

LEVEL OF SERVICE REPORTS - AM PEAK HOUR

Route 7 Corridor - Gap Analysis Study
 1: Grist Mill Rd & Rt 7 (Main Ave)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

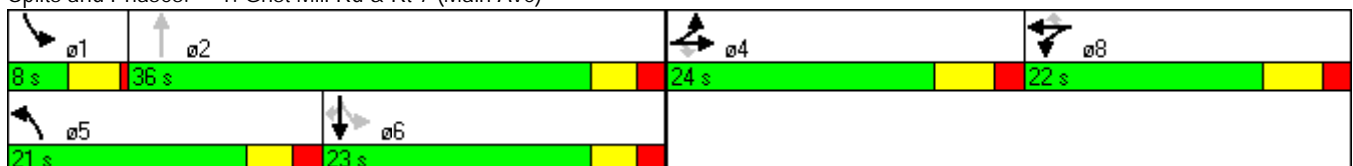


Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	1170	80	500	60	20	280	370	20	480	1240
Turn Type	Split		Perm		Perm	Prot		pm+pt		Perm
Protected Phases	4	4		8		5		1	6	
Permitted Phases			4		8		2	6		6
Detector Phase	4	4	4	8	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	9.0	9.0	9.0	9.0	9.0	15.0	15.0	4.0	15.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	21.0	21.0	8.0	21.0	21.0
Total Split (s)	24.0	24.0	24.0	22.0	22.0	21.0	36.0	8.0	23.0	23.0
Total Split (%)	26.7%	26.7%	26.7%	24.4%	24.4%	23.3%	40.0%	8.9%	25.6%	25.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.5	3.0	3.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.5	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	5.0	5.0	4.0	5.0	5.0
Lead/Lag						Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	None	C-Max	None	C-Max	C-Max
Act Effect Green (s)	18.0	18.0	18.0	10.7	10.7	20.1	40.1	26.1	19.2	19.2
Actuated g/C Ratio	0.20	0.20	0.20	0.12	0.12	0.22	0.45	0.29	0.21	0.21
v/c Ratio	2.01	2.02	0.72	0.45	0.11	0.77	0.53	0.07	1.31	1.52
Control Delay	487.1	493.4	9.3	43.1	15.4	48.0	22.7	23.4	188.5	262.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	487.1	493.4	9.3	43.1	15.4	48.0	22.7	23.4	188.5	262.0
LOS	F	F	A	D	B	D	C	C	F	F
Approach Delay		352.9		38.0			33.1		238.9	
Approach LOS		F		D			C		F	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.02
 Intersection Signal Delay: 247.7
 Intersection LOS: F
 Intersection Capacity Utilization 113.1%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study
 2: I-Park Dr & Rt 7 (Main Ave)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	ø11
Lane Configurations		↕		↕	↕	↕	↕↕	↕	↕↕	
Volume (vph)	20	20	300	70	130	180	1190	80	1300	
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt		
Protected Phases		4		8		5	2	1	6	11
Permitted Phases	4		8		8	2		6		
Detector Phase	4	4	8	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	15.0	5.0	15.0	20.0
Minimum Split (s)	13.3	13.3	13.3	13.3	13.3	8.0	20.5	8.0	20.5	22.0
Total Split (s)	35.0	35.0	35.0	35.0	35.0	12.0	21.0	12.0	21.0	22.0
Total Split (%)	38.9%	38.9%	38.9%	38.9%	38.9%	13.3%	23.3%	13.3%	23.3%	24%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.0	3.9	2.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	0.0	1.6	0.0	1.6	0.0
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)	5.3	5.3	5.3	5.3	5.3	3.0	5.5	3.0	5.5	
Lead/Lag						Lead	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	None	None
Act Effect Green (s)		28.3		28.3	28.3	53.3	43.7	47.6	39.3	
Actuated g/C Ratio		0.31		0.31	0.31	0.59	0.49	0.53	0.44	
v/c Ratio		0.20		0.94	0.26	0.76	0.84	0.43	0.97	
Control Delay		12.3		62.0	12.9	21.9	19.9	16.3	43.8	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		12.3		62.0	12.9	21.9	19.9	16.3	43.8	
LOS		B		E	B	C	B	B	D	
Approach Delay		12.3		49.2			20.1		42.3	
Approach LOS		B		D			C		D	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 2 (2%), Referenced to phase 2:NBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 33.1
 Intersection LOS: C
 Intersection Capacity Utilization 87.4%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 2: I-Park Dr & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study
 3: Foxboro Drive & Rt 7 (Main Ave)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↶	↷	↕	↶	↕
Volume (vph)	60	30	1380	10	1380
Turn Type	custom		pm+pt		
Protected Phases	8	8	2	1	6
Permitted Phases	8		6		
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	11.0	11.0	25.9	10.1	25.9
Total Split (s)	19.0	19.0	58.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	14.5%	78.9%
Yellow Time (s)	3.0	3.0	3.9	3.0	3.9
All-Red Time (s)	1.0	1.0	2.0	0.1	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.9	3.1	5.9
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	Min
Act Effect Green (s)	8.6	8.6	72.9	76.6	75.0
Actuated g/C Ratio	0.10	0.10	0.81	0.85	0.83
v/c Ratio	0.38	0.18	0.53	0.03	0.51
Control Delay	44.4	15.4	5.4	1.9	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	15.4	5.4	1.9	3.8
LOS	D	B	A	A	A
Approach Delay	34.6		5.4		3.8
Approach LOS	C		A		A

Intersection Summary

Cycle Length: 90.1
 Actuated Cycle Length: 90.1
 Offset: 18 (20%), Referenced to phase 2:NBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 5.6
 Intersection Capacity Utilization 52.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study
 4: Kent Rd & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

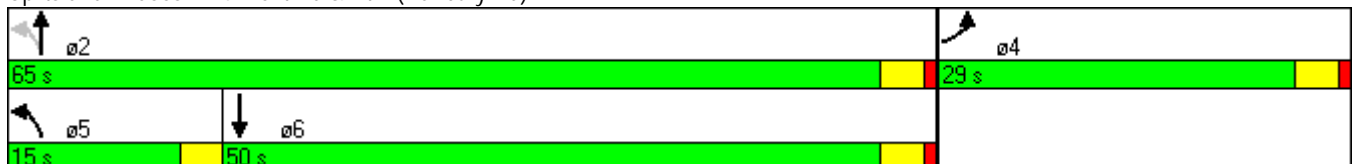


Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	60	40	1320	1320
Turn Type	pm+pt			
Protected Phases	4	5	2	6
Permitted Phases	2			
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	20.0	5.0	15.0	15.0
Minimum Split (s)	29.0	8.0	19.0	19.0
Total Split (s)	29.0	15.0	65.0	50.0
Total Split (%)	30.9%	16.0%	69.1%	53.2%
Yellow Time (s)	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	3.0	4.0	4.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	C-Max	C-Max
Act Effect Green (s)	20.0	71.8	71.6	66.8
Actuated g/C Ratio	0.21	0.76	0.76	0.71
v/c Ratio	0.28	0.18	0.53	0.61
Control Delay	23.4	5.6	7.0	11.0
Queue Delay	0.0	0.0	0.0	0.9
Total Delay	23.4	5.6	7.0	11.9
LOS	C	A	A	B
Approach Delay	23.4		6.9	11.9
Approach LOS	C		A	B

Intersection Summary

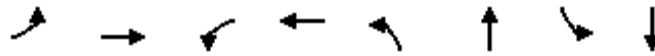
Cycle Length: 94
 Actuated Cycle Length: 94
 Offset: 54 (57%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 10.0
 Intersection LOS: A
 Intersection Capacity Utilization 62.4%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 5: Comm. Dr. & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔	↔	↔		↔		↔
Volume (vph)	40	10	130	10	40	1310	20	1220
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	20.0	20.0	15.0	15.0	3.0	15.0
Minimum Split (s)	10.0	10.0	24.0	24.0	19.0	19.0	6.0	19.0
Total Split (s)	25.0	25.0	25.0	25.0	59.0	59.0	6.0	65.0
Total Split (%)	27.8%	27.8%	27.8%	27.8%	65.6%	65.6%	6.7%	72.2%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)		20.1	20.1	20.1		61.9		61.9
Actuated g/C Ratio		0.22	0.22	0.22		0.69		0.69
v/c Ratio		0.28	0.50	0.16		0.72		0.61
Control Delay		18.5	37.9	11.7		11.1		9.1
Queue Delay		0.0	0.0	0.0		3.8		0.0
Total Delay		18.5	37.9	11.7		14.9		9.1
LOS		B	D	B		B		A
Approach Delay		18.5		29.6		14.9		9.1
Approach LOS		B		C		B		A

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 13.5
 Intersection LOS: B
 Intersection Capacity Utilization 89.5%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

