

Lanes, Volumes, Timings
12: Crow Hill Road & Route 32

2025 Background Traffic
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	19	580	70	15	485
Future Volume (vph)	6	19	580	70	15	485
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		150	0	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.356	
Satd. Flow (perm)	1770	1583	1863	1583	663	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		19		71		
Link Speed (mph)	30		30			30
Link Distance (ft)	928		1366			1150
Travel Time (s)	21.1		31.0			26.1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	6	19	586	71	15	490
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	19	586	71	15	490
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	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
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			CI+Ex			CI+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	Perm	D.P+P	NA
Protected Phases	3		2		1	12
Permitted Phases		3		2	2	

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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	3	2	2	1	1 2
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0	15.0	5.0	
Minimum Split (s)	22.5	22.5	24.8	24.8	9.5	
Total Split (s)	22.0	22.0	24.0	24.0	14.0	
Total Split (%)	36.7%	36.7%	40.0%	40.0%	23.3%	
Maximum Green (s)	18.0	18.0	17.2	17.2	10.0	
Yellow Time (s)	3.0	3.0	4.7	4.7	3.0	
All-Red Time (s)	1.0	1.0	2.1	2.1	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	6.8	6.8	4.0	
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Max	C-Max	None	
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	5.9	5.9	35.0	35.0	47.8	54.2
Actuated g/C Ratio	0.10	0.10	0.58	0.58	0.80	0.90
v/c Ratio	0.03	0.11	0.54	0.07	0.02	0.29
Control Delay	24.5	13.7	14.8	4.0	1.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	13.7	14.8	4.0	1.8	1.9
LOS	C	B	B	A	A	A
Approach Delay	16.3		13.6			1.9
Approach LOS	B		B			A
90th %ile Green (s)	7.0	7.0	21.5	21.5	16.7	
90th %ile Term Code	Gap	Gap	Coord	Coord	Gap	
70th %ile Green (s)	6.1	6.1	26.3	26.3	12.8	
70th %ile Term Code	Gap	Gap	Coord	Coord	Gap	
50th %ile Green (s)	0.0	0.0	41.3	41.3	7.9	
50th %ile Term Code	Skip	Skip	Coord	Coord	Gap	
30th %ile Green (s)	0.0	0.0	42.7	42.7	6.5	
30th %ile Term Code	Skip	Skip	Coord	Coord	Gap	
10th %ile Green (s)	0.0	0.0	43.1	43.1	6.1	
10th %ile Term Code	Skip	Skip	Coord	Coord	Gap	
Stops (vph)	9	10	330	15	3	76
Fuel Used(gal)	0	0	10	1	0	5
CO Emissions (g/hr)	9	17	681	62	11	346
NOx Emissions (g/hr)	2	3	133	12	2	67
VOC Emissions (g/hr)	2	4	158	14	3	80
Dilemma Vehicles (#)	0	0	0	0	0	0
Queue Length 50th (ft)	2	0	76	0	0	0
Queue Length 95th (ft)	11	17	#367	21	4	70
Internal Link Dist (ft)	848		1286			1070
Turn Bay Length (ft)				150		
Base Capacity (vph)	531	488	1086	952	768	1666
Starvation Cap Reductn	0	0	0	0	0	0

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.04	0.54	0.07	0.02	0.29

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 53 (88%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 8.7

Intersection LOS: A

Intersection Capacity Utilization 43.7%

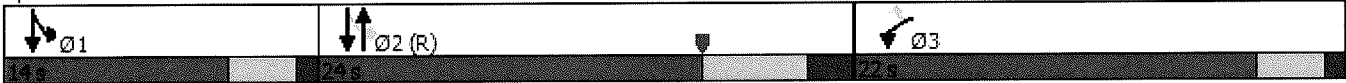
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Crow Hill Road & Route 32



Lanes, Volumes, Timings
15: Podurgiel

2025 Background Traffic
AM Peak Hour

								
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø5	Ø7
Lane Configurations								
Traffic Volume (vph)	9	3	1	521	642	3		
Future Volume (vph)	9	3	1	521	642	3		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Storage Length (ft)	0	0	60			0		
Storage Lanes	1	0	1			0		
Taper Length (ft)	25		25					
Lane Util. Factor	1.00	1.00	1.00	0.91	0.95	0.95		
Frt	0.969				0.999			
Flt Protected	0.963		0.950					
Satd. Flow (prot)	1738	0	1770	5085	3536	0		
Flt Permitted	0.963		0.370					
Satd. Flow (perm)	1738	0	689	5085	3536	0		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	3				1			
Link Speed (mph)	30			30	30			
Link Distance (ft)	532			671	101			
Travel Time (s)	12.1			15.3	2.3			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87		
Adj. Flow (vph)	10	3	1	599	738	3		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	13	0	1	599	741	0		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Left	Right		
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		
Turning Speed (mph)	15	9	15			9		
Number of Detectors	1		1	2	2			
Detector Template	Left		Left	Thru	Thru			
Leading Detector (ft)	20		20	100	100			
Trailing Detector (ft)	0		0	0	0			
Detector 1 Position(ft)	0		0	0	0			
Detector 1 Size(ft)	20		20	6	6			
Detector 1 Type	CI+Ex		CI+Ex	CI+Ex	CI+Ex			
Detector 1 Channel								
Detector 1 Extend (s)	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)				94	94			
Detector 2 Size(ft)				6	6			
Detector 2 Type				CI+Ex	CI+Ex			
Detector 2 Channel								
Detector 2 Extend (s)				0.0	0.0			
Turn Type	Prot		pm+pt	NA	NA			
Protected Phases	4		1	6	2		5	7
Permitted Phases			6					

