
Appendix G – No-Build 2040 Synchro and Sim Traffic Reports

Intersection						
Int Delay, s/veh	25.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	Y		Y	↑↑	↑↑	Y
Traffic Vol, veh/h	21	124	121	1469	1444	42
Future Vol, veh/h	21	124	121	1469	1444	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	97	97	92	92
Heavy Vehicles, %	0	5	4	6	6	7
Mvmt Flow	23	135	125	1514	1570	46

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2577	785	1616	0	-	0
Stage 1	1570	-	-	-	-	-
Stage 2	1007	-	-	-	-	-
Critical Hdwy	6.8	7	4.18	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.35	2.24	-	-	-
Pot Cap-1 Maneuver	~ 22	329	390	-	-	-
Stage 1	160	-	-	-	-	-
Stage 2	318	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 15	329	390	-	-	-
Mov Cap-2 Maneuver	~ 15	-	-	-	-	-
Stage 1	109	-	-	-	-	-
Stage 2	318	-	-	-	-	-

















Approach	EB	NB	SB
HCM Control Delay, s	\$ 541	1.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	390	-	82	-	-
HCM Lane V/C Ratio	0.32	-	1.922	-	-
HCM Control Delay (s)	18.5	-	\$ 541	-	-
HCM Lane LOS	C	-	F	-	-
HCM 95th %tile Q(veh)	1.4	-	13.8	-	-

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

Lanes, Volumes, Timings
2: US 17 & S Causeway Rd

2040 No-Build - MD Peak

							
Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations				 		 	 
Traffic Volume (vph)	183	139	2	1584	141	121	1634
Future Volume (vph)	183	139	2	1584	141	121	1634
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	75	0		0	250	
Storage Lanes	1	1	0		1	1	
Taper Length (ft)	100		100			100	
Satd. Flow (prot)	1752	1495	0	3438	1583	1736	3406
Flt Permitted	0.950			0.953		0.106	
Satd. Flow (perm)	1752	1495	0	3277	1583	194	3406
Right Turn on Red		Yes			Yes		
Satd. Flow (RTOR)		46			28		
Link Speed (mph)	40			45			45
Link Distance (ft)	582			691			1150
Travel Time (s)	9.9			10.5			17.4
Peak Hour Factor	0.90	0.90	0.97	0.97	0.97	0.94	0.94
Heavy Vehicles (%)	3%	8%	0%	5%	2%	4%	6%
Shared Lane Traffic (%)							
Lane Group Flow (vph)	203	154	0	1635	145	129	1738
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	Left	Left
Median Width(ft)	12			16			16
Link Offset(ft)	0			0			0
Crosswalk Width(ft)	16			16			16
Two way Left Turn Lane				Yes			
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	15	
Turn Type	Prot	Free	Perm	NA	Free	pm+pt	NA
Protected Phases	4			6		5	2
Permitted Phases		Free	6		Free	2	
Detector Phase	4		6	6		5	2
Switch Phase							
Minimum Initial (s)	8.0		15.0	15.0		6.0	15.0
Minimum Split (s)	34.0		22.0	22.0		15.0	22.0
Total Split (s)	51.0		168.0	168.0		21.0	189.0
Total Split (%)	21.3%		70.0%	70.0%		8.8%	78.8%
Yellow Time (s)	3.6		5.0	5.0		3.6	5.0
All-Red Time (s)	2.3		1.5	1.5		2.3	1.5
Lost Time Adjust (s)	0.0			0.0		0.0	0.0
Total Lost Time (s)	5.9			6.5		5.9	6.5
Lead/Lag			Lag	Lag		Lead	
Lead-Lag Optimize?							
Recall Mode	None		C-Min	C-Min		None	C-Min
Act Effect Green (s)	33.1	240.0		178.8	240.0	195.1	194.5
Actuated g/C Ratio	0.14	1.00		0.74	1.00	0.81	0.81
v/c Ratio	0.84	0.10		0.67	0.09	0.59	0.63
Control Delay	128.6	0.1		18.4	0.1	16.1	4.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	128.6	0.1		18.4	0.1	16.1	4.2

Lanes, Volumes, Timings
2: US 17 & S Causeway Rd

2040 No-Build - MD Peak



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
LOS	F	A		B	A	B	A
Approach Delay	73.2			16.9			5.0
Approach LOS	E			B			A
Stops (vph)	177	0		800	0	24	385
Fuel Used(gal)	7	1		23	1	4	57
CO Emissions (g/hr)	507	39		1608	44	314	4011
NOx Emissions (g/hr)	99	8		313	9	61	780
VOC Emissions (g/hr)	117	9		373	10	73	930
Dilemma Vehicles (#)	0	0		33	0	0	21
Queue Length 50th (ft)	320	0		650	0	3	23
Queue Length 95th (ft)	415	0		904	0	m17	390
Internal Link Dist (ft)	502			611			1070
Turn Bay Length (ft)		75				250	
Base Capacity (vph)	329	1495		2441	1583	254	2760
Starvation Cap Reductn	0	0		0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0
Reduced v/c Ratio	0.62	0.10		0.67	0.09	0.51	0.63

Intersection Summary

Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 140 (58%), Referenced to phase 2:SBTL and 6:NBTU, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 16.4
 Intersection LOS: B
 Intersection Capacity Utilization 114.9%
 ICU Level of Service H
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 17 & S Causeway Rd



Lanes, Volumes, Timings
3: US 17 & Petigru Dr/Alston Rd

2040 No-Build - MD Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	158	20	244	15	38	35	3	159	1842	26	2	45
Future Volume (vph)	158	20	244	15	38	35	3	159	1842	26	2	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0		150		0		150
Storage Lanes	0		1	0		0		1		0		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	0	1804	1599	0	1753	0	0	1770	3434	0	0	1647
Flt Permitted		0.561			0.769			0.025				0.068
Satd. Flow (perm)	0	1057	1599	0	1361	0	0	47	3434	0	0	118
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			147		13				2			
Link Speed (mph)		35			30				45			
Link Distance (ft)		451			511				3678			
Travel Time (s)		8.8			11.6				55.7			
Peak Hour Factor	0.84	0.84	0.84	0.73	0.73	0.73	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	0%	1%	0%	0%	4%	0%	2%	5%	0%	0%	10%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	212	290	0	121	0	0	172	1988	0	0	50
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		0			0				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	pm+pt	NA		Perm	Perm
Protected Phases		8			4		1	1	6			
Permitted Phases	8		8	4			6	6			2	2
Detector Phase	8	8	8	4	4		1	1	6		2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0	15.0		15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	39.0	39.0		17.0	17.0	29.0		30.0	30.0
Total Split (s)	59.0	59.0	59.0	59.0	59.0		28.0	28.0	181.0		153.0	153.0
Total Split (%)	24.6%	24.6%	24.6%	24.6%	24.6%		11.7%	11.7%	75.4%		63.8%	63.8%
Yellow Time (s)	3.2	3.2	3.2	3.2	3.2		4.3	4.3	4.3		4.3	4.3
All-Red Time (s)	2.6	2.6	2.6	2.6	2.6		2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0			0.0	0.0			0.0
Total Lost Time (s)		5.8	5.8		5.8			6.3	6.3			6.3
Lead/Lag							Lead	Lead			Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None	C-Min		C-Min	C-Min
Act Effect Green (s)		49.9	49.9		49.9			178.0	178.0			150.8
Actuated g/C Ratio		0.21	0.21		0.21			0.74	0.74			0.63
v/c Ratio		0.97	0.65		0.41			0.93	0.78			0.68
Control Delay		143.6	48.3		77.0			119.0	30.3			18.9
Queue Delay		0.0	0.0		0.0			0.0	0.0			0.0
Total Delay		143.6	48.3		77.0			119.0	30.3			18.9

Lanes, Volumes, Timings
 3: US 17 & Petigru Dr/Alston Rd

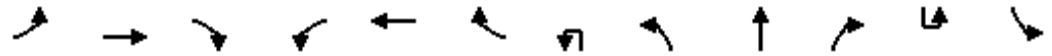
2040 No-Build - MD Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	1861	77
Future Volume (vph)	1861	77
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		375
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	3438	1583
Flt Permitted		
Satd. Flow (perm)	3438	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		41
Link Speed (mph)	45	
Link Distance (ft)	1754	
Travel Time (s)	26.6	
Peak Hour Factor	0.94	0.94
Heavy Vehicles (%)	5%	2%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1980	82
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	30.0	30.0
Total Split (s)	153.0	153.0
Total Split (%)	63.8%	63.8%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.3	6.3
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Min	C-Min
Act Effct Green (s)	150.8	150.8
Actuated g/C Ratio	0.63	0.63
v/c Ratio	0.92	0.08
Control Delay	13.3	2.0
Queue Delay	0.3	0.0
Total Delay	13.6	2.0

Lanes, Volumes, Timings
 3: US 17 & Petigru Dr/Alston Rd

2040 No-Build - MD Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS		F	D		E			F	C			B
Approach Delay		88.5			77.0				37.4			
Approach LOS		F			E				D			
Stops (vph)		164	114		67			166	1469			15
Fuel Used(gal)		7	4		2			11	88			1
CO Emissions (g/hr)		491	283		147			774	6178			63
NOx Emissions (g/hr)		95	55		29			151	1202			12
VOC Emissions (g/hr)		114	66		34			179	1432			15
Dilemma Vehicles (#)		3	0		0			0	21			0
Queue Length 50th (ft)		333	212		148			226	1583			14
Queue Length 95th (ft)		#455	289		176			#391	1695			m14
Internal Link Dist (ft)		371			431				3598			
Turn Bay Length (ft)			125					150				150
Base Capacity (vph)		234	468		311			190	2547			74
Starvation Cap Reductn		0	0		0			0	0			0
Spillback Cap Reductn		0	0		0			0	0			0
Storage Cap Reductn		0	0		0			0	0			0
Reduced v/c Ratio		0.91	0.62		0.39			0.91	0.78			0.68

Intersection Summary

Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 16 (7%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 33.2
 Intersection LOS: C
 Intersection Capacity Utilization 104.0%
 ICU Level of Service G
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: US 17 & Petigru Dr/Alston Rd



Lanes, Volumes, Timings
 3: US 17 & Petigru Dr/Alston Rd























2040 No-Build - MD Peak



Lane Group	SBT	SBR
LOS	B	A
Approach Delay	13.3	
Approach LOS	B	
Stops (vph)	640	3
Fuel Used(gal)	34	1
CO Emissions (g/hr)	2390	66
NOx Emissions (g/hr)	465	13
VOC Emissions (g/hr)	554	15
Dilemma Vehicles (#)	51	0
Queue Length 50th (ft)	296	3
Queue Length 95th (ft)	m277	m2
Internal Link Dist (ft)	1674	
Turn Bay Length (ft)		375
Base Capacity (vph)	2160	1010
Starvation Cap Reductn	21	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.93	0.08
Intersection Summary		

Lanes, Volumes, Timings
4: US 17 & Waverly Rd/N Causeway Rd

2040 No-Build - MD Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	214	82	189	120	79	185	133	1807	123	176	1922	130
Future Volume (vph)	214	82	189	120	79	185	133	1807	123	176	1922	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		225	200		300	200		200
Storage Lanes	1		0	0		1	1		1	1		1
Taper Length (ft)	100			100			100			100		
Satd. Flow (prot)	1770	1677	0	0	1845	1425	1687	3471	1538	1805	3438	1583
Flt Permitted	0.431				0.389		0.032			0.031		
Satd. Flow (perm)	803	1677	0	0	739	1425	57	3471	1538	59	3438	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		50				119			53			50
Link Speed (mph)		35			25			45			45	
Link Distance (ft)		804			625			1754			843	
Travel Time (s)		15.7			17.0			26.6			12.8	
Peak Hour Factor	0.81	0.81	0.81	0.77	0.77	0.77	0.93	0.93	0.93	0.95	0.95	0.95
Heavy Vehicles (%)	2%	0%	2%	0%	0%	2%	7%	4%	5%	0%	5%	2%
Parking (#/hr)						0						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	334	0	0	259	240	143	1943	132	185	2023	137
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.14	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2		2	6		6
Detector Phase	4	4		8	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	25.0	25.0	10.0	25.0	25.0
Minimum Split (s)	47.0	47.0		46.0	46.0	46.0	17.0	32.0	32.0	17.0	34.0	34.0
Total Split (s)	83.0	83.0		83.0	83.0	83.0	21.0	133.0	133.0	24.0	136.0	136.0
Total Split (%)	34.6%	34.6%		34.6%	34.6%	34.6%	8.8%	55.4%	55.4%	10.0%	56.7%	56.7%
Yellow Time (s)	4.4	4.4		4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.3	3.3		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.7	7.7			6.4	6.4	6.3	6.3	6.3	6.3	6.3	6.3
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	75.3	75.3		76.6	76.6	76.6	141.4	126.7	126.7	147.4	129.7	129.7
Actuated g/C Ratio	0.31	0.31		0.32	0.32	0.32	0.59	0.53	0.53	0.61	0.54	0.54
v/c Ratio	1.05	0.60		1.10	0.45	1.08	1.06	0.16	0.16	1.12	1.09	0.16
Control Delay	145.1	63.5		158.7	34.3	163.9	77.4	10.5	10.5	160.5	68.6	3.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0

Lanes, Volumes, Timings
 4: US 17 & Waverly Rd/N Causeway Rd

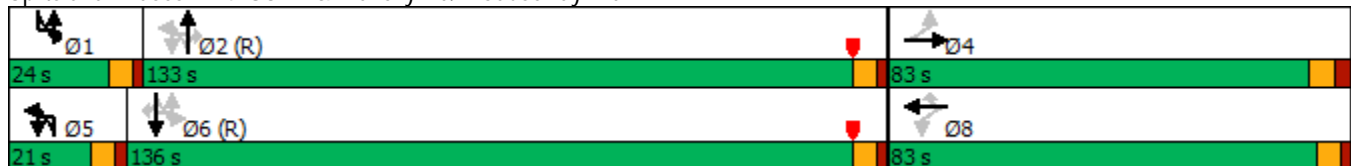
2040 No-Build - MD Peak

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	145.1	63.5			158.7	34.3	163.9	77.4	10.5	160.5	73.1	3.3
LOS	F	E			F	C	F	E	B	F	E	A
Approach Delay		99.5			98.8			79.0			75.9	
Approach LOS		F			F			E			E	
Stops (vph)	184	196			167	76	99	1541	30	114	1666	21
Fuel Used(gal)	9	7			8	3	7	68	2	16	145	7
CO Emissions (g/hr)	625	458			568	179	502	4769	142	1122	10105	483
NOx Emissions (g/hr)	122	89			111	35	98	928	28	218	1966	94
VOC Emissions (g/hr)	145	106			132	42	116	1105	33	260	2342	112
Dilemma Vehicles (#)	0	6			0	0	0	52	0	0	33	0
Queue Length 50th (ft)	~453	388			~463	153	~200	~1760	5	~282	~1891	31
Queue Length 95th (ft)	#564	441			#528	184	m#330	#1866	m39	m#307	#1974	m32
Internal Link Dist (ft)		724			545			1674			763	
Turn Bay Length (ft)	125					225	200		300	200		200
Base Capacity (vph)	251	560			235	535	133	1832	836	165	1857	878
Starvation Cap Reductn	0	0			0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0			0	0	0	0	0	0	22	0
Storage Cap Reductn	0	0			0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.60			1.10	0.45	1.08	1.06	0.16	1.12	1.10	0.16

Intersection Summary




















Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 232 (97%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.12
 Intersection Signal Delay: 81.6 Intersection LOS: F
 Intersection Capacity Utilization 110.4% ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: US 17 & Waverly Rd/N Causeway Rd



Lanes, Volumes, Timings
5: US 17 & Martin Luther King Rd/Brown Ln

2040 No-Build - MD Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	215	2	55	3	0	3	3	20	2095	2	5	0
Future Volume (vph)	215	2	55	3	0	3	3	20	2095	2	5	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0		175		175		200
Storage Lanes	0		1	0		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	0	1758	1615	0	1728	0	0	1805	3471	1615	0	1805
Flt Permitted		0.715			0.747			0.023				0.034
Satd. Flow (perm)	0	1319	1615	0	1323	0	0	44	3471	1615	0	65
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			48		48					45		
Link Speed (mph)		40			25				45			
Link Distance (ft)		698			290				6933			
Travel Time (s)		11.9			7.9				105.0			
Peak Hour Factor	0.84	0.84	0.84	0.33	0.33	0.33	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	3%	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	258	65	0	18	0	0	24	2160	2	0	5
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		0			0				16			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8		8	4			6	6		6	2	2
Detector Phase	8	8	8	4	4		1	1	6	6	5	5
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0	15.0	15.0	10.0	10.0
Minimum Split (s)	44.0	44.0	44.0	23.0	23.0		17.0	17.0	23.0	23.0	17.0	17.0
Total Split (s)	52.0	52.0	52.0	52.0	52.0		17.0	17.0	171.0	171.0	17.0	17.0
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%		7.1%	7.1%	71.3%	71.3%	7.1%	7.1%
Yellow Time (s)	4.4	4.4	4.4	3.0	3.0		4.4	4.4	5.2	5.2	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)		6.4	6.4		5.0			6.4	7.2	7.2		6.4
Lead/Lag							Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None	C-Min	C-Min	None	None
Act Effect Green (s)		45.6	45.6		47.0				180.3	177.5		176.5
Actuated g/C Ratio		0.19	0.19		0.20				0.75	0.74		0.74
v/c Ratio		1.03	0.19		0.06				0.23	0.84		0.04
Control Delay		154.6	28.1		0.3				27.3	9.4		7.8
Queue Delay		0.0	0.0		0.0				0.0	0.0		0.0
Total Delay		154.6	28.1		0.3				27.3	9.4		7.8

Lanes, Volumes, Timings
 5: US 17 & Martin Luther King Rd/Brown Ln

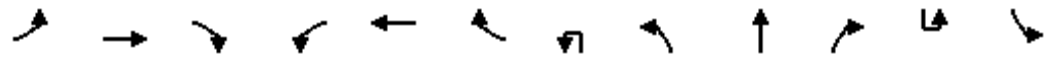
2040 No-Build - MD Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2260	173
Future Volume (vph)	2260	173
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3438	1553
Flt Permitted		
Satd. Flow (perm)	3438	1553
Right Turn on Red		Yes
Satd. Flow (RTOR)		48
Link Speed (mph)	45	
Link Distance (ft)	6080	
Travel Time (s)	92.1	
Peak Hour Factor	0.97	0.97
Heavy Vehicles (%)	5%	4%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2330	178
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	35.0	35.0
Total Split (s)	171.0	171.0
Total Split (%)	71.3%	71.3%
Yellow Time (s)	5.2	5.2
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.2	7.2
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Min	C-Min
Act Effct Green (s)	167.7	167.7
Actuated g/C Ratio	0.70	0.70
v/c Ratio	0.97	0.16
Control Delay	46.6	9.6
Queue Delay	0.0	0.0
Total Delay	46.6	9.6

Lanes, Volumes, Timings
 5: US 17 & Martin Luther King Rd/Brown Ln

2040 No-Build - MD Peak

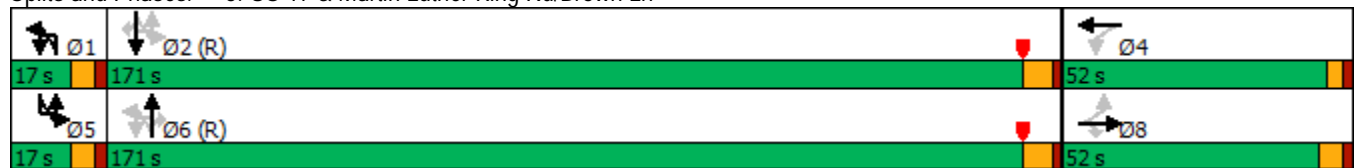


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS		F	C		A			C	A	A		A
Approach Delay		129.1			0.3				9.6			
Approach LOS		F			A				A			
Stops (vph)		190	15		0			11	388	0		1
Fuel Used(gal)		10	1		0			1	115	0		0
CO Emissions (g/hr)		680	51		1			100	8011	7		15
NOx Emissions (g/hr)		132	10		0			19	1559	1		3
VOC Emissions (g/hr)		158	12		0			23	1857	2		4
Dilemma Vehicles (#)		4	0		0			0	25	0		0
Queue Length 50th (ft)		-435	22		0			5	329	0		2
Queue Length 95th (ft)		#579	66		0			m6	m332	m0		6
Internal Link Dist (ft)		618			210				6853			
Turn Bay Length (ft)			150					175		175		200
Base Capacity (vph)		250	345		297			111	2567	1206		124
Starvation Cap Reductn		0	0		0			0	0	0		0
Spillback Cap Reductn		0	0		0			0	0	0		0
Storage Cap Reductn		0	0		0			0	0	0		0
Reduced v/c Ratio		1.03	0.19		0.06			0.22	0.84	0.00		0.04

Intersection Summary

Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 116 (48%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 34.3
 Intersection LOS: C
 Intersection Capacity Utilization 94.6%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: US 17 & Martin Luther King Rd/Brown Ln

























Lane Group	SBT	SBR
LOS	D	A
Approach Delay	43.9	
Approach LOS	D	
Stops (vph)	1925	43
Fuel Used(gal)	135	8
CO Emissions (g/hr)	9406	538
NOx Emissions (g/hr)	1830	105
VOC Emissions (g/hr)	2180	125
Dilemma Vehicles (#)	46	0
Queue Length 50th (ft)	1840	69
Queue Length 95th (ft)	#2004	105
Internal Link Dist (ft)	6000	
Turn Bay Length (ft)		150
Base Capacity (vph)	2402	1099
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.97	0.16
Intersection Summary		

Lanes, Volumes, Timings
6: US 17 & Driveway/Litchfield Dr

2040 No-Build - MD Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	12	8	21	176	6	136	11	2123	156	5	141	2228
Future Volume (vph)	12	8	21	176	6	136	11	2123	156	5	141	2228
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		200	0		175		200	
Storage Lanes	1		0	0		1	0		1		1	
Taper Length (ft)	100			100			100				100	
Satd. Flow (prot)	1805	1613	0	0	1713	1583	0	3472	1583	0	1771	3438
Flt Permitted	0.430				0.702			0.758			0.043	
Satd. Flow (perm)	817	1613	0	0	1261	1583	0	2632	1583	0	80	3438
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		7				158			68			
Link Speed (mph)		25			25			45				45
Link Distance (ft)		264			791			6080				400
Travel Time (s)		7.2			21.6			92.1				6.1
Peak Hour Factor	0.68	0.68	0.68	0.86	0.86	0.86	0.99	0.99	0.99	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	7%	6%	0%	2%	0%	4%	2%	0%	2%	5%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	43	0	0	212	158	0	2155	158	0	160	2448
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			36				36
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA	Perm	pm+pt	pm+pt	NA
Protected Phases		4			8			2		1	1	6
Permitted Phases	4			8		Free	2		2	6	6	
Detector Phase	4	4		8	8		2	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		15.0	15.0	15.0	8.0	8.0	15.0
Minimum Split (s)	43.0	43.0		15.0	15.0		21.0	21.0	21.0	15.0	15.0	21.0
Total Split (s)	43.0	43.0		43.0	43.0		92.0	92.0	92.0	15.0	15.0	107.0
Total Split (%)	28.7%	28.7%		28.7%	28.7%		61.3%	61.3%	61.3%	10.0%	10.0%	71.3%
Yellow Time (s)	3.2	3.2		3.2	3.2		4.3	4.3	4.3	3.6	3.6	4.3
All-Red Time (s)	3.2	3.2		3.2	3.2		1.5	1.5	1.5	2.3	2.3	1.5
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.4	6.4			6.4			5.8	5.8		5.9	5.8
Lead/Lag							Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Min	Min	Min	None	None	Min
Act Effect Green (s)	28.0	28.0		28.0	141.7		86.4	86.4	86.4		101.3	101.5
Actuated g/C Ratio	0.20	0.20		0.20	1.00		0.61	0.61	0.61		0.71	0.72
v/c Ratio	0.11	0.13		0.85	0.10		1.34	0.16	0.16		0.97	0.99
Control Delay	47.0	40.3		83.8	0.1		185.2	7.9	7.9		98.1	37.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	47.0	40.3		83.8	0.1		185.2	7.9	7.9		98.1	37.7

