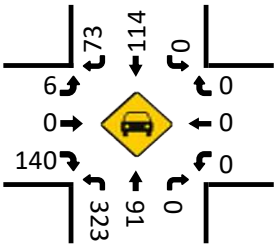
	PM	NOON	AM
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
	0	0	0

NORTHBOUND (Clack Rd)

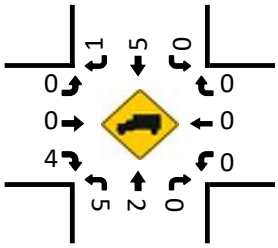
PM	461	0	181	112	0	PM
NOON	0	0	0	0	0	NOON
AM	263	0	328	93	0	AM

CONTROL			
1-Way Stop(EB)			
TEV	764 AM	0 NOON	813 PM
PHF	0.95		0.97

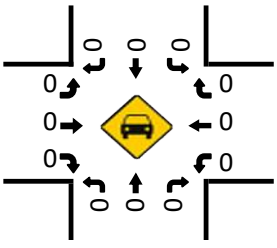
Cars (AM)



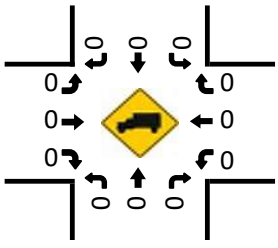
HT (AM)



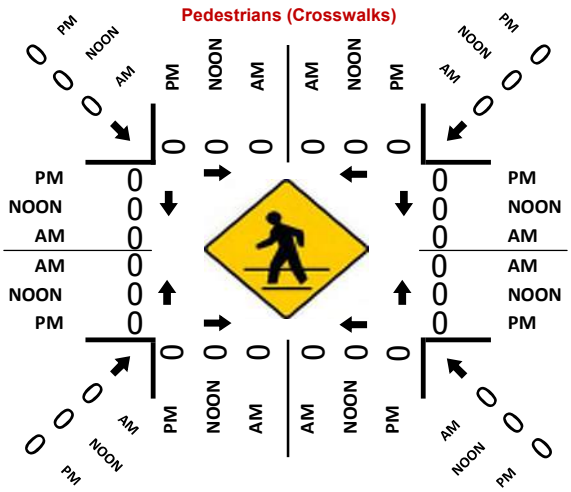
Cars (NOON)



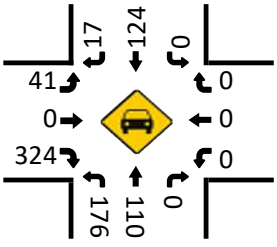
HT (NOON)



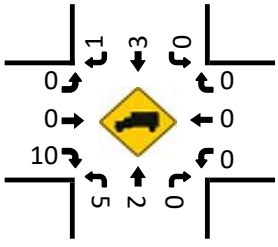
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

Mt Moriah Rd & Clack Rd

Peak Hour Turning Movement Count

ID: 24-180106-013
City: Auburn

Day: Tuesday
Date: 4/30/2024

PEAK HOURS	COUNT PERIODS
07:00 AM - 08:00 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Mt Moriah Rd)

AM	157	186	0	0	359	AM
NOON	0	0	0	0	0	NOON
PM	116	301	0	0	325	PM

EASTBOUND (Clack Rd)

AM	NOON	PM	
190	0	130	
0	0	0	0
71	0	99	0
0	0	0	1
10	0	25	0

WESTBOUND (Clack Rd)

	PM	NOON	AM
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
	0	0	0

NORTHBOUND (Mt Moriah Rd)

PM	326	0	14	226	0	PM
NOON	0	0	0	0	0	NOON
AM	196	0	33	288	0	AM

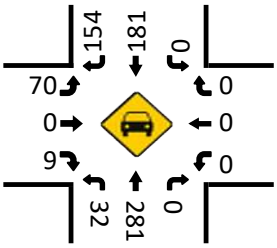
0	1	0	0	
				0
				0
				0
0	0	1	0	

CONTROL

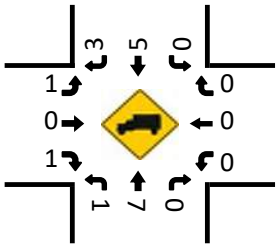
1-Way Stop(EB)

TEV	745 AM	0 NOON	781 PM
PHF	0.96		0.95

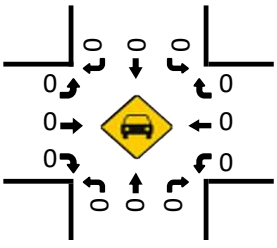
Cars (AM)



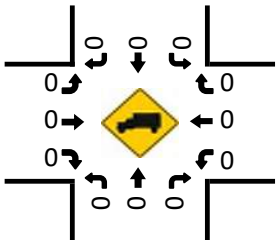
HT (AM)



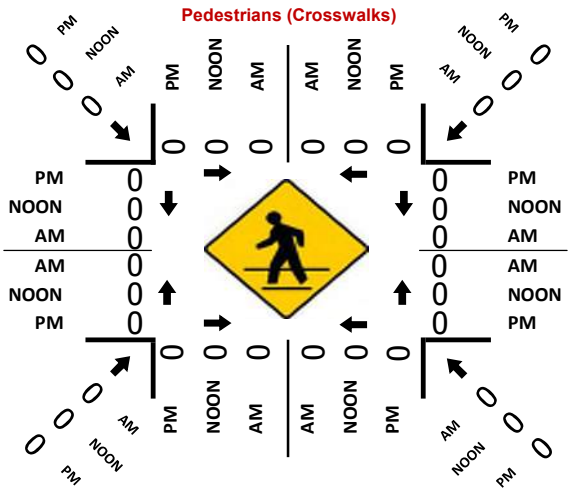
Cars (NOON)



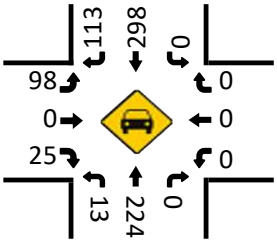
HT (NOON)



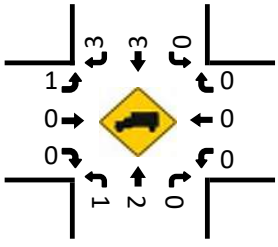
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



Prepared by National Data & Surveying Services

CLASSIFICATION

Mineral Springs Rd N/O Win West Pointe NE

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_001

HOURLY BREAKDOWN

Time	NORTHBOUND #1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total	SOUTHBOUND #1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total	TOTALS #1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	Total
0:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	6	1	0	0	0	0	0	0	0	0	0	0	7
2:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0	8	1	0	0	0	0	0	0	0	0	0	0	9
3:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	7	0	0	0	0	0	0	0	0	0	0	0	7
4:00	0	16	5	0	0	0	0	0	0	0	0	0	0	21	0	3	4	0	0	0	0	0	0	0	0	0	0	7	0	19	9	0	0	0	0	0	0	0	0	0	0	28
5:00	0	27	6	6	1	0	0	0	0	0	0	0	0	40	0	14	3	0	0	0	0	0	0	0	0	0	0	17	0	41	9	6	1	0	0	0	0	0	0	0	0	57
6:00	0	159	39	2	1	0	0	0	0	0	0	0	0	201	0	45	20	2	0	0	0	0	0	0	0	0	0	67	0	204	59	4	1	0	0	0	0	0	0	0	0	268
7:00	0	294	75	3	3	1	0	0	0	0	0	0	0	376	1	117	36	2	1	0	0	0	0	0	0	0	0	157	1	411	111	5	4	1	0	0	0	0	0	0	0	533
8:00	0	229	51	3	1	1	0	0	0	0	0	0	0	285	0	76	32	1	3	0	0	0	0	0	0	0	0	112	0	305	83	4	4	1	0	0	0	0	0	0	0	397
9:00	0	101	36	0	0	0	0	0	0	0	0	0	0	137	0	65	33	6	3	0	0	0	0	0	0	0	0	107	0	166	69	6	3	0	0	0	0	0	0	0	0	244
10:00	0	54	20	2	5	0	0	0	0	0	0	0	0	81	0	51	17	1	3	0	0	0	1	0	0	0	0	73	0	105	37	3	8	0	0	0	1	0	0	0	0	154
11:00	0	62	21	0	1	0	0	0	0	0	0	0	0	84	0	65	28	0	1	0	0	1	0	0	0	0	0	95	0	127	49	0	2	0	0	1	0	0	0	0	0	179
12:00	1	73	28	1	1	0	0	1	0	0	0	0	0	105	0	77	20	1	4	0	0	0	0	0	0	0	0	102	1	150	48	2	5	0	0	1	0	0	0	0	0	207
13:00	0	82	28	4	0	0	0	0	1	0	0	0	0	115	0	89	27	2	3	0	0	0	0	0	0	0	0	121	0	171	55	6	3	0	0	0	1	0	0	0	0	236
14:00	0	89	31	1	3	0	0	0	1	0	0	0	0	125	0	115	28	4	8	0	0	1	1	0	0	0	0	157	0	204	59	5	11	0	0	1	2	0	0	0	0	282
15:00	0	132	30	6	5	0	0	1	0	0	0	0	0	174	1	149	51	3	5	1	0	0	0	0	0	0	0	210	1	281	81	9	10	1	0	1	0	0	0	0	0	384
16:00	2	137	39	1	3	0	0	0	0	0	0	0	0	182	0	233	73	8	0	0	0	0	0	0	0	0	0	314	2	370	112	9	3	0	0	0	0	0	0	0	0	496
17:00	0	135	43	1	4	0	0	0	0	0	0	0	0	183	1	284	72	3	2	1	0	0	0	0	0	0	0	363	1	419	115	4	6	1	0	0	0	0	0	0	0	546
18:00	0	142	25	0	1	0	0	1	0	0	0	0	0	169	0	178	48	0	4	0	0	0	0	0	0	0	0	230	0	320	73	0	5	0	0	1	0	0	0	0	0	399
19:00	0	77	13	0	5	0	0	0	0	0	0	0	0	95	0	112	34	0	0	0	0	0	0	0	0	0	0	146	0	189	47	0	5	0	0	0	0	0	0	0	0	241
20:00	0	53	11	0	1	0	0	0	0	0	0	0	0	65	0	83	21	0	0	0	0	0	0	0	0	0	0	104	0	136	32	0	1	0	0	0	0	0	0	0	0	169
21:00	0	37	7	0	0	0	0	0	0	0	0	0	0	44	0	41	13	0	0	0	0	0	0	0	0	0	0	54	0	78	20	0	0	0	0	0	0	0	0	0	0	98
22:00	0	17	1	0	0	0	0	0	0	0	0	0	0	18	0	32	4	0	0	0	0	0	0	0	0	0	0	36	0	49	5	0	0	0	0	0	0	0	0	0	0	54
23:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0	8	0	15	1	0	0	0	0	0	0	0	0	0	0	16
Totals	**3**	**1,939**	**511**	**30**	**35**	**2**	**0**	**3**	**2**	**0**	**0**	**0**	**0**	**2,525**	**3**	**1,846**	**565**	**33**	**37**	**2**	**0**	**2**	**2**	**0**	**0**	**0**	**0**	**2,490**	**6**	**3,785**	**1,076**	**63**	**72**	**4**	**0**	**5**	**4**	**0**	**0**	**0**	**0**	**5,015**
% of Totals	0%	77%	20%	1%	1%	0%		0%	0%					100%	0%	74%	23%	1%	1%	0%		0%	0%					100%	0%	75%	21%	1%	1%	0%		0%	0%					100%

FHWA

CLASSIFICATION DEFINITIONS

#1 Motorcycles

#2 Passenger Cars

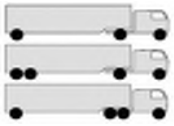
#3 2-Axle, 4-Tire Single Unit

#4 Buses

#5 2-Axle, 6-Tire Single Units

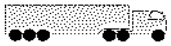
#6 3-Axle Single Units

#7 >=4-Axle Single Units



#8 <=4-Axle Single Trailers

#9 5-Axle Single Trailers



#10 >=6-Axle Single Trailers

#11 <=5-Axle Multi-Trailers

#12 6-Axle Multi-Trailers

#13 >=7-Axle Multi-Trailers

STATISTICS

00:00 - 12:00	0	958	254	16	12	2	0	0	0	0	0	0	0	1242	1	445	174	12	11	0	0	1	1	0	0	0	0	645	1	1403	428	28	23	2	0	1	1	0	0	0	0	1887
%	0%	38%	10%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	49%	0%	18%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	26%	0%	28%	9%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	38%
Peak Hour	11:30	7:15	7:15	4:45	10:00	6:45	0:00	0:00	0:00	0:00	0:00	0:00	0:00	7:15	6:15	7:00	7:15	9:00	9:15	0:00	0:00	11:00	9:15	0:00	0:00	0:00	0:00	7:00	6:15	7:15	7:15	5:15	10:00	6:45	0:00	11:00	9:15	0:00	0:00	0:00	0:00	7:15
Peak Volume	1	317	77	6	5	1	0	0	0	0	0	0	0	400	1	117	40	6	4	0	0	1	1	0	0	0	0	157	1	423	117	7	8	1	0	1	1	0	0	0	0	549
12:00 - 24:00	3	981	257	14	23	0	0	3	2	0	0	0	0	1283	2	1401	391	21	26	2	0	1	1	0	0	0	0	1845	5	2382	648	35	49	2	0	4	3	0	0	0	0	3128
%	0%	39%	10%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	51%	0%	56%	16%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	74%	0%	47%	13%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	62%
Peak Hour	16:00	17:30	16:15	14:30	15:00	12:00	12:00	12:00	13:30	12:00	12:00	12:00	12:00	16:45	14:45	16:45	16:15	16:15	14:00	14:15	12:00	13:15	13:15	12:00	12:00	12:00	12:00	16:30	15:30	16:45	16:15	16:30	14:00	14:15	12:00	12:00	13:30	12:00	12:00	12:00	12:00	16:45
Peak Volume	2	155	54	6	5	0	0	1	2	0	0	0	0	199	1	290	81	10	8	1	0	1	1	0	0	0	0	377	2	437	135	12	11	1	0	1	3	0	0	0	0	572
07:00 - 09:00	0	523	126	6	4	2	0	0	0	0	0	0	0	661	1	193	68	3	4	0	0	0	0	0	0	0	0	269	1	716	194	9	8	2	0	0	0	0	0	0	0	930
%	0%	21%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	26%	0%	8%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	11%	0%	14%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	19%
Peak Hour	7:00	7:15	7:15	7:30	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:15	7:00	7:00	7:15	7:00	8:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:15	7:15	7:30	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:15
Peak Volume	0	317	77	4	3	1	0	0	0	0	0	0	0	400	1	117	40	2	3	0	0	0	0	0	0	0	0	157	1	423	117	6	4	1	0	0	0	0	0	0	0	549
16:00 - 18:00	2	272	82	2	7	0	0	0	0	0	0	0	0	365	1	517	145	11	2	1	0	0	0	0	0	0	0	677	3	789	227	13	9	1	0	0	0	0	0	0	0	1042
%	0%	11%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%	0%	21%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	27%	0%	16%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	21%
Peak Hour	16:00	16:45	16:15	16:30	16:15	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:45	16:30	16:45	16:15	16:15	17:00	16:30	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:30	16:00	16:45	16:15	16:30	17:00	16:30	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:45
Peak Volume	2	147	54	2	4	0	0	0	0	0	0	0	0	199	1	290	81	10	2	1	0	0	0	0	0	0	0	377	2	437	135	12	6	1	0	0	0	0	0	0	0	572

Prepared by National Data & Surveying Services

CLASSIFICATION

Mineral Springs Rd N/O Win West Pointe NE

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_001

15-MINUTE BREAKDOWN

Time	NORTHBOUND													Total	SOUTHBOUND													Total	TOTALS													Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
0:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
0:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
0:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
0:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
1:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
1:30	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	2	1	0	0	0	0	0	0	0	0	0	0	**3**
1:45	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
2:00	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
2:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**
2:45	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
3:00	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**
3:30	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**
3:45	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
4:00	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**
4:15	0	1	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	0	0	0	0	0	0	**1**	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**
4:30	0	6	1	0	0	0	0	0	0	0	0	0	0	**7**	0	0	2	0	0	0	0	0	0	0	0	0	0	**2**	0	6	3	0	0	0	0	0	0	0	0	0	0	**9**
4:45	0	6	3	0	0	0	0	0	0	0	0	0	0	**9**	0	3	1	0	0	0	0	0	0	0	0	0	0	**4**	0	9	4	0	0	0	0	0	0	0	0	0	0	**13**
5:00	0	4	3	0	1	0	0	0	0	0	0	0	0	**8**	0	1	1	0	0	0	0	0	0	0	0	0	0	**2**	0	5	4	0	1	0	0	0	0	0	0	0	0	**10**
5:15	0	7	1	3	0	0	0	0	0	0	0	0	0	**11**	0	7	1	0	0	0	0	0	0	0	0	0	0	**8**	0	14	2	3	0	0	0	0	0	0	0	0	0	**19**
5:30	0	10	0	3	0	0	0	0	0	0	0	0	0	**13**	0	4	1	0	0	0	0	0	0	0	0	0	0	**5**	0	14	1	3	0	0	0	0	0	0	0	0	0	**18**
5:45	0	6	2	0	0	0	0	0	0	0	0	0	0	**8**	0	2	0	0	0	0	0	0	0	0	0	0	0	**2**	0	8	2	0	0	0	0	0	0	0	0	0	0	**10**
6:00	0	21	3	0	0	0	0	0	0	0	0	0	0	**24**	0	8	1	1	0	0	0	0	0	0	0	0	0	**10**	0	29	4	1	0	0	0	0	0	0	0	0	0	**34**
6:15	0	30	10	2	0	0	0	0	0	0	0	0	0	**42**	0	8	5	0	0	0	0	0	0	0	0	0	0	**13**	0	38	15	2	0	0	0	0	0	0	0	0	0	**55**
6:30	0	46	8	0	1	0	0	0	0	0	0	0	0	**55**	0	12	5	1	0	0	0	0	0	0	0	0	0	**18**	0	58	13	1	1	0	0	0	0	0	0	0	0	**73**
6:45	0	62	18	0	0	0	0	0	0	0	0	0	0	**80**	0	17	9	0	0	0	0	0	0	0	0	0	0	**26**	0	79	27	0	0	0	0	0	0	0	0	0	0	**106**
7:00	0	56	12	1	1	0	0	0	0	0	0	0	0	**70**	1	31	6	0	1	0	0	0	0	0	0	0	0	**39**	1	87	18	1	2	0	0	0	0	0	0	0	0	**109**
7:15	0	60	20	0	0	0	0	0	0	0	0	0	0	**80**	0	40	13	0	0	0	0	0	0	0	0	0	0	**53**	0	100	33	0	0	0	0	0	0	0	0	0	0	**133**
7:30	0	92	19	1	2	1	0	0	0	0	0	0	0	**115**	0	22	6	1	0	0	0	0	0	0	0	0	0	**29**	0	114	25	2	2	1	0	0	0	0	0	0	0	**144**
7:45	0	86	24	1	0	0	0	0	0	0	0	0	0	**111**	0	24	11	1	0	0	0	0	0	0	0	0	0	**36**	0	110	35	2	0	0	0	0	0	0	0	0	0	**147**
8:00	0	79	14	0	1	0	0	0	0	0	0	0	0	**94**	0	20	10	0	1	0	0	0	0	0	0	0	0	**31**	0	99	24	0	2	0	0	0	0	0	0	0	0	**125**
8:15	0	54	10	2	0	0	0	0	0	0	0	0	0	**66**	0	16	7	0	0	0	0	0	0	0	0	0	0	**23**	0	70	17	2	0	0	0	0	0	0	0	0	0	**89**
8:30	0	42	17	1	0	1	0	0	0	0	0	0	0	**61**	0	23	7	0	0	0	0	0	0	0	0	0	0	**30**	0	65	24	1	0	1	0	0	0	0	0	0	0	**91**
8:45	0	54	10	0	0	0	0	0	0	0	0	0	0	**64**	0	17	8	1	2	0	0	0	0	0	0	0	0	**28**	0	71	18	1	2	0	0	0	0	0	0	0	0	**92**
9:00	0	29	11	0	0	0	0	0	0	0	0	0	0	**40**	0	14	9	2	0	0	0	0	0	0	0	0	0	**25**	0	43	20	2	0	0	0	0	0	0	0	0	0	**65**
9:15	0	26	8	0	0	0	0	0	0	0	0	0	0	**34**	0	20	10	2	0	0	0	0	0	0	0	0	0	**32**	0	46	18	2	0	0	0	0	0	0	0	0	0	**66**
9:30	0	24	9	0	0	0	0	0	0	0	0	0	0	**33**	0	19	10	0	1	0	0	0	0	0	0	0	0	**30**	0	43	19	0	1	0	0	0	0	0	0	0	0	**63**
9:45	0	22	8	0	0	0	0	0	0	0	0	0	0	**30**	0	12	4	2	2	0	0	0	0	0	0	0	0	**20**	0	34	12	2	2	0	0	0	0	0	0	0	0	**50**
10:00	0	16	6	0	2	0	0	0	0	0	0	0	0	**24**	0	12	4	1	1	0	0	0	1	0	0	0	0	**19**	0	28	10	1	3	0	0	0	1	0	0	0	0	**43**
10:15	0	9	6	2	0	0	0	0	0	0	0	0	0	**17**	0	12	4	0	0	0	0	0	0	0	0	0	0	**16**	0	21	10	2	0	0	0	0	0	0	0	0	0	**33**
10:30	0	21	3	0	1	0	0	0	0	0	0	0	0	**25**	0	10	4	0	0	0	0	0	0	0	0	0	0	**14**	0	31	7	0	1	0	0	0	0	0	0	0	0	**39**
10:45	0	8	5	0	2	0	0	0	0	0	0	0	0	**15**	0	17	5	0	2	0	0	0	0	0	0	0	0	**24**	0	25	10	0	4	0	0	0	0	0	0	0	0	**39**
11:00	0	13	3	0	1	0	0	0	0	0	0	0	0	**17**	0	21	9	0	1	0	0	0	0	0	0	0	0	**31**	0	34	12	0	2	0	0	0	0	0	0	0	0	**48**
11:15	0	8	6	0	0	0	0	0	0	0	0	0	0	**14**	0	16	2	0	0	0	0	0	0	0	0	0	0	**18**	0	24	8	0	0	0	0	0	0	0	0	0	0	**32**
11:30	0	25	5	0	0	0	0	0	0	0	0	0	0	**30**	0	16	9	0	0	0	0	0	0	0	0	0	0	**25**	0	41	14	0	0	0	0	0	0	0	0	0	0	**55**
11:45	0	16	7	0	0	0	0	0	0	0	0	0	0	**23**	0	12	8	0	0	0	0	1	0	0	0	0	0	**21**	0	28	15	0	0	0	0	1	0	0	0	0	0	**44**

Prepared by National Data & Surveying Services

CLASSIFICATION

Mineral Springs Rd N/O Win West Pointe NE

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_001

15-MINUTE BREAKDOWN

Time	NORTHBOUND													Total	SOUTHBOUND													Total	TOTALS													Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
12:00	0	19	5	0	0	0	0	0	0	0	0	0	0	24	0	18	5	1	1	0	0	0	0	0	0	0	0	25	0	37	10	1	1	0	0	0	0	0	0	0	0	49
12:15	1	18	6	0	1	0	0	0	0	0	0	0	0	26	0	16	3	0	1	0	0	0	0	0	0	0	0	20	1	34	9	0	2	0	0	0	0	0	0	0	0	46
12:30	0	17	8	0	0	0	0	0	0	0	0	0	0	25	0	25	5	0	1	0	0	0	0	0	0	0	0	31	0	42	13	0	1	0	0	0	0	0	0	0	0	56
12:45	0	19	9	1	0	0	0	1	0	0	0	0	0	30	0	18	7	0	1	0	0	0	0	0	0	0	0	26	0	37	16	1	1	0	0	1	0	0	0	0	0	56
13:00	0	19	5	1	0	0	0	0	0	0	0	0	0	25	0	32	7	1	2	0	0	0	0	0	0	0	0	42	0	51	12	2	2	0	0	0	0	0	0	0	0	67
13:15	0	19	9	0	0	0	0	0	0	0	0	0	0	28	0	15	5	0	0	0	0	0	0	0	0	0	0	20	0	34	14	0	0	0	0	0	0	0	0	0	0	48
13:30	0	22	3	3	0	0	0	0	1	0	0	0	0	29	0	26	6	1	0	0	0	0	0	0	0	0	0	33	0	48	9	4	0	0	0	0	1	0	0	0	0	62
13:45	0	22	11	0	0	0	0	0	0	0	0	0	0	33	0	16	9	0	1	0	0	0	0	0	0	0	0	26	0	38	20	0	1	0	0	0	0	0	0	0	0	59
14:00	0	21	5	0	0	0	0	0	0	0	0	0	0	26	0	21	5	2	2	0	0	1	1	0	0	0	0	32	0	42	10	2	2	0	0	1	1	0	0	0	0	58
14:15	0	17	7	0	1	0	0	0	1	0	0	0	0	26	0	29	9	0	1	0	0	0	0	0	0	0	0	39	0	46	16	0	2	0	0	0	1	0	0	0	0	65
14:30	0	26	5	1	2	0	0	0	0	0	0	0	0	34	0	40	9	0	3	0	0	0	0	0	0	0	0	52	0	66	14	1	5	0	0	0	0	0	0	0	0	86
14:45	0	25	14	0	0	0	0	0	0	0	0	0	0	39	0	25	5	2	2	0	0	0	0	0	0	0	0	34	0	50	19	2	2	0	0	0	0	0	0	0	0	73
15:00	0	39	5	3	0	0	0	0	0	0	0	0	0	47	0	33	12	0	0	1	0	0	0	0	0	0	0	46	0	72	17	3	0	1	0	0	0	0	0	0	0	93
15:15	0	31	12	2	1	0	0	1	0	0	0	0	0	47	0	31	13	0	2	0	0	0	0	0	0	0	0	46	0	62	25	2	3	0	0	1	0	0	0	0	0	93
15:30	0	30	6	1	2	0	0	0	0	0	0	0	0	39	1	40	12	2	3	0	0	0	0	0	0	0	0	58	1	70	18	3	5	0	0	0	0	0	0	0	0	97
15:45	0	32	7	0	2	0	0	0	0	0	0	0	0	41	0	45	14	1	0	0	0	0	0	0	0	0	0	60	0	77	21	1	2	0	0	0	0	0	0	0	0	101
16:00	0	27	4	0	0	0	0	0	0	0	0	0	0	31	0	39	18	1	0	0	0	0	0	0	0	0	0	58	0	66	22	1	0	0	0	0	0	0	0	0	0	89
16:15	1	38	12	0	1	0	0	0	0	0	0	0	0	52	0	60	14	0	0	0	0	0	0	0	0	0	0	74	1	98	26	0	1	0	0	0	0	0	0	0	0	126
16:30	0	34	12	1	1	0	0	0	0	0	0	0	0	48	0	59	18	3	0	0	0	0	0	0	0	0	0	80	0	93	30	4	1	0	0	0	0	0	0	0	0	128
16:45	1	38	11	0	1	0	0	0	0	0	0	0	0	51	0	75	23	4	0	0	0	0	0	0	0	0	0	102	1	113	34	4	1	0	0	0	0	0	0	0	0	153
17:00	0	25	19	0	1	0	0	0	0	0	0	0	0	45	0	72	26	3	0	0	0	0	0	0	0	0	0	101	0	97	45	3	1	0	0	0	0	0	0	0	0	146
17:15	0	41	8	1	0	0	0	0	0	0	0	0	0	50	1	78	13	0	1	1	0	0	0	0	0	0	0	94	1	119	21	1	1	1	0	0	0	0	0	0	0	144
17:30	0	43	8	0	2	0	0	0	0	0	0	0	0	53	0	65	11	0	0	0	0	0	0	0	0	0	0	76	0	108	19	0	2	0	0	0	0	0	0	0	0	129
17:45	0	26	8	0	1	0	0	0	0	0	0	0	0	35	0	69	22	0	1	0	0	0	0	0	0	0	0	92	0	95	30	0	2	0	0	0	0	0	0	0	0	127
18:00	0	35	9	0	0	0	0	0	0	0	0	0	0	44	0	59	14	0	1	0	0	0	0	0	0	0	0	74	0	94	23	0	1	0	0	0	0	0	0	0	0	118
18:15	0	51	8	0	1	0	0	1	0	0	0	0	0	61	0	42	17	0	2	0	0	0	0	0	0	0	0	61	0	93	25	0	3	0	0	1	0	0	0	0	0	122
18:30	0	27	6	0	0	0	0	0	0	0	0	0	0	33	0	43	11	0	1	0	0	0	0	0	0	0	0	55	0	70	17	0	1	0	0	0	0	0	0	0	0	88
18:45	0	29	2	0	0	0	0	0	0	0	0	0	0	31	0	34	6	0	0	0	0	0	0	0	0	0	0	40	0	63	8	0	0	0	0	0	0	0	0	0	0	71
19:00	0	27	0	0	2	0	0	0	0	0	0	0	0	29	0	31	12	0	0	0	0	0	0	0	0	0	0	43	0	58	12	0	2	0	0	0	0	0	0	0	0	72
19:15	0	17	5	0	1	0	0	0	0	0	0	0	0	23	0	30	4	0	0	0	0	0	0	0	0	0	0	34	0	47	9	0	1	0	0	0	0	0	0	0	0	57
19:30	0	17	2	0	2	0	0	0	0	0	0	0	0	21	0	22	6	0	0	0	0	0	0	0	0	0	0	28	0	39	8	0	2	0	0	0	0	0	0	0	0	49
19:45	0	16	6	0	0	0	0	0	0	0	0	0	0	22	0	29	12	0	0	0	0	0	0	0	0	0	0	41	0	45	18	0	0	0	0	0	0	0	0	0	0	63
20:00	0	14	4	0	0	0	0	0	0	0	0	0	0	18	0	21	6	0	0	0	0	0	0	0	0	0	0	27	0	35	10	0	0	0	0	0	0	0	0	0	0	45
20:15	0	15	1	0	0	0	0	0	0	0	0	0	0	16	0	25	6	0	0	0	0	0	0	0	0	0	0	31	0	40	7	0	0	0	0	0	0	0	0	0	0	47
20:30	0	13	1	0	0	0	0	0	0	0	0	0	0	14	0	20	5	0	0	0	0	0	0	0	0	0	0	25	0	33	6	0	0	0	0	0	0	0	0	0	0	39
20:45	0	11	5	0	1	0	0	0	0	0	0	0	0	17	0	17	4	0	0	0	0	0	0	0	0	0	0	21	0	28	9	0	1	0	0	0	0	0	0	0	0	38
21:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12	0	10	4	0	0	0	0	0	0	0	0	0	0	14	0	21	5	0	0	0	0	0	0	0	0	0	0	26
21:15	0	11	3	0	0	0	0	0	0	0	0	0	0	14	0	13	3	0	0	0	0	0	0	0	0	0	0	16	0	24	6	0	0	0	0	0	0	0	0	0	0	30
21:30	0	8	2	0	0	0	0	0	0	0	0	0	0	10	0	8	4	0	0	0	0	0	0	0	0	0	0	12	0	16	6	0	0	0	0	0	0	0	0	0	0	22
21:45	0	7	1	0	0	0	0	0	0	0	0	0	0	8	0	10	2	0	0	0	0	0	0	0	0	0	0	12	0	17	3	0	0	0	0	0	0	0	0	0	0	20
22:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0	9	2	0	0	0	0	0	0	0	0	0	0	11	0	16	2	0	0	0	0	0	0	0	0	0	0	18
22:15	0	6	1	0	0	0	0	0	0	0	0	0	0	7	0	12	1	0	0	0	0	0	0	0	0	0	0	13	0	18	2	0	0	0	0	0	0	0	0	0	0	20
22:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	9	0	0	0	0	0	0	0	0	0	0	0	9
22:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	5	1	0	0	0	0	0	0	0	0	0	0	6	0	6	1	0	0	0	0	0	0	0	0	0	0	7
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	3
23:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	5	0	0	0	0	0	0	0	0	0	0	0	5
23:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	5	1	0	0	0	0	0	0	0	0	0	0	6
23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2
Totals	3	1,939	511	30	35	2	0	3	2	0	0	0	0	2,525	3	1,846	565	33	37	2	0	2	2	0	0	0	0	2,490	6	3,785	1,076	63	72	4	0	5	4	0	0	0	0	5,015
% of Totals	0%	77%	20%	1%	1%	0%		0%	0%					100%	0%	74%	23%	1%	1%	0%		0%	0%					100%	0%	75%	21%	1%	1%	0%		0%	0%					100%

Prepared by National Data & Surveying Services

VOLUME

Mineral Springs Rd N/O Win West Pointe NE

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_001

DAILY TOTALS	NB	SB	EB	WB	Total
	2,525	2,490	0	0	5,015

DAILY TOTALS

15-Minutes Interval

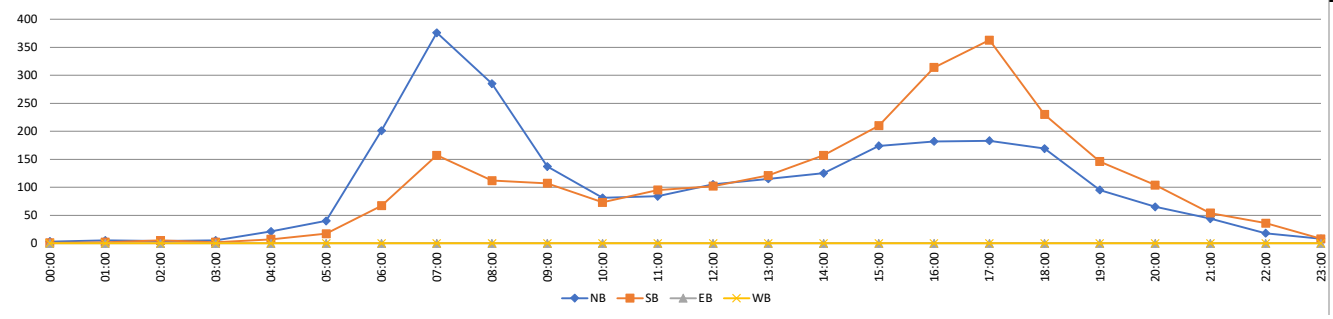
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00	2	0			2	12:00	24	25			49
0:15	0	1			1	12:15	26	20			46
0:30	1	0			1	12:30	25	31			56
0:45	0	0			0	12:45	30	26			56
1:00	2	0			2	13:00	25	42			67
1:15	0	0			0	13:15	28	20			48
1:30	2	1			3	13:30	29	33			62
1:45	1	1			2	13:45	33	26			59
2:00	2	1			3	14:00	26	32			58
2:15	1	0			1	14:15	26	39			65
2:30	1	4			5	14:30	34	52			86
2:45	0	0			0	14:45	39	34			73
3:00	1	0			1	15:00	47	46			93
3:15	0	1			1	15:15	47	46			93
3:30	1	1			2	15:30	39	58			97
3:45	3	0			3	15:45	41	60			101
4:00	4	0			4	16:00	31	58			89
4:15	1	1			2	16:15	52	74			126
4:30	7	2			9	16:30	48	80			128
4:45	9	4			13	16:45	51	102			153
5:00	8	2			10	17:00	45	101			146
5:15	11	8			19	17:15	50	94			144
5:30	13	5			18	17:30	53	76			129
5:45	8	2			10	17:45	35	92			127
6:00	24	10			34	18:00	44	74			118
6:15	42	13			55	18:15	61	61			122
6:30	55	18			73	18:30	33	55			88
6:45	80	26			106	18:45	31	40			71
7:00	70	39			109	19:00	29	43			72
7:15	80	53			133	19:15	23	34			57
7:30	115	29			144	19:30	21	28			49
7:45	111	36			147	19:45	22	41			63
8:00	94	31			125	20:00	18	27			45
8:15	66	23			89	20:15	16	31			47
8:30	61	30			91	20:30	14	25			39
8:45	64	28			92	20:45	17	21			38
9:00	40	25			65	21:00	12	14			26
9:15	34	32			66	21:15	14	16			30
9:30	33	30			63	21:30	10	12			22
9:45	30	20			50	21:45	8	12			20
10:00	24	19			43	22:00	7	11			18
10:15	17	16			33	22:15	7	13			20
10:30	25	14			39	22:30	3	6			9
10:45	15	24			39	22:45	1	6			7
11:00	17	31			48	23:00	1	2			3
11:15	14	18			32	23:15	2	3			5
11:30	30	25			55	23:30	4	2			6
11:45	23	21			44	23:45	1	1			2
TOTALS	1242	645	0	0	1887	TOTALS	1283	1845	0	0	3128
SPLIT %	66%	34%	0%	0%	38%	SPLIT %	41%	59%	0%	0%	62%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00	3	1			4
01:00	02:00	5	2			7
02:00	03:00	4	5			9
03:00	04:00	5	2			7
04:00	05:00	21	7			28
05:00	06:00	40	17			57
06:00	07:00	201	67			268
07:00	08:00	376	157			533
08:00	09:00	285	112			397
09:00	10:00	137	107			244
10:00	11:00	81	73			154
11:00	12:00	84	95			179
12:00	13:00	105	102			207
13:00	14:00	115	121			236
14:00	15:00	125	157			282
15:00	16:00	174	210			384
16:00	17:00	182	314			496
17:00	18:00	183	363			546
18:00	19:00	169	230			399
19:00	20:00	95	146			241
20:00	21:00	65	104			169
21:00	22:00	44	54			98
22:00	23:00	18	36			54
23:00	00:00	8	8			16

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume	1242	645			1887
Peak Hour	7:15	7:00			7:15
Peak Volume	400	157			549
Peak Hour Factor	0.870	0.741			0.934
Peak Period	12:00	to	00:00		
Volume	1283	1845			3128
Peak Hour	16:45	16:30			16:45
Peak Volume	199	377			572
Peak Hour Factor	0.939	0.924			0.935
Peak Period	07:00	to	09:00		
Volume	661	269			930
Peak Hour	7:15	7:00			7:15
Peak Volume	400	157			549
Peak Hour Factor	0.870	0.741			0.934
Peak Period	16:00	to	18:00		
Volume	365	677			1042
Peak Hour	16:45	16:30			16:45
Peak Volume	199	377			572
Peak Hour Factor	0.939	0.924			0.935



Prepared by National Data & Surveying Services

CLASSIFICATION

Clack Rd Bet Woodtrace Ln & Mt Moriah Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_002

HOURLY BREAKDOWN

Time	EASTBOUND													Total	WESTBOUND													Total	TOTALS													Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
0:00	0	8	1	0	0	0	0	0	0	0	0	0	0	9	0	9	2	0	0	0	0	0	0	0	0	0	0	11	0	17	3	0	0	0	0	0	0	0	0	0	0	20
1:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	13	0	0	0	0	0	0	0	0	0	0	0	13
2:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	10	0	0	0	0	0	0	0	0	0	0	0	10
3:00	0	10	1	0	1	0	0	0	0	0	0	0	0	12	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	15	1	0	1	0	0	0	0	0	0	0	0	17
4:00	0	21	1	0	0	0	0	0	0	0	0	0	0	22	0	13	1	0	0	0	0	0	0	0	0	0	0	14	0	34	2	0	0	0	0	0	0	0	0	0	0	36
5:00	0	23	1	0	0	0	0	0	0	0	0	0	0	24	0	32	1	0	0	0	0	0	0	0	0	0	0	33	0	55	2	0	0	0	0	0	0	0	0	0	0	57
6:00	0	50	13	0	1	0	0	0	0	0	0	0	0	64	0	97	18	0	1	0	0	0	0	0	0	0	0	116	0	147	31	0	2	0	0	0	0	0	0	0	0	180
7:00	0	62	17	0	1	1	0	0	0	0	0	0	0	81	0	144	41	0	4	0	0	1	0	0	0	0	0	190	0	206	58	0	5	1	0	1	0	0	0	0	0	271
8:00	0	50	25	0	0	0	0	0	0	0	0	0	0	75	0	91	25	0	1	0	0	0	0	0	0	0	0	117	0	141	50	0	1	0	0	0	0	0	0	0	0	192
9:00	0	40	11	0	2	1	0	0	0	0	0	0	0	54	0	55	8	0	2	0	0	0	0	0	0	0	0	65	0	95	19	0	4	1	0	0	0	0	0	0	0	119
10:00	0	40	10	0	1	0	0	0	0	0	0	0	0	51	0	36	8	0	6	0	0	0	0	0	0	0	0	50	0	76	18	0	7	0	0	0	0	0	0	0	0	101
11:00	0	34	21	0	4	0	0	0	0	0	0	0	0	59	0	47	15	0	2	0	0	0	0	0	0	0	0	64	0	81	36	0	6	0	0	0	0	0	0	0	0	123
12:00	0	39	12	0	2	0	0	0	0	0	0	0	0	53	0	51	20	0	4	0	0	1	0	0	0	0	0	76	0	90	32	0	6	0	0	1	0	0	0	0	0	129
13:00	0	49	19	0	3	0	0	0	0	0	0	0	0	71	0	48	15	0	2	0	0	0	0	0	0	0	0	65	0	97	34	0	5	0	0	0	0	0	0	0	0	136
14:00	0	57	15	0	0	0	0	0	0	0	0	0	0	72	0	61	14	0	4	0	0	1	0	0	0	0	0	80	0	118	29	0	4	0	0	1	0	0	0	0	0	152
15:00	0	81	18	0	4	0	0	0	0	0	0	0	0	103	0	84	20	0	3	0	0	1	0	0	0	0	0	108	0	165	38	0	7	0	0	1	0	0	0	0	0	211
16:00	0	110	25	1	2	0	0	1	0	0	0	0	0	139	0	76	16	2	0	0	0	0	0	0	0	0	0	94	0	186	41	3	2	0	0	0	1	0	0	0	0	233
17:00	0	97	20	0	1	0	0	1	0	0	0	0	0	119	0	106	31	2	0	0	0	0	0	0	0	0	0	139	0	203	51	2	1	0	0	1	0	0	0	0	0	258
18:00	0	74	16	0	1	0	0	0	0	0	0	0	0	91	0	78	18	0	1	0	0	1	0	0	0	0	0	98	0	152	34	0	2	0	0	1	0	0	0	0	0	189
19:00	0	70	19	0	1	0	0	0	0	0	0	0	0	90	0	50	8	0	0	0	0	0	0	0	0	0	0	58	0	120	27	0	1	0	0	0	0	0	0	0	0	148
20:00	0	61	14	0	1	0	0	0	0	0	0	0	0	76	0	37	6	0	1	0	0	0	0	0	0	0	0	44	0	98	20	0	2	0	0	0	0	0	0	0	0	120
21:00	0	38	4	0	0	0	0	0	0	0	0	0	0	42	0	26	4	0	0	0	0	0	0	0	0	0	0	30	0	64	8	0	0	0	0	0	0	0	0	0	0	72
22:00	0	25	3	0	1	0	0	0	0	0	0	0	0	29	0	5	1	0	0	0	0	0	0	0	0	0	0	6	0	30	4	0	1	0	0	0	0	0	0	0	0	35
23:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	10	3	0	0	0	0	0	0	0	0	0	0	13	0	16	3	0	0	0	0	0	0	0	0	0	0	19
Totals	**0**	**1,058**	**266**	**1**	**26**	**2**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1,355**	**0**	**1,171**	**275**	**4**	**31**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**1,486**	**0**	**2,229**	**541**	**5**	**57**	**2**	**0**	**6**	**1**	**0**	**0**	**0**	**0**	**2,841**
% of Totals		78%	20%	0%	2%	0%		0%	0%					100%		79%	19%	0%	2%			0%						100%		78%	19%	0%	2%	0%		0%	0%					100%

FHWA

CLASSIFICATION DEFINITIONS

#1 Motorcycles

#2 Passenger Cars

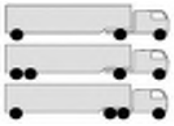
#3 2-Axle, 4-Tire Single Unit

#4 Buses

#5 2-Axle, 6-Tire Single Units

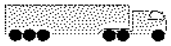
#6 3-Axle Single Units

#7 >=4-Axle Single Units



#8 <=4-Axle Single Trailers

#9 5-Axle Single Trailers



#10 >=6-Axle Single Trailers

#11 <=5-Axle Multi-Trailers

#12 6-Axle Multi-Trailers

#13 >=7-Axle Multi-Trailers

STATISTICS

00:00 - 12:00	0	351	101	0	10	2	0	0	0	0	0	0	0	**464**	0	539	119	0	16	0	0	1	0	0	0	0	0	**675**	0	890	220	0	26	2	0	1	0	0	0	0	0	**1139**
%	0%	26%	7%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**34%**	0%	36%	8%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**45%**	0%	31%	8%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**40%**
Peak Hour	0:00	7:15	7:30	0:00	10:45	7:00	0:00	0:00	0:00	0:00	0:00	0:00	0:00	**7:30**	0:00	6:30	7:00	0:00	9:30	0:00	0:00	6:15	0:00	0:00	0:00	0:00	0:00	**6:45**	0:00	6:45	7:30	0:00	11:15	7:00	0:00	6:15	0:00	0:00	0:00	0:00	0:00	**6:45**
Peak Volume	0	65	30	0	4	1	0	0	0	0	0	0	0	**94**	0	155	41	0	6	0	0	1	0	0	0	0	0	**196**	0	216	61	0	8	1	0	1	0	0	0	0	0	**276**
12:00 - 24:00	0	707	165	1	16	0	0	1	1	0	0	0	0	**891**	0	632	156	4	15	0	0	4	0	0	0	0	0	**811**	0	1339	321	5	31	0	0	5	1	0	0	0	0	**1702**
%	0%	52%	12%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**66%**	0%	43%	10%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**55%**	0%	47%	11%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**60%**
Peak Hour	12:00	15:45	16:00	15:30	15:30	12:00	12:00	17:00	15:45	12:00	12:00	12:00	12:00	**15:45**	12:00	17:15	17:00	16:30	14:45	12:00	12:00	14:15	12:00	12:00	12:00	12:00	12:00	**17:00**	12:00	17:00	16:30	16:15	14:45	12:00	12:00	14:15	15:45	12:00	12:00	12:00	12:00	**16:30**
Peak Volume	0	116	25	1	5	0	0	1	1	0	0	0	0	**143**	0	108	31	4	5	0	0	2	0	0	0	0	0	**139**	0	203	55	4	7	0	0	2	1	0	0	0	0	**259**
07:00 - 09:00	0	112	42	0	1	1	0	0	0	0	0	0	0	**156**	0	235	66	0	5	0	0	1	0	0	0	0	0	**307**	0	347	108	0	6	1	0	1	0	0	0	0	0	**463**
%	0%	8%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**12%**	0%	16%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**21%**	0%	12%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**16%**
Peak Hour	7:00	7:15	7:30	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	**7:30**	7:00	7:00	7:00	7:00	7:15	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	**7:00**	7:00	7:00	7:30	7:00	7:15	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	**7:00**
Peak Volume	0	65	30	0	1	1	0	0	0	0	0	0	0	**94**	0	144	41	0	5	0	0	1	0	0	0	0	0	**190**	0	206	61	0	6	1	0	1	0	0	0	0	0	**271**
16:00 - 18:00	0	207	45	1	3	0	0	1	1	0	0	0	0	**258**	0	182	47	4	0	0	0	0	0	0	0	0	0	**233**	0	389	92	5	3	0	0	1	1	0	0	0	0	**491**
%	0%	15%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**19%**	0%	12%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**16%**	0%	14%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**17%**
Peak Hour	16:00	16:00	16:00	16:00	16:00	16:00	16:00	17:00	16:00	16:00	16:00	16:00	16:00	**16:00**	16:00	17:00	17:00	16:30	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	**17:00**	16:00	17:00	16:30	16:15	16:00	16:00	16:00	17:00	16:00	16:00	16:00	16:00	16:00	**16:30**
Peak Volume	0	110	25	1	2	0	0	1	1	0	0	0	0	**139**	0	106	31	4	0	0	0	0	0	0	0	0	0	**139**	0	203	55	4	2	0	0	1	1	0	0	0	0	**259**

Prepared by National Data & Surveying Services

CLASSIFICATION

Clack Rd Bet Woodtrace Ln & Mt Moriah Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_002

15-MINUTE BREAKDOWN

Time	EASTBOUND													Total	WESTBOUND													Total	TOTALS													Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
0:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4	1	0	0	0	0	0	0	0	0	0	0	5
0:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	4
0:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0	4	1	0	0	0	0	0	0	0	0	0	0	5
0:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	0	0	0	0	0	0	0	0	6
1:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3
2:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	5
3:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:30	0	2	0	0	1	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	0	1	0	0	0	0	0	0	0	0	5
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	0	0	0	0	0	0	0	0	6
4:15	0	6	1	0	0	0	0	0	0	0	0	0	0	7	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	8	1	0	0	0	0	0	0	0	0	0	0	9
4:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0	8	1	0	0	0	0	0	0	0	0	0	0	9
4:45	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	12	0	0	0	0	0	0	0	0	0	0	0	12
5:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8	0	9	0	0	0	0	0	0	0	0	0	0	0	9	0	16	1	0	0	0	0	0	0	0	0	0	0	17
5:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	11	0	0	0	0	0	0	0	0	0	0	0	11
5:30	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0	9	1	0	0	0	0	0	0	0	0	0	0	10	0	16	1	0	0	0	0	0	0	0	0	0	0	17
5:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	8	0	0	0	0	0	0	0	0	0	0	0	8	0	12	0	0	0	0	0	0	0	0	0	0	0	12
6:00	0	14	2	0	0	0	0	0	0	0	0	0	0	16	0	14	2	0	0	0	0	0	0	0	0	0	0	16	0	28	4	0	0	0	0	0	0	0	0	0	0	32
6:15	0	10	4	0	0	0	0	0	0	0	0	0	0	14	0	19	5	0	0	0	0	0	0	0	0	0	0	24	0	29	9	0	0	0	0	0	0	0	0	0	0	38
6:30	0	10	1	0	1	0	0	0	0	0	0	0	0	12	0	26	5	0	0	0	0	0	0	0	0	0	0	31	0	36	6	0	1	0	0	0	0	0	0	0	0	43
6:45	0	16	6	0	0	0	0	0	0	0	0	0	0	22	0	38	6	0	1	0	0	0	0	0	0	0	0	45	0	54	12	0	1	0	0	0	0	0	0	0	0	67
7:00	0	13	2	0	0	0	0	0	0	0	0	0	0	15	0	56	10	0	0	0	0	1	0	0	0	0	0	67	0	69	12	0	0	0	0	1	0	0	0	0	0	82
7:15	0	12	2	0	0	0	0	0	0	0	0	0	0	14	0	35	12	0	4	0	0	0	0	0	0	0	0	51	0	47	14	0	4	0	0	0	0	0	0	0	0	65
7:30	0	22	6	0	1	0	0	0	0	0	0	0	0	29	0	24	9	0	0	0	0	0	0	0	0	0	0	33	0	46	15	0	1	0	0	0	0	0	0	0	0	62
7:45	0	15	7	0	0	1	0	0	0	0	0	0	0	23	0	29	10	0	0	0	0	0	0	0	0	0	0	39	0	44	17	0	0	1	0	0	0	0	0	0	0	62
8:00	0	16	7	0	0	0	0	0	0	0	0	0	0	23	0	27	5	0	1	0	0	0	0	0	0	0	0	33	0	43	12	0	1	0	0	0	0	0	0	0	0	56
8:15	0	9	10	0	0	0	0	0	0	0	0	0	0	19	0	21	7	0	0	0	0	0	0	0	0	0	0	28	0	30	17	0	0	0	0	0	0	0	0	0	0	47
8:30	0	15	6	0	0	0	0	0	0	0	0	0	0	21	0	13	7	0	0	0	0	0	0	0	0	0	0	20	0	28	13	0	0	0	0	0	0	0	0	0	0	41
8:45	0	10	2	0	0	0	0	0	0	0	0	0	0	12	0	30	6	0	0	0	0	0	0	0	0	0	0	36	0	40	8	0	0	0	0	0	0	0	0	0	0	48
9:00	0	9	0	0	1	0	0	0	0	0	0	0	0	10	0	13	1	0	0	0	0	0	0	0	0	0	0	14	0	22	1	0	1	0	0	0	0	0	0	0	0	24
9:15	0	10	5	0	1	0	0	0	0	0	0	0	0	16	0	13	1	0	0	0	0	0	0	0	0	0	0	14	0	23	6	0	1	0	0	0	0	0	0	0	0	30
9:30	0	11	1	0	0	1	0	0	0	0	0	0	0	13	0	14	3	0	1	0	0	0	0	0	0	0	0	18	0	25	4	0	1	1	0	0	0	0	0	0	0	31
9:45	0	10	5	0	0	0	0	0	0	0	0	0	0	15	0	15	3	0	1	0	0	0	0	0	0	0	0	19	0	25	8	0	1	0	0	0	0	0	0	0	0	34
10:00	0	9	4	0	0	0	0	0	0	0	0	0	0	13	0	8	3	0	2	0	0	0	0	0	0	0	0	13	0	17	7	0	2	0	0	0	0	0	0	0	0	26
10:15	0	10	2	0	0	0	0	0	0	0	0	0	0	12	0	8	2	0	2	0	0	0	0	0	0	0	0	12	0	18	4	0	2	0	0	0	0	0	0	0	0	24
10:30	0	10	2	0	1	0	0	0	0	0	0	0	0	13	0	12	1	0	1	0	0	0	0	0	0	0	0	14	0	22	3	0	2	0	0	0	0	0	0	0	0	27
10:45	0	11	2	0	0	0	0	0	0	0	0	0	0	13	0	8	2	0	1	0	0	0	0	0	0	0	0	11	0	19	4	0	1	0	0	0	0	0	0	0	0	24
11:00	0	10	7	0	0	0	0	0	0	0	0	0	0	17	0	11	4	0	0	0	0	0	0	0	0	0	0	15	0	21	11	0	0	0	0	0	0	0	0	0	0	32
11:15	0	8	4	0	2	0	0	0	0	0	0	0	0	14	0	15	4	0	1	0	0	0	0	0	0	0	0	20	0	23	8	0	3	0	0	0	0	0	0	0	0	34
11:30	0	6	7	0	2	0	0	0	0	0	0	0	0	15	0	9	3	0	0	0	0	0	0	0	0	0	0	12	0	15	10	0	2	0	0	0	0	0	0	0	0	27
11:45	0	10	3	0	0	0	0	0	0	0	0	0	0	13	0	12	4	0	1	0	0	0	0	0	0	0	0	17	0	22	7	0	1	0	0	0	0	0	0	0	0	30

Prepared by National Data & Surveying Services

CLASSIFICATION

Clack Rd Bet Woodtrace Ln & Mt Moriah Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_002

15-MINUTE BREAKDOWN

Time	EASTBOUND													Total	WESTBOUND												Total	TOTALS												Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
12:00	0	10	4	0	0	0	0	0	0	0	0	0	0	14	0	12	4	0	2	0	0	0	0	0	0	0	0	18	0	22	8	0	2	0	0	0	0	0	0	0	32
12:15	0	6	4	0	1	0	0	0	0	0	0	0	0	11	0	7	4	0	2	0	0	0	0	0	0	0	0	13	0	13	8	0	3	0	0	0	0	0	0	0	24
12:30	0	14	3	0	1	0	0	0	0	0	0	0	0	18	0	17	7	0	0	0	0	1	0	0	0	0	0	25	0	31	10	0	1	0	0	1	0	0	0	0	43
12:45	0	9	1	0	0	0	0	0	0	0	0	0	0	10	0	15	5	0	0	0	0	0	0	0	0	0	0	20	0	24	6	0	0	0	0	0	0	0	0	0	30
13:00	0	13	3	0	1	0	0	0	0	0	0	0	0	17	0	9	5	0	1	0	0	0	0	0	0	0	0	15	0	22	8	0	2	0	0	0	0	0	0	0	32
13:15	0	13	6	0	0	0	0	0	0	0	0	0	0	19	0	12	2	0	1	0	0	0	0	0	0	0	0	15	0	25	8	0	1	0	0	0	0	0	0	0	34
13:30	0	13	5	0	1	0	0	0	0	0	0	0	0	19	0	11	4	0	0	0	0	0	0	0	0	0	0	15	0	24	9	0	1	0	0	0	0	0	0	0	34
13:45	0	10	5	0	1	0	0	0	0	0	0	0	0	16	0	16	4	0	0	0	0	0	0	0	0	0	0	20	0	26	9	0	1	0	0	0	0	0	0	0	36
14:00	0	10	6	0	0	0	0	0	0	0	0	0	0	16	0	9	4	0	2	0	0	0	0	0	0	0	0	15	0	19	10	0	2	0	0	0	0	0	0	0	31
14:15	0	18	4	0	0	0	0	0	0	0	0	0	0	22	0	14	2	0	0	0	0	0	0	0	0	0	0	16	0	32	6	0	0	0	0	0	0	0	0	0	38
14:30	0	17	2	0	0	0	0	0	0	0	0	0	0	19	0	24	5	0	0	0	0	0	0	0	0	0	0	29	0	41	7	0	0	0	0	0	0	0	0	0	48
14:45	0	12	3	0	0	0	0	0	0	0	0	0	0	15	0	14	3	0	2	0	0	1	0	0	0	0	0	20	0	26	6	0	2	0	0	1	0	0	0	0	35
15:00	0	15	6	0	1	0	0	0	0	0	0	0	0	22	0	20	4	0	0	0	0	1	0	0	0	0	0	25	0	35	10	0	1	0	0	1	0	0	0	0	47
15:15	0	20	4	0	0	0	0	0	0	0	0	0	0	24	0	18	10	0	1	0	0	0	0	0	0	0	0	29	0	38	14	0	1	0	0	0	0	0	0	0	53
15:30	0	15	4	0	1	0	0	0	0	0	0	0	0	20	0	24	4	0	2	0	0	0	0	0	0	0	0	30	0	39	8	0	3	0	0	0	0	0	0	0	50
15:45	0	31	4	0	2	0	0	0	0	0	0	0	0	37	0	22	2	0	0	0	0	0	0	0	0	0	0	24	0	53	6	0	2	0	0	0	0	0	0	0	61
16:00	0	28	6	0	1	0	0	0	0	0	0	0	0	35	0	17	1	0	0	0	0	0	0	0	0	0	0	18	0	45	7	0	1	0	0	0	0	0	0	0	53
16:15	0	27	4	1	1	0	0	0	0	0	0	0	0	33	0	17	3	0	0	0	0	0	0	0	0	0	0	20	0	44	7	1	1	0	0	0	0	0	0	0	53
16:30	0	30	7	0	0	0	0	0	1	0	0	0	0	38	0	21	8	0	0	0	0	0	0	0	0	0	0	29	0	51	15	0	0	0	0	0	1	0	0	0	67
16:45	0	25	8	0	0	0	0	0	0	0	0	0	0	33	0	21	4	2	0	0	0	0	0	0	0	0	0	27	0	46	12	2	0	0	0	0	0	0	0	0	60
17:00	0	22	2	0	0	0	0	0	0	0	0	0	0	24	0	25	13	1	0	0	0	0	0	0	0	0	0	39	0	47	15	1	0	0	0	0	0	0	0	0	63
17:15	0	24	8	0	1	0	0	0	0	0	0	0	0	33	0	30	5	1	0	0	0	0	0	0	0	0	0	36	0	54	13	1	1	0	0	0	0	0	0	0	69
17:30	0	27	6	0	0	0	0	0	0	0	0	0	0	33	0	23	6	0	0	0	0	0	0	0	0	0	0	29	0	50	12	0	0	0	0	0	0	0	0	0	62
17:45	0	24	4	0	0	0	0	1	0	0	0	0	0	29	0	28	7	0	0	0	0	0	0	0	0	0	0	35	0	52	11	0	0	0	0	1	0	0	0	0	64
18:00	0	16	3	0	0	0	0	0	0	0	0	0	0	19	0	27	8	0	0	0	0	0	0	0	0	0	0	35	0	43	11	0	0	0	0	0	0	0	0	0	54
18:15	0	20	8	0	1	0	0	0	0	0	0	0	0	29	0	19	4	0	1	0	0	1	0	0	0	0	0	25	0	39	12	0	2	0	0	1	0	0	0	0	54
18:30	0	21	2	0	0	0	0	0	0	0	0	0	0	23	0	9	3	0	0	0	0	0	0	0	0	0	0	12	0	30	5	0	0	0	0	0	0	0	0	0	35
18:45	0	17	3	0	0	0	0	0	0	0	0	0	0	20	0	23	3	0	0	0	0	0	0	0	0	0	0	26	0	40	6	0	0	0	0	0	0	0	0	0	46
19:00	0	18	7	0	0	0	0	0	0	0	0	0	0	25	0	22	1	0	0	0	0	0	0	0	0	0	0	23	0	40	8	0	0	0	0	0	0	0	0	0	48
19:15	0	13	2	0	0	0	0	0	0	0	0	0	0	15	0	8	2	0	0	0	0	0	0	0	0	0	0	10	0	21	4	0	0	0	0	0	0	0	0	0	25
19:30	0	18	3	0	0	0	0	0	0	0	0	0	0	21	0	7	3	0	0	0	0	0	0	0	0	0	0	10	0	25	6	0	0	0	0	0	0	0	0	0	31
19:45	0	21	7	0	1	0	0	0	0	0	0	0	0	29	0	13	2	0	0	0	0	0	0	0	0	0	0	15	0	34	9	0	1	0	0	0	0	0	0	0	44
20:00	0	21	4	0	0	0	0	0	0	0	0	0	0	25	0	8	3	0	1	0	0	0	0	0	0	0	0	12	0	29	7	0	1	0	0	0	0	0	0	0	37
20:15	0	17	6	0	0	0	0	0	0	0	0	0	0	23	0	9	1	0	0	0	0	0	0	0	0	0	0	10	0	26	7	0	0	0	0	0	0	0	0	0	33
20:30	0	11	3	0	0	0	0	0	0	0	0	0	0	14	0	8	0	0	0	0	0	0	0	0	0	0	0	8	0	19	3	0	0	0	0	0	0	0	0	0	22
20:45	0	12	1	0	1	0	0	0	0	0	0	0	0	14	0	12	2	0	0	0	0	0	0	0	0	0	0	14	0	24	3	0	1	0	0	0	0	0	0	0	28
21:00	0	11	3	0	0	0	0	0	0	0	0	0	0	14	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	17	3	0	0	0	0	0	0	0	0	0	20
21:15	0	12	1	0	0	0	0	0	0	0	0	0	0	13	0	8	1	0	0	0	0	0	0	0	0	0	0	9	0	20	2	0	0	0	0	0	0	0	0	0	22
21:30	0	8	0	0	0	0	0	0	0	0	0	0	0	8	0	5	2	0	0	0	0	0	0	0	0	0	0	7	0	13	2	0	0	0	0	0	0	0	0	0	15
21:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0	7	1	0	0	0	0	0	0	0	0	0	0	8	0	14	1	0	0	0	0	0	0	0	0	0	15
22:00	0	4	1	0	1	0	0	0	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	4	2	0	1	0	0	0	0	0	0	0	7
22:15	0	8	1	0	0	0	0	0	0	0	0	0	0	9	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	9	1	0	0	0	0	0	0	0	0	0	10
22:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
22:45	0	8	1	0	0	0	0	0	0	0	0	0	0	9	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	12	1	0	0	0	0	0	0	0	0	0	13
23:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	0	0	0	0	0	0	0	0	3	0	4	1	0	0	0	0	0	0	0	0	0	5
23:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0	4	1	0	0	0	0	0	0	0	0	0	5
23:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	3	1	0	0	0	0	0	0	0	0	0	0	4	0	5	1	0	0	0	0	0	0	0	0	0	6
23:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	3
Totals	**0**	**1,058**	**266**	**1**	**26**	**2**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**1,355**	**0**	**1,171**	**275**	**4**	**31**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**1,486**	**0**	**2,229**	**541**	**5**	**57**	**2**	**0**	**6**	**1**	**0**	**0**	**0**	**0**	**2,841**
% of Totals		**78%**	**20%**	**0%**	**2%**	**0%**		**0%**	**0%**					**100%**		**79%**	**19%**	**0%**	**2%**			**0%**						**100%**		**78%**	**19%**	**0%**	**2%**	**0%**		**0%**	**0%**					**100%**

Prepared by National Data & Surveying Services

VOLUME

Clack Rd Bet Woodtrace Ln & Mt Moriah Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,355	1,486	2,841