Lanes, Volumes, Timings
15: Podurgiel

2025 Background Traffic
AM Peak Hour

												
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø5	Ø7				
Detector Phase	4		1	6	2							
Switch Phase												
Minimum Initial (s)	4.0		3.0	15.0	5.0		4.0	5.0				
Minimum Split (s)	25.2		9.5	25.0	25.0		22.0	23.4				
Total Split (s)	15.0		8.0	25.0	27.0		10.0	20.0				
Total Split (%)	21.4%		11.4%	35.7%	38.6%		14%	29%				
Maximum Green (s)	7.8		3.7	18.0	20.0		5.7	14.6				
Yellow Time (s)	3.0		3.3	4.6	4.6		3.3	3.1				
All-Red Time (s)	4.2		1.0	2.4	2.4		1.0	2.3				
Lost Time Adjust (s)	0.0		0.0	0.0	0.0							
Total Lost Time (s)	7.2		4.3	7.0	7.0							
Lead/Lag			Lead	Lag	Lag		Lead					
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0				
Recall Mode	None		None	C-Max	C-Max		None	None				
Walk Time (s)	7.0			7.0	7.0			7.0				
Flash Dont Walk (s)	11.0			11.0	11.0			11.0				
Pedestrian Calls (#/hr)	0			0	0			0				
Act Effct Green (s)	6.1		36.7	29.9	37.3							
Actuated g/C Ratio	0.09		0.52	0.43	0.53							
v/c Ratio	0.08		0.00	0.28	0.39							
Control Delay	27.2		10.0	15.8	7.3							
Queue Delay	0.0		0.0	0.0	0.0							
Total Delay	27.2		10.0	15.8	7.3							
LOS	C		A	B	A							
Approach Delay	27.2			15.8	7.3							
Approach LOS	C			B	A							
90th %ile Green (s)	7.1		3.7	18.0	20.0		5.7	15.3				
90th %ile Term Code	Gap		Max	Coord	Coord		Max	Max				
70th %ile Green (s)	0.0		0.0	24.5	37.1		8.3	20.5				
70th %ile Term Code	Skip		Skip	Coord	Coord		Gap	Gap				
50th %ile Green (s)	0.0		0.0	28.4	40.0		7.3	17.6				
50th %ile Term Code	Skip		Skip	Coord	Coord		Gap	Gap				
30th %ile Green (s)	0.0		0.0	32.3	43.1		6.5	14.5				
30th %ile Term Code	Skip		Skip	Coord	Coord		Gap	Gap				
10th %ile Green (s)	0.0		0.0	46.5	46.5		0.0	11.1				
10th %ile Term Code	Skip		Skip	Coord	Coord		Skip	Gap				
Stops (vph)	12		1	339	290							
Fuel Used(gal)	0		0	6	3							
CO Emissions (g/hr)	12		1	439	215							
NOx Emissions (g/hr)	2		0	85	42							
VOC Emissions (g/hr)	3		0	102	50							
Dilemma Vehicles (#)	0		0	0	0							
Queue Length 50th (ft)	4		0	61	36							
Queue Length 95th (ft)	19		3	106	93							
Internal Link Dist (ft)	452			591	21							
Turn Bay Length (ft)			60									
Base Capacity (vph)	196		440	2174	1886							
Starvation Cap Reductn	0		0	0	0							



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø5	Ø7
Spillback Cap Reductn	0		0	0	0			
Storage Cap Reductn	0		0	0	0			
Reduced v/c Ratio	0.07		0.00	0.28	0.39			

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 41 (59%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 33.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 15: Podurgiel

#15 Ø1 8 s	#3 #15 Ø2 (R) 27 s	#15 Ø4 15 s	#3 Ø7 20 s
#3 Ø5 10 s	#3 #15 Ø6 (R) 25 s		

Lanes, Volumes, Timings

3: Rt 2A EB Ramps

2025 Combined Traffic

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	302	0	245	0	0	0	0	422	109	121	403	0
Future Volume (vph)	302	0	245	0	0	0	0	422	109	121	403	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		175	225		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850						0.850			
Flt Protected		0.950								0.950		
Satd. Flow (prot)	0	1770	1583	0	0	0	0	3539	1583	1770	3539	0
Flt Permitted		0.950								0.436		
Satd. Flow (perm)	0	1770	1583	0	0	0	0	3539	1583	812	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			242						217			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1278			1235			101			694	
Travel Time (s)		29.0			28.1			2.3			15.8	
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
Growth Factor	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%
Adj. Flow (vph)	286	0	232	0	0	0	0	399	103	114	381	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	286	232	0	0	0	0	399	103	114	381	0
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)		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	15		9
Number of Detectors	1	2	1					2	1	1	2	
Detector Template	Left	Thru	Right					Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20					100	20	20	100	
Trailing Detector (ft)	0	0	0					0	0	0	0	
Detector 1 Position(ft)	0	0	0					0	0	0	0	
Detector 1 Size(ft)	20	6	20					6	20	20	6	
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex					CI+Ex	CI+Ex	CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		CI+Ex						CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA	custom	pm+pt	NA	
Protected Phases		7						6	6	5	2	

Lane Group	Ø1	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	1	4

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3: Rt 2A EB Ramps

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	7		7						6	2		
Detector Phase	7	7	7					6	6	5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					15.0	15.0	4.0	5.0	
Minimum Split (s)	23.4	23.4	23.4					25.0	25.0	22.0	25.0	
Total Split (s)	20.0	20.0	20.0					25.0	25.0	10.0	27.0	
Total Split (%)	28.6%	28.6%	28.6%					35.7%	35.7%	14.3%	38.6%	
Maximum Green (s)	14.6	14.6	14.6					18.0	18.0	5.7	20.0	
Yellow Time (s)	3.1	3.1	3.1					4.6	4.6	3.3	4.6	
All-Red Time (s)	2.3	2.3	2.3					2.4	2.4	1.0	2.4	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.4	5.4					7.0	7.0	4.3	7.0	
Lead/Lag								Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0		7.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0					0	0		0	
Act Effct Green (s)		15.9	15.9					29.9	29.9	41.1	37.3	
Actuated g/C Ratio		0.23	0.23					0.43	0.43	0.59	0.53	
v/c Ratio		0.71	0.42					0.26	0.13	0.20	0.20	
Control Delay		36.3	5.8					2.3	0.3	4.5	6.0	
Queue Delay		0.0	0.8					0.0	0.0	0.0	0.0	
Total Delay		36.3	6.6					2.3	0.3	4.5	6.0	
LOS		D	A					A	A	A	A	
Approach Delay		23.0						1.9			5.7	
Approach LOS		C						A			A	
90th %ile Green (s)	15.3	15.3	15.3					18.0	18.0	5.7	20.0	
90th %ile Term Code	Max	Max	Max					Coord	Coord	Max	Coord	
70th %ile Green (s)	20.6	20.6	20.6					24.4	24.4	8.3	37.0	
70th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
50th %ile Green (s)	17.7	17.7	17.7					28.3	28.3	7.3	39.9	
50th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
30th %ile Green (s)	14.6	14.6	14.6					32.2	32.2	6.5	43.0	
30th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
10th %ile Green (s)	11.2	11.2	11.2					46.4	46.4	0.0	46.4	
10th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Skip	Coord	
Stops (vph)		223	28					18	0	36	137	
Fuel Used(gal)		6	3					1	0	1	3	
CO Emissions (g/hr)		405	177					39	6	60	216	
NOx Emissions (g/hr)		79	34					8	1	12	42	
VOC Emissions (g/hr)		94	41					9	1	14	50	
Dilemma Vehicles (#)		0	0					0	0	0	0	
Queue Length 50th (ft)		110	0					4	0	8	16	
Queue Length 95th (ft)		#223	48					7	0	50	97	
Internal Link Dist (ft)		1198			1155			21			614	
Turn Bay Length (ft)									175	225		
Base Capacity (vph)		418	559					1509	799	568	1883	

Lanes, Volumes, Timings
3: Rt 2A EB Ramps

2025 Combined Traffic
AM Peak Hour

Lane Group	Ø1	Ø4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	4.0
Minimum Split (s)	9.5	25.2
Total Split (s)	8.0	15.0
Total Split (%)	11%	21%
Maximum Green (s)	3.7	7.8
Yellow Time (s)	3.3	3.0
All-Red Time (s)	1.0	4.2
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		11.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	3.7	7.1
90th %ile Term Code	Max	Gap
70th %ile Green (s)	0.0	0.0
70th %ile Term Code	Skip	Skip
50th %ile Green (s)	0.0	0.0
50th %ile Term Code	Skip	Skip
30th %ile Green (s)	0.0	0.0
30th %ile Term Code	Skip	Skip
10th %ile Green (s)	0.0	0.0
10th %ile Term Code	Skip	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		

Lanes, Volumes, Timings 3: Rt 2A EB Ramps

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0					0	0	0	0	
Spillback Cap Reductn		0	131					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.68	0.54					0.26	0.13	0.20	0.20	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 41 (59%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 10.3