Lanes, Volumes, Timings
 6: US 17 & Driveway/Litchfield Dr

2040 No-Build - MD Peak

Lane Group	SBR
Lane Configurations	7
Traffic Volume (vph)	26
Future Volume (vph)	26
Ideal Flow (vphpl)	1900
Storage Length (ft)	75
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	1615
Flt Permitted	
Satd. Flow (perm)	1615
Right Turn on Red	Yes
Satd. Flow (RTOR)	25
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.91
Heavy Vehicles (%)	0%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	29
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	21.0
Total Split (s)	107.0
Total Split (%)	71.3%
Yellow Time (s)	4.3
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.8
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Min
Act Effct Green (s)	101.5
Actuated g/C Ratio	0.72
v/c Ratio	0.02
Control Delay	3.1
Queue Delay	0.0
Total Delay	3.1

Lanes, Volumes, Timings
6: US 17 & Driveway/Litchfield Dr

2040 No-Build - MD Peak

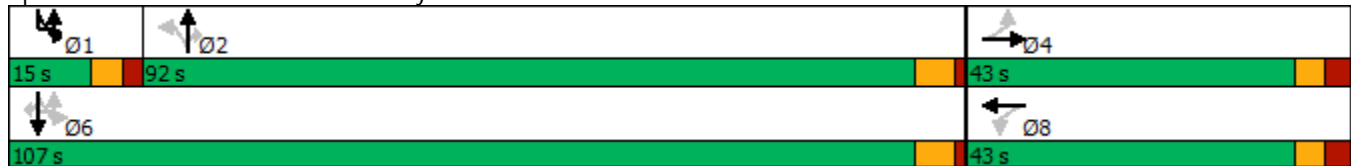


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
LOS	D	D			F	A		F	A		F	D
Approach Delay		42.3			48.1			173.1				41.0
Approach LOS		D			D			F				D
Stops (vph)	11	20			173	0		1615	38		75	1745
Fuel Used(gal)	0	0			5	1		185	7		4	45
CO Emissions (g/hr)	13	27			349	64		12910	481		296	3117
NOx Emissions (g/hr)	3	5			68	13		2512	94		58	606
VOC Emissions (g/hr)	3	6			81	15		2992	111		69	722
Dilemma Vehicles (#)	0	0			0	0		56	0		0	74
Queue Length 50th (ft)	14	28			190	0		~1373	33		99	~1096
Queue Length 95th (ft)	27	45			272	0		#1622	74		#271	#1496
Internal Link Dist (ft)		184			711			6000				320
Turn Bay Length (ft)						200			175		200	
Base Capacity (vph)	211	422			326	1583		1605	991		165	2461
Starvation Cap Reductn	0	0			0	0		0	0		0	0
Spillback Cap Reductn	0	0			0	0		0	0		0	0
Storage Cap Reductn	0	0			0	0		0	0		0	0
Reduced v/c Ratio	0.09	0.10			0.65	0.10		1.34	0.16		0.97	0.99

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 141.7
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.34
 Intersection Signal Delay: 98.3
 Intersection LOS: F
 Intersection Capacity Utilization 148.2%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Driveway/Litchfield Dr





Lane Group	SBR
LOS	A
Approach Delay	
Approach LOS	
Stops (vph)	3
Fuel Used(gal)	0
CO Emissions (g/hr)	8
NOx Emissions (g/hr)	2
VOC Emissions (g/hr)	2
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	1
Queue Length 95th (ft)	12
Internal Link Dist (ft)	
Turn Bay Length (ft)	75
Base Capacity (vph)	1163
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.02
Intersection Summary	

Intersection

Int Delay, s/veh 217.1

Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗		↘	↑↑↑	↙	↗
Traffic Vol, veh/h	62	82	3	50	2236	2310	85
Future Vol, veh/h	62	82	3	50	2236	2310	85
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	25	-	50	-	-	100
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	77	77	95	95	95	91	91
Heavy Vehicles, %	0	0	0	3	4	5	2
Mvmt Flow	81	106	3	53	2354	2538	93

Major/Minor	Minor2	Major1			Major2		
Conflicting Flow All	3592	1269	2538	2631	0	-	0
Stage 1	2538	-	-	-	-	-	-
Stage 2	1054	-	-	-	-	-	-
Critical Hdwy	6.25	6.9	6.4	4.16	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-	-
Follow-up Hdwy	3.65	3.3	2.5	2.23	-	-	-
Pot Cap-1 Maneuver	~ 7	162	34	156	-	-	-
Stage 1	~ 46	-	-	-	-	-	-
Stage 2	277	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	~ 3	162	107	107	-	-	-
Mov Cap-2 Maneuver	~ 3	-	-	-	-	-	-
Stage 1	~ 22	-	-	-	-	-	-
Stage 2	277	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, \$6049.5		1.6	0
HCM LOS	F		






















Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	107	-	3	162	-	-
HCM Lane V/C Ratio	0.521	-	26.84	0.657	-	-
HCM Control Delay (s)	71	\$ 13968.5	62	-	-	-
HCM Lane LOS	F	-	F	F	-	-
HCM 95th %tile Q(veh)	2.4	-	12.2	3.7	-	-

Notes

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

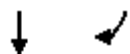
Lanes, Volumes, Timings
8: US 17 & Willbrook Blvd/Retreat Beach Cir

2040 No-Build - MD Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	383	109	274	100	79	38	3	321	1817	52	2	49
Future Volume (vph)	383	109	274	100	79	38	3	321	1817	52	2	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100		325		300		325
Storage Lanes	1		0	1		1		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1770	1661	0	1770	1863	1553	0	1787	3438	1568	0	1754
Flt Permitted	0.432			0.284				0.053				0.058
Satd. Flow (perm)	805	1661	0	529	1863	1553	0	100	3438	1568	0	107
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		77				247				153		
Link Speed (mph)		35			25				45			
Link Distance (ft)		910			323				939			
Travel Time (s)		17.7			8.8				14.2			
Peak Hour Factor	0.89	0.89	0.89	0.83	0.83	0.83	0.93	0.93	0.93	0.93	0.90	0.90
Heavy Vehicles (%)	2%	0%	3%	2%	2%	4%	0%	1%	5%	3%	0%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	430	430	0	120	95	46	0	348	1954	56	0	56
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				24			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	pm+pt	NA		pm+pt	NA	Free	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases	4			8		Free	2	2		2	6	6
Detector Phase	7	4		3	8		5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		6.0	6.0	20.0	20.0	6.0	6.0
Minimum Split (s)	15.0	38.0		14.0	15.0		15.0	15.0	27.0	27.0	15.0	15.0
Total Split (s)	32.0	38.0		14.0	20.0		23.0	23.0	83.0	83.0	15.0	15.0
Total Split (%)	21.3%	25.3%		9.3%	13.3%		15.3%	15.3%	55.3%	55.3%	10.0%	10.0%
Yellow Time (s)	3.6	3.6		3.6	3.6		4.3	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	2.3	2.3		2.3	2.3		2.1	2.1	2.1	2.1	2.1	2.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9			6.4	6.4	6.4		6.4
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None	Min	Min	Min	Min
Act Effect Green (s)	46.1	32.1		22.2	14.1	150.0		91.6	77.5	77.5		76.3
Actuated g/C Ratio	0.31	0.21		0.15	0.09	1.00		0.61	0.52	0.52		0.51
v/c Ratio	1.04	1.04		0.83	0.54	0.03		1.41	1.10	0.06		0.40
Control Delay	100.3	99.9		83.6	77.1	0.0		241.6	89.3	0.1		25.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay	100.3	99.9		83.6	77.1	0.0		241.6	89.3	0.1		25.8

Lanes, Volumes, Timings
 8: US 17 & Willbrook Blvd/Retreat Beach Cir

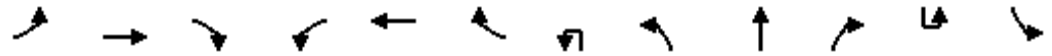
2040 No-Build - MD Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	1873	286
Future Volume (vph)	1873	286
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		225
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3406	1599
Flt Permitted		
Satd. Flow (perm)	3406	1599
Right Turn on Red		Yes
Satd. Flow (RTOR)		247
Link Speed (mph)	45	
Link Distance (ft)	433	
Travel Time (s)	6.6	
Peak Hour Factor	0.90	0.90
Heavy Vehicles (%)	6%	1%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2081	318
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Free
Protected Phases	6	
Permitted Phases		Free
Detector Phase	6	
Switch Phase		
Minimum Initial (s)	20.0	
Minimum Split (s)	27.0	
Total Split (s)	75.0	
Total Split (%)	50.0%	
Yellow Time (s)	4.3	
All-Red Time (s)	2.1	
Lost Time Adjust (s)	0.0	
Total Lost Time (s)	6.4	
Lead/Lag	Lag	
Lead-Lag Optimize?		
Recall Mode	Max	
Act Effct Green (s)	68.6	150.0
Actuated g/C Ratio	0.46	1.00
v/c Ratio	1.34	0.20
Control Delay	190.0	0.3
Queue Delay	0.0	0.0
Total Delay	190.0	0.3

Lanes, Volumes, Timings
 8: US 17 & Willbrook Blvd/Retreat Beach Cir

2040 No-Build - MD Peak

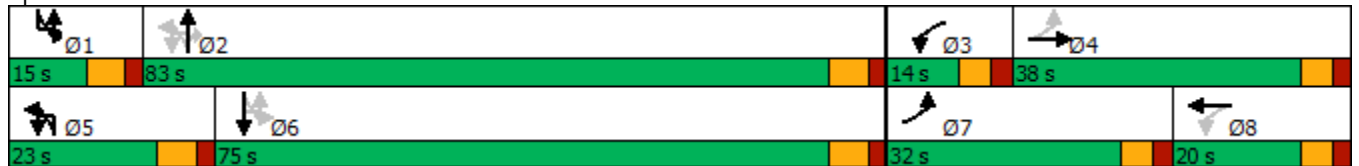


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	F		F	E	A		F	F	A		C
Approach Delay		100.1			66.5				109.7			
Approach LOS		F			E				F			
Stops (vph)	303	280		86	75	0		196	1569	0		24
Fuel Used(gal)	13	12		2	2	0		28	108	2		2
CO Emissions (g/hr)	882	867		161	122	7		1977	7560	111		110
NOx Emissions (g/hr)	172	169		31	24	1		385	1471	22		21
VOC Emissions (g/hr)	204	201		37	28	2		458	1752	26		26
Dilemma Vehicles (#)	0	12		0	0	0		0	48	0		0
Queue Length 50th (ft)	~405	~388		88	90	0		~405	~1140	0		21
Queue Length 95th (ft)	#545	#595		#152	141	0		#611	#1282	0		49
Internal Link Dist (ft)		830			243				859			
Turn Bay Length (ft)						100		325		300		325
Base Capacity (vph)	415	415		145	175	1553		247	1775	883		149
Starvation Cap Reductn	0	0		0	0	0		0	0	0		0
Spillback Cap Reductn	0	0		0	0	0		0	0	0		0
Storage Cap Reductn	0	0		0	0	0		0	0	0		0
Reduced v/c Ratio	1.04	1.04		0.83	0.54	0.03		1.41	1.10	0.06		0.38

Intersection Summary

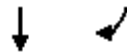
Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.41
 Intersection Signal Delay: 127.9
 Intersection LOS: F
 Intersection Capacity Utilization 119.5%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 8: US 17 & Willbrook Blvd/Retreat Beach Cir



Lanes, Volumes, Timings
 8: US 17 & Willbrook Blvd/Retreat Beach Cir














2040 No-Build - MD Peak



Lane Group	SBT	SBR
LOS	F	A
Approach Delay	161.7	
Approach LOS	F	
Stops (vph)	1441	0
Fuel Used(gal)	128	6
CO Emissions (g/hr)	8981	408
NOx Emissions (g/hr)	1747	79
VOC Emissions (g/hr)	2081	95
Dilemma Vehicles (#)	47	0
Queue Length 50th (ft)	~1390	0
Queue Length 95th (ft)	#1521	0
Internal Link Dist (ft)	353	
Turn Bay Length (ft)		225
Base Capacity (vph)	1557	1599
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.34	0.20
Intersection Summary		

Lanes, Volumes, Timings
9: US 17 & N Boyle Rd

2040 No-Build - MD Peak

							
Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	164	52	2176	185	15	33	2020
Future Volume (vph)	164	52	2176	185	15	33	2020
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75	0		300		200	
Storage Lanes	1	1		1		1	
Taper Length (ft)	100					100	
Satd. Flow (prot)	1752	1568	3438	1568	0	1701	3438
Flt Permitted	0.950					0.046	
Satd. Flow (perm)	1752	1568	3438	1568	0	82	3438
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		58		190			
Link Speed (mph)	25		45				45
Link Distance (ft)	607		2702				2343
Travel Time (s)	16.6		40.9				35.5
Peak Hour Factor	0.89	0.89	0.93	0.93	0.96	0.96	0.96
Heavy Vehicles (%)	3%	3%	5%	3%	0%	9%	5%
Shared Lane Traffic (%)							
Lane Group Flow (vph)	184	58	2340	199	0	50	2104
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		24				24
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Turn Type	Prot	Perm	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	8		2		1	1	6
Permitted Phases		8		2	6	6	
Detector Phase	8	8	2	2	1	1	6
Switch Phase							
Minimum Initial (s)	8.0	8.0	24.0	24.0	6.0	6.0	24.0
Minimum Split (s)	15.0	15.0	30.0	30.0	15.0	15.0	30.0
Total Split (s)	19.0	19.0	86.0	86.0	15.0	15.0	101.0
Total Split (%)	15.8%	15.8%	71.7%	71.7%	12.5%	12.5%	84.2%
Yellow Time (s)	3.0	3.0	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.3	3.3	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3	5.7	5.7		5.7	5.7
Lead/Lag			Lag	Lag	Lead	Lead	
Lead-Lag Optimize?							
Recall Mode	None	None	Min	Min	None	None	Min
Act Effect Green (s)	12.7	12.7	80.8	80.8		90.4	90.4
Actuated g/C Ratio	0.11	0.11	0.70	0.70		0.78	0.78
v/c Ratio	0.95	0.26	0.97	0.17		0.32	0.78
Control Delay	106.0	15.6	30.3	1.4		11.8	9.4
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	106.0	15.6	30.3	1.4		11.8	9.4

Lanes, Volumes, Timings
9: US 17 & N Boyle Rd

2040 No-Build - MD Peak



Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
LOS	F	B	C	A		B	A
Approach Delay	84.3		28.1				9.4
Approach LOS	F		C				A
Stops (vph)	138	13	1716	10		12	1022
Fuel Used(gal)	5	0	79	4		1	47
CO Emissions (g/hr)	344	34	5527	276		70	3306
NOx Emissions (g/hr)	67	7	1075	54		14	643
VOC Emissions (g/hr)	80	8	1281	64		16	766
Dilemma Vehicles (#)	0	0	87	0		0	74
Queue Length 50th (ft)	140	0	820	2		7	371
Queue Length 95th (ft)	#289	40	#1126	25		28	454
Internal Link Dist (ft)	527		2622				2263
Turn Bay Length (ft)	75			300		200	
Base Capacity (vph)	193	224	2410	1156		195	2851
Starvation Cap Reductn	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0		0	0
Reduced v/c Ratio	0.95	0.26	0.97	0.17		0.26	0.74

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 115.2
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 22.7
 Intersection LOS: C
 Intersection Capacity Utilization 85.3%
 ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 9: US 17 & N Boyle Rd



Intersection														
Int Delay, s/veh	0.5													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↖	↗			↖	↗	↗
Traffic Vol, veh/h	44	5	12	12	5	44	5	3	2116	23	3	49	2060	82
Future Vol, veh/h	44	5	12	12	5	44	5	3	2116	23	3	49	2060	82
Conflicting Peds, #/hr	0	0	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	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	-	None
Storage Length	300	-	0	-	-	-	-	250	-	-	-	250	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	83	83	83	71	71	71	95	95	95	95	93	93	93	93
Heavy Vehicles, %	3	0	25	0	0	0	0	50	5	0	0	6	5	2
Mvmt Flow	53	6	14	17	7	62	5	3	2227	24	3	53	2215	88

Major/Minor	Minor2		Minor1		Major1			Major2						
Conflicting Flow All	3460	4594	1108	3478	4670	1126	2215	2303	0	0	2252	2251	0	0
Stage 1	2327	2327	-	2255	2255	-	-	-	-	-	-	-	-	-
Stage 2	1133	2267	-	1223	2415	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.5	7.4	7.5	6.5	6.9	6.4	5.1	-	-	6.4	4.22	-	-
Critical Hdwy Stg 1	6.56	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4	3.55	3.5	4	3.3	2.5	2.7	-	-	2.5	2.26	-	-
Pot Cap-1 Maneuver	~ 3	~ 1	171	~ 3	~ 1	202	55	107	-	-	52	213	-	-
Stage 1	~ 37	72	-	43	78	-	-	-	-	-	-	-	-	-
Stage 2	214	77	-	193	65	-	-	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 1	171	-	~ 1	202	63	63	-	-	171	171	-	-
Mov Cap-2 Maneuver	-	~ 1	-	-	~ 1	-	-	-	-	-	-	-	-	-
Stage 1	~ 32	48	-	38	68	-	-	-	-	-	-	-	-	-
Stage 2	116	67	-	104	44	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					0.3		0.8	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	63	-	-	-	171	-	171	-	-
HCM Lane V/C Ratio	0.134	-	-	-	0.085	-	0.327	-	-
HCM Control Delay (s)	70.2	-	-	-	28	-	35.8	-	-
HCM Lane LOS	F	-	-	-	D	-	E	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.3	-	1.3	-	-

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

Intersection							
Int Delay, s/veh	116.2						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	↑
Traffic Vol, veh/h	29	36	5	33	2457	2105	39
Future Vol, veh/h	29	36	5	33	2457	2105	39
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	325	-	-	500
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	72	72	96	96	96	94	94
Heavy Vehicles, %	0	4	0	9	4	5	0
Mvmt Flow	40	50	5	34	2559	2239	41

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	3597	1120	2239	2280	0	-	0
Stage 1	2239	-	-	-	-	-	-
Stage 2	1358	-	-	-	-	-	-
Critical Hdwy	6.8	6.98	6.4	4.28	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.34	2.5	2.29	-	-	-
Pot Cap-1 Maneuver	~ 4	198	53	198	-	-	-
Stage 1	69	-	-	-	-	-	-
Stage 2	208	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	~ 3	198	134	134	-	-	-
Mov Cap-2 Maneuver	~ 3	-	-	-	-	-	-
Stage 1	48	-	-	-	-	-	-
Stage 2	208	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s\$	6382	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	134	-	7	-	-
HCM Lane V/C Ratio	0.295	-	12.897	-	-
HCM Control Delay (s)	42.6	-	\$ 6382	-	-
HCM Lane LOS	E	-	F	-	-
HCM 95th %tile Q(veh)	1.1	-	13	-	-

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

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑			↑↑				
Traffic Vol, veh/h	0	0	0	0	149	32	0	2187	0	0	0	0
Future Vol, veh/h	0	0	0	0	149	32	0	2187	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	90	90	90	96	96	96	98	98	98
Heavy Vehicles, %	2	2	2	0	1	0	2	4	2	2	2	2
Mvmt Flow	0	0	0	0	166	36	0	2278	0	0	0	0

Major/Minor	Minor1	Major1				
Conflicting Flow All	-	2278	1139	-	0	-
Stage 1	-	2278	-	-	-	-
Stage 2	-	0	-	-	-	-
Critical Hdwy	-	6.52	6.9	-	-	-
Critical Hdwy Stg 1	-	5.52	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.01	3.3	-	-	-
Pot Cap-1 Maneuver	0	~ 40	198	0	-	0
Stage 1	0	~ 75	-	0	-	0
Stage 2	0	-	-	0	-	0
Platoon blocked, %						-
Mov Cap-1 Maneuver	-	0	198	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-
Stage 1	-	0	-	-	-	-
Stage 2	-	0	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	8.9	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 1120
HCM Lane V/C Ratio	- 0.18
HCM Control Delay (s)	- 8.9
HCM Lane LOS	- A
HCM 95th %tile Q(veh)	- 0.7

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

Intersection														
Int Delay, s/veh	3.9													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↑↑	↗		↕	↑↑	↗
Traffic Vol, veh/h	30	0	47	14	8	32	3	30	2239	27	24	65	2055	27
Future Vol, veh/h	30	0	47	14	8	32	3	30	2239	27	24	65	2055	27
Conflicting Peds, #/hr	0	0	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	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	275	-	250	-	200	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	85	85	85	88	88	88	95	95	95	95	97	97	97	97
Heavy Vehicles, %	5	0	0	0	0	5	0	0	4	0	0	5	5	6
Mvmt Flow	35	0	55	16	9	36	3	32	2357	28	25	67	2119	28

Major/Minor	Minor2		Minor1		Major1			Major2						
Conflicting Flow All	3556	4758	1060	3671	4758	1179	2119	2147	0	0	2357	2385	0	0
Stage 1	2303	2303	-	2427	2427	-	-	-	-	-	-	-	-	-
Stage 2	1253	2455	-	1244	2331	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.6	6.5	6.9	7.5	6.5	7	6.4	4.1	-	-	6.4	4.2	-	-
Critical Hdwy Stg 1	6.6	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.6	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.55	4	3.3	3.5	4	3.35	2.5	2.2	-	-	2.5	2.25	-	-
Pot Cap-1 Maneuver	~ 2	1	224	~ 2	~ 1	179	64	255	-	-	44	190	-	-
Stage 1	38	74	-	34	64	-	-	-	-	-	-	-	-	-
Stage 2	178	62	-	188	72	-	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-			-	-
Mov Cap-1 Maneuver	-	0	224	-	0	179	187	187	-	-	88	88	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-	-	-
Stage 1	~ 31	0	-	28	52	-	-	-	-	-	-	-	-	-
Stage 2	95	50	-	-	0	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					0.4		7.9	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	187	-	-	-	88	-	-
HCM Lane V/C Ratio	0.186	-	-	-	1.043	-	-
HCM Control Delay (s)	28.6	-	-	-	193.3	-	-
HCM Lane LOS	D	-	-	-	F	-	-
HCM 95th %tile Q(veh)	0.7	-	-	-	6.1	-	-

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

Intersection						
Int Delay, s/veh	353.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↕↑		↕↑	
Traffic Vol, veh/h	65	18	20	2389	2213	64
Future Vol, veh/h	65	18	20	2389	2213	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	69	69	95	95	95	95
Heavy Vehicles, %	5	8	0	4	5	2
Mvmt Flow	94	26	21	2515	2329	67

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	3663	1198	2396	0	0
Stage 1	2363	-	-	-	-
Stage 2	1300	-	-	-	-
Critical Hdwy	6.9	7.06	4.1	-	-
Critical Hdwy Stg 1	5.9	-	-	-	-
Critical Hdwy Stg 2	5.9	-	-	-	-
Follow-up Hdwy	3.55	3.38	2.2	-	-
Pot Cap-1 Maneuver	~ 3	169	204	-	-
Stage 1	~ 54	-	-	-	-
Stage 2	214	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	~ 3	169	204	-	-
Mov Cap-2 Maneuver	~ 3	-	-	-	-
Stage 1	~ 54	-	-	-	-
Stage 2	214	-	-	-	-





















Approach	EB	NB	SB
HCM Control Delay, s	4860.3	0.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	204	-	4	-	-
HCM Lane V/C Ratio	0.103	-	30.072	-	-
HCM Control Delay (s)	24.7	\$	4860.3	-	-
HCM Lane LOS	C	A	F	-	-
HCM 95th %tile Q(veh)	0.3	-	17.2	-	-

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

Lanes, Volumes, Timings
15: US 17 & Wachesaw Rd

2040 No-Build - MD Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	183	80	194	79	85	82	2	230	2167	65	8	55
Future Volume (vph)	183	80	194	79	85	82	2	230	2167	65	8	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0		225		250		200
Storage Lanes	1		0	1		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1752	1675	0	1736	1726	0	0	1736	3471	1538	0	1759
Flt Permitted	0.481			0.325				0.047				0.050
Satd. Flow (perm)	887	1675	0	594	1726	0	0	86	3471	1538	0	93
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		81			32					65		
Link Speed (mph)		35			30				45			
Link Distance (ft)		703			621				601			
Travel Time (s)		13.7			14.1				9.1			
Peak Hour Factor	0.91	0.91	0.91	0.78	0.78	0.78	0.98	0.98	0.98	0.98	0.95	0.95
Heavy Vehicles (%)	3%	0%	2%	4%	0%	4%	0%	4%	4%	5%	0%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	201	301	0	101	214	0	0	237	2211	66	0	66
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				24			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases		4			8		5	5	2		1	1
Permitted Phases	4			8			2	2		2	6	6
Detector Phase	4	4		8	8		5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	15.0	15.0	8.0	8.0
Minimum Split (s)	49.0	49.0		49.0	49.0		15.0	15.0	21.0	21.0	15.0	15.0
Total Split (s)	49.0	49.0		49.0	49.0		16.0	16.0	86.0	86.0	15.0	15.0
Total Split (%)	32.7%	32.7%		32.7%	32.7%		10.7%	10.7%	57.3%	57.3%	10.0%	10.0%
Yellow Time (s)	3.6	3.6		3.6	3.6		3.2	3.2	4.3	4.3	3.2	3.2
All-Red Time (s)	3.2	3.2		3.2	3.2		2.0	2.0	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8			5.2	6.0	6.0		5.2
Lead/Lag							Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None	Max	Max	None	None
Act Effect Green (s)	34.7	34.7		34.7	34.7			93.7	84.5	84.5		88.6
Actuated g/C Ratio	0.24	0.24		0.24	0.24			0.66	0.59	0.59		0.62
v/c Ratio	0.93	0.64		0.70	0.48			1.31	1.08	0.07		0.42
Control Delay	98.9	41.2		74.8	42.3			207.1	74.4	4.0		24.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Delay	98.9	41.2		74.8	42.3			207.1	74.4	4.0		24.5

