APPENDICES

C-663A Pre-Construction Traffic Study for the Scudder Falls Bridge Replacement Project

APPENDIX H

CAPACITY ANALYSIS WORKSHEETS

(INTERSECTIONS)

Pennoni

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	313	7	14	53	19	22	57	83	107	73	17
Future Volume (vph)	11	313	7	14	53	19	22	57	83	107	73	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	10	10	10	10	10
Grade (%)		1%			0%			-1%			1%	
Satd. Flow (prot)	0	1791	0	0	1767	0	0	1625	0	0	1654	0
Flt Permitted		0.998			0.992			0.993			0.974	
Satd. Flow (perm)	0	1791	0	0	1767	0	0	1625	0	0	1654	0
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		412			1222			437			443	
Travel Time (s)		7.0			20.8			8.5			8.6	
Lane Group Flow (vph)	0	352	0	0	91	0	0	172	0	0	210	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	48.8%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	11	313	7	0	14	53	19	0	22	57	83
Future Vol, veh/h	0	11	313	7	0	14	53	19	0	22	57	83
Peak Hour Factor	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	36	0	14	2	0	0	0	2	5	2	0
Mvmt Flow	0	12	333	7	0	15	56	20	0	23	61	88
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	15.8	9.4	10.3
HCM LOS	C	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	3%	16%	54%
Vol Thru, %	35%	95%	62%	37%
Vol Right, %	51%	2%	22%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	331	86	197
LT Vol	22	11	14	107
Through Vol	57	313	53	73
RT Vol	83	7	19	17
Lane Flow Rate	172	352	91	210
Geometry Grp	1	1	1	1
Degree of Util (X)	0.257	0.56	0.139	0.323
Departure Headway (Hd)	5.366	5.722	5.483	5.544
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	669	630	652	648
Service Time	3.41	3.754	3.53	3.586
HCM Lane V/C Ratio	0.257	0.559	0.14	0.324
HCM Control Delay	10.3	15.8	9.4	11.2
HCM Lane LOS	B	C	A	B
HCM 95th-tile Q	1	3.5	0.5	1.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	107	73	17
Future Vol, veh/h	0	107	73	17
Peak Hour Factor	0.92	0.94	0.94	0.94
Heavy Vehicles, %	2	0	3	18
Mvmt Flow	0	114	78	18
Number of Lanes	0	0	1	0

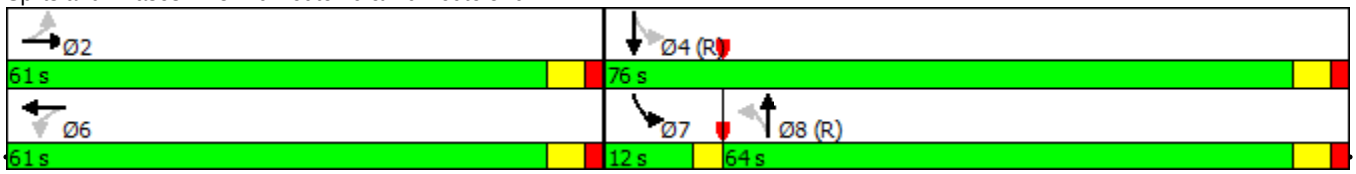
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.2
HCM LOS	B

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	375	124	111	48	16	18	283	84	100	699	12
Future Volume (vph)	16	375	124	111	48	16	18	283	84	100	699	12
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	14	14	14	13	13	13	12	12	12
Grade (%)		1%			-1%			1%			1%	
Storage Length (ft)	0		0	75		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			75			25			25		
Satd. Flow (prot)	0	1726	0	1797	1856	0	0	1591	0	0	1674	0
Flt Permitted		0.991		0.265				0.942			0.821	
Satd. Flow (perm)	0	1714	0	501	1856	0	0	1502	0	0	1382	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					15			13				
Link Speed (mph)		45			45			40			40	
Link Distance (ft)		252			285			405			427	
Travel Time (s)		3.8			4.3			6.9			7.3	
Lane Group Flow (vph)	0	537	0	116	67	0	0	402	0	0	845	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		2			6			8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	61.0	61.0		61.0	61.0		64.0	64.0		12.0	76.0	
Total Lost Time (s)		6.0		6.0	6.0			6.0			6.0	
Act Effct Green (s)		47.3		47.3	47.3			58.0			77.7	
Actuated g/C Ratio		0.35		0.35	0.35			0.42			0.57	
v/c Ratio		0.91		0.67	0.10			0.63			1.04	
Control Delay		62.6		57.0	22.0			35.1			71.9	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		62.6		57.0	22.0			35.1			71.9	
LOS		E		E	C			D			E	
Approach Delay		62.6			44.2			35.1			71.9	
Approach LOS		E			D			D			E	

Intersection Summary			
Area Type:	Other		
Cycle Length: 137			
Actuated Cycle Length: 137			
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 59.3		Intersection LOS: E	
Intersection Capacity Utilization 130.6%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: NJ Route 29 & NJ Route 546



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	375	124	111	48	16	18	283	84	100	699	12
Future Volume (veh/h)	16	375	124	111	48	16	18	283	84	100	699	12
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1791	1787	1791	1844	1881	1881	1863	1654	1863	1791	1687	1791
Adj Flow Rate, veh/h	17	391	128	116	50	0	19	295	58	104	728	11
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	2	0	0	16	16	16	7	7	7
Cap, veh/h	38	476	153	187	706	0	48	630	120	72	384	6
Arrive On Green	0.38	0.38	0.38	0.38	0.38	0.00	0.54	0.54	0.54	0.54	0.54	0.54
Sat Flow, veh/h	28	1269	407	870	1881	0	38	1172	223	79	716	11
Grp Volume(v), veh/h	536	0	0	116	50	0	372	0	0	843	0	0
Grp Sat Flow(s),veh/h/ln	1704	0	0	870	1881	0	1433	0	0	805	0	0
Q Serve(g_s), s	14.5	0.0	0.0	8.9	2.3	0.0	0.0	0.0	0.0	82.3	0.0	0.0
Cycle Q Clear(g_c), s	39.2	0.0	0.0	48.1	2.3	0.0	19.1	0.0	0.0	82.3	0.0	0.0
Prop In Lane	0.03		0.24	1.00		0.00	0.05		0.16	0.12		0.01
Lane Grp Cap(c), veh/h	666	0	0	187	706	0	798	0	0	0	0	0
V/C Ratio(X)	0.80	0.00	0.00	0.62	0.07	0.00	0.47	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	711	0	0	210	755	0	798	0	0	0	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.9	0.0	0.0	49.2	27.5	0.0	19.1	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	5.7	0.0	0.0	2.8	0.0	0.0	2.0	0.0	0.0	0.0	0.0	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	19.5	0.0	0.0	4.4	1.2	0.0	8.9	0.0	0.0	0.0	0.0	0.0
LnGrp Delay(d),s/veh	44.6	0.0	0.0	51.9	27.5	0.0	21.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	D			D	C		C					
Approach Vol, veh/h		536			166			372			843	
Approach Delay, s/veh		44.6			44.6			21.0			0.0	
Approach LOS		D			D			C			A	

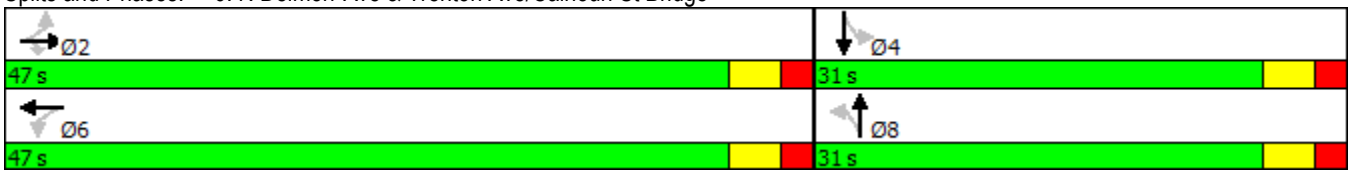
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		57.4		79.6		57.4		79.6
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		55.0		70.0		55.0		58.0
Max Q Clear Time (g_c+I1), s		41.2		84.3		50.1		21.1
Green Ext Time (p_c), s		2.3		0.0		1.3		6.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.4
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	840	8	2	255	44	18	50	233	246	42	25
Future Volume (vph)	14	840	8	2	255	44	18	50	233	246	42	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	13	10	10	10	10	10	10	11	11	11
Grade (%)		8%			2%			6%			6%	
Storage Length (ft)	0		120	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	45			25			25			25		
Satd. Flow (prot)	0	1665	1518	0	1624	0	0	1427	0	0	1601	0
Flt Permitted		0.993			0.997			0.970			0.472	
Satd. Flow (perm)	0	1655	1518	0	1619	0	0	1388	0	0	785	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					18			131			6	
Link Speed (mph)		35			25			40			40	
Link Distance (ft)		1445			443			535			527	
Travel Time (s)		28.1			12.1			9.1			9.0	
Lane Group Flow (vph)	0	899	8	0	316	0	0	317	0	0	329	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	47.0	47.0	47.0	47.0	47.0		31.0	31.0		31.0	31.0	
Total Lost Time (s)		4.0	4.0		4.0			4.0			4.0	
Act Effct Green (s)		43.0	43.0		43.0			27.0			27.0	
Actuated g/C Ratio		0.55	0.55		0.55			0.35			0.35	
v/c Ratio		0.99	0.01		0.35			0.56			1.20	
Control Delay		46.1	8.0		10.5			16.2			145.4	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		46.1	8.0		10.5			16.2			145.4	
LOS		D	A		B			B			F	
Approach Delay		45.8			10.5			16.2			145.4	
Approach LOS		D			B			B			F	

Intersection Summary			
Area Type:	Other		
Cycle Length: 78			
Actuated Cycle Length: 78			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 52.3		Intersection LOS: D	
Intersection Capacity Utilization 103.9%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 6: N Delmorr Ave & Trenton Ave/Calhoun St Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	840	8	2	255	44	18	50	233	246	42	25
Future Volume (veh/h)	14	840	8	2	255	44	18	50	233	246	42	25
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	7	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1728	1724	1797	1782	1782	1782	1746	1740	1746	1746	1740	1746
Adj Flow Rate, veh/h	15	884	8	2	268	41	19	53	244	259	44	25
Adj No. of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	0	0	0
Cap, veh/h	53	926	838	47	723	110	65	110	429	284	92	20
Arrive On Green	0.54	0.55	0.55	0.54	0.55	0.54	0.33	0.35	0.33	0.33	0.35	0.33
Sat Flow, veh/h	10	1680	1519	0	1312	199	48	320	1247	658	114	64
Grp Volume(v), veh/h	899	0	8	311	0	0	316	0	0	328	0	0
Grp Sat Flow(s),veh/h/ln	1691	0	1519	1512	0	0	1615	0	0	836	0	0
Q Serve(g_s), s	0.0	0.0	0.2	1.2	0.0	0.0	0.0	0.0	0.0	12.5	0.0	0.0
Cycle Q Clear(g_c), s	40.8	0.0	0.2	42.0	0.0	0.0	13.5	0.0	0.0	26.0	0.0	0.0
Prop In Lane	0.02		1.00	0.01		0.13	0.06		0.77	0.79		0.08
Lane Grp Cap(c), veh/h	957	0	838	860	0	0	584	0	0	385	0	0
V/C Ratio(X)	0.94	0.00	0.01	0.36	0.00	0.00	0.54	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	957	0	838	860	0	0	587	0	0	361	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.8	0.0	7.9	9.9	0.0	0.0	21.4	0.0	0.0	28.9	0.0	0.0
Incr Delay (d2), s/veh	17.7	0.0	0.0	1.2	0.0	0.0	1.3	0.0	0.0	18.4	0.0	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	16.1	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.9	0.0	0.1	4.0	0.0	0.0	6.0	0.0	0.0	11.4	0.0	0.0
LnGrp Delay(d),s/veh	34.4	0.0	7.9	11.0	0.0	0.0	22.7	0.0	0.0	63.5	0.0	0.0
LnGrp LOS	C		A	B			C			E		
Approach Vol, veh/h		907			311			316			328	
Approach Delay, s/veh		34.2			11.0			22.7			63.5	
Approach LOS		C			B			C			E	

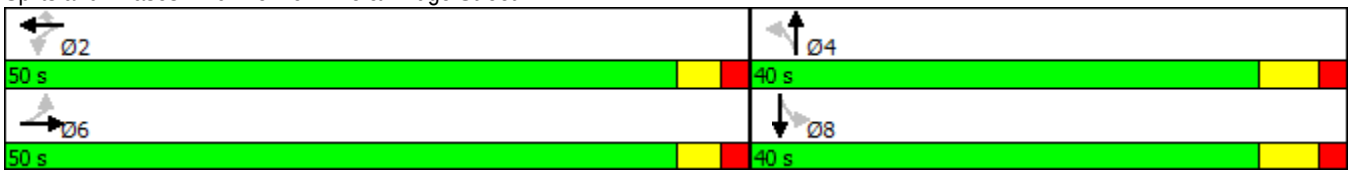
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		47.0		31.0		47.0		31.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		42.0		26.0		42.0		26.0
Max Q Clear Time (g_c+I1), s		42.8		28.0		44.0		15.5
Green Ext Time (p_c), s		0.0		0.0		0.0		4.0

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	317	6	71	434	89	14	41	45	100	24	15
Future Volume (vph)	86	317	6	71	434	89	14	41	45	100	24	15
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	10	10	10	16	16	16	10	10	10
Storage Length (ft)	45		0	140		135	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	65			125			25			25		
Satd. Flow (prot)	1596	1674	0	1596	1680	1428	0	1869	0	0	1549	0
Flt Permitted	0.453			0.536				0.944			0.766	
Satd. Flow (perm)	757	1674	0	899	1680	1383	0	1776	0	0	1229	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1				95		48			8	
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		897			608			720			404	
Travel Time (s)		24.5			16.6			14.0			7.9	
Lane Group Flow (vph)	91	343	0	76	462	95	0	107	0	0	148	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2		2	4			8		
Total Split (s)	50.0	50.0		50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		5.0			5.0	
Act Effct Green (s)	46.2	46.2		46.2	46.2	46.2		14.5			14.5	
Actuated g/C Ratio	0.66	0.66		0.66	0.66	0.66		0.21			0.21	
v/c Ratio	0.18	0.31		0.13	0.42	0.10		0.26			0.57	
Control Delay	6.8	6.7		6.2	7.7	1.8		15.3			31.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay	6.8	6.7		6.2	7.7	1.8		15.3			31.9	
LOS	A	A		A	A	A		B			C	
Approach Delay		6.7			6.6			15.3			31.9	
Approach LOS		A			A			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 69.7			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay: 10.2		Intersection LOS: B	
Intersection Capacity Utilization 92.3%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 9: Delmorr Ave & Bridge Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	317	6	71	434	89	14	41	45	100	24	15
Future Volume (veh/h)	86	317	6	71	434	89	14	41	45	100	24	15
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1800	1800	1800	1800	1872	1857	1872	1800	1750	1800
Adj Flow Rate, veh/h	91	337	5	76	462	66	15	44	28	106	26	12
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	2	2	2	8	8	8
Cap, veh/h	619	1250	19	753	1272	1072	89	158	87	250	51	19
Arrive On Green	0.71	0.71	0.71	0.71	0.71	0.71	0.14	0.15	0.15	0.14	0.15	0.14
Sat Flow, veh/h	839	1769	26	994	1800	1517	159	1019	559	994	329	120
Grp Volume(v), veh/h	91	0	342	76	462	66	87	0	0	144	0	0
Grp Sat Flow(s),veh/h/ln	839	0	1795	994	1800	1517	1736	0	0	1443	0	0
Q Serve(g_s), s	3.1	0.0	4.5	1.9	6.6	0.9	0.0	0.0	0.0	3.0	0.0	0.0
Cycle Q Clear(g_c), s	9.7	0.0	4.5	5.9	6.6	0.9	2.9	0.0	0.0	5.9	0.0	0.0
Prop In Lane	1.00		0.01	1.00		1.00	0.17		0.32	0.74		0.08
Lane Grp Cap(c), veh/h	619	0	1269	753	1272	1072	307	0	0	297	0	0
V/C Ratio(X)	0.15	0.00	0.27	0.10	0.36	0.06	0.28	0.00	0.00	0.48	0.00	0.00
Avail Cap(c_a), veh/h	619	0	1269	753	1272	1072	941	0	0	806	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.7	0.0	3.5	4.4	3.8	2.9	24.5	0.0	0.0	26.0	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.5	0.3	0.8	0.1	0.5	0.0	0.0	1.2	0.0	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	0.8	0.0	2.4	0.6	3.5	0.4	1.4	0.0	0.0	2.5	0.0	0.0
LnGrp Delay(d),s/veh	6.2	0.0	4.0	4.7	4.6	3.0	25.0	0.0	0.0	27.2	0.0	0.0
LnGrp LOS	A		A	A	A	A	C			C		
Approach Vol, veh/h		433			604			87			144	
Approach Delay, s/veh		4.4			4.4			25.0			27.2	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		50.0		15.1		50.0		15.1
Change Period (Y+Rc), s		5.0		6.0		5.0		6.0
Max Green Setting (Gmax), s		45.0		34.0		45.0		34.0
Max Q Clear Time (g_c+I1), s		9.1		4.9		12.2		7.9
Green Ext Time (p_c), s		4.7		1.3		4.7		1.3

Intersection Summary		
HCM 2010 Ctrl Delay		8.4
HCM 2010 LOS		A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	186	0	0	474	1086	157
Future Volume (vph)	186	0	0	474	1086	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-1%			1%	1%	
Storage Length (ft)		0	0		0	280
Storage Lanes		0	0		2	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3128	0	0	4915	2928	1422
Flt Permitted					0.950	
Satd. Flow (perm)	3128	0	0	4915	2928	1422
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						173
Link Speed (mph)	55			55	30	
Link Distance (ft)	1109			492	719	
Travel Time (s)	13.7			6.1	16.3	
Lane Group Flow (vph)	204	0	0	521	1193	173
Turn Type	NA			NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases					8	8
Total Split (s)	37.0			37.0	83.0	83.0
Total Lost Time (s)	7.0			7.0	6.0	6.0
Act Effct Green (s)	42.1			42.1	64.9	64.9
Actuated g/C Ratio	0.35			0.35	0.54	0.54
v/c Ratio	0.19			0.30	0.75	0.20
Control Delay	39.6			30.6	24.2	1.9
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	39.6			30.6	24.2	1.9
LOS	D			C	C	A
Approach Delay	39.6			30.6	21.4	
Approach LOS	D			C	C	

Intersection Summary

Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 27 (23%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 25.4 Intersection LOS: C
Intersection Capacity Utilization 82.1% ICU Level of Service E
Analysis Period (min) 15

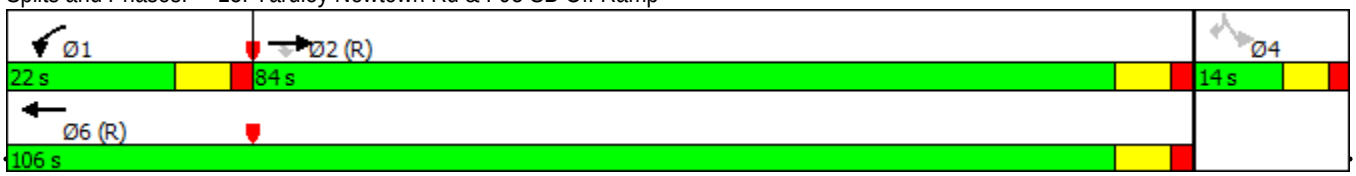
Splits and Phases: 14: I-95 NB Off Ramp & Yardley Newtown Rd

HCM 2010 Research does not support Non-NEMA phasing.

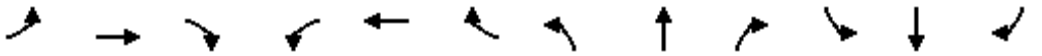
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	884	895	166	1306	0	0	0	0	27	0	499
Future Volume (vph)	0	884	895	166	1306	0	0	0	0	27	0	499
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	15	10	12	12	12	12	12	16	12	16
Grade (%)		1%			-1%			0%			2%	
Storage Length (ft)	0		225	415		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			70			25			25		
Satd. Flow (prot)	0	3389	1637	1582	3155	0	0	0	0	1761	0	1693
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3389	1637	1582	3155	0	0	0	0	1761	0	1693
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			502									118
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		544			1109			609			577	
Travel Time (s)		6.7			13.7			13.8			13.1	
Lane Group Flow (vph)	0	951	962	178	1404	0	0	0	0	29	0	537
Turn Type		NA	Perm	Prot	NA					Perm		Perm
Protected Phases		2		1	6							
Permitted Phases			2							4		4
Total Split (s)		84.0	84.0	22.0	106.0					14.0		14.0
Total Lost Time (s)		6.0	6.0	6.0	6.0					5.0		5.0
Act Effct Green (s)		78.3	78.3	15.7	100.0					9.0		9.0
Actuated g/C Ratio		0.65	0.65	0.13	0.83					0.08		0.08
v/c Ratio		0.43	0.77	0.86	0.53					0.22		2.28
Control Delay		10.8	11.4	80.4	3.9					56.6		607.4
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		10.8	11.4	80.4	3.9					56.6		607.4
LOS		B	B	F	A					E		F
Approach Delay		11.1			12.5							
Approach LOS		B			B							

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 60 (50%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 2.28			
Intersection Signal Delay: 90.8		Intersection LOS: F	
Intersection Capacity Utilization 82.1%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 15: Yardley Newtown Rd & I-95 SB Off Ramp



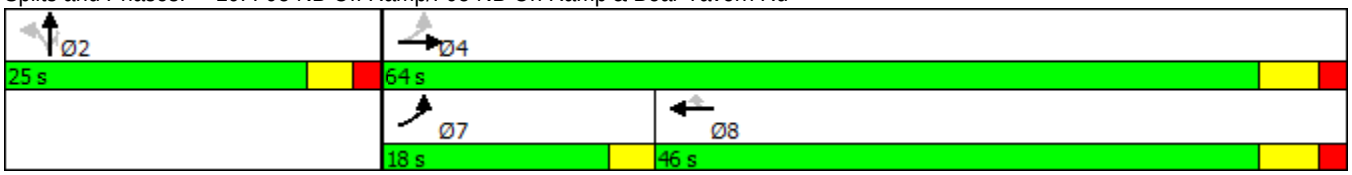
HCM 2010 Research does not support Non-NEMA phasing.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	288	510	0	0	228	172	266	0	245	0	0	0
Future Volume (vph)	288	510	0	0	228	172	266	0	245	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		355	0		150	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	40			25			25			25		
Satd. Flow (prot)	1687	1727	0	0	1570	1380	0	1671	1482	0	0	0
Flt Permitted	0.542							0.950				
Satd. Flow (perm)	962	1727	0	0	1570	1380	0	1671	1482	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						189			269			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		498			500			573			477	
Travel Time (s)		11.3			11.4			13.0			10.8	
Lane Group Flow (vph)	316	560	0	0	251	189	0	292	269	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2		2			
Total Split (s)	18.0	64.0			46.0	46.0	25.0	25.0	25.0			
Total Lost Time (s)	3.0	6.0			6.0	6.0		5.0	5.0			
Act Effct Green (s)	60.3	57.3			40.1	40.1		17.3	17.3			
Actuated g/C Ratio	0.70	0.67			0.47	0.47		0.20	0.20			
v/c Ratio	0.40	0.48			0.34	0.25		0.87	0.52			
Control Delay	6.6	9.1			17.0	3.3		58.6	8.0			
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0			
Total Delay	6.6	9.1			17.0	3.3		58.6	8.0			
LOS	A	A			B	A		E	A			
Approach Delay		8.2			11.1			34.3				
Approach LOS		A			B			C				

Intersection Summary			
Area Type:	Other		
Cycle Length: 89			
Actuated Cycle Length: 85.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 76.5%		ICU Level of Service D	
Analysis Period (min) 15			