Intersection LOS: B

Intersection Capacity Utilization 46.8%

ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Rt 2A EB Ramps

#15  Ø1 8 s	#3 #15  Ø2 (R) 27 s	#15  Ø4 15 s	#3  Ø7 20 s
#3  Ø5 10 s	#3 #15  Ø6 (R) 25 s		

Lane Group	Ø1	Ø4
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
6: Rt 2A WB Ramps

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	132	0	137	152	572	0	0	392	235
Future Volume (vph)	0	0	0	132	0	137	152	572	0	0	392	235
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	200		200
Storage Lanes	0		0	1		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frnt						0.850					0.944	
Flt Protected				0.950	0.950		0.950					
Satd. Flow (prot)	0	0	0	1681	1681	1583	1770	1863	0	0	3341	0
Flt Permitted				0.950	0.950		0.321					
Satd. Flow (perm)	0	0	0	1681	1681	1583	598	1863	0	0	3341	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						156					203	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1387			1103			694			836	
Travel Time (s)		31.5			25.1			15.8			19.0	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	0	0	150	0	156	173	650	0	0	445	267
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	75	75	156	173	650	0	0	712	0
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			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	15		9
Number of Detectors				1	2	1	1	2			2	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex			CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					3		1	1 2			2	
Permitted Phases				3		3	2					

Lanes, Volumes, Timings
6: Rt 2A WB Ramps

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				3	3	3	1	1 2			2	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	5.0				15.0	
Minimum Split (s)				22.5	22.5	22.5	9.5				22.9	
Total Split (s)				20.0	20.0	20.0	19.0				31.0	
Total Split (%)				28.6%	28.6%	28.6%	27.1%				44.3%	
Maximum Green (s)				15.6	15.6	15.6	15.0				26.1	
Yellow Time (s)				3.3	3.3	3.3	3.0				3.9	
All-Red Time (s)				1.1	1.1	1.1	1.0				1.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0				0.0	
Total Lost Time (s)				4.4	4.4	4.4	4.0				4.9	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0				3.0	
Recall Mode				None	None	None	None				C-Max	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				11.0	11.0	11.0					11.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				8.7	8.7	8.7	48.9	52.9			32.1	
Actuated g/C Ratio				0.12	0.12	0.12	0.70	0.76			0.46	
v/c Ratio				0.36	0.36	0.47	0.25	0.46			0.43	
Control Delay				32.0	32.0	10.1	3.5	4.9			5.8	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				32.0	32.0	10.1	3.5	4.9			5.8	
LOS				C	C	B	A	A			A	
Approach Delay					20.8			4.6			5.8	
Approach LOS					C			A			A	
90th %ile Green (s)				12.6	12.6	12.6	18.0				26.1	
90th %ile Term Code				Gap	Gap	Gap	Max				Coord	
70th %ile Green (s)				9.8	9.8	9.8	20.8				26.1	
70th %ile Term Code				Gap	Gap	Gap	Max				Coord	
50th %ile Green (s)				8.5	8.5	8.5	17.5				30.7	
50th %ile Term Code				Gap	Gap	Gap	Gap				Coord	
30th %ile Green (s)				7.1	7.1	7.1	14.0				35.6	
30th %ile Term Code				Gap	Gap	Gap	Gap				Coord	
10th %ile Green (s)				5.5	5.5	5.5	9.4				41.8	
10th %ile Term Code				Gap	Gap	Gap	Gap				Coord	
Stops (vph)				58	58	25	31	204			152	
Fuel Used(gal)				1	1	2	1	5			6	
CO Emissions (g/hr)				92	92	112	77	335			396	
NOx Emissions (g/hr)				18	18	22	15	65			77	
VOC Emissions (g/hr)				21	21	26	18	78			92	
Dilemma Vehicles (#)				0	0	0	0	0			0	
Queue Length 50th (ft)				31	31	0	3	11			12	
Queue Length 95th (ft)				64	64	43	m47	350			43	
Internal Link Dist (ft)		1307			1023			614			756	
Turn Bay Length (ft)							150					
Base Capacity (vph)				374	374	474	715	1392			1640	
Starvation Cap Reductn				0	0	0	0	0			0	

Lanes, Volumes, Timings
6: Rt 2A WB Ramps

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.20	0.20	0.33	0.24	0.47			0.43	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 70
Offset: 9 (13%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.47
Intersection Signal Delay: 7.8 Intersection LOS: A
Intersection Capacity Utilization 46.8% ICU Level of Service A
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Rt 2A WB Ramps

 Ø1	 Ø2 (R)	 Ø3
19 s	31 s	20 s

Lanes, Volumes, Timings
8: Gallivan Lane

2025 Combined Traffic
AM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	28	115	70	639	511	19
Future Volume (vph)	28	115	70	639	511	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			175
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.891				0.995	
Flt Protected	0.990		0.950			
Satd. Flow (prot)	1643	0	1770	1863	3522	0
Flt Permitted	0.990		0.438			
Satd. Flow (perm)	1643	0	816	1863	3522	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	121				8	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1408			836	286	
Travel Time (s)	32.0			19.0	6.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	29	121	74	673	538	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	150	0	74	673	558	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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
Turning Speed (mph)	15	9	15			9
Number of Detectors	1		1	2	2	
Detector Template	Left		Left	Thru	Thru	
Leading Detector (ft)	20		20	100	100	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	20		20	6	6	
Detector 1 Type	CI+Ex		CI+Ex	CI+Ex	CI+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot		D.P+P	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases			2			

Lanes, Volumes, Timings
8: Gallivan Lane

2025 Combined Traffic
AM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4		1	1 2	2	
Switch Phase						
Minimum Initial (s)	7.0		5.0		15.0	
Minimum Split (s)	22.5		9.5		23.6	
Total Split (s)	17.0		11.0		42.0	
Total Split (%)	24.3%		15.7%		60.0%	
Maximum Green (s)	13.0		7.0		36.4	
Yellow Time (s)	3.0		3.0		4.6	
All-Red Time (s)	1.0		1.0		1.0	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	4.0		4.0		5.6	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0		3.0	
Recall Mode	None		None		C-Max	
Walk Time (s)	7.0				7.0	
Flash Dont Walk (s)	11.0				11.0	
Pedestrian Calls (#/hr)	0				0	
Act Effct Green (s)	8.3		51.9	56.7	39.9	
Actuated g/C Ratio	0.12		0.74	0.81	0.57	
v/c Ratio	0.50		0.10	0.45	0.28	
Control Delay	14.8		2.5	3.7	6.7	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	14.8		2.5	3.7	6.7	
LOS	B		A	A	A	
Approach Delay	14.8			3.5	6.7	
Approach LOS	B			A	A	
90th %ile Green (s)	11.7		8.3		36.4	
90th %ile Term Code	Gap		Max		Coord	
70th %ile Green (s)	8.8		11.2		36.4	
70th %ile Term Code	Gap		Max		Coord	
50th %ile Green (s)	7.0		13.0		36.4	
50th %ile Term Code	Min		Max		Coord	
30th %ile Green (s)	7.0		13.0		36.4	
30th %ile Term Code	Min		Max		Coord	
10th %ile Green (s)	0.0		6.7		53.7	
10th %ile Term Code	Skip		Gap		Coord	
Stops (vph)	43		14	179	206	
Fuel Used(gal)	2		1	6	4	
CO Emissions (g/hr)	155		40	394	267	
NOx Emissions (g/hr)	30		8	77	52	
VOC Emissions (g/hr)	36		9	91	62	
Dilemma Vehicles (#)	0		0	0	0	
Queue Length 50th (ft)	12		2	70	66	
Queue Length 95th (ft)	57		16	96	38	
Internal Link Dist (ft)	1328			756	206	
Turn Bay Length (ft)			100			
Base Capacity (vph)	403		748	1489	2009	
Starvation Cap Reductn	0		0	0	0	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.37		0.10	0.45	0.28	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 2 (3%), Referenced to phase 2:NBSB and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 5.9