Lanes, Volumes, Timings
15: US 17 & Wachesaw Rd

2040 No-Build - MD Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2002	92
Future Volume (vph)	2002	92
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		500
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3438	1538
Flt Permitted		
Satd. Flow (perm)	3438	1538
Right Turn on Red		Yes
Satd. Flow (RTOR)		93
Link Speed (mph)	45	
Link Distance (ft)	2571	
Travel Time (s)	39.0	
Peak Hour Factor	0.95	0.95
Heavy Vehicles (%)	5%	5%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2107	97
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	21.0	21.0
Total Split (s)	85.0	85.0
Total Split (%)	56.7%	56.7%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.7	1.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	79.3	79.3
Actuated g/C Ratio	0.55	0.55
v/c Ratio	1.10	0.11
Control Delay	86.9	3.8
Queue Delay	0.0	0.0
Total Delay	86.9	3.8

Lanes, Volumes, Timings
15: US 17 & Wachesaw Rd

2040 No-Build - MD Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	D		E	D			F	E	A		C
Approach Delay		64.3			52.8				85.0			
Approach LOS		E			D				F			
Stops (vph)	166	178		72	117			123	1677	7		27
Fuel Used(gal)	6	5		2	3			12	62	0		2
CO Emissions (g/hr)	410	351		139	202			854	4342	27		119
NOx Emissions (g/hr)	80	68		27	39			166	845	5		23
VOC Emissions (g/hr)	95	81		32	47			198	1006	6		28
Dilemma Vehicles (#)	0	8		0	0			0	55	0		0
Queue Length 50th (ft)	184	186		86	145			-245	-1286	0		21
Queue Length 95th (ft)	#323	289		132	187			#441	#1500	24		63
Internal Link Dist (ft)		623			541				521			
Turn Bay Length (ft)	150			150				225		250		200
Base Capacity (vph)	262	553		176	533			181	2051	935		173
Starvation Cap Reductn	0	0		0	0			0	0	0		0
Spillback Cap Reductn	0	0		0	0			0	0	0		0
Storage Cap Reductn	0	0		0	0			0	0	0		0
Reduced v/c Ratio	0.77	0.54		0.57	0.40			1.31	1.08	0.07		0.38

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 142.9
 Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.31
 Intersection Signal Delay: 80.0
 Intersection LOS: E
 Intersection Capacity Utilization 111.7%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 15: US 17 & Wachesaw Rd



Lanes, Volumes, Timings
 15: US 17 & Wachesaw Rd

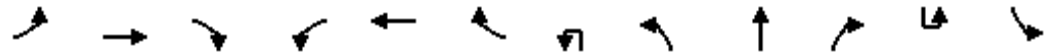
2040 No-Build - MD Peak



Lane Group	SBT	SBR
LOS	F	A
Approach Delay	81.6	
Approach LOS	F	
Stops (vph)	1653	9
Fuel Used(gal)	89	2
CO Emissions (g/hr)	6250	120
NOx Emissions (g/hr)	1216	23
VOC Emissions (g/hr)	1448	28
Dilemma Vehicles (#)	62	0
Queue Length 50th (ft)	~1222	2
Queue Length 95th (ft)	#1413	31
Internal Link Dist (ft)	2491	
Turn Bay Length (ft)		500
Base Capacity (vph)	1907	894
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.10	0.11
Intersection Summary		

Lanes, Volumes, Timings
16: US 17 & Bellamy Ave

2040 No-Build - MD Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	256	99	88	52	77	91	3	62	2161	95	2	136
Future Volume (vph)	256	99	88	52	77	91	3	62	2161	95	2	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0		250		300		250
Storage Lanes	1		0	1		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1770	1695	0	1805	1746	0	0	1733	3610	1615	0	1805
Flt Permitted	0.174			0.403				0.034				0.034
Satd. Flow (perm)	324	1695	0	766	1746	0	0	62	3610	1615	0	65
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		21			27					87		
Link Speed (mph)		35			35				45			
Link Distance (ft)		700			738				2571			
Travel Time (s)		13.6			14.4				39.0			
Peak Hour Factor	0.87	0.87	0.87	0.77	0.77	0.77	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	0%	9%	0%	0%	0%	7%	4%	0%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	294	215	0	68	218	0	0	68	2251	99	0	144
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				24			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases	4			8			2	2		2	6	6
Detector Phase	7	4		3	8		5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	8.0		6.0	6.0	18.0	18.0	6.0	6.0
Minimum Split (s)	15.0	36.0		15.0	36.0		15.0	15.0	24.0	24.0	15.0	15.0
Total Split (s)	21.0	42.0		15.0	36.0		15.0	15.0	118.0	118.0	15.0	15.0
Total Split (%)	11.1%	22.1%		7.9%	18.9%		7.9%	7.9%	62.1%	62.1%	7.9%	7.9%
Yellow Time (s)	3.6	3.6		3.6	3.6		3.2	3.2	4.3	4.3	3.2	3.2
All-Red Time (s)	2.7	2.7		2.7	2.7		2.3	2.3	1.5	1.5	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	6.3	6.3		6.3	6.3			5.5	5.8	5.8		5.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None	C-Min	C-Min	None	None
Act Effect Green (s)	46.0	31.5		33.6	25.2				125.1	116.7		127.9
Actuated g/C Ratio	0.24	0.17		0.18	0.13				0.66	0.61		0.67
v/c Ratio	1.55	0.72		0.38	0.86				0.61	1.02		1.11
Control Delay	311.8	81.4		62.0	99.1				54.7	58.7		111.8
Queue Delay	0.0	0.0		0.0	0.1				0.0	33.3		0.0
Total Delay	311.8	81.4		62.0	99.2				54.7	92.0		111.8

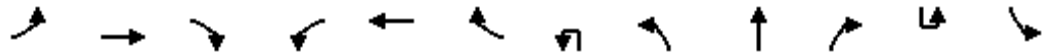
Lanes, Volumes, Timings
16: US 17 & Bellamy Ave

2040 No-Build - MD Peak

	↓	↙
Lane Group	SBT	SBR
Lane Configurations	↑↑	↗
Traffic Volume (vph)	2148	159
Future Volume (vph)	2148	159
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		300
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3438	1615
Flt Permitted		
Satd. Flow (perm)	3438	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		87
Link Speed (mph)	45	
Link Distance (ft)	869	
Travel Time (s)	13.2	
Peak Hour Factor	0.96	0.96
Heavy Vehicles (%)	5%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2238	166
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	18.0	18.0
Minimum Split (s)	24.0	24.0
Total Split (s)	118.0	118.0
Total Split (%)	62.1%	62.1%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.5	1.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.8	5.8
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Min	C-Min
Act Effct Green (s)	118.1	118.1
Actuated g/C Ratio	0.62	0.62
v/c Ratio	1.05	0.16
Control Delay	49.0	9.1
Queue Delay	6.2	0.0
Total Delay	55.2	9.1

Lanes, Volumes, Timings
16: US 17 & Bellamy Ave

2040 No-Build - MD Peak

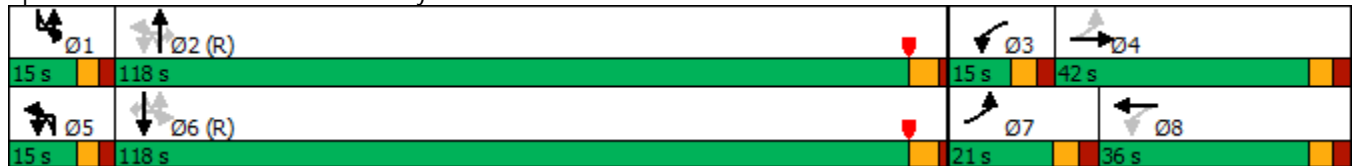


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	F		E	F			D	F	A		F
Approach Delay		214.5			90.3				87.3			
Approach LOS		F			F				F			
Stops (vph)	156	160		44	143			32	1845	10		84
Fuel Used(gal)	19	5		1	5			2	85	2		5
CO Emissions (g/hr)	1308	367		88	375			154	5930	125		376
NOx Emissions (g/hr)	255	71		17	73			30	1154	24		73
VOC Emissions (g/hr)	303	85		20	87			36	1374	29		87
Dilemma Vehicles (#)	0	4		0	4			0	53	0		0
Queue Length 50th (ft)	~438	233		67	238			34	~1568	6		~154
Queue Length 95th (ft)	#607	315		96	276			96	#1722	34		m#152
Internal Link Dist (ft)		620			658				2491			
Turn Bay Length (ft)	200			150				250		300		250
Base Capacity (vph)	190	335		184	295			124	2217	1025		130
Starvation Cap Reductn	0	0		0	0			0	0	0		0
Spillback Cap Reductn	0	0		0	1			0	261	0		0
Storage Cap Reductn	0	0		0	0			0	0	0		0
Reduced v/c Ratio	1.55	0.64		0.37	0.74			0.55	1.15	0.10		1.11

Intersection Summary

Area Type: Other
 Cycle Length: 190
 Actuated Cycle Length: 190
 Offset: 172 (91%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.55
 Intersection Signal Delay: 84.6 Intersection LOS: F
 Intersection Capacity Utilization 111.1% ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 16: US 17 & Bellamy Ave



Lanes, Volumes, Timings
 16: US 17 & Bellamy Ave

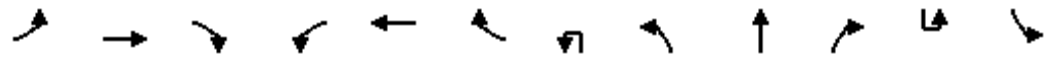
2040 No-Build - MD Peak



Lane Group	SBT	SBR
LOS	E	A
Approach Delay	55.4	
Approach LOS	E	
Stops (vph)	1394	51
Fuel Used(gal)	57	2
CO Emissions (g/hr)	4000	161
NOx Emissions (g/hr)	778	31
VOC Emissions (g/hr)	927	37
Dilemma Vehicles (#)	74	0
Queue Length 50th (ft)	~1601	36
Queue Length 95th (ft)	m#1525	m34
Internal Link Dist (ft)	789	
Turn Bay Length (ft)		300
Base Capacity (vph)	2136	1036
Starvation Cap Reductn	31	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.06	0.16
Intersection Summary		

Lanes, Volumes, Timings
17: US 17 & Riverwood Dr

2040 No-Build - MD Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	243	15	94	35	29	27	9	88	2542	27	8	24
Future Volume (vph)	243	15	94	35	29	27	9	88	2542	27	8	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	100		0		200		300		200
Storage Lanes	0		1	1		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1805	1632	0	1805	1763	0	0	1773	3471	1615	0	1650
Flt Permitted	0.664			0.590				0.030				0.031
Satd. Flow (perm)	1262	1632	0	1121	1763	0	0	56	3471	1615	0	54
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		70			21					51		
Link Speed (mph)		30			30				45			
Link Distance (ft)		502			435				455			
Travel Time (s)		11.4			9.9				6.9			
Peak Hour Factor	0.95	0.95	0.95	0.65	0.65	0.65	0.96	0.96	0.96	0.96	0.95	0.95
Heavy Vehicles (%)	0%	10%	0%	0%	0%	0%	0%	2%	4%	0%	20%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	256	115	0	54	87	0	0	101	2648	28	0	33
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		18			12				36			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases		4			8		5	5	2		1	1
Permitted Phases	4			8			2	2		2	6	6
Detector Phase	4	4		8	8		5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		6.0	6.0	18.0	18.0	6.0	6.0
Minimum Split (s)	37.0	37.0		38.3	38.3		15.0	15.0	25.0	25.0	15.0	15.0
Total Split (s)	39.0	39.0		39.0	39.0		15.0	15.0	136.0	136.0	15.0	15.0
Total Split (%)	20.5%	20.5%		20.5%	20.5%		7.9%	7.9%	71.6%	71.6%	7.9%	7.9%
Yellow Time (s)	3.6	3.6		3.6	3.6		3.2	3.2	4.3	4.3	3.2	3.2
All-Red Time (s)	2.7	2.7		2.7	2.7		2.3	2.3	1.8	1.8	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	6.3	6.3		6.3	6.3			5.5	6.1	6.1		5.5
Lead/Lag							Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None	C-Min	C-Min	None	None
Act Effect Green (s)	32.7	32.7		32.7	32.7			142.8	134.6	134.6		137.9
Actuated g/C Ratio	0.17	0.17		0.17	0.17			0.75	0.71	0.71		0.73
v/c Ratio	1.18	0.34		0.28	0.27			0.81	1.08	0.02		0.33
Control Delay	181.4	31.3		73.0	54.0			60.2	48.5	0.0		22.1
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Delay	181.4	31.3		73.0	54.0			60.2	48.5	0.0		22.1

Lanes, Volumes, Timings
17: US 17 & Riverwood Dr

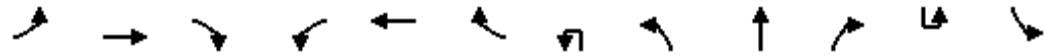
2040 No-Build - MD Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2349	115
Future Volume (vph)	2349	115
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3438	1568
Flt Permitted		
Satd. Flow (perm)	3438	1568
Right Turn on Red		Yes
Satd. Flow (RTOR)		95
Link Speed (mph)	45	
Link Distance (ft)	646	
Travel Time (s)	9.8	
Peak Hour Factor	0.95	0.95
Heavy Vehicles (%)	5%	3%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2473	121
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	36	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	18.0	18.0
Minimum Split (s)	25.0	25.0
Total Split (s)	136.0	136.0
Total Split (%)	71.6%	71.6%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.8	1.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.1	6.1
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Min	C-Min
Act Effct Green (s)	130.2	130.2
Actuated g/C Ratio	0.69	0.69
v/c Ratio	1.05	0.11
Control Delay	62.8	2.9
Queue Delay	21.1	0.0
Total Delay	83.9	2.9

Lanes, Volumes, Timings
17: US 17 & Riverwood Dr

2040 No-Build - MD Peak

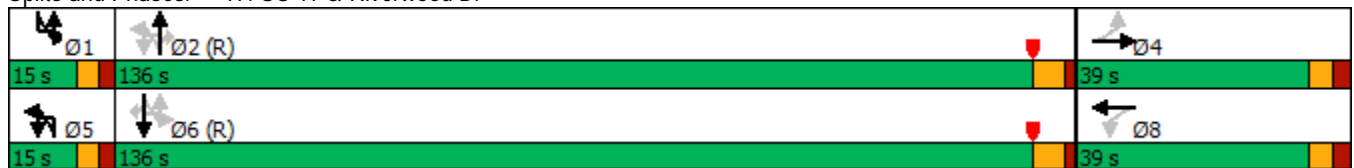


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	C		E	D			E	D	A		C
Approach Delay		134.9			61.3				48.5			
Approach LOS	F			E				D				
Stops (vph)	199	40		30	37			59	1114	0		9
Fuel Used(gal)	12	2		1	1			3	61	0		0
CO Emissions (g/hr)	829	120		56	72			193	4251	16		27
NOx Emissions (g/hr)	161	23		11	14			37	827	3		5
VOC Emissions (g/hr)	192	28		13	17			45	985	4		6
Dilemma Vehicles (#)	0	0		0	0			0	59	0		0
Queue Length 50th (ft)	~381	49		60	72			87	~1947	0		9
Queue Length 95th (ft)	#582	118		78	87			m83	m#1798	m0		34
Internal Link Dist (ft)		422			355				375			
Turn Bay Length (ft)	200			100				200		300		200
Base Capacity (vph)	217	338		192	320			127	2458	1158		119
Starvation Cap Reductn	0	0		0	0			0	0	0		0
Spillback Cap Reductn	0	5		0	0			0	0	0		0
Storage Cap Reductn	0	0		0	0			0	0	0		0
Reduced v/c Ratio	1.18	0.35		0.28	0.27			0.80	1.08	0.02		0.28

Intersection Summary

Area Type: Other
 Cycle Length: 190
 Actuated Cycle Length: 190
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 67.9
 Intersection LOS: E
 Intersection Capacity Utilization 110.3%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: US 17 & Riverwood Dr





Lane Group	SBT	SBR
LOS	F	A
Approach Delay	79.4	
Approach LOS	E	
Stops (vph)	2056	10
Fuel Used(gal)	65	1
CO Emissions (g/hr)	4576	47
NOx Emissions (g/hr)	890	9
VOC Emissions (g/hr)	1061	11
Dilemma Vehicles (#)	58	0
Queue Length 50th (ft)	~1764	10
Queue Length 95th (ft)	#1864	34
Internal Link Dist (ft)	566	
Turn Bay Length (ft)		400
Base Capacity (vph)	2355	1104
Starvation Cap Reductn	0	0
Spillback Cap Reductn	265	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.18	0.11
Intersection Summary		

Intersection														
Int Delay, s/veh	35.1													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↘	↕	↗		↘	↕	↗
Traffic Vol, veh/h	18	0	36	18	0	102	3	14	2825	55	15	85	2496	36
Future Vol, veh/h	18	0	36	18	0	102	3	14	2825	55	15	85	2496	36
Conflicting Peds, #/hr	0	0	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	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	-	None	-	-	-	Free
Storage Length	-	-	0	-	-	-	-	0	-	0	-	200	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	75	75	75	71	71	71	98	98	98	98	97	97	97	97
Heavy Vehicles, %	0	0	0	8	0	0	0	3	3	0	0	5	4	0
Mvmt Flow	24	0	48	25	0	144	3	14	2883	56	15	88	2573	37

Major/Minor	Minor2		Minor1		Major1			Major2						
Conflicting Flow All	4255	5752	1287	4410	5696	1442	2573	2573	0	0	2883	2939	0	0
Stage 1	2779	2779	-	2917	2917	-	-	-	-	-	-	-	-	-
Stage 2	1476	2973	-	1493	2779	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.66	6.5	6.9	6.4	4.16	-	-	6.4	4.2	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.66	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.66	5.5	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.58	4	3.3	2.5	2.23	-	-	2.5	2.25	-	-
Pot Cap-1 Maneuver	~ 1	0	158	0	0	~ 124	32	165	-	-	20	113	-	0
Stage 1	~ 20	42	-	~ 14	35	-	-	-	-	-	-	-	-	0
Stage 2	135	33	-	122	42	-	-	-	-	-	-	-	-	0
Platoon blocked, %									-	-			-	
Mov Cap-1 Maneuver	-	0	158	-	0	~ 124	83	83	-	-	22	~ 22	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-	-	-
Stage 1	~ 16	0	-	~ 11	28	-	-	-	-	-	-	-	-	-
Stage 2	-	26	-	-	0	-	-	-	-	-	-	-	-	-























Approach	EB		WB		NB		SB	
HCM Control Delay, s					0.3		76.7	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	83	-	-	-	158	-	~ 22	-
HCM Lane V/C Ratio	0.209	-	-	-	0.304	-	4.686	-
HCM Control Delay (s)	59.5	-	-	-	37.4	-	\$ 1991.3	-
HCM Lane LOS	F	-	-	-	E	-	F	-
HCM 95th %tile Q(veh)	0.7	-	-	-	1.2	-	13.1	-

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

Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No-Build - MD Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	340	170	493	42	185	114	6	537	2311	74	29	136
Future Volume (vph)	340	170	493	42	185	114	6	537	2311	74	29	136
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		250	150		75		350		350		250
Storage Lanes	1		1	1		1		2		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	3367	1863	1538	1805	1810	1599	0	3401	3471	1615	0	1776
Flt Permitted	0.950			0.950				0.950				0.069
Satd. Flow (perm)	3367	1863	1538	1805	1810	1599	0	3401	3471	1615	0	129
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			175			145				60		
Link Speed (mph)		35			35				45			
Link Distance (ft)		603			870				809			
Travel Time (s)		11.7			16.9				12.3			
Peak Hour Factor	0.87	0.87	0.87	0.85	0.85	0.85	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	4%	2%	5%	0%	5%	1%	0%	3%	4%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	391	195	567	49	218	134	0	554	2358	76	0	169
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		24			12				24			
Link Offset(ft)		0			0				1			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	Prot	NA	pt+ov	Prot	pm+pt
Protected Phases	3	8		7	4		1	1	6	6 7	5	5
Permitted Phases			8			4						2
Detector Phase	3	8	8	7	4	4	1	1	6	6 7	5	5
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	6.0	25.0		6.0	6.0
Minimum Split (s)	15.0	46.0	46.0	15.0	46.0	46.0	15.0	15.0	31.0		15.0	15.0
Total Split (s)	19.0	50.0	50.0	15.0	46.0	46.0	21.0	21.0	70.0		15.0	15.0
Total Split (%)	12.7%	33.3%	33.3%	10.0%	30.7%	30.7%	14.0%	14.0%	46.7%		10.0%	10.0%
Yellow Time (s)	4.0	3.6	3.6	4.0	3.6	3.6	3.5	3.5	4.3		3.5	3.5
All-Red Time (s)	2.9	2.4	2.4	2.9	2.4	2.4	1.7	1.7	1.4		1.7	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)	6.9	6.0	6.0	6.9	6.0	6.0		5.2	5.7			5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	Max		None	None
Act Effect Green (s)	12.1	44.0	44.0	7.7	39.6	39.6		15.8	64.3	78.9		68.6
Actuated g/C Ratio	0.08	0.29	0.29	0.05	0.26	0.26		0.11	0.43	0.53		0.46
v/c Ratio	1.44	0.36	0.99	0.53	0.46	0.25		1.54	1.58	0.09		1.02
Control Delay	263.0	44.0	70.0	90.1	49.6	6.2		299.7	295.6	5.9		111.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay	263.0	44.0	70.0	90.1	49.6	6.2		299.7	295.6	5.9		111.4

Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No-Build - MD Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2119	476
Future Volume (vph)	2119	476
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3471	1583
Flt Permitted		
Satd. Flow (perm)	3471	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		184
Link Speed (mph)	45	
Link Distance (ft)	1053	
Travel Time (s)	16.0	
Peak Hour Factor	0.98	0.98
Heavy Vehicles (%)	4%	2%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2162	486
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	25.0	25.0
Minimum Split (s)	31.0	31.0
Total Split (s)	64.0	64.0
Total Split (%)	42.7%	42.7%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.4	1.4
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.7	5.7
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	58.3	58.3
Actuated g/C Ratio	0.39	0.39
v/c Ratio	1.60	0.67
Control Delay	304.6	27.7
Queue Delay	0.0	0.0
Total Delay	304.6	27.7

Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No-Build - MD Peak

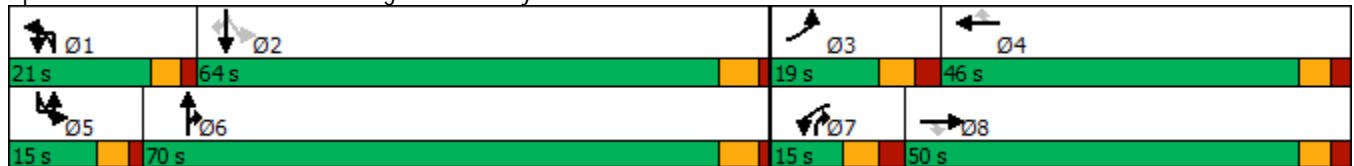


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	D	E	F	D	A		F	F	A		F
Approach Delay		131.0			40.1				289.0			
Approach LOS		F			D				F			
Stops (vph)	252	132	325	40	153	11		386	1601	12		93
Fuel Used(gal)	22	3	12	1	4	1		41	171	1		6
CO Emissions (g/hr)	1508	228	812	93	292	66		2851	11962	44		423
NOx Emissions (g/hr)	293	44	158	18	57	13		555	2327	9		82
VOC Emissions (g/hr)	350	53	188	22	68	15		661	2772	10		98
Dilemma Vehicles (#)	0	6	0	0	4	0		0	49	0		0
Queue Length 50th (ft)	~267	151	420	48	179	0		~391	~1723	7		~119
Queue Length 95th (ft)	#358	217	#629	88	245	36		#513	#1846	33		#282
Internal Link Dist (ft)		523			790				729			
Turn Bay Length (ft)	225		250	150		75		350		350		250
Base Capacity (vph)	272	548	575	97	483	533		359	1492	884		166
Starvation Cap Reductn	0	0	0	0	0	0		0	0	0		0
Spillback Cap Reductn	0	0	0	0	0	0		0	0	0		0
Storage Cap Reductn	0	0	0	0	0	0		0	0	0		0
Reduced v/c Ratio	1.44	0.36	0.99	0.51	0.45	0.25		1.54	1.58	0.09		1.02