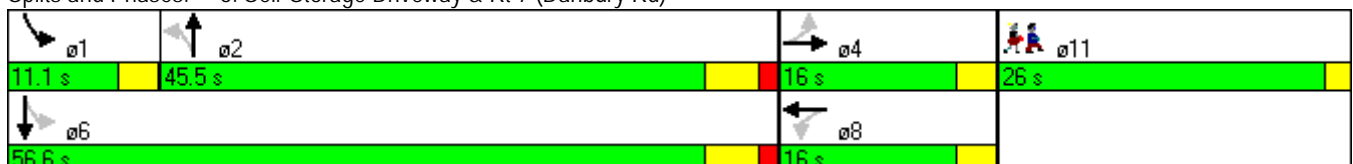


Lane Group	WBL	WBT	NBL	NBT	SBL	SBT	ø4	ø11
Lane Configurations	↖	↗	↖	↕	↖	↕		
Volume (vph)	20	0	10	1200	100	1370		
Turn Type	Perm		Perm		pm+pt			
Protected Phases		8		2	1	6	4	11
Permitted Phases	8		2		6			
Detector Phase	8	8	2	2	1	6		
Switch Phase								
Minimum Initial (s)	8.0	8.0	15.0	15.0	5.0	15.0	8.0	3.0
Minimum Split (s)	11.1	11.1	20.5	20.5	8.1	20.5	11.1	26.0
Total Split (s)	16.0	16.0	45.5	45.5	11.1	56.6	16.0	26.0
Total Split (%)	16.2%	16.2%	46.1%	46.1%	11.3%	57.4%	16%	26%
Yellow Time (s)	3.0	3.0	3.9	3.9	3.0	3.9	3.0	2.0
All-Red Time (s)	0.1	0.1	1.6	1.6	0.1	1.6	0.1	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	3.1	3.1	5.5	5.5	3.1	5.5		
Lead/Lag			Lag	Lag	Lead			
Lead-Lag Optimize?			Yes	Yes	Yes			
Recall Mode	None	None	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	8.0	8.0	76.2	76.2	88.8	88.6		
Actuated g/C Ratio	0.08	0.08	0.77	0.77	0.90	0.90		
v/c Ratio	0.17	0.02	0.04	0.50	0.28	0.47		
Control Delay	45.8	0.1	4.9	5.8	2.8	2.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2		
Total Delay	45.8	0.1	4.9	5.8	2.8	2.4		
LOS	D	A	A	A	A	A		
Approach Delay		30.6		5.8		2.5		
Approach LOS		C		A		A		

Intersection Summary

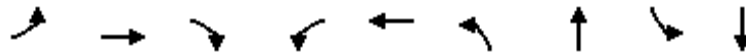
Cycle Length: 98.6
 Actuated Cycle Length: 98.6
 Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 4.3
 Intersection Capacity Utilization 69.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

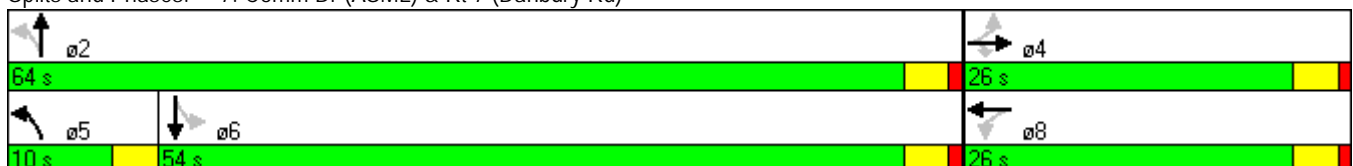


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕	↗		↕		↕↗		↕↗
Volume (vph)	10	10	10	240	110	70	1150	20	1230
Turn Type	Perm		Perm	Perm		pm+pt		Perm	
Protected Phases		4			8	5	2		6
Permitted Phases	4		4	8		2		6	
Detector Phase	4	4	4	8	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0	7.0	15.0	15.0	15.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	10.0	19.0	19.0	19.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0	10.0	64.0	54.0	54.0
Total Split (%)	28.9%	28.9%	28.9%	28.9%	28.9%	11.1%	71.1%	60.0%	60.0%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.0	1.0	1.0	1.0
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)	4.0	4.0	4.0	4.0	4.0	3.0	4.0	4.0	4.0
Lead/Lag						Lead		Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)		22.0	22.0		22.0		60.0		60.0
Actuated g/C Ratio		0.24	0.24		0.24		0.67		0.67
v/c Ratio		0.06	0.03		1.22		0.83		0.68
Control Delay		26.7	14.1		151.2		16.6		10.0
Queue Delay		0.0	0.0		0.0		0.0		0.0
Total Delay		26.7	14.1		151.2		16.6		10.0
LOS		C	B		F		B		B
Approach Delay		22.5			151.2		16.6		10.0
Approach LOS		C			F		B		B

Intersection Summary











Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.22
 Intersection Signal Delay: 31.8
 Intersection LOS: C
 Intersection Capacity Utilization 112.6%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 7: Comm Dr (ASML) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)

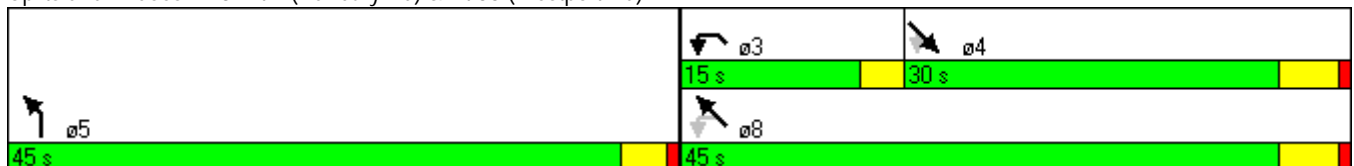
Existing Conditions (2009)
 Timing Plan: AM Peak Hour

					
Lane Group	NBL	SET	SER	NWL	NWT
Lane Configurations					
Volume (vph)	780	500	950	500	630
Turn Type			Perm	pm+pt	
Protected Phases	5	4		3	8
Permitted Phases			4	8	
Detector Phase	5	4	4	3	8
Switch Phase					
Minimum Initial (s)	10.0	20.0	20.0	5.0	20.0
Minimum Split (s)	14.0	25.0	25.0	8.0	25.0
Total Split (s)	45.0	30.0	30.0	15.0	45.0
Total Split (%)	50.0%	33.3%	33.3%	16.7%	50.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	3.0	5.0
Lead/Lag		Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	
Recall Mode	None	Min	Min	None	Min
Act Effect Green (s)	37.4	25.0	25.0	45.6	43.6
Actuated g/C Ratio	0.42	0.28	0.28	0.51	0.48
v/c Ratio	0.82	1.05	0.98	1.37	0.40
Control Delay	25.8	86.4	31.6	206.2	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	86.4	31.6	206.2	16.4
LOS	C	F	C	F	B
Approach Delay	25.8	50.5			100.3
Approach LOS	C	D			F

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 81 (90%), Referenced to phase 2: and 6:, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.37
 Intersection Signal Delay: 58.6
 Intersection LOS: E
 Intersection Capacity Utilization 96.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Route 7 Corridor - Gap Analysis Study
 9: Mountain Rd & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	ø2	ø3
Lane Configurations	↖	↗	↖	↗	↖	↖	↑↑	↖	↖	↗		
Volume (vph)	40	40	310	70	180	10	490	120	300	670		
Turn Type	Split		Split		pt+ov	Prot		Prot	Prot			
Protected Phases	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	2	3
Permitted Phases												
Detector Phase	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4		
Switch Phase												
Minimum Initial (s)	15.0	15.0	5.0	5.0		5.0					15.0	4.0
Minimum Split (s)	21.0	21.0	9.0	9.0		9.0					21.0	8.0
Total Split (s)	16.0	16.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	22.0	9.0
Total Split (%)	17.8%	17.8%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	24%	10%
Yellow Time (s)	4.0	4.0	3.0	3.0		3.0					4.0	3.5
All-Red Time (s)	2.0	2.0	1.0	1.0		1.0					2.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0		
Lead/Lag	Lag	Lag	Lead	Lead		Lag					Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes					Yes	Yes
Recall Mode	None	None	None	None		None					C-Max	None
Act Effct Green (s)	10.0	10.0	18.0	18.0	39.0	5.0	27.0	27.0	20.2	40.2		
Actuated g/C Ratio	0.11	0.11	0.20	0.20	0.43	0.06	0.30	0.30	0.22	0.45		
v/c Ratio	0.22	0.30	0.61	0.60	0.25	0.11	0.50	0.23	0.82	0.49		
Control Delay	39.5	30.7	41.7	41.1	2.3	43.1	28.0	5.6	59.4	16.6		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	1.5		
Total Delay	39.5	30.7	41.7	41.1	2.3	43.1	28.0	5.6	96.2	18.1		
LOS	D	C	D	D	A	D	C	A	F	B		
Approach Delay		34.2		28.8			23.9			41.3		
Approach LOS		C		C			C			D		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 33.2
 Intersection LOS: C
 Intersection Capacity Utilization 57.3%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)