Intersection LOS: A

Intersection Capacity Utilization 48.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Gallivan Lane

Ø1	Ø2 (R)	Ø4
11.5	42.5	17.5

Lanes, Volumes, Timings
10: Site Driveway/Fort Shantock Rd

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	10	46	0	21	4	629	34	17	474	1
Future Volume (vph)	5	1	10	46	0	21	4	629	34	17	474	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	300		0	150		150	500		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. 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
Frt		0.913			0.958			0.992				
Flt Protected		0.986			0.967		0.950			0.950		
Satd. Flow (prot)	0	1677	0	0	1726	0	1770	1848	0	1770	1863	0
Flt Permitted		0.927			0.783		0.441			0.343		
Satd. Flow (perm)	0	1577	0	0	1397	0	821	1848	0	639	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			115			5				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		441			1009			189			1366	
Travel Time (s)		10.0			22.9			4.3			31.0	
Peak Hour Factor	0.92	0.92	0.92	0.94	0.92	0.94	0.92	0.94	0.94	0.94	0.94	0.92
Adj. Flow (vph)	5	1	11	49	0	22	4	669	36	18	504	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	17	0	0	71	0	4	705	0	18	505	0
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)		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	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			4		5	2		1	6	
Permitted Phases	4			4			2			6		

Lanes, Volumes, Timings
10: Site Driveway/Fort Shantock Rd

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		4	4		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		9.5	24.0		9.5	9.5	
Total Split (s)	23.0	23.0		23.0	23.0		9.0	38.0		9.0	38.0	
Total Split (%)	32.9%	32.9%		32.9%	32.9%		12.9%	54.3%		12.9%	54.3%	
Maximum Green (s)	18.5	18.5		18.5	18.5		4.5	32.1		5.0	34.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	4.5		3.0	3.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.4		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		4.5			4.5		4.5	5.9		4.0	4.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		None	None	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0				
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0				
Pedestrian Calls (#/hr)	0	0		0	0			0				
Act Effct Green (s)		6.1			6.1		56.1	54.7		56.6	56.2	
Actuated g/C Ratio		0.09			0.09		0.80	0.78		0.81	0.80	
v/c Ratio		0.12			0.31		0.01	0.49		0.03	0.34	
Control Delay		21.4			6.2		2.8	6.1		1.9	4.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		21.4			6.2		2.8	6.1		1.9	4.0	
LOS		C			A		A	A		A	A	
Approach Delay		21.4			6.2			6.1			4.0	
Approach LOS		C			A			A			A	
90th %ile Green (s)	7.3	7.3		7.3	7.3		5.7	42.3		6.0	44.0	
90th %ile Term Code	Gap	Gap		Gap	Gap		Gap	Coord		Gap	Coord	
70th %ile Green (s)	6.4	6.4		6.4	6.4		0.0	53.2		0.0	55.1	
70th %ile Term Code	Gap	Gap		Gap	Gap		Skip	Coord		Skip	Coord	
50th %ile Green (s)	5.7	5.7		5.7	5.7		0.0	53.9		0.0	55.8	
50th %ile Term Code	Gap	Gap		Gap	Gap		Skip	Coord		Skip	Coord	
30th %ile Green (s)	5.5	5.5		5.5	5.5		0.0	54.1		0.0	56.0	
30th %ile Term Code	Gap	Gap		Gap	Gap		Skip	Coord		Skip	Coord	
10th %ile Green (s)	0.0	0.0		0.0	0.0		0.0	64.1		0.0	66.0	
10th %ile Term Code	Skip	Skip		Skip	Skip		Skip	Coord		Skip	Coord	
Stops (vph)		12			6		2	209		4	136	
Fuel Used(gal)		0			1		0	4		0	6	
CO Emissions (g/hr)		13			45		2	310		15	434	
NOx Emissions (g/hr)		3			9		0	60		3	84	
VOC Emissions (g/hr)		3			10		0	72		3	100	
Dilemma Vehicles (#)		0			0		0	0		0	0	
Queue Length 50th (ft)		2			0		0	50		1	39	
Queue Length 95th (ft)		20			15		m1	302		4	154	
Internal Link Dist (ft)		361			929			109			1286	
Turn Bay Length (ft)							150			500		
Base Capacity (vph)		424			453		732	1445		608	1495	
Starvation Cap Reductn		0			0		0	26		0	0	

Lanes, Volumes, Timings
10: Site Driveway/Fort Shantock Rd

2025 Combined Traffic
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.04			0.16		0.01	0.50		0.03	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 70

Actuated Cycle Length: 70

Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 5.4 Intersection LOS: A

Intersection Capacity Utilization 51.5% ICU Level of Service A

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Site Driveway/Fort Shantock Rd

 Ø1	 Ø2 (R)	 Ø4
9 s	38 s	23 s
 Ø5	 Ø6	
9 s	38 s	

Lanes, Volumes, Timings
12: Crow Hill Road & Route 32

2025 Combined Traffic
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	6	19	584	71	15	486
Future Volume (vph)	6	19	584	71	15	486
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		150	0	
Storage Lanes	1	1		1	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1583	1863	1583	1770	1863
Flt Permitted	0.950				0.353	
Satd. Flow (perm)	1770	1583	1863	1583	658	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		19		72		
Link Speed (mph)	30		30			30
Link Distance (ft)	928		1366			1150
Travel Time (s)	21.1		31.0			26.1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	6	19	590	72	15	491
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	19	590	72	15	491
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	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
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1	1	2	1	1	2
Detector Template	Left	Right	Thru	Right	Left	Thru
Leading Detector (ft)	20	20	100	20	20	100
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	20	6	20	20	6
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			CI+Ex			CI+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot	Perm	NA	Perm	D.P+P	NA
Protected Phases	3		2		1	1 2
Permitted Phases		3		2	2	