Intersection Summary

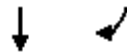
Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 149.6
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.60
 Intersection Signal Delay: 233.9
 Intersection LOS: F
 Intersection Capacity Utilization 129.4%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: US 17 & Burgess Rd/Sunnyside Ave



Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No-Build - MD Peak



Lane Group	SBT	SBR
LOS	F	C
Approach Delay	245.2	
Approach LOS	F	
Stops (vph)	1461	259
Fuel Used(gal)	164	9
CO Emissions (g/hr)	11467	640
NOx Emissions (g/hr)	2231	125
VOC Emissions (g/hr)	2658	148
Dilemma Vehicles (#)	44	0
Queue Length 50th (ft)	~1587	249
Queue Length 95th (ft)	#1717	384
Internal Link Dist (ft)	973	
Turn Bay Length (ft)		
Base Capacity (vph)	1353	729
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.60	0.67
Intersection Summary		

Intersection												
Int Delay, s/veh	7.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	85	11	9	88	50	17	142	21	38	112	47
Future Vol, veh/h	45	85	11	9	88	50	17	142	21	38	112	47
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	83	83	83	86	86	86
Heavy Vehicles, %	0	4	0	0	0	3	9	2	0	0	0	3
Mvmt Flow	49	92	12	10	96	54	20	171	25	44	130	55

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	545	482	158	522	497	184	185	0	0	196	0	0
Stage 1	246	246	-	224	224	-	-	-	-	-	-	-
Stage 2	299	236	-	298	273	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.54	6.2	7.1	6.5	6.23	4.19	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.54	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.036	3.3	3.5	4	3.327	2.281	-	-	2.2	-	-
Pot Cap-1 Maneuver	452	481	893	468	477	856	1349	-	-	1389	-	-
Stage 1	762	699	-	783	722	-	-	-	-	-	-	-
Stage 2	714	706	-	715	688	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	341	456	893	375	452	856	1349	-	-	1389	-	-
Mov Cap-2 Maneuver	341	456	-	375	452	-	-	-	-	-	-	-
Stage 1	749	674	-	770	710	-	-	-	-	-	-	-
Stage 2	569	694	-	587	663	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.1		14.7		0.7		1.5	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1349	-	-	426	530	1389	-
HCM Lane V/C Ratio	0.015	-	-	0.36	0.301	0.032	-
HCM Control Delay (s)	7.7	0	-	18.1	14.7	7.7	0
HCM Lane LOS	A	A	-	C	B	A	A
HCM 95th %tile Q(veh)	0	-	-	1.6	1.3	0.1	-

Intersection	
Intersection Delay, s/veh	37.3
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↘		↗	↘			↕	
Traffic Vol, veh/h	18	49	17	185	36	162	15	202	247	162	214	17
Future Vol, veh/h	18	49	17	185	36	162	15	202	247	162	214	17
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	20	53	18	201	39	176	16	220	268	176	233	18
Number of Lanes	0	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	1
HCM Control Delay	15	17.1	50.2	46.6
HCM LOS	B	C	F	E

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	21%	100%	0%	41%
Vol Thru, %	0%	45%	58%	0%	18%	54%
Vol Right, %	0%	55%	20%	0%	82%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	449	84	185	198	393
LT Vol	15	0	18	185	0	162
Through Vol	0	202	49	0	36	214
RT Vol	0	247	17	0	162	17
Lane Flow Rate	16	488	91	201	215	427
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.035	0.936	0.233	0.476	0.437	0.891
Departure Headway (Hd)	7.811	7.001	9.183	8.518	7.309	7.619
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	522	393	426	489	478
Service Time	5.611	4.701	7.191	6.218	5.109	5.619
HCM Lane V/C Ratio	0.035	0.935	0.232	0.472	0.44	0.893
HCM Control Delay	10.9	51.5	15	18.7	15.7	46.6
HCM Lane LOS	B	F	B	C	C	E
HCM 95th-tile Q	0.1	11.5	0.9	2.5	2.2	9.8

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	67	86	38	26	44	14	27	138	23	3	77	23
Future Vol, veh/h	67	86	38	26	44	14	27	138	23	3	77	23
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	75	97	43	29	49	16	30	155	26	3	87	26
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	8.7	9.6	8.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	35%	31%	3%
Vol Thru, %	73%	45%	52%	75%
Vol Right, %	12%	20%	17%	22%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	188	191	84	103
LT Vol	27	67	26	3
Through Vol	138	86	44	77
RT Vol	23	38	14	23
Lane Flow Rate	211	215	94	116
Geometry Grp	1	1	1	1
Degree of Util (X)	0.278	0.283	0.129	0.154
Departure Headway (Hd)	4.744	4.749	4.914	4.782
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	754	753	725	745
Service Time	2.799	2.805	2.979	2.844
HCM Lane V/C Ratio	0.28	0.286	0.13	0.156
HCM Control Delay	9.6	9.7	8.7	8.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	1.2	0.4	0.5

Intersection						
Int Delay, s/veh	7.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↘↗		↘	↑↑	↑↑	↘
Traffic Vol, veh/h	24	135	241	1779	1861	49
Future Vol, veh/h	24	135	241	1779	1861	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	200	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	1	0	3	2	0
Mvmt Flow	26	148	265	1955	2045	54

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	3553	1023	2099	0	-	0
Stage 1	2045	-	-	-	-	-
Stage 2	1508	-	-	-	-	-
Critical Hdwy	6.8	6.92	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.31	2.2	-	-	-
Pot Cap-1 Maneuver	~ 4	235	266	-	-	-
Stage 1	88	-	-	-	-	-
Stage 2	173	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	235	266	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	173	-	-	-	-	-

















Approach	EB	NB	SB
HCM Control Delay, s	54.6	11.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	266	-	235	-	-
HCM Lane V/C Ratio	0.996	-	0.744	-	-
HCM Control Delay (s)	95.4	-	54.6	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	9.9	-	5.2	-	-

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

Lanes, Volumes, Timings
2: US 17 & S Causeway Rd

2040 No Build - PM Peak

							
Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations			 			 	 
Traffic Volume (vph)	215	112	1911	165	3	102	1963
Future Volume (vph)	215	112	1911	165	3	102	1963
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	75		0		250	
Storage Lanes	1	1		1		1	
Taper Length (ft)	100					100	
Satd. Flow (prot)	1787	1599	3505	1599	0	1754	3539
Flt Permitted	0.950					0.036	
Satd. Flow (perm)	1787	1599	3505	1599	0	66	3539
Right Turn on Red		Yes		Yes			
Satd. Flow (RTOR)		31		27			
Link Speed (mph)	40		45				45
Link Distance (ft)	582		691				1150
Travel Time (s)	9.9		10.5				17.4
Peak Hour Factor	0.84	0.84	0.93	0.93	0.86	0.86	0.86
Heavy Vehicles (%)	1%	1%	3%	1%	0%	3%	2%
Shared Lane Traffic (%)							
Lane Group Flow (vph)	256	133	2055	177	0	122	2283
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Left
Median Width(ft)	12		16				16
Link Offset(ft)	0		0				0
Crosswalk Width(ft)	16		16				16
Two way Left Turn Lane			Yes				
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	9	15	
Turn Type	Prot	Free	NA	Free	pm+pt	pm+pt	NA
Protected Phases	4		6		5	5	2
Permitted Phases		Free		Free	2	2	
Detector Phase	4		6		5	5	2
Switch Phase							
Minimum Initial (s)	8.0		15.0		6.0	6.0	15.0
Minimum Split (s)	34.0		22.0		15.0	15.0	22.0
Total Split (s)	50.0		165.0		25.0	25.0	190.0
Total Split (%)	20.8%		68.8%		10.4%	10.4%	79.2%
Yellow Time (s)	3.6		5.0		3.6	3.6	5.0
All-Red Time (s)	2.3		1.5		2.3	2.3	1.5
Lost Time Adjust (s)	0.0		0.0			0.0	0.0
Total Lost Time (s)	5.9		6.5			5.9	6.5
Lead/Lag			Lag		Lead	Lead	
Lead-Lag Optimize?							
Recall Mode	None		C-Min		None	None	C-Min
Act Effect Green (s)	38.5	240.0	167.2	240.0		189.7	189.1
Actuated g/C Ratio	0.16	1.00	0.70	1.00		0.79	0.79
v/c Ratio	0.90	0.08	0.84	0.11		0.74	0.82
Control Delay	129.8	0.1	32.5	0.1		86.6	6.0
Queue Delay	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	129.8	0.1	32.5	0.1		86.6	6.0

Lanes, Volumes, Timings
2: US 17 & S Causeway Rd

2040 No Build - PM Peak

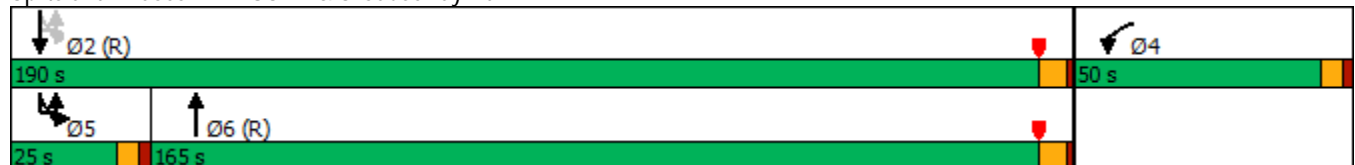


Lane Group	WBL	WBR	NBT	NBR	SBU	SBL	SBT
LOS	F	A	C	A		F	A
Approach Delay	85.4		29.9				10.1
Approach LOS	F		C				B
Stops (vph)	208	0	1401	0		138	893
Fuel Used(gal)	9	0	39	1		7	75
CO Emissions (g/hr)	599	31	2700	52		479	5245
NOx Emissions (g/hr)	117	6	525	10		93	1020
VOC Emissions (g/hr)	139	7	626	12		111	1215
Dilemma Vehicles (#)	0	0	40	0		0	12
Queue Length 50th (ft)	403	0	1265	0		107	470
Queue Length 95th (ft)	477	0	1463	0		m125	642
Internal Link Dist (ft)	502		611				1070
Turn Bay Length (ft)		75				250	
Base Capacity (vph)	328	1599	2441	1599		186	2788
Starvation Cap Reductn	0	0	0	0		0	0
Spillback Cap Reductn	0	0	0	0		0	0
Storage Cap Reductn	0	0	0	0		0	0
Reduced v/c Ratio	0.78	0.08	0.84	0.11		0.66	0.82

Intersection Summary

Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 120 (50%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 24.7
 Intersection LOS: C
 Intersection Capacity Utilization 85.8%
 ICU Level of Service E
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: US 17 & S Causeway Rd



Lanes, Volumes, Timings
3: US 17 & Petigru Dr/Alston Rd

2040 No Build - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations		↕	↗		↕		↖	↕	↗		↖	↕
Traffic Volume (vph)	139	24	209	47	18	50	158	2004	35	2	62	2076
Future Volume (vph)	139	24	209	47	18	50	158	2004	35	2	62	2076
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		125	0		0	150		0		150	
Storage Lanes	0		1	0		0	1		0		1	
Taper Length (ft)	100			100			100				100	
Satd. Flow (prot)	0	1791	1615	0	1730	0	1805	3496	0	0	1771	3505
Flt Permitted		0.573			0.462		0.024				0.057	
Satd. Flow (perm)	0	1070	1615	0	815	0	46	3496	0	0	106	3505
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)			117		14			2				
Link Speed (mph)		35			30			45				45
Link Distance (ft)		451			511			3678				1754
Travel Time (s)		8.8			11.6			55.7				26.6
Peak Hour Factor	0.88	0.88	0.88	0.79	0.79	0.79	0.95	0.95	0.95	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	0%	3%	0%	3%	0%	0%	2%	3%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	185	238	0	145	0	166	2146	0	0	69	2257
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		0			0			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		Perm	Perm	NA
Protected Phases		8			4		1	6				2
Permitted Phases	8		8	4			6			2	2	
Detector Phase	8	8	8	4	4		1	6		2	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	15.0		15.0	15.0	15.0
Minimum Split (s)	16.0	16.0	16.0	39.0	39.0		17.0	29.0		30.0	30.0	30.0
Total Split (s)	47.0	47.0	47.0	47.0	47.0		24.0	193.0		169.0	169.0	169.0
Total Split (%)	19.6%	19.6%	19.6%	19.6%	19.6%		10.0%	80.4%		70.4%	70.4%	70.4%
Yellow Time (s)	3.2	3.2	3.2	3.2	3.2		4.3	4.3		4.3	4.3	4.3
All-Red Time (s)	2.6	2.6	2.6	2.6	2.6		2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)		5.8	5.8		5.8		6.3	6.3			6.3	6.3
Lead/Lag							Lead			Lag	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	C-Min		C-Min	C-Min	C-Min
Act Effect Green (s)		41.2	41.2		41.2		186.7	186.7			162.7	162.7
Actuated g/C Ratio		0.17	0.17		0.17		0.78	0.78			0.68	0.68
v/c Ratio		1.01	0.64		0.96		1.01	0.79			0.97	0.95
Control Delay		162.0	54.4		147.5		136.9	38.4			41.9	9.7
Queue Delay		0.0	0.0		0.0		0.0	0.3			0.0	1.4
Total Delay		162.0	54.4		147.5		136.9	38.6			41.9	11.1

Lanes, Volumes, Timings
 3: US 17 & Petigru Dr/Alston Rd

2040 No Build - PM Peak

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	56
Future Volume (vph)	56
Ideal Flow (vphpl)	1900
Storage Length (ft)	375
Storage Lanes	0
Taper Length (ft)	
Satd. Flow (prot)	1615
Flt Permitted	
Satd. Flow (perm)	1615
Right Turn on Red	Yes
Satd. Flow (RTOR)	41
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	0%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	61
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Turn Type	Perm
Protected Phases	
Permitted Phases	2
Detector Phase	2
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	30.0
Total Split (s)	169.0
Total Split (%)	70.4%
Yellow Time (s)	4.3
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.3
Lead/Lag	Lag
Lead-Lag Optimize?	
Recall Mode	C-Min
Act Effct Green (s)	162.7
Actuated g/C Ratio	0.68
v/c Ratio	0.06
Control Delay	0.4
Queue Delay	0.0
Total Delay	0.4

Lanes, Volumes, Timings
 3: US 17 & Petigru Dr/Alston Rd

2040 No Build - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
LOS		F	D		F		F	D			D	B
Approach Delay		101.5			147.5			45.7				11.7
Approach LOS		F			F			D				B
Stops (vph)		142	103		91		168	1970			16	586
Fuel Used(gal)		7	4		4		11	104			1	35
CO Emissions (g/hr)		488	263		309		800	7293			102	2448
NOx Emissions (g/hr)		95	51		60		156	1419			20	476
VOC Emissions (g/hr)		113	61		72		185	1690			24	567
Dilemma Vehicles (#)		3	0		0		0	18			0	46
Queue Length 50th (ft)		~302	184		213		~214	1840			15	253
Queue Length 95th (ft)		#482	288		#307		m#331	1886			m15	m250
Internal Link Dist (ft)		371			431			3598				1674
Turn Bay Length (ft)			125				150				150	
Base Capacity (vph)		183	374		151		165	2720			71	2376
Starvation Cap Reductn		0	0		0		0	0			0	42
Spillback Cap Reductn		0	0		0		0	127			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		1.01	0.64		0.96		1.01	0.83			0.97	0.97

Intersection Summary

Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 16 (7%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 37.6 Intersection LOS: D
 Intersection Capacity Utilization 100.0% ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: US 17 & Petigru Dr/Alston Rd

























Lane Group	SBR
LOS	A
Approach Delay	
Approach LOS	
Stops (vph)	1
Fuel Used(gal)	1
CO Emissions (g/hr)	46
NOx Emissions (g/hr)	9
VOC Emissions (g/hr)	11
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	1
Queue Length 95th (ft)	m1
Internal Link Dist (ft)	
Turn Bay Length (ft)	375
Base Capacity (vph)	1108
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.06
Intersection Summary	

Lanes, Volumes, Timings
4: US 17 & Waverly Rd/N Causeway Rd

2040 No Build - PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	142	55	141	124	64	121	2	126	2029	79	11	150
Future Volume (vph)	142	55	141	124	64	121	2	126	2029	79	11	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	0		225		200		300		200
Storage Lanes	1		0	0		1		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1787	1647	0	0	1827	1568	0	1770	3505	1615	0	1805
Flt Permitted	0.420				0.454			0.028				0.027
Satd. Flow (perm)	790	1647	0	0	857	1568	0	52	3505	1615	0	51
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		51				81				50		
Link Speed (mph)		35			25				45			
Link Distance (ft)		804			625				1754			
Travel Time (s)		15.7			17.0				26.6			
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.95	0.95	0.95	0.95	0.93	0.93
Heavy Vehicles (%)	1%	0%	4%	1%	0%	3%	0%	2%	3%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	167	231	0	0	221	142	0	135	2136	83	0	173
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				12			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA		Perm	NA	Perm	pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases		4			8		5	5	2		1	1
Permitted Phases	4			8		8	2	2		2	6	6
Detector Phase	4	4		8	8	8	5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0	10.0	10.0	10.0	25.0	25.0	10.0	10.0
Minimum Split (s)	47.0	47.0		46.0	46.0	46.0	17.0	17.0	32.0	32.0	17.0	17.0
Total Split (s)	66.0	66.0		66.0	66.0	66.0	19.0	19.0	151.0	151.0	23.0	23.0
Total Split (%)	27.5%	27.5%		27.5%	27.5%	27.5%	7.9%	7.9%	62.9%	62.9%	9.6%	9.6%
Yellow Time (s)	4.4	4.4		4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.3	3.3		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0	0.0		0.0
Total Lost Time (s)	7.7	7.7			6.4	6.4		6.3	6.3	6.3		6.3
Lead/Lag							Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None		None	None	None	None	None	C-Max	C-Max	None	None
Act Effect Green (s)	58.3	58.3		59.6	59.6			157.4	144.7	144.7		165.4
Actuated g/C Ratio	0.24	0.24		0.25	0.25			0.66	0.60	0.60		0.69
v/c Ratio	0.87	0.53		1.04	0.32			1.08	1.01	0.08		1.10
Control Delay	124.7	65.6		154.8	32.8			163.3	36.3	2.6		168.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	1.9	0.0		0.0
Total Delay	124.7	65.6		154.8	32.8			163.3	38.1	2.6		168.7

Lanes, Volumes, Timings
 4: US 17 & Waverly Rd/N Causeway Rd

2040 No Build - PM Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2107	105
Future Volume (vph)	2107	105
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		200
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3539	1615
Flt Permitted		
Satd. Flow (perm)	3539	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		50
Link Speed (mph)	45	
Link Distance (ft)	843	
Travel Time (s)	12.8	
Peak Hour Factor	0.93	0.93
Heavy Vehicles (%)	2%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2266	113
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	25.0	25.0
Minimum Split (s)	34.0	34.0
Total Split (s)	155.0	155.0
Total Split (%)	64.6%	64.6%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.3	6.3
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Max	C-Max
Act Effct Green (s)	148.7	148.7
Actuated g/C Ratio	0.62	0.62
v/c Ratio	1.03	0.11
Control Delay	37.6	0.6
Queue Delay	4.3	0.0
Total Delay	41.9	0.6

Lanes, Volumes, Timings
 4: US 17 & Waverly Rd/N Causeway Rd

2040 No Build - PM Peak

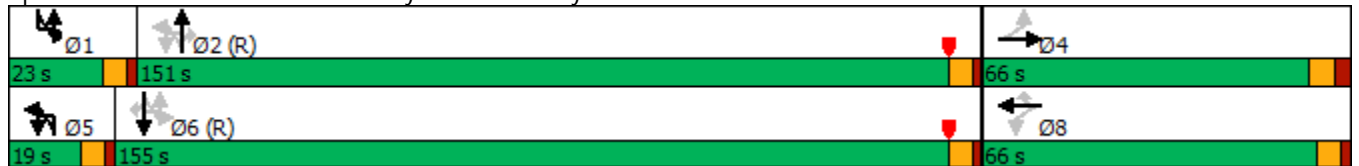


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	E			F	C		F	D	A		F
Approach Delay		90.4			107.1				44.1			
Approach LOS		F			F				D			
Stops (vph)	130	133			162	43		87	1535	5		197
Fuel Used(gal)	5	5			8	2		7	57	1		16
CO Emissions (g/hr)	378	332			528	113		475	3996	70		1126
NOx Emissions (g/hr)	74	65			103	22		92	778	14		219
VOC Emissions (g/hr)	88	77			122	26		110	926	16		261
Dilemma Vehicles (#)	0	4			0	0		0	45	0		0
Queue Length 50th (ft)	258	253			-376	78		-185	-1616	1		-256
Queue Length 95th (ft)	#380	332			#533	139		m#298	m#1937	m12		m#281
Internal Link Dist (ft)		724			545				1674			
Turn Bay Length (ft)	125					225		200		300		200
Base Capacity (vph)	191	438			212	450		125	2113	993		157
Starvation Cap Reductn	0	0			0	0		0	13	0		0
Spillback Cap Reductn	0	0			0	0		0	0	0		0
Storage Cap Reductn	0	0			0	0		0	0	0		0
Reduced v/c Ratio	0.87	0.53			1.04	0.32		1.08	1.02	0.08		1.10

Intersection Summary

Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 232 (97%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 53.4 Intersection LOS: D
 Intersection Capacity Utilization 110.6% ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: US 17 & Waverly Rd/N Causeway Rd



Lanes, Volumes, Timings
 4: US 17 & Waverly Rd/N Causeway Rd




















2040 No Build - PM Peak



Lane Group	SBT	SBR
LOS	D	A
Approach Delay	48.6	
Approach LOS	D	
Stops (vph)	1893	6
Fuel Used(gal)	146	5
CO Emissions (g/hr)	10207	377
NOx Emissions (g/hr)	1986	73
VOC Emissions (g/hr)	2365	87
Dilemma Vehicles (#)	3	0
Queue Length 50th (ft)	~2037	8
Queue Length 95th (ft)	m#2106	m8
Internal Link Dist (ft)	763	
Turn Bay Length (ft)		200
Base Capacity (vph)	2192	1019
Starvation Cap Reductn	0	0
Spillback Cap Reductn	24	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.05	0.11
Intersection Summary		

Lanes, Volumes, Timings
5: US 17 & Martin Luther King Rd/Brown Ln

2040 No Build - PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	218	2	47	8	0	2	3	39	2314	2	8	5
Future Volume (vph)	218	2	47	8	0	2	3	39	2314	2	8	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0		175		175		200
Storage Lanes	0		1	0		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	0	1793	1615	0	1775	0	0	1805	3505	1615	0	1805
Flt Permitted		0.718			0.627			0.024				0.025
Satd. Flow (perm)	0	1351	1615	0	1157	0	0	46	3505	1615	0	48
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			48		48					45		
Link Speed (mph)		40			25				45			
Link Distance (ft)		698			290				6933			
Travel Time (s)		11.9			7.9				105.0			
Peak Hour Factor	0.76	0.76	0.76	0.75	0.75	0.75	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	290	62	0	14	0	0	44	2410	2	0	13
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		0			0				16			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases		8			4		1	1	6		5	5
Permitted Phases	8		8	4			6	6		6	2	2
Detector Phase	8	8	8	4	4		1	1	6	6	5	5
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		10.0	10.0	15.0	15.0	10.0	10.0
Minimum Split (s)	44.0	44.0	44.0	23.0	23.0		17.0	17.0	23.0	23.0	17.0	17.0
Total Split (s)	55.0	55.0	55.0	55.0	55.0		17.0	17.0	168.0	168.0	17.0	17.0
Total Split (%)	22.9%	22.9%	22.9%	22.9%	22.9%		7.1%	7.1%	70.0%	70.0%	7.1%	7.1%
Yellow Time (s)	4.4	4.4	4.4	3.0	3.0		4.4	4.4	5.2	5.2	4.4	4.4
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0		0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)		6.4	6.4		5.0			6.4	7.2	7.2		6.4
Lead/Lag							Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None		None	None	C-Min	C-Min	None	None
Act Effect Green (s)		48.6	48.6		50.0			174.9	168.0	168.0		172.1
Actuated g/C Ratio		0.20	0.20		0.21			0.73	0.70	0.70		0.72
v/c Ratio		1.06	0.17		0.05			0.41	0.98	0.00		0.12
Control Delay		156.9	25.5		0.3			55.0	16.5	0.0		10.4
Queue Delay		0.0	0.0		0.0			0.0	0.0	0.0		0.0
Total Delay		156.9	25.5		0.3			55.0	16.5	0.0		10.4