Lane Group	ø4
Lane Configurations	
Volume (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	10.0
Total Split (s)	12.0
Total Split (%)	13%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Route 7 Corridor - Gap Analysis Study
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

					ø1	ø2	ø3	ø5	ø6
Lane Group	WBL	NBT	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations									
Volume (vph)	50	680	50	960					
Turn Type			Perm						
Protected Phases	4	1 2 3 5		2 3 5	1	2	3	5	6
Permitted Phases			2 3 5						
Detector Phase	4	1 2 3 5	2 3 5	2 3 5					
Switch Phase									
Minimum Initial (s)	5.0				5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0				9.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	62.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	68.9%	58.9%	58.9%	10%	24%	10%	24%	18%
Yellow Time (s)	3.0				3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0				1.0	2.0	0.5	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0					
Total Lost Time (s)	5.0	4.0	6.0	6.0					
Lead/Lag	Lag				Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes
Recall Mode	None				None	C-Max	None	None	None
Act Effect Green (s)	7.0	58.0		39.4					
Actuated g/C Ratio	0.08	0.64		0.44					
v/c Ratio	0.63	0.34		0.58					
Control Delay	43.1	2.0		11.8					
Queue Delay	1.5	0.1		0.5					
Total Delay	44.5	2.1		12.3					
LOS	D	A		B					
Approach Delay	44.5	2.1		12.3					
Approach LOS	D	A		B					

Intersection Summary

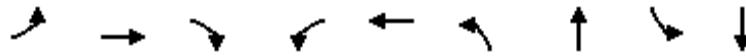
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 10.1
 Intersection LOS: B
 Intersection Capacity Utilization 57.7%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

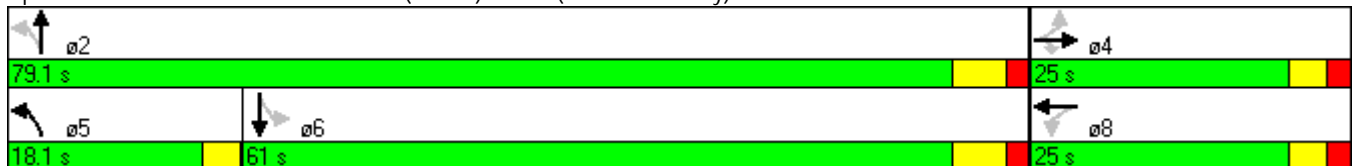


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕	↕		↕	↕	↕		↕
Volume (vph)	60	10	230	10	20	220	580	10	700
Turn Type	Perm		Perm	Perm		pm+pt		Perm	
Protected Phases		4			8	5	2		6
Permitted Phases	4		4	8		2		6	
Detector Phase	4	4	4	8	8	5	2	6	6
Switch Phase									
Minimum Initial (s)	18.0	18.0	18.0	18.0	18.0	3.0	15.0	15.0	15.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	6.5	21.0	21.0	21.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	18.1	79.1	61.0	61.0
Total Split (%)	24.0%	24.0%	24.0%	24.0%	24.0%	17.4%	76.0%	58.6%	58.6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	0.1	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	3.1	6.0	6.0	6.0
Lead/Lag						Lead		Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None	None
Act Effct Green (s)		18.2	18.2		18.2	68.4	65.5		49.8
Actuated g/C Ratio		0.19	0.19		0.19	0.72	0.69		0.53
v/c Ratio		0.29	0.49		0.10	0.48	0.49		0.91
Control Delay		39.4	8.6		35.9	7.4	8.1		35.0
Queue Delay		0.0	0.0		0.0	0.0	0.0		0.0
Total Delay		39.4	8.6		35.9	7.4	8.1		35.0
LOS		D	A		D	A	A		C
Approach Delay		15.8			35.9		7.9		35.0
Approach LOS		B			D		A		C

Intersection Summary

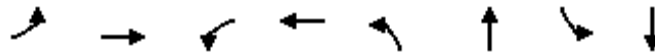
Cycle Length: 104.1
 Actuated Cycle Length: 94.8
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 20.8
 Intersection LOS: C
 Intersection Capacity Utilization 102.5%
 ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

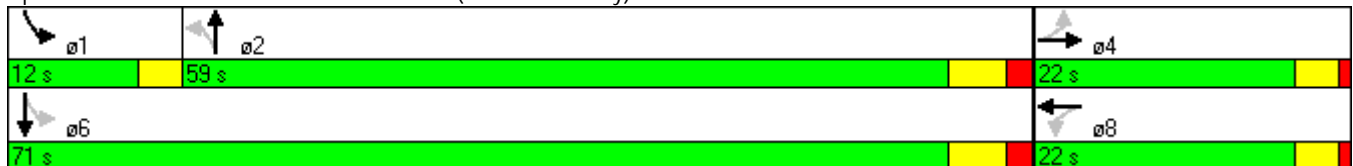


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔	↔	↔	↔	↔
Volume (vph)	10	40	50	190	60	500	20	500
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	18.0	18.0	18.0	18.0	30.0	30.0	5.0	30.0
Minimum Split (s)	22.0	22.0	22.0	22.0	36.0	36.0	8.0	36.0
Total Split (s)	22.0	22.0	22.0	22.0	59.0	59.0	12.0	71.0
Total Split (%)	23.7%	23.7%	23.7%	23.7%	63.4%	63.4%	12.9%	76.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	0.0	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)	4.0	4.0	4.0	4.0	6.0	6.0	3.0	6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		18.0		18.0	30.6	30.6	41.7	38.7
Actuated g/C Ratio		0.27		0.27	0.46	0.46	0.63	0.58
v/c Ratio		0.22		0.68	0.17	0.63	0.05	0.51
Control Delay		13.3		30.3	11.9	17.9	5.0	10.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		13.3		30.3	11.9	17.9	5.0	10.4
LOS		B		C	B	B	A	B
Approach Delay		13.3		30.3		17.2		10.2
Approach LOS		B		C		B		B

Intersection Summary

Cycle Length: 93
 Actuated Cycle Length: 66.7
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 17.0
 Intersection LOS: B
 Intersection Capacity Utilization 80.7%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 13: New Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour



Lane Group	EBL	SET	NWL	NWT
Lane Configurations				
Volume (vph)	30	710	30	530
Turn Type			pm+pt	
Protected Phases	4	6	5	2
Permitted Phases			2	
Detector Phase	4	6	5	2
Switch Phase				
Minimum Initial (s)	19.0	10.0	5.0	10.0
Minimum Split (s)	23.0	15.9	8.0	15.9
Total Split (s)	24.0	38.9	8.0	46.9
Total Split (%)	33.9%	54.9%	11.3%	66.1%
Yellow Time (s)	3.0	4.4	3.0	4.4
All-Red Time (s)	1.0	1.5	0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.9	3.0	5.9
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	Min	Min
Act Effect Green (s)	20.3	31.9		40.5
Actuated g/C Ratio	0.35	0.55		0.69
v/c Ratio	0.09	0.84		0.58
Control Delay	19.0	25.5		10.7
Queue Delay	0.0	0.0		0.0
Total Delay	19.0	25.5		10.7
LOS	B	C		B
Approach Delay	19.0	25.5		10.7
Approach LOS	B	C		B

Intersection Summary

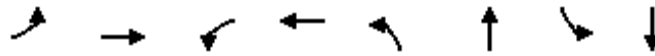
Cycle Length: 70.9	
Actuated Cycle Length: 58.3	
Natural Cycle: 75	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

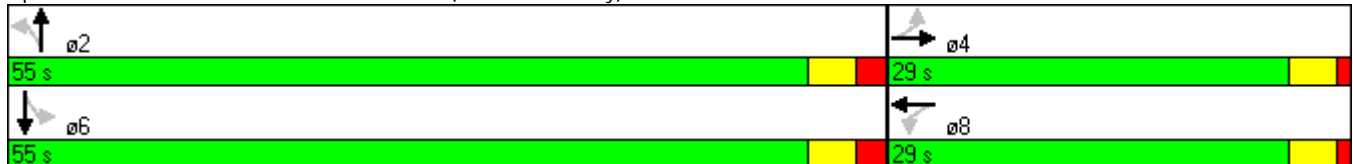


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕		↕		↕
Volume (vph)	20	10	30	30	10	530	10	700
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	22.0	22.0	22.0	22.0	20.0	20.0	20.0	20.0
Minimum Split (s)	26.0	26.0	26.0	26.0	25.0	25.0	25.0	25.0
Total Split (s)	29.0	29.0	29.0	29.0	55.0	55.0	55.0	55.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	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)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effect Green (s)		26.6		26.6		41.5		41.5
Actuated g/C Ratio		0.42		0.42		0.66		0.66
v/c Ratio		0.07		0.13		0.50		0.66
Control Delay		20.6		21.1		10.7		13.8
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		20.6		21.1		10.7		13.8
LOS		C		C		B		B
Approach Delay		20.6		21.1		10.7		13.8
Approach LOS		C		C		B		B