Lanes, Volumes, Timings
12: Crow Hill Road & Route 32

2025 Combined Traffic
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3	3	2	2	1	1 2
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0	15.0	5.0	
Minimum Split (s)	22.5	22.5	24.8	24.8	9.5	
Total Split (s)	22.0	22.0	24.0	24.0	14.0	
Total Split (%)	36.7%	36.7%	40.0%	40.0%	23.3%	
Maximum Green (s)	18.0	18.0	17.2	17.2	10.0	
Yellow Time (s)	3.0	3.0	4.7	4.7	3.0	
All-Red Time (s)	1.0	1.0	2.1	2.1	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	6.8	6.8	4.0	
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	None	C-Max	C-Max	None	
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	11.0	11.0	11.0	11.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	5.9	5.9	35.0	35.0	47.8	54.2
Actuated g/C Ratio	0.10	0.10	0.58	0.58	0.80	0.90
v/c Ratio	0.03	0.11	0.54	0.08	0.02	0.29
Control Delay	24.5	13.7	14.9	4.0	1.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.5	13.7	14.9	4.0	1.8	1.9
LOS	C	B	B	A	A	A
Approach Delay	16.3		13.7			1.9
Approach LOS	B		B			A
90th %ile Green (s)	7.0	7.0	21.5	21.5	16.7	
90th %ile Term Code	Gap	Gap	Coord	Coord	Gap	
70th %ile Green (s)	6.1	6.1	26.3	26.3	12.8	
70th %ile Term Code	Gap	Gap	Coord	Coord	Gap	
50th %ile Green (s)	0.0	0.0	41.3	41.3	7.9	
50th %ile Term Code	Skip	Skip	Coord	Coord	Gap	
30th %ile Green (s)	0.0	0.0	42.7	42.7	6.5	
30th %ile Term Code	Skip	Skip	Coord	Coord	Gap	
10th %ile Green (s)	0.0	0.0	43.1	43.1	6.1	
10th %ile Term Code	Skip	Skip	Coord	Coord	Gap	
Stops (vph)	9	10	331	15	3	76
Fuel Used(gal)	0	0	10	1	0	5
CO Emissions (g/hr)	9	17	686	63	11	347
NOx Emissions (g/hr)	2	3	134	12	2	68
VOC Emissions (g/hr)	2	4	159	15	3	80
Dilemma Vehicles (#)	0	0	0	0	0	0
Queue Length 50th (ft)	2	0	76	0	0	0
Queue Length 95th (ft)	11	17	#371	22	4	70
Internal Link Dist (ft)	848		1286			1070
Turn Bay Length (ft)				150		
Base Capacity (vph)	531	488	1086	953	765	1666
Starvation Cap Reductn	0	0	0	0	0	0

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.01	0.04	0.54	0.08	0.02	0.29

Intersection Summary	
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	53 (88%), Referenced to phase 2:NBSB, Start of Yellow
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.54
Intersection Signal Delay:	8.7
Intersection LOS:	A
Intersection Capacity Utilization	43.9%
ICU Level of Service	A
Analysis Period (min)	15
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 12: Crow Hill Road & Route 32

 Ø1	 Ø2 (R)		 Ø3
14 s	24 s		22 s

Lanes, Volumes, Timings
15: Podurriel

2025 Combined Traffic
AM Peak Hour

								
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø5	Ø7
Lane Configurations								
Traffic Volume (vph)	9	3	1	522	545	3		
Future Volume (vph)	9	3	1	522	545	3		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Storage Length (ft)	0	0	60			0		
Storage Lanes	1	0	1			0		
Taper Length (ft)	25		25					
Lane Util. Factor	1.00	1.00	1.00	0.91	0.95	0.95		
Frt	0.969				0.999			
Flt Protected	0.963		0.950					
Satd. Flow (prot)	1738	0	1770	5085	3536	0		
Flt Permitted	0.963		0.413					
Satd. Flow (perm)	1738	0	769	5085	3536	0		
Right Turn on Red		Yes				Yes		
Satd. Flow (RTOR)	3				1			
Link Speed (mph)	30			30	30			
Link Distance (ft)	532			671	101			
Travel Time (s)	12.1			15.3	2.3			
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87		
Adj. Flow (vph)	10	3	1	600	626	3		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	13	0	1	600	629	0		
Enter Blocked Intersection	No	No	No	No	No	No		
Lane Alignment	Left	Right	Left	Left	Left	Right		
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		
Turning Speed (mph)	15	9	15			9		
Number of Detectors	1		1	2	2			
Detector Template	Left		Left	Thru	Thru			
Leading Detector (ft)	20		20	100	100			
Trailing Detector (ft)	0		0	0	0			
Detector 1 Position(ft)	0		0	0	0			
Detector 1 Size(ft)	20		20	6	6			
Detector 1 Type	CI+Ex		CI+Ex	CI+Ex	CI+Ex			
Detector 1 Channel								
Detector 1 Extend (s)	0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0		0.0	0.0	0.0			
Detector 2 Position(ft)				94	94			
Detector 2 Size(ft)				6	6			
Detector 2 Type				CI+Ex	CI+Ex			
Detector 2 Channel								
Detector 2 Extend (s)				0.0	0.0			
Turn Type	Prot		pm+pt	NA	NA			
Protected Phases	4		1	6	2		5	7
Permitted Phases			6					

Lanes, Volumes, Timings
15: Podurgiel

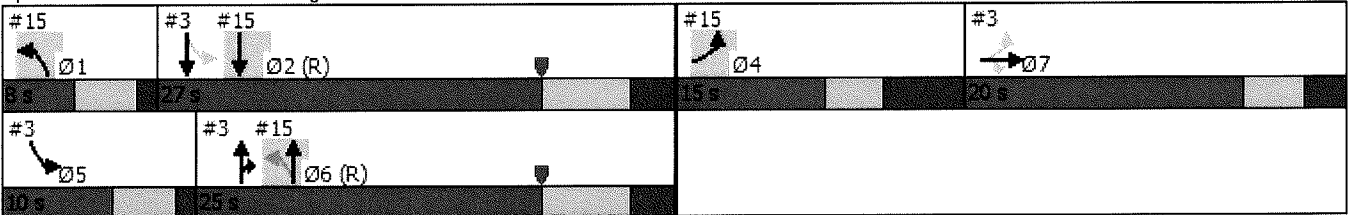
2025 Combined Traffic
AM Peak Hour

								
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø5	Ø7
Detector Phase	4		1	6	2			
Switch Phase								
Minimum Initial (s)	4.0		3.0	15.0	5.0		4.0	5.0
Minimum Split (s)	25.2		9.5	25.0	25.0		22.0	23.4
Total Split (s)	15.0		8.0	25.0	27.0		10.0	20.0
Total Split (%)	21.4%		11.4%	35.7%	38.6%		14%	29%
Maximum Green (s)	7.8		3.7	18.0	20.0		5.7	14.6
Yellow Time (s)	3.0		3.3	4.6	4.6		3.3	3.1
All-Red Time (s)	4.2		1.0	2.4	2.4		1.0	2.3
Lost Time Adjust (s)	0.0		0.0	0.0	0.0			
Total Lost Time (s)	7.2		4.3	7.0	7.0			
Lead/Lag			Lead	Lag	Lag		Lead	
Lead-Lag Optimize?								
Vehicle Extension (s)	3.0		3.0	3.0	3.0		3.0	3.0
Recall Mode	None		None	C-Max	C-Max		None	None
Walk Time (s)	7.0			7.0	7.0			7.0
Flash Dont Walk (s)	11.0			11.0	11.0			11.0
Pedestrian Calls (#/hr)	0			0	0			0
Act Effct Green (s)	6.1		36.6	29.9	37.3			
Actuated g/C Ratio	0.09		0.52	0.43	0.53			
v/c Ratio	0.08		0.00	0.28	0.33			
Control Delay	27.2		10.0	15.9	5.7			
Queue Delay	0.0		0.0	0.0	0.0			
Total Delay	27.2		10.0	15.9	5.7			
LOS	C		A	B	A			
Approach Delay	27.2			15.9	5.7			
Approach LOS	C			B	A			
90th %ile Green (s)	7.1		3.7	18.0	20.0		5.7	15.3
90th %ile Term Code	Gap		Max	Coord	Coord		Max	Max
70th %ile Green (s)	0.0		0.0	24.4	37.0		8.3	20.6
70th %ile Term Code	Skip		Skip	Coord	Coord		Gap	Gap
50th %ile Green (s)	0.0		0.0	28.3	39.9		7.3	17.7
50th %ile Term Code	Skip		Skip	Coord	Coord		Gap	Gap
30th %ile Green (s)	0.0		0.0	32.2	43.0		6.5	14.6
30th %ile Term Code	Skip		Skip	Coord	Coord		Gap	Gap
10th %ile Green (s)	0.0		0.0	46.4	46.4		0.0	11.2
10th %ile Term Code	Skip		Skip	Coord	Coord		Skip	Gap
Stops (vph)	12		1	340	139			
Fuel Used(gal)	0		0	6	2			
CO Emissions (g/hr)	12		1	440	128			
NOx Emissions (g/hr)	2		0	86	25			
VOC Emissions (g/hr)	3		0	102	30			
Dilemma Vehicles (#)	0		0	0	0			
Queue Length 50th (ft)	4		0	61	24			
Queue Length 95th (ft)	19		3	106	66			
Internal Link Dist (ft)	452			591	21			
Turn Bay Length (ft)			60					
Base Capacity (vph)	196		475	2169	1882			
Starvation Cap Reductn	0		0	0	0			

