



# Meriden Transit Oriented Development Master Plan

**April 2012**

**Prepared for**

City of Meriden

Economic Development Office

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## Chapter 3 Traffic/Infrastructure

### EXECUTIVE SUMMARY

The primary goals of this project are to ensure that all travelers (car, bus, bicycle and pedestrians) arrive at the Transit Oriented Development (TOD) safely and efficiently, and to build an enhanced transportation infrastructure to encourage new economic activity that rejuvenates the City Center.

Studies previously prepared for the City of Meriden were reviewed and analyzed to determine how they might be applied to this effort. In addition, traffic volume data were gathered and used in a simulation computer program, which modeled the existing and the future traffic flow. This model estimated the anticipated traffic for different scenarios and determined which traffic flows would be most beneficial to the city's residents and businesses. The model was also used to predict the safety and operations effects of changing one-way streets to two-way traffic.

Vehicular traffic within the City Center was included in the simulation in order to determine how effectively the proposed street network would handle traffic loads. In addition, the available and future parking supply was studied to confirm that it would be sufficient to meet the anticipated demand.

After review and study of a number of infrastructure improvements and different access points to the city, it is proposed to make Pratt Street the main entrance to the Meridan Transit Center (MTC) and the gateway to the City Center. Upgrading Pratt Street to an attractive boulevard entryway with a landscaped median would provide traffic calming and would slow traffic down. In addition, a section of State Street north of the MTC, would become a boulevard with a landscaped median and its south end would be dedicated exclusively to public transportation.

The existing one-way traffic flow Downtown should be changed to two-way traffic in order to slow traffic down and provide additional access to commerce. The following streets should be considered as the most effective prospects for conversion to two-way operations: West Main Street, Hanover Street, Perkins Street, and sections of Cook Avenue and East Main Street. This plan would also reduce the queues at the railroad crossing by spreading traffic across four queues, compared to the current two queues.

In addition, green spaces would be incorporated throughout to make the Downtown area more appealing to residents and visitors. Attractive and informative wayfinding signs should be incorporated throughout Downtown to give special character to the TOD, and to direct traffic efficiently to the TOD and between the MTC and the City Center.



## TRANSPORTATION ANALYSIS OVERVIEW

### Introduction

A traffic study was performed for the proposed Transit Oriented Development (TOD) to assess different traffic solutions for the proposed development. The proposed project would include a new Meriden Intermodal Center located adjacent to the proposed upgraded train station, which will service the New Haven-Hartford-Springfield (NHHS) Line. Infrastructure improvements would include the re-alignment and re-purposing of existing streets for improved safety and traffic flow. The TOD project — together with the introduction of the high-speed rail and the proposed HUB project — would promote the use and development in the City Center.

The existing street system with the proposed site improvements is shown in Figures 3.1, 3.2, and 3.3.

The study included a capacity analysis of both the existing AM and PM peak periods and the future design year (2015) PM peak period for the no-build and full-build conditions. The future no build condition included a fully built train station on State Street with no roadway improvements while the future full-build condition included the train station and an upgraded street system with improved traffic flow.

The analysis showed that once the proposed improvements are made, the streets under the proposed traffic control would accommodate the long-term development proposed for the Downtown and traffic will operate at an acceptable level of service (LOS).

### Study Methodology

The proposed site was analyzed for several conditions. Manual turning-movement traffic counts were performed at 21 intersections during the weekday AM and PM peak periods to supplement existing City of Meriden turning-movement traffic counts. The existing counts were used to establish an existing model of traffic volumes and flows.

The Synchro model provides several measures of effectiveness for intersections within a system. The level of service (LOS) for a lane group is calculated by taking the signalized Intersection Delay and converting it to a letter, between A and F, based on the length of the delay, the ranges of LOS are shown in Table 3-1. A level of service (LOS) of C or better is considered desirable and a LOS D is considered acceptable for urban areas.

**Table 3-1. Signalized Intersection Level of Capacity**

LOS	Control Delay Per Vehicle (Sec)
A	≤ 10
B	> 10 and ≤ 20
C	>20 and ≤ 35
D	>35 and ≤ 55
E	>55 and ≤ 80
F	>80

Source: *Highway Capacity Manual*, 2000



Future, full-build volumes and traffic flows (2015) were obtained from the Connecticut Department of Transportation (ConnDOT). The ConnDOT volumes were used with the existing roadway network. They were also distributed throughout the improved roadway network and the intersections were examined for operational LOS, delay and queue impacts.

## EXISTING CONDITIONS

### Introduction

The City Center is serviced by East Main Street and West Main Street, which are principal arterials. The City Center is bordered to the north by Interstate 691 (I-691), providing connection between I-91, Route 15, and I-84. State Street, a major collector, provides direct access from I-691 to the train station, and Pratt Street is a minor arterial that has an exit off I-691 and runs north-south into the City Center. The City Center is bordered to the west by Route 71 (Cook Avenue), which is a minor arterial.

Today traffic bound for the City Center from I-691 is directed along State Street and through a commercial/industrial use section of Meriden. While westbound traffic along East Main Street is permitted to continue along West Main Street to the west side of the city, eastbound traffic from the west and north is routed along Hanover Street and the Perkins Street one-way loop, by-passing a large section of the commercial City Center. The Perkins Street loop is difficult to negotiate and does not conform to normal driver expectation.

### Existing Traffic Volumes

Existing traffic volumes were recorded for the weekday AM and PM peak hours. Figures that show the counted traffic volumes for each intersection for the AM and PM peak hours are included in Appendix A.

The counted traffic volumes were used as input, and the entire area traffic operation was modeled using the Synchro 7 software by Trafficware to determine existing LOS and delays for intersections in the study area.

It was found that the studied intersections generally operate at LOS B or better under the existing traffic loads. Table 3-2 summarizes the LOS at each intersection for the existing volumes during the weekday AM and PM peak periods.

**Table 3-2. Capacity Analysis Summary – Existing Volumes**

Location	2011 Existing			
	AM Peak		PM Peak	
	LOS	Delay	LOS	Delay
East Main Street at Pratt Street/Perkins Street	B	10.0	A	9.8
East Main Street at State Street	A	6.6	A	7.7
East/West Main Street at Colony Street/Perkins Street	B	15.4	B	16.7
West Main Street at South Grove Street	A	4.8	A	7.4
West Main Street at Butler Street	A	0.1	A	0.2
West Main Street at Route 71 (Cook Avenue)	A	0.2	A	0.4
Hanover Street at Route 71 (Cook Avenue)	A	8.4	B	17.2
Hanover Street at Butler Street	A	3.6	A	7.4
Hanover Street at South Grove Street	A	0.1	A	0.2
Hanover Street at Perkins Street	A	6.7	A	2.3

### Parking Supply

The available parking supply was studied to ensure that all parking needs are met. The previously completed study *Final Report, City of Meriden, Traffic and Parking Study* (Fuss & O’Neill Inc.) was reviewed and analyzed. A field survey of the existing parking facilities was conducted for the AM and PM periods. A summary of the findings can be seen in Table 3-3.

### Public Transportation

The Downtown is serviced by three bus lines that provide local service and service lines south to Wallingford, east to Middletown and north to Hartford. The bus routes are further described in Chapter 2 of this report in the section titled “Bus Operations” (Page 2-2). The bus routes and schedules are included in Appendix B.

**Table 3-3. Parking Survey**

Facility	Location	Capacity	Weekday Use (%)	
			AM	PM
Lot 2	City Parking Garage on Church and Grove Streets	242	60%	50%
Lot 3	Lot on north side of Church Street	40	30%	30%
Lot 5	City lot bounded by Butler and S. Grove Streets	180	75%	40%
Lot 6	City Lot south of Hanover Street opposite senior center	175	80%	60%
West Main Street	On-street parking from State Street to Cook Avenue	56	100%	100%
Colony Street	On-street parking from W. Main Street to Brooks Street	48	60%	25%
Butler Street	On-street parking from W. Main Street to Hanover Street	16	81%	75%
South Grove Street	On-street parking from W. Main Street to Hanover Street	7	71%	71%
Grove Street	On-street parking from W. Main Street to Church Street	5	80%	80%
Church Street	On-street parking from Grove Street to High School Street	10	50%	50%
Total Public Parking Capacity of the City Center		779		
Available Parking Spaces			235	375



## FUTURE CONDITIONS

### Introduction

Future (2015) traffic volumes and flows projected by ConnDOT as part of the NHHS project were obtained. Roadway improvements and traffic flow alternatives were developed with the City of Meriden engineering staff to best manage traffic in the City Center and around the Meriden Transit Center (MTC). Six proposed alternatives were analyzed, discussed, and finally narrowed to a single proposal that included changing East Main, West Main, Perkins, and Hanover Streets to allow two-way traffic.

The 2015 traffic volumes were used to create models for the existing roadway network and the new proposed street network for the weekday PM peak period. The roadway network for the future design year (2015) no-build and full-build conditions was analyzed and critical intersections were checked for LOS, queue length, and delay impacts. Table 3-4 summarizes the LOS at each intersection for the construction year (2015) no-build and full-build volumes during the weekday PM peak period.

The proposed two-way traffic control will result in traffic operation that better meets driver expectations thus improving safety. In addition a reduction in traffic signal delay for vehicles travelling west along East and West Main Street is expected. The new two-way roadway system routes more traffic through the City Center and will encourage the use of local businesses.

**Table 3-4. Capacity Analysis Summary – 2015 No-Build and 2015 Full-Build**

Location	2015 No-Build		2015 Full-Build	
	PM Peak		PM Peak	
	LOS	Delay	LOS	Delay
East Main Street at Pratt Street/Perkins Street	B	12.3	B	18.5
East Main Street at State Street	B	10.2	A	1.5
East/West Main Street at Colony Street/Perkins Street	C	33.7	B	13.4
West Main Street at South Grove Street	B	13.9	A	8.1
West Main Street at Butler Street	A	0.3	A	0.6
West Main Street at Route 71 (Cook Avenue)	A	0.5	A	5.6
Hanover Street at Route 71 (Cook Avenue)	A	5.5	A	8.9
Hanover Street at Butler Street	B	15.2	B	17.0
Hanover Street at South Grove Street	A	0.2	A	0.3
Hanover Street at Perkins Street	A	2.9	A	5.2

Figure 3-1. Street Improvements and Parking Capacity

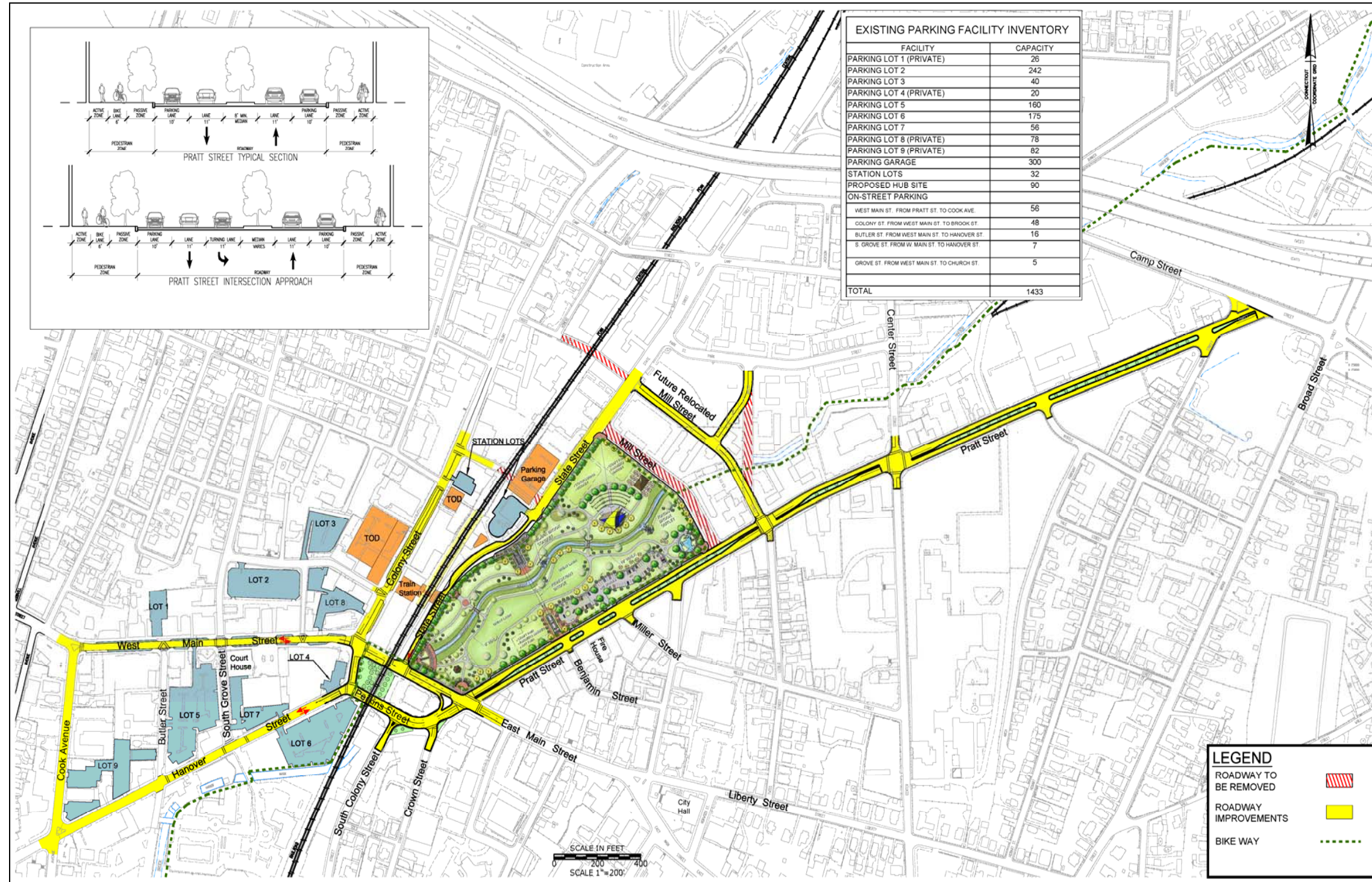




Figure 3-2. Street Improvements at the City Center

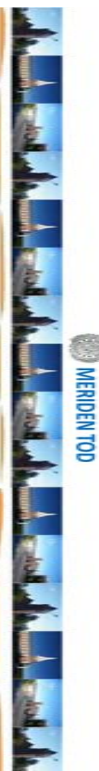
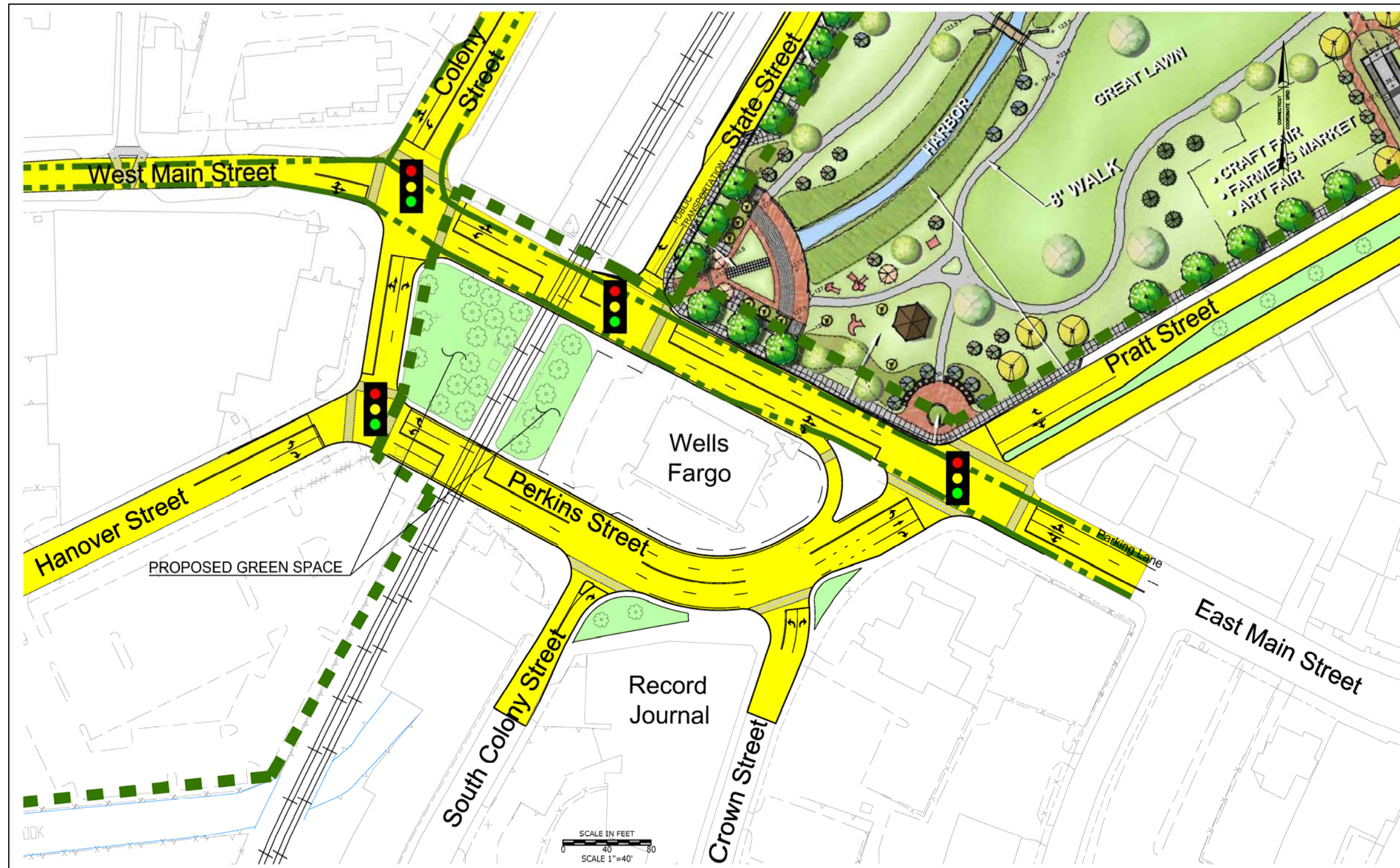




Figure 3-3. Proposed Traffic Flow at the City Center



### Increased Rail Use

The upgrades proposed for the NHHS Line would eventually include increasing the number of trains' interruptions to over 50 per day. The impact of this increased train traffic at the at-grade crossing was a concern at the public input meetings.

The construction of bridges over the rail line, while desirable operationally, would be a high-cost solution with serious impacts to existing roadway geometry, elevation, property rights-of-way and aesthetics. The analysis of this is beyond the scope of this study.

The proposed roadway improvements will result in reduction of traffic recovery time following warning gate activation for train crossings. Presently, when the traffic signals turn red for train traffic, vehicles queue up at the two approaches. The proposed roadway improvements will distribute the queuing vehicles over four approaches allowing the roadway network to recover normal traffic patterns in less time.

### Roadway Improvements

The following roadway and traffic operations improvements are proposed:

- ◆ Reconstruct Pratt Street from curb to curb from East Main Street to Camp Avenue and introduce a raised, planted median for an aesthetically pleasing boulevard look. Pratt Street would serve as the gateway to the City Center, bringing drivers south from I-691.
- ◆ East Main Street would be two-way street from Pratt Street and Perkins Street to Colony Street
- ◆ Perkins Street would become two-way street over its entire length.
- ◆ West Main Street would become two-way street from Colony Street to Cook Avenue.
- ◆ Hanover Street would become two-way street from Perkins Street to Cook Avenue.
- ◆ Perkins Street would be re-aligned and the intersection of East Main and West Main Streets at Colony Street and Perkins Street would be reconfigured to provide a more clear and straightforward passage for motorists, bicyclists, and pedestrians.
- ◆ State Street would be closed to through traffic south of the proposed Meriden Intermodal Center, and only public transportation would be allowed.
- ◆ Cook Avenue would become two-way street from West Main Street to Hanover Street.

Hand in hand with the street operation changes, new wayfinding signs would be introduced to ensure that travelers safely reach the Meriden Intermodal Center or the City Center.

The proposed improvements will allow two-way traffic to flow along the established commercial center in a safe and expedient manner and improve traffic operations on the Perkins Street loop. The improvements will spread traffic queuing at the railroad crossing over four legs of roadway improving the recovery time after train crossings.

### Preliminary Cost Estimate

The construction cost for all the proposed improvements was estimated and is summarized in Table 3-5. To provide the City with planning flexibility, the construction effort was parsed into seven phases. The full detailed estimate is included in Appendix C.

**Table 3-5. Preliminary Construction Cost Estimate**

Phase	Description of Work	Cost (\$)
Phase 1	Reconstruction of State St. from East Main St. to Cross St. and abandon at-grade crossings.	\$2,479,000
Phase 2A	Reconstruct Pratt St. from East Main St. to Center St. including a curbed, landscaped median.	\$3,636,000
Phase 2B	Erect new Interstate signs to redirect I-691 traffic to Pratt St. as the City Center gateway.	\$56,000
Phase 3	Reconstruct East Main St. and Perkins St. from Pratt St. to Colony St. including new traffic signals and converting traffic flow to two-way. (The Loop)	\$5,016,000
Phase 4A	Reconstruct West Main St. and Hanover St. from Colony St. To Route 71 (Cook Ave.).	\$1,301,000
Phase 4B	Reconstruct Route 71 (Cook Ave.) from Hanover St. to West Main St. Includes a new traffic signal.	\$663,000
Phase 5	Reconstruct Colony St. from West Main St. to Brooks St.	\$945,000
Phase 6	Relocate the existing Mill St. from State St. to Pratt St.	\$1,409,000
Phase 7	Reconstruct Pratt St. from Center St. to Camp St. including a curbed, landscaped median.	\$2,269,000
	<b>Total</b>	<b>\$17,774,000</b>

In the preparation of this study-level estimate, a number of assumptions were made: a combination of full depth pavement reconstruction and milling and overlay would be needed, new granite curbs, concrete sidewalk, drainage improvements where needed, site lighting, and landscaping.

- ◆ **Phase 1 – State St. from East Main St. to Cross St.** – Proposed improvements include full-depth roadway reconstruction, complete storm sewers and site lighting, new granite curbing and 10’ concrete sidewalk from East Main St. to Mill St. on the west side of State St.
- ◆ **Phase 2A-Pratt St. from East Main St. to Center St.** – Proposed improvements include full-depth roadway reconstruction, upgrade of half the storm sewers and complete site lighting, new raised median with granite curbing and plantings and 10’ sidewalk from East Main St. to Mill St. on the east side of Pratt St.
- ◆ **Phase 2B-Wayfinding Signage** – Proposed improvements include installing new way-finding signs on I-691 directing traffic bound for the City Center along the Pratt St. gateway.
- ◆ **Phase 3-East Main St. and Perkins St. from Pratt St. to Colony St.** – Proposed improvements include full-depth roadway reconstruction, complete storm sewers and site lighting, new granite curbing and 10’ concrete sidewalk and 6 new traffic signals.



- ◆ **Phase 4A-West Main St. and Hanover St. from Colony St. to Route 71 (Cook Ave.)** – Proposed improvements include milling and paving the roadway, some storm drainage and site lighting improvements and new concrete sidewalk on West Main St.
- ◆ **Phase 4B-Route 71 (Cook Ave.) from Hanover St. to West Main St.** – Proposed improvements include milling and paving the roadway, minor storm drainage improvements and a new traffic signal.
- ◆ **Phase 5-Colony St. from West Main St. to Brooks St.** – Proposed improvements include milling and paving the roadway, some storm drainage and site lighting improvements.
- ◆ **Phase 6-Relocating Mill St. from State St. to Pratt St.** – Proposed improvements include full-depth roadway reconstruction, complete storm sewers, resetting granite curbing and 5’ sidewalks.
- ◆ **Phase 7-Pratt St. from Center St. to Camp St.** – Proposed improvements include full- depth roadway reconstruction, upgrade of half the storm sewers, new raised median with granite curbing and plantings and 5’ concrete sidewalks.

The construction limits and phasing for the proposed roadway improvements are shown on Figure 3-4.

## Conclusions and Recommendations

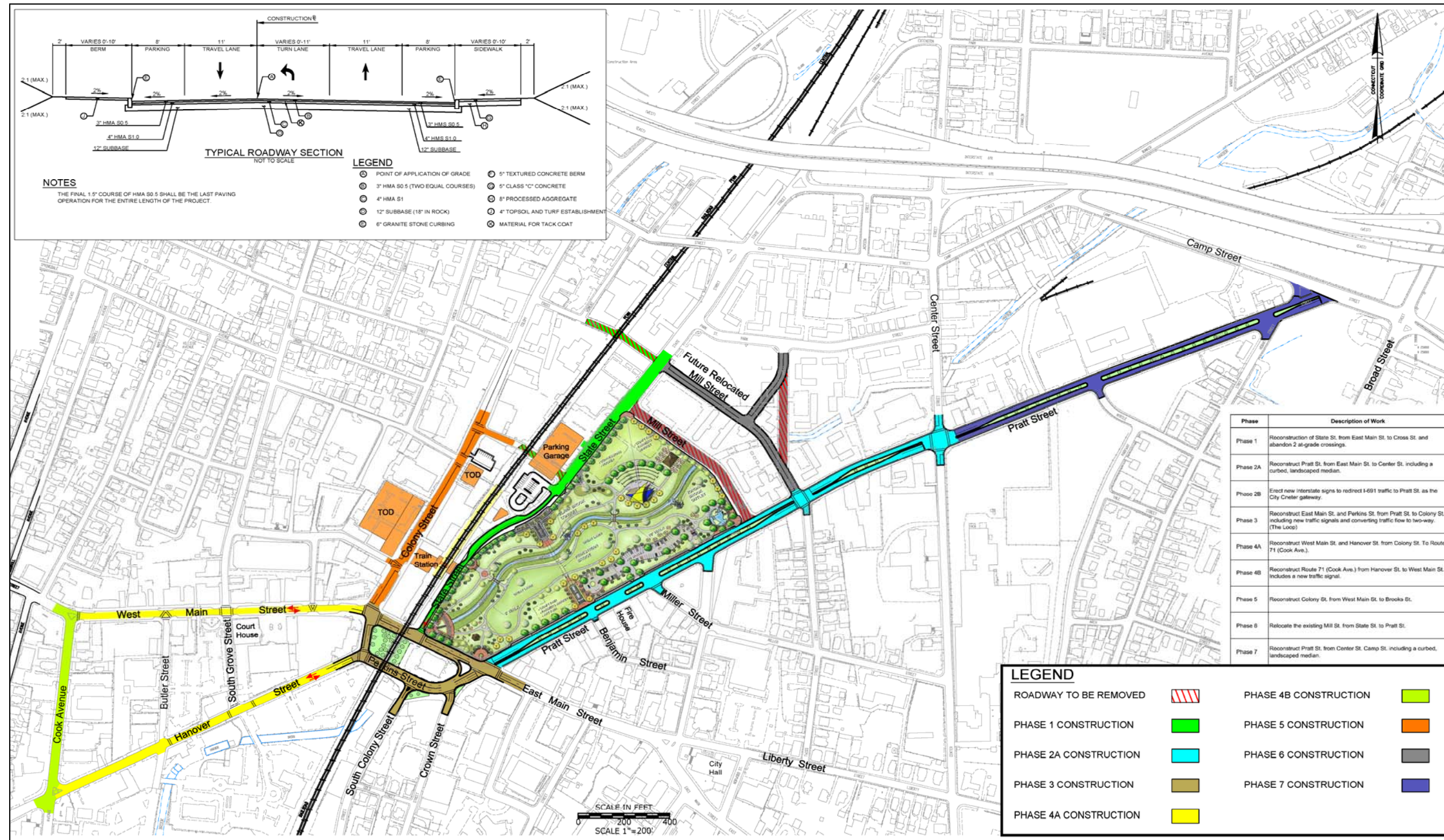
The study demonstrates that the construction of a TOD in the City Center can be an opportunity to make the following improvements:

- ◆ Provide an attractive gateway to the city from I-691 through Exit 8.
- ◆ Transform Pratt Street into a boulevard to direct travelers to the HUB Park and the Transit Center.
- ◆ Change the traffic operations at the HUB Park to provide a more intuitive straightforward traffic scheme that meets drivers’ expectations and improve circulation.
- ◆ Provide two-way traffic at the City Center, which will slow traffic down and encourage more retail and civic activity.
- ◆ Change the one-way traffic to two-way traffic at the railroad crossing, which should reduce the queue at each crossing.
- ◆ Provide an attractive City Center with streetscape and landscaping.

The following steps are proposed to bring these major improvements to actual construction and completion:

- ◆ A traffic study and request for approval will be presented to the State Traffic Commission to secure permission to change the I-691 signage.
- ◆ A pavement condition study to determine if some of the pavement improvement can be achieved with a more economical mill and overlay treatment instead of the full-depth pavement reconstruction.
- ◆ Preliminary design of the street and traffic improvements, which will provide a more detailed design that can be better used to secure funding from state and federal agencies.

Figure 3-4. Construction Limits and Phasing for the Proposed Roadway Improvements



# Chapter 3

## Traffic Infrastructure Appendices

# **MERIDEN TOD STUDY**

## **APPANDIX A CAPACITY ANALYSIS**

# **MERIDEN TOD STUDY**

## **APPANDIX A CAPACITY ANALYSIS**

### **EXISTING AM PEAK PERIOD**

























City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
1: W Main St & Colony St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	506	64	19	109	0	0	96	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25		25	25		25	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	1.00	1.00
Frt						0.850						0.850
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3539	1583	1770	1863	0	0	1863	1583
Flt Permitted							0.690					
Satd. Flow (perm)	0	0	0	0	3539	1583	1285	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						70						157
Link Speed (mph)		30			30			30				30
Link Distance (ft)		242			223			187				241
Travel Time (s)		5.5			5.1			4.3				5.5
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
Adj. Flow (vph)	0	0	0	0	550	70	21	118	0	0	104	157
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	550	70	21	118	0	0	104	157
Turn Type				Perm		Perm	pm+pt					Perm
Protected Phases					6		3!	4				8!
Permitted Phases				6		6	4					8
Detector Phase				6	6	6	3	4				8
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0				4.0
Minimum Split (s)				22.0	22.0	22.0	8.0	18.0				18.0
Total Split (s)	0.0	0.0	0.0	30.0	30.0	30.0	10.0	18.0	0.0	0.0	28.0	28.0
Total Split (%)	0.0%	0.0%	0.0%	33.3%	33.3%	33.3%	11.1%	20.0%	0.0%	0.0%	31.1%	31.1%
Maximum Green (s)				26.0	26.0	26.0	6.0	14.0				24.0
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5				3.5
All-Red Time (s)				0.5	0.5	0.5	0.5	0.5				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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag				
Lead-Lag Optimize?							Yes	Yes				
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				3.0
Recall Mode				Max	Max	Max	None	Max				Max
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 Effect Green (s)					27.0	27.0	24.9	24.1				25.5
Actuated g/C Ratio					0.41	0.41	0.38	0.37				0.39
v/c Ratio					0.38	0.10	0.04	0.17				0.22
Control Delay					16.7	6.1	16.8	19.8				16.6
Queue Delay					1.5	0.0	0.0	1.0				0.0
Total Delay					18.3	6.1	16.8	20.8				16.6
LOS					B	A	B	C				B

Lane Group	ø9
Lane Configurations	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	28.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	8
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

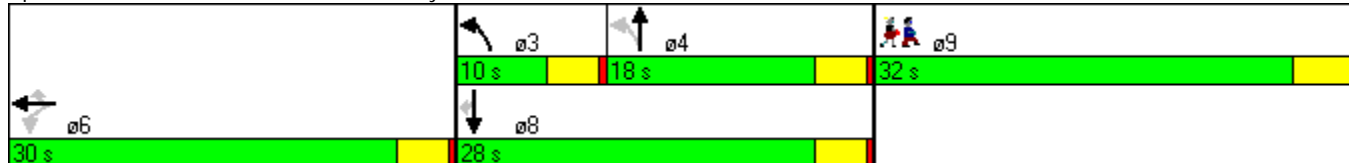


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					16.9			20.2			9.4	
Approach LOS					B			C			A	
Queue Length 50th (ft)					61	0	4	25			21	0
Queue Length 95th (ft)					201	32	26	113			87	45
Internal Link Dist (ft)		162			143			107			161	
Turn Bay Length (ft)												100
Base Capacity (vph)					1465	696	537	688			728	714
Starvation Cap Reductn					699	0	0	388			0	0
Spillback Cap Reductn					0	0	0	0			0	0
Storage Cap Reductn					0	0	0	0			0	0
Reduced v/c Ratio					0.72	0.10	0.04	0.39			0.14	0.22

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 65.2  
 Natural Cycle: 80  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.38  
 Intersection Signal Delay: 15.4      Intersection LOS: B  
 Intersection Capacity Utilization 42.8%      ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 1: W Main St & Colony St



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Lane Group	ø9
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

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City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
2: E Main St & State St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	32	464	61	0	0	0	0	78	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.911	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1770	3539	1583	0	0	0	0	3224	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	3539	1583	0	0	0	0	3224	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				35		66						123
Link Speed (mph)		30			30			30				30
Link Distance (ft)		223			327			192				217
Travel Time (s)		5.1			7.4			4.4				4.9
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
Adj. Flow (vph)	0	0	0	35	504	66	0	0	0	0	85	123
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	35	504	66	0	0	0	0	208	0
Turn Type				Perm		Perm						
Protected Phases					6							8
Permitted Phases				6		6						
Minimum Split (s)				22.0	22.0	22.0					22.0	
Total Split (s)	0.0	0.0	0.0	72.0	72.0	72.0	0.0	0.0	0.0	0.0	18.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	80.0%	80.0%	80.0%	0.0%	0.0%	0.0%	0.0%	20.0%	0.0%
Maximum Green (s)				68.0	68.0	68.0					14.0	
Yellow Time (s)				3.5	3.5	3.5					3.5	
All-Red Time (s)				0.5	0.5	0.5					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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
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 Effect Green (s)				68.0	68.0	68.0					14.0	
Actuated g/C Ratio				0.76	0.76	0.76					0.16	
v/c Ratio				0.03	0.19	0.05					0.34	
Control Delay				1.0	3.3	0.9					16.3	
Queue Delay				0.0	0.5	0.0					0.0	
Total Delay				1.0	3.8	0.9					16.3	
LOS				A	A	A					B	
Approach Delay					3.3						16.3	
Approach LOS					A						B	
Queue Length 50th (ft)				0	34	0					22	
Queue Length 95th (ft)				6	47	8					54	
Internal Link Dist (ft)		143			247			112			137	
Turn Bay Length (ft)												
Base Capacity (vph)				1346	2674	1212					605	
Starvation Cap Reductn				0	1642	0					0	







Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		377	242		181	
Travel Time (s)		8.6	5.5		4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control		Free	Free		Free	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	0.0%		ICU Level of Service A			
Analysis Period (min)	15					



Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations			↖ ↗		↖ ↗ ↘	↖
Volume (vph)	0	0	96	0	128	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.97	1.00	0.97	0.91
Fr <sub>t</sub>					0.907	0.850
Fl <sub>t</sub> Protected			0.950		0.981	
Satd. Flow (prot)	0	0	3433	0	3215	1441
Fl <sub>t</sub> Permitted			0.950		0.981	
Satd. Flow (perm)	0	0	3433	0	3215	1441
Right Turn on Red		Yes		Yes		Yes
Satd. Flow (RTOR)					225	224
Link Speed (mph)	30		30		30	
Link Distance (ft)	123		187		325	
Travel Time (s)	2.8		4.3		7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	104	0	139	449
Shared Lane Traffic (%)						50%
Lane Group Flow (vph)	0	0	104	0	364	224
Turn Type						Prot
Protected Phases			4		2	2
Permitted Phases						
Detector Phase			4		2	2
Switch Phase						
Minimum Initial (s)			4.0		4.0	4.0
Minimum Split (s)			22.0		22.0	22.0
Total Split (s)	0.0	0.0	26.0	0.0	64.0	64.0
Total Split (%)	0.0%	0.0%	28.9%	0.0%	71.1%	71.1%
Maximum Green (s)			22.0		60.0	60.0
Yellow Time (s)			3.5		3.5	3.5
All-Red Time (s)			0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0		3.0	3.0
Recall Mode			None		C-Max	C-Max
Walk Time (s)			7.0		7.0	7.0
Flash Dont Walk (s)			11.0		11.0	11.0
Pedestrian Calls (#/hr)			0		0	0
Act Effect Green (s)			8.1		76.7	76.7
Actuated g/C Ratio			0.09		0.85	0.85
v/c Ratio			0.34		0.13	0.18
Control Delay			40.9		0.7	0.6
Queue Delay			0.0		0.0	0.0
Total Delay			40.9		0.7	0.6
LOS			D		A	A
Approach Delay			40.9		0.7	
Approach LOS			D		A	
Queue Length 50th (ft)			29		5	0



Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Queue Length 95th (ft)			53		12	10
Internal Link Dist (ft)	43		107		245	
Turn Bay Length (ft)						
Base Capacity (vph)			839		2773	1261
Starvation Cap Reductn			0		0	0
Spillback Cap Reductn			0		0	0
Storage Cap Reductn			0		0	0
Reduced v/c Ratio			0.12		0.13	0.18

**Intersection Summary**

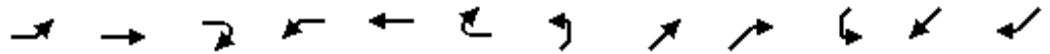
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NEL and 6:, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	6.7
Intersection LOS:	A
Intersection Capacity Utilization	50.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 4: Pratt St & Hanover St



City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
5: E Main St & Pratt St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations					↑↑		↑↑	↑↑	↑			↑↑
Volume (vph)	0	0	0	0	433	31	65	209	355	0	0	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88
Frt					0.990				0.850			0.850
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3153	0	3090	3185	1425	0	0	2508
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3153	0	3090	3185	1425	0	0	2508
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					8		71		386			1119
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		327			526			208			538	
Travel Time (s)		7.4			12.0			4.7			12.2	
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
Adj. Flow (vph)	0	0	0	0	471	34	71	227	386	0	0	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	505	0	71	227	386	0	0	73
Turn Type							pm+pt		Perm			custom
Protected Phases					6		3	4				
Permitted Phases							4		4			8
Detector Phase					6		3	4	4			8
Switch Phase												
Minimum Initial (s)					4.0		4.0	4.0	4.0			4.0
Minimum Split (s)					22.0		8.0	22.0	22.0			22.0
Total Split (s)	0.0	0.0	0.0	0.0	28.0	0.0	10.0	20.0	20.0	0.0	0.0	30.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	31.1%	0.0%	11.1%	22.2%	22.2%	0.0%	0.0%	33.3%
Maximum Green (s)					24.0		6.0	16.0	16.0			26.0
Yellow Time (s)					3.5		3.5	3.5	3.5			3.5
All-Red Time (s)					0.5		0.5	0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag			
Lead-Lag Optimize?							Yes	Yes	Yes			
Vehicle Extension (s)					3.0		3.0	3.0	3.0			3.0
Recall Mode					None		None	Max	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)					13.2		23.7	18.6	18.6			23.7
Actuated g/C Ratio					0.29		0.52	0.41	0.41			0.52
v/c Ratio					0.55		0.04	0.17	0.47			0.04
Control Delay					16.3		2.1	11.2	4.1			0.0
Queue Delay					0.0		0.0	0.1	0.3			0.0
Total Delay					16.3		2.1	11.3	4.4			0.0
LOS					B		A	B	A			A
Approach Delay					16.3			6.5				
Approach LOS					B			A				
Queue Length 50th (ft)					63		0	22	0			0

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	28.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
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	
Queue Length 50th (ft)	

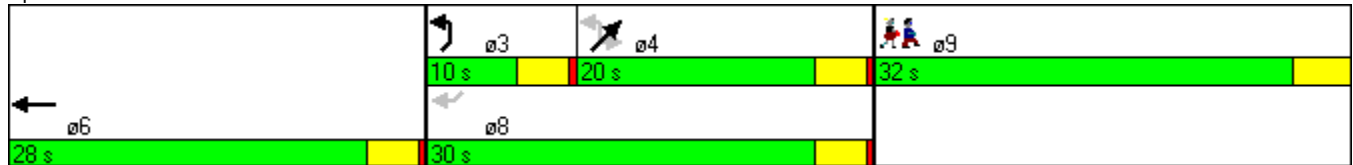


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Queue Length 95th (ft)					102		7	48	48			0
Internal Link Dist (ft)		247			446			128			458	
Turn Bay Length (ft)												
Base Capacity (vph)					1733		1570	1311	814			1973
Starvation Cap Reductn					0		0	384	103			0
Spillback Cap Reductn					0		0	0	0			0
Storage Cap Reductn					0		0	0	0			0
Reduced v/c Ratio					0.29		0.05	0.24	0.54			0.04

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	45.2
Natural Cycle:	85
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	10.0
Intersection LOS:	B
Intersection Capacity Utilization	31.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 5: E Main St & Pratt St





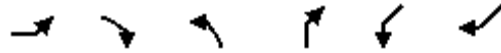
Lane Group	ø9
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↗
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	5085	0	0	0	0	1863
Flt Permitted						
Satd. Flow (perm)	5085	0	0	0	0	1863
Link Speed (mph)	30			30	30	
Link Distance (ft)	128			139	468	
Travel Time (s)	2.9			3.2	10.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free			Stop	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.5%
ICU Level of Service	A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations	<del>TTT</del>			T		
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.94	0.91	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	5253	0	0	1863	0	0
Flt Permitted						
Satd. Flow (perm)	5253	0	0	1863	0	0
Right Turn on Red	Yes	Yes		Yes		Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30		30		30	
Link Distance (ft)	139		529		208	
Travel Time (s)	3.2		12.0		4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Turn Type custom						
Protected Phases 2						
Permitted Phases 4						
Detector Phase 2 4						
Switch Phase						
Minimum Initial (s)	4.0			4.0		
Minimum Split (s)	22.0			22.0		
Total Split (s)	76.0	0.0	0.0	14.0	0.0	0.0
Total Split (%)	84.4%	0.0%	0.0%	15.6%	0.0%	0.0%
Maximum Green (s)	72.0			10.0		
Yellow Time (s)	3.5			3.5		
All-Red Time (s)	0.5			0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0			3.0		
Recall Mode	C-Max			None		
Walk Time (s)	7.0			7.0		
Flash Dont Walk (s)	11.0			11.0		
Pedestrian Calls (#/hr)	0			0		
Act Effect Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						



Lane Group	EBL	EBR	NBL	NBR	SWL	SWR
Queue Length 95th (ft)						
Internal Link Dist (ft)	59		449		128	
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBL and 6:, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.00
Intersection Signal Delay:	0.0
Intersection LOS:	A
Intersection Capacity Utilization:	0.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 7: Pratt St & Crown St

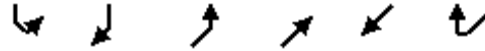
2	4
76 s	14 s



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑			↑↑	
Volume (vph)	0	509	0	0	110	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	5085	0	0	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	5085	0	0	3433	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		123	128		192	
Travel Time (s)		2.8	2.9		4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	553	0	0	120	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	553	0	0	120	0
Sign Control		Free	Stop		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	38.5%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations				↑↑		
Volume (vph)	0	0	136	524	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected				0.990		
Satd. Flow (prot)	0	0	0	3504	0	0
Flt Permitted				0.990		
Satd. Flow (perm)	0	0	0	3504	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	461			369	332	
Travel Time (s)	10.5			8.4	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	148	570	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	718	0	0
Turn Type Perm						
Protected Phases 2						
Permitted Phases 2						
Detector Phase 2 2						
Switch Phase						
Minimum Initial (s) 4.0 4.0						
Minimum Split (s) 22.0 22.0						
Total Split (s)	0.0	0.0	90.0	90.0	0.0	0.0
Total Split (%)	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s) 86.0 86.0						
Yellow Time (s) 3.5 3.5						
All-Red Time (s) 0.5 0.5						
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s) 3.0 3.0						
Recall Mode C-Max 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) 90.0						
Actuated g/C Ratio 1.00						
v/c Ratio 0.20						
Control Delay 0.1						
Queue Delay 0.0						
Total Delay 0.1						
LOS A						
Approach Delay 0.1						
Approach LOS A						
Queue Length 50th (ft) 0						



















Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Queue Length 95th (ft)				0		
Internal Link Dist (ft)	381			289	252	
Turn Bay Length (ft)						
Base Capacity (vph)				3504		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.20		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NETL and 6:, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.20
Intersection Signal Delay:	0.1
Intersection LOS:	A
Intersection Capacity Utilization	33.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 9: S Grove St & Hanover St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	523	44	55	38	0	0	0	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.988							0.865
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3497	0	1770	1863	0	0	0	1611
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3497	0	1770	1863	0	0	0	1611
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					26		60					710
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			377			461			215	
Travel Time (s)		6.3			8.6			10.5			4.9	
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
Adj. Flow (vph)	0	0	0	0	568	48	60	41	0	0	0	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	616	0	60	41	0	0	0	68
Turn Type							Perm					custom
Protected Phases					6			4				
Permitted Phases							4					6
Detector Phase					6		4	4				6
Switch Phase												
Minimum Initial (s)					4.0		4.0	4.0				4.0
Minimum Split (s)					22.0		22.0	22.0				22.0
Total Split (s)	0.0	0.0	0.0	0.0	70.0	0.0	20.0	20.0	0.0	0.0	0.0	70.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	77.8%	0.0%	22.2%	22.2%	0.0%	0.0%	0.0%	77.8%
Maximum Green (s)					66.0		16.0	16.0				66.0
Yellow Time (s)					3.5		3.5	3.5				3.5
All-Red Time (s)					0.5		0.5	0.5				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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)					3.0		3.0	3.0				3.0
Recall Mode					C-Max		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)					77.2		7.5	7.5				77.2
Actuated g/C Ratio					0.86		0.08	0.08				0.86
v/c Ratio					0.21		0.30	0.26				0.05
Control Delay					1.7		17.3	41.3				0.1
Queue Delay					0.0		0.0	0.0				0.0
Total Delay					1.7		17.3	41.3				0.1
LOS					A		B	D				A
Approach Delay					1.7			27.1				
Approach LOS					A			C				
Queue Length 50th (ft)					24		0	22				0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)					42		38	53				0
Internal Link Dist (ft)		196			297			381			135	
Turn Bay Length (ft)												
Base Capacity (vph)					3004		364	331				1483
Starvation Cap Reductn					0		0	0				0
Spillback Cap Reductn					0		0	0				0
Storage Cap Reductn					0		0	0				0
Reduced v/c Ratio					0.21		0.16	0.12				0.05

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2: and 6:WBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.30  
 Intersection Signal Delay: 4.8  
 Intersection Capacity Utilization 33.1%  
 Analysis Period (min) 15

Intersection LOS: A  
 ICU Level of Service A

Splits and Phases: 10: W Main St &





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↕↕		
Volume (vph)	0	0	98	513	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected				0.992		
Satd. Flow (prot)	0	0	0	3511	0	0
Flt Permitted				0.992		
Satd. Flow (perm)	0	0	0	3511	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	409			276	611	
Travel Time (s)	9.3			6.3	13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	107	558	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	665	0	0
Turn Type			Perm			
Protected Phases				6		
Permitted Phases			6			
Detector Phase			6	6		
Switch Phase						
Minimum Initial (s)			4.0	4.0		
Minimum Split (s)			22.0	22.0		
Total Split (s)	0.0	0.0	90.0	90.0	0.0	0.0
Total Split (%)	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)			86.0	86.0		
Yellow Time (s)			3.5	3.5		
All-Red Time (s)			0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0	3.0		
Recall Mode			C-Max	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)				90.0		
Actuated g/C Ratio				1.00		
v/c Ratio				0.19		
Control Delay				0.1		
Queue Delay				0.0		
Total Delay				0.1		
LOS				A		
Approach Delay				0.1		
Approach LOS				A		
Queue Length 50th (ft)				0		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)				0		
Internal Link Dist (ft)	329			196	531	
Turn Bay Length (ft)						
Base Capacity (vph)				3511		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.19		

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2: and 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.19
Intersection Signal Delay:	0.1
Intersection LOS:	A
Intersection Capacity Utilization	20.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 11: W Main St & Butler St





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	310	217	315	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	1863	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	1863	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	491			409	819	
Travel Time (s)	11.2			9.3	18.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	337	236	342	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	337	236	342	0	0
Turn Type		custom	Perm			
Protected Phases				6		
Permitted Phases		2	6			
Detector Phase		2	6	6		
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0		
Minimum Split (s)		22.0	22.0	22.0		
Total Split (s)	0.0	90.0	90.0	90.0	0.0	0.0
Total Split (%)	0.0%	100.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)		86.0	86.0	86.0		
Yellow Time (s)		3.5	3.5	3.5		
All-Red Time (s)		0.5	0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		C-Max	C-Max	C-Max		
Walk Time (s)		7.0	7.0	7.0		
Flash Dont Walk (s)		11.0	11.0	11.0		
Pedestrian Calls (#/hr)		0	0	0		
Act Effect Green (s)		90.0	90.0	90.0		
Actuated g/C Ratio		1.00	1.00	1.00		
v/c Ratio		0.21	0.13	0.18		
Control Delay		0.3	0.2	0.2		
Queue Delay		0.0	0.0	0.0		
Total Delay		0.3	0.2	0.2		
LOS		A	A	A		
Approach Delay				0.2		
Approach LOS				A		
Queue Length 50th (ft)		0	0	0		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)		0	0	0		
Internal Link Dist (ft)	411			329	739	
Turn Bay Length (ft)						
Base Capacity (vph)		1611	1770	1863		
Starvation Cap Reductn		0	0	0		
Spillback Cap Reductn		0	0	0		
Storage Cap Reductn		0	0	0		
Reduced v/c Ratio		0.21	0.13	0.18		

**Intersection Summary**




















Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:EBR and 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.21
Intersection Signal Delay:	0.2
Intersection Capacity Utilization	37.9%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	A













Splits and Phases: 12: W Main St & Cook St



City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
13: Cook St & Hanover St

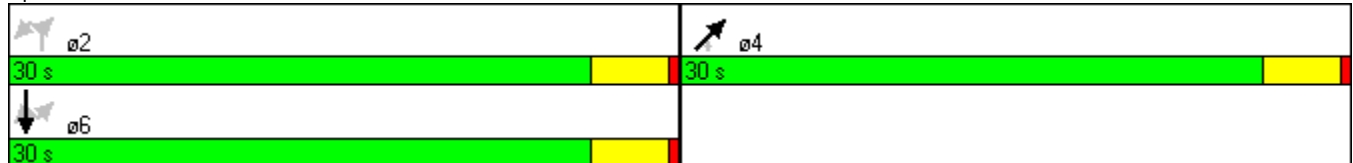
												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	129	0	101	246	177	115	0	227	39	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	25		25	25		25	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			0.850			0.850			0.850			
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1863	1583	0	1863	1583	0	0	0
Flt Permitted	0.637			0.950								
Satd. Flow (perm)	1187	0	1583	1770	1863	1583	0	1863	1583	0	0	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			110	267		125			42			
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		733			819			340			505	
Travel Time (s)		16.7			18.6			9.3			11.5	
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
Adj. Flow (vph)	140	0	110	267	192	125	0	247	42	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	140	0	110	267	192	125	0	247	42	0	0	0
Turn Type	custom		custom	Perm		Perm			Perm			
Protected Phases					6			4				
Permitted Phases	2		2	6		6			4			
Detector Phase	2		2	6	6	6		4	4			
Switch Phase												
Minimum Initial (s)	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		22.0	22.0			
Total Split (s)	30.0	0.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	0.0	0.0	0.0
Total Split (%)	50.0%	0.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%
Maximum Green (s)	26.0		26.0	26.0	26.0	26.0		26.0	26.0			
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5		3.5	3.5			
All-Red Time (s)	0.5		0.5	0.5	0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0	3.0			
Recall Mode	C-Max		C-Max	C-Max	C-Max	C-Max		None	None			
Walk Time (s)	7.0		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	11.0			
Pedestrian Calls (#/hr)	0		0	0	0	0		0	0			
Act Effect Green (s)	38.5		38.5	38.5	38.5	38.5		13.5	13.5			
Actuated g/C Ratio	0.64		0.64	0.64	0.64	0.64		0.22	0.22			
v/c Ratio	0.18		0.10	0.22	0.16	0.12		0.59	0.11			
Control Delay	6.2		1.8	1.5	5.6	1.7		26.0	6.5			
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay	6.2		1.8	1.5	5.6	1.7		26.0	6.5			
LOS	A		A	A	A	A		C	A			

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay					2.9			23.2				
Approach LOS					A			C				
Queue Length 50th (ft)	17		0	0	23	0		81	0			
Queue Length 95th (ft)	49		17	26	59	18		124	18			
Internal Link Dist (ft)		653			739			260			425	
Turn Bay Length (ft)			200									
Base Capacity (vph)	763		1056	1232	1197	1061		807	710			
Starvation Cap Reductn	0		0	0	0	0		0	0			
Spillback Cap Reductn	0		0	0	0	0		0	0			
Storage Cap Reductn	0		0	0	0	0		0	0			
Reduced v/c Ratio	0.18		0.10	0.22	0.16	0.12		0.31	0.06			

**Intersection Summary**

















Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	8.4
Intersection LOS:	A
Intersection Capacity Utilization	41.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 13: Cook St & Hanover St















City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
14: Butler St & Hanover St

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	34	34	24	0	0	607	25	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.865					0.994				
Flt Protected					0.971							
Satd. Flow (prot)	0	0	1611	0	1809	0	0	3518	0	0	0	0
Flt Permitted					0.971							
Satd. Flow (perm)	0	0	1611	0	1809	0	0	3518	0	0	0	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			340		37			12				
Link Speed (mph)		25			30			30				30
Link Distance (ft)		180			611			505				369
Travel Time (s)		4.9			13.9			11.5				8.4
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
Adj. Flow (vph)	0	0	37	37	26	0	0	660	27	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	37	0	63	0	0	687	0	0	0	0
Turn Type			custom	Perm								
Protected Phases					8			2				
Permitted Phases			4	8								
Detector Phase			4	8	8			2				
Switch Phase												
Minimum Initial (s)			4.0	4.0	4.0			4.0				
Minimum Split (s)			22.0	22.0	22.0			22.0				
Total Split (s)	0.0	0.0	20.0	20.0	20.0	0.0	0.0	70.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	22.2%	22.2%	22.2%	0.0%	0.0%	77.8%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)			16.0	16.0	16.0			66.0				
Yellow Time (s)			3.5	3.5	3.5			3.5				
All-Red Time (s)			0.5	0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0	3.0	3.0			3.0				
Recall Mode			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 Effect Green (s)			7.1		7.1			77.6				
Actuated g/C Ratio			0.08		0.08			0.86				
v/c Ratio			0.08		0.36			0.23				
Control Delay			0.4		26.1			1.7				
Queue Delay			0.0		0.0			0.0				
Total Delay			0.4		26.1			1.7				
LOS			A		C			A				
Approach Delay					26.1			1.7				
Approach LOS					C			A				
Queue Length 50th (ft)			0		14			26				




												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Queue Length 95th (ft)			0		51			48				
Internal Link Dist (ft)		100			531			425			289	
Turn Bay Length (ft)												
Base Capacity (vph)			566		352			3034				
Starvation Cap Reductn			0		0			0				
Spillback Cap Reductn			0		0			0				
Storage Cap Reductn			0		0			0				
Reduced v/c Ratio			0.07		0.18			0.23				

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NET and 6:, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	3.6
Intersection LOS:	A
Intersection Capacity Utilization	34.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 14: Butler St & Hanover St

 ø2	 ø4
70 s	20 s
	 ø8
	20 s

City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
15: W Main St & Linsley Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	231	287	8	7	223	50	24	192	14	63	51	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	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		0.996			0.973			0.990			0.898	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1855	0	1770	1812	0	1770	1844	0	1770	1673	0
Flt Permitted	0.543			0.514			0.649			0.619		
Satd. Flow (perm)	1011	1855	0	957	1812	0	1209	1844	0	1153	1673	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			31			10				116
Link Speed (mph)		25			30			30				30
Link Distance (ft)		343			491			383				555
Travel Time (s)		9.4			11.2			8.7				12.6
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
Adj. Flow (vph)	251	312	9	8	242	54	26	209	15	68	55	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	251	321	0	8	296	0	26	224	0	68	171	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2				6
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.41	0.41		0.41	0.41		0.41	0.41		0.41	0.41	
v/c Ratio	0.61	0.42		0.02	0.39		0.05	0.29		0.14	0.23	
Control Delay	18.5	11.3		8.0	10.0		8.3	9.7		9.2	4.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.5	11.3		8.0	10.0		8.3	9.7		9.2	4.5	
LOS	B	B		A	B		A	A		A	A	
Approach Delay		14.5			10.0			9.5			5.8	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)	46	53		1	43		4	34		10	8	
Queue Length 95th (ft)	#129	102		7	88		14	69		28	34	
Internal Link Dist (ft)		263			411			303			475	

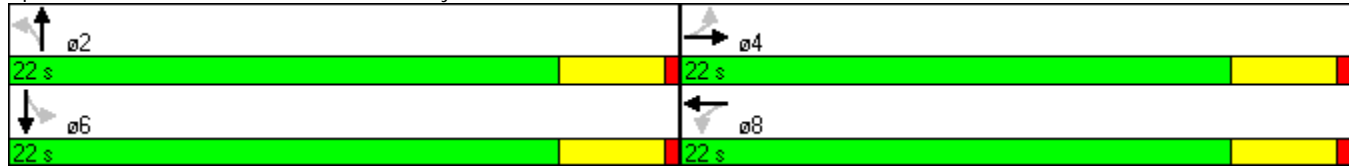


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	100			50			100			100		
Base Capacity (vph)	414	761		392	760		495	760		472	753	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.61	0.42		0.02	0.39		0.05	0.29		0.14	0.23	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.61  
 Intersection Signal Delay: 11.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 55.3%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 15: W Main St & Linsley Ave

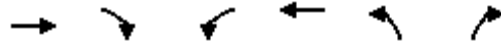




Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	653			201	733	
Travel Time (s)	14.8			4.6	16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	

**Intersection Summary**


















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	3539	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	3539	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			398	522	
Travel Time (s)	12.0			9.0	11.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	58	246	19	104	24	303	32	2	25	60	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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		0.879			0.978			0.999				0.981
Flt Protected	0.950				0.993			0.957				0.988
Satd. Flow (prot)	1770	1637	0	0	1809	0	0	1781	0	0	1805	0
Flt Permitted	0.950				0.993			0.957				0.988
Satd. Flow (perm)	1770	1637	0	0	1809	0	0	1781	0	0	1805	0
Link Speed (mph)		30			25			30				30
Link Distance (ft)		398			284			209				363
Travel Time (s)		9.0			7.7			4.8				8.3
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
Adj. Flow (vph)	22	63	267	21	113	26	329	35	2	27	65	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	330	0	0	160	0	0	366	0	0	107	0
Sign Control		Free			Stop			Free			Stop	

**Intersection Summary**

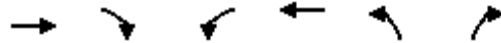
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	55.3%
Analysis Period (min)	15
	ICU Level of Service B



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	9	320	18	27	302	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.869		0.920			
Flt Protected	0.999					0.957
Satd. Flow (prot)	1617	0	1714	0	0	1783
Flt Permitted	0.999					0.957
Satd. Flow (perm)	1617	0	1714	0	0	1783
Link Speed (mph)	30		30			30
Link Distance (ft)	467		516			209
Travel Time (s)	10.6		11.7			4.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	348	20	29	328	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	358	0	49	0	0	361
Sign Control	Free		Stop			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	51.9%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	356	13	14	352	14	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.995				0.907	
Flt Protected				0.998	0.985	
Satd. Flow (prot)	1853	0	0	1859	1664	0
Flt Permitted				0.998	0.985	
Satd. Flow (perm)	1853	0	0	1859	1664	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	467			720	419	
Travel Time (s)	10.6			16.4	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	387	14	15	383	15	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	401	0	0	398	48	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	39.9% ICU Level of Service A
Analysis Period (min)	15





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)		30	25		30	
Link Distance (ft)		137	259		624	
Travel Time (s)		3.1	7.1		14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control		Free	Free		Free	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	0.0%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	720			137	338	
Travel Time (s)	16.4			3.1	7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type: Other  
 Control Type: Unsignalized  
 Intersection Capacity Utilization 0.0% ICU Level of Service A  
 Analysis Period (min) 15



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	3539	0	0	3539
Flt Permitted						
Satd. Flow (perm)	1863	0	3539	0	0	3539
Link Speed (mph)	30		30			30
Link Distance (ft)	223		538			291
Travel Time (s)	5.1		12.2			6.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	22	15	11	30	197	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.946				0.976	
Flt Protected	0.971			0.987		
Satd. Flow (prot)	1711	0	0	1839	1818	0
Flt Permitted	0.971			0.987		
Satd. Flow (perm)	1711	0	0	1839	1818	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	216			775	426	
Travel Time (s)	4.9			17.6	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	16	12	33	214	47
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	0	45	261	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.0%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	34	31	0	170	212	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.935					
Flt Protected	0.975					
Satd. Flow (prot)	1698	0	0	1863	1863	0
Flt Permitted	0.975					
Satd. Flow (perm)	1698	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	287			241	561	
Travel Time (s)	6.5			5.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	34	0	185	230	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	71	0	0	185	230	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	21.6%
ICU Level of Service	A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Volume (vph)	0	0	25	169	218	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.983	
Flt Protected				0.994		
Satd. Flow (prot)	0	0	0	1852	1831	0
Flt Permitted				0.994		
Satd. Flow (perm)	0	0	0	1852	1831	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			561	152	
Travel Time (s)	6.1			12.8	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	27	184	237	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	211	271	0
Sign Control	Free			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.3%
ICU Level of Service	A
Analysis Period (min)	15





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	16	60	202	39	107	193
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.893		0.978			
Flt Protected	0.990					0.983
Satd. Flow (prot)	1647	0	1822	0	0	1831
Flt Permitted	0.990					0.803
Satd. Flow (perm)	1647	0	1822	0	0	1496
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	65		26			
Link Speed (mph)	30		30			30
Link Distance (ft)	292		158			201
Travel Time (s)	6.6		3.6			4.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	65	220	42	116	210
Shared Lane Traffic (%)						
Lane Group Flow (vph)	82	0	262	0	0	326
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.12		0.34			0.53
Control Delay	4.1		9.6			13.8
Queue Delay	0.0		0.0			0.0
Total Delay	4.1		9.6			13.8
LOS	A		A			B
Approach Delay	4.1		9.6			13.8
Approach LOS	A		A			B
Queue Length 50th (ft)	2		38			58
Queue Length 95th (ft)	20		78			116
Internal Link Dist (ft)	212		78			121
Turn Bay Length (ft)						
Base Capacity (vph)	712		761			612
Starvation Cap Reductn	0		0			0

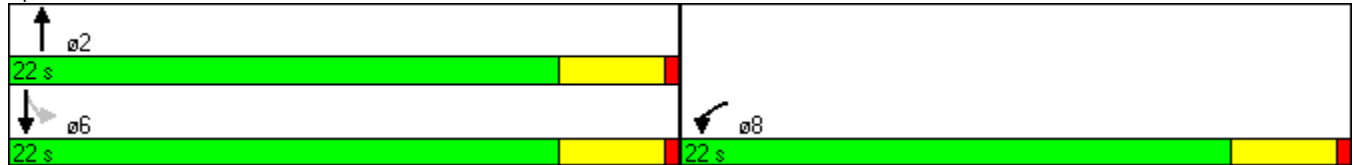


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.12		0.34			0.53

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.53
Intersection Signal Delay:	11.0
Intersection LOS:	B
Intersection Capacity Utilization	43.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 39: Int














Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	1863	0	1863	0	0	1863
Link Speed (mph)	30		30			30
Link Distance (ft)	402		246			308
Travel Time (s)	9.1		5.6			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
	ICU Level of Service A
Analysis Period (min)	15

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	86	110	108	39	115	158
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.924		0.964			
Flt Protected	0.979					0.979
Satd. Flow (prot)	1685	0	1796	0	0	1824
Flt Permitted	0.979					0.813
Satd. Flow (perm)	1685	0	1796	0	0	1514
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	120		42			
Link Speed (mph)	30		30			30
Link Distance (ft)	320		176			220
Travel Time (s)	7.3		4.0			5.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	93	120	117	42	125	172
Shared Lane Traffic (%)						
Lane Group Flow (vph)	213	0	159	0	0	297
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.28		0.21			0.48
Control Delay	5.4		7.3			12.8
Queue Delay	0.0		0.0			0.0
Total Delay	5.4		7.3			12.8
LOS	A		A			B
Approach Delay	5.4		7.3			12.8
Approach LOS	A		A			B
Queue Length 50th (ft)	14		17			51
Queue Length 95th (ft)	44		44			103
Internal Link Dist (ft)	240		96			140
Turn Bay Length (ft)						
Base Capacity (vph)	760		760			619
Starvation Cap Reductn	0		0			0

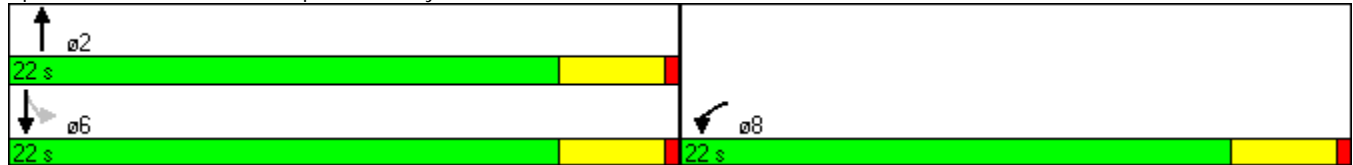











Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.28		0.21			0.48

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	9.1
Intersection LOS:	A
Intersection Capacity Utilization	44.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 46: Camp St & Colony St



						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	41	16	140	19	20	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963		0.984			
Flt Protected	0.965					0.996
Satd. Flow (prot)	1731	0	1833	0	0	1855
Flt Permitted	0.965					0.972
Satd. Flow (perm)	1731	0	1833	0	0	1811
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	17		19			
Link Speed (mph)	30		30			30
Link Distance (ft)	265		152			414
Travel Time (s)	6.0		3.5			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	45	17	152	21	22	239
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	0	173	0	0	261
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.09		0.23			0.35
Control Delay	4.6		8.5			10.7
Queue Delay	0.0		0.0			0.0
Total Delay	4.6		8.5			10.7
LOS	A		A			B
Approach Delay	4.6		8.5			10.7
Approach LOS	A		A			B
Queue Length 50th (ft)	3		23			42
Queue Length 95th (ft)	m14		52			84
Internal Link Dist (ft)	185		72			334
Turn Bay Length (ft)						
Base Capacity (vph)	718		761			741
Starvation Cap Reductn	0		0			0



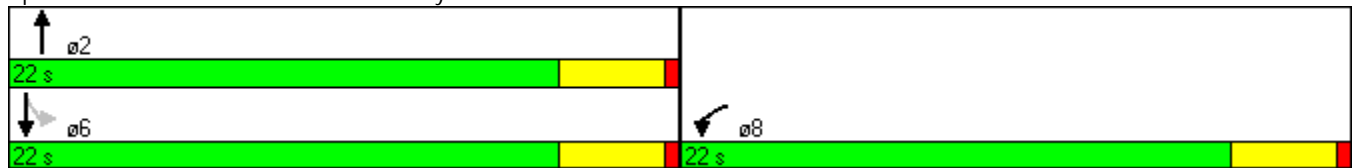



















Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.09		0.23			0.35

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	9.2
Intersection LOS:	A
Intersection Capacity Utilization	34.5%
ICU Level of Service	A
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 47: Brooks St & Colony St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	72	47	39	67	1	34	23	25	6	191	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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			0.850		0.999			0.959			0.951	
Flt Protected		0.981			0.982			0.980			0.999	
Satd. Flow (prot)	0	1827	1583	0	1827	0	0	1751	0	0	1770	0
Flt Permitted		0.981			0.982			0.980			0.999	
Satd. Flow (perm)	0	1827	1583	0	1827	0	0	1751	0	0	1770	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		406			514			452			325	
Travel Time (s)		9.2			11.7			10.3			7.4	
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
Adj. Flow (vph)	48	78	51	42	73	1	37	25	27	7	208	123
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	126	51	0	116	0	0	89	0	0	338	0
Sign Control		Free			Stop			Stop			Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.2%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			414	246	
Travel Time (s)	6.4			9.4	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	13	13	0	69	284	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	0	1863	1863	0
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	214			229	212	
Travel Time (s)	4.9			5.2	4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	14	0	75	309	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	28	0	0	75	309	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.9%
ICU Level of Service	A
Analysis Period (min)	15



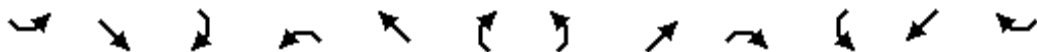
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	378			308	176	
Travel Time (s)	8.6			7.0	4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15

City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
60: Cedar St & Pratt St



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	28	0	22	6	0	12	17	225	0	0	157	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.940			0.912						0.990	
Flt Protected		0.973			0.983			0.997				
Satd. Flow (prot)	0	1704	0	0	1670	0	0	3529	0	0	3504	0
Flt Permitted		0.892			0.946			0.935				
Satd. Flow (perm)	0	1562	0	0	1607	0	0	3309	0	0	3504	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			13						12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		206			172			255			669	
Travel Time (s)		4.7			3.9			5.8			15.2	
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
Adj. Flow (vph)	30	0	24	7	0	13	18	245	0	0	171	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	54	0	0	20	0	0	263	0	0	183	0
Turn Type	Perm			Perm			Perm					
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4					
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0			22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	0.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0			18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	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			11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.41			0.41			0.41			0.41	
v/c Ratio		0.08			0.03			0.19			0.13	
Control Delay		5.9			5.7			4.2			6.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.9			5.7			4.2			6.1	
LOS		A			A			A			A	
Approach Delay		5.9			5.7			4.2			6.1	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		4			1			7			11	
Queue Length 95th (ft)		19			9			13			20	
Internal Link Dist (ft)		126			92			175			589	
Turn Bay Length (ft)												
Base Capacity (vph)		653			665			1354			1441	
Starvation Cap Reductn		0			0			0			0	



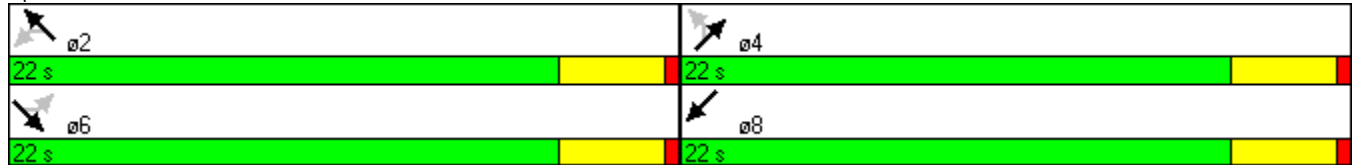


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.08			0.03			0.19			0.13	

**Intersection Summary**

















Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.19
Intersection Signal Delay:	5.1
Intersection LOS:	A
Intersection Capacity Utilization	26.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 60: Cedar St & Pratt St