DAILY TOTALS

15-Minutes Interval

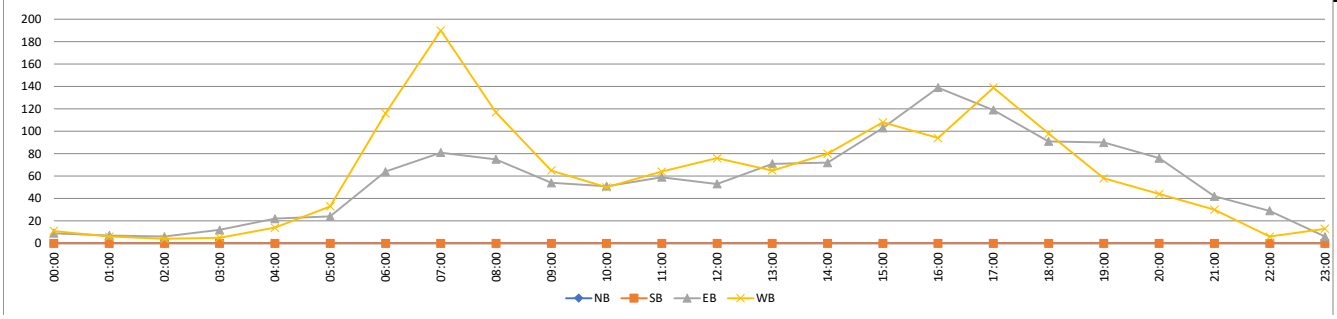
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00			4	1	5	12:00			14	18	32
0:15			2	2	4	12:15			11	13	24
0:30			1	4	5	12:30			18	25	43
0:45			2	4	6	12:45			10	20	30
1:00			1	2	3	13:00			17	15	32
1:15			2	1	3	13:15			19	15	34
1:30			2	1	3	13:30			19	15	34
1:45			2	2	4	13:45			16	20	36
2:00			0	2	2	14:00			16	15	31
2:15			1	1	2	14:15			22	16	38
2:30			3	0	3	14:30			19	29	48
2:45			2	1	3	14:45			15	20	35
3:00			5	0	5	15:00			22	25	47
3:15			3	1	4	15:15			24	29	53
3:30			3	2	5	15:30			20	30	50
3:45			1	2	3	15:45			37	24	61
4:00			5	1	6	16:00			35	18	53
4:15			7	2	9	16:15			33	20	53
4:30			4	5	9	16:30			38	29	67
4:45			6	6	12	16:45			33	27	60
5:00			8	9	17	17:00			24	39	63
5:15			5	6	11	17:15			33	36	69
5:30			7	10	17	17:30			33	29	62
5:45			4	8	12	17:45			29	35	64
6:00			16	16	32	18:00			19	35	54
6:15			14	24	38	18:15			29	25	54
6:30			12	31	43	18:30			23	12	35
6:45			22	45	67	18:45			20	26	46
7:00			15	67	82	19:00			25	23	48
7:15			14	51	65	19:15			15	10	25
7:30			29	33	62	19:30			21	10	31
7:45			23	39	62	19:45			29	15	44
8:00			23	33	56	20:00			25	12	37
8:15			19	28	47	20:15			23	10	33
8:30			21	20	41	20:30			14	8	22
8:45			12	36	48	20:45			14	14	28
9:00			10	14	24	21:00			14	6	20
9:15			16	14	30	21:15			13	9	22
9:30			13	18	31	21:30			8	7	15
9:45			15	19	34	21:45			7	8	15
10:00			13	13	26	22:00			6	1	7
10:15			12	12	24	22:15			9	1	10
10:30			13	14	27	22:30			5	0	5
10:45			13	11	24	22:45			9	4	13
11:00			17	15	32	23:00			2	3	5
11:15			14	20	34	23:15			1	4	5
11:30			15	12	27	23:30			2	4	6
11:45			13	17	30	23:45			1	2	3
TOTALS	0	0	464	675	1139	TOTALS	0	0	891	811	1702
SPLIT %	0%	0%	41%	59%	40%	SPLIT %	0%	0%	52%	48%	60%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00			9	11	20
01:00	02:00			7	6	13
02:00	03:00			6	4	10
03:00	04:00			12	5	17
04:00	05:00			22	14	36
05:00	06:00			24	33	57
06:00	07:00			64	116	180
07:00	08:00			81	190	271
08:00	09:00			75	117	192
09:00	10:00			54	65	119
10:00	11:00			51	50	101
11:00	12:00			59	64	123
12:00	13:00			53	76	129
13:00	14:00			71	65	136
14:00	15:00			72	80	152
15:00	16:00			103	108	211
16:00	17:00			139	94	233
17:00	18:00			119	139	258
18:00	19:00			91	98	189
19:00	20:00			90	58	148
20:00	21:00			76	44	120
21:00	22:00			42	30	72
22:00	23:00			29	6	35
23:00	00:00			6	13	19

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume			464	675	1139
Peak Hour			7:30	6:45	6:45
Peak Volume			94	196	276
Peak Hour Factor			0.810	0.731	0.841
Peak Period	12:00	to	00:00		
Volume			891	811	1702
Peak Hour			15:45	17:00	16:30
Peak Volume			143	139	259
Peak Hour Factor			0.941	0.891	0.938
Peak Period	07:00	to	09:00		
Volume			156	307	463
Peak Hour			7:30	7:00	7:00
Peak Volume			94	190	271
Peak Hour Factor			0.810	0.709	0.826
Peak Period	16:00	to	18:00		
Volume			258	233	491
Peak Hour			16:00	17:00	16:30
Peak Volume			139	139	259
Peak Hour Factor			0.914	0.891	0.938



Prepared by National Data & Surveying Services

CLASSIFICATION

Mt Moriah Rd N/O Clack Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_003

HOURLY BREAKDOWN

Time	NORTHBOUND													Total	SOUTHBOUND													Total	TOTALS													Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
0:00	0	15	1	0	0	0	0	0	0	0	0	0	0	16	0	24	4	0	0	0	0	0	0	0	0	0	0	28	0	39	5	0	0	0	0	0	0	0	0	0	0	44
1:00	0	14	1	0	0	0	0	0	0	0	0	0	0	15	0	25	1	0	0	0	0	0	0	0	0	0	0	26	0	39	2	0	0	0	0	0	0	0	0	0	0	41
2:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14	0	10	0	0	0	0	0	0	0	0	0	0	0	10	0	24	0	0	0	0	0	0	0	0	0	0	0	24
3:00	0	34	2	0	1	0	0	0	0	0	0	0	0	37	0	7	2	0	0	0	0	0	0	0	0	0	0	9	0	41	4	0	1	0	0	0	0	0	0	0	0	46
4:00	0	64	3	0	2	0	0	0	0	0	0	0	0	69	0	32	6	0	2	0	0	0	0	0	0	0	0	40	0	96	9	0	4	0	0	0	0	0	0	0	0	109
5:00	0	139	6	0	1	0	0	0	0	0	0	0	0	146	0	79	20	0	2	0	0	0	0	0	0	0	0	101	0	218	26	0	3	0	0	0	0	0	0	0	0	247
6:00	0	212	59	2	6	0	0	0	0	0	0	0	0	279	1	153	60	1	4	0	0	0	0	0	0	0	0	219	1	365	119	3	10	0	0	0	0	0	0	0	0	498
7:00	0	262	84	1	10	1	0	1	1	0	0	0	0	360	0	247	87	1	8	0	0	0	0	0	0	0	0	343	0	509	171	2	18	1	0	1	1	0	0	0	0	703
8:00	0	218	82	0	12	0	0	1	0	0	0	0	0	313	0	199	68	0	12	0	0	0	1	0	0	0	0	280	0	417	150	0	24	0	0	1	1	0	0	0	0	593
9:00	0	165	56	0	12	3	0	0	1	0	0	0	0	237	0	143	63	0	21	0	0	0	1	0	0	0	0	228	0	308	119	0	33	3	0	0	2	0	0	0	0	465
10:00	0	120	61	1	12	0	0	1	0	0	0	0	0	195	0	126	53	0	24	0	0	1	0	0	0	0	0	204	0	246	114	1	36	0	0	2	0	0	0	0	0	399
11:00	0	92	48	0	18	2	0	0	0	0	0	0	0	160	0	118	61	0	14	0	0	1	1	0	0	0	0	195	0	210	109	0	32	2	0	1	1	0	0	0	0	355
12:00	0	135	43	0	10	2	0	0	0	0	0	0	0	190	0	134	78	0	19	0	1	2	0	0	0	0	0	234	0	269	121	0	29	2	1	2	0	0	0	0	0	424
13:00	0	145	49	1	12	2	0	0	0	0	0	0	0	209	0	149	58	0	8	3	0	0	2	0	0	0	0	220	0	294	107	1	20	5	0	0	2	0	0	0	0	429
14:00	0	165	58	2	6	0	0	2	1	0	0	0	0	234	0	191	66	1	10	0	0	2	0	0	0	0	0	270	0	356	124	3	16	0	0	4	1	0	0	0	0	504
15:00	1	211	67	0	7	0	0	1	0	0	0	0	0	287	0	238	93	0	5	0	0	2	0	0	0	0	0	338	1	449	160	0	12	0	0	3	0	0	0	0	0	625
16:00	0	246	75	2	8	0	0	1	1	0	0	0	0	333	0	274	88	3	4	1	0	1	0	0	0	0	0	371	0	520	163	5	12	1	0	2	1	0	0	0	0	704
17:00	0	238	53	0	6	0	0	0	0	0	0	0	0	297	1	312	106	1	3	0	0	0	0	0	0	0	0	423	1	550	159	1	9	0	0	0	0	0	0	0	0	720
18:00	2	198	54	0	19	1	0	1	0	0	0	0	0	275	1	247	80	0	5	0	0	3	0	0	0	0	0	336	3	445	134	0	24	1	0	4	0	0	0	0	0	611
19:00	0	162	48	0	15	0	0	0	0	0	0	0	0	225	0	165	40	0	3	1	0	1	0	0	0	0	0	210	0	327	88	0	18	1	0	1	0	0	0	0	0	435
20:00	2	128	35	0	8	0	0	0	0	0	0	0	0	173	0	130	33	0	1	0	0	0	0	0	0	0	0	164	2	258	68	0	9	0	0	0	0	0	0	0	0	337
21:00	0	105	5	0	3	0	0	0	0	0	0	0	0	113	0	98	20	0	1	0	0	0	0	0	0	0	0	119	0	203	25	0	4	0	0	0	0	0	0	0	0	232
22:00	0	57	4	0	1	0	0	0	0	0	0	0	0	62	0	51	9	0	2	0	0	0	0	0	0	0	0	62	0	108	13	0	3	0	0	0	0	0	0	0	0	124
23:00	0	22	0	0	1	0	0	0	0	0	0	0	0	23	0	38	8	0	1	0	0	0	0	0	0	0	0	47	0	60	8	0	2	0	0	0	0	0	0	0	0	70
Totals	**5**	**3,161**	**894**	**9**	**170**	**11**	**0**	**8**	**4**	**0**	**0**	**0**	**0**	**4,262**	**3**	**3,190**	**1,104**	**7**	**149**	**5**	**1**	**13**	**5**	**0**	**0**	**0**	**0**	**4,477**	**8**	**6,351**	**1,998**	**16**	**319**	**16**	**1**	**21**	**9**	**0**	**0**	**0**	**0**	**8,739**
% of Totals	0%	74%	21%	0%	4%	0%		0%	0%					100%	0%	71%	25%	0%	3%	0%	0%	0%	0%					100%	0%	73%	23%	0%	4%	0%	0%	0%	0%					100%

FHWA

CLASSIFICATION DEFINITIONS

#1 Motorcycles

#2 Passenger Cars

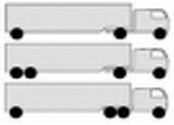
#3 2-Axle, 4-Tire Single Unit

#4 Buses

#5 2-Axle, 6-Tire Single Units

#6 3-Axle Single Units

#7 >=4-Axle Single Units



#8 <=4-Axle Single Trailers

#9 5-Axle Single Trailers

#10 >=6-Axle Single Trailers

#11 <=5-Axle Multi-Trailers

#12 6-Axle Multi-Trailers

#13 >=7-Axle Multi-Trailers

STATISTICS

00:00 - 12:00	0	1349	403	4	74	6	0	3	2	0	0	0	0	**1841**	1	1163	425	2	87	0	0	2	3	0	0	0	0	**1683**	1	2512	828	6	161	6	0	5	5	0	0	0	0	**3524**
%	0%	32%	9%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	**43%**	0%	26%	9%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	**38%**	0%	29%	9%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	**40%**
Peak Hour	0:00	7:15	7:30	5:45	10:45	8:45	0:00	7:00	6:15	0:00	0:00	0:00	0:00	**7:15**	5:45	6:45	6:45	5:45	9:45	0:00	11:45	11:45	7:15	0:00	0:00	0:00	0:00	**6:45**	5:45	7:00	7:30	5:45	11:15	8:45	11:45	10:00	9:00	0:00	0:00	0:00	0:00	**7:00**
Peak Volume	0	275	106	2	19	3	0	1	1	0	0	0	0	**384**	1	249	91	1	29	0	1	2	1	0	0	0	0	**348**	1	509	175	3	43	3	1	2	2	0	0	0	0	**703**
12:00 - 24:00	5	1812	491	5	96	5	0	5	2	0	0	0	0	**2421**	2	2027	679	5	62	5	1	11	2	0	0	0	0	**2794**	7	3839	1170	10	158	10	1	16	4	0	0	0	0	**5215**
%	0%	43%	12%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	**57%**	0%	45%	15%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**62%**	0%	44%	13%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	**60%**
Peak Hour	17:15	16:30	16:00	14:00	18:00	12:00	12:00	14:15	13:15	12:00	12:00	12:00	12:00	**16:00**	16:45	17:00	16:45	16:15	12:00	13:00	12:00	14:15	12:45	12:00	12:00	12:00	12:00	**17:00**	17:15	16:45	16:45	16:15	12:00	13:00	12:00	14:15	13:15	12:00	12:00	12:00	12:00	**16:45**
Peak Volume	2	260	75	2	19	2	0	3	1	0	0	0	0	**333**	1	312	110	4	19	3	1	3	2	0	0	0	0	**423**	3	555	174	6	29	5	1	6	3	0	0	0	0	**743**
07:00 - 09:00	0	480	166	1	22	1	0	2	1	0	0	0	0	**673**	0	446	155	1	20	0	0	0	1	0	0	0	0	**623**	0	926	321	2	42	1	0	2	2	0	0	0	0	**1296**
%	0%	11%	4%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	**16%**	0%	10%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**14%**	0%	11%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**15%**
Peak Hour	7:00	7:15	7:30	7:00	8:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	**7:15**	7:00	7:00	7:00	7:00	7:15	7:00	7:00	7:00	7:15	7:00	7:00	7:00	7:00	**7:00**	7:00	7:00	7:30	7:00	8:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	7:00	**7:00**
Peak Volume	0	275	106	1	12	1	0	1	1	0	0	0	0	**384**	0	247	87	1	13	0	0	0	1	0	0	0	0	**343**	0	509	175	2	24	1	0	1	1	0	0	0	0	**703**
16:00 - 18:00	0	484	128	2	14	0	0	1	1	0	0	0	0	**630**	1	586	194	4	7	1	0	1	0	0	0	0	0	**794**	1	1070	322	6	21	1	0	2	1	0	0	0	0	**1424**
%	0%	11%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**15%**	0%	13%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**18%**	0%	12%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	**16%**
Peak Hour	16:00	16:30	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	**16:00**	16:45	17:00	16:45	16:15	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	**17:00**	16:45	16:45	16:45	16:15	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	16:00	**16:45**
Peak Volume	0	260	75	2	8	0	0	1	1	0	0	0	0	**333**	1	312	110	4	4	1	0	1	0	0	0	0	0	**423**	1	555	174	6	12	1	0	2	1	0	0	0	0	**743**

Prepared by National Data & Surveying Services

CLASSIFICATION

Mt Moriah Rd N/O Clack Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_003

15-MINUTE BREAKDOWN

Time	NORTHBOUND													Total	SOUTHBOUND												Total	TOTALS												Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
0:00	0	6	1	0	0	0	0	0	0	0	0	0	0	7	0	7	1	0	0	0	0	0	0	0	0	0	0	8	0	13	2	0	0	0	0	0	0	0	0	0	0	15
0:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	4	0	0	0	0	0	0	0	0	0	0	0	4
0:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	7	1	0	0	0	0	0	0	0	0	0	0	8	0	11	1	0	0	0	0	0	0	0	0	0	0	12
0:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	7	2	0	0	0	0	0	0	0	0	0	0	9	0	11	2	0	0	0	0	0	0	0	0	0	0	13
1:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	9	0	0	0	0	0	0	0	0	0	0	0	9	0	11	0	0	0	0	0	0	0	0	0	0	0	11
1:15	0	5	1	0	0	0	0	0	0	0	0	0	0	6	0	7	1	0	0	0	0	0	0	0	0	0	0	8	0	12	2	0	0	0	0	0	0	0	0	0	0	14
1:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	9	0	0	0	0	0	0	0	0	0	0	0	9
1:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	7	0	0	0	0	0	0	0	0	0	0	0	7
2:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	7
2:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	7	0	0	0	0	0	0	0	0	0	0	0	7
3:00	0	11	1	0	0	0	0	0	0	0	0	0	0	12	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	12	2	0	0	0	0	0	0	0	0	0	0	14
3:15	0	8	1	0	0	0	0	0	0	0	0	0	0	9	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	10	1	0	0	0	0	0	0	0	0	0	0	11
3:30	0	11	0	0	1	0	0	0	0	0	0	0	0	12	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	13	0	0	1	0	0	0	0	0	0	0	0	14
3:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	2	1	0	0	0	0	0	0	0	0	0	0	3	0	6	1	0	0	0	0	0	0	0	0	0	0	7
4:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	18	0	0	0	0	0	0	0	0	0	0	0	18
4:15	0	15	2	0	0	0	0	0	0	0	0	0	0	17	0	8	1	0	1	0	0	0	0	0	0	0	0	10	0	23	3	0	1	0	0	0	0	0	0	0	0	27
4:30	0	22	1	0	2	0	0	0	0	0	0	0	0	25	0	6	4	0	1	0	0	0	0	0	0	0	0	11	0	28	5	0	3	0	0	0	0	0	0	0	0	36
4:45	0	13	0	0	0	0	0	0	0	0	0	0	0	13	0	14	1	0	0	0	0	0	0	0	0	0	0	15	0	27	1	0	0	0	0	0	0	0	0	0	0	28
5:00	0	19	3	0	0	0	0	0	0	0	0	0	0	22	0	12	1	0	1	0	0	0	0	0	0	0	0	14	0	31	4	0	1	0	0	0	0	0	0	0	0	36
5:15	0	30	1	0	0	0	0	0	0	0	0	0	0	31	0	19	6	0	0	0	0	0	0	0	0	0	0	25	0	49	7	0	0	0	0	0	0	0	0	0	0	56
5:30	0	50	1	0	0	0	0	0	0	0	0	0	0	51	0	25	4	0	1	0	0	0	0	0	0	0	0	30	0	75	5	0	1	0	0	0	0	0	0	0	0	81
5:45	0	40	1	0	1	0	0	0	0	0	0	0	0	42	0	23	9	0	0	0	0	0	0	0	0	0	0	32	0	63	10	0	1	0	0	0	0	0	0	0	0	74
6:00	0	47	5	0	1	0	0	0	0	0	0	0	0	53	0	27	6	0	1	0	0	0	0	0	0	0	0	34	0	74	11	0	2	0	0	0	0	0	0	0	0	87
6:15	0	52	13	0	4	0	0	0	0	0	0	0	0	69	0	27	18	0	0	0	0	0	0	0	0	0	0	45	0	79	31	0	4	0	0	0	0	0	0	0	0	114
6:30	0	52	19	2	1	0	0	0	0	0	0	0	0	74	1	43	16	1	2	0	0	0	0	0	0	0	0	63	1	95	35	3	3	0	0	0	0	0	0	0	0	137
6:45	0	61	22	0	0	0	0	0	0	0	0	0	0	83	0	56	20	0	1	0	0	0	0	0	0	0	0	77	0	117	42	0	1	0	0	0	0	0	0	0	0	160
7:00	0	42	13	0	4	0	0	0	1	0	0	0	0	60	0	80	24	0	1	0	0	0	0	0	0	0	0	105	0	122	37	0	5	0	0	0	1	0	0	0	0	165
7:15	0	71	13	0	2	0	0	0	0	0	0	0	0	86	0	68	24	0	4	0	0	0	0	0	0	0	0	96	0	139	37	0	6	0	0	0	0	0	0	0	0	182
7:30	0	78	30	1	3	0	0	0	0	0	0	0	0	112	0	45	23	1	1	0	0	0	0	0	0	0	0	70	0	123	53	2	4	0	0	0	0	0	0	0	0	182
7:45	0	71	28	0	1	1	0	1	0	0	0	0	0	102	0	54	16	0	2	0	0	0	0	0	0	0	0	72	0	125	44	0	3	1	0	1	0	0	0	0	0	174
8:00	0	55	25	0	4	0	0	0	0	0	0	0	0	84	0	57	14	0	6	0	0	0	1	0	0	0	0	78	0	112	39	0	10	0	0	0	1	0	0	0	0	162
8:15	0	58	23	0	1	0	0	0	0	0	0	0	0	82	0	37	16	0	2	0	0	0	0	0	0	0	0	55	0	95	39	0	3	0	0	0	0	0	0	0	0	137
8:30	0	58	20	0	2	0	0	0	0	0	0	0	0	80	0	45	19	0	2	0	0	0	0	0	0	0	0	66	0	103	39	0	4	0	0	0	0	0	0	0	0	146
8:45	0	47	14	0	5	0	0	1	0	0	0	0	0	67	0	60	19	0	2	0	0	0	0	0	0	0	0	81	0	107	33	0	7	0	0	1	0	0	0	0	0	148
9:00	0	45	10	0	5	1	0	0	0	0	0	0	0	61	0	31	10	0	7	0	0	0	0	0	0	0	0	48	0	76	20	0	12	1	0	0	0	0	0	0	0	109
9:15	0	46	14	0	4	1	0	0	0	0	0	0	0	65	0	35	13	0	2	0	0	0	0	0	0	0	0	50	0	81	27	0	6	1	0	0	0	0	0	0	0	115
9:30	0	44	16	0	2	1	0	0	1	0	0	0	0	64	0	38	22	0	3	0	0	0	0	0	0	0	0	63	0	82	38	0	5	1	0	0	1	0	0	0	0	127
9:45	0	30	16	0	1	0	0	0	0	0	0	0	0	47	0	39	18	0	9	0	0	0	1	0	0	0	0	67	0	69	34	0	10	0	0	0	1	0	0	0	0	114
10:00	0	33	15	1	2	0	0	0	0	0	0	0	0	51	0	26	8	0	5	0	0	1	0	0	0	0	0	40	0	59	23	1	7	0	0	1	0	0	0	0	0	91
10:15	0	29	19	0	1	0	0	0	0	0	0	0	0	49	0	32	9	0	8	0	0	0	0	0	0	0	0	49	0	61	28	0	9	0	0	0	0	0	0	0	0	98
10:30	0	26	12	0	4	0	0	0	0	0	0	0	0	42	0	37	19	0	7	0	0	0	0	0	0	0	0	63	0	63	31	0	11	0	0	0	0	0	0	0	0	105
10:45	0	32	15	0	5	0	0	1	0	0	0	0	0	53	0	31	17	0	4	0	0	0	0	0	0	0	0	52	0	63	32	0	9	0	0	1	0	0	0	0	0	105
11:00	0	24	16	0	2	0	0	0	0	0	0	0	0	42	0	23	10	0	0	0	0	1	0	0	0	0	0	34	0	47	26	0	2	0	0	1	0	0	0	0	0	76
11:15	0	27	11	0	4	1	0	0	0	0	0	0	0	43	0	36	16	0	2	0	0	0	0	0	0	0	0	54	0	63	27	0	6	1	0	0	0	0	0	0	0	97
11:30	0	21	14	0	8	1	0	0	0	0	0	0	0	44	0	25	10	0	3	0	0	0	0	0	0	0	0	38	0	46	24	0	11	1	0	0	0	0	0	0	0	82
11:45	0	20	7	0	4	0	0	0	0	0	0	0	0	31	0	34	25	0	9	0	0	0	1	0	0	0	0	69	0	54	32	0	13	0	0	0	1	0	0	0	0	100

Prepared by National Data & Surveying Services

CLASSIFICATION

Mt Moriah Rd N/O Clack Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_003

15-MINUTE BREAKDOWN

Time	NORTHBOUND													Total	SOUTHBOUND												Total	TOTALS												Total
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
12:00	0	29	12	0	2	0	0	0	0	0	0	0	0	43	0	32	22	0	11	0	0	0	0	0	0	0	0	65	0	61	34	0	13	0	0	0	0	0	0	0	108
12:15	0	37	10	0	1	1	0	0	0	0	0	0	0	49	0	20	23	0	4	0	0	1	0	0	0	0	0	48	0	57	33	0	5	1	0	1	0	0	0	0	97
12:30	0	36	12	0	4	0	0	0	0	0	0	0	0	52	0	43	17	0	2	0	1	1	0	0	0	0	0	64	0	79	29	0	6	0	1	1	0	0	0	0	116
12:45	0	33	9	0	3	1	0	0	0	0	0	0	0	46	0	39	16	0	2	0	0	0	0	0	0	0	0	57	0	72	25	0	5	1	0	0	0	0	0	0	103
13:00	0	37	14	0	2	0	0	0	0	0	0	0	0	53	0	33	13	0	3	1	0	0	0	0	0	0	0	50	0	70	27	0	5	1	0	0	0	0	0	0	103
13:15	0	33	16	0	2	0	0	0	0	0	0	0	0	51	0	38	14	0	1	0	0	0	1	0	0	0	0	54	0	71	30	0	3	0	0	0	1	0	0	0	105
13:30	0	39	9	1	5	0	0	0	0	0	0	0	0	54	0	34	10	0	4	1	0	0	1	0	0	0	0	50	0	73	19	1	9	1	0	0	1	0	0	0	104
13:45	0	36	10	0	3	2	0	0	0	0	0	0	0	51	0	44	21	0	0	1	0	0	0	0	0	0	0	66	0	80	31	0	3	3	0	0	0	0	0	0	117
14:00	0	41	12	0	1	0	0	0	1	0	0	0	0	55	0	36	17	0	4	0	0	0	0	0	0	0	0	57	0	77	29	0	5	0	0	0	1	0	0	0	112
14:15	0	40	14	0	0	0	0	1	0	0	0	0	0	55	0	54	24	0	2	0	0	1	0	0	0	0	0	81	0	94	38	0	2	0	0	2	0	0	0	0	136
14:30	0	41	16	1	3	0	0	1	0	0	0	0	0	62	0	53	14	1	0	0	0	0	0	0	0	0	0	68	0	94	30	2	3	0	0	1	0	0	0	0	130
14:45	0	43	16	1	2	0	0	0	0	0	0	0	0	62	0	48	11	0	4	0	0	1	0	0	0	0	0	64	0	91	27	1	6	0	0	1	0	0	0	0	126
15:00	0	47	20	0	1	0	0	1	0	0	0	0	0	69	0	58	21	0	1	0	0	1	0	0	0	0	0	81	0	105	41	0	2	0	0	2	0	0	0	0	150
15:15	0	54	20	0	0	0	0	0	0	0	0	0	0	74	0	46	26	0	2	0	0	0	0	0	0	0	0	74	0	100	46	0	2	0	0	0	0	0	0	0	148
15:30	0	46	16	0	2	0	0	0	0	0	0	0	0	64	0	69	21	0	2	0	0	0	0	0	0	0	0	92	0	115	37	0	4	0	0	0	0	0	0	0	156
15:45	1	64	11	0	4	0	0	0	0	0	0	0	0	80	0	65	25	0	0	0	0	1	0	0	0	0	0	91	1	129	36	0	4	0	0	1	0	0	0	0	171
16:00	0	51	19	0	2	0	0	1	0	0	0	0	0	73	0	62	22	0	1	1	0	0	0	0	0	0	0	86	0	113	41	0	3	1	0	1	0	0	0	0	159
16:15	0	53	19	1	5	0	0	0	0	0	0	0	0	78	0	75	22	0	1	0	0	0	0	0	0	0	0	98	0	128	41	1	6	0	0	0	0	0	0	0	176
16:30	0	69	17	0	1	0	0	0	1	0	0	0	0	88	0	72	21	0	2	0	0	0	0	0	0	0	0	95	0	141	38	0	3	0	0	0	1	0	0	0	183
16:45	0	73	20	1	0	0	0	0	0	0	0	0	0	94	0	65	23	3	0	0	0	1	0	0	0	0	0	92	0	138	43	4	0	0	0	1	0	0	0	0	186
17:00	0	54	15	0	1	0	0	0	0	0	0	0	0	70	0	75	26	1	0	0	0	0	0	0	0	0	0	102	0	129	41	1	1	0	0	0	0	0	0	0	172
17:15	0	64	13	0	1	0	0	0	0	0	0	0	0	78	0	82	29	0	0	0	0	0	0	0	0	0	0	111	0	146	42	0	1	0	0	0	0	0	0	0	189
17:30	0	65	16	0	2	0	0	0	0	0	0	0	0	83	1	77	32	0	3	0	0	0	0	0	0	0	0	113	1	142	48	0	5	0	0	0	0	0	0	0	196
17:45	0	55	9	0	2	0	0	0	0	0	0	0	0	66	0	78	19	0	0	0	0	0	0	0	0	0	0	97	0	133	28	0	2	0	0	0	0	0	0	0	163
18:00	2	46	16	0	2	0	0	1	0	0	0	0	0	67	0	67	26	0	1	0	0	2	0	0	0	0	0	96	2	113	42	0	3	0	0	3	0	0	0	0	163
18:15	0	65	23	0	4	0	0	0	0	0	0	0	0	92	0	65	27	0	1	0	0	1	0	0	0	0	0	94	0	130	50	0	5	0	0	1	0	0	0	0	186
18:30	0	52	5	0	7	0	0	0	0	0	0	0	0	64	1	52	12	0	3	0	0	0	0	0	0	0	0	68	1	104	17	0	10	0	0	0	0	0	0	0	132
18:45	0	35	10	0	6	1	0	0	0	0	0	0	0	52	0	63	15	0	0	0	0	0	0	0	0	0	0	78	0	98	25	0	6	1	0	0	0	0	0	0	130
19:00	0	44	12	0	1	0	0	0	0	0	0	0	0	57	0	54	6	0	2	1	0	0	0	0	0	0	0	63	0	98	18	0	3	1	0	0	0	0	0	0	120
19:15	0	39	12	0	4	0	0	0	0	0	0	0	0	55	0	45	16	0	0	0	0	0	0	0	0	0	0	61	0	84	28	0	4	0	0	0	0	0	0	0	116
19:30	0	40	7	0	4	0	0	0	0	0	0	0	0	51	0	32	5	0	0	0	0	0	0	0	0	0	0	37	0	72	12	0	4	0	0	0	0	0	0	0	88
19:45	0	39	17	0	6	0	0	0	0	0	0	0	0	62	0	34	13	0	1	0	0	1	0	0	0	0	0	49	0	73	30	0	7	0	0	1	0	0	0	0	111
20:00	0	36	11	0	2	0	0	0	0	0	0	0	0	49	0	31	11	0	1	0	0	0	0	0	0	0	0	43	0	67	22	0	3	0	0	0	0	0	0	0	92
20:15	0	35	10	0	5	0	0	0	0	0	0	0	0	50	0	32	9	0	0	0	0	0	0	0	0	0	0	41	0	67	19	0	5	0	0	0	0	0	0	0	91
20:30	2	31	12	0	0	0	0	0	0	0	0	0	0	45	0	33	6	0	0	0	0	0	0	0	0	0	0	39	2	64	18	0	0	0	0	0	0	0	0	0	84
20:45	0	26	2	0	1	0	0	0	0	0	0	0	0	29	0	34	7	0	0	0	0	0	0	0	0	0	0	41	0	60	9	0	1	0	0	0	0	0	0	0	70
21:00	0	25	1	0	1	0	0	0	0	0	0	0	0	27	0	23	3	0	1	0	0	0	0	0	0	0	0	27	0	48	4	0	2	0	0	0	0	0	0	0	54
21:15	0	33	4	0	2	0	0	0	0	0	0	0	0	39	0	29	6	0	0	0	0	0	0	0	0	0	0	35	0	62	10	0	2	0	0	0	0	0	0	0	74
21:30	0	25	0	0	0	0	0	0	0	0	0	0	0	25	0	28	9	0	0	0	0	0	0	0	0	0	0	37	0	53	9	0	0	0	0	0	0	0	0	0	62
21:45	0	22	0	0	0	0	0	0	0	0	0	0	0	22	0	18	2	0	0	0	0	0	0	0	0	0	0	20	0	40	2	0	0	0	0	0	0	0	0	0	42
22:00	0	17	1	0	1	0	0	0	0	0	0	0	0	19	0	12	4	0	1	0	0	0	0	0	0	0	0	17	0	29	5	0	2	0	0	0	0	0	0	0	36
22:15	0	16	1	0	0	0	0	0	0	0	0	0	0	17	0	19	2	0	1	0	0	0	0	0	0	0	0	22	0	35	3	0	1	0	0	0	0	0	0	0	39
22:30	0	13	0	0	0	0	0	0	0	0	0	0	0	13	0	8	2	0	0	0	0	0	0	0	0	0	0	10	0	21	2	0	0	0	0	0	0	0	0	0	23
22:45	0	11	2	0	0	0	0	0	0	0	0	0	0	13	0	12	1	0	0	0	0	0	0	0	0	0	0	13	0	23	3	0	0	0	0	0	0	0	0	0	26
23:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8	0	12	2	0	0	0	0	0	0	0	0	0	0	14	0	20	2	0	0	0	0	0	0	0	0	0	22
23:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0	8	3	0	0	0	0	0	0	0	0	0	0	11	0	13	3	0	0	0	0	0	0	0	0	0	16
23:30	0	7	0	0	0	0	0	0	0	0	0	0	0	7	0	9	1	0	1	0	0	0	0	0	0	0	0	11	0	16	1	0	1	0	0	0	0	0	0	0	18
23:45	0	2	0	0	1	0	0	0	0	0	0	0	0	3	0	9	2	0	0	0	0	0	0	0	0	0	0	11	0	11	2	0	1	0	0	0	0	0	0	0	14
Totals	**5**	**3,161**	**894**	**9**	**170**	**11**	**0**	**8**	**4**	**0**	**0**	**0**	**0**	**4,262**	**3**	**3,190**	**1,104**	**7**	**149**	**5**	**1**	**13**	**5**	**0**	**0**	**0**	**0**	**4,477**	**8**	**6,351**	**1,998**	**16**	**319**	**16**	**1**	**21**	**9**	**0**	**0**	**0**	**0**	**8,739**
% of Totals	0%	74%	21%	0%	4%	0%		0%	0%					100%	0%	71%	25%	0%	3%	0%	0%	0%	0%					100%	0%	73%	23%	0%	4%	0%	0%	0%	0%					100%

Prepared by National Data & Surveying Services

VOLUME

Mt Moriah Rd N/O Clack Rd

Day: Tuesday
Date: 4/30/2024

City: Auburn
Project #: GA24_180107_003

DAILY TOTALS	NB	SB	EB	WB	Total
	4,262	4,477	0	0	8,739

DAILY TOTALS

15-Minutes Interval

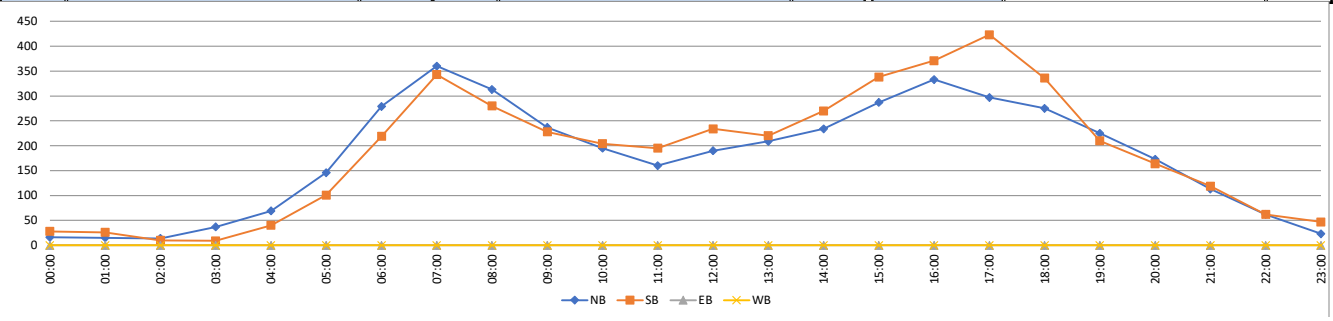
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
0:00	7	8			15	12:00	43	65			108
0:15	1	3			4	12:15	49	48			97
0:30	4	8			12	12:30	52	64			116
0:45	4	9			13	12:45	46	57			103
1:00	2	9			11	13:00	53	50			103
1:15	6	8			14	13:15	51	54			105
1:30	5	4			9	13:30	54	50			104
1:45	2	5			7	13:45	51	66			117
2:00	1	4			5	14:00	55	57			112
2:15	3	2			5	14:15	55	81			136
2:30	6	1			7	14:30	62	68			130
2:45	4	3			7	14:45	62	64			126
3:00	12	2			14	15:00	69	81			150
3:15	9	2			11	15:15	74	74			148
3:30	12	2			14	15:30	64	92			156
3:45	4	3			7	15:45	80	91			171
4:00	14	4			18	16:00	73	86			159
4:15	17	10			27	16:15	78	98			176
4:30	25	11			36	16:30	88	95			183
4:45	13	15			28	16:45	94	92			186
5:00	22	14			36	17:00	70	102			172
5:15	31	25			56	17:15	78	111			189
5:30	51	30			81	17:30	83	113			196
5:45	42	32			74	17:45	66	97			163
6:00	53	34			87	18:00	67	96			163
6:15	69	45			114	18:15	92	94			186
6:30	74	63			137	18:30	64	68			132
6:45	83	77			160	18:45	52	78			130
7:00	60	105			165	19:00	57	63			120
7:15	86	96			182	19:15	55	61			116
7:30	112	70			182	19:30	51	37			88
7:45	102	72			174	19:45	62	49			111
8:00	84	78			162	20:00	49	43			92
8:15	82	55			137	20:15	50	41			91
8:30	80	66			146	20:30	45	39			84
8:45	67	81			148	20:45	29	41			70
9:00	61	48			109	21:00	27	27			54
9:15	65	50			115	21:15	39	35			74
9:30	64	63			127	21:30	25	37			62
9:45	47	67			114	21:45	22	20			42
10:00	51	40			91	22:00	19	17			36
10:15	49	49			98	22:15	17	22			39
10:30	42	63			105	22:30	13	10			23
10:45	53	52			105	22:45	13	13			26
11:00	42	34			76	23:00	8	14			22
11:15	43	54			97	23:15	5	11			16
11:30	44	38			82	23:30	7	11			18
11:45	31	69			100	23:45	3	11			14
TOTALS	1841	1683	0	0	3524	TOTALS	2421	2794	0	0	5215
SPLIT %	52%	48%	0%	0%	40%	SPLIT %	46%	54%	0%	0%	60%

Hourly Intervals

TIME		NB	SB	EB	WB	TOTAL
00:00	01:00	16	28			44
01:00	02:00	15	26			41
02:00	03:00	14	10			24
03:00	04:00	37	9			46
04:00	05:00	69	40			109
05:00	06:00	146	101			247
06:00	07:00	279	219			498
07:00	08:00	360	343			703
08:00	09:00	313	280			593
09:00	10:00	237	228			465
10:00	11:00	195	204			399
11:00	12:00	160	195			355
12:00	13:00	190	234			424
13:00	14:00	209	220			429
14:00	15:00	234	270			504
15:00	16:00	287	338			625
16:00	17:00	333	371			704
17:00	18:00	297	423			720
18:00	19:00	275	336			611
19:00	20:00	225	210			435
20:00	21:00	173	164			337
21:00	22:00	113	119			232
22:00	23:00	62	62			124
23:00	00:00	23	47			70

STATISTICS

	NB	SB	EB	WB	TOTAL
Peak Period	00:00	to	12:00		
Volume	1841	1683			3524
Peak Hour	7:15	6:45			7:00
Peak Volume	384	348			703
Peak Hour Factor	0.857	0.829			0.966
Peak Period	12:00	to	00:00		
Volume	2421	2794			5215
Peak Hour	16:00	17:00			16:45
Peak Volume	333	423			743
Peak Hour Factor	0.886	0.936			0.948
Peak Period	07:00	to	09:00		
Volume	673	623			1296
Peak Hour	7:15	7:00			7:00
Peak Volume	384	343			703
Peak Hour Factor	0.857	0.817			0.966
Peak Period	16:00	to	18:00		
Volume	630	794			1424
Peak Hour	16:00	17:00			16:45
Peak Volume	333	423			743
Peak Hour Factor	0.886	0.936			0.948

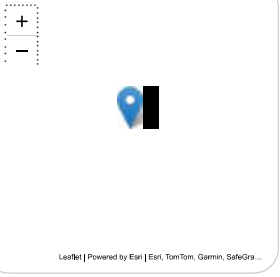


APPENDIX C

GDOT HISTORICAL DATA & GROWTH RATE

0000135_0209 - 135-0209 - Braselton Hwy NE
County: Gwinnett
Route number: 00012400
LRS section: 1351012400
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 34.07522481, -83.88563896

Site Data



Count History

Year	Month	Count type	Duration	Count
2022	August	Class	48 hours	18,068
2020	February	Class	48 hours	20,900
2018	January	Volume	48 hours	17,316
2016	February	Volume	48 hours	19,244
2014	February	Volume	48 hours	17,473
2012	March	Volume	48 hours	18,195
2010	March	Class	48 hours	17,916

Annual Statistics

Data Item	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Statistics type	-	-	Estimated	Actual	Estimated	Actual	Estimated	Actual	Estimated	**Actual**
AADT	16,210	17,100	18,400	17,900	18,900	17,300	17,500	18,800	20,300	**16,700**
K-Factor	-	0.095	0.095	0.093	-	0.083	0.083	0.101	0.101	**0.087**
D-Factor	-	0.500	0.500	0.500	-	0.580	0.580	0.570	0.570	**0.550**
Future AADT	-	-	-	20,100	20,500	23,600	23,600	23,600	25,600	**21,000**

Vehicle Classification 2022

1. Motorcycles 2 axles, 2 or 3 wheels.	**0.25%**
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	**77.12%**
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	**17.69%**
4. Buses 2- or 3-axle, full length.	**1.14%**
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	**2.75%**
6. Single-unit trucks 3-axle, single-unit trucks.	**0.49%**
7. Single-unit trucks 4 or more axle, single-unit trucks.	**0.05%**
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.	**0.38%**
9. Single-trailer trucks 5-axle, single-trailer trucks.	**0.11%**
10. Single-trailer trucks 6 or more axle, single-trailer trucks.	**0.01%**
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.	**0%**
12. Multi-trailer trucks 6-axle, multi-trailer trucks.	**0%**
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.	**0.01%**

0000135_0212 - 135-0212 -
County: Gwinnett
Route number: 00012400
LRS section: 1351012400
Functional class: 4U - Minor Arterial (Urban)
Coordinates: 34.0718400303115, -83.8485440406583

Site Data

Count History

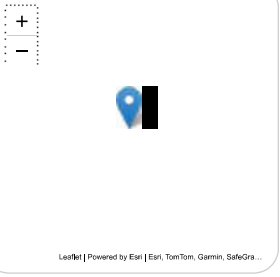
Year	Month	Count type	Duration	Count
2023	January	Volume	48 hours	14,306
2021	February	Volume	48 hours	14,038
2019	January	Volume	48 hours	14,330
2017	March	Volume	48 hours	16,858
2015	March	Volume	48 hours	11,748
2013	February	Volume	48 hours	9,693
2011	April	Volume	48 hours	10,516

Annual Statistics

Data Item	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Statistics type	-	-	Actual	Estimated	Actual	Estimated	Actual	Estimated	Actual	**Estimated**
AADT	8,770	8,770	10,800	11,200	15,400	15,400	13,700	12,700	13,800	**14,400**
K-Factor	0.090	0.090	0.100	0.100	0.097	0.097	0.096	0.096	0.094	**0.094**
D-Factor	-	-	0.500	0.500	0.500	0.500	0.550	0.550	0.570	**0.570**
Future AADT	-	-	-	11,900	18,100	26,500	28,900	28,900	37,200	**31,500**

0000135_0494 - 135-0494 - BEG BARROW 013
County: Gwinnett
Route number: 00194300
LRS section: 1352194300
Functional class: 5U - Major Collector (Urban)
Coordinates: 34.06206965, -83.85154667

Site Data

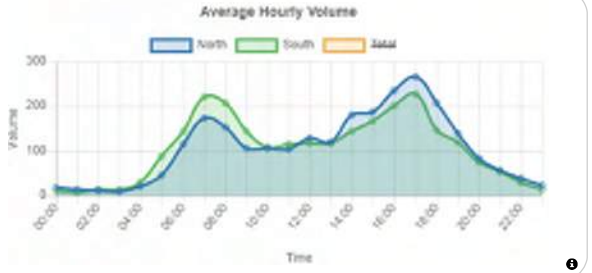


Count History

Year	Month	Count type	Duration	Count
2022	April	Class	48 hours	7,584
2018	January	Class	48 hours	5,432
2014	February	Volume	48 hours	3,330
2010	July	Class	48 hours	3,050

Annual Statistics

Data Item	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Statistics type	-	-	Estimated	Estimated	Estimated	Actual	Estimated	Estimated	Estimated	**Actual**
AADT	2,840	3,160	3,290	3,370	3,440	5,590	5,700	5,290	5,620	**6,850**
K-Factor	-	0.121	0.121	0.121	-	0.106	0.106	0.106	0.106	**0.110**
D-Factor	-	0.500	0.500	0.500	-	0.520	0.520	0.520	0.520	**0.550**
Future AADT	-	-	-	3,720	4,140	8,110	11,100	11,100	14,400	**16,600**

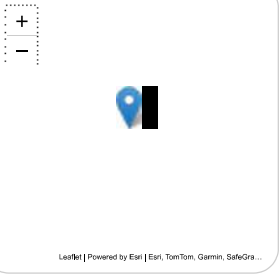


Vehicle Classification 2022

1. Motorcycles 2 axles, 2 or 3 wheels.	**0.30%**
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	**72.78%**
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	**22.61%**
4. Buses 2- or 3-axle, full length.	**0.58%**
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	**2.65%**
6. Single-unit trucks 3-axle, single-unit trucks.	**0.21%**
7. Single-unit trucks 4 or more axle, single-unit trucks.	**0.01%**
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.	**0.66%**
9. Single-trailer trucks 5-axle, single-trailer trucks.	**0.17%**
10. Single-trailer trucks 6 or more axle, single-trailer trucks.	**0.01%**
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.	**0%**
12. Multi-trailer trucks 6-axle, multi-trailer trucks.	**0%**
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.	**0.01%**

0000135_7360 - 135-7360 - SR 012400 BEG AT
County: Gwinnett
Route number: 00014600
LRS section: 1352014600
Functional class: 5U - Major Collector (Urban)
Coordinates: 34.0870987133924, -83.8769309903402

Site Data

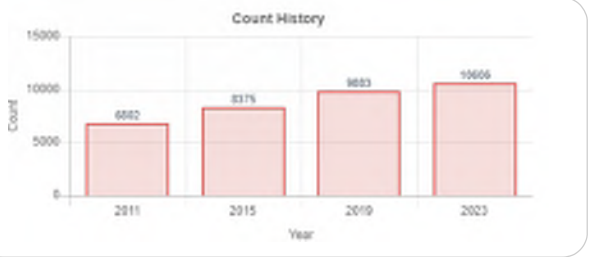


Count History

Year	Month	Count type	Duration	Count
2023	May	Class	48 hours	10,606
2019	January	Class	48 hours	9,883
2015	March	Volume	48 hours	8,375
2011	April	Volume	48 hours	6,802

Annual Statistics

Data Item	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Statistics type	-	-	Actual	Estimated	Estimated	Estimated	Actual	Estimated	Estimated	**Estimated**
AADT	6,110	6,110	7,280	7,460	7,610	7,730	9,880	9,170	9,750	**9,990**
K-Factor	-	-	0.108	0.108	-	-	0.101	0.101	0.101	**0.101**
D-Factor	-	-	0.500	0.500	-	-	0.550	0.550	0.550	**0.550**
Future AADT	-	-	-	13,100	15,000	13,900	17,200	17,200	19,400	**19,700**



Vehicle Classification 2023

1. Motorcycles 2 axles, 2 or 3 wheels.	**0.14%**
2. Passenger cars 2 axles. Can have 1- or 2-axle trailers.	**78.20%**
3. Pickups, panels, vans 2-axle, 4-tire single units. Can have 1- or 2-axle trailers.	**17.58%**
4. Buses 2- or 3-axle, full length.	**0.49%**
5. Single-unit trucks 2-axle, 6-tire, (dual rear tires), single-unit trucks.	**2.39%**
6. Single-unit trucks 3-axle, single-unit trucks.	**0.69%**
7. Single-unit trucks 4 or more axle, single-unit trucks.	**0.02%**
8. Single-trailer trucks 3- or 4-axle, single-trailer trucks.	**0.33%**
9. Single-trailer trucks 5-axle, single-trailer trucks.	**0.15%**
10. Single-trailer trucks 6 or more axle, single-trailer trucks.	**0%**
11. Multi-trailer trucks 5 or less axle, multi-trailer trucks.	**0%**
12. Multi-trailer trucks 6-axle, multi-trailer trucks.	**0%**
13. Multi-trailer trucks 7 or more axle, multi-trailer trucks.	**0.01%**

Poole Mountain Residential Development - Growth Rate Calculation Worksheet

Percentage Growth										
Roadway	**County**	**Traffic Count Station**	**2018 Traffic Volumes**	**2019 Traffic Volumes**	**2020 Traffic Volumes**	**2021 Traffic Volumes**	**2022 Traffic Volumes**	**2024 Traffic Volumes by Linear Regress.**	**2034 Traffic Volumes by Linear Regress.**	**Annual Growth 2024 to 2034**
Mt. Moriah Rd	Gwinnett	135-0494	5,590	5,700	5,290	5,620	6,850	6,786	9,226	3.6%
SR 124	Gwinnett	135-0212	15,400	13,700	12,700	13,800	14,400	13,240	11,340	-1.4%
SR 124	Gwinnett	135-0209	17,300	17,500	18,800	20,300	16,700	18,760	20,360	0.9%
Spout Springs Rd	Gwinnett	135-7360	7,730	9,880	9,170	9,750	9,990	11,060	15,450	4.0%
		Weighted Average	**46,020**	**46,780**	**45,960**	**49,470**	**47,940**	**49,846**	**56,376**	**1.3%**

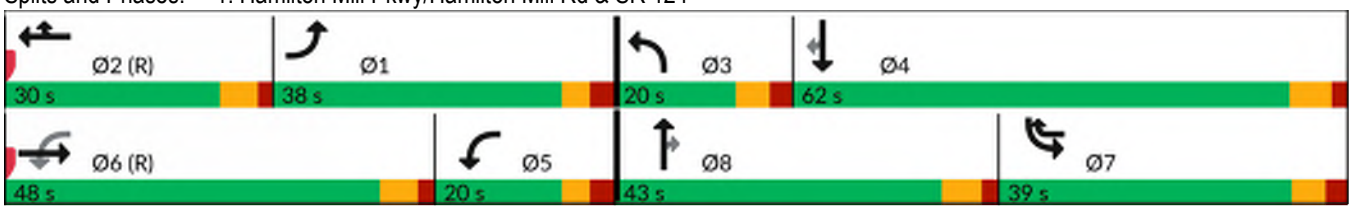
APPENDIX D

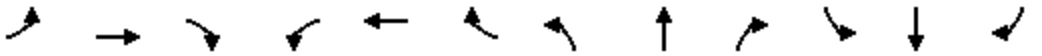
EXISTING, NO-BUILD, & BUILD SYNCHRO REPORTS

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	304	279	48	335	679	49	345	85	485	133	225
Future Volume (vph)	304	279	48	335	679	49	345	85	485	133	225
Turn Type	Prot	NA	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6	5	2	2 7	3	8		7	4	
Permitted Phases			6					8			4
Detector Phase	1	6	5	2	2 7	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	18.0	9.7	18.0		10.2	12.4	12.4	10.2	12.4	12.4
Total Split (s)	38.0	48.0	20.0	30.0		20.0	43.0	43.0	39.0	62.0	62.0
Total Split (%)	25.3%	32.0%	13.3%	20.0%		13.3%	28.7%	28.7%	26.0%	41.3%	41.3%
Yellow Time (s)	3.1	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	23.6	43.0	50.1	24.0	74.8	9.7	33.5	33.5	44.6	70.9	70.9
Actuated g/C Ratio	0.16	0.29	0.33	0.16	0.50	0.06	0.22	0.22	0.30	0.47	0.47
v/c Ratio	0.75	0.43	0.19	1.35	0.52	0.45	0.86	0.18	0.55	0.17	0.29
Control Delay (s/veh)	69.3	44.5	35.6	222.3	17.8	79.0	75.0	0.9	48.8	25.7	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	44.5	35.6	222.3	17.8	79.0	75.0	0.9	48.8	25.7	4.0
LOS	E	D	D	F	B	E	E	A	D	C	A
Approach Delay (s/veh)		56.6		83.1			62.2			33.2	
Approach LOS		E		F			E			C	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 64 (43%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.35	
Intersection Signal Delay (s/veh): 60.5	Intersection LOS: E
Intersection Capacity Utilization 78.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	304	279	40	48	335	679	49	345	85	485	133	225
Future Volume (veh/h)	304	279	40	48	335	679	49	345	85	485	133	225
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1767	1826	1870	1811	1870	1870	1870	1885	1796	1870	1841
Adj Flow Rate, veh/h	390	358	0	55	385	780	51	356	0	533	146	0
Peak Hour Factor	0.78	0.78	0.78	0.87	0.87	0.87	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	5	9	5	2	6	2	2	2	1	7	2	4
Cap, veh/h	847	940		480	290	1056	66	387		726	729	
Arrive On Green	0.25	0.28	0.00	0.13	0.16	0.16	0.04	0.21	0.00	0.22	0.39	0.00
Sat Flow, veh/h	3374	3445	0	1781	1811	2790	1781	1870	1598	3319	1870	1560
Grp Volume(v), veh/h	390	358	0	55	385	780	51	356	0	533	146	0
Grp Sat Flow(s),veh/h/ln	1687	1678	0	1781	1811	1395	1781	1870	1598	1659	1870	1560
Q Serve(g_s), s	14.7	12.9	0.0	0.0	24.0	3.4	4.3	28.0	0.0	22.4	7.7	0.0
Cycle Q Clear(g_c), s	14.7	12.9	0.0	0.0	24.0	3.4	4.3	28.0	0.0	22.4	7.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	847	940		480	290	1056	66	387		726	729	
V/C Ratio(X)	0.46	0.38		0.11	1.33	0.74	0.77	0.92		0.73	0.20	
Avail Cap(c_a), veh/h	847	940		480	290	1056	164	456		726	729	
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	0.93	0.93	0.93	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	47.5	43.5	0.0	36.1	63.0	40.2	71.6	58.3	0.0	54.5	30.3	0.0
Incr Delay (d2), s/veh	0.4	1.2	0.0	0.1	168.4	4.3	17.3	21.9	0.0	6.5	0.1	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	6.2	5.5	0.0	1.5	24.5	12.8	2.2	15.4	0.0	9.9	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.9	44.7	0.0	36.2	231.4	44.5	88.9	80.2	0.0	61.1	30.4	0.0
LnGrp LOS	D	D		D	F	D	F	F		E	C	
Approach Vol, veh/h		748			1220			407			679	
Approach Delay, s/veh		46.4			103.1			81.3			54.5	
Approach LOS		D			F			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	43.4	30.0	11.7	64.9	25.4	48.0	39.2	37.4
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	32.3	24.0	13.8	* 56	14.3	42.0	* 33	* 37
Max Q Clear Time (g_c+I1), s	16.7	26.0	6.3	9.7	2.0	14.9	24.4	30.0
Green Ext Time (p_c), s	1.2	0.0	0.0	0.8	0.1	2.3	1.3	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	75.5
HCM 7th LOS	E

Notes

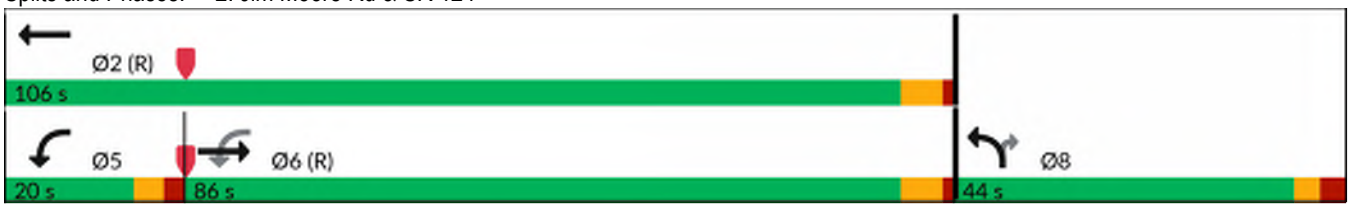
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	672	52	925	90	82
Future Volume (vph)	672	52	925	90	82
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	86.0	20.0	106.0	44.0	44.0
Total Split (%)	57.3%	13.3%	70.7%	29.3%	29.3%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	113.0	118.7	122.7	15.8	15.8
Actuated g/C Ratio	0.75	0.79	0.82	0.11	0.11
v/c Ratio	0.31	0.11	0.35	0.66	0.42
Control Delay (s/veh)	12.6	3.5	4.1	81.0	14.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.6	3.5	4.1	81.0	14.5
LOS	B	A	A	F	B
Approach Delay (s/veh)	12.6		4.1	49.3	
Approach LOS	B		A	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 128 (85%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay (s/veh): 12.3	Intersection LOS: B
Intersection Capacity Utilization 45.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	672	77	52	925	90	82
Future Volume (veh/h)	672	77	52	925	90	82
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1811	1900	1841	1870	1856	1870
Adj Flow Rate, veh/h	715	82	57	1005	122	111
Peak Hour Factor	0.94	0.94	0.92	0.92	0.74	0.74
Percent Heavy Veh, %	6	0	4	2	3	2
Cap, veh/h	2377	272	577	2973	153	138
Arrive On Green	0.76	0.76	0.04	0.84	0.09	0.09
Sat Flow, veh/h	3201	357	1753	3647	1767	1585
Grp Volume(v), veh/h	395	402	57	1005	122	111
Grp Sat Flow(s),veh/h/ln	1721	1747	1753	1777	1767	1585
Q Serve(g_s), s	10.5	10.6	1.0	9.7	10.2	10.3
Cycle Q Clear(g_c), s	10.5	10.6	1.0	9.7	10.2	10.3
Prop In Lane		0.20	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1315	1335	577	2973	153	138
V/C Ratio(X)	0.30	0.30	0.10	0.34	0.80	0.81
Avail Cap(c_a), veh/h	1315	1335	684	2973	450	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.88	0.88	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.4	5.4	3.5	2.8	67.2	67.2
Incr Delay (d2), s/veh	0.5	0.5	0.1	0.3	9.0	10.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	3.4	0.3	2.4	5.0	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	5.9	5.9	3.6	3.1	76.1	77.8
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	797			1062	233	
Approach Delay, s/veh	5.9			3.1	76.9	
Approach LOS	A			A	E	

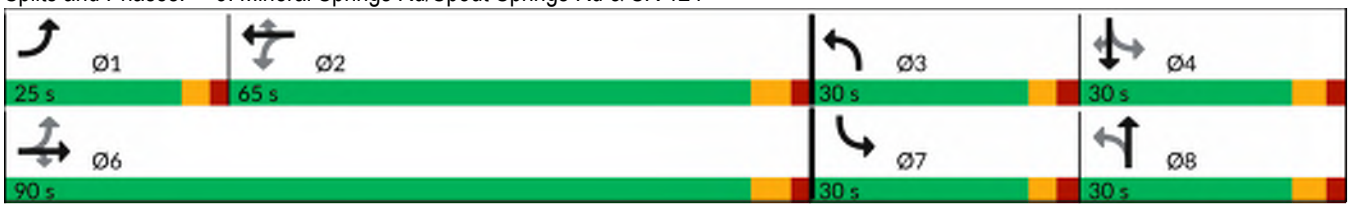
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		131.2			10.8	120.3	18.8
Change Period (Y+Rc), s		5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s		100.3			14.6	80.3	38.2
Max Q Clear Time (g_c+I1), s		11.7			3.0	12.6	12.3
Green Ext Time (p_c), s		8.3			0.1	5.2	0.7

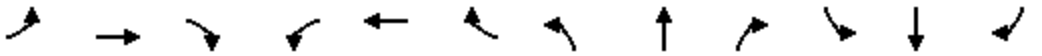
Intersection Summary	
HCM 7th Control Delay, s/veh	12.4
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	186	319	29	29	473	159	104	154	170	79	349
Future Volume (vph)	186	319	29	29	473	159	104	154	170	79	349
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	2	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	25.0	90.0	90.0	65.0	65.0	65.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	60.0%	60.0%	43.3%	43.3%	43.3%	20.0%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	66.9	65.5	65.5	46.6	46.6	46.6	33.8	21.9	46.9	29.5	29.5
Actuated g/C Ratio	0.53	0.52	0.52	0.37	0.37	0.37	0.27	0.17	0.37	0.24	0.24
v/c Ratio	0.73	0.39	0.04	0.10	0.89	0.32	0.31	0.82	0.60	0.22	0.60
Control Delay (s/veh)	36.6	19.6	0.6	28.4	54.6	15.7	31.8	71.0	37.9	44.6	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	36.6	19.6	0.6	28.4	54.6	15.7	31.8	71.0	37.9	44.6	8.3
LOS	D	B	A	C	D	B	C	E	D	D	A
Approach Delay (s/veh)		24.5			44.1			58.4		21.5	
Approach LOS		C			D			E		C	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 125.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 35.3	Intersection LOS: D
Intersection Capacity Utilization 76.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	319	29	29	473	159	104	154	65	170	79	349
Future Volume (veh/h)	186	319	29	29	473	159	104	154	65	170	79	349
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1752	1900	1856	1841	1841	1885	1870	1767	1767	1841	1885
Adj Flow Rate, veh/h	204	351	32	37	606	204	122	181	76	205	95	420
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.83	0.83	0.83
Percent Heavy Veh, %	3	10	0	3	4	4	1	2	9	9	4	1
Cap, veh/h	274	902	829	441	687	582	372	238	100	325	432	375
Arrive On Green	0.09	0.51	0.51	0.37	0.37	0.37	0.07	0.19	0.19	0.12	0.23	0.23
Sat Flow, veh/h	1767	1752	1610	992	1841	1560	1795	1251	525	1682	1841	1598
Grp Volume(v), veh/h	204	351	32	37	606	204	122	0	257	205	95	420
Grp Sat Flow(s),veh/h/ln	1767	1752	1610	992	1841	1560	1795	0	1776	1682	1841	1598
Q Serve(g_s), s	6.9	12.4	1.0	2.5	31.4	9.6	5.5	0.0	14.0	9.7	4.3	24.0
Cycle Q Clear(g_c), s	6.9	12.4	1.0	2.5	31.4	9.6	5.5	0.0	14.0	9.7	4.3	24.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	274	902	829	441	687	582	372	0	337	325	432	375
V/C Ratio(X)	0.74	0.39	0.04	0.08	0.88	0.35	0.33	0.00	0.76	0.63	0.22	1.12
Avail Cap(c_a), veh/h	457	1431	1316	638	1054	893	669	0	417	528	432	375
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	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.6	15.0	12.3	20.8	29.9	23.1	29.7	0.0	39.2	28.4	31.5	39.1
Incr Delay (d2), s/veh	4.0	0.3	0.0	0.1	5.9	0.4	0.5	0.0	6.4	2.0	0.3	82.9
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	2.9	4.5	0.3	0.6	14.0	3.4	2.4	0.0	6.5	3.9	1.9	17.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	26.6	15.3	12.3	20.9	35.8	23.4	30.3	0.0	45.6	30.5	31.8	122.0
LnGrp LOS	C	B	B	C	D	C	C		D	C	C	F
Approach Vol, veh/h		587			847			379			720	
Approach Delay, s/veh		19.1			32.2			40.7			84.1	
Approach LOS		B			C			D			F	

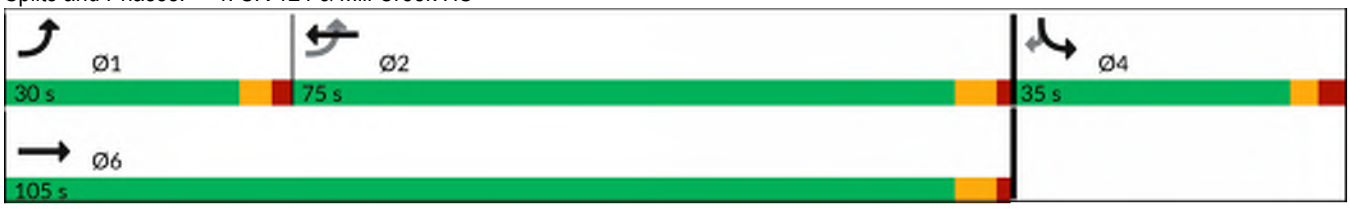
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	14.4	44.7	13.1	30.0		59.1	17.7	25.4				
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0		6.5	5.6	6.0				
Max Green Setting (Gmax), s	19.8	58.5	24.4	24.0		83.5	24.4	24.0				
Max Q Clear Time (g_c+I1), s	8.9	33.4	7.5	26.0		14.4	11.7	16.0				
Green Ext Time (p_c), s	0.4	4.7	0.2	0.0		2.2	0.4	0.8				