								
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	Ø5	Ø7
Spillback Cap Reductn	0		0	0	0			
Storage Cap Reductn	0		0	0	0			
Reduced v/c Ratio	0.07		0.00	0.28	0.33			

Intersection Summary	
Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	41 (59%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow
Natural Cycle:	100
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.71
Intersection Signal Delay:	10.9
Intersection LOS:	B
Intersection Capacity Utilization	30.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 15: Podurgiel



P.M. Peak Hour

Lanes, Volumes, Timings
3: Rt 2A EB Ramps

2025 Background Traffic
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	249	0	330	0	0	0	0	617	191	151	549	0
Future Volume (vph)	249	0	330	0	0	0	0	617	191	151	549	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		175	225		0
Storage Lanes	0		1	0		0	0		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frts			0.850						0.850			
Flt Protected		0.950								0.950		
Satd. Flow (prot)	0	1770	1583	0	0	0	0	3539	1583	1770	3539	0
Flt Permitted		0.950								0.367		
Satd. Flow (perm)	0	1770	1583	0	0	0	0	3539	1583	684	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			299						221			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1278			1235			101			694	
Travel Time (s)		29.0			28.1			2.3			15.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%	87%
Adj. Flow (vph)	226	0	299	0	0	0	0	559	173	137	498	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	226	299	0	0	0	0	559	173	137	498	0
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)		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	15		9
Number of Detectors	1	2	1					2	1	1	2	
Detector Template	Left	Thru	Right					Thru	Right	Left	Thru	
Leading Detector (ft)	20	100	20					100	20	20	100	
Trailing Detector (ft)	0	0	0					0	0	0	0	
Detector 1 Position(ft)	0	0	0					0	0	0	0	
Detector 1 Size(ft)	20	6	20					6	20	20	6	
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex					CI+Ex	CI+Ex	CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94						94			94	
Detector 2 Size(ft)		6						6			6	
Detector 2 Type		CI+Ex						CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0						0.0			0.0	
Turn Type	Perm	NA	Perm					NA	custom	pm+pt	NA	
Protected Phases		7						6	6	5	2	

Lane Group	Ø1	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Growth Factor		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(ft)		
Link Offset(ft)		
Crosswalk Width(ft)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (mph)		
Number of Detectors		
Detector Template		
Leading Detector (ft)		
Trailing Detector (ft)		
Detector 1 Position(ft)		
Detector 1 Size(ft)		
Detector 1 Type		
Detector 1 Channel		
Detector 1 Extend (s)		
Detector 1 Queue (s)		
Detector 1 Delay (s)		
Detector 2 Position(ft)		
Detector 2 Size(ft)		
Detector 2 Type		
Detector 2 Channel		
Detector 2 Extend (s)		
Turn Type		
Protected Phases	1	4

Lanes, Volumes, Timings
3: Rt 2A EB Ramps

2025 Background Traffic
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	7		7						6	2		
Detector Phase	7	7	7					6	6	5	2	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					15.0	15.0	4.0	5.0	
Minimum Split (s)	23.4	23.4	23.4					25.0	25.0	22.0	25.0	
Total Split (s)	35.0	35.0	35.0					19.0	19.0	21.0	32.0	
Total Split (%)	38.9%	38.9%	38.9%					21.1%	21.1%	23.3%	35.6%	
Maximum Green (s)	29.6	29.6	29.6					12.0	12.0	16.7	25.0	
Yellow Time (s)	3.1	3.1	3.1					4.6	4.6	3.3	4.6	
All-Red Time (s)	2.3	2.3	2.3					2.4	2.4	1.0	2.4	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.4	5.4					7.0	7.0	4.3	7.0	
Lead/Lag								Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0	3.0	3.0	3.0	
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	
Walk Time (s)	7.0	7.0	7.0					7.0	7.0		7.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0					0	0		0	
Act Effct Green (s)		17.6	17.6					44.4	44.4	59.9	55.1	
Actuated g/C Ratio		0.20	0.20					0.49	0.49	0.67	0.61	
v/c Ratio		0.65	0.54					0.32	0.19	0.25	0.23	
Control Delay		41.5	7.4					1.8	0.5	3.8	5.5	
Queue Delay		0.0	7.4					0.0	0.0	0.0	0.0	
Total Delay		41.5	14.7					1.8	0.5	3.8	5.5	
LOS		D	B					A	A	A	A	
Approach Delay		26.3						1.5			5.1	
Approach LOS		C						A			A	
90th %ile Green (s)	25.3	25.3	25.3					21.0	21.0	12.9	28.0	
90th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
70th %ile Green (s)	20.2	20.2	20.2					44.3	44.3	8.8	57.4	
70th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
50th %ile Green (s)	17.7	17.7	17.7					47.9	47.9	7.7	59.9	
50th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
30th %ile Green (s)	14.3	14.3	14.3					52.1	52.1	6.9	63.3	
30th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
10th %ile Green (s)	10.6	10.6	10.6					56.8	56.8	5.9	67.0	
10th %ile Term Code	Gap	Gap	Gap					Coord	Coord	Gap	Coord	
Stops (vph)		192	33					16	0	35	178	
Fuel Used(gal)		5	3					1	0	1	4	
CO Emissions (g/hr)		354	243					49	10	71	287	
NOx Emissions (g/hr)		69	47					10	2	14	56	
VOC Emissions (g/hr)		82	56					11	2	16	66	
Dilemma Vehicles (#)		0	0					0	0	0	0	
Queue Length 50th (ft)		119	0					5	0	11	27	
Queue Length 95th (ft)		174	59					7	1	43	143	
Internal Link Dist (ft)		1198			1155			21			614	
Turn Bay Length (ft)									175	225		
Base Capacity (vph)		582	721					1746	893	656	2167	