Lanes, Volumes, Timings
 5: US 17 & Martin Luther King Rd/Brown Ln

2040 No Build - PM Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2242	191
Future Volume (vph)	2242	191
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		150
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3539	1583
Flt Permitted		
Satd. Flow (perm)	3539	1583
Right Turn on Red		Yes
Satd. Flow (RTOR)		52
Link Speed (mph)	45	
Link Distance (ft)	6080	
Travel Time (s)	92.1	
Peak Hour Factor	0.96	0.96
Heavy Vehicles (%)	2%	2%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2335	199
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	12	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	35.0	35.0
Total Split (s)	168.0	168.0
Total Split (%)	70.0%	70.0%
Yellow Time (s)	5.2	5.2
All-Red Time (s)	2.0	2.0
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	7.2	7.2
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Min	C-Min
Act Effct Green (s)	161.3	161.3
Actuated g/C Ratio	0.67	0.67
v/c Ratio	0.98	0.18
Control Delay	52.0	11.1
Queue Delay	0.0	0.0
Total Delay	52.0	11.1

Lanes, Volumes, Timings
 5: US 17 & Martin Luther King Rd/Brown Ln

2040 No Build - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS		F	C		A			D	B	A		B
Approach Delay		133.8			0.3				17.2			
Approach LOS		F			A				B			
Stops (vph)		192	12		0			32	993	0		4
Fuel Used(gal)		10	1		0			3	137	0		1
CO Emissions (g/hr)		696	41		2			209	9573	7		38
NOx Emissions (g/hr)		135	8		0			41	1863	1		7
VOC Emissions (g/hr)		161	9		0			48	2219	2		9
Dilemma Vehicles (#)		4	0		0			0	2	0		0
Queue Length 50th (ft)		-502	18		0			25	-2142	0		5
Queue Length 95th (ft)		#542	49		0			m27	m#2114	m0		13
Internal Link Dist (ft)		618			210				6853			
Turn Bay Length (ft)			150					175		175		200
Base Capacity (vph)		273	365		279			110	2453	1143		112
Starvation Cap Reductn		0	0		0			0	0	0		0
Spillback Cap Reductn		0	0		0			0	0	0		0
Storage Cap Reductn		0	0		0			0	0	0		0
Reduced v/c Ratio		1.06	0.17		0.05			0.40	0.98	0.00		0.12

Intersection Summary

Area Type: Other
 Cycle Length: 240
 Actuated Cycle Length: 240
 Offset: 112 (47%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 39.7
 Intersection LOS: D
 Intersection Capacity Utilization 96.1%
 ICU Level of Service F
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: US 17 & Martin Luther King Rd/Brown Ln



Lanes, Volumes, Timings
 5: US 17 & Martin Luther King Rd/Brown Ln





















2040 No Build - PM Peak



Lane Group	SBT	SBR
LOS	D	B
Approach Delay	48.6	
Approach LOS	D	
Stops (vph)	1980	50
Fuel Used(gal)	137	9
CO Emissions (g/hr)	9566	601
NOx Emissions (g/hr)	1861	117
VOC Emissions (g/hr)	2217	139
Dilemma Vehicles (#)	46	0
Queue Length 50th (ft)	1822	82
Queue Length 95th (ft)	#1963	124
Internal Link Dist (ft)	6000	
Turn Bay Length (ft)		150
Base Capacity (vph)	2377	1080
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.98	0.18
Intersection Summary		

Lanes, Volumes, Timings
6: US 17 & Driveway/Litchfield Dr

2040 No Build - PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	15	3	20	147	0	159	18	2289	124	2	89	2308
Future Volume (vph)	15	3	20	147	0	159	18	2289	124	2	89	2308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		200	0		175		200	
Storage Lanes	1		0	0		1	0		1		1	
Taper Length (ft)	100			100			100				100	
Satd. Flow (prot)	1805	1651	0	0	1787	1615	0	3506	1615	0	1805	3539
Flt Permitted	0.498				0.726			0.725			0.043	
Satd. Flow (perm)	946	1651	0	0	1366	1615	0	2542	1615	0	82	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		6				179			68			
Link Speed (mph)		25			25			45				45
Link Distance (ft)		264			791			6080				400
Travel Time (s)		7.2			21.6			92.1				6.1
Peak Hour Factor	0.48	0.48	0.48	0.89	0.89	0.89	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	1%	0%	0%	0%	3%	0%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	31	48	0	0	165	179	0	2508	135	0	99	2509
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			36				36
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Turn Type	Perm	NA		Perm	NA	Free	Perm	NA	Perm	pm+pt	pm+pt	NA
Protected Phases		4			8			2			1	1
Permitted Phases	4			8		Free	2		2	6	6	
Detector Phase	4	4		8	8		2	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		15.0	15.0	15.0	8.0	8.0	15.0
Minimum Split (s)	43.0	43.0		15.0	15.0		22.0	22.0	22.0	15.0	15.0	22.0
Total Split (s)	43.0	43.0		43.0	43.0		92.0	92.0	92.0	15.0	15.0	107.0
Total Split (%)	28.7%	28.7%		28.7%	28.7%		61.3%	61.3%	61.3%	10.0%	10.0%	71.3%
Yellow Time (s)	3.2	3.2		3.2	3.2		4.3	4.3	4.3	3.6	3.6	4.3
All-Red Time (s)	3.2	3.2		3.2	3.2		1.5	1.5	1.5	2.3	2.3	1.5
Lost Time Adjust (s)	0.0	0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	6.4	6.4			6.4			5.8	5.8		5.9	5.8
Lead/Lag							Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None		None	None		Min	Min	Min	None	None	Min
Act Effect Green (s)	21.4	21.4		21.4	135.0		87.0	87.0	87.0		101.3	101.4
Actuated g/C Ratio	0.16	0.16		0.16	1.00		0.64	0.64	0.64		0.75	0.75
v/c Ratio	0.21	0.18		0.76	0.11		1.53	0.13	0.13		0.58	0.94
Control Delay	51.7	44.4		76.5	0.1		266.4	5.8	5.8		36.4	24.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	51.7	44.4		76.5	0.1		266.4	5.8	5.8		36.4	24.6

Lanes, Volumes, Timings
 6: US 17 & Driveway/Litchfield Dr

2040 No Build - PM Peak

Lane Group	SBR
Lane Configurations	7
Traffic Volume (vph)	14
Future Volume (vph)	14
Ideal Flow (vphpl)	1900
Storage Length (ft)	75
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	1455
Flt Permitted	
Satd. Flow (perm)	1455
Right Turn on Red	Yes
Satd. Flow (RTOR)	25
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	11%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	15
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	15.0
Minimum Split (s)	22.0
Total Split (s)	107.0
Total Split (%)	71.3%
Yellow Time (s)	4.3
All-Red Time (s)	1.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	5.8
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	Min
Act Effct Green (s)	101.4
Actuated g/C Ratio	0.75
v/c Ratio	0.01
Control Delay	1.1
Queue Delay	0.0
Total Delay	1.1

Lanes, Volumes, Timings
6: US 17 & Driveway/Litchfield Dr

2040 No Build - PM Peak

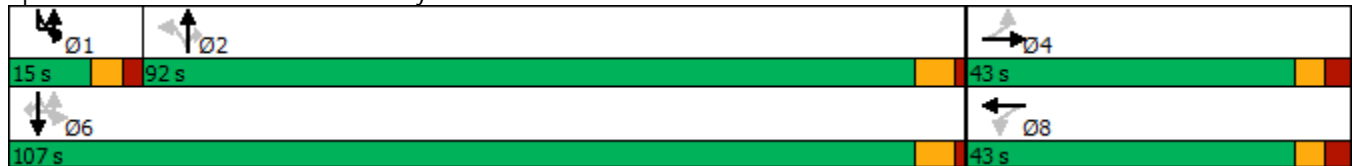


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
LOS	D	D			E	A		F	A		D	C
Approach Delay		47.3			36.8			253.1				24.9
Approach LOS		D			D			F				C
Stops (vph)	13	17			136	0		1604	25		41	1686
Fuel Used(gal)	0	0			4	1		236	5		1	39
CO Emissions (g/hr)	17	23			266	75		16505	374		99	2692
NOx Emissions (g/hr)	3	4			52	15		3211	73		19	524
VOC Emissions (g/hr)	4	5			62	17		3825	87		23	624
Dilemma Vehicles (#)	0	0			0	0		49	0		0	83
Queue Length 50th (ft)	24	32			140	0		~1615	20		32	870
Queue Length 95th (ft)	29	34			218	0		#1916	55		103	#1424
Internal Link Dist (ft)		184			711			6000				320
Turn Bay Length (ft)						200			175		200	
Base Capacity (vph)	256	452			370	1615		1637	1064		177	2657
Starvation Cap Reductn	0	0			0	0		0	0		0	0
Spillback Cap Reductn	0	0			0	0		0	0		0	0
Storage Cap Reductn	0	0			0	0		0	0		0	0
Reduced v/c Ratio	0.12	0.11			0.45	0.11		1.53	0.13		0.56	0.94

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 135
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.53
 Intersection Signal Delay: 131.9
 Intersection LOS: F
 Intersection Capacity Utilization 100.9%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 6: US 17 & Driveway/Litchfield Dr



↙

Lane Group	SBR
LOS	A
Approach Delay	
Approach LOS	
Stops (vph)	1
Fuel Used(gal)	0
CO Emissions (g/hr)	4
NOx Emissions (g/hr)	1
VOC Emissions (g/hr)	1
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	0
Queue Length 95th (ft)	4
Internal Link Dist (ft)	
Turn Bay Length (ft)	75
Base Capacity (vph)	1098
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.01
Intersection Summary	

Intersection								
Int Delay, s/veh	86.4							
Movement	EBL	EBR	NBU	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖	↗		↘	↑↑↑		↙	↗
Traffic Vol, veh/h	50	49	2	47	2421	2	2363	74
Future Vol, veh/h	50	49	2	47	2421	2	2363	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	-	None
Storage Length	0	25	-	50	-	-	-	100
Veh in Median Storage, #	0	-	-	-	0	-	0	-
Grade, %	0	-	-	-	0	-	0	-
Peak Hour Factor	86	86	95	95	95	93	93	93
Heavy Vehicles, %	0	3	0	0	3	0	2	2
Mvmt Flow	58	57	2	49	2548	2	2541	80

Major/Minor	Minor2		Major1		Major2			
Conflicting Flow All	3666	1271	2541	2621	0	1860	-	0
Stage 1	2545	-	-	-	-	-	-	-
Stage 2	1121	-	-	-	-	-	-	-
Critical Hdwy	6.25	6.96	6.4	4.1	-	5.6	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	3.33	2.5	2.2	-	2.3	-	-
Pot Cap-1 Maneuver	~ 6	157	33	166	-	148	-	-
Stage 1	~ 46	-	-	-	-	-	-	-
Stage 2	255	-	-	-	-	-	-	-
Platoon blocked, %					-	-	-	-
Mov Cap-1 Maneuver	~ 4	157	132	132	-	148	-	-
Mov Cap-2 Maneuver	~ 4	-	-	-	-	-	-	-
Stage 1	~ 28	-	-	-	-	-	-	-
Stage 2	255	-	-	-	-	-	-	-























Approach	EB	NB	SB
HCM Control Delay, \$	3981.6	1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	132	-	4	157	-	-
HCM Lane V/C Ratio	0.391	-	14.535	0.363	-	-
HCM Control Delay (s)	48.6	-	\$ 7844	40.4	0	-
HCM Lane LOS	E	-	F	E	A	-
HCM 95th %tile Q(veh)	1.7	-	9.2	1.5	-	-

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

Lanes, Volumes, Timings
8: US 17 & Willbrook Blvd/Retreat Beach Cir

2040 No Build - PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	332	80	220	118	82	220	252	2104	55	2	47	1989
Future Volume (vph)	332	80	220	118	82	220	252	2104	55	2	47	1989
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		100	325		300		325	
Storage Lanes	1		0	1		1	1		1		1	
Taper Length (ft)	100			100			100				100	
Satd. Flow (prot)	1787	1655	0	1787	1900	1583	1787	3539	1568	0	1805	3539
Flt Permitted	0.445			0.355			0.052				0.055	
Satd. Flow (perm)	837	1655	0	668	1900	1583	98	3539	1568	0	104	3539
Right Turn on Red			Yes			Yes			Yes			
Satd. Flow (RTOR)		84				200			153			
Link Speed (mph)		35			25			45				45
Link Distance (ft)		910			323			939				433
Travel Time (s)		17.7			8.8			14.2				6.6
Peak Hour Factor	0.91	0.91	0.91	0.94	0.94	0.94	0.97	0.97	0.97	0.94	0.94	0.94
Heavy Vehicles (%)	1%	0%	3%	1%	0%	2%	1%	2%	3%	0%	0%	2%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	365	330	0	126	87	234	260	2169	57	0	52	2116
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	R NA	Left	Left
Median Width(ft)		12			12			24				24
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	
Turn Type	pm+pt	NA		pm+pt	NA	Free	pm+pt	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	1	6
Permitted Phases	4			8		Free	2		2	6	6	
Detector Phase	7	4		3	8		5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		6.0	20.0	20.0	6.0	6.0	20.0
Minimum Split (s)	15.0	38.0		15.0	15.0		15.0	27.0	27.0	15.0	15.0	27.0
Total Split (s)	31.0	38.0		15.0	22.0		18.0	82.0	82.0	15.0	15.0	79.0
Total Split (%)	20.7%	25.3%		10.0%	14.7%		12.0%	54.7%	54.7%	10.0%	10.0%	52.7%
Yellow Time (s)	3.6	3.6		3.6	3.6		4.3	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	2.3	2.3		2.3	2.3		2.1	2.1	2.1	2.1	2.1	2.1
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.9	5.9		5.9	5.9		6.4	6.4	6.4		6.4	6.4
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	Min	Min	Min	Min	Max
Act Effect Green (s)	43.6	28.6		21.8	12.7	146.5	88.3	76.7	76.7		80.2	72.6
Actuated g/C Ratio	0.30	0.20		0.15	0.09	1.00	0.60	0.52	0.52		0.55	0.50
v/c Ratio	0.89	0.85		0.75	0.53	0.15	1.35	1.17	0.06		0.36	1.21
Control Delay	70.1	62.0		68.8	75.8	0.2	221.9	115.8	0.1		21.2	132.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	70.1	62.0		68.8	75.8	0.2	221.9	115.8	0.1		21.2	132.4

Lanes, Volumes, Timings
 8: US 17 & Willbrook Blvd/Retreat Beach Cir

2040 No Build - PM Peak

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	305
Future Volume (vph)	305
Ideal Flow (vphpl)	1900
Storage Length (ft)	225
Storage Lanes	1
Taper Length (ft)	
Satd. Flow (prot)	1599
Flt Permitted	
Satd. Flow (perm)	1599
Right Turn on Red	Yes
Satd. Flow (RTOR)	200
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.94
Heavy Vehicles (%)	1%
Shared Lane Traffic (%)	
Lane Group Flow (vph)	324
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Turn Type	Free
Protected Phases	
Permitted Phases	Free
Detector Phase	
Switch Phase	
Minimum Initial (s)	
Minimum Split (s)	
Total Split (s)	
Total Split (%)	
Yellow Time (s)	
All-Red Time (s)	
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Recall Mode	
Act Effct Green (s)	146.5
Actuated g/C Ratio	1.00
v/c Ratio	0.20
Control Delay	0.3
Queue Delay	0.0
Total Delay	0.3

Lanes, Volumes, Timings
 8: US 17 & Willbrook Blvd/Retreat Beach Cir

2040 No Build - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
LOS	E	E		E	E	A	F	F	A		C	F
Approach Delay		66.3			34.3			124.3				112.9
Approach LOS		E			C			F				F
Stops (vph)	276	217		107	77	0	139	1741	0		21	1644
Fuel Used(gal)	9	7		2	2	1	21	136	2		1	115
CO Emissions (g/hr)	629	516		167	125	43	1456	9483	118		103	8005
NOx Emissions (g/hr)	122	100		32	24	8	283	1845	23		20	1558
VOC Emissions (g/hr)	146	120		39	29	10	337	2198	27		24	1855
Dilemma Vehicles (#)	0	9		0	0	0	0	51	0		0	56
Queue Length 50th (ft)	309	234		91	81	0	-275	-1302	0		19	-1297
Queue Length 95th (ft)	#486	#373		#162	140	0	#475	#1492	0		43	#1474
Internal Link Dist (ft)		830			243			859				353
Turn Bay Length (ft)						100	325		300		325	
Base Capacity (vph)	411	428		169	208	1583	192	1853	893		157	1754
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	0
Reduced v/c Ratio	0.89	0.77		0.75	0.42	0.15	1.35	1.17	0.06		0.33	1.21

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 146.5
 Natural Cycle: 145
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.35
 Intersection Signal Delay: 106.5
 Intersection LOS: F
 Intersection Capacity Utilization 114.5%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 8: US 17 & Willbrook Blvd/Retreat Beach Cir



















Lane Group	SBR
LOS	A
Approach Delay	
Approach LOS	
Stops (vph)	0
Fuel Used(gal)	6
CO Emissions (g/hr)	435
NOx Emissions (g/hr)	85
VOC Emissions (g/hr)	101
Dilemma Vehicles (#)	0
Queue Length 50th (ft)	0
Queue Length 95th (ft)	0
Internal Link Dist (ft)	
Turn Bay Length (ft)	225
Base Capacity (vph)	1599
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.20
Intersection Summary	

Lanes, Volumes, Timings
9: US 17 & N Boyle Rd

2040 No Build - PM Peak

								
Lane Group	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	130	53	6	2463	124	11	35	2181
Future Volume (vph)	130	53	6	2463	124	11	35	2181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75	0	0		300		200	
Storage Lanes	1	1	0		1		1	
Taper Length (ft)	100		100				100	
Satd. Flow (prot)	1805	1568	0	3610	1583	0	1778	3610
Flt Permitted	0.950			0.944			0.034	
Satd. Flow (perm)	1805	1568	0	3408	1583	0	64	3610
Right Turn on Red		Yes			Yes			
Satd. Flow (RTOR)		54			121			
Link Speed (mph)	25			45				45
Link Distance (ft)	607			2702				2343
Travel Time (s)	16.6			40.9				35.5
Peak Hour Factor	0.98	0.98	0.93	0.93	0.93	0.94	0.94	0.94
Heavy Vehicles (%)	0%	3%	0%	0%	2%	0%	2%	0%
Shared Lane Traffic (%)								
Lane Group Flow (vph)	133	54	0	2654	133	0	49	2320
Enter Blocked Intersection	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	R NA	Left	Right	R NA	Left	Left
Median Width(ft)	12			24				24
Link Offset(ft)	0			0				0
Crosswalk Width(ft)	16			16				16
Two way Left Turn Lane								
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	9		9	9	15	
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	pm+pt	NA
Protected Phases	8			2		1	1	6
Permitted Phases		8	2		2	6	6	
Detector Phase	8	8	2	2	2	1	1	6
Switch Phase								
Minimum Initial (s)	8.0	8.0	24.0	24.0	24.0	6.0	6.0	24.0
Minimum Split (s)	15.0	15.0	30.0	30.0	30.0	15.0	15.0	30.0
Total Split (s)	16.0	16.0	119.0	119.0	119.0	15.0	15.0	134.0
Total Split (%)	10.7%	10.7%	79.3%	79.3%	79.3%	10.0%	10.0%	89.3%
Yellow Time (s)	3.0	3.0	4.3	4.3	4.3	4.3	4.3	4.3
All-Red Time (s)	3.3	3.3	1.4	1.4	1.4	1.4	1.4	1.4
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.3	6.3		5.7	5.7		5.7	5.7
Lead/Lag			Lag	Lag	Lag	Lead	Lead	
Lead-Lag Optimize?								
Recall Mode	None	None	Min	Min	Min	None	None	Min
Act Effect Green (s)	9.7	9.7		113.4	113.4		123.3	123.3
Actuated g/C Ratio	0.07	0.07		0.78	0.78		0.85	0.85
v/c Ratio	1.11	0.35		1.00	0.11		0.37	0.76
Control Delay	172.7	22.3		33.0	1.1		18.2	6.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	172.7	22.3		33.0	1.1		18.2	6.5

Lanes, Volumes, Timings
9: US 17 & N Boyle Rd

2040 No Build - PM Peak

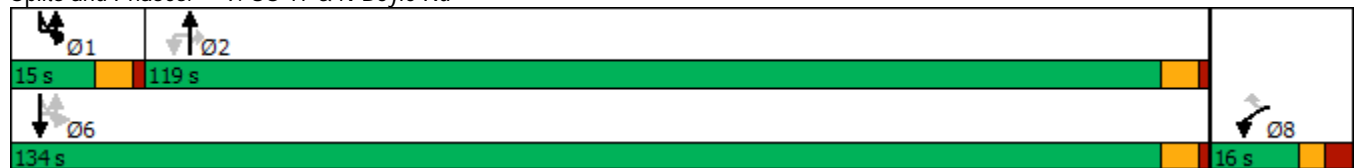


Lane Group	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
LOS	F	C		C	A		B	A
Approach Delay	129.3			31.5				6.7
Approach LOS	F			C				A
Stops (vph)	103	13		1908	7		10	818
Fuel Used(gal)	6	1		91	3		1	46
CO Emissions (g/hr)	394	39		6328	184		69	3231
NOx Emissions (g/hr)	77	8		1231	36		14	629
VOC Emissions (g/hr)	91	9		1467	43		16	749
Dilemma Vehicles (#)	0	0		81	0		0	60
Queue Length 50th (ft)	~146	0		~1257	2		6	374
Queue Length 95th (ft)	#292	46		#1563	18		38	431
Internal Link Dist (ft)	527			2622				2263
Turn Bay Length (ft)	75				300		200	
Base Capacity (vph)	120	155		2666	1264		164	3198
Starvation Cap Reductn	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0		0	0
Reduced v/c Ratio	1.11	0.35		1.00	0.11		0.30	0.73

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 145
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 23.9
 Intersection LOS: C
 Intersection Capacity Utilization 89.8%
 ICU Level of Service E
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 9: US 17 & N Boyle Rd



Intersection													
Int Delay, s/veh	391.3												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕	↗		↕		↗	↕↗			↕	↕↗	↗
Traffic Vol, veh/h	50	2	6	8	2	45	6	2528	15	5	41	2180	106
Future Vol, veh/h	50	2	6	8	2	45	6	2528	15	5	41	2180	106
Conflicting Peds, #/hr	0	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	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	-	None
Storage Length	300	-	0	-	-	-	250	-	-	-	250	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	-	0	-
Peak Hour Factor	95	95	95	90	90	90	96	96	96	97	97	97	97
Heavy Vehicles, %	0	0	0	0	0	13	0	2	0	0	0	2	0
Mvmt Flow	53	2	6	9	2	50	6	2633	16	5	42	2247	109

Major/Minor	Minor2		Minor1		Major1		Major2						
Conflicting Flow All	3671	5002	1124	3872	5103	1325	2356	0	0	2649	2649	0	0
Stage 1	2341	2341	-	2653	2653	-	-	-	-	-	-	-	-
Stage 2	1330	2661	-	1219	2450	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	7.16	4.1	-	-	6.4	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.43	2.2	-	-	2.5	2.2	-	-
Pot Cap-1 Maneuver	~ 2	~ 1	203	~ 1	~ 1	132	211	-	-	28	162	-	-
Stage 1	~ 38	71	-	24	49	-	-	-	-	-	-	-	-
Stage 2	166	48	-	194	62	-	-	-	-	-	-	-	-
Platoon blocked, %								-	-			-	-
Mov Cap-1 Maneuver	~ 1	0	203	~ 1	0	132	211	-	-	87	87	-	-
Mov Cap-2 Maneuver	~ 1	0	-	~ 1	0	-	-	-	-	-	-	-	-
Stage 1	~ 37	33	-	23	48	-	-	-	-	-	-	-	-
Stage 2	96	47	-	81	28	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	\$ 27814.3		\$ 5321.4		0.1		1.7	
HCM LOS	F		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	211	-	-	1	203	6	87	-	-
HCM Lane V/C Ratio	0.03	-	-	54.737	0.031	10.185	0.545	-	-
HCM Control Delay (s)	22.6	-	-	\$ 31021	23.	\$ 5321.4	88.2	-	-
HCM Lane LOS	C	-	-	F	C	F	F	-	-
HCM 95th %tile Q(veh)	0.1	-	-	9	0.1	9.3	2.4	-	-