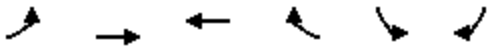
Intersection Summary	
HCM 7th Control Delay, s/veh	45.2
HCM 7th LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	271	308	484	212	94	146
Future Volume (vph)	271	308	484	212	94	146
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	30.0	105.0	75.0		35.0	35.0
Total Split (%)	21.4%	75.0%	53.6%		25.0%	25.0%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None
Act Effct Green (s)	45.9	51.1	32.3	76.4	12.8	12.8
Actuated g/C Ratio	0.60	0.67	0.42	1.00	0.17	0.17
v/c Ratio	0.73	0.34	0.77	0.17	0.48	0.50
Control Delay (s/veh)	18.3	6.4	27.1	0.2	38.4	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.3	6.4	27.1	0.2	38.4	9.5
LOS	B	A	C	A	D	A
Approach Delay (s/veh)		12.0	18.9		20.8	
Approach LOS		B	B		C	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 76.4	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay (s/veh): 16.6	Intersection LOS: B
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	271	308	484	212	94	146
Future Volume (veh/h)	271	308	484	212	94	146
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1737	1826	1841	1870	1856
Adj Flow Rate, veh/h	347	395	590	0	142	221
Peak Hour Factor	0.78	0.78	0.82	0.82	0.66	0.66
Percent Heavy Veh, %	5	11	5	4	2	3
Cap, veh/h	466	1096	706		325	287
Arrive On Green	0.16	0.63	0.39	0.00	0.18	0.18
Sat Flow, veh/h	1739	1737	1826	1560	1781	1572
Grp Volume(v), veh/h	347	395	590	0	142	221
Grp Sat Flow(s),veh/h/ln	1739	1737	1826	1560	1781	1572
Q Serve(g_s), s	7.2	6.9	18.5	0.0	4.5	8.5
Cycle Q Clear(g_c), s	7.2	6.9	18.5	0.0	4.5	8.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	466	1096	706		325	287
V/C Ratio(X)	0.74	0.36	0.84		0.44	0.77
Avail Cap(c_a), veh/h	865	2719	1993		819	723
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.2	5.6	17.6	0.0	23.0	24.6
Incr Delay (d2), s/veh	2.4	0.2	2.7	0.0	0.9	4.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.6	6.8	0.0	1.9	3.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	14.6	5.8	20.3	0.0	23.9	28.9
LnGrp LOS	B	A	C		C	C
Approach Vol, veh/h		742	590		363	
Approach Delay, s/veh		9.9	20.3		27.0	
Approach LOS		A	C		C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.5	30.4		17.5		45.8
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 25	69.1		29.1		99.1
Max Q Clear Time (g_c+I1), s	9.2	20.5		10.5		8.9
Green Ext Time (p_c), s	0.9	3.9		1.1		2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	17.2
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	344	37	78	594	8	50	5	77	3	3	9
Future Vol, veh/h	5	344	37	78	594	8	50	5	77	3	3	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	92	92	92	63	63	63
Heavy Vehicles, %	0	6	11	3	5	0	4	0	8	0	0	0
Mvmt Flow	6	414	45	90	683	9	54	5	84	5	5	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	692	0	0	459	0	0	1313	1320	437	1291	1333	683
Stage 1	-	-	-	-	-	-	449	449	-	862	862	-
Stage 2	-	-	-	-	-	-	864	871	-	429	471	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.14	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.536	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	912	-	-	1097	-	-	134	158	607	141	155	453
Stage 1	-	-	-	-	-	-	586	576	-	353	375	-
Stage 2	-	-	-	-	-	-	346	371	-	608	563	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	912	-	-	1097	-	-	114	144	607	107	141	453
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	144	-	107	141	-
Stage 1	-	-	-	-	-	-	580	571	-	324	344	-
Stage 2	-	-	-	-	-	-	303	341	-	515	558	-

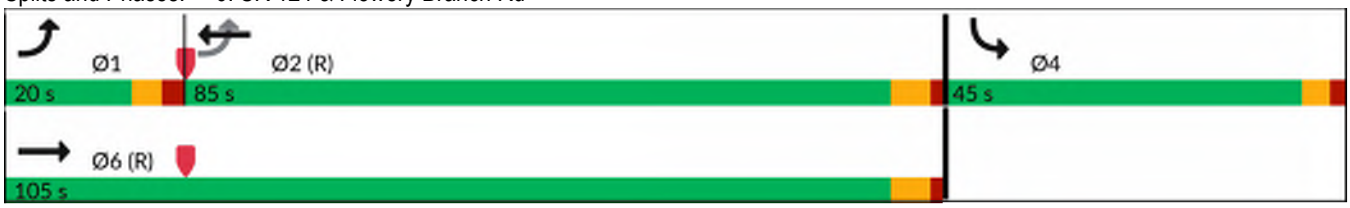
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.12	0.98	33.83	23.61
HCM LOS			D	C

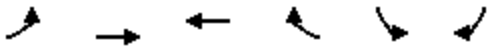
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	117	607	23	-	-	1097	-	-	217
HCM Lane V/C Ratio	0.513	0.138	0.007	-	-	0.082	-	-	0.11
HCM Control Delay (s/veh)	64.6	11.9	9	0	-	8.6	-	-	23.6
HCM Lane LOS	F	B	A	A	-	A	-	-	C
HCM 95th %tile Q(veh)	2.4	0.5	0	-	-	0.3	-	-	0.4

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	88	315	480	197
Future Volume (vph)	88	315	480	197
Turn Type	D.P+P	NA	NA	Prot
Protected Phases	1	6	2	4
Permitted Phases	2			
Detector Phase	1	6	2	4
Switch Phase				
Minimum Initial (s)	4.0	20.0	20.0	8.0
Minimum Split (s)	9.7	25.9	25.9	13.0
Total Split (s)	20.0	105.0	85.0	45.0
Total Split (%)	13.3%	70.0%	56.7%	30.0%
Yellow Time (s)	3.4	4.5	4.5	3.3
All-Red Time (s)	2.3	1.4	1.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	98.0	103.5	88.2	35.6
Actuated g/C Ratio	0.65	0.69	0.59	0.24
v/c Ratio	0.44	0.33	0.83	0.90
Control Delay (s/veh)	14.1	10.8	23.0	77.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.1	10.8	23.0	77.0
LOS	B	B	C	E
Approach Delay (s/veh)		11.5	23.0	77.0
Approach LOS		B	C	E

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 31.1	Intersection LOS: C
Intersection Capacity Utilization 82.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	88	315	480	301	197	155
Future Volume (veh/h)	88	315	480	301	197	155
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1767	1811	1841	1856	1796	1826
Adj Flow Rate, veh/h	113	404	527	331	207	163
Peak Hour Factor	0.78	0.78	0.91	0.91	0.95	0.95
Percent Heavy Veh, %	9	6	4	3	7	5
Cap, veh/h	484	1242	643	404	219	172
Arrive On Green	0.04	0.69	1.00	1.00	0.24	0.24
Sat Flow, veh/h	1682	1811	1057	664	905	713
Grp Volume(v), veh/h	113	404	0	858	371	0
Grp Sat Flow(s),veh/h/ln	1682	1811	0	1721	1623	0
Q Serve(g_s), s	3.8	13.5	0.0	0.0	33.7	0.0
Cycle Q Clear(g_c), s	3.8	13.5	0.0	0.0	33.7	0.0
Prop In Lane	1.00			0.39	0.56	0.44
Lane Grp Cap(c), veh/h	484	1242	0	1047	392	0
V/C Ratio(X)	0.23	0.33	0.00	0.82	0.95	0.00
Avail Cap(c_a), veh/h	578	1242	0	1047	433	0
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.80	1.00	0.00
Uniform Delay (d), s/veh	10.0	9.5	0.0	0.0	55.9	0.0
Incr Delay (d2), s/veh	0.2	0.7	0.0	5.8	28.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.2	0.0	1.7	16.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.2	10.2	0.0	5.8	84.7	0.0
LnGrp LOS	B	B		A	F	
Approach Vol, veh/h		517	858		371	
Approach Delay, s/veh		10.2	5.8		84.7	
Approach LOS		B	A		F	

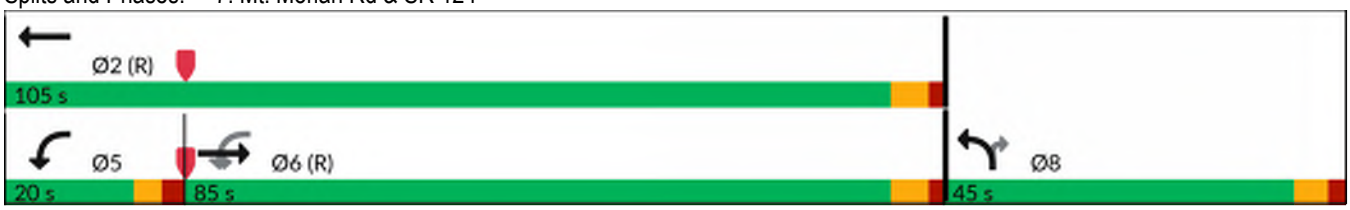
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.6	97.2		41.2		108.8
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	14.3	79.1		40.0		99.1
Max Q Clear Time (g_c+I1), s	5.8	2.0		35.7		15.5
Green Ext Time (p_c), s	0.1	7.8		0.5		2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	23.9
HCM 7th LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	305	164	119	526	270	142
Future Volume (vph)	305	164	119	526	270	142
Turn Type	NA	Perm	D.P+P	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	6			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	12.0	12.0	8.0	12.0	8.0	8.0
Minimum Split (s)	17.9	17.9	13.5	17.9	13.8	13.8
Total Split (s)	85.0	85.0	20.0	105.0	45.0	45.0
Total Split (%)	56.7%	56.7%	13.3%	70.0%	30.0%	30.0%
Yellow Time (s)	4.3	4.3	3.2	4.3	3.7	3.7
All-Red Time (s)	1.6	1.6	2.3	1.6	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.5	5.9	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	92.5	92.5	102.4	107.5	30.8	30.8
Actuated g/C Ratio	0.62	0.62	0.68	0.72	0.21	0.21
v/c Ratio	0.31	0.18	0.19	0.43	0.84	0.39
Control Delay (s/veh)	23.8	6.9	8.1	10.7	76.6	21.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.8	6.9	8.1	10.7	76.6	21.6
LOS	C	A	A	B	E	C
Approach Delay (s/veh)	17.9			10.2	57.6	
Approach LOS	B			B	E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 117 (78%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 25.5	Intersection LOS: C
Intersection Capacity Utilization 52.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	305	164	119	526	270	142
Future Volume (veh/h)	305	164	119	526	270	142
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1826	1841	1781	1856	1856	1870
Adj Flow Rate, veh/h	347	186	128	566	300	158
Peak Hour Factor	0.88	0.88	0.93	0.93	0.90	0.90
Percent Heavy Veh, %	5	4	8	3	3	2
Cap, veh/h	1177	1006	673	1363	331	297
Arrive On Green	1.00	1.00	0.05	0.73	0.19	0.19
Sat Flow, veh/h	1826	1560	1697	1856	1767	1585
Grp Volume(v), veh/h	347	186	128	566	300	158
Grp Sat Flow(s),veh/h/ln	1826	1560	1697	1856	1767	1585
Q Serve(g_s), s	0.0	0.0	3.7	17.5	24.9	13.5
Cycle Q Clear(g_c), s	0.0	0.0	3.7	17.5	24.9	13.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1177	1006	673	1363	331	297
V/C Ratio(X)	0.29	0.18	0.19	0.42	0.91	0.53
Avail Cap(c_a), veh/h	1177	1006	747	1363	462	414
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	7.4	7.6	59.7	55.0
Incr Delay (d2), s/veh	0.5	0.3	0.1	0.9	16.9	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	1.3	6.5	12.7	5.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	0.5	0.3	7.5	8.5	76.5	56.5
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	533			694	458	
Approach Delay, s/veh	0.4			8.4	69.6	
Approach LOS	A			A	E	

Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	116.1			13.5	102.6	33.9
Change Period (Y+Rc), s	5.9			5.5	5.9	5.8
Max Green Setting (Gmax), s	99.1			14.5	79.1	39.2
Max Q Clear Time (g_c+I1), s	19.5			5.7	2.0	26.9
Green Ext Time (p_c), s	3.7			0.2	2.7	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	22.5
HCM 7th LOS	C

Intersection	
Intersection Delay, s/veh	15.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	189	11	32	328	6	24	33	50	5	3	13
Future Vol, veh/h	15	189	11	32	328	6	24	33	50	5	3	13
Peak Hour Factor	0.79	0.79	0.79	0.69	0.69	0.69	0.74	0.74	0.74	0.88	0.88	0.88
Heavy Vehicles, %	0	6	9	6	3	0	0	0	6	0	0	0
Mvmt Flow	19	239	14	46	475	9	32	45	68	6	3	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

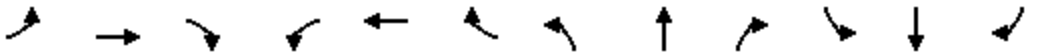
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	11.2	18.8	10.3	9.1
HCM LOS	B	C	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	7%	9%	24%
Vol Thru, %	31%	88%	90%	14%
Vol Right, %	47%	5%	2%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	107	215	366	21
LT Vol	24	15	32	5
Through Vol	33	189	328	3
RT Vol	50	11	6	13
Lane Flow Rate	145	272	530	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.227	0.384	0.706	0.039
Departure Headway (Hd)	5.655	5.074	4.893	5.851
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	638	713	743	613
Service Time	3.67	3.074	2.893	3.874
HCM Lane V/C Ratio	0.227	0.381	0.713	0.039
HCM Control Delay, s/veh	10.3	11.2	18.8	9.1
HCM Lane LOS	B	B	C	A
HCM 95th-tile Q	0.9	1.8	5.9	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	87	90	50	20	154	188	265	20	11	82
Future Volume (vph)	87	90	50	20	154	188	265	20	11	82
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	15.0	50.0	50.0	15.0	50.0	15.0	30.0	30.0	15.0	30.0
Total Split (%)	13.6%	45.5%	45.5%	13.6%	45.5%	13.6%	27.3%	27.3%	13.6%	27.3%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	23.8	21.2	21.2	19.2	14.8	29.7	27.7	27.7	21.7	14.6
Actuated g/C Ratio	0.35	0.31	0.31	0.28	0.22	0.44	0.41	0.41	0.32	0.22
v/c Ratio	0.30	0.22	0.12	0.07	0.58	0.50	0.42	0.03	0.07	0.64
Control Delay (s/veh)	16.4	21.3	0.4	14.6	31.2	18.2	19.9	0.1	13.8	30.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	16.4	21.3	0.4	14.6	31.2	18.2	19.9	0.1	13.8	30.5
LOS	B	C	A	B	C	B	B	A	B	C
Approach Delay (s/veh)		14.9			29.5		18.4			29.4
Approach LOS		B			C		B			C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 67.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay (s/veh): 21.8	Intersection LOS: C
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	90	50	20	154	24	188	265	20	11	82	68
Future Volume (veh/h)	87	90	50	20	154	24	188	265	20	11	82	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1841	1752	1856	1781	1870	1885	1826	1218	1870	1856
Adj Flow Rate, veh/h	121	125	69	26	200	31	229	323	24	19	141	117
Peak Hour Factor	0.72	0.72	0.72	0.77	0.77	0.77	0.82	0.82	0.82	0.58	0.58	0.58
Percent Heavy Veh, %	0	4	4	10	3	8	2	1	5	46	2	3
Cap, veh/h	339	429	364	367	283	44	423	581	477	262	187	155
Arrive On Green	0.08	0.23	0.23	0.02	0.18	0.18	0.13	0.31	0.31	0.02	0.20	0.20
Sat Flow, veh/h	1810	1841	1560	1668	1569	243	1781	1885	1547	1160	945	784
Grp Volume(v), veh/h	121	125	69	26	0	231	229	323	24	19	0	258
Grp Sat Flow(s),veh/h/ln	1810	1841	1560	1668	0	1812	1781	1885	1547	1160	0	1729
Q Serve(g_s), s	3.0	3.1	2.0	0.7	0.0	6.6	5.2	7.9	0.6	0.7	0.0	7.8
Cycle Q Clear(g_c), s	3.0	3.1	2.0	0.7	0.0	6.6	5.2	7.9	0.6	0.7	0.0	7.8
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	339	429	364	367	0	327	423	581	477	262	0	342
V/C Ratio(X)	0.36	0.29	0.19	0.07	0.00	0.71	0.54	0.56	0.05	0.07	0.00	0.75
Avail Cap(c_a), veh/h	494	1473	1248	598	0	1450	499	815	669	440	0	748
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.9	17.5	17.1	17.9	0.0	21.4	14.0	16.0	13.5	17.4	0.0	21.0
Incr Delay (d2), s/veh	0.6	0.4	0.2	0.1	0.0	2.8	1.1	0.8	0.0	0.1	0.0	3.4
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	1.2	0.6	0.2	0.0	2.7	1.8	3.0	0.2	0.2	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.5	17.9	17.3	17.9	0.0	24.2	15.1	16.9	13.5	17.5	0.0	24.4
LnGrp LOS	B	B	B	B		C	B	B	B	B		C
Approach Vol, veh/h		315			257			576			277	
Approach Delay, s/veh		17.6			23.6			16.0			23.9	
Approach LOS		B			C			B			C	

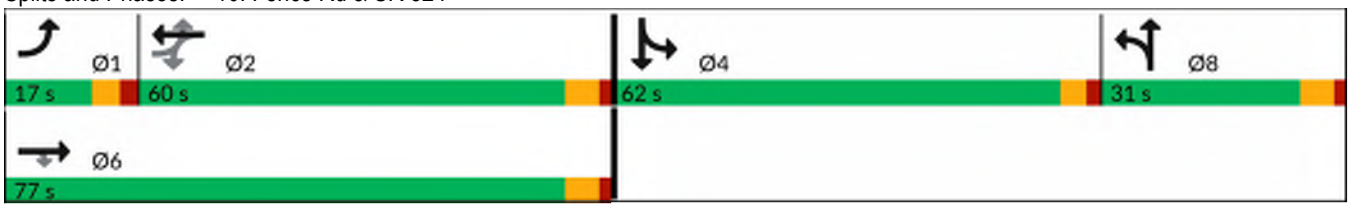
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.3	15.6	12.6	17.0	7.3	18.5	6.5	23.1
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	9.0	44.4	9.5	24.0	9.0	44.4	9.5	24.0
Max Q Clear Time (g_c+I1), s	5.0	8.6	7.2	9.8	2.7	5.1	2.7	9.9
Green Ext Time (p_c), s	0.1	1.3	0.1	1.2	0.0	0.9	0.0	1.5

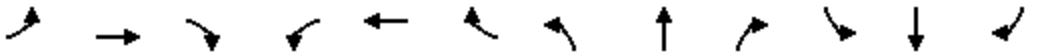
Intersection Summary	
HCM 7th Control Delay, s/veh	19.3
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	119	224	37	26	475	40	132	30	260
Future Volume (vph)	119	224	37	26	475	40	132	30	260
Turn Type	D.P+P	NA	Perm	Perm	NA	Split	NA	Split	NA
Protected Phases	1	6			2	8	8	4	4
Permitted Phases	2		6	2					
Detector Phase	1	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	24.0	24.0	24.0	24.0	23.7	23.7	23.3	23.3
Total Split (s)	17.0	77.0	77.0	60.0	60.0	31.0	31.0	62.0	62.0
Total Split (%)	10.0%	45.3%	45.3%	35.3%	35.3%	18.2%	18.2%	36.5%	36.5%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)	64.4	70.1	70.1	53.1	53.1	20.9	20.9	55.8	55.8
Actuated g/C Ratio	0.39	0.43	0.43	0.32	0.32	0.13	0.13	0.34	0.34
v/c Ratio	0.78	0.33	0.06	0.07	0.96	0.22	0.80	0.05	0.96
Control Delay (s/veh)	64.2	33.7	5.0	40.8	82.7	67.2	93.2	38.3	78.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	64.2	33.7	5.0	40.8	82.7	67.2	93.2	38.3	78.4
LOS	E	C	A	D	F	E	F	D	E
Approach Delay (s/veh)		40.4			80.7		87.7		76.2
Approach LOS		D			F		F		E

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 163.8	
Natural Cycle: 125	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay (s/veh): 70.9	Intersection LOS: E
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	224	37	26	475	47	40	132	21	30	260	264
Future Volume (veh/h)	119	224	37	26	475	47	40	132	21	30	260	264
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1752	1737	1900	1796	1841	1752	1781	1752	1900	1841	1856
Adj Flow Rate, veh/h	131	246	41	27	500	49	47	153	24	33	286	290
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.91	0.91	0.91
Percent Heavy Veh, %	7	10	11	0	7	4	10	8	10	0	4	3
Cap, veh/h	170	744	625	405	522	51	194	175	27	637	295	299
Arrive On Green	0.06	0.42	0.42	0.32	0.32	0.32	0.12	0.12	0.12	0.35	0.35	0.35
Sat Flow, veh/h	1711	1752	1472	1109	1610	158	1668	1503	236	1810	838	850
Grp Volume(v), veh/h	131	246	41	27	0	549	47	0	177	33	0	576
Grp Sat Flow(s),veh/h/ln	1711	1752	1472	1109	0	1768	1668	0	1739	1810	0	1688
Q Serve(g_s), s	8.0	14.9	2.6	2.7	0.0	48.2	4.1	0.0	15.9	1.9	0.0	53.2
Cycle Q Clear(g_c), s	8.0	14.9	2.6	2.7	0.0	48.2	4.1	0.0	15.9	1.9	0.0	53.2
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.14	1.00		0.50
Lane Grp Cap(c), veh/h	170	744	625	405	0	574	194	0	202	637	0	594
V/C Ratio(X)	0.77	0.33	0.07	0.07	0.00	0.96	0.24	0.00	0.88	0.05	0.00	0.97
Avail Cap(c_a), veh/h	183	785	659	423	0	602	266	0	278	647	0	604
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.3	30.5	27.0	37.1	0.0	52.5	63.7	0.0	68.9	33.9	0.0	50.5
Incr Delay (d2), s/veh	16.8	0.3	0.0	0.1	0.0	25.8	0.6	0.0	19.9	0.0	0.0	28.8
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	4.1	6.3	0.9	0.7	0.0	24.9	1.8	0.0	8.1	0.9	0.0	26.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	57.1	30.8	27.1	37.1	0.0	78.3	64.3	0.0	88.8	33.9	0.0	79.3
LnGrp LOS	E	C	C	D		E	E		F	C		E
Approach Vol, veh/h		418			576			224			609	
Approach Delay, s/veh		38.7			76.4			83.7			76.9	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	15.8	57.4		61.1		73.3		24.1				
Change Period (Y+Rc), s	5.8	6.0		5.3		6.0		5.7				
Max Green Setting (Gmax), s	11.2	54.0		56.7		71.0		25.3				
Max Q Clear Time (g_c+I1), s	10.0	50.2		55.2		16.9		17.9				
Green Ext Time (p_c), s	0.0	1.2		0.6		1.5		0.6				

Intersection Summary												
HCM 7th Control Delay, s/veh			68.8									
HCM 7th LOS			E									

Intersection	
Int Delay, s/veh	10

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	203	58	215	176	38	257
Future Vol, veh/h	203	58	215	176	38	257
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	90	90	79	79
Heavy Vehicles, %	3	9	4	2	5	2
Mvmt Flow	260	74	239	196	48	325

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	434	0	-	0	932	337
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	595	-
Critical Hdwy	4.13	-	-	-	6.45	6.22
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.318
Pot Cap-1 Maneuver	1120	-	-	-	292	705
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	545	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1120	-	-	-	221	705
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	543	-
Stage 2	-	-	-	-	545	-

Approach	EB	WB	SB
HCM Control Delay, s/v	7.14	0	24.22
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1074	-	-	-	550
HCM Lane V/C Ratio	0.232	-	-	-	0.678
HCM Control Delay (s/veh)	9.2	0	-	-	24.2
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.9	-	-	-	5.1

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	144	328	93	119	74
Future Vol, veh/h	6	144	328	93	119	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	86	86	95	95
Heavy Vehicles, %	0	3	2	2	4	1
Mvmt Flow	9	209	381	108	125	78

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1035	164	203	0	-	0
Stage 1	164	-	-	-	-	-
Stage 2	871	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	259	878	1369	-	-	-
Stage 1	870	-	-	-	-	-
Stage 2	413	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	182	878	1369	-	-	-
Mov Cap-2 Maneuver	182	-	-	-	-	-
Stage 1	612	-	-	-	-	-
Stage 2	413	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	11.61	6.73	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1286	-	762	-	-
HCM Lane V/C Ratio	0.279	-	0.285	-	-
HCM Control Delay (s/veh)	8.6	0	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	1.1	-	1.2	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	71	10	33	288	186	157
Future Vol, veh/h	71	10	33	288	186	157
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	85	85	82	82
Heavy Vehicles, %	1	10	3	2	3	2
Mvmt Flow	101	14	39	339	227	191

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	739	323	418	0	-	0
Stage 1	323	-	-	-	-	-
Stage 2	416	-	-	-	-	-
Critical Hdwy	6.41	6.3	4.13	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.39	2.227	-	-	-
Pot Cap-1 Maneuver	386	700	1135	-	-	-
Stage 1	736	-	-	-	-	-
Stage 2	668	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	370	700	1135	-	-	-
Mov Cap-2 Maneuver	370	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	668	-	-	-	-	-

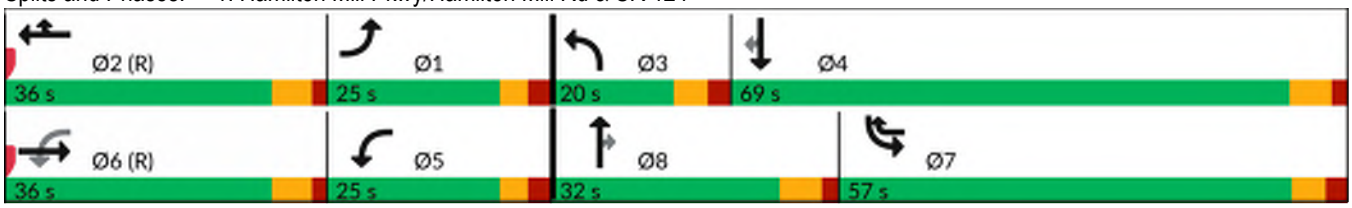
Approach	EB	NB	SB
HCM Control Delay, s/v	17.95	0.85	0
HCM LOS	C		

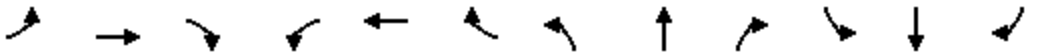
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	185	-	393	-	-
HCM Lane V/C Ratio	0.034	-	0.295	-	-
HCM Control Delay (s/veh)	8.3	0	18	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.2	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	350	452	133	348	637	31	212	139	1057	408	387
Future Volume (vph)	350	452	133	348	637	31	212	139	1057	408	387
Turn Type	Prot	NA	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6	5	2	2 7	3	8		7	4	
Permitted Phases			6					8			4
Detector Phase	1	6	5	2	2 7	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	24.0	9.7	24.0		10.2	24.4	24.4	10.2	24.4	24.4
Total Split (s)	25.0	36.0	25.0	36.0		20.0	32.0	32.0	57.0	69.0	69.0
Total Split (%)	16.7%	24.0%	16.7%	24.0%		13.3%	21.3%	21.3%	38.0%	46.0%	46.0%
Yellow Time (s)	3.1	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	18.9	30.0	49.2	30.0	90.4	8.4	22.6	22.6	54.2	70.7	70.7
Actuated g/C Ratio	0.13	0.20	0.33	0.20	0.60	0.06	0.15	0.15	0.36	0.47	0.47
v/c Ratio	0.89	0.72	0.45	0.99	0.38	0.36	0.83	0.42	0.91	0.50	0.43
Control Delay (s/veh)	86.8	62.6	50.3	108.0	14.6	77.3	85.4	11.0	57.2	31.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	86.8	62.6	50.3	108.0	14.6	77.3	85.4	11.0	57.2	31.0	3.7
LOS	F	E	D	F	B	E	F	B	E	C	A
Approach Delay (s/veh)		73.0		47.9			57.7			40.3	
Approach LOS		E		D			E			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 64 (43%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 50.4	Intersection LOS: D
Intersection Capacity Utilization 89.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	350	452	14	133	348	637	31	212	139	1057	408	387
Future Volume (veh/h)	350	452	14	133	348	637	31	212	139	1057	408	387
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1900	1870	1885	1856	1900	1885	1885	1885	1870
Adj Flow Rate, veh/h	380	491	0	141	370	678	35	238	0	1137	439	0
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	0	0	2	1	3	0	1	1	1	2
Cap, veh/h	542	705		399	374	1515	45	266		1180	857	
Arrive On Green	0.16	0.20	0.00	0.16	0.20	0.20	0.03	0.14	0.00	0.34	0.45	0.00
Sat Flow, veh/h	3428	3618	0	1810	1870	2812	1767	1900	1598	3483	1885	1585
Grp Volume(v), veh/h	380	491	0	141	370	678	35	238	0	1137	439	0
Grp Sat Flow(s),veh/h/ln	1714	1763	0	1810	1870	1406	1767	1900	1598	1742	1885	1585
Q Serve(g_s), s	15.7	19.4	0.0	0.5	29.6	0.0	3.0	18.5	0.0	48.1	24.8	0.0
Cycle Q Clear(g_c), s	15.7	19.4	0.0	0.5	29.6	0.0	3.0	18.5	0.0	48.1	24.8	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	542	705		399	374	1515	45	266		1180	857	
V/C Ratio(X)	0.70	0.70		0.35	0.99	0.45	0.78	0.90		0.96	0.51	
Avail Cap(c_a), veh/h	542	705		399	374	1515	163	324		1180	857	
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	0.91	0.91	0.91	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	59.8	55.8	0.0	50.7	59.8	21.0	72.7	63.4	0.0	48.7	29.1	0.0
Incr Delay (d2), s/veh	4.0	5.6	0.0	0.5	41.8	0.9	24.3	22.8	0.0	18.9	0.5	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	7.1	9.2	0.0	4.6	18.3	7.3	1.6	10.5	0.0	23.3	11.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.8	61.4	0.0	51.2	101.6	21.9	97.0	86.2	0.0	67.6	29.6	0.0
LnGrp LOS	E	E		D	F	C	F	F		E	C	
Approach Vol, veh/h		871			1189			273			1576	
Approach Delay, s/veh		62.4			50.2			87.6			57.0	
Approach LOS		E			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.4	36.0	10.0	74.6	29.4	36.0	57.2	27.4
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	19.3	30.0	13.8	* 63	19.3	30.0	* 51	* 26
Max Q Clear Time (g_c+I1), s	17.7	31.6	5.0	26.8	2.5	21.4	50.1	20.5
Green Ext Time (p_c), s	0.2	0.0	0.0	2.6	0.3	2.0	0.4	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	58.3
HCM 7th LOS	E

Notes

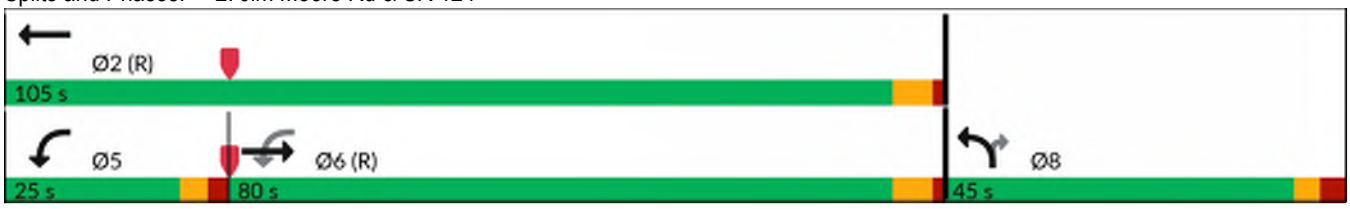
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1183	77	836	143	106
Future Volume (vph)	1183	77	836	143	106
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	80.0	25.0	105.0	45.0	45.0
Total Split (%)	53.3%	16.7%	70.0%	30.0%	30.0%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	103.4	112.8	117.9	20.6	20.6
Actuated g/C Ratio	0.69	0.75	0.79	0.14	0.14
v/c Ratio	0.61	0.34	0.35	0.74	0.41
Control Delay (s/veh)	32.2	8.3	5.9	79.6	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	32.2	8.3	5.9	79.6	11.8
LOS	C	A	A	E	B
Approach Delay (s/veh)	32.2		6.1	50.8	
Approach LOS	C		A	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 130 (87%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay (s/veh): 24.4	Intersection LOS: C
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1183	104	77	836	143	106
Future Volume (veh/h)	1183	104	77	836	143	106
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1870	1885	1856
Adj Flow Rate, veh/h	1344	118	91	984	181	134
Peak Hour Factor	0.88	0.88	0.85	0.85	0.79	0.79
Percent Heavy Veh, %	3	0	3	2	1	3
Cap, veh/h	2393	209	312	2860	213	186
Arrive On Green	0.73	0.73	0.04	0.80	0.12	0.12
Sat Flow, veh/h	3373	287	1767	3647	1795	1572
Grp Volume(v), veh/h	720	742	91	984	181	134
Grp Sat Flow(s),veh/h/ln	1763	1804	1767	1777	1795	1572
Q Serve(g_s), s	28.0	28.3	1.9	11.2	14.8	12.3
Cycle Q Clear(g_c), s	28.0	28.3	1.9	11.2	14.8	12.3
Prop In Lane		0.16	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1286	1316	312	2860	213	186
V/C Ratio(X)	0.56	0.56	0.29	0.34	0.85	0.72
Avail Cap(c_a), veh/h	1286	1316	474	2860	469	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.48	0.48	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	9.3	7.8	4.0	64.8	63.7
Incr Delay (d2), s/veh	0.9	0.8	0.5	0.3	9.1	5.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	10.0	0.6	3.2	7.4	5.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.1	10.2	8.3	4.3	73.9	68.8
LnGrp LOS	B	B	A	A	E	E
Approach Vol, veh/h	1462			1075	315	
Approach Delay, s/veh	10.1			4.6	71.8	
Approach LOS	B			A	E	

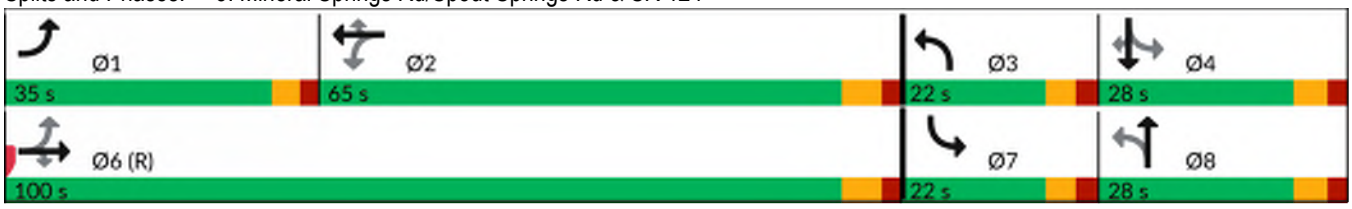
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	126.4			11.3	115.1	23.6
Change Period (Y+Rc), s	5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s	99.3			19.6	74.3	39.2
Max Q Clear Time (g_c+I1), s	13.2			3.9	30.3	16.8
Green Ext Time (p_c), s	8.0			0.2	13.1	1.0

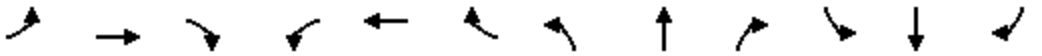
Intersection Summary	
HCM 7th Control Delay, s/veh	14.9
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	371	660	45	30	396	135	48	158	260	246	269
Future Volume (vph)	371	660	45	30	396	135	48	158	260	246	269
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	6		6	2		2	8		4		4
Detector Phase	1	6	6	2	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	35.0	100.0	100.0	65.0	65.0	65.0	22.0	28.0	22.0	28.0	28.0
Total Split (%)	23.3%	66.7%	66.7%	43.3%	43.3%	43.3%	14.7%	18.7%	14.7%	18.7%	18.7%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead			Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	None	None	None	None	None	None	None
Act Effct Green (s)	94.8	93.5	93.5	67.7	67.7	67.7	31.5	22.0	44.1	31.6	31.6
Actuated g/C Ratio	0.63	0.62	0.62	0.45	0.45	0.45	0.21	0.15	0.29	0.21	0.21
v/c Ratio	0.67	0.57	0.04	0.09	0.50	0.18	0.26	0.97	1.15	0.68	0.52
Control Delay (s/veh)	17.0	3.9	0.1	22.3	24.1	5.7	42.2	107.8	142.7	65.5	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.0	3.9	0.1	22.3	24.1	5.7	42.2	107.8	142.7	65.5	9.1
LOS	B	A	A	C	C	A	D	F	F	E	A
Approach Delay (s/veh)		8.2			19.6			95.8		71.8	
Approach LOS		A			B			F		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 40 (27%), Referenced to phase 6:EBTL, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay (s/veh): 39.2	Intersection LOS: D
Intersection Capacity Utilization 91.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	371	660	45	30	396	135	48	158	59	260	246	269
Future Volume (veh/h)	371	660	45	30	396	135	48	158	59	260	246	269
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1900	1870	1885	1841	1856	1870	1885	1885	1856
Adj Flow Rate, veh/h	379	673	46	32	421	144	58	190	71	286	270	296
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	0	0	2	1	4	3	2	1	1	3
Cap, veh/h	643	1175	1004	356	866	739	187	189	71	244	411	343
Arrive On Green	0.13	0.62	0.62	0.93	0.93	0.93	0.04	0.15	0.15	0.11	0.22	0.22
Sat Flow, veh/h	1795	1885	1610	745	1870	1598	1753	1288	481	1795	1885	1572
Grp Volume(v), veh/h	379	673	46	32	421	144	58	0	261	286	270	296
Grp Sat Flow(s),veh/h/ln	1795	1885	1610	745	1870	1598	1753	0	1769	1795	1885	1572
Q Serve(g_s), s	16.0	31.4	1.7	1.2	4.6	1.2	4.2	0.0	22.0	16.4	19.6	27.2
Cycle Q Clear(g_c), s	16.0	31.4	1.7	8.5	4.6	1.2	4.2	0.0	22.0	16.4	19.6	27.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	643	1175	1004	356	866	739	187	0	259	244	411	343
V/C Ratio(X)	0.59	0.57	0.05	0.09	0.49	0.19	0.31	0.00	1.01	1.17	0.66	0.86
Avail Cap(c_a), veh/h	773	1175	1004	356	866	739	312	0	259	244	411	343
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.94	0.94	0.94	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	16.5	11.0	4.0	3.2	3.0	51.9	0.0	64.0	49.1	53.5	56.5
Incr Delay (d2), s/veh	0.9	2.0	0.1	0.1	0.4	0.1	0.9	0.0	57.4	111.6	3.8	19.7
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	6.4	13.3	0.6	0.1	1.2	0.4	1.9	0.0	13.9	15.2	9.6	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.2	18.6	11.0	4.1	3.6	3.2	52.8	0.0	121.4	160.7	57.3	76.2
LnGrp LOS	B	B	B	A	A	A	D		F	F	E	E
Approach Vol, veh/h		1098			597			319			852	
Approach Delay, s/veh		17.4			3.5			108.9			98.6	
Approach LOS		B			A			F			F	

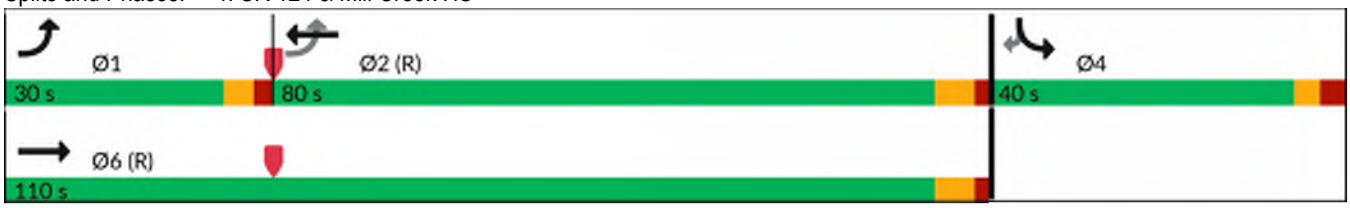
Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	24.1	75.9	11.3	38.7		100.0	22.0	28.0				
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0		6.5	5.6	6.0				
Max Green Setting (Gmax), s	29.8	58.5	16.4	22.0		93.5	16.4	22.0				
Max Q Clear Time (g_c+I1), s	18.0	10.5	6.2	29.2		33.4	18.4	24.0				
Green Ext Time (p_c), s	0.9	3.3	0.1	0.0		4.9	0.0	0.0				

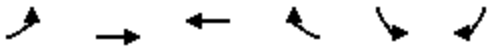
Intersection Summary	
HCM 7th Control Delay, s/veh	48.8
HCM 7th LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	292	678	393	153	66	97
Future Volume (vph)	292	678	393	153	66	97
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	30.0	110.0	80.0		40.0	40.0
Total Split (%)	20.0%	73.3%	53.3%		26.7%	26.7%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Max	C-Max		None	None
Act Effct Green (s)	121.2	126.1	110.2	150.0	12.1	12.1
Actuated g/C Ratio	0.81	0.84	0.73	1.00	0.08	0.08
v/c Ratio	0.39	0.44	0.32	0.11	0.55	0.49
Control Delay (s/veh)	2.8	2.6	5.1	0.1	79.8	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	2.8	2.6	5.1	0.1	79.8	17.4
LOS	A	A	A	A	E	B
Approach Delay (s/veh)		2.6	3.7		42.7	
Approach LOS		A	A		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay (s/veh): 7.3	Intersection LOS: A
Intersection Capacity Utilization 57.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	292	678	393	153	66	97
Future Volume (veh/h)	292	678	393	153	66	97
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	301	699	447	0	80	117
Peak Hour Factor	0.97	0.97	0.88	0.88	0.83	0.83
Percent Heavy Veh, %	1	1	1	0	0	0
Cap, veh/h	782	1570	1378		160	143
Arrive On Green	0.13	1.00	0.73	0.00	0.09	0.09
Sat Flow, veh/h	1795	1885	1885	1610	1810	1610
Grp Volume(v), veh/h	301	699	447	0	80	117
Grp Sat Flow(s),veh/h/ln	1795	1885	1885	1610	1810	1610
Q Serve(g_s), s	7.1	0.0	12.5	0.0	6.3	10.7
Cycle Q Clear(g_c), s	7.1	0.0	12.5	0.0	6.3	10.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	782	1570	1378		160	143
V/C Ratio(X)	0.39	0.45	0.32		0.50	0.82
Avail Cap(c_a), veh/h	958	1570	1378		411	366
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	4.2	0.0	7.1	0.0	65.2	67.2
Incr Delay (d2), s/veh	0.2	0.5	0.6	0.0	2.4	11.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.2	4.7	0.0	3.1	4.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	4.4	0.5	7.7	0.0	67.6	78.2
LnGrp LOS	A	A	A		E	E
Approach Vol, veh/h		1000	447		197	
Approach Delay, s/veh		1.7	7.7		73.9	
Approach LOS		A	A		E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.3	115.5		19.2		130.8
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 25	74.1		34.1		104.1
Max Q Clear Time (g_c+I1), s	9.1	14.5		12.7		2.0
Green Ext Time (p_c), s	0.7	2.7		0.6		5.1

Intersection Summary	
HCM 7th Control Delay, s/veh	12.0
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	677	33	117	495	2	44	1	167	1	1	4
Future Vol, veh/h	2	677	33	117	495	2	44	1	167	1	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	87	87	87	90	90	90	75	75	75
Heavy Vehicles, %	0	1	0	1	1	0	0	0	1	0	0	0
Mvmt Flow	2	728	35	134	569	2	49	1	186	1	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	571	0	0	763	0	0	1589	1590	746	1571	1606	569
Stage 1	-	-	-	-	-	-	750	750	-	838	838	-
Stage 2	-	-	-	-	-	-	839	840	-	733	768	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	1011	-	-	854	-	-	88	109	415	91	106	525
Stage 1	-	-	-	-	-	-	407	422	-	364	384	-
Stage 2	-	-	-	-	-	-	363	384	-	415	414	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1011	-	-	854	-	-	72	91	415	42	89	525
Mov Cap-2 Maneuver	-	-	-	-	-	-	72	91	-	42	89	-
Stage 1	-	-	-	-	-	-	405	420	-	306	324	-
Stage 2	-	-	-	-	-	-	302	323	-	228	412	-

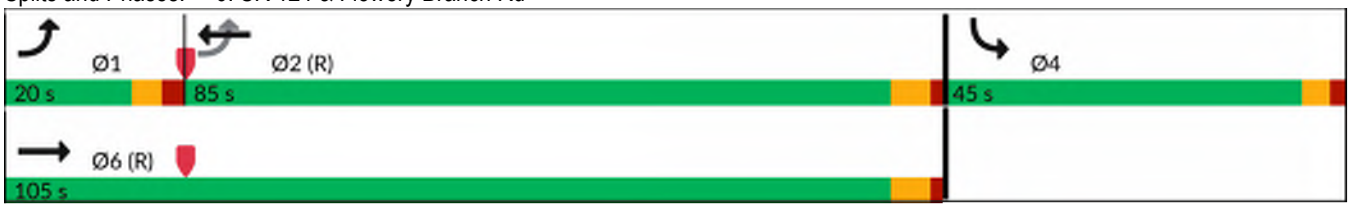
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.02	1.91	43.12	32.26
HCM LOS			E	D

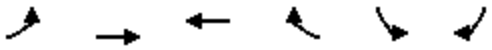
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	73	415	5	-	-	854	-	-	140
HCM Lane V/C Ratio	0.689	0.447	0.002	-	-	0.158	-	-	0.057
HCM Control Delay (s/veh)	127.1	20.5	8.6	0	-	10	-	-	32.3
HCM Lane LOS	F	C	A	A	-	B	-	-	D
HCM 95th %tile Q(veh)	3.1	2.2	0	-	-	0.6	-	-	0.2

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	94	713	507	320
Future Volume (vph)	94	713	507	320
Turn Type	D.P+P	NA	NA	Prot
Protected Phases	1	6	2	4
Permitted Phases	2			
Detector Phase	1	6	2	4
Switch Phase				
Minimum Initial (s)	4.0	20.0	20.0	8.0
Minimum Split (s)	9.7	25.9	25.9	13.0
Total Split (s)	20.0	105.0	85.0	45.0
Total Split (%)	13.3%	70.0%	56.7%	30.0%
Yellow Time (s)	3.4	4.5	4.5	3.3
All-Red Time (s)	2.3	1.4	1.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	94.9	100.4	86.3	38.7
Actuated g/C Ratio	0.63	0.67	0.58	0.26
v/c Ratio	0.35	0.60	0.79	0.95
Control Delay (s/veh)	13.4	16.9	32.8	84.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.4	16.9	32.8	84.3
LOS	B	B	C	F
Approach Delay (s/veh)		16.5	32.8	84.3
Approach LOS		B	C	F

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 115 (77%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay (s/veh): 36.7	Intersection LOS: D
Intersection Capacity Utilization 83.4%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	94	713	507	257	320	70
Future Volume (veh/h)	94	713	507	257	320	70
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1841	1856	1900
Adj Flow Rate, veh/h	99	751	539	273	352	77
Peak Hour Factor	0.95	0.95	0.94	0.94	0.91	0.91
Percent Heavy Veh, %	1	1	1	4	3	0
Cap, veh/h	514	1258	701	355	368	80
Arrive On Green	0.04	0.67	1.00	1.00	0.26	0.26
Sat Flow, veh/h	1795	1885	1180	598	1415	310
Grp Volume(v), veh/h	99	751	0	812	430	0
Grp Sat Flow(s),veh/h/ln	1795	1885	0	1778	1729	0
Q Serve(g_s), s	3.2	33.0	0.0	0.0	36.8	0.0
Cycle Q Clear(g_c), s	3.2	33.0	0.0	0.0	36.8	0.0
Prop In Lane	1.00			0.34	0.82	0.18
Lane Grp Cap(c), veh/h	514	1258	0	1057	449	0
V/C Ratio(X)	0.19	0.60	0.00	0.77	0.96	0.00
Avail Cap(c_a), veh/h	622	1258	0	1057	461	0
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.83	1.00	0.00
Uniform Delay (d), s/veh	10.9	13.8	0.0	0.0	54.7	0.0
Incr Delay (d2), s/veh	0.2	2.1	0.0	4.5	30.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	13.6	0.0	1.3	19.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.1	15.9	0.0	4.5	85.5	0.0
LnGrp LOS	B	B		A	F	
Approach Vol, veh/h		850	812		430	
Approach Delay, s/veh		15.3	4.5		85.5	
Approach LOS		B	A		F	

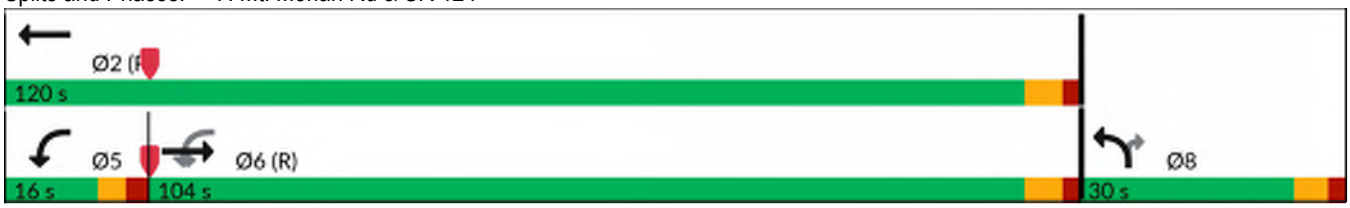
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.0	95.1		44.0		106.0
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	14.3	79.1		40.0		99.1
Max Q Clear Time (g_c+I1), s	5.2	2.0		38.8		35.0
Green Ext Time (p_c), s	0.1	6.9		0.2		5.7

Intersection Summary	
HCM 7th Control Delay, s/veh	25.6
HCM 7th LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	747	264	199	604	176	164
Future Volume (vph)	747	264	199	604	176	164
Turn Type	NA	Perm	D.P+P	NA	Prot	Perm
Protected Phases	6		5	2	8	
Permitted Phases		6	6			8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	12.0	12.0	8.0	12.0	8.0	8.0
Minimum Split (s)	22.5	22.5	13.5	22.5	22.5	22.5
Total Split (s)	104.0	104.0	16.0	120.0	30.0	30.0
Total Split (%)	69.3%	69.3%	10.7%	80.0%	20.0%	20.0%
Yellow Time (s)	4.3	4.3	3.2	4.3	3.7	3.7
All-Red Time (s)	1.6	1.6	2.3	1.6	2.1	2.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.5	5.9	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effct Green (s)	102.2	102.2	112.2	117.3	21.0	21.0
Actuated g/C Ratio	0.68	0.68	0.75	0.78	0.14	0.14
v/c Ratio	0.61	0.24	0.47	0.45	0.81	0.53
Control Delay (s/veh)	12.7	0.6	8.0	7.0	87.1	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	12.7	0.6	8.0	7.0	87.1	18.9
LOS	B	A	A	A	F	B
Approach Delay (s/veh)	9.5			7.2	54.1	
Approach LOS	A			A	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 95 (63%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 16.2	Intersection LOS: B
Intersection Capacity Utilization 74.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	747	264	199	604	176	164
Future Volume (veh/h)	747	264	199	604	176	164
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1870	1900	1856	1870	1885
Adj Flow Rate, veh/h	778	275	214	649	202	189
Peak Hour Factor	0.96	0.96	0.93	0.93	0.87	0.87
Percent Heavy Veh, %	1	2	0	3	2	1
Cap, veh/h	1317	1107	525	1463	238	213
Arrive On Green	1.00	1.00	0.05	0.79	0.13	0.13
Sat Flow, veh/h	1885	1585	1810	1856	1781	1598
Grp Volume(v), veh/h	778	275	214	649	202	189
Grp Sat Flow(s),veh/h/ln	1885	1585	1810	1856	1781	1598
Q Serve(g_s), s	0.0	0.0	5.0	17.1	16.6	17.4
Cycle Q Clear(g_c), s	0.0	0.0	5.0	17.1	16.6	17.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1317	1107	525	1463	238	213
V/C Ratio(X)	0.59	0.25	0.41	0.44	0.85	0.89
Avail Cap(c_a), veh/h	1317	1107	555	1463	287	258
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	5.2	5.2	63.5	63.9
Incr Delay (d2), s/veh	1.2	0.3	0.5	1.0	18.1	25.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	1.7	5.7	8.7	8.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	1.2	0.3	5.7	6.1	81.6	89.5
LnGrp LOS	A	A	A	A	F	F
Approach Vol, veh/h	1053			863	391	
Approach Delay, s/veh	1.0			6.0	85.4	
Approach LOS	A			A	F	

Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	124.2			13.5	110.7	25.8
Change Period (Y+Rc), s	5.9			5.5	5.9	5.8
Max Green Setting (Gmax), s	114.1			10.5	98.1	24.2
Max Q Clear Time (g_c+I1), s	19.1			7.0	2.0	19.4
Green Ext Time (p_c), s	4.6			0.2	7.3	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	17.2
HCM 7th LOS	B

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	343	19	57	294	11	11	19	89	12	50	41
Future Vol, veh/h	10	343	19	57	294	11	11	19	89	12	50	41
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	2	0	0	1	0	0	5	0	0	0	2
Mvmt Flow	10	354	20	64	330	12	13	23	107	14	60	49
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

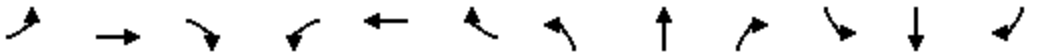
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	15	15.9	10.6	10.7
HCM LOS	B	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	3%	16%	12%
Vol Thru, %	16%	92%	81%	49%
Vol Right, %	75%	5%	3%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	372	362	103
LT Vol	11	10	57	12
Through Vol	19	343	294	50
RT Vol	89	19	11	41
Lane Flow Rate	143	384	407	124
Geometry Grp	1	1	1	1
Degree of Util (X)	0.23	0.563	0.597	0.208
Departure Headway (Hd)	5.774	5.285	5.288	6.029
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	618	679	679	592
Service Time	3.847	3.338	3.341	4.103
HCM Lane V/C Ratio	0.231	0.566	0.599	0.209
HCM Control Delay, s/veh	10.6	15	15.9	10.7
HCM Lane LOS	B	B	C	B
HCM 95th-tile Q	0.9	3.5	4	0.8

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	120	237	225	17	149	74	115	29	30	191
Future Volume (vph)	120	237	225	17	149	74	115	29	30	191
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	15.0	50.0	50.0	15.0	50.0	15.0	30.0	30.0	15.0	30.0
Total Split (%)	13.6%	45.5%	45.5%	13.6%	45.5%	13.6%	27.3%	27.3%	13.6%	27.3%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	24.1	21.7	21.7	19.3	15.3	26.3	21.4	21.4	23.3	18.0
Actuated g/C Ratio	0.36	0.33	0.33	0.29	0.23	0.39	0.32	0.32	0.35	0.27
v/c Ratio	0.30	0.42	0.36	0.06	0.50	0.23	0.24	0.06	0.07	0.65
Control Delay (s/veh)	17.3	24.0	5.5	15.4	30.1	14.3	22.1	0.2	13.2	30.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.3	24.0	5.5	15.4	30.1	14.3	22.1	0.2	13.2	30.3
LOS	B	C	A	B	C	B	C	A	B	C
Approach Delay (s/veh)		15.5			28.7		16.5			28.6
Approach LOS		B			C		B			C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 66.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay (s/veh): 20.9	Intersection LOS: C
Intersection Capacity Utilization 54.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	120	237	225	17	149	25	74	115	29	30	191	82
Future Volume (veh/h)	120	237	225	17	149	25	74	115	29	30	191	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1870	1811	1885	1841	1885	1841	1796	1900	1870	1900
Adj Flow Rate, veh/h	130	258	245	21	182	30	91	142	36	35	225	96
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.81	0.81	0.81	0.85	0.85	0.85
Percent Heavy Veh, %	2	0	2	6	1	4	1	4	7	0	2	0
Cap, veh/h	381	478	399	287	299	49	308	480	397	435	291	124
Arrive On Green	0.08	0.25	0.25	0.02	0.19	0.19	0.06	0.26	0.26	0.03	0.23	0.23
Sat Flow, veh/h	1781	1900	1585	1725	1578	260	1795	1841	1522	1810	1244	531
Grp Volume(v), veh/h	130	258	245	21	0	212	91	142	36	35	0	321
Grp Sat Flow(s),veh/h/ln	1781	1900	1585	1725	0	1838	1795	1841	1522	1810	0	1775
Q Serve(g_s), s	3.0	6.2	7.2	0.5	0.0	5.6	2.0	3.3	0.9	0.8	0.0	8.9
Cycle Q Clear(g_c), s	3.0	6.2	7.2	0.5	0.0	5.6	2.0	3.3	0.9	0.8	0.0	8.9
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	381	478	399	287	0	348	308	480	397	435	0	416
V/C Ratio(X)	0.34	0.54	0.61	0.07	0.00	0.61	0.30	0.30	0.09	0.08	0.00	0.77
Avail Cap(c_a), veh/h	537	1596	1332	546	0	1544	528	836	691	705	0	806
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	17.1	17.5	16.8	0.0	19.6	14.8	15.7	14.8	14.6	0.0	18.9
Incr Delay (d2), s/veh	0.5	0.9	1.5	0.1	0.0	1.7	0.5	0.3	0.1	0.1	0.0	3.1
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	1.1	2.4	2.4	0.2	0.0	2.2	0.7	1.2	0.3	0.3	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.0	18.1	19.0	16.9	0.0	21.4	15.3	16.0	14.9	14.7	0.0	22.0
LnGrp LOS	B	B	B	B		C	B	B	B	B		C
Approach Vol, veh/h		633			233			269			356	
Approach Delay, s/veh		18.0			21.0			15.6			21.3	
Approach LOS		B			C			B			C	

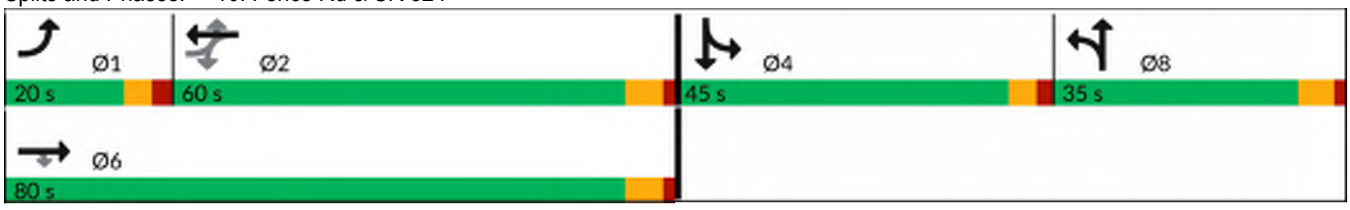
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.4	15.6	8.5	18.4	7.1	18.9	7.1	19.8
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	9.0	44.4	9.5	24.0	9.0	44.4	9.5	24.0
Max Q Clear Time (g_c+I1), s	5.0	7.6	4.0	10.9	2.5	9.2	2.8	5.3
Green Ext Time (p_c), s	0.1	1.2	0.1	1.4	0.0	2.3	0.0	0.7

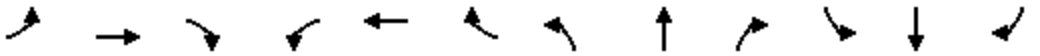
Intersection Summary	
HCM 7th Control Delay, s/veh	18.8
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	285	454	31	44	319	49	175	43	212
Future Volume (vph)	285	454	31	44	319	49	175	43	212
Turn Type	D.P+P	NA	Perm	Perm	NA	Split	NA	Split	NA
Protected Phases	1	6			2	8	8	4	4
Permitted Phases	2		6	2					
Detector Phase	1	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	18.0	18.0	18.0	18.0	11.7	11.7	11.3	11.3
Total Split (s)	20.0	80.0	80.0	60.0	60.0	35.0	35.0	45.0	45.0
Total Split (%)	12.5%	50.0%	50.0%	37.5%	37.5%	21.9%	21.9%	28.1%	28.1%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)	49.8	55.5	55.5	35.0	35.0	23.0	23.0	36.4	36.4
Actuated g/C Ratio	0.38	0.42	0.42	0.26	0.26	0.17	0.17	0.27	0.27
v/c Ratio	1.03	0.62	0.05	0.21	0.83	0.19	0.79	0.09	0.86
Control Delay (s/veh)	93.7	35.3	2.0	41.8	61.8	51.9	71.2	40.6	62.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	93.7	35.3	2.0	41.8	61.8	51.9	71.2	40.6	62.0
LOS	F	D	A	D	E	D	E	D	E
Approach Delay (s/veh)		55.6			59.7		67.7		59.9
Approach LOS		E			E		E		E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 132.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay (s/veh): 59.3	Intersection LOS: E
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	454	31	44	319	51	49	175	46	43	212	187
Future Volume (veh/h)	285	454	31	44	319	51	49	175	46	43	212	187
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1900	1826	1841	1870	1781	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	300	478	33	47	343	55	56	199	52	46	226	199
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.88	0.88	0.88	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	0	5	4	2	8	3	2	2	2	2
Cap, veh/h	310	776	679	251	390	63	277	231	60	483	249	219
Arrive On Green	0.12	0.42	0.42	0.25	0.25	0.25	0.16	0.16	0.16	0.27	0.27	0.27
Sat Flow, veh/h	1753	1841	1610	868	1548	248	1697	1418	371	1781	917	808
Grp Volume(v), veh/h	300	478	33	47	0	398	56	0	251	46	0	425
Grp Sat Flow(s),veh/h/ln	1753	1841	1610	868	0	1796	1697	0	1789	1781	0	1725
Q Serve(g_s), s	14.2	23.9	1.4	5.3	0.0	25.1	3.4	0.0	16.1	2.3	0.0	28.1
Cycle Q Clear(g_c), s	14.2	23.9	1.4	9.2	0.0	25.1	3.4	0.0	16.1	2.3	0.0	28.1
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.21	1.00		0.47
Lane Grp Cap(c), veh/h	310	776	679	251	0	452	277	0	292	483	0	468
V/C Ratio(X)	0.97	0.62	0.05	0.19	0.00	0.88	0.20	0.00	0.86	0.10	0.00	0.91
Avail Cap(c_a), veh/h	310	1156	1011	430	0	823	422	0	445	600	0	581
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	26.6	20.1	38.0	0.0	42.4	42.7	0.0	48.0	32.1	0.0	41.5
Incr Delay (d2), s/veh	42.2	0.8	0.0	0.4	0.0	5.7	0.4	0.0	10.4	0.1	0.0	15.9
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	9.8	10.1	0.5	1.1	0.0	11.4	1.4	0.0	7.9	1.0	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.0	27.4	20.2	38.4	0.0	48.1	43.0	0.0	58.4	32.2	0.0	57.5
LnGrp LOS	E	C	C	D		D	D		E	C		E
Approach Vol, veh/h		811			445			307			471	
Approach Delay, s/veh		44.7			47.1			55.6			55.0	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.0	35.7		37.3		55.7		24.9				
Change Period (Y+Rc), s	5.8	6.0		5.3		6.0		5.7				
Max Green Setting (Gmax), s	14.2	54.0		39.7		74.0		29.3				
Max Q Clear Time (g_c+I1), s	16.2	27.1		30.1		25.9		18.1				
Green Ext Time (p_c), s	0.0	2.6		1.9		3.1		1.1				

Intersection Summary												
HCM 7th Control Delay, s/veh			49.3									
HCM 7th LOS			D									

Intersection	
Int Delay, s/veh	38.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	224	165	110	62	163	302
Future Vol, veh/h	224	165	110	62	163	302
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	94	94	92	92
Heavy Vehicles, %	3	2	1	0	0	4
Mvmt Flow	257	190	117	66	177	328

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	183	0	-	0	855	150
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	705	-
Critical Hdwy	4.13	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1386	-	-	-	331	891
Stage 1	-	-	-	-	883	-
Stage 2	-	-	-	-	494	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1386	-	-	-	263	891
Mov Cap-2 Maneuver	-	-	-	-	263	-
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	494	-