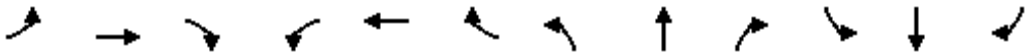
Splits and Phases: 19: I-95 NB Off Ramp/I-95 NB On Ramp & Bear Tavern Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	288	510	0	0	228	172	266	0	245	0	0	0
Future Volume (veh/h)	288	510	0	0	228	172	266	0	245	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1776	1727	0	0	1570	1624	1900	1759	1743			
Adj Flow Rate, veh/h	316	560	0	0	251	0	292	0	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91			
Percent Heavy Veh, %	7	10	0	0	21	17	9	0	9			
Cap, veh/h	726	1139	0	0	802	705	336	0	297			
Arrive On Green	0.11	0.66	0.00	0.00	0.51	0.00	0.20	0.00	0.00			
Sat Flow, veh/h	1691	1727	0	0	1570	1380	1675	0	1482			
Grp Volume(v), veh/h	316	560	0	0	251	0	292	0	0			
Grp Sat Flow(s),veh/h/ln	1691	1727	0	0	1570	1380	1675	0	1482			
Q Serve(g_s), s	6.4	12.8	0.0	0.0	7.3	0.0	13.2	0.0	0.0			
Cycle Q Clear(g_c), s	6.4	12.8	0.0	0.0	7.3	0.0	13.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	726	1139	0	0	802	705	336	0	297			
V/C Ratio(X)	0.44	0.49	0.00	0.00	0.31	0.00	0.87	0.00	0.00			
Avail Cap(c_a), veh/h	863	1279	0	0	802	705	428	0	378			
HCM Platoon Ratio	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	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	6.8	6.7	0.0	0.0	11.2	0.0	30.3	0.0	0.0			
Incr Delay (d2), s/veh	0.2	0.1	0.0	0.0	0.1	0.0	12.4	0.0	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			
%ile BackOfQ(50%),veh/ln	2.8	6.1	0.0	0.0	3.2	0.0	7.2	0.0	0.0			
LnGrp Delay(d),s/veh	7.0	6.8	0.0	0.0	11.2	0.0	42.7	0.0	0.0			
LnGrp LOS	A	A			B		D					
Approach Vol, veh/h		876			251			292				
Approach Delay, s/veh		6.9			11.2			42.7				
Approach LOS		A			B			D				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		20.7		57.6			11.6	46.0
Change Period (Y+Rc), s		5.0		6.0			3.0	6.0
Max Green Setting (Gmax), s		20.0		58.0			15.0	40.0
Max Q Clear Time (g_c+I1), s		15.2		14.8			8.4	9.3
Green Ext Time (p_c), s		0.5		3.8			0.3	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	15.0
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	333	0	112	1	1	5	47	692	2	6	214	30
Future Volume (vph)	333	0	112	1	1	5	47	692	2	6	214	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		250	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1847	1560	0	1492	0	0	1867	0	0	1744	0
Flt Permitted		0.950			0.993			0.997			0.999	
Satd. Flow (perm)	0	1847	1560	0	1492	0	0	1867	0	0	1744	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		827			231			2550			563	
Travel Time (s)		22.6			6.3			69.5			15.4	
Lane Group Flow (vph)	0	366	123	0	7	0	0	814	0	0	275	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 87.7%		ICU Level of Service E	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	123.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	333	0	112	1	1	5	47	692	2	6	214	30
Future Vol, veh/h	333	0	112	1	1	5	47	692	2	6	214	30
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	-	-	250	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	1	0	7	100	0	0	8	1	0	17	6	13
Mvmt Flow	366	0	123	1	1	5	52	760	2	7	235	33

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1133	1131	252	1130	1146	762	268	0	0	763	0	0
Stage 1	265	265	-	865	865	-	-	-	-	-	-	-
Stage 2	868	866	-	265	281	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.5	6.2	7.1	6.5	6.2	4.3	-	-	4.27	-	-
Critical Hdwy Stg 1	6.11	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.5	-	7.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	~ 198	205	837	199	201	426	972	-	-	656	-	-
Stage 1	853	693	-	306	374	-	-	-	-	-	-	-
Stage 2	386	373	-	793	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 179	184	837	156	180	426	972	-	-	656	-	-
Mov Cap-2 Maneuver	~ 179	184	-	156	180	-	-	-	-	-	-	-
Stage 1	774	684	-	278	339	-	-	-	-	-	-	-
Stage 2	~ 344	338	-	668	673	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 400.3	17.5	0.6	0.3
HCM LOS	F	C		

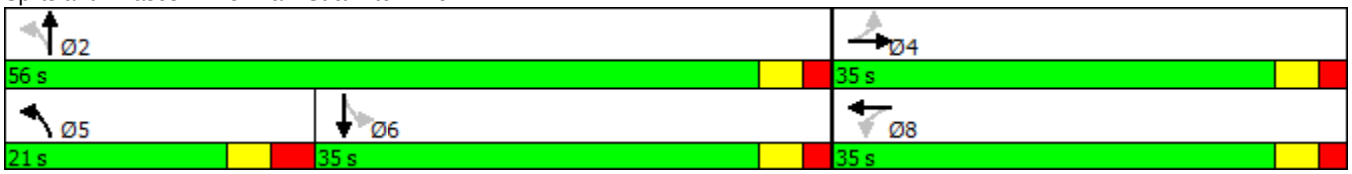
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	972	-	-	179	837	295	656	-	-
HCM Lane V/C Ratio	0.053	-	-	2.044	0.147	0.026	0.01	-	-
HCM Control Delay (s)	8.9	0	-	$ 531.6	10	17.5	10.5	0	-
HCM Lane LOS	A	A	-	F	B	C	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	28.2	0.5	0.1	0	-	-

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

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	164	92	86	20	87	59	90	473	38	37	252	47
Future Volume (vph)	164	92	86	20	87	59	90	473	38	37	252	47
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	13	13	10	12	12
Storage Length (ft)	0		0	0		0	100		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			40			35		
Satd. Flow (prot)	0	1565	0	0	1642	0	1565	1757	0	1520	1644	0
Flt Permitted		0.733			0.941		0.419			0.464		
Satd. Flow (perm)	0	1173	0	0	1555	0	688	1757	0	705	1644	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		594			746			1843			423	
Travel Time (s)		16.2			20.3			50.3			11.5	
Lane Group Flow (vph)	0	361	0	0	175	0	95	538	0	39	314	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	35.0	35.0		35.0	35.0		21.0	56.0		35.0	35.0	
Total Lost Time (s)		5.0			5.0		6.0	5.0		5.0	5.0	
Act Effct Green (s)		29.1			29.1		50.0	51.0		39.3	39.3	
Actuated g/C Ratio		0.32			0.32		0.55	0.57		0.44	0.44	
v/c Ratio		0.96			0.35		0.21	0.54		0.13	0.44	
Control Delay		68.5			25.6		11.0	15.0		19.5	22.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		68.5			25.6		11.0	15.0		19.5	22.0	
LOS		E			C		B	B		B	C	
Approach Delay		68.5			25.6			14.4			21.7	
Approach LOS		E			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 91			
Actuated Cycle Length: 90.1			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 30.2		Intersection LOS: C	
Intersection Capacity Utilization 100.9%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 28: Main St & Afton Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	164	92	86	20	87	59	90	473	38	37	252	47
Future Volume (veh/h)	164	92	86	20	87	59	90	473	38	37	252	47
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.96		0.94	0.97		0.92
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1777	1800	1800	1750	1800	1765	1799	1872	1714	1690	1800
Adj Flow Rate, veh/h	173	97	91	21	92	62	95	498	40	39	265	49
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	3	3	3	3	3	2	4	4	5	7	7
Cap, veh/h	246	120	103	77	277	168	500	964	77	398	641	118
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.05	0.59	0.59	0.47	0.47	0.47
Sat Flow, veh/h	628	407	349	102	941	572	1681	1634	131	768	1368	253
Grp Volume(v), veh/h	361	0	0	175	0	0	95	0	538	39	0	314
Grp Sat Flow(s),veh/h/ln	1383	0	0	1615	0	0	1681	0	1766	768	0	1621
Q Serve(g_s), s	14.2	0.0	0.0	0.0	0.0	0.0	2.4	0.0	15.5	2.7	0.0	11.0
Cycle Q Clear(g_c), s	21.5	0.0	0.0	7.3	0.0	0.0	2.4	0.0	15.5	7.8	0.0	11.0
Prop In Lane	0.48		0.25	0.12		0.35	1.00		0.07	1.00		0.16
Lane Grp Cap(c), veh/h	469	0	0	522	0	0	500	0	1042	398	0	759
V/C Ratio(X)	0.77	0.00	0.00	0.34	0.00	0.00	0.19	0.00	0.52	0.10	0.00	0.41
Avail Cap(c_a), veh/h	541	0	0	604	0	0	704	0	1042	398	0	759
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	0.0	0.0	24.1	0.0	0.0	10.6	0.0	10.5	15.8	0.0	15.2
Incr Delay (d2), s/veh	5.8	0.0	0.0	0.4	0.0	0.0	0.2	0.0	1.8	0.5	0.0	1.7
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	9.0	0.0	0.0	3.4	0.0	0.0	1.1	0.0	8.0	0.6	0.0	5.2
LnGrp Delay(d),s/veh	34.8	0.0	0.0	24.5	0.0	0.0	10.8	0.0	12.3	16.3	0.0	16.8
LnGrp LOS	C			C			B		B	B		B
Approach Vol, veh/h		361			175			633			353	
Approach Delay, s/veh		34.8			24.5			12.1			16.8	
Approach LOS		C			C			B			B	

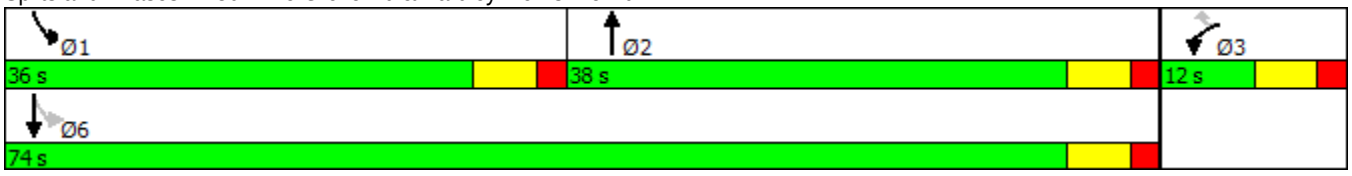
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		56.0		30.5	10.5	45.5		30.5
Change Period (Y+Rc), s		5.0		5.0	6.0	5.0		5.0
Max Green Setting (Gmax), s		51.0		30.0	15.0	30.0		30.0
Max Q Clear Time (g_c+I1), s		17.5		23.5	4.4	13.0		9.3
Green Ext Time (p_c), s		7.3		1.9	0.1	5.8		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	16	145	255	22	305	237
Future Volume (vph)	16	145	255	22	305	237
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	14	11	11	11	12
Grade (%)	2%		-1%			0%
Storage Length (ft)	0	140		0	240	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				55	
Satd. Flow (prot)	1698	1569	1657	0	1621	1731
Flt Permitted	0.950				0.426	
Satd. Flow (perm)	1698	1569	1657	0	727	1731
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		153	6			
Link Speed (mph)	35		40			35
Link Distance (ft)	406		1145			562
Travel Time (s)	7.9		19.5			10.9
Lane Group Flow (vph)	17	153	291	0	321	249
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3			6	
Total Split (s)	12.0	12.0	38.0		36.0	74.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Act Effct Green (s)	6.8	6.8	33.0		69.0	69.0
Actuated g/C Ratio	0.08	0.08	0.38		0.80	0.80
v/c Ratio	0.13	0.58	0.45		0.35	0.18
Control Delay	39.0	16.2	22.1		3.2	2.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	39.0	16.2	22.1		3.2	2.3
LOS	D	B	C		A	A
Approach Delay	18.4		22.1			2.8
Approach LOS	B		C			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 86			
Actuated Cycle Length: 85.8			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 10.8		Intersection LOS: B	
Intersection Capacity Utilization 68.3%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 30: Pine Grove Rd & Yardley Morrisville Rd



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	16	145	255	22	305	237
Future Volume (veh/h)	16	145	255	22	305	237
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
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
Adj Sat Flow, veh/h/ln	1640	1799	1733	1809	1765	1731
Adj Flow Rate, veh/h	17	0	268	22	321	249
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	13	3	4	4	2	4
Cap, veh/h	40	39	644	53	1031	1473
Arrive On Green	0.03	0.00	0.41	0.39	0.38	0.85
Sat Flow, veh/h	1562	1529	1580	130	1681	1731
Grp Volume(v), veh/h	17	0	0	290	321	249
Grp Sat Flow(s),veh/h/ln	1562	1529	0	1710	1681	1731
Q Serve(g_s), s	0.9	0.0	0.0	9.8	3.4	2.0
Cycle Q Clear(g_c), s	0.9	0.0	0.0	9.8	3.4	2.0
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	40	39	0	696	1031	1473
V/C Ratio(X)	0.43	0.00	0.00	0.42	0.31	0.17
Avail Cap(c_a), veh/h	135	132	0	696	1032	1473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	0.0	0.0	17.2	2.9	1.0
Incr Delay (d2), s/veh	7.0	0.0	0.0	1.8	0.2	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	0.5	0.0	0.0	5.0	1.6	1.0
LnGrp Delay(d),s/veh	45.9	0.0	0.0	19.0	3.0	1.3
LnGrp LOS	D			B	A	A
Approach Vol, veh/h	17		290			570
Approach Delay, s/veh	45.9		19.0			2.3
Approach LOS	D		B			A

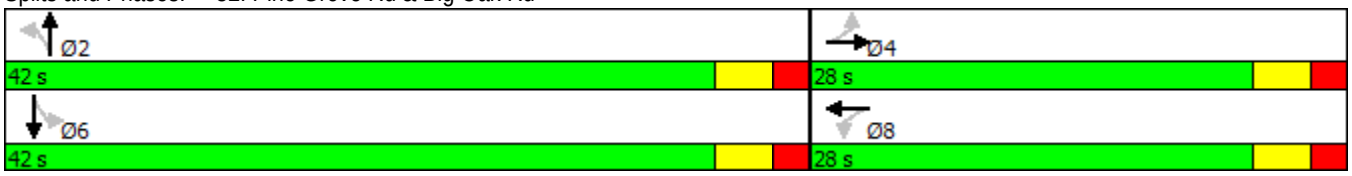
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	36.0	38.0				74.0		7.1
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0
Max Green Setting (Gmax), s	30.0	32.0				68.0		6.0
Max Q Clear Time (g_c+I1), s	5.9	11.8				4.5		3.4
Green Ext Time (p_c), s	0.9	3.0				3.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	210	100	11	78	18	72	255	10	44	244	17
Future Volume (vph)	29	210	100	11	78	18	72	255	10	44	244	17
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	11	11	11	12	12	12	16	16	16
Satd. Flow (prot)	0	1541	0	0	1531	0	0	1609	0	0	1912	0
Flt Permitted		0.973			0.961			0.885			0.914	
Satd. Flow (perm)	0	1506	0	0	1478	0	0	1440	0	0	1760	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		812			672			1117			1626	
Travel Time (s)		15.8			13.1			19.0			27.7	
Lane Group Flow (vph)	0	346	0	0	109	0	0	343	0	0	311	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0		42.0	42.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Act Effct Green (s)		24.3			24.3			20.5			20.5	
Actuated g/C Ratio		0.46			0.46			0.39			0.39	
v/c Ratio		0.50			0.16			0.62			0.46	
Control Delay		15.0			11.2			17.9			13.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		15.0			11.2			17.9			13.9	
LOS		B			B			B			B	
Approach Delay		15.0			11.2			17.9			13.9	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 52.9			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 61.1%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 32: Pine Grove Rd & Big Oak Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	210	100	11	78	18	72	255	10	44	244	17
Future Volume (veh/h)	29	210	100	11	78	18	72	255	10	44	244	17
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1738	1800	1800	1627	1800	1800	1634	1800	1872	1779	1872
Adj Flow Rate, veh/h	30	214	102	11	80	18	73	260	10	45	249	17
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	12	12	12	8	8	8	4	4	4
Cap, veh/h	106	498	221	107	559	117	166	476	17	132	557	35
Arrive On Green	0.44	0.46	0.44	0.44	0.46	0.44	0.36	0.38	0.36	0.36	0.38	0.36
Sat Flow, veh/h	67	1078	479	67	1211	253	212	1239	44	138	1451	92
Grp Volume(v), veh/h	346	0	0	109	0	0	343	0	0	311	0	0
Grp Sat Flow(s),veh/h/ln	1623	0	0	1531	0	0	1495	0	0	1680	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.6	0.0	0.0	2.1	0.0	0.0	9.1	0.0	0.0	7.0	0.0	0.0
Prop In Lane	0.09		0.29	0.10		0.17	0.21		0.03	0.14		0.05
Lane Grp Cap(c), veh/h	794	0	0	754	0	0	630	0	0	693	0	0
V/C Ratio(X)	0.44	0.00	0.00	0.14	0.00	0.00	0.54	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	795	0	0	755	0	0	1124	0	0	1251	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.7	0.0	0.0	8.2	0.0	0.0	12.6	0.0	0.0	12.1	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.1	0.0	0.0	1.6	0.0	0.0	1.0	0.0	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	3.6	0.0	0.0	1.0	0.0	0.0	4.3	0.0	0.0	3.6	0.0	0.0
LnGrp Delay(d),s/veh	10.1	0.0	0.0	8.2	0.0	0.0	14.2	0.0	0.0	13.0	0.0	0.0
LnGrp LOS	B			A			B			B		
Approach Vol, veh/h		346			109			343			311	
Approach Delay, s/veh		10.1			8.2			14.2			13.0	
Approach LOS		B			A			B			B	

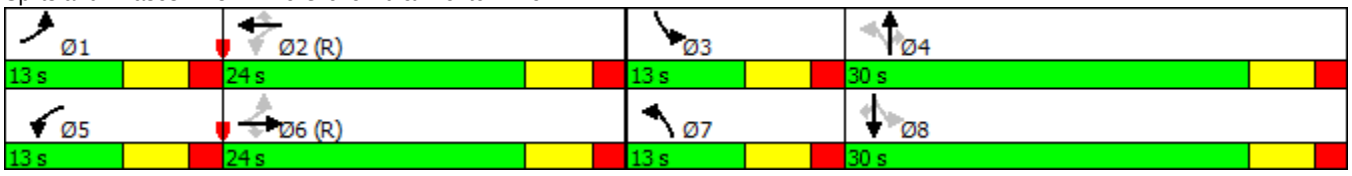
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		23.9		28.0		23.9		28.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		37.0		23.0		37.0		23.0
Max Q Clear Time (g_c+I1), s		11.1		9.6		9.0		4.1
Green Ext Time (p_c), s		7.9		2.3		8.1		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	12.0
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	364	51	118	200	11	47	230	207	40	254	42
Future Volume (vph)	52	364	51	118	200	11	47	230	207	40	254	42
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	16	11	11	16	11	11	12	11	11	16
Storage Length (ft)	155		70	255		0	85		165	110		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	85			90			225			55		
Satd. Flow (prot)	1464	3099	1734	1621	3210	1591	1489	1582	1515	1574	1706	1734
Flt Permitted	0.614			0.450			0.400			0.447		
Satd. Flow (perm)	946	3099	1734	768	3210	1591	627	1582	1515	741	1706	1734
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			205			227			205
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		476			833			854			1117	
Travel Time (s)		8.1			14.2			14.6			19.0	
Lane Group Flow (vph)	57	400	56	130	220	12	52	253	227	44	279	46
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8
Total Split (s)	13.0	24.0	24.0	13.0	24.0	24.0	13.0	30.0	30.0	13.0	30.0	30.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Act Effct Green (s)	38.2	31.7	31.7	40.6	34.9	34.9	24.0	19.2	19.2	24.0	19.2	19.2
Actuated g/C Ratio	0.48	0.40	0.40	0.51	0.44	0.44	0.30	0.24	0.24	0.30	0.24	0.24
v/c Ratio	0.11	0.33	0.07	0.27	0.16	0.01	0.19	0.67	0.42	0.15	0.68	0.08
Control Delay	13.9	22.2	0.2	14.4	19.6	0.0	15.9	35.7	5.9	15.1	35.8	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	22.2	0.2	14.4	19.6	0.0	15.9	35.7	5.9	15.1	35.8	0.3
LOS	B	C	A	B	B	A	B	D	A	B	D	A
Approach Delay		18.9			17.1			21.0			28.9	
Approach LOS		B			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 53.5%		ICU Level of Service A	
Analysis Period (min) 15			

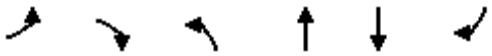
Splits and Phases: 34: Pine Grove Rd & Trenton Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	364	51	118	200	11	47	230	207	40	254	42
Future Volume (veh/h)	52	364	51	118	200	11	47	230	207	40	254	42
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1651	1748	1872	1765	1748	1717	1622	1636	1782	1714	1765	1872
Adj Flow Rate, veh/h	57	400	0	130	220	0	52	253	0	44	279	0
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	9	3	0	2	3	9	11	10	1	5	2	0
Cap, veh/h	570	1323	634	524	1433	630	236	366	338	247	383	345
Arrive On Green	0.05	0.40	0.00	0.08	0.43	0.00	0.05	0.22	0.00	0.04	0.22	0.00
Sat Flow, veh/h	1573	3320	1591	1681	3320	1460	1544	1636	1515	1633	1765	1591
Grp Volume(v), veh/h	57	400	0	130	220	0	52	253	0	44	279	0
Grp Sat Flow(s),veh/h/ln	1573	1660	1591	1681	1660	1460	1544	1636	1515	1633	1765	1591
Q Serve(g_s), s	1.7	6.6	0.0	3.5	3.2	0.0	2.0	11.4	0.0	1.6	11.8	0.0
Cycle Q Clear(g_c), s	1.7	6.6	0.0	3.5	3.2	0.0	2.0	11.4	0.0	1.6	11.8	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	570	1323	634	524	1433	630	236	366	338	247	383	345
V/C Ratio(X)	0.10	0.30	0.00	0.25	0.15	0.00	0.22	0.69	0.00	0.18	0.73	0.00
Avail Cap(c_a), veh/h	648	1323	634	552	1433	630	311	511	473	337	551	497
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	0.00	1.00	1.00	0.00	0.89	0.89	0.00
Uniform Delay (d), s/veh	12.6	16.5	0.0	11.9	13.8	0.0	23.1	28.5	0.0	23.2	29.1	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.0	0.2	0.2	0.0	0.5	2.4	0.0	0.3	2.5	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	0.7	3.1	0.0	1.6	1.5	0.0	0.9	5.4	0.0	0.8	6.0	0.0
LnGrp Delay(d),s/veh	12.7	17.0	0.0	12.1	14.1	0.0	23.5	30.9	0.0	23.5	31.6	0.0
LnGrp LOS	B	B		B	B		C	C		C	C	
Approach Vol, veh/h		457			350			305			323	
Approach Delay, s/veh		16.5			13.3			29.6			30.5	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	39.5	8.6	22.9	11.7	36.9	9.1	22.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	7.0	18.0	7.0	24.0	7.0	18.0	7.0	24.0
Max Q Clear Time (g_c+I1), s	4.2	5.7	4.1	13.9	6.0	9.1	4.5	14.3
Green Ext Time (p_c), s	0.0	3.0	0.0	2.1	0.0	2.5	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.7
HCM 2010 LOS	C



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	46	42	490	311	55
Future Volume (vph)	108	46	42	490	311	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	16	12	12	12	12
Satd. Flow (prot)	1832	0	0	1707	1662	0
Flt Permitted	0.966			0.996		
Satd. Flow (perm)	1832	0	0	1707	1662	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	751			901	1477	
Travel Time (s)	20.5			24.6	40.3	
Lane Group Flow (vph)	162	0	0	560	385	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	108	46	42	490	311	55
Future Vol, veh/h	108	46	42	490	311	55
Conflicting Peds, #/hr	1	1	1	0	0	1
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	11	5	5	6	7
Mvmt Flow	114	48	44	516	327	58

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	961	358	386	0	-	0
Stage 1	357	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Critical Hdwy	7.1	6.2	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	262	728	885	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	243	727	884	-	-	-
Mov Cap-2 Maneuver	243	-	-	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	573	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.8	0.7	0
HCM LOS	D		