Intersection Summary

Cycle Length: 84
 Actuated Cycle Length: 63.3
 Natural Cycle: 60
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 13.2
 Intersection LOS: B
 Intersection Capacity Utilization 69.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour



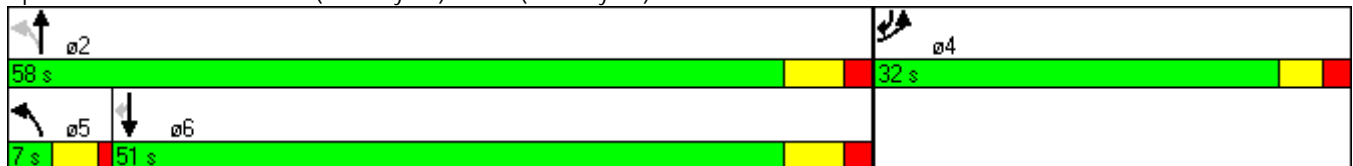
Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Volume (vph)	380	40	510	630	600
Turn Type		pm+pt			pm+ov
Protected Phases	4	5	2	6	4
Permitted Phases		2			6
Detector Phase	4	5	2	6	4
Switch Phase					
Minimum Initial (s)	18.0	3.0	15.0	15.0	18.0
Minimum Split (s)	27.0	7.0	21.0	21.0	27.0
Total Split (s)	32.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	7.8%	64.4%	56.7%	35.6%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	6.0	6.0	5.0
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?		Yes		Yes	
Recall Mode	None	Max	Min	Min	None
Act Effct Green (s)	19.0		36.4	29.3	54.4
Actuated g/C Ratio	0.28		0.55	0.44	0.82
v/c Ratio	0.50		0.40	0.84	0.46
Control Delay	22.5		9.2	26.4	1.2
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	22.5		9.2	26.4	1.2
LOS	C		A	C	A
Approach Delay	22.5		9.2	14.1	
Approach LOS	C		A	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 66.7
 Natural Cycle: 65
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 14.6
 Intersection Capacity Utilization 68.8%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour



Lane Group	EBL	EBR	NBL	NBT	SBT	ø7
Lane Configurations						
Volume (vph)	50	30	10	790	1270	
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	7
Permitted Phases		4	6			
Detector Phase	4	4	1	6	2	
Switch Phase						
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0	5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0	24.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	24.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	29%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0	0.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	None
Act Effect Green (s)	24.0	24.0	57.0	55.5	55.5	
Actuated g/C Ratio	0.29	0.29	0.69	0.67	0.67	
v/c Ratio	0.11	0.07	0.04	0.36	0.59	
Control Delay	22.5	8.4	6.2	9.3	2.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.5	8.4	6.2	9.3	2.6	
LOS	C	A	A	A	A	
Approach Delay	17.1			9.3	2.6	
Approach LOS	B			A	A	

Intersection Summary

Cycle Length: 83.1
 Actuated Cycle Length: 83.1
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 5.6
 Intersection LOS: A
 Intersection Capacity Utilization 62.4%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study
 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)
 Timing Plan: AM Peak Hour

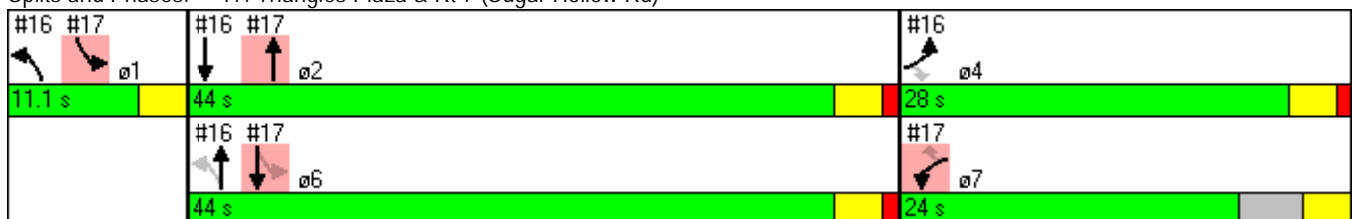


Lane Group	WBR	NBT	SBT	ø1	ø4
Lane Configurations					
Volume (vph)	10	820	1290		
Turn Type	Perm				
Protected Phases		2	6	1	4
Permitted Phases	7				
Detector Phase	7	2	6		
Switch Phase					
Minimum Initial (s)	5.0	15.0	15.0	7.1	24.0
Minimum Split (s)	24.0	19.0	19.0	10.2	28.0
Total Split (s)	24.0	44.0	44.0	11.1	28.0
Total Split (%)	28.9%	52.9%	52.9%	13%	34%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.1	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0		
Total Lost Time (s)	3.1	4.0	4.0		
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	None	C-Min	C-Min	None	None
Act Effct Green (s)	20.9	55.5	55.5		
Actuated g/C Ratio	0.25	0.67	0.67		
v/c Ratio	0.02	0.39	0.59		
Control Delay	0.1	2.9	12.4		
Queue Delay	0.0	0.1	0.0		
Total Delay	0.1	3.0	12.4		
LOS	A	A	B		
Approach Delay		3.0	12.4		
Approach LOS		A	B		

Intersection Summary

Cycle Length: 83.1
 Actuated Cycle Length: 83.1
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 8.6
 Intersection Capacity Utilization 39.0%
 Analysis Period (min) 15

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

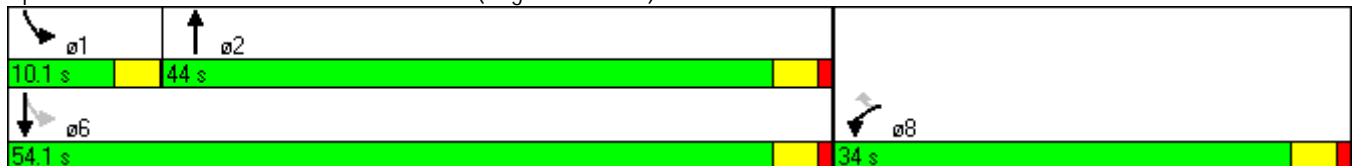
Existing Conditions (2009)
 Timing Plan: AM Peak Hour

	↙	↖	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↙	↖	↑↓	↘	↑↑
Volume (vph)	40	150	860	30	1260
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	4.0	15.0
Minimum Split (s)	23.0	23.0	19.0	7.1	19.0
Total Split (s)	34.0	34.0	44.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	11.5%	61.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	Min	None	Min
Act Effect Green (s)	6.4	6.4	40.5	44.3	43.4
Actuated g/C Ratio	0.11	0.11	0.70	0.77	0.75
v/c Ratio	0.22	0.51	0.38	0.07	0.52
Control Delay	28.2	11.6	4.9	2.1	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	11.6	4.9	2.1	3.8
LOS	C	B	A	A	A
Approach Delay	15.0		4.9		3.8
Approach LOS	B		A		A

Intersection Summary

Cycle Length: 88.1
 Actuated Cycle Length: 57.9
 Natural Cycle: 55
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 5.1
 Intersection LOS: A
 Intersection Capacity Utilization 45.7%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)



LEVEL OF SERVICE REPORTS - PM PEAK HOUR

Route 7 Corridor - Gap Analysis Study
 1: Grist Mill Rd & Rt 7 (Main Ave)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