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

Intersection							
Int Delay, s/veh	284.2						
Movement	EBL	EBR	NBU	NBL	NBT	SBT	SBR
Lane Configurations	Y			X	↑↑	↑↑	↑
Traffic Vol, veh/h	24	32	5	47	2842	2248	30
Future Vol, veh/h	24	32	5	47	2842	2248	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	-	None	-	None
Storage Length	0	-	-	325	-	-	500
Veh in Median Storage, #	0	-	-	-	0	0	-
Grade, %	0	-	-	-	0	0	-
Peak Hour Factor	71	71	89	89	89	93	93
Heavy Vehicles, %	0	0	0	7	2	2	0
Mvmt Flow	34	45	6	53	3193	2417	32

Major/Minor	Minor2	Major1		Major2			
Conflicting Flow All	4132	1209	2417	2449	0	-	0
Stage 1	2417	-	-	-	-	-	-
Stage 2	1715	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	6.4	4.24	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.5	2.27	-	-	-
Pot Cap-1 Maneuver	~ 2	178	40	174	-	-	-
Stage 1	54	-	-	-	-	-	-
Stage 2	133	-	-	-	-	-	-
Platoon blocked, %					-	-	-
Mov Cap-1 Maneuver	~ 1	178	123	123	-	-	-
Mov Cap-2 Maneuver	~ 1	-	-	-	-	-	-
Stage 1	~ 29	-	-	-	-	-	-
Stage 2	133	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20784.5	1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	123	-	2	-	-
HCM Lane V/C Ratio	0.475	-	39.437	-	-
HCM Control Delay (s)	58.1	-	20784.5	-	-
HCM Lane LOS	F	-	F	-	-
HCM 95th %tile Q(veh)	2.1	-	12.1	-	-

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

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑			↑↑				
Traffic Vol, veh/h	0	0	0	0	162	14	0	2507	0	0	0	0
Future Vol, veh/h	0	0	0	0	162	14	0	2507	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16979	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	76	76	76	90	90	90	98	98	98
Heavy Vehicles, %	2	2	2	0	3	0	2	3	2	2	2	2
Mvmt Flow	0	0	0	0	213	18	0	2786	0	0	0	0

Major/Minor	Minor1	Major1				
Conflicting Flow All	-	2786	1393	-	0	-
Stage 1	-	2786	-	-	-	-
Stage 2	-	0	-	-	-	-
Critical Hdwy	-	6.56	6.9	-	-	-
Critical Hdwy Stg 1	-	5.56	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	4.03	3.3	-	-	-
Pot Cap-1 Maneuver	0	~ 18	134	0	-	0
Stage 1	0	~ 39	-	0	-	0
Stage 2	0	-	-	0	-	0
Platoon blocked, %						-
Mov Cap-1 Maneuver	-	0	134	-	-	-
Mov Cap-2 Maneuver	-	0	-	-	-	-
Stage 1	-	0	-	-	-	-
Stage 2	-	0	-	-	-	-

Approach	WB	NB
HCM Control Delay, s	7.5	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBTWBLn1
Capacity (veh/h)	- 1685
HCM Lane V/C Ratio	- 0.137
HCM Control Delay (s)	- 7.5
HCM Lane LOS	- A
HCM 95th %tile Q(veh)	- 0.5

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

Intersection														
Int Delay, s/veh	5.2													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕			↕			↕	↑↑	↗		↕	↑↑	↗
Traffic Vol, veh/h	36	11	38	17	18	30	3	41	2504	29	20	45	2099	23
Future Vol, veh/h	36	11	38	17	18	30	3	41	2504	29	20	45	2099	23
Conflicting Peds, #/hr	0	0	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	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	-	None	-	-	-	None
Storage Length	-	-	-	-	-	-	-	275	-	250	-	200	-	250
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	82	82	82	57	57	57	92	92	92	92	97	97	97	97
Heavy Vehicles, %	1	0	1	0	0	0	0	19	3	5	0	3	2	0
Mvmt Flow	44	13	46	30	32	53	3	45	2722	32	21	46	2164	24

Major/Minor	Minor2		Minor1		Major1			Major2						
Conflicting Flow All	3771	5148	1082	4041	5140	1361	2164	2188	0	0	2722	2754	0	0
Stage 1	2298	2298	-	2818	2818	-	-	-	-	-	-	-	-	-
Stage 2	1473	2850	-	1223	2322	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.52	6.5	6.92	7.5	6.5	6.9	6.4	4.48	-	-	6.4	4.16	-	-
Critical Hdwy Stg 1	6.52	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.52	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.51	4	3.31	3.5	4	3.3	2.5	2.39	-	-	2.5	2.23	-	-
Pot Cap-1 Maneuver	~ 1	0	215	~ 1	0	141	59	188	-	-	25	140	-	-
Stage 1	~ 40	74	-	~ 19	40	-	-	-	-	-	-	-	-	-
Stage 2	134	38	-	193	72	-	-	-	-	-	-	-	-	-
Platoon blocked, %									-	-			-	-
Mov Cap-1 Maneuver	-	0	215	-	0	141	158	158	-	-	49	49	-	-
Mov Cap-2 Maneuver	-	0	-	-	0	-	-	-	-	-	-	-	-	-
Stage 1	~ 28	0	-	~ 13	~ 28	-	-	-	-	-	-	-	-	-
Stage 2	-	26	-	-	0	-	-	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s					0.6		11.5	
HCM LOS	-		-					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	158	-	-	-	49	-	-
HCM Lane V/C Ratio	0.303	-	-	-	1.368	-	-
HCM Control Delay (s)	37.5	-	-	-	\$ 386.7	-	-
HCM Lane LOS	E	-	-	-	F	-	-
HCM 95th %tile Q(veh)	1.2	-	-	-	6.3	-	-

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

Intersection							
Int Delay, s/veh	297.9						
Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↔		↕↑		↕↑		
Traffic Vol, veh/h	53	12	12	2716	2	2233	73
Future Vol, veh/h	53	12	12	2716	2	2233	73
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	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	57	57	94	94	96	96	96
Heavy Vehicles, %	0	0	0	3	0	2	2
Mvmt Flow	93	21	13	2889	2	2326	76

Major/Minor	Minor2	Major1	Major2				
Conflicting Flow All	3839	1201	2402	0	2889	-	0
Stage 1	2368	-	-	-	-	-	-
Stage 2	1471	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	~ 3	180	202	-	20	-	-
Stage 1	~ 58	-	-	-	-	-	-
Stage 2	181	-	-	-	-	-	-
Platoon blocked, %				-	-	-	-
Mov Cap-1 Maneuver	~ 3	180	202	-	20	-	-
Mov Cap-2 Maneuver	~ 3	-	-	-	-	-	-
Stage 1	~ 58	-	-	-	-	-	-
Stage 2	181	-	-	-	-	-	-





















Approach	EB	NB	SB
HCM Control Delay, s	4155.3	0.1	0.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	202	-	4	-	-
HCM Lane V/C Ratio	0.063	-	28.509	-	-
HCM Control Delay (s)	24	\$	4155.3	0	-
HCM Lane LOS	C	A	F	A	-
HCM 95th %tile Q(veh)	0.2	-	16.4	-	-

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

Lanes, Volumes, Timings
15: US 17 & Wachesaw Rd

2040 No Build - PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	146	121	182	70	82	91	2	208	2392	121	5	49
Future Volume (vph)	146	121	182	70	82	91	2	208	2392	121	5	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0		225		250		200
Storage Lanes	1		0	1		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1770	1715	0	1805	1723	0	0	1787	3505	1599	0	1805
Flt Permitted	0.520			0.196				0.047				0.049
Satd. Flow (perm)	969	1715	0	372	1723	0	0	88	3505	1599	0	93
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		50			37					65		
Link Speed (mph)		35			30				45			
Link Distance (ft)		703			621				601			
Travel Time (s)		13.7			14.1				9.1			
Peak Hour Factor	0.86	0.86	0.86	0.93	0.93	0.93	0.95	0.95	0.95	0.95	0.97	0.97
Heavy Vehicles (%)	2%	2%	0%	0%	0%	3%	0%	1%	3%	1%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	353	0	75	186	0	0	221	2518	127	0	56
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				24			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases		4			8		5	5	2		1	1
Permitted Phases	4			8			2	2		2	6	6
Detector Phase	4	4		8	8		5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		8.0	8.0	15.0	15.0	8.0	8.0
Minimum Split (s)	49.0	49.0		49.0	49.0		15.0	15.0	22.0	22.0	15.0	15.0
Total Split (s)	49.0	49.0		49.0	49.0		15.0	15.0	86.0	86.0	15.0	15.0
Total Split (%)	32.7%	32.7%		32.7%	32.7%		10.0%	10.0%	57.3%	57.3%	10.0%	10.0%
Yellow Time (s)	3.6	3.6		3.6	3.6		3.2	3.2	4.3	4.3	3.2	3.2
All-Red Time (s)	3.2	3.2		3.2	3.2		2.0	2.0	1.7	1.7	2.0	2.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	6.8	6.8		6.8	6.8			5.2	6.0	6.0		5.2
Lead/Lag							Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	Min	Min		Min	Min		None	None	Max	Max	None	None
Act Effect Green (s)	30.8	30.8		30.8	30.8			93.1	84.6	84.6		89.4
Actuated g/C Ratio	0.22	0.22		0.22	0.22			0.67	0.61	0.61		0.64
v/c Ratio	0.79	0.84		0.91	0.45			1.23	1.18	0.13		0.34
Control Delay	76.5	62.3		131.0	40.0			179.4	113.5	7.9		18.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Delay	76.5	62.3		131.0	40.0			179.4	113.5	7.9		18.2

Lanes, Volumes, Timings
 15: US 17 & Wachesaw Rd

2040 No Build - PM Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2079	105
Future Volume (vph)	2079	105
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		500
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3574	1615
Flt Permitted		
Satd. Flow (perm)	3574	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		103
Link Speed (mph)	45	
Link Distance (ft)	2571	
Travel Time (s)	39.0	
Peak Hour Factor	0.97	0.97
Heavy Vehicles (%)	1%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2143	108
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	15.0	15.0
Minimum Split (s)	22.0	22.0
Total Split (s)	86.0	86.0
Total Split (%)	57.3%	57.3%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.7	1.7
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.0	6.0
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	Max	Max
Act Effct Green (s)	80.2	80.2
Actuated g/C Ratio	0.58	0.58
v/c Ratio	1.04	0.11
Control Delay	60.1	3.5
Queue Delay	0.0	0.0
Total Delay	60.1	3.5

Lanes, Volumes, Timings
15: US 17 & Wachesaw Rd

2040 No Build - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	E	E		F	D			F	F	A		B
Approach Delay		66.9			66.2				113.9			
Approach LOS		E			E			F				
Stops (vph)	135	248		62	115			108	1778	27		19
Fuel Used(gal)	4	7		3	3			10	87	1		1
CO Emissions (g/hr)	282	508		178	202			687	6062	70		94
NOx Emissions (g/hr)	55	99		35	39			134	1179	14		18
VOC Emissions (g/hr)	65	118		41	47			159	1405	16		22
Dilemma Vehicles (#)	0	8		0	0			0	59	0		0
Queue Length 50th (ft)	146	267		66	116			~199	~1473	23		15
Queue Length 95th (ft)	222	360		#160	190			#411	#1810	64		47
Internal Link Dist (ft)		623			541				521			
Turn Bay Length (ft)	150			150				225		250		200
Base Capacity (vph)	295	557		113	550			179	2134	999		181
Starvation Cap Reductn	0	0		0	0			0	0	0		0
Spillback Cap Reductn	0	0		0	0			0	0	0		0
Storage Cap Reductn	0	0		0	0			0	0	0		0
Reduced v/c Ratio	0.58	0.63		0.66	0.34			1.23	1.18	0.13		0.31

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 138.9
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 85.4
 Intersection LOS: F
 Intersection Capacity Utilization 117.6%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 15: US 17 & Wachesaw Rd



Lanes, Volumes, Timings
 15: US 17 & Wachesaw Rd

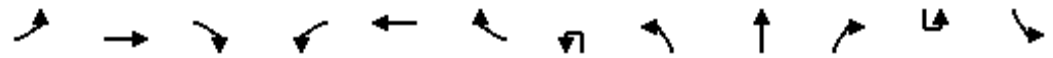
2040 No Build - PM Peak



Lane Group	SBT	SBR
LOS	E	A
Approach Delay	56.5	
Approach LOS	E	
Stops (vph)	1717	10
Fuel Used(gal)	82	2
CO Emissions (g/hr)	5697	136
NOx Emissions (g/hr)	1108	27
VOC Emissions (g/hr)	1320	32
Dilemma Vehicles (#)	69	0
Queue Length 50th (ft)	~1104	2
Queue Length 95th (ft)	#1399	32
Internal Link Dist (ft)	2491	
Turn Bay Length (ft)		500
Base Capacity (vph)	2064	976
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.04	0.11
Intersection Summary		

Lanes, Volumes, Timings
16: US 17 & Bellamy Ave

2040 No Build - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	164	68	73	32	76	65	5	59	2464	62	5	86
Future Volume (vph)	164	68	73	32	76	65	5	59	2464	62	5	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	150		0		250		300		250
Storage Lanes	1		0	1		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1752	1754	0	1805	1734	0	0	1725	3539	1583	0	1805
Flt Permitted	0.280			0.394				0.025				0.025
Satd. Flow (perm)	517	1754	0	749	1734	0	0	45	3539	1583	0	48
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		19			15					72		
Link Speed (mph)		35			35				45			
Link Distance (ft)		700			738				2571			
Travel Time (s)		13.6			14.4				39.0			
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.97	0.97
Heavy Vehicles (%)	3%	0%	0%	0%	2%	2%	0%	5%	2%	2%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	180	155	0	35	154	0	0	69	2678	67	0	94
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		12			12				24			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases	7	4		3	8		5	5	2		1	1
Permitted Phases	4			8			2	2		2	6	6
Detector Phase	7	4		3	8		5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	6.0	8.0		6.0	8.0		6.0	6.0	18.0	18.0	6.0	6.0
Minimum Split (s)	15.0	36.0		15.0	36.0		15.0	15.0	24.0	24.0	15.0	15.0
Total Split (s)	16.0	37.0		15.0	36.0		15.0	15.0	163.0	163.0	15.0	15.0
Total Split (%)	7.0%	16.1%		6.5%	15.7%		6.5%	6.5%	70.9%	70.9%	6.5%	6.5%
Yellow Time (s)	3.6	3.6		3.6	3.6		3.2	3.2	4.3	4.3	3.2	3.2
All-Red Time (s)	2.7	2.7		2.7	2.7		2.3	2.3	1.5	1.5	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	6.3	6.3		6.3	6.3			5.5	5.8	5.8		5.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None	C-Min	C-Min	None	None
Act Effect Green (s)	35.3	27.5		31.4	23.4			171.2	161.5	161.5		175.5
Actuated g/C Ratio	0.15	0.12		0.14	0.10			0.74	0.70	0.70		0.76
v/c Ratio	1.37	0.69		0.25	0.81			0.68	1.08	0.06		0.76
Control Delay	269.5	101.2		83.1	121.2			80.7	76.0	1.8		82.4
Queue Delay	0.0	0.0		0.0	0.0			0.0	9.8	0.0		0.0
Total Delay	269.5	101.2		83.1	121.2			80.7	85.8	1.8		82.4

Lanes, Volumes, Timings
16: US 17 & Bellamy Ave

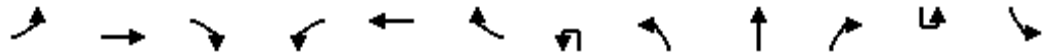
2040 No Build - PM Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2139	85
Future Volume (vph)	2139	85
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		300
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3539	1615
Flt Permitted		
Satd. Flow (perm)	3539	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		72
Link Speed (mph)	45	
Link Distance (ft)	889	
Travel Time (s)	13.5	
Peak Hour Factor	0.97	0.97
Heavy Vehicles (%)	2%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2205	88
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	18.0	18.0
Minimum Split (s)	24.0	24.0
Total Split (s)	163.0	163.0
Total Split (%)	70.9%	70.9%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.5	1.5
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.8	5.8
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Min	C-Min
Act Effct Green (s)	163.7	163.7
Actuated g/C Ratio	0.71	0.71
v/c Ratio	0.88	0.08
Control Delay	16.5	3.2
Queue Delay	0.7	0.0
Total Delay	17.2	3.2

Lanes, Volumes, Timings
16: US 17 & Bellamy Ave

2040 No Build - PM Peak



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	F		F	F			F	F	A		F
Approach Delay		191.7			114.1				83.7			
Approach LOS		F			F				F			
Stops (vph)	127	118		27	126			33	2080	3		59
Fuel Used(gal)	11	5		1	5			2	105	1		3
CO Emissions (g/hr)	754	315		64	364			175	7349	77		213
NOx Emissions (g/hr)	147	61		12	71			34	1430	15		41
VOC Emissions (g/hr)	175	73		15	84			40	1703	18		49
Dilemma Vehicles (#)	0	2		0	2			0	49	0		0
Queue Length 50th (ft)	~273	205		46	211			55	~2421	0		106
Queue Length 95th (ft)	#420	294		86	302			#139	#2486	17		m124
Internal Link Dist (ft)		620			658				2491			
Turn Bay Length (ft)	200			150				250		300		250
Base Capacity (vph)	131	251		144	236			108	2485	1133		125
Starvation Cap Reductn	0	0		0	0			0	0	0		0
Spillback Cap Reductn	0	0		0	0			0	244	0		0
Storage Cap Reductn	0	0		0	0			0	0	0		0
Reduced v/c Ratio	1.37	0.62		0.24	0.65			0.64	1.20	0.06		0.75

Intersection Summary

Area Type: Other
 Cycle Length: 230
 Actuated Cycle Length: 230
 Offset: 212 (92%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.37
 Intersection Signal Delay: 64.1
 Intersection LOS: E
 Intersection Capacity Utilization 108.0%
 ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 16: US 17 & Bellamy Ave



Lanes, Volumes, Timings
 16: US 17 & Bellamy Ave





















2040 No Build - PM Peak



Lane Group	SBT	SBR
LOS	B	A
Approach Delay	19.2	
Approach LOS	B	
Stops (vph)	821	11
Fuel Used(gal)	36	1
CO Emissions (g/hr)	2500	65
NOx Emissions (g/hr)	486	13
VOC Emissions (g/hr)	579	15
Dilemma Vehicles (#)	55	0
Queue Length 50th (ft)	375	3
Queue Length 95th (ft)	760	m13
Internal Link Dist (ft)	809	
Turn Bay Length (ft)		300
Base Capacity (vph)	2518	1170
Starvation Cap Reductn	102	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.91	0.08
Intersection Summary		

Lanes, Volumes, Timings
17: US 17 & Riverwood Dr

2040 No Build - PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Traffic Volume (vph)	218	14	74	29	23	12	11	73	2718	8	3	12
Future Volume (vph)	218	14	74	29	23	12	11	73	2718	8	3	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		200	100		0		200		300		200
Storage Lanes	0		1	1		0		1		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	1805	1607	0	1805	1723	0	0	1805	3539	1346	0	1805
Flt Permitted	0.720			0.583				0.023				0.024
Satd. Flow (perm)	1368	1607	0	1108	1723	0	0	44	3539	1346	0	46
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		57			10					42		
Link Speed (mph)		30			30				45			
Link Distance (ft)		502			435				435			
Travel Time (s)		11.4			9.9				6.6			
Peak Hour Factor	0.84	0.84	0.84	0.62	0.62	0.62	0.93	0.93	0.93	0.93	0.98	0.98
Heavy Vehicles (%)	0%	0%	4%	0%	7%	0%	0%	0%	2%	20%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	260	105	0	47	56	0	0	90	2923	9	0	15
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		18			12				36			
Link Offset(ft)		0			0				0			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Perm	NA		Perm	NA		pm+pt	pm+pt	NA	Perm	pm+pt	pm+pt
Protected Phases		4			8		5	5	2		1	1
Permitted Phases	4			8			2	2		2	6	6
Detector Phase	4	4		8	8		5	5	2	2	1	1
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		6.0	6.0	18.0	18.0	6.0	6.0
Minimum Split (s)	37.0	37.0		39.0	39.0		15.0	15.0	25.0	25.0	15.0	15.0
Total Split (s)	43.0	43.0		43.0	43.0		15.0	15.0	172.0	172.0	15.0	15.0
Total Split (%)	18.7%	18.7%		18.7%	18.7%		6.5%	6.5%	74.8%	74.8%	6.5%	6.5%
Yellow Time (s)	3.6	3.6		3.6	3.6		3.2	3.2	4.3	4.3	3.2	3.2
All-Red Time (s)	2.7	2.7		2.7	2.7		2.3	2.3	1.8	1.8	2.3	2.3
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0	0.0		0.0
Total Lost Time (s)	6.3	6.3		6.3	6.3			5.5	6.1	6.1		5.5
Lead/Lag							Lead	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		None	None	C-Min	C-Min	None	None
Act Effect Green (s)	36.7	36.7		36.7	36.7			179.9	173.6	173.6		173.1
Actuated g/C Ratio	0.16	0.16		0.16	0.16			0.78	0.75	0.75		0.75
v/c Ratio	1.19	0.35		0.27	0.20			0.86	1.09	0.01		0.18
Control Delay	197.5	42.7		89.5	70.7			81.0	53.7	0.0		10.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	1.1	0.0		0.0
Total Delay	197.5	42.7		89.5	70.7			81.0	54.7	0.0		10.3

Lanes, Volumes, Timings
17: US 17 & Riverwood Dr

2040 No Build - PM Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2316	91
Future Volume (vph)	2316	91
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		400
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3539	1615
Flt Permitted		
Satd. Flow (perm)	3539	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		71
Link Speed (mph)	45	
Link Distance (ft)	646	
Travel Time (s)	9.8	
Peak Hour Factor	0.98	0.98
Heavy Vehicles (%)	2%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2363	93
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	36	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	6	
Permitted Phases		6
Detector Phase	6	6
Switch Phase		
Minimum Initial (s)	18.0	18.0
Minimum Split (s)	25.0	25.0
Total Split (s)	172.0	172.0
Total Split (%)	74.8%	74.8%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.8	1.8
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	6.1	6.1
Lead/Lag	Lag	Lag
Lead-Lag Optimize?		
Recall Mode	C-Min	C-Min
Act Effct Green (s)	166.1	166.1
Actuated g/C Ratio	0.72	0.72
v/c Ratio	0.92	0.08
Control Delay	34.5	2.9
Queue Delay	0.5	0.0
Total Delay	35.0	2.9

Lanes, Volumes, Timings
17: US 17 & Riverwood Dr

2040 No Build - PM Peak

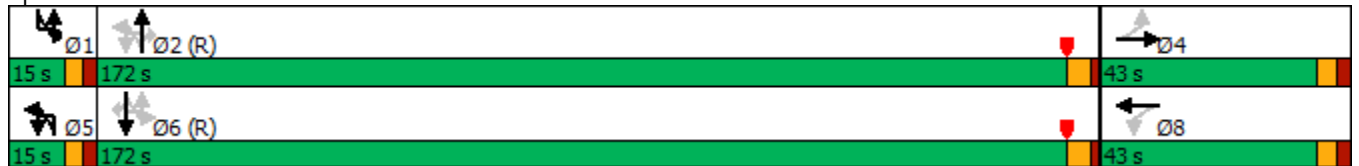


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	D		F	E			F	D	A		B
Approach Delay		153.0			79.3				55.4			
Approach LOS		F			E				E			
Stops (vph)	178	36		26	25			49	1127	0		4
Fuel Used(gal)	11	2		1	1			3	67	0		0
CO Emissions (g/hr)	793	113		54	53			190	4688	5		10
NOx Emissions (g/hr)	154	22		10	10			37	912	1		2
VOC Emissions (g/hr)	184	26		12	12			44	1087	1		2
Dilemma Vehicles (#)	0	0		0	0			0	55	0		0
Queue Length 50th (ft)	~474	64		64	62			95	~2677	0		5
Queue Length 95th (ft)	#621	122		78	74			m87	m#2294	m0		11
Internal Link Dist (ft)		422			355				355			
Turn Bay Length (ft)	200			100				200		300		200
Base Capacity (vph)	218	304		176	283			106	2671	1026		107
Starvation Cap Reductn	0	0		0	0			0	6	0		0
Spillback Cap Reductn	0	0		0	0			0	0	0		0
Storage Cap Reductn	0	0		0	0			0	0	0		0
Reduced v/c Ratio	1.19	0.35		0.27	0.20			0.85	1.10	0.01		0.14