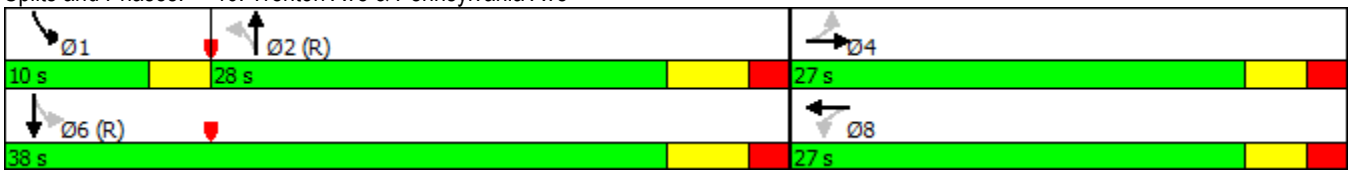
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	884	-	303	-	-
HCM Lane V/C Ratio	0.05	-	0.535	-	-
HCM Control Delay (s)	9.3	0	29.8	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.2	-	3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	196	180	5	67	69	62	8	472	46	63	173	14
Future Volume (vph)	196	180	5	67	69	62	8	472	46	63	173	14
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	10	11	11	10	10	10	10	11	11
Storage Length (ft)	0		0	90		0	110		0	160		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			90			135			65		
Satd. Flow (prot)	0	1801	0	1520	1537	0	1596	1649	0	1596	1702	0
Flt Permitted		0.765		0.526			0.633			0.174		
Satd. Flow (perm)	0	1412	0	841	1537	0	1062	1649	0	292	1702	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			66			8			9	
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		670			589			4726			1445	
Travel Time (s)		18.3			16.1			92.1			28.1	
Lane Group Flow (vph)	0	405	0	71	139	0	9	551	0	67	199	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	27.0	27.0		27.0	27.0		28.0	28.0		10.0	38.0	
Total Lost Time (s)		4.0		4.0	4.0		5.0	5.0		2.0	5.0	
Act Effct Green (s)		23.0		23.0	23.0		23.0	23.0		36.0	33.0	
Actuated g/C Ratio		0.35		0.35	0.35		0.35	0.35		0.55	0.51	
v/c Ratio		0.81		0.24	0.24		0.02	0.94		0.21	0.23	
Control Delay		34.5		17.5	9.6		14.0	47.6		8.4	9.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		34.5		17.5	9.6		14.0	47.6		8.4	9.4	
LOS		C		B	A		B	D		A	A	
Approach Delay		34.5			12.3			47.0			9.1	
Approach LOS		C			B			D			A	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Pretimed
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 31.5 Intersection LOS: C
Intersection Capacity Utilization 90.9% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 46: Trenton Ave & Pennsylvania Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	196	180	5	67	69	62	8	472	46	63	173	14
Future Volume (veh/h)	196	180	5	67	69	62	8	472	46	63	173	14
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	13	0	0	0	0	0	0	0	0	7	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1863	1872	1714	1729	1800	1800	1794	1800	1800	1784	1800
Adj Flow Rate, veh/h	209	191	5	71	73	66	9	502	49	67	184	3
Adj No. of Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	5	6	6	0	0	0	0	1	1
Cap, veh/h	248	275	5	406	296	268	450	569	56	378	891	14
Arrive On Green	0.34	0.35	0.34	0.35	0.35	0.34	0.35	0.35	0.34	0.12	0.51	0.49
Sat Flow, veh/h	623	655	16	1087	837	757	1150	1609	157	1714	1750	29
Grp Volume(v), veh/h	405	0	0	71	0	139	9	0	551	67	0	187
Grp Sat Flow(s),veh/h/ln	1294	0	0	1087	0	1594	1150	0	1766	1714	0	1778
Q Serve(g_s), s	15.9	0.0	0.0	0.0	0.0	4.0	0.3	0.0	19.1	1.3	0.0	3.8
Cycle Q Clear(g_c), s	20.0	0.0	0.0	3.6	0.0	4.0	0.3	0.0	19.1	1.3	0.0	3.8
Prop In Lane	0.52		0.01	1.00		0.47	1.00		0.09	1.00		0.02
Lane Grp Cap(c), veh/h	539	0	0	406	0	564	450	0	625	378	0	903
V/C Ratio(X)	0.75	0.00	0.00	0.17	0.00	0.25	0.02	0.00	0.88	0.18	0.00	0.21
Avail Cap(c_a), veh/h	522	0	0	440	0	564	518	0	625	378	0	903
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	0.0	15.1	0.0	15.0	16.8	0.0	19.8	11.7	0.0	9.1
Incr Delay (d2), s/veh	9.3	0.0	0.0	0.9	0.0	1.0	0.1	0.0	16.4	1.0	0.0	0.5
Initial Q Delay(d3),s/veh	16.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
%ile BackOfQ(50%),veh/ln	12.0	0.0	0.0	1.0	0.0	1.9	0.1	0.0	12.0	0.7	0.0	2.6
LnGrp Delay(d),s/veh	48.0	0.0	0.0	16.0	0.0	16.1	16.9	0.0	36.2	12.7	0.0	10.2
LnGrp LOS	D			B		B	B		D	B		B
Approach Vol, veh/h		405			210			560			254	
Approach Delay, s/veh		48.0			16.1			35.9			10.8	
Approach LOS		D			B			D			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.0	28.0		27.0		38.0		27.0
Change Period (Y+Rc), s	3.0	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	7.0	22.0		22.0		32.0		22.0
Max Q Clear Time (g_c+I1), s	3.8	21.1		22.0		5.8		6.1
Green Ext Time (p_c), s	0.0	0.1		0.0		0.7		0.7

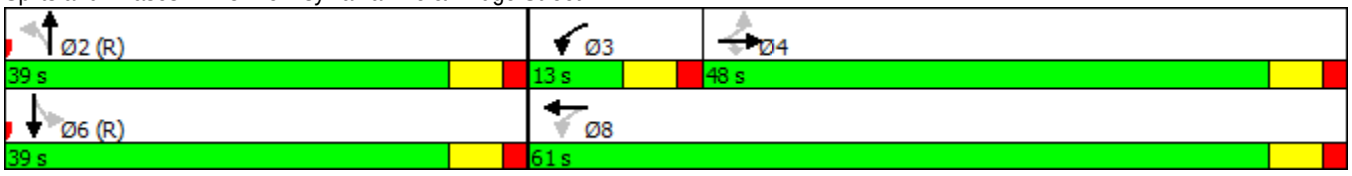
Intersection Summary	
HCM 2010 Ctrl Delay	32.0
HCM 2010 LOS	C

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	364	136	123	294	26	69	123	15	55	392	50
Future Volume (vph)	86	364	136	123	294	26	69	123	15	55	392	50
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	13	14	14	14	10	10	10	10	11	11
Storage Length (ft)	160		85	0		0	90		0	0		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	100			25			25			25		
Satd. Flow (prot)	1589	1740	1550	0	1858	0	1506	1541	0	1596	1687	0
Flt Permitted	0.458				0.687		0.318			0.666		
Satd. Flow (perm)	765	1740	1508	0	1294	0	503	1541	0	1112	1687	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											7	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		588			897			335			903	
Travel Time (s)		16.0			24.5			9.1			24.6	
Lane Group Flow (vph)	89	375	140	0	457	0	71	142	0	57	456	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	48.0	48.0	48.0	13.0	61.0		39.0	39.0		39.0	39.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	48.9	48.9	48.9		48.9		41.1	41.1		41.1	41.1	
Actuated g/C Ratio	0.49	0.49	0.49		0.49		0.41	0.41		0.41	0.41	
v/c Ratio	0.24	0.44	0.19		0.72		0.34	0.22		0.12	0.65	
Control Delay	14.6	17.5	13.6		26.6		30.0	22.8		22.7	31.1	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay	14.6	17.5	13.6		26.6		30.0	22.8		22.7	31.1	
LOS	B	B	B		C		C	C		C	C	
Approach Delay		16.1			26.6			25.2			30.2	
Approach LOS		B			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 21 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 23.9 Intersection LOS: C
Intersection Capacity Utilization 95.4% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 48: Pennsylvania Ave & Bridge Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	364	136	123	294	26	69	123	15	55	392	50
Future Volume (veh/h)	86	364	136	123	294	26	69	123	15	55	392	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1731	1800	1835	1872	1855	1872	1698	1682	1800	1800	1780	1800
Adj Flow Rate, veh/h	89	375	117	127	303	27	71	127	15	57	404	51
Adj No. of Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	4	0	2	1	1	1	6	7	7	0	1	1
Cap, veh/h	370	710	611	47	91	6	357	746	88	626	783	99
Arrive On Green	0.39	0.39	0.39	0.38	0.39	0.38	0.51	0.51	0.50	0.51	0.51	0.50
Sat Flow, veh/h	968	1800	1548	1	230	15	848	1476	174	1195	1549	196
Grp Volume(v), veh/h	89	375	117	457	0	0	71	0	142	57	0	455
Grp Sat Flow(s),veh/h/ln	968	1800	1548	246	0	0	848	0	1650	1195	0	1744
Q Serve(g_s), s	0.0	15.9	4.9	21.4	0.0	0.0	6.1	0.0	4.7	2.7	0.0	17.5
Cycle Q Clear(g_c), s	11.3	15.9	4.9	21.4	0.0	0.0	23.0	0.0	4.7	6.9	0.0	17.5
Prop In Lane	1.00		1.00	0.28		0.06	1.00		0.11	1.00		0.11
Lane Grp Cap(c), veh/h	370	710	611	0	0	0	357	0	834	626	0	882
V/C Ratio(X)	0.24	0.53	0.19	0.00	0.00	0.00	0.20	0.00	0.17	0.09	0.00	0.52
Avail Cap(c_a), veh/h	404	774	666	0	0	0	357	0	834	626	0	882
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	0.91	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.8	23.1	19.8	0.0	0.0	0.0	24.1	0.0	13.4	15.1	0.0	16.6
Incr Delay (d2), s/veh	0.7	1.3	0.3	0.0	0.0	0.0	1.3	0.0	0.4	0.3	0.0	2.2
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	8.2	2.2	0.0	0.0	0.0	1.5	0.0	2.2	0.9	0.0	8.9
LnGrp Delay(d),s/veh	22.5	24.5	20.1	0.0	0.0	0.0	25.3	0.0	13.9	15.4	0.0	18.7
LnGrp LOS	C	C	C				C		B	B		B
Approach Vol, veh/h		581			457			213			512	
Approach Delay, s/veh		23.3			0.0			17.7			18.4	
Approach LOS		C			A			B			B	

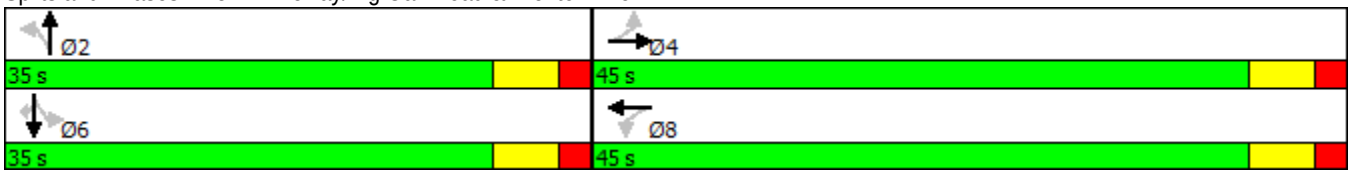
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		55.5		44.5		55.5		44.5
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		33.0		42.0		33.0		55.0
Max Q Clear Time (g_c+I1), s		25.5		18.4		19.5		23.4
Green Ext Time (p_c), s		4.1		12.8		6.4		15.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	526	9	15	287	54	16	9	13	129	28	25
Future Volume (vph)	15	526	9	15	287	54	16	9	13	129	28	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	15	13	13	13	16	16	16	9	9	10
Storage Length (ft)	0		0	0		0	0		0	0		200
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1937	0	0	1751	0	0	1903	0	0	1530	1428
Flt Permitted		0.986			0.970			0.849			0.734	
Satd. Flow (perm)	0	1912	0	0	1702	0	0	1651	0	0	1170	1428
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		1			16			15				41
Link Speed (mph)		40			40			25			35	
Link Distance (ft)		581			4726			443			817	
Travel Time (s)		9.9			80.6			12.1			15.9	
Lane Group Flow (vph)	0	618	0	0	400	0	0	43	0	0	176	28
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Total Split (s)	45.0	45.0		45.0	45.0		35.0	35.0		35.0	35.0	35.0
Total Lost Time (s)		5.0			5.0			5.0			5.0	5.0
Act Effct Green (s)		40.2			40.2			16.0			16.0	16.0
Actuated g/C Ratio		0.61			0.61			0.24			0.24	0.24
v/c Ratio		0.53			0.38			0.10			0.62	0.07
Control Delay		10.8			8.8			14.1			32.3	4.9
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		10.8			8.8			14.1			32.3	4.9
LOS		B			A			B			C	A
Approach Delay		10.8			8.8			14.1			28.6	
Approach LOS		B			A			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 66.3			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 13.1		Intersection LOS: B	
Intersection Capacity Utilization 59.6%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 52: Driveway/Big Oak Road & Trenton Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	526	9	15	287	54	16	9	13	129	28	25
Future Volume (veh/h)	15	526	9	15	287	54	16	9	13	129	28	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1837	1872	1872	1804	1872	1872	1872	1872	1728	1700	1800
Adj Flow Rate, veh/h	17	591	10	17	322	59	18	10	9	145	31	13
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	3	3	3	0	0	0	0	0	0
Cap, veh/h	70	1106	18	76	902	160	121	69	34	300	50	333
Arrive On Green	0.61	0.63	0.63	0.61	0.63	0.63	0.20	0.22	0.22	0.20	0.22	0.22
Sat Flow, veh/h	19	1767	29	27	1441	255	173	316	157	907	229	1530
Grp Volume(v), veh/h	618	0	0	398	0	0	37	0	0	176	0	13
Grp Sat Flow(s),veh/h/ln	1815	0	0	1723	0	0	646	0	0	1136	0	1530
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s	12.3	0.0	0.0	7.1	0.0	0.0	10.1	0.0	0.0	9.9	0.0	0.4
Prop In Lane	0.03		0.02	0.04		0.15	0.49		0.24	0.82		1.00
Lane Grp Cap(c), veh/h	1166	0	0	1111	0	0	214	0	0	332	0	333
V/C Ratio(X)	0.53	0.00	0.00	0.36	0.00	0.00	0.17	0.00	0.00	0.53	0.00	0.04
Avail Cap(c_a), veh/h	1166	0	0	1111	0	0	600	0	0	666	0	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.8	0.0	0.0	5.8	0.0	0.0	20.7	0.0	0.0	23.7	0.0	19.7
Incr Delay (d2), s/veh	1.7	0.0	0.0	0.9	0.0	0.0	0.4	0.0	0.0	1.3	0.0	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	7.0	0.0	0.0	3.7	0.0	0.0	0.6	0.0	0.0	3.1	0.0	0.2
LnGrp Delay(d),s/veh	8.5	0.0	0.0	6.7	0.0	0.0	21.1	0.0	0.0	25.1	0.0	19.8
LnGrp LOS	A			A			C			C		B
Approach Vol, veh/h		618			398			37			189	
Approach Delay, s/veh		8.5			6.7			21.1			24.7	
Approach LOS		A			A			C			C	

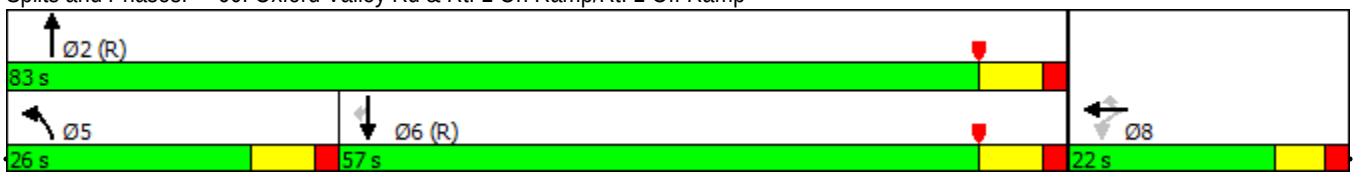
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		18.9		45.0		18.9		45.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		29.0		39.0		29.0		39.0
Max Q Clear Time (g_c+I1), s		12.1		14.3		11.9		9.1
Green Ext Time (p_c), s		1.0		6.9		1.0		7.3

Intersection Summary	
HCM 2010 Ctrl Delay	10.8
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	244	0	170	443	921	0	0	617	679
Future Volume (vph)	0	0	0	244	0	170	443	921	0	0	617	679
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	15	15	16	10	10	10	12	12	12
Grade (%)		0%			3%			-1%			1%	
Storage Length (ft)	0		0	665		695	0		0	0		390
Storage Lanes	0		0	1		1	2		0	0		1
Taper Length (ft)	25			230			25			25		
Satd. Flow (prot)	0	0	0	1769	1769	1750	2933	3051	0	0	4869	1575
Flt Permitted				0.950	0.950		0.950					
Satd. Flow (perm)	0	0	0	1769	1769	1723	2927	3051	0	0	4869	1555
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						179						501
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		1045			1166			544			1587	
Travel Time (s)		23.8			22.7			6.7			19.7	
Lane Group Flow (vph)	0	0	0	134	134	187	487	1012	0	0	678	746
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)				22.0	22.0	22.0	26.0	83.0			57.0	57.0
Total Lost Time (s)				5.0	5.0	5.0	6.0	6.0			6.0	6.0
Act Effct Green (s)				13.9	13.9	13.9	20.7	80.1			53.4	53.4
Actuated g/C Ratio				0.13	0.13	0.13	0.20	0.76			0.51	0.51
v/c Ratio				0.57	0.57	0.49	0.84	0.43			0.27	0.72
Control Delay				52.1	52.1	11.5	47.7	3.6			14.7	10.5
Queue Delay				0.0	0.0	0.0	0.0	0.1			0.0	0.0
Total Delay				52.1	52.1	11.5	47.7	3.7			14.7	10.5
LOS				D	D	B	D	A			B	B
Approach Delay					35.4			18.0			12.5	
Approach LOS					D			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 105			
Offset: 67 (64%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 18.0		Intersection LOS: B	
Intersection Capacity Utilization 83.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 60: Oxford Valley Rd & Rt. 1 On Ramp/Rt. 1 Off Ramp

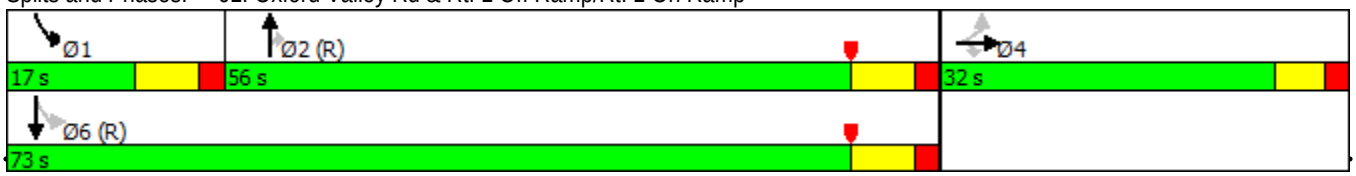


HCM 2010 Computation does not support turning movement with Shared and Exclusive lanes.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	0	744	0	0	0	0	1050	200	254	607	0
Future Volume (vph)	314	0	744	0	0	0	0	1050	200	254	607	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	12	12	12	12	10	12	11	11	12
Grade (%)		3%			0%			0%			1%	
Storage Length (ft)	340		475	0		0	345		350	0		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	300			25			250			25		
Satd. Flow (prot)	1624	1624	1734	0	0	0	0	4361	1468	1719	3046	0
Flt Permitted	0.950	0.950								0.170		
Satd. Flow (perm)	1622	1622	1734	0	0	0	0	4361	1468	308	3046	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			288						215			
Link Speed (mph)		35			30			55			55	
Link Distance (ft)		1169			1266			2828			544	
Travel Time (s)		22.8			28.8			35.1			6.7	
Lane Group Flow (vph)	169	169	800	0	0	0	0	1129	215	273	653	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Total Split (s)	32.0	32.0	32.0					56.0	56.0	17.0	73.0	
Total Lost Time (s)	5.0	5.0	5.0					6.0	6.0	6.0	6.0	
Act Effct Green (s)	27.0	27.0	27.0					50.0	50.0	67.0	67.0	
Actuated g/C Ratio	0.26	0.26	0.26					0.48	0.48	0.64	0.64	
v/c Ratio	0.41	0.41	1.21					0.54	0.27	0.79	0.34	
Control Delay	35.9	35.9	133.6					20.9	4.6	29.2	3.2	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay	35.9	35.9	133.6					20.9	4.6	29.2	3.2	
LOS	D	D	F					C	A	C	A	
Approach Delay		104.6						18.3			10.9	
Approach LOS		F						B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 105			
Offset: 87 (83%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 45.1		Intersection LOS: D	
Intersection Capacity Utilization 83.2%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 61: Oxford Valley Rd & Rt. 1 Off Ramp/Rt. 1 On Ramp



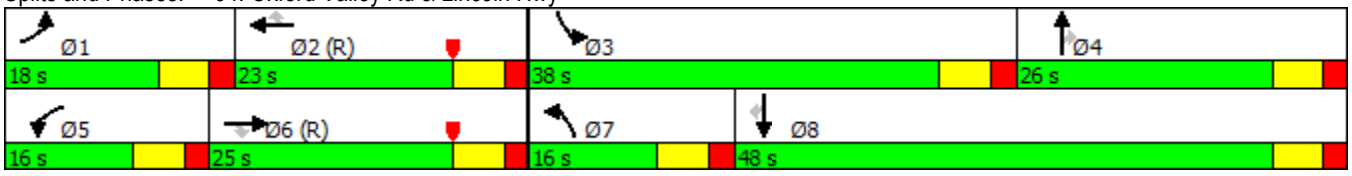
HCM 2010 Computation does not support turning movement with Shared and Exclusive lanes.