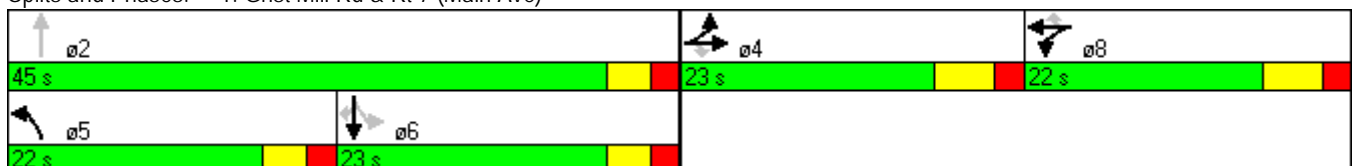


Lane Group	EBL	EBT	EBR	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Volume (vph)	1300	10	370	30	10	450	630	10	430	1120
Turn Type	Split		Perm		Perm	Prot		Perm		Perm
Protected Phases	4	4		8		5			6	
Permitted Phases			4		8		2	6		6
Detector Phase	4	4	4	8	8	5	2	6	6	6
Switch Phase										
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	22.0	22.0	22.0	22.0	22.0	21.5	21.0	21.5	21.5	21.5
Total Split (s)	23.0	23.0	23.0	22.0	22.0	22.0	45.0	23.0	23.0	23.0
Total Split (%)	25.6%	25.6%	25.6%	24.4%	24.4%	24.4%	50.0%	25.6%	25.6%	25.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag						Lead		Lag	Lag	Lag
Lead-Lag Optimize?						Yes		Yes	Yes	Yes
Recall Mode	Min	Min	Min	Min	Min	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	17.0	17.0	17.0	7.6	7.6	25.4	48.4	18.0	18.0	18.0
Actuated g/C Ratio	0.19	0.19	0.19	0.08	0.08	0.28	0.54	0.20	0.20	0.20
v/c Ratio	2.22	2.26	0.64	0.28	0.08	0.98	0.71	0.07	1.25	1.44
Control Delay	581.4	598.0	8.9	42.5	20.5	70.4	20.9	38.0	160.9	224.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	581.4	598.0	8.9	42.5	20.5	70.4	20.9	38.0	160.9	224.3
LOS	F	F	A	D	C	E	C	D	F	F
Approach Delay		461.9		38.1			41.1		205.6	
Approach LOS		F		D			D		F	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.26
 Intersection Signal Delay: 260.5
 Intersection LOS: F
 Intersection Capacity Utilization 110.9%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 1: Grist Mill Rd & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study
 2: I-Park Dr & Rt 7 (Main Ave)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

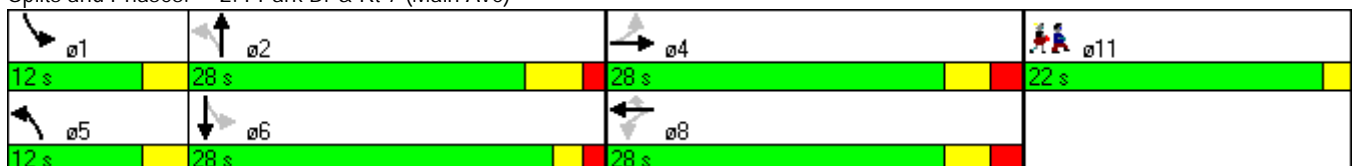


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	ø11
Lane Configurations		↔		↑	↑	↑	↕	↑	↕	↕
Volume (vph)	60	60	300	20	160	60	1590	170	1110	
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt		
Protected Phases		4		8		5	2	1	6	11
Permitted Phases	4		8		8	2		6		
Detector Phase	4	4	8	8	8	5	2	1	6	
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	15.0	5.0	15.0	20.0
Minimum Split (s)	13.3	13.3	13.3	13.3	13.3	8.0	20.5	8.0	20.5	22.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	12.0	28.0	12.0	28.0	22.0
Total Split (%)	31.1%	31.1%	31.1%	31.1%	31.1%	13.3%	31.1%	13.3%	31.1%	24%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.9	3.0	2.0	2.0
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	0.0	1.6	0.0	1.6	0.0
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)	5.3	5.3	5.3	5.3	5.3	3.0	5.5	3.0	3.6	
Lead/Lag						Lead	Lag	Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	None	None	None
Act Effect Green (s)		22.7		22.7	22.7	52.1	44.4	58.7	51.8	
Actuated g/C Ratio		0.25		0.25	0.25	0.58	0.49	0.65	0.58	
v/c Ratio		1.13		1.84	0.37	0.25	1.21	0.70	0.60	
Control Delay		120.1		423.2	16.3	6.0	120.9	29.6	14.5	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		120.1		423.2	16.3	6.0	120.9	29.6	14.5	
LOS		F		F	B	A	F	C	B	
Approach Delay		120.1		287.5			117.5		16.5	
Approach LOS		F		F			F		B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 9 (10%), Referenced to phase 2:NBTL, Start of Green
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.84
 Intersection Signal Delay: 105.3
 Intersection LOS: F
 Intersection Capacity Utilization 114.9%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 2: I-Park Dr & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study
 3: Foxboro Drive & Rt 7 (Main Ave)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour



Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↶	↷	↕	↶	↕
Volume (vph)	70	70	1600	50	1330
Turn Type	custom		pm+pt		
Protected Phases	8	8	2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	7.0	7.0	20.0	7.0	20.0
Minimum Split (s)	11.0	11.0	25.9	10.1	25.9
Total Split (s)	19.0	19.0	58.0	13.1	71.1
Total Split (%)	21.1%	21.1%	64.4%	14.5%	78.9%
Yellow Time (s)	3.0	3.0	3.9	3.0	3.9
All-Red Time (s)	1.0	1.0	2.0	0.1	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	5.9	3.1	5.9
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Min	None	Min
Act Effect Green (s)	9.1	9.1	66.4	76.1	74.5
Actuated g/C Ratio	0.10	0.10	0.74	0.84	0.83
v/c Ratio	0.42	0.33	0.72	0.23	0.49
Control Delay	44.8	13.2	11.4	4.1	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	13.2	11.4	4.1	3.9
LOS	D	B	B	A	A
Approach Delay	29.0		11.4		3.9
Approach LOS	C		B		A

Intersection Summary

Cycle Length: 90.1
 Actuated Cycle Length: 90.1
 Offset: 23 (26%), Referenced to phase 2:NBT, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 8.9
 Intersection Capacity Utilization 61.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 3: Foxboro Drive & Rt 7 (Main Ave)



Route 7 Corridor - Gap Analysis Study
 4: Kent Rd & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

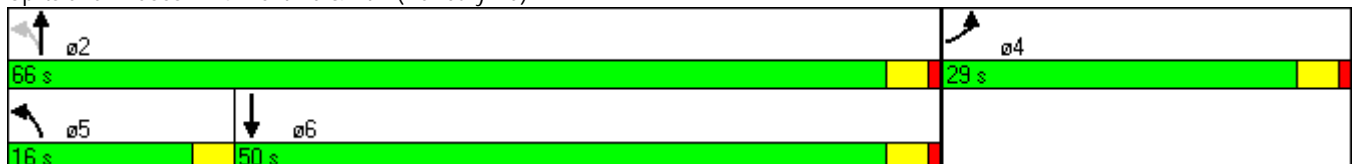


Lane Group	EBL	NBL	NBT	SBT
Lane Configurations				
Volume (vph)	50	100	1470	1140
Turn Type	pm+pt			
Protected Phases	4	5	2	6
Permitted Phases	2			
Detector Phase	4	5	2	6
Switch Phase				
Minimum Initial (s)	20.0	5.0	15.0	15.0
Minimum Split (s)	29.0	8.0	19.0	19.0
Total Split (s)	29.0	16.0	66.0	50.0
Total Split (%)	30.5%	16.8%	69.5%	52.6%
Yellow Time (s)	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	3.0	4.0	4.0
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	C-Max	C-Max
Act Effect Green (s)	20.0	68.0	67.0	59.8
Actuated g/C Ratio	0.21	0.72	0.71	0.63
v/c Ratio	0.29	0.42	0.64	0.62
Control Delay	18.6	9.0	9.0	12.7
Queue Delay	0.0	0.0	0.0	2.3
Total Delay	18.6	9.0	9.0	15.0
LOS	B	A	A	B
Approach Delay	18.6		9.0	15.0
Approach LOS	B		A	B

Intersection Summary

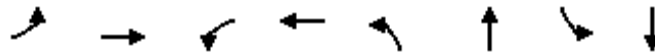
Cycle Length: 95
 Actuated Cycle Length: 95
 Offset: 54 (57%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 11.9
 Intersection LOS: B
 Intersection Capacity Utilization 67.5%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 4: Kent Rd & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 5: Comm. Dr. & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔	↔	↔		↔		↔
Volume (vph)	30	0	60	0	20	1400	60	1150
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	6.0	20.0	20.0	15.0	15.0	3.0	15.0
Minimum Split (s)	10.0	10.0	24.0	24.0	19.0	19.0	6.0	19.0
Total Split (s)	24.0	24.0	24.0	24.0	58.0	58.0	8.0	66.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	64.4%	64.4%	8.9%	73.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effect Green (s)		17.2	20.0	20.0		67.6		67.6
Actuated g/C Ratio		0.19	0.22	0.22		0.75		0.75
v/c Ratio		0.26	0.22	0.05		0.68		0.68
Control Delay		15.6	31.2	0.2		9.5		10.1
Queue Delay		0.0	0.0	0.0		1.4		0.0
Total Delay		15.6	31.2	0.2		11.0		10.1
LOS		B	C	A		B		B
Approach Delay		15.7		23.3		11.0		10.1
Approach LOS		B		C		B		B