Intersection Summary

Area Type: Other
 Cycle Length: 230
 Actuated Cycle Length: 230
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.19
 Intersection Signal Delay: 52.7 Intersection LOS: D
 Intersection Capacity Utilization 104.2% ICU Level of Service G
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 17: US 17 & Riverwood Dr





Lane Group	SBT	SBR
LOS	D	A
Approach Delay	33.6	
Approach LOS	C	
Stops (vph)	1872	7
Fuel Used(gal)	49	1
CO Emissions (g/hr)	3443	36
NOx Emissions (g/hr)	670	7
VOC Emissions (g/hr)	798	8
Dilemma Vehicles (#)	50	0
Queue Length 50th (ft)	1511	9
Queue Length 95th (ft)	1607	29
Internal Link Dist (ft)	566	
Turn Bay Length (ft)		400
Base Capacity (vph)	2555	1185
Starvation Cap Reductn	0	0
Spillback Cap Reductn	37	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.94	0.08
Intersection Summary		

Intersection														
Int Delay, s/veh	11.6													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↘	↕	↗		↘	↕	↗
Traffic Vol, veh/h	36	0	20	9	0	106	3	2	2915	61	14	106	2428	3
Future Vol, veh/h	36	0	20	9	0	106	3	2	2915	61	14	106	2428	3
Conflicting Peds, #/hr	0	0	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	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	-	None	-	-	-	Free
Storage Length	-	-	0	-	-	-	-	0	-	0	-	200	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	-	0	-	-	-	0	-
Peak Hour Factor	51	51	51	73	73	73	89	89	89	89	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	1	0	0	3	0	0	3	2	0
Mvmt Flow	71	0	39	12	0	145	3	2	3275	69	15	112	2556	3

Major/Minor	Minor2		Minor1		Major1			Major2						
Conflicting Flow All	4458	6164	1278	4817	6095	1638	2556	2556	0	0	3275	3344	0	0
Stage 1	2810	2810	-	3285	3285	-	-	-	-	-	-	-	-	-
Stage 2	1648	3354	-	1532	2810	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.92	6.4	4.1	-	-	6.4	4.16	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.31	2.5	2.2	-	-	2.5	2.23	-	-
Pot Cap-1 Maneuver	0	0	160	0	0	~ 90	33	176	-	-	~ 11	~ 80	-	0
Stage 1	~ 19	40	-	~ 9	22	-	-	-	-	-	-	-	-	0
Stage 2	105	20	-	124	40	-	-	-	-	-	-	-	-	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	0	160	0	0	~ 90	44	44	-	-	~ -21	~ -21	-	-
Mov Cap-2 Maneuver	-	0	-	0	0	-	-	-	-	-	-	-	-	-
Stage 1	~ 16	40	-	~ 8	19	-	-	-	-	-	-	-	-	-
Stage 2	-	17	-	94	40	-	-	-	-	-	-	-	-	-


























Approach	EB	WB	NB	SB
HCM Control Delay, s		\$ 458.8	0.2	
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT
Capacity (veh/h)	44	-	-	-	160	90	+	-
HCM Lane V/C Ratio	0.128	-	-	-	0.245	1.75	-	-
HCM Control Delay (s)	99.5	-	-	-	34.7	\$ 458.8	-	-
HCM Lane LOS	F	-	-	-	D	F	-	-
HCM 95th %tile Q(veh)	0.4	-	-	-	0.9	13	-	-

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

Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No Build - PM Peak

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations	 							 	 			
Traffic Volume (vph)	306	229	383	50	259	211	11	678	2371	26	5	224
Future Volume (vph)	306	229	383	50	259	211	11	678	2371	26	5	224
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		250	150		75		350		350		250
Storage Lanes	1		1	1		1		2		1		1
Taper Length (ft)	100			100				100				100
Satd. Flow (prot)	3433	1881	1583	1805	1900	1599	0	3468	3539	1524	0	1805
Flt Permitted	0.950			0.950				0.950				0.070
Satd. Flow (perm)	3433	1881	1583	1805	1900	1599	0	3468	3539	1524	0	133
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			194			145				60		
Link Speed (mph)		35			35				45			
Link Distance (ft)		603			870				809			
Travel Time (s)		11.7			16.9				12.3			
Peak Hour Factor	0.92	0.92	0.92	0.84	0.84	0.84	0.97	0.97	0.97	0.97	0.94	0.94
Heavy Vehicles (%)	2%	1%	2%	0%	0%	1%	0%	1%	2%	6%	0%	0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	333	249	416	60	308	251	0	710	2444	27	0	243
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	R NA	Left	Left	Right	R NA	Left
Median Width(ft)		24			12				24			
Link Offset(ft)		0			0				1			
Crosswalk Width(ft)		16			16				16			
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15		9	9	15
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	Prot	NA	pt+ov	Prot	pm+pt
Protected Phases	3	8		7	4		1	1	6	6 7	5	5
Permitted Phases			8			4						2
Detector Phase	3	8	8	7	4	4	1	1	6	6 7	5	5
Switch Phase												
Minimum Initial (s)	6.0	8.0	8.0	6.0	8.0	8.0	6.0	6.0	25.0		6.0	6.0
Minimum Split (s)	15.0	46.0	46.0	15.0	46.0	46.0	15.0	15.0	31.0		15.0	15.0
Total Split (s)	17.0	48.0	48.0	15.0	46.0	46.0	24.0	24.0	72.0		15.0	15.0
Total Split (%)	11.3%	32.0%	32.0%	10.0%	30.7%	30.7%	16.0%	16.0%	48.0%		10.0%	10.0%
Yellow Time (s)	4.0	3.6	3.6	4.0	3.6	3.6	3.5	3.5	4.3		3.5	3.5
All-Red Time (s)	2.9	2.4	2.4	2.9	2.4	2.4	1.7	1.7	1.4		1.7	1.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0
Total Lost Time (s)	6.9	6.0	6.0	6.9	6.0	6.0		5.2	5.7			5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	Max		None	None
Act Effect Green (s)	10.1	33.5	33.5	7.8	28.3	28.3		18.9	66.5	81.2		67.8
Actuated g/C Ratio	0.07	0.24	0.24	0.06	0.20	0.20		0.14	0.48	0.59		0.49
v/c Ratio	1.33	0.55	0.79	0.59	0.80	0.57		1.51	1.44	0.03		1.33
Control Delay	220.6	51.7	37.6	89.2	67.7	25.0		278.3	231.3	0.1		211.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0
Total Delay	220.6	51.7	37.6	89.2	67.7	25.0		278.3	231.3	0.1		211.4

Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No Build - PM Peak



Lane Group	SBT	SBR
Lane Configurations	↑↑	↑
Traffic Volume (vph)	2072	476
Future Volume (vph)	2072	476
Ideal Flow (vphpl)	1900	1900
Storage Length (ft)		0
Storage Lanes		1
Taper Length (ft)		
Satd. Flow (prot)	3574	1615
Flt Permitted		
Satd. Flow (perm)	3574	1615
Right Turn on Red		Yes
Satd. Flow (RTOR)		186
Link Speed (mph)	45	
Link Distance (ft)	1053	
Travel Time (s)	16.0	
Peak Hour Factor	0.94	0.94
Heavy Vehicles (%)	1%	0%
Shared Lane Traffic (%)		
Lane Group Flow (vph)	2204	506
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(ft)	24	
Link Offset(ft)	0	
Crosswalk Width(ft)	16	
Two way Left Turn Lane		
Headway Factor	1.00	1.00
Turning Speed (mph)		9
Turn Type	NA	Perm
Protected Phases	2	
Permitted Phases		2
Detector Phase	2	2
Switch Phase		
Minimum Initial (s)	25.0	25.0
Minimum Split (s)	31.0	31.0
Total Split (s)	63.0	63.0
Total Split (%)	42.0%	42.0%
Yellow Time (s)	4.3	4.3
All-Red Time (s)	1.4	1.4
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	5.7	5.7
Lead/Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes
Recall Mode	Max	Max
Act Effct Green (s)	57.5	57.5
Actuated g/C Ratio	0.41	0.41
v/c Ratio	1.49	0.65
Control Delay	254.4	25.3
Queue Delay	0.0	0.0
Total Delay	254.4	25.3

Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No Build - PM Peak

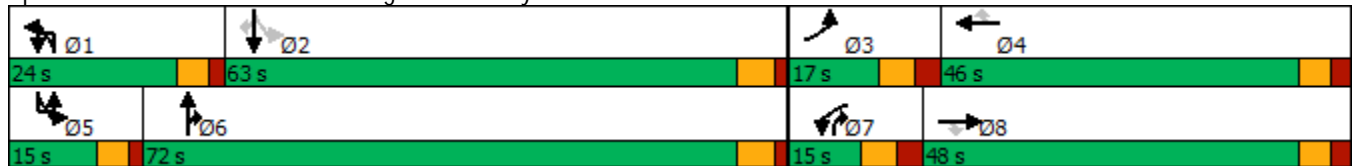


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
LOS	F	D	D	F	E	C		F	F	A		F
Approach Delay		102.2			52.5				239.8			
Approach LOS		F			D				F			
Stops (vph)	232	196	206	44	239	78		501	1739	0		118
Fuel Used(gal)	17	5	6	2	7	3		49	146	0		13
CO Emissions (g/hr)	1176	341	430	109	489	209		3417	10186	10		897
NOx Emissions (g/hr)	229	66	84	21	95	41		665	1982	2		175
VOC Emissions (g/hr)	272	79	100	25	113	48		792	2361	2		208
Dilemma Vehicles (#)	0	6	0	0	7	0		0	60	0		0
Queue Length 50th (ft)	~199	203	203	54	265	84		~455	~1565	0		~230
Queue Length 95th (ft)	#330	292	335	#108	340	148		#643	#1895	1		#453
Internal Link Dist (ft)		523			790				729			
Turn Bay Length (ft)	225		250	150		75		350		350		250
Base Capacity (vph)	250	571	616	105	549	565		471	1698	921		183
Starvation Cap Reductn	0	0	0	0	0	0		0	0	0		0
Spillback Cap Reductn	0	0	0	0	0	0		0	0	0		0
Storage Cap Reductn	0	0	0	0	0	0		0	0	0		0
Reduced v/c Ratio	1.33	0.44	0.68	0.57	0.56	0.44		1.51	1.44	0.03		1.33

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 138.6
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.51
 Intersection Signal Delay: 196.4
 Intersection LOS: F
 Intersection Capacity Utilization 125.5%
 ICU Level of Service H
 Analysis Period (min) 15
 ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 19: US 17 & Burgess Rd/Sunnyside Ave



Lanes, Volumes, Timings
 19: US 17 & Burgess Rd/Sunnyside Ave

2040 No Build - PM Peak



Lane Group	SBT	SBR
LOS	F	C
Approach Delay	211.6	
Approach LOS	F	
Stops (vph)	1498	253
Fuel Used(gal)	140	9
CO Emissions (g/hr)	9794	618
NOx Emissions (g/hr)	1906	120
VOC Emissions (g/hr)	2270	143
Dilemma Vehicles (#)	51	0
Queue Length 50th (ft)	~1435	231
Queue Length 95th (ft)	#1752	409
Internal Link Dist (ft)	973	
Turn Bay Length (ft)		
Base Capacity (vph)	1482	778
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	1.49	0.65
Intersection Summary		

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	38	77	9	23	88	85	17	249	21	32	144	65
Future Vol, veh/h	38	77	9	23	88	85	17	249	21	32	144	65
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	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	88	88	88	81	81	81	90	90	90
Heavy Vehicles, %	4	0	0	0	0	2	0	1	0	0	1	0
Mvmt Flow	39	79	9	26	100	97	21	307	26	36	160	72

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	729	643	196	674	666	320	232	0	0	333	0	0
Stage 1	268	268	-	362	362	-	-	-	-	-	-	-
Stage 2	461	375	-	312	304	-	-	-	-	-	-	-
Critical Hdwy	7.14	6.5	6.2	7.1	6.5	6.22	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.14	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.14	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.536	4	3.3	3.5	4	3.318	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	336	394	850	371	383	721	1348	-	-	1238	-	-
Stage 1	733	691	-	661	629	-	-	-	-	-	-	-
Stage 2	577	621	-	703	667	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	220	374	850	295	363	721	1348	-	-	1238	-	-
Mov Cap-2 Maneuver	220	374	-	295	363	-	-	-	-	-	-	-
Stage 1	719	668	-	648	617	-	-	-	-	-	-	-
Stage 2	411	609	-	592	644	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	23.6		20.8		0.5		1.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1348	-	-	319	447	1238	-
HCM Lane V/C Ratio	0.016	-	-	0.401	0.498	0.029	-
HCM Control Delay (s)	7.7	0	-	23.6	20.8	8	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	1.9	2.7	0.1	-

Intersection	
Intersection Delay, s/veh	22.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕			↕	
Traffic Vol, veh/h	14	36	15	167	56	155	24	218	192	114	191	17
Future Vol, veh/h	14	36	15	167	56	155	24	218	192	114	191	17
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
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	39	16	180	60	167	26	234	206	123	205	18
Number of Lanes	0	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	1
HCM Control Delay	12.8	14.8	28.6	23.8
HCM LOS	B	B	D	C

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	22%	100%	0%	35%
Vol Thru, %	0%	53%	55%	0%	27%	59%
Vol Right, %	0%	47%	23%	0%	73%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	410	65	167	211	322
LT Vol	24	0	14	167	0	114
Through Vol	0	218	36	0	56	191
RT Vol	0	192	15	0	155	17
Lane Flow Rate	26	441	70	180	227	346
Geometry Grp	7	7	6	7	7	6
Degree of Util (X)	0.052	0.793	0.159	0.388	0.425	0.678
Departure Headway (Hd)	7.318	6.472	8.186	7.783	6.744	7.05
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	490	560	437	461	533	512
Service Time	5.061	4.215	6.261	5.533	4.492	5.098
HCM Lane V/C Ratio	0.053	0.787	0.16	0.39	0.426	0.676
HCM Control Delay	10.5	29.7	12.8	15.4	14.4	23.8
HCM Lane LOS	B	D	B	C	B	C
HCM 95th-tile Q	0.2	7.5	0.6	1.8	2.1	5.1

Intersection	
Intersection Delay, s/veh	11.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	91	109	61	26	44	26	18	197	30	9	123	11
Future Vol, veh/h	91	109	61	26	44	26	18	197	30	9	123	11
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	110	131	73	31	53	31	22	237	36	11	148	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.9	9.9	12.4	10.6
HCM LOS	B	A	B	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	7%	35%	27%	6%
Vol Thru, %	80%	42%	46%	86%
Vol Right, %	12%	23%	27%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	245	261	96	143
LT Vol	18	91	26	9
Through Vol	197	109	44	123
RT Vol	30	61	26	11
Lane Flow Rate	295	314	116	172
Geometry Grp	1	1	1	1
Degree of Util (X)	0.436	0.463	0.18	0.265
Departure Headway (Hd)	5.319	5.306	5.609	5.543
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	676	679	637	646
Service Time	3.359	3.348	3.662	3.589
HCM Lane V/C Ratio	0.436	0.462	0.182	0.266
HCM Control Delay	12.4	12.9	9.9	10.6
HCM Lane LOS	B	B	A	B
HCM 95th-tile Q	2.2	2.5	0.7	1.1

SimTraffic Simulation Summary 2040 No-Build - MD Peak

Summary of All Intervals

Start Time	11:20
End Time	12:30
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	17909
Vehs Exited	16575
Starting Vehs	1388
Ending Vehs	2722
Travel Distance (mi)	47762
Travel Time (hr)	2996.0
Total Delay (hr)	1908.5
Total Stops	37758
Fuel Used (gal)	1877.9

Interval #0 Information Seeding

Start Time	11:20
End Time	11:30
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	11:30
End Time	12:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	17909
Vehs Exited	16575
Starting Vehs	1388
Ending Vehs	2722
Travel Distance (mi)	47762
Travel Time (hr)	2996.0
Total Delay (hr)	1908.5
Total Stops	37758
Fuel Used (gal)	1877.9

Queuing and Blocking Report
 2040 No-Build - MD Peak

Intersection: 1: US 17 & Kings River Rd

Movement	EB	NB
Directions Served	LR	L
Maximum Queue (ft)	465	180
Average Queue (ft)	441	78
95th Queue (ft)	451	147
Link Distance (ft)	431	
Upstream Blk Time (%)	100	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		200
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: US 17 & S Causeway Rd

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	UT	T	UL	T	T
Maximum Queue (ft)	555	175	448	436	248	276	285
Average Queue (ft)	290	58	188	142	99	58	59
95th Queue (ft)	486	194	452	387	208	199	195
Link Distance (ft)	503		684	684		1061	1061
Upstream Blk Time (%)	2						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		75			250		
Storage Blk Time (%)	67				0	1	
Queuing Penalty (veh)	93				2	1	

Intersection: 3: US 17 & Petigru Dr/Alston Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LTR	UL	T	TR	UL	T	T	R
Maximum Queue (ft)	408	225	265	250	1240	1216	127	380	391	26
Average Queue (ft)	301	184	95	150	444	461	55	134	140	5
95th Queue (ft)	464	271	196	284	993	1017	111	356	370	21
Link Distance (ft)	393		460		3609	3609		1691	1691	1691
Upstream Blk Time (%)	7									
Queuing Penalty (veh)	0									
Storage Bay Dist (ft)		125		150			150			
Storage Blk Time (%)	46	29		13	23			17		
Queuing Penalty (veh)	111	51		124	37			8		

Queuing and Blocking Report
 2040 No-Build - MD Peak

Intersection: 4: US 17 & Waverly Rd/N Causeway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	R	UL	T	T	R	UL	T	T	R
Maximum Queue (ft)	225	526	374	325	300	1710	1702	400	300	899	888	300
Average Queue (ft)	183	340	202	22	145	1194	1237	156	173	532	535	59
95th Queue (ft)	273	467	308	155	313	2003	1952	462	319	1069	1093	238
Link Distance (ft)		740	568			1691	1691			780	780	
Upstream Blk Time (%)						1	1			5	6	
Queuing Penalty (veh)						10	9			56	69	
Storage Bay Dist (ft)	125			225	200			300	200			200
Storage Blk Time (%)	32	36	10		4	38	39		6	30	31	
Queuing Penalty (veh)	88	78	19		32	51	48		58	53	40	

Intersection: 4: US 17 & Waverly Rd/N Causeway Rd

Movement	B61	B61
Directions Served	T	T
Maximum Queue (ft)	419	426
Average Queue (ft)	50	37
95th Queue (ft)	233	199
Link Distance (ft)	6862	6862
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: US 17 & Martin Luther King Rd/Brown Ln

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LTR	UL	T	T	UL	T	T	R
Maximum Queue (ft)	460	250	21	274	919	862	30	532	639	250
Average Queue (ft)	323	49	1	30	286	294	5	178	189	73
95th Queue (ft)	461	180	7	140	727	726	22	474	495	249
Link Distance (ft)	640		228		6862	6862		6014	6014	
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		150		175			200			150
Storage Blk Time (%)	51				13	14		9	13	
Queuing Penalty (veh)	28				3	0		0	22	

Queuing and Blocking Report
2040 No-Build - MD Peak

Intersection: 6: US 17 & Driveway/Litchfield Dr

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	LT	T	R	UL	T	T	R
Maximum Queue (ft)	50	47	263	3272	3282	275	183	316	311	175
Average Queue (ft)	14	17	132	1925	1968	122	69	191	193	7
95th Queue (ft)	39	44	208	3520	3618	328	138	338	344	59
Link Distance (ft)	195	195	722	6014	6014			298	298	
Upstream Blk Time (%)								1	1	
Queuing Penalty (veh)								18	17	
Storage Bay Dist (ft)						175	200			75
Storage Blk Time (%)			2		35		0	8	17	
Queuing Penalty (veh)			3		55		0	11	4	

Intersection: 7: US 17 & Country Club Dr

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	UL	T	T	UT	T
Maximum Queue (ft)	483	125	116	163	124	201	215
Average Queue (ft)	429	57	48	11	11	30	33
95th Queue (ft)	615	153	92	71	68	118	130
Link Distance (ft)	468			298	298	183	183
Upstream Blk Time (%)	76					0	1
Queuing Penalty (veh)	0					3	7
Storage Bay Dist (ft)		25	50				
Storage Blk Time (%)	97	30	22	0			2
Queuing Penalty (veh)	80	19	166	0			1

Queuing and Blocking Report
2040 No-Build - MD Peak

Intersection: 8: US 17 & Willbrook Blvd/Retreat Beach Cir

Movement	EB	EB	WB	WB	NB	NB	NB	NB	B62	B62	SB	SB
Directions Served	L	TR	L	T	UL	T	T	R	T	T	UL	T
Maximum Queue (ft)	792	685	151	193	425	946	946	400	66	76	368	476
Average Queue (ft)	518	237	70	80	366	539	560	80	2	3	57	430
95th Queue (ft)	791	508	123	136	485	834	862	343	22	27	230	501
Link Distance (ft)	856	856	269	269		874	874		3481	3481		368
Upstream Blk Time (%)						1	1				0	40
Queuing Penalty (veh)						10	13				0	440
Storage Bay Dist (ft)					325			300			325	
Storage Blk Time (%)				6	19	24	30					42
Queuing Penalty (veh)				2	177	79	16					21

Intersection: 8: US 17 & Willbrook Blvd/Retreat Beach Cir

Movement	SB	SB	B89	B89
Directions Served	T	R	T	T
Maximum Queue (ft)	463	325	684	732
Average Queue (ft)	435	184	329	354
95th Queue (ft)	493	449	636	660
Link Distance (ft)	368		2623	2623
Upstream Blk Time (%)	43			
Queuing Penalty (veh)	474			
Storage Bay Dist (ft)		225		
Storage Blk Time (%)	50			
Queuing Penalty (veh)	143			

Intersection: 9: US 17 & N Boyle Rd

Movement	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	UT	T	R	UL	T	T
Maximum Queue (ft)	174	216	318	331	72	73	172	183
Average Queue (ft)	102	52	161	162	32	31	72	83
95th Queue (ft)	169	126	281	280	68	67	156	162
Link Distance (ft)		531	2623	2623			2268	2268
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	75				300	200		
Storage Blk Time (%)	28	3		0				
Queuing Penalty (veh)	15	5		0				

Queuing and Blocking Report
 2040 No-Build - MD Peak

Intersection: 10: US 17 & Sandy Island/Trace Dr

Movement	EB	EB	WB	NB	SB	SB
Directions Served	LT	R	LTR	UL	UL	R
Maximum Queue (ft)	397	625	432	17	65	12
Average Queue (ft)	250	259	228	2	22	0
95th Queue (ft)	480	703	495	10	53	4
Link Distance (ft)		630	417			
Upstream Blk Time (%)		10	37			
Queuing Penalty (veh)		0	0			
Storage Bay Dist (ft)	300			250	250	200
Storage Blk Time (%)	49	22				
Queuing Penalty (veh)	6	11				

Intersection: 11: US 17 & Wesley Rd

Movement	EB	NB
Directions Served	LR	UL
Maximum Queue (ft)	326	87
Average Queue (ft)	188	19
95th Queue (ft)	313	53
Link Distance (ft)	823	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		325
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: US 17 & US 17 BUS

Movement	WB
Directions Served	TR
Maximum Queue (ft)	394
Average Queue (ft)	300
95th Queue (ft)	510
Link Distance (ft)	317
Upstream Blk Time (%)	71
Queuing Penalty (veh)	129
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
2040 No-Build - MD Peak

Intersection: 13: US 17 & Pendergrass Ave

Movement	EB	WB	NB	SB	SB	SB
Directions Served	LTR	LTR	UL	UL	T	T
Maximum Queue (ft)	867	570	46	210	262	234
Average Queue (ft)	612	363	12	97	15	8
95th Queue (ft)	1080	727	30	211	112	77
Link Distance (ft)	852	554			4990	4990
Upstream Blk Time (%)	36	39				
Queuing Penalty (veh)	0	0				
Storage Bay Dist (ft)			275	200		
Storage Blk Time (%)				4	0	0
Queuing Penalty (veh)				40	0	0