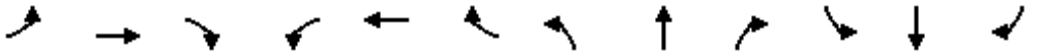
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	122	313	73	219	323	334	85	419	254	374	627	124
Future Volume (vph)	122	313	73	219	323	334	85	419	254	374	627	124
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	12	14	12	12	12	11	12	12	11	12	11
Storage Length (ft)	415		240	250		100	0		100	245		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	75			70			25			85		
Satd. Flow (prot)	1425	2948	1419	1487	2948	1366	1476	3138	1378	1517	3081	1297
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1425	2948	1419	1487	2948	1366	1476	3138	1378	1517	3081	1297
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			218			355			246			156
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		906			576			786			1927	
Travel Time (s)		15.4			9.8			13.4			32.8	
Lane Group Flow (vph)	130	333	78	233	344	355	90	446	270	398	667	132
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Total Split (s)	18.0	25.0	25.0	16.0	23.0	23.0	16.0	26.0	26.0	38.0	48.0	48.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Act Effct Green (s)	12.7	20.0	20.0	14.4	21.8	21.8	10.3	19.7	19.7	30.9	42.8	42.8
Actuated g/C Ratio	0.12	0.19	0.19	0.14	0.21	0.21	0.10	0.19	0.19	0.29	0.41	0.41
v/c Ratio	0.76	0.59	0.17	1.14	0.56	0.63	0.62	0.76	0.59	0.89	0.53	0.21
Control Delay	72.2	43.8	0.8	150.4	43.0	9.8	64.4	49.3	12.3	42.0	27.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.2	43.8	0.8	150.4	43.0	9.8	64.4	49.3	12.3	42.0	27.0	4.4
LOS	E	D	A	F	D	A	E	D	B	D	C	A
Approach Delay		44.4			57.2			38.6			29.5	
Approach LOS		D			E			D			C	

Intersection Summary

Area Type: Other
Cycle Length: 105
Actuated Cycle Length: 105
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 41.3 Intersection LOS: D
Intersection Capacity Utilization 79.4% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 64: Oxford Valley Rd & Lincoln Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	313	73	219	323	334	85	419	254	374	627	124
Future Volume (veh/h)	122	313	73	219	323	334	85	419	254	374	627	124
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	14	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1552	1552	1628	1565	1552	1607	1607	1651	1622	1651	1622	1579
Adj Flow Rate, veh/h	130	333	0	233	344	0	90	446	0	398	667	0
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	16	16	15	15	16	12	12	9	11	9	11	14
Cap, veh/h	172	654	307	156	620	287	130	632	278	443	1191	534
Arrive On Green	0.12	0.24	0.00	0.10	0.22	0.00	0.08	0.19	0.00	0.28	0.38	0.00
Sat Flow, veh/h	1478	2948	1384	1491	2948	1366	1531	3138	1378	1573	3081	1342
Grp Volume(v), veh/h	130	333	0	233	344	0	90	446	0	398	667	0
Grp Sat Flow(s),veh/h/ln	1478	1474	1384	1491	1474	1366	1531	1569	1378	1573	1541	1342
Q Serve(g_s), s	8.9	10.2	0.0	11.0	10.8	0.0	6.0	14.1	0.0	25.6	17.9	0.0
Cycle Q Clear(g_c), s	8.9	10.2	0.0	11.0	10.8	0.0	6.0	14.1	0.0	25.6	17.9	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	172	654	307	156	620	287	130	632	278	443	1191	534
V/C Ratio(X)	0.76	0.51	0.00	1.49	0.55	0.00	0.69	0.71	0.00	0.90	0.56	0.00
Avail Cap(c_a), veh/h	183	695	326	156	661	306	160	628	276	494	1262	550
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.0	35.9	0.0	47.0	37.1	0.0	46.7	39.0	0.0	36.3	25.9	0.0
Incr Delay (d2), s/veh	15.6	2.8	0.0	252.1	3.6	0.0	9.2	3.6	0.0	18.0	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	2.3	0.0
%ile BackOfQ(50%),veh/ln	4.4	4.5	0.0	15.4	4.8	0.0	2.9	6.3	0.0	13.3	9.1	0.0
LnGrp Delay(d),s/veh	60.5	38.7	0.0	299.1	40.6	0.0	55.9	42.7	0.0	54.3	28.7	0.0
LnGrp LOS	E	D		F	D		E	D		D	C	
Approach Vol, veh/h		463			577			536			1065	
Approach Delay, s/veh		44.8			145.0			44.9			38.2	
Approach LOS		D			F			D			D	

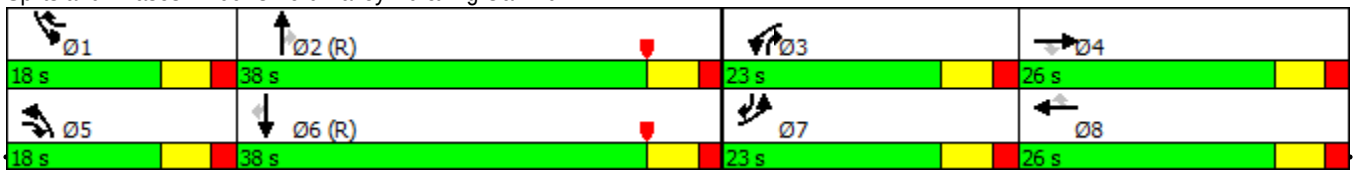
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	28.5	34.6	24.7	16.0	29.7	13.9	45.4
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	17.0	32.0	20.0	10.0	19.0	10.0	42.0
Max Q Clear Time (g_c+I1), s	11.4	13.3	28.1	16.6	13.5	12.7	8.5	20.4
Green Ext Time (p_c), s	0.0	1.5	0.5	2.1	0.0	2.2	0.0	7.5

Intersection Summary	
HCM 2010 Ctrl Delay	64.1
HCM 2010 LOS	E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	151	236	127	93	25	324	377	101	36	193	26
Future Volume (vph)	33	151	236	127	93	25	324	377	101	36	193	26
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	12	12	12	12	11	12	12	12	12	14
Grade (%)		-2%			2%			0%			0%	
Storage Length (ft)	140		240	225		100	400		515	160		220
Storage Lanes	2		2	2		1	2		1	1		1
Taper Length (ft)	25			90			90			120		
Satd. Flow (prot)	3145	1740	2615	3284	1713	1515	3113	3320	1430	1710	3386	1632
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3145	1740	2615	3284	1713	1515	3113	3320	1400	1706	3386	1632
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			274			94			117			94
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1162			1546			1587			1327	
Travel Time (s)		19.8			26.4			27.1			22.6	
Lane Group Flow (vph)	38	176	274	148	108	29	377	438	117	42	224	30
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	23.0	26.0	18.0	23.0	26.0	18.0	18.0	38.0	23.0	18.0	38.0	23.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Act Effct Green (s)	7.8	16.8	40.7	11.1	22.4	36.5	18.9	50.4	61.4	9.1	38.3	51.0
Actuated g/C Ratio	0.07	0.16	0.39	0.11	0.21	0.35	0.18	0.48	0.58	0.09	0.36	0.49
v/c Ratio	0.16	0.63	0.23	0.43	0.30	0.05	0.67	0.28	0.13	0.29	0.18	0.04
Control Delay	46.8	51.0	2.9	47.4	36.6	0.2	61.6	17.8	2.2	49.1	24.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	51.0	2.9	47.4	36.6	0.2	61.6	17.8	2.2	49.1	24.7	0.1
LOS	D	D	A	D	D	A	E	B	A	D	C	A
Approach Delay		23.6			38.5			33.6			25.7	
Approach LOS		C			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 105			
Offset: 7 (7%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 30.7		Intersection LOS: C	
Intersection Capacity Utilization 51.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 66: Oxford Valley Rd & Big Oak Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	151	236	127	93	25	324	377	101	36	193	26
Future Volume (veh/h)	33	151	236	127	93	25	324	377	101	36	193	26
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1765	1800	1748	1782	1713	1782	1748	1748	1682	1800	1782	1872
Adj Flow Rate, veh/h	38	176	274	148	108	29	377	438	117	42	224	30
Adj No. of Lanes	2	1	2	2	1	1	2	2	1	1	2	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	3	1	4	0	4	0	3	3	7	0	1	0
Cap, veh/h	109	257	696	258	321	350	400	1810	891	75	1574	792
Arrive On Green	0.03	0.14	0.14	0.08	0.19	0.19	0.04	0.18	0.18	0.04	0.46	0.46
Sat Flow, veh/h	3261	1800	2615	3292	1713	1515	3229	3320	1429	1714	3386	1590
Grp Volume(v), veh/h	38	176	274	148	108	29	377	438	117	42	224	30
Grp Sat Flow(s),veh/h/ln	1631	1800	1308	1646	1713	1515	1614	1660	1429	1714	1693	1590
Q Serve(g_s), s	1.2	9.8	9.0	4.6	5.7	1.6	12.2	11.9	6.0	2.5	4.0	1.0
Cycle Q Clear(g_c), s	1.2	9.8	9.0	4.6	5.7	1.6	12.2	11.9	6.0	2.5	4.0	1.0
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	109	257	696	258	321	350	400	1810	891	75	1574	792
V/C Ratio(X)	0.35	0.69	0.39	0.57	0.34	0.08	0.94	0.24	0.13	0.56	0.14	0.04
Avail Cap(c_a), veh/h	559	360	847	564	343	369	400	1810	891	212	1574	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.6	42.8	31.6	46.7	37.0	31.6	50.0	24.5	15.4	49.2	16.1	13.5
Incr Delay (d2), s/veh	1.9	3.2	0.4	2.0	0.6	0.1	28.7	0.3	0.3	6.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.1	3.3	2.1	2.8	0.7	7.1	5.5	2.4	1.3	1.9	0.5
LnGrp Delay(d),s/veh	51.5	46.0	31.9	48.7	37.6	31.7	78.7	24.7	15.7	55.8	16.3	13.6
LnGrp LOS	D	D	C	D	D	C	E	C	B	E	B	B
Approach Vol, veh/h		488			285			932			296	
Approach Delay, s/veh		38.5			42.8			45.4			21.6	
Approach LOS		D			D			D			C	

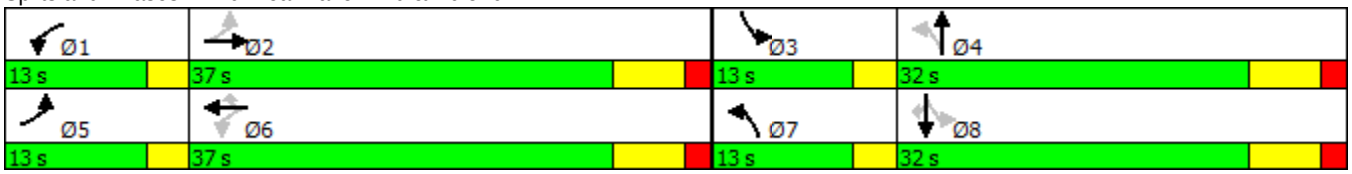
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.6	62.2	13.2	20.0	18.0	53.8	8.5	24.7
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	12.0	32.0	17.0	20.0	12.0	32.0	17.0	20.0
Max Q Clear Time (g_c+I1), s	5.0	14.4	7.1	12.3	14.7	6.5	3.7	8.2
Green Ext Time (p_c), s	0.0	9.1	0.3	1.7	0.0	11.4	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	39.9
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	300	123	81	61	53	13	144	18	343	370	98
Future Volume (vph)	149	300	123	81	61	53	13	144	18	343	370	98
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	15	15	10	11	11	12	12	12	11	11	11
Storage Length (ft)	65		0	115		65	75		0	85		100
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	85			55			45			40		
Satd. Flow (prot)	1653	1882	0	1520	1706	1479	1710	1700	0	1653	1723	1479
Flt Permitted	0.657			0.305			0.534			0.585		
Satd. Flow (perm)	1143	1882	0	488	1706	1479	961	1700	0	1016	1723	1479
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23				115		7				115
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		387			2233			336			447	
Travel Time (s)		8.8			50.8			7.6			10.2	
Lane Group Flow (vph)	155	441	0	84	64	55	14	169	0	357	385	102
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6		6	4			8		8
Total Split (s)	13.0	37.0		13.0	37.0	37.0	13.0	32.0		13.0	32.0	32.0
Total Lost Time (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	6.0
Act Effct Green (s)	37.5	25.3		34.7	21.9	21.9	28.7	17.4		34.6	28.9	28.9
Actuated g/C Ratio	0.49	0.33		0.45	0.29	0.29	0.37	0.23		0.45	0.38	0.38
v/c Ratio	0.25	0.69		0.25	0.13	0.11	0.03	0.43		0.65	0.59	0.16
Control Delay	11.8	28.9		12.3	21.1	0.4	14.5	29.7		23.1	26.8	4.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	11.8	28.9		12.3	21.1	0.4	14.5	29.7		23.1	26.8	4.7
LOS	B	C		B	C	A	B	C		C	C	A
Approach Delay		24.4			11.9			28.5			22.6	
Approach LOS		C			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 76.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 22.6		Intersection LOS: C	
Intersection Capacity Utilization 78.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 76: Bear Tavern Rd & NJ 546



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	300	123	81	61	53	13	144	18	343	370	98
Future Volume (veh/h)	149	300	123	81	61	53	13	144	18	343	370	98
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1861	1872	1714	1765	1800	1800	1734	1800	1800	1782	1800
Adj Flow Rate, veh/h	155	312	128	84	64	55	14	150	19	357	385	93
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	5	2	0	0	1	1	0	1	0
Cap, veh/h	600	388	159	313	507	440	308	341	43	541	619	530
Arrive On Green	0.10	0.31	0.29	0.08	0.29	0.29	0.03	0.23	0.21	0.16	0.35	0.35
Sat Flow, veh/h	1714	1255	515	1633	1765	1530	1714	1508	191	1714	1782	1526
Grp Volume(v), veh/h	155	0	440	84	64	55	14	0	169	357	385	93
Grp Sat Flow(s),veh/h/ln	1714	0	1770	1633	1765	1530	1714	0	1699	1714	1782	1526
Q Serve(g_s), s	4.1	0.0	16.2	2.4	1.9	1.9	0.4	0.0	6.0	10.8	12.7	3.0
Cycle Q Clear(g_c), s	4.1	0.0	16.2	2.4	1.9	1.9	0.4	0.0	6.0	10.8	12.7	3.0
Prop In Lane	1.00		0.29	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	600	0	547	313	507	440	308	0	385	541	619	530
V/C Ratio(X)	0.26	0.00	0.80	0.27	0.13	0.13	0.05	0.00	0.44	0.66	0.62	0.18
Avail Cap(c_a), veh/h	688	0	776	432	774	671	516	0	625	541	655	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.2	0.0	22.6	16.3	18.6	18.6	19.6	0.0	23.5	15.8	19.2	16.0
Incr Delay (d2), s/veh	0.2	0.0	4.1	0.5	0.1	0.1	0.1	0.0	0.8	3.0	1.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	8.5	1.1	0.9	0.8	0.2	0.0	2.9	5.4	6.5	1.3
LnGrp Delay(d),s/veh	13.4	0.0	26.7	16.8	18.7	18.7	19.7	0.0	24.3	18.8	20.9	16.2
LnGrp LOS	B		C	B	B	B	B		C	B	C	B
Approach Vol, veh/h		595			203			183			835	
Approach Delay, s/veh		23.3			17.9			24.0			19.5	
Approach LOS		C			B			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.8	27.9	13.0	22.0	9.4	26.3	4.4	30.6
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0
Max Green Setting (Gmax), s	10.0	30.0	10.0	25.0	10.0	30.0	10.0	25.0
Max Q Clear Time (g_c+I1), s	4.9	18.2	13.3	8.0	6.6	4.4	2.9	15.2
Green Ext Time (p_c), s	0.1	2.7	0.0	3.4	0.1	3.6	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	21.0
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	654	0	37	217	2	72
Future Volume (vph)	654	0	37	217	2	72
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	12	12
Satd. Flow (prot)	1782	0	0	1626	1528	0
Flt Permitted				0.868	0.999	
Satd. Flow (perm)	1782	0	0	1421	1528	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)					75	
Link Speed (mph)	45			45	40	
Link Distance (ft)	1549			2209	447	
Travel Time (s)	23.5			33.5	7.6	
Lane Group Flow (vph)	681	0	0	265	77	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Total Split (s)	60.0		60.0	60.0	22.0	
Total Lost Time (s)	6.0			6.0	5.0	
Act Effct Green (s)	58.2			58.2	8.5	
Actuated g/C Ratio	0.79			0.79	0.12	
v/c Ratio	0.49			0.24	0.32	
Control Delay	5.3			3.6	12.4	
Queue Delay	0.0			0.0	0.0	
Total Delay	5.3			3.6	12.4	
LOS	A			A	B	
Approach Delay	5.3			3.6	12.4	
Approach LOS	A			A	B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 82			
Actuated Cycle Length: 73.9			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 5.4		Intersection LOS: A	
Intersection Capacity Utilization 60.2%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 78: Jacobs Creek Rd & NJ 546

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	654	0	37	217	2	72
Future Volume (veh/h)	654	0	37	217	2	72
Number	2	12	1	6	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
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
Adj Sat Flow, veh/h/ln	1782	1800	1800	1693	1760	1800
Adj Flow Rate, veh/h	681	0	39	226	2	75
Adj No. of Lanes	1	0	0	1	0	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	6	6	0	0
Cap, veh/h	1346	0	179	980	4	132
Arrive On Green	0.76	0.00	0.74	0.76	0.09	0.08
Sat Flow, veh/h	1782	0	161	1297	39	1445
Grp Volume(v), veh/h	681	0	265	0	78	0
Grp Sat Flow(s),veh/h/ln	1782	0	1458	0	1503	0
Q Serve(g_s), s	10.8	0.0	0.0	0.0	3.6	0.0
Cycle Q Clear(g_c), s	10.8	0.0	3.3	0.0	3.6	0.0
Prop In Lane		0.00	0.15		0.03	0.96
Lane Grp Cap(c), veh/h	1346	0	1138	0	137	0
V/C Ratio(X)	0.51	0.00	0.23	0.00	0.57	0.00
Avail Cap(c_a), veh/h	1346	0	1138	0	357	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	3.5	0.0	2.6	0.0	31.6	0.0
Incr Delay (d2), s/veh	1.4	0.0	0.5	0.0	3.7	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	5.6	0.0	1.7	0.0	1.6	0.0
LnGrp Delay(d),s/veh	4.8	0.0	3.0	0.0	35.3	0.0
LnGrp LOS	A		A		D	
Approach Vol, veh/h	681			265	78	
Approach Delay, s/veh	4.8			3.0	35.3	
Approach LOS	A			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		60.0		11.5		60.0		
Change Period (Y+Rc), s		7.0		6.0		7.0		
Max Green Setting (Gmax), s		53.0		16.0		53.0		
Max Q Clear Time (g_c+I1), s		13.3		6.1		5.3		
Green Ext Time (p_c), s		6.9		0.1		7.0		

Intersection Summary	
HCM 2010 Ctrl Delay	6.7
HCM 2010 LOS	A

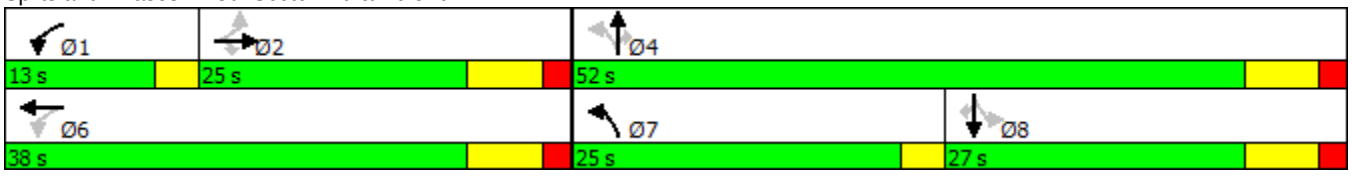
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	156	32	64	127	17	116	186	43	16	124	54
Future Volume (vph)	61	156	32	64	127	17	116	186	43	16	124	54
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	15	11	11	11	11	13	11	16	11	11	12
Grade (%)		-2%			2%			1%			-1%	
Storage Length (ft)	720		720	190		0	640		0	90		90
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	75			60			80			75		
Satd. Flow (prot)	1645	1905	1494	1604	1508	0	1628	1731	1612	1661	1714	1507
Flt Permitted	0.662			0.605			0.595			0.636		
Satd. Flow (perm)	1146	1905	1494	1022	1508	0	1020	1731	1612	1112	1714	1507
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121		8				85			121
Link Speed (mph)		45			45			40			40	
Link Distance (ft)		1465			596			1721			583	
Travel Time (s)		22.2			9.0			29.3			9.9	
Lane Group Flow (vph)	64	163	33	67	150	0	121	194	45	17	129	56
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6		7	4			8	
Permitted Phases	2		2	6			4		4	8		8
Total Split (s)	25.0	25.0	25.0	13.0	38.0		25.0	52.0	52.0	27.0	27.0	27.0
Total Lost Time (s)	6.0	6.0	6.0	2.0	6.0		2.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	25.0	25.0	25.0	36.2	32.2		28.7	24.7	24.7	15.1	15.1	15.1
Actuated g/C Ratio	0.36	0.36	0.36	0.52	0.47		0.42	0.36	0.36	0.22	0.22	0.22
v/c Ratio	0.15	0.24	0.05	0.11	0.21		0.24	0.31	0.07	0.07	0.34	0.13
Control Delay	19.9	19.6	0.2	10.2	12.7		13.4	17.0	1.3	24.4	27.5	0.8
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	19.9	19.6	0.2	10.2	12.7		13.4	17.0	1.3	24.4	27.5	0.8
LOS	B	B	A	B	B		B	B	A	C	C	A
Approach Delay		17.2			11.9			13.9			19.9	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 69			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 15.5		Intersection LOS: B	
Intersection Capacity Utilization 60.0%		ICU Level of Service B	
Analysis Period (min) 15			

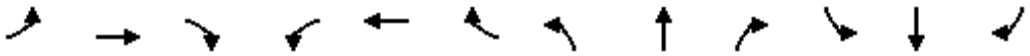
Splits and Phases: 80: Scotch Rd & NJ 546



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	156	32	64	127	17	116	186	43	16	124	54
Future Volume (veh/h)	61	156	32	64	127	17	116	186	43	16	124	54
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1731	1801	1818	1747	1589	1782	1725	1791	1741	1809	1774	1774
Adj Flow Rate, veh/h	64	162	33	67	132	18	121	194	28	17	129	56
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	0	2	13	13	8	0	7	0	2	2
Cap, veh/h	545	691	593	559	644	88	452	633	523	353	391	332
Arrive On Green	0.38	0.38	0.38	0.06	0.47	0.46	0.10	0.35	0.35	0.22	0.22	0.22
Sat Flow, veh/h	1146	1801	1545	1664	1369	187	1643	1791	1480	1121	1774	1508
Grp Volume(v), veh/h	64	162	33	67	0	150	121	194	28	17	129	56
Grp Sat Flow(s),veh/h/ln	1146	1801	1545	1664	0	1556	1643	1791	1480	1121	1774	1508
Q Serve(g_s), s	2.5	4.1	0.9	1.5	0.0	3.9	3.5	5.3	0.8	0.8	4.2	2.0
Cycle Q Clear(g_c), s	2.5	4.1	0.9	1.5	0.0	3.9	3.5	5.3	0.8	0.8	4.2	2.0
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	545	691	593	559	0	731	452	633	523	353	391	332
V/C Ratio(X)	0.12	0.23	0.06	0.12	0.00	0.21	0.27	0.31	0.05	0.05	0.33	0.17
Avail Cap(c_a), veh/h	545	691	593	733	0	731	837	1210	1000	452	547	465
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	1.00	1.00
Uniform Delay (d), s/veh	13.7	14.2	13.2	10.0	0.0	10.6	15.4	15.9	14.5	21.0	22.3	21.5
Incr Delay (d2), s/veh	0.4	0.8	0.2	0.0	0.0	0.6	0.1	0.1	0.0	0.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.2	0.4	0.7	0.0	1.8	1.6	2.7	0.3	0.3	2.1	0.9
LnGrp Delay(d),s/veh	14.1	15.0	13.4	10.1	0.0	11.2	15.5	16.0	14.5	21.0	22.5	21.6
LnGrp LOS	B	B	B	B		B	B	B	B	C	C	C
Approach Vol, veh/h		259			217			343			202	
Approach Delay, s/veh		14.6			10.9			15.7			22.1	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6	7	8
Phs Duration (G+Y+Rc), s	5.9	32.1		30.1		38.0	9.1	21.0
Change Period (Y+Rc), s	3.0	7.0		7.0		7.0	3.0	7.0
Max Green Setting (Gmax), s	10.0	18.0		45.0		31.0	22.0	20.0
Max Q Clear Time (g_c+I1), s	4.0	6.6		7.8		5.9	6.0	6.7
Green Ext Time (p_c), s	0.0	0.6		1.2		0.7	0.1	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	84	88	25	73	434	150	26	73	19	25	71	37
Future Volume (vph)	84	88	25	73	434	150	26	73	19	25	71	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	10	10	10	10	10
Grade (%)		1%			0%			-1%			1%	
Satd. Flow (prot)	0	1750	0	0	1769	0	0	1713	0	0	1673	0
Flt Permitted		0.979			0.994			0.989			0.991	
Satd. Flow (perm)	0	1750	0	0	1769	0	0	1713	0	0	1673	0
Link Speed (mph)		40			40			35			35	
Link Distance (ft)		412			1222			437			443	
Travel Time (s)		7.0			20.8			8.5			8.6	
Lane Group Flow (vph)	0	206	0	0	684	0	0	123	0	0	139	0
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	30.3
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	84	88	25	0	73	434	150	0	26	73	19
Future Vol, veh/h	0	84	88	25	0	73	434	150	0	26	73	19
Peak Hour Factor	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	0	0	4	2	0	0	0	2	0	1	0
Mvmt Flow	0	88	92	26	0	76	452	156	0	27	76	20
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	11.6	43.1	11.4
HCM LOS	B	E	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	22%	43%	11%	19%
Vol Thru, %	62%	45%	66%	53%
Vol Right, %	16%	13%	23%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	197	657	133
LT Vol	26	84	73	25
Through Vol	73	88	434	71
RT Vol	19	25	150	37
Lane Flow Rate	123	205	684	139
Geometry Grp	1	1	1	1
Degree of Util (X)	0.22	0.327	0.943	0.244
Departure Headway (Hd)	6.447	5.735	4.962	6.332
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	553	624	725	564
Service Time	4.533	3.806	3.012	4.414
HCM Lane V/C Ratio	0.222	0.329	0.943	0.246
HCM Control Delay	11.4	11.6	43.1	11.5
HCM Lane LOS	B	B	E	B
HCM 95th-tile Q	0.8	1.4	13.6	1