City Of Meriden  
Baseline - AM Peak

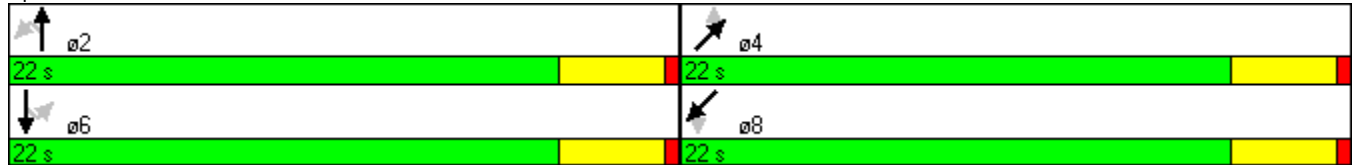
Lanes, Volumes, Timings  
61: Center St & Pratt St

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	14	100	20	34	92	58	91	153	19	38	101	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.980			0.957			0.989			0.969	
Flt Protected		0.995			0.991			0.983			0.989	
Satd. Flow (prot)	0	1816	0	0	1767	0	0	3441	0	0	3392	0
Flt Permitted		0.968			0.937			0.809			0.865	
Satd. Flow (perm)	0	1767	0	0	1670	0	0	2832	0	0	2967	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			63			21			39	
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		393			533			669			338	
Travel Time (s)		8.9			12.1			15.2			9.2	
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
Adj. Flow (vph)	15	109	22	37	100	63	99	166	21	41	110	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	0	0	200	0	0	286	0	0	190	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.41			0.41			0.41			0.41	
v/c Ratio		0.20			0.28			0.24			0.15	
Control Delay		8.1			7.3			16.3			6.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		8.1			7.3			16.3			6.9	
LOS		A			A			B			A	
Approach Delay		8.1			7.3			16.3			6.9	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)		18			21			34			11	
Queue Length 95th (ft)		45			52			60			25	
Internal Link Dist (ft)		313			453			589			258	
Turn Bay Length (ft)												
Base Capacity (vph)		736			720			1171			1237	
Starvation Cap Reductn		0			0			0			0	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.20			0.28			0.24			0.15	

Intersection Summary	
Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.28
Intersection Signal Delay:	10.5
Intersection LOS:	B
Intersection Capacity Utilization	39.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 61: Center St & Pratt St





















Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	13	0	213	14	2	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt			0.991			
Flt Protected	0.950					0.999
Satd. Flow (prot)	1770	0	3507	0	0	3536
Flt Permitted	0.950					0.999
Satd. Flow (perm)	1770	0	3507	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	313		291			501
Travel Time (s)	7.1		6.6			11.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	0	232	15	2	108
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	247	0	0	110
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	16.3%
	ICU Level of Service A
Analysis Period (min)	15

City Of Meriden  
Baseline - AM Peak

Lanes, Volumes, Timings  
65: Driveway & State St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	0	0	46	0	32	2	40	13	49	218	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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					0.944			0.968				0.989
Flt Protected		0.950			0.971			0.998				0.992
Satd. Flow (prot)	0	1770	0	0	1707	0	0	1800	0	0	1828	0
Flt Permitted		0.950			0.971			0.998				0.992
Satd. Flow (perm)	0	1770	0	0	1707	0	0	1800	0	0	1828	0
Link Speed (mph)		25			30			30				30
Link Distance (ft)		121			466			426				229
Travel Time (s)		3.3			10.6			9.7				5.2
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
Adj. Flow (vph)	3	0	0	50	0	35	2	43	14	53	237	25
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	85	0	0	59	0	0	315	0
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	33.0%						ICU Level of Service A					
Analysis Period (min)	15											



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	19	54	44	224	149	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.900				0.969	
Flt Protected	0.987			0.992		
Satd. Flow (prot)	1655	0	0	3511	3429	0
Flt Permitted	0.987			0.889		
Satd. Flow (perm)	1655	0	0	3146	3429	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	59				42	
Link Speed (mph)	30			30	30	
Link Distance (ft)	317			501	255	
Travel Time (s)	7.2			11.4	5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	59	48	243	162	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	0	0	291	204	0
Turn Type			Perm			
Protected Phases	6			4	8	
Permitted Phases			4			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	22.0	0.0	22.0	22.0	22.0	0.0
Total Split (%)	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0		18.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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 Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.41			0.41	0.41	
v/c Ratio	0.11			0.23	0.14	
Control Delay	6.9			9.1	6.9	
Queue Delay	0.0			0.0	0.0	
Total Delay	6.9			9.1	6.9	
LOS	A			A	A	
Approach Delay	6.9			9.1	6.9	
Approach LOS	A			A	A	
Queue Length 50th (ft)	10			23	10	
Queue Length 95th (ft)	34			42	22	
Internal Link Dist (ft)	237			421	175	
Turn Bay Length (ft)						
Base Capacity (vph)	712			1287	1428	
Starvation Cap Reductn	0			0	0	

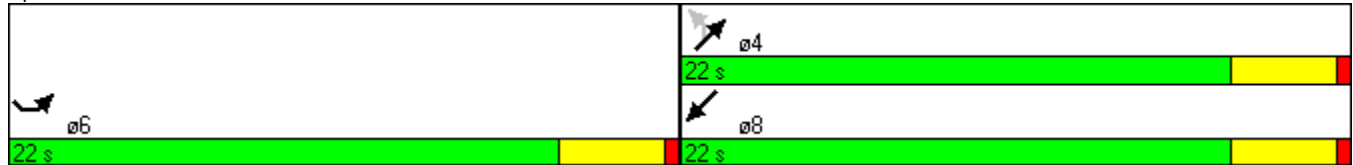


Lane Group	SEL	SER	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.11			0.23	0.14	










**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2: and 6:SEL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.23
Intersection Signal Delay:	8.0
Intersection LOS:	A
Intersection Capacity Utilization	27.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 67: Mill St & Pratt St





						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	12	9	75	6	11	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.941		0.989			
Flt Protected	0.973					0.998
Satd. Flow (prot)	1706	0	1842	0	0	1859
Flt Permitted	0.973					0.991
Satd. Flow (perm)	1706	0	1842	0	0	1846
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	10		7			
Link Speed (mph)	25		30			30
Link Distance (ft)	433		212			452
Travel Time (s)	11.8		4.8			10.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	10	82	7	12	289
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	89	0	0	301
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.03		0.12			0.40
Control Delay	6.4		8.1			12.1
Queue Delay	0.0		0.0			0.0
Total Delay	6.4		8.1			12.1
LOS	A		A			B
Approach Delay	6.4		8.1			12.1
Approach LOS	A		A			B
Queue Length 50th (ft)	2		12			56
Queue Length 95th (ft)	11		31			107
Internal Link Dist (ft)	353		132			372
Turn Bay Length (ft)						
Base Capacity (vph)	704		758			755
Starvation Cap Reductn	0		0			0

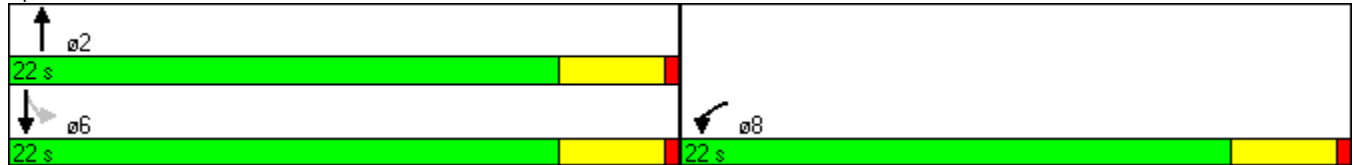


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.03		0.12			0.40

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	10.9
Intersection LOS:	B
Intersection Capacity Utilization	31.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 79: Park St & State St



# **MERIDEN TOD STUDY**



















## **APPANDIX A CAPACITY ANALYSIS**

### **EXISTING PM PEAK PERIOD**



City Of Meriden  
Baseline -PM Peak

Lanes, Volumes, Timings  
1: W Main St & Colony St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	744	81	12	123	0	0	120	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25		25	25		25	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	1.00	1.00
Frt						0.850						0.850
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3539	1583	1770	1863	0	0	1863	1583
Flt Permitted							0.674					
Satd. Flow (perm)	0	0	0	0	3539	1583	1255	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						88						175
Link Speed (mph)		30			30			30				30
Link Distance (ft)		242			223			187				241
Travel Time (s)		5.5			5.1			4.3				5.5
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
Adj. Flow (vph)	0	0	0	0	809	88	13	134	0	0	130	175
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	809	88	13	134	0	0	130	175
Turn Type				Perm		Perm	pm+pt					Perm
Protected Phases					6		3!	4				8!
Permitted Phases				6		6	4					8
Detector Phase				6	6	6	3	4				8
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0				4.0
Minimum Split (s)				16.0	16.0	16.0	8.0	16.0				16.0
Total Split (s)	0.0	0.0	0.0	38.0	38.0	38.0	8.0	12.0	0.0	0.0	20.0	20.0
Total Split (%)	0.0%	0.0%	0.0%	42.2%	42.2%	42.2%	8.9%	13.3%	0.0%	0.0%	22.2%	22.2%
Maximum Green (s)				34.0	34.0	34.0	4.0	8.0				16.0
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5				3.5
All-Red Time (s)				0.5	0.5	0.5	0.5	0.5				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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag				
Lead-Lag Optimize?							Yes	Yes				
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				3.0
Recall Mode				Max	Max	Max	None	Max				Max
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 Effect Green (s)					35.5	35.5	19.3	18.8				19.9
Actuated g/C Ratio					0.52	0.52	0.28	0.28				0.29
v/c Ratio					0.44	0.10	0.03	0.26				0.30
Control Delay					14.0	4.6	21.7	24.8				22.2
Queue Delay					3.6	0.3	0.0	1.8				0.0
Total Delay					17.6	5.0	21.7	26.6				22.2
LOS					B	A	C	C				C

Lane Group	ø9
Lane Configurations	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	28.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	8
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

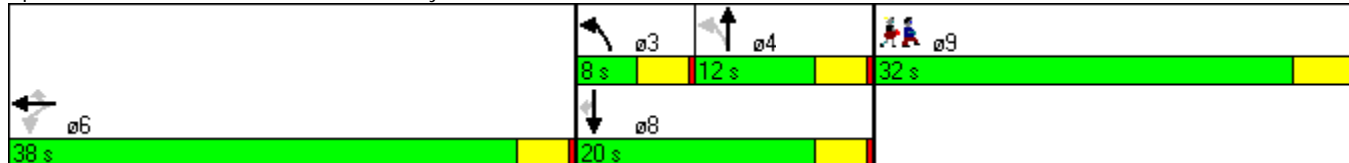


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					16.4			26.2			12.8	
Approach LOS					B			C			B	
Queue Length 50th (ft)					76	0	3	36			35	0
Queue Length 95th (ft)					297	33	21	134			117	50
Internal Link Dist (ft)		162			143			107			161	
Turn Bay Length (ft)												100
Base Capacity (vph)					1845	867	388	514			544	586
Starvation Cap Reductn					921	482	0	254			0	0
Spillback Cap Reductn					0	0	0	0			0	0
Storage Cap Reductn					0	0	0	0			0	0
Reduced v/c Ratio					0.88	0.23	0.03	0.52			0.24	0.30

**Intersection Summary**

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 68  
 Natural Cycle: 75  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.44  
 Intersection Signal Delay: 16.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 57.1%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 1: W Main St & Colony St






















Lane Group	ø9
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

City Of Meriden  
Baseline -PM Peak

Lanes, Volumes, Timings  
2: E Main St & State St

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	75	640	63	0	0	0	0	128	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.912	
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1770	3539	1583	0	0	0	0	3228	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	3539	1583	0	0	0	0	3228	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				82		68						196
Link Speed (mph)		30			30			30				30
Link Distance (ft)		223			327			192				217
Travel Time (s)		5.1			7.4			4.4				4.9
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
Adj. Flow (vph)	0	0	0	82	696	68	0	0	0	0	139	196
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	82	696	68	0	0	0	0	335	0
Turn Type				Perm		Perm						
Protected Phases					6							8
Permitted Phases				6		6						
Detector Phase				6	6	6						8
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0						4.0
Minimum Split (s)				12.0	12.0	12.0						12.0
Total Split (s)	0.0	0.0	0.0	70.0	70.0	70.0	0.0	0.0	0.0	0.0	20.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	77.8%	77.8%	77.8%	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%
Maximum Green (s)				66.0	66.0	66.0						16.0
Yellow Time (s)				3.5	3.5	3.5						3.5
All-Red Time (s)				0.5	0.5	0.5						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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0						3.0
Recall Mode				Max	Max	Max						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 Effect Green (s)				66.0	66.0	66.0						18.0
Actuated g/C Ratio				0.72	0.72	0.72						0.20
v/c Ratio				0.06	0.27	0.06						0.42
Control Delay				1.1	4.9	1.1						15.1
Queue Delay				0.0	0.8	0.0						0.0
Total Delay				1.1	5.7	1.1						15.1
LOS				A	A	A						B
Approach Delay					4.8							15.1
Approach LOS					A							B
Queue Length 50th (ft)				0	63	0						36



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)				11	84	10						74
Internal Link Dist (ft)		143			247			112				137
Turn Bay Length (ft)												
Base Capacity (vph)				1293	2539	1155						789
Starvation Cap Reductn				0	1437	0						0
Spillback Cap Reductn				0	0	0						0
Storage Cap Reductn				0	0	0						0
Reduced v/c Ratio				0.06	0.63	0.06						0.42

**Intersection Summary**

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	92
Natural Cycle:	40
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization	43.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 2: E Main St & State St





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			
Volume (vph)	0	0	900	17	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.997			
Flt Protected						
Satd. Flow (prot)	0	0	3529	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	3529	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		377	242		181	
Travel Time (s)		8.6	5.5		4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	978	18	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	996	0	0	0
Sign Control		Free	Free		Free	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	28.8%		ICU Level of Service A			
Analysis Period (min)	15					



Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations			↖ ↗		↖ ↗ ↘	↖
Volume (vph)	0	0	120	0	136	575
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.97	1.00	0.97	0.91
Fr <sub>t</sub>					0.898	0.850
Fl <sub>t</sub> Protected			0.950		0.984	
Satd. Flow (prot)	0	0	3433	0	3193	1441
Fl <sub>t</sub> Permitted			0.950		0.984	
Satd. Flow (perm)	0	0	3433	0	3193	1441
Right Turn on Red		Yes		Yes		Yes
Satd. Flow (RTOR)					313	312
Link Speed (mph)	30		30		30	
Link Distance (ft)	123		187		325	
Travel Time (s)	2.8		4.3		7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	130	0	148	625
Shared Lane Traffic (%)						50%
Lane Group Flow (vph)	0	0	130	0	461	312
Turn Type						Perm
Protected Phases			4		2	
Permitted Phases						2
Detector Phase			4		2	2
Switch Phase						
Minimum Initial (s)			4.0		4.0	4.0
Minimum Split (s)			22.0		22.0	22.0
Total Split (s)	0.0	0.0	20.0	0.0	70.0	70.0
Total Split (%)	0.0%	0.0%	22.2%	0.0%	77.8%	77.8%
Maximum Green (s)			16.0		66.0	66.0
Yellow Time (s)			3.5		3.5	3.5
All-Red Time (s)			0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0		3.0	3.0
Recall Mode			None		None	None
Walk Time (s)			7.0		7.0	7.0
Flash Dont Walk (s)			11.0		11.0	11.0
Pedestrian Calls (#/hr)			0		0	0
Act Effect Green (s)			7.1		9.3	9.3
Actuated g/C Ratio			0.44		0.58	0.58
v/c Ratio			0.08		0.23	0.32
Control Delay			5.1		1.8	1.9
Queue Delay			0.0		0.0	0.0
Total Delay			5.1		1.8	1.9
LOS			A		A	A
Approach Delay			5.1		1.8	
Approach LOS			A		A	
Queue Length 50th (ft)			0		0	0



Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Queue Length 95th (ft)			13		14	17
Internal Link Dist (ft)	43		107		245	
Turn Bay Length (ft)						
Base Capacity (vph)			2979		3193	1441
Starvation Cap Reductn			0		0	0
Spillback Cap Reductn			0		0	0
Storage Cap Reductn			0		0	0
Reduced v/c Ratio			0.04		0.14	0.22

**Intersection Summary**

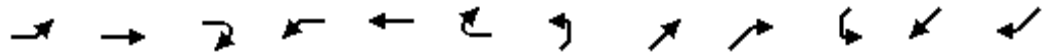
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	16
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.32
Intersection Signal Delay:	2.3
Intersection LOS:	A
Intersection Capacity Utilization	64.3%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 4: Pratt St & Hanover St



City Of Meriden  
Baseline -PM Peak

Lanes, Volumes, Timings  
5: E Main St & Pratt St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations					↑↑		↑↑	↑↑	↑			↑↑
Volume (vph)	0	0	0	0	531	46	85	266	519	0	0	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88
Frt					0.988				0.850			0.850
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3147	0	3090	3185	1425	0	0	2508
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3147	0	3090	3185	1425	0	0	2508
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					10		92		564			1060
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		327			526			208			538	
Travel Time (s)		7.4			12.0			4.7			12.2	
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
Adj. Flow (vph)	0	0	0	0	577	50	92	289	564	0	0	187
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	627	0	92	289	564	0	0	187
Turn Type							pm+pt		custom			custom
Protected Phases					6		3	4				
Permitted Phases							4		6			8
Detector Phase					6		3	4	6			8
Switch Phase												
Minimum Initial (s)					4.0		4.0	4.0	4.0			4.0
Minimum Split (s)					22.0		8.0	22.0	22.0			22.0
Total Split (s)	0.0	0.0	0.0	0.0	30.0	0.0	9.0	19.0	30.0	0.0	0.0	28.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	33.3%	0.0%	10.0%	21.1%	33.3%	0.0%	0.0%	31.1%
Maximum Green (s)					26.0		5.0	15.0	26.0			24.0
Yellow Time (s)					3.5		3.5	3.5	3.5			3.5
All-Red Time (s)					0.5		0.5	0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag				
Lead-Lag Optimize?							Yes	Yes				
Vehicle Extension (s)					3.0		3.0	3.0	3.0			3.0
Recall Mode					None		None	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)					20.5		25.2	18.5	20.5			25.2
Actuated g/C Ratio					0.38		0.47	0.34	0.38			0.47
v/c Ratio					0.52		0.06	0.26	0.63			0.11
Control Delay					14.6		2.9	15.8	5.0			0.1
Queue Delay					0.0		0.0	0.3	0.5			0.0
Total Delay					14.6		2.9	16.1	5.5			0.1
LOS					B		A	B	A			A
Approach Delay					14.6			8.5				
Approach LOS					B			A				
Queue Length 50th (ft)					81		0	37	0			0

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	36%
Maximum Green (s)	28.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
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	
Queue Length 50th (ft)	



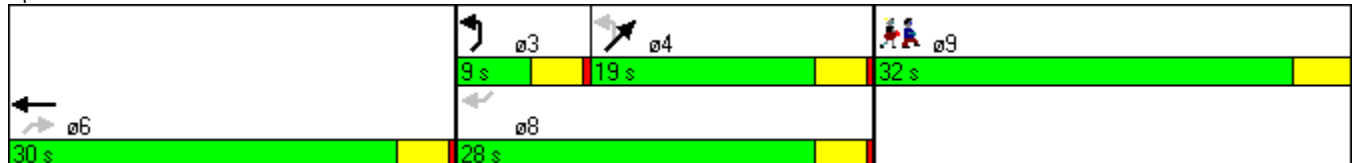


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Queue Length 95th (ft)					121		10	71	51			0
Internal Link Dist (ft)		247			446			128			458	
Turn Bay Length (ft)												
Base Capacity (vph)					1564		1495	1093	991			1783
Starvation Cap Reductn					0		0	328	137			0
Spillback Cap Reductn					0		0	0	0			0
Storage Cap Reductn					0		0	0	0			0
Reduced v/c Ratio					0.40		0.06	0.38	0.66			0.10

**Intersection Summary**

Area Type:	CBD
Cycle Length:	90
Actuated Cycle Length:	53.9
Natural Cycle:	85
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	9.8
Intersection LOS:	A
Intersection Capacity Utilization	39.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 5: E Main St & Pratt St



Lane Group	ø9
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↗
Volume (vph)	860	38	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00
Frt	0.994					
Flt Protected						
Satd. Flow (prot)	5055	0	0	0	0	1863
Flt Permitted						
Satd. Flow (perm)	5055	0	0	0	0	1863
Link Speed (mph)	30			30	30	
Link Distance (ft)	128			139	468	
Travel Time (s)	2.9			3.2	10.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	935	41	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	976	0	0	0	0	0
Sign Control	Free			Stop	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	20.8%
ICU Level of Service	A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations	<del>TTT</del>			<del>T</del>		
Volume (vph)	845	15	0	25	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.94	0.91	1.00	1.00	1.00	1.00
Frt	0.997			0.865		
Flt Protected	0.953					
Satd. Flow (prot)	4991	0	0	1611	0	0
Flt Permitted	0.953					
Satd. Flow (perm)	4991	0	0	1611	0	0
Right Turn on Red	Yes	Yes		Yes		Yes
Satd. Flow (RTOR)	2844			50		
Link Speed (mph)	30		30		30	
Link Distance (ft)	139		529		208	
Travel Time (s)	3.2		12.0		4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	918	16	0	27	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	934	0	0	27	0	0
Turn Type				custom		
Protected Phases	4					
Permitted Phases				2		
Minimum Split (s)	22.0			22.0		
Total Split (s)	22.0	0.0	0.0	23.0	0.0	0.0
Total Split (%)	48.9%	0.0%	0.0%	51.1%	0.0%	0.0%
Maximum Green (s)	18.0			19.0		
Yellow Time (s)	3.5			3.5		
All-Red Time (s)	0.5			0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0			7.0		
Flash Dont Walk (s)	11.0			11.0		
Pedestrian Calls (#/hr)	0			0		
Act Effect Green (s)	18.0			19.0		
Actuated g/C Ratio	0.40			0.42		
v/c Ratio	0.25			0.04		
Control Delay	0.2			1.8		
Queue Delay	0.0			0.0		
Total Delay	0.2			1.8		
LOS	A			A		
Approach Delay	0.2					
Approach LOS	A					
Queue Length 50th (ft)	0			0		
Queue Length 95th (ft)	0			6		
Internal Link Dist (ft)	59		449		128	
Turn Bay Length (ft)						
Base Capacity (vph)	3703			709		
Starvation Cap Reductn	0			0		

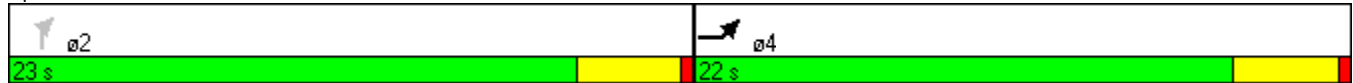


Lane Group	EBL	EBR	NBL	NBR	SWL	SWR
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.25			0.04		

**Intersection Summary**

Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 2:NBR and 6:, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.25
Intersection Signal Delay:	0.2
Intersection LOS:	A
Intersection Capacity Utilization	19.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 7: Pratt St & Crown St

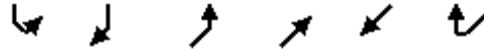




Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑			↑↑	
Volume (vph)	0	695	0	0	203	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	5085	0	0	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	5085	0	0	3433	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		123	128		192	
Travel Time (s)		2.8	2.9		4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	755	0	0	221	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	755	0	0	221	0
Sign Control		Free	Stop		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	50.5%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations				↑↑		
Volume (vph)	0	0	156	703	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected				0.991		
Satd. Flow (prot)	0	0	0	3507	0	0
Flt Permitted				0.991		
Satd. Flow (perm)	0	0	0	3507	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	461			369	332	
Travel Time (s)	10.5			8.4	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	170	764	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	934	0	0
Turn Type			Perm			
Protected Phases				2		
Permitted Phases			2			
Detector Phase			2	2		
Switch Phase						
Minimum Initial (s)			4.0	4.0		
Minimum Split (s)			22.0	22.0		
Total Split (s)	0.0	0.0	60.0	60.0	0.0	0.0
Total Split (%)	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)			56.0	56.0		
Yellow Time (s)			3.5	3.5		
All-Red Time (s)			0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0	3.0		
Recall Mode			C-Max	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)				60.0		
Actuated g/C Ratio				1.00		
v/c Ratio				0.27		
Control Delay				0.2		
Queue Delay				0.0		
Total Delay				0.2		
LOS				A		
Approach Delay				0.2		
Approach LOS				A		
Queue Length 50th (ft)				0		



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Queue Length 95th (ft)				0		
Internal Link Dist (ft)	381			289	252	
Turn Bay Length (ft)						
Base Capacity (vph)				3507		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.27		

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NETL and 6:, Start of Green  
 Natural Cycle: 40  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.27  
 Intersection Signal Delay: 0.2  
 Intersection Capacity Utilization 44.9%  
 Analysis Period (min) 15

Intersection LOS: A  
 ICU Level of Service A

Splits and Phases: 9: S Grove St & Hanover St





City Of Meriden  
Baseline -PM Peak

Lanes, Volumes, Timings  
10: W Main St &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↑↑		↑	↑				↑
Volume (vph)	0	0	0	0	883	55	90	63	0	0	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.991							0.865
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3507	0	1770	1863	0	0	0	1611
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3507	0	1770	1863	0	0	0	1611
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					19		98					132
Link Speed (mph)		30			30			30				30
Link Distance (ft)		276			377			461				215
Travel Time (s)		6.3			8.6			10.5				4.9
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
Adj. Flow (vph)	0	0	0	0	960	60	98	68	0	0	0	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1020	0	98	68	0	0	0	65
Turn Type							Perm					custom
Protected Phases					6			4				
Permitted Phases							4					8
Detector Phase					6		4	4				8
Switch Phase												
Minimum Initial (s)					4.0		4.0	4.0				4.0
Minimum Split (s)					22.0		22.0	22.0				22.0
Total Split (s)	0.0	0.0	0.0	0.0	40.0	0.0	20.0	20.0	0.0	0.0	0.0	20.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%	33.3%
Maximum Green (s)					36.0		16.0	16.0				16.0
Yellow Time (s)					3.5		3.5	3.5				3.5
All-Red Time (s)					0.5		0.5	0.5				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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)					3.0		3.0	3.0				3.0
Recall Mode					C-Max		Max	Max				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)					36.0		16.0	16.0				16.0
Actuated g/C Ratio					0.60		0.27	0.27				0.27
v/c Ratio					0.48		0.18	0.14				0.12
Control Delay					7.6		8.0	14.9				1.1
Queue Delay					0.0		0.0	0.0				0.0
Total Delay					7.6		8.0	14.9				1.1
LOS					A		A	B				A
Approach Delay					7.6			10.8				
Approach LOS					A			B				
Queue Length 50th (ft)					92		6	21				0



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)					131		44	50				5
Internal Link Dist (ft)		196			297			381			135	
Turn Bay Length (ft)												
Base Capacity (vph)					2112		544	497				526
Starvation Cap Reductn					0		0	0				0
Spillback Cap Reductn					0		0	0				0
Storage Cap Reductn					0		0	0				0
Reduced v/c Ratio					0.48		0.18	0.14				0.12

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2: and 6:WBT, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	7.7
Intersection LOS:	A
Intersection Capacity Utilization	44.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 10: W Main St &





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↕↕		
Volume (vph)	0	0	103	926	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected				0.995		
Satd. Flow (prot)	0	0	0	3522	0	0
Flt Permitted				0.995		
Satd. Flow (perm)	0	0	0	3522	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	409			276	611	
Travel Time (s)	9.3			6.3	13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	112	1007	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1119	0	0
Turn Type			Perm			
Protected Phases				6		
Permitted Phases			6			
Detector Phase			6	6		
Switch Phase						
Minimum Initial (s)			4.0	4.0		
Minimum Split (s)			22.0	22.0		
Total Split (s)	0.0	0.0	60.0	60.0	0.0	0.0
Total Split (%)	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)			56.0	56.0		
Yellow Time (s)			3.5	3.5		
All-Red Time (s)			0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0	3.0		
Recall Mode			C-Max	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)				60.0		
Actuated g/C Ratio				1.00		
v/c Ratio				0.32		
Control Delay				0.2		
Queue Delay				0.0		
Total Delay				0.2		
LOS				A		
Approach Delay				0.2		
Approach LOS				A		
Queue Length 50th (ft)				0		



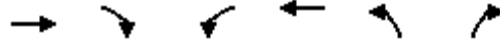
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)				0		
Internal Link Dist (ft)	329			196	531	
Turn Bay Length (ft)						
Base Capacity (vph)				3522		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.32		

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2: and 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.32
Intersection Signal Delay:	0.2
Intersection LOS:	A
Intersection Capacity Utilization	31.9%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 11: W Main St & Butler St





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	0	514	389	513	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	1863	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	1863	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	491			409	819	
Travel Time (s)	11.2			9.3	18.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	559	423	558	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	559	423	558	0	0
Turn Type		custom	Perm			
Protected Phases				6		
Permitted Phases		2	6			
Detector Phase		2	6	6		
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0		
Minimum Split (s)		22.0	22.0	22.0		
Total Split (s)	0.0	60.0	60.0	60.0	0.0	0.0
Total Split (%)	0.0%	100.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)		56.0	56.0	56.0		
Yellow Time (s)		3.5	3.5	3.5		
All-Red Time (s)		0.5	0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		C-Max	C-Max	C-Max		
Walk Time (s)		7.0	7.0	7.0		
Flash Dont Walk (s)		11.0	11.0	11.0		
Pedestrian Calls (#/hr)		0	0	0		
Act Effct Green (s)		60.0	60.0	60.0		
Actuated g/C Ratio		1.00	1.00	1.00		
v/c Ratio		0.35	0.24	0.30		
Control Delay		0.6	0.3	0.4		
Queue Delay		0.0	0.0	0.0		
Total Delay		0.6	0.3	0.4		
LOS		A	A	A		
Approach Delay				0.4		
Approach LOS				A		
Queue Length 50th (ft)		0	0	0		

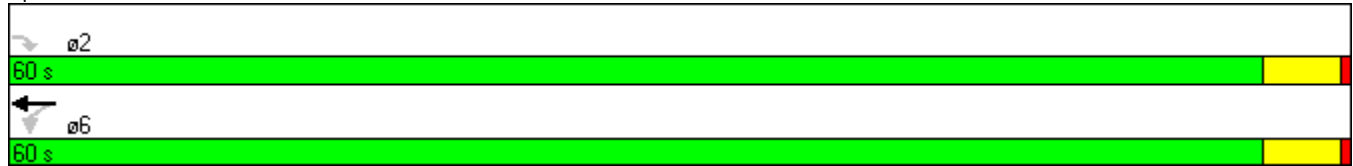


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 95th (ft)		0	0	0		
Internal Link Dist (ft)	411			329	739	
Turn Bay Length (ft)						
Base Capacity (vph)		1611	1770	1863		
Starvation Cap Reductn		0	0	0		
Spillback Cap Reductn		0	0	0		
Storage Cap Reductn		0	0	0		
Reduced v/c Ratio		0.35	0.24	0.30		

**Intersection Summary**




















Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:EBR and 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	0.4
Intersection Capacity Utilization	60.0%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	B

Splits and Phases: 12: W Main St & Cook St



City Of Meriden  
Baseline -PM Peak

Lanes, Volumes, Timings  
13: Cook St & Hanover St

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	233	0	129	362	214	162	0	143	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	25		25	25		25	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			0.850			0.850			0.850			
Flt Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1863	1583	0	1863	1583	0	0	0
Flt Permitted	0.613			0.950								
Satd. Flow (perm)	1142	0	1583	1770	1863	1583	0	1863	1583	0	0	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			140	393		176			43			
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		733			819			340			505	
Travel Time (s)		16.7			18.6			9.3			11.5	
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
Adj. Flow (vph)	253	0	140	393	233	176	0	155	43	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	253	0	140	393	233	176	0	155	43	0	0	0
Turn Type	custom		custom	Perm		Perm			Perm			
Protected Phases					6			4				
Permitted Phases	2		2	6		6			4			
Detector Phase	2		2	6	6	6		4	4			
Switch Phase												
Minimum Initial (s)	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		22.0	22.0			
Total Split (s)	36.0	0.0	36.0	36.0	36.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0
Total Split (%)	60.0%	0.0%	60.0%	60.0%	60.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0		32.0	32.0	32.0	32.0		20.0	20.0			
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5		3.5	3.5			
All-Red Time (s)	0.5		0.5	0.5	0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0	3.0			
Recall Mode	C-Max		C-Max	C-Max	C-Max	C-Max		None	None			
Walk Time (s)	7.0		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	11.0			
Pedestrian Calls (#/hr)	0		0	0	0	0		0	0			
Act Effect Green (s)	44.6		44.6	44.6	44.6	44.6		10.3	10.3			
Actuated g/C Ratio	0.74		0.74	0.74	0.74	0.74		0.17	0.17			
v/c Ratio	0.30		0.12	0.28	0.17	0.14		0.48	0.14			
Control Delay	5.3		1.2	2.8	5.8	2.7		26.9	8.2			
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay	5.3		1.2	2.8	5.8	2.7		26.9	8.2			
LOS	A		A	A	A	A		C	A			

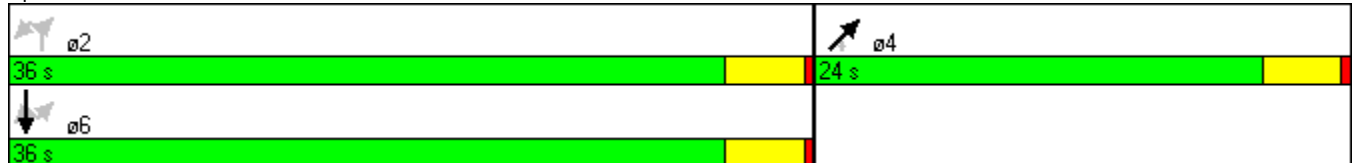


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay					3.6			22.8				
Approach LOS					A			C				
Queue Length 50th (ft)	28		0	24	37	11		51	0			
Queue Length 95th (ft)	72		15	58	80	34		92	21			
Internal Link Dist (ft)		653			739			260			425	
Turn Bay Length (ft)			200									
Base Capacity (vph)	848		1212	1416	1384	1221		621	556			
Starvation Cap Reductn	0		0	0	0	0		0	0			
Spillback Cap Reductn	0		0	0	0	0		0	0			
Storage Cap Reductn	0		0	0	0	0		0	0			
Reduced v/c Ratio	0.30		0.12	0.28	0.17	0.14		0.25	0.08			

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	6.4
Intersection LOS:	A
Intersection Capacity Utilization	45.6%
ICU Level of Service	A
Analysis Period (min)	15

















Splits and Phases: 13: Cook St & Hanover St

















City Of Meriden  
Baseline -PM Peak

Lanes, Volumes, Timings  
14: Butler St & Hanover St


												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	43	84	35	0	0	720	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Fr't			0.865					0.994				
Flt Protected					0.966							
Satd. Flow (prot)	0	0	1611	0	1799	0	0	3518	0	0	0	0
Flt Permitted					0.966							
Satd. Flow (perm)	0	0	1611	0	1799	0	0	3518	0	0	0	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			198		91			12				
Link Speed (mph)		25			30			30				30
Link Distance (ft)		180			611			505				369
Travel Time (s)		4.9			13.9			11.5				8.4
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
Adj. Flow (vph)	0	0	47	91	38	0	0	783	33	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	47	0	129	0	0	816	0	0	0	0
Turn Type			custom	Perm								
Protected Phases					8			2				
Permitted Phases			4	8								
Detector Phase			4	8	8			2				
Switch Phase												
Minimum Initial (s)			4.0	4.0	4.0			4.0				
Minimum Split (s)			22.0	22.0	22.0			22.0				
Total Split (s)	0.0	0.0	20.0	20.0	20.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	33.3%	33.3%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)			16.0	16.0	16.0			36.0				
Yellow Time (s)			3.5	3.5	3.5			3.5				
All-Red Time (s)			0.5	0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0	3.0	3.0			3.0				
Recall Mode			Max	Max	Max			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 Effect Green (s)			16.0		16.0			36.0				
Actuated g/C Ratio			0.27		0.27			0.60				
v/c Ratio			0.08		0.24			0.39				
Control Delay			0.3		6.9			7.8				
Queue Delay			0.0		0.0			0.0				
Total Delay			0.3		6.9			7.8				
LOS			A		A			A				
Approach Delay					6.9			7.8				
Approach LOS					A			A				
Queue Length 50th (ft)			0		19			87				