Lanes, Volumes, Timings
3: Rt 2A EB Ramps

2025 Background Traffic
PM Peak Hour

Lane Group	Ø1	Ø4
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	4.0
Minimum Split (s)	9.5	25.2
Total Split (s)	8.0	15.0
Total Split (%)	9%	17%
Maximum Green (s)	3.7	7.8
Yellow Time (s)	3.3	3.0
All-Red Time (s)	1.0	4.2
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag	Lead	
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		11.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	5.9	6.9
90th %ile Term Code	Gap	Gap
70th %ile Green (s)	0.0	0.0
70th %ile Term Code	Skip	Skip
50th %ile Green (s)	0.0	0.0
50th %ile Term Code	Skip	Skip
30th %ile Green (s)	0.0	0.0
30th %ile Term Code	Skip	Skip
10th %ile Green (s)	0.0	0.0
10th %ile Term Code	Skip	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		

Lanes, Volumes, Timings
3: Rt 2A EB Ramps

2025 Background Traffic
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0	0					0	0	0	0	
Spillback Cap Reductn		0	370					0	0	0	0	
Storage Cap Reductn		0	0					0	0	0	0	
Reduced v/c Ratio		0.39	0.85					0.32	0.19	0.21	0.23	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 5 (6%), Referenced to phase 2:SBTL and 6:NBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 9.6

Intersection LOS: A

Intersection Capacity Utilization 48.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: Rt 2A EB Ramps

#15  Ø1 8 s	#3  Ø2 (R) 32 s	#15  Ø4 15 s	#3  Ø7 35 s
#3  Ø5 21 s	#3  Ø6 (R) 19 s		

Lane Group	Ø1	Ø4
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings
6: Rt 2A WB Ramps

2025 Background Traffic
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	211	0	155	217	648	0	0	487	361
Future Volume (vph)	0	0	0	211	0	155	217	648	0	0	487	361
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		0	200		200
Storage Lanes	0		0	1		1	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95		1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.936	
Flt Protected				0.950	0.950		0.950					
Satd. Flow (prot)	0	0	0	1681	1681	1583	1770	1863	0	0	3313	0
Flt Permitted				0.950	0.950		0.241					
Satd. Flow (perm)	0	0	0	1681	1681	1583	449	1863	0	0	3313	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						161					217	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1387			1103			694			836	
Travel Time (s)		31.5			25.1			15.8			19.0	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	220	0	161	226	675	0	0	507	376
Shared Lane Traffic (%)				50%								
Lane Group Flow (vph)	0	0	0	110	110	161	226	675	0	0	883	0
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			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	15		9
Number of Detectors				1	2	1	1	2				2
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				20	100	20	20	100			100	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				20	6	20	20	6			6	
Detector 1 Type				CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex			CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 2 Position(ft)					94			94			94	
Detector 2 Size(ft)					6			6			6	
Detector 2 Type					CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)					0.0			0.0			0.0	
Turn Type				Perm	NA	Perm	D.P+P	NA			NA	
Protected Phases					3		1	1 2			2	
Permitted Phases				3		3	2					

Lanes, Volumes, Timings
6: Rt 2A WB Ramps

2025 Background Traffic
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase				3	3	3	1	1 2			2	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	5.0				15.0	
Minimum Split (s)				22.5	22.5	22.5	9.5				22.9	
Total Split (s)				20.0	20.0	20.0	37.0				33.0	
Total Split (%)				22.2%	22.2%	22.2%	41.1%				36.7%	
Maximum Green (s)				15.6	15.6	15.6	33.0				28.1	
Yellow Time (s)				3.3	3.3	3.3	3.0				3.9	
All-Red Time (s)				1.1	1.1	1.1	1.0				1.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0				0.0	
Total Lost Time (s)				4.4	4.4	4.4	4.0				4.9	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0	3.0				3.0	
Recall Mode				None	None	None	None				C-Max	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				11.0	11.0	11.0					11.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				11.3	11.3	11.3	66.3	70.3			44.1	
Actuated g/C Ratio				0.13	0.13	0.13	0.74	0.78			0.49	
v/c Ratio				0.52	0.52	0.47	0.35	0.46			0.51	
Control Delay				44.8	44.8	10.7	5.1	7.1			14.9	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				44.8	44.8	10.7	5.1	7.1			14.9	
LOS				D	D	B	A	A			B	
Approach Delay					30.4			6.6			14.9	
Approach LOS					C			A			B	
90th %ile Green (s)				15.6	15.6	15.6	33.0				28.1	
90th %ile Term Code				Max	Max	Max	Max				Coord	
70th %ile Green (s)				13.9	13.9	13.9	25.8				37.0	
70th %ile Term Code				Gap	Gap	Gap	Gap				Coord	
50th %ile Green (s)				11.2	11.2	11.2	20.6				44.9	
50th %ile Term Code				Gap	Gap	Gap	Gap				Coord	
30th %ile Green (s)				9.3	9.3	9.3	15.6				51.8	
30th %ile Term Code				Gap	Gap	Gap	Gap				Coord	
10th %ile Green (s)				6.7	6.7	6.7	11.5				58.5	
10th %ile Term Code				Gap	Gap	Gap	Gap				Coord	
Stops (vph)				96	96	25	71	294			449	
Fuel Used(gal)				2	2	2	2	6			11	
CO Emissions (g/hr)				168	168	126	125	424			740	
NOx Emissions (g/hr)				33	33	25	24	82			144	
VOC Emissions (g/hr)				39	39	29	29	98			171	
Dilemma Vehicles (#)				0	0	0	0	0			0	
Queue Length 50th (ft)				63	63	0	56	210			123	
Queue Length 95th (ft)				111	111	52	18	99			252	
Internal Link Dist (ft)		1307			1023			614			756	
Turn Bay Length (ft)							150					
Base Capacity (vph)				291	291	407	831	1454			1732	
Starvation Cap Reductn				0	0	0	0	0			0	

Lanes, Volumes, Timings
6: Rt 2A WB Ramps

2025 Background Traffic
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.38	0.38	0.40	0.27	0.46			0.51	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 56 (62%), Referenced to phase 2:NBSB, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 14.2
 Intersection Capacity Utilization 54.0%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 6: Rt 2A WB Ramps

 Ø1	 Ø2 (R)	 Ø3
37 s	33 s	20 s

Lanes, Volumes, Timings
8: Gallivan Lane

2025 Background Traffic
PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	22	107	135	668	740	38
Future Volume (vph)	22	107	135	668	740	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			175
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.888				0.993	
Flt Protected	0.992		0.950			
Satd. Flow (prot)	1641	0	1770	1863	3514	0
Flt Permitted	0.992		0.950			
Satd. Flow (perm)	1641	0	1770	1863	3514	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	113				9	
Link Speed (mph)	30			30	30	
Link Distance (ft)	1408			836	286	
Travel Time (s)	32.0			19.0	6.5	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	23	113	142	703	779	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	136	0	142	703	819	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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
Turning Speed (mph)	15	9	15			9
Number of Detectors	1		1	2	2	
Detector Template	Left		Left	Thru	Thru	
Leading Detector (ft)	20		20	100	100	
Trailing Detector (ft)	0		0	0	0	
Detector 1 Position(ft)	0		0	0	0	
Detector 1 Size(ft)	20		20	6	6	
Detector 1 Type	CI+Ex		CI+Ex	CI+Ex	CI+Ex	
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0	0.0	0.0	
Detector 2 Position(ft)				94	94	
Detector 2 Size(ft)				6	6	
Detector 2 Type				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Prot		Prot	NA	NA	
Protected Phases	4		1	1 2	2	
Permitted Phases						