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	25	71	37
Future Vol, veh/h	0	25	71	37
Peak Hour Factor	0.92	0.96	0.96	0.96
Heavy Vehicles, %	2	0	1	0
Mvmt Flow	0	26	74	39
Number of Lanes	0	0	1	0

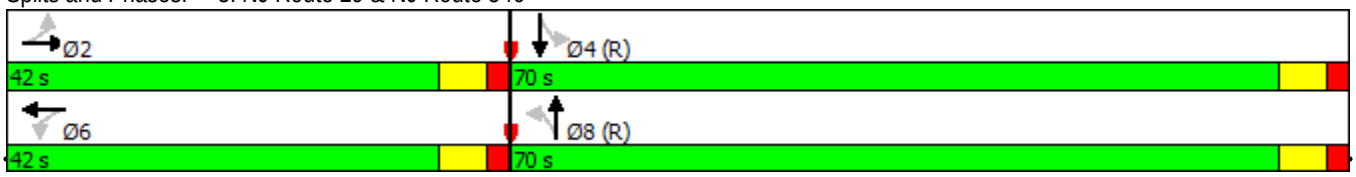
Approach	SB
Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	11.5
HCM LOS	B

Lane

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	77	52	98	365	97	203	566	113	47	338	62
Future Volume (vph)	34	77	52	98	365	97	203	566	113	47	338	62
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	12	14	14	14	13	13	13	12	12	12
Grade (%)		1%			-1%			1%			1%	
Storage Length (ft)	0		0	75		0	0		0	0		0
Storage Lanes	0		0	1		0	0		0	0		0
Taper Length (ft)	25			75			25			25		
Satd. Flow (prot)	0	1697	0	1815	1866	0	0	1778	0	0	1719	0
Flt Permitted		0.414		0.597				0.762			0.848	
Satd. Flow (perm)	0	710	0	1141	1866	0	0	1370	0	0	1465	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)					13			11				
Link Speed (mph)		45			45			40			40	
Link Distance (ft)		252			285			405			427	
Travel Time (s)		3.8			4.3			6.9			7.3	
Lane Group Flow (vph)	0	172	0	103	486	0	0	929	0	0	470	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Total Split (s)	42.0	42.0		42.0	42.0		70.0	70.0		70.0	70.0	
Total Lost Time (s)		6.0		6.0	6.0			6.0			6.0	
Act Effct Green (s)		31.9		31.9	31.9			68.1			68.1	
Actuated g/C Ratio		0.28		0.28	0.28			0.61			0.61	
v/c Ratio		0.85		0.32	0.90			1.11			0.53	
Control Delay		72.4		33.2	58.0			89.5			16.3	
Queue Delay		0.0		0.0	0.0			0.0			0.0	
Total Delay		72.4		33.2	58.0			89.5			16.3	
LOS		E		C	E			F			B	
Approach Delay		72.4			53.7			89.5			16.3	
Approach LOS		E			D			F			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 112			
Actuated Cycle Length: 112			
Offset: 0 (0%), Referenced to phase 4:SBTL and 8:NBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.11			
Intersection Signal Delay: 62.4		Intersection LOS: E	
Intersection Capacity Utilization 142.3%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: NJ Route 29 & NJ Route 546



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	77	52	98	365	97	203	566	113	47	338	62
Future Volume (veh/h)	34	77	52	98	365	97	203	566	113	47	338	62
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1791	1791	1791	1863	1877	1881	1863	1846	1863	1791	1761	1791
Adj Flow Rate, veh/h	36	81	55	103	384	101	214	596	106	49	356	64
Adj No. of Lanes	0	1	0	1	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	0	0	1	1	1	2	2	2
Cap, veh/h	57	117	64	221	449	118	223	537	94	95	654	113
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	58	375	203	1248	1434	377	317	927	163	103	1128	194
Grp Volume(v), veh/h	172	0	0	103	0	485	916	0	0	469	0	0
Grp Sat Flow(s),veh/h/ln	636	0	0	1248	0	1811	1406	0	0	1425	0	0
Q Serve(g_s), s	4.4	0.0	0.0	0.0	0.0	28.1	46.8	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	32.6	0.0	0.0	23.3	0.0	28.1	64.9	0.0	0.0	18.1	0.0	0.0
Prop In Lane	0.21		0.32	1.00		0.21	0.23		0.12	0.10		0.14
Lane Grp Cap(c), veh/h	238	0	0	221	0	567	855	0	0	862	0	0
V/C Ratio(X)	0.72	0.00	0.00	0.47	0.00	0.86	1.07	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	250	0	0	231	0	582	855	0	0	862	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.9	0.0	0.0	34.4	0.0	36.1	26.3	0.0	0.0	13.6	0.0	0.0
Incr Delay (d2), s/veh	7.9	0.0	0.0	0.6	0.0	11.1	51.8	0.0	0.0	2.5	0.0	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	5.7	0.0	0.0	2.9	0.0	15.8	38.7	0.0	0.0	8.9	0.0	0.0
LnGrp Delay(d),s/veh	41.9	0.0	0.0	35.0	0.0	47.2	78.1	0.0	0.0	16.1	0.0	0.0
LnGrp LOS	D			D		D	F			B		
Approach Vol, veh/h		172			588			916			469	
Approach Delay, s/veh		41.9			45.1			78.1			16.1	
Approach LOS		D			D			E			B	

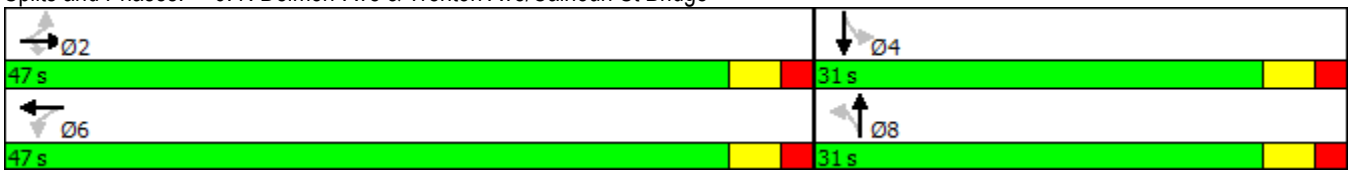
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		41.1		70.9		41.1		70.9
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		36.0		64.0		36.0		64.0
Max Q Clear Time (g_c+I1), s		34.6		20.1		30.1		66.9
Green Ext Time (p_c), s		0.5		8.8		1.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.6
HCM 2010 LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	352	51	7	640	130	67	140	51	64	70	59
Future Volume (vph)	35	352	51	7	640	130	67	140	51	64	70	59
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	13	10	10	10	10	10	10	11	11	11
Grade (%)		8%			2%			7%			6%	
Storage Length (ft)	0		120	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	45			25			25			25		
Satd. Flow (prot)	0	1658	1518	0	1619	0	0	1549	0	0	1563	0
Flt Permitted		0.905			0.997			0.876			0.797	
Satd. Flow (perm)	0	1507	1477	0	1614	0	0	1373	0	0	1265	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					21			17			31	
Link Speed (mph)		35			25			40			40	
Link Distance (ft)		1445			443			535			527	
Travel Time (s)		28.1			12.1			9.1			9.0	
Lane Group Flow (vph)	0	395	52	0	793	0	0	263	0	0	196	0
Turn Type	Perm	NA	Perm	Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	47.0	47.0	47.0	47.0	47.0		31.0	31.0		31.0	31.0	
Total Lost Time (s)		4.0	4.0		4.0			4.0			4.0	
Act Effct Green (s)		43.2	43.2		43.2			19.2			19.2	
Actuated g/C Ratio		0.61	0.61		0.61			0.27			0.27	
v/c Ratio		0.43	0.06		0.80			0.68			0.53	
Control Delay		10.1	7.2		19.6			30.6			23.5	
Queue Delay		0.0	0.0		0.0			0.0			0.0	
Total Delay		10.1	7.2		19.6			30.6			23.5	
LOS		B	A		B			C			C	
Approach Delay		9.8			19.6			30.6			23.5	
Approach LOS		A			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 78			
Actuated Cycle Length: 70.5			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 19.2		Intersection LOS: B	
Intersection Capacity Utilization 75.0%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 6: N Delmorr Ave & Trenton Ave/Calhoun St Bridge



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	352	51	7	640	130	67	140	51	64	70	59
Future Volume (veh/h)	35	352	51	7	640	130	67	140	51	64	70	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	15	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1728	1723	1797	1782	1782	1782	1737	1737	1737	1746	1727	1746
Adj Flow Rate, veh/h	36	359	50	7	653	131	68	143	48	65	71	58
Adj No. of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	3	3	3
Cap, veh/h	109	958	978	57	946	167	142	232	70	157	159	104
Arrive On Green	0.63	0.64	0.64	0.63	0.64	0.63	0.22	0.24	0.22	0.22	0.24	0.22
Sat Flow, veh/h	82	1522	1518	4	1436	286	315	982	295	361	675	442
Grp Volume(v), veh/h	395	0	50	791	0	0	259	0	0	194	0	0
Grp Sat Flow(s),veh/h/ln	1604	0	1518	1726	0	0	1591	0	0	1478	0	0
Q Serve(g_s), s	0.0	0.0	0.8	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	7.1	0.0	0.8	20.5	0.0	0.0	9.7	0.0	0.0	7.4	0.0	0.0
Prop In Lane	0.09		1.00	0.01		0.17	0.26		0.19	0.34		0.30
Lane Grp Cap(c), veh/h	1044	0	978	1143	0	0	420	0	0	399	0	0
V/C Ratio(X)	0.38	0.00	0.05	0.69	0.00	0.00	0.62	0.00	0.00	0.49	0.00	0.00
Avail Cap(c_a), veh/h	1067	0	978	1140	0	0	671	0	0	631	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	5.5	0.0	4.4	8.7	0.0	0.0	23.3	0.0	0.0	22.5	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.1	3.4	0.0	0.0	2.1	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.4	14.2	0.0	0.0	4.7	0.0	0.0	3.4	0.0	0.0
LnGrp Delay(d),s/veh	6.6	0.0	4.5	16.2	0.0	0.0	25.4	0.0	0.0	23.8	0.0	0.0
LnGrp LOS	A		A	B			C			C		
Approach Vol, veh/h		445			791			259			194	
Approach Delay, s/veh		6.3			16.2			25.4			23.8	
Approach LOS		A			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		47.0		19.8		47.0		19.8
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		42.0		26.0		42.0		26.0
Max Q Clear Time (g_c+I1), s		9.1		9.4		22.5		11.7
Green Ext Time (p_c), s		7.0		3.3		6.1		3.1

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	109	15	144	647	267	16	51	53	77	44	17
Future Volume (vph)	47	109	15	144	647	267	16	51	53	77	44	17
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	14	14	11	11	11	16	16	16	12	12	12
Storage Length (ft)	45		0	140		135	0		0	0		0
Storage Lanes	1		0	1		1	0		0	0		0
Taper Length (ft)	65			125			25			25		
Satd. Flow (prot)	1596	1885	0	1637	1740	1464	0	1880	0	0	1632	0
Flt Permitted	0.332			0.673				0.953			0.742	
Satd. Flow (perm)	557	1885	0	1159	1740	1427	0	1803	0	0	1240	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15				280		44			8	
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		897			608			720			404	
Travel Time (s)		24.5			16.6			14.0			7.9	
Lane Group Flow (vph)	49	131	0	152	681	281	0	127	0	0	145	0
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2		2	4			8		
Total Split (s)	60.0	60.0		60.0	60.0	60.0	30.0	30.0		30.0	30.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0		5.0			5.0	
Act Effct Green (s)	56.1	56.1		56.1	56.1	56.1		14.5			14.5	
Actuated g/C Ratio	0.70	0.70		0.70	0.70	0.70		0.18			0.18	
v/c Ratio	0.12	0.10		0.19	0.56	0.26		0.35			0.62	
Control Delay	5.9	4.3		5.5	8.7	1.4		21.3			40.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	
Total Delay	5.9	4.3		5.5	8.7	1.4		21.3			40.4	
LOS	A	A		A	A	A		C			D	
Approach Delay		4.7			6.4			21.3			40.4	
Approach LOS		A			A			C			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 79.7			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 10.6		Intersection LOS: B	
Intersection Capacity Utilization 94.9%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 9: Delmorr Ave & Bridge Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	47	109	15	144	647	267	16	51	53	77	44	17
Future Volume (veh/h)	47	109	15	144	647	267	16	51	53	77	44	17
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1872	1872	1782	1800	1782	1872	1872	1872	1800	1712	1800
Adj Flow Rate, veh/h	49	115	16	152	681	222	17	54	27	81	46	17
Adj No. of Lanes	1	1	0	1	1	1	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	0	1	0	0	0	11	11	11
Cap, veh/h	437	1185	165	959	1327	1111	80	159	70	180	81	25
Arrive On Green	0.74	0.74	0.74	0.74	0.74	0.74	0.13	0.14	0.14	0.13	0.14	0.13
Sat Flow, veh/h	593	1608	224	1195	1800	1508	171	1104	485	731	562	173
Grp Volume(v), veh/h	49	0	131	152	681	222	98	0	0	144	0	0
Grp Sat Flow(s),veh/h/ln	593	0	1831	1195	1800	1508	1760	0	0	1466	0	0
Q Serve(g_s), s	2.9	0.0	1.5	3.1	12.2	3.4	0.0	0.0	0.0	3.1	0.0	0.0
Cycle Q Clear(g_c), s	15.0	0.0	1.5	4.1	12.2	3.4	3.8	0.0	0.0	6.9	0.0	0.0
Prop In Lane	1.00		0.12	1.00		1.00	0.17		0.28	0.56		0.12
Lane Grp Cap(c), veh/h	437	0	1350	959	1327	1111	287	0	0	266	0	0
V/C Ratio(X)	0.11	0.00	0.10	0.16	0.51	0.20	0.34	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	437	0	1350	959	1327	1111	594	0	0	515	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	7.4	0.0	2.8	3.3	4.2	3.1	29.5	0.0	0.0	30.9	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.4	1.4	0.4	0.7	0.0	0.0	1.7	0.0	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	0.5	0.0	0.8	1.1	6.4	1.5	1.9	0.0	0.0	3.0	0.0	0.0
LnGrp Delay(d),s/veh	7.9	0.0	3.0	3.7	5.6	3.5	30.2	0.0	0.0	32.6	0.0	0.0
LnGrp LOS	A		A	A	A	A	C			C		
Approach Vol, veh/h		180			1055			98			144	
Approach Delay, s/veh		4.3			4.9			30.2			32.6	
Approach LOS		A			A			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		60.0		16.0		60.0		16.0
Change Period (Y+Rc), s		5.0		6.0		5.0		6.0
Max Green Setting (Gmax), s		55.0		24.0		55.0		24.0
Max Q Clear Time (g_c+I1), s		14.7		5.8		17.5		8.9
Green Ext Time (p_c), s		5.6		1.2		5.6		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	369	0	0	344	1078	238
Future Volume (vph)	369	0	0	344	1078	238
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	-1%			1%	1%	
Storage Length (ft)		0	0		0	280
Storage Lanes		0	0		2	1
Taper Length (ft)			25		25	
Satd. Flow (prot)	3489	0	0	4915	3167	1502
Flt Permitted					0.950	
Satd. Flow (perm)	3489	0	0	4915	3167	1502
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						111
Link Speed (mph)	55			55	30	
Link Distance (ft)	1109			492	719	
Travel Time (s)	13.7			6.1	16.3	
Lane Group Flow (vph)	388	0	0	362	1135	251
Turn Type	NA			NA	Perm	Perm
Protected Phases	2			6		
Permitted Phases					8	8
Total Split (s)	33.0			33.0	87.0	87.0
Total Lost Time (s)	6.0			6.0	5.0	5.0
Act Effct Green (s)	48.7			48.7	60.3	60.3
Actuated g/C Ratio	0.41			0.41	0.50	0.50
v/c Ratio	0.27			0.18	0.71	0.31
Control Delay	28.5			25.1	25.3	9.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	28.5			25.1	25.3	9.1
LOS	C			C	C	A
Approach Delay	28.5			25.1	22.3	
Approach LOS	C			C	C	

Intersection Summary

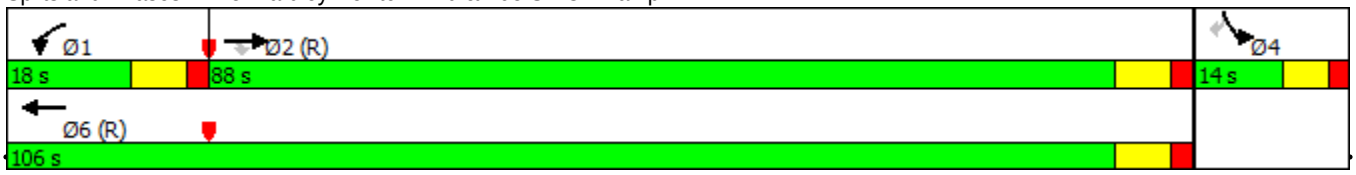
Area Type: Other
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 51 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 23.9 Intersection LOS: C
Intersection Capacity Utilization 100.4% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 14: I-95 NB Off Ramp & Yardley Newtown Rd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	784	1188	113	1212	0	0	0	0	115	0	777
Future Volume (vph)	0	784	1188	113	1212	0	0	0	0	115	0	777
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	15	10	12	12	12	12	12	16	12	14
Grade (%)		1%			-1%			0%			2%	
Storage Length (ft)	0		225	415		0	0		0	0		0
Storage Lanes	0		1	1		0	0		0	1		1
Taper Length (ft)	25			70			25			25		
Satd. Flow (prot)	0	3454	1683	1553	3489	0	0	0	0	2005	0	1689
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	0	3454	1683	1553	3489	0	0	0	0	2005	0	1689
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			591									142
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		544			1109			609			577	
Travel Time (s)		6.7			13.7			13.8			13.1	
Lane Group Flow (vph)	0	834	1264	120	1289	0	0	0	0	122	0	827
Turn Type		NA	Perm	Prot	NA					Prot		Perm
Protected Phases		2		1	6					4		
Permitted Phases			2									4
Total Split (s)		88.0	88.0	18.0	106.0					14.0		14.0
Total Lost Time (s)		6.0	6.0	6.0	6.0					5.0		5.0
Act Effct Green (s)		82.3	82.3	11.7	100.0					9.0		9.0
Actuated g/C Ratio		0.69	0.69	0.10	0.83					0.08		0.08
v/c Ratio		0.35	0.94	0.79	0.44					0.81		3.21
Control Delay		8.4	24.2	99.8	1.5					91.7		1017.8
Queue Delay		0.0	0.0	0.0	0.0					0.0		0.0
Total Delay		8.4	24.2	99.8	1.5					91.7		1017.8
LOS		A	C	F	A					F		F
Approach Delay		17.9			9.9							
Approach LOS		B			A							

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 98 (82%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 3.21			
Intersection Signal Delay: 203.0		Intersection LOS: F	
Intersection Capacity Utilization 100.4%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 15: Yardley Newtown Rd & I-95 SB Off-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	784	1188	113	1212	0	0	0	0	115	0	777
Future Volume (veh/h)	0	784	1188	113	1212	0	0	0	0	115	0	777
Number	5	2	12	1	6	16				7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1818	1872	1752	1836	0				1937	0	1937
Adj Flow Rate, veh/h	0	834	0	120	1289	0				122	0	0
Adj No. of Lanes	0	2	1	1	2	0				1	0	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94				0.94	0.94	0.94
Percent Heavy Veh, %	0	4	5	9	4	0				1	0	1
Cap, veh/h	0	2387	1100	154	2907	0				138	0	123
Arrive On Green	0.00	0.69	0.00	0.18	1.00	0.00				0.08	0.00	0.00
Sat Flow, veh/h	0	3545	1592	1668	3580	0				1845	0	1646
Grp Volume(v), veh/h	0	834	0	120	1289	0				122	0	0
Grp Sat Flow(s),veh/h/ln	0	1727	1592	1668	1744	0				1845	0	1646
Q Serve(g_s), s	0.0	11.8	0.0	8.2	0.0	0.0				7.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	11.8	0.0	8.2	0.0	0.0				7.9	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2387	1100	154	2907	0				138	0	123
V/C Ratio(X)	0.00	0.35	0.00	0.78	0.44	0.00				0.88	0.00	0.00
Avail Cap(c_a), veh/h	0	2387	1100	167	2907	0				138	0	123
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	0.78	0.78	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	7.5	0.0	47.8	0.0	0.0				55.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	15.8	0.4	0.0				43.5	0.0	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
%ile BackOfQ(50%),veh/ln	0.0	5.7	0.0	4.5	0.2	0.0				5.7	0.0	0.0
LnGrp Delay(d),s/veh	0.0	7.9	0.0	63.6	0.4	0.0				98.5	0.0	0.0
LnGrp LOS		A		E	A					F		
Approach Vol, veh/h		834			1409						122	
Approach Delay, s/veh		7.9			5.8						98.5	
Approach LOS		A			A						F	

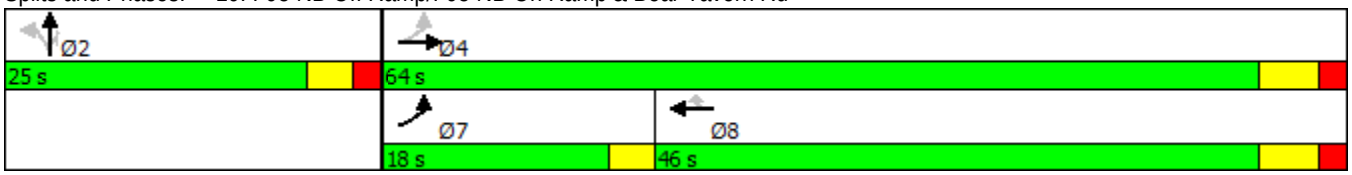
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	17.1	88.9		14.0		106.0		
Change Period (Y+Rc), s	7.0	7.0		6.0		7.0		
Max Green Setting (Gmax), s	11.0	81.0		8.0		99.0		
Max Q Clear Time (g_c+I1), s	10.2	13.8		9.9		2.0		
Green Ext Time (p_c), s	0.0	49.1		0.0		62.9		

Intersection Summary	
HCM 2010 Ctrl Delay	11.3
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	268	427	0	0	619	296	183	0	159	0	0	0
Future Volume (vph)	268	427	0	0	619	296	183	0	159	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		355	0		150	0		0
Storage Lanes	1		0	0		1	0		1	0		0
Taper Length (ft)	40			25			25			25		
Satd. Flow (prot)	1752	1776	0	0	1776	1553	0	1703	1615	0	0	0
Flt Permitted	0.257							0.950				
Satd. Flow (perm)	474	1776	0	0	1776	1553	0	1703	1615	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						302			162			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		498			500			573			477	
Travel Time (s)		11.3			11.4			13.0			10.8	
Lane Group Flow (vph)	273	436	0	0	632	302	0	187	162	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2		2			
Total Split (s)	18.0	64.0			46.0	46.0	25.0	25.0	25.0			
Total Lost Time (s)	3.0	6.0			6.0	6.0		5.0	5.0			
Act Effct Green (s)	57.0	54.0			40.3	40.3		12.7	12.7			
Actuated g/C Ratio	0.73	0.69			0.52	0.52		0.16	0.16			
v/c Ratio	0.52	0.35			0.69	0.32		0.68	0.41			
Control Delay	7.6	6.3			20.8	2.8		43.5	8.4			
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0			
Total Delay	7.6	6.3			20.8	2.8		43.5	8.4			
LOS	A	A			C	A		D	A			
Approach Delay		6.8			15.0			27.2				
Approach LOS		A			B			C				

Intersection Summary			
Area Type:	Other		
Cycle Length: 89			
Actuated Cycle Length: 77.7			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 14.2		Intersection LOS: B	
Intersection Capacity Utilization 70.8%		ICU Level of Service C	
Analysis Period (min) 15			