Approach	EB	WB	SB
HCM Control Delay, s/v	4.72	0	81.92
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1037	-	-	-	485
HCM Lane V/C Ratio	0.186	-	-	-	1.043
HCM Control Delay (s/veh)	8.2	0	-	-	81.9
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.7	-	-	-	15.1

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	334	181	112	127	18
Future Vol, veh/h	41	334	181	112	127	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	88	88
Heavy Vehicles, %	0	3	3	2	2	6
Mvmt Flow	45	363	197	122	144	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	670	155	165	0	-	0
Stage 1	155	-	-	-	-	-
Stage 2	515	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	425	889	1407	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	362	889	1407	-	-	-
Mov Cap-2 Maneuver	362	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	14.9	4.93	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1112	-	767	-	-
HCM Lane V/C Ratio	0.14	-	0.532	-	-
HCM Control Delay (s/veh)	8	0	14.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	3.2	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	99	25	14	226	301	116
Future Vol, veh/h	99	25	14	226	301	116
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	86	86	93	93
Heavy Vehicles, %	1	0	7	1	1	3
Mvmt Flow	109	27	16	263	324	125

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	681	386	448	0	-	0
Stage 1	386	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	417	666	1086	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	410	666	1086	-	-	-
Mov Cap-2 Maneuver	410	-	-	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	757	-	-	-	-	-

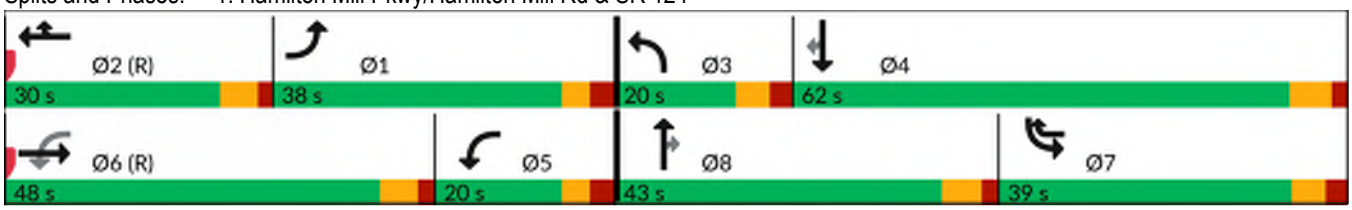
Approach	EB	NB	SB
HCM Control Delay, s/v	16.64	0.49	0
HCM LOS	C		

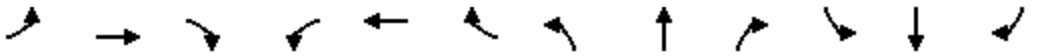
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	105	-	444	-	-
HCM Lane V/C Ratio	0.015	-	0.307	-	-
HCM Control Delay (s/veh)	8.4	0	16.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	1.3	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	346	339	68	424	888	56	393	109	608	151	256
Future Volume (vph)	346	339	68	424	888	56	393	109	608	151	256
Turn Type	Prot	NA	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6	5	2	2 7	3	8		7	4	
Permitted Phases			6					8			4
Detector Phase	1	6	5	2	2 7	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	18.0	9.7	18.0		10.2	12.4	12.4	10.2	12.4	12.4
Total Split (s)	38.0	48.0	20.0	30.0		20.0	43.0	43.0	39.0	62.0	62.0
Total Split (%)	25.3%	32.0%	13.3%	20.0%		13.3%	28.7%	28.7%	26.0%	41.3%	41.3%
Yellow Time (s)	3.1	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	26.2	42.0	50.5	24.0	69.0	10.3	36.8	36.8	38.8	67.8	67.8
Actuated g/C Ratio	0.17	0.28	0.34	0.16	0.46	0.07	0.25	0.25	0.26	0.45	0.45
v/c Ratio	0.76	0.54	0.29	1.70	0.74	0.48	0.89	0.22	0.79	0.20	0.33
Control Delay (s/veh)	68.0	47.3	36.4	365.3	29.3	79.5	76.0	2.9	60.2	27.8	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.0	47.3	36.4	365.3	29.3	79.5	76.0	2.9	60.2	27.8	4.2
LOS	E	D	D	F	C	E	E	A	E	C	A
Approach Delay (s/veh)		57.1		132.8			62.1			41.3	
Approach LOS		E		F			E			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 64 (43%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.70	
Intersection Signal Delay (s/veh): 82.1	Intersection LOS: F
Intersection Capacity Utilization 90.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	339	46	68	424	888	56	393	109	608	151	256
Future Volume (veh/h)	346	339	46	68	424	888	56	393	109	608	151	256
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1767	1826	1870	1811	1870	1870	1870	1885	1796	1870	1841
Adj Flow Rate, veh/h	444	435	0	78	487	1021	58	405	0	668	166	0
Peak Hour Factor	0.78	0.78	0.78	0.87	0.87	0.87	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	5	9	5	2	6	2	2	2	1	7	2	4
Cap, veh/h	769	940		405	290	1056	74	430		726	764	
Arrive On Green	0.23	0.28	0.00	0.11	0.16	0.16	0.04	0.23	0.00	0.22	0.41	0.00
Sat Flow, veh/h	3374	3445	0	1781	1811	2790	1781	1870	1598	3319	1870	1560
Grp Volume(v), veh/h	444	435	0	78	487	1021	58	405	0	668	166	0
Grp Sat Flow(s),veh/h/ln	1687	1678	0	1781	1811	1395	1781	1870	1598	1659	1870	1560
Q Serve(g_s), s	17.6	16.1	0.0	0.0	24.0	21.0	4.8	31.9	0.0	29.5	8.6	0.0
Cycle Q Clear(g_c), s	17.6	16.1	0.0	0.0	24.0	21.0	4.8	31.9	0.0	29.5	8.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	769	940		405	290	1056	74	430		726	764	
V/C Ratio(X)	0.58	0.46		0.19	1.68	0.97	0.78	0.94		0.92	0.22	
Avail Cap(c_a), veh/h	769	940		405	290	1056	164	456		726	764	
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	0.87	0.87	0.87	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.5	44.7	0.0	42.3	63.0	45.7	71.2	56.7	0.0	57.3	28.8	0.0
Incr Delay (d2), s/veh	1.1	1.6	0.0	0.2	319.1	19.0	15.9	27.2	0.0	18.8	0.1	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	7.5	6.9	0.0	2.3	36.7	8.2	2.5	18.1	0.0	14.0	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.6	46.3	0.0	42.5	382.1	64.6	87.1	83.9	0.0	76.1	29.0	0.0
LnGrp LOS	D	D		D	F	E	F	F		E	C	
Approach Vol, veh/h		879			1586			463			834	
Approach Delay, s/veh		49.5			161.0			84.3			66.7	
Approach LOS		D			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.9	30.0	12.5	67.6	21.9	48.0	39.2	40.9
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	32.3	24.0	13.8	* 56	14.3	42.0	* 33	* 37
Max Q Clear Time (g_c+I1), s	19.6	26.0	6.8	10.6	2.0	18.1	31.5	33.9
Green Ext Time (p_c), s	1.3	0.0	0.0	0.9	0.1	2.8	0.4	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	104.6
HCM 7th LOS	F

Notes

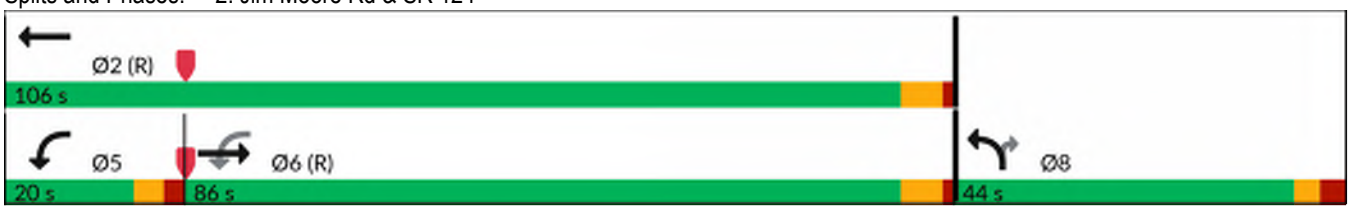
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	858	75	1233	102	105
Future Volume (vph)	858	75	1233	102	105
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	86.0	20.0	106.0	44.0	44.0
Total Split (%)	57.3%	13.3%	70.7%	29.3%	29.3%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	108.9	116.2	121.3	17.2	17.2
Actuated g/C Ratio	0.73	0.77	0.81	0.11	0.11
v/c Ratio	0.41	0.20	0.47	0.69	0.46
Control Delay (s/veh)	14.9	4.5	5.4	80.7	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.9	4.5	5.4	80.7	13.4
LOS	B	A	A	F	B
Approach Delay (s/veh)	14.9		5.3	46.6	
Approach LOS	B		A	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 128 (85%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 13.2	Intersection LOS: B
Intersection Capacity Utilization 51.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	858	88	75	1233	102	105
Future Volume (veh/h)	858	88	75	1233	102	105
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1811	1900	1841	1870	1856	1870
Adj Flow Rate, veh/h	913	94	82	1340	138	142
Peak Hour Factor	0.94	0.94	0.92	0.92	0.74	0.74
Percent Heavy Veh, %	6	0	4	2	3	2
Cap, veh/h	2336	240	466	2901	189	169
Arrive On Green	0.74	0.74	0.04	0.82	0.11	0.11
Sat Flow, veh/h	3240	324	1753	3647	1767	1585
Grp Volume(v), veh/h	499	508	82	1340	138	142
Grp Sat Flow(s),veh/h/ln	1721	1753	1753	1777	1767	1585
Q Serve(g_s), s	15.8	15.8	1.6	16.7	11.3	13.2
Cycle Q Clear(g_c), s	15.8	15.8	1.6	16.7	11.3	13.2
Prop In Lane		0.18	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1276	1300	466	2901	189	169
V/C Ratio(X)	0.39	0.39	0.18	0.46	0.73	0.84
Avail Cap(c_a), veh/h	1276	1300	569	2901	450	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.0	7.0	4.8	4.1	64.9	65.7
Incr Delay (d2), s/veh	0.7	0.6	0.2	0.5	5.3	10.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	5.4	0.5	4.6	5.5	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.7	7.7	5.0	4.6	70.2	76.1
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1007			1422	280	
Approach Delay, s/veh	7.7			4.6	73.2	
Approach LOS	A			A	E	

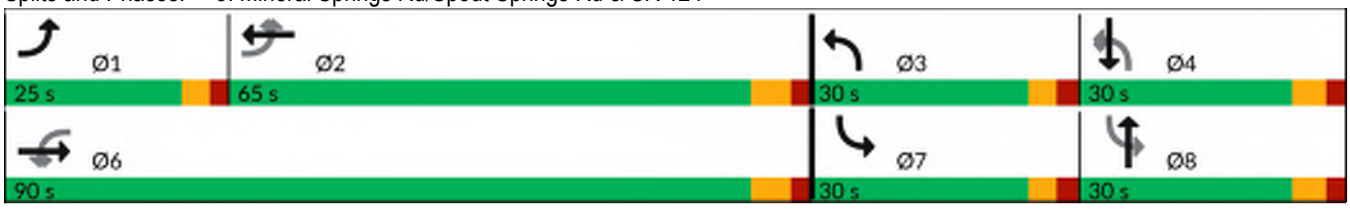
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		128.2			11.2	117.0	21.8
Change Period (Y+Rc), s		5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s		100.3			14.6	80.3	38.2
Max Q Clear Time (g_c+I1), s		18.7			3.6	17.8	15.2
Green Ext Time (p_c), s		13.4			0.1	7.3	0.9

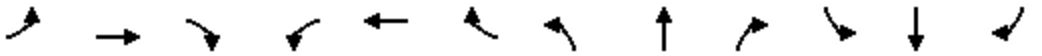
Intersection Summary	
HCM 7th Control Delay, s/veh	12.8
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	402	37	33	608	177	132	172	215	100	419
Future Volume (vph)	247	402	37	33	608	177	132	172	215	100	419
Turn Type	D.P+P	NA	Perm	D.Pm	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	2		6	6		2	4		8		4
Detector Phase	1	6	6	6	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	25.0	90.0	90.0	90.0	65.0	65.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	60.0%	60.0%	60.0%	43.3%	43.3%	20.0%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead				Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	79.6	83.5	83.5	83.5	58.5	58.5	46.5	24.0	46.5	31.6	31.6
Actuated g/C Ratio	0.54	0.56	0.56	0.56	0.40	0.40	0.31	0.16	0.31	0.21	0.21
v/c Ratio	0.95	0.45	0.04	0.10	1.08	0.34	0.36	0.99	0.88	0.31	0.79
Control Delay (s/veh)	85.8	21.0	1.4	16.3	98.5	18.7	36.5	108.0	70.0	52.4	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	85.8	21.0	1.4	16.3	98.5	18.7	36.5	108.0	70.0	52.4	24.0
LOS	F	C	A	B	F	B	D	F	E	D	C
Approach Delay (s/veh)		43.2			77.9			83.0		41.3	
Approach LOS		D			E			F		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 147.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay (s/veh): 60.0	Intersection LOS: E
Intersection Capacity Utilization 90.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	402	37	33	608	177	132	172	74	215	100	419
Future Volume (veh/h)	247	402	37	33	608	177	132	172	74	215	100	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1752	1900	1856	1841	1841	1885	1870	1767	1767	1841	1885
Adj Flow Rate, veh/h	271	442	41	42	779	227	155	202	87	259	120	0
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.83	0.83	0.83
Percent Heavy Veh, %	3	10	0	3	4	4	1	2	9	9	4	1
Cap, veh/h	288	778	715	194	736	624	414	203	88	289	414	
Arrive On Green	0.14	0.44	0.44	0.08	0.40	0.40	0.08	0.16	0.16	0.14	0.22	0.00
Sat Flow, veh/h	1767	1752	1610	1767	1841	1560	1795	1240	534	1682	1841	1598
Grp Volume(v), veh/h	271	442	41	42	779	227	155	0	289	259	120	0
Grp Sat Flow(s),veh/h/ln	1767	1752	1610	1767	1841	1560	1795	0	1774	1682	1841	1598
Q Serve(g_s), s	18.1	27.5	2.1	3.8	58.5	15.0	9.6	0.0	23.8	18.5	7.9	0.0
Cycle Q Clear(g_c), s	18.1	27.5	2.1	3.8	58.5	15.0	9.6	0.0	23.8	18.5	7.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		1.00
Lane Grp Cap(c), veh/h	288	778	715	0	736	624	414	0	291	289	414	
V/C Ratio(X)	0.94	0.57	0.06	0.00	1.06	0.36	0.37	0.00	0.99	0.90	0.29	
Avail Cap(c_a), veh/h	288	999	919	0	736	624	567	0	291	331	414	
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	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.1	30.2	23.2	0.0	43.9	30.9	38.8	0.0	61.1	43.6	47.1	0.0
Incr Delay (d2), s/veh	37.3	0.7	0.0	0.0	49.8	0.4	0.6	0.0	50.8	23.5	0.4	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	12.4	11.4	0.8	0.0	35.7	5.7	4.3	0.0	14.7	9.5	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	90.4	30.9	23.2	0.0	93.8	31.2	39.4	0.0	111.9	67.1	47.4	0.0
LnGrp LOS	F	C	C		F	C	D		F	E	D	
Approach Vol, veh/h		754			1048			444			379	
Approach Delay, s/veh		51.9			76.5			86.6			60.9	
Approach LOS		D			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	65.0	17.5	38.9	18.5	71.5	26.4	30.0
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0	6.5	6.5	5.6	6.0
Max Green Setting (Gmax), s	19.8	58.5	24.4	24.0	83.5	83.5	24.4	24.0
Max Q Clear Time (g_c+I1), s	20.1	60.5	11.6	9.9	5.8	29.5	20.5	25.8
Green Ext Time (p_c), s	0.0	0.0	0.3	0.4	0.1	2.9	0.3	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	68.9
HCM 7th LOS	E

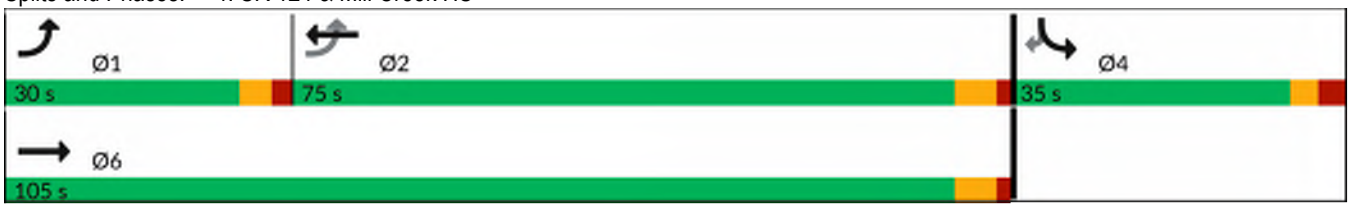
Notes

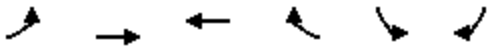
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	324	393	608	241	107	169
Future Volume (vph)	324	393	608	241	107	169
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	30.0	105.0	75.0		35.0	35.0
Total Split (%)	21.4%	75.0%	53.6%		25.0%	25.0%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None
Act Effct Green (s)	74.4	79.5	49.7	107.6	15.9	15.9
Actuated g/C Ratio	0.69	0.74	0.46	1.00	0.15	0.15
v/c Ratio	0.85	0.40	0.89	0.19	0.62	0.57
Control Delay (s/veh)	43.6	6.5	40.2	0.3	56.8	11.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.6	6.5	40.2	0.3	56.8	11.1
LOS	D	A	D	A	E	B
Approach Delay (s/veh)		23.3	28.8		28.8	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 107.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay (s/veh): 26.7	Intersection LOS: C
Intersection Capacity Utilization 71.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	324	393	608	241	107	169
Future Volume (veh/h)	324	393	608	241	107	169
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1737	1826	1841	1870	1856
Adj Flow Rate, veh/h	415	504	741	0	162	256
Peak Hour Factor	0.78	0.78	0.82	0.82	0.66	0.66
Percent Heavy Veh, %	5	11	5	4	2	3
Cap, veh/h	452	1202	820		337	297
Arrive On Green	0.19	0.69	0.45	0.00	0.19	0.19
Sat Flow, veh/h	1739	1737	1826	1560	1781	1572
Grp Volume(v), veh/h	415	504	741	0	162	256
Grp Sat Flow(s),veh/h/ln	1739	1737	1826	1560	1781	1572
Q Serve(g_s), s	16.0	12.5	37.4	0.0	8.1	15.7
Cycle Q Clear(g_c), s	16.0	12.5	37.4	0.0	8.1	15.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	452	1202	820		337	297
V/C Ratio(X)	0.92	0.42	0.90		0.48	0.86
Avail Cap(c_a), veh/h	554	1733	1270		522	461
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	6.6	25.4	0.0	35.9	39.0
Incr Delay (d2), s/veh	18.2	0.2	6.2	0.0	1.1	9.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.5	3.6	15.9	0.0	3.6	6.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	43.9	6.9	31.6	0.0	37.0	48.8
LnGrp LOS	D	A	C		D	D
Approach Vol, veh/h		919	741		418	
Approach Delay, s/veh		23.6	31.6		44.3	
Approach LOS		C	C		D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.1	50.5		24.7		74.6
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 25	69.1		29.1		99.1
Max Q Clear Time (g_c+I1), s	18.0	39.4		17.7		14.5
Green Ext Time (p_c), s	0.7	5.2		1.1		3.2

Intersection Summary	
HCM 7th Control Delay, s/veh	30.6
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	10.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	434	42	96	733	9	57	6	90	3	3	10
Future Vol, veh/h	6	434	42	96	733	9	57	6	90	3	3	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	92	92	92	63	63	63
Heavy Vehicles, %	0	6	11	3	5	0	4	0	8	0	0	0
Mvmt Flow	7	523	51	110	843	10	62	7	98	5	5	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	853	0	0	573	0	0	1628	1636	548	1604	1651	843
Stage 1	-	-	-	-	-	-	563	563	-	1063	1063	-
Stage 2	-	-	-	-	-	-	1066	1074	-	541	588	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.14	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.536	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	795	-	-	995	-	-	81	102	525	86	100	367
Stage 1	-	-	-	-	-	-	508	512	-	272	302	-
Stage 2	-	-	-	-	-	-	267	299	-	529	499	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	795	-	-	995	-	-	65	89	525	57	87	367
Mov Cap-2 Maneuver	-	-	-	-	-	-	65	89	-	57	87	-
Stage 1	-	-	-	-	-	-	501	506	-	242	269	-
Stage 2	-	-	-	-	-	-	223	266	-	419	493	-

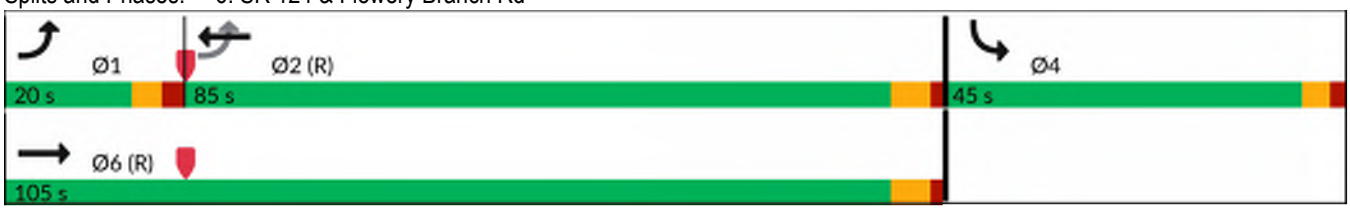
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.12	1.04	100.94	36.2
HCM LOS			F	E

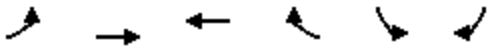
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	66	525	22	-	-	995	-	-	140
HCM Lane V/C Ratio	1.033	0.186	0.009	-	-	0.111	-	-	0.181
HCM Control Delay (s/veh)	225.9	13.4	9.6	0	-	9.1	-	-	36.2
HCM Lane LOS	F	B	A	A	-	A	-	-	E
HCM 95th %tile Q(veh)	5.2	0.7	0	-	-	0.4	-	-	0.6

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	100	403	610	229
Future Volume (vph)	100	403	610	229
Turn Type	D.P+P	NA	NA	Prot
Protected Phases	1	6	2	4
Permitted Phases	2			
Detector Phase	1	6	2	4
Switch Phase				
Minimum Initial (s)	4.0	20.0	20.0	8.0
Minimum Split (s)	9.7	25.9	25.9	13.0
Total Split (s)	20.0	105.0	85.0	45.0
Total Split (%)	13.3%	70.0%	56.7%	30.0%
Yellow Time (s)	3.4	4.5	4.5	3.3
All-Red Time (s)	2.3	1.4	1.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	94.6	100.1	82.7	39.0
Actuated g/C Ratio	0.63	0.67	0.55	0.26
v/c Ratio	0.73	0.43	1.09	0.96
Control Delay (s/veh)	58.1	13.2	79.8	84.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.1	13.2	79.8	84.9
LOS	E	B	E	F
Approach Delay (s/veh)		22.1	79.8	84.9
Approach LOS		C	E	F

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay (s/veh): 63.4	Intersection LOS: E
Intersection Capacity Utilization 96.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	403	610	356	229	176
Future Volume (veh/h)	100	403	610	356	229	176
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1767	1811	1841	1856	1796	1826
Adj Flow Rate, veh/h	128	517	670	391	241	185
Peak Hour Factor	0.78	0.78	0.91	0.91	0.95	0.95
Percent Heavy Veh, %	9	6	4	3	7	5
Cap, veh/h	150	1197	613	358	244	188
Arrive On Green	0.06	0.66	0.75	0.75	0.27	0.27
Sat Flow, veh/h	1682	1811	1090	636	916	704
Grp Volume(v), veh/h	128	517	0	1061	427	0
Grp Sat Flow(s),veh/h/ln	1682	1811	0	1726	1624	0
Q Serve(g_s), s	7.0	20.3	0.0	84.3	39.2	0.0
Cycle Q Clear(g_c), s	7.0	20.3	0.0	84.3	39.2	0.0
Prop In Lane	1.00			0.37	0.56	0.43
Lane Grp Cap(c), veh/h	150	1197	0	971	433	0
V/C Ratio(X)	0.86	0.43	0.00	1.09	0.99	0.00
Avail Cap(c_a), veh/h	208	1197	0	971	433	0
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.73	1.00	0.00
Uniform Delay (d), s/veh	47.0	12.1	0.0	18.9	54.7	0.0
Incr Delay (d2), s/veh	21.3	1.1	0.0	54.2	39.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	8.0	0.0	36.8	20.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	68.2	13.2	0.0	73.1	94.2	0.0
LnGrp LOS	E	B		F	F	
Approach Vol, veh/h		645	1061		427	
Approach Delay, s/veh		24.1	73.1		94.2	
Approach LOS		C	E		F	

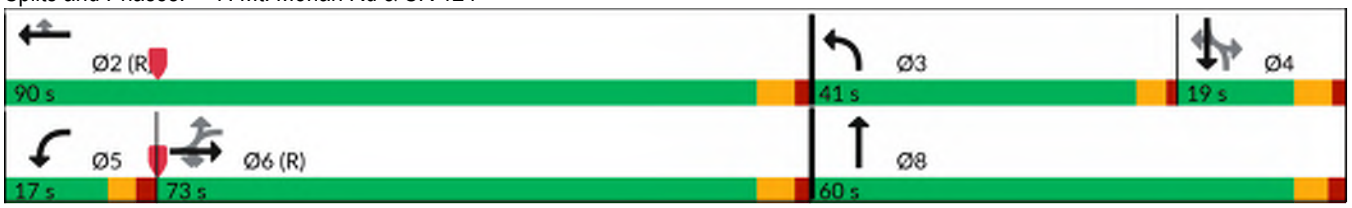
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.8	90.2		45.0		105.0
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	14.3	79.1		40.0		99.1
Max Q Clear Time (g_c+I1), s	9.0	86.3		41.2		22.3
Green Ext Time (p_c), s	0.1	0.0		0.0		3.3

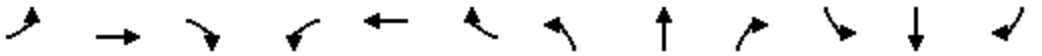
Intersection Summary	
HCM 7th Control Delay, s/veh	62.5
HCM 7th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	378	187	135	619	6	307	4	20	10
Future Volume (vph)	19	378	187	135	619	6	307	4	20	10
Turn Type	Perm	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	NA
Protected Phases		6		5	2		3	8		4
Permitted Phases	6		6	6		2	4		4	
Detector Phase	6	6	6	5	2	2	3	8	4	4
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	8.0	12.0	12.0	5.0	8.0	12.0	12.0
Minimum Split (s)	17.9	17.9	17.9	13.5	17.9	17.9	9.5	13.8	17.9	17.9
Total Split (s)	73.0	73.0	73.0	17.0	90.0	90.0	41.0	60.0	19.0	19.0
Total Split (%)	48.7%	48.7%	48.7%	11.3%	60.0%	60.0%	27.3%	40.0%	12.7%	12.7%
Yellow Time (s)	4.3	4.3	4.3	3.2	4.3	4.3	3.5	3.7	4.3	4.3
All-Red Time (s)	1.6	1.6	1.6	2.3	1.6	1.6	1.0	2.1	1.6	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9	5.5	5.9	5.9	4.5	5.8	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	75.4	75.4	75.4	86.6	91.7	91.7	43.4	46.6	12.0	12.0
Actuated g/C Ratio	0.50	0.50	0.50	0.58	0.61	0.61	0.29	0.31	0.08	0.08
v/c Ratio	0.06	0.47	0.24	0.31	0.59	0.01	0.73	0.30	0.23	0.39
Control Delay (s/veh)	23.8	30.9	6.3	15.2	21.4	0.0	52.5	6.1	71.1	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	23.8	30.9	6.3	15.2	21.4	0.0	52.5	6.1	71.1	25.6
LOS	C	C	A	B	C	A	D	A	E	C
Approach Delay (s/veh)		22.7			20.1			36.2		36.1
Approach LOS		C			C			D		D

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 117 (78%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay (s/veh): 25.7	Intersection LOS: C
Intersection Capacity Utilization 80.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	378	187	135	619	6	307	4	162	20	10	57
Future Volume (veh/h)	19	378	187	135	619	6	307	4	162	20	10	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1841	1781	1856	1870	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	430	212	145	666	7	341	4	180	22	11	62
Peak Hour Factor	0.92	0.88	0.88	0.93	0.93	0.92	0.90	0.92	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	4	8	3	2	3	2	2	2	2	2
Cap, veh/h	359	967	826	535	1149	982	436	10	470	144	20	110
Arrive On Green	1.00	1.00	1.00	0.05	0.62	0.62	0.19	0.30	0.30	0.08	0.08	0.08
Sat Flow, veh/h	765	1826	1560	1697	1856	1585	1767	35	1556	1200	244	1378
Grp Volume(v), veh/h	21	430	212	145	666	7	341	0	184	22	0	73
Grp Sat Flow(s),veh/h/ln	765	1826	1560	1697	1856	1585	1767	0	1590	1200	0	1622
Q Serve(g_s), s	1.0	0.0	0.0	5.8	32.0	0.3	26.1	0.0	13.7	2.6	0.0	6.5
Cycle Q Clear(g_c), s	19.5	0.0	0.0	5.8	32.0	0.3	26.1	0.0	13.7	2.6	0.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.85
Lane Grp Cap(c), veh/h	359	967	826	535	1149	982	436	0	480	144	0	130
V/C Ratio(X)	0.06	0.44	0.26	0.27	0.58	0.01	0.78	0.00	0.38	0.15	0.00	0.56
Avail Cap(c_a), veh/h	359	967	826	575	1149	982	526	0	575	153	0	142
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.69	0.69	0.69	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	2.3	0.0	0.0	14.3	17.0	10.9	49.4	0.0	41.3	64.7	0.0	66.5
Incr Delay (d2), s/veh	0.2	1.0	0.5	0.3	2.1	0.0	6.3	0.0	0.5	0.5	0.0	4.2
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	0.1	0.3	0.1	2.2	13.4	0.1	12.3	0.0	5.5	0.8	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	2.5	1.0	0.5	14.6	19.1	10.9	55.7	0.0	41.8	65.2	0.0	70.7
LnGrp LOS	A	A	A	B	B	B	E		D	E		E
Approach Vol, veh/h		663			818			525			95	
Approach Delay, s/veh		0.9			18.2			50.9			69.4	
Approach LOS		A			B			D			E	

Timer - Assigned Phs	2	3	4	5	6		8					
Phs Duration (G+Y+Rc), s	98.8	33.3	17.9	13.5	85.3		51.2					
Change Period (Y+Rc), s	5.9	4.5	5.9	5.5	5.9		* 5.9					
Max Green Setting (Gmax), s	84.1	36.5	13.1	11.5	67.1		* 54					
Max Q Clear Time (g_c+I1), s	34.0	28.1	8.5	7.8	21.5		15.7					
Green Ext Time (p_c), s	4.7	0.7	0.1	0.1	3.5		1.2					

Intersection Summary	
HCM 7th Control Delay, s/veh	23.2
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	22.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	217	13	36	380	7	27	38	57	6	3	15
Future Vol, veh/h	17	217	13	36	380	7	27	38	57	6	3	15
Peak Hour Factor	0.79	0.79	0.79	0.69	0.69	0.69	0.74	0.74	0.74	0.88	0.88	0.88
Heavy Vehicles, %	0	6	9	6	3	0	0	0	6	0	0	0
Mvmt Flow	22	275	16	52	551	10	36	51	77	7	3	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

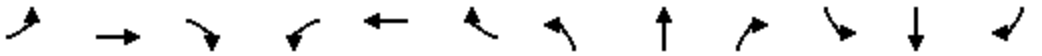
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	12.9	31.1	11.3	9.7
HCM LOS	B	D	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	7%	9%	25%
Vol Thru, %	31%	88%	90%	13%
Vol Right, %	47%	5%	2%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	247	423	24
LT Vol	27	17	36	6
Through Vol	38	217	380	3
RT Vol	57	13	7	15
Lane Flow Rate	165	313	613	27
Geometry Grp	1	1	1	1
Degree of Util (X)	0.275	0.461	0.861	0.048
Departure Headway (Hd)	6.009	5.313	5.056	6.306
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	597	678	717	565
Service Time	4.062	3.355	3.089	4.376
HCM Lane V/C Ratio	0.276	0.462	0.855	0.048
HCM Control Delay, s/veh	11.3	12.9	31.1	9.7
HCM Lane LOS	B	B	D	A
HCM 95th-tile Q	1.1	2.4	10.2	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	99	104	57	23	182	214	302	23	13	93
Future Volume (vph)	99	104	57	23	182	214	302	23	13	93
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	15.0	50.0	50.0	15.0	50.0	15.0	30.0	30.0	15.0	30.0
Total Split (%)	13.6%	45.5%	45.5%	13.6%	45.5%	13.6%	27.3%	27.3%	13.6%	27.3%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	29.2	26.5	26.5	22.6	16.6	31.5	27.7	27.7	23.8	16.9
Actuated g/C Ratio	0.39	0.35	0.35	0.30	0.22	0.42	0.37	0.37	0.32	0.23
v/c Ratio	0.36	0.22	0.12	0.08	0.67	0.65	0.53	0.04	0.08	0.71
Control Delay (s/veh)	17.9	21.8	0.8	15.2	35.7	24.6	25.1	0.1	14.7	34.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.9	21.8	0.8	15.2	35.7	24.6	25.1	0.1	14.7	34.1
LOS	B	C	A	B	D	C	C	A	B	C
Approach Delay (s/veh)		15.7			33.6		23.9			32.8
Approach LOS		B			C		C			C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 75.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay (s/veh): 25.6	Intersection LOS: C
Intersection Capacity Utilization 57.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	104	57	23	182	27	214	302	23	13	93	77
Future Volume (veh/h)	99	104	57	23	182	27	214	302	23	13	93	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1841	1752	1856	1781	1870	1885	1826	1218	1870	1856
Adj Flow Rate, veh/h	138	144	79	30	236	35	261	368	28	22	160	133
Peak Hour Factor	0.72	0.72	0.72	0.77	0.77	0.77	0.82	0.82	0.82	0.58	0.58	0.58
Percent Heavy Veh, %	0	4	4	10	3	8	2	1	5	46	2	3
Cap, veh/h	331	471	399	367	312	46	416	622	510	246	201	167
Arrive On Green	0.08	0.26	0.26	0.03	0.20	0.20	0.14	0.33	0.33	0.02	0.21	0.21
Sat Flow, veh/h	1810	1841	1560	1668	1579	234	1781	1885	1547	1160	944	785
Grp Volume(v), veh/h	138	144	79	30	0	271	261	368	28	22	0	293
Grp Sat Flow(s),veh/h/ln	1810	1841	1560	1668	0	1813	1781	1885	1547	1160	0	1729
Q Serve(g_s), s	3.7	4.0	2.5	0.9	0.0	8.8	6.7	10.2	0.8	0.9	0.0	10.1
Cycle Q Clear(g_c), s	3.7	4.0	2.5	0.9	0.0	8.8	6.7	10.2	0.8	0.9	0.0	10.1
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.45
Lane Grp Cap(c), veh/h	331	471	399	367	0	359	416	622	510	246	0	367
V/C Ratio(X)	0.42	0.31	0.20	0.08	0.00	0.76	0.63	0.59	0.05	0.09	0.00	0.80
Avail Cap(c_a), veh/h	438	1302	1103	563	0	1282	440	721	592	398	0	661
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	18.8	18.3	19.3	0.0	23.8	15.6	17.5	14.4	18.9	0.0	23.4
Incr Delay (d2), s/veh	0.8	0.4	0.2	0.1	0.0	3.3	2.6	1.0	0.0	0.2	0.0	4.0
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	1.4	1.6	0.8	0.3	0.0	3.7	2.6	4.0	0.2	0.2	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	19.1	19.2	18.5	19.4	0.0	27.0	18.2	18.5	14.4	19.1	0.0	27.4
LnGrp LOS	B	B	B	B		C	B	B	B	B		C
Approach Vol, veh/h		361			301			657			315	
Approach Delay, s/veh		19.0			26.3			18.2			26.9	
Approach LOS		B			C			B			C	

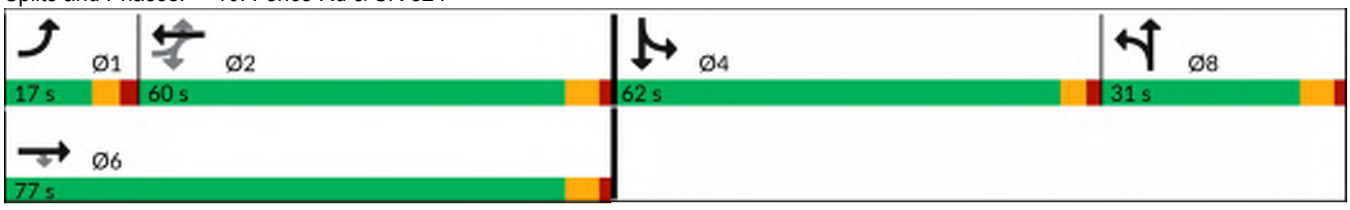
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	18.0	14.1	19.3	7.6	21.7	6.8	26.7
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	9.0	44.4	9.5	24.0	9.0	44.4	9.5	24.0
Max Q Clear Time (g_c+I1), s	5.7	10.8	8.7	12.1	2.9	6.0	2.9	12.2
Green Ext Time (p_c), s	0.1	1.6	0.1	1.3	0.0	1.0	0.0	1.6

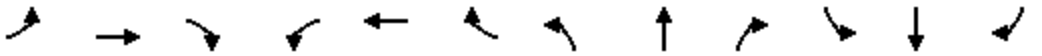
Intersection Summary	
HCM 7th Control Delay, s/veh	21.5
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	135	255	42	30	540	46	150	34	296
Future Volume (vph)	135	255	42	30	540	46	150	34	296
Turn Type	D.P+P	NA	Perm	Perm	NA	Split	NA	Split	NA
Protected Phases	1	6			2	8	8	4	4
Permitted Phases	2		6	2					
Detector Phase	1	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	24.0	24.0	24.0	24.0	23.7	23.7	23.3	23.3
Total Split (s)	17.0	77.0	77.0	60.0	60.0	31.0	31.0	62.0	62.0
Total Split (%)	10.0%	45.3%	45.3%	35.3%	35.3%	18.2%	18.2%	36.5%	36.5%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)	65.4	71.0	71.0	54.0	54.0	22.8	22.8	56.7	56.7
Actuated g/C Ratio	0.39	0.42	0.42	0.32	0.32	0.14	0.14	0.34	0.34
v/c Ratio	0.95	0.38	0.07	0.09	1.10	0.24	0.85	0.06	1.10
Control Delay (s/veh)	103.2	35.6	6.1	41.6	118.7	67.1	99.0	38.9	115.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	103.2	35.6	6.1	41.6	118.7	67.1	99.0	38.9	115.7
LOS	F	D	A	D	F	E	F	D	F
Approach Delay (s/veh)		53.9			114.9		92.4		111.6
Approach LOS		D			F		F		F

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 167.6	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.10	
Intersection Signal Delay (s/veh): 97.1	Intersection LOS: F
Intersection Capacity Utilization 91.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	255	42	30	540	53	46	150	24	34	296	300
Future Volume (veh/h)	135	255	42	30	540	53	46	150	24	34	296	300
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1752	1737	1900	1796	1841	1752	1781	1752	1900	1841	1856
Adj Flow Rate, veh/h	148	280	46	32	568	56	53	174	28	37	325	330
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.91	0.91	0.91
Percent Heavy Veh, %	7	10	11	0	7	4	10	8	10	0	4	3
Cap, veh/h	159	749	629	384	523	52	216	193	31	617	286	290
Arrive On Green	0.07	0.43	0.43	0.32	0.32	0.32	0.13	0.13	0.13	0.34	0.34	0.34
Sat Flow, veh/h	1711	1752	1472	1071	1609	159	1668	1497	241	1810	837	850
Grp Volume(v), veh/h	148	280	46	32	0	624	53	0	202	37	0	655
Grp Sat Flow(s),veh/h/ln	1711	1752	1472	1071	0	1768	1668	0	1738	1810	0	1688
Q Serve(g_s), s	10.1	18.1	3.1	3.5	0.0	54.0	4.7	0.0	19.0	2.3	0.0	56.7
Cycle Q Clear(g_c), s	10.1	18.1	3.1	4.6	0.0	54.0	4.7	0.0	19.0	2.3	0.0	56.7
Prop In Lane	1.00		1.00	1.00		0.09	1.00		0.14	1.00		0.50
Lane Grp Cap(c), veh/h	159	749	629	384	0	574	216	0	225	617	0	576
V/C Ratio(X)	0.93	0.37	0.07	0.08	0.00	1.09	0.25	0.00	0.90	0.06	0.00	1.14
Avail Cap(c_a), veh/h	159	749	629	384	0	574	254	0	265	617	0	576
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.9	32.4	28.1	39.8	0.0	56.1	65.1	0.0	71.3	36.8	0.0	54.7
Incr Delay (d2), s/veh	51.9	0.3	0.0	0.1	0.0	63.1	0.6	0.0	27.9	0.0	0.0	81.5
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	6.2	7.7	1.1	0.9	0.0	33.6	2.1	0.0	10.2	1.0	0.0	36.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	97.9	32.7	28.2	39.9	0.0	119.2	65.7	0.0	99.2	36.9	0.0	136.2
LnGrp LOS	F	C	C	D		F	E		F	D		F
Approach Vol, veh/h		474			656			255			692	
Approach Delay, s/veh		52.6			115.3			92.2			130.9	
Approach LOS		D			F			F			F	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	17.0	60.0		62.0		77.0		27.2				
Change Period (Y+Rc), s	5.8	6.0		5.3		6.0		5.7				
Max Green Setting (Gmax), s	11.2	54.0		56.7		71.0		25.3				
Max Q Clear Time (g_c+I1), s	12.1	56.0		58.7		20.1		21.0				
Green Ext Time (p_c), s	0.0	0.0		0.0		1.7		0.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			103.4									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	16.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	231	66	245	200	43	292
Future Vol, veh/h	231	66	245	200	43	292
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	90	90	79	79
Heavy Vehicles, %	3	9	4	2	5	2
Mvmt Flow	296	85	272	222	54	370

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	494	0	-	0	1060	383
Stage 1	-	-	-	-	383	-
Stage 2	-	-	-	-	677	-
Critical Hdwy	4.13	-	-	-	6.45	6.22
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.318
Pot Cap-1 Maneuver	1064	-	-	-	245	664
Stage 1	-	-	-	-	682	-
Stage 2	-	-	-	-	499	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1064	-	-	-	173	664
Mov Cap-2 Maneuver	-	-	-	-	173	-
Stage 1	-	-	-	-	483	-
Stage 2	-	-	-	-	499	-

Approach	EB	WB	SB
HCM Control Delay, s/v	7.53	0	44.46
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1014	-	-	-	487
HCM Lane V/C Ratio	0.278	-	-	-	0.871
HCM Control Delay (s/veh)	9.7	0	-	-	44.5
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	1.1	-	-	-	9.3

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	164	373	106	135	84
Future Vol, veh/h	7	164	373	106	135	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	86	86	95	95
Heavy Vehicles, %	0	3	2	2	4	1
Mvmt Flow	10	238	434	123	142	88

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1177	186	231	0	-	0
Stage 1	186	-	-	-	-	-
Stage 2	991	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	213	853	1337	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	363	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	139	853	1337	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	554	-	-	-	-	-
Stage 2	363	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	12.85	6.99	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1246	-	705	-	-
HCM Lane V/C Ratio	0.324	-	0.352	-	-
HCM Control Delay (s/veh)	9	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	1.4	-	1.6	-	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	81	11	38	332	222	179
Future Vol, veh/h	81	11	38	332	222	179
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	85	85	82	82
Heavy Vehicles, %	1	10	3	2	3	2
Mvmt Flow	116	16	45	391	271	218

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	860	380	489	0	-	0
Stage 1	380	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.41	6.3	4.13	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.39	2.227	-	-	-
Pot Cap-1 Maneuver	328	650	1069	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	310	650	1069	-	-	-
Mov Cap-2 Maneuver	310	-	-	-	-	-
Stage 1	657	-	-	-	-	-
Stage 2	624	-	-	-	-	-

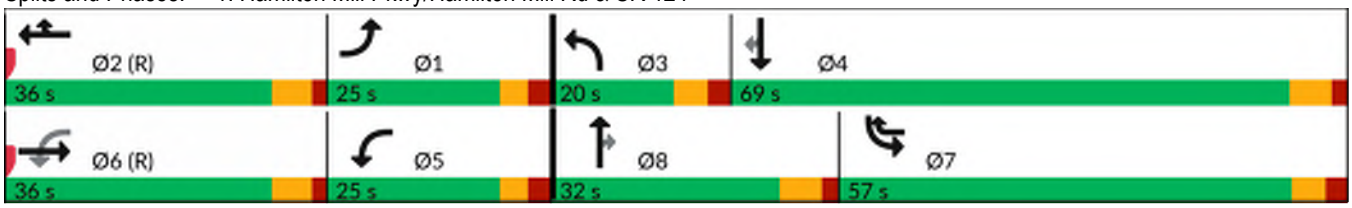
Approach	EB	NB	SB
HCM Control Delay, s/v	22.87	0.87	0
HCM LOS	C		

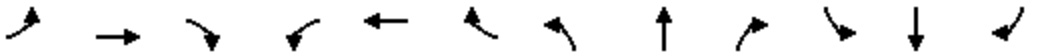
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	185	-	331	-	-
HCM Lane V/C Ratio	0.042	-	0.397	-	-
HCM Control Delay (s/veh)	8.5	0	22.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.8	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	398	565	167	431	819	35	241	177	1338	464	440
Future Volume (vph)	398	565	167	431	819	35	241	177	1338	464	440
Turn Type	Prot	NA	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6	5	2	2 7	3	8		7	4	
Permitted Phases			6					8			4
Detector Phase	1	6	5	2	2 7	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	24.0	9.7	24.0		10.2	24.4	24.4	10.2	24.4	24.4
Total Split (s)	25.0	36.0	25.0	36.0		20.0	32.0	32.0	57.0	69.0	69.0
Total Split (%)	16.7%	24.0%	16.7%	24.0%		13.3%	21.3%	21.3%	38.0%	46.0%	46.0%
Yellow Time (s)	3.1	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	19.3	30.0	49.6	30.0	88.5	8.7	24.1	24.1	52.3	70.0	70.0
Actuated g/C Ratio	0.13	0.20	0.33	0.20	0.59	0.06	0.16	0.16	0.35	0.47	0.47
v/c Ratio	0.99	0.90	0.62	1.23	0.51	0.38	0.89	0.47	1.19	0.57	0.48
Control Delay (s/veh)	105.1	75.3	61.7	180.8	23.0	77.9	90.8	10.6	136.6	33.4	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	105.1	75.3	61.7	180.8	23.0	77.9	90.8	10.6	136.6	33.4	3.8
LOS	F	E	E	F	C	E	F	B	F	C	A
Approach Delay (s/veh)		87.4		75.6			58.4			89.2	
Approach LOS		F		E			E			F	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 64 (43%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.23	
Intersection Signal Delay (s/veh): 82.3	Intersection LOS: F
Intersection Capacity Utilization 105.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	565	16	167	431	819	35	241	177	1338	464	440
Future Volume (veh/h)	398	565	16	167	431	819	35	241	177	1338	464	440
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1900	1870	1885	1856	1900	1885	1885	1885	1870
Adj Flow Rate, veh/h	433	614	0	178	459	871	39	271	0	1439	499	0
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	0	0	2	1	3	0	1	1	1	2
Cap, veh/h	487	705		331	374	1515	50	296		1180	881	
Arrive On Green	0.14	0.20	0.00	0.14	0.20	0.20	0.03	0.16	0.00	0.34	0.47	0.00
Sat Flow, veh/h	3428	3618	0	1810	1870	2812	1767	1900	1598	3483	1885	1585
Grp Volume(v), veh/h	433	614	0	178	459	871	39	271	0	1439	499	0
Grp Sat Flow(s),veh/h/ln	1714	1763	0	1810	1870	1406	1767	1900	1598	1742	1885	1585
Q Serve(g_s), s	18.6	25.3	0.0	7.3	30.0	0.0	3.3	21.1	0.0	50.8	28.8	0.0
Cycle Q Clear(g_c), s	18.6	25.3	0.0	7.3	30.0	0.0	3.3	21.1	0.0	50.8	28.8	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	487	705		331	374	1515	50	296		1180	881	
V/C Ratio(X)	0.89	0.87		0.54	1.23	0.58	0.78	0.91		1.22	0.57	
Avail Cap(c_a), veh/h	487	705		331	374	1515	163	324		1180	881	
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	0.85	0.85	0.85	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.2	58.1	0.0	56.5	60.0	23.1	72.4	62.3	0.0	49.6	28.9	0.0
Incr Delay (d2), s/veh	18.0	13.9	0.0	1.5	120.9	1.4	21.9	27.9	0.0	106.8	0.8	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	9.3	12.6	0.0	6.2	26.7	10.3	1.8	12.4	0.0	38.9	12.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.2	72.0	0.0	58.0	180.9	24.5	94.3	90.2	0.0	156.4	29.8	0.0
LnGrp LOS	F	E		E	F	C	F	F		F	C	
Approach Vol, veh/h		1047			1508			310			1938	
Approach Delay, s/veh		75.8			76.0			90.8			123.8	
Approach LOS		E			E			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	36.0	10.5	76.5	27.0	36.0	57.2	29.8
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	19.3	30.0	13.8	* 63	19.3	30.0	* 51	* 26
Max Q Clear Time (g_c+I1), s	20.6	32.0	5.3	30.8	9.3	27.3	52.8	23.1
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.3	1.0	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	96.2
HCM 7th LOS	F

Notes

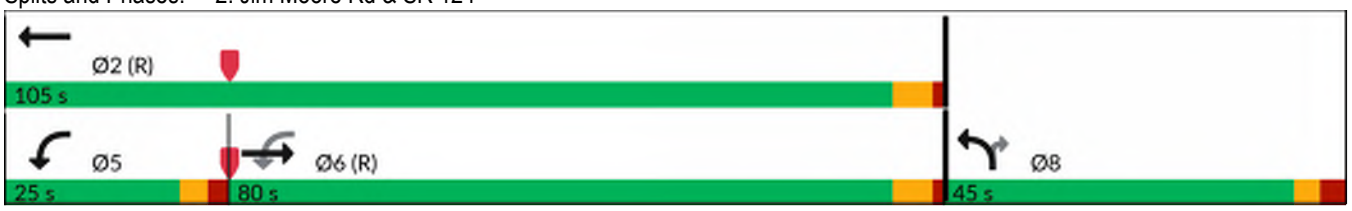
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1564	106	1102	163	141
Future Volume (vph)	1564	106	1102	163	141
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	80.0	25.0	105.0	45.0	45.0
Total Split (%)	53.3%	16.7%	70.0%	30.0%	30.0%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	98.6	110.7	115.8	22.7	22.7
Actuated g/C Ratio	0.66	0.74	0.77	0.15	0.15
v/c Ratio	0.84	0.65	0.47	0.76	0.46
Control Delay (s/veh)	43.1	39.0	8.9	78.7	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	43.1	39.0	8.9	78.7	10.7
LOS	D	D	A	E	B
Approach Delay (s/veh)	43.1		11.5	47.2	
Approach LOS	D		B	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 130 (87%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 31.5	Intersection LOS: C
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1564	118	106	1102	163	141
Future Volume (veh/h)	1564	118	106	1102	163	141
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1870	1885	1856
Adj Flow Rate, veh/h	1777	134	125	1296	206	178
Peak Hour Factor	0.88	0.88	0.85	0.85	0.79	0.79
Percent Heavy Veh, %	3	0	3	2	1	3
Cap, veh/h	2375	177	206	2807	240	210
Arrive On Green	0.71	0.71	0.04	0.79	0.13	0.13
Sat Flow, veh/h	3419	248	1767	3647	1795	1572
Grp Volume(v), veh/h	932	979	125	1296	206	178
Grp Sat Flow(s),veh/h/ln	1763	1811	1767	1777	1795	1572
Q Serve(g_s), s	48.1	50.5	2.8	18.1	16.8	16.6
Cycle Q Clear(g_c), s	48.1	50.5	2.8	18.1	16.8	16.6
Prop In Lane		0.14	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1259	1293	206	2807	240	210
V/C Ratio(X)	0.74	0.76	0.61	0.46	0.86	0.85
Avail Cap(c_a), veh/h	1259	1293	367	2807	469	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	13.4	23.2	5.2	63.6	63.5
Incr Delay (d2), s/veh	0.4	0.4	2.9	0.5	8.7	9.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.7	18.0	3.0	5.5	8.4	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	13.4	13.7	26.1	5.8	72.3	72.6
LnGrp LOS	B	B	C	A	E	E
Approach Vol, veh/h	1911			1421	384	
Approach Delay, s/veh	13.6			7.6	72.4	
Approach LOS	B			A	E	

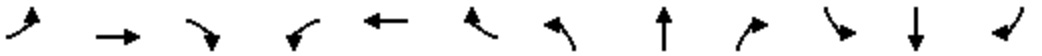
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	124.2			11.4	112.8	25.8
Change Period (Y+Rc), s	5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s	99.3			19.6	74.3	39.2
Max Q Clear Time (g_c+I1), s	20.1			4.8	52.5	18.8
Green Ext Time (p_c), s	12.6			0.2	14.5	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	17.4
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	458	791	53	34	537	151	75	178	323	297	351
Future Volume (vph)	458	791	53	34	537	151	75	178	323	297	351
Turn Type	D.P+P	NA	Perm	D.Pm	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	2		6	6		2	4		8		4
Detector Phase	1	6	6	6	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	35.0	100.0	100.0	100.0	65.0	65.0	22.0	28.0	22.0	28.0	28.0
Total Split (%)	23.3%	66.7%	66.7%	66.7%	43.3%	43.3%	14.7%	18.7%	14.7%	18.7%	18.7%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead				Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	89.6	93.5	93.5	93.5	58.9	58.9	38.8	22.0	38.8	27.1	27.1
Actuated g/C Ratio	0.60	0.62	0.62	0.62	0.39	0.39	0.26	0.15	0.26	0.18	0.18
v/c Ratio	0.97	0.69	0.05	0.15	0.78	0.23	0.50	1.10	1.44	0.96	0.64
Control Delay (s/veh)	70.4	7.1	1.2	17.3	41.8	13.9	49.5	138.3	254.7	99.5	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.4	7.1	1.2	17.3	41.8	13.9	49.5	138.3	254.7	99.5	10.5
LOS	E	A	A	B	D	B	D	F	F	F	B
Approach Delay (s/veh)		29.1			34.8			117.5		119.0	
Approach LOS		C			C			F		F	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 40 (27%), Referenced to phase 6:EBWB, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.44	
Intersection Signal Delay (s/veh): 67.0	Intersection LOS: E
Intersection Capacity Utilization 104.4%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	458	791	53	34	537	151	75	178	67	323	297	351
Future Volume (veh/h)	458	791	53	34	537	151	75	178	67	323	297	351
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1900	1870	1885	1841	1856	1870	1885	1885	1856
Adj Flow Rate, veh/h	467	807	54	36	571	161	90	214	81	355	326	0
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	0	0	2	1	4	3	2	1	1	3
Cap, veh/h	405	1175	1004	193	960	820	179	188	71	244	383	
Arrive On Green	0.20	0.62	0.62	0.16	1.00	1.00	0.05	0.15	0.15	0.11	0.20	0.00
Sat Flow, veh/h	1795	1885	1610	1810	1870	1598	1753	1283	485	1795	1885	1572
Grp Volume(v), veh/h	467	807	54	36	571	161	90	0	295	355	326	0
Grp Sat Flow(s),veh/h/ln	1795	1885	1610	1810	1870	1598	1753	0	1768	1795	1885	1572
Q Serve(g_s), s	29.8	42.3	2.0	3.2	0.0	0.0	6.0	0.0	22.0	16.4	25.0	0.0
Cycle Q Clear(g_c), s	29.8	42.3	2.0	3.2	0.0	0.0	6.0	0.0	22.0	16.4	25.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		1.00
Lane Grp Cap(c), veh/h	405	1175	1004	0	960	820	179	0	259	244	383	
V/C Ratio(X)	1.15	0.69	0.05	0.00	0.59	0.20	0.50	0.00	1.14	1.45	0.85	
Avail Cap(c_a), veh/h	405	1175	1004	0	960	820	277	0	259	244	383	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.2	18.6	11.0	0.0	0.0	0.0	46.0	0.0	64.0	50.7	57.6	0.0
Incr Delay (d2), s/veh	93.9	3.3	0.1	0.0	0.9	0.1	2.2	0.0	98.1	225.3	16.6	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	25.0	18.2	0.7	0.0	0.2	0.0	2.7	0.0	16.9	23.1	13.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	149.1	21.9	11.1	0.0	0.9	0.1	48.2	0.0	162.1	276.0	74.2	0.0
LnGrp LOS	F	C	B		A	A	D		F	F	E	
Approach Vol, veh/h		1328			768			385			681	
Approach Delay, s/veh		66.2			0.7			135.5			179.4	
Approach LOS		E			A			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	83.5	13.6	36.4	18.5	100.0	22.0	28.0
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0	6.5	6.5	5.6	6.0
Max Green Setting (Gmax), s	29.8	58.5	16.4	22.0	93.5	93.5	16.4	22.0
Max Q Clear Time (g_c+I1), s	31.8	2.0	8.0	27.0	5.2	44.3	18.4	24.0
Green Ext Time (p_c), s	0.0	4.3	0.1	0.0	0.1	6.6	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	83.1
HCM 7th LOS	F

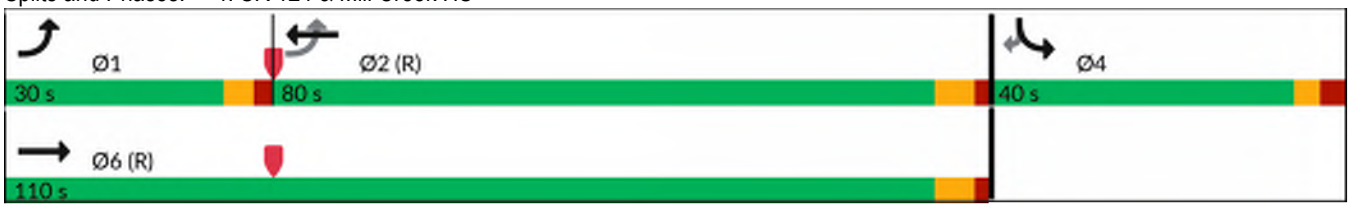
Notes

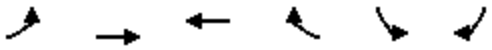
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	342	843	508	174	75	120
Future Volume (vph)	342	843	508	174	75	120
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	30.0	110.0	80.0		40.0	40.0
Total Split (%)	20.0%	73.3%	53.3%		26.7%	26.7%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Min	C-Max		None	None
Act Effct Green (s)	120.4	125.3	105.1	150.0	12.9	12.9
Actuated g/C Ratio	0.80	0.84	0.70	1.00	0.09	0.09
v/c Ratio	0.52	0.55	0.44	0.12	0.58	0.54
Control Delay (s/veh)	4.0	5.1	7.9	0.1	80.2	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	4.0	5.1	7.9	0.1	80.2	16.5
LOS	A	A	A	A	F	B
Approach Delay (s/veh)		4.8	5.9		40.9	
Approach LOS		A	A		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay (s/veh): 9.0	Intersection LOS: A
Intersection Capacity Utilization 66.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	342	843	508	174	75	120
Future Volume (veh/h)	342	843	508	174	75	120
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	353	869	577	0	90	145
Peak Hour Factor	0.97	0.97	0.88	0.88	0.83	0.83
Percent Heavy Veh, %	1	1	1	0	0	0
Cap, veh/h	671	1537	1310		192	171
Arrive On Green	0.17	1.00	0.70	0.00	0.11	0.11
Sat Flow, veh/h	1795	1885	1885	1610	1810	1610
Grp Volume(v), veh/h	353	869	577	0	90	145
Grp Sat Flow(s),veh/h/ln	1795	1885	1885	1610	1810	1610
Q Serve(g_s), s	9.8	0.0	20.2	0.0	7.0	13.3
Cycle Q Clear(g_c), s	9.8	0.0	20.2	0.0	7.0	13.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	671	1537	1310		192	171
V/C Ratio(X)	0.53	0.57	0.44		0.47	0.85
Avail Cap(c_a), veh/h	815	1537	1310		411	366
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.27	0.27	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	6.3	0.0	10.0	0.0	63.0	65.8
Incr Delay (d2), s/veh	0.2	0.4	1.1	0.0	1.8	10.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.2	8.0	0.0	3.4	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	6.5	0.4	11.1	0.0	64.8	76.7
LnGrp LOS	A	A	B		E	E
Approach Vol, veh/h		1222	577		235	
Approach Delay, s/veh		2.2	11.1		72.2	
Approach LOS		A	B		E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.0	110.2		21.8		128.2
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 25	74.1		34.1		104.1
Max Q Clear Time (g_c+I1), s	11.8	22.2		15.3		2.0
Green Ext Time (p_c), s	0.8	3.8		0.7		7.4

Intersection Summary	
HCM 7th Control Delay, s/veh	12.8
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	19.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	842	38	138	624	2	50	1	198	1	1	5
Future Vol, veh/h	2	842	38	138	624	2	50	1	198	1	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	87	87	87	90	90	90	75	75	75
Heavy Vehicles, %	0	1	0	1	1	0	0	0	1	0	0	0
Mvmt Flow	2	905	41	159	717	2	56	1	220	1	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	720	0	0	946	0	0	1965	1967	926	1945	1985	717
Stage 1	-	-	-	-	-	-	930	930	-	1034	1034	-
Stage 2	-	-	-	-	-	-	1035	1037	-	910	951	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	891	-	-	729	-	-	~ 48	64	327	49	62	433
Stage 1	-	-	-	-	-	-	323	349	-	283	312	-
Stage 2	-	-	-	-	-	-	282	311	-	332	341	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	891	-	-	729	-	-	~ 36	49	327	12	48	433
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 36	49	-	12	48	-
Stage 1	-	-	-	-	-	-	322	347	-	221	244	-
Stage 2	-	-	-	-	-	-	216	243	-	108	339	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.02	2.04	136.81	73.15
HCM LOS			F	F

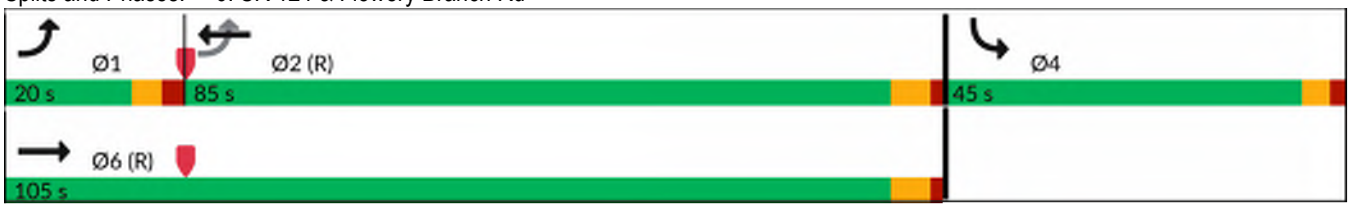
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	36	327	4	-	-	729	-	-	62
HCM Lane V/C Ratio	1.571	0.672	0.002	-	-	0.217	-	-	0.151
HCM Control Delay (s/veh)	$ 528.6	35.9	9	0	-	11.3	-	-	73.2
HCM Lane LOS	F	E	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	6.1	4.6	0	-	-	0.8	-	-	0.5

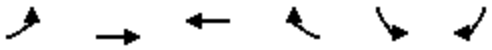
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	107	891	643	378
Future Volume (vph)	107	891	643	378
Turn Type	D.P+P	NA	NA	Prot
Protected Phases	1	6	2	4
Permitted Phases	2			
Detector Phase	1	6	2	4
Switch Phase				
Minimum Initial (s)	4.0	20.0	20.0	8.0
Minimum Split (s)	9.7	25.9	25.9	13.0
Total Split (s)	20.0	105.0	85.0	45.0
Total Split (%)	13.3%	70.0%	56.7%	30.0%
Yellow Time (s)	3.4	4.5	4.5	3.3
All-Red Time (s)	2.3	1.4	1.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	93.6	99.1	82.9	40.0
Actuated g/C Ratio	0.62	0.66	0.55	0.27
v/c Ratio	0.65	0.76	1.01	1.07
Control Delay (s/veh)	51.0	22.4	62.6	113.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.0	22.4	62.6	113.4
LOS	D	C	E	F
Approach Delay (s/veh)		25.5	62.6	113.4
Approach LOS		C	E	F