Intersection Summary

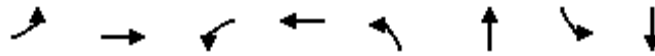
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 60 (67%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 11.1
 Intersection LOS: B
 Intersection Capacity Utilization 100.0%
 ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 5: Comm. Dr. & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 6: Self-Storage Driveway & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	ø11
Lane Configurations	↖	↗	↖	↗	↖	↕	↖	↕	
Volume (vph)	10	0	80	0	10	1500	10	1150	
Turn Type	Perm		Perm		Perm		pm+pt		
Protected Phases		4		8		2	1	6	11
Permitted Phases	4		8		2		6		
Detector Phase	4	4	8	8	2	2	1	6	
Switch Phase									
Minimum Initial (s)	8.0	8.0	8.0	8.0	15.0	15.0	5.0	15.0	3.0
Minimum Split (s)	11.1	11.1	11.1	11.1	20.5	20.5	8.1	20.5	26.0
Total Split (s)	16.0	16.0	16.0	16.0	45.5	45.5	11.1	56.6	26.0
Total Split (%)	16.2%	16.2%	16.2%	16.2%	46.1%	46.1%	11.3%	57.4%	26%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.9	3.9	3.0	3.9	2.0
All-Red Time (s)	0.1	0.1	0.1	0.1	1.6	1.6	0.1	1.6	0.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.1	3.1	3.1	3.1	5.5	5.5	3.1	5.5	
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	None
Act Effect Green (s)	10.1	10.1	10.1	10.1	78.3	78.3	82.3	79.9	
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.79	0.79	0.83	0.81	
v/c Ratio	0.10	0.06	0.62	0.15	0.03	0.59	0.04	0.44	
Control Delay	40.6	0.2	61.3	0.5	3.7	5.7	2.0	3.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
Total Delay	40.6	0.2	61.3	0.5	3.7	5.7	2.0	3.7	
LOS	D	A	E	A	A	A	A	A	
Approach Delay		10.3		30.9		5.6		3.7	
Approach LOS		B		C		A		A	

Intersection Summary











Cycle Length: 98.6
 Actuated Cycle Length: 98.6
 Offset: 14 (14%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 6.3
 Intersection Capacity Utilization 61.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 6: Self-Storage Driveway & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)

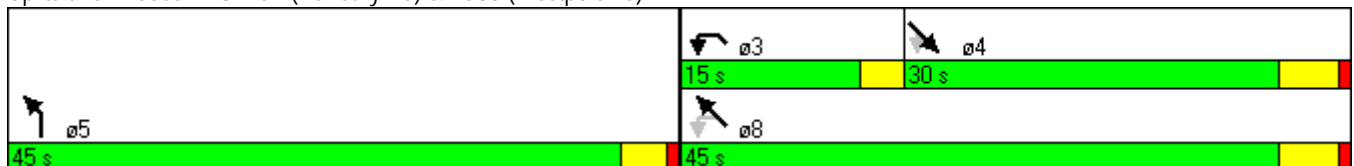
Existing Conditions (2009)
 Timing Plan: PM Peak Hour

					
Lane Group	NBL	SET	SER	NWL	NWT
Lane Configurations					
Volume (vph)	1200	620	750	270	520
Turn Type			Perm	pm+pt	
Protected Phases	5	4		3	8
Permitted Phases			4	8	
Detector Phase	5	4	4	3	8
Switch Phase					
Minimum Initial (s)	10.0	20.0	20.0	5.0	20.0
Minimum Split (s)	14.0	25.0	25.0	8.0	25.0
Total Split (s)	45.0	30.0	30.0	15.0	45.0
Total Split (%)	50.0%	33.3%	33.3%	16.7%	50.0%
Yellow Time (s)	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.0	5.0	3.0	5.0
Lead/Lag		Lag	Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	Yes	
Recall Mode	None	Min	Min	None	Min
Act Effect Green (s)	41.0	25.0	25.0	42.0	40.0
Actuated g/C Ratio	0.46	0.28	0.28	0.47	0.44
v/c Ratio	1.10	1.30	0.84	0.90	0.36
Control Delay	73.3	179.2	13.3	51.9	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	73.3	179.2	13.3	51.9	17.4
LOS	E	F	B	D	B
Approach Delay	73.3	88.4			29.1
Approach LOS	E	F			C

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 81 (90%), Referenced to phase 2: and 6:, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.30
 Intersection Signal Delay: 69.5
 Intersection LOS: E
 Intersection Capacity Utilization 104.6%
 ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 8: Rt 7 (Danbury Rd) & Rt 33 (Westport Rd)



Route 7 Corridor - Gap Analysis Study
 9: Mountain Rd & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	ø2	ø3
Lane Configurations												
Volume (vph)	50	60	150	30	330	10	740	450	360	620		
Turn Type	Split		Split		pt+ov	Prot		Prot	Prot			
Protected Phases	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4	2	3
Permitted Phases												
Detector Phase	6	6	5	5	5 3 4	1	1 2	1 2	3 4	2 3 4		
Switch Phase												
Minimum Initial (s)	15.0	15.0	5.0	5.0		5.0					15.0	4.0
Minimum Split (s)	21.0	21.0	9.0	9.0		9.0					21.0	8.0
Total Split (s)	16.0	16.0	22.0	22.0	43.0	9.0	31.0	31.0	21.0	43.0	22.0	9.0
Total Split (%)	17.8%	17.8%	24.4%	24.4%	47.8%	10.0%	34.4%	34.4%	23.3%	47.8%	24%	10%
Yellow Time (s)	4.0	4.0	3.0	3.0		3.0					4.0	3.5
All-Red Time (s)	2.0	2.0	1.0	1.0		1.0					2.0	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.0	6.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0		
Lead/Lag	Lag	Lag	Lead	Lead		Lag					Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes					Yes	Yes
Recall Mode	None	None	None	None		None					C-Max	None
Act Effct Green (s)	10.0	10.0	18.0	18.0	39.0	5.0	27.0	27.0	20.2	40.2		
Actuated g/C Ratio	0.11	0.11	0.20	0.20	0.43	0.06	0.30	0.30	0.22	0.45		
v/c Ratio	0.27	0.45	0.29	0.29	0.45	0.11	0.76	0.60	0.98	0.46		
Control Delay	40.7	36.1	33.4	33.2	6.3	43.1	34.0	5.9	81.1	15.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	102.3	1.4		
Total Delay	40.7	36.1	33.4	33.2	6.3	43.1	34.0	5.9	183.5	16.7		
LOS	D	D	C	C	A	D	C	A	F	B		
Approach Delay		37.8		15.9			23.5			75.0		
Approach LOS		D		B			C			E		

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.48
 Intersection Signal Delay: 41.2
 Intersection LOS: D
 Intersection Capacity Utilization 72.0%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 9: Mountain Rd & Rt 7 (Danbury Rd)



Lane Group	ø4
Lane Configurations	
Volume (vph)	
Turn Type	
Protected Phases	4
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	10.0
Total Split (s)	12.0
Total Split (%)	13%
Yellow Time (s)	3.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effect Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

Route 7 Corridor - Gap Analysis Study
 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour



Lane Group	WBL	NBT	SBL	SBT	ø1	ø2	ø3	ø5	ø6
Lane Configurations									
Volume (vph)	120	1060	80	910					
Turn Type			Perm						
Protected Phases	4	1 2 3 5		2 3 5	1	2	3	5	6
Permitted Phases			2 3 5	6					
Detector Phase	4	1 2 3 5	2 3 5	2 3 5					
Switch Phase									
Minimum Initial (s)	5.0				5.0	15.0	4.0	5.0	15.0
Minimum Split (s)	10.0				9.0	21.0	8.0	9.0	21.0
Total Split (s)	12.0	62.0	53.0	53.0	9.0	22.0	9.0	22.0	16.0
Total Split (%)	13.3%	68.9%	58.9%	58.9%	10%	24%	10%	24%	18%
Yellow Time (s)	3.0				3.0	4.0	3.5	3.0	4.0
All-Red Time (s)	2.0				1.0	2.0	0.5	1.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0					
Total Lost Time (s)	5.0	4.0	6.0	6.0					
Lead/Lag	Lag				Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes				Yes	Yes	Yes	Yes	Yes
Recall Mode	None				None	C-Max	None	None	None
Act Effect Green (s)	7.0	58.0	39.4	47.4					
Actuated g/C Ratio	0.08	0.64	0.44	0.53					
v/c Ratio	1.48	0.54	0.65	0.41					
Control Delay	272.7	2.8	52.5	4.8					
Queue Delay	37.0	0.3	0.0	0.2					
Total Delay	309.7	3.1	52.5	5.0					
LOS	F	A	D	A					
Approach Delay	309.7	3.1		7.6					
Approach LOS	F	A		A					

Intersection Summary

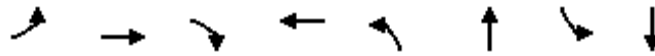
Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.48
 Intersection Signal Delay: 35.2
 Intersection LOS: D
 Intersection Capacity Utilization 74.7%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 10: Georgetown Mkt Plaza & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