Intersection: 14: US 17 & Wesley Rd

Movement	EB	NB	NB
Directions Served	LR	LT	T
Maximum Queue (ft)	1028	483	458
Average Queue (ft)	756	110	90
95th Queue (ft)	1224	319	297
Link Distance (ft)	965	4990	4990
Upstream Blk Time (%)	45		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 15: US 17 & Wachesaw Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	UL	T	T	R	UL	T	T	R
Maximum Queue (ft)	249	558	250	296	324	557	551	339	299	828	813	600
Average Queue (ft)	143	177	69	97	212	364	377	21	60	353	375	77
95th Queue (ft)	247	383	148	185	382	619	626	122	196	661	688	365
Link Distance (ft)		634		553		546	546			2463	2463	
Upstream Blk Time (%)						2	1					
Queuing Penalty (veh)						20	17					
Storage Bay Dist (ft)	150		150		225			250	200			500
Storage Blk Time (%)	19	11	0	4	5	18	18			21	6	
Queuing Penalty (veh)	52	21	0	3	53	42	12			14	5	

Queuing and Blocking Report
 2040 No-Build - MD Peak

Intersection: 16: US 17 & Bellamy Ave

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	UL	T	T	R	UL	T	T	R
Maximum Queue (ft)	300	638	250	669	350	649	646	400	235	504	582	400
Average Queue (ft)	270	548	49	250	57	366	371	80	87	169	170	14
95th Queue (ft)	361	835	147	516	194	648	659	343	199	383	391	132
Link Distance (ft)		623		658		2463	2463			770	770	
Upstream Blk Time (%)		63		0								
Queuing Penalty (veh)		0		0								
Storage Bay Dist (ft)	200		150		250			300	250			300
Storage Blk Time (%)	66	15		40		16	14		0	5	3	
Queuing Penalty (veh)	123	40		21		10	13		0	6	5	

Intersection: 16: US 17 & Bellamy Ave

Movement	B35
Directions Served	T
Maximum Queue (ft)	398
Average Queue (ft)	13
95th Queue (ft)	131
Link Distance (ft)	394
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
 2040 No-Build - MD Peak

Intersection: 17: US 17 & Riverwood Dr

Movement	EB	EB	B81	WB	WB	NB	NB	NB	NB	B35	B35	SB
Directions Served	L	TR	T	L	TR	UL	T	T	R	T	T	UL
Maximum Queue (ft)	485	300	187	78	84	299	465	464	394	154	319	299
Average Queue (ft)	359	128	31	33	20	78	210	204	17	7	12	45
95th Queue (ft)	561	355	122	70	57	202	447	440	133	55	108	137
Link Distance (ft)	414		411		361		394	394		770	770	
Upstream Blk Time (%)	16						4	4	0			
Queuing Penalty (veh)	0						45	44	0			
Storage Bay Dist (ft)		200		100		200			300			200
Storage Blk Time (%)	58				0	1	10	6				
Queuing Penalty (veh)	63				0	19	10	2				

Intersection: 17: US 17 & Riverwood Dr

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	434	492
Average Queue (ft)	231	239
95th Queue (ft)	467	486
Link Distance (ft)	570	570
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	11	2
Queuing Penalty (veh)	3	2

Intersection: 18: US 17 & Driveway/Macklen Ave

Movement	EB	WB	NB	NB	NB	SB	SB	SB	B56	B56
Directions Served	LT	LTR	UL	T	T	UL	T	T	T	T
Maximum Queue (ft)	270	1138	52	349	375	300	648	648	124	142
Average Queue (ft)	187	908	10	17	17	135	88	54	4	5
95th Queue (ft)	327	1420	33	123	130	268	383	327	41	47
Link Distance (ft)	269	1123	392	392	392		575	575	1172	1172
Upstream Blk Time (%)	44	48			0		3	3		
Queuing Penalty (veh)	0	45			0		29	24		
Storage Bay Dist (ft)						200				
Storage Blk Time (%)						21	0			
Queuing Penalty (veh)						264	0			

Queuing and Blocking Report
 2040 No-Build - MD Peak

Intersection: 19: US 17 & Burgess Rd/Sunnyside Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB
Directions Served	L	L	T	L	T	R	UL	L	T	T	R	UL
Maximum Queue (ft)	325	404	210	96	334	175	284	450	855	807	450	350
Average Queue (ft)	158	211	100	23	157	61	207	372	675	681	73	263
95th Queue (ft)	288	328	181	61	266	178	290	564	992	974	319	481
Link Distance (ft)		536	536		805				748	748		
Upstream Blk Time (%)									23	27		
Queuing Penalty (veh)									340	396		
Storage Bay Dist (ft)	225			150		75	350	350			350	250
Storage Blk Time (%)	2	12			44	3		0	31	36		
Queuing Penalty (veh)	4	21			68	7		0	167	26		

Intersection: 19: US 17 & Burgess Rd/Sunnyside Ave

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	1038	1049	1049
Average Queue (ft)	1007	1008	1010
95th Queue (ft)	1028	1029	1033
Link Distance (ft)	986	986	986
Upstream Blk Time (%)	59	74	56
Queuing Penalty (veh)	0	0	0
Storage Bay Dist (ft)			
Storage Blk Time (%)	59		
Queuing Penalty (veh)	98		

Intersection: 20: Kings River Rd & Hagley Dr/Tyson Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	99	137	48	50
Average Queue (ft)	46	41	6	8
95th Queue (ft)	75	76	26	31
Link Distance (ft)	372	319	217	216
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
2040 No-Build - MD Peak

Intersection: 21: Kings River Rd & Waverly Rd

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	L	TR	L	TR	LTR
Maximum Queue (ft)	76	82	96	22	229	469
Average Queue (ft)	34	35	30	6	103	128
95th Queue (ft)	57	61	67	22	172	311
Link Distance (ft)	527		466		491	454
Upstream Blk Time (%)						2
Queuing Penalty (veh)						0
Storage Bay Dist (ft)		100		175		
Storage Blk Time (%)		0	0		2	
Queuing Penalty (veh)		0	0		0	

Intersection: 22: Murrells Inlet Rd & Macklen Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	74	413	584	575
Average Queue (ft)	36	154	241	149
95th Queue (ft)	61	413	629	402
Link Distance (ft)	1123	413	569	581
Upstream Blk Time (%)		19	23	1
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 27: US 17

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report 2040 No-Build - MD Peak

Intersection: 57: US 17

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 74: US 17 & US 17 BUS

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 75: US 17 BUS

Movement	SB
Directions Served	R
Maximum Queue (ft)	1053
Average Queue (ft)	534
95th Queue (ft)	1257
Link Distance (ft)	1038
Upstream Blk Time (%)	22
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
 2040 No-Build - MD Peak

Intersection: 76: US 17 & US 17 BUS

Movement

Directions Served
 Maximum Queue (ft)
 Average Queue (ft)
 95th Queue (ft)
 Link Distance (ft)
 Upstream Blk Time (%)
 Queuing Penalty (veh)
 Storage Bay Dist (ft)
 Storage Blk Time (%)
 Queuing Penalty (veh)

Intersection: 200: US 17

Movement	NB	NB
Directions Served	T	T
Maximum Queue (ft)	78	81
Average Queue (ft)	3	3
95th Queue (ft)	26	27
Link Distance (ft)	570	570
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 201: US 17

Movement	NB	NB	B56	B56	SB	SB	SB
Directions Served	T	T	T	T	T	T	R
Maximum Queue (ft)	1290	1279	583	574	805	791	748
Average Queue (ft)	595	596	103	110	245	278	50
95th Queue (ft)	1521	1526	416	425	822	881	357
Link Distance (ft)	1172	1172	575	575	748	748	748
Upstream Blk Time (%)	16	18	0	0	0	1	0
Queuing Penalty (veh)	235	261	2	2	4	6	1
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Network Summary

Network wide Queuing Penalty: 5703

SimTraffic Simulation Summary

2040 No Build - PM Peak

Summary of All Intervals

Start Time	4:20
End Time	5:30
Total Time (min)	70
Time Recorded (min)	60
# of Intervals	2
# of Recorded Intervals	1
Vehs Entered	17593
Vehs Exited	16077
Starting Vehs	1359
Ending Vehs	2875
Travel Distance (mi)	49432
Travel Time (hr)	3338.8
Total Delay (hr)	2215.3
Total Stops	38723
Fuel Used (gal)	1988.3

Interval #0 Information Seeding

Start Time	4:20
End Time	4:30
Total Time (min)	10

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	5:30
Total Time (min)	60

Volumes adjusted by Growth Factors.

Vehs Entered	17593
Vehs Exited	16077
Starting Vehs	1359
Ending Vehs	2875
Travel Distance (mi)	49432
Travel Time (hr)	3338.8
Total Delay (hr)	2215.3
Total Stops	38723
Fuel Used (gal)	1988.3

Queuing and Blocking Report
2040 No Build - PM Peak

Intersection: 1: US 17 & Kings River Rd

Movement	EB	NB	NB	NB	SB
Directions Served	LR	L	T	T	R
Maximum Queue (ft)	436	300	715	704	21
Average Queue (ft)	423	299	671	582	1
95th Queue (ft)	427	305	689	911	7
Link Distance (ft)	431		652	652	
Upstream Blk Time (%)	100		95	8	
Queuing Penalty (veh)	0		0	0	
Storage Bay Dist (ft)		200			100
Storage Blk Time (%)		100			
Queuing Penalty (veh)		888			

Intersection: 2: US 17 & S Causeway Rd

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	T	UL	T	T
Maximum Queue (ft)	537	175	698	675	282	522	520
Average Queue (ft)	413	64	258	221	90	133	128
95th Queue (ft)	577	202	641	574	205	362	357
Link Distance (ft)	503		684	684		1061	1061
Upstream Blk Time (%)	5		0	0			
Queuing Penalty (veh)	0		0	0			
Storage Bay Dist (ft)		75			250		
Storage Blk Time (%)	70				1	3	
Queuing Penalty (veh)	79				12	3	

Intersection: 3: US 17 & Petigru Dr/Alston Rd

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	LTR	L	T	TR	UL	T	T	R
Maximum Queue (ft)	408	225	369	249	584	612	248	697	617	52
Average Queue (ft)	218	144	157	117	169	137	50	155	164	7
95th Queue (ft)	422	264	275	215	479	464	138	444	439	29
Link Distance (ft)	393		460		3609	3609		1691	1691	1691
Upstream Blk Time (%)	6									
Queuing Penalty (veh)	0									
Storage Bay Dist (ft)		125		150			150			
Storage Blk Time (%)	39	16		11	8		1	12		
Queuing Penalty (veh)	82	27		106	13		12	7		

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 4: US 17 & Waverly Rd/N Causeway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	R	UL	T	T	R	UL	T	T	R
Maximum Queue (ft)	225	347	419	314	299	973	949	400	300	851	888	300
Average Queue (ft)	152	221	241	10	141	377	436	90	163	396	403	45
95th Queue (ft)	243	362	362	104	290	910	954	347	309	937	979	188
Link Distance (ft)		740	568			1691	1691			780	780	
Upstream Blk Time (%)										3	5	
Queuing Penalty (veh)										34	55	
Storage Bay Dist (ft)	125			225	200			300	200			200
Storage Blk Time (%)	26	28	16		0	25	21		12	21	23	
Queuing Penalty (veh)	50	40	20		1	32	16		122	33	24	

Intersection: 4: US 17 & Waverly Rd/N Causeway Rd

Movement	B61	B61
Directions Served	T	T
Maximum Queue (ft)	152	326
Average Queue (ft)	11	29
95th Queue (ft)	73	149
Link Distance (ft)	6862	6862
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 5: US 17 & Martin Luther King Rd/Brown Ln

Movement	EB	EB	WB	NB	NB	NB	NB	B61	B61	SB	SB	SB
Directions Served	LT	R	LTR	UL	T	T	R	T	T	UL	T	T
Maximum Queue (ft)	481	250	21	274	1099	1051	15	669	676	72	583	587
Average Queue (ft)	262	57	4	32	301	311	1	22	23	11	168	174
95th Queue (ft)	444	198	17	115	815	794	5	220	223	41	445	445
Link Distance (ft)	640		228		6862	6862		780	780		6014	6014
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150		175			175			200		
Storage Blk Time (%)	38				13	15					9	12
Queuing Penalty (veh)	18				6	0					1	23

Intersection: 5: US 17 & Martin Luther King Rd/Brown Ln

Movement	SB
Directions Served	R
Maximum Queue (ft)	250
Average Queue (ft)	43
95th Queue (ft)	177
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	150
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: US 17 & Driveway/Litchfield Dr

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	LT	LT	T	R	UL	T	T	R
Maximum Queue (ft)	47	46	173	2733	2829	275	106	312	312	175
Average Queue (ft)	14	17	104	804	845	143	58	159	181	7
95th Queue (ft)	36	39	168	1947	2020	359	104	327	348	60
Link Distance (ft)	195	195	722	6014	6014			298	298	
Upstream Blk Time (%)								0	1	
Queuing Penalty (veh)								6	15	
Storage Bay Dist (ft)						175	200			75
Storage Blk Time (%)					33			5	14	
Queuing Penalty (veh)					40			5	2	

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 7: US 17 & Country Club Dr

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	UL	T	T	UT	T	R
Maximum Queue (ft)	426	125	119	159	120	192	215	21
Average Queue (ft)	196	60	31	14	4	28	29	1
95th Queue (ft)	382	146	82	81	40	105	118	7
Link Distance (ft)	468			298	298	183	183	
Upstream Blk Time (%)						0	0	
Queuing Penalty (veh)						1	5	
Storage Bay Dist (ft)		25	50					100
Storage Blk Time (%)	95	27	15				1	
Queuing Penalty (veh)	46	13	123				1	

Intersection: 8: US 17 & Willbrook Blvd/Retreat Beach Cir

Movement	EB	EB	WB	WB	NB	NB	NB	NB	B62	B62	SB	SB
Directions Served	L	TR	L	T	L	T	T	R	T	T	UL	T
Maximum Queue (ft)	412	313	183	119	425	970	970	400	1919	1998	367	439
Average Queue (ft)	263	131	88	77	303	849	860	68	811	829	39	355
95th Queue (ft)	397	306	146	124	538	1150	1139	311	2066	2102	147	489
Link Distance (ft)	856	856	269	269		874	874		3481	3481		368
Upstream Blk Time (%)						30	35				0	10
Queuing Penalty (veh)						367	436				0	113
Storage Bay Dist (ft)					325			300			325	
Storage Blk Time (%)				7	1	39	44					15
Queuing Penalty (veh)				15	6	97	24					7

Intersection: 8: US 17 & Willbrook Blvd/Retreat Beach Cir

Movement	SB	SB	B89	B89
Directions Served	T	R	T	T
Maximum Queue (ft)	439	325	119	125
Average Queue (ft)	370	183	17	23
95th Queue (ft)	498	447	76	87
Link Distance (ft)	368		2623	2623
Upstream Blk Time (%)	12			
Queuing Penalty (veh)	143			
Storage Bay Dist (ft)		225		
Storage Blk Time (%)	29			
Queuing Penalty (veh)	90			

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 9: US 17 & N Boyle Rd

Movement	WB	WB	NB	NB	NB	B89	B89	SB	SB	SB
Directions Served	L	R	UT	T	R	T	T	UL	T	T
Maximum Queue (ft)	172	210	410	401	53	382	425	72	169	154
Average Queue (ft)	116	72	111	109	10	35	42	30	60	75
95th Queue (ft)	187	177	259	282	34	208	248	62	140	137
Link Distance (ft)		531	2623	2623		368	368		2268	2268
Upstream Blk Time (%)						0	1			
Queuing Penalty (veh)						1	6			
Storage Bay Dist (ft)	75				300			200		
Storage Blk Time (%)	51	6		1						
Queuing Penalty (veh)	27	7		2						

Intersection: 10: US 17 & Sandy Island/Trace Dr

Movement	EB	EB	WB	NB	NB	SB
Directions Served	LT	R	LTR	L	TR	UL
Maximum Queue (ft)	400	614	137	42	5	109
Average Queue (ft)	250	162	58	3	0	27
95th Queue (ft)	476	556	111	18	2	66
Link Distance (ft)		630	417		2268	
Upstream Blk Time (%)		0				
Queuing Penalty (veh)		0				
Storage Bay Dist (ft)	300			250		250
Storage Blk Time (%)	45	7				
Queuing Penalty (veh)	3	4				

Intersection: 11: US 17 & Wesley Rd

Movement	EB	NB
Directions Served	LR	UL
Maximum Queue (ft)	502	97
Average Queue (ft)	324	30
95th Queue (ft)	544	68
Link Distance (ft)	823	
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		325
Storage Blk Time (%)		
Queuing Penalty (veh)		

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 12: US 17 & US 17 BUS

Movement	WB
Directions Served	TR
Maximum Queue (ft)	332
Average Queue (ft)	297
95th Queue (ft)	401
Link Distance (ft)	317
Upstream Blk Time (%)	77
Queuing Penalty (veh)	136
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 13: US 17 & Pendergrass Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	UL	UL
Maximum Queue (ft)	867	570	111	170
Average Queue (ft)	481	441	32	49
95th Queue (ft)	972	707	81	126
Link Distance (ft)	852	554		
Upstream Blk Time (%)	20	60		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)			275	200
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 14: US 17 & Wesley Rd

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	UT	TR
Maximum Queue (ft)	980	727	782	550	568
Average Queue (ft)	582	299	306	110	115
95th Queue (ft)	1020	708	725	443	456
Link Distance (ft)	965	4990	4990	546	546
Upstream Blk Time (%)	7			0	1
Queuing Penalty (veh)	0			3	6
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 15: US 17 & Wachesaw Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	UL	T	T	R	UL	T	T	R
Maximum Queue (ft)	249	357	249	255	324	578	575	350	300	1007	986	600
Average Queue (ft)	130	179	62	118	207	457	459	115	72	433	454	116
95th Queue (ft)	236	309	131	215	407	693	691	367	241	866	860	472
Link Distance (ft)		634		553		546	546			2463	2463	
Upstream Blk Time (%)						8	8					
Queuing Penalty (veh)						109	108					
Storage Bay Dist (ft)	150		150		225			250	200			500
Storage Blk Time (%)	12	18		8	6	26	26			28	12	
Queuing Penalty (veh)	36	26		5	72	55	31			15	13	

Intersection: 16: US 17 & Bellamy Ave

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	TR	L	TR	UL	T	T	R	UL	T	T	R
Maximum Queue (ft)	299	638	104	330	349	1002	1045	400	350	453	489	400
Average Queue (ft)	192	243	37	164	67	449	452	27	56	147	154	13
95th Queue (ft)	341	552	79	304	228	916	931	191	169	357	366	132
Link Distance (ft)		623		659		2463	2463			792	792	
Upstream Blk Time (%)		2										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)	200		150		250			300	250			300
Storage Blk Time (%)	28	4		26		18	18			5	3	
Queuing Penalty (veh)	39	7		8		12	11			5	3	

Queuing and Blocking Report
2040 No Build - PM Peak

Intersection: 17: US 17 & Riverwood Dr

Movement	EB	EB	B81	WB	WB	NB	NB	NB	NB	B35	B35	SB
Directions Served	L	TR	T	L	TR	UL	T	T	R	T	T	UL
Maximum Queue (ft)	485	300	156	100	78	300	481	492	42	752	818	72
Average Queue (ft)	328	101	14	45	24	70	236	237	1	120	148	16
95th Queue (ft)	515	317	72	91	63	222	520	521	14	503	592	47
Link Distance (ft)	414		411		361		374	374		792	792	
Upstream Blk Time (%)	9						15	16				1
Queuing Penalty (veh)	0						206	220				9
Storage Bay Dist (ft)		200		100		200			300			200
Storage Blk Time (%)	51			2			20	17				
Queuing Penalty (veh)	45			1			17	1				

Intersection: 17: US 17 & Riverwood Dr

Movement	SB	SB
Directions Served	T	T
Maximum Queue (ft)	554	556
Average Queue (ft)	195	229
95th Queue (ft)	464	504
Link Distance (ft)	570	570
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)	8	3
Queuing Penalty (veh)	1	3

Intersection: 18: US 17 & Driveway/Macklen Ave

Movement	EB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	LTR	UL	T	T	R	UL	T
Maximum Queue (ft)	265	1135	26	438	438	20	281	318
Average Queue (ft)	191	535	6	171	176	1	164	81
95th Queue (ft)	330	1195	22	496	502	7	313	287
Link Distance (ft)	269	1123	392	392	392	392		575
Upstream Blk Time (%)	53	6		4	4			
Queuing Penalty (veh)	0	5		31	32			
Storage Bay Dist (ft)							200	
Storage Blk Time (%)							44	0
Queuing Penalty (veh)							536	0

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 19: US 17 & Burgess Rd/Sunnyside Ave

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	T	R	UL	L	T	T	R
Maximum Queue (ft)	325	588	552	125	249	396	175	400	450	844	831	450
Average Queue (ft)	300	489	373	6	62	209	123	348	390	690	684	32
95th Queue (ft)	384	686	732	45	159	342	226	496	577	1037	1020	217
Link Distance (ft)		536	536			805				748	748	
Upstream Blk Time (%)		57	20							43	26	
Queuing Penalty (veh)		0	0							657	407	
Storage Bay Dist (ft)	225			250	150		75	350	350			350
Storage Blk Time (%)	77	85	6			52	8	41	50	19	26	
Queuing Penalty (veh)	118	131	24			136	24	488	595	129	7	

Intersection: 19: US 17 & Burgess Rd/Sunnyside Ave

Movement	SB	SB	SB	SB
Directions Served	UL	T	T	R
Maximum Queue (ft)	350	1025	1009	1020
Average Queue (ft)	289	1003	1002	1002
95th Queue (ft)	446	1013	1004	1011
Link Distance (ft)		986	986	986
Upstream Blk Time (%)		55	71	47
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	0	60		
Queuing Penalty (veh)	1	137		

Intersection: 20: Kings River Rd & Hagley Dr/Tyson Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	94	119	47	72
Average Queue (ft)	36	50	2	11
95th Queue (ft)	61	80	18	38
Link Distance (ft)	372	319	217	216
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 21: Kings River Rd & Waverly Rd

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	L	TR	L	TR	LTR
Maximum Queue (ft)	74	62	124	22	253	204
Average Queue (ft)	29	29	37	12	85	70
95th Queue (ft)	55	53	89	29	171	127
Link Distance (ft)	527		466		491	454
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100		175		
Storage Blk Time (%)			1		1	
Queuing Penalty (veh)			2		0	

Intersection: 22: Murrells Inlet Rd & Macklen Ave

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	88	172	74	74
Average Queue (ft)	41	32	44	34
95th Queue (ft)	68	76	65	52
Link Distance (ft)	1123	413	569	581
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 27: US 17

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Queuing and Blocking Report
2040 No Build - PM Peak

Intersection: 57: US 17

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 74: US 17 & US 17 BUS

Movement

Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 75: US 17 BUS

Movement SB

Directions Served	R
Maximum Queue (ft)	1053
Average Queue (ft)	689
95th Queue (ft)	1419
Link Distance (ft)	1038
Upstream Blk Time (%)	51
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
 2040 No Build - PM Peak

Intersection: 76: US 17 & US 17 BUS

Movement

Directions Served
 Maximum Queue (ft)
 Average Queue (ft)
 95th Queue (ft)
 Link Distance (ft)
 Upstream Blk Time (%)
 Queuing Penalty (veh)
 Storage Bay Dist (ft)
 Storage Blk Time (%)
 Queuing Penalty (veh)

Intersection: 200: US 17

Movement	NB	NB	NB	NB	SB
Directions Served	LT	T	T	T	T
Maximum Queue (ft)	550	608	615	617	31
Average Queue (ft)	199	219	213	197	2
95th Queue (ft)	612	668	655	627	15
Link Distance (ft)		570	570	570	392
Upstream Blk Time (%)		2	2	2	
Queuing Penalty (veh)		24	24	24	
Storage Bay Dist (ft)	450				
Storage Blk Time (%)	6	22			
Queuing Penalty (veh)	46	159			

Intersection: 201: US 17

Movement	NB	NB	B56	B56	SB	SB
Directions Served	T	T	T	T	T	T
Maximum Queue (ft)	1279	1279	590	588	792	782
Average Queue (ft)	782	779	274	279	126	102
95th Queue (ft)	1709	1702	724	729	591	533
Link Distance (ft)	1172	1172	575	575	748	748
Upstream Blk Time (%)	36	36	1	1	0	1
Queuing Penalty (veh)	556	559	12	11	2	4
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 9393