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 115 (77%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay (s/veh): 57.3	Intersection LOS: E
Intersection Capacity Utilization 97.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	107	891	643	301	378	80
Future Volume (veh/h)	107	891	643	301	378	80
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1841	1856	1900
Adj Flow Rate, veh/h	113	938	684	320	415	88
Peak Hour Factor	0.95	0.95	0.94	0.94	0.91	0.91
Percent Heavy Veh, %	1	1	1	4	3	0
Cap, veh/h	449	1245	709	332	380	81
Arrive On Green	0.04	0.66	1.00	1.00	0.27	0.27
Sat Flow, veh/h	1795	1885	1215	568	1424	302
Grp Volume(v), veh/h	113	938	0	1004	504	0
Grp Sat Flow(s),veh/h/ln	1795	1885	0	1783	1730	0
Q Serve(g_s), s	3.8	50.4	0.0	0.0	40.0	0.0
Cycle Q Clear(g_c), s	3.8	50.4	0.0	0.0	40.0	0.0
Prop In Lane	1.00			0.32	0.82	0.17
Lane Grp Cap(c), veh/h	449	1245	0	1040	461	0
V/C Ratio(X)	0.25	0.75	0.00	0.97	1.09	0.00
Avail Cap(c_a), veh/h	549	1245	0	1040	461	0
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.72	1.00	0.00
Uniform Delay (d), s/veh	11.4	17.2	0.0	0.0	55.0	0.0
Incr Delay (d2), s/veh	0.3	4.2	0.0	16.7	69.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	21.2	0.0	4.8	26.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.7	21.4	0.0	16.7	124.3	0.0
LnGrp LOS	B	C		B	F	
Approach Vol, veh/h		1051	1004		504	
Approach Delay, s/veh		20.4	16.7		124.3	
Approach LOS		C	B		F	

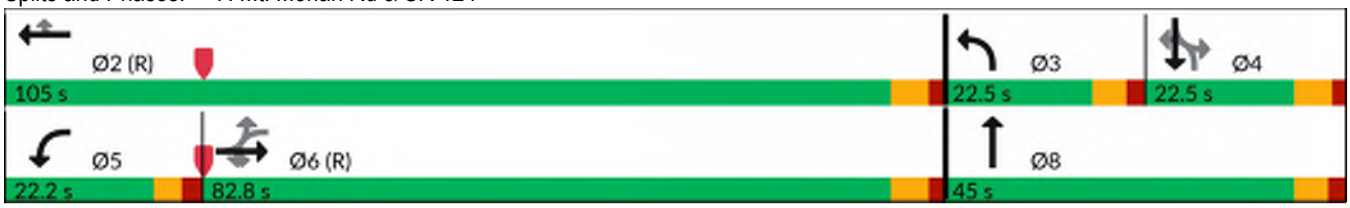
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.6	93.4		45.0		105.0
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	14.3	79.1		40.0		99.1
Max Q Clear Time (g_c+I1), s	5.8	2.0		42.0		52.4
Green Ext Time (p_c), s	0.1	10.6		0.0		8.4

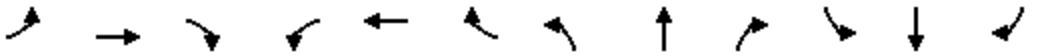
Intersection Summary	
HCM 7th Control Delay, s/veh	39.4
HCM 7th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	64	880	300	226	724	23	200	12	13	7
Future Volume (vph)	64	880	300	226	724	23	200	12	13	7
Turn Type	Perm	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	NA
Protected Phases		6		5	2		3	8		4
Permitted Phases	6		6	6		2	4		4	
Detector Phase	6	6	6	5	2	2	3	8	4	4
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	8.0	12.0	12.0	8.0	8.0	12.0	12.0
Minimum Split (s)	22.5	22.5	22.5	13.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	82.8	82.8	82.8	22.2	105.0	105.0	22.5	45.0	22.5	22.5
Total Split (%)	55.2%	55.2%	55.2%	14.8%	70.0%	70.0%	15.0%	30.0%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	3.2	4.3	4.3	3.7	3.7	4.3	4.3
All-Red Time (s)	1.6	1.6	1.6	2.3	1.6	1.6	2.1	2.1	1.6	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9	5.5	5.9	5.9	5.8	5.8	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	81.0	81.0	81.0	102.2	107.3	107.3	26.4	31.0	12.0	12.0
Actuated g/C Ratio	0.54	0.54	0.54	0.68	0.72	0.72	0.18	0.21	0.08	0.08
v/c Ratio	0.19	0.90	0.33	0.80	0.59	0.02	0.81	0.45	0.15	0.29
Control Delay (s/veh)	17.8	33.2	4.9	61.4	13.6	0.0	76.3	10.1	68.6	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	17.8	33.2	4.9	61.4	13.6	0.0	76.3	10.1	68.6	27.3
LOS	B	C	A	E	B	A	E	B	E	C
Approach Delay (s/veh)		25.5			24.4			43.3		36.5
Approach LOS		C			C			D		D

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 95 (63%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 135	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay (s/veh): 28.2	Intersection LOS: C
Intersection Capacity Utilization 90.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	880	300	226	724	23	200	12	187	13	7	38
Future Volume (veh/h)	64	880	300	226	724	23	200	12	187	13	7	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1885	1870	1900	1856	1870	1870	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	70	917	312	243	778	25	230	13	215	14	8	41
Peak Hour Factor	0.92	0.96	0.96	0.93	0.93	0.92	0.87	0.92	0.87	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	2	0	3	2	2	2	1	2	2	2
Cap, veh/h	366	1104	928	303	1283	1096	316	21	347	140	21	109
Arrive On Green	0.78	0.78	0.78	0.07	0.69	0.69	0.11	0.23	0.23	0.08	0.08	0.08
Sat Flow, veh/h	678	1885	1585	1810	1856	1585	1781	91	1508	1153	265	1360
Grp Volume(v), veh/h	70	917	312	243	778	25	230	0	228	14	0	49
Grp Sat Flow(s),veh/h/ln	678	1885	1585	1810	1856	1585	1781	0	1599	1153	0	1626
Q Serve(g_s), s	6.8	45.8	8.9	8.0	33.4	0.7	16.7	0.0	19.2	1.7	0.0	4.3
Cycle Q Clear(g_c), s	24.3	45.8	8.9	8.0	33.4	0.7	16.7	0.0	19.2	1.7	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.94	1.00		0.84
Lane Grp Cap(c), veh/h	366	1104	928	303	1283	1096	316	0	368	140	0	130
V/C Ratio(X)	0.19	0.83	0.34	0.80	0.61	0.02	0.73	0.00	0.62	0.10	0.00	0.38
Avail Cap(c_a), veh/h	366	1104	928	379	1283	1096	316	0	418	176	0	180
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	12.0	7.9	24.9	12.3	7.3	56.7	0.0	51.9	64.3	0.0	65.5
Incr Delay (d2), s/veh	0.4	2.9	0.4	9.6	2.1	0.0	8.2	0.0	2.3	0.3	0.0	1.8
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	0.9	12.6	2.6	5.5	13.2	0.3	8.8	0.0	7.9	0.5	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	13.9	14.9	8.2	34.5	14.4	7.3	64.9	0.0	54.1	64.6	0.0	67.2
LnGrp LOS	B	B	A	C	B	A	E		D	E		E
Approach Vol, veh/h		1299			1046			458			63	
Approach Delay, s/veh		13.2			18.9			59.5			66.7	
Approach LOS		B			B			E			E	

Timer - Assigned Phs	2	3	4	5	6	8
Phs Duration (G+Y+Rc), s	109.6	22.5	17.9	15.9	93.7	40.4
Change Period (Y+Rc), s	5.9	5.8	5.9	5.5	5.9	* 5.9
Max Green Setting (Gmax), s	99.1	16.7	16.6	16.7	76.9	* 39
Max Q Clear Time (g_c+I1), s	35.4	18.7	6.3	10.0	47.8	21.2
Green Ext Time (p_c), s	6.1	0.0	0.1	0.4	9.5	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	23.9
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	20.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	398	22	65	340	13	13	22	101	14	57	47
Future Vol, veh/h	11	398	22	65	340	13	13	22	101	14	57	47
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	2	0	0	1	0	0	5	0	0	0	2
Mvmt Flow	11	410	23	73	382	15	16	27	122	17	69	57
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

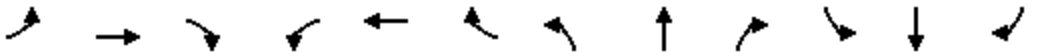
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	21.5	24.1	12.1	12.2
HCM LOS	C	C	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	10%	3%	16%	12%
Vol Thru, %	16%	92%	81%	48%
Vol Right, %	74%	5%	3%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	136	431	418	118
LT Vol	13	11	65	14
Through Vol	22	398	340	57
RT Vol	101	22	13	47
Lane Flow Rate	164	444	470	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.292	0.707	0.752	0.264
Departure Headway (Hd)	6.414	5.729	5.762	6.684
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	559	631	634	536
Service Time	4.477	3.775	3.762	4.749
HCM Lane V/C Ratio	0.293	0.704	0.741	0.265
HCM Control Delay, s/veh	12.1	21.5	24.1	12.2
HCM Lane LOS	B	C	C	B
HCM 95th-tile Q	1.2	5.8	6.7	1.1

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	137	278	256	19	175	84	131	33	34	217
Future Volume (vph)	137	278	256	19	175	84	131	33	34	217
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	15.0	50.0	50.0	15.0	50.0	15.0	30.0	30.0	15.0	30.0
Total Split (%)	13.6%	45.5%	45.5%	13.6%	45.5%	13.6%	27.3%	27.3%	13.6%	27.3%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	29.5	26.8	26.8	22.3	16.3	29.8	24.6	24.6	26.6	21.0
Actuated g/C Ratio	0.39	0.36	0.36	0.30	0.22	0.40	0.33	0.33	0.36	0.28
v/c Ratio	0.37	0.44	0.37	0.06	0.61	0.29	0.27	0.07	0.08	0.71
Control Delay (s/veh)	18.8	24.8	5.0	15.8	33.9	15.9	23.0	0.2	14.0	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.8	24.8	5.0	15.8	33.9	15.9	23.0	0.2	14.0	33.8
LOS	B	C	A	B	C	B	C	A	B	C
Approach Delay (s/veh)		16.0			32.3		17.5			31.8
Approach LOS		B			C		B			C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 74.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay (s/veh): 22.6	Intersection LOS: C
Intersection Capacity Utilization 59.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	278	256	19	175	28	84	131	33	34	217	93
Future Volume (veh/h)	137	278	256	19	175	28	84	131	33	34	217	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1870	1811	1885	1841	1885	1841	1796	1900	1870	1900
Adj Flow Rate, veh/h	149	302	278	23	213	34	104	162	41	40	255	109
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.81	0.81	0.81	0.85	0.85	0.85
Percent Heavy Veh, %	2	0	2	6	1	4	1	4	7	0	2	0
Cap, veh/h	359	489	408	257	295	47	303	524	434	444	316	135
Arrive On Green	0.09	0.26	0.26	0.02	0.19	0.19	0.06	0.28	0.28	0.03	0.25	0.25
Sat Flow, veh/h	1781	1900	1585	1725	1586	253	1795	1841	1522	1810	1243	531
Grp Volume(v), veh/h	149	302	278	23	0	247	104	162	41	40	0	364
Grp Sat Flow(s),veh/h/ln	1781	1900	1585	1725	0	1840	1795	1841	1522	1810	0	1775
Q Serve(g_s), s	3.8	8.0	9.0	0.6	0.0	7.2	2.4	4.0	1.1	0.9	0.0	11.0
Cycle Q Clear(g_c), s	3.8	8.0	9.0	0.6	0.0	7.2	2.4	4.0	1.1	0.9	0.0	11.0
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.30
Lane Grp Cap(c), veh/h	359	489	408	257	0	342	303	524	434	444	0	451
V/C Ratio(X)	0.42	0.62	0.68	0.09	0.00	0.72	0.34	0.31	0.09	0.09	0.00	0.81
Avail Cap(c_a), veh/h	473	1474	1229	491	0	1427	487	772	638	685	0	744
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	18.8	19.1	18.4	0.0	21.9	15.3	16.1	15.0	14.9	0.0	20.0
Incr Delay (d2), s/veh	0.8	1.3	2.0	0.1	0.0	2.9	0.7	0.3	0.1	0.1	0.0	3.5
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	1.4	3.2	3.1	0.2	0.0	3.0	0.9	1.5	0.3	0.3	0.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	17.5	20.0	21.2	18.5	0.0	24.8	16.0	16.4	15.1	15.0	0.0	23.5
LnGrp LOS	B	C	C	B		C	B	B	B	B		C
Approach Vol, veh/h		729			270			307			404	
Approach Delay, s/veh		19.9			24.3			16.1			22.6	
Approach LOS		B			C			B			C	

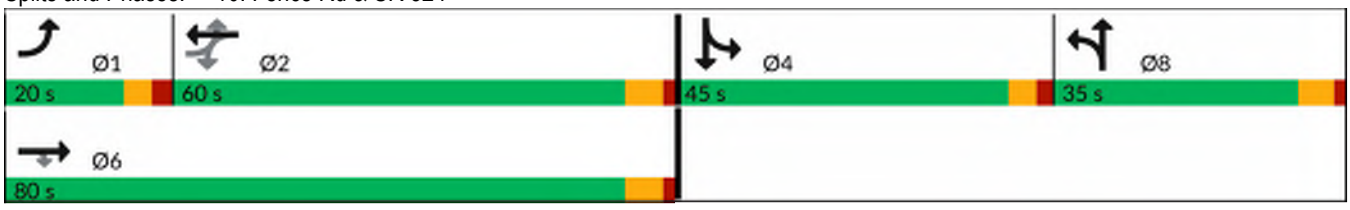
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	16.2	9.1	20.6	7.2	20.3	7.4	22.3
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	9.0	44.4	9.5	24.0	9.0	44.4	9.5	24.0
Max Q Clear Time (g_c+I1), s	5.8	9.2	4.4	13.0	2.6	11.0	2.9	6.0
Green Ext Time (p_c), s	0.1	1.4	0.1	1.5	0.0	2.7	0.0	0.8

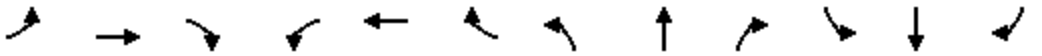
Intersection Summary	
HCM 7th Control Delay, s/veh	20.6
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	324	517	35	50	363	56	199	49	241
Future Volume (vph)	324	517	35	50	363	56	199	49	241
Turn Type	D.P+P	NA	Perm	Perm	NA	Split	NA	Split	NA
Protected Phases	1	6			2	8	8	4	4
Permitted Phases	2		6	2					
Detector Phase	1	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	18.0	18.0	18.0	18.0	11.7	11.7	11.3	11.3
Total Split (s)	20.0	80.0	80.0	60.0	60.0	35.0	35.0	45.0	45.0
Total Split (%)	12.5%	50.0%	50.0%	37.5%	37.5%	21.9%	21.9%	28.1%	28.1%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)	55.4	61.1	61.1	40.9	40.9	26.1	26.1	40.1	40.1
Actuated g/C Ratio	0.38	0.42	0.42	0.28	0.28	0.18	0.18	0.28	0.28
v/c Ratio	1.36	0.70	0.05	0.30	0.88	0.21	0.87	0.11	0.97
Control Delay (s/veh)	214.3	39.9	2.5	45.5	68.7	54.5	81.8	44.0	82.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	214.3	39.9	2.5	45.5	68.7	54.5	81.8	44.0	82.0
LOS	F	D	A	D	E	D	F	D	F
Approach Delay (s/veh)		102.9			66.2		76.8		78.3
Approach LOS		F			E		E		E

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 144.4	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.36	
Intersection Signal Delay (s/veh): 85.3	Intersection LOS: F
Intersection Capacity Utilization 90.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	324	517	35	50	363	58	56	199	52	49	241	213
Future Volume (veh/h)	324	517	35	50	363	58	56	199	52	49	241	213
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1900	1826	1841	1870	1781	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	341	544	37	54	390	62	64	226	59	52	256	227
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.88	0.88	0.88	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	0	5	4	2	8	3	2	2	2	2
Cap, veh/h	260	772	675	194	429	68	299	250	65	504	259	229
Arrive On Green	0.10	0.42	0.42	0.28	0.28	0.28	0.18	0.18	0.18	0.28	0.28	0.28
Sat Flow, veh/h	1753	1841	1610	813	1550	246	1697	1419	370	1781	914	810
Grp Volume(v), veh/h	341	544	37	54	0	452	64	0	285	52	0	483
Grp Sat Flow(s),veh/h/ln	1753	1841	1610	813	0	1796	1697	0	1789	1781	0	1724
Q Serve(g_s), s	14.2	34.2	1.9	8.2	0.0	34.1	4.5	0.0	21.9	3.0	0.0	39.1
Cycle Q Clear(g_c), s	14.2	34.2	1.9	22.4	0.0	34.1	4.5	0.0	21.9	3.0	0.0	39.1
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.21	1.00		0.47
Lane Grp Cap(c), veh/h	260	772	675	194	0	497	299	0	315	504	0	488
V/C Ratio(X)	1.31	0.70	0.05	0.28	0.00	0.91	0.21	0.00	0.90	0.10	0.00	0.99
Avail Cap(c_a), veh/h	260	971	850	282	0	692	354	0	374	504	0	488
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	33.5	24.2	51.0	0.0	49.0	49.5	0.0	56.6	37.1	0.0	50.1
Incr Delay (d2), s/veh	164.9	1.7	0.0	0.8	0.0	12.6	0.4	0.0	22.3	0.1	0.0	37.9
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	18.2	15.1	0.7	1.7	0.0	16.6	1.9	0.0	11.7	1.3	0.0	21.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	203.3	35.2	24.2	51.8	0.0	61.6	49.8	0.0	78.9	37.2	0.0	87.9
LnGrp LOS	F	D	C	D		E	D		E	D		F
Approach Vol, veh/h		922			506			349			535	
Approach Delay, s/veh		97.0			60.5			73.6			83.0	
Approach LOS		F			E			E			F	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.0	44.8		45.0		64.8		30.4				
Change Period (Y+Rc), s	5.8	6.0		5.3		6.0		5.7				
Max Green Setting (Gmax), s	14.2	54.0		39.7		74.0		29.3				
Max Q Clear Time (g_c+I1), s	16.2	36.1		41.1		36.2		23.9				
Green Ext Time (p_c), s	0.0	2.7		0.0		3.6		0.8				

Intersection Summary												
HCM 7th Control Delay, s/veh			82.2									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	95.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	255	188	125	71	185	344
Future Vol, veh/h	255	188	125	71	185	344
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	94	94	92	92
Heavy Vehicles, %	3	2	1	0	0	4
Mvmt Flow	293	216	133	76	201	374

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	209	0	-	0	973	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	802	-
Critical Hdwy	4.13	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1356	-	-	-	282	868
Stage 1	-	-	-	-	864	-
Stage 2	-	-	-	-	445	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1356	-	-	-	213	868
Mov Cap-2 Maneuver	-	-	-	-	213	-
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	445	-

Approach	EB	WB	SB
HCM Control Delay, s/v	4.83	0	209.92
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1036	-	-	-	418
HCM Lane V/C Ratio	0.216	-	-	-	1.376
HCM Control Delay (s/veh)	8.4	0	-	-	209.9
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	0.8	-	-	-	27.5

Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	47	380	206	127	145	20
Future Vol, veh/h	47	380	206	127	145	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	88	88
Heavy Vehicles, %	0	3	3	2	2	6
Mvmt Flow	51	413	224	138	165	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	762	176	188	0	-	0
Stage 1	176	-	-	-	-	-
Stage 2	586	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	376	864	1381	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	310	864	1381	-	-	-
Mov Cap-2 Maneuver	310	-	-	-	-	-
Stage 1	708	-	-	-	-	-
Stage 2	560	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	18.5	5.02	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1114	-	722	-	-
HCM Lane V/C Ratio	0.162	-	0.643	-	-
HCM Control Delay (s/veh)	8.1	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.6	-	4.7	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	113	28	16	269	350	132
Future Vol, veh/h	113	28	16	269	350	132
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	86	86	93	93
Heavy Vehicles, %	1	0	7	1	1	3
Mvmt Flow	124	31	19	313	376	142

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	797	447	518	0	-	0
Stage 1	447	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	357	615	1023	-	-	-
Stage 1	646	-	-	-	-	-
Stage 2	716	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	349	615	1023	-	-	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	632	-	-	-	-	-
Stage 2	716	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	20.72	0.48	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	101	-	382	-	-
HCM Lane V/C Ratio	0.018	-	0.406	-	-
HCM Control Delay (s/veh)	8.6	0	20.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.9	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	0	226	0	0	424	0
Future Vol, veh/h	0	0	0	0	0	0	0	226	0	0	424	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	160	-	150	160	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	0	0	0	0	0	246	0	0	461	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	707	707	461	707	707	246	461	0	0	246	0	0
Stage 1	461	461	-	246	246	-	-	-	-	-	-	-
Stage 2	246	246	-	461	461	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	353	363	605	353	363	798	1111	-	-	1332	-	-
Stage 1	584	569	-	763	707	-	-	-	-	-	-	-
Stage 2	763	707	-	584	569	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	353	363	605	353	363	798	1111	-	-	1332	-	-
Mov Cap-2 Maneuver	353	363	-	353	363	-	-	-	-	-	-	-
Stage 1	584	569	-	763	707	-	-	-	-	-	-	-
Stage 2	763	707	-	584	569	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1111	-	-	-	-	-	1332	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-	-
HCM Control Delay (s/veh)	0	-	-	0	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	0	0	0	0	226	0	0	424	0
Future Vol, veh/h	0	0	0	0	0	0	0	226	0	0	424	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	160	-	150	160	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	0	0	0	0	0	0	0	246	0	0	461	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	707	707	461	707	707	246	461	0	0	246	0	0
Stage 1	461	461	-	246	246	-	-	-	-	-	-	-
Stage 2	246	246	-	461	461	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	353	363	605	353	363	798	1111	-	-	1332	-	-
Stage 1	584	569	-	763	707	-	-	-	-	-	-	-
Stage 2	763	707	-	584	569	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	353	363	605	353	363	798	1111	-	-	1332	-	-
Mov Cap-2 Maneuver	353	363	-	353	363	-	-	-	-	-	-	-
Stage 1	584	569	-	763	707	-	-	-	-	-	-	-
Stage 2	763	707	-	584	569	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	0	0
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1111	-	-	-	-	1332	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s/veh)	0	-	-	0	0	0	-	-
HCM Lane LOS	A	-	-	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	0	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	226	0	0	424
Future Vol, veh/h	0	0	226	0	0	424
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	0	0	246	0	0	461

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	707	246	0	0	246	0
Stage 1	246	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	405	798	-	-	1332	-
Stage 1	800	-	-	-	-	-
Stage 2	639	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	405	798	-	-	1332	-
Mov Cap-2 Maneuver	405	-	-	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	639	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1332	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	146	0	0	149	0	0	0	0	0	0	0
Future Vol, veh/h	0	146	0	0	149	0	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	159	0	0	162	0	0	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	162	0	0	159	0	0	321	321	159	321	321	162
Stage 1	-	-	-	-	-	-	159	159	-	162	162	-
Stage 2	-	-	-	-	-	-	162	162	-	159	159	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1429	-	-	1433	-	-	636	600	892	636	600	888
Stage 1	-	-	-	-	-	-	848	770	-	845	768	-
Stage 2	-	-	-	-	-	-	845	768	-	848	770	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1429	-	-	1433	-	-	636	600	892	636	600	888
Mov Cap-2 Maneuver	-	-	-	-	-	-	636	600	-	636	600	-
Stage 1	-	-	-	-	-	-	848	770	-	845	768	-
Stage 2	-	-	-	-	-	-	845	768	-	848	770	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0	0	0	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1429	-	-	1433	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s/veh)	0	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	146	0	0	149	0	0
Future Vol, veh/h	146	0	0	149	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	159	0	0	162	0	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	159	0	321	159
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	162	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1433	-	677	892
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	872	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1433	-	677	892
Mov Cap-2 Maneuver	-	-	-	-	677	-
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	872	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1433	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	382	483	0
Future Vol, veh/h	0	0	0	382	483	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	0	0	415	525	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	940	525	525	0	-	0
Stage 1	525	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	295	556	1052	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	295	556	1052	-	-	-
Mov Cap-2 Maneuver	295	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	671	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	382	483	0
Future Vol, veh/h	0	0	0	382	483	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	0	0	0	415	525	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	940	525	525	0	-	0
Stage 1	525	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	295	556	1052	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	295	556	1052	-	-	-
Mov Cap-2 Maneuver	295	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	671	-	-	-	-	-

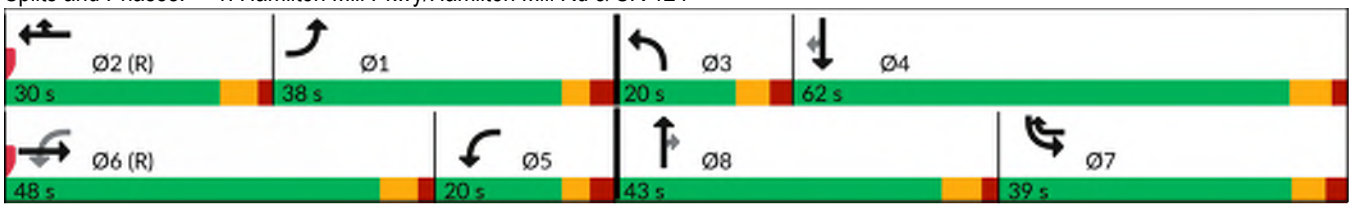
Approach	EB	NB	SB
HCM Control Delay, s/v	0	0	0
HCM LOS	A		

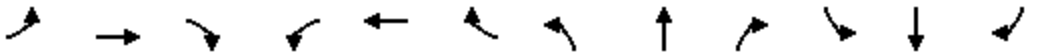
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1052	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s/veh)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	346	356	92	472	982	56	393	117	641	151	256
Future Volume (vph)	346	356	92	472	982	56	393	117	641	151	256
Turn Type	Prot	NA	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6	5	2	2 7	3	8		7	4	
Permitted Phases			6					8			4
Detector Phase	1	6	5	2	2 7	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	18.0	9.7	18.0		10.2	12.4	12.4	10.2	12.4	12.4
Total Split (s)	38.0	48.0	20.0	30.0		20.0	43.0	43.0	39.0	62.0	62.0
Total Split (%)	25.3%	32.0%	13.3%	20.0%		13.3%	28.7%	28.7%	26.0%	41.3%	41.3%
Yellow Time (s)	3.1	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	26.2	42.0	50.5	24.0	68.9	10.3	36.8	36.8	38.7	67.7	67.7
Actuated g/C Ratio	0.17	0.28	0.34	0.16	0.46	0.07	0.25	0.25	0.26	0.45	0.45
v/c Ratio	0.76	0.56	0.41	1.90	0.82	0.48	0.89	0.24	0.83	0.20	0.33
Control Delay (s/veh)	68.0	48.0	39.8	447.6	32.9	79.5	76.0	3.7	62.7	27.8	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.0	48.0	39.8	447.6	32.9	79.5	76.0	3.7	62.7	27.8	4.2
LOS	E	D	D	F	C	E	E	A	E	C	A
Approach Delay (s/veh)		57.2		159.9			61.4			43.4	
Approach LOS		E		F			E			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 64 (43%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.90	
Intersection Signal Delay (s/veh): 95.0	Intersection LOS: F
Intersection Capacity Utilization 93.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	356	46	92	472	982	56	393	117	641	151	256
Future Volume (veh/h)	346	356	46	92	472	982	56	393	117	641	151	256
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1767	1826	1870	1811	1870	1870	1870	1885	1796	1870	1841
Adj Flow Rate, veh/h	444	456	0	106	543	1129	58	405	0	704	166	0
Peak Hour Factor	0.78	0.78	0.78	0.87	0.87	0.87	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	5	9	5	2	6	2	2	2	1	7	2	4
Cap, veh/h	769	940		396	290	1056	74	430		726	764	
Arrive On Green	0.23	0.28	0.00	0.11	0.16	0.16	0.04	0.23	0.00	0.22	0.41	0.00
Sat Flow, veh/h	3374	3445	0	1781	1811	2790	1781	1870	1598	3319	1870	1560
Grp Volume(v), veh/h	444	456	0	106	543	1129	58	405	0	704	166	0
Grp Sat Flow(s),veh/h/ln	1687	1678	0	1781	1811	1395	1781	1870	1598	1659	1870	1560
Q Serve(g_s), s	17.6	17.0	0.0	0.0	24.0	24.0	4.8	31.9	0.0	31.6	8.6	0.0
Cycle Q Clear(g_c), s	17.6	17.0	0.0	0.0	24.0	24.0	4.8	31.9	0.0	31.6	8.6	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	769	940		396	290	1056	74	430		726	764	
V/C Ratio(X)	0.58	0.49		0.27	1.87	1.07	0.78	0.94		0.97	0.22	
Avail Cap(c_a), veh/h	769	940		396	290	1056	164	456		726	764	
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	0.82	0.82	0.82	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	51.5	45.0	0.0	44.5	63.0	46.6	71.2	56.7	0.0	58.1	28.8	0.0
Incr Delay (d2), s/veh	1.1	1.8	0.0	0.3	403.9	45.7	15.9	27.2	0.0	26.9	0.1	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	7.5	7.3	0.0	3.3	43.5	13.2	2.5	18.1	0.0	15.7	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.6	46.8	0.0	44.8	466.9	92.3	87.1	83.9	0.0	85.0	29.0	0.0
LnGrp LOS	D	D		D	F	F	F	F		F	C	
Approach Vol, veh/h		900			1778			463			870	
Approach Delay, s/veh		49.6			203.8			84.3			74.3	
Approach LOS		D			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	39.9	30.0	12.5	67.6	21.9	48.0	39.2	40.9
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	32.3	24.0	13.8	* 56	14.3	42.0	* 33	* 37
Max Q Clear Time (g_c+I1), s	19.6	26.0	6.8	10.6	2.0	19.0	33.6	33.9
Green Ext Time (p_c), s	1.3	0.0	0.0	0.9	0.2	3.0	0.0	0.6

Intersection Summary	
HCM 7th Control Delay, s/veh	127.3
HCM 7th LOS	F

Notes

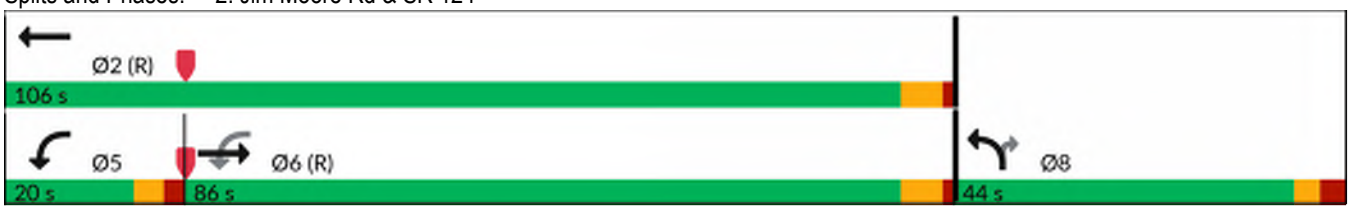
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	916	75	1399	102	105
Future Volume (vph)	916	75	1399	102	105
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	86.0	20.0	106.0	44.0	44.0
Total Split (%)	57.3%	13.3%	70.7%	29.3%	29.3%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	108.9	116.2	121.3	17.2	17.2
Actuated g/C Ratio	0.73	0.77	0.81	0.11	0.11
v/c Ratio	0.44	0.21	0.53	0.69	0.46
Control Delay (s/veh)	15.6	4.7	6.0	80.7	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	15.6	4.7	6.0	80.7	13.4
LOS	B	A	A	F	B
Approach Delay (s/veh)	15.6		5.9	46.6	
Approach LOS	B		A	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 128 (85%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 13.3	Intersection LOS: B
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	916	88	75	1399	102	105
Future Volume (veh/h)	916	88	75	1399	102	105
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1811	1900	1841	1870	1856	1870
Adj Flow Rate, veh/h	974	94	82	1521	138	142
Peak Hour Factor	0.94	0.94	0.92	0.92	0.74	0.74
Percent Heavy Veh, %	6	0	4	2	3	2
Cap, veh/h	2352	227	442	2901	189	169
Arrive On Green	0.74	0.74	0.04	0.82	0.11	0.11
Sat Flow, veh/h	3261	306	1753	3647	1767	1585
Grp Volume(v), veh/h	528	540	82	1521	138	142
Grp Sat Flow(s),veh/h/ln	1721	1756	1753	1777	1767	1585
Q Serve(g_s), s	17.2	17.2	1.6	20.6	11.3	13.2
Cycle Q Clear(g_c), s	17.2	17.2	1.6	20.6	11.3	13.2
Prop In Lane		0.17	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1276	1302	442	2901	189	169
V/C Ratio(X)	0.41	0.41	0.19	0.52	0.73	0.84
Avail Cap(c_a), veh/h	1276	1302	545	2901	450	404
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.68	0.68	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.2	7.2	5.0	4.4	64.9	65.7
Incr Delay (d2), s/veh	0.7	0.7	0.2	0.7	5.3	10.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	5.8	0.5	5.7	5.5	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.9	7.9	5.2	5.1	70.2	76.1
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1068			1603	280	
Approach Delay, s/veh	7.9			5.1	73.2	
Approach LOS	A			A	E	

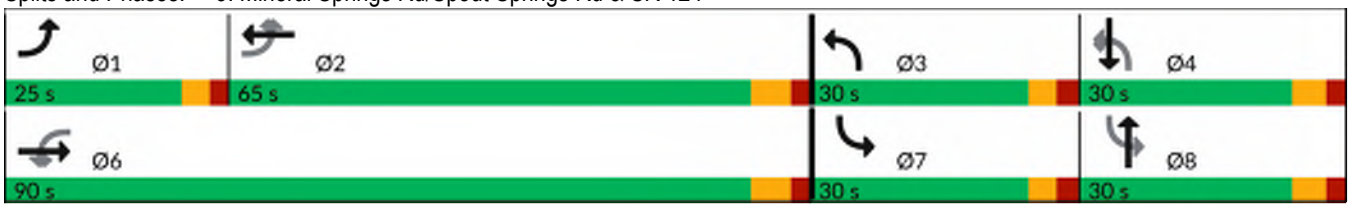
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	128.2			11.2	117.0	21.8
Change Period (Y+Rc), s	5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s	100.3			14.6	80.3	38.2
Max Q Clear Time (g_c+I1), s	22.6			3.6	19.2	15.2
Green Ext Time (p_c), s	17.1			0.1	7.9	0.9

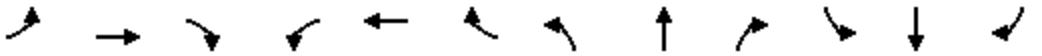
Intersection Summary	
HCM 7th Control Delay, s/veh	12.6
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	427	70	33	679	201	227	220	223	117	419
Future Volume (vph)	247	427	70	33	679	201	227	220	223	117	419
Turn Type	D.P+P	NA	Perm	D.Pm	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	2		6	6		2	4		8		4
Detector Phase	1	6	6	6	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	25.0	90.0	90.0	90.0	65.0	65.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	60.0%	60.0%	60.0%	43.3%	43.3%	20.0%	20.0%	20.0%	20.0%	20.0%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead				Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	79.6	83.5	83.5	83.5	58.5	58.5	47.1	24.0	47.1	25.7	25.7
Actuated g/C Ratio	0.54	0.56	0.56	0.56	0.39	0.39	0.32	0.16	0.32	0.17	0.17
v/c Ratio	0.95	0.48	0.08	0.10	1.21	0.38	0.61	1.18	0.89	0.45	0.95
Control Delay (s/veh)	86.7	21.8	3.3	16.5	146.0	21.1	43.1	161.1	72.6	61.0	51.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	86.7	21.8	3.3	16.5	146.0	21.1	43.1	161.1	72.6	61.0	51.5
LOS	F	C	A	B	F	C	D	F	E	E	D
Approach Delay (s/veh)		41.6			113.8			109.7		59.2	
Approach LOS		D			F			F		E	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 148.3	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.21	
Intersection Signal Delay (s/veh): 82.1	Intersection LOS: F
Intersection Capacity Utilization 97.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	427	70	33	679	201	227	220	74	223	117	419
Future Volume (veh/h)	247	427	70	33	679	201	227	220	74	223	117	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1752	1900	1856	1841	1841	1885	1870	1767	1767	1841	1885
Adj Flow Rate, veh/h	271	469	77	42	871	258	267	259	87	269	141	0
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.83	0.83	0.83
Percent Heavy Veh, %	3	10	0	3	4	4	1	2	9	9	4	1
Cap, veh/h	287	774	711	193	732	620	425	218	73	296	319	
Arrive On Green	0.13	0.44	0.44	0.08	0.40	0.40	0.14	0.16	0.16	0.15	0.17	0.00
Sat Flow, veh/h	1767	1752	1610	1767	1841	1560	1795	1339	450	1682	1841	1598
Grp Volume(v), veh/h	271	469	77	42	871	258	267	0	346	269	141	0
Grp Sat Flow(s),veh/h/ln	1767	1752	1610	1767	1841	1560	1795	0	1789	1682	1841	1598
Q Serve(g_s), s	18.3	30.0	4.1	3.8	58.5	17.6	17.7	0.0	24.0	19.3	10.1	0.0
Cycle Q Clear(g_c), s	18.3	30.0	4.1	3.8	58.5	17.6	17.7	0.0	24.0	19.3	10.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	287	774	711	0	732	620	425	0	292	296	319	
V/C Ratio(X)	0.95	0.61	0.11	0.00	1.19	0.42	0.63	0.00	1.19	0.91	0.44	
Avail Cap(c_a), veh/h	287	994	914	0	732	620	478	0	292	328	319	
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	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.5	31.3	24.1	0.0	44.3	32.0	41.6	0.0	61.6	43.7	54.5	0.0
Incr Delay (d2), s/veh	38.6	0.8	0.1	0.0	99.0	0.4	2.2	0.0	112.8	26.7	1.0	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	12.5	12.5	1.6	0.0	45.7	6.7	8.1	0.0	19.9	10.1	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	92.1	32.1	24.2	0.0	143.3	32.5	43.8	0.0	174.4	70.4	55.4	0.0
LnGrp LOS	F	C	C		F	C	D		F	E	E	
Approach Vol, veh/h		817			1171			613			410	
Approach Delay, s/veh		51.2			113.8			117.5			65.3	
Approach LOS		D			F			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	25.0	65.0	25.7	31.5	18.5	71.5	27.2	30.0
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0	6.5	6.5	5.6	6.0
Max Green Setting (Gmax), s	19.8	58.5	24.4	24.0	83.5	83.5	24.4	24.0
Max Q Clear Time (g_c+I1), s	20.3	60.5	19.7	12.1	5.8	32.0	21.3	26.0
Green Ext Time (p_c), s	0.0	0.0	0.3	0.5	0.1	3.2	0.2	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	91.0
HCM 7th LOS	F

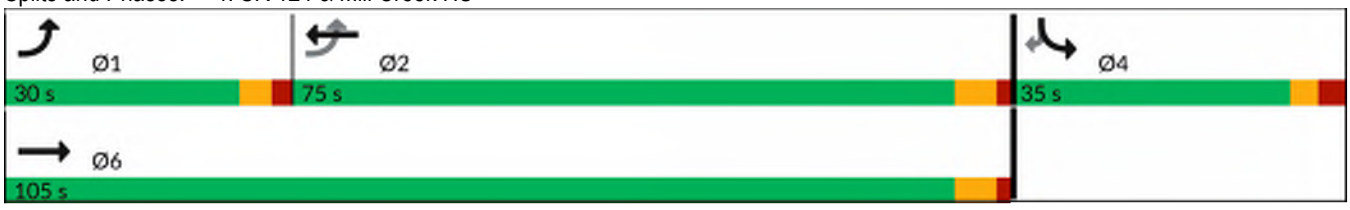
Notes

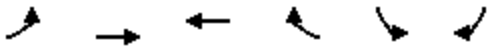
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	324	426	703	241	107	169
Future Volume (vph)	324	426	703	241	107	169
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	30.0	105.0	75.0		35.0	35.0
Total Split (%)	21.4%	75.0%	53.6%		25.0%	25.0%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None
Act Effct Green (s)	88.8	93.8	63.5	122.4	16.7	16.7
Actuated g/C Ratio	0.73	0.77	0.52	1.00	0.14	0.14
v/c Ratio	0.96	0.42	0.91	0.19	0.67	0.59
Control Delay (s/veh)	70.6	6.4	42.7	0.3	65.6	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.6	6.4	42.7	0.3	65.6	11.6
LOS	E	A	D	A	E	B
Approach Delay (s/veh)		34.1	31.8		32.5	
Approach LOS		C	C		C	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 122.4	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay (s/veh): 32.8	Intersection LOS: C
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	324	426	703	241	107	169
Future Volume (veh/h)	324	426	703	241	107	169
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1737	1826	1841	1870	1856
Adj Flow Rate, veh/h	415	546	857	0	162	256
Peak Hour Factor	0.78	0.78	0.82	0.82	0.66	0.66
Percent Heavy Veh, %	5	11	5	4	2	3
Cap, veh/h	418	1263	902		323	285
Arrive On Green	0.19	0.73	0.49	0.00	0.18	0.18
Sat Flow, veh/h	1739	1737	1826	1560	1781	1572
Grp Volume(v), veh/h	415	546	857	0	162	256
Grp Sat Flow(s),veh/h/ln	1739	1737	1826	1560	1781	1572
Q Serve(g_s), s	24.4	16.1	57.6	0.0	10.5	20.5
Cycle Q Clear(g_c), s	24.4	16.1	57.6	0.0	10.5	20.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	418	1263	902		323	285
V/C Ratio(X)	0.99	0.43	0.95		0.50	0.90
Avail Cap(c_a), veh/h	418	1338	981		403	356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	7.0	31.1	0.0	47.4	51.5
Incr Delay (d2), s/veh	42.3	0.2	17.3	0.0	1.2	21.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.8	5.0	27.8	0.0	4.8	9.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	83.3	7.2	48.4	0.0	48.6	72.8
LnGrp LOS	F	A	D		D	E
Approach Vol, veh/h		961	857		418	
Approach Delay, s/veh		40.1	48.4		63.5	
Approach LOS		D	D		E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	30.0	69.4		29.2		99.4
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 25	69.1		29.1		99.1
Max Q Clear Time (g_c+I1), s	26.4	59.6		22.5		18.1
Green Ext Time (p_c), s	0.0	3.9		0.8		3.6

Intersection Summary	
HCM 7th Control Delay, s/veh	47.6
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	16.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	467	42	105	828	9	57	6	114	3	3	10
Future Vol, veh/h	6	467	42	105	828	9	57	6	114	3	3	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	92	92	92	63	63	63
Heavy Vehicles, %	0	6	11	3	5	0	4	0	8	0	0	0
Mvmt Flow	7	563	51	121	952	10	62	7	124	5	5	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	962	0	0	613	0	0	1798	1806	588	1773	1821	952
Stage 1	-	-	-	-	-	-	602	602	-	1193	1193	-
Stage 2	-	-	-	-	-	-	1195	1203	-	580	628	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.14	6.5	6.28	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.536	4	3.372	3.5	4	3.3
Pot Cap-1 Maneuver	724	-	-	961	-	-	~ 61	80	498	65	78	317
Stage 1	-	-	-	-	-	-	483	492	-	230	263	-
Stage 2	-	-	-	-	-	-	225	260	-	503	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	724	-	-	961	-	-	~ 47	69	498	39	67	317
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 47	69	-	39	67	-
Stage 1	-	-	-	-	-	-	475	484	-	201	230	-
Stage 2	-	-	-	-	-	-	183	227	-	367	472	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.12	1.03	154.39	50.27
HCM LOS			F	F

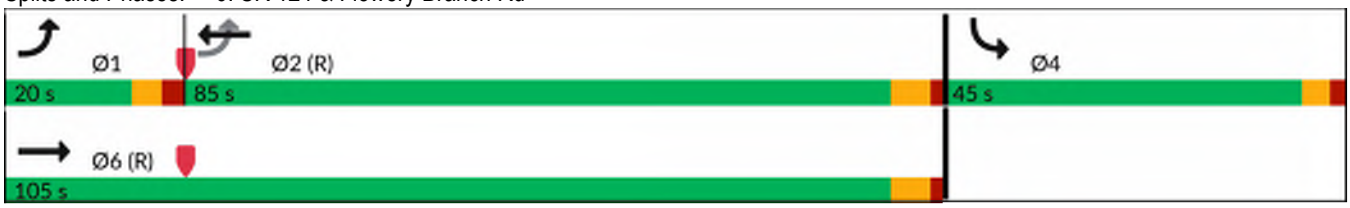
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	49	498	21	-	-	961	-	-	104
HCM Lane V/C Ratio	1.411	0.249	0.01	-	-	0.126	-	-	0.243
HCM Control Delay (s/veh)	$ 407.3	14.6	10	0	-	9.3	-	-	50.3
HCM Lane LOS	F	B	B	A	-	A	-	-	F
HCM 95th %tile Q(veh)	6.5	1	0	-	-	0.4	-	-	0.9

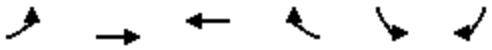
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	100	460	714	237
Future Volume (vph)	100	460	714	237
Turn Type	D.P+P	NA	NA	Prot
Protected Phases	1	6	2	4
Permitted Phases	2			
Detector Phase	1	6	2	4
Switch Phase				
Minimum Initial (s)	4.0	20.0	20.0	8.0
Minimum Split (s)	9.7	25.9	25.9	13.0
Total Split (s)	20.0	105.0	85.0	45.0
Total Split (%)	13.3%	70.0%	56.7%	30.0%
Yellow Time (s)	3.4	4.5	4.5	3.3
All-Red Time (s)	2.3	1.4	1.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	94.2	99.7	82.4	39.4
Actuated g/C Ratio	0.63	0.66	0.55	0.26
v/c Ratio	0.73	0.50	1.24	0.97
Control Delay (s/veh)	57.7	14.4	140.6	86.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.7	14.4	140.6	86.9
LOS	E	B	F	F
Approach Delay (s/veh)		22.1	140.6	86.9
Approach LOS		C	F	F

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.24	
Intersection Signal Delay (s/veh): 94.6	Intersection LOS: F
Intersection Capacity Utilization 104.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	460	714	380	237	176
Future Volume (veh/h)	100	460	714	380	237	176
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1767	1811	1841	1856	1796	1826
Adj Flow Rate, veh/h	128	590	785	418	249	185
Peak Hour Factor	0.78	0.78	0.91	0.91	0.95	0.95
Percent Heavy Veh, %	9	6	4	3	7	5
Cap, veh/h	150	1197	636	338	248	184
Arrive On Green	0.06	0.66	0.56	0.56	0.27	0.27
Sat Flow, veh/h	1682	1811	1130	602	930	691
Grp Volume(v), veh/h	128	590	0	1203	435	0
Grp Sat Flow(s),veh/h/ln	1682	1811	0	1732	1625	0
Q Serve(g_s), s	7.0	24.6	0.0	84.3	40.0	0.0
Cycle Q Clear(g_c), s	7.0	24.6	0.0	84.3	40.0	0.0
Prop In Lane	1.00			0.35	0.57	0.43
Lane Grp Cap(c), veh/h	150	1197	0	974	433	0
V/C Ratio(X)	0.86	0.49	0.00	1.23	1.00	0.00
Avail Cap(c_a), veh/h	208	1197	0	974	433	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.61	1.00	0.00
Uniform Delay (d), s/veh	47.0	12.8	0.0	32.8	55.0	0.0
Incr Delay (d2), s/veh	21.3	1.5	0.0	111.4	44.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	9.7	0.0	62.8	21.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	68.2	14.3	0.0	144.2	99.1	0.0
LnGrp LOS	E	B		F	F	
Approach Vol, veh/h		718	1203		435	
Approach Delay, s/veh		23.9	144.2		99.1	
Approach LOS		C	F		F	

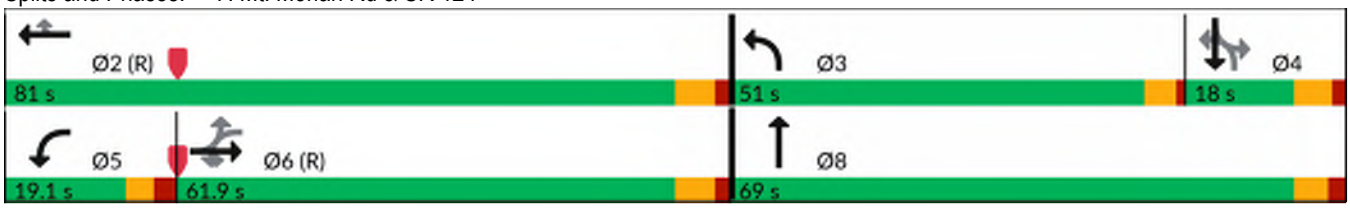
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	14.8	90.2		45.0		105.0
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	14.3	79.1		40.0		99.1
Max Q Clear Time (g_c+I1), s	9.0	86.3		42.0		26.6
Green Ext Time (p_c), s	0.1	0.0		0.0		4.0

Intersection Summary	
HCM 7th Control Delay, s/veh	99.2
HCM 7th LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	402	228	152	627	6	426	4	20	10
Future Volume (vph)	19	402	228	152	627	6	426	4	20	10
Turn Type	Perm	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	NA
Protected Phases		6		5	2		3	8		4
Permitted Phases	6		6	6		2	4		4	
Detector Phase	6	6	6	5	2	2	3	8	4	4
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	8.0	12.0	12.0	5.0	8.0	12.0	12.0
Minimum Split (s)	17.9	17.9	17.9	13.5	17.9	17.9	9.5	13.8	17.9	17.9
Total Split (s)	61.9	61.9	61.9	19.1	81.0	81.0	51.0	69.0	18.0	18.0
Total Split (%)	41.3%	41.3%	41.3%	12.7%	54.0%	54.0%	34.0%	46.0%	12.0%	12.0%
Yellow Time (s)	4.3	4.3	4.3	3.2	4.3	4.3	3.5	3.7	4.3	4.3
All-Red Time (s)	1.6	1.6	1.6	2.3	1.6	1.6	1.0	2.1	1.6	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9	5.5	5.9	5.9	4.5	5.8	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	64.3	64.3	64.3	76.9	82.0	82.0	53.1	56.3	12.0	12.0
Actuated g/C Ratio	0.43	0.43	0.43	0.51	0.55	0.55	0.35	0.38	0.08	0.08
v/c Ratio	0.09	0.59	0.32	0.43	0.67	0.01	0.81	0.32	0.24	0.39
Control Delay (s/veh)	28.4	37.4	5.3	22.0	29.6	0.0	50.6	4.6	71.8	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	28.4	37.4	5.3	22.0	29.6	0.0	50.6	4.6	71.8	25.6
LOS	C	D	A	C	C	A	D	A	E	C
Approach Delay (s/veh)		25.9			27.9			35.3		36.3
Approach LOS		C			C			D		D

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 117 (78%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 29.8	Intersection LOS: C
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	402	228	152	627	6	426	4	209	20	10	57
Future Volume (veh/h)	19	402	228	152	627	6	426	4	209	20	10	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1841	1781	1856	1870	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	457	259	163	674	7	473	4	232	22	11	62
Peak Hour Factor	0.92	0.88	0.88	0.93	0.93	0.92	0.90	0.92	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	4	8	3	2	3	2	2	2	2	2
Cap, veh/h	271	817	698	436	1021	872	558	10	580	140	20	110
Arrive On Green	0.90	0.90	0.90	0.07	0.55	0.55	0.26	0.37	0.37	0.08	0.08	0.08
Sat Flow, veh/h	759	1826	1560	1697	1856	1585	1767	27	1562	1144	244	1378
Grp Volume(v), veh/h	21	457	259	163	674	7	473	0	236	22	0	73
Grp Sat Flow(s),veh/h/ln	759	1826	1560	1697	1856	1585	1767	0	1589	1144	0	1622
Q Serve(g_s), s	1.8	7.9	3.9	7.8	38.5	0.3	36.1	0.0	16.5	2.7	0.0	6.5
Cycle Q Clear(g_c), s	24.9	7.9	3.9	7.8	38.5	0.3	36.1	0.0	16.5	2.7	0.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.85
Lane Grp Cap(c), veh/h	271	817	698	436	1021	872	558	0	590	140	0	130
V/C Ratio(X)	0.08	0.56	0.37	0.37	0.66	0.01	0.85	0.00	0.40	0.16	0.00	0.56
Avail Cap(c_a), veh/h	271	817	698	479	1021	872	644	0	670	140	0	131
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.7	4.7	4.5	19.9	23.8	15.2	44.7	0.0	34.8	64.7	0.0	66.5
Incr Delay (d2), s/veh	0.4	1.8	1.0	0.5	3.4	0.0	9.3	0.0	0.4	0.5	0.0	5.3
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	0.3	2.2	1.2	3.1	17.0	0.1	17.1	0.0	6.5	0.8	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	11.1	6.5	5.5	20.4	27.2	15.3	53.9	0.0	35.3	65.2	0.0	71.8
LnGrp LOS	B	A	A	C	C	B	D		D	E		E
Approach Vol, veh/h		737			844			709			95	
Approach Delay, s/veh		6.3			25.8			47.7			70.3	
Approach LOS		A			C			D			E	

Timer - Assigned Phs	2	3	4	5	6		8					
Phs Duration (G+Y+Rc), s	88.4	43.7	17.9	15.4	73.0		61.6					
Change Period (Y+Rc), s	5.9	4.5	5.9	5.5	5.9		* 5.9					
Max Green Setting (Gmax), s	75.1	46.5	12.1	13.6	56.0		* 63					
Max Q Clear Time (g_c+I1), s	40.5	38.1	8.5	9.8	26.9		18.5					
Green Ext Time (p_c), s	4.7	1.0	0.1	0.1	3.8		1.6					

Intersection Summary	
HCM 7th Control Delay, s/veh	28.1
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	34.5
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	226	13	60	404	7	27	38	65	6	3	15
Future Vol, veh/h	17	226	13	60	404	7	27	38	65	6	3	15
Peak Hour Factor	0.79	0.79	0.79	0.69	0.69	0.69	0.74	0.74	0.74	0.88	0.88	0.88
Heavy Vehicles, %	0	6	9	6	3	0	0	0	6	0	0	0
Mvmt Flow	22	286	16	87	586	10	36	51	88	7	3	17
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

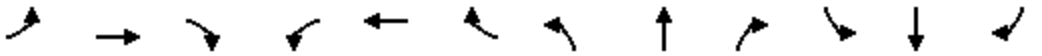
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	13.8	51.1	12	10.1
HCM LOS	B	F	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	21%	7%	13%	25%
Vol Thru, %	29%	88%	86%	13%
Vol Right, %	50%	5%	1%	63%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	256	471	24
LT Vol	27	17	60	6
Through Vol	38	226	404	3
RT Vol	65	13	7	15
Lane Flow Rate	176	324	683	27
Geometry Grp	1	1	1	1
Degree of Util (X)	0.303	0.494	0.977	0.05
Departure Headway (Hd)	6.216	5.488	5.155	6.611
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	576	655	703	538
Service Time	4.282	3.542	3.196	4.702
HCM Lane V/C Ratio	0.306	0.495	0.972	0.05
HCM Control Delay, s/veh	12	13.8	51.1	10.1
HCM Lane LOS	B	B	F	B
HCM 95th-tile Q	1.3	2.7	15	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	99	104	74	32	182	262	445	47	13	143
Future Volume (vph)	99	104	74	32	182	262	445	47	13	143
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	15.0	50.0	50.0	15.0	50.0	15.0	30.0	30.0	15.0	30.0
Total Split (%)	13.6%	45.5%	45.5%	13.6%	45.5%	13.6%	27.3%	27.3%	13.6%	27.3%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	28.7	24.0	24.0	23.5	17.1	37.0	32.9	32.9	29.4	22.6
Actuated g/C Ratio	0.35	0.30	0.30	0.29	0.21	0.46	0.41	0.41	0.36	0.28
v/c Ratio	0.40	0.27	0.18	0.11	0.70	0.85	0.71	0.08	0.11	0.75
Control Delay (s/veh)	20.3	26.0	2.7	16.7	39.4	40.4	30.5	0.2	14.9	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.3	26.0	2.7	16.7	39.4	40.4	30.5	0.2	14.9	36.8
LOS	C	C	A	B	D	D	C	A	B	D
Approach Delay (s/veh)		17.7			36.4		32.1			35.6
Approach LOS		B			D		C			D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 81	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay (s/veh): 30.7	Intersection LOS: C
Intersection Capacity Utilization 62.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	104	74	32	182	27	262	445	47	13	143	77
Future Volume (veh/h)	99	104	74	32	182	27	262	445	47	13	143	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1841	1752	1856	1781	1870	1885	1826	1218	1870	1856
Adj Flow Rate, veh/h	138	144	103	42	236	35	320	543	57	22	247	133
Peak Hour Factor	0.72	0.72	0.72	0.77	0.77	0.77	0.82	0.82	0.82	0.58	0.58	0.58
Percent Heavy Veh, %	0	4	4	10	3	8	2	1	5	46	2	3
Cap, veh/h	313	450	381	349	305	45	396	699	573	189	290	156
Arrive On Green	0.08	0.24	0.24	0.03	0.19	0.19	0.14	0.37	0.37	0.02	0.25	0.25
Sat Flow, veh/h	1810	1841	1560	1668	1579	234	1781	1885	1547	1160	1144	616
Grp Volume(v), veh/h	138	144	103	42	0	271	320	543	57	22	0	380
Grp Sat Flow(s),veh/h/ln	1810	1841	1560	1668	0	1813	1781	1885	1547	1160	0	1760
Q Serve(g_s), s	4.1	4.4	3.7	1.4	0.0	9.8	8.8	17.7	1.7	1.0	0.0	14.3
Cycle Q Clear(g_c), s	4.1	4.4	3.7	1.4	0.0	9.8	8.8	17.7	1.7	1.0	0.0	14.3
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	313	450	381	349	0	350	396	699	573	189	0	446
V/C Ratio(X)	0.44	0.32	0.27	0.12	0.00	0.77	0.81	0.78	0.10	0.12	0.00	0.85
Avail Cap(c_a), veh/h	396	1178	999	512	0	1161	396	699	573	325	0	609
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.4	21.5	21.2	21.4	0.0	26.6	16.8	19.3	14.3	19.3	0.0	24.7
Incr Delay (d2), s/veh	1.0	0.4	0.4	0.2	0.0	3.7	11.8	5.5	0.1	0.3	0.0	8.5
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	1.8	1.3	0.5	0.0	4.2	4.3	7.8	0.5	0.3	0.0	6.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.4	21.9	21.6	21.5	0.0	30.2	28.6	24.8	14.3	19.6	0.0	33.1
LnGrp LOS	C	C	C	C		C	C	C	B	B		C
Approach Vol, veh/h		385			313			920			402	
Approach Delay, s/veh		21.6			29.1			25.5			32.4	
Approach LOS		C			C			C			C	

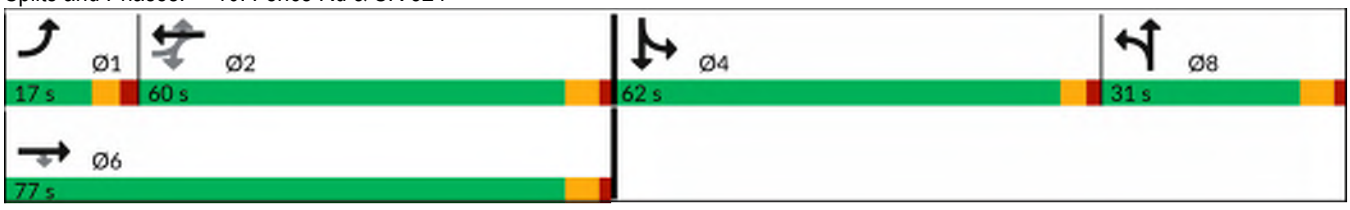
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.8	19.0	15.0	23.6	8.2	22.6	6.9	31.7
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	9.0	44.4	9.5	24.0	9.0	44.4	9.5	24.0
Max Q Clear Time (g_c+I1), s	6.1	11.8	10.8	16.3	3.4	6.4	3.0	19.7
Green Ext Time (p_c), s	0.1	1.6	0.0	1.3	0.0	1.1	0.0	1.4

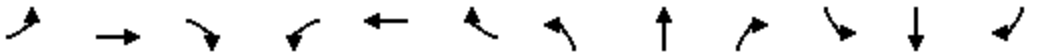
Intersection Summary	
HCM 7th Control Delay, s/veh	26.7
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	138	255	42	30	540	46	158	48	320
Future Volume (vph)	138	255	42	30	540	46	158	48	320
Turn Type	D.P+P	NA	Perm	Perm	NA	Split	NA	Split	NA
Protected Phases	1	6			2	8	8	4	4
Permitted Phases	2		6	2					
Detector Phase	1	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	24.0	24.0	24.0	24.0	23.7	23.7	23.3	23.3
Total Split (s)	17.0	77.0	77.0	60.0	60.0	31.0	31.0	62.0	62.0
Total Split (%)	10.0%	45.3%	45.3%	35.3%	35.3%	18.2%	18.2%	36.5%	36.5%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)	65.4	71.0	71.0	54.0	54.0	23.3	23.3	56.7	56.7
Actuated g/C Ratio	0.39	0.42	0.42	0.32	0.32	0.14	0.14	0.34	0.34
v/c Ratio	0.99	0.38	0.07	0.09	1.11	0.23	0.88	0.09	1.17
Control Delay (s/veh)	111.3	35.8	6.1	41.7	123.4	66.9	102.5	39.3	138.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	111.3	35.8	6.1	41.7	123.4	66.9	102.5	39.3	138.1
LOS	F	D	A	D	F	E	F	D	F
Approach Delay (s/veh)		56.9			119.4		95.4		131.1
Approach LOS		E			F		F		F

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 168	
Natural Cycle: 145	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.17	
Intersection Signal Delay (s/veh): 106.6	Intersection LOS: F
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	255	42	30	540	58	46	158	24	48	320	310
Future Volume (veh/h)	138	255	42	30	540	58	46	158	24	48	320	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1752	1737	1900	1796	1841	1752	1781	1752	1900	1841	1856
Adj Flow Rate, veh/h	152	280	46	32	568	61	53	184	28	53	352	341
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.91	0.91	0.91
Percent Heavy Veh, %	7	10	11	0	7	4	10	8	10	0	4	3
Cap, veh/h	158	744	625	381	515	55	224	203	31	614	291	282
Arrive On Green	0.07	0.42	0.42	0.32	0.32	0.32	0.13	0.13	0.13	0.34	0.34	0.34
Sat Flow, veh/h	1711	1752	1472	1071	1594	171	1668	1510	230	1810	859	832
Grp Volume(v), veh/h	152	280	46	32	0	629	53	0	212	53	0	693
Grp Sat Flow(s),veh/h/ln	1711	1752	1472	1071	0	1765	1668	0	1740	1810	0	1691
Q Serve(g_s), s	10.6	18.3	3.1	3.5	0.0	54.0	4.7	0.0	20.1	3.3	0.0	56.7
Cycle Q Clear(g_c), s	10.6	18.3	3.1	4.8	0.0	54.0	4.7	0.0	20.1	3.3	0.0	56.7
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.13	1.00		0.49
Lane Grp Cap(c), veh/h	158	744	625	381	0	570	224	0	234	614	0	574
V/C Ratio(X)	0.96	0.38	0.07	0.08	0.00	1.10	0.24	0.00	0.91	0.09	0.00	1.21
Avail Cap(c_a), veh/h	158	744	625	381	0	570	253	0	263	614	0	574
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.3	32.9	28.5	40.4	0.0	56.6	64.7	0.0	71.3	37.6	0.0	55.2
Incr Delay (d2), s/veh	60.7	0.3	0.0	0.1	0.0	69.0	0.5	0.0	30.3	0.1	0.0	109.3
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	6.8	7.8	1.1	0.9	0.0	34.4	2.0	0.0	10.9	1.5	0.0	41.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	108.0	33.2	28.6	40.5	0.0	125.5	65.2	0.0	101.6	37.6	0.0	164.5
LnGrp LOS	F	C	C	D		F	E		F	D		F
Approach Vol, veh/h		478			661			265			746	
Approach Delay, s/veh		56.5			121.4			94.4			155.5	
Approach LOS		E			F			F			F	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	17.0	60.0		62.0		77.0		28.1				
Change Period (Y+Rc), s	5.8	6.0		5.3		6.0		5.7				
Max Green Setting (Gmax), s	11.2	54.0		56.7		71.0		25.3				
Max Q Clear Time (g_c+I1), s	12.6	56.0		58.7		20.3		22.1				
Green Ext Time (p_c), s	0.0	0.0		0.0		1.7		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh		115.5
HCM 7th LOS		F