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Queue Length 95th (ft)			0		47			102				
Internal Link Dist (ft)		100			531			425			289	
Turn Bay Length (ft)												
Base Capacity (vph)			575		546			2116				
Starvation Cap Reductn			0		0			0				
Spillback Cap Reductn			0		0			0				
Storage Cap Reductn			0		0			0				
Reduced v/c Ratio			0.08		0.24			0.39				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NET and 6:, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	7.4
Intersection LOS:	A
Intersection Capacity Utilization	40.7%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 14: Butler St & Hanover St

 02	 04
40 s	20 s
	 08
	20 s

City Of Meriden  
Baseline -PM Peak

Lanes, Volumes, Timings  
15: W Main St & Linsley Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	188	369	31	15	480	82	65	146	8	102	162	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	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		0.988			0.978			0.992			0.929	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1840	0	1770	1822	0	1770	1848	0	1770	1730	0
Flt Permitted	0.222			0.388			0.500			0.651		
Satd. Flow (perm)	414	1840	0	723	1822	0	931	1848	0	1213	1730	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			24			8			124	
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		343			491			383			555	
Travel Time (s)		9.4			11.2			8.7			12.6	
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
Adj. Flow (vph)	204	401	34	16	522	89	71	159	9	111	176	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	204	435	0	16	611	0	71	168	0	111	334	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.41	0.41		0.41	0.41		0.41	0.41		0.41	0.41	
v/c Ratio	1.21	0.57		0.05	0.80		0.19	0.22		0.22	0.43	
Control Delay	159.2	13.4		8.5	22.3		9.9	9.0		10.0	7.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	159.2	13.4		8.5	22.3		9.9	9.0		10.0	7.7	
LOS	F	B		A	C		A	A		A	A	
Approach Delay		60.0			21.9			9.3			8.3	
Approach LOS		E			C			A			A	
Queue Length 50th (ft)	~66	77		2	122		11	24		17	33	
Queue Length 95th (ft)	#162	143		10	#278		30	53		42	78	
Internal Link Dist (ft)		263			411			303			475	

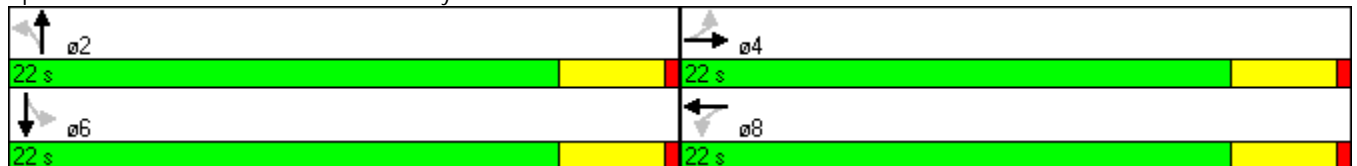


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	100			50			100			100		
Base Capacity (vph)	169	760		296	760		381	761		496	781	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	1.21	0.57		0.05	0.80		0.19	0.22		0.22	0.43	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.21  
 Intersection Signal Delay: 29.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 75.0%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 15: W Main St & Linsley Ave





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	653			201	733	
Travel Time (s)	14.8			4.6	16.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	

**Intersection Summary**


















Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	480	39	10	541	36	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.990				0.970	
Flt Protected				0.999	0.962	
Satd. Flow (prot)	1844	0	0	3536	1738	0
Flt Permitted				0.999	0.962	
Satd. Flow (perm)	1844	0	0	3536	1738	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			398	522	
Travel Time (s)	12.0			9.0	11.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	522	42	11	588	39	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	564	0	0	599	50	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.6% ICU Level of Service A
Analysis Period (min)	15

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	88	380	25	176	12	339	37	4	16	53	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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		0.878			0.992			0.999				0.954
Flt Protected	0.950				0.994			0.957				0.993
Satd. Flow (prot)	1770	1635	0	0	1837	0	0	1781	0	0	1765	0
Flt Permitted	0.950				0.994			0.957				0.993
Satd. Flow (perm)	1770	1635	0	0	1837	0	0	1781	0	0	1765	0
Link Speed (mph)		30			25			30				30
Link Distance (ft)		398			284			209				363
Travel Time (s)		9.0			7.7			4.8				8.3
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
Adj. Flow (vph)	16	96	413	27	191	13	368	40	4	17	58	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	509	0	0	231	0	0	412	0	0	114	0
Sign Control		Free			Stop			Free			Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	65.5%
Analysis Period (min)	15
	ICU Level of Service C



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	712	35	53	752	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.870		0.918			
Flt Protected	0.998					0.956
Satd. Flow (prot)	1617	0	1710	0	0	1781
Flt Permitted	0.998					0.956
Satd. Flow (perm)	1617	0	1710	0	0	1781
Link Speed (mph)	30		30			30
Link Distance (ft)	467		516			209
Travel Time (s)	10.6		11.7			4.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	774	38	58	817	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	801	0	96	0	0	893
Sign Control	Free		Stop			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	104.1%
ICU Level of Service	G
Analysis Period (min)	15





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	536	28	12	400	14	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.902	
Flt Protected				0.999	0.987	
Satd. Flow (prot)	1850	0	0	1861	1658	0
Flt Permitted				0.999	0.987	
Satd. Flow (perm)	1850	0	0	1861	1658	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	467			720	419	
Travel Time (s)	10.6			16.4	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	583	30	13	435	15	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	613	0	0	448	55	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.7% ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↔			
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Link Speed (mph)		30	25		30	
Link Distance (ft)		137	259		624	
Travel Time (s)		3.1	7.1		14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control		Free	Free		Free	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	0.0%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↻			↻	↻	
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	720			137	338	
Travel Time (s)	16.4			3.1	7.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	5	15	298	15	30	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.897		0.993			
Flt Protected	0.988					0.992
Satd. Flow (prot)	1651	0	3514	0	0	3511
Flt Permitted	0.988					0.992
Satd. Flow (perm)	1651	0	3514	0	0	3511
Link Speed (mph)	30		30			30
Link Distance (ft)	223		538			291
Travel Time (s)	5.1		12.2			6.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	16	324	16	33	185
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	340	0	0	218
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	27.6%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	68	24	19	45	273	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.965				0.975	
Flt Protected	0.964			0.985		
Satd. Flow (prot)	1733	0	0	1835	1816	0
Flt Permitted	0.964			0.985		
Satd. Flow (perm)	1733	0	0	1835	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	216			775	426	
Travel Time (s)	4.9			17.6	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	74	26	21	49	297	68
Shared Lane Traffic (%)						
Lane Group Flow (vph)	100	0	0	70	365	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.0% ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	61	30	0	213	256	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.955					
Flt Protected	0.968					
Satd. Flow (prot)	1722	0	0	1863	1863	0
Flt Permitted	0.968					
Satd. Flow (perm)	1722	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	287			241	561	
Travel Time (s)	6.5			5.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	33	0	232	278	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	99	0	0	232	278	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.4%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Volume (vph)	0	0	14	287	281	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.974	
Flt Protected				0.998		
Satd. Flow (prot)	0	0	0	1859	1814	0
Flt Permitted				0.998		
Satd. Flow (perm)	0	0	0	1859	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			561	152	
Travel Time (s)	6.1			12.8	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	15	312	305	74
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	327	379	0
Sign Control	Free			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	29.8%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	70	164	342	44	133	315
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.905		0.985			
Flt Protected	0.985					0.985
Satd. Flow (prot)	1660	0	1835	0	0	1835
Flt Permitted	0.985					0.656
Satd. Flow (perm)	1660	0	1835	0	0	1222
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	178		18			
Link Speed (mph)	30		30			30
Link Distance (ft)	292		158			201
Travel Time (s)	6.6		3.6			4.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	178	372	48	145	342
Shared Lane Traffic (%)						
Lane Group Flow (vph)	254	0	420	0	0	487
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.32		0.55			0.97
Control Delay	4.5		12.9			53.1
Queue Delay	0.0		0.0			0.0
Total Delay	4.5		12.9			53.1
LOS	A		B			D
Approach Delay	4.5		12.9			53.1
Approach LOS	A		B			D
Queue Length 50th (ft)	11		72			113
Queue Length 95th (ft)	44		136			#269
Internal Link Dist (ft)	212		78			121
Turn Bay Length (ft)						
Base Capacity (vph)	784		761			500
Starvation Cap Reductn	0		0			0



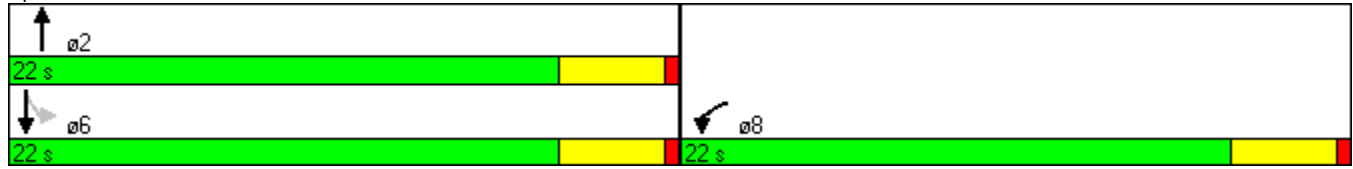


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.32		0.55			0.97

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 50  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.97  
 Intersection Signal Delay: 27.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 68.6%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 39: Int














Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	1863	0	0	1863
Flt Permitted						
Satd. Flow (perm)	1863	0	1863	0	0	1863
Link Speed (mph)	30		30		30	
Link Distance (ft)	402		246		308	
Travel Time (s)	9.1		5.6		7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop		Free		Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
ICU Level of Service	A
Analysis Period (min)	15

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	126	188	167	101	156	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.919		0.949			
Flt Protected	0.980					0.978
Satd. Flow (prot)	1678	0	1768	0	0	1822
Flt Permitted	0.980					0.711
Satd. Flow (perm)	1678	0	1768	0	0	1324
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	204		84			
Link Speed (mph)	30		30			30
Link Distance (ft)	320		176			220
Travel Time (s)	7.3		4.0			5.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	204	182	110	170	205
Shared Lane Traffic (%)						
Lane Group Flow (vph)	341	0	292	0	0	375
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.42		0.38			0.69
Control Delay	5.8		8.1			20.0
Queue Delay	0.0		0.0			0.0
Total Delay	5.8		8.1			20.0
LOS	A		A			B
Approach Delay	5.8		8.1			20.0
Approach LOS	A		A			B
Queue Length 50th (ft)	21		33			73
Queue Length 95th (ft)	61		73			#181
Internal Link Dist (ft)	240		96			140
Turn Bay Length (ft)						
Base Capacity (vph)	807		773			542
Starvation Cap Reductn	0		0			0

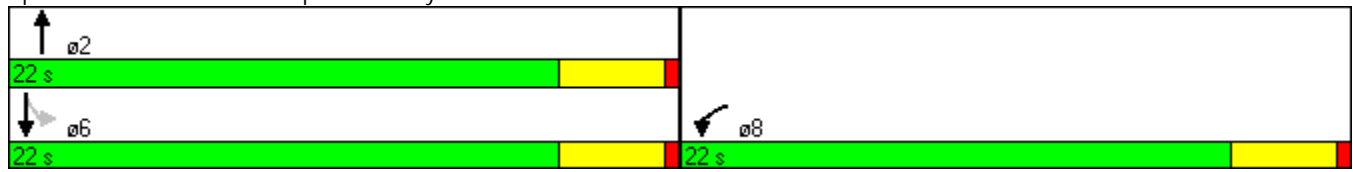


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.42		0.38			0.69

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 11.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.1%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 46: Camp St & Colony St





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	66	25	224	56	13	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963		0.973			
Flt Protected	0.965					0.998
Satd. Flow (prot)	1731	0	1812	0	0	1859
Flt Permitted	0.965					0.982
Satd. Flow (perm)	1731	0	1812	0	0	1829
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	27		35			
Link Speed (mph)	30		30			30
Link Distance (ft)	265		152			414
Travel Time (s)	6.0		3.5			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	72	27	243	61	14	302
Shared Lane Traffic (%)						
Lane Group Flow (vph)	99	0	304	0	0	316
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.14		0.40			0.42
Control Delay	5.3		10.0			11.5
Queue Delay	0.0		0.0			0.0
Total Delay	5.3		10.0			11.5
LOS	A		B			B
Approach Delay	5.3		10.0			11.5
Approach LOS	A		B			B
Queue Length 50th (ft)	7		44			53
Queue Length 95th (ft)	22		89			102
Internal Link Dist (ft)	185		72			334
Turn Bay Length (ft)						
Base Capacity (vph)	724		762			748
Starvation Cap Reductn	0		0			0

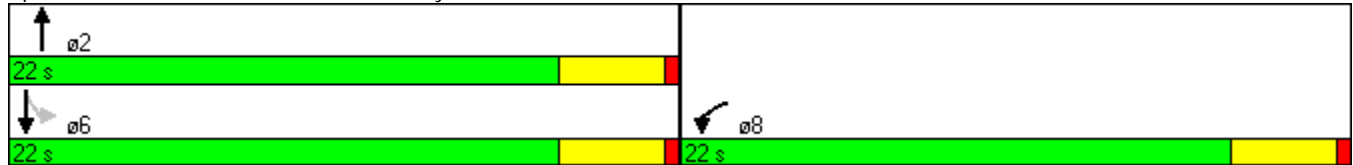



















Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.14		0.40			0.42

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.42
Intersection Signal Delay:	10.0
Intersection LOS:	B
Intersection Capacity Utilization	37.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 47: Brooks St & Colony St



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	86	141	43	66	132	3	68	68	43	17	191	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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			0.850		0.998			0.967			0.954	
Flt Protected		0.981			0.984			0.981			0.997	
Satd. Flow (prot)	0	1827	1583	0	1829	0	0	1767	0	0	1772	0
Flt Permitted		0.981			0.984			0.981			0.997	
Satd. Flow (perm)	0	1827	1583	0	1829	0	0	1767	0	0	1772	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		406			514			452			325	
Travel Time (s)		9.2			11.7			10.3			7.4	
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
Adj. Flow (vph)	93	153	47	72	143	3	74	74	47	18	208	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	246	47	0	218	0	0	195	0	0	342	0
Sign Control		Free			Stop			Stop			Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.8%
Analysis Period (min)	15
	ICU Level of Service B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			414	246	
Travel Time (s)	6.4			9.4	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	13.3%
Analysis Period (min)	15
	ICU Level of Service A





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	19	28	0	149	270	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.921					
Flt Protected	0.980					
Satd. Flow (prot)	1681	0	0	1863	1863	0
Flt Permitted	0.980					
Satd. Flow (perm)	1681	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	214			229	212	
Travel Time (s)	4.9			5.2	4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	30	0	162	293	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	0	162	293	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

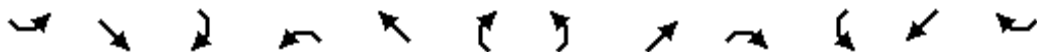
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.2%
ICU Level of Service	A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	378			308	176	
Travel Time (s)	8.6			7.0	4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	0.0% ICU Level of Service A
Analysis Period (min)	15



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕↕			↕↕	
Volume (vph)	13	0	11	16	6	16	16	305	0	0	268	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.938			0.944						0.988	
Flt Protected		0.974			0.980			0.998				
Satd. Flow (prot)	0	1702	0	0	1723	0	0	3532	0	0	3497	0
Flt Permitted		0.911			0.927			0.935				
Satd. Flow (perm)	0	1592	0	0	1630	0	0	3309	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			17						26	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		206			172			255			669	
Travel Time (s)		4.7			3.9			5.8			15.2	
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
Adj. Flow (vph)	14	0	12	17	7	17	17	332	0	0	291	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	26	0	0	41	0	0	349	0	0	317	0
Turn Type	Perm			Perm			Perm					
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4					
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0			22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	0.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0			18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	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			11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.41			0.41			0.41			0.41	
v/c Ratio		0.04			0.06			0.26			0.22	
Control Delay		6.2			6.1			4.3			7.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.2			6.1			4.3			7.3	
LOS		A			A			A			A	
Approach Delay		6.2			6.1			4.3			7.3	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		2			3			10			18	
Queue Length 95th (ft)		12			16			16			40	
Internal Link Dist (ft)		126			92			175			589	
Turn Bay Length (ft)												
Base Capacity (vph)		658			677			1354			1446	
Starvation Cap Reductn		0			0			0			0	

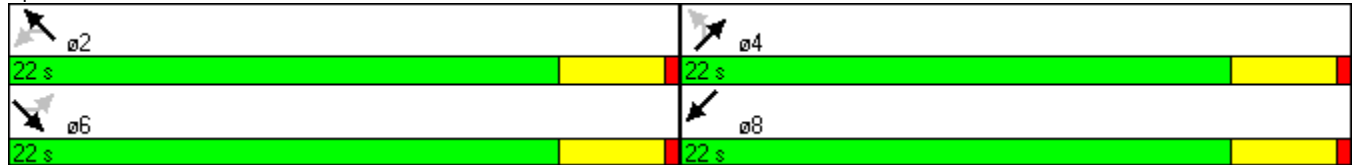


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.04			0.06			0.26			0.22	

**Intersection Summary**

















Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.26
Intersection Signal Delay:	5.8
Intersection LOS:	A
Intersection Capacity Utilization	30.3%
ICU Level of Service	A
Analysis Period (min)	15













Splits and Phases: 60: Cedar St & Pratt St



City Of Meriden  
Baseline -PM Peak

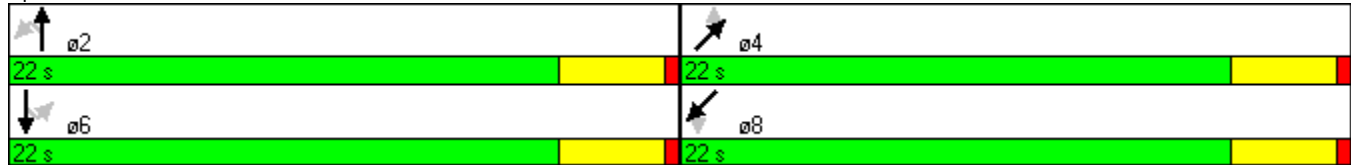
Lanes, Volumes, Timings  
61: Center St & Pratt St

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	33	203	60	27	111	76	120	208	35	42	179	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.952			0.986			0.980	
Flt Protected		0.994			0.994			0.984			0.992	
Satd. Flow (prot)	0	1802	0	0	1763	0	0	3434	0	0	3441	0
Flt Permitted		0.951			0.940			0.773			0.862	
Satd. Flow (perm)	0	1724	0	0	1667	0	0	2698	0	0	2990	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			77			31			38	
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		393			533			669			338	
Travel Time (s)		8.9			12.1			15.2			9.2	
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
Adj. Flow (vph)	36	221	65	29	121	83	130	226	38	46	195	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	322	0	0	233	0	0	394	0	0	279	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.41			0.41			0.41			0.41	
v/c Ratio		0.44			0.32			0.35			0.22	
Control Delay		10.7			7.4			16.8			7.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.7			7.4			16.8			7.8	
LOS		B			A			B			A	
Approach Delay		10.7			7.4			16.8			7.8	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)		48			24			47			19	
Queue Length 95th (ft)		97			59			76			37	
Internal Link Dist (ft)		313			453			589			258	
Turn Bay Length (ft)												
Base Capacity (vph)		726			727			1122			1246	
Starvation Cap Reductn		0			0			0			0	

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.44			0.32			0.35			0.22	

Intersection Summary	
Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.44
Intersection Signal Delay:	11.4
Intersection LOS:	B
Intersection Capacity Utilization	48.5%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 61: Center St & Pratt St





















Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	29	7	285	24	6	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.973		0.988			
Flt Protected	0.962					0.998
Satd. Flow (prot)	1744	0	3497	0	0	3532
Flt Permitted	0.962					0.998
Satd. Flow (perm)	1744	0	3497	0	0	3532
Link Speed (mph)	30		30			30
Link Distance (ft)	313		291			501
Travel Time (s)	7.1		6.6			11.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	8	310	26	7	186
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	336	0	0	193
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	19.1% ICU Level of Service A
Analysis Period (min)	15

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	0	7	54	0	26	12	91	26	61	274	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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		0.949			0.957			0.973			0.997	
Flt Protected		0.970			0.967			0.995			0.991	
Satd. Flow (prot)	0	1715	0	0	1724	0	0	1803	0	0	1840	0
Flt Permitted		0.970			0.967			0.995			0.991	
Satd. Flow (perm)	0	1715	0	0	1724	0	0	1803	0	0	1840	0
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		121			466			426			229	
Travel Time (s)		3.3			10.6			9.7			5.2	
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
Adj. Flow (vph)	13	0	8	59	0	28	13	99	28	66	298	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	21	0	0	87	0	0	140	0	0	372	0
Sign Control		Stop			Stop			Free			Free	
<b>Intersection Summary</b>												
Area Type:	Other											
Control Type:	Unsignalized											
Intersection Capacity Utilization	37.1%						ICU Level of Service A					
Analysis Period (min)	15											





Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	28	74	61	303	222	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.902				0.971	
Flt Protected	0.987			0.992		
Satd. Flow (prot)	1658	0	0	3511	3437	0
Flt Permitted	0.987			0.862		
Satd. Flow (perm)	1658	0	0	3051	3437	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	80				59	
Link Speed (mph)	30			30	30	
Link Distance (ft)	317			501	255	
Travel Time (s)	7.2			11.4	5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	80	66	329	241	59
Shared Lane Traffic (%)						
Lane Group Flow (vph)	110	0	0	395	300	0
Turn Type			Perm			
Protected Phases	6			4	8	
Permitted Phases			4			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	22.0	0.0	22.0	22.0	22.0	0.0
Total Split (%)	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0		18.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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 Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.41			0.41	0.41	
v/c Ratio	0.15			0.32	0.21	
Control Delay	6.0			9.7	6.8	
Queue Delay	0.0			0.0	0.0	
Total Delay	6.0			9.7	6.8	
LOS	A			A	A	
Approach Delay	6.0			9.7	6.8	
Approach LOS	A			A	A	
Queue Length 50th (ft)	11			33	0	
Queue Length 95th (ft)	37			57	22	
Internal Link Dist (ft)	237			421	175	
Turn Bay Length (ft)						
Base Capacity (vph)	726			1248	1441	
Starvation Cap Reductn	0			0	0	

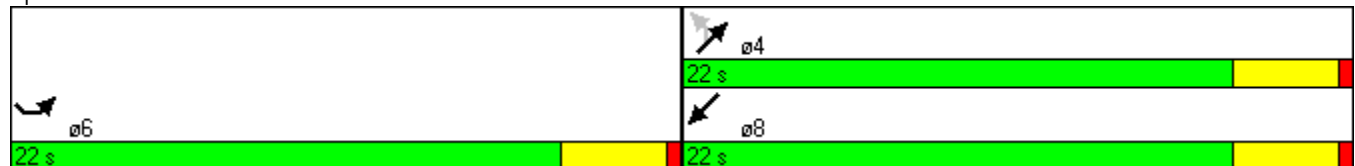











Lane Group	SEL	SER	NEL	NET	SWT	SWR
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.15			0.32	0.21	

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2: and 6:SEL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.32
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	34.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 67: Mill St & Pratt St



						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	19	20	163	19	19	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931		0.986			
Flt Protected	0.976					0.997
Satd. Flow (prot)	1693	0	1837	0	0	1857
Flt Permitted	0.976					0.976
Satd. Flow (perm)	1693	0	1837	0	0	1818
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	22		16			
Link Speed (mph)	25		30			30
Link Distance (ft)	433		212			452
Travel Time (s)	11.8		4.8			10.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	22	177	21	21	280
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	198	0	0	301
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.06		0.26			0.40
Control Delay	5.7		9.0			11.9
Queue Delay	0.0		0.0			0.0
Total Delay	5.7		9.0			11.9
LOS	A		A			B
Approach Delay	5.7		9.0			11.9
Approach LOS	A		A			B
Queue Length 50th (ft)	3		28			55
Queue Length 95th (ft)	16		60			m105
Internal Link Dist (ft)	353		132			372
Turn Bay Length (ft)						
Base Capacity (vph)	706		761			744
Starvation Cap Reductn	0		0			0

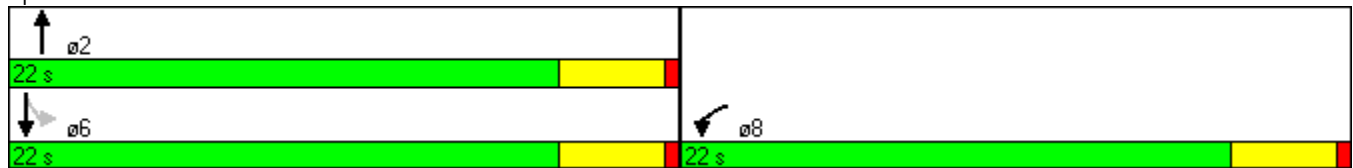


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.06		0.26			0.40

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	10.3
Intersection LOS:	B
Intersection Capacity Utilization	37.7%
ICU Level of Service	A
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

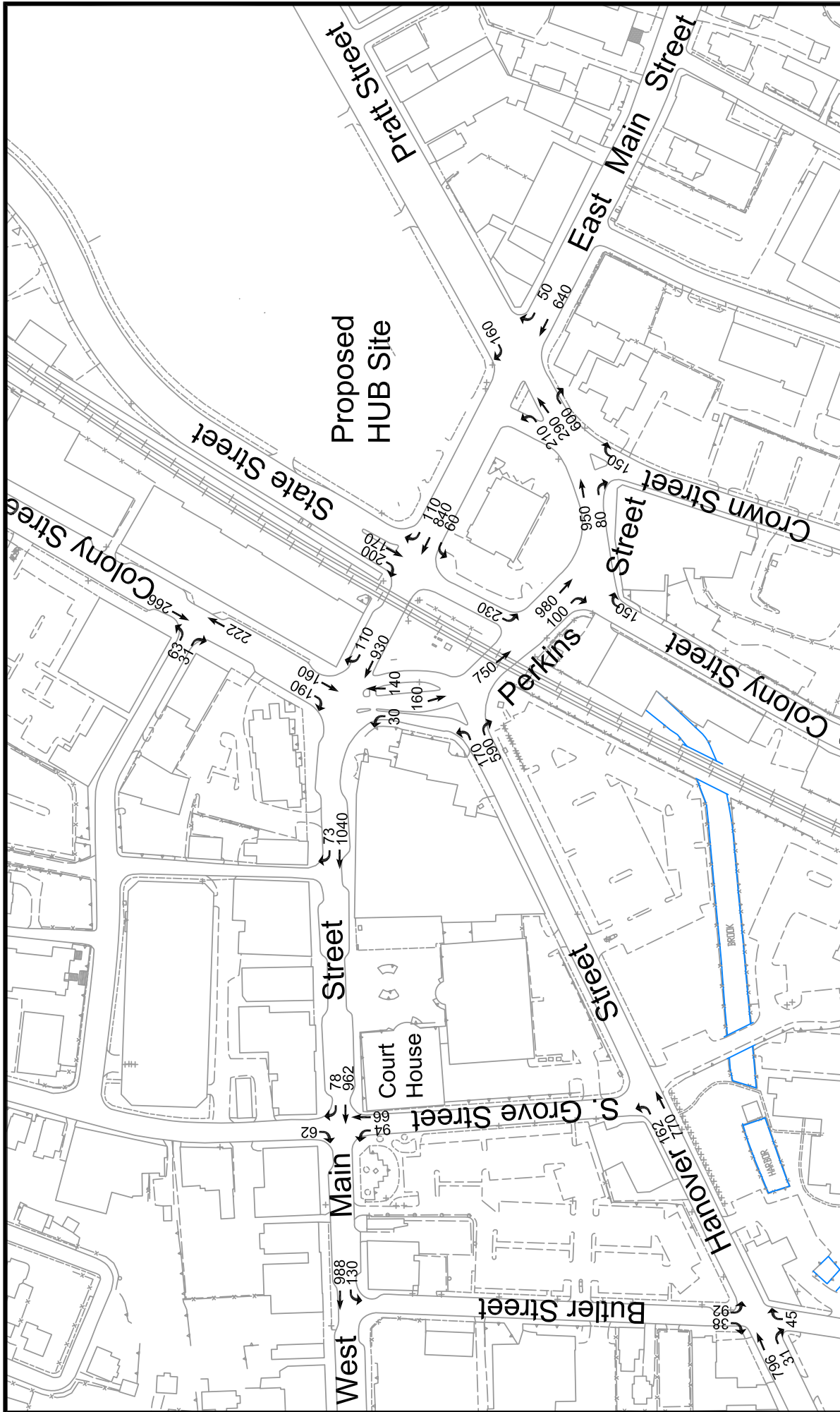
Splits and Phases: 79: Park St & State St



# **MERIDEN TOD STUDY**

## **APPANDIX A CAPACITY ANALYSIS**

### **2015 NO BUILD PM PEAK PERIOD**



2015 NO-BUILD VOLUMES  
WEEKDAY PM PEAK



TRANSPORTATION ORIENTED  
DEVELOPMENT  
Meriden, Connecticut



Not to Scale

City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
1: W Main St & Colony St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕↕	↗	↖	↑			↑	↗
Volume (vph)	0	0	0	0	930	110	30	140	0	0	160	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	0		1	1		0	0		1
Taper Length (ft)	25		25	25		25	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	1.00	1.00
Frt						0.850						0.850
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3539	1583	1770	1863	0	0	1863	1583
Flt Permitted							0.514					
Satd. Flow (perm)	0	0	0	0	3539	1583	957	1863	0	0	1863	1583
Right Turn on Red			Yes			Yes		Yes				Yes
Satd. Flow (RTOR)						120						207
Link Speed (mph)		30			30			30				30
Link Distance (ft)		242			223			187				241
Travel Time (s)		5.5			5.1			4.3				5.5
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
Adj. Flow (vph)	0	0	0	0	1011	120	33	152	0	0	174	207
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1011	120	33	152	0	0	174	207
Turn Type				Perm		Perm	pm+pt					Perm
Protected Phases					8		5	2			6	
Permitted Phases				8		8	2					6
Detector Phase				8	8	8	5	2			6	6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0	4.0	4.0			4.0	4.0
Minimum Split (s)				16.0	16.0	16.0	8.0	16.0			16.0	16.0
Total Split (s)	0.0	0.0	0.0	28.0	28.0	28.0	8.0	20.0	0.0	0.0	12.0	12.0
Total Split (%)	0.0%	0.0%	0.0%	35.0%	35.0%	35.0%	10.0%	25.0%	0.0%	0.0%	15.0%	15.0%
Maximum Green (s)				24.0	24.0	24.0	4.0	16.0			8.0	8.0
Yellow Time (s)				3.5	3.5	3.5	3.5	3.5			3.5	3.5
All-Red Time (s)				0.5	0.5	0.5	0.5	0.5			0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	3.0
Recall Mode				None	None	None	None	Max			Max	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 Effect Green (s)					23.7	23.7	21.8	21.8			19.2	19.2
Actuated g/C Ratio					0.41	0.41	0.37	0.37			0.33	0.33
v/c Ratio					0.70	0.17	0.08	0.22			0.28	0.31
Control Delay					21.3	5.4	16.4	16.7			21.2	5.9
Queue Delay					26.5	0.3	0.0	0.9			0.0	0.0
Total Delay					47.8	5.7	16.4	17.6			21.2	5.9
LOS					D	A	B	B			C	A

Lane Group	ø9
Lane Configurations	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	32.0
Total Split (s)	32.0
Total Split (%)	40%
Maximum Green (s)	28.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	0.2
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	8
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	



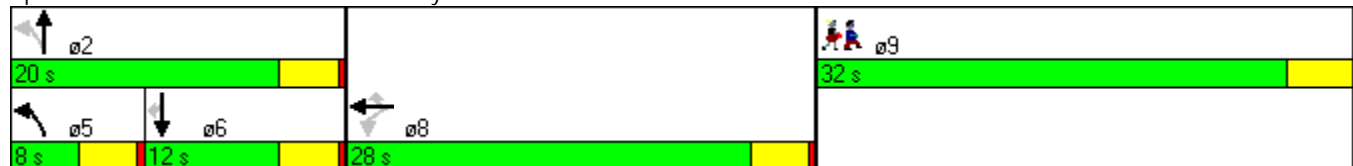


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay					43.3			17.4			12.9	
Approach LOS					D			B			B	
Queue Length 50th (ft)					103	0	6	30			35	0
Queue Length 95th (ft)					#463	40	36	118			151	56
Internal Link Dist (ft)		162			143			107			161	
Turn Bay Length (ft)												100
Base Capacity (vph)					1554	762	418	698			614	660
Starvation Cap Reductn					581	309	0	344			0	0
Spillback Cap Reductn					0	0	0	0			0	0
Storage Cap Reductn					0	0	0	0			0	0
Reduced v/c Ratio					1.04	0.26	0.08	0.43			0.28	0.31

**Intersection Summary**

Area Type: Other  
 Cycle Length: 80  
 Actuated Cycle Length: 58.2  
 Natural Cycle: 80  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 33.7  
 Intersection LOS: C  
 Intersection Capacity Utilization 64.7%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: W Main St & Colony St



Lane Group	ø9
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
2: E Main St & State St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↙	↕	↗					↕	↗
Volume (vph)	0	0	0	60	840	110	0	0	0	0	170	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850						0.919
Flt Protected				0.950								
Satd. Flow (prot)	0	0	0	1770	3539	1583	0	0	0	0	3253	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	0	0	1770	3539	1583	0	0	0	0	3253	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)				65		120						113
Link Speed (mph)		30			30			30				30
Link Distance (ft)		223			327			192				217
Travel Time (s)		5.1			7.4			4.4				4.9
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
Adj. Flow (vph)	0	0	0	65	913	120	0	0	0	0	185	217
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	65	913	120	0	0	0	0	402	0
Turn Type				Perm		Perm						
Protected Phases					8							6
Permitted Phases				8		8						
Detector Phase				8	8	8						6
Switch Phase												
Minimum Initial (s)				4.0	4.0	4.0						4.0
Minimum Split (s)				22.0	22.0	22.0						12.0
Total Split (s)	0.0	0.0	0.0	36.0	36.0	36.0	0.0	0.0	0.0	0.0	24.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	60.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	40.0%	0.0%
Maximum Green (s)				32.0	32.0	32.0						20.0
Yellow Time (s)				3.5	3.5	3.5						3.5
All-Red Time (s)				0.5	0.5	0.5						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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)				3.0	3.0	3.0						3.0
Recall Mode				None	None	None						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)				21.7	21.7	21.7						20.3
Actuated g/C Ratio				0.43	0.43	0.43						0.40
v/c Ratio				0.08	0.60	0.16						0.29
Control Delay				2.6	12.2	2.4						9.2
Queue Delay				0.0	0.1	0.0						0.0
Total Delay				2.6	12.3	2.4						9.2
LOS				A	B	A						A
Approach Delay					10.6							9.2
Approach LOS					B							A
Queue Length 50th (ft)				0	98	0						27