Lanes, Volumes, Timings
8: Gallivan Lane

2025 Background Traffic
PM Peak Hour

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Detector Phase	4		1	1 2	2	
Switch Phase						
Minimum Initial (s)	7.0		5.0		15.0	
Minimum Split (s)	22.5		9.5		23.6	
Total Split (s)	23.0		13.0		67.0	
Total Split (%)	22.3%		12.6%		65.0%	
Maximum Green (s)	19.0		9.0		61.4	
Yellow Time (s)	3.0		3.0		4.6	
All-Red Time (s)	1.0		1.0		1.0	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	4.0		4.0		5.6	
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0		3.0	
Recall Mode	None		None		C-Max	
Walk Time (s)	7.0				7.0	
Flash Dont Walk (s)	11.0				11.0	
Pedestrian Calls (#/hr)	0				0	
Act Effct Green (s)	8.6		16.0	86.4	64.8	
Actuated g/C Ratio	0.08		0.16	0.84	0.63	
v/c Ratio	0.57		0.52	0.45	0.37	
Control Delay	21.7		46.9	3.4	10.1	
Queue Delay	0.0		0.0	0.0	0.4	
Total Delay	21.7		46.9	3.4	10.6	
LOS	C		D	A	B	
Approach Delay	21.7			10.7	10.6	
Approach LOS	C			B	B	
90th %ile Green (s)	12.8		15.2		61.4	
90th %ile Term Code	Gap		Max		Coord	
70th %ile Green (s)	9.3		18.7		61.4	
70th %ile Term Code	Gap		Max		Coord	
50th %ile Green (s)	7.0		18.2		64.2	
50th %ile Term Code	Min		Gap		Coord	
30th %ile Green (s)	7.0		15.9		66.5	
30th %ile Term Code	Min		Gap		Coord	
10th %ile Green (s)	7.0		12.0		70.4	
10th %ile Term Code	Min		Gap		Coord	
Stops (vph)	35		121	155	354	
Fuel Used(gal)	2		3	6	6	
CO Emissions (g/hr)	152		198	397	450	
NOx Emissions (g/hr)	30		39	77	88	
VOC Emissions (g/hr)	35		46	92	104	
Dilemma Vehicles (#)	0		0	0	0	
Queue Length 50th (ft)	15		84	71	126	
Queue Length 95th (ft)	70		152	167	176	
Internal Link Dist (ft)	1328			756	206	
Turn Bay Length (ft)			100			
Base Capacity (vph)	394		275	1562	2213	
Starvation Cap Reductn	0		0	0	831	



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Spillback Cap Reductn	0		0	0	0	
Storage Cap Reductn	0		0	0	0	
Reduced v/c Ratio	0.35		0.52	0.45	0.59	

Intersection Summary

Area Type: Other

Cycle Length: 103

Actuated Cycle Length: 103

Offset: 62 (60%), Referenced to phase 2:NBSB and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 11.5

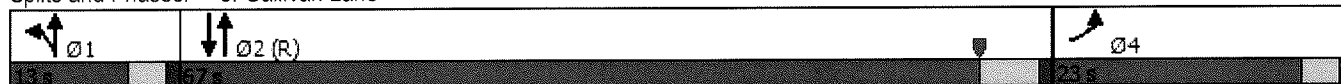
Intersection LOS: B

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Gallivan Lane



Lanes, Volumes, Timings
10: Fort Shantock Rd

2025 Background Traffic
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	51	30	628	61	34	728
Future Volume (vph)	51	30	628	61	34	728
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	300	0		150	500	
Storage Lanes	0	0		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.950		0.988			
Flt Protected	0.969				0.950	
Satd. Flow (prot)	1715	0	1840	0	1770	1863
Flt Permitted	0.969				0.213	
Satd. Flow (perm)	1715	0	1840	0	397	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	31		8			
Link Speed (mph)	30		30			30
Link Distance (ft)	1009		189			1366
Travel Time (s)	22.9		4.3			31.0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	53	31	654	64	35	758
Shared Lane Traffic (%)						
Lane Group Flow (vph)	84	0	718	0	35	758
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	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
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	CI+Ex		CI+Ex		CI+Ex	CI+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			CI+Ex			CI+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Perm		NA		D.P+P	NA
Protected Phases			2		1	1 2
Permitted Phases	3				2	

Lanes, Volumes, Timings
10: Fort Shantock Rd

2025 Background Traffic
PM Peak Hour

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Detector Phase	3		2		1	1 2
Switch Phase						
Minimum Initial (s)	7.0		5.0		5.0	
Minimum Split (s)	22.7		24.0		9.5	
Total Split (s)	24.0		40.0		16.0	
Total Split (%)	30.0%		50.0%		20.0%	
Maximum Green (s)	19.5		34.1		12.9	
Yellow Time (s)	3.5		4.5		3.0	
All-Red Time (s)	1.0		1.4		0.1	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	4.5		5.9		3.1	
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0		3.0	
Recall Mode	None		C-Max		None	
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	11.0		11.0			
Pedestrian Calls (#/hr)	0		0			
Act Effct Green (s)	8.6		43.0		63.0	66.8
Actuated g/C Ratio	0.11		0.54		0.79	0.84
v/c Ratio	0.40		0.72		0.06	0.49
Control Delay	28.1		23.3		2.3	4.0
Queue Delay	0.0		1.2		0.0	0.0
Total Delay	28.1		24.6		2.3	4.0
LOS	C		C		A	A
Approach Delay	28.1		24.6			3.9
Approach LOS	C		C			A
90th %ile Green (s)	11.5		34.1		20.9	
90th %ile Term Code	Gap		Coord		Max	
70th %ile Green (s)	9.4		34.1		23.0	
70th %ile Term Code	Gap		Coord		Max	
50th %ile Green (s)	7.9		39.5		19.1	
50th %ile Term Code	Gap		Coord		Gap	
30th %ile Green (s)	7.0		44.0		15.5	
30th %ile Term Code	Min		Coord		Gap	
10th %ile Green (s)	0.0		63.3		7.7	
10th %ile Term Code	Skip		Coord		Gap	
Stops (vph)	50		484		7	204
Fuel Used(gal)	1		9		0	9
CO Emissions (g/hr)	96		594		29	662
NOx Emissions (g/hr)	19		116		6	129
VOC Emissions (g/hr)	22		138		7	153
Dilemma Vehicles (#)	0		0		0	0
Queue Length 50th (ft)	25		279		2	85
Queue Length 95th (ft)	64		#549		9	180
Internal Link Dist (ft)	929		109			1286
Turn Bay Length (ft)	300				500	
Base Capacity (vph)	441		992		629	1555
Starvation Cap Reductn	0		113		0	0

Lanes, Volumes, Timings
10: Fort Shantock Rd

2025 Background Traffic
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0		0	0
Storage Cap Reductn	0		0		0	0
Reduced v/c Ratio	0.19		0.82		0.06	0.49

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 14.5

Intersection LOS: B

Intersection Capacity Utilization 51.3%

ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Fort Shantock Rd

 Ø1	  Ø2 (R)	 Ø3
16 s	40 s	24 s