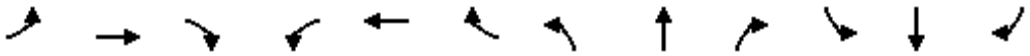
Splits and Phases: 19: I-95 NB Off Ramp/I-95 NB On Ramp & Bear Tavern Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	427	0	0	619	296	183	0	159	0	0	0
Future Volume (veh/h)	268	427	0	0	619	296	183	0	159	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	1845	1776	0	0	1776	1827	1900	1792	1900			
Adj Flow Rate, veh/h	273	436	0	0	632	0	187	0	0			
Adj No. of Lanes	1	1	0	0	1	1	0	1	1			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	3	7	0	0	7	4	0	0	0			
Cap, veh/h	531	1255	0	0	1005	879	235	0	222			
Arrive On Green	0.10	0.71	0.00	0.00	0.57	0.00	0.14	0.00	0.00			
Sat Flow, veh/h	1757	1776	0	0	1776	1553	1707	0	1615			
Grp Volume(v), veh/h	273	436	0	0	632	0	187	0	0			
Grp Sat Flow(s),veh/h/ln	1757	1776	0	0	1776	1553	1707	0	1615			
Q Serve(g_s), s	4.0	6.7	0.0	0.0	17.0	0.0	7.5	0.0	0.0			
Cycle Q Clear(g_c), s	4.0	6.7	0.0	0.0	17.0	0.0	7.5	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	531	1255	0	0	1005	879	235	0	222			
V/C Ratio(X)	0.51	0.35	0.00	0.00	0.63	0.00	0.80	0.00	0.00			
Avail Cap(c_a), veh/h	730	1457	0	0	1005	879	483	0	457			
HCM Platoon Ratio	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	0.00	1.00	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	7.8	4.0	0.0	0.0	10.3	0.0	29.5	0.0	0.0			
Incr Delay (d2), s/veh	0.3	0.1	0.0	0.0	1.0	0.0	2.4	0.0	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			
%ile BackOfQ(50%),veh/ln	2.2	3.3	0.0	0.0	8.5	0.0	3.7	0.0	0.0			
LnGrp Delay(d),s/veh	8.1	4.1	0.0	0.0	11.3	0.0	31.9	0.0	0.0			
LnGrp LOS	A	A			B		C					
Approach Vol, veh/h		709			632			187				
Approach Delay, s/veh		5.6			11.3			31.9				
Approach LOS		A			B			C				

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4			7	8
Phs Duration (G+Y+Rc), s		14.7		56.0			10.0	46.0
Change Period (Y+Rc), s		5.0		6.0			3.0	6.0
Max Green Setting (Gmax), s		20.0		58.0			15.0	40.0
Max Q Clear Time (g_c+I1), s		9.5		8.7			6.0	19.0
Green Ext Time (p_c), s		0.5		5.4			0.3	4.8

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	0	95	2	2	5	129	243	2	5	419	147
Future Volume (vph)	42	0	95	2	2	5	129	243	2	5	419	147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	13	13	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		250	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1776	1669	0	1564	0	0	1841	0	0	1815	0
Flt Permitted		0.950			0.989			0.983				
Satd. Flow (perm)	0	1776	1669	0	1564	0	0	1841	0	0	1815	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		827			231			2550			563	
Travel Time (s)		22.6			6.3			69.5			15.4	
Lane Group Flow (vph)	0	45	102	0	9	0	0	402	0	0	614	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.4%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	42	0	95	2	2	5	129	243	2	5	419	147
Future Vol, veh/h	42	0	95	2	2	5	129	243	2	5	419	147
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	-	-	250	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	5	0	0	0	50	0	2	1	0	0	1	1
Mvmt Flow	45	0	102	2	2	5	139	261	2	5	451	158

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1084	1081	530	1080	1159	262	609	0	0	263	0	0
Stage 1	540	540	-	540	540	-	-	-	-	-	-	-
Stage 2	544	541	-	540	619	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.5	6.2	7.1	6.5	6.2	4.3	-	-	4.3	-	-
Critical Hdwy Stg 1	6.15	5.5	-	6.1	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.5	-	6.1	6	-	-	-	-	-	-	-
Follow-up Hdwy	3	4	3.1	3	4	3.1	3	-	-	3	-	-
Pot Cap-1 Maneuver	212	220	581	216	197	826	739	-	-	976	-	-
Stage 1	592	524	-	597	487	-	-	-	-	-	-	-
Stage 2	589	524	-	597	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	172	170	581	147	152	826	739	-	-	976	-	-
Mov Cap-2 Maneuver	172	170	-	147	152	-	-	-	-	-	-	-
Stage 1	462	520	-	466	380	-	-	-	-	-	-	-
Stage 2	454	409	-	488	440	-	-	-	-	-	-	-

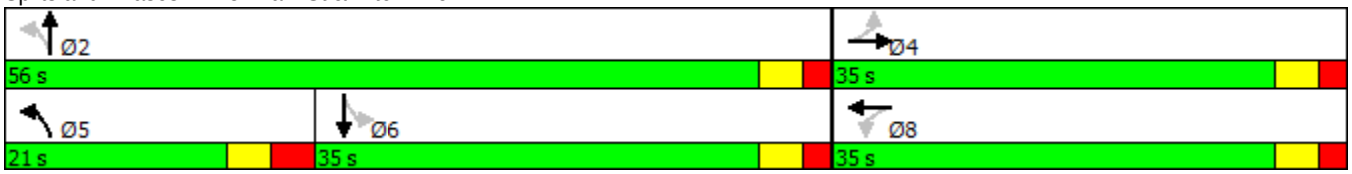
Approach	EB	WB	NB	SB
HCM Control Delay, s	18.8	18.6	3.8	0.1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	739	-	-	172	581	274	976	-	-
HCM Lane V/C Ratio	0.188	-	-	0.263	0.176	0.035	0.006	-	-
HCM Control Delay (s)	11	0	-	33.2	12.5	18.6	8.7	0	-
HCM Lane LOS	B	A	-	D	B	C	A	A	-
HCM 95th %tile Q(veh)	0.7	-	-	1	0.6	0.1	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	164	107	38	132	50	88	285	59	61	330	114
Future Volume (vph)	55	164	107	38	132	50	88	285	59	61	330	114
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	12	12	12	10	13	13	10	12	12
Storage Length (ft)	0		0	0		0	100		0	75		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			40			35		
Satd. Flow (prot)	0	1557	0	0	1718	0	1596	1766	0	1596	1683	0
Flt Permitted		0.904			0.870		0.317			0.547		
Satd. Flow (perm)	0	1418	0	0	1509	0	530	1766	0	907	1683	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		594			746			1843			423	
Travel Time (s)		16.2			20.3			50.3			11.5	
Lane Group Flow (vph)	0	339	0	0	230	0	92	358	0	64	463	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	35.0	35.0		35.0	35.0		21.0	56.0		35.0	35.0	
Total Lost Time (s)		4.0			4.0		5.0	4.0		4.0	4.0	
Act Effct Green (s)		24.9			24.9		51.3	52.3		41.1	41.1	
Actuated g/C Ratio		0.29			0.29		0.60	0.61		0.48	0.48	
v/c Ratio		0.82			0.52		0.21	0.33		0.15	0.57	
Control Delay		44.6			29.4		9.8	10.0		17.7	22.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		44.6			29.4		9.8	10.0		17.7	22.4	
LOS		D			C		A	B		B	C	
Approach Delay		44.6			29.4			10.0			21.8	
Approach LOS		D			C			A			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 91			
Actuated Cycle Length: 85.2			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 24.5		Intersection LOS: C	
Intersection Capacity Utilization 85.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 28: Main St & Afton Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	164	107	38	132	50	88	285	59	61	330	114
Future Volume (veh/h)	55	164	107	38	132	50	88	285	59	61	330	114
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1760	1800	1800	1800	1800	1800	1835	1872	1800	1769	1800
Adj Flow Rate, veh/h	57	171	111	40	138	52	92	297	61	64	344	119
Adj No. of Lanes	0	1	0	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0	0	2	2	0	2	2
Cap, veh/h	103	237	141	98	285	97	482	934	192	587	640	221
Arrive On Green	0.26	0.27	0.26	0.26	0.27	0.26	0.06	0.63	0.62	0.51	0.51	0.50
Sat Flow, veh/h	194	880	523	172	1059	360	1714	1475	303	977	1252	433
Grp Volume(v), veh/h	339	0	0	230	0	0	92	0	358	64	0	463
Grp Sat Flow(s),veh/h/ln	1597	0	0	1590	0	0	1714	0	1778	977	0	1685
Q Serve(g_s), s	6.4	0.0	0.0	0.0	0.0	0.0	1.9	0.0	7.6	2.8	0.0	15.3
Cycle Q Clear(g_c), s	16.1	0.0	0.0	9.7	0.0	0.0	1.9	0.0	7.6	2.8	0.0	15.3
Prop In Lane	0.17		0.33	0.17		0.23	1.00		0.17	1.00		0.26
Lane Grp Cap(c), veh/h	462	0	0	460	0	0	482	0	1126	587	0	862
V/C Ratio(X)	0.73	0.00	0.00	0.50	0.00	0.00	0.19	0.00	0.32	0.11	0.00	0.54
Avail Cap(c_a), veh/h	626	0	0	627	0	0	711	0	1126	587	0	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.9	0.0	0.0	25.5	0.0	0.0	9.1	0.0	7.0	10.5	0.0	13.6
Incr Delay (d2), s/veh	2.9	0.0	0.0	0.8	0.0	0.0	0.2	0.0	0.7	0.4	0.0	2.4
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	7.6	0.0	0.0	4.6	0.0	0.0	0.9	0.0	3.9	0.8	0.0	7.7
LnGrp Delay(d),s/veh	30.8	0.0	0.0	26.4	0.0	0.0	9.3	0.0	7.7	10.9	0.0	16.0
LnGrp LOS	C			C			A		A	B		B
Approach Vol, veh/h		339			230			450			527	
Approach Delay, s/veh		30.8			26.4			8.0			15.4	
Approach LOS		C			C			A			B	

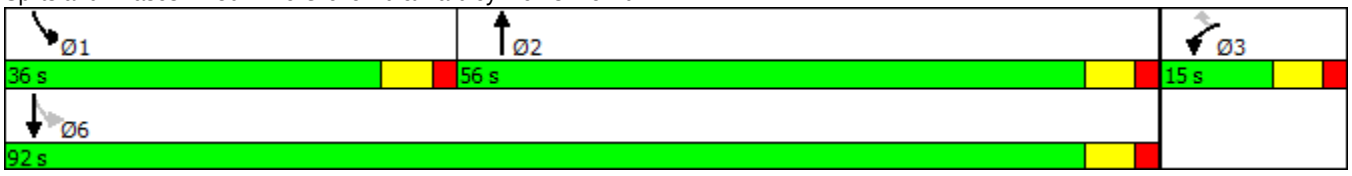
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		56.0		26.1	10.0	46.0		26.1
Change Period (Y+Rc), s		5.0		5.0	6.0	5.0		5.0
Max Green Setting (Gmax), s		51.0		30.0	15.0	30.0		30.0
Max Q Clear Time (g_c+I1), s		9.6		18.1	3.9	17.3		11.7
Green Ext Time (p_c), s		7.2		3.0	0.1	4.8		3.7

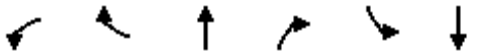
Intersection Summary	
HCM 2010 Ctrl Delay	18.3
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	30	199	357	12	138	352
Future Volume (vph)	30	199	357	12	138	352
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	16	14	11	11	11	12
Grade (%)	2%		-1%			0%
Storage Length (ft)	0	140		0	240	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				55	
Satd. Flow (prot)	1863	1600	1742	0	1605	1765
Flt Permitted	0.950				0.380	
Satd. Flow (perm)	1863	1600	1742	0	642	1765
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		216	2			
Link Speed (mph)	35		40			35
Link Distance (ft)	406		1145			562
Travel Time (s)	7.9		19.5			10.9
Lane Group Flow (vph)	33	216	401	0	150	383
Turn Type	Prot	Perm	NA		pm+pt	NA
Protected Phases	3		2		1	6
Permitted Phases		3			6	
Total Split (s)	15.0	15.0	56.0		36.0	92.0
Total Lost Time (s)	5.0	5.0	5.0		5.0	5.0
Act Effct Green (s)	8.4	8.4	51.0		87.0	87.0
Actuated g/C Ratio	0.08	0.08	0.48		0.83	0.83
v/c Ratio	0.22	0.66	0.48		0.18	0.26
Control Delay	49.0	17.0	20.7		2.4	2.6
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	49.0	17.0	20.7		2.4	2.6
LOS	D	B	C		A	A
Approach Delay	21.2		20.7			2.6
Approach LOS	C		C			A

Intersection Summary			
Area Type:	Other		
Cycle Length: 107			
Actuated Cycle Length: 105.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 12.6		Intersection LOS: B	
Intersection Capacity Utilization 83.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 30: Pine Grove Rd & Yardley Morrisville Rd





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	30	199	357	12	138	352
Future Volume (veh/h)	30	199	357	12	138	352
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
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
Adj Sat Flow, veh/h/ln	1799	1835	1809	1809	1748	1765
Adj Flow Rate, veh/h	33	0	388	13	150	383
Adj No. of Lanes	1	1	1	0	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	1	0	0	3	2
Cap, veh/h	62	57	890	30	922	1525
Arrive On Green	0.04	0.00	0.51	0.50	0.30	0.86
Sat Flow, veh/h	1714	1560	1740	58	1664	1765
Grp Volume(v), veh/h	33	0	0	401	150	383
Grp Sat Flow(s),veh/h/ln	1714	1560	0	1799	1664	1765
Q Serve(g_s), s	1.9	0.0	0.0	14.1	1.6	3.8
Cycle Q Clear(g_c), s	1.9	0.0	0.0	14.1	1.6	3.8
Prop In Lane	1.00	1.00		0.03	1.00	
Lane Grp Cap(c), veh/h	62	57	0	919	922	1525
V/C Ratio(X)	0.53	0.00	0.00	0.44	0.16	0.25
Avail Cap(c_a), veh/h	170	155	0	919	930	1525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	0.0	0.0	15.5	3.0	1.2
Incr Delay (d2), s/veh	6.8	0.0	0.0	1.5	0.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	7.4	0.8	2.0
LnGrp Delay(d),s/veh	54.5	0.0	0.0	17.0	3.1	1.6
LnGrp LOS	D			B	A	A
Approach Vol, veh/h	33		401			533
Approach Delay, s/veh	54.5		17.0			2.0
Approach LOS	D		B			A

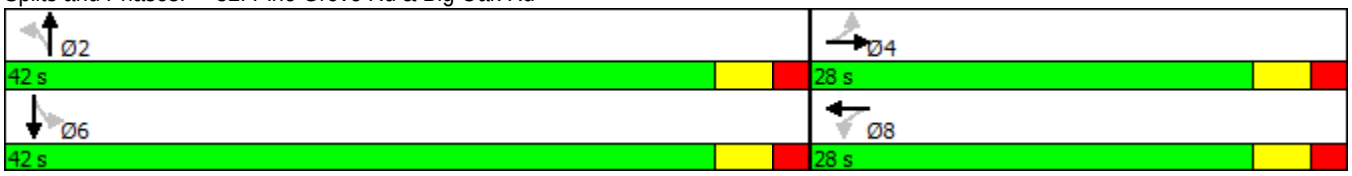
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	35.5	56.5				92.0		8.7
Change Period (Y+Rc), s	6.0	6.0				6.0		6.0
Max Green Setting (Gmax), s	30.0	50.0				86.0		9.0
Max Q Clear Time (g_c+I1), s	4.1	16.1				6.3		4.4
Green Ext Time (p_c), s	0.4	5.2				5.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	129	95	27	164	42	129	295	23	45	291	25
Future Volume (vph)	30	129	95	27	164	42	129	295	23	45	291	25
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	10	11	11	11	12	12	12	16	16	16
Satd. Flow (prot)	0	1573	0	0	1670	0	0	1760	0	0	1983	0
Flt Permitted		0.947			0.949			0.789			0.909	
Satd. Flow (perm)	0	1498	0	0	1594	0	0	1409	0	0	1813	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		812			672			1117			1626	
Travel Time (s)		15.8			13.1			19.0			27.7	
Lane Group Flow (vph)	0	268	0	0	245	0	0	471	0	0	379	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	28.0	28.0		28.0	28.0		42.0	42.0		42.0	42.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Act Effct Green (s)		24.4			24.4			26.9			26.9	
Actuated g/C Ratio		0.41			0.41			0.45			0.45	
v/c Ratio		0.44			0.37			0.74			0.46	
Control Delay		17.7			16.6			20.8			12.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.7			16.6			20.8			12.7	
LOS		B			B			C			B	
Approach Delay		17.7			16.6			20.8			12.7	
Approach LOS		B			B			C			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 59.4			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 17.2		Intersection LOS: B	
Intersection Capacity Utilization 75.7%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 32: Pine Grove Rd & Big Oak Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	129	95	27	164	42	129	295	23	45	291	25
Future Volume (veh/h)	30	129	95	27	164	42	129	295	23	45	291	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1784	1800	1800	1787	1800	1800	1800	1800	1872	1847	1872
Adj Flow Rate, veh/h	32	136	99	28	173	44	136	311	24	47	306	26
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	1	1	1	1	1	1	0	0	0	1	1	1
Cap, veh/h	110	380	248	107	530	124	243	499	36	126	675	54
Arrive On Green	0.40	0.41	0.40	0.40	0.41	0.40	0.43	0.45	0.43	0.43	0.45	0.43
Sat Flow, veh/h	98	921	600	91	1284	301	364	1110	79	125	1504	120
Grp Volume(v), veh/h	267	0	0	245	0	0	471	0	0	379	0	0
Grp Sat Flow(s),veh/h/ln	1618	0	0	1676	0	0	1553	0	0	1749	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.6	0.0	0.0	5.7	0.0	0.0	13.2	0.0	0.0	8.5	0.0	0.0
Prop In Lane	0.12		0.37	0.11		0.18	0.29		0.05	0.12		0.07
Lane Grp Cap(c), veh/h	710	0	0	733	0	0	751	0	0	825	0	0
V/C Ratio(X)	0.38	0.00	0.00	0.33	0.00	0.00	0.63	0.00	0.00	0.46	0.00	0.00
Avail Cap(c_a), veh/h	710	0	0	733	0	0	1050	0	0	1167	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.1	0.0	0.0	11.8	0.0	0.0	12.3	0.0	0.0	11.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.3	0.0	0.0	1.8	0.0	0.0	0.9	0.0	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	3.1	0.0	0.0	2.7	0.0	0.0	6.4	0.0	0.0	4.5	0.0	0.0
LnGrp Delay(d),s/veh	12.4	0.0	0.0	12.0	0.0	0.0	14.2	0.0	0.0	12.1	0.0	0.0
LnGrp LOS	B			B			B			B		
Approach Vol, veh/h		267			245			471			379	
Approach Delay, s/veh		12.4			12.0			14.2			12.1	
Approach LOS		B			B			B			B	

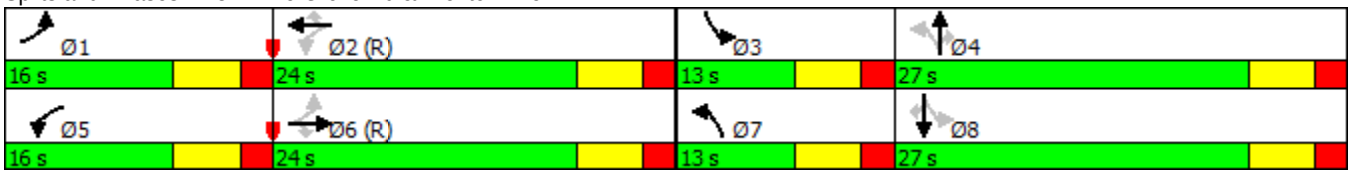
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		30.1		28.0		30.1		28.0
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0
Max Green Setting (Gmax), s		37.0		23.0		37.0		23.0
Max Q Clear Time (g_c+I1), s		15.2		8.6		10.5		7.7
Green Ext Time (p_c), s		9.9		2.7		11.0		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	12.9
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	402	27	274	487	88	116	307	130	127	226	35
Future Volume (vph)	52	402	27	274	487	88	116	307	130	127	226	35
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	10	10	16	11	11	16	11	11	12	11	11	16
Storage Length (ft)	155		70	255		0	85		165	110		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	85			90			225			55		
Satd. Flow (prot)	1565	3192	1734	1653	3306	1717	1653	1723	1485	1637	1657	1636
Flt Permitted	0.458			0.322			0.529			0.319		
Satd. Flow (perm)	754	3192	1734	560	3306	1717	920	1723	1485	550	1657	1614
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			205			205			205			205
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		476			833			854			1117	
Travel Time (s)		8.1			14.2			14.6			19.0	
Lane Group Flow (vph)	56	432	29	295	524	95	125	330	140	137	243	38
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4		4	8		8
Total Split (s)	16.0	24.0	24.0	16.0	24.0	24.0	13.0	27.0	27.0	13.0	27.0	27.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Act Effct Green (s)	28.9	20.7	20.7	35.6	28.9	28.9	27.6	19.7	19.7	28.6	22.2	22.2
Actuated g/C Ratio	0.36	0.26	0.26	0.44	0.36	0.36	0.34	0.25	0.25	0.36	0.28	0.28
v/c Ratio	0.16	0.52	0.05	0.72	0.44	0.13	0.32	0.78	0.27	0.45	0.53	0.06
Control Delay	14.5	28.9	0.1	28.2	23.5	0.4	17.0	41.4	2.4	19.8	29.8	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	28.9	0.1	28.2	23.5	0.4	17.0	41.4	2.4	19.8	29.8	0.2
LOS	B	C	A	C	C	A	B	D	A	B	C	A
Approach Delay		25.7			22.6			27.1			23.8	
Approach LOS		C			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.78			
Intersection Signal Delay: 24.6		Intersection LOS: C	
Intersection Capacity Utilization 69.7%		ICU Level of Service C	
Analysis Period (min) 15			

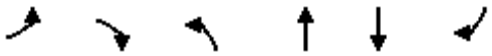
Splits and Phases: 34: Pine Grove Rd & Trenton Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	402	27	274	487	88	116	307	130	127	226	35
Future Volume (veh/h)	52	402	27	274	487	88	116	307	130	127	226	35
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1765	1800	1872	1800	1800	1853	1800	1782	1748	1782	1714	1766
Adj Flow Rate, veh/h	56	432	0	295	524	0	125	330	0	137	243	0
Adj No. of Lanes	1	2	1	1	2	1	1	1	1	1	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	0	0	0	0	1	0	1	3	1	5	6
Cap, veh/h	385	957	445	488	1252	577	373	418	348	317	413	362
Arrive On Green	0.05	0.28	0.00	0.14	0.37	0.00	0.09	0.23	0.00	0.10	0.24	0.00
Sat Flow, veh/h	1681	3420	1591	1714	3420	1575	1714	1782	1485	1697	1714	1501
Grp Volume(v), veh/h	56	432	0	295	524	0	125	330	0	137	243	0
Grp Sat Flow(s),veh/h/ln	1681	1710	1591	1714	1710	1575	1714	1782	1485	1697	1714	1501
Q Serve(g_s), s	1.8	8.3	0.0	9.2	9.2	0.0	4.2	13.9	0.0	4.7	10.0	0.0
Cycle Q Clear(g_c), s	1.8	8.3	0.0	9.2	9.2	0.0	4.2	13.9	0.0	4.7	10.0	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	385	957	445	488	1252	577	373	418	348	317	413	362
V/C Ratio(X)	0.15	0.45	0.00	0.61	0.42	0.00	0.33	0.79	0.00	0.43	0.59	0.00
Avail Cap(c_a), veh/h	529	957	445	488	1252	577	388	490	408	320	471	413
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	0.00	1.00	1.00	0.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	18.5	23.7	0.0	15.8	19.0	0.0	20.2	28.8	0.0	20.8	26.9	0.0
Incr Delay (d2), s/veh	0.2	1.5	0.0	2.1	1.0	0.0	0.5	7.3	0.0	0.8	1.3	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	0.9	4.1	0.0	4.5	4.5	0.0	2.0	7.7	0.0	2.2	4.9	0.0
LnGrp Delay(d),s/veh	18.7	25.3	0.0	17.9	20.0	0.0	20.8	36.1	0.0	21.6	28.2	0.0
LnGrp LOS	B	C		B	C		C	D		C	C	
Approach Vol, veh/h		488			819			455			380	
Approach Delay, s/veh		24.5			19.3			31.9			25.8	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.1	34.3	12.8	23.8	16.0	27.4	12.3	24.3
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	10.0	18.0	7.0	21.0	10.0	18.0	7.0	21.0
Max Q Clear Time (g_c+I1), s	4.3	11.7	7.2	16.4	11.7	10.8	6.7	12.5
Green Ext Time (p_c), s	0.0	3.0	0.0	1.3	0.0	3.3	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	24.3
HCM 2010 LOS	C