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)				14	140	19					69	
Internal Link Dist (ft)		143			247			112			137	
Turn Bay Length (ft)												
Base Capacity (vph)				1170	2293	1068					1385	
Starvation Cap Reductn				0	309	0					0	
Spillback Cap Reductn				0	0	0					0	
Storage Cap Reductn				0	0	0					0	
Reduced v/c Ratio				0.06	0.46	0.11					0.29	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	50.2
Natural Cycle:	40
Control Type:	Semi Act-Uncoord
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	10.2
Intersection LOS:	B
Intersection Capacity Utilization:	51.5%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 2: E Main St & State St





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			
Volume (vph)	0	0	1000	70	0	0
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt			0.990			
Flt Protected						
Satd. Flow (prot)	0	0	3504	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	3504	0	0	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		377	242		181	
Travel Time (s)		8.6	5.5		4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	0	0	1130	79	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1209	0	0	0
Sign Control		Free	Free		Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.4%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations			↖ ↗		↖ ↗	↖
Volume (vph)	0	0	160	0	170	590
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.97	1.00	0.97	0.91
Frt					0.905	0.850
Flt Protected			0.950		0.982	
Satd. Flow (prot)	0	0	3433	0	3212	1441
Flt Permitted			0.950		0.982	
Satd. Flow (perm)	0	0	3433	0	3212	1441
Right Turn on Red		Yes		Yes		Yes
Satd. Flow (RTOR)					321	320
Link Speed (mph)	30		30		30	
Link Distance (ft)	123		187		325	
Travel Time (s)	2.8		4.3		7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	174	0	185	641
Shared Lane Traffic (%)						50%
Lane Group Flow (vph)	0	0	174	0	506	320
Turn Type						Perm
Protected Phases			6		4	
Permitted Phases						4
Detector Phase			6		4	4
Switch Phase						
Minimum Initial (s)			4.0		4.0	4.0
Minimum Split (s)			22.0		22.0	22.0
Total Split (s)	0.0	0.0	26.0	0.0	34.0	34.0
Total Split (%)	0.0%	0.0%	43.3%	0.0%	56.7%	56.7%
Maximum Green (s)			22.0		30.0	30.0
Yellow Time (s)			3.5		3.5	3.5
All-Red Time (s)			0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0		3.0	3.0
Recall Mode			None		None	None
Walk Time (s)			7.0		7.0	7.0
Flash Dont Walk (s)			11.0		11.0	11.0
Pedestrian Calls (#/hr)			0		0	0
Act Effect Green (s)			7.6		10.3	10.3
Actuated g/C Ratio			0.40		0.54	0.54
v/c Ratio			0.13		0.27	0.34
Control Delay			6.4		2.3	2.1
Queue Delay			0.0		0.0	0.0
Total Delay			6.4		2.3	2.1
LOS			A		A	A
Approach Delay			6.4		2.2	
Approach LOS			A		A	
Queue Length 50th (ft)			6		6	0

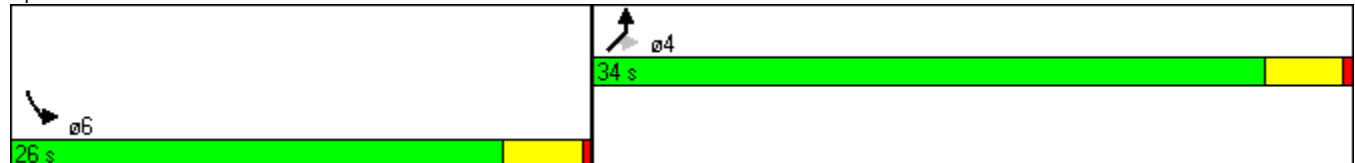


Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Queue Length 95th (ft)			19		18	19
Internal Link Dist (ft)	43		107		245	
Turn Bay Length (ft)						
Base Capacity (vph)			3210		3212	1441
Starvation Cap Reductn			0		0	0
Spillback Cap Reductn			0		0	0
Storage Cap Reductn			0		0	0
Reduced v/c Ratio			0.05		0.16	0.22

**Intersection Summary**

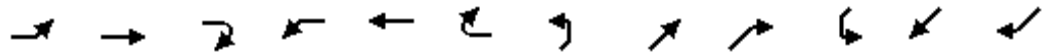
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	18.9
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.34
Intersection Signal Delay:	2.9
Intersection LOS:	A
Intersection Capacity Utilization	71.8%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 4: Pratt St & Hanover St



City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
5: E Main St & Pratt St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations					↑↑		↑↑	↑↑	↑			↑↑
Volume (vph)	0	0	0	0	640	50	210	290	600	0	0	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.97	0.95	1.00	1.00	1.00	0.88
Frt					0.989				0.850			0.850
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3150	0	3090	3185	1425	0	0	2508
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3150	0	3090	3185	1425	0	0	2508
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					12		228		652			1126
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		327			526			208			538	
Travel Time (s)		7.4			12.0			4.7			12.2	
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
Adj. Flow (vph)	0	0	0	0	696	54	228	315	652	0	0	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	750	0	228	315	652	0	0	174
Turn Type							pm+pt		Perm			custom
Protected Phases					8		5	2				
Permitted Phases							2		2			6
Detector Phase					8		5	2	2			6
Switch Phase												
Minimum Initial (s)					4.0		4.0	4.0	4.0			4.0
Minimum Split (s)					22.0		8.0	22.0	22.0			22.0
Total Split (s)	0.0	0.0	0.0	0.0	17.0	0.0	8.0	18.0	18.0	0.0	0.0	10.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	28.3%	0.0%	13.3%	30.0%	30.0%	0.0%	0.0%	16.7%
Maximum Green (s)					13.0		4.0	14.0	14.0			6.0
Yellow Time (s)					3.5		3.5	3.5	3.5			3.5
All-Red Time (s)					0.5		0.5	0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead					Lag
Lead-Lag Optimize?							Yes					Yes
Vehicle Extension (s)					3.0		3.0	3.0	3.0			3.0
Recall Mode					None		None	Max	Max			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)					13.0		26.0	26.0	26.0			18.0
Actuated g/C Ratio					0.28		0.55	0.55	0.55			0.38
v/c Ratio					0.85		0.13	0.18	0.60			0.11
Control Delay					28.2		1.2	5.5	3.4			0.1
Queue Delay					0.0		0.0	0.3	0.9			0.0
Total Delay					28.2		1.2	5.8	4.3			0.1
LOS					C		A	A	A			A
Approach Delay					28.2			4.1				
Approach LOS					C			A				
Queue Length 50th (ft)					98		0	19	0			0



Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	32.0
Total Split (s)	25.0
Total Split (%)	42%
Maximum Green (s)	21.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
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	
Queue Length 50th (ft)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Queue Length 95th (ft)					#186		9	33	34			0
Internal Link Dist (ft)		247			446			128			458	
Turn Bay Length (ft)												
Base Capacity (vph)					880		1811	1762	1080			1655
Starvation Cap Reductn					0		0	876	193			0
Spillback Cap Reductn					0		0	0	0			0
Storage Cap Reductn					0		0	0	0			0
Reduced v/c Ratio					0.85		0.13	0.36	0.74			0.11

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 60  
 Actuated Cycle Length: 47  
 Natural Cycle: 85  
 Control Type: Semi Act-Uncoord  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 12.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 44.6%  
 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: 5: E Main St & Pratt St



Lane Group	ø9
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↑					↗
Volume (vph)	980	100	0	0	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.91	0.91	1.00	1.00	1.00	1.00
Frt	0.986					0.865
Flt Protected						
Satd. Flow (prot)	5014	0	0	0	0	1611
Flt Permitted						
Satd. Flow (perm)	5014	0	0	0	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	128			139	468	
Travel Time (s)	2.9			3.2	10.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1065	109	0	0	0	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1174	0	0	0	0	163
Sign Control	Free			Stop	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.1%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations	TTT			T		
Volume (vph)	950	80	0	150	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.94	0.91	1.00	1.00	1.00	1.00
Frt	0.988			0.865		
Flt Protected	0.956					
Satd. Flow (prot)	4962	0	0	1611	0	0
Flt Permitted	0.956					
Satd. Flow (perm)	4962	0	0	1611	0	0
Right Turn on Red	Yes	Yes		Yes		Yes
Satd. Flow (RTOR)	1916			33		
Link Speed (mph)	30		30		30	
Link Distance (ft)	139		529		208	
Travel Time (s)	3.2		12.0		4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1033	87	0	163	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1120	0	0	163	0	0
Turn Type	custom					
Protected Phases	4					
Permitted Phases	2					
Minimum Split (s)	22.0		22.0			
Total Split (s)	22.0	0.0	0.0	23.0	0.0	0.0
Total Split (%)	48.9%	0.0%	0.0%	51.1%	0.0%	0.0%
Maximum Green (s)	18.0			19.0		
Yellow Time (s)	3.5			3.5		
All-Red Time (s)	0.5			0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	7.0			7.0		
Flash Dont Walk (s)	11.0			11.0		
Pedestrian Calls (#/hr)	0			0		
Act Effect Green (s)	18.0			19.0		
Actuated g/C Ratio	0.40			0.42		
v/c Ratio	0.36			0.23		
Control Delay	0.3			7.8		
Queue Delay	0.0			0.0		
Total Delay	0.3			7.8		
LOS	A			A		
Approach Delay	0.3					
Approach LOS	A					
Queue Length 50th (ft)	0			20		
Queue Length 95th (ft)	0			48		
Internal Link Dist (ft)	59		449		128	
Turn Bay Length (ft)						
Base Capacity (vph)	3134			699		
Starvation Cap Reductn	0			0		

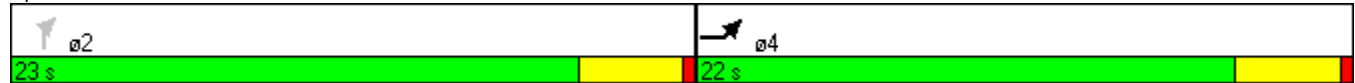


Lane Group	EBL	EBR	NBL	NBR	SWL	SWR
Spillback Cap Reductn	0			0		
Storage Cap Reductn	0			0		
Reduced v/c Ratio	0.36			0.23		

**Intersection Summary**

Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 2:NBR and 6:, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	1.3
Intersection LOS:	A
Intersection Capacity Utilization	23.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 7: Pratt St & Crown St





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑			↑↑	
Volume (vph)	0	750	0	0	230	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	1.00	1.00	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	5085	0	0	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	5085	0	0	3433	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		123	128		192	
Travel Time (s)		2.8	2.9		4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	815	0	0	250	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	815	0	0	250	0
Sign Control		Free	Stop		Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.8%
ICU Level of Service	B
Analysis Period (min)	15



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations				↕↕		
Volume (vph)	0	0	156	740	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected				0.991		
Satd. Flow (prot)	0	0	0	3507	0	0
Flt Permitted				0.991		
Satd. Flow (perm)	0	0	0	3507	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	461			369	332	
Travel Time (s)	10.5			8.4	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	0	0	176	837	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1013	0	0
Turn Type Perm						
Protected Phases				4		
Permitted Phases				4		
Detector Phase				4	4	
Switch Phase						
Minimum Initial (s)			4.0	4.0		
Minimum Split (s)			22.0	22.0		
Total Split (s)	0.0	0.0	60.0	60.0	0.0	0.0
Total Split (%)	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)			56.0	56.0		
Yellow Time (s)			3.5	3.5		
All-Red Time (s)			0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0	3.0		
Recall Mode			None	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)				60.0		
Actuated g/C Ratio				1.00		
v/c Ratio				0.29		
Control Delay				0.2		
Queue Delay				0.0		
Total Delay				0.2		
LOS				A		
Approach Delay				0.2		
Approach LOS				A		





Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Queue Length 50th (ft)				0		
Queue Length 95th (ft)				0		
Internal Link Dist (ft)	381			289	252	
Turn Bay Length (ft)						
Base Capacity (vph)				3507		
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.29		

**Intersection Summary**


















Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.29
Intersection Signal Delay:	0.2
Intersection LOS:	A
Intersection Capacity Utilization:	48.1%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 9: S Grove St & Hanover St



City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
10: W Main St &

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					 							
Volume (vph)	0	0	0	0	925	75	90	63	0	0	0	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.989							0.865
Flt Protected							0.950					
Satd. Flow (prot)	0	0	0	0	3500	0	1770	1863	0	0	0	1611
Flt Permitted							0.950					
Satd. Flow (perm)	0	0	0	0	3500	0	1770	1863	0	0	0	1611
Right Turn on Red			Yes			Yes	Yes		Yes			Yes
Satd. Flow (RTOR)					20		67					67
Link Speed (mph)		30			30			30				30
Link Distance (ft)		276			377			461				215
Travel Time (s)		6.3			8.6			10.5				4.9
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	0	0	0	0	1046	85	102	71	0	0	0	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	1131	0	102	71	0	0	0	68
Turn Type							Perm					custom
Protected Phases					8			2				
Permitted Phases							2					6
Detector Phase					8		2	2				6
Switch Phase												
Minimum Initial (s)					4.0		4.0	4.0				4.0
Minimum Split (s)					22.0		22.0	22.0				22.0
Total Split (s)	0.0	0.0	0.0	0.0	34.0	0.0	26.0	26.0	0.0	0.0	0.0	26.0
Total Split (%)	0.0%	0.0%	0.0%	0.0%	56.7%	0.0%	43.3%	43.3%	0.0%	0.0%	0.0%	43.3%
Maximum Green (s)					30.0		22.0	22.0				22.0
Yellow Time (s)					3.5		3.5	3.5				3.5
All-Red Time (s)					0.5		0.5	0.5				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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)					3.0		3.0	3.0				3.0
Recall Mode					None		C-Max	C-Max				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)					26.9		25.1	25.1				25.1
Actuated g/C Ratio					0.45		0.42	0.42				0.42
v/c Ratio					0.71		0.13	0.09				0.10
Control Delay					15.7		4.6	7.0				4.5
Queue Delay					0.0		0.0	0.0				0.0
Total Delay					15.7		4.6	7.0				4.5
LOS					B		A	A				A
Approach Delay					15.7			5.6				
Approach LOS					B			A				

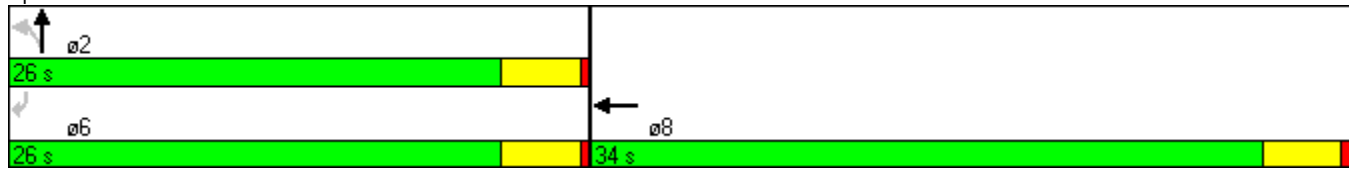


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)					154		15	14				0
Queue Length 95th (ft)					202		36	36				21
Internal Link Dist (ft)		196			297			381			135	
Turn Bay Length (ft)												
Base Capacity (vph)					1760		778	778				712
Starvation Cap Reductn					0		0	0				0
Spillback Cap Reductn					0		0	0				0
Storage Cap Reductn					0		0	0				0
Reduced v/c Ratio					0.64		0.13	0.09				0.10

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBR, Start of Green  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 13.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 48.1%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 10: W Main St &





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↕↕		
Volume (vph)	0	0	125	950	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt						
Flt Protected				0.994		
Satd. Flow (prot)	0	0	0	3518	0	0
Flt Permitted				0.994		
Satd. Flow (perm)	0	0	0	3518	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	409			276	611	
Travel Time (s)	9.3			6.3	13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	0	0	141	1074	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1215	0	0
Turn Type Perm						
Protected Phases				8		
Permitted Phases			8			
Minimum Split (s)			22.0	22.0		
Total Split (s)	0.0	0.0	80.0	80.0	0.0	0.0
Total Split (%)	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)			76.0	76.0		
Yellow Time (s)			3.5	3.5		
All-Red Time (s)			0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)			7.0	7.0		
Flash Dont Walk (s)			11.0	11.0		
Pedestrian Calls (#/hr)			0	0		
Act Effct Green (s)				80.0		
Actuated g/C Ratio				1.00		
v/c Ratio				0.35		
Control Delay				0.3		
Queue Delay				0.0		
Total Delay				0.3		
LOS				A		
Approach Delay				0.3		
Approach LOS				A		
Queue Length 50th (ft)				0		
Queue Length 95th (ft)				0		
Internal Link Dist (ft)	329			196	531	
Turn Bay Length (ft)						
Base Capacity (vph)				3518		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Starvation Cap Reductn				0		
Spillback Cap Reductn				0		
Storage Cap Reductn				0		
Reduced v/c Ratio				0.35		

**Intersection Summary**

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.35
Intersection Signal Delay:	0.3
Intersection LOS:	A
Intersection Capacity Utilization	34.4%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 11: W Main St & Butler St





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		↗	↖	↗		
Volume (vph)	0	514	389	513	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected			0.950			
Satd. Flow (prot)	0	1611	1770	1863	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1611	1770	1863	0	0
Right Turn on Red		Yes	Yes			Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	491			409	819	
Travel Time (s)	11.2			9.3	18.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	0	581	440	580	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	581	440	580	0	0
Turn Type		custom	Perm			
Protected Phases				8		
Permitted Phases		4	8			
Detector Phase		4	8	8		
Switch Phase						
Minimum Initial (s)		4.0	4.0	4.0		
Minimum Split (s)		22.0	22.0	22.0		
Total Split (s)	0.0	60.0	60.0	60.0	0.0	0.0
Total Split (%)	0.0%	100.0%	100.0%	100.0%	0.0%	0.0%
Maximum Green (s)		56.0	56.0	56.0		
Yellow Time (s)		3.5	3.5	3.5		
All-Red Time (s)		0.5	0.5	0.5		
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0	3.0		
Recall Mode		None	None	None		
Walk Time (s)		7.0	7.0	7.0		
Flash Dont Walk (s)		11.0	11.0	11.0		
Pedestrian Calls (#/hr)		0	0	0		
Act Effect Green (s)		60.0	60.0	60.0		
Actuated g/C Ratio		1.00	1.00	1.00		
v/c Ratio		0.36	0.25	0.31		
Control Delay		0.6	0.3	0.4		
Queue Delay		0.0	0.0	0.0		
Total Delay		0.6	0.3	0.4		
LOS		A	A	A		
Approach Delay				0.4		
Approach LOS				A		

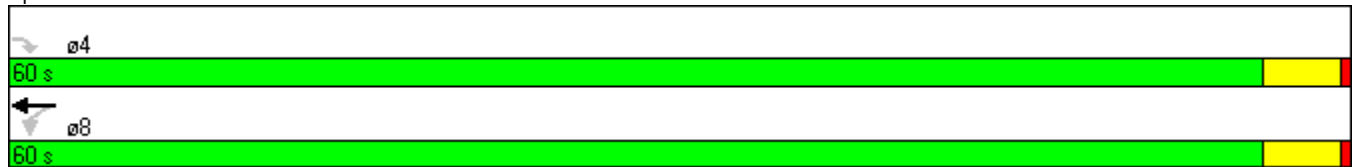


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)		0	0	0		
Queue Length 95th (ft)		0	0	0		
Internal Link Dist (ft)	411			329	739	
Turn Bay Length (ft)						
Base Capacity (vph)		1611	1770	1863		
Starvation Cap Reductn		0	0	0		
Spillback Cap Reductn		0	0	0		
Storage Cap Reductn		0	0	0		
Reduced v/c Ratio		0.36	0.25	0.31		

**Intersection Summary**




















Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2: and 6:, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.36
Intersection Signal Delay:	0.5
Intersection LOS:	A
Intersection Capacity Utilization	62.2%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 12: W Main St & Cook St



City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
13: Cook St & Hanover St

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	233	0	129	362	214	162	0	143	40	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0			0	0		0
Storage Lanes	1		1	1		1	0		1	0		0
Taper Length (ft)	25		25	25		25	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
Fr <sub>t</sub>			0.850			0.850			0.850			
Fl <sub>t</sub> Protected	0.950			0.950								
Satd. Flow (prot)	1770	0	1583	1770	1863	1583	0	1863	1583	0	0	0
Fl <sub>t</sub> Permitted	0.608			0.950								
Satd. Flow (perm)	1133	0	1583	1770	1863	1583	0	1863	1583	0	0	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			146	409		183			45			
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		367			819			340			505	
Travel Time (s)		8.3			18.6			9.3			11.5	
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	263	0	146	409	242	183	0	162	45	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	0	146	409	242	183	0	162	45	0	0	0
Turn Type	custom		custom	Perm		Perm			Perm			
Protected Phases					6			4				
Permitted Phases	2		2	6		6			4			
Detector Phase	2		2	6	6	6		4	4			
Switch Phase												
Minimum Initial (s)	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		22.0	22.0			
Total Split (s)	36.0	0.0	36.0	36.0	36.0	36.0	0.0	24.0	24.0	0.0	0.0	0.0
Total Split (%)	60.0%	0.0%	60.0%	60.0%	60.0%	60.0%	0.0%	40.0%	40.0%	0.0%	0.0%	0.0%
Maximum Green (s)	32.0		32.0	32.0	32.0	32.0		20.0	20.0			
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5		3.5	3.5			
All-Red Time (s)	0.5		0.5	0.5	0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0	3.0			
Recall Mode	C-Max		C-Max	C-Max	C-Max	C-Max		None	None			
Walk Time (s)	7.0		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	11.0			
Pedestrian Calls (#/hr)	0		0	0	0	0		0	0			
Act Effect Green (s)	44.4		44.4	44.4	44.4	44.4		10.5	10.5			
Actuated g/C Ratio	0.74		0.74	0.74	0.74	0.74		0.18	0.18			
v/c Ratio	0.31		0.12	0.29	0.18	0.15		0.50	0.14			
Control Delay	5.5		1.2	1.1	4.1	1.1		26.9	8.0			
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0	0.0			
Total Delay	5.5		1.2	1.1	4.1	1.1		26.9	8.0			



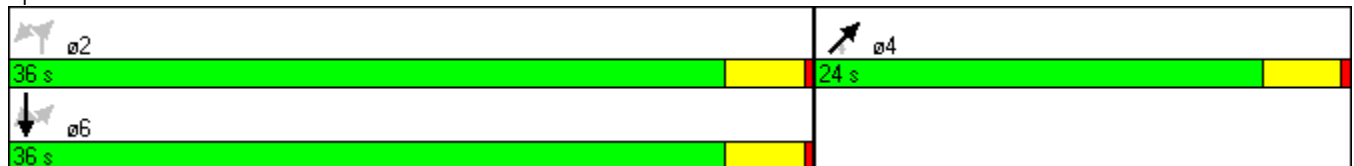


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
LOS	A		A	A	A	A		C	A			
Approach Delay					2.0			22.8				
Approach LOS					A			C				
Queue Length 50th (ft)	30		0	0	24	0		54	0			
Queue Length 95th (ft)	78		15	25	58	17		95	21			
Internal Link Dist (ft)		287			739			260			425	
Turn Bay Length (ft)			200									
Base Capacity (vph)	838		1209	1416	1379	1219		621	558			
Starvation Cap Reductn	0		0	0	0	0		0	0			
Spillback Cap Reductn	0		0	0	0	0		0	0			
Storage Cap Reductn	0		0	0	0	0		0	0			
Reduced v/c Ratio	0.31		0.12	0.29	0.18	0.15		0.26	0.08			

**Intersection Summary**

















Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	5.5
Intersection LOS:	A
Intersection Capacity Utilization:	47.0%
ICU Level of Service:	A
Analysis Period (min):	15













Splits and Phases: 13: Cook St & Hanover St



City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
14: Butler St & Hanover St

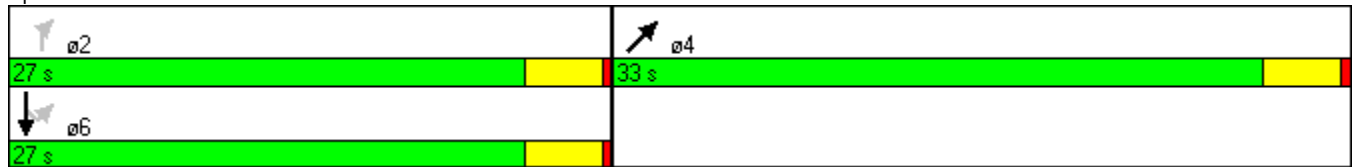
												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations								 				
Volume (vph)	0	0	43	88	37	0	0	765	30	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Fr't			0.865					0.994				
Flt Protected					0.966							
Satd. Flow (prot)	0	0	1611	0	1799	0	0	3518	0	0	0	0
Flt Permitted					0.966							
Satd. Flow (perm)	0	0	1611	0	1799	0	0	3518	0	0	0	0
Right Turn on Red			Yes	Yes		Yes			Yes			Yes
Satd. Flow (RTOR)			102		99			9				
Link Speed (mph)		25			30			30				30
Link Distance (ft)		180			611			505				369
Travel Time (s)		4.9			13.9			11.5				8.4
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	0	0	49	99	42	0	0	865	34	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	49	0	141	0	0	899	0	0	0	0
Turn Type			custom	Perm								
Protected Phases					6			4				
Permitted Phases			2	6								
Detector Phase			2	6	6			4				
Switch Phase												
Minimum Initial (s)			4.0	4.0	4.0			4.0				
Minimum Split (s)			22.0	22.0	22.0			22.0				
Total Split (s)	0.0	0.0	27.0	27.0	27.0	0.0	0.0	33.0	0.0	0.0	0.0	0.0
Total Split (%)	0.0%	0.0%	45.0%	45.0%	45.0%	0.0%	0.0%	55.0%	0.0%	0.0%	0.0%	0.0%
Maximum Green (s)			23.0	23.0	23.0			29.0				
Yellow Time (s)			3.5	3.5	3.5			3.5				
All-Red Time (s)			0.5	0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)			3.0	3.0	3.0			3.0				
Recall Mode			C-Max	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 Effect Green (s)			28.8		28.8			23.2				
Actuated g/C Ratio			0.48		0.48			0.39				
v/c Ratio			0.06		0.15			0.66				
Control Delay			0.9		5.0			17.5				
Queue Delay			0.0		0.0			0.0				
Total Delay			0.9		5.0			17.5				
LOS			A		A			B				
Approach Delay					5.0			17.5				
Approach LOS					A			B				

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Queue Length 50th (ft)			0		8			120				
Queue Length 95th (ft)			5		39			138				
Internal Link Dist (ft)		100			531			425			289	
Turn Bay Length (ft)												
Base Capacity (vph)			825		914			1705				
Starvation Cap Reductn			0		0			0				
Spillback Cap Reductn			0		0			0				
Storage Cap Reductn			0		0			0				
Reduced v/c Ratio			0.06		0.15			0.53				

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBR and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	15.2
Intersection LOS:	B
Intersection Capacity Utilization:	43.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 14: Butler St & Hanover St



City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
15: W Main St & Linsley Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	188	369	31	15	480	82	65	146	8	102	162	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	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		0.988			0.978			0.992			0.929	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1840	0	1770	1822	0	1770	1848	0	1770	1730	0
Flt Permitted	0.222			0.370			0.485			0.647		
Satd. Flow (perm)	414	1840	0	689	1822	0	903	1848	0	1205	1730	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			24			8			124	
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		343			491			383			555	
Travel Time (s)		9.4			11.2			8.7			12.6	
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	213	417	35	17	543	93	73	165	9	115	183	164
Shared Lane Traffic (%)												
Lane Group Flow (vph)	213	452	0	17	636	0	73	174	0	115	347	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.41	0.41		0.41	0.41		0.41	0.41		0.41	0.41	
v/c Ratio	1.26	0.59		0.06	0.84		0.20	0.23		0.23	0.44	
Control Delay	178.9	13.9		8.7	24.6		10.1	9.1		10.1	8.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	178.9	13.9		8.7	24.6		10.1	9.1		10.1	8.0	
LOS	F	B		A	C		B	A		B	A	
Approach Delay		66.7			24.2			9.4			8.5	
Approach LOS		E			C			A			A	
Queue Length 50th (ft)	~71	81		2	129		11	25		18	36	
Queue Length 95th (ft)	#168	150		11	#295		31	55		44	82	





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	480	39	10	541	36	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.990				0.971	
Flt Protected				0.999	0.962	
Satd. Flow (prot)	1844	0	0	3536	1740	0
Flt Permitted				0.999	0.962	
Satd. Flow (perm)	1844	0	0	3536	1740	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			398	522	
Travel Time (s)	12.0			9.0	11.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	543	44	11	612	41	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	587	0	0	623	52	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.7%
Analysis Period (min)	15
	ICU Level of Service A

City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
20: E Main St & Catlin St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	88	380	25	176	12	339	37	4	16	53	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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		0.878			0.992			0.998			0.953	
Flt Protected	0.950				0.994			0.957			0.992	
Satd. Flow (prot)	1770	1635	0	0	1837	0	0	1779	0	0	1761	0
Flt Permitted	0.950				0.994			0.957			0.992	
Satd. Flow (perm)	1770	1635	0	0	1837	0	0	1779	0	0	1761	0
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		398			284			209			363	
Travel Time (s)		9.0			7.7			4.8			8.3	
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	17	99	430	28	199	14	383	42	5	18	60	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	17	529	0	0	241	0	0	430	0	0	119	0
Sign Control		Free			Stop			Free			Stop	

Intersection Summary

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	712	35	53	752	70
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.870		0.919			
Flt Protected	0.998					0.956
Satd. Flow (prot)	1617	0	1712	0	0	1781
Flt Permitted	0.998					0.956
Satd. Flow (perm)	1617	0	1712	0	0	1781
Link Speed (mph)	30		30			30
Link Distance (ft)	467		516			209
Travel Time (s)	10.6		11.7			4.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	28	805	40	60	850	79
Shared Lane Traffic (%)						
Lane Group Flow (vph)	833	0	100	0	0	929
Sign Control	Free		Stop			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	107.7%
Analysis Period (min)	15
	ICU Level of Service G





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	536	28	12	400	14	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.902	
Flt Protected				0.999	0.986	
Satd. Flow (prot)	1850	0	0	1861	1657	0
Flt Permitted				0.999	0.986	
Satd. Flow (perm)	1850	0	0	1861	1657	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	467			360	419	
Travel Time (s)	10.6			8.2	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	606	32	14	452	16	42
Shared Lane Traffic (%)						
Lane Group Flow (vph)	638	0	0	466	58	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.0% ICU Level of Service A
Analysis Period (min)	15



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	5	15	298	15	30	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.900		0.993			
Flt Protected	0.987					0.993
Satd. Flow (prot)	1655	0	3514	0	0	3514
Flt Permitted	0.987					0.993
Satd. Flow (perm)	1655	0	3514	0	0	3514
Link Speed (mph)	30		30			30
Link Distance (ft)	223		538			291
Travel Time (s)	5.1		12.2			6.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	6	17	337	17	34	192
Shared Lane Traffic (%)						
Lane Group Flow (vph)	23	0	354	0	0	226
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.2%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	68	24	19	45	273	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.965				0.975	
Flt Protected	0.964			0.986		
Satd. Flow (prot)	1733	0	0	1837	1816	0
Flt Permitted	0.964			0.986		
Satd. Flow (perm)	1733	0	0	1837	1816	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	216			775	426	
Travel Time (s)	4.9			17.6	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	77	27	21	51	309	71
Shared Lane Traffic (%)						
Lane Group Flow (vph)	104	0	0	72	380	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.0%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	61	30	0	213	256	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.955					
Flt Protected	0.968					
Satd. Flow (prot)	1722	0	0	1863	1863	0
Flt Permitted	0.968					
Satd. Flow (perm)	1722	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	287			241	561	
Travel Time (s)	6.5			5.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	69	34	0	241	289	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	0	241	289	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	26.1%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Volume (vph)	0	0	14	287	281	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.974	
Flt Protected				0.998		
Satd. Flow (prot)	0	0	0	1859	1814	0
Flt Permitted				0.998		
Satd. Flow (perm)	0	0	0	1859	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			561	152	
Travel Time (s)	6.1			12.8	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	0	0	16	324	318	77
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	340	395	0
Sign Control	Free			Free	Free	

**Intersection Summary**










Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.9% ICU Level of Service A
Analysis Period (min)	15



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	0	0	240	50	10	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.977			
Flt Protected						0.998
Satd. Flow (prot)	1863	0	1820	0	0	1859
Flt Permitted						0.998
Satd. Flow (perm)	1863	0	1820	0	0	1859
Link Speed (mph)	30		30			30
Link Distance (ft)	402		246			308
Travel Time (s)	9.1		5.6			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	261	54	11	283
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	315	0	0	294
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	25.1%
Analysis Period (min)	15
	ICU Level of Service A

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	126	188	167	101	156	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.919		0.949			
Flt Protected	0.980					0.978
Satd. Flow (prot)	1678	0	1768	0	0	1822
Flt Permitted	0.980					0.690
Satd. Flow (perm)	1678	0	1768	0	0	1285
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	208		84			
Link Speed (mph)	30		30			30
Link Distance (ft)	320		176			220
Travel Time (s)	7.3		4.0			5.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	142	213	189	114	176	214
Shared Lane Traffic (%)						
Lane Group Flow (vph)	355	0	303	0	0	390
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.44		0.39			0.74
Control Delay	6.0		12.0			23.0
Queue Delay	0.0		0.0			0.0
Total Delay	6.0		12.0			23.0
LOS	A		B			C
Approach Delay	6.0		12.0			23.0
Approach LOS	A		B			C
Queue Length 50th (ft)	22		58			78
Queue Length 95th (ft)	65		115			#197
Internal Link Dist (ft)	240		96			140
Turn Bay Length (ft)						
Base Capacity (vph)	809		773			526

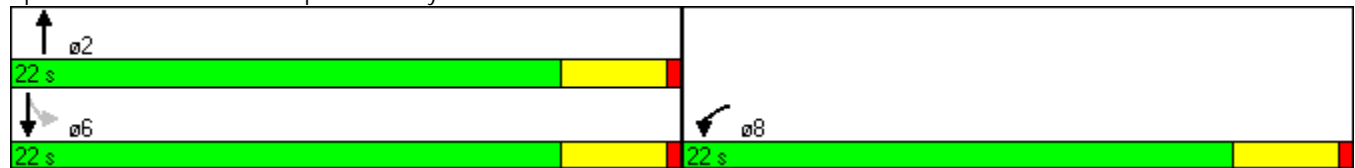


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.44		0.39			0.74

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 14.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 64.1%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 46: Camp St & Colony St







Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	66	25	224	56	13	278
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963		0.973			
Flt Protected	0.965					0.998
Satd. Flow (prot)	1731	0	1812	0	0	1859
Flt Permitted	0.965					0.981
Satd. Flow (perm)	1731	0	1812	0	0	1827
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	28		34			
Link Speed (mph)	30		30			30
Link Distance (ft)	265		152			414
Travel Time (s)	6.0		3.5			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	75	28	253	63	15	314
Shared Lane Traffic (%)						
Lane Group Flow (vph)	103	0	316	0	0	329
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.14		0.42			0.44
Control Delay	5.5		10.3			12.6
Queue Delay	0.0		0.0			0.0
Total Delay	5.5		10.3			12.6
LOS	A		B			B
Approach Delay	5.5		10.3			12.6
Approach LOS	A		B			B
Queue Length 50th (ft)	7		47			73
Queue Length 95th (ft)	24		94			m106
Internal Link Dist (ft)	185		72			334
Turn Bay Length (ft)						
Base Capacity (vph)	725		761			747