Intersection	
Int Delay, s/veh	50.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	247	66	245	209	66	340
Future Vol, veh/h	247	66	245	209	66	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	78	78	90	90	79	79
Heavy Vehicles, %	3	9	4	2	5	2
Mvmt Flow	317	85	272	232	84	430

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	504	0	-	0	1106	388
Stage 1	-	-	-	-	388	-
Stage 2	-	-	-	-	718	-
Critical Hdwy	4.13	-	-	-	6.45	6.22
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.318
Pot Cap-1 Maneuver	1055	-	-	-	230	660
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	478	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1055	-	-	-	157	660
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	478	-

Approach	EB	WB	SB
HCM Control Delay, s/v	7.79	0	132.68
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1005	-	-	-	434
HCM Lane V/C Ratio	0.3	-	-	-	1.183
HCM Control Delay (s/veh)	9.9	0	-	-	132.7
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	1.3	-	-	-	19.7

Intersection	
Int Delay, s/veh	39.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	55	212	390	114	158	164
Future Vol, veh/h	55	212	390	114	158	164
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	86	86	95	95
Heavy Vehicles, %	0	3	2	2	4	1
Mvmt Flow	80	307	453	133	166	173

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1292	253	339	0	-	0
Stage 1	253	-	-	-	-	-
Stage 2	1040	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	182	784	1220	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	344	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	109	784	1220	-	-	-
Mov Cap-2 Maneuver	109	-	-	-	-	-
Stage 1	476	-	-	-	-	-
Stage 2	344	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/veh	21.63	7.49	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1130	-	344	-	-
HCM Lane V/C Ratio	0.372	-	1.125	-	-
HCM Control Delay (s/veh)	9.7	0	121.6	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	1.7	-	15	-	-

Intersection	
Int Delay, s/veh	14.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	166	24	43	335	232	242
Future Vol, veh/h	166	24	43	335	232	242
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	85	85	82	82
Heavy Vehicles, %	1	10	3	2	3	2
Mvmt Flow	237	34	51	394	283	295

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	926	430	578	0	-	0
Stage 1	430	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Critical Hdwy	6.41	6.3	4.13	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.39	2.227	-	-	-
Pot Cap-1 Maneuver	300	608	991	-	-	-
Stage 1	658	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	280	608	991	-	-	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	615	-	-	-	-	-
Stage 2	614	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	68.32	1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	205	-	300	-	-
HCM Lane V/C Ratio	0.051	-	0.903	-	-
HCM Control Delay (s/veh)	8.8	0	68.3	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.2	-	8.4	-	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	0	24	10	0	48	9	598	3	17	220	9
Future Vol, veh/h	24	0	24	10	0	48	9	598	3	17	220	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	160	-	150	160	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	26	0	26	11	0	52	10	650	3	18	239	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	946	949	239	946	955	650	249	0	0	653	0	0
Stage 1	276	276	-	670	670	-	-	-	-	-	-	-
Stage 2	670	673	-	276	286	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	244	263	805	244	260	473	1329	-	-	943	-	-
Stage 1	735	685	-	450	459	-	-	-	-	-	-	-
Stage 2	450	457	-	735	679	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	211	255	805	229	253	473	1329	-	-	943	-	-
Mov Cap-2 Maneuver	211	255	-	229	253	-	-	-	-	-	-	-
Stage 1	720	672	-	447	455	-	-	-	-	-	-	-
Stage 2	397	454	-	697	665	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	17.75	14.92	0.11	0.61
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1329	-	-	334	229	473	943	-	-
HCM Lane V/C Ratio	0.007	-	-	0.156	0.047	0.11	0.02	-	-
HCM Control Delay (s/veh)	7.7	-	-	17.8	21.5	13.6	8.9	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0.4	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	0	14	14	0	33	5	553	5	12	233	9
Future Vol, veh/h	24	0	14	14	0	33	5	553	5	12	233	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	160	-	150	160	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	26	0	15	15	0	36	5	601	5	13	253	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	891	897	253	891	901	601	263	0	0	607	0	0
Stage 1	279	279	-	612	612	-	-	-	-	-	-	-
Stage 2	612	617	-	279	289	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	265	282	790	265	280	504	1313	-	-	981	-	-
Stage 1	732	683	-	484	487	-	-	-	-	-	-	-
Stage 2	484	484	-	732	677	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	242	277	790	256	275	504	1313	-	-	981	-	-
Mov Cap-2 Maneuver	242	277	-	256	275	-	-	-	-	-	-	-
Stage 1	722	674	-	482	485	-	-	-	-	-	-	-
Stage 2	448	482	-	708	668	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	17.68	15.59	0.07	0.41
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1313	-	-	325	391	981	-	-
HCM Lane V/C Ratio	0.004	-	-	0.127	0.131	0.013	-	-
HCM Control Delay (s/veh)	7.8	-	-	17.7	15.6	8.7	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.4	0	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	14	549	3	5	256
Future Vol, veh/h	10	14	549	3	5	256
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	11	15	597	3	5	278

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	888	598	0	0	600	0
Stage 1	598	-	-	-	-	-
Stage 2	289	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	317	506	-	-	987	-
Stage 1	553	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	315	506	-	-	987	-
Mov Cap-2 Maneuver	315	-	-	-	-	-
Stage 1	553	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.53	0	0.17
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	404	34	-
HCM Lane V/C Ratio	-	-	0.065	0.006	-
HCM Control Delay (s/veh)	-	-	14.5	8.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	131	5	3	272	13	14	0	10	38	0	33
Future Vol, veh/h	12	131	5	3	272	13	14	0	10	38	0	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	13	142	5	3	296	14	15	0	11	41	0	36

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	310	0	0	148	0	0	471	485	142	471	476	296
Stage 1	-	-	-	-	-	-	168	168	-	302	302	-
Stage 2	-	-	-	-	-	-	302	316	-	168	174	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1262	-	-	1446	-	-	507	485	911	507	491	748
Stage 1	-	-	-	-	-	-	838	763	-	711	668	-
Stage 2	-	-	-	-	-	-	711	658	-	838	759	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1262	-	-	1446	-	-	476	478	911	494	484	748
Mov Cap-2 Maneuver	-	-	-	-	-	-	476	478	-	494	484	-
Stage 1	-	-	-	-	-	-	829	754	-	709	666	-
Stage 2	-	-	-	-	-	-	675	657	-	819	750	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.64	0.08	11.34	12.07
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	594	151	-	-	20	-	-	586
HCM Lane V/C Ratio	0.044	0.01	-	-	0.002	-	-	0.132
HCM Control Delay (s/veh)	11.3	7.9	0	-	7.5	0	-	12.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	176	3	5	279	10	14
Future Vol, veh/h	176	3	5	279	10	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	191	3	5	303	11	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	195	0	507	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	314	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1391	-	529	854
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	745	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1391	-	526	854
Mov Cap-2 Maneuver	-	-	-	-	526	-
Stage 1	-	-	-	-	845	-
Stage 2	-	-	-	-	742	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.13	10.52
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	678	-	-	32	-
HCM Lane V/C Ratio	0.038	-	-	0.004	-
HCM Control Delay (s/veh)	10.5	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	80	38	13	489	435	28
Future Vol, veh/h	80	38	13	489	435	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	87	41	14	532	473	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1048	488	503	0	-	0
Stage 1	488	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	255	584	1072	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	250	584	1072	-	-	-
Mov Cap-2 Maneuver	250	-	-	-	-	-
Stage 1	610	-	-	-	-	-
Stage 2	576	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	24.97	0.22	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	47	-	306	-	-
HCM Lane V/C Ratio	0.013	-	0.419	-	-
HCM Control Delay (s/veh)	8.4	0	25	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	10	3	566	453	5
Future Vol, veh/h	14	10	3	566	453	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	15	11	3	615	492	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1117	495	498	0	-	0
Stage 1	495	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	232	578	1077	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	230	578	1077	-	-	-
Mov Cap-2 Maneuver	230	-	-	-	-	-
Stage 1	614	-	-	-	-	-
Stage 2	539	-	-	-	-	-

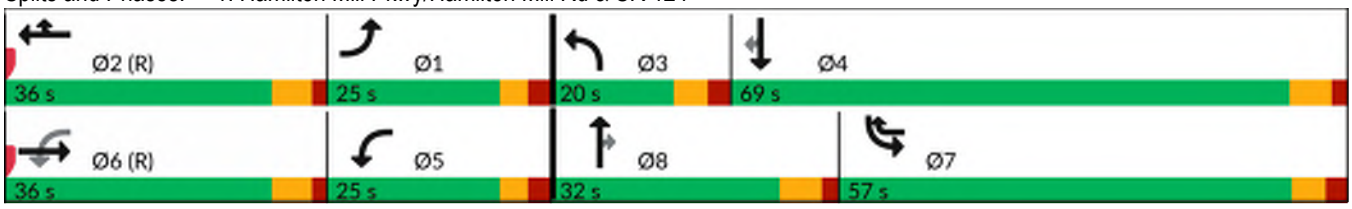
Approach	EB	NB	SB
HCM Control Delay, s/v	17.79	0.04	0
HCM LOS	C		

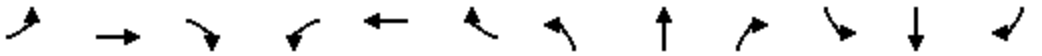
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	9	-	308	-	-
HCM Lane V/C Ratio	0.003	-	0.085	-	-
HCM Control Delay (s/veh)	8.4	0	17.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	398	623	184	465	887	35	241	206	1454	464	440
Future Volume (vph)	398	623	184	465	887	35	241	206	1454	464	440
Turn Type	Prot	NA	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6	5	2	2 7	3	8		7	4	
Permitted Phases			6					8			4
Detector Phase	1	6	5	2	2 7	3	8	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	24.0	9.7	24.0		10.2	24.4	24.4	10.2	24.4	24.4
Total Split (s)	25.0	36.0	25.0	36.0		20.0	32.0	32.0	57.0	69.0	69.0
Total Split (%)	16.7%	24.0%	16.7%	24.0%		13.3%	21.3%	21.3%	38.0%	46.0%	46.0%
Yellow Time (s)	3.1	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	19.3	30.0	49.6	30.0	88.5	8.7	24.1	24.1	52.3	70.0	70.0
Actuated g/C Ratio	0.13	0.20	0.33	0.20	0.59	0.06	0.16	0.16	0.35	0.47	0.47
v/c Ratio	0.99	0.99	0.69	1.33	0.55	0.38	0.89	0.53	1.29	0.57	0.48
Control Delay (s/veh)	105.1	91.4	65.2	215.3	22.8	77.9	90.8	13.2	177.9	33.4	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	105.1	91.4	65.2	215.3	22.8	77.9	90.8	13.2	177.9	33.4	3.8
LOS	F	F	E	F	C	E	F	B	F	C	A
Approach Delay (s/veh)		96.7		86.1			56.7			117.0	
Approach LOS		F		F			E			F	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 64 (43%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 150	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay (s/veh): 98.8	Intersection LOS: F
Intersection Capacity Utilization 110.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	623	16	184	465	887	35	241	206	1454	464	440
Future Volume (veh/h)	398	623	16	184	465	887	35	241	206	1454	464	440
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1900	1870	1885	1856	1900	1885	1885	1885	1870
Adj Flow Rate, veh/h	433	677	0	196	495	944	39	271	0	1563	499	0
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	0	0	2	1	3	0	1	1	1	2
Cap, veh/h	487	705		313	374	1515	50	296		1180	881	
Arrive On Green	0.14	0.20	0.00	0.14	0.20	0.20	0.03	0.16	0.00	0.34	0.47	0.00
Sat Flow, veh/h	3428	3618	0	1810	1870	2812	1767	1900	1598	3483	1885	1585
Grp Volume(v), veh/h	433	677	0	196	495	944	39	271	0	1563	499	0
Grp Sat Flow(s),veh/h/ln	1714	1763	0	1810	1870	1406	1767	1900	1598	1742	1885	1585
Q Serve(g_s), s	18.6	28.5	0.0	10.5	30.0	0.0	3.3	21.1	0.0	50.8	28.8	0.0
Cycle Q Clear(g_c), s	18.6	28.5	0.0	10.5	30.0	0.0	3.3	21.1	0.0	50.8	28.8	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	487	705		313	374	1515	50	296		1180	881	
V/C Ratio(X)	0.89	0.96		0.63	1.32	0.62	0.78	0.91		1.33	0.57	
Avail Cap(c_a), veh/h	487	705		313	374	1515	163	324		1180	881	
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	0.81	0.81	0.81	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	63.2	59.4	0.0	58.2	60.0	24.0	72.4	62.3	0.0	49.6	28.9	0.0
Incr Delay (d2), s/veh	18.0	25.4	0.0	3.2	160.0	1.6	21.9	27.9	0.0	152.2	0.8	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	9.3	15.1	0.0	7.2	30.8	11.6	1.8	12.4	0.0	46.3	12.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	81.2	84.8	0.0	61.4	220.0	25.6	94.3	90.2	0.0	201.8	29.8	0.0
LnGrp LOS	F	F		E	F	C	F	F		F	C	
Approach Vol, veh/h		1110			1635			310			2062	
Approach Delay, s/veh		83.4			88.7			90.8			160.2	
Approach LOS		F			F			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.0	36.0	10.5	76.5	27.0	36.0	57.2	29.8
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	19.3	30.0	13.8	* 63	19.3	30.0	* 51	* 26
Max Q Clear Time (g_c+I1), s	20.6	32.0	5.3	30.8	12.5	30.5	52.8	23.1
Green Ext Time (p_c), s	0.0	0.0	0.0	3.0	0.3	0.0	0.0	0.3

Intersection Summary	
HCM 7th Control Delay, s/veh	116.5
HCM 7th LOS	F

Notes

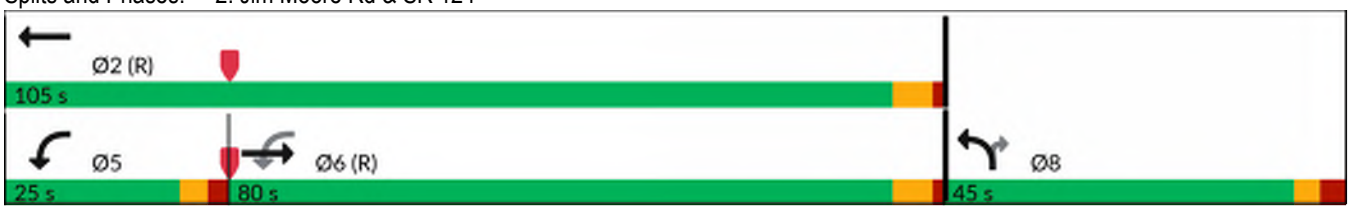
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1767	106	1221	163	141
Future Volume (vph)	1767	106	1221	163	141
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	80.0	25.0	105.0	45.0	45.0
Total Split (%)	53.3%	16.7%	70.0%	30.0%	30.0%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	98.6	110.7	115.8	22.7	22.7
Actuated g/C Ratio	0.66	0.74	0.77	0.15	0.15
v/c Ratio	0.94	0.66	0.53	0.76	0.46
Control Delay (s/veh)	46.2	39.9	10.2	78.7	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.2	39.9	10.2	78.7	10.7
LOS	D	D	B	E	B
Approach Delay (s/veh)	46.2		12.6	47.2	
Approach LOS	D		B	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 130 (87%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 33.5	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1767	118	106	1221	163	141
Future Volume (veh/h)	1767	118	106	1221	163	141
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1870	1885	1856
Adj Flow Rate, veh/h	2008	134	125	1436	206	178
Peak Hour Factor	0.88	0.88	0.85	0.85	0.79	0.79
Percent Heavy Veh, %	3	0	3	2	1	3
Cap, veh/h	2397	158	170	2807	240	210
Arrive On Green	0.71	0.71	0.04	0.79	0.13	0.13
Sat Flow, veh/h	3450	221	1767	3647	1795	1572
Grp Volume(v), veh/h	1044	1098	125	1436	206	178
Grp Sat Flow(s),veh/h/ln	1763	1816	1767	1777	1795	1572
Q Serve(g_s), s	62.2	65.7	2.8	21.4	16.8	16.6
Cycle Q Clear(g_c), s	62.2	65.7	2.8	21.4	16.8	16.6
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1259	1296	170	2807	240	210
V/C Ratio(X)	0.83	0.85	0.74	0.51	0.86	0.85
Avail Cap(c_a), veh/h	1259	1296	330	2807	469	411
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	15.5	34.6	5.6	63.6	63.5
Incr Delay (d2), s/veh	0.6	0.7	6.1	0.7	8.7	9.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.7	23.5	3.6	6.5	8.4	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.7	16.2	40.8	6.2	72.3	72.6
LnGrp LOS	B	B	D	A	E	E
Approach Vol, veh/h	2142			1561	384	
Approach Delay, s/veh	15.9			9.0	72.4	
Approach LOS	B			A	E	

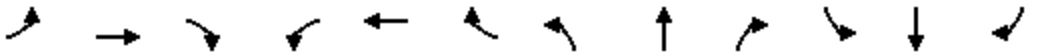
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	124.2			11.4	112.8	25.8
Change Period (Y+Rc), s	5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s	99.3			19.6	74.3	39.2
Max Q Clear Time (g_c+I1), s	23.4			4.8	67.7	18.8
Green Ext Time (p_c), s	15.2			0.2	5.8	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	18.6
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	458	878	169	34	588	168	143	212	352	355	351
Future Volume (vph)	458	878	169	34	588	168	143	212	352	355	351
Turn Type	D.P+P	NA	Perm	D.Pm	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	2		6	6		2	4		8		4
Detector Phase	1	6	6	6	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	35.0	100.0	100.0	100.0	65.0	65.0	22.0	28.0	22.0	28.0	28.0
Total Split (%)	23.3%	66.7%	66.7%	66.7%	43.3%	43.3%	14.7%	18.7%	14.7%	18.7%	18.7%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead				Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	89.6	93.5	93.5	93.5	58.5	58.5	38.8	22.0	38.8	23.3	23.3
Actuated g/C Ratio	0.60	0.62	0.62	0.62	0.39	0.39	0.26	0.15	0.26	0.16	0.16
v/c Ratio	1.05	0.76	0.16	0.20	0.86	0.26	0.77	1.25	1.57	1.34	0.68
Control Delay (s/veh)	95.3	8.7	1.8	22.2	51.2	19.0	64.2	188.0	308.3	220.7	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	95.3	8.7	1.8	22.2	51.2	19.0	64.2	188.0	308.3	220.7	11.8
LOS	F	A	A	C	D	B	E	F	F	F	B
Approach Delay (s/veh)		34.3			43.1			146.1		180.5	
Approach LOS		C			D			F		F	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 40 (27%), Referenced to phase 6:EBWB, Start of Green	
Natural Cycle: 140	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.57	
Intersection Signal Delay (s/veh): 92.2	Intersection LOS: F
Intersection Capacity Utilization 111.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	458	878	169	34	588	168	143	212	67	352	355	351
Future Volume (veh/h)	458	878	169	34	588	168	143	212	67	352	355	351
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1900	1870	1885	1841	1856	1870	1885	1885	1856
Adj Flow Rate, veh/h	467	896	172	36	626	179	172	255	81	387	390	0
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	0	0	2	1	4	3	2	1	1	3
Cap, veh/h	405	1175	1004	193	960	820	214	198	63	244	304	
Arrive On Green	0.20	0.62	0.62	0.16	1.00	1.00	0.09	0.15	0.15	0.11	0.16	0.00
Sat Flow, veh/h	1795	1885	1610	1810	1870	1598	1753	1350	429	1795	1885	1572
Grp Volume(v), veh/h	467	896	172	36	626	179	172	0	336	387	390	0
Grp Sat Flow(s),veh/h/ln	1795	1885	1610	1810	1870	1598	1753	0	1778	1795	1885	1572
Q Serve(g_s), s	29.8	51.2	6.8	3.2	0.0	0.0	12.1	0.0	22.0	16.4	24.2	0.0
Cycle Q Clear(g_c), s	29.8	51.2	6.8	3.2	0.0	0.0	12.1	0.0	22.0	16.4	24.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	405	1175	1004	0	960	820	214	0	261	244	304	
V/C Ratio(X)	1.15	0.76	0.17	0.00	0.65	0.22	0.80	0.00	1.29	1.58	1.28	
Avail Cap(c_a), veh/h	405	1175	1004	0	960	820	240	0	261	244	304	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.84	0.84	0.84	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.2	20.3	11.9	0.0	0.0	0.0	48.0	0.0	64.0	50.7	62.9	0.0
Incr Delay (d2), s/veh	93.9	4.7	0.4	0.0	1.3	0.1	16.1	0.0	155.4	281.5	150.3	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	25.0	22.2	2.5	0.0	0.4	0.0	6.2	0.0	21.1	26.9	24.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	149.1	25.0	12.3	0.0	1.3	0.1	64.1	0.0	219.4	332.2	213.3	0.0
LnGrp LOS	F	C	B		A	A	E		F	F	F	
Approach Vol, veh/h		1535			841			508			777	
Approach Delay, s/veh		61.3			1.0			166.8			272.5	
Approach LOS		E			A			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	35.0	83.5	19.8	30.2	18.5	100.0	22.0	28.0
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0	6.5	6.5	5.6	6.0
Max Green Setting (Gmax), s	29.8	58.5	16.4	22.0	93.5	93.5	16.4	22.0
Max Q Clear Time (g_c+I1), s	31.8	2.0	14.1	26.2	5.2	53.2	18.4	24.0
Green Ext Time (p_c), s	0.0	5.0	0.1	0.0	0.1	8.3	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	106.9
HCM 7th LOS	F

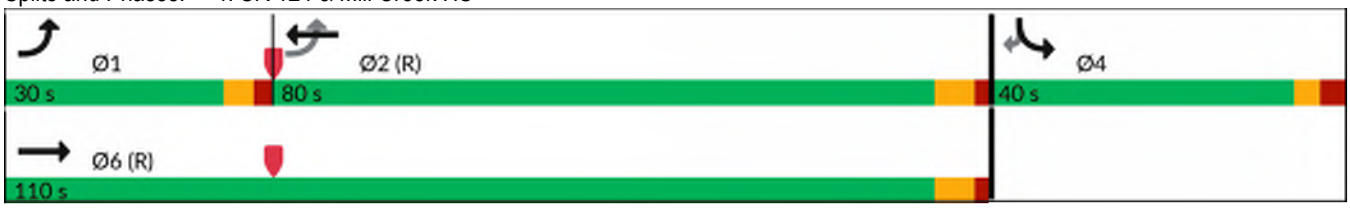
Notes

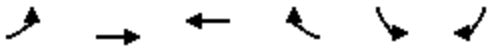
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	342	959	576	174	75	120
Future Volume (vph)	342	959	576	174	75	120
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	30.0	110.0	80.0		40.0	40.0
Total Split (%)	20.0%	73.3%	53.3%		26.7%	26.7%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Min	C-Max		None	None
Act Effct Green (s)	120.4	125.3	101.4	150.0	12.9	12.9
Actuated g/C Ratio	0.80	0.84	0.68	1.00	0.09	0.09
v/c Ratio	0.56	0.63	0.52	0.12	0.58	0.54
Control Delay (s/veh)	3.3	5.7	11.3	0.1	80.2	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	3.3	5.7	11.3	0.1	80.2	16.5
LOS	A	A	B	A	F	B
Approach Delay (s/veh)		5.1	8.7		40.9	
Approach LOS		A	A		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay (s/veh): 9.8	Intersection LOS: A
Intersection Capacity Utilization 70.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	342	959	576	174	75	120
Future Volume (veh/h)	342	959	576	174	75	120
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	353	989	655	0	90	145
Peak Hour Factor	0.97	0.97	0.88	0.88	0.83	0.83
Percent Heavy Veh, %	1	1	1	0	0	0
Cap, veh/h	617	1537	1310		192	171
Arrive On Green	0.17	1.00	0.70	0.00	0.11	0.11
Sat Flow, veh/h	1795	1885	1885	1610	1810	1610
Grp Volume(v), veh/h	353	989	655	0	90	145
Grp Sat Flow(s),veh/h/ln	1795	1885	1885	1610	1810	1610
Q Serve(g_s), s	9.8	0.0	24.4	0.0	7.0	13.3
Cycle Q Clear(g_c), s	9.8	0.0	24.4	0.0	7.0	13.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	617	1537	1310		192	171
V/C Ratio(X)	0.57	0.64	0.50		0.47	0.85
Avail Cap(c_a), veh/h	760	1537	1310		411	366
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.09	0.09	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	0.0	10.7	0.0	63.0	65.8
Incr Delay (d2), s/veh	0.1	0.2	1.4	0.0	1.8	10.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.1	9.7	0.0	3.4	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.4	0.2	12.1	0.0	64.8	76.7
LnGrp LOS	A	A	B		E	E
Approach Vol, veh/h		1342	655		235	
Approach Delay, s/veh		2.1	12.1		72.2	
Approach LOS		A	B		E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.0	110.2		21.8		128.2
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 25	74.1		34.1		104.1
Max Q Clear Time (g_c+I1), s	11.8	26.4		15.3		2.0
Green Ext Time (p_c), s	0.8	4.6		0.7		9.6

Intersection Summary	
HCM 7th Control Delay, s/veh	12.4
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	37.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	958	38	167	692	2	50	1	215	1	1	5
Future Vol, veh/h	2	958	38	167	692	2	50	1	215	1	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	87	87	87	90	90	90	75	75	75
Heavy Vehicles, %	0	1	0	1	1	0	0	0	1	0	0	0
Mvmt Flow	2	1030	41	192	795	2	56	1	239	1	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	798	0	0	1071	0	0	2235	2236	1051	2214	2255	795
Stage 1	-	-	-	-	-	-	1055	1055	-	1179	1179	-
Stage 2	-	-	-	-	-	-	1180	1182	-	1035	1075	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.1	6.5	6.21	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.5	4	3.309	3.5	4	3.3
Pot Cap-1 Maneuver	833	-	-	655	-	-	~ 31	43	277	32	42	390
Stage 1	-	-	-	-	-	-	275	305	-	234	266	-
Stage 2	-	-	-	-	-	-	234	266	-	282	298	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	833	-	-	655	-	-	~ 21	30	277	3	29	390
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 21	30	-	3	29	-
Stage 1	-	-	-	-	-	-	274	303	-	166	188	-
Stage 2	-	-	-	-	-	-	162	188	-	38	296	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.02	2.48	278.16	$ 328.97
HCM LOS			F	F

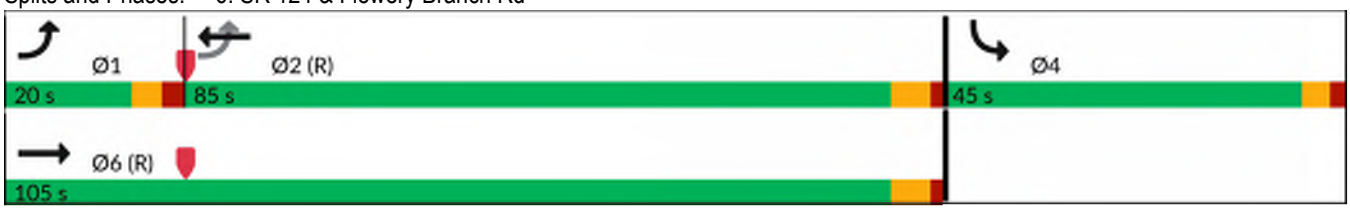
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	21	277	4	-	-	655	-	-	18
HCM Lane V/C Ratio	2.743	0.862	0.003	-	-	0.293	-	-	0.508
HCM Control Delay (s/veh)	$ 1178.9	64.5	9.3	0	-	12.8	-	-	$ 329
HCM Lane LOS	F	F	A	A	-	B	-	-	F
HCM 95th %tile Q(veh)	7.4	7.4	0	-	-	1.2	-	-	1.4

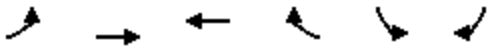
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	107	1024	740	407
Future Volume (vph)	107	1024	740	407
Turn Type	D.P+P	NA	NA	Prot
Protected Phases	1	6	2	4
Permitted Phases	2			
Detector Phase	1	6	2	4
Switch Phase				
Minimum Initial (s)	4.0	20.0	20.0	8.0
Minimum Split (s)	9.7	25.9	25.9	13.0
Total Split (s)	20.0	105.0	85.0	45.0
Total Split (%)	13.3%	70.0%	56.7%	30.0%
Yellow Time (s)	3.4	4.5	4.5	3.3
All-Red Time (s)	2.3	1.4	1.4	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	C-Max	C-Max	None
Act Effct Green (s)	93.6	99.1	82.9	40.0
Actuated g/C Ratio	0.62	0.66	0.55	0.27
v/c Ratio	0.65	0.87	1.13	1.14
Control Delay (s/veh)	51.8	28.2	103.2	135.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.8	28.2	103.2	135.0
LOS	D	C	F	F
Approach Delay (s/veh)		30.4	103.2	135.0
Approach LOS		C	F	F

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 115 (77%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay (s/veh): 78.7	Intersection LOS: E
Intersection Capacity Utilization 105.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	107	1024	740	318	407	80
Future Volume (veh/h)	107	1024	740	318	407	80
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1841	1856	1900
Adj Flow Rate, veh/h	113	1078	787	338	447	88
Peak Hour Factor	0.95	0.95	0.94	0.94	0.91	0.91
Percent Heavy Veh, %	1	1	1	4	3	0
Cap, veh/h	142	1245	725	312	385	76
Arrive On Green	0.04	0.66	1.00	1.00	0.27	0.27
Sat Flow, veh/h	1795	1885	1251	537	1445	284
Grp Volume(v), veh/h	113	1078	0	1125	536	0
Grp Sat Flow(s),veh/h/ln	1795	1885	0	1788	1732	0
Q Serve(g_s), s	3.8	68.0	0.0	81.0	40.0	0.0
Cycle Q Clear(g_c), s	3.8	68.0	0.0	81.0	40.0	0.0
Prop In Lane	1.00			0.30	0.83	0.16
Lane Grp Cap(c), veh/h	142	1245	0	1037	462	0
V/C Ratio(X)	0.80	0.87	0.00	1.09	1.16	0.00
Avail Cap(c_a), veh/h	236	1245	0	1037	462	0
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.55	1.00	0.00
Uniform Delay (d), s/veh	36.5	20.2	0.0	0.0	55.0	0.0
Incr Delay (d2), s/veh	9.6	8.2	0.0	48.0	93.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	29.5	0.0	13.8	29.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	46.1	28.4	0.0	48.0	148.9	0.0
LnGrp LOS	D	C		F	F	
Approach Vol, veh/h		1191	1125		536	
Approach Delay, s/veh		30.0	48.0		148.9	
Approach LOS		C	D		F	

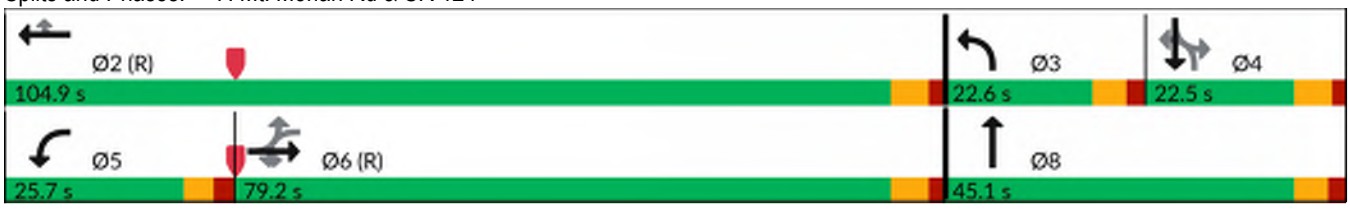
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.9	93.1		45.0		105.0
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	14.3	79.1		40.0		99.1
Max Q Clear Time (g_c+I1), s	5.8	83.0		42.0		70.0
Green Ext Time (p_c), s	0.1	0.0		0.0		9.9

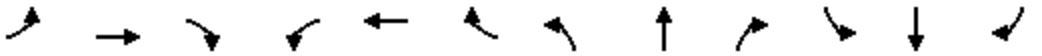
Intersection Summary	
HCM 7th Control Delay, s/veh	59.5
HCM 7th LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	64	897	445	283	753	23	285	12	13	7
Future Volume (vph)	64	897	445	283	753	23	285	12	13	7
Turn Type	Perm	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	NA
Protected Phases		6		5	2		3	8		4
Permitted Phases	6		6	6		2	4		4	
Detector Phase	6	6	6	5	2	2	3	8	4	4
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	8.0	12.0	12.0	8.0	8.0	12.0	12.0
Minimum Split (s)	22.5	22.5	22.5	13.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	79.2	79.2	79.2	25.7	104.9	104.9	22.6	45.1	22.5	22.5
Total Split (%)	52.8%	52.8%	52.8%	17.1%	69.9%	69.9%	15.1%	30.1%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	3.2	4.3	4.3	3.7	3.7	4.3	4.3
All-Red Time (s)	1.6	1.6	1.6	2.3	1.6	1.6	2.1	2.1	1.6	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9	5.5	5.9	5.9	5.8	5.8	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	76.0	76.0	76.0	102.1	107.2	107.2	26.5	31.1	12.0	12.0
Actuated g/C Ratio	0.51	0.51	0.51	0.68	0.71	0.71	0.18	0.21	0.08	0.08
v/c Ratio	0.21	0.98	0.49	0.84	0.61	0.02	1.15	0.50	0.16	0.29
Control Delay (s/veh)	22.7	46.5	8.8	65.7	14.3	0.0	150.1	9.9	68.9	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.7	46.5	8.8	65.7	14.3	0.0	150.1	9.9	68.9	27.3
LOS	C	D	A	E	B	A	F	A	E	C
Approach Delay (s/veh)		33.4			27.7			87.2		36.5
Approach LOS		C			C			F		D

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 95 (63%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 145	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay (s/veh): 41.3	Intersection LOS: D
Intersection Capacity Utilization 99.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	897	445	283	753	23	285	12	221	13	7	38
Future Volume (veh/h)	64	897	445	283	753	23	285	12	221	13	7	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1885	1870	1900	1856	1870	1870	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	70	934	464	304	810	25	328	13	254	14	8	41
Peak Hour Factor	0.92	0.96	0.96	0.93	0.93	0.92	0.87	0.92	0.87	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	2	0	3	2	2	2	1	2	2	2
Cap, veh/h	345	979	823	310	1282	1095	317	18	350	133	21	109
Arrive On Green	0.52	0.52	0.52	0.13	0.69	0.69	0.11	0.23	0.23	0.08	0.08	0.08
Sat Flow, veh/h	658	1885	1585	1810	1856	1585	1781	78	1519	1112	265	1360
Grp Volume(v), veh/h	70	934	464	304	810	25	328	0	267	14	0	49
Grp Sat Flow(s),veh/h/ln	658	1885	1585	1810	1856	1585	1781	0	1597	1112	0	1626
Q Serve(g_s), s	9.8	70.8	29.8	19.6	35.9	0.7	16.8	0.0	23.2	1.8	0.0	4.3
Cycle Q Clear(g_c), s	20.1	70.8	29.8	19.6	35.9	0.7	16.8	0.0	23.2	2.3	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.95	1.00		0.84
Lane Grp Cap(c), veh/h	345	979	823	310	1282	1095	317	0	368	133	0	130
V/C Ratio(X)	0.20	0.95	0.56	0.98	0.63	0.02	1.03	0.00	0.72	0.11	0.00	0.38
Avail Cap(c_a), veh/h	345	979	823	310	1282	1095	317	0	418	167	0	180
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)	0.19	0.19	0.19	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	34.3	24.5	50.9	12.7	7.3	61.3	0.0	53.3	64.8	0.0	65.5
Incr Delay (d2), s/veh	0.3	5.7	0.5	45.5	2.4	0.0	59.6	0.0	5.3	0.3	0.0	1.8
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	32.0	10.9	15.2	14.2	0.3	9.2	0.0	9.8	0.5	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.5	40.0	25.0	96.4	15.1	7.3	120.9	0.0	58.6	65.2	0.0	67.2
LnGrp LOS	C	D	C	F	B	A	F		E	E		E
Approach Vol, veh/h		1468			1139			595			63	
Approach Delay, s/veh		34.6			36.6			93.0			66.8	
Approach LOS		C			D			F			E	

Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		109.5	22.6	17.9	25.7	83.8		40.5				
Change Period (Y+Rc), s		5.9	5.8	5.9	5.5	5.9		* 5.9				
Max Green Setting (Gmax), s		99.0	16.8	16.6	20.2	73.3		* 39				
Max Q Clear Time (g_c+I1), s		37.9	18.8	6.3	21.6	72.8		25.2				
Green Ext Time (p_c), s		6.6	0.0	0.1	0.0	0.4		1.3				

Intersection Summary	
HCM 7th Control Delay, s/veh	46.6
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	27.1
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	427	22	82	357	13	13	22	130	14	57	47
Future Vol, veh/h	11	427	22	82	357	13	13	22	130	14	57	47
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	2	0	0	1	0	0	5	0	0	0	2
Mvmt Flow	11	440	23	92	401	15	16	27	157	17	69	57
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

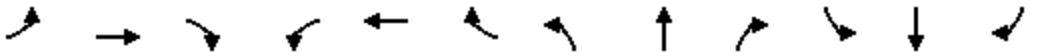
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay, s/veh	29	34.5	13.8	13.1
HCM LOS	D	D	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	8%	2%	18%	12%
Vol Thru, %	13%	93%	79%	48%
Vol Right, %	79%	5%	3%	40%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	165	460	452	118
LT Vol	13	11	82	14
Through Vol	22	427	357	57
RT Vol	130	22	13	47
Lane Flow Rate	199	474	508	142
Geometry Grp	1	1	1	1
Degree of Util (X)	0.372	0.798	0.852	0.283
Departure Headway (Hd)	6.732	6.059	6.039	7.169
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	531	593	599	498
Service Time	4.817	4.126	4.104	5.262
HCM Lane V/C Ratio	0.375	0.799	0.848	0.285
HCM Control Delay, s/veh	13.8	29	34.5	13.1
HCM Lane LOS	B	D	D	B
HCM 95th-tile Q	1.7	7.8	9.3	1.2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	137	278	314	48	175	118	233	50	34	391
Future Volume (vph)	137	278	314	48	175	118	233	50	34	391
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	15.0	50.0	50.0	15.0	50.0	15.0	30.0	30.0	15.0	30.0
Total Split (%)	13.6%	45.5%	45.5%	13.6%	45.5%	13.6%	27.3%	27.3%	13.6%	27.3%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	28.4	21.9	21.9	24.8	17.9	37.2	31.3	31.3	31.3	24.2
Actuated g/C Ratio	0.34	0.26	0.26	0.30	0.22	0.45	0.38	0.38	0.38	0.29
v/c Ratio	0.42	0.60	0.51	0.19	0.61	0.54	0.42	0.09	0.08	1.06
Control Delay (s/veh)	20.3	33.4	6.0	17.1	34.7	23.6	25.3	0.3	14.9	86.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	20.3	33.4	6.0	17.1	34.7	23.6	25.3	0.3	14.9	86.4
LOS	C	C	A	B	C	C	C	A	B	F
Approach Delay (s/veh)		19.1			31.3		21.7			81.7
Approach LOS		B			C		C			F

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 82.7	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.06	
Intersection Signal Delay (s/veh): 38.7	Intersection LOS: D
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	278	314	48	175	28	118	233	50	34	391	93
Future Volume (veh/h)	137	278	314	48	175	28	118	233	50	34	391	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1870	1811	1885	1841	1885	1841	1796	1900	1870	1900
Adj Flow Rate, veh/h	149	302	341	59	213	34	146	288	62	40	460	109
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.81	0.81	0.81	0.85	0.85	0.85
Percent Heavy Veh, %	2	0	2	6	1	4	1	4	7	0	2	0
Cap, veh/h	358	505	422	257	344	55	234	668	552	405	461	109
Arrive On Green	0.09	0.27	0.27	0.04	0.22	0.22	0.08	0.36	0.36	0.03	0.32	0.32
Sat Flow, veh/h	1781	1900	1585	1725	1586	253	1795	1841	1522	1810	1462	346
Grp Volume(v), veh/h	149	302	341	59	0	247	146	288	62	40	0	569
Grp Sat Flow(s),veh/h/ln	1781	1900	1585	1725	0	1840	1795	1841	1522	1810	0	1808
Q Serve(g_s), s	4.8	10.6	15.3	2.0	0.0	9.2	4.1	9.0	2.1	1.1	0.0	23.9
Cycle Q Clear(g_c), s	4.8	10.6	15.3	2.0	0.0	9.2	4.1	9.0	2.1	1.1	0.0	23.9
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	358	505	422	257	0	399	234	668	552	405	0	570
V/C Ratio(X)	0.42	0.60	0.81	0.23	0.00	0.62	0.62	0.43	0.11	0.10	0.00	1.00
Avail Cap(c_a), veh/h	413	1108	924	395	0	1073	319	668	552	576	0	570
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	24.4	26.1	22.2	0.0	27.0	19.0	18.3	16.1	16.9	0.0	26.1
Incr Delay (d2), s/veh	0.8	1.1	3.7	0.5	0.0	1.6	2.7	0.4	0.1	0.1	0.0	37.3
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	1.9	4.5	5.7	0.8	0.0	3.9	1.7	3.5	0.7	0.4	0.0	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	21.6	25.5	29.9	22.7	0.0	28.5	21.7	18.8	16.2	17.0	0.0	63.3
LnGrp LOS	C	C	C	C		C	C	B	B	B		E
Approach Vol, veh/h		792			306			496			609	
Approach Delay, s/veh		26.6			27.4			19.3			60.3	
Approach LOS		C			C			B			E	

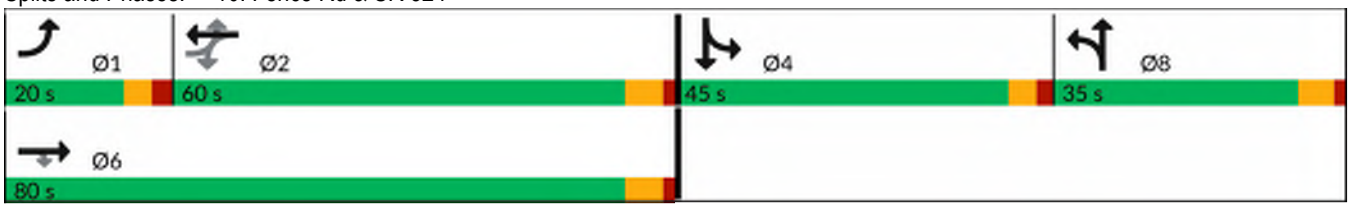
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.6	22.1	11.4	30.0	8.9	25.9	7.8	33.6
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	9.0	44.4	9.5	24.0	9.0	44.4	9.5	24.0
Max Q Clear Time (g_c+I1), s	6.8	11.2	6.1	25.9	4.0	17.3	3.1	11.0
Green Ext Time (p_c), s	0.1	1.4	0.1	0.0	0.0	2.9	0.0	1.4

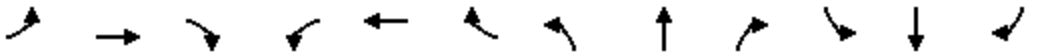
Intersection Summary	
HCM 7th Control Delay, s/veh	34.4
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	336	517	35	50	363	56	228	59	258
Future Volume (vph)	336	517	35	50	363	56	228	59	258
Turn Type	D.P+P	NA	Perm	Perm	NA	Split	NA	Split	NA
Protected Phases	1	6			2	8	8	4	4
Permitted Phases	2		6	2					
Detector Phase	1	6	6	2	2	8	8	4	4
Switch Phase									
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	18.0	18.0	18.0	18.0	11.7	11.7	11.3	11.3
Total Split (s)	20.0	80.0	80.0	60.0	60.0	35.0	35.0	45.0	45.0
Total Split (%)	12.5%	50.0%	50.0%	37.5%	37.5%	21.9%	21.9%	28.1%	28.1%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3
Lead/Lag	Lead			Lag	Lag				
Lead-Lag Optimize?	Yes			Yes	Yes				
Recall Mode	None	Min	Min	Min	Min	None	None	None	None
Act Effct Green (s)	57.5	63.1	63.1	43.0	43.0	28.4	28.4	39.9	39.9
Actuated g/C Ratio	0.39	0.42	0.42	0.29	0.29	0.19	0.19	0.27	0.27
v/c Ratio	1.49	0.70	0.05	0.30	0.90	0.20	0.91	0.13	1.05
Control Delay (s/veh)	269.3	40.4	2.5	45.3	71.6	54.7	88.5	45.1	103.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	269.3	40.4	2.5	45.3	71.6	54.7	88.5	45.1	103.6
LOS	F	D	A	D	E	D	F	D	F
Approach Delay (s/veh)		125.6			68.9		82.8		97.2
Approach LOS		F			E		F		F

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 148.5	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.49	
Intersection Signal Delay (s/veh): 99.7	Intersection LOS: F
Intersection Capacity Utilization 93.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	517	35	50	363	75	56	228	52	59	258	220
Future Volume (veh/h)	336	517	35	50	363	75	56	228	52	59	258	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1900	1826	1841	1870	1781	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	544	37	54	390	81	64	259	59	63	274	234
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.88	0.88	0.88	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	0	5	4	2	8	3	2	2	2	2
Cap, veh/h	247	779	682	197	424	88	323	278	63	482	252	215
Arrive On Green	0.10	0.42	0.42	0.29	0.29	0.29	0.19	0.19	0.19	0.27	0.27	0.27
Sat Flow, veh/h	1753	1841	1610	813	1478	307	1697	1462	333	1781	932	796
Grp Volume(v), veh/h	354	544	37	54	0	471	64	0	318	63	0	508
Grp Sat Flow(s),veh/h/ln	1753	1841	1610	813	0	1785	1697	0	1796	1781	0	1727
Q Serve(g_s), s	14.2	35.5	2.0	8.5	0.0	37.5	4.7	0.0	25.6	3.9	0.0	39.7
Cycle Q Clear(g_c), s	14.2	35.5	2.0	24.0	0.0	37.5	4.7	0.0	25.6	3.9	0.0	39.7
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.19	1.00		0.46
Lane Grp Cap(c), veh/h	247	779	682	197	0	513	323	0	342	482	0	467
V/C Ratio(X)	1.43	0.70	0.05	0.27	0.00	0.92	0.20	0.00	0.93	0.13	0.00	1.09
Avail Cap(c_a), veh/h	247	928	812	262	0	657	339	0	358	482	0	467
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.4	34.6	25.0	52.7	0.0	50.7	50.0	0.0	58.5	40.5	0.0	53.5
Incr Delay (d2), s/veh	215.6	1.8	0.0	0.7	0.0	15.5	0.3	0.0	29.8	0.1	0.0	67.3
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	21.0	15.8	0.8	1.8	0.0	18.5	2.0	0.0	14.3	1.7	0.0	25.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	255.0	36.5	25.0	53.4	0.0	66.2	50.3	0.0	88.3	40.6	0.0	120.8
LnGrp LOS	F	D	C	D		E	D		F	D		F
Approach Vol, veh/h		935			525			382			571	
Approach Delay, s/veh		118.7			64.9			81.9			112.0	
Approach LOS		F			E			F			F	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.0	48.1		45.0		68.1		33.6				
Change Period (Y+Rc), s	5.8	6.0		5.3		6.0		5.7				
Max Green Setting (Gmax), s	14.2	54.0		39.7		74.0		29.3				
Max Q Clear Time (g_c+I1), s	16.2	39.5		41.7		37.5		27.6				
Green Ext Time (p_c), s	0.0	2.6		0.0		3.6		0.4				

Intersection Summary												
HCM 7th Control Delay, s/veh			99.6									
HCM 7th LOS			F									

Intersection	
Int Delay, s/veh	188.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	313	188	125	100	202	378
Future Vol, veh/h	313	188	125	100	202	378
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	94	94	92	92
Heavy Vehicles, %	3	2	1	0	0	4
Mvmt Flow	360	216	133	106	220	411

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	239	0	-	0	1122	186
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	936	-
Critical Hdwy	4.13	-	-	-	6.4	6.24
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.227	-	-	-	3.5	3.336
Pot Cap-1 Maneuver	1322	-	-	-	230	851
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	385	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1322	-	-	-	~ 159	851
Mov Cap-2 Maneuver	-	-	-	-	~ 159	-
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	385	-

Approach	EB	WB	SB
HCM Control Delay, s/v	5.46	0	$ 426.86
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1125	-	-	-	338
HCM Lane V/C Ratio	0.272	-	-	-	1.865
HCM Control Delay (s/veh)	8.7	0	-	-	$ 426.9
HCM Lane LOS	A	A	-	-	F
HCM 95th %tile Q(veh)	1.1	-	-	-	42.2

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

Intersection	
Int Delay, s/veh	91.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	151	414	264	156	162	100
Future Vol, veh/h	151	414	264	156	162	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	88	88
Heavy Vehicles, %	0	3	3	2	2	6
Mvmt Flow	164	450	287	170	184	114

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	984	241	298	0	-	0
Stage 1	241	-	-	-	-	-
Stage 2	743	-	-	-	-	-
Critical Hdwy	6.4	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	278	795	1258	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	208	795	1258	-	-	-
Mov Cap-2 Maneuver	208	-	-	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	474	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/veh	99.05	5.47	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1131	-	453	-	-
HCM Lane V/C Ratio	0.228	-	1.356	-	-
HCM Control Delay (s/veh)	8.7	0	199.1	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.9	-	28.3	-	-

Intersection	
Int Delay, s/veh	13.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	210	38	33	281	357	246
Future Vol, veh/h	210	38	33	281	357	246
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	86	86	93	93
Heavy Vehicles, %	1	0	7	1	1	3
Mvmt Flow	231	42	38	327	384	265

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	920	516	648	0	-	0
Stage 1	516	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	302	563	914	-	-	-
Stage 1	601	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	287	563	914	-	-	-
Mov Cap-2 Maneuver	287	-	-	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	62.49	0.96	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	189	-	310	-	-
HCM Lane V/C Ratio	0.042	-	0.879	-	-
HCM Control Delay (s/veh)	9.1	0	62.5	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.1	-	8	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	0	17	7	0	34	29	328	12	58	598	29
Future Vol, veh/h	17	0	17	7	0	34	29	328	12	58	598	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	160	-	150	160	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	18	0	18	8	0	37	32	357	13	63	650	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1196	1209	650	1196	1227	357	682	0	0	370	0	0
Stage 1	776	776	-	420	420	-	-	-	-	-	-	-
Stage 2	420	433	-	776	808	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	165	184	473	165	180	692	921	-	-	1200	-	-
Stage 1	393	410	-	615	593	-	-	-	-	-	-	-
Stage 2	615	585	-	393	397	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	143	169	473	145	165	692	921	-	-	1200	-	-
Mov Cap-2 Maneuver	143	169	-	145	165	-	-	-	-	-	-	-
Stage 1	373	389	-	594	573	-	-	-	-	-	-	-
Stage 2	562	565	-	358	376	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	24.74	14.04	0.71	0.69
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	921	-	-	219	145	692	1200	-	-
HCM Lane V/C Ratio	0.034	-	-	0.169	0.053	0.053	0.053	-	-
HCM Control Delay (s/veh)	9	-	-	24.7	31.3	10.5	8.2	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.2	0.2	0.2	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	0	10	10	0	24	17	328	17	41	552	29
Future Vol, veh/h	17	0	10	10	0	24	17	328	17	41	552	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	160	-	150	160	-	150
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	2	0
Mvmt Flow	18	0	11	11	0	26	18	357	18	45	600	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1083	1101	600	1083	1114	357	632	0	0	375	0	0
Stage 1	689	689	-	393	393	-	-	-	-	-	-	-
Stage 2	393	412	-	689	721	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	197	214	505	197	210	692	961	-	-	1195	-	-
Stage 1	439	449	-	635	609	-	-	-	-	-	-	-
Stage 2	635	598	-	439	435	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	179	202	505	182	198	692	961	-	-	1195	-	-
Mov Cap-2 Maneuver	179	202	-	182	198	-	-	-	-	-	-	-
Stage 1	423	433	-	623	597	-	-	-	-	-	-	-
Stage 2	600	586	-	414	419	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	22.51	15.52	0.41	0.54
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	961	-	-	235	379	1195	-	-
HCM Lane V/C Ratio	0.019	-	-	0.125	0.098	0.037	-	-
HCM Control Delay (s/veh)	8.8	-	-	22.5	15.5	8.1	-	-
HCM Lane LOS	A	-	-	C	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	10	352	12	17	555
Future Vol, veh/h	7	10	352	12	17	555
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	0	0	2
Mvmt Flow	8	11	383	13	18	603

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1029	389	0	0	396	0
Stage 1	389	-	-	-	-	-
Stage 2	640	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	261	664	-	-	1174	-
Stage 1	689	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	255	664	-	-	1174	-
Mov Cap-2 Maneuver	255	-	-	-	-	-
Stage 1	689	-	-	-	-	-
Stage 2	516	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	14.44	0	0.24
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	400	53	-
HCM Lane V/C Ratio	-	-	0.046	0.016	-
HCM Control Delay (s/veh)	-	-	14.4	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	221	17	12	212	46	10	0	7	27	0	24
Future Vol, veh/h	41	221	17	12	212	46	10	0	7	27	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	150	-	-	150	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	45	240	18	13	230	50	11	0	8	29	0	26

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	280	0	0	259	0	0	586	636	240	586	604	230
Stage 1	-	-	-	-	-	-	329	329	-	257	257	-
Stage 2	-	-	-	-	-	-	257	307	-	329	348	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1294	-	-	1318	-	-	425	398	804	425	415	814
Stage 1	-	-	-	-	-	-	688	650	-	752	699	-
Stage 2	-	-	-	-	-	-	752	665	-	688	638	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1294	-	-	1318	-	-	390	378	804	399	394	814
Mov Cap-2 Maneuver	-	-	-	-	-	-	390	378	-	399	394	-
Stage 1	-	-	-	-	-	-	660	624	-	744	691	-
Stage 2	-	-	-	-	-	-	720	657	-	654	612	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	1.16	0.34	12.56	12.67
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	495	282	-	-	96	-	-	525
HCM Lane V/C Ratio	0.037	0.034	-	-	0.01	-	-	0.106
HCM Control Delay (s/veh)	12.6	7.9	0	-	7.8	0	-	12.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	243	12	17	263	7	10
Future Vol, veh/h	243	12	17	263	7	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	264	13	18	286	8	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	277	0	593	271
Stage 1	-	-	-	-	271	-
Stage 2	-	-	-	-	323	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1297	-	471	773
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	738	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1297	-	463	773
Mov Cap-2 Maneuver	-	-	-	-	463	-
Stage 1	-	-	-	-	779	-
Stage 2	-	-	-	-	726	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.47	11.13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	606	-	-	109	-
HCM Lane V/C Ratio	0.03	-	-	0.014	-
HCM Control Delay (s/veh)	11.1	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	27	46	445	577	98
Future Vol, veh/h	58	27	46	445	577	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	63	29	50	484	627	107

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1264	680	734	0	-	0
Stage 1	680	-	-	-	-	-
Stage 2	584	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	189	454	880	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	174	454	880	-	-	-
Mov Cap-2 Maneuver	174	-	-	-	-	-
Stage 1	467	-	-	-	-	-
Stage 2	562	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	33.44	0.87	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	169	-	217	-	-
HCM Lane V/C Ratio	0.057	-	0.427	-	-
HCM Control Delay (s/veh)	9.3	0	33.4	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.2	-	2	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	7	12	491	668	17
Future Vol, veh/h	10	7	12	491	668	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	2	2	0
Mvmt Flow	11	8	13	534	726	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1295	735	745	0	-	0
Stage 1	735	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	181	423	872	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	576	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	177	423	872	-	-	-
Mov Cap-2 Maneuver	177	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	576	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	21.8	0.22	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	43	-	233	-	-
HCM Lane V/C Ratio	0.015	-	0.079	-	-
HCM Control Delay (s/veh)	9.2	0	21.8	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

APPENDIX E

QUEUE LENGTH REPORTS

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	L	T	TR	L	T	R	R	L	T	R	L
Maximum Queue (ft)	257	292	219	208	385	2771	2888	180	274	474	78	314
Average Queue (ft)	154	181	130	124	146	1276	1009	109	75	264	5	215
95th Queue (ft)	236	258	197	202	437	2661	2712	227	204	424	34	299
Link Distance (ft)			1902			3649	3649			1570	1570	1157
Upstream Blk Time (%)						0	0					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)	350	350		330	260			130	225			
Storage Blk Time (%)		0				72	13	14		19		
Queuing Penalty (veh)		0				39	51	54		10		

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	294	169	119
Average Queue (ft)	183	75	26
95th Queue (ft)	275	144	84
Link Distance (ft)	1157	1157	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			350
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Jim Moore Rd & SR 124

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	266	180	84	164	160	147	230
Average Queue (ft)	66	33	25	46	57	98	68
95th Queue (ft)	197	120	64	122	130	153	171
Link Distance (ft)	3649	3649		1370	1370		1420
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			60			100	
Storage Blk Time (%)			1	3		16	0
Queuing Penalty (veh)			6	2		18	0

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	EB	EB	EB	B200	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	T	L	T	R	L	TR	L	T	R
Maximum Queue (ft)	244	340	28	14	449	705	270	150	598	256	176	371
Average Queue (ft)	113	145	7	1	45	376	131	106	272	133	66	190
95th Queue (ft)	206	294	22	9	216	669	331	189	546	225	136	321
Link Distance (ft)		2296		1370		2942			2096		1846	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	325		125		400		170	100		475		370
Storage Blk Time (%)		11				32		9	49			0
Queuing Penalty (veh)		27				76		22	60			1

Intersection: 4: SR 124 & Mill Creek HS

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	T	L	R
Maximum Queue (ft)	284	178	357	178	177
Average Queue (ft)	134	70	204	80	76
95th Queue (ft)	243	150	331	139	145
Link Distance (ft)		2942	3108	634	634
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	585				
Storage Blk Time (%)			1		
Queuing Penalty (veh)			2		

Intersection: 5: Hog Mountain Rd/Dog Spa & SR 124

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	68	60	106	72	49
Average Queue (ft)	7	23	38	31	14
95th Queue (ft)	38	49	83	59	36
Link Distance (ft)	3108		1949		387
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		290		115	
Storage Blk Time (%)			1		
Queuing Penalty (veh)			0		

Intersection: 6: SR 124 & Flowery Branch Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	174	237	866	571
Average Queue (ft)	83	107	397	342
95th Queue (ft)	156	207	798	558
Link Distance (ft)		1393	1893	938
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	220			
Storage Blk Time (%)	0	0		
Queuing Penalty (veh)	0	0		

Intersection: 7: Mt. Moriah Rd & SR 124

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	326	181	119	287	597	170
Average Queue (ft)	142	37	50	127	291	116
95th Queue (ft)	275	103	101	253	507	220
Link Distance (ft)	1893			1696	3866	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		290	300			120
Storage Blk Time (%)	1			0	43	1
Queuing Penalty (veh)	1			0	67	2

Intersection: 8: Jim Moore Rd & Hog Mountain Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	112	221	79	44
Average Queue (ft)	54	99	42	16
95th Queue (ft)	88	167	70	42
Link Distance (ft)	1304	3130	1524	1359
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Mineral Springs Rd & Hog Mountain Rd

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	T	R	L	TR
Maximum Queue (ft)	97	92	62	61	187	163	199	74	73	233
Average Queue (ft)	37	36	21	17	95	75	79	3	15	93
95th Queue (ft)	79	77	50	47	165	135	160	31	51	180
Link Distance (ft)		2108			1228		1836			2053
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	125		140		85	140	
Storage Blk Time (%)					3	1	6			3
Queuing Penalty (veh)					1	2	16			0

Intersection: 10: Fence Rd & SR 324

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	219	460	208	174	1066	174	355	189	1419
Average Queue (ft)	111	157	18	28	608	54	178	26	776
95th Queue (ft)	201	350	101	108	1032	139	315	124	1649
Link Distance (ft)		1564			1970		1407		3722
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	140		190	125		125		175	
Storage Blk Time (%)	9	10			59	1	24		55
Queuing Penalty (veh)	26	17			16	1	11		18

Intersection: 11: Fence Rd & Clack Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	294	47	287
Average Queue (ft)	100	7	92
95th Queue (ft)	211	29	197
Link Distance (ft)	3649	2301	1813
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Clack Rd & Mineral Springs Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	112	169	17
Average Queue (ft)	48	55	1
95th Queue (ft)	84	117	10
Link Distance (ft)	2443	1813	1506
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Mt. Moriah Rd & Clack Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	126	90	15
Average Queue (ft)	46	18	1
95th Queue (ft)	87	62	9
Link Distance (ft)	1380	1312	1240
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 550

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	L	T	TR	L	T	R	R	L	T	R	L
Maximum Queue (ft)	270	332	358	322	384	762	558	180	206	363	175	836
Average Queue (ft)	169	198	207	187	189	448	125	88	42	197	60	496
95th Queue (ft)	249	286	317	295	433	803	404	184	120	323	147	826
Link Distance (ft)			1902			3649	3649			1570	1570	1157
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	350	350		330	260			130	225			
Storage Blk Time (%)		0	1	0	0	43	2	4		10		
Queuing Penalty (veh)		0	3	0	0	60	8	14		4		

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	874	958	390
Average Queue (ft)	481	272	115
95th Queue (ft)	828	659	275
Link Distance (ft)	1157	1157	
Upstream Blk Time (%)	0	1	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			350
Storage Blk Time (%)		4	0
Queuing Penalty (veh)		16	0

Intersection: 2: Jim Moore Rd & SR 124

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	457	402	109	243	218	149	329
Average Queue (ft)	194	131	54	101	96	121	142
95th Queue (ft)	381	314	102	207	193	170	303
Link Distance (ft)	3649	3649		1370	1370		1420
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			60			100	
Storage Blk Time (%)			10	9		29	1
Queuing Penalty (veh)			52	8		39	2

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	EB	EB	EB	B47	B47	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	T		L	T	R	L	TR	L	T
Maximum Queue (ft)	356	558	136	643	245	55	376	270	150	1375	539	524
Average Queue (ft)	168	215	15	92	16	16	178	39	75	713	333	222
95th Queue (ft)	316	435	92	409	106	42	315	147	174	1537	537	412
Link Distance (ft)		2296		1370	1370		2942			2096		1846
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	325		125			400		170	100		475	
Storage Blk Time (%)	1	18					15		1	74	4	0
Queuing Penalty (veh)	4	76					27		3	43	24	0

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	SB
Directions Served	R
Maximum Queue (ft)	266
Average Queue (ft)	102
95th Queue (ft)	209
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	370
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: SR 124 & Mill Creek HS

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	T	L	R
Maximum Queue (ft)	131	156	161	137	73
Average Queue (ft)	57	45	48	71	41
95th Queue (ft)	105	117	116	120	65
Link Distance (ft)		2942	3108	634	634
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	585				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Hog Mountain Rd/Dog Spa & SR 124

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	40	86	119	157	23
Average Queue (ft)	2	38	37	64	4
95th Queue (ft)	19	73	85	117	18
Link Distance (ft)	3108		1949		387
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		290		115	
Storage Blk Time (%)			0	2	
Queuing Penalty (veh)			0	1	

Intersection: 6: SR 124 & Flowery Branch Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	211	408	639	714
Average Queue (ft)	63	224	315	474
95th Queue (ft)	139	371	566	748
Link Distance (ft)		1393	1893	938
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	220			
Storage Blk Time (%)		9		
Queuing Penalty (veh)		8		

Intersection: 7: Mt. Moriah Rd & SR 124

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	R	L	T	L	R
Maximum Queue (ft)	260	84	221	247	421	170
Average Queue (ft)	110	33	107	100	198	126
95th Queue (ft)	211	67	195	206	367	211
Link Distance (ft)	1893			1696	3866	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		290	300			120
Storage Blk Time (%)	0			0	32	8
Queuing Penalty (veh)	0			0	60	16

Intersection: 8: Jim Moore Rd & Hog Mountain Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	124	178	87	63
Average Queue (ft)	63	86	42	40
95th Queue (ft)	98	145	69	60
Link Distance (ft)	1304	3130	1524	1359
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Mineral Springs Rd & Hog Mountain Rd

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	T	R	L	TR
Maximum Queue (ft)	84	195	178	44	192	107	109	49	192	300
Average Queue (ft)	35	71	60	13	85	36	38	3	28	138
95th Queue (ft)	71	144	119	37	160	79	89	21	109	265
Link Distance (ft)		2108			1228		1836			2053
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	125		140		85	140	
Storage Blk Time (%)		1	0		2	0	1	0		8
Queuing Penalty (veh)		3	0		1	0	2	0		3

Intersection: 10: Fence Rd & SR 324

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	220	1520	315	174	479	174	354	225	694
Average Queue (ft)	196	831	37	57	254	61	198	55	353
95th Queue (ft)	271	1754	196	154	417	158	320	189	678
Link Distance (ft)		1564			1970		1407		3722
Upstream Blk Time (%)		16							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	140		190	125		125		175	
Storage Blk Time (%)	54	21		0	35	0	30		41
Queuing Penalty (veh)	277	68		1	16	1	17		19