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	85	38	40	357	384	103
Future Volume (vph)	85	38	40	357	384	103
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Satd. Flow (prot)	1667	0	0	1775	1721	0
Flt Permitted	0.967			0.995		
Satd. Flow (perm)	1667	0	0	1775	1721	0
Link Speed (mph)	25			25	25	
Link Distance (ft)	751			901	1477	
Travel Time (s)	20.5			24.6	40.3	
Lane Group Flow (vph)	132	0	0	427	524	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	85	38	40	357	384	103
Future Vol, veh/h	85	38	40	357	384	103
Conflicting Peds, #/hr	3	0	2	0	0	2
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	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	1	2	0
Mvmt Flow	91	41	43	384	413	111

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	941	473	527	0	-	0
Stage 1	471	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	7.1	6.2	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3	3.1	3	-	-	-
Pot Cap-1 Maneuver	271	626	790	-	-	-
Stage 1	716	-	-	-	-	-
Stage 2	717	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	251	623	789	-	-	-
Mov Cap-2 Maneuver	251	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	666	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.2	1	0
HCM LOS	D		

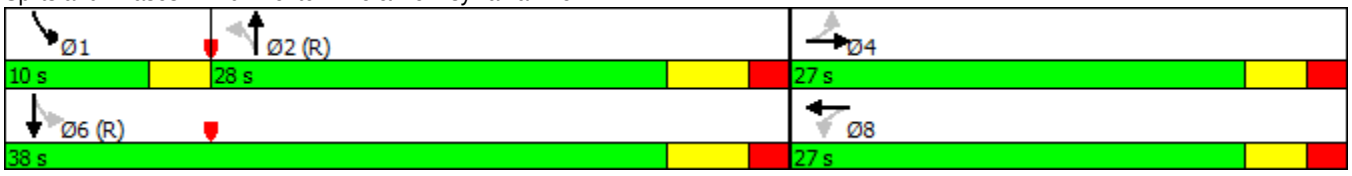
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	789	-	308	-	-
HCM Lane V/C Ratio	0.055	-	0.429	-	-
HCM Control Delay (s)	9.8	0	25.2	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.2	-	2.1	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	24	90	12	239	174	26	6	320	98	59	448	45
Future Volume (vph)	24	90	12	239	174	26	6	320	98	59	448	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	13	13	13	10	11	11	10	10	10	10	11	11
Storage Length (ft)	0		0	90		0	110		0	160		0
Storage Lanes	0		0	1		0	1		0	1		0
Taper Length (ft)	25			90			135			65		
Satd. Flow (prot)	0	1780	0	1580	1707	0	1596	1614	0	1596	1716	0
Flt Permitted		0.926		0.693			0.464			0.276		
Satd. Flow (perm)	0	1664	0	1153	1707	0	780	1614	0	464	1716	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			13			26			11	
Link Speed (mph)		25			25			35			35	
Link Distance (ft)		670			589			4726			1445	
Travel Time (s)		18.3			16.1			92.1			28.1	
Lane Group Flow (vph)	0	137	0	260	217	0	7	455	0	64	536	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Total Split (s)	27.0	27.0		27.0	27.0		28.0	28.0		10.0	38.0	
Total Lost Time (s)		4.0		4.0	4.0		5.0	5.0		2.0	5.0	
Act Effct Green (s)		23.0		23.0	23.0		23.0	23.0		36.0	33.0	
Actuated g/C Ratio		0.35		0.35	0.35		0.35	0.35		0.55	0.51	
v/c Ratio		0.23		0.64	0.35		0.03	0.78		0.16	0.61	
Control Delay		15.1		26.2	16.6		14.2	28.9		7.8	14.9	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		15.1		26.2	16.6		14.2	28.9		7.8	14.9	
LOS		B		C	B		B	C		A	B	
Approach Delay		15.1			21.9			28.7			14.2	
Approach LOS		B			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 65
Actuated Cycle Length: 65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Pretimed
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 20.4 Intersection LOS: C
Intersection Capacity Utilization 85.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 46: Trenton Ave & Pennsylvania Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	90	12	239	174	26	6	320	98	59	448	45
Future Volume (veh/h)	24	90	12	239	174	26	6	320	98	59	448	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1832	1872	1782	1800	1800	1800	1792	1800	1800	1800	1800
Adj Flow Rate, veh/h	26	98	9	260	189	27	7	348	107	64	487	49
Adj No. of Lanes	0	1	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	1	0	0	0	0	0	0	0	0
Cap, veh/h	140	482	40	565	545	78	363	466	143	438	817	82
Arrive On Green	0.34	0.35	0.34	0.35	0.35	0.34	0.35	0.35	0.34	0.12	0.51	0.49
Sat Flow, veh/h	209	1362	114	1226	1541	220	836	1316	405	1714	1609	162
Grp Volume(v), veh/h	133	0	0	260	0	216	7	0	455	64	0	536
Grp Sat Flow(s),veh/h/ln	1685	0	0	1226	0	1761	836	0	1720	1714	0	1771
Q Serve(g_s), s	0.0	0.0	0.0	7.0	0.0	5.9	0.4	0.0	15.1	1.2	0.0	13.9
Cycle Q Clear(g_c), s	3.4	0.0	0.0	9.9	0.0	5.9	3.8	0.0	15.1	1.2	0.0	13.9
Prop In Lane	0.20		0.07	1.00		0.13	1.00		0.24	1.00		0.09
Lane Grp Cap(c), veh/h	637	0	0	565	0	623	363	0	609	438	0	899
V/C Ratio(X)	0.21	0.00	0.00	0.46	0.00	0.35	0.02	0.00	0.75	0.15	0.00	0.60
Avail Cap(c_a), veh/h	637	0	0	565	0	623	363	0	609	438	0	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	0.0	0.0	16.5	0.0	15.5	16.0	0.0	18.6	10.4	0.0	11.3
Incr Delay (d2), s/veh	0.7	0.0	0.0	2.7	0.0	1.5	0.1	0.0	8.2	0.7	0.0	2.9
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	1.8	0.0	0.0	4.1	0.0	3.1	0.1	0.0	8.5	0.7	0.0	7.4
LnGrp Delay(d),s/veh	15.5	0.0	0.0	19.2	0.0	17.0	16.1	0.0	26.7	11.1	0.0	14.2
LnGrp LOS	B			B		B	B		C	B		B
Approach Vol, veh/h		133			476			462			600	
Approach Delay, s/veh		15.5			18.2			26.6			13.9	
Approach LOS		B			B			C			B	

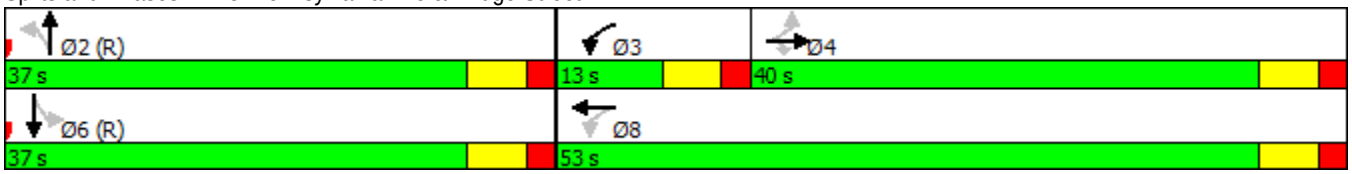
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	10.0	28.0		27.0		38.0		27.0
Change Period (Y+Rc), s	3.0	6.0		5.0		6.0		5.0
Max Green Setting (Gmax), s	7.0	22.0		22.0		32.0		22.0
Max Q Clear Time (g_c+I1), s	3.7	17.1		5.4		15.9		12.4
Green Ext Time (p_c), s	0.0	0.7		0.4		1.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	155	77	106	535	41	141	322	33	37	223	78
Future Volume (vph)	68	155	77	106	535	41	141	322	33	37	223	78
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	13	14	14	14	10	10	10	10	11	11
Storage Length (ft)	160		85	0		0	90		0	0		0
Storage Lanes	1		1	0		0	1		0	1		0
Taper Length (ft)	100			25			25			25		
Satd. Flow (prot)	1653	1740	1535	0	1887	0	1580	1652	0	1596	1623	0
Flt Permitted	0.329				0.918		0.468			0.405		
Satd. Flow (perm)	571	1740	1498	0	1745	0	774	1652	0	678	1623	0
Right Turn on Red			No			No			No			Yes
Satd. Flow (RTOR)											22	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		588			897			335			903	
Travel Time (s)		16.0			24.5			9.1			24.6	
Lane Group Flow (vph)	70	160	79	0	703	0	145	366	0	38	310	0
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		4		3	8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	40.0	40.0	40.0	13.0	53.0		37.0	37.0		37.0	37.0	
Total Lost Time (s)	5.0	5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Act Effct Green (s)	44.7	44.7	44.7		44.7		35.3	35.3		35.3	35.3	
Actuated g/C Ratio	0.50	0.50	0.50		0.50		0.39	0.39		0.39	0.39	
v/c Ratio	0.25	0.19	0.11		0.81		0.48	0.56		0.14	0.48	
Control Delay	14.4	12.4	11.3		27.3		28.7	26.7		21.4	23.0	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay	14.4	12.4	11.3		27.3		28.7	26.7		21.4	23.0	
LOS	B	B	B		C		C	C		C	C	
Approach Delay		12.6			27.3			27.3			22.9	
Approach LOS		B			C			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 19 (21%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 24.0		Intersection LOS: C	
Intersection Capacity Utilization 92.2%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 48: Pennsylvania Ave & Bridge Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	155	77	106	535	41	141	322	33	37	223	78
Future Volume (veh/h)	68	155	77	106	535	41	141	322	33	37	223	78
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1800	1817	1872	1872	1872	1782	1800	1800	1800	1761	1800
Adj Flow Rate, veh/h	70	160	59	109	552	39	145	332	34	38	230	79
Adj No. of Lanes	1	1	1	0	1	0	1	1	0	1	1	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	3	0	0	0	1	0	0	0	3	3
Cap, veh/h	299	813	694	47	144	9	401	702	72	368	547	188
Arrive On Green	0.45	0.45	0.45	0.44	0.45	0.44	0.44	0.44	0.43	0.44	0.44	0.43
Sat Flow, veh/h	793	1800	1536	1	320	19	1015	1605	164	974	1251	430
Grp Volume(v), veh/h	70	160	59	700	0	0	145	0	366	38	0	309
Grp Sat Flow(s),veh/h/ln	793	1800	1536	339	0	0	1015	0	1769	974	0	1681
Q Serve(g_s), s	0.0	4.8	2.0	30.3	0.0	0.0	10.3	0.0	13.2	2.6	0.0	11.4
Cycle Q Clear(g_c), s	11.5	4.8	2.0	30.3	0.0	0.0	21.2	0.0	13.2	15.3	0.0	11.4
Prop In Lane	1.00		1.00	0.16		0.06	1.00		0.09	1.00		0.26
Lane Grp Cap(c), veh/h	299	813	694	0	0	0	401	0	774	368	0	735
V/C Ratio(X)	0.23	0.20	0.09	0.00	0.00	0.00	0.36	0.00	0.47	0.10	0.00	0.42
Avail Cap(c_a), veh/h	299	813	694	0	0	0	401	0	774	368	0	735
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	0.81	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	14.9	14.1	0.0	0.0	0.0	24.6	0.0	18.0	23.2	0.0	17.6
Incr Delay (d2), s/veh	0.9	0.3	0.1	0.0	0.0	0.0	2.5	0.0	2.1	0.6	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	1.2	2.5	0.9	0.0	0.0	0.0	3.1	0.0	6.9	0.7	0.0	5.6
LnGrp Delay(d),s/veh	17.5	15.1	14.2	0.0	0.0	0.0	27.1	0.0	20.1	23.8	0.0	19.3
LnGrp LOS	B	B	B				C		C	C		B
Approach Vol, veh/h		289			700			511			347	
Approach Delay, s/veh		15.5			0.0			22.1			19.8	
Approach LOS		B			A			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		44.4		45.6		44.4		45.6
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		31.0		34.0		31.0		47.0
Max Q Clear Time (g_c+I1), s		23.7		14.0		17.8		32.3
Green Ext Time (p_c), s		4.5		11.7		7.1		7.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.3
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	582	8	3	714	188	23	24	0	139	8	52
Future Volume (vph)	35	582	8	3	714	188	23	24	0	139	8	52
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	15	15	15	13	13	13	16	16	16	9	9	10
Storage Length (ft)	0		0	0		0	0		0	0		200
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	0	1951	0	0	1808	0	0	1991	0	0	1547	1428
Flt Permitted		0.924			0.999			0.816			0.702	
Satd. Flow (perm)	0	1809	0	0	1806	0	0	1665	0	0	1127	1428
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			33							54
Link Speed (mph)		40			40			25			35	
Link Distance (ft)		581			4726			461			817	
Travel Time (s)		9.9			80.6			12.6			15.9	
Lane Group Flow (vph)	0	644	0	0	933	0	0	49	0	0	151	54
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Total Split (s)	56.0	56.0		56.0	56.0		24.0	24.0		24.0	24.0	24.0
Total Lost Time (s)		5.0			5.0			5.0			5.0	5.0
Act Effct Green (s)		51.2			51.2			15.2			15.2	15.2
Actuated g/C Ratio		0.67			0.67			0.20			0.20	0.20
v/c Ratio		0.53			0.76			0.15			0.67	0.17
Control Delay		9.1			14.6			25.7			43.7	8.8
Queue Delay		0.0			0.0			0.0			0.0	0.0
Total Delay		9.1			14.6			25.7			43.7	8.8
LOS		A			B			C			D	A
Approach Delay		9.1			14.6			25.7			34.5	
Approach LOS		A			B			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 76.4			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 15.2		Intersection LOS: B	
Intersection Capacity Utilization 83.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 52: Driveway/Big Oak Road & Trenton Ave

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	582	8	3	714	188	23	24	0	139	8	52
Future Volume (veh/h)	35	582	8	3	714	188	23	24	0	139	8	52
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	0.99		1.00	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1872	1855	1872	1872	1872	1872	1872	1872	1872	1728	1728	1800
Adj Flow Rate, veh/h	36	600	8	3	736	190	24	25	0	143	8	36
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	1129	15	48	962	247	99	84	0	284	11	300
Arrive On Green	0.66	0.67	0.67	0.66	0.67	0.67	0.19	0.20	0.00	0.19	0.20	0.20
Sat Flow, veh/h	52	1685	22	1	1435	369	145	425	0	967	55	1511
Grp Volume(v), veh/h	644	0	0	929	0	0	49	0	0	151	0	36
Grp Sat Flow(s),veh/h/ln	1759	0	0	1805	0	0	570	0	0	1021	0	1511
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.5
Cycle Q Clear(g_c), s	13.6	0.0	0.0	27.1	0.0	0.0	11.8	0.0	0.0	11.4	0.0	1.5
Prop In Lane	0.06		0.01	0.00		0.20	0.49		0.00	0.95		1.00
Lane Grp Cap(c), veh/h	1206	0	0	1234	0	0	176	0	0	281	0	300
V/C Ratio(X)	0.53	0.00	0.00	0.75	0.00	0.00	0.28	0.00	0.00	0.54	0.00	0.12
Avail Cap(c_a), veh/h	1206	0	0	1234	0	0	257	0	0	348	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	6.4	0.0	0.0	8.6	0.0	0.0	25.9	0.0	0.0	29.5	0.0	25.0
Incr Delay (d2), s/veh	1.7	0.0	0.0	4.3	0.0	0.0	0.9	0.0	0.0	1.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.4	0.0	0.0	15.0	0.0	0.0	0.9	0.0	0.0	3.2	0.0	0.6
LnGrp Delay(d),s/veh	8.1	0.0	0.0	12.9	0.0	0.0	26.8	0.0	0.0	31.1	0.0	25.2
LnGrp LOS	A			B			C			C		C
Approach Vol, veh/h		644			929			49			187	
Approach Delay, s/veh		8.1			12.9			26.8			30.0	
Approach LOS		A			B			C			C	

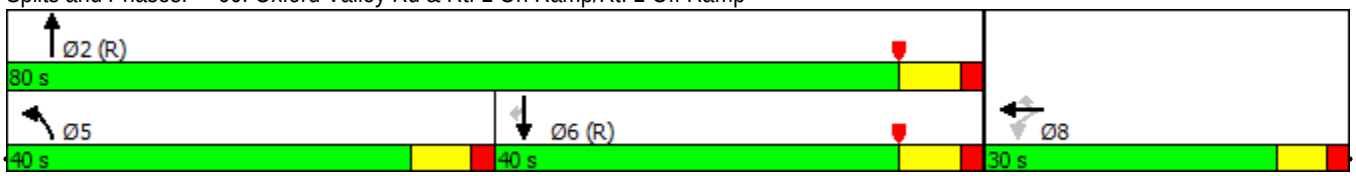
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		20.1		56.0		20.1		56.0
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0
Max Green Setting (Gmax), s		18.0		50.0		18.0		50.0
Max Q Clear Time (g_c+I1), s		13.8		15.6		13.4		29.1
Green Ext Time (p_c), s		0.4		15.3		0.5		11.8

Intersection Summary	
HCM 2010 Ctrl Delay	13.3
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	467	0	412	750	1396	0	0	944	445
Future Volume (vph)	0	0	0	467	0	412	750	1396	0	0	944	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	15	15	14	10	10	12	12	12	12
Grade (%)		0%			3%			-1%			1%	
Storage Length (ft)	0		0	665		695	0		0	0		390
Storage Lanes	0		0	1		1	2		0	0		1
Taper Length (ft)	25			230			25			25		
Satd. Flow (prot)	0	0	0	1840	1840	1680	3220	3320	0	0	5011	1575
Flt Permitted				0.950	0.950		0.950					
Satd. Flow (perm)	0	0	0	1840	1840	1656	3220	3320	0	0	5011	1575
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109						465
Link Speed (mph)		30			35			55			55	
Link Distance (ft)		1045			1166			544			1587	
Travel Time (s)		23.8			22.7			6.7			19.7	
Lane Group Flow (vph)	0	0	0	259	260	458	833	1551	0	0	1049	494
Turn Type				Perm	NA	Perm	Prot	NA			NA	Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8						6
Total Split (s)				30.0	30.0	30.0	40.0	80.0			40.0	40.0
Total Lost Time (s)				5.0	5.0	5.0	6.0	6.0			6.0	6.0
Act Effct Green (s)				25.0	25.0	25.0	32.4	74.0			35.6	35.6
Actuated g/C Ratio				0.23	0.23	0.23	0.29	0.67			0.32	0.32
v/c Ratio				0.62	0.62	1.00	0.88	0.69			0.65	0.60
Control Delay				45.7	45.7	74.2	50.2	12.5			29.8	8.7
Queue Delay				0.0	0.0	0.0	0.0	0.7			0.0	0.0
Total Delay				45.7	45.7	74.2	50.2	13.2			29.8	8.7
LOS				D	D	E	D	B			C	A
Approach Delay					59.1			26.1			23.0	
Approach LOS					E			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 53 (48%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.00			
Intersection Signal Delay: 31.7		Intersection LOS: C	
Intersection Capacity Utilization 95.7%		ICU Level of Service F	
Analysis Period (min) 15			

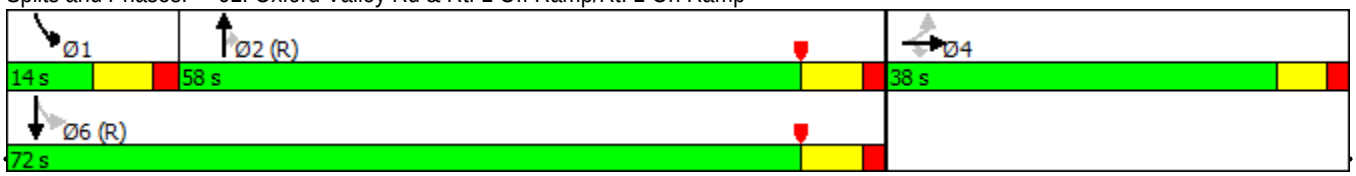
Splits and Phases: 60: Oxford Valley Rd & Rt. 1 On Ramp/Rt. 1 Off Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	606	0	706	0	0	0	0	1540	400	149	1262	0
Future Volume (vph)	606	0	706	0	0	0	0	1540	400	149	1262	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	16	12	12	12	10	10	12	11	11	12
Grade (%)		3%			0%			0%			1%	
Storage Length (ft)	340		475	0		0	345		350	0		0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (ft)	300			25			250			25		
Satd. Flow (prot)	1672	1672	1717	0	0	0	0	4567	1583	1702	3404	0
Flt Permitted	0.950	0.950								0.070		
Satd. Flow (perm)	1672	1672	1717	0	0	0	0	4567	1548	125	3404	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109						426			
Link Speed (mph)		35			30			55			55	
Link Distance (ft)		1169			1266			2828			544	
Travel Time (s)		22.8			28.8			35.1			6.7	
Lane Group Flow (vph)	322	323	751	0	0	0	0	1638	426	159	1343	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2	6		
Total Split (s)	38.0	38.0	38.0					58.0	58.0	14.0	72.0	
Total Lost Time (s)	5.0	5.0	5.0					6.0	6.0	6.0	6.0	
Act Effct Green (s)	33.0	33.0	33.0					52.0	52.0	66.0	66.0	
Actuated g/C Ratio	0.30	0.30	0.30					0.47	0.47	0.60	0.60	
v/c Ratio	0.64	0.64	1.27					0.76	0.45	0.84	0.66	
Control Delay	40.4	40.4	164.3					20.7	3.0	73.2	11.5	
Queue Delay	0.0	0.0	0.0					0.0	0.0	0.0	0.3	
Total Delay	40.4	40.4	164.3					20.7	3.0	73.2	11.8	
LOS	D	D	F					C	A	E	B	
Approach Delay		107.1						17.0			18.3	
Approach LOS		F						B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 72 (65%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.27			
Intersection Signal Delay: 42.8		Intersection LOS: D	
Intersection Capacity Utilization 95.7%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 61: Oxford Valley Rd & Rt. 1 Off Ramp/Rt. 1 On Ramp

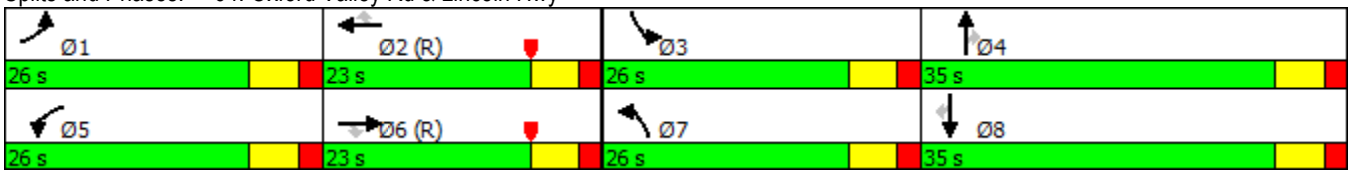


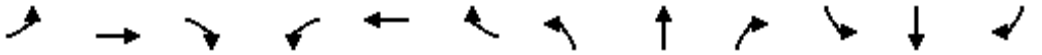
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	486	102	314	434	889	168	739	442	313	614	74
Future Volume (vph)	275	486	102	314	434	889	168	739	442	313	614	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	12	14	12	12	12	11	12	12	11	12	11
Storage Length (ft)	415		240	250		100	0		100	245		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	75			70			25			85		
Satd. Flow (prot)	1531	3139	1595	1671	3312	1538	1646	3406	1568	1616	3438	1516
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1531	3139	1595	1671	3312	1538	1645	3406	1568	1616	3438	1496
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			149			369			256			149
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		906			576			786			1927	
Travel Time (s)		15.4			9.8			13.4			32.8	
Lane Group Flow (vph)	289	512	107	331	457	936	177	778	465	329	646	78
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases			6			2			4			8
Total Split (s)	26.0	23.0	23.0	26.0	23.0	23.0	26.0	35.0	35.0	26.0	35.0	35.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Act Effct Green (s)	21.5	18.0	18.0	21.5	18.0	18.0	17.3	29.5	29.5	21.0	33.2	33.2
Actuated g/C Ratio	0.20	0.16	0.16	0.20	0.16	0.16	0.16	0.27	0.27	0.19	0.30	0.30
v/c Ratio	0.97	1.00	0.28	1.02	0.84	1.67	0.68	0.85	0.77	1.07	0.62	0.14
Control Delay	89.4	85.9	4.3	98.4	60.1	330.0	57.0	48.5	25.5	96.0	33.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.4	85.9	4.3	98.4	60.1	330.0	57.0	48.5	25.5	96.0	33.2	0.7
LOS	F	F	A	F	E	F	E	D	C	F	C	A
Approach Delay		77.4			214.0			42.0			50.4	
Approach LOS		E			F			D			D	