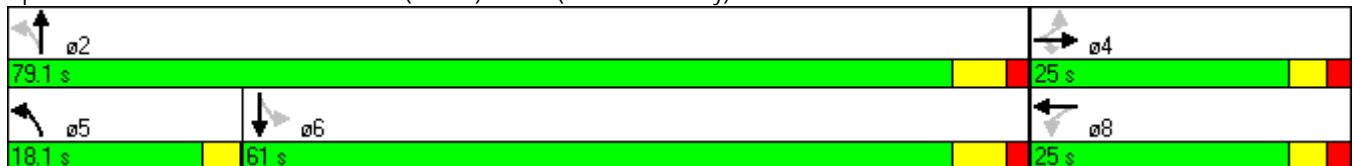


Lane Group	EBL	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕	↗	↕	↖	↗		↕
Volume (vph)	110	20	250	10	230	870	10	650
Turn Type	Perm		Perm		pm+pt		Perm	
Protected Phases		4		8	5	2		6
Permitted Phases	4		4		2		6	
Detector Phase	4	4	4	8	5	2	6	6
Switch Phase								
Minimum Initial (s)	18.0	18.0	18.0	18.0	3.0	15.0	15.0	15.0
Minimum Split (s)	23.0	23.0	23.0	23.0	6.5	21.0	21.0	21.0
Total Split (s)	25.0	25.0	25.0	25.0	18.1	79.1	61.0	61.0
Total Split (%)	24.0%	24.0%	24.0%	24.0%	17.4%	76.0%	58.6%	58.6%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	4.2	4.2	4.2
All-Red Time (s)	2.0	2.0	2.0	2.0	0.1	1.8	1.8	1.8
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	3.1	6.0	6.0	6.0
Lead/Lag					Lead		Lag	Lag
Lead-Lag Optimize?					Yes		Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effect Green (s)		18.7	18.7	18.7	61.1	58.1		45.6
Actuated g/C Ratio		0.21	0.21	0.21	0.69	0.66		0.52
v/c Ratio		0.48	0.49	0.06	0.52	0.77		0.84
Control Delay		40.4	8.0	23.3	8.6	15.0		27.4
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0
Total Delay		40.4	8.0	23.3	8.6	15.0		27.4
LOS		D	A	C	A	B		C
Approach Delay		19.1		23.3		13.7		27.4
Approach LOS		B		C		B		C

Intersection Summary

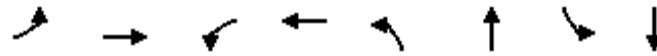
Cycle Length: 104.1
 Actuated Cycle Length: 88.1
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 19.2
 Intersection LOS: B
 Intersection Capacity Utilization 114.0%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 11: Branchville Rd (Rt 102) & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

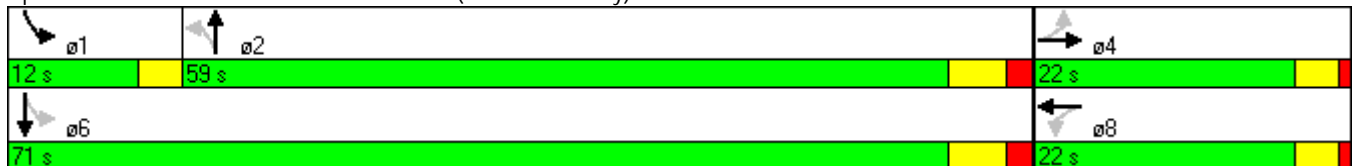


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕	↔	↔	↔	↔
Volume (vph)	10	130	10	30	70	810	40	500
Turn Type	Perm		Perm		Perm		pm+pt	
Protected Phases		4		8		2	1	6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	1	6
Switch Phase								
Minimum Initial (s)	18.0	18.0	18.0	18.0	30.0	30.0	5.0	30.0
Minimum Split (s)	22.0	22.0	22.0	22.0	36.0	36.0	8.0	36.0
Total Split (s)	22.0	22.0	22.0	22.0	59.0	59.0	12.0	71.0
Total Split (%)	23.7%	23.7%	23.7%	23.7%	63.4%	63.4%	12.9%	76.3%
Yellow Time (s)	3.0	3.0	3.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	2.0	2.0	0.0	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)	4.0	4.0	4.0	4.0	6.0	6.0	3.0	6.0
Lead/Lag					Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	Min
Act Effct Green (s)		18.2		18.2	44.4	44.4	55.8	52.7
Actuated g/C Ratio		0.22		0.22	0.55	0.55	0.69	0.65
v/c Ratio		0.60		0.19	0.16	0.89	0.19	0.46
Control Delay		33.6		20.1	9.6	28.0	5.6	8.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		33.6		20.1	9.6	28.0	5.6	8.1
LOS		C		C	A	C	A	A
Approach Delay		33.6		20.1		26.5		7.9
Approach LOS		C		C		C		A

Intersection Summary

Cycle Length: 93
 Actuated Cycle Length: 81.1
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 21.4
 Intersection LOS: C
 Intersection Capacity Utilization 80.3%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 12: Cains Hill Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 13: New Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour



Lane Group	EBL	SET	NWL	NWT
Lane Configurations				
Volume (vph)	50	670	10	840
Turn Type			pm+pt	
Protected Phases	4	6	5	2
Permitted Phases			2	
Detector Phase	4	6	5	2
Switch Phase				
Minimum Initial (s)	19.0	10.0	5.0	10.0
Minimum Split (s)	23.0	15.9	8.0	15.9
Total Split (s)	24.0	38.9	8.0	46.9
Total Split (%)	33.9%	54.9%	11.3%	66.1%
Yellow Time (s)	3.0	4.4	3.0	4.4
All-Red Time (s)	1.0	1.5	0.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.9	3.0	5.9
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes	Yes	
Recall Mode	None	Min	Min	Min
Act Effect Green (s)	21.9	28.4		37.6
Actuated g/C Ratio	0.36	0.47		0.62
v/c Ratio	0.14	0.86		0.80
Control Delay	20.3	28.1		18.7
Queue Delay	0.0	0.0		0.0
Total Delay	20.3	28.1		18.7
LOS	C	C		B
Approach Delay	20.3	28.1		18.7
Approach LOS	C	C		B

Intersection Summary

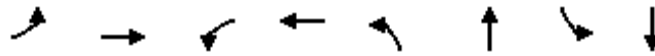
Cycle Length: 70.9	
Actuated Cycle Length: 60.6	
Natural Cycle: 70	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 22.8	Intersection LOS: C
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: New Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

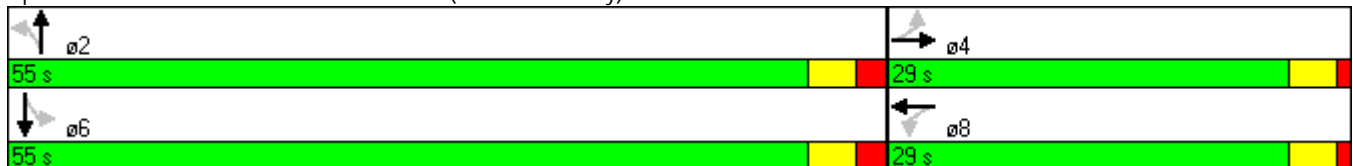


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕		↕		↕
Volume (vph)	30	30	10	20	10	810	20	600
Turn Type	Perm		Perm		Perm		Perm	
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	22.0	22.0	22.0	22.0	20.0	20.0	20.0	20.0
Minimum Split (s)	26.0	26.0	26.0	26.0	25.0	25.0	25.0	25.0
Total Split (s)	29.0	29.0	29.0	29.0	55.0	55.0	55.0	55.0
Total Split (%)	34.5%	34.5%	34.5%	34.5%	65.5%	65.5%	65.5%	65.5%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	1.0	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)	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	None	None
Act Effect Green (s)		27.2		27.2		46.8		46.8
Actuated g/C Ratio		0.40		0.40		0.69		0.69
v/c Ratio		0.12		0.10		0.73		0.58
Control Delay		23.0		22.7		15.9		11.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		23.0		22.7		15.9		11.6
LOS		C		C		B		B
Approach Delay		23.0		22.7		15.9		11.6
Approach LOS		C		C		B		B

Intersection Summary

Cycle Length: 84
 Actuated Cycle Length: 68.2
 Natural Cycle: 70
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 14.7
 Intersection LOS: B
 Intersection Capacity Utilization 74.5%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 14: Haviland Rd & Rt 7 (Ethan Allen Hwy)



Route 7 Corridor - Gap Analysis Study
 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