Intersection: 11: Fence Rd & Clack Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	156	8	399
Average Queue (ft)	46	0	162
95th Queue (ft)	111	5	334
Link Distance (ft)	3649	2301	1813
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Clack Rd & Mineral Springs Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	203	81	10
Average Queue (ft)	91	24	0
95th Queue (ft)	156	65	8
Link Distance (ft)	2443	1813	1506
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Mt. Moriah Rd & Clack Rd

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	123	64
Average Queue (ft)	48	9
95th Queue (ft)	90	38
Link Distance (ft)	1380	1312
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Zone Summary

Zone wide Queuing Penalty: 877

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	L	T	TR	L	T	R	R	L	T	R	L
Maximum Queue (ft)	302	317	306	287	385	3663	3673	180	275	498	163	473
Average Queue (ft)	169	201	166	153	161	2143	1996	123	92	312	15	302
95th Queue (ft)	250	284	264	259	462	4269	4410	246	236	468	77	432
Link Distance (ft)			1902			3649	3649			1570	1570	1157
Upstream Blk Time (%)						9	10					
Queuing Penalty (veh)						68	72					
Storage Bay Dist (ft)	350	350		330	260			130	225			
Storage Blk Time (%)			0	0		76	20	22		27		
Queuing Penalty (veh)			0	0		59	100	112		16		

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	440	194	158
Average Queue (ft)	269	81	39
95th Queue (ft)	401	160	112
Link Distance (ft)	1157	1157	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			350
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Jim Moore Rd & SR 124

Movement	EB	EB	WB	WB	WB	B200	B200	NB	NB
Directions Served	T	TR	L	T	T	T	T	L	R
Maximum Queue (ft)	236	242	110	1318	1333	529	541	149	657
Average Queue (ft)	59	63	44	292	300	36	37	112	148
95th Queue (ft)	176	178	105	990	996	283	288	167	468
Link Distance (ft)	3649	3649		1370	1370	2352	2352		1420
Upstream Blk Time (%)				5	5				
Queuing Penalty (veh)				38	39				
Storage Bay Dist (ft)			60					100	
Storage Blk Time (%)			3	27				29	1
Queuing Penalty (veh)			19	22				42	1

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	EB	EB	EB	B201	B201	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	T	T	L	T	R	L	TR	L	T
Maximum Queue (ft)	381	906	179	11	23	449	1737	270	150	985	391	376
Average Queue (ft)	254	312	13	0	1	49	899	159	117	487	222	100
95th Queue (ft)	433	821	109	8	16	228	1877	355	197	1007	378	325
Link Distance (ft)		2316	2316	2352	2352		2943			2096		1835
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	325					400		170	100		475	
Storage Blk Time (%)	20	4					44		14	63	1	0
Queuing Penalty (veh)	89	10					119		42	98	8	0

Intersection: 4: SR 124 & Mill Creek HS

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (ft)	385	259	452	168	198	213
Average Queue (ft)	195	87	247	11	95	96
95th Queue (ft)	340	199	384	122	157	173
Link Distance (ft)		2943	3108		634	634
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	585			335		
Storage Blk Time (%)			2			
Queuing Penalty (veh)			6			

Intersection: 5: Hog Mountain Rd/Dog Spa & SR 124

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	96	73	126	109	57
Average Queue (ft)	10	26	41	42	16
95th Queue (ft)	52	56	94	81	42
Link Distance (ft)	3108		1949		387
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		290		115	
Storage Blk Time (%)			2	0	
Queuing Penalty (veh)			2	0	

Intersection: 6: SR 124 & Flowery Branch Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	235	290	1896	986
Average Queue (ft)	102	143	1447	743
95th Queue (ft)	194	249	2455	1178
Link Distance (ft)		1393	1879	938
Upstream Blk Time (%)			6	35
Queuing Penalty (veh)			66	0
Storage Bay Dist (ft)	220			
Storage Blk Time (%)	1	1		
Queuing Penalty (veh)	7	2		

Intersection: 7: Mt. Moriah Rd & SR 124

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	TR
Maximum Queue (ft)	50	414	296	350	1749	275	728	170	74	111
Average Queue (ft)	11	191	50	216	883	23	396	127	25	46
95th Queue (ft)	35	335	162	448	2023	145	715	228	60	90
Link Distance (ft)		1879			1695		3866		195	195
Upstream Blk Time (%)					30					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	235		290	300		175		120		
Storage Blk Time (%)		4		0	58		49	1		
Queuing Penalty (veh)		9		0	88		90	3		

Intersection: 8: Jim Moore Rd & Hog Mountain Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	109	218	91	30
Average Queue (ft)	58	113	46	17
95th Queue (ft)	90	186	78	41
Link Distance (ft)	1304	3130	1524	1359
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Mineral Springs Rd & Hog Mountain Rd

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	T	R	L	TR
Maximum Queue (ft)	100	122	68	66	206	213	287	124	168	245
Average Queue (ft)	39	45	26	17	107	96	102	8	24	113
95th Queue (ft)	81	98	55	48	179	182	205	62	91	208
Link Distance (ft)		2108			1228		1836			2053
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	125		140		85	140	
Storage Blk Time (%)		0			5	3	10			6
Queuing Penalty (veh)		0			2	12	28			1

Intersection: 10: Fence Rd & SR 324

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	220	693	213	174	2029	175	380	224	2509
Average Queue (ft)	159	298	37	30	1529	72	196	44	1296
95th Queue (ft)	251	698	179	119	2537	169	334	178	2460
Link Distance (ft)		1564			1970		1407		3722
Upstream Blk Time (%)					39				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	140		190	125		125		175	
Storage Blk Time (%)	34	15		0	65	0	32		61
Queuing Penalty (veh)	111	29		0	21	1	17		23

Intersection: 11: Fence Rd & Clack Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	318	49	420
Average Queue (ft)	129	8	167
95th Queue (ft)	265	31	353
Link Distance (ft)	3649	2301	1813
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Clack Rd & Mineral Springs Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	166	181	28
Average Queue (ft)	61	65	2
95th Queue (ft)	120	136	14
Link Distance (ft)	2443	1813	1506
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Mt. Moriah Rd & Clack Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	112	118	8
Average Queue (ft)	51	26	0
95th Queue (ft)	92	79	5
Link Distance (ft)	1380	1312	1240
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1470

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	L	T	TR	L	T	R	R	L	T	R	L
Maximum Queue (ft)	354	422	859	404	385	1796	1847	180	274	476	167	1176
Average Queue (ft)	239	288	403	300	266	961	665	117	60	263	77	1034
95th Queue (ft)	387	456	824	444	503	2296	2198	219	193	453	155	1333
Link Distance (ft)			1902			3649	3649			1570	1570	1157
Upstream Blk Time (%)												12
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	350	350		330	260			130	225			
Storage Blk Time (%)	5	8	15	11	0	59	10	11		23		
Queuing Penalty (veh)	29	52	114	81	0	105	44	49		9		

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	1196	1200	390
Average Queue (ft)	1090	1018	269
95th Queue (ft)	1405	1584	531
Link Distance (ft)	1157	1157	
Upstream Blk Time (%)	35	53	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			350
Storage Blk Time (%)		26	1
Queuing Penalty (veh)		124	3

Intersection: 2: Jim Moore Rd & SR 124

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	451	473	109	316	322	150	402
Average Queue (ft)	194	204	67	153	152	133	187
95th Queue (ft)	393	405	119	286	287	171	351
Link Distance (ft)	3649	3649		1370	1370		1420
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			60			100	
Storage Blk Time (%)			17	15		32	9
Queuing Penalty (veh)			113	19		56	19

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	T	R
Maximum Queue (ft)	376	912	432	70	452	270	150	840	575	1892	202
Average Queue (ft)	257	363	58	20	261	83	85	489	543	1531	24
95th Queue (ft)	433	970	446	52	420	251	181	894	689	2507	199
Link Distance (ft)		2316	2316		2943			2096		1837	
Upstream Blk Time (%)										58	
Queuing Penalty (veh)										0	
Storage Bay Dist (ft)	325			400		170	100		475		370
Storage Blk Time (%)	12	4			30		5	72	81	4	
Queuing Penalty (veh)	98	20			59		14	65	580	32	

Intersection: 4: SR 124 & Mill Creek HS

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	T	L	R
Maximum Queue (ft)	147	191	208	161	103
Average Queue (ft)	69	80	64	77	47
95th Queue (ft)	122	171	154	138	86
Link Distance (ft)		2943	3108	634	634
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	585				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Hog Mountain Rd/Dog Spa & SR 124

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	54	120	137	160	32
Average Queue (ft)	3	44	40	76	6
95th Queue (ft)	27	86	95	138	23
Link Distance (ft)	3108		1949		387
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		290		115	
Storage Blk Time (%)			1	3	
Queuing Penalty (veh)			3	2	

Intersection: 6: SR 124 & Flowery Branch Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	318	452	1891	988
Average Queue (ft)	78	235	1337	836
95th Queue (ft)	187	406	2433	1164
Link Distance (ft)		1393	1878	938
Upstream Blk Time (%)			5	48
Queuing Penalty (veh)			53	0
Storage Bay Dist (ft)	220			
Storage Blk Time (%)		10		
Queuing Penalty (veh)		12		

Intersection: 7: Mt. Moriah Rd & SR 124

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	TR
Maximum Queue (ft)	334	654	340	350	1544	275	1229	170	45	98
Average Queue (ft)	47	264	76	198	539	28	426	141	14	36
95th Queue (ft)	164	540	244	388	1336	159	1165	218	40	77
Link Distance (ft)		1878			1695		3866		199	199
Upstream Blk Time (%)					2					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	235		290	300		175		120		
Storage Blk Time (%)		11		1	30		47	9		
Queuing Penalty (veh)		44		7	81		108	20		

Intersection: 8: Jim Moore Rd & Hog Mountain Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	163	189	85	76
Average Queue (ft)	76	85	45	43
95th Queue (ft)	125	144	69	68
Link Distance (ft)	1304	3130	1524	1359
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Mineral Springs Rd & Hog Mountain Rd

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	T	R	L	TR
Maximum Queue (ft)	102	157	110	56	195	106	125	62	89	304
Average Queue (ft)	38	67	49	14	80	33	33	3	15	111
95th Queue (ft)	83	134	87	39	154	77	87	27	62	235
Link Distance (ft)		2108			1228		1836			2053
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	125		140		85	140	
Storage Blk Time (%)	0	0	0		2	0	1	0		7
Queuing Penalty (veh)	0	2	0		1	0	2	0		3

Intersection: 10: Fence Rd & SR 324

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	220	1612	315	174	617	175	510	224	920
Average Queue (ft)	211	1276	64	55	338	84	298	71	510
95th Queue (ft)	253	2139	266	152	544	193	532	217	977
Link Distance (ft)		1564			1970		1407		3722
Upstream Blk Time (%)		57							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	140		190	125		125		175	
Storage Blk Time (%)	73	22		0	42	1	46	0	54
Queuing Penalty (veh)	422	83		0	22	2	29	0	28

Intersection: 11: Fence Rd & Clack Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	122	15	377
Average Queue (ft)	50	1	180
95th Queue (ft)	107	9	354
Link Distance (ft)	3649	2301	1813
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Clack Rd & Mineral Springs Rd

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	207	100
Average Queue (ft)	92	30
95th Queue (ft)	161	76
Link Distance (ft)	2443	1813
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Mt. Moriah Rd & Clack Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	106	81	4
Average Queue (ft)	51	9	0
95th Queue (ft)	91	43	3
Link Distance (ft)	1380	1312	1240
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 2608

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	L	T	TR	L	T	R	R	L	T	R	L
Maximum Queue (ft)	305	330	352	304	385	3668	3674	180	274	517	69	455
Average Queue (ft)	181	209	180	166	190	2164	2067	132	96	313	10	320
95th Queue (ft)	275	302	287	264	487	4287	4424	249	239	465	47	447
Link Distance (ft)			1902			3649	3649			1570	1570	1157
Upstream Blk Time (%)						9	9					
Queuing Penalty (veh)						75	73					
Storage Bay Dist (ft)	350	350		330	260			130	225			
Storage Blk Time (%)	0	0	0	0		74	22	25		28		
Queuing Penalty (veh)	0	2	2	0		79	126	141		16		

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	421	203	144
Average Queue (ft)	286	88	39
95th Queue (ft)	411	161	113
Link Distance (ft)	1157	1157	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			350
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Jim Moore Rd & SR 124

Movement	EB	EB	WB	WB	WB	B200	B200	NB	NB
Directions Served	T	TR	L	T	T	T	T	L	R
Maximum Queue (ft)	227	235	110	1303	1309	375	396	149	450
Average Queue (ft)	42	51	48	326	333	31	31	107	113
95th Queue (ft)	140	153	110	1092	1094	228	229	163	319
Link Distance (ft)	3649	3649		1370	1370	2352	2352		1420
Upstream Blk Time (%)				6	7				
Queuing Penalty (veh)				53	55				
Storage Bay Dist (ft)			60					100	
Storage Blk Time (%)			3	28				26	1
Queuing Penalty (veh)			20	23				36	2

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	EB	EB	EB	WB	WB	WB	NB	NB	B202	B203	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	T	T	L	T
Maximum Queue (ft)	385	975	374	449	2786	270	150	2067	1465	80	431	289
Average Queue (ft)	261	379	46	84	1529	168	130	1340	363	5	248	107
95th Queue (ft)	448	896	261	341	3001	361	197	2646	1365	69	413	216
Link Distance (ft)		2316	2316		2943			2096	2281	2053		1835
Upstream Blk Time (%)					1			35	2			
Queuing Penalty (veh)					6			250	12			
Storage Bay Dist (ft)	325			400		170	100				475	
Storage Blk Time (%)	20	6			48		32	63			1	
Queuing Penalty (veh)	94	17			144		111	168			4	

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	SB
Directions Served	R
Maximum Queue (ft)	101
Average Queue (ft)	3
95th Queue (ft)	71
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	370
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: SR 124 & Mill Creek HS

Movement	EB	EB	WB	WB	SB	SB
Directions Served	L	T	T	R	L	R
Maximum Queue (ft)	540	275	886	336	232	243
Average Queue (ft)	264	94	356	59	106	111
95th Queue (ft)	482	206	825	299	178	192
Link Distance (ft)		2943	3108		634	634
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	585			335		
Storage Blk Time (%)	0		10			
Queuing Penalty (veh)	2		30			

Intersection: 5: Hog Mountain Rd/Dog Spa & SR 124

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	134	66	157	135	46
Average Queue (ft)	13	25	46	48	16
95th Queue (ft)	69	54	110	96	39
Link Distance (ft)	3108		1949		387
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		290		115	
Storage Blk Time (%)			3	0	
Queuing Penalty (veh)			3	0	

Intersection: 6: SR 124 & Flowery Branch Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	245	363	1896	990
Average Queue (ft)	102	167	1635	777
95th Queue (ft)	196	303	2480	1163
Link Distance (ft)		1393	1879	938
Upstream Blk Time (%)			9	34
Queuing Penalty (veh)			109	0
Storage Bay Dist (ft)	220			
Storage Blk Time (%)	1	4		
Queuing Penalty (veh)	5	5		

Intersection: 7: Mt. Moriah Rd & SR 124

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	TR
Maximum Queue (ft)	115	463	340	350	1750	273	1147	170	77	113
Average Queue (ft)	14	214	65	266	1200	23	593	130	22	50
95th Queue (ft)	66	382	213	478	2300	145	1108	233	58	96
Link Distance (ft)		1879			1695		3866		195	195
Upstream Blk Time (%)					56					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	235		290	300		175		120		
Storage Blk Time (%)		5		0	76		56	2		
Queuing Penalty (veh)		14		0	129		131	9		

Intersection: 8: Jim Moore Rd & Hog Mountain Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	123	316	90	43
Average Queue (ft)	67	139	48	18
95th Queue (ft)	110	245	77	43
Link Distance (ft)	1304	3130	1524	1359
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Mineral Springs Rd & Hog Mountain Rd

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	T	R	L	TR
Maximum Queue (ft)	118	117	75	133	215	220	619	150	222	373
Average Queue (ft)	44	51	32	24	107	148	217	33	30	172
95th Queue (ft)	92	102	63	75	183	247	482	132	117	303
Link Distance (ft)		2108			1228		1836			2053
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	125		140		85	140	
Storage Blk Time (%)	0	0			5	15	23		0	15
Queuing Penalty (veh)	0	0			2	87	86		1	3

Intersection: 10: Fence Rd & SR 324

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	220	769	313	174	1927	174	446	224	3160
Average Queue (ft)	167	315	61	36	1247	70	229	46	1720
95th Queue (ft)	260	656	248	132	2166	173	390	176	3263
Link Distance (ft)		1564			1970		1407		3722
Upstream Blk Time (%)					15				
Queuing Penalty (veh)					0				
Storage Bay Dist (ft)	140		190	125		125		175	
Storage Blk Time (%)	44	17			65	2	40		64
Queuing Penalty (veh)	143	34			21	3	21		34

Intersection: 11: Fence Rd & Clack Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	340	45	1268
Average Queue (ft)	135	9	607
95th Queue (ft)	266	30	1308
Link Distance (ft)	3649	2301	1813
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Clack Rd & Mineral Springs Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	506	208	39
Average Queue (ft)	201	98	6
95th Queue (ft)	434	177	24
Link Distance (ft)	2443	1813	1506
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Mt. Moriah Rd & Clack Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	234	185	25
Average Queue (ft)	96	38	1
95th Queue (ft)	178	120	12
Link Distance (ft)	1380	1312	1240
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Mineral Springs Rd & Driveway 1/Driveway 5

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	L	L
Maximum Queue (ft)	61	33	58	29	41
Average Queue (ft)	25	9	27	3	8
95th Queue (ft)	51	31	50	16	29
Link Distance (ft)	1067	858	858		
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				160	160
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 15: Mineral Springs Rd & Driveway 2/Driveway 4

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	34	42	10	32
Average Queue (ft)	16	19	0	4
95th Queue (ft)	35	36	5	20
Link Distance (ft)	899	743		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			160	160
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Mineral Springs Rd & Driveway 3

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	36	44
Average Queue (ft)	15	3
95th Queue (ft)	38	21
Link Distance (ft)	636	1063
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Driveway 9/Driveway 8 & Clack Rd

Movement	EB	WB	NB	SB
Directions Served	LT	LT	LTR	LTR
Maximum Queue (ft)	55	11	32	58
Average Queue (ft)	3	0	14	25
95th Queue (ft)	23	5	34	47
Link Distance (ft)	1506	2083	795	1005
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Driveway 10 & Clack Rd

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	21	39
Average Queue (ft)	1	17
95th Queue (ft)	13	38
Link Distance (ft)	1380	576
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Mt. Moriah Rd & Driveway 7

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	114	56
Average Queue (ft)	45	4
95th Queue (ft)	81	28
Link Distance (ft)	938	1240
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Mt. Moriah Rd & Driveway 6

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	35	26
Average Queue (ft)	18	1
95th Queue (ft)	42	15
Link Distance (ft)	887	985
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 2379

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	L	T	TR	L	T	R	R	L	T	R	L
Maximum Queue (ft)	363	432	1543	405	385	1948	1872	180	274	414	250	1187
Average Queue (ft)	212	306	660	320	281	1107	813	123	60	267	111	1081
95th Queue (ft)	358	482	1570	464	510	2235	2162	224	180	449	209	1362
Link Distance (ft)			1902			3649	3649			1570	1570	1157
Upstream Blk Time (%)			4									20
Queuing Penalty (veh)			0									0
Storage Bay Dist (ft)	350	350		330	260			130	225			
Storage Blk Time (%)	1	4	23	19	0	63	10	13		25		
Queuing Penalty (veh)	8	24	181	150	0	124	49	61		10		

Intersection: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124

Movement	SB	SB	SB
Directions Served	L	T	R
Maximum Queue (ft)	1186	1193	390
Average Queue (ft)	1118	1080	262
95th Queue (ft)	1394	1542	512
Link Distance (ft)	1157	1157	
Upstream Blk Time (%)	39	59	
Queuing Penalty (veh)	0	0	
Storage Bay Dist (ft)			350
Storage Blk Time (%)		24	0
Queuing Penalty (veh)		111	2

Intersection: 2: Jim Moore Rd & SR 124

Movement	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	TR	L	T	T	L	R
Maximum Queue (ft)	502	480	109	330	338	150	418
Average Queue (ft)	214	222	66	156	156	135	192
95th Queue (ft)	438	446	116	283	286	169	355
Link Distance (ft)	3649	3649		1370	1370		1420
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			60			100	
Storage Blk Time (%)			16	15		30	13
Queuing Penalty (veh)			113	19		54	26

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	EB	EB	EB	B27	B27	WB	WB	WB	NB	NB	B59	SB
Directions Served	L	T	R	T	T	L	T	R	L	TR	T	L
Maximum Queue (ft)	385	1178	709	71	64	87	491	270	150	2065	300	575
Average Queue (ft)	252	382	106	3	2	24	264	85	121	1239	37	545
95th Queue (ft)	418	1048	560	48	45	61	441	248	192	2350	258	681
Link Distance (ft)		2316	2316	2352	2352		2943			2096	2281	
Upstream Blk Time (%)										11		
Queuing Penalty (veh)										52		
Storage Bay Dist (ft)	325					400		170	100			475
Storage Blk Time (%)	9	6					30		22	73		76
Queuing Penalty (veh)	76	30					65		74	125		587

Intersection: 3: Mineral Springs Rd/Spout Springs Rd & SR 124

Movement	SB	SB
Directions Served	T	R
Maximum Queue (ft)	1887	404
Average Queue (ft)	1630	91
95th Queue (ft)	2472	409
Link Distance (ft)	1837	
Upstream Blk Time (%)	63	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		370
Storage Blk Time (%)	20	
Queuing Penalty (veh)	152	

Intersection: 4: SR 124 & Mill Creek HS

Movement	EB	EB	WB	SB	SB
Directions Served	L	T	T	L	R
Maximum Queue (ft)	175	220	194	165	124
Average Queue (ft)	68	73	68	83	50
95th Queue (ft)	124	165	152	146	91
Link Distance (ft)		2943	3108	634	634
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	585				
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Hog Mountain Rd/Dog Spa & SR 124

Movement	EB	WB	NB	NB	SB
Directions Served	LTR	L	LT	R	LTR
Maximum Queue (ft)	31	132	139	183	36
Average Queue (ft)	2	46	44	87	7
95th Queue (ft)	15	97	95	156	26
Link Distance (ft)	3108		1949		387
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		290		115	
Storage Blk Time (%)			2	6	
Queuing Penalty (veh)			5	4	

Intersection: 6: SR 124 & Flowery Branch Rd

Movement	EB	EB	WB	SB
Directions Served	L	T	TR	LR
Maximum Queue (ft)	318	478	1889	992
Average Queue (ft)	94	275	1516	882
95th Queue (ft)	243	451	2453	1170
Link Distance (ft)		1393	1878	938
Upstream Blk Time (%)			5	68
Queuing Penalty (veh)			59	0
Storage Bay Dist (ft)	220			
Storage Blk Time (%)		12		
Queuing Penalty (veh)		14		

Intersection: 7: Mt. Moriah Rd & SR 124

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	R	L	TR	L	TR
Maximum Queue (ft)	290	724	340	350	1550	275	3474	170	57	99
Average Queue (ft)	43	336	155	254	881	29	1780	153	17	36
95th Queue (ft)	150	637	380	435	1976	164	3663	223	47	76
Link Distance (ft)		1878			1695		3866		199	199
Upstream Blk Time (%)					19		3			
Queuing Penalty (veh)					0		14			
Storage Bay Dist (ft)	235		290	300		175		120		
Storage Blk Time (%)		19		7	36		79	8		
Queuing Penalty (veh)		102		57	119		211	25		

Intersection: 8: Jim Moore Rd & Hog Mountain Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	202	164	103	88
Average Queue (ft)	90	89	50	42
95th Queue (ft)	154	144	82	69
Link Distance (ft)	1304	3130	1524	1359
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: Mineral Springs Rd & Hog Mountain Rd

Movement	EB	EB	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	T	R	L	TR
Maximum Queue (ft)	149	205	196	90	194	180	217	130	192	386
Average Queue (ft)	49	98	96	29	87	55	75	11	26	203
95th Queue (ft)	108	170	167	65	158	120	163	60	111	356
Link Distance (ft)		2108			1228		1836			2053
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	125		140		85	140	
Storage Blk Time (%)	0	1	1	0	3	0	6	0		23
Queuing Penalty (veh)	1	7	5	0	2	0	13	0		9

Intersection: 10: Fence Rd & SR 324

Movement	EB	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	TR	L	TR	L	TR
Maximum Queue (ft)	220	1620	315	175	651	174	970	224	1412
Average Queue (ft)	214	1357	59	60	369	89	595	66	680
95th Queue (ft)	247	2117	257	164	594	205	1109	213	1443
Link Distance (ft)		1564			1970		1407		3722
Upstream Blk Time (%)		63							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	140		190	125		125		175	
Storage Blk Time (%)	77	20		0	45	1	68		56
Queuing Penalty (veh)	448	80		0	24	2	43		35

Intersection: 11: Fence Rd & Clack Rd

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	162	25	975
Average Queue (ft)	73	3	387
95th Queue (ft)	136	15	929
Link Distance (ft)	3649	2301	1813
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Clack Rd & Mineral Springs Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	506	117	21
Average Queue (ft)	213	48	1
95th Queue (ft)	416	100	9
Link Distance (ft)	2443	1813	1506
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 13: Mt. Moriah Rd & Clack Rd

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	166	98	4
Average Queue (ft)	80	21	0
95th Queue (ft)	135	69	5
Link Distance (ft)	1380	1312	1240
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 14: Mineral Springs Rd & Driveway 1/Driveway 5

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	R	L	R
Maximum Queue (ft)	52	33	41	34	10	35	3
Average Queue (ft)	22	7	19	10	0	9	0
95th Queue (ft)	44	27	41	32	7	31	2
Link Distance (ft)	1067	858	858				
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				160	150	160	150
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 15: Mineral Springs Rd & Driveway 2/Driveway 4

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	L	L
Maximum Queue (ft)	48	46	35	38
Average Queue (ft)	16	16	4	6
95th Queue (ft)	37	35	21	27
Link Distance (ft)	899	743		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			160	160
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 16: Mineral Springs Rd & Driveway 3

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	32	68
Average Queue (ft)	14	5
95th Queue (ft)	37	33
Link Distance (ft)	636	1063
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 17: Driveway 9/Driveway 8 & Clack Rd

Movement	EB	WB	NB	SB
Directions Served	LT	LT	LTR	LTR
Maximum Queue (ft)	44	23	28	46
Average Queue (ft)	6	2	10	20
95th Queue (ft)	28	13	28	38
Link Distance (ft)	1506	2083	795	1005
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 18: Driveway 10 & Clack Rd

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	30	39
Average Queue (ft)	3	13
95th Queue (ft)	17	35
Link Distance (ft)	1380	576
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Mt. Moriah Rd & Driveway 7

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	121	164	19
Average Queue (ft)	46	35	1
95th Queue (ft)	86	106	9
Link Distance (ft)	938	1240	1320
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 20: Mt. Moriah Rd & Driveway 6

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	43	255
Average Queue (ft)	18	27
95th Queue (ft)	43	173
Link Distance (ft)	887	985
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 3374

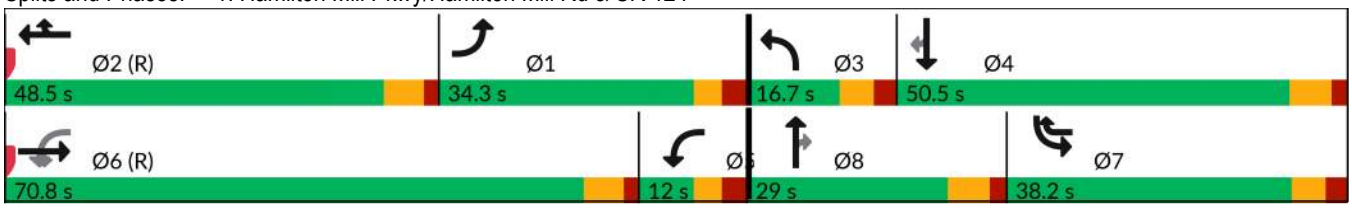
APPENDIX F

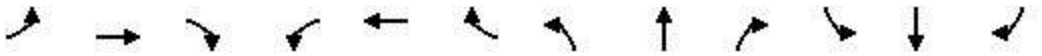
BUILD MITIGATION SYNCHRO REPORTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	346	356	46	92	472	982	56	393	117	641	151	256
Future Volume (vph)	346	356	46	92	472	982	56	393	117	641	151	256
Turn Type	Prot	NA	Perm	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2	2 7	3	8		7	4	
Permitted Phases			6	6					8			4
Detector Phase	1	6	6	5	2	2 7	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	12.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	18.0	18.0	9.7	18.0		10.2	12.4	12.4	10.2	12.4	12.4
Total Split (s)	34.3	70.8	70.8	12.0	48.5		16.7	29.0	29.0	38.2	50.5	50.5
Total Split (%)	22.9%	47.2%	47.2%	8.0%	32.3%		11.1%	19.3%	19.3%	25.5%	33.7%	33.7%
Yellow Time (s)	3.1	4.3	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	28.2	64.8	64.8	71.0	42.5	82.7	9.3	21.0	21.0	34.0	48.2	48.2
Actuated g/C Ratio	0.19	0.43	0.43	0.47	0.28	0.55	0.06	0.14	0.14	0.23	0.32	0.32
v/c Ratio	0.71	0.32	0.08	0.25	0.56	0.70	0.53	0.82	0.34	0.65	0.28	0.41
Control Delay (s/veh)	64.1	28.8	0.2	19.5	44.0	21.6	85.3	76.4	6.0	56.4	41.0	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	64.1	28.8	0.2	19.5	44.0	21.6	85.3	76.4	6.0	56.4	41.0	6.0
LOS	E	C	A	B	D	C	F	E	A	E	D	A
Approach Delay (s/veh)		43.4			28.4			62.7			41.9	
Approach LOS		D			C			E			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay (s/veh): 39.5	Intersection LOS: D
Intersection Capacity Utilization 70.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	346	356	46	92	472	982	56	393	117	641	151	256
Future Volume (veh/h)	346	356	46	92	472	982	56	393	117	641	151	256
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1767	1826	1870	1811	1870	1870	1870	1885	1796	1870	1841
Adj Flow Rate, veh/h	444	456	0	106	543	1129	58	405	0	704	166	0
Peak Hour Factor	0.78	0.78	0.78	0.87	0.87	0.87	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	5	9	5	2	6	2	2	2	1	7	2	4
Cap, veh/h	706	1450		476	975	1386	74	465		1029	568	
Arrive On Green	0.21	0.43	0.00	0.06	0.28	0.28	0.04	0.13	0.00	0.21	0.30	0.00
Sat Flow, veh/h	3374	3357	1547	1781	3441	2790	1781	3554	1598	4824	1870	1560
Grp Volume(v), veh/h	444	456	0	106	543	1129	58	405	0	704	166	0
Grp Sat Flow(s),veh/h/ln	1687	1678	1547	1781	1721	1395	1781	1777	1598	1608	1870	1560
Q Serve(g_s), s	18.0	13.4	0.0	0.0	20.1	19.3	4.8	16.8	0.0	20.2	10.2	0.0
Cycle Q Clear(g_c), s	18.0	13.4	0.0	0.0	20.1	19.3	4.8	16.8	0.0	20.2	10.2	0.0
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	706	1450		476	975	1386	74	465		1029	568	
V/C Ratio(X)	0.63	0.31		0.22	0.56	0.81	0.78	0.87		0.68	0.29	
Avail Cap(c_a), veh/h	706	1450		476	975	1386	125	535		1029	568	
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.0	28.0	0.0	30.1	45.7	31.9	71.2	63.9	0.0	54.3	39.9	0.0
Incr Delay (d2), s/veh	1.8	0.6	0.0	0.2	2.3	5.4	16.1	13.2	0.0	3.7	0.3	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	7.8	5.5	0.0	2.6	8.9	5.4	2.5	8.4	0.0	8.4	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	55.8	28.6	0.0	30.4	48.0	37.3	87.3	77.1	0.0	58.0	40.2	0.0
LnGrp LOS	E	C		C	D	D	F	E		E	D	
Approach Vol, veh/h		900			1778			463			870	
Approach Delay, s/veh		42.0			40.2			78.4			54.6	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	37.1	48.5	12.5	52.0	14.8	70.8	38.4	26.0
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	28.6	42.5	10.5	* 44	6.3	64.8	* 32	* 23
Max Q Clear Time (g_c+I1), s	20.0	22.1	6.8	12.2	2.0	15.4	22.2	18.8
Green Ext Time (p_c), s	1.1	9.3	0.0	0.8	0.1	3.3	2.0	0.9

Intersection Summary	
HCM 7th Control Delay, s/veh	48.1
HCM 7th LOS	D

Notes

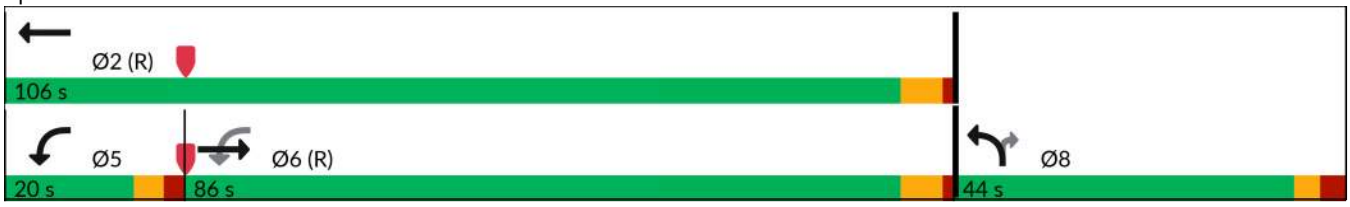
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	916	75	1399	102	105
Future Volume (vph)	916	75	1399	102	105
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	86.0	20.0	106.0	44.0	44.0
Total Split (%)	57.3%	13.3%	70.7%	29.3%	29.3%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	108.9	116.2	121.3	17.2	17.2
Actuated g/C Ratio	0.73	0.77	0.81	0.11	0.11
v/c Ratio	0.44	0.21	0.53	0.69	0.46
Control Delay (s/veh)	13.2	4.7	6.0	80.7	13.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	13.2	4.7	6.0	80.7	13.4
LOS	B	A	A	F	B
Approach Delay (s/veh)	13.2		5.9	46.6	
Approach LOS	B		A	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 128 (85%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay (s/veh): 12.4	Intersection LOS: B
Intersection Capacity Utilization 53.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	916	88	75	1399	102	105
Future Volume (veh/h)	916	88	75	1399	102	105
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1811	1900	1841	1870	1856	1870
Adj Flow Rate, veh/h	974	94	82	1521	138	142
Peak Hour Factor	0.94	0.94	0.92	0.92	0.74	0.74
Percent Heavy Veh, %	6	0	4	2	3	2
Cap, veh/h	2352	227	442	2901	189	169
Arrive On Green	0.74	0.74	0.04	0.82	0.11	0.11
Sat Flow, veh/h	3261	306	1753	3647	1767	1585
Grp Volume(v), veh/h	528	540	82	1521	138	142
Grp Sat Flow(s),veh/h/ln	1721	1756	1753	1777	1767	1585
Q Serve(g_s), s	17.2	17.2	1.6	20.6	11.3	13.2
Cycle Q Clear(g_c), s	17.2	17.2	1.6	20.6	11.3	13.2
Prop In Lane		0.17	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1276	1302	442	2901	189	169
V/C Ratio(X)	0.41	0.41	0.19	0.52	0.73	0.84
Avail Cap(c_a), veh/h	1276	1302	545	2901	450	404
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	7.2	7.2	5.0	4.4	64.9	65.7
Incr Delay (d2), s/veh	1.0	1.0	0.2	0.7	5.3	10.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	6.0	0.5	5.7	5.5	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.2	8.2	5.2	5.1	70.2	76.1
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h	1068			1603	280	
Approach Delay, s/veh	8.2			5.1	73.2	
Approach LOS	A			A	E	

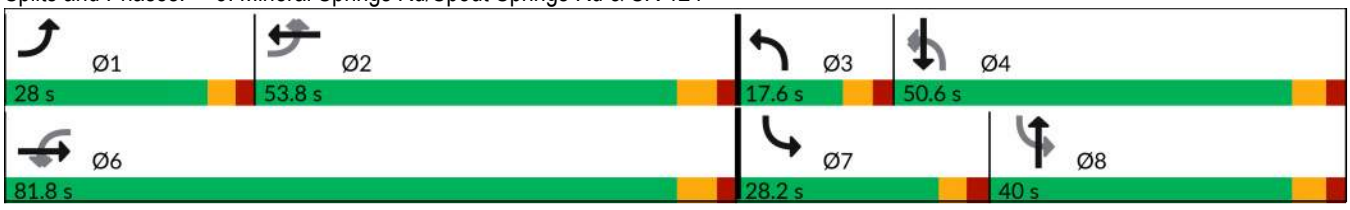
Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		128.2			11.2	117.0	21.8
Change Period (Y+Rc), s		5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s		100.3			14.6	80.3	38.2
Max Q Clear Time (g_c+I1), s		22.6			3.6	19.2	15.2
Green Ext Time (p_c), s		17.1			0.1	7.9	0.9

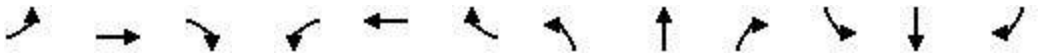
Intersection Summary	
HCM 7th Control Delay, s/veh	12.7
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	247	427	70	33	679	201	227	220	223	117	419
Future Volume (vph)	247	427	70	33	679	201	227	220	223	117	419
Turn Type	D.P+P	NA	Perm	D.Pm	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	2		6	6		2	4		8		4
Detector Phase	1	6	6	6	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	28.0	81.8	81.8	81.8	53.8	53.8	17.6	40.0	28.2	50.6	50.6
Total Split (%)	18.7%	54.5%	54.5%	54.5%	35.9%	35.9%	11.7%	26.7%	18.8%	33.7%	33.7%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead				Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	60.5	64.5	64.5	64.5	40.1	40.1	49.4	29.5	49.4	36.8	36.8
Actuated g/C Ratio	0.46	0.49	0.49	0.49	0.30	0.30	0.37	0.22	0.37	0.28	0.28
v/c Ratio	0.83	0.29	0.09	0.10	0.83	0.45	0.54	0.87	0.82	0.28	0.71
Control Delay (s/veh)	53.6	21.2	1.7	20.4	51.6	18.3	33.9	71.5	50.5	40.2	18.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.6	21.2	1.7	20.4	51.6	18.3	33.9	71.5	50.5	40.2	18.4
LOS	D	C	A	C	D	B	C	E	D	D	B
Approach Delay (s/veh)		30.1			43.2			55.1		31.2	
Approach LOS		C			D			E		C	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 132.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay (s/veh): 39.1	Intersection LOS: D
Intersection Capacity Utilization 80.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	247	427	70	33	679	201	227	220	74	223	117	419
Future Volume (veh/h)	247	427	70	33	679	201	227	220	74	223	117	419
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1752	1900	1856	1841	1841	1885	1870	1767	1767	1841	1885
Adj Flow Rate, veh/h	271	469	77	42	871	258	267	259	87	269	141	0
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.83	0.83	0.83
Percent Heavy Veh, %	3	10	0	3	4	4	1	2	9	9	4	1
Cap, veh/h	303	1079	522	245	1059	472	493	291	98	331	471	
Arrive On Green	0.14	0.32	0.32	0.10	0.30	0.30	0.10	0.22	0.22	0.14	0.26	0.00
Sat Flow, veh/h	1767	3328	1610	1767	3497	1560	1795	1339	450	1682	1841	1598
Grp Volume(v), veh/h	271	469	77	42	871	258	267	0	346	269	141	0
Grp Sat Flow(s),veh/h/ln	1767	1664	1610	1767	1749	1560	1795	0	1789	1682	1841	1598
Q Serve(g_s), s	13.3	12.8	3.9	3.8	26.8	16.0	12.0	0.0	21.7	14.1	7.1	0.0
Cycle Q Clear(g_c), s	13.3	12.8	3.9	3.8	26.8	16.0	12.0	0.0	21.7	14.1	7.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		1.00
Lane Grp Cap(c), veh/h	303	1079	522	0	1059	472	493	0	388	331	471	
V/C Ratio(X)	0.90	0.43	0.15	0.00	0.82	0.55	0.54	0.00	0.89	0.81	0.30	
Avail Cap(c_a), veh/h	410	2165	1047	0	1429	637	493	0	526	419	709	
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	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.7	30.8	27.8	0.0	37.5	33.7	28.6	0.0	44.0	30.8	34.7	0.0
Incr Delay (d2), s/veh	17.4	0.3	0.1	0.0	2.9	1.0	1.2	0.0	13.8	9.3	0.4	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	8.5	5.0	1.5	0.0	11.4	6.0	5.6	0.0	10.9	6.4	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.1	31.1	27.9	0.0	40.4	34.7	29.8	0.0	57.8	40.1	35.0	0.0
LnGrp LOS	E	C	C		D	C	C		E	D	D	
Approach Vol, veh/h		817			1171			613			410	
Approach Delay, s/veh		40.1			37.7			45.6			38.4	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.0	41.6	17.6	35.6	18.5	44.0	22.1	31.1
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0	6.5	6.5	5.6	6.0
Max Green Setting (Gmax), s	22.8	47.3	12.0	44.6	75.3	75.3	22.6	34.0
Max Q Clear Time (g_c+I1), s	15.3	28.8	14.0	9.1	5.8	14.8	16.1	23.7
Green Ext Time (p_c), s	0.5	6.3	0.0	0.7	0.1	3.4	0.4	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	40.0
HCM 7th LOS	D

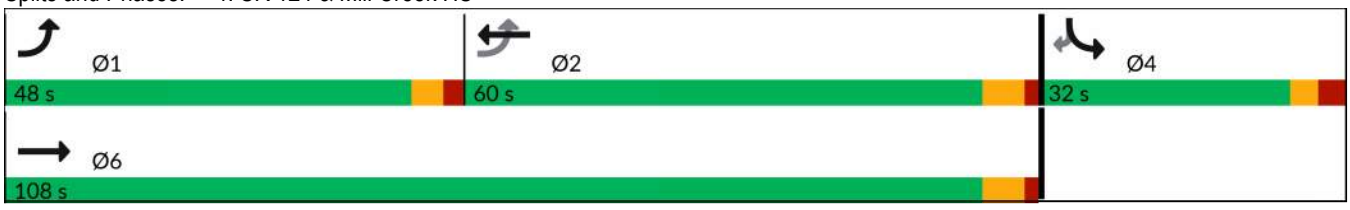
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	324	426	703	241	107	169
Future Volume (vph)	324	426	703	241	107	169
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	48.0	108.0	60.0		32.0	32.0
Total Split (%)	34.3%	77.1%	42.9%		22.9%	22.9%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	Min	Min		None	None
Act Effct Green (s)	49.5	54.7	29.3	81.3	14.0	14.0
Actuated g/C Ratio	0.61	0.67	0.36	1.00	0.17	0.17
v/c Ratio	0.75	0.25	0.69	0.19	0.53	0.53
Control Delay (s/veh)	22.9	5.5	26.8	0.3	41.2	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.9	5.5	26.8	0.3	41.2	9.5
LOS	C	A	C	A	D	A
Approach Delay (s/veh)		13.0	20.1		21.8	
Approach LOS		B	C		C	

Intersection Summary	
Cycle Length: 140	
Actuated Cycle Length: 81.3	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay (s/veh): 17.7	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	324	426	703	241	107	169
Future Volume (veh/h)	324	426	703	241	107	169
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1826	1737	1826	1841	1870	1856
Adj Flow Rate, veh/h	415	546	857	0	162	256
Peak Hour Factor	0.78	0.78	0.82	0.82	0.66	0.66
Percent Heavy Veh, %	5	11	5	4	2	3
Cap, veh/h	527	2040	1187		362	320
Arrive On Green	0.19	0.62	0.34	0.00	0.20	0.20
Sat Flow, veh/h	1739	3387	3561	1560	1781	1572
Grp Volume(v), veh/h	415	546	857	0	162	256
Grp Sat Flow(s),veh/h/ln	1739	1650	1735	1560	1781	1572
Q Serve(g_s), s	9.6	5.0	14.3	0.0	5.3	10.2
Cycle Q Clear(g_c), s	9.6	5.0	14.3	0.0	5.3	10.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	527	2040	1187		362	320
V/C Ratio(X)	0.79	0.27	0.72		0.45	0.80
Avail Cap(c_a), veh/h	1309	5096	2838		703	621
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	5.8	19.0	0.0	23.1	25.1
Incr Delay (d2), s/veh	2.7	0.1	0.8	0.0	0.9	4.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.1	5.0	0.0	2.2	4.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	15.1	5.8	19.9	0.0	24.0	29.7
LnGrp LOS	B	A	B		C	C
Approach Vol, veh/h		961	857		418	
Approach Delay, s/veh		9.8	19.9		27.5	
Approach LOS		A	B		C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.3	28.5		19.3		46.8
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 43	54.1		26.1		102.1
Max Q Clear Time (g_c+I1), s	11.6	16.3		12.2		7.0
Green Ext Time (p_c), s	1.3	6.4		1.2		3.8

Intersection Summary	
HCM 7th Control Delay, s/veh	17.0
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	467	42	105	828	9	57	6	114	3	3	10
Future Vol, veh/h	6	467	42	105	828	9	57	6	114	3	3	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	87	87	87	92	92	92	63	63	63
Heavy Vehicles, %	0	6	11	3	5	0	4	0	8	0	0	0
Mvmt Flow	7	563	51	121	952	10	62	7	124	5	5	16

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	962	0	0	613	0	0	1297	1781	281	1492	1821	476
Stage 1	-	-	-	-	-	-	577	577	-	1193	1193	-
Stage 2	-	-	-	-	-	-	720	1203	-	299	628	-
Critical Hdwy	4.1	-	-	4.16	-	-	7.58	6.5	7.06	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.58	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.58	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.23	-	-	3.54	4	3.38	3.5	4	3.3
Pot Cap-1 Maneuver	724	-	-	955	-	-	117	83	698	87	78	541
Stage 1	-	-	-	-	-	-	464	505	-	202	263	-
Stage 2	-	-	-	-	-	-	381	260	-	691	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	724	-	-	955	-	-	96	72	698	60	68	541
Mov Cap-2 Maneuver	-	-	-	-	-	-	257	197	-	136	156	-
Stage 1	-	-	-	-	-	-	459	500	-	176	229	-
Stage 2	-	-	-	-	-	-	316	227	-	555	474	-

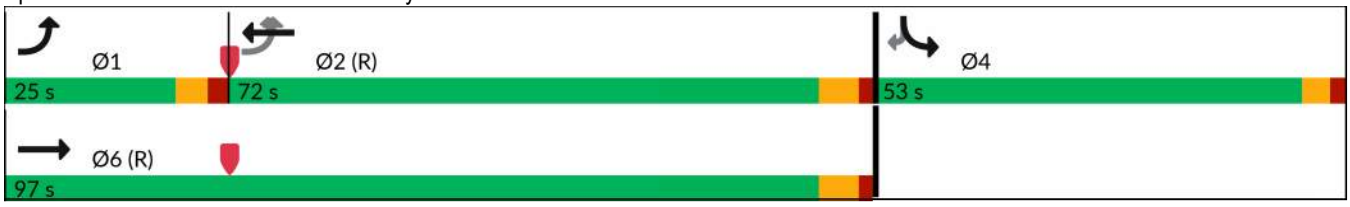
Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.12	1.04	16.07	19.87
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	250	698	724	-	-	955	-	-	267
HCM Lane V/C Ratio	0.274	0.178	0.01	-	-	0.126	-	-	0.095
HCM Control Delay (s/veh)	24.7	11.3	10	-	-	9.3	-	-	19.9
HCM Lane LOS	C	B	B	-	-	A	-	-	C
HCM 95th %tile Q(veh)	1.1	0.6	0	-	-	0.4	-	-	0.3

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	100	460	714	380	237	176
Future Volume (vph)	100	460	714	380	237	176
Turn Type	D.P+P	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0	20.0	8.0	8.0
Minimum Split (s)	9.7	25.9	25.9	25.9	13.0	13.0
Total Split (s)	25.0	97.0	72.0	72.0	53.0	53.0
Total Split (%)	16.7%	64.7%	48.0%	48.0%	35.3%	35.3%
Yellow Time (s)	3.4	4.5	4.5	4.5	3.3	3.3
All-Red Time (s)	2.3	1.4	1.4	1.4	1.7	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.9	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	105.8	111.3	96.7	96.7	27.8	27.8
Actuated g/C Ratio	0.71	0.74	0.64	0.64	0.19	0.19
v/c Ratio	0.28	0.23	0.35	0.37	0.80	0.43
Control Delay (s/veh)	7.9	6.8	8.2	1.4	76.5	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	7.9	6.8	8.2	1.4	76.5	9.0
LOS	A	A	A	A	E	A
Approach Delay (s/veh)		7.0	5.8		47.7	
Approach LOS		A	A		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 13.9	Intersection LOS: B
Intersection Capacity Utilization 52.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	100	460	714	380	237	176
Future Volume (veh/h)	100	460	714	380	237	176
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1767	1811	1841	1856	1796	1826
Adj Flow Rate, veh/h	128	590	785	418	249	185
Peak Hour Factor	0.78	0.78	0.91	0.91	0.95	0.95
Percent Heavy Veh, %	9	6	4	3	7	5
Cap, veh/h	413	2624	2404	1081	282	255
Arrive On Green	0.04	0.76	1.00	1.00	0.16	0.16
Sat Flow, veh/h	1682	3532	3589	1572	1711	1547
Grp Volume(v), veh/h	128	590	785	418	249	185
Grp Sat Flow(s),veh/h/ln	1682	1721	1749	1572	1711	1547
Q Serve(g_s), s	3.4	7.4	0.0	0.0	21.3	17.0
Cycle Q Clear(g_c), s	3.4	7.4	0.0	0.0	21.3	17.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	413	2624	2404	1081	282	255
V/C Ratio(X)	0.31	0.22	0.33	0.39	0.88	0.73
Avail Cap(c_a), veh/h	566	2624	2404	1081	547	495
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	6.2	5.1	0.0	0.0	61.3	59.4
Incr Delay (d2), s/veh	0.4	0.2	0.3	0.9	9.0	3.9
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.3	0.1	0.3	9.9	6.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	6.6	5.3	0.3	0.9	70.2	63.4
LnGrp LOS	A	A	A	A	E	E
Approach Vol, veh/h		718	1203		434	
Approach Delay, s/veh		5.5	0.5		67.3	
Approach LOS		A	A		E	

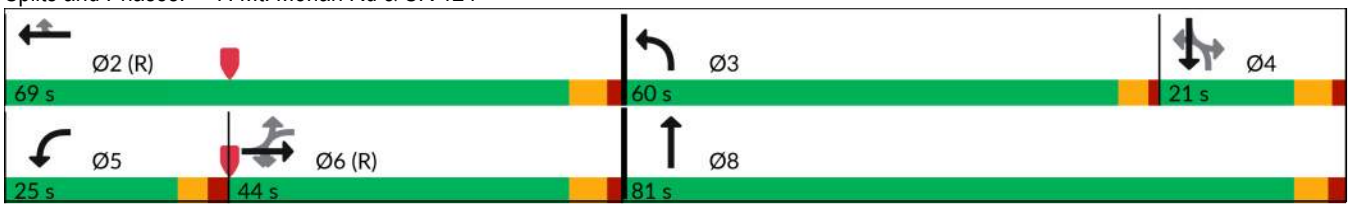
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.3	109.0		29.7		120.3
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	19.3	66.1		48.0		91.1
Max Q Clear Time (g_c+I1), s	5.4	2.0		23.3		9.4
Green Ext Time (p_c), s	0.2	7.9		1.3		4.1

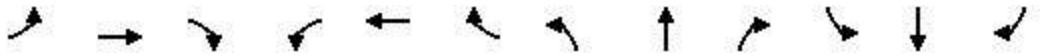
Intersection Summary	
HCM 7th Control Delay, s/veh	14.3
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	402	228	152	627	6	426	4	20	10
Future Volume (vph)	19	402	228	152	627	6	426	4	20	10
Turn Type	Perm	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	NA
Protected Phases		6		5	2		3	8		4
Permitted Phases	6		6	6		2	4		4	
Detector Phase	6	6	6	5	2	2	3	8	4	4
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	8.0	12.0	12.0	5.0	8.0	12.0	12.0
Minimum Split (s)	17.9	17.9	17.9	13.5	17.9	17.9	9.5	13.8	17.9	17.9
Total Split (s)	44.0	44.0	44.0	25.0	69.0	69.0	60.0	81.0	21.0	21.0
Total Split (%)	29.3%	29.3%	29.3%	16.7%	46.0%	46.0%	40.0%	54.0%	14.0%	14.0%
Yellow Time (s)	4.3	4.3	4.3	3.2	4.3	4.3	3.5	3.7	4.3	4.3
All-Red Time (s)	1.6	1.6	1.6	2.3	1.6	1.6	1.0	2.1	1.6	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9	5.5	5.9	5.9	4.5	5.8	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	60.8	60.8	60.8	74.6	79.7	79.7	55.4	58.6	12.0	12.0
Actuated g/C Ratio	0.41	0.41	0.41	0.50	0.53	0.53	0.37	0.39	0.08	0.08
v/c Ratio	0.07	0.33	0.33	0.36	0.36	0.01	0.78	0.31	0.24	0.39
Control Delay (s/veh)	37.5	37.8	12.0	22.2	22.1	0.0	46.1	4.1	71.8	25.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	37.5	37.8	12.0	22.2	22.1	0.0	46.1	4.1	71.8	25.6
LOS	D	D	B	C	C	A	D	A	E	C
Approach Delay (s/veh)		28.7			22.0			32.1		36.3
Approach LOS		C			C			C		D

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 117 (78%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay (s/veh): 27.6	Intersection LOS: C
Intersection Capacity Utilization 72.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	402	228	152	627	6	426	4	209	20	10	57
Future Volume (veh/h)	19	402	228	152	627	6	426	4	209	20	10	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1826	1841	1781	1856	1870	1856	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	21	457	259	163	674	7	473	4	232	22	11	62
Peak Hour Factor	0.92	0.88	0.88	0.93	0.93	0.92	0.90	0.92	0.90	0.92	0.92	0.92
Percent Heavy Veh, %	2	5	4	8	3	2	3	2	2	2	2	2
Cap, veh/h	383	1543	694	459	1934	869	561	10	583	140	20	110
Arrive On Green	0.89	0.89	0.89	0.07	0.55	0.55	0.26	0.37	0.37	0.08	0.08	0.08
Sat Flow, veh/h	759	3469	1560	1697	3526	1585	1767	27	1562	1144	244	1378
Grp Volume(v), veh/h	21	457	259	163	674	7	473	0	236	22	0	73
Grp Sat Flow(s),veh/h/ln	759	1735	1560	1697	1763	1585	1767	0	1589	1144	0	1622
Q Serve(g_s), s	0.5	3.0	4.1	7.8	16.0	0.3	36.0	0.0	16.4	2.7	0.0	6.5
Cycle Q Clear(g_c), s	1.0	3.0	4.1	7.8	16.0	0.3	36.0	0.0	16.4	2.7	0.0	6.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.98	1.00		0.85
Lane Grp Cap(c), veh/h	383	1543	694	459	1934	869	561	0	593	140	0	130
V/C Ratio(X)	0.05	0.30	0.37	0.35	0.35	0.01	0.84	0.00	0.40	0.16	0.00	0.56
Avail Cap(c_a), veh/h	383	1543	694	566	1934	869	750	0	797	163	0	163
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	4.7	4.8	4.8	19.8	18.9	15.4	44.4	0.0	34.6	64.7	0.0	66.5
Incr Delay (d2), s/veh	0.3	0.5	1.4	0.5	0.5	0.0	6.6	0.0	0.4	0.5	0.0	3.8
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	1.0	1.3	3.1	6.5	0.1	16.7	0.0	6.4	0.8	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	4.9	5.2	6.2	20.3	19.4	15.4	51.1	0.0	35.1	65.2	0.0	70.3
LnGrp LOS	A	A	A	C	B	B	D		D	E		E
Approach Vol, veh/h		737			844			709			95	
Approach Delay, s/veh		5.6			19.5			45.8			69.1	
Approach LOS		A			B			D			E	

Timer - Assigned Phs		2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s		88.2	43.9	17.9	15.5	72.6		61.8				
Change Period (Y+Rc), s		5.9	4.5	5.9	5.5	5.9		* 5.9				
Max Green Setting (Gmax), s		63.1	55.5	15.1	19.5	38.1		* 75				
Max Q Clear Time (g_c+I1), s		18.0	38.0	8.5	9.8	6.1		18.4				
Green Ext Time (p_c), s		4.8	1.4	0.2	0.3	4.0		1.7				

Intersection Summary	
HCM 7th Control Delay, s/veh	25.0
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	27.4
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	17	226	13	60	404	7	27	38	65	6	3	15
Future Vol, veh/h	17	226	13	60	404	7	27	38	65	6	3	15
Peak Hour Factor	0.79	0.79	0.79	0.69	0.69	0.69	0.74	0.74	0.74	0.88	0.88	0.88
Heavy Vehicles, %	0	6	9	6	3	0	0	0	6	0	0	0
Mvmt Flow	22	286	16	87	586	10	36	51	88	7	3	17
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

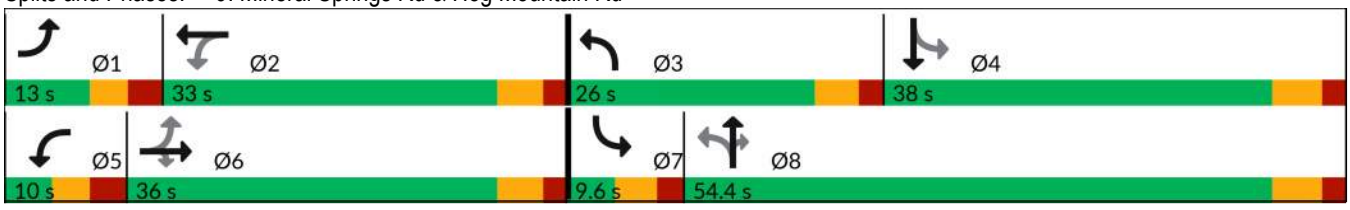
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay, s/veh	14	38.4	11.8	10
HCM LOS	B	E	B	A

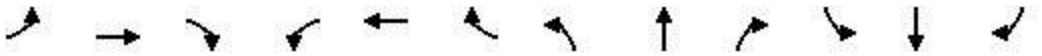
Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	21%	7%	100%	0%	25%
Vol Thru, %	29%	88%	0%	98%	13%
Vol Right, %	50%	5%	0%	2%	63%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	256	60	411	24
LT Vol	27	17	60	0	6
Through Vol	38	226	0	404	3
RT Vol	65	13	0	7	15
Lane Flow Rate	176	324	87	596	27
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.3	0.499	0.149	0.924	0.05
Departure Headway (Hd)	6.151	5.548	6.153	5.584	6.542
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	583	648	583	649	544
Service Time	4.207	3.592	3.887	3.318	4.619
HCM Lane V/C Ratio	0.302	0.5	0.149	0.918	0.05
HCM Control Delay, s/veh	11.8	14	10	42.5	10
HCM Lane LOS	B	B	A	E	A
HCM 95th-tile Q	1.3	2.8	0.5	12.2	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	99	104	74	32	182	262	445	47	13	143
Future Volume (vph)	99	104	74	32	182	262	445	47	13	143
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	13.0	36.0	36.0	10.0	33.0	26.0	54.4	54.4	9.6	38.0
Total Split (%)	11.8%	32.7%	32.7%	9.1%	30.0%	23.6%	49.5%	49.5%	8.7%	34.5%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	29.7	26.4	26.4	22.0	18.3	43.6	39.9	39.9	27.3	22.6
Actuated g/C Ratio	0.34	0.30	0.30	0.25	0.21	0.50	0.46	0.46	0.31	0.26
v/c Ratio	0.45	0.26	0.17	0.13	0.71	0.70	0.63	0.07	0.11	0.80
Control Delay (s/veh)	27.0	28.8	0.6	22.6	43.5	22.5	23.4	0.2	15.0	42.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	27.0	28.8	0.6	22.6	43.5	22.5	23.4	0.2	15.0	42.8
LOS	C	C	A	C	D	C	C	A	B	D
Approach Delay (s/veh)		20.6			40.7		21.7			41.3
Approach LOS		C			D		C			D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 86.9	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay (s/veh): 28.3	Intersection LOS: C
Intersection Capacity Utilization 62.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	99	104	74	32	182	27	262	445	47	13	143	77
Future Volume (veh/h)	99	104	74	32	182	27	262	445	47	13	143	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1841	1752	1856	1781	1870	1885	1826	1218	1870	1856
Adj Flow Rate, veh/h	138	144	103	42	236	35	320	543	57	22	247	133
Peak Hour Factor	0.72	0.72	0.72	0.77	0.77	0.77	0.82	0.82	0.82	0.58	0.58	0.58
Percent Heavy Veh, %	0	4	4	10	3	8	2	1	5	46	2	3
Cap, veh/h	297	438	371	334	295	44	433	747	613	202	295	159
Arrive On Green	0.08	0.24	0.24	0.03	0.19	0.19	0.16	0.40	0.40	0.02	0.26	0.26
Sat Flow, veh/h	1810	1841	1560	1668	1579	234	1781	1885	1547	1160	1144	616
Grp Volume(v), veh/h	138	144	103	42	0	271	320	543	57	22	0	380
Grp Sat Flow(s),veh/h/ln	1810	1841	1560	1668	0	1813	1781	1885	1547	1160	0	1760
Q Serve(g_s), s	4.4	4.7	4.0	1.5	0.0	10.5	8.9	17.9	1.7	1.0	0.0	15.0
Cycle Q Clear(g_c), s	4.4	4.7	4.0	1.5	0.0	10.5	8.9	17.9	1.7	1.0	0.0	15.0
Prop In Lane	1.00		1.00	1.00		0.13	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	297	438	371	334	0	339	433	747	613	202	0	454
V/C Ratio(X)	0.46	0.33	0.28	0.13	0.00	0.80	0.74	0.73	0.09	0.11	0.00	0.84
Avail Cap(c_a), veh/h	320	763	646	373	0	677	649	1243	1021	244	0	767
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	23.1	22.8	23.0	0.0	28.5	16.5	18.8	13.9	20.0	0.0	25.8
Incr Delay (d2), s/veh	1.1	0.4	0.4	0.2	0.0	4.4	2.5	1.4	0.1	0.2	0.0	4.2
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	1.8	2.0	1.4	0.6	0.0	4.6	3.4	7.1	0.5	0.3	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.2	23.5	23.2	23.2	0.0	32.9	19.0	20.2	14.0	20.2	0.0	30.0
LnGrp LOS	C	C	C	C		C	B	C	B	C		C
Approach Vol, veh/h		385			313			920			402	
Approach Delay, s/veh		23.3			31.6			19.4			29.4	
Approach LOS		C			C			B			C	

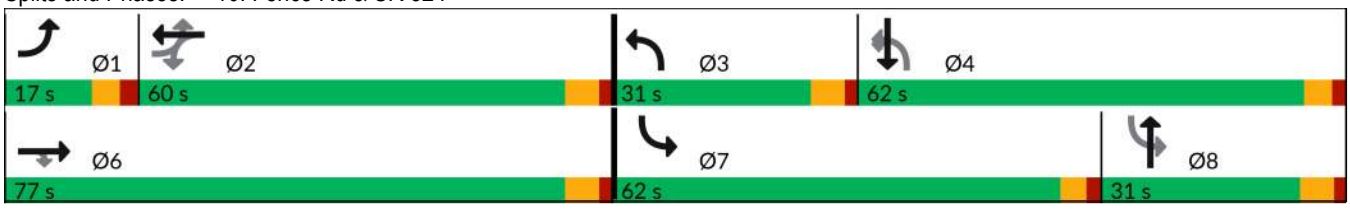
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.1	19.3	17.1	24.9	8.3	23.1	6.9	35.1
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	7.0	27.4	20.5	32.0	4.0	30.4	4.1	48.4
Max Q Clear Time (g_c+I1), s	6.4	12.5	10.9	17.0	3.5	6.7	3.0	19.9
Green Ext Time (p_c), s	0.0	1.2	0.7	1.9	0.0	1.0	0.0	3.7