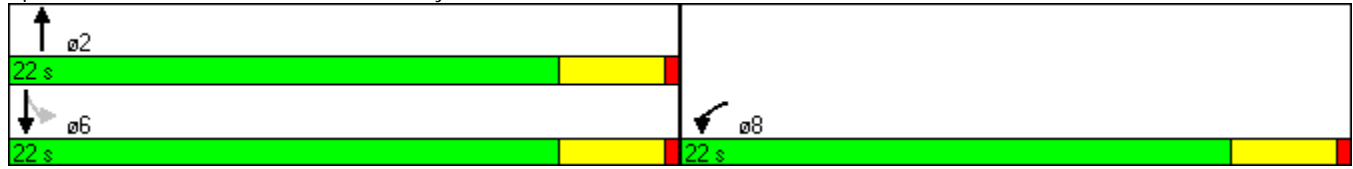


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.14		0.42			0.44

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.44  
 Intersection Signal Delay: 10.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 38.3%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 47: Brooks St & Colony St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Volume (vph)	86	141	43	66	132	3	68	68	43	17	191	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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			0.850		0.998			0.967			0.954	
Flt Protected		0.981			0.984			0.981			0.997	
Satd. Flow (prot)	0	1827	1583	0	1829	0	0	1767	0	0	1772	0
Flt Permitted		0.981			0.984			0.981			0.997	
Satd. Flow (perm)	0	1827	1583	0	1829	0	0	1767	0	0	1772	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		406			514			452			325	
Travel Time (s)		9.2			11.7			10.3			7.4	
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	97	159	49	75	149	3	77	77	49	19	216	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	256	49	0	227	0	0	203	0	0	356	0
Sign Control		Free			Stop			Stop			Stop	

**Intersection Summary**

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 65.8% ICU Level of Service C

Analysis Period (min) 15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	31	31	0	249	260	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	0	1863	1863	0
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			414	246	
Travel Time (s)	6.4			9.4	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	35	35	0	281	294	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	70	0	0	281	294	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	24.7%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	30	30	0	170	330	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1694	0	0	1863	1863	0
Flt Permitted	0.976					
Satd. Flow (perm)	1694	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	214			229	212	
Travel Time (s)	4.9			5.2	4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	0	185	359	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	66	0	0	185	359	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	27.5%
ICU Level of Service	A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	10	10	10	240	260	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.995	
Flt Protected	0.976			0.998		
Satd. Flow (prot)	1694	0	0	1859	1853	0
Flt Permitted	0.976			0.998		
Satd. Flow (perm)	1694	0	0	1859	1853	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	378			308	176	
Travel Time (s)	8.6			7.0	4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	11	11	11	271	294	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	282	305	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	31.6%
Analysis Period (min)	15
	ICU Level of Service A

City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
60: Cedar St & Pratt St



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕			↕			↕↕			↕↕	
Volume (vph)	13	0	11	16	6	16	16	305	0	0	268	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	0.95
Frt		0.940			0.943						0.988	
Flt Protected		0.973			0.979			0.998				
Satd. Flow (prot)	0	1704	0	0	1720	0	0	3532	0	0	3497	0
Flt Permitted		0.906			0.925			0.934				
Satd. Flow (perm)	0	1586	0	0	1625	0	0	3306	0	0	3497	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			18						25	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		206			172			255			669	
Travel Time (s)		4.7			3.9			5.8			15.2	
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	15	0	12	18	7	18	18	345	0	0	303	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	43	0	0	363	0	0	330	0
Turn Type	Perm			Perm			Perm					
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4					
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0			22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	0.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0			18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5			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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	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			11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0			0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.41			0.41			0.41			0.41	
v/c Ratio		0.04			0.06			0.27			0.23	
Control Delay		6.3			6.1			4.3			7.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.3			6.1			4.3			7.6	
LOS		A			A			A			A	
Approach Delay		6.3			6.1			4.3			7.6	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		2			4			10			18	
Queue Length 95th (ft)		12			16			17			42	
Internal Link Dist (ft)		126			92			175			589	
Turn Bay Length (ft)												
Base Capacity (vph)		656			675			1352			1445	

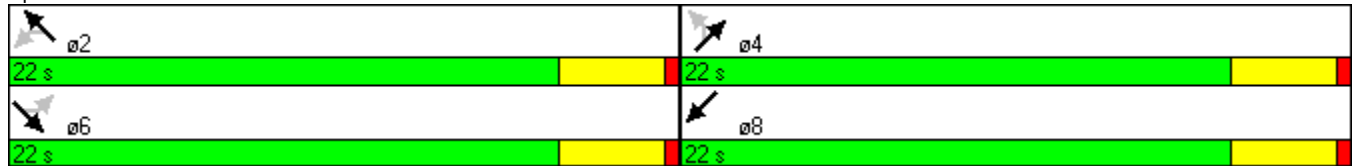


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.04			0.06			0.27			0.23	

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.27
Intersection Signal Delay:	5.9
Intersection LOS:	A
Intersection Capacity Utilization	31.1%
ICU Level of Service	A
Analysis Period (min)	15

















Splits and Phases: 60: Cedar St & Pratt St





City Of Meriden  
2015 No Improvements - PM Peak

Lanes, Volumes, Timings  
61: Center St & Pratt St

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	33	203	60	27	111	76	120	208	35	42	179	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.952			0.985			0.979	
Flt Protected		0.994			0.994			0.984			0.992	
Satd. Flow (prot)	0	1802	0	0	1763	0	0	3430	0	0	3437	0
Flt Permitted		0.950			0.936			0.767			0.859	
Satd. Flow (perm)	0	1722	0	0	1660	0	0	2674	0	0	2976	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			76			31			40	
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		393			533			669			338	
Travel Time (s)		8.9			12.1			15.2			9.2	
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	37	229	68	31	125	86	136	235	40	47	202	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	334	0	0	242	0	0	411	0	0	289	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		18.0			18.0			18.0			18.0	
Actuated g/C Ratio		0.41			0.41			0.41			0.41	
v/c Ratio		0.46			0.33			0.37			0.23	
Control Delay		11.0			7.6			16.9			7.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			7.6			16.9			7.9	
LOS		B			A			B			A	
Approach Delay		11.0			7.6			16.9			7.9	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)		50			26			48			20	
Queue Length 95th (ft)		102			62			78			38	
Internal Link Dist (ft)		313			453			589			258	
Turn Bay Length (ft)												
Base Capacity (vph)		725			724			1112			1241	

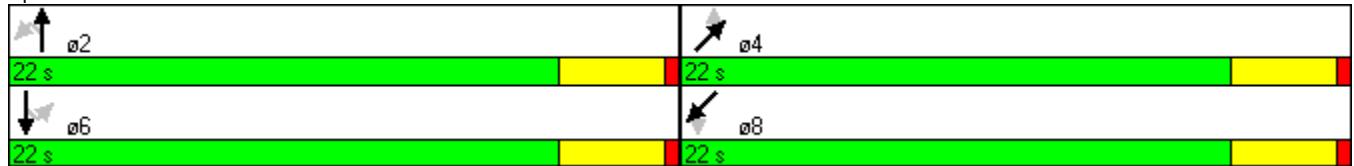


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.46			0.33			0.37			0.23	

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	11.6
Intersection LOS:	B
Intersection Capacity Utilization	50.0%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 61: Center St & Pratt St





Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	29	7	285	24	6	171
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.974		0.988			
Flt Protected	0.961					0.998
Satd. Flow (prot)	1744	0	3497	0	0	3532
Flt Permitted	0.961					0.998
Satd. Flow (perm)	1744	0	3497	0	0	3532
Link Speed (mph)	30		30			30
Link Distance (ft)	313		291			501
Travel Time (s)	7.1		6.6			11.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	33	8	322	27	7	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	41	0	349	0	0	200
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	19.5% ICU Level of Service A
Analysis Period (min)	15



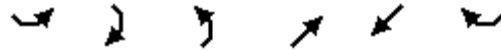
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	12	0	7	54	0	26	12	91	26	61	274	7
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951			0.956			0.973			0.997	
Flt Protected		0.969			0.967			0.995			0.991	
Satd. Flow (prot)	0	1717	0	0	1722	0	0	1803	0	0	1840	0
Flt Permitted		0.969			0.967			0.995			0.991	
Satd. Flow (perm)	0	1717	0	0	1722	0	0	1803	0	0	1840	0
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		121			466			426			229	
Travel Time (s)		3.3			10.6			9.7			5.2	
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	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	14	0	8	61	0	29	14	103	29	69	310	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	22	0	0	90	0	0	146	0	0	387	0
Sign Control		Stop			Stop			Free			Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.0%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	28	74	61	303	222	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.902				0.971	
Flt Protected	0.986			0.992		
Satd. Flow (prot)	1657	0	0	3511	3437	0
Flt Permitted	0.986			0.858		
Satd. Flow (perm)	1657	0	0	3037	3437	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	84				61	
Link Speed (mph)	30			30	30	
Link Distance (ft)	317			501	255	
Travel Time (s)	7.2			11.4	5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	32	84	69	343	251	61
Shared Lane Traffic (%)						
Lane Group Flow (vph)	116	0	0	412	312	0
Turn Type			Perm			
Protected Phases	6			4	8	
Permitted Phases			4			
Minimum Split (s)	22.0		22.0	22.0	22.0	
Total Split (s)	22.0	0.0	22.0	22.0	22.0	0.0
Total Split (%)	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0		18.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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 Effect Green (s)	18.0			18.0	18.0	
Actuated g/C Ratio	0.41			0.41	0.41	
v/c Ratio	0.16			0.33	0.22	
Control Delay	6.0			9.8	6.6	
Queue Delay	0.0			0.0	0.0	
Total Delay	6.0			9.8	6.6	
LOS	A			A	A	
Approach Delay	6.0			9.8	6.6	
Approach LOS	A			A	A	
Queue Length 50th (ft)	12			34	0	
Queue Length 95th (ft)	39			59	21	
Internal Link Dist (ft)	237			421	175	
Turn Bay Length (ft)						
Base Capacity (vph)	728			1242	1442	

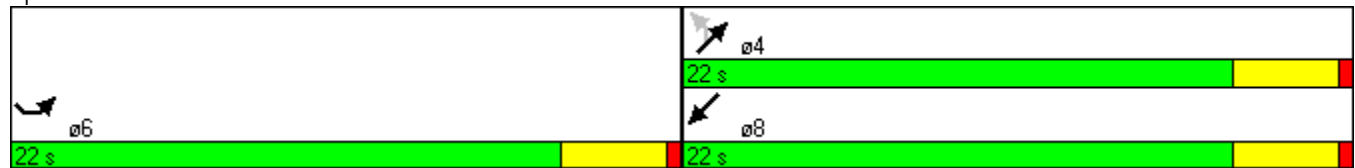











Lane Group	SEL	SER	NEL	NET	SWT	SWR
Starvation Cap Reductn	0			0	0	
Spillback Cap Reductn	0			0	0	
Storage Cap Reductn	0			0	0	
Reduced v/c Ratio	0.16			0.33	0.22	

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2: and 6:SEL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.33
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	35.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 67: Mill St & Pratt St



						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	19	20	163	19	19	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.929		0.986			
Flt Protected	0.977					0.997
Satd. Flow (prot)	1691	0	1837	0	0	1857
Flt Permitted	0.977					0.976
Satd. Flow (perm)	1691	0	1837	0	0	1818
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	23		16			
Link Speed (mph)	25		30			30
Link Distance (ft)	433		212			452
Travel Time (s)	11.8		4.8			10.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	104%	104%	104%	104%	104%	104%
Adj. Flow (vph)	21	23	184	21	21	292
Shared Lane Traffic (%)						
Lane Group Flow (vph)	44	0	205	0	0	313
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.06		0.27			0.42
Control Delay	5.6		9.1			12.1
Queue Delay	0.0		0.0			0.0
Total Delay	5.6		9.1			12.1
LOS	A		A			B
Approach Delay	5.6		9.1			12.1
Approach LOS	A		A			B
Queue Length 50th (ft)	3		29			58
Queue Length 95th (ft)	16		62			m108
Internal Link Dist (ft)	353		132			372
Turn Bay Length (ft)						
Base Capacity (vph)	705		761			744

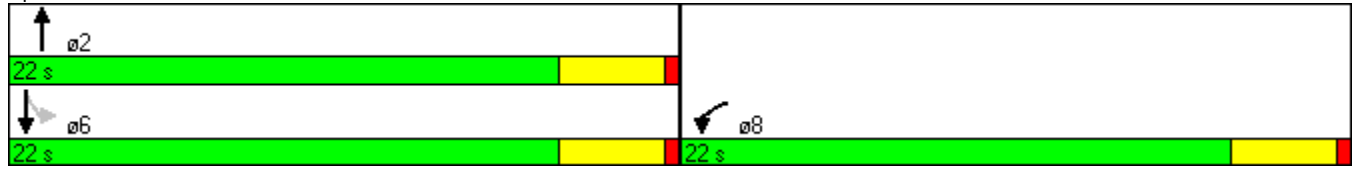


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Starvation Cap Reductn	0		0			0
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.06		0.27			0.42

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.42  
 Intersection Signal Delay: 10.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 38.7%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 79: Park St & State St

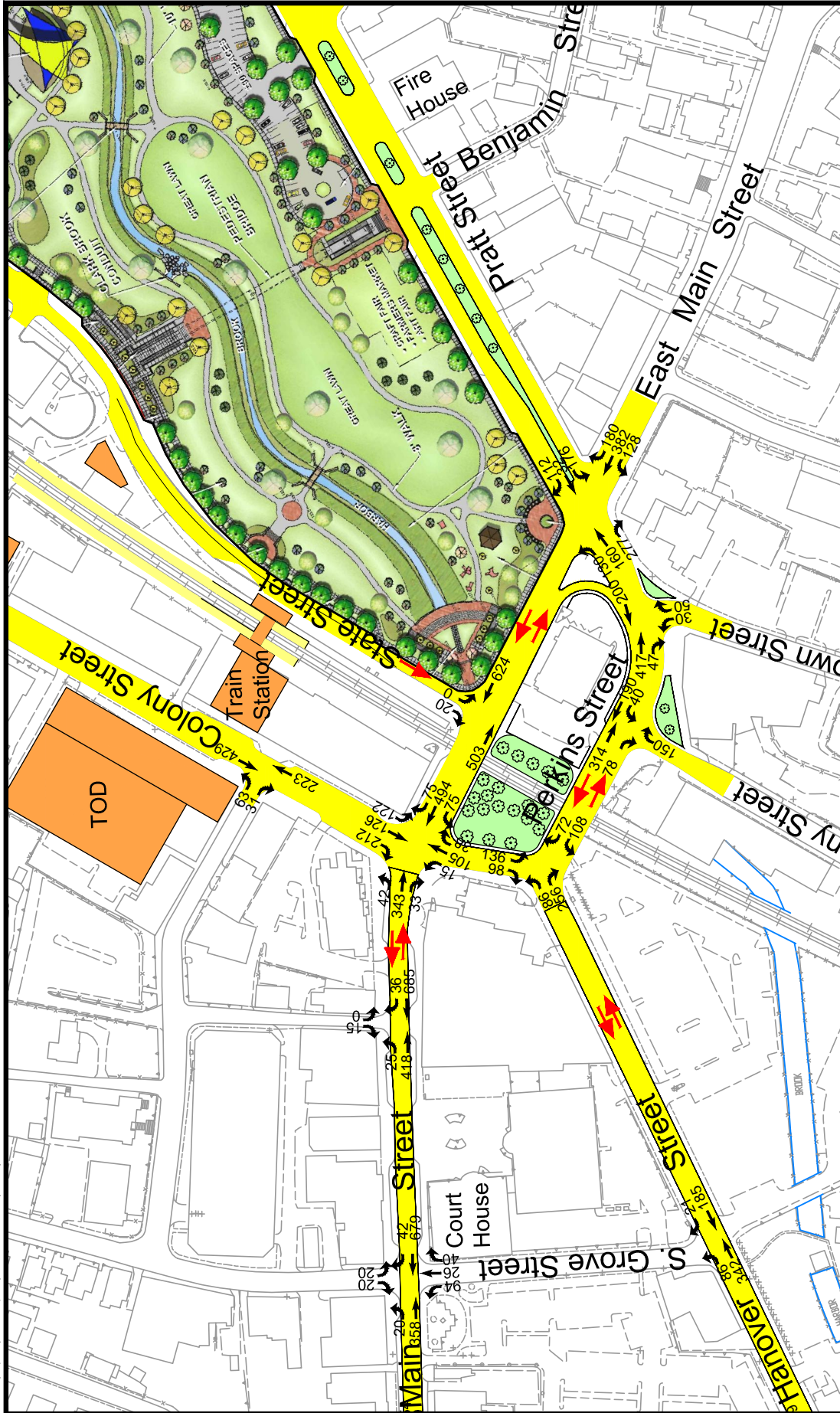




# **MERIDEN TOD STUDY**

## **APPANDIX A CAPACITY ANALYSIS**

**2015 FULL BUILD PM PEAK PERIOD**



2015 FULL BUILD TRAFFIC VOLUMES  
WEEKDAY PM PEAK

TRANSPORTATION ORIENTED  
DEVELOPMENT  
Meriden, Connecticut



Not to Scale

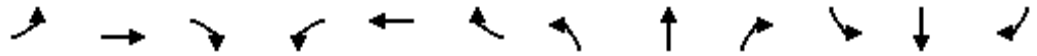
City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
1: W Main St & Colony St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↖	↗			↖	↗	↖	↗	
Volume (vph)	42	343	33	75	494	75	15	105	38	122	126	212
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		100
Storage Lanes	0		0	1		0	0		1	1		0
Taper Length (ft)	25		25	25		25	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		0.989			0.980				0.850		0.906	
Flt Protected		0.995		0.950				0.994		0.950		
Satd. Flow (prot)	0	1833	0	1770	1825	0	0	1852	1583	1770	1688	0
Flt Permitted		0.912		0.496				0.815		0.669		
Satd. Flow (perm)	0	1680	0	924	1825	0	0	1518	1583	1246	1688	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			10				41		114	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		242			223			197			241	
Travel Time (s)		5.5			5.1			4.5			5.5	
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
Adj. Flow (vph)	46	373	36	82	537	82	16	114	41	133	137	230
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	455	0	82	619	0	0	130	41	133	367	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4		4	8		
Detector Phase	2	2		6	6		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	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		14.0	14.0	14.0	14.0	14.0	
Total Split (s)	21.0	21.0	0.0	21.0	21.0	0.0	21.0	21.0	21.0	21.0	21.0	0.0
Total Split (%)	30.0%	30.0%	0.0%	30.0%	30.0%	0.0%	30.0%	30.0%	30.0%	30.0%	30.0%	0.0%
Maximum Green (s)	17.0	17.0		17.0	17.0		17.0	17.0	17.0	17.0	17.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max		Max	Max	Max	Max	Max	
Walk Time (s)	7.0	7.0		7.0	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	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0	0	0	
Act Effect Green (s)		45.0		45.0	45.0			17.0	17.0	17.0	17.0	
Actuated g/C Ratio		0.64		0.64	0.64			0.24	0.24	0.24	0.24	
v/c Ratio		0.42		0.14	0.53			0.35	0.10	0.44	0.74	
Control Delay		5.9		3.3	5.9			25.2	8.2	27.9	27.5	
Queue Delay		0.0		0.0	0.3			2.5	0.0	0.0	0.0	
Total Delay		5.9		3.3	6.2			27.7	8.2	27.9	27.5	
LOS		A		A	A			C	A	C	C	

Lane Group	ø9
Lane Configurations	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	28.0
Total Split (%)	40%
Maximum Green (s)	24.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	

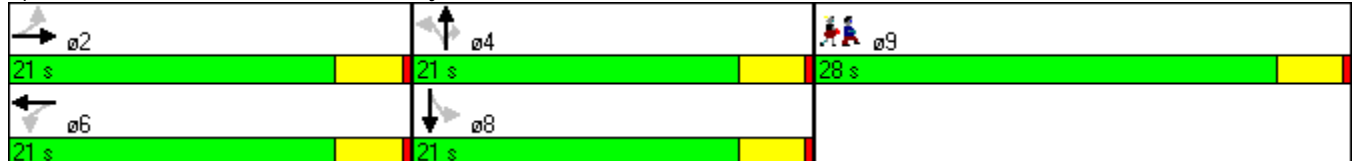


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		5.9			5.8			23.0				27.6
Approach LOS		A			A			C				C
Queue Length 50th (ft)		85		9	111			46	0	49		99
Queue Length 95th (ft)		88		18	171			93	22	98		#221
Internal Link Dist (ft)		162			143			117				161
Turn Bay Length (ft)												
Base Capacity (vph)		1082		594	1177			369	415	303		496
Starvation Cap Reductn		0		0	148			145	0	0		0
Spillback Cap Reductn		0		0	0			0	0	0		0
Storage Cap Reductn		0		0	0			0	0	0		0
Reduced v/c Ratio		0.42		0.14	0.60			0.58	0.10	0.44		0.74

Intersection Summary

Area Type: Other  
 Cycle Length: 70  
 Actuated Cycle Length: 70  
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection  
 Natural Cycle: 60  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.74  
 Intersection Signal Delay: 13.4  
 Intersection LOS: B  
 Intersection Capacity Utilization 81.8%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

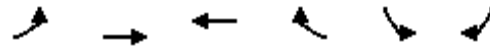
Splits and Phases: 1: W Main St & Colony St



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Lane Group	ø9
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

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Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Volume (vph)	0	503	624	0	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt					0.865	
Flt Protected						
Satd. Flow (prot)	0	3539	3539	0	1611	0
Flt Permitted						
Satd. Flow (perm)	0	3539	3539	0	1611	0
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)					364	
Link Speed (mph)		30	30		30	
Link Distance (ft)		223	327		217	
Travel Time (s)		5.1	7.4		4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	547	678	0	0	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	547	678	0	22	0
Turn Type						
Protected Phases		2	6			
Permitted Phases					4	
Detector Phase		2	6		4	
Switch Phase						
Minimum Initial (s)		4.0	4.0		4.0	
Minimum Split (s)		22.0	12.0		12.0	
Total Split (s)	0.0	60.0	60.0	0.0	10.0	0.0
Total Split (%)	0.0%	85.7%	85.7%	0.0%	14.3%	0.0%
Maximum Green (s)		56.0	56.0		6.0	
Yellow Time (s)		3.5	3.5		3.5	
All-Red Time (s)		0.5	0.5		0.5	
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		3.0	3.0		3.0	
Recall Mode		C-Max	Max		Max	
Walk Time (s)		7.0	7.0		7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0	0		0	
Act Effct Green (s)		56.0	56.0		6.0	
Actuated g/C Ratio		0.80	0.80		0.09	
v/c Ratio		0.19	0.24		0.05	
Control Delay		0.9	1.7		0.2	
Queue Delay		0.3	0.2		0.0	
Total Delay		1.2	1.8		0.2	
LOS		A	A		A	
Approach Delay		1.2	1.8		0.2	
Approach LOS		A	A		A	
Queue Length 50th (ft)		3	15		0	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Queue Length 95th (ft)		3	15		0	
Internal Link Dist (ft)		143	247		137	
Turn Bay Length (ft)						
Base Capacity (vph)		2831	2831		471	
Starvation Cap Reductn		1620	1190		0	
Spillback Cap Reductn		0	78		8	
Storage Cap Reductn		0	0		0	
Reduced v/c Ratio		0.45	0.41		0.05	

**Intersection Summary**

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	30 (43%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.24
Intersection Signal Delay:	1.5
Intersection LOS:	A
Intersection Capacity Utilization	27.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 2: E Main St & State St







Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	25	418	685	36	0	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.993		0.865	
Flt Protected		0.997				
Satd. Flow (prot)	0	1857	1850	0	1611	0
Flt Permitted		0.997				
Satd. Flow (perm)	0	1857	1850	0	1611	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		377	242		181	
Travel Time (s)		8.6	5.5		4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	454	745	39	0	16
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	481	784	0	16	0
Sign Control		Free	Free		Stop	
<b>Intersection Summary</b>						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	52.5%			ICU Level of Service A		
Analysis Period (min)	15					



Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Volume (vph)	108	72	136	98	86	256
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0	0	200	0
Storage Lanes	1	1	1	0	1	1
Taper Length (ft)	25	25	25	25	25	25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.943			0.850
Flt Protected	0.950		0.972		0.950	
Satd. Flow (prot)	1770	1583	1707	0	1770	1583
Flt Permitted	0.950		0.972		0.950	
Satd. Flow (perm)	1770	1583	1707	0	1770	1583
Right Turn on Red		Yes		Yes		Yes
Satd. Flow (RTOR)		78	57			278
Link Speed (mph)	30		30		30	
Link Distance (ft)	127		197		291	
Travel Time (s)	2.9		4.5		6.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	78	148	107	93	278
Shared Lane Traffic (%)						
Lane Group Flow (vph)	117	78	255	0	93	278
Turn Type		Perm				Perm
Protected Phases	8!		6		4!	
Permitted Phases		8				4
Detector Phase	8	8	6		4	4
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0		4.0	4.0
Minimum Split (s)	22.0	22.0	22.0		22.0	22.0
Total Split (s)	22.0	22.0	28.0	0.0	42.0	42.0
Total Split (%)	31.4%	31.4%	40.0%	0.0%	60.0%	60.0%
Maximum Green (s)	18.0	18.0	24.0		38.0	38.0
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	0.5	0.5	0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0
Recall Mode	None	None	None		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)	7.6	7.6	8.7		7.5	7.5
Actuated g/C Ratio	0.34	0.34	0.39		0.34	0.34
v/c Ratio	0.20	0.13	0.36		0.16	0.39
Control Delay	7.6	2.9	6.2		7.3	3.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	7.6	2.9	6.2		7.3	3.1
LOS	A	A	A		A	A

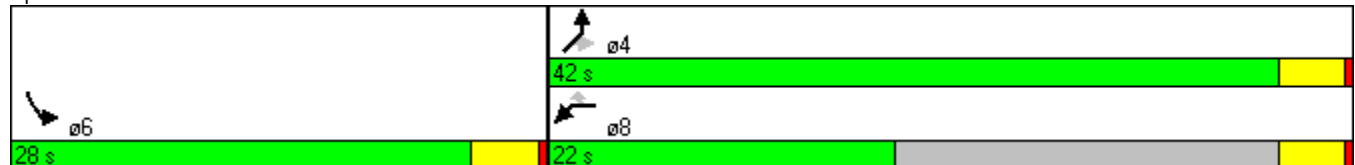


Lane Group	WBL	WBR	SBL	SBR	NEL	NER
Approach Delay	5.7		6.2		4.1	
Approach LOS	A		A		A	
Queue Length 50th (ft)	9	0	14		7	0
Queue Length 95th (ft)	29	12	42		24	23
Internal Link Dist (ft)	47		117		211	
Turn Bay Length (ft)					200	
Base Capacity (vph)	1770	1583	1631		1770	1583
Starvation Cap Reductn	0	0	47		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.07	0.05	0.16		0.05	0.18

**Intersection Summary**

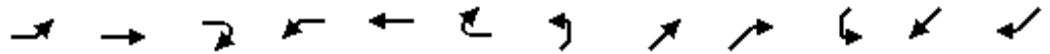
Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	22.3
Natural Cycle:	45
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	5.2
Intersection LOS:	A
Intersection Capacity Utilization	34.3%
ICU Level of Service	A
Analysis Period (min)	15
! Phase conflict between lane groups.	

Splits and Phases: 4: Pratt St & Hanover St



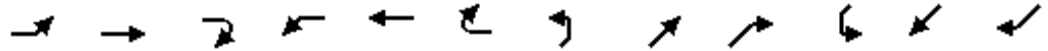
City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
5: E Main St & Pratt St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕	↕		↕↕		↕	↑	↕	↕	↕	
Volume (vph)	140	323	40	128	382	180	130	160	277	176	32	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	200		0
Storage Lanes	0		1	0		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.961				0.850		0.883	
Flt Protected		0.985			0.991		0.950			0.950		
Satd. Flow (prot)	0	1651	1425	0	3034	0	1593	1676	1425	1593	1480	0
Flt Permitted		0.642			0.732		0.637			0.457		
Satd. Flow (perm)	0	1076	1425	0	2241	0	1068	1676	1425	766	1480	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			43		63				301		122	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		327			526			169			538	
Travel Time (s)		7.4			12.0			3.8			12.2	
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
Adj. Flow (vph)	152	351	43	139	415	196	141	174	301	191	35	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	503	43	0	750	0	141	174	301	191	157	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2		2	6			4		4	8		
Detector Phase	2	2	2	6	6		7	4	4	3	8	
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		8.0	22.0	22.0	8.0	22.0	
Total Split (s)	18.0	18.0	18.0	18.0	18.0	0.0	10.0	14.0	14.0	10.0	14.0	0.0
Total Split (%)	25.7%	25.7%	25.7%	25.7%	25.7%	0.0%	14.3%	20.0%	20.0%	14.3%	20.0%	0.0%
Maximum Green (s)	14.0	14.0	14.0	14.0	14.0		6.0	10.0	10.0	6.0	10.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5	0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max		None	Max	Max	None	Max	
Walk Time (s)	7.0	7.0	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	11.0		11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0	0		0	
Act Effect Green (s)		42.0	42.0		42.0		16.0	10.0	10.0	16.8	12.0	
Actuated g/C Ratio		0.60	0.60		0.60		0.23	0.14	0.14	0.24	0.17	
v/c Ratio		0.78	0.05		0.55		0.49	0.73	0.65	0.75	0.44	
Control Delay		17.3	0.8		9.4		26.8	48.6	11.3	42.9	13.5	
Queue Delay		0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay		17.3	0.8		9.4		26.8	48.6	11.3	42.9	13.5	
LOS		B	A		A		C	D	B	D	B	

Lane Group	ø9
Lane Configurations	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	24.0
Total Split (s)	28.0
Total Split (%)	40%
Maximum Green (s)	24.0
Yellow Time (s)	4.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	21.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay		16.0			9.4			25.4			29.7	
Approach LOS		B			A			C			C	
Queue Length 50th (ft)		105	0		81		47	73	0	66	13	
Queue Length 95th (ft)		#329	1		125		92	#163	67	#128	64	
Internal Link Dist (ft)		247			446			89			458	
Turn Bay Length (ft)									100	200		
Base Capacity (vph)		646	872		1370		289	239	462	255	355	
Starvation Cap Reductn		0	0		0		0	0	0	0	0	
Spillback Cap Reductn		0	0		0		0	0	0	0	0	
Storage Cap Reductn		0	0		0		0	0	0	0	0	
Reduced v/c Ratio		0.78	0.05		0.55		0.49	0.73	0.65	0.75	0.44	

**Intersection Summary**

Area Type: CBD  
 Cycle Length: 70  
 Actuated Cycle Length: 70  
 Offset: 69 (99%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 130  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 18.5  
 Intersection LOS: B  
 Intersection Capacity Utilization 83.3%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

**Splits and Phases: 5: E Main St & Pratt St**

ø2	ø3	ø4	ø9
18 s	10 s	14 s	28 s
ø6	ø7	ø8	
18 s	10 s	14 s	

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Lane Group	ø9
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Volume (vph)	314	78	20	180	0	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt	0.970					0.865
Flt Protected				0.995		
Satd. Flow (prot)	3433	0	0	3522	0	1611
Flt Permitted				0.995		
Satd. Flow (perm)	3433	0	0	3522	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	118			165	468	
Travel Time (s)	2.7			3.8	10.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	341	85	22	196	0	163
Shared Lane Traffic (%)						
Lane Group Flow (vph)	426	0	0	218	0	163
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	27.1%
ICU Level of Service	A
Analysis Period (min)	15





Lane Group	EBL	EBR	NBL	NBR	SWL	SWR
Lane Configurations						
Volume (vph)	417	47	30	150	0	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.95	1.00	1.00	1.00	0.88
Frt	0.985			0.850		0.850
Flt Protected	0.957		0.950			
Satd. Flow (prot)	3406	0	1770	1583	0	2787
Flt Permitted	0.957		0.950			
Satd. Flow (perm)	3406	0	1770	1583	0	2787
Link Speed (mph)	30		30		30	
Link Distance (ft)	165		529		169	
Travel Time (s)	3.8		12.0		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	453	51	33	163	0	217
Shared Lane Traffic (%)						
Lane Group Flow (vph)	504	0	33	163	0	217
Sign Control	Free		Stop		Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	23.4%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations				↕	↕	
Volume (vph)	0	0	86	342	185	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.986	
Flt Protected				0.990		
Satd. Flow (prot)	0	0	0	1844	1837	0
Flt Permitted				0.904		
Satd. Flow (perm)	0	0	0	1684	1837	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)						
Link Speed (mph)	30			30	30	
Link Distance (ft)	461			369	332	
Travel Time (s)	10.5			8.4	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	93	372	201	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	465	224	0
Turn Type			Perm			
Protected Phases				2	6	
Permitted Phases			2			
Detector Phase			2	2	6	
Switch Phase						
Minimum Initial (s)			4.0	4.0	4.0	
Minimum Split (s)			22.0	22.0	22.0	
Total Split (s)	0.0	0.0	60.0	60.0	22.0	0.0
Total Split (%)	0.0%	0.0%	100.0%	100.0%	36.7%	0.0%
Maximum Green (s)			56.0	56.0	18.0	
Yellow Time (s)			3.5	3.5	3.5	
All-Red Time (s)			0.5	0.5	0.5	
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)			3.0	3.0	3.0	
Recall Mode			C-Max	C-Max	C-Max	
Walk Time (s)			7.0	7.0	7.0	
Flash Dont Walk (s)			11.0	11.0	11.0	
Pedestrian Calls (#/hr)			0	0	0	
Act Effct Green (s)				60.0	60.0	
Actuated g/C Ratio				1.00	1.00	
v/c Ratio				0.28	0.12	
Control Delay				0.4	0.1	
Queue Delay				0.0	0.0	
Total Delay				0.4	0.1	
LOS				A	A	
Approach Delay				0.4	0.1	
Approach LOS				A	A	
Queue Length 50th (ft)				0	0	

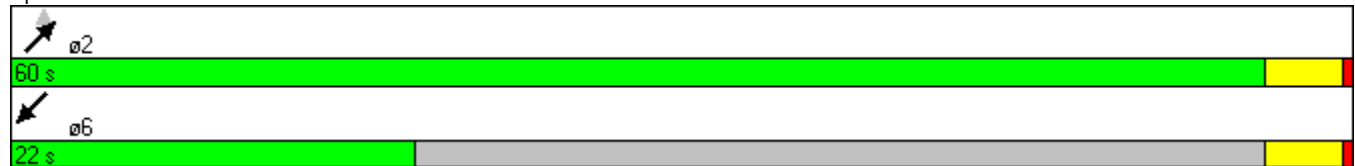


Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Queue Length 95th (ft)				0	0	
Internal Link Dist (ft)	381			289	252	
Turn Bay Length (ft)						
Base Capacity (vph)				1684	1837	
Starvation Cap Reductn				0	0	
Spillback Cap Reductn				0	0	
Storage Cap Reductn				0	0	
Reduced v/c Ratio				0.28	0.12	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NETL and 6:SWT, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.28
Intersection Signal Delay:	0.3
Intersection Capacity Utilization	40.4%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	A