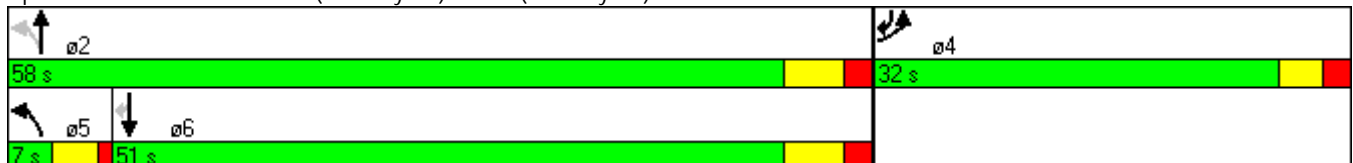


Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Configurations					
Volume (vph)	720	60	860	580	450
Turn Type		pm+pt			pm+ov
Protected Phases	4	5	2	6	4
Permitted Phases		2			6
Detector Phase	4	5	2	6	4
Switch Phase					
Minimum Initial (s)	18.0	3.0	15.0	15.0	18.0
Minimum Split (s)	27.0	7.0	21.0	21.0	27.0
Total Split (s)	32.0	7.0	58.0	51.0	32.0
Total Split (%)	35.6%	7.8%	64.4%	56.7%	35.6%
Yellow Time (s)	3.0	3.0	4.0	4.0	3.0
All-Red Time (s)	2.0	1.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	4.0	6.0	6.0	5.0
Lead/Lag		Lead		Lag	
Lead-Lag Optimize?		Yes		Yes	
Recall Mode	None	Max	Min	Min	None
Act Effect Green (s)	22.6		37.0	29.7	58.5
Actuated g/C Ratio	0.32		0.52	0.42	0.82
v/c Ratio	0.77		0.75	0.81	0.35
Control Delay	28.6		17.3	27.0	0.8
Queue Delay	0.0		0.0	0.0	0.0
Total Delay	28.6		17.3	27.0	0.8
LOS	C		B	C	A
Approach Delay	28.6		17.3	15.6	
Approach LOS	C		B	B	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 71
 Natural Cycle: 60
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 19.9
 Intersection LOS: B
 Intersection Capacity Utilization 92.3%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 15: Rt 35 (Danbury Rd) & Rt 7 (Danbury Rd)



Route 7 Corridor - Gap Analysis Study
 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

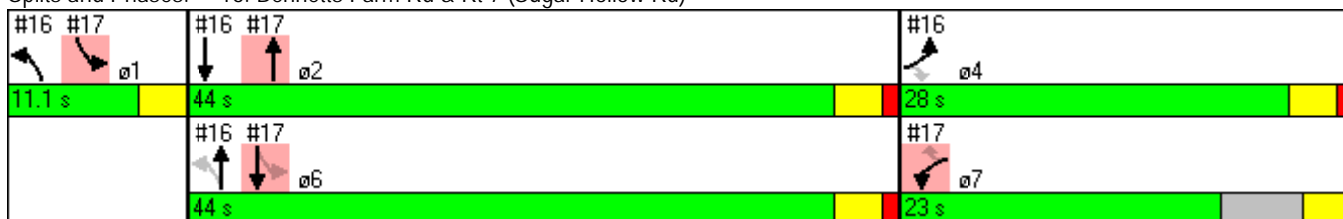


Lane Group	EBL	EBR	NBL	NBT	SBT	ø7
Lane Configurations						
Volume (vph)	10	30	30	1570	1020	
Turn Type		Perm	pm+pt			
Protected Phases	4		1	6	2	7
Permitted Phases		4	6			
Detector Phase	4	4	1	6	2	
Switch Phase						
Minimum Initial (s)	24.0	24.0	7.1	15.0	15.0	5.0
Minimum Split (s)	28.0	28.0	10.2	19.0	19.0	23.0
Total Split (s)	28.0	28.0	11.1	44.0	44.0	23.0
Total Split (%)	33.7%	33.7%	13.4%	52.9%	52.9%	28%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	0.1	1.0	1.0	0.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	3.1	4.0	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	None
Act Effect Green (s)	24.0	24.0	61.3	57.8	57.8	
Actuated g/C Ratio	0.29	0.29	0.74	0.70	0.70	
v/c Ratio	0.02	0.07	0.09	0.69	0.48	
Control Delay	21.4	8.4	6.1	17.4	1.9	
Queue Delay	0.0	0.0	0.0	0.1	0.0	
Total Delay	21.4	8.4	6.1	17.4	1.9	
LOS	C	A	A	B	A	
Approach Delay	11.6			17.2	1.9	
Approach LOS	B			B	A	

Intersection Summary

Cycle Length: 83.1
 Actuated Cycle Length: 83.1
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 11.1
 Intersection LOS: B
 Intersection Capacity Utilization 70.1%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 16: Bennetts Farm Rd & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study
 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

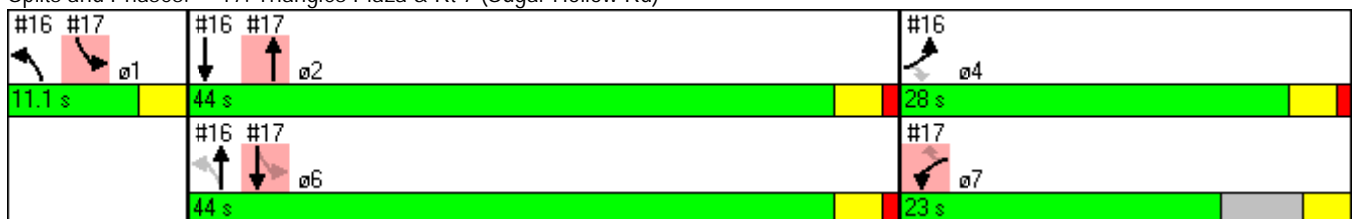


Lane Group	WBL	WBR	NBT	SBL	SBT	ø4
Lane Configurations						
Volume (vph)	10	10	1550	10	1070	
Turn Type		Perm		pm+pt		
Protected Phases	7		2	1	6	4
Permitted Phases		7		6		
Detector Phase	7	7	2	1	6	
Switch Phase						
Minimum Initial (s)	5.0	5.0	15.0	7.1	15.0	24.0
Minimum Split (s)	23.0	23.0	19.0	10.2	19.0	28.0
Total Split (s)	23.0	23.0	44.0	11.1	44.0	28.0
Total Split (%)	27.7%	27.7%	52.9%	13.4%	52.9%	34%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	0.1	0.1	1.0	0.1	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	3.1	3.1	4.0	3.1	4.0	
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	None	C-Min	None
Act Effct Green (s)	16.9	16.9	57.8	61.3	57.8	
Actuated g/C Ratio	0.20	0.20	0.70	0.74	0.70	
v/c Ratio	0.03	0.03	0.70	0.05	0.47	
Control Delay	20.9	11.4	6.7	6.3	12.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.9	11.4	6.7	6.3	12.1	
LOS	C	B	A	A	B	
Approach Delay	16.2		6.7		12.0	
Approach LOS	B		A		B	

Intersection Summary

Cycle Length: 83.1
 Actuated Cycle Length: 83.1
 Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBTL, Start of Green, Master Intersection
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 8.9
 Intersection LOS: A
 Intersection Capacity Utilization 54.6%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 17: Triangles Plaza & Rt 7 (Sugar Hollow Rd)



Route 7 Corridor - Gap Analysis Study
 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

Existing Conditions (2009)
 Timing Plan: PM Peak Hour

	↙	↖	↑	↘	↓
Lane Group	WBL	WBR	NBT	SBL	SBT
Lane Configurations	↙	↖	↕	↘	↘
Volume (vph)	20	40	1550	130	1080
Turn Type		Perm		pm+pt	
Protected Phases	8		2	1	6
Permitted Phases		8		6	
Detector Phase	8	8	2	1	6
Switch Phase					
Minimum Initial (s)	5.0	5.0	15.0	4.0	15.0
Minimum Split (s)	23.0	23.0	19.0	7.1	19.0
Total Split (s)	34.0	34.0	44.0	10.1	54.1
Total Split (%)	38.6%	38.6%	49.9%	11.5%	61.4%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	1.0	1.0	1.0	0.1	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	3.1	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	Min	Min	Min	None	None
Act Effect Green (s)	5.5	5.5	40.0	49.9	49.0
Actuated g/C Ratio	0.09	0.09	0.64	0.80	0.78
v/c Ratio	0.14	0.24	0.76	0.49	0.42
Control Delay	28.6	13.4	11.0	11.0	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	13.4	11.0	11.0	2.8
LOS	C	B	B	B	A
Approach Delay	18.5		11.0		3.7
Approach LOS	B		B		A

Intersection Summary

Cycle Length: 88.1
 Actuated Cycle Length: 62.5
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 8.0
 Intersection LOS: A
 Intersection Capacity Utilization 65.2%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 18: Starrs Plain Rd & Rt 7 (Sugar Hollow Rd)