Intersection Summary	
HCM 7th Control Delay, s/veh	24.0
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	138	255	42	30	540	46	158	48	320	310
Future Volume (vph)	138	255	42	30	540	46	158	48	320	310
Turn Type	D.P+P	NA	Perm	Perm	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2	3	8	7	4	
Permitted Phases	2		6	2		4		8		4
Detector Phase	1	6	6	2	2	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	24.0	24.0	24.0	24.0	23.7	23.7	23.3	23.3	23.3
Total Split (s)	17.0	77.0	77.0	60.0	60.0	31.0	31.0	62.0	62.0	62.0
Total Split (%)	10.0%	45.3%	45.3%	35.3%	35.3%	18.2%	18.2%	36.5%	36.5%	36.5%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3	5.3
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	Min	Min	None	None	None	None	None
Act Effct Green (s)	66.3	71.9	71.9	54.7	54.7	36.2	30.1	37.0	29.9	29.9
Actuated g/C Ratio	0.53	0.58	0.58	0.44	0.44	0.29	0.24	0.30	0.24	0.24
v/c Ratio	0.52	0.28	0.05	0.07	0.81	0.27	0.51	0.16	0.80	0.54
Control Delay (s/veh)	21.9	16.7	0.3	25.3	42.8	30.6	44.4	27.7	59.0	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	21.9	16.7	0.3	25.3	42.8	30.6	44.4	27.7	59.0	7.2
LOS	C	B	A	C	D	C	D	C	E	A
Approach Delay (s/veh)		16.8			42.0		41.6		33.1	
Approach LOS		B			D		D		C	

Intersection Summary	
Cycle Length: 170	
Actuated Cycle Length: 124.4	
Natural Cycle: 105	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 33.2	Intersection LOS: C
Intersection Capacity Utilization 80.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	255	42	30	540	58	46	158	24	48	320	310
Future Volume (veh/h)	138	255	42	30	540	58	46	158	24	48	320	310
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1752	1737	1900	1796	1841	1752	1781	1752	1900	1841	1856
Adj Flow Rate, veh/h	152	280	46	32	568	61	53	184	28	53	352	341
Peak Hour Factor	0.91	0.91	0.91	0.95	0.95	0.95	0.86	0.86	0.86	0.91	0.91	0.91
Percent Heavy Veh, %	7	10	11	0	7	4	10	8	10	0	4	3
Cap, veh/h	234	909	764	488	624	67	222	394	60	361	473	404
Arrive On Green	0.07	0.52	0.52	0.39	0.39	0.39	0.06	0.26	0.26	0.06	0.26	0.26
Sat Flow, veh/h	1711	1752	1472	1071	1594	171	1668	1510	230	1810	1841	1572
Grp Volume(v), veh/h	152	280	46	32	0	629	53	0	212	53	352	341
Grp Sat Flow(s),veh/h/ln	1711	1752	1472	1071	0	1765	1668	0	1740	1810	1841	1572
Q Serve(g_s), s	5.5	9.6	1.6	2.0	0.0	35.2	2.3	0.0	10.7	2.1	18.3	21.5
Cycle Q Clear(g_c), s	5.5	9.6	1.6	2.0	0.0	35.2	2.3	0.0	10.7	2.1	18.3	21.5
Prop In Lane	1.00		1.00	1.00		0.10	1.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	234	909	764	488	0	691	222	0	454	361	473	404
V/C Ratio(X)	0.65	0.31	0.06	0.07	0.00	0.91	0.24	0.00	0.47	0.15	0.74	0.84
Avail Cap(c_a), veh/h	294	1191	1001	623	0	913	531	0	454	1240	1000	854
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	14.4	12.5	19.9	0.0	30.0	27.1	0.0	32.5	25.6	35.6	36.8
Incr Delay (d2), s/veh	3.4	0.2	0.0	0.1	0.0	10.7	0.5	0.0	0.7	0.2	2.3	4.8
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	2.2	3.5	0.5	0.5	0.0	15.8	0.9	0.0	4.5	0.9	8.2	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.1	14.6	12.5	20.0	0.0	40.7	27.6	0.0	33.2	25.7	38.0	41.6
LnGrp LOS	C	B	B	B		D	C		C	C	D	D
Approach Vol, veh/h		478			661			265			746	
Approach Delay, s/veh		18.4			39.7			32.1			38.8	
Approach LOS		B			D			C			D	

Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	13.3	46.9	11.7	32.5		60.2	11.3	32.9				
Change Period (Y+Rc), s	5.8	6.0	5.7	* 5.7		6.0	5.3	5.7				
Max Green Setting (Gmax), s	11.2	54.0	25.3	* 57		71.0	56.7	25.3				
Max Q Clear Time (g_c+I1), s	7.5	37.2	4.3	23.5		11.6	4.1	12.7				
Green Ext Time (p_c), s	0.1	3.7	0.1	3.4		1.7	0.1	0.8				

Intersection Summary	
HCM 7th Control Delay, s/veh	33.7
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	9.0
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	402	504	514
Demand Flow Rate, veh/h	420	520	527
Vehicles Circulating, veh/h	88	327	283
Vehicles Exiting, veh/h	722	181	564
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.1	10.5	9.8
Approach LOS	A	B	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	420	520	527
Cap Entry Lane, veh/h	1261	989	1034
Entry HV Adj Factor	0.958	0.969	0.975
Flow Entry, veh/h	402	504	514
Cap Entry, veh/h	1208	958	1008
V/C Ratio	0.333	0.526	0.510
Control Delay, s/veh	6.1	10.5	9.8
LOS	A	B	A
95th %tile Queue, veh	1	3	3

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	387	586	339
Demand Flow Rate, veh/h	396	598	348
Vehicles Circulating, veh/h	173	80	462
Vehicles Exiting, veh/h	637	489	216
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	6.5	7.8	9.2
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	396	598	348
Cap Entry Lane, veh/h	1157	1272	861
Entry HV Adj Factor	0.977	0.980	0.975
Flow Entry, veh/h	387	586	339
Cap Entry, veh/h	1130	1247	840
V/C Ratio	0.342	0.470	0.404
Control Delay, s/veh	6.5	7.8	9.2
LOS	A	A	A
95th %tile Queue, veh	2	3	2

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	166	24	43	335	232	242
Future Vol, veh/h	166	24	43	335	232	242
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	150	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	70	70	85	85	82	82
Heavy Vehicles, %	1	10	3	2	3	2
Mvmt Flow	237	34	51	394	283	295

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	778	283	578	0	-	0
Stage 1	283	-	-	-	-	-
Stage 2	495	-	-	-	-	-
Critical Hdwy	6.41	6.3	4.13	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.39	2.227	-	-	-
Pot Cap-1 Maneuver	366	737	991	-	-	-
Stage 1	767	-	-	-	-	-
Stage 2	614	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	342	737	991	-	-	-
Mov Cap-2 Maneuver	342	-	-	-	-	-
Stage 1	717	-	-	-	-	-
Stage 2	614	-	-	-	-	-

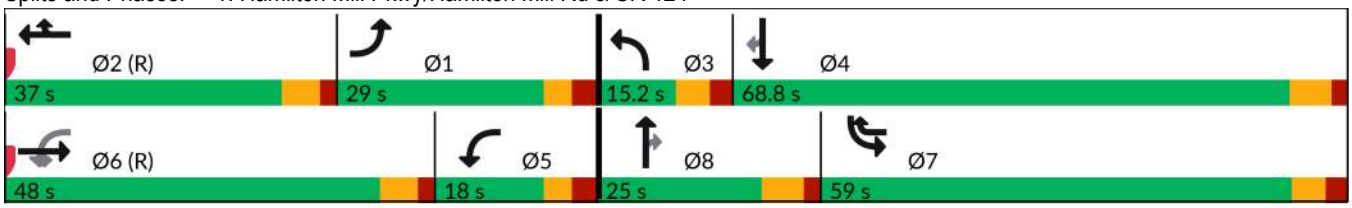
Approach	EB	NB	SB
HCM Control Delay, s/v	32.88	1	0
HCM LOS	D		

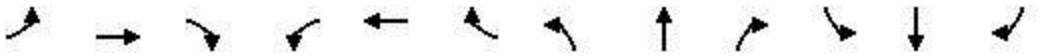
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	205	-	342	737	-	-
HCM Lane V/C Ratio	0.051	-	0.693	0.047	-	-
HCM Control Delay (s/veh)	8.8	0	36.2	10.1	-	-
HCM Lane LOS	A	A	E	B	-	-
HCM 95th %tile Q(veh)	0.2	-	4.9	0.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	398	623	16	184	465	887	35	241	206	1454	464	440
Future Volume (vph)	398	623	16	184	465	887	35	241	206	1454	464	440
Turn Type	Prot	NA	Perm	D.P+P	NA	pt+ov	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2	2 7	3	8		7	4	
Permitted Phases			6	6					8			4
Detector Phase	1	6	6	5	2	2 7	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	4.0	12.0	12.0	4.0	12.0		4.0	6.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.7	24.0	24.0	9.7	24.0		10.2	24.4	24.4	10.2	24.4	24.4
Total Split (s)	29.0	48.0	48.0	18.0	37.0		15.2	25.0	25.0	59.0	68.8	68.8
Total Split (%)	19.3%	32.0%	32.0%	12.0%	24.7%		10.1%	16.7%	16.7%	39.3%	45.9%	45.9%
Yellow Time (s)	3.1	4.3	4.3	3.1	4.3		3.7	4.6	4.6	3.7	4.6	4.6
All-Red Time (s)	2.6	1.7	1.7	2.6	1.7		2.5	1.8	1.8	2.5	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	6.0	6.0	5.7	6.0		6.2	6.4	6.4	6.2	6.4	6.4
Lead/Lag	Lag	Lead	Lead	Lag	Lead		Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max		None	None	None	Max	None	None
Act Effct Green (s)	22.2	42.0	42.0	53.5	31.0	93.5	7.9	16.2	16.2	56.3	66.9	66.9
Actuated g/C Ratio	0.15	0.28	0.28	0.36	0.21	0.62	0.05	0.11	0.11	0.38	0.45	0.45
v/c Ratio	0.86	0.69	0.03	0.83	0.68	0.52	0.42	0.70	0.75	0.83	0.59	0.50
Control Delay (s/veh)	79.5	52.5	0.1	72.9	51.7	9.1	82.3	74.3	37.8	47.5	36.3	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	79.5	52.5	0.1	72.9	51.7	9.1	82.3	74.3	37.8	47.5	36.3	6.0
LOS	E	D	A	E	D	A	F	E	D	D	D	A
Approach Delay (s/veh)		62.1			29.7			59.3			37.6	
Approach LOS		E			C			E			D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 110	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 42.1	Intersection LOS: D
Intersection Capacity Utilization 82.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 1: Hamilton Mill Pkwy/Hamilton Mill Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	398	623	16	184	465	887	35	241	206	1454	464	440
Future Volume (veh/h)	398	623	16	184	465	887	35	241	206	1454	464	440
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1900	1900	1870	1885	1856	1900	1885	1885	1885	1870
Adj Flow Rate, veh/h	433	677	0	196	495	944	39	271	0	1563	499	0
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.89	0.89	0.89	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	0	0	2	1	3	0	1	1	1	2
Cap, veh/h	639	987		337	734	1571	50	331		1782	785	
Arrive On Green	0.19	0.28	0.00	0.11	0.21	0.21	0.03	0.09	0.00	0.35	0.42	0.00
Sat Flow, veh/h	3428	3526	1610	1810	3554	2812	1767	3610	1598	5063	1885	1585
Grp Volume(v), veh/h	433	677	0	196	495	944	39	271	0	1563	499	0
Grp Sat Flow(s),veh/h/ln	1714	1763	1610	1810	1777	1406	1767	1805	1598	1688	1885	1585
Q Serve(g_s), s	17.6	25.7	0.0	3.9	19.3	0.0	3.3	11.1	0.0	43.4	31.5	0.0
Cycle Q Clear(g_c), s	17.6	25.7	0.0	3.9	19.3	0.0	3.3	11.1	0.0	43.4	31.5	0.0
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	639	987		337	734	1571	50	331		1782	785	
V/C Ratio(X)	0.68	0.69		0.58	0.67	0.60	0.78	0.82		0.88	0.64	
Avail Cap(c_a), veh/h	639	987		337	734	1571	106	448		1782	785	
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	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	56.8	48.1	0.0	55.9	54.8	22.0	72.4	66.9	0.0	45.6	34.7	0.0
Incr Delay (d2), s/veh	2.9	3.9	0.0	2.5	4.9	1.7	22.2	8.5	0.0	6.5	1.7	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	7.9	11.8	0.0	7.0	9.1	11.1	1.8	5.4	0.0	18.7	14.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	59.7	52.0	0.0	58.4	59.7	23.7	94.6	75.4	0.0	52.0	36.4	0.0
LnGrp LOS	E	D		E	E	C	F	E		D	D	
Approach Vol, veh/h		1110			1635			310			2062	
Approach Delay, s/veh		55.0			38.8			77.8			48.2	
Approach LOS		E			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.6	37.0	10.5	68.9	22.6	48.0	59.2	20.2
Change Period (Y+Rc), s	5.7	6.0	6.2	* 6.4	5.7	6.0	* 6.4	* 6.4
Max Green Setting (Gmax), s	23.3	31.0	9.0	* 62	12.3	42.0	* 53	* 19
Max Q Clear Time (g_c+I1), s	19.6	21.3	5.3	33.5	5.9	27.7	45.4	13.1
Green Ext Time (p_c), s	0.6	5.2	0.0	3.0	0.3	3.9	3.9	0.7

Intersection Summary	
HCM 7th Control Delay, s/veh	48.5
HCM 7th LOS	D

Notes

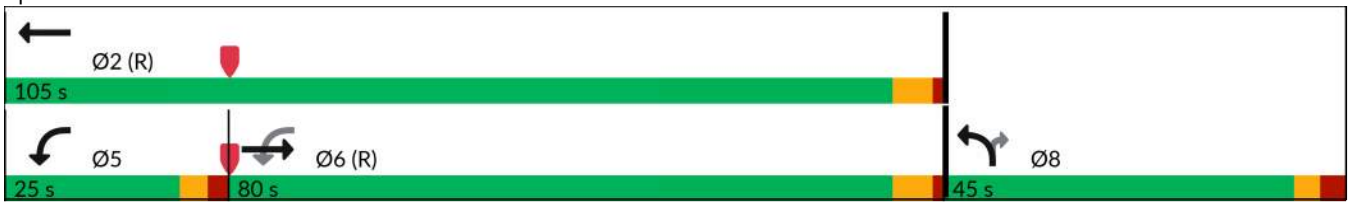
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	NBL	NBR
Lane Configurations					
Traffic Volume (vph)	1767	106	1221	163	141
Future Volume (vph)	1767	106	1221	163	141
Turn Type	NA	D.P+P	NA	Prot	Perm
Protected Phases	6	5	2	8	
Permitted Phases		6			8
Detector Phase	6	5	2	8	8
Switch Phase					
Minimum Initial (s)	12.0	6.0	12.0	6.0	6.0
Minimum Split (s)	17.7	11.4	17.7	11.8	11.8
Total Split (s)	80.0	25.0	105.0	45.0	45.0
Total Split (%)	53.3%	16.7%	70.0%	30.0%	30.0%
Yellow Time (s)	4.5	3.2	4.5	3.0	3.0
All-Red Time (s)	1.2	2.2	1.2	2.8	2.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.4	5.7	5.8	5.8
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes			
Recall Mode	C-Max	None	C-Max	None	None
Act Effct Green (s)	98.6	110.7	115.8	22.7	22.7
Actuated g/C Ratio	0.66	0.74	0.77	0.15	0.15
v/c Ratio	0.94	0.66	0.53	0.76	0.46
Control Delay (s/veh)	26.6	43.6	8.6	78.7	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	26.6	43.6	8.6	78.7	10.7
LOS	C	D	A	E	B
Approach Delay (s/veh)	26.6		11.4	47.2	
Approach LOS	C		B	D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 130 (87%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay (s/veh): 22.7	Intersection LOS: C
Intersection Capacity Utilization 81.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 2: Jim Moore Rd & SR 124



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1767	118	106	1221	163	141
Future Volume (veh/h)	1767	118	106	1221	163	141
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1870	1885	1856
Adj Flow Rate, veh/h	2008	134	125	1436	206	178
Peak Hour Factor	0.88	0.88	0.85	0.85	0.79	0.79
Percent Heavy Veh, %	3	0	3	2	1	3
Cap, veh/h	2397	158	170	2807	240	210
Arrive On Green	0.71	0.71	0.04	0.79	0.13	0.13
Sat Flow, veh/h	3450	221	1767	3647	1795	1572
Grp Volume(v), veh/h	1044	1098	125	1436	206	178
Grp Sat Flow(s),veh/h/ln	1763	1816	1767	1777	1795	1572
Q Serve(g_s), s	62.2	65.7	2.8	21.4	16.8	16.6
Cycle Q Clear(g_c), s	62.2	65.7	2.8	21.4	16.8	16.6
Prop In Lane		0.12	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1259	1296	170	2807	240	210
V/C Ratio(X)	0.83	0.85	0.74	0.51	0.86	0.85
Avail Cap(c_a), veh/h	1259	1296	330	2807	469	411
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	15.0	15.5	34.6	5.6	63.6	63.5
Incr Delay (d2), s/veh	6.4	7.0	6.1	0.7	8.7	9.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.7	25.8	3.6	6.5	8.4	7.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	21.4	22.5	40.8	6.2	72.3	72.6
LnGrp LOS	C	C	D	A	E	E
Approach Vol, veh/h	2142			1561	384	
Approach Delay, s/veh	22.0			9.0	72.4	
Approach LOS	C			A	E	

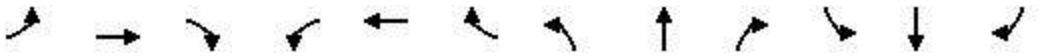
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+Rc), s	124.2			11.4	112.8	25.8
Change Period (Y+Rc), s	5.7			5.4	5.7	5.8
Max Green Setting (Gmax), s	99.3			19.6	74.3	39.2
Max Q Clear Time (g_c+I1), s	23.4			4.8	67.7	18.8
Green Ext Time (p_c), s	15.2			0.2	5.8	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	21.8
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	458	878	169	34	588	168	143	212	352	355	351
Future Volume (vph)	458	878	169	34	588	168	143	212	352	355	351
Turn Type	D.P+P	NA	Perm	D.Pm	NA	Perm	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2		3	8	7	4	
Permitted Phases	2		6	6		2	4		8		4
Detector Phase	1	6	6	6	2	2	3	8	7	4	4
Switch Phase											
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	12.0	4.0	6.0	4.0	6.0	6.0
Minimum Split (s)	9.2	18.5	18.5	18.5	18.5	18.5	9.6	24.0	9.6	12.0	12.0
Total Split (s)	41.0	80.0	80.0	80.0	39.0	39.0	18.8	35.0	35.0	51.2	51.2
Total Split (%)	27.3%	53.3%	53.3%	53.3%	26.0%	26.0%	12.5%	23.3%	23.3%	34.1%	34.1%
Yellow Time (s)	3.2	4.4	4.4	4.4	4.4	4.4	3.3	3.7	3.3	3.7	3.7
All-Red Time (s)	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.3	2.3	2.3	2.3
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.2	6.5	6.5	6.5	6.5	6.5	5.6	6.0	5.6	6.0	6.0
Lead/Lag	Lead				Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	69.9	73.8	73.8	73.8	33.7	33.7	58.5	28.8	58.5	45.5	45.5
Actuated g/C Ratio	0.47	0.49	0.49	0.49	0.22	0.22	0.39	0.19	0.39	0.30	0.30
v/c Ratio	0.95	0.51	0.20	0.17	0.79	0.38	0.59	0.96	0.97	0.68	0.52
Control Delay (s/veh)	67.5	25.5	10.0	22.6	45.2	10.9	36.4	97.6	82.3	53.2	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.5	25.5	10.0	22.6	45.2	10.9	36.4	97.6	82.3	53.2	6.2
LOS	E	C	B	C	D	B	D	F	F	D	A
Approach Delay (s/veh)		36.5			36.9			76.9		47.3	
Approach LOS		D			D			E		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 40 (27%), Referenced to phase 6:EBWB, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay (s/veh): 44.8	Intersection LOS: D
Intersection Capacity Utilization 95.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 3: Mineral Springs Rd/Spout Springs Rd & SR 124



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	458	878	169	34	588	168	143	212	67	352	355	351
Future Volume (veh/h)	458	878	169	34	588	168	143	212	67	352	355	351
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1900	1900	1870	1885	1841	1856	1870	1885	1885	1856
Adj Flow Rate, veh/h	467	896	172	36	626	179	172	255	81	387	390	0
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.83	0.83	0.83	0.91	0.91	0.91
Percent Heavy Veh, %	1	1	0	0	2	1	4	3	2	1	1	3
Cap, veh/h	477	1755	789	193	1208	543	315	261	83	406	583	
Arrive On Green	0.24	0.49	0.49	0.16	0.68	0.68	0.08	0.19	0.19	0.20	0.31	0.00
Sat Flow, veh/h	1795	3582	1610	1810	3554	1598	1753	1350	429	1795	1885	1572
Grp Volume(v), veh/h	467	896	172	36	626	179	172	0	336	387	390	0
Grp Sat Flow(s),veh/h/ln	1795	1791	1610	1810	1777	1598	1753	0	1778	1795	1885	1572
Q Serve(g_s), s	34.7	25.5	9.1	3.2	13.1	6.9	10.0	0.0	28.2	27.4	27.0	0.0
Cycle Q Clear(g_c), s	34.7	25.5	9.1	3.2	13.1	6.9	10.0	0.0	28.2	27.4	27.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	477	1755	789	0	1208	543	315	0	344	406	583	
V/C Ratio(X)	0.98	0.51	0.22	0.00	0.52	0.33	0.55	0.00	0.98	0.95	0.67	
Avail Cap(c_a), veh/h	477	1755	789	0	1208	543	329	0	344	406	583	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.96	0.96	0.96	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	50.7	26.0	21.8	0.0	17.9	16.9	34.0	0.0	60.2	44.9	45.1	0.0
Incr Delay (d2), s/veh	35.9	1.1	0.6	0.0	0.4	0.3	1.7	0.0	42.3	33.0	2.9	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	21.1	10.8	3.6	0.0	4.0	2.3	4.4	0.0	16.6	15.7	13.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	86.7	27.1	22.5	0.0	18.3	17.3	35.7	0.0	102.5	77.9	48.1	0.0
LnGrp LOS	F	C	C		B	B	D		F	E	D	
Approach Vol, veh/h		1535			841			508			777	
Approach Delay, s/veh		44.7			17.3			79.8			62.9	
Approach LOS		D			B			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	41.0	57.5	17.6	52.4	18.5	80.0	35.0	35.0
Change Period (Y+Rc), s	5.2	6.5	5.6	6.0	6.5	6.5	5.6	6.0
Max Green Setting (Gmax), s	35.8	32.5	13.2	45.2	73.5	73.5	29.4	29.0
Max Q Clear Time (g_c+I1), s	36.7	15.1	12.0	29.0	5.2	27.5	29.4	30.2
Green Ext Time (p_c), s	0.0	4.2	0.1	1.9	0.1	7.6	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	47.1
HCM 7th LOS	D

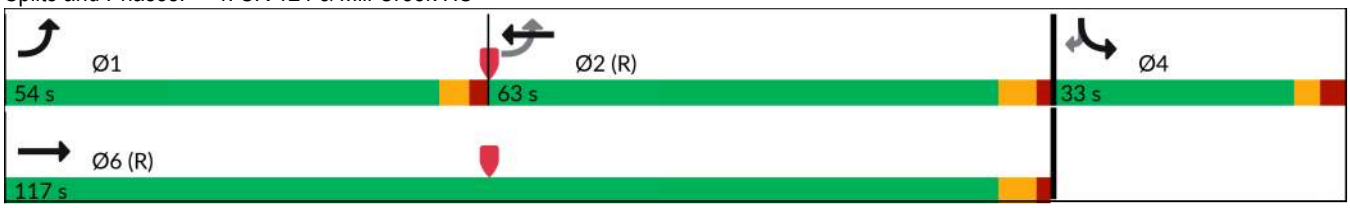
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	342	959	576	174	75	120
Future Volume (vph)	342	959	576	174	75	120
Turn Type	D.P+P	NA	NA	Free	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			Free		4
Detector Phase	1	6	2		4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0		8.0	8.0
Minimum Split (s)	9.5	25.9	25.9		22.5	22.5
Total Split (s)	54.0	117.0	63.0		33.0	33.0
Total Split (%)	36.0%	78.0%	42.0%		22.0%	22.0%
Yellow Time (s)	3.3	4.4	4.4		3.0	3.0
All-Red Time (s)	2.1	1.5	1.5		2.9	2.9
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.4	5.9	5.9		5.9	5.9
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None	C-Min	C-Max		None	None
Act Effct Green (s)	120.5	125.4	101.3	150.0	12.8	12.8
Actuated g/C Ratio	0.80	0.84	0.68	1.00	0.09	0.09
v/c Ratio	0.50	0.33	0.27	0.12	0.58	0.54
Control Delay (s/veh)	5.8	3.2	15.4	0.1	80.4	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	5.8	3.2	15.4	0.1	80.4	16.5
LOS	A	A	B	A	F	B
Approach Delay (s/veh)		3.9	11.8		41.0	
Approach LOS		A	B		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 80 (53%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay (s/veh): 10.3	Intersection LOS: B
Intersection Capacity Utilization 56.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 4: SR 124 & Mill Creek HS



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	342	959	576	174	75	120
Future Volume (veh/h)	342	959	576	174	75	120
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	353	989	655	0	90	145
Peak Hour Factor	0.97	0.97	0.88	0.88	0.83	0.83
Percent Heavy Veh, %	1	1	1	0	0	0
Cap, veh/h	692	2922	2489		191	170
Arrive On Green	0.17	1.00	0.69	0.00	0.11	0.11
Sat Flow, veh/h	1795	3676	3676	1610	1810	1610
Grp Volume(v), veh/h	353	989	655	0	90	145
Grp Sat Flow(s),veh/h/ln	1795	1791	1791	1610	1810	1610
Q Serve(g_s), s	9.7	0.0	10.2	0.0	7.0	13.3
Cycle Q Clear(g_c), s	9.7	0.0	10.2	0.0	7.0	13.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	692	2922	2489		191	170
V/C Ratio(X)	0.51	0.34	0.26		0.47	0.85
Avail Cap(c_a), veh/h	1121	2922	2489		327	291
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.72	0.72	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	4.8	0.0	8.5	0.0	63.1	65.9
Incr Delay (d2), s/veh	0.4	0.2	0.3	0.0	1.8	11.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.1	3.7	0.0	3.4	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	5.2	0.2	8.8	0.0	64.9	77.3
LnGrp LOS	A	A	A		E	E
Approach Vol, veh/h		1342	655		235	
Approach Delay, s/veh		1.5	8.8		72.6	
Approach LOS		A	A		E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.1	110.1		21.7		128.3
Change Period (Y+Rc), s	* 5.4	5.9		5.9		5.9
Max Green Setting (Gmax), s	* 49	57.1		27.1		111.1
Max Q Clear Time (g_c+I1), s	11.7	12.2		15.3		2.0
Green Ext Time (p_c), s	1.0	4.6		0.6		8.1

Intersection Summary	
HCM 7th Control Delay, s/veh	11.2
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	958	38	167	692	2	50	1	215	1	1	5
Future Vol, veh/h	2	958	38	167	692	2	50	1	215	1	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	150	290	-	200	-	-	115	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	2	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	87	87	87	90	90	90	75	75	75
Heavy Vehicles, %	0	1	0	1	1	0	0	0	1	0	0	0
Mvmt Flow	2	1030	41	192	795	2	56	1	239	1	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	798	0	0	1071	0	0	1817	2216	515	1699	2255	398
Stage 1	-	-	-	-	-	-	1034	1034	-	1179	1179	-
Stage 2	-	-	-	-	-	-	782	1182	-	520	1075	-
Critical Hdwy	4.1	-	-	4.12	-	-	7.5	6.5	6.92	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.21	-	-	3.5	4	3.31	3.5	4	3.3
Pot Cap-1 Maneuver	833	-	-	653	-	-	~ 50	44	507	61	42	607
Stage 1	-	-	-	-	-	-	252	312	-	206	266	-
Stage 2	-	-	-	-	-	-	358	266	-	513	298	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	833	-	-	653	-	-	~ 34	31	507	23	29	607
Mov Cap-2 Maneuver	-	-	-	-	-	-	168	152	-	55	74	-
Stage 1	-	-	-	-	-	-	251	311	-	145	188	-
Stage 2	-	-	-	-	-	-	248	188	-	270	298	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.02	2.48	21.85	26.65
HCM LOS			C	D

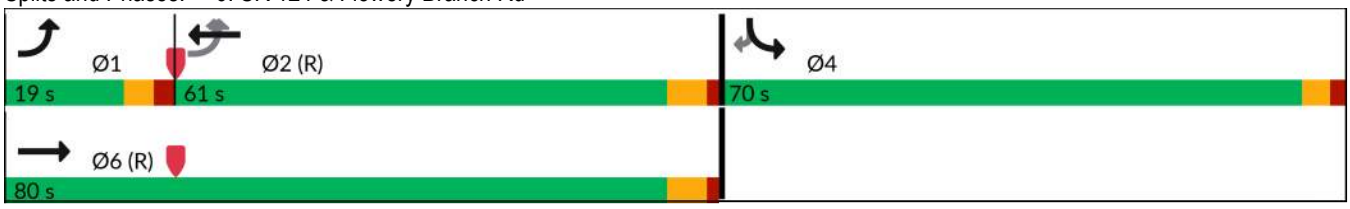
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	168	507	833	-	-	653	-	-	176
HCM Lane V/C Ratio	0.338	0.471	0.003	-	-	0.294	-	-	0.053
HCM Control Delay (s/veh)	37	18.3	9.3	-	-	12.8	-	-	26.7
HCM Lane LOS	E	C	A	-	-	B	-	-	D
HCM 95th %tile Q(veh)	1.4	2.5	0	-	-	1.2	-	-	0.2

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

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	107	1024	740	318	407	80
Future Volume (vph)	107	1024	740	318	407	80
Turn Type	D.P+P	NA	NA	Perm	Prot	Perm
Protected Phases	1	6	2		4	
Permitted Phases	2			2		4
Detector Phase	1	6	2	2	4	4
Switch Phase						
Minimum Initial (s)	4.0	20.0	20.0	20.0	8.0	8.0
Minimum Split (s)	9.7	25.9	25.9	25.9	13.0	13.0
Total Split (s)	19.0	80.0	61.0	61.0	70.0	70.0
Total Split (%)	12.7%	53.3%	40.7%	40.7%	46.7%	46.7%
Yellow Time (s)	3.4	4.5	4.5	4.5	3.3	3.3
All-Red Time (s)	2.3	1.4	1.4	1.4	1.7	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.9	5.9	5.9	5.0	5.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	88.3	93.8	78.6	78.6	45.3	45.3
Actuated g/C Ratio	0.59	0.63	0.52	0.52	0.30	0.30
v/c Ratio	0.29	0.48	0.42	0.37	0.84	0.16
Control Delay (s/veh)	14.7	16.9	25.0	10.2	63.4	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	14.7	16.9	25.0	10.2	63.4	9.6
LOS	B	B	C	B	E	A
Approach Delay (s/veh)		16.7	20.5		54.5	
Approach LOS		B	C		D	

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 115 (77%), Referenced to phase 2:EBWB and 6:EBT, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay (s/veh): 25.3	Intersection LOS: C
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: SR 124 & Flowery Branch Rd



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	107	1024	740	318	407	80
Future Volume (veh/h)	107	1024	740	318	407	80
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1841	1856	1900
Adj Flow Rate, veh/h	113	1078	787	338	447	88
Peak Hour Factor	0.95	0.95	0.94	0.94	0.91	0.91
Percent Heavy Veh, %	1	1	1	4	3	0
Cap, veh/h	411	2349	2072	902	480	437
Arrive On Green	0.04	0.66	1.00	1.00	0.27	0.27
Sat Flow, veh/h	1795	3676	3676	1560	1767	1610
Grp Volume(v), veh/h	113	1078	787	338	447	88
Grp Sat Flow(s),veh/h/ln	1795	1791	1791	1560	1767	1610
Q Serve(g_s), s	3.8	22.2	0.0	0.0	37.0	6.3
Cycle Q Clear(g_c), s	3.8	22.2	0.0	0.0	37.0	6.3
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	411	2349	2072	902	480	437
V/C Ratio(X)	0.28	0.46	0.38	0.37	0.93	0.20
Avail Cap(c_a), veh/h	499	2349	2072	902	766	698
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.87	0.87	1.00	1.00
Uniform Delay (d), s/veh	11.7	12.7	0.0	0.0	53.3	42.1
Incr Delay (d2), s/veh	0.4	0.6	0.5	1.0	12.6	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	8.5	0.1	0.3	18.0	2.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.0	13.4	0.5	1.0	65.9	42.3
LnGrp LOS	B	B	A	A	E	D
Approach Vol, veh/h		1191	1125		535	
Approach Delay, s/veh		13.2	0.6		62.0	
Approach LOS		B	A		E	

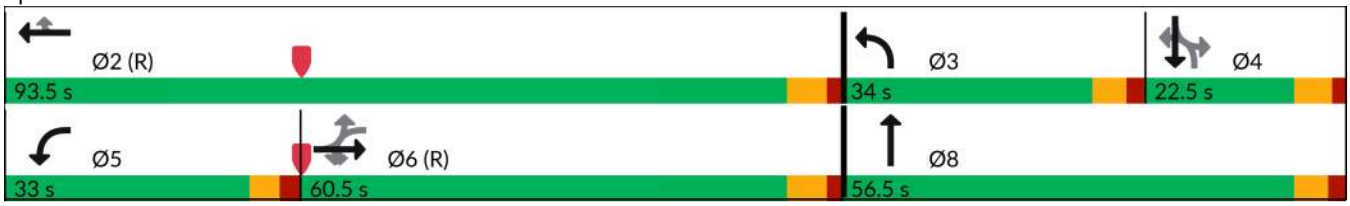
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.6	92.7		45.7		104.3
Change Period (Y+Rc), s	5.7	5.9		5.0		5.9
Max Green Setting (Gmax), s	13.3	55.1		65.0		74.1
Max Q Clear Time (g_c+I1), s	5.8	2.0		39.0		24.2
Green Ext Time (p_c), s	0.1	7.4		1.7		9.0

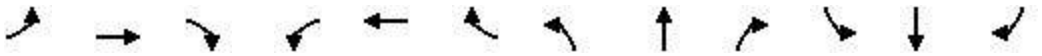
Intersection Summary	
HCM 7th Control Delay, s/veh	17.4
HCM 7th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	64	897	445	283	753	23	285	12	13	7
Future Volume (vph)	64	897	445	283	753	23	285	12	13	7
Turn Type	Perm	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	Perm	NA
Protected Phases		6		5	2		3	8		4
Permitted Phases	6		6	6		2	4		4	
Detector Phase	6	6	6	5	2	2	3	8	4	4
Switch Phase										
Minimum Initial (s)	12.0	12.0	12.0	8.0	12.0	12.0	8.0	8.0	12.0	12.0
Minimum Split (s)	22.5	22.5	22.5	13.5	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	60.5	60.5	60.5	33.0	93.5	93.5	34.0	56.5	22.5	22.5
Total Split (%)	40.3%	40.3%	40.3%	22.0%	62.3%	62.3%	22.7%	37.7%	15.0%	15.0%
Yellow Time (s)	4.3	4.3	4.3	3.2	4.3	4.3	3.7	3.7	4.3	4.3
All-Red Time (s)	1.6	1.6	1.6	2.3	1.6	1.6	2.1	2.1	1.6	1.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.9	5.9	5.9	5.5	5.9	5.9	5.8	5.8	5.9	5.9
Lead/Lag	Lag	Lag	Lag	Lead			Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes			Yes		Yes	Yes
Recall Mode	C-Max	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	69.3	69.3	69.3	92.0	97.1	97.1	36.5	41.2	12.0	12.0
Actuated g/C Ratio	0.46	0.46	0.46	0.61	0.65	0.65	0.24	0.27	0.08	0.08
v/c Ratio	0.23	0.57	0.48	0.69	0.36	0.02	0.81	0.43	0.16	0.29
Control Delay (s/veh)	22.2	21.8	3.2	24.1	13.5	0.0	64.5	7.4	68.9	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.2	21.8	3.2	24.1	13.5	0.0	64.5	7.4	68.9	27.3
LOS	C	C	A	C	B	A	E	A	E	C
Approach Delay (s/veh)		15.9			16.0			38.9		36.5
Approach LOS		B			B			D		D

Intersection Summary	
Cycle Length: 150	
Actuated Cycle Length: 150	
Offset: 95 (63%), Referenced to phase 2:WBT and 6:EBWB, Start of Green	
Natural Cycle: 85	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay (s/veh): 20.6	Intersection LOS: C
Intersection Capacity Utilization 77.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 7: Mt. Moriah Rd & SR 124





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	897	445	283	753	23	285	12	221	13	7	38
Future Volume (veh/h)	64	897	445	283	753	23	285	12	221	13	7	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1885	1870	1900	1856	1870	1870	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	70	934	464	304	810	25	328	13	254	14	8	41
Peak Hour Factor	0.92	0.96	0.96	0.93	0.93	0.92	0.87	0.92	0.87	0.92	0.92	0.92
Percent Heavy Veh, %	2	1	2	0	3	2	2	2	1	2	2	2
Cap, veh/h	366	1731	766	414	2192	985	440	23	455	137	21	109
Arrive On Green	0.97	0.97	0.97	0.10	0.62	0.62	0.18	0.30	0.30	0.08	0.08	0.08
Sat Flow, veh/h	658	3582	1585	1810	3526	1585	1781	78	1519	1112	265	1360
Grp Volume(v), veh/h	70	934	464	304	810	25	328	0	267	14	0	49
Grp Sat Flow(s),veh/h/ln	658	1791	1585	1810	1763	1585	1781	0	1597	1112	0	1626
Q Serve(g_s), s	0.7	2.8	3.6	12.6	16.9	0.9	25.0	0.0	21.1	1.8	0.0	4.3
Cycle Q Clear(g_c), s	0.7	2.8	3.6	12.6	16.9	0.9	25.0	0.0	21.1	1.8	0.0	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.95	1.00		0.84
Lane Grp Cap(c), veh/h	366	1731	766	414	2192	985	440	0	479	137	0	130
V/C Ratio(X)	0.19	0.54	0.61	0.73	0.37	0.03	0.75	0.00	0.56	0.10	0.00	0.38
Avail Cap(c_a), veh/h	366	1731	766	562	2192	985	453	0	540	171	0	180
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	1.3	1.4	1.4	15.6	13.9	10.9	50.3	0.0	44.2	64.3	0.0	65.5
Incr Delay (d2), s/veh	0.9	0.9	2.8	3.3	0.5	0.0	6.4	0.0	1.0	0.3	0.0	1.8
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	0.8	1.1	5.4	6.6	0.3	11.9	0.0	8.5	0.5	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	2.2	2.3	4.1	18.9	14.4	11.0	56.7	0.0	45.2	64.6	0.0	67.2
LnGrp LOS	A	A	A	B	B	B	E		D	E		E
Approach Vol, veh/h		1468			1139			595			63	
Approach Delay, s/veh		2.9			15.5			51.5			66.7	
Approach LOS		A			B			D			E	

Timer - Assigned Phs	2	3	4	5	6		8					
Phs Duration (G+Y+Rc), s	99.1	33.0	17.9	20.8	78.4		50.9					
Change Period (Y+Rc), s	5.9	5.8	5.9	5.5	5.9		* 5.9					
Max Green Setting (Gmax), s	87.6	28.2	16.6	27.5	54.6		* 51					
Max Q Clear Time (g_c+I1), s	18.9	27.0	6.3	14.6	5.6		23.1					
Green Ext Time (p_c), s	6.2	0.1	0.1	0.7	11.1		1.7					

Intersection Summary	
HCM 7th Control Delay, s/veh	17.4
HCM 7th LOS	B

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	22.9
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	427	22	82	357	13	13	22	130	14	57	47
Future Vol, veh/h	11	427	22	82	357	13	13	22	130	14	57	47
Peak Hour Factor	0.97	0.97	0.97	0.89	0.89	0.89	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	2	0	0	1	0	0	5	0	0	0	2
Mvmt Flow	11	440	23	92	401	15	16	27	157	17	69	57
Number of Lanes	0	1	0	1	1	0	0	1	0	0	1	0

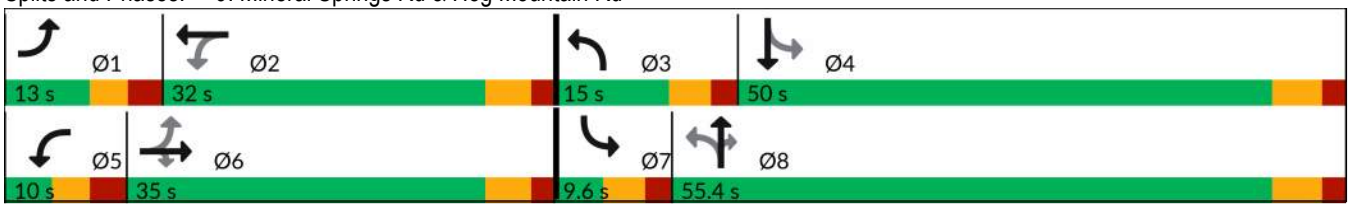
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	2	1
HCM Control Delay, s/veh	29.4	23.3	13.5	12.9
HCM LOS	D	C	B	B

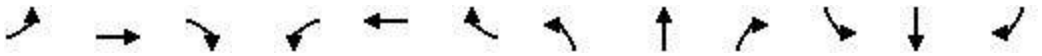
Lane	NBLn1	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	8%	2%	100%	0%	12%
Vol Thru, %	13%	93%	0%	96%	48%
Vol Right, %	79%	5%	0%	4%	40%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	165	460	82	370	118
LT Vol	13	11	82	0	14
Through Vol	22	427	0	357	57
RT Vol	130	22	0	13	47
Lane Flow Rate	199	474	92	416	142
Geometry Grp	2	4a	5	5	2
Degree of Util (X)	0.367	0.802	0.179	0.747	0.279
Departure Headway (Hd)	6.642	6.087	6.985	6.467	7.073
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	541	593	513	557	506
Service Time	4.707	4.139	4.74	4.222	5.145
HCM Lane V/C Ratio	0.368	0.799	0.179	0.747	0.281
HCM Control Delay, s/veh	13.5	29.4	11.3	26	12.9
HCM Lane LOS	B	D	B	D	B
HCM 95th-tile Q	1.7	7.9	0.6	6.5	1.1

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	137	278	314	48	175	118	233	50	34	391
Future Volume (vph)	137	278	314	48	175	118	233	50	34	391
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	1	6		5	2	3	8		7	4
Permitted Phases	6		6	2		8		8	4	
Detector Phase	1	6	6	5	2	3	8	8	7	4
Switch Phase										
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	4.0	6.0	6.0	4.0	6.0
Minimum Split (s)	10.0	15.6	15.6	10.0	15.6	9.5	12.0	12.0	9.5	12.0
Total Split (s)	13.0	35.0	35.0	10.0	32.0	15.0	55.4	55.4	9.6	50.0
Total Split (%)	11.8%	31.8%	31.8%	9.1%	29.1%	13.6%	50.4%	50.4%	8.7%	45.5%
Yellow Time (s)	3.1	3.8	3.8	3.1	3.8	3.5	4.0	4.0	3.5	4.0
All-Red Time (s)	2.9	1.8	1.8	2.9	1.8	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	5.6	5.6	6.0	5.6	5.5	6.0	6.0	5.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None
Act Effct Green (s)	28.5	23.6	23.6	21.5	17.8	47.1	41.6	41.6	37.2	32.4
Actuated g/C Ratio	0.32	0.26	0.26	0.24	0.20	0.52	0.46	0.46	0.41	0.36
v/c Ratio	0.51	0.61	0.51	0.25	0.67	0.49	0.34	0.08	0.08	0.86
Control Delay (s/veh)	30.7	37.9	6.6	26.5	43.5	17.4	18.5	0.2	12.1	40.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	30.7	37.9	6.6	26.5	43.5	17.4	18.5	0.2	12.1	40.5
LOS	C	D	A	C	D	B	B	A	B	D
Approach Delay (s/veh)		23.0			40.2		15.9			38.6
Approach LOS		C			D		B			D

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 90	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay (s/veh): 28.1	Intersection LOS: C
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Mineral Springs Rd & Hog Mountain Rd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	278	314	48	175	28	118	233	50	34	391	93
Future Volume (veh/h)	137	278	314	48	175	28	118	233	50	34	391	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1900	1870	1811	1885	1841	1885	1841	1796	1900	1870	1900
Adj Flow Rate, veh/h	149	302	341	59	213	34	146	288	62	40	460	109
Peak Hour Factor	0.92	0.92	0.92	0.82	0.82	0.82	0.81	0.81	0.81	0.85	0.85	0.85
Percent Heavy Veh, %	2	0	2	6	1	4	1	4	7	0	2	0
Cap, veh/h	332	483	403	238	330	53	271	740	612	444	524	124
Arrive On Green	0.08	0.25	0.25	0.04	0.21	0.21	0.07	0.40	0.40	0.03	0.36	0.36
Sat Flow, veh/h	1781	1900	1585	1725	1586	253	1795	1841	1522	1810	1462	346
Grp Volume(v), veh/h	149	302	341	59	0	247	146	288	62	40	0	569
Grp Sat Flow(s),veh/h/ln	1781	1900	1585	1725	0	1840	1795	1841	1522	1810	0	1808
Q Serve(g_s), s	5.4	11.8	17.1	2.2	0.0	10.3	4.2	9.3	2.1	1.2	0.0	24.6
Cycle Q Clear(g_c), s	5.4	11.8	17.1	2.2	0.0	10.3	4.2	9.3	2.1	1.2	0.0	24.6
Prop In Lane	1.00		1.00	1.00		0.14	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	332	483	403	238	0	383	271	740	612	444	0	648
V/C Ratio(X)	0.45	0.63	0.85	0.25	0.00	0.65	0.54	0.39	0.10	0.09	0.00	0.88
Avail Cap(c_a), veh/h	332	669	558	255	0	582	345	1089	901	480	0	953
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	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.6	27.6	29.6	25.0	0.0	30.2	19.0	17.7	15.5	16.2	0.0	25.1
Incr Delay (d2), s/veh	0.9	1.3	8.5	0.5	0.0	1.8	1.7	0.3	0.1	0.1	0.0	6.6
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	2.2	5.2	7.0	0.9	0.0	4.5	1.7	3.7	0.7	0.5	0.0	10.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	24.5	28.9	38.1	25.5	0.0	32.1	20.7	18.0	15.6	16.3	0.0	31.6
LnGrp LOS	C	C	D	C		C	C	B	B	B		C
Approach Vol, veh/h		792			306			496			609	
Approach Delay, s/veh		32.0			30.8			18.5			30.6	
Approach LOS		C			C			B			C	

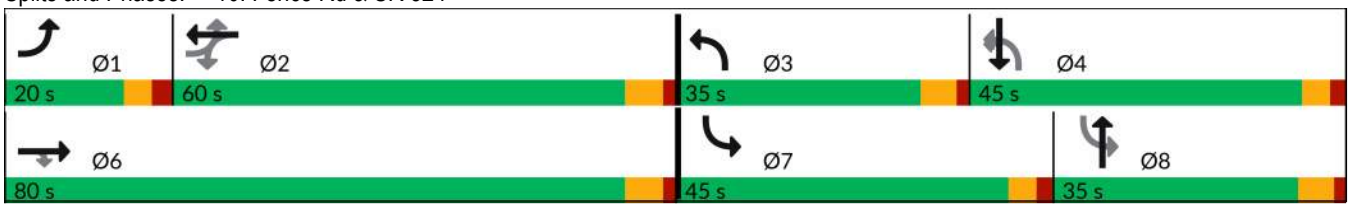
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	23.0	11.6	35.9	9.2	26.8	7.9	39.6
Change Period (Y+Rc), s	6.0	5.6	5.5	6.0	6.0	5.6	5.5	6.0
Max Green Setting (Gmax), s	7.0	26.4	9.5	44.0	4.0	29.4	4.1	49.4
Max Q Clear Time (g_c+I1), s	7.4	12.3	6.2	26.6	4.2	19.1	3.2	11.3
Green Ext Time (p_c), s	0.0	1.1	0.1	3.3	0.0	2.2	0.0	1.9

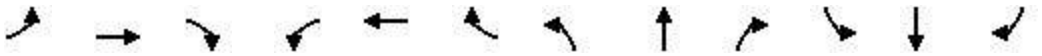
Intersection Summary	
HCM 7th Control Delay, s/veh	28.4
HCM 7th LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	336	517	35	50	363	56	228	59	258	220
Future Volume (vph)	336	517	35	50	363	56	228	59	258	220
Turn Type	D.P+P	NA	Perm	Perm	NA	D.P+P	NA	D.P+P	NA	Perm
Protected Phases	1	6			2	3	8	7	4	
Permitted Phases	2		6	2		4		8		4
Detector Phase	1	6	6	2	2	3	8	7	4	4
Switch Phase										
Minimum Initial (s)	4.0	12.0	12.0	12.0	12.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	9.8	18.0	18.0	18.0	18.0	11.7	11.7	11.3	11.3	11.3
Total Split (s)	20.0	80.0	80.0	60.0	60.0	35.0	35.0	45.0	45.0	45.0
Total Split (%)	12.5%	50.0%	50.0%	37.5%	37.5%	21.9%	21.9%	28.1%	28.1%	28.1%
Yellow Time (s)	3.4	4.5	4.5	4.5	4.5	4.2	4.2	3.5	3.5	3.5
All-Red Time (s)	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	6.0	6.0	6.0	6.0	5.7	5.7	5.3	5.3	5.3
Lead/Lag	Lead			Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	Min	Min	None	None	None	None	None
Act Effct Green (s)	48.5	54.4	54.4	33.5	33.5	33.6	27.6	34.3	27.5	27.5
Actuated g/C Ratio	0.46	0.52	0.52	0.32	0.32	0.32	0.26	0.33	0.26	0.26
v/c Ratio	0.96	0.57	0.04	0.20	0.82	0.21	0.67	0.21	0.56	0.40
Control Delay (s/veh)	59.7	21.2	0.1	29.3	45.3	25.5	44.2	25.2	41.4	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.7	21.2	0.1	29.3	45.3	25.5	44.2	25.2	41.4	7.0
LOS	E	C	A	C	D	C	D	C	D	A
Approach Delay (s/veh)		35.0			43.7		41.1		25.5	
Approach LOS		C			D		D		C	

Intersection Summary	
Cycle Length: 160	
Actuated Cycle Length: 104.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay (s/veh): 35.6	Intersection LOS: D
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Fence Rd & SR 324





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	336	517	35	50	363	75	56	228	52	59	258	220
Future Volume (veh/h)	336	517	35	50	363	75	56	228	52	59	258	220
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1900	1826	1841	1870	1781	1856	1870	1870	1870	1870
Adj Flow Rate, veh/h	354	544	37	54	390	81	64	259	59	63	274	234
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.88	0.88	0.88	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	0	5	4	2	8	3	2	2	2	2
Cap, veh/h	413	978	856	332	455	94	254	305	69	243	381	323
Arrive On Green	0.16	0.53	0.53	0.31	0.31	0.31	0.07	0.21	0.21	0.07	0.20	0.20
Sat Flow, veh/h	1753	1841	1610	813	1478	307	1697	1462	333	1781	1870	1585
Grp Volume(v), veh/h	354	544	37	54	0	471	64	0	318	63	274	234
Grp Sat Flow(s),veh/h/ln	1753	1841	1610	813	0	1785	1697	0	1796	1781	1870	1585
Q Serve(g_s), s	11.9	17.4	1.0	4.4	0.0	21.9	2.5	0.0	15.1	2.3	12.1	12.2
Cycle Q Clear(g_c), s	11.9	17.4	1.0	4.4	0.0	21.9	2.5	0.0	15.1	2.3	12.1	12.2
Prop In Lane	1.00		1.00	1.00		0.17	1.00		0.19	1.00		1.00
Lane Grp Cap(c), veh/h	413	978	856	332	0	549	254	0	374	243	381	323
V/C Ratio(X)	0.86	0.56	0.04	0.16	0.00	0.86	0.25	0.00	0.85	0.26	0.72	0.72
Avail Cap(c_a), veh/h	417	1541	1348	578	0	1091	701	0	595	922	840	712
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	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.6	13.8	9.9	22.7	0.0	28.8	25.3	0.0	33.7	25.4	32.8	32.9
Incr Delay (d2), s/veh	16.0	0.5	0.0	0.2	0.0	4.0	0.5	0.0	6.7	0.6	2.6	3.1
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	6.1	6.3	0.3	0.8	0.0	9.2	1.0	0.0	6.9	1.0	5.5	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.6	14.3	10.0	22.9	0.0	32.8	25.8	0.0	40.3	25.9	35.4	36.0
LnGrp LOS	D	B	A	C		C	C		D	C	D	D
Approach Vol, veh/h		935			525			382			571	
Approach Delay, s/veh		22.2			31.8			37.9			34.6	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s	19.8	33.2	11.7	23.7		53.0	11.3	24.1				
Change Period (Y+Rc), s	5.8	6.0	5.7	* 5.7		6.0	5.3	5.7				
Max Green Setting (Gmax), s	14.2	54.0	29.3	* 40		74.0	39.7	29.3				
Max Q Clear Time (g_c+I1), s	13.9	23.9	4.5	14.2		19.4	4.3	17.1				
Green Ext Time (p_c), s	0.0	3.3	0.1	2.3		3.7	0.1	1.4				

Intersection Summary	
HCM 7th Control Delay, s/veh	29.7
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	9.0
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	576	239	631
Demand Flow Rate, veh/h	591	240	647
Vehicles Circulating, veh/h	220	371	134
Vehicles Exiting, veh/h	561	440	477
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.8	6.4	9.3
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	591	240	647
Cap Entry Lane, veh/h	1103	945	1204
Entry HV Adj Factor	0.974	0.994	0.975
Flow Entry, veh/h	576	239	631
Cap Entry, veh/h	1074	940	1174
V/C Ratio	0.536	0.254	0.538
Control Delay, s/veh	9.8	6.4	9.3
LOS	A	A	A
95th %tile Queue, veh	3	1	3

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	614	457	298
Demand Flow Rate, veh/h	627	469	309
Vehicles Circulating, veh/h	188	164	296
Vehicles Exiting, veh/h	417	651	337
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.9	7.3	6.7
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976
A (Intercept)	1380	1380	1380
B (Slope)	1.02e-3	1.02e-3	1.02e-3
Entry Flow, veh/h	627	469	309
Cap Entry Lane, veh/h	1139	1167	1020
Entry HV Adj Factor	0.979	0.974	0.965
Flow Entry, veh/h	614	457	298
Cap Entry, veh/h	1115	1136	985
V/C Ratio	0.550	0.402	0.303
Control Delay, s/veh	9.9	7.3	6.7
LOS	A	A	A
95th %tile Queue, veh	3	2	1

Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	210	38	33	281	357	246
Future Vol, veh/h	210	38	33	281	357	246
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	150	-	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	86	86	93	93
Heavy Vehicles, %	1	0	7	1	1	3
Mvmt Flow	231	42	38	327	384	265

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	787	384	648	0	-	0
Stage 1	384	-	-	-	-	-
Stage 2	403	-	-	-	-	-
Critical Hdwy	6.41	6.2	4.17	-	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.263	-	-	-
Pot Cap-1 Maneuver	362	668	914	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	677	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	343	668	914	-	-	-
Mov Cap-2 Maneuver	343	-	-	-	-	-
Stage 1	655	-	-	-	-	-
Stage 2	677	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	30.92	0.96	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	189	-	343	668	-	-
HCM Lane V/C Ratio	0.042	-	0.673	0.063	-	-
HCM Control Delay (s/veh)	9.1	0	34.6	10.7	-	-
HCM Lane LOS	A	A	D	B	-	-
HCM 95th %tile Q(veh)	0.1	-	4.6	0.2	-	-

APPENDIX G

GRTA LETTER OF UNDERSTANDING (LOU)

LETTER OF UNDERSTANDING

June 5th, 2024

Andersen Tate & Carr
St. Bourke
1031 Marietta Street NW
Atlanta, GA 30318

RE: **Poole Mountain** (**DRI#: 4173)**

Dear Dan Mason:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on April 22, 2024 regarding **Poole Mountain** Development of Regional Impact (DRI). The *GRTA DRI Review Procedures*, as well as the inputs and parameters documented in this Letter of Understanding and the revised Methodology Meeting Packet, shall be adhered to in preparing the GRTA required Transportation Study.

PROJECT OVERVIEW

- The proposed site is located in Gwinnett County on land parcels south of I-85 between Mulberry Springs Road and Mt. Moriah Road. GPS Coordinates are 34°3'20.412"N 83°51'20.052"W (34.05567, -83.85570)
- The proposed development includes 1,066 single-family detached homes.
- The projected build-out is one phase to be completed by 2034.
- The proposed development includes ten (10) site accesses with five (5) full-access points along Mineral Springs Road, two (2) full-access points along Mt. Moriah Road, and three (3) full-access points along Clack Road.
- The DRI trigger for this development is a permit request with over 400 new lots or units.
- DRI 4173 analysis will include all conditions required in the Rezoning Cases RZR-06-032 GCID 2006-1370, RZR-05-058 GCID 2005-1409, and RZR-06-004 GCID 2006-0423.
- The vehicular trip generation is estimated to be 8,902 net daily trips based on the *ITE Trip Generation Manual 11th edition.*
- The applicant is applying for approval under GRTA's non-expedited Traffic Impact Study review process.

STUDY NETWORK

1. Driveway 1 at Mineral Springs Road
2. Driveway 2 at Mineral Springs Road
3. Driveway 3 at Mineral Springs Road
4. Driveway 4 at Mineral Springs Road
5. Driveway 5 at Mineral Springs Road
6. Driveway 6 at Mt. Moriah Road
7. Driveway 7 at Mt. Moriah Road
8. Driveway 8 at Clack Road
9. Driveway 9 at Clack Road
10. Driveway 10 at Clack Road

11. SR 124 (Braselton Highway) & Hamilton Mill Road / Hamilton Mill Parkway
12. SR 124 (Braselton Highway) & Jim Moore Road
13. SR 124 (Braselton Highway) & Mineral Springs Road / Spout Springs Road
14. SR 124 (Braselton Highway) & Mill Creek High School
15. SR 124 (Braselton Highway) & Hog Mountain Road
16. SR 124 (Braselton Highway) & Flowery Branch Road
17. SR 124 (Braselton Highway) & Mt. Moriah Road
18. Hog Mountain Road & Jim Moore Road
19. Hog Mountain Road & Mineral Springs Road
20. Fence Road & SR 324 (Auburn Road)
21. Fence Road & Clack Road
22. Clack Road & Mineral Springs Road
23. Clack Road & Mt. Moriah Road

METHODOLOGY MEETING PACKET INPUTS & PARAMETERS

- The Site Plan shall meet all the applicable requirements in Section 7.1 of the *GRTA DRI Review Procedures*.

- All Study Network intersections shall be analyzed during the AM and PM peak hours for (1) existing conditions, (2) future "no-build" conditions, and (3) future "build" conditions as specified in the *GRTA DRI Review Procedures*.

- This DRI shall be modeled and reviewed in one phase to be completed by **2034.**

- The DRI shall be modeled and reviewed to include the required conditions in the Rezoning Cases RZR-06-032 GCID 2006-1370, RZR-05-058 GCID 2005-1409, and RZR-06-004 GCID 2006-0423.

- The Level of Service (LOS) standard for all analysis shall be LOS D unless specified otherwise in Section 3.2.2.1. For example, a LOS E standard is allowed if the existing LOS for the intersection or approach is a LOS F.

- Default values should not be assumed in the traffic modeling. Existing conditions shall be taken into account as required in Section 3.2.2.

- The trip generation calculations in the revised Methodology Meeting Packet shall be used in the Transportation Study. Mixed-use and pass-by reductions are not allowed for this site. Pass-by reductions shall not exceed 15% of a roadway's traffic volume standard established in Appendix 7.2.

- The trip assignment approach in the revised Methodology Meeting Packet shall be utilized for all Study Network intersection movements.

- The applicant shall research TIP, STIP, RTP and GDOT's construction work program, as well as any local government and transit operator plans (SPLOST, CIP, etc.), to determine the open date, sponsor, cost of the project, funding source(s), for future roadway projects in the project vicinity. Programmed transportation projects anticipated to open on or before the Build Out year of the DRI Project shall be modeled as completed in the No-Build and Build conditions unless approved otherwise.

- A 1.3% annual traffic Background Growth Rate shall be used for all roadways.

- Capacity analysis shall be based on turning movement counts collected not more than 12-months prior to the date of the actual DRI submittal to GRTA, unless specified otherwise. As specified in Section 2.3, turning movement counts shall be collected while local schools are in session, on a Tuesday, Wednesday or Thursday (unless approved otherwise) and not during holiday periods (weeks of July 4th, Thanksgiving and +/- 5 days of Christmas).

- COVID-19: The transportation analysis shall utilize existing turning movement count data when available during COVID. All counts older than a year shall be grown by the Background Growth Rate unless approved otherwise. If new counts are required, a control count location where existing count data is available shall be used for

developing traffic growth extrapolation rates. The traffic engineer shall submit the proposed growth rates to GRTA, GDOT and local government stakeholders for input and GRTA approval before submitting the Transportation Study.

- If the *GRTA DRI Review Procedures* requires an Enhanced Focus Area for Heavy Vehicles or an Enhanced Focus Area for Dense Urban Environments, the Transportation Study shall incorporate the inputs and parameters agreed to at the Methodology Meeting and documented in the revised Methodology Meeting Packet. These inputs may include a Heavy Vehicle modeling percentages, a Heavy Vehicle route map, a pedestrian crosswalk delay adjustment and a bus blockage adjustment factor.

ADDITIONAL REQUIREMENTS

All applicable requirements of the *GRTA DRI Review Procedures* must be met for the Transportation Study to be considered complete. The *GRTA DRI Review Procedures* are located on GRTA's DRI website: https://srta.ga.gov/developments-of-regional-impact/ Contact GRTA staff if you have any questions on these requirements.

The Transportation Study shall also include as attachments the native LOS modeling file (i.e., Synchro modeling files) as well as the modeling reports (PDFs) for all Study Network intersections for the Existing, No-Build and Build conditions for all phases. The PDF reports shall be numbered (in page headers) and organized in order according to the Study Network numbering sequence in this Letter of Understanding. The reports shall also be organized in the following sequence: *Existing condition AM, Existing condition PM, No-build condition AM, No-Build condition PM, Build condition AM, Build condition PM*. If improvements are modeled, those PDFs shall be labeled as such and follow the appropriate condition's applicable peak period.

The Transportation Study appendices shall also include all turning movement count data, regardless of if using historic data or newly collected turning movement counts.

When documenting any Queue Length impacts required in Section 3.2.3.6, the TIS Executive Summary shall also note any individual *movements* not meeting the LOS standard where the DRI Project adds trips in the Build condition and exceeds available storage capacity for that movement.

When identifying mitigations in the existing, no-build and build conditions, the mitigations identified in preceding conditions shall not be modeled as complete when conducting the LOS analysis. The same mitigation may still be proposed as mitigation in the subsequent condition, but it shall not be included as completed in the default analysis. For example, a turn lane may be identified as a needed improvement in the no-build condition. The turn lane should not be modeled as completed in the build condition. The turn lane should only be modeled as complete in the no-build with improvements condition and the build with improvements condition.

DRI REVIEW PACKAGE SUBMITTAL

GRTA will begin reviewing the DRI once the DRI Review Package is submitted and deemed complete. The DRI Review Package includes: the permitting Local Government inputting both Department of Community Affairs (DCA) forms into the DCA DRI website; and the **Traffic Engineer submittal of the GRTA Transportation Study (including LOS appendices, traffic count data and any other required attachments) and Site Plan to GRTA staff and ALL stakeholders included in the CC list of this Letter of Understanding**.

All DRI Review Packages shall be submitted electronically via email to all stakeholders in the CC list of the Letter of Understanding. If the DRI Review Package total file size is greater than 10 MB, the DRI Review Package shall be submitted via email with a FTP link provided for downloading the files.

Please contact me if you have any questions about the Letter of Understanding or the *GRTA DRI Review Procedures*.

Sincerely,

Brittany Williams
Program Manager

Cc:

Zane Grennell, DCA
Brittany Williams, SRTA/GRTA/ATL
Donald Shockey, ARC
Daniel Robinson, Gwinnett County
Brent Hodges, Gwinnett County
Yang Chen, Gwinnett County
Jerry Oberholtzer, Gwinnett County
Randi Doveton, Hall County
Brittni Nix, City of Dacula
Kevin Keller, City of Braselton
Jason Dykes, GDOT
Jonathan Peevy, GDOT
Dan Mason, St. Bourke
Richard Stevenson, St. Bourke
Erika Becker, NV5
Aaron Karnowski, NV5
Maxwell-Reddick & Associates, Site and Design
Andersen Tate & Carr, Lawyers