Intersection Summary

Area Type: Other
Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.67
Intersection Signal Delay: 108.1 Intersection LOS: F
Intersection Capacity Utilization 103.2% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 64: Oxford Valley Rd & Lincoln Hwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	486	102	314	434	889	168	739	442	313	614	74
Future Volume (veh/h)	275	486	102	314	434	889	168	739	442	313	614	74
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	3	2	0	0	10	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1667	1652	1830	1759	1743	1810	1792	1792	1845	1759	1810	1845
Adj Flow Rate, veh/h	289	512	0	331	457	0	177	778	0	329	646	0
Adj No. of Lanes	1	2	1	1	2	1	1	2	1	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	14	15	8	8	9	5	6	6	3	8	5	3
Cap, veh/h	303	536	265	320	565	262	236	887	417	320	1070	466
Arrive On Green	0.19	0.18	0.00	0.19	0.18	0.00	0.13	0.26	0.00	0.19	0.32	0.00
Sat Flow, veh/h	1587	3139	1555	1675	3312	1538	1707	3406	1568	1675	3438	1568
Grp Volume(v), veh/h	289	512	0	331	457	0	177	778	0	329	646	0
Grp Sat Flow(s),veh/h/ln	1587	1570	1555	1675	1656	1538	1707	1703	1568	1675	1719	1568
Q Serve(g_s), s	19.8	17.7	0.0	21.0	14.5	0.0	11.0	24.1	0.0	21.0	17.4	0.0
Cycle Q Clear(g_c), s	19.8	17.7	0.0	21.0	14.5	0.0	11.0	24.1	0.0	21.0	17.4	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	303	536	265	320	565	262	236	887	417	320	1070	466
V/C Ratio(X)	0.95	0.96	0.00	1.03	0.81	0.00	0.75	0.88	0.00	1.03	0.60	0.00
Avail Cap(c_a), veh/h	303	554	274	320	584	271	326	929	428	320	1091	497
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.0	45.2	0.0	44.5	43.9	0.0	45.9	39.1	0.0	44.5	32.7	0.0
Incr Delay (d2), s/veh	39.3	29.4	0.0	59.6	11.8	0.0	6.2	9.2	0.0	57.9	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.3	0.0	0.0	1.6	0.0
%ile BackOfQ(50%),veh/ln	12.0	9.9	0.0	15.0	7.6	0.0	6.3	12.7	0.0	14.8	9.4	0.0
LnGrp Delay(d),s/veh	83.3	74.6	0.0	104.1	55.7	0.0	56.8	48.6	0.0	102.4	35.2	0.0
LnGrp LOS	F	E		F	E		E	D		F	D	
Approach Vol, veh/h		801			788			955			975	
Approach Delay, s/veh		77.7			76.0			50.1			57.9	
Approach LOS		E			E			D			E	

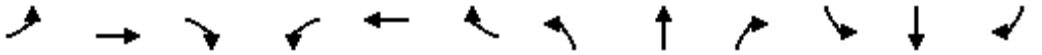
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	24.4	26.0	33.6	26.0	24.4	19.7	39.9
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	17.0	20.0	29.0	20.0	17.0	20.0	29.0
Max Q Clear Time (g_c+I1), s	22.3	17.0	23.5	26.6	23.5	20.2	13.5	19.9
Green Ext Time (p_c), s	0.0	0.0	0.0	1.0	0.0	0.0	0.2	5.7

Intersection Summary		
HCM 2010 Ctrl Delay		64.4
HCM 2010 LOS		E

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	334	433	272	191	72	269	364	175	56	448	40
Future Volume (vph)	108	334	433	272	191	72	269	364	175	56	448	40
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	11	12	12	12	12	11	12	12	12	12	14
Grade (%)		-2%			2%			0%			0%	
Storage Length (ft)	140		240	225		100	400		515	160		220
Storage Lanes	2		2	2		1	2		1	1		1
Taper Length (ft)	25			90			90			120		
Satd. Flow (prot)	3239	1723	2693	3284	1782	1515	3144	3420	1515	1710	3420	1632
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3239	1723	2693	3284	1782	1515	3144	3420	1515	1710	3420	1632
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			289			89			192			89
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		1162			1546			1587			990	
Travel Time (s)		19.8			26.4			27.1			16.9	
Lane Group Flow (vph)	119	367	476	299	210	79	296	400	192	62	492	44
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Total Split (s)	19.0	18.0	26.0	19.0	18.0	26.0	26.0	47.0	19.0	26.0	47.0	19.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Act Effct Green (s)	10.4	13.4	35.3	13.6	16.6	32.0	17.0	55.0	73.6	10.3	46.0	61.4
Actuated g/C Ratio	0.09	0.12	0.32	0.12	0.15	0.29	0.15	0.50	0.67	0.09	0.42	0.56
v/c Ratio	0.39	1.76	0.45	0.74	0.78	0.16	0.61	0.23	0.18	0.39	0.34	0.05
Control Delay	50.1	389.5	12.0	58.1	66.5	5.8	52.3	18.2	3.1	52.9	23.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	389.5	12.0	58.1	66.5	5.8	52.3	18.2	3.1	52.9	23.2	0.3
LOS	D	F	B	E	E	A	D	B	A	D	C	A
Approach Delay		160.8			54.1			26.3			24.6	
Approach LOS		F			D			C			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 107 (97%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.76			
Intersection Signal Delay: 73.9		Intersection LOS: E	
Intersection Capacity Utilization 64.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 66: Oxford Valley Rd & Big Oak Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	334	433	272	191	72	269	364	175	56	448	40
Future Volume (veh/h)	108	334	433	272	191	72	269	364	175	56	448	40
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	2	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1818	1782	1800	1782	1782	1782	1765	1800	1782	1800	1800	1872
Adj Flow Rate, veh/h	119	367	476	299	210	79	296	400	192	62	492	44
Adj No. of Lanes	2	1	2	2	1	1	2	2	1	1	2	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	2	1	0	0	0	2	0	1	0	0	0
Cap, veh/h	222	211	660	397	308	351	414	1780	971	101	1548	825
Arrive On Green	0.07	0.12	0.12	0.12	0.17	0.17	0.04	0.17	0.17	0.06	0.45	0.45
Sat Flow, veh/h	3359	1782	2693	3292	1782	1515	3261	3420	1515	1714	3420	1591
Grp Volume(v), veh/h	119	367	476	299	210	79	296	400	192	62	492	44
Grp Sat Flow(s),veh/h/ln	1679	1782	1346	1646	1782	1515	1630	1710	1515	1714	1710	1591
Q Serve(g_s), s	3.8	13.0	13.0	9.7	12.2	4.7	9.9	11.1	9.0	3.9	10.1	1.5
Cycle Q Clear(g_c), s	3.8	13.0	13.0	9.7	12.2	4.7	9.9	11.1	9.0	3.9	10.1	1.5
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	222	211	660	397	308	351	414	1780	971	101	1548	825
V/C Ratio(X)	0.54	1.74	0.72	0.75	0.68	0.23	0.72	0.22	0.20	0.61	0.32	0.05
Avail Cap(c_a), veh/h	428	211	660	419	308	351	622	1780	971	327	1548	825
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.7	48.5	38.1	46.8	42.7	34.2	50.7	26.5	15.0	50.5	19.3	13.1
Incr Delay (d2), s/veh	2.0	353.0	3.8	7.2	6.1	0.3	1.3	0.2	0.3	5.9	0.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	27.0	7.0	4.8	6.5	2.0	4.5	5.4	3.8	2.0	4.9	0.7
LnGrp Delay(d),s/veh	51.8	401.5	41.9	54.0	48.7	34.6	52.0	26.7	15.3	56.4	19.8	13.2
LnGrp LOS	D	F	D	D	D	C	D	C	B	E	B	B
Approach Vol, veh/h		962			588			888			598	
Approach Delay, s/veh		180.3			49.5			32.7			23.1	
Approach LOS		F			D			C			C	

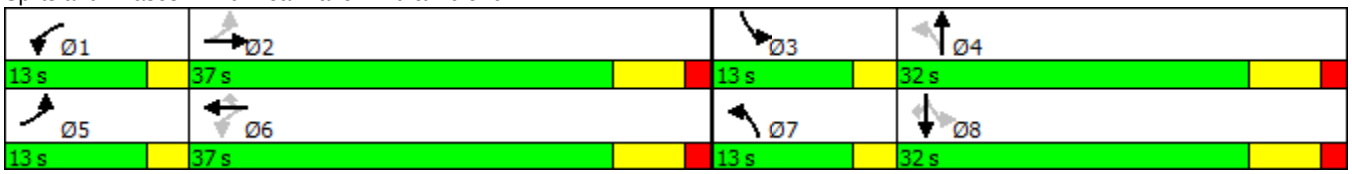
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.5	62.2	18.3	18.0	19.0	54.8	12.3	24.0
Change Period (Y+Rc), s	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Max Green Setting (Gmax), s	20.0	41.0	13.0	12.0	20.0	41.0	13.0	12.0
Max Q Clear Time (g_c+I1), s	6.4	13.6	12.2	15.5	12.4	12.6	6.3	14.7
Green Ext Time (p_c), s	0.1	16.3	0.1	0.0	0.6	16.7	0.2	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	80.8
HCM 2010 LOS	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	126	91	17	25	380	341	117	383	17	78	280	100
Future Volume (vph)	126	91	17	25	380	341	117	383	17	78	280	100
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	11	15	15	10	11	11	12	12	12	11	11	11
Storage Length (ft)	65		0	115		65	75		0	85		100
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	85			55			45			40		
Satd. Flow (prot)	1653	1934	0	1596	1740	1479	1710	1789	0	1653	1740	1479
Flt Permitted	0.292			0.682			0.401			0.228		
Satd. Flow (perm)	508	1934	0	1146	1740	1479	722	1789	0	397	1740	1479
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10				182		2				115
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		387			2233			336			447	
Travel Time (s)		8.8			50.8			7.6			10.2	
Lane Group Flow (vph)	137	117	0	27	413	371	127	434	0	85	304	109
Turn Type	pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases	2			6		6	4			8		8
Total Split (s)	13.0	37.0		13.0	37.0	37.0	13.0	32.0		13.0	32.0	32.0
Total Lost Time (s)	2.0	6.0		2.0	6.0	6.0	2.0	6.0		2.0	6.0	6.0
Act Effct Green (s)	43.0	35.2		38.2	26.3	26.3	36.1	24.2		34.9	23.7	23.7
Actuated g/C Ratio	0.51	0.42		0.45	0.31	0.31	0.43	0.29		0.41	0.28	0.28
v/c Ratio	0.34	0.14		0.05	0.76	0.63	0.30	0.84		0.28	0.62	0.22
Control Delay	14.9	17.8		12.2	37.6	18.5	17.1	46.5		17.3	35.1	6.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	14.9	17.8		12.2	37.6	18.5	17.1	46.5		17.3	35.1	6.3
LOS	B	B		B	D	B	B	D		B	D	A
Approach Delay		16.2			28.0			39.8			25.8	
Approach LOS		B			C			D			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 84.1			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 29.2		Intersection LOS: C	
Intersection Capacity Utilization 72.5%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 76: Bear Tavern Rd & NJ 546



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	126	91	17	25	380	341	117	383	17	78	280	100
Future Volume (veh/h)	126	91	17	25	380	341	117	383	17	78	280	100
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1800	1872	1872	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adj Flow Rate, veh/h	137	99	18	27	413	371	127	416	18	85	304	107
Adj No. of Lanes	1	1	0	1	1	1	1	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	327	553	101	564	566	481	387	513	22	308	520	442
Arrive On Green	0.09	0.36	0.35	0.05	0.31	0.31	0.09	0.30	0.29	0.08	0.29	0.29
Sat Flow, veh/h	1714	1542	280	1714	1800	1530	1714	1713	74	1714	1800	1530
Grp Volume(v), veh/h	137	0	117	27	413	371	127	0	434	85	304	107
Grp Sat Flow(s),veh/h/ln	1714	0	1823	1714	1800	1530	1714	0	1787	1714	1800	1530
Q Serve(g_s), s	3.6	0.0	3.3	0.8	15.3	16.4	3.6	0.0	16.8	2.5	10.8	4.0
Cycle Q Clear(g_c), s	3.6	0.0	3.3	0.8	15.3	16.4	3.6	0.0	16.8	2.5	10.8	4.0
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	327	0	654	564	566	481	387	0	535	308	520	442
V/C Ratio(X)	0.42	0.00	0.18	0.05	0.73	0.77	0.33	0.00	0.81	0.28	0.58	0.24
Avail Cap(c_a), veh/h	422	0	756	735	747	635	484	0	622	423	626	532
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	16.5	15.4	22.8	23.2	15.8	0.0	24.2	17.4	22.7	20.3
Incr Delay (d2), s/veh	0.9	0.0	0.1	0.0	2.5	4.2	0.5	0.0	7.0	0.5	1.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	1.7	0.4	8.0	7.5	1.7	0.0	9.2	1.2	5.5	1.7
LnGrp Delay(d),s/veh	16.2	0.0	16.6	15.5	25.3	27.4	16.3	0.0	31.3	17.9	23.8	20.6
LnGrp LOS	B		B	B	C	C	B		C	B	C	C
Approach Vol, veh/h		254			811			561			496	
Approach Delay, s/veh		16.4			25.9			27.9			22.1	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	32.8	8.0	28.4	8.9	29.5	8.8	27.6
Change Period (Y+Rc), s	3.0	7.0	3.0	7.0	3.0	7.0	3.0	7.0
Max Green Setting (Gmax), s	10.0	30.0	10.0	25.0	10.0	30.0	10.0	25.0
Max Q Clear Time (g_c+I1), s	3.3	5.3	5.0	18.8	6.1	18.9	6.1	13.3
Green Ext Time (p_c), s	0.0	4.9	0.1	2.6	0.1	3.6	0.1	3.9

Intersection Summary	
HCM 2010 Ctrl Delay	24.4
HCM 2010 LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	198	4	102	761	0	63
Future Volume (vph)	198	4	102	761	0	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	12	11	11	12	12
Satd. Flow (prot)	1761	0	0	1728	1483	0
Flt Permitted				0.930		
Satd. Flow (perm)	1761	0	0	1616	1483	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	2				713	
Link Speed (mph)	45			45	40	
Link Distance (ft)	1549			2209	447	
Travel Time (s)	23.5			33.5	7.6	
Lane Group Flow (vph)	219	0	0	938	68	0
Turn Type	NA		Perm	NA	Prot	
Protected Phases	2			6	4	
Permitted Phases			6			
Total Split (s)	60.0		60.0	60.0	22.0	
Total Lost Time (s)	6.0			6.0	5.0	
Act Effct Green (s)	59.0			59.0	8.0	
Actuated g/C Ratio	0.79			0.79	0.11	
v/c Ratio	0.16			0.73	0.09	
Control Delay	2.9			9.9	0.2	
Queue Delay	0.0			0.0	0.0	
Total Delay	2.9			9.9	0.2	
LOS	A			A	A	
Approach Delay	2.9			9.9	0.2	
Approach LOS	A			A	A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 82			
Actuated Cycle Length: 74.3			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 8.1		Intersection LOS: A	
Intersection Capacity Utilization 84.9%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 78: Jacobs Creek Rd & NJ 546

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	198	4	102	761	0	63
Future Volume (veh/h)	198	4	102	761	0	63
Number	2	12	1	6	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
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
Adj Sat Flow, veh/h/ln	1765	1800	1800	1798	1714	1800
Adj Flow Rate, veh/h	215	4	111	827	0	68
Adj No. of Lanes	1	0	0	1	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	0	0	0
Cap, veh/h	1310	24	176	1171	0	126
Arrive On Green	0.76	0.74	0.74	0.76	0.00	0.07
Sat Flow, veh/h	1727	32	157	1544	0	1439
Grp Volume(v), veh/h	0	219	938	0	0	69
Grp Sat Flow(s),veh/h/ln	0	1760	1702	0	0	1460
Q Serve(g_s), s	0.0	2.4	9.7	0.0	0.0	3.2
Cycle Q Clear(g_c), s	0.0	2.4	20.6	0.0	0.0	3.2
Prop In Lane		0.02	0.12		0.00	0.99
Lane Grp Cap(c), veh/h	0	1334	1323	0	0	127
V/C Ratio(X)	0.00	0.16	0.71	0.00	0.00	0.54
Avail Cap(c_a), veh/h	0	1334	1323	0	0	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	2.4	4.5	0.0	0.0	31.6
Incr Delay (d2), s/veh	0.0	0.3	3.2	0.0	0.0	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	11.3	0.0	0.0	1.4
LnGrp Delay(d),s/veh	0.0	2.6	7.7	0.0	0.0	35.2
LnGrp LOS		A	A			D
Approach Vol, veh/h	219			938	69	
Approach Delay, s/veh	2.6			7.7	35.2	
Approach LOS	A			A	D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		60.0		11.2		60.0		
Change Period (Y+Rc), s		7.0		6.0		7.0		
Max Green Setting (Gmax), s		53.0		16.0		53.0		
Max Q Clear Time (g_c+I1), s		4.4		5.2		22.6		
Green Ext Time (p_c), s		10.6		0.1		9.5		

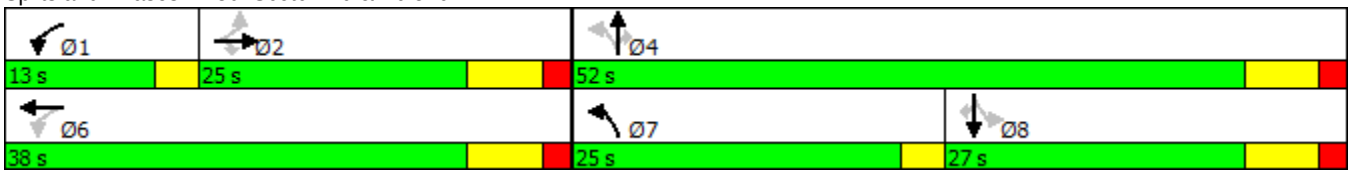
Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

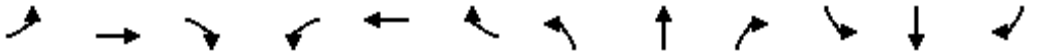
Notes

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	137	46	77	417	112	352	245	56	19	127	71
Future Volume (vph)	76	137	46	77	417	112	352	245	56	19	127	71
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (ft)	12	15	11	11	11	11	13	11	16	11	11	12
Grade (%)		-2%			2%			1%			-1%	
Storage Length (ft)	720		720	190		0	640		0	90		90
Storage Lanes	1		1	1		0	1		1	1		1
Taper Length (ft)	75			60			80			75		
Satd. Flow (prot)	1677	1961	1494	1636	1660	0	1758	1731	1725	1661	1749	1538
Flt Permitted	0.341			0.616			0.595			0.602		
Satd. Flow (perm)	601	1961	1494	1061	1660	0	1101	1731	1725	1053	1749	1538
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121		17				85			121
Link Speed (mph)		45			45			40			40	
Link Distance (ft)		1465			596			1784			583	
Travel Time (s)		22.2			9.0			30.4			9.9	
Lane Group Flow (vph)	78	141	47	79	545	0	363	253	58	20	131	73
Turn Type	Perm	NA	Perm	pm+pt	NA		pm+pt	NA	Perm	Perm	NA	Perm
Protected Phases		2		1	6		7	4			8	
Permitted Phases	2		2	6			4		4	8		8
Total Split (s)	25.0	25.0	25.0	13.0	38.0		25.0	52.0	52.0	27.0	27.0	27.0
Total Lost Time (s)	6.0	6.0	6.0	2.0	6.0		2.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	24.1	24.1	24.1	36.1	32.1		40.3	36.3	36.3	15.2	15.2	15.2
Actuated g/C Ratio	0.30	0.30	0.30	0.45	0.40		0.50	0.45	0.45	0.19	0.19	0.19
v/c Ratio	0.44	0.24	0.09	0.15	0.81		0.51	0.32	0.07	0.10	0.40	0.19
Control Delay	36.8	25.6	0.3	15.0	33.4		15.3	15.3	1.6	30.0	33.8	2.9
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	36.8	25.6	0.3	15.0	33.4		15.3	15.3	1.6	30.0	33.8	2.9
LOS	D	C	A	B	C		B	B	A	C	C	A
Approach Delay		24.4			31.1			14.1			23.4	
Approach LOS		C			C			B			C	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 80.4			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.81			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 89.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 80: Scotch Rd & NJ 546





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	137	46	77	417	112	352	245	56	19	127	71
Future Volume (veh/h)	76	137	46	77	417	112	352	245	56	19	127	71
Number	5	2	12	1	6	16	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1765	1854	1818	1782	1782	1782	1863	1791	1863	1809	1809	1809
Adj Flow Rate, veh/h	78	141	13	79	430	115	363	253	55	20	131	52
Adj No. of Lanes	1	1	1	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	2	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	223	615	512	526	570	152	607	755	667	299	357	303
Arrive On Green	0.33	0.33	0.33	0.06	0.42	0.41	0.20	0.42	0.42	0.20	0.20	0.20
Sat Flow, veh/h	813	1854	1543	1697	1355	362	1774	1791	1583	1036	1809	1538
Grp Volume(v), veh/h	78	141	13	79	0	545	363	253	55	20	131	52
Grp Sat Flow(s),veh/h/ln	813	1854	1543	1697	0	1718	1774	1791	1583	1036	1809	1538
Q Serve(g_s), s	6.8	4.2	0.4	2.1	0.0	20.5	11.2	7.2	1.6	1.2	4.8	2.1
Cycle Q Clear(g_c), s	20.0	4.2	0.4	2.1	0.0	20.5	11.2	7.2	1.6	1.2	4.8	2.1
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	223	615	512	526	0	723	607	755	667	299	357	303
V/C Ratio(X)	0.35	0.23	0.03	0.15	0.00	0.75	0.60	0.34	0.08	0.07	0.37	0.17
Avail Cap(c_a), veh/h	223	615	512	665	0	723	792	1083	958	381	499	425
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	1.00	1.00
Uniform Delay (d), s/veh	29.9	18.4	17.1	13.4	0.0	18.8	16.1	14.8	13.2	25.0	26.4	25.4
Incr Delay (d2), s/veh	4.3	0.9	0.1	0.0	0.0	7.2	0.4	0.1	0.0	0.0	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	2.3	0.2	1.0	0.0	11.1	5.4	3.6	0.7	0.3	2.4	0.9
LnGrp Delay(d),s/veh	34.1	19.3	17.2	13.4	0.0	26.0	16.5	14.9	13.2	25.0	26.7	25.5
LnGrp LOS	C	B	B	B		C	B	B	B	C	C	C
Approach Vol, veh/h		232			624			671			203	
Approach Delay, s/veh		24.1			24.4			15.6			26.2	
Approach LOS		C			C			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6	7	8
Phs Duration (G+Y+Rc), s	6.8	31.2		38.1		38.0	17.1	21.0
Change Period (Y+Rc), s	3.0	7.0		7.0		7.0	3.0	7.0
Max Green Setting (Gmax), s	10.0	18.0		45.0		31.0	22.0	20.0
Max Q Clear Time (g_c+I1), s	4.6	22.5		9.7		22.5	13.7	7.3
Green Ext Time (p_c), s	0.0	0.0		1.5		0.9	0.4	1.3

Intersection Summary		
HCM 2010 Ctrl Delay		21.2
HCM 2010 LOS		C