Splits and Phases: 9: S Grove St & Hanover St



City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
10: W Main St &



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	
Volume (vph)	20	358	0	0	679	42	94	26	40	20	0	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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					0.992			0.909			0.932	
Flt Protected		0.997					0.950				0.976	
Satd. Flow (prot)	0	1857	0	0	1848	0	1770	1693	0	0	1694	0
Flt Permitted		0.953					0.728				0.852	
Satd. Flow (perm)	0	1775	0	0	1848	0	1356	1693	0	0	1479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					5			43			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		276			377			461			215	
Travel Time (s)		6.3			8.6			10.5			4.9	
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
Adj. Flow (vph)	22	389	0	0	738	46	102	28	43	22	0	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	0	784	0	102	71	0	0	44	0
Turn Type	Perm						Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2						4			8		
Detector Phase	2	2			6		4	4		8	8	
Switch Phase												
Minimum Initial (s)	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		22.0	22.0	
Total Split (s)	27.0	27.0	0.0	0.0	27.0	0.0	15.0	15.0	0.0	15.0	15.0	0.0
Total Split (%)	38.6%	38.6%	0.0%	0.0%	38.6%	0.0%	21.4%	21.4%	0.0%	21.4%	21.4%	0.0%
Maximum Green (s)	23.0	23.0			23.0		11.0	11.0		11.0	11.0	
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5			0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max			Max		Max	Max		Max	Max	
Walk Time (s)	7.0	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	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		51.0			51.0		11.0	11.0			11.0	
Actuated g/C Ratio		0.73			0.73		0.16	0.16			0.16	
v/c Ratio		0.32			0.58		0.48	0.24			0.18	
Control Delay		5.0			4.7		35.3	15.8			18.2	
Queue Delay		0.5			0.0		0.0	0.0			0.0	
Total Delay		5.5			4.7		35.3	15.8			18.2	
LOS		A			A		D	B			B	
Approach Delay		5.5			4.7			27.3			18.2	
Approach LOS		A			A			C			B	
Queue Length 50th (ft)		49			103		41	11			8	

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
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	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	4.0
Minimum Split (s)	8.0
Total Split (s)	28.0
Total Split (%)	40%
Maximum Green (s)	24.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	
Flash Dont Walk (s)	
Pedestrian Calls (#/hr)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)		124			141		86	43			34	
Internal Link Dist (ft)		196			297			381			135	
Turn Bay Length (ft)												
Base Capacity (vph)		1293			1348		213	302			251	
Starvation Cap Reductn		499			0		0	0			0	
Spillback Cap Reductn		0			0		0	0			0	
Storage Cap Reductn		0			0		0	0			0	
Reduced v/c Ratio		0.52			0.58		0.48	0.24			0.18	

**Intersection Summary**

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	4 (6%), Referenced to phase 2:EBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.58
Intersection Signal Delay:	8.1
Intersection LOS:	A
Intersection Capacity Utilization	54.1%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 10: W Main St &

ø2	ø4	ø9
27 s	15 s	28 s
ø6	ø8	
27 s	15 s	

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Lane Group	ø9
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Lane Configurations	↻			↻			
Volume (vph)	378	20	39	754	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	0.993						
Flt Protected				0.998			
Satd. Flow (prot)	1850	0	0	1859	0	0	
Flt Permitted				0.969			
Satd. Flow (perm)	1850	0	0	1805	0	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)	5						
Link Speed (mph)	30			30	30		
Link Distance (ft)	409			276	611		
Travel Time (s)	9.3			6.3	13.9		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	411	22	42	820	0	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	433	0	0	862	0	0	
Turn Type			pm+pt				
Protected Phases	2		1	6			9
Permitted Phases			6				
Detector Phase	2		1	6			
Switch Phase							
Minimum Initial (s)	4.0		4.0	4.0			4.0
Minimum Split (s)	22.0		8.0	22.0			8.0
Total Split (s)	32.0	0.0	10.0	42.0	0.0	0.0	28.0
Total Split (%)	45.7%	0.0%	14.3%	60.0%	0.0%	0.0%	40%
Maximum Green (s)	28.0		6.0	38.0			24.0
Yellow Time (s)	3.5		3.5	3.5			3.5
All-Red Time (s)	0.5		0.5	0.5			0.5
Lost Time Adjust (s)	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	
Lead/Lag	Lag		Lead				
Lead-Lag Optimize?	Yes		Yes				
Vehicle Extension (s)	3.0		3.0	3.0			3.0
Recall Mode	C-Max		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 Effect Green (s)	70.0			70.0			
Actuated g/C Ratio	1.00			1.00			
v/c Ratio	0.23			0.48			
Control Delay	0.3			0.8			
Queue Delay	0.0			0.0			
Total Delay	0.3			0.8			
LOS	A			A			
Approach Delay	0.3			0.8			
Approach LOS	A			A			
Queue Length 50th (ft)	1			0			





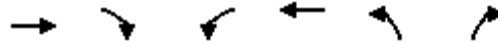
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø9
Queue Length 95th (ft)	0			0			
Internal Link Dist (ft)	329			196	531		
Turn Bay Length (ft)							
Base Capacity (vph)	1850			1805			
Starvation Cap Reductn	0			0			
Spillback Cap Reductn	0			0			
Storage Cap Reductn	0			0			
Reduced v/c Ratio	0.23			0.48			

**Intersection Summary**

Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	46 (66%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	0.6
Intersection LOS:	A
Intersection Capacity Utilization	69.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 11: W Main St & Butler St

ø1	ø2	ø9
10 s	32 s	28 s
ø6		
42 s		



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø6
Lane Configurations	↑	↑		↑			
Volume (vph)	398	137	387	367	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	
Frt		0.850					
Flt Protected				0.975			
Satd. Flow (prot)	1863	1583	0	1816	0	0	
Flt Permitted				0.568			
Satd. Flow (perm)	1863	1583	0	1058	0	0	
Right Turn on Red		Yes				Yes	
Satd. Flow (RTOR)		149					
Link Speed (mph)	30			30	30		
Link Distance (ft)	491			409	819		
Travel Time (s)	11.2			9.3	18.6		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	433	149	421	399	0	0	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	433	149	0	820	0	0	
Turn Type		Perm	custom				
Protected Phases	2		1	1	6		6
Permitted Phases		2	6				
Detector Phase	2	2	1	1	6		
Switch Phase							
Minimum Initial (s)	4.0	4.0	4.0				4.0
Minimum Split (s)	22.0	22.0	8.0				22.0
Total Split (s)	52.0	52.0	18.0	88.0	0.0	0.0	70.0
Total Split (%)	74.3%	74.3%	25.7%	125.7%	0.0%	0.0%	100%
Maximum Green (s)	48.0	48.0	14.0				66.0
Yellow Time (s)	3.5	3.5	3.5				3.5
All-Red Time (s)	0.5	0.5	0.5				0.5
Lost Time Adjust (s)	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	
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Vehicle Extension (s)	3.0	3.0	3.0				3.0
Recall Mode	C-Max	C-Max	None				C-Max
Walk Time (s)	7.0	7.0					7.0
Flash Dont Walk (s)	11.0	11.0					11.0
Pedestrian Calls (#/hr)	0	0					0
Act Effct Green (s)	52.8	52.8		66.0			
Actuated g/C Ratio	0.75	0.75		0.94			
v/c Ratio	0.31	0.12		0.75			
Control Delay	3.8	0.9		7.5			
Queue Delay	0.0	0.0		0.0			
Total Delay	3.8	0.9		7.5			
LOS	A	A		A			
Approach Delay	3.1			7.5			
Approach LOS	A			A			
Queue Length 50th (ft)	41	0		43			



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	ø6
Queue Length 95th (ft)	101	14		70			
Internal Link Dist (ft)	411			329	739		
Turn Bay Length (ft)							
Base Capacity (vph)	1405	1231		1149			
Starvation Cap Reductn	0	0		0			
Spillback Cap Reductn	0	0		0			
Storage Cap Reductn	0	0		0			
Reduced v/c Ratio	0.31	0.12		0.71			

**Intersection Summary**























Area Type:	Other
Cycle Length:	70
Actuated Cycle Length:	70
Offset:	4 (6%), Referenced to phase 2:EBT and 6:WBTL, Start of Green
Natural Cycle:	40
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	5.6
Intersection Capacity Utilization	68.3%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	C

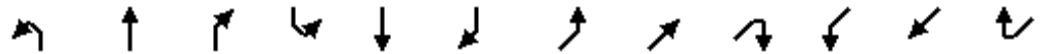
Splits and Phases: 12: W Main St & Cook St



City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
13: Cook St & Hanover St

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	242	0	134	124	232	124	0	149	42	59	148	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		200	0		0			0	0		0
Storage Lanes	1		1	1		1	0		1	1		0
Taper Length (ft)	25		25	25		25	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			0.850			0.850			0.850			
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	0	1583	1770	1863	1583	0	1863	1583	1770	1863	0
Flt Permitted	0.603			0.950						0.582		
Satd. Flow (perm)	1123	0	1583	1770	1863	1583	0	1863	1583	1084	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			146			135			46			
Link Speed (mph)		30			30			25			30	
Link Distance (ft)		367			819			340			505	
Travel Time (s)		8.3			18.6			9.3			11.5	
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
Adj. Flow (vph)	263	0	146	135	252	135	0	162	46	64	161	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	263	0	146	135	252	135	0	162	46	64	161	0
Turn Type	custom		custom	Perm		Perm			Perm	Perm		
Protected Phases					6			4				8
Permitted Phases	2		2	6		6			4	8		
Detector Phase	2		2	6	6	6		4	4	8	8	
Switch Phase												
Minimum Initial (s)	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		22.0	22.0	22.0	22.0	
Total Split (s)	36.0	0.0	36.0	36.0	36.0	36.0	0.0	24.0	24.0	22.0	22.0	0.0
Total Split (%)	60.0%	0.0%	60.0%	60.0%	60.0%	60.0%	0.0%	40.0%	40.0%	36.7%	36.7%	0.0%
Maximum Green (s)	32.0		32.0	32.0	32.0	32.0		20.0	20.0	18.0	18.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	0.5		0.5	0.5	0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	
Recall Mode	C-Max		C-Max	C-Max	C-Max	C-Max		None	None	None	None	
Walk Time (s)	7.0		7.0	7.0	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	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	0		0	0	0	0	
Act Effect Green (s)	44.4		44.4	44.4	44.4	44.4		10.5	10.5	10.5	10.5	
Actuated g/C Ratio	0.74		0.74	0.74	0.74	0.74		0.18	0.18	0.18	0.18	
v/c Ratio	0.32		0.12	0.10	0.18	0.11		0.50	0.15	0.34	0.50	
Control Delay	5.5		1.2	3.9	4.1	1.2		27.0	8.0	17.6	18.0	
Queue Delay	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	
Total Delay	5.5		1.2	3.9	4.1	1.2		27.0	8.0	17.6	18.0	
LOS	A		A	A	A	A		C	A	B	B	

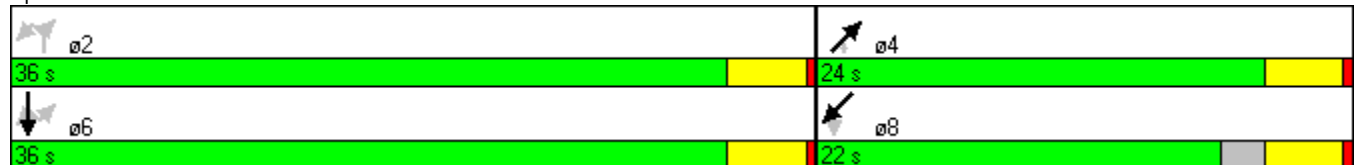


Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach Delay					3.3			22.8				17.9
Approach LOS					A			C				B
Queue Length 50th (ft)	30		0	13	25	0		54	0	9	22	
Queue Length 95th (ft)	77		15	34	60	15		95	21	26	51	
Internal Link Dist (ft)		287			739			260				425
Turn Bay Length (ft)			200									
Base Capacity (vph)	832		1210	1310	1379	1207		621	558	361	621	
Starvation Cap Reductn	0		0	0	0	0		0	0	0	0	
Spillback Cap Reductn	0		0	0	0	0		0	0	0	0	
Storage Cap Reductn	0		0	0	0	0		0	0	0	0	
Reduced v/c Ratio	0.32		0.12	0.10	0.18	0.11		0.26	0.08	0.18	0.26	

**Intersection Summary**

















Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	47 (78%), Referenced to phase 2:NBL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.50
Intersection Signal Delay:	8.9
Intersection LOS:	A
Intersection Capacity Utilization:	50.1%
ICU Level of Service:	A
Analysis Period (min):	15













Splits and Phases: 13: Cook St & Hanover St



City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
14: Butler St & Hanover St

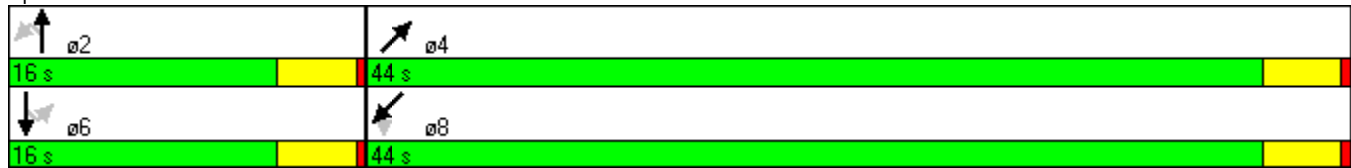
												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	10	0	45	87	18	18	0	383	24	6	179	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.890			0.980			0.992				
Flt Protected		0.991			0.966						0.998	
Satd. Flow (prot)	0	1643	0	0	1763	0	0	1848	0	0	1859	0
Flt Permitted		0.962			0.799						0.985	
Satd. Flow (perm)	0	1595	0	0	1459	0	0	1848	0	0	1835	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		49			13			11				
Link Speed (mph)		25			30			30				30
Link Distance (ft)		180			611			505				369
Travel Time (s)		4.9			13.9			11.5				8.4
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
Adj. Flow (vph)	11	0	49	95	20	20	0	416	26	7	195	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	0	0	135	0	0	442	0	0	202	0
Turn Type	Perm			Perm						Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6						8		
Detector Phase	2	2		6	6			4		8	8	
Switch Phase												
Minimum Initial (s)	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		22.0	22.0	
Total Split (s)	16.0	16.0	0.0	16.0	16.0	0.0	0.0	44.0	0.0	44.0	44.0	0.0
Total Split (%)	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%	0.0%	73.3%	0.0%	73.3%	73.3%	0.0%
Maximum Green (s)	12.0	12.0		12.0	12.0			40.0		40.0	40.0	
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5			0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0		3.0	3.0	
Recall Mode	C-Max	C-Max		C-Max	C-Max			None		None	None	
Walk Time (s)	7.0	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	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		30.7			30.7			21.3			21.3	
Actuated g/C Ratio		0.51			0.51			0.36			0.36	
v/c Ratio		0.07			0.18			0.67			0.31	
Control Delay		5.3			10.3			22.2			13.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.3			10.3			22.2			13.7	
LOS		A			B			C			B	
Approach Delay		5.3			10.3			22.2			13.7	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)		2			21			127			52	

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Queue Length 95th (ft)		23			65			129			70	
Internal Link Dist (ft)		100			531			425			289	
Turn Bay Length (ft)												
Base Capacity (vph)		840			753			1236			1223	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.07			0.18			0.36			0.17	

**Intersection Summary**

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	17.0
Intersection LOS:	B
Intersection Capacity Utilization	41.8%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 14: Butler St & Hanover St



City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
15: W Main St & Linsley Ave



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	188	369	31	15	281	52	65	146	8	102	162	145
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		0	100		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	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		0.988			0.976			0.992			0.929	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1840	0	1770	1818	0	1770	1848	0	1770	1730	0
Flt Permitted	0.468			0.388			0.500			0.651		
Satd. Flow (perm)	872	1840	0	723	1818	0	931	1848	0	1213	1730	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			26			8			124	
Link Speed (mph)		25			30			30			30	
Link Distance (ft)		343			491			383			555	
Travel Time (s)		9.4			11.2			8.7			12.6	
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
Adj. Flow (vph)	204	401	34	16	305	57	71	159	9	111	176	158
Shared Lane Traffic (%)												
Lane Group Flow (vph)	204	435	0	16	362	0	71	168	0	111	334	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.41	0.41		0.41	0.41		0.41	0.41		0.41	0.41	
v/c Ratio	0.57	0.57		0.05	0.48		0.19	0.22		0.22	0.43	
Control Delay	18.3	13.4		8.5	11.4		9.9	9.0		10.0	7.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.3	13.4		8.5	11.4		9.9	9.0		10.0	7.7	
LOS	B	B		A	B		A	A		A	A	
Approach Delay		15.0			11.3			9.3			8.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	37	77		2	57		11	24		17	33	
Queue Length 95th (ft)	#109	143		10	112		30	53		42	78	
Internal Link Dist (ft)		263			411			303			475	



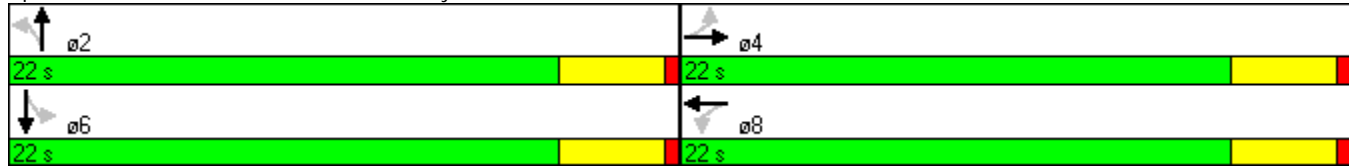


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Bay Length (ft)	100			50			100			100		
Base Capacity (vph)	357	760		296	759		381	761		496	781	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.57	0.57		0.05	0.48		0.19	0.22		0.22	0.43	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.57  
 Intersection Signal Delay: 11.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.7%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 15: W Main St & Linsley Ave






















Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	699	77	25	670	20	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	1.00	1.00
Frt	0.987			0.904		
Flt Protected				0.998	0.986	
Satd. Flow (prot)	1839	0	0	3532	1660	0
Flt Permitted				0.998	0.986	
Satd. Flow (perm)	1839	0	0	3532	1660	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	526			398	522	
Travel Time (s)	12.0			9.0	11.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	760	84	27	728	22	54
Shared Lane Traffic (%)						
Lane Group Flow (vph)	844	0	0	755	76	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	52.3%
	ICU Level of Service A
Analysis Period (min)	15

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	135	592	26	183	12	475	38	4	17	55	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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		0.878			0.993			0.999			0.954	
Flt Protected	0.950				0.994			0.956			0.992	
Satd. Flow (prot)	1770	1635	0	0	1839	0	0	1779	0	0	1763	0
Flt Permitted	0.950				0.994			0.956			0.992	
Satd. Flow (perm)	1770	1635	0	0	1839	0	0	1779	0	0	1763	0
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		398			284			209			363	
Travel Time (s)		9.0			7.7			4.8			8.3	
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
Adj. Flow (vph)	24	147	643	28	199	13	516	41	4	18	60	40
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	790	0	0	240	0	0	561	0	0	118	0
Sign Control		Free			Stop			Free			Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	85.5%
Analysis Period (min)	15
	ICU Level of Service E



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	25	458	35	53	617	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.872		0.918			
Flt Protected	0.997					0.958
Satd. Flow (prot)	1619	0	1710	0	0	1785
Flt Permitted	0.997					0.958
Satd. Flow (perm)	1619	0	1710	0	0	1785
Link Speed (mph)	30		30			30
Link Distance (ft)	467		516			209
Travel Time (s)	10.6		11.7			4.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	498	38	58	671	88
Shared Lane Traffic (%)						
Lane Group Flow (vph)	525	0	96	0	0	759
Sign Control	Free		Stop			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	81.5%
ICU Level of Service	D
Analysis Period (min)	15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	634	36	12	469	14	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.902	
Flt Protected				0.999	0.987	
Satd. Flow (prot)	1850	0	0	1861	1658	0
Flt Permitted				0.999	0.987	
Satd. Flow (perm)	1850	0	0	1861	1658	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	467			360	419	
Travel Time (s)	10.6			8.2	9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	689	39	13	510	15	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	728	0	0	523	55	0
Sign Control	Free			Free	Stop	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	45.5% ICU Level of Service A
Analysis Period (min)	15



Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	10	20	442	38	15	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.910		0.989			
Flt Protected	0.984					0.998
Satd. Flow (prot)	1668	0	1842	0	0	1859
Flt Permitted	0.984					0.998
Satd. Flow (perm)	1668	0	1842	0	0	1859
Link Speed (mph)	30		30			30
Link Distance (ft)	223		538			291
Travel Time (s)	5.1		12.2			6.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	22	480	41	16	337
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	521	0	0	353
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.5%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	480	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	216			775	426	
Travel Time (s)	4.9			17.6	9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	522	522	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	522	522	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	28.6%
Analysis Period (min)	15
	ICU Level of Service A



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	63	31	0	223	429	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.955					
Flt Protected	0.968					
Satd. Flow (prot)	1722	0	0	1863	1863	0
Flt Permitted	0.968					
Satd. Flow (perm)	1722	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	287			241	561	
Travel Time (s)	6.5			5.5	12.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	34	0	242	466	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	102	0	0	242	466	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	34.6% ICU Level of Service A
Analysis Period (min)	15





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations				↕	↕	
Volume (vph)	0	0	14	272	429	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.974	
Flt Protected				0.998		
Satd. Flow (prot)	0	0	0	1859	1814	0
Flt Permitted				0.998		
Satd. Flow (perm)	0	0	0	1859	1814	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	268			561	152	
Travel Time (s)	6.1			12.8	3.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	15	296	466	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	311	575	0
Sign Control	Free			Free	Free	

**Intersection Summary**










Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	32.0% ICU Level of Service A
Analysis Period (min)	15



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	10	275	10	10	511
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932		0.995			
Flt Protected	0.976					0.999
Satd. Flow (prot)	1694	0	1853	0	0	1861
Flt Permitted	0.976					0.999
Satd. Flow (perm)	1694	0	1853	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	402		246			308
Travel Time (s)	9.1		5.6			7.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	299	11	11	555
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	310	0	0	566
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	44.9% ICU Level of Service A
Analysis Period (min)	15

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	231	190	228	57	32	290
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.939		0.973			
Flt Protected	0.973					0.995
Satd. Flow (prot)	1702	0	1812	0	0	1853
Flt Permitted	0.973					0.949
Satd. Flow (perm)	1702	0	1812	0	0	1768
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	114		35			
Link Speed (mph)	30		30			30
Link Distance (ft)	320		176			220
Travel Time (s)	7.3		4.0			5.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	251	207	248	62	35	315
Shared Lane Traffic (%)						
Lane Group Flow (vph)	458	0	310	0	0	350
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.60		0.41			0.48
Control Delay	11.5		15.8			12.4
Queue Delay	0.0		0.0			0.0
Total Delay	11.5		15.8			12.4
LOS	B		B			B
Approach Delay	11.5		15.8			12.4
Approach LOS	B		B			B
Queue Length 50th (ft)	60		81			61
Queue Length 95th (ft)	130		143			116
Internal Link Dist (ft)	240		96			140
Turn Bay Length (ft)						
Base Capacity (vph)	764		762			723
Starvation Cap Reductn	0		0			0

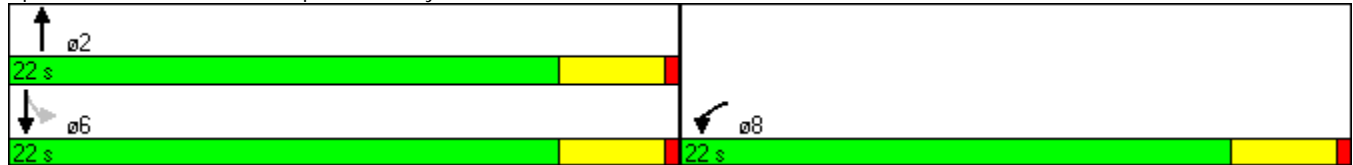


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.60		0.41			0.48

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.60
Intersection Signal Delay:	13.0
Intersection LOS:	B
Intersection Capacity Utilization	66.9%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 46: Camp St & Colony St





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	34	13	262	10	26	495
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.963		0.995			
Flt Protected	0.965					0.998
Satd. Flow (prot)	1731	0	1853	0	0	1859
Flt Permitted	0.965					0.976
Satd. Flow (perm)	1731	0	1853	0	0	1818
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	14		5			
Link Speed (mph)	30		30			30
Link Distance (ft)	265		152			414
Travel Time (s)	6.0		3.5			9.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	14	285	11	28	538
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	296	0	0	566
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.07		0.39			0.76
Control Delay	6.7		10.9			20.5
Queue Delay	0.0		0.0			0.0
Total Delay	6.7		10.9			20.5
LOS	A		B			C
Approach Delay	6.7		10.9			20.5
Approach LOS	A		B			C
Queue Length 50th (ft)	5		48			114
Queue Length 95th (ft)	19		93			#254
Internal Link Dist (ft)	185		72			334
Turn Bay Length (ft)						
Base Capacity (vph)	716		761			744
Starvation Cap Reductn	0		0			0

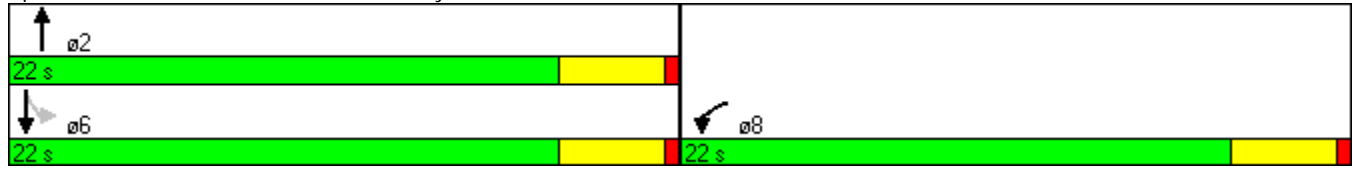


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.07		0.39			0.76

**Intersection Summary**


















Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay: 16.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 55.2%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 47: Brooks St & Colony St



City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
49: Camp St & State St Ext

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	147	44	69	137	3	173	79	46	123	64	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		75	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	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			0.850		0.998			0.979			0.930	
Flt Protected		0.981			0.984			0.972			0.984	
Satd. Flow (prot)	0	1827	1583	0	1829	0	0	1773	0	0	1705	0
Flt Permitted		0.981			0.984			0.972			0.984	
Satd. Flow (perm)	0	1827	1583	0	1829	0	0	1773	0	0	1705	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		406			514			452			325	
Travel Time (s)		9.2			11.7			10.3			7.4	
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
Adj. Flow (vph)	97	160	48	75	149	3	188	86	50	134	70	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	257	48	0	227	0	0	324	0	0	425	0
Sign Control		Free			Stop			Stop			Stop	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	63.3%
Analysis Period (min)	15
	ICU Level of Service B



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	0	0	0	285	521	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1863	0	0	1863	1863	0
Flt Permitted						
Satd. Flow (perm)	1863	0	0	1863	1863	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	281			414	246	
Travel Time (s)	6.4			9.4	5.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	310	566	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	310	566	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	30.8%
Analysis Period (min)	15
	ICU Level of Service A



City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
53: Cross St & State St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	0	0	0	283	0	122	0	180	300	20	197	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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					0.959			0.916				
Flt Protected					0.966						0.995	
Satd. Flow (prot)	0	1863	0	0	1726	0	0	1706	0	0	1853	0
Flt Permitted					0.792						0.937	
Satd. Flow (perm)	0	1863	0	0	1415	0	0	1706	0	0	1745	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					41			200				
Link Speed (mph)		30			25			30			30	
Link Distance (ft)		214			597			229			212	
Travel Time (s)		4.9			16.3			5.2			4.8	
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
Adj. Flow (vph)	0	0	0	308	0	133	0	196	326	22	214	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	441	0	0	522	0	0	236	0
Turn Type	Perm			Perm						Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8						6		
Detector Phase	4	4		8	8			2		6	6	
Switch Phase												
Minimum Initial (s)	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		22.0	22.0	
Total Split (s)	26.0	26.0	0.0	26.0	26.0	0.0	0.0	34.0	0.0	34.0	34.0	0.0
Total Split (%)	43.3%	43.3%	0.0%	43.3%	43.3%	0.0%	0.0%	56.7%	0.0%	56.7%	56.7%	0.0%
Maximum Green (s)	22.0	22.0		22.0	22.0			30.0		30.0	30.0	
Yellow Time (s)	3.5	3.5		3.5	3.5			3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5			0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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	None			Min		Min	Min	
Walk Time (s)	7.0	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	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)					17.2			15.0			15.0	
Actuated g/C Ratio					0.42			0.37			0.37	
v/c Ratio					0.71			0.69			0.37	
Control Delay					18.9			12.3			11.6	
Queue Delay					0.0			0.0			0.1	
Total Delay					18.9			12.3			11.6	
LOS					B			B			B	
Approach Delay					18.9			12.3			11.6	
Approach LOS					B			B			B	
Queue Length 50th (ft)					67			57			39	

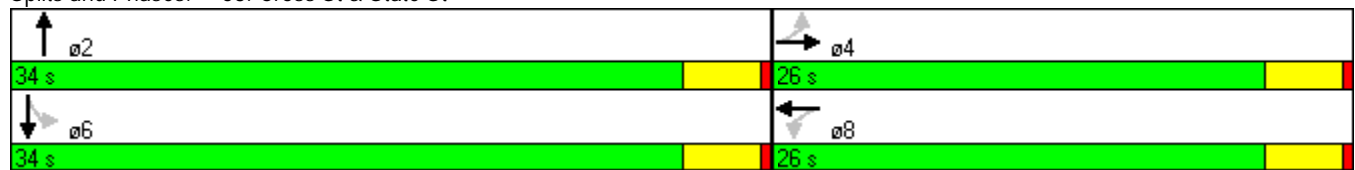


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 95th (ft)					#250			145			85	
Internal Link Dist (ft)		134			517			149			132	
Turn Bay Length (ft)												
Base Capacity (vph)					846			1341			1322	
Starvation Cap Reductn					0			0			246	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.52			0.39			0.22	

**Intersection Summary**

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 40.9  
 Natural Cycle: 45  
 Control Type: Actuated-Uncoordinated  
 Maximum v/c Ratio: 0.71  
 Intersection Signal Delay: 14.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 57.7%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 53: Cross St & State St





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	10	10	10	275	511	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.997	
Flt Protected	0.976			0.998		
Satd. Flow (prot)	1694	0	0	1859	1857	0
Flt Permitted	0.976			0.998		
Satd. Flow (perm)	1694	0	0	1859	1857	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	378			308	176	
Travel Time (s)	8.6			7.0	4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	299	555	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	310	566	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.5% ICU Level of Service A
Analysis Period (min)	15

City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
60: Cedar St & Pratt St



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	131	0	169	17	6	17	213	220	0	0	108	192
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	120		0	0		0	100		0	100		0
Storage Lanes	1		0	0		0	1		0	1		0
Taper Length (ft)	25		25	25		25	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		0.850			0.943							0.904
Flt Protected	0.950				0.979		0.950					
Satd. Flow (prot)	1770	1583	0	0	1720	0	1770	1863	0	1863	1684	0
Flt Permitted	0.729				0.889		0.509					
Satd. Flow (perm)	1358	1583	0	0	1562	0	948	1863	0	1863	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		758			18							209
Link Speed (mph)		30			30			30				30
Link Distance (ft)		301			172			255				669
Travel Time (s)		6.8			3.9			5.8				15.2
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
Adj. Flow (vph)	142	0	184	18	7	18	232	239	0	0	117	209
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	184	0	0	43	0	232	239	0	0	326	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4				8
Permitted Phases	6			2			4			8		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.41	0.41		0.41	0.41		0.41	0.41		0.41	0.41	
v/c Ratio	0.26	0.17		0.07	0.07		0.60	0.31		0.40	0.40	
Control Delay	10.2	0.3		6.1	6.1		18.7	10.3		6.5	6.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.2	0.3		6.1	6.1		18.7	10.3		6.5	6.5	
LOS	B	A		A	A		B	B		A	A	
Approach Delay		4.6		6.1	6.1		14.4	14.4		6.5	6.5	
Approach LOS		A		A	A		B	B		A	A	
Queue Length 50th (ft)	22	0		4	4		43	38		8	8	
Queue Length 95th (ft)	51	0		16	16		#122	76		76	76	
Internal Link Dist (ft)		221		92	92		175	175		589	589	

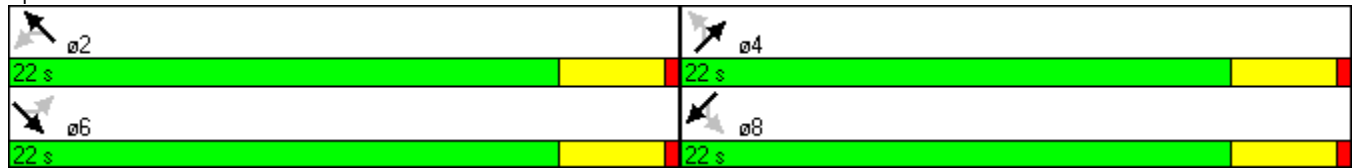


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Turn Bay Length (ft)	120						100					
Base Capacity (vph)	556	1096			650		388	762			812	
Starvation Cap Reductn	0	0			0		0	0			0	
Spillback Cap Reductn	0	0			0		0	0			0	
Storage Cap Reductn	0	0			0		0	0			0	
Reduced v/c Ratio	0.26	0.17			0.07		0.60	0.31			0.40	

**Intersection Summary**



















Area Type: Other  
 Cycle Length: 44  
 Actuated Cycle Length: 44  
 Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 9.2  
 Intersection LOS: A  
 Intersection Capacity Utilization 56.4%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 60: Cedar St & Pratt St



City Of Meriden  
2015 Proposed - PM Peak

Lanes, Volumes, Timings  
61: Center St & Pratt St

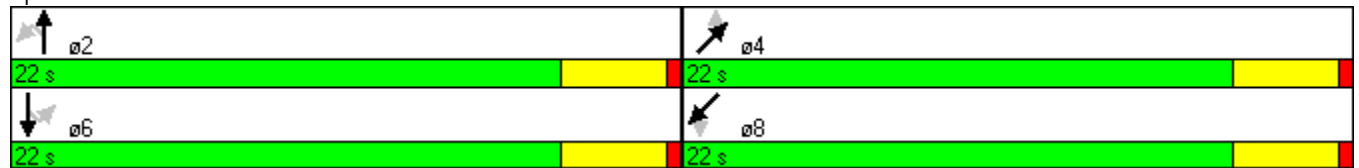
												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	34	211	62	28	115	79	121	210	37	44	187	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25		25	25		25	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		0.973			0.952			0.978			0.976	
Flt Protected		0.994			0.994		0.950			0.950		
Satd. Flow (prot)	0	1802	0	0	1763	0	1770	1822	0	1770	1818	0
Flt Permitted		0.950			0.938		0.607			0.576		
Satd. Flow (perm)	0	1722	0	0	1663	0	1131	1822	0	1073	1818	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			77			24			27	
Link Speed (mph)		30			30			30			25	
Link Distance (ft)		393			533			669			338	
Travel Time (s)		8.9			12.1			15.2			9.2	
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
Adj. Flow (vph)	37	229	67	30	125	86	132	228	40	48	203	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	333	0	0	241	0	132	268	0	48	242	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0		22.0	22.0	
Total Split (s)	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	18.0	18.0		18.0	18.0		18.0	18.0		18.0	18.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	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	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	7.0	7.0		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		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effect Green (s)		18.0			18.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.41			0.41		0.41	0.41		0.41	0.41	
v/c Ratio		0.46			0.33		0.29	0.35		0.11	0.32	
Control Delay		10.9			7.6		12.3	10.8		8.9	9.2	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		10.9			7.6		12.3	10.8		8.9	9.2	
LOS		B			A		B	B		A	A	
Approach Delay		10.9			7.6			11.3			9.2	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)		50			25		23	43		7	34	
Queue Length 95th (ft)		102			61		62	100		22	71	
Internal Link Dist (ft)		313			453			589			258	

Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Turn Bay Length (ft)							100					
Base Capacity (vph)		725			726		463	760		439	760	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.46			0.33		0.29	0.35		0.11	0.32	

**Intersection Summary**

Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.46
Intersection Signal Delay:	10.0
Intersection LOS:	B
Intersection Capacity Utilization	50.3%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 61: Center St & Pratt St





Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	31	8	425	37	15	294
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.972		0.989			
Flt Protected	0.962					0.998
Satd. Flow (prot)	1742	0	1842	0	0	1859
Flt Permitted	0.962					0.998
Satd. Flow (perm)	1742	0	1842	0	0	1859
Link Speed (mph)	30		30			30
Link Distance (ft)	313		291			501
Travel Time (s)	7.1		6.6			11.4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	9	462	40	16	320
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	502	0	0	336
Sign Control	Stop		Free			Free

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	37.7% ICU Level of Service A
Analysis Period (min)	15





Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	10	10	10	470	470	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.997	
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1694	0	0	1861	1857	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1694	0	0	1861	1857	0
Link Speed (mph)	25			30	30	
Link Distance (ft)	121			426	229	
Travel Time (s)	3.3			9.7	5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	511	511	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	522	522	0
Sign Control	Stop			Free	Free	

**Intersection Summary**

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.8%
	ICU Level of Service A
Analysis Period (min)	15



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	19	20	272	30	19	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.931		0.986			
Flt Protected	0.976					0.995
Satd. Flow (prot)	1693	0	1837	0	0	1853
Flt Permitted	0.976					0.955
Satd. Flow (perm)	1693	0	1837	0	0	1779
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	22		15			
Link Speed (mph)	25		30			30
Link Distance (ft)	433		212			452
Travel Time (s)	11.8		4.8			10.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	21	22	296	33	21	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	329	0	0	214
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	22.0		22.0		22.0	22.0
Total Split (s)	22.0	0.0	22.0	0.0	22.0	22.0
Total Split (%)	50.0%	0.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	18.0		18.0		18.0	18.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	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
Lead/Lag						
Lead-Lag Optimize?						
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)	18.0		18.0			18.0
Actuated g/C Ratio	0.41		0.41			0.41
v/c Ratio	0.06		0.43			0.29
Control Delay	5.7		11.1			10.6
Queue Delay	0.0		1.6			0.0
Total Delay	5.7		12.8			10.6
LOS	A		B			B
Approach Delay	5.7		12.8			10.6
Approach LOS	A		B			B
Queue Length 50th (ft)	3		53			36
Queue Length 95th (ft)	16		102			73
Internal Link Dist (ft)	353		132			372
Turn Bay Length (ft)						
Base Capacity (vph)	706		760			728
Starvation Cap Reductn	0		268			0

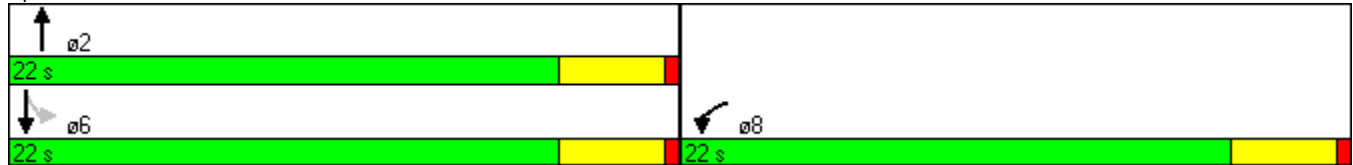


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Spillback Cap Reductn	0		0			0
Storage Cap Reductn	0		0			0
Reduced v/c Ratio	0.06		0.67			0.29

**Intersection Summary**

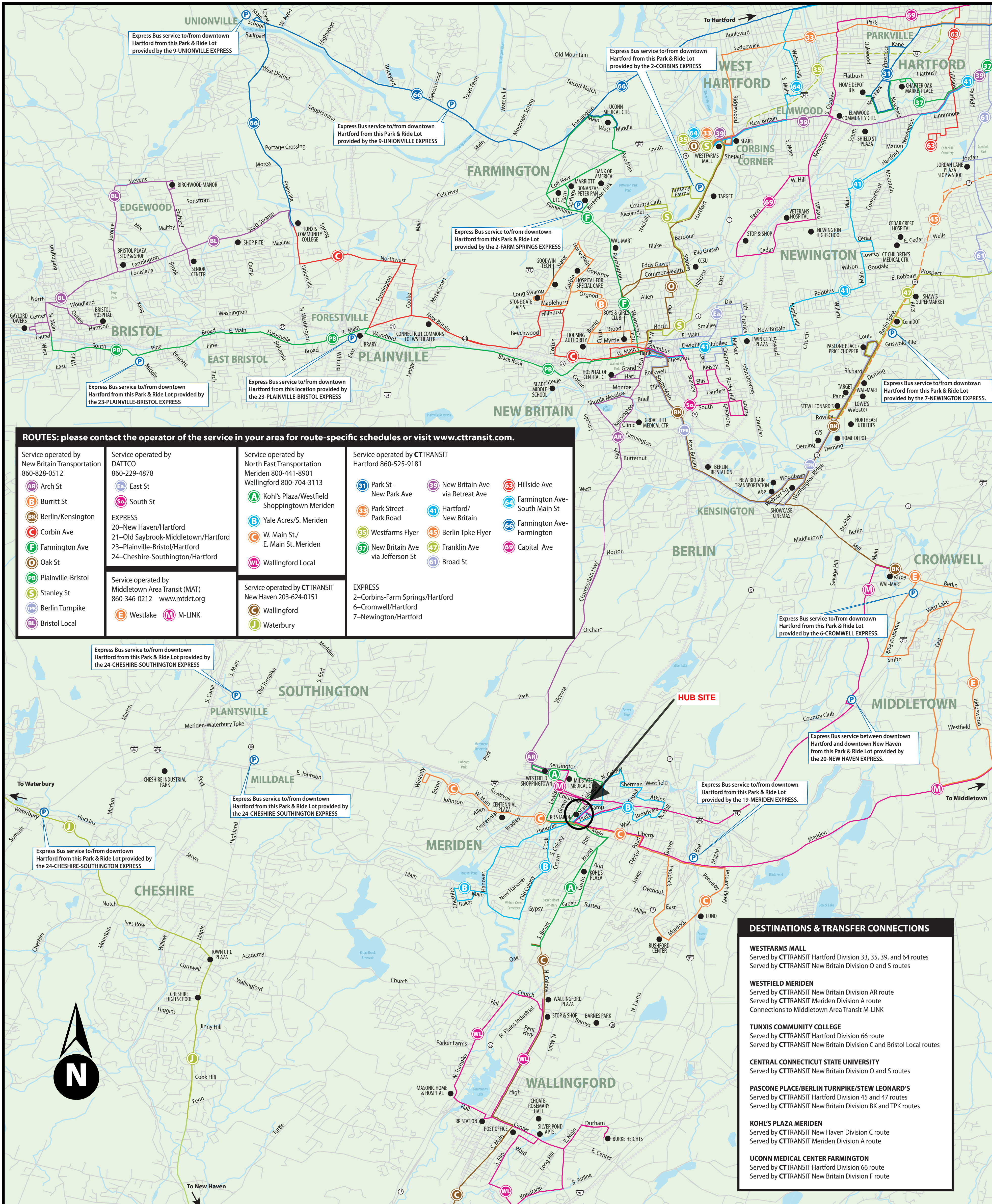
Area Type:	Other
Cycle Length:	44
Actuated Cycle Length:	44
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	45
Control Type:	Pretimed
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	11.4
Intersection LOS:	B
Intersection Capacity Utilization	35.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 79: Park St & State St





# CENTRAL CONNECTICUT BUS SYSTEM MAP



**ROUTES:** please contact the operator of the service in your area for route-specific schedules or visit [www.cttransit.com](http://www.cttransit.com).

<p>Service operated by New Britain Transportation 860-828-0512</p> <ul style="list-style-type: none"> <li>AR Arch St</li> <li>B Burritt St</li> <li>BK Berlin/Kensington</li> <li>C Corbin Ave</li> <li>F Farmington Ave</li> <li>O Oak St</li> <li>PE Plainville-Bristol</li> <li>S Stanley St</li> <li>TPK Berlin Turnpike</li> <li>BL Bristol Local</li> </ul>	<p>Service operated by DATTCO 860-229-4878</p> <ul style="list-style-type: none"> <li>EA East St</li> <li>SA South St</li> </ul> <p><b>EXPRESS</b></p> <ul style="list-style-type: none"> <li>20-New Haven/Hartford</li> <li>21-Old Saybrook-Middletown/Hartford</li> <li>23-Plainville-Bristol/Hartford</li> <li>24-Cheshire-Southington/Hartford</li> </ul> <p>Service operated by Middletown Area Transit (MAT) 860-346-0212 <a href="http://www.mtdct.org">www.mtdct.org</a></p> <ul style="list-style-type: none"> <li>W Westlake</li> <li>M M-LINK</li> </ul>	<p>Service operated by North East Transportation Meriden 800-441-8901 Wallingford 800-704-3113</p> <ul style="list-style-type: none"> <li>A Kohl's Plaza/Westfield Shoppingtown Meriden</li> <li>B Yale Acres/S. Meriden</li> <li>C W. Main St./ E. Main St. Meriden</li> <li>WL Wallingford Local</li> </ul> <p>Service operated by CTTRANSIT New Haven 203-624-0151</p> <ul style="list-style-type: none"> <li>W Wallingford</li> <li>J Waterbury</li> </ul>	<p>Service operated by CTTRANSIT Hartford 860-525-9181</p> <ul style="list-style-type: none"> <li>31 Park St-New Park Ave</li> <li>35 Park Street-Park Road</li> <li>39 Westfarms Flyer</li> <li>37 New Britain Ave via Jefferson St</li> <li>39 New Britain Ave via Retreat Ave</li> <li>41 Hartford/New Britain</li> <li>45 Berlin Tpk Flyer</li> <li>47 Franklin Ave</li> <li>51 Broad St</li> <li>53 Hillside Ave</li> <li>54 Farmington Ave-South Main St</li> <li>56 Farmington Ave-Farmington</li> <li>59 Capital Ave</li> </ul> <p><b>EXPRESS</b></p> <ul style="list-style-type: none"> <li>2-Corbin-Farm Springs/Hartford</li> <li>6-Cromwell/Hartford</li> <li>7-Newington/Hartford</li> </ul>
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**DESTINATIONS & TRANSFER CONNECTIONS**

**WESTFARMS MALL**  
Served by CTTRANSIT Hartford Division 33, 35, 39, and 64 routes  
Served by CTTRANSIT New Britain Division O and S routes

**WESTFIELD MERIDEN**  
Served by CTTRANSIT New Britain Division AR route  
Served by CTTRANSIT Meriden Division A route  
Connections to Middletown Area Transit M-LINK

**TUNXIS COMMUNITY COLLEGE**  
Served by CTTRANSIT Hartford Division 66 route  
Served by CTTRANSIT New Britain Division C and Bristol Local routes

**CENTRAL CONNECTICUT STATE UNIVERSITY**  
Served by CTTRANSIT New Britain Division O and S routes

**PASCOE PLACE/BERLIN TURNPIKE/STEW LEONARD'S**  
Served by CTTRANSIT Hartford Division 45 and 47 routes  
Served by CTTRANSIT New Britain Division BK and TPK routes

**KOHL'S PLAZA MERIDEN**  
Served by CTTRANSIT New Haven Division C route  
Served by CTTRANSIT Meriden Division A route

**UConn MEDICAL CENTER FARMINGTON**  
Served by CTTRANSIT Hartford Division 66 route  
Served by CTTRANSIT New Britain Division F route







# MERIDEN

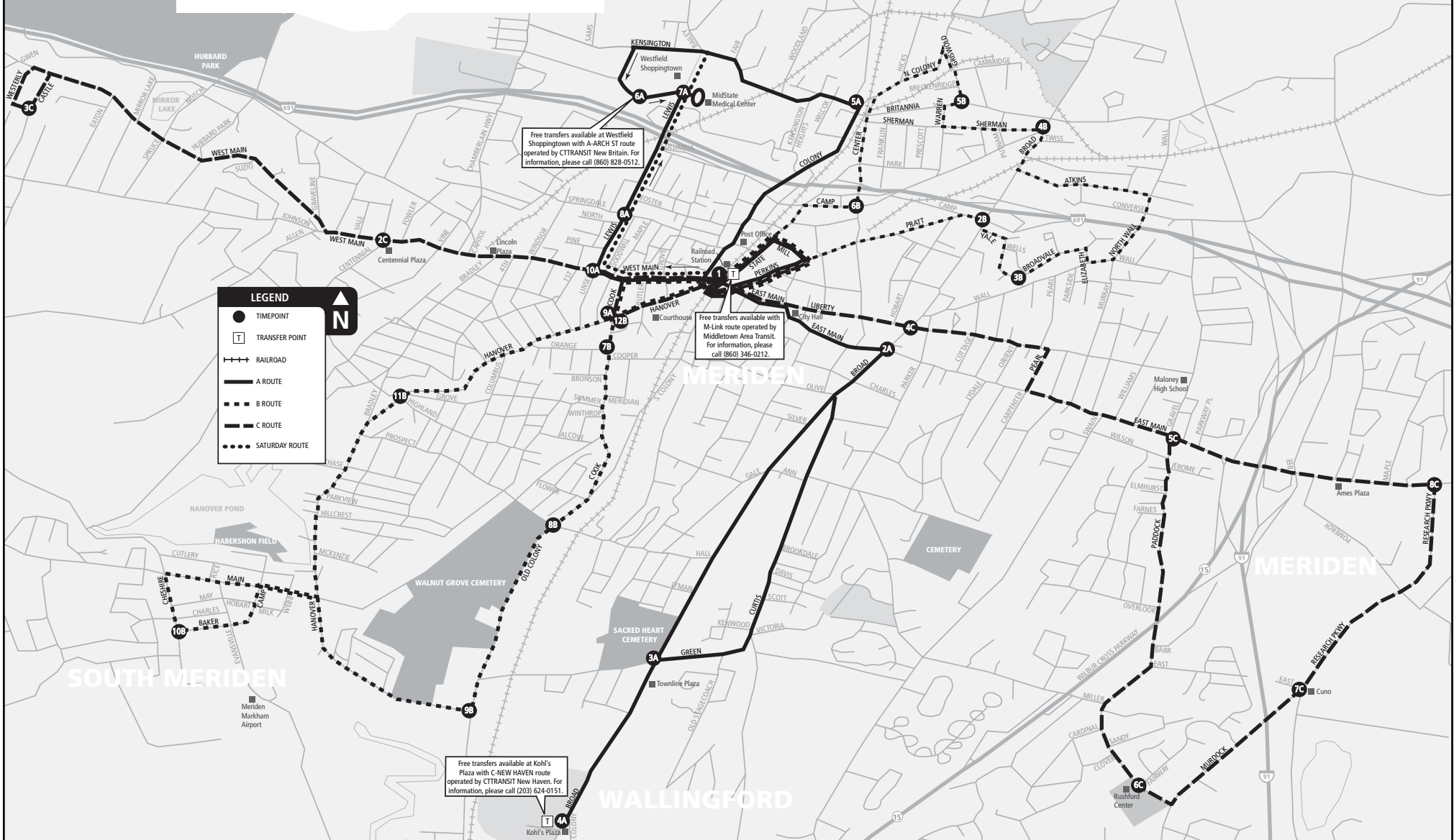
Effective: February 2009

## Routes:

**A** Kohl's Plaza–Westfield Shoppingtown

**B** Yale Acres–South Meriden

**C** West Main Street–East Main Street





Routes:

- A Kohl's Plaza–Westfield Shoppingtown
- B Yale Acres–South Meriden
- C West Main Street–East Main Street



KOHL'S PLAZA–WESTFIELD SHOPPINGTOWN

WEEKDAY SERVICE

RR Station > Kohl's Plaza > RR Station > Westfield Shoppingtown > RR Station

	1	2	3	4	3	2	1	5	6	7	8	9	1
Railroad Station	East Main & Broad	South Broad & Green	Kohl's Plaza Wallingford	South Broad & Green	East Main & Broad	Railroad Station	Colony & Kensington	Westfield Shoppingtown	MidState Medical Center	Lewis & Springdale	Cook & Hanover	Railroad Station	
	LV	LV	LV	LV	LV	AR	LV	LV	LV	LV	LV	AR	
6:30	6:35	6:40	6:45	6:50	6:55	7:00	7:05	7:10	7:15	7:20	7:25	7:30	
7:30	7:35	7:40	7:45	7:50	7:55	8:00	8:05	8:10	8:15	8:20	8:25	8:30	
8:30	8:35	8:40	8:45	8:50	8:55	9:00	9:05	9:10	9:15	9:20	9:25	9:30	
9:30	9:35	9:40	9:45	9:50	9:55	10:00	10:05	10:10	10:15	10:20	10:25	10:30	
10:30	10:35	10:40	10:45	10:50	10:55	11:00	11:05	11:10	11:15	11:20	11:25	11:30	
11:30	11:35	11:40	11:45	11:50	11:55	12:00	12:05	12:10	12:15	12:20	12:25	12:30	
12:30	12:35	12:40	12:45	12:50	12:55	1:00	1:05	1:10	1:15	1:20	1:25	1:30	
1:30	1:35	1:40	1:45	1:50	1:55	2:00	2:05	2:10	2:15	2:20	2:25	2:30	
2:30	2:35	2:40	2:45	2:50	2:55	3:00	3:05	3:10	3:15	3:20	3:25	3:30	
3:30	3:35	3:40	3:45	3:50	3:55	4:00	4:05	4:10	4:15	4:20	4:25	4:30	
4:30	4:35	4:40	4:45	4:50	4:55	5:00	5:05	5:10	5:15	5:20	5:25	5:30	
5:30	5:35	5:40	5:45	5:50	5:55	6:00	..	..	..	..	..	..	

Route A–Kohl's Plaza: Leave Railroad Station via State Street, left on to Perkins Street, right on East Main Street, right on Broad Street, left into Kohl's Plaza, stop at curb in middle of plaza.

Return: Leave Kohl's Plaza, circle parking lot to left, right on Broad Street, enter Townline Plaza, right on Green Road, left on Curtis Street, right on Broad Street, left on to East Main Street, right on Pratt Street, left on Mill Street, left on State Street, stop at Railroad Station.

Route A–Westfield Shoppingtown: Leave Railroad Station via State Street, right on West Main Street, right on to Colony Street, left on Kensington Avenue, left into Westfield Shoppingtown, to a stop at Door #4 of Entrance #4.

Return: Leave Westfield Shoppingtown, cross Lewis Avenue, straight into Midstate Medical Center, left back on to Lewis Avenue, left on West Main Street, right on Cook Avenue, left on to Hanover Street, right on Perkins Street, continue on to Pratt Street, left on Mill Street, left on State Street, stop at Railroad Station.

Timetable notes:

■ =PM      .. = No service is provided to that timepoint.

Timepoints are shown on the map as ● and are listed at the top of the timetable.



Routes:

- A Kohl's Plaza–Westfield Shoppingtown
- B Yale Acres–South Meriden
- C West Main Street–East Main Street



KOHL'S PLAZA–WESTFIELD SHOPPINGTOWN

SATURDAY SERVICE

RR Station > Kohl's Plaza > RR Station > Westfield Shoppingtown > RR Station												
1	2	3	4	3	2	1	10	6	7	8	9	1
Railroad Station	East Main & Broad	South Broad & Green	Kohl's Plaza Wallingford	South Broad & Green	East Main & Broad	Railroad Station	West Main and Lewis*	Westfield Shoppingtown	MidState Medical Center	Lewis & Springdale	Cook & Hanover	Railroad Station
LV	LV	LV	LV	LV	LV	AR	LV	LV	LV	LV	LV	AR
9:40	9:45	9:50	10:00	10:05	10:10	10:20	10:25	10:35	10:45	10:50	11:00	11:10
11:10	11:15	11:20	11:30	11:35	11:40	11:50	11:55	12:05	12:15	12:20	12:30	12:40
12:40	12:45	12:50	1:00	1:05	1:10	1:20	1:25	1:35	1:45	1:50	2:00	2:10
2:10	2:15	2:20	2:30	2:35	2:40	2:50	2:55	3:05	3:10	3:15	3:20	3:30
3:30	3:35	3:40	3:50	3:55	4:00	4:10	4:15	4:20	4:30	4:35	4:40	4:45
4:45	4:50	4:55	5:00	5:05	5:10	5:20	5:25	5:30	R	..	..	..

\*NOTE: On Saturday only, bus travels from Railroad Station via State Street, right on West Main, right on Lewis Avenue, to Westfield Shoppingtown.

Timetable notes:

■ =PM    .. = No service is provided to that timepoint.

Timepoints are shown on the map as ● and are listed at the top of the timetable.

R On request only.



Routes:

- A Kohl's Plaza–Westfield Shoppingtown
- B Yale Acres–South Meriden
- C West Main Street–East Main Street



YALE ACRES–SOUTH MERIDEN

WEEKDAY SERVICE

RR Station > Yale Acres > RR Station > South Meriden > RR Station													
1	2	3	4	5	6	1	7	8	9	10	11	12	1
Railroad Station	Broad & Camp	Yale Acres & Broadvale	Broad & Sherman	Britannia & Griswold	Center & Camp	Railroad Station	Cook & Orange	Old Colony & Hall	Old Colony & Hanover Ave.	Baker & Cheshire	Highland & Hanover Rd.	Hanover Rd. & Cook	Railroad Station
LV	LV	LV	LV	LV	LV	AR	LV	LV	LV	LV	LV	LV	AR
6:30	6:35	6:40	6:45	6:50	6:55	7:00	7:05	7:07	7:10	7:15	7:20	7:25	7:30
7:30	7:35	7:40	7:45	7:50	7:55	8:00	8:05	8:07	8:10	8:15	8:20	8:25	8:30
8:30	8:35	8:40	8:45	8:50	8:55	9:00	9:05	9:07	9:10	9:15	9:20	9:25	9:30
9:30	9:35	9:40	9:45	9:50	9:55	10:00	10:05	10:07	10:10	10:15	10:20	10:25	10:30
10:30	10:35	10:40	10:45	10:50	10:55	11:00	11:05	11:07	11:10	11:15	11:20	11:25	11:30
11:30	11:35	11:40	11:45	11:50	11:55	12:00	12:05	12:07	12:10	12:15	12:20	12:25	12:30
12:30	12:35	12:40	12:45	12:50	12:55	1:00	1:05	1:07	1:10	1:15	1:20	1:25	1:30
1:30	1:35	1:40	1:45	1:50	1:55	2:00	2:05	2:07	2:10	2:15	2:20	2:25	2:30
2:30	2:35	2:40	2:45	2:50	2:55	3:00	3:05	3:07	3:10	3:15	3:20	3:25	3:30
3:30	3:35	3:40	3:45	3:50	3:55	4:00	4:05	4:07	4:10	4:15	4:20	4:25	4:30
4:30	4:35	4:40	4:45	4:50	4:55	5:00	5:05	5:07	5:10	5:15	5:20	5:25	5:30

**Route B–Yale Acres:** Leave Railroad Station via State Street, left on to Perkins Street, continue on to Pratt Street, right on Camp Street, right on Broad Street, left on to Yale Acres Road, left on Broadvale Road, right on Elizabeth, left on to Wall Street, left on North Wall Street, left on Atkins Street, right on Broad Street, left on Sherman Avenue.

**Return:** Leave Sherman Avenue, right on to Warren Street, right on Britannia Street, left on Griswold Street, left on North Colony Street, left on to Center Street, right on Camp Street, left on State Street, stop at Railroad Station.

**Route B–South Meriden:** Leave Railroad Station via State Street, right on West Main Street, left on to Cook Avenue, continue to Old Colony Road, right on Hanover Avenue, left on Main Street, left on to Camp Street.

**Return:** Leave Camp Street, right on to Baker Avenue, right on Cheshire Road, right on Main Street, left on Hanover Road, right on Perkins Street, continue on Pratt Street, left on Mill Street, left on State Street, stop at Railroad Station.



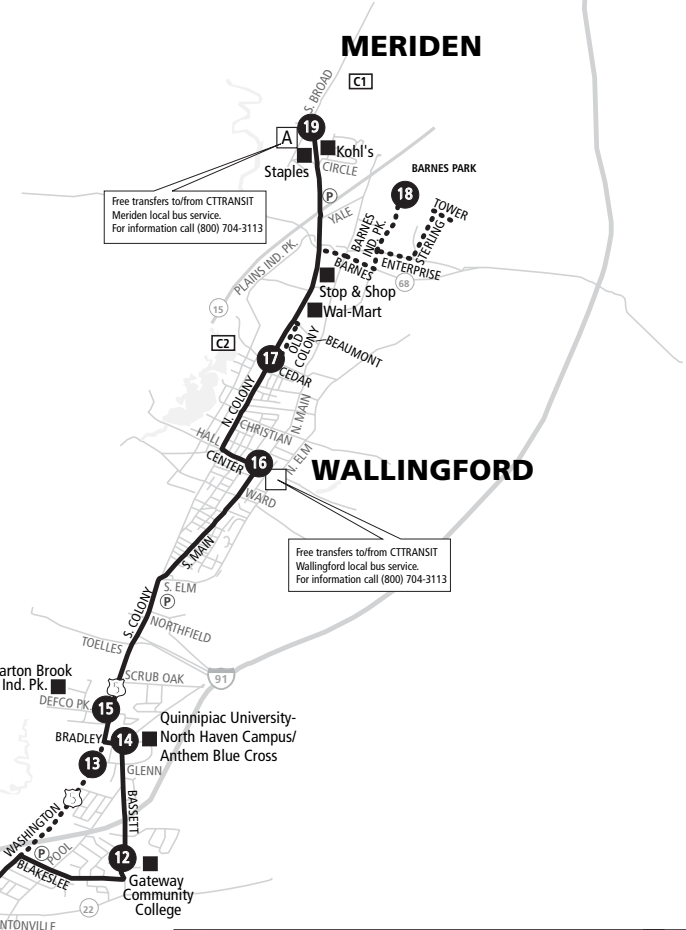
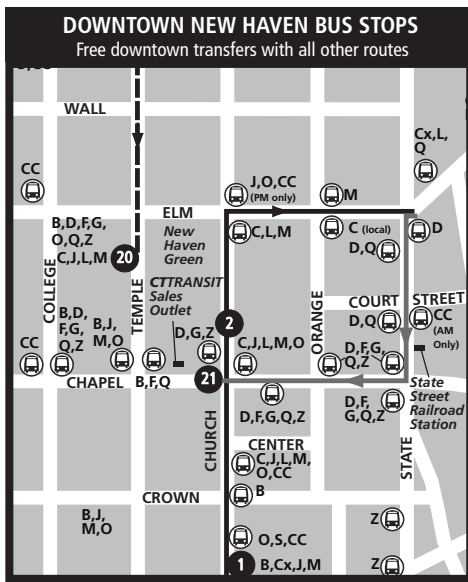


# NORTH HAVEN

Effective: March 21, 2010

## Routes

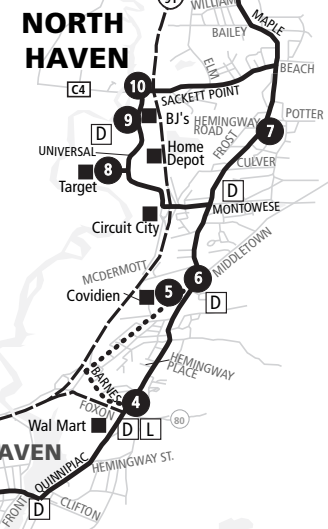
- C1 Meriden
- C2 Wallingford Center
- C3 North Haven Center
- C4 Universal Drive



Free downtown transfers with all other routes, see inset for details.

Free transfers to/from CTRANSIT Meriden local bus service. For information call (800) 704-3113

Free transfers to/from CTRANSIT Wallingford local bus service. For information call (800) 704-3113



**WHAT THE SYMBOLS ON THE MAP MEAN**

- 1** Timepoints are places the bus is scheduled to reach at a specific time (listed on the schedule). The timepoints are not the only places the bus will stop along the route.
- D** Transfer Points show connections with other bus routes. The connecting route letter is in the box. This is an example of where to transfer to the "D" route.
- Part-time routing is shown for areas where the bus does not always travel. Refer to the schedule for trips that take the part-time route.
- P** Park & Ride Lots offer free parking.
- Operates express via I-91.



# NEW HAVEN



Routes:

- A Kohl's Plaza–Westfield Shoppingtown
- B Yale Acres–South Meriden
- C West Main Street–East Main Street



WEST MAIN STREET–EAST MAIN STREET

WEEKDAY SERVICE

RR Station > West Main > RR Station > East Main > RR Station												
1	2	3	2	1	4	5	6	7	8	5	4	1
Railroad Station	Centennial Plaza	Castle Drive	Centennial Plaza	Railroad Station	Liberty & Broad	East Main & Paddock	Rushford Center	Cuno Plant	Research Parkway	East Main & Paddock	Liberty & Broad	Railroad Station
LV	LV	LV	LV	LV	LV	AR	LV	LV	LV	LV	LV	AR
..	..	6:15	6:18	6:30	..	6:38	6:42	6:45	6:50	6:55	*6:57	*7:15
..	..	..	..	•7:15	•7:20	•7:25	7:35	7:40	7:45	7:50	7:53	8:00
8:00	8:10	8:15	8:18	8:30	8:35	8:38	8:42	..	8:45	8:50	8:55	9:00
9:00	9:10	9:15	9:18	9:30	9:35	9:38	9:42	..	9:45	9:50	9:55	10:00
..	..	..	..	10:00	10:05	10:08	10:12	..	10:15	10:20	10:25	10:30
10:30	10:40	10:45	10:48	11:00	11:05	11:08	11:12	..	11:15	11:20	11:25	11:30
11:30	11:40	11:45	11:48	12:00	12:05	12:08	12:12	..	12:15	12:20	12:25	12:30
12:30	12:40	12:45	12:48	1:00	1:05	1:08	1:12	..	1:15	1:20	1:25	1:30
1:30	1:40	1:45	1:48	2:00	2:05	2:08	2:12	..	2:15	†2:20	†2:25	2:30
2:30	2:40	2:45	2:48	3:00	3:05	3:08	3:15	3:30	3:35	3:40	3:45	3:50
3:50	4:00	4:05	4:10	4:15	4:20	4:25	4:30	4:35	4:40	4:45	4:50	4:55
5:00	5:10	5:15	5:18	5:30	5:35	5:39	5:42	..	5:45	5:50	5:55	6:00

**Route C–West Main Street:** Leave Railroad Station via State Street, right on West Main Street, continue on West Main past Hubbard Park, left on Westerly Terrace, left on Castle Drive.

**Return:** Leave Castle Drive, right on to West Main Street, right on Cook Avenue, left on Hanover Street, right on Perkins Street, continue to Pratt Street, left on to Mill Street, left on State Street, stop at Railroad Station.

**Route C–East Main Street:** Leave Railroad Station via State Street, left on to Perkins Street, right on East Main Street, bear left at Liberty Street, right on Pearl Street, left on to East Main Street, right on Paddock Avenue, enter Rushford Center, right on Murdock Avenue, left on Research Parkway.

**Return:** Leave Research Parkway, left on East Main Street, right on Pearl Street, left on Liberty Street, continue on to East Main Street, right on Pratt Street, left on Mill Street, left on State Street, stop at Railroad Station.

**Route C Alternate Routes:**

\* Route C makes a side trip from Liberty & Broad Street at 6:57AM via right on Broad Street to Sherman, to Center, to Pratt, to Mill, to State, to Railroad Station.

• Route C leaves Railroad Station at 7:15AM for Gravel Street via Liberty Street, arriving at Gravel Street at 7:25AM.

† Route C leaves Gravel Street at 2:20PM for the Railroad Station via Liberty Street, and arrives at Railroad Station at 2:30PM.



# NORTH HAVEN

Effective: March 21, 2010

## Routes

- C1 Meriden
- C2 Wallingford Center
- C3 North Haven Center
- C4 Universal Drive

## WEEKDAY SERVICE

Downtown New Haven > North Haven > Wallingford/Meriden																			
Route	1	2	3	4	5	6	8	9	10	7	11	12	13	14	15	16	17	18	19
	Downtown New Haven Church & George	Downtown New Haven Church & Chapel	Grand & Ferry	Barnes & Quinpiac	Covidien Middletown Ave	Quinpiac & Middletown C1, C2, C3	Target Plaza Universal Drive	BJ's Wholesale Universal Drive C1, C2, C3	Universal & Sackett Pt. C1, C2, C3	Quinpiac & Hemingway North Haven C1, C2, C3	Washington & Clintonville (Rt. 22) C1, C2, C3	Gateway Com. College Bassett Rd. C1, C2, C3	Washington & Glenn C1, C2, C3	Bassett & Bradley C1, C2, C3	Wharton Brook Ind Ctr C1, C2	Wallingford Center Main & Center C1, C2	Route 5 & Cedar Lane C1	Barnes Industrial Park North	Kohl's (Route 5) Meriden
<b>C2X</b>	5:20	5:25	..	5:32	..	5:35	5:38	•5:39	5:40	..	5:46	..	5:49	..	..	5:55	5:58	..	..
<b>C1X</b>	5:55	6:00	..	6:08	..	6:11	..	..	..	6:15	6:20	..	6:24	..	..	6:30	6:33	..	6:42
<b>C2X</b>	6:15	6:20	..	..	6:30	6:31	6:37	•6:39	6:41	..	6:48	..	6:52	..	6:55	7:02	7:07	X7:15	..
<b>C4X</b>	6:25	6:30	..	6:40	..	6:45	U6:50	•6:52	F6:53	..	..	..	..	..	..	..	..	..	..
<b>C1X</b>	B6:35	B6:40	..	6:50	..	6:55	..	..	..	6:59	7:04	..	7:08	B7:10	7:13	7:21	7:25	..	7:35
<b>C3X</b>	B7:20	B7:25	..	..	..	..	..	..	..	..	7:40	7:45	..	B7:48	..	..	..	..	..
<b>C1X</b>	7:20	7:25	..	7:39	..	7:44	7:49	•7:51	7:52	..	8:00	..	8:04	..	..	8:12	8:16	..	8:26
<b>C1</b>	..	8:15	8:26	8:34	..	8:39	8:45	•8:47	8:48	..	8:56	9:01	..	9:03	..	9:11	9:15	..	9:25
<b>C1</b>	..	9:25	9:36	9:44	..	9:49	9:55	•9:57	9:58	..	10:06	10:11	..	10:13	..	10:21	10:25	..	10:35
<b>C1</b>	..	10:25	10:36	10:44	..	10:49	10:55	•10:57	10:58	..	11:06	11:11	..	11:13	..	11:21	11:25	..	11:35
<b>C1</b>	..	11:25	11:36	11:44	..	11:49	11:55	•11:57	11:58	..	12:06	12:11	..	12:13	..	12:21	12:25	..	12:35
<b>C1</b>	..	12:25	12:36	12:44	..	12:49	12:55	•12:57	12:58	..	1:06	1:11	..	1:13	..	1:21	1:25	..	1:35
<b>C1</b>	..	1:25	1:36	1:44	..	1:49	1:55	•1:57	1:58	..	2:06	2:11	..	2:13	..	2:21	2:25	..	2:35
<b>C1</b>	..	2:25	2:36	2:46	..	2:51	2:57	•2:59	3:00	..	3:08	3:13	..	3:15	..	3:23	3:27	..	3:37
<b>C3</b>	..	2:45	2:56	3:06	..	3:11	3:17	•3:19	3:20	..	3:28	..	3:32	..	3:35	..	..	..	..
<b>C3</b>	..	3:05	3:16	3:26	..	3:31	3:37	•3:39	3:40	..	3:48	..	3:52	..	3:55	..	..	..	..
<b>C2</b>	..	3:25	3:36	3:46	..	3:51	3:57	•3:59	4:00	..	4:08	..	4:12	..	..	4:20	4:24	4:34	..
<b>C1X</b>	3:35	3:40	..	3:52	..	3:57	..	..	..	4:01	4:07	4:12	..	4:14	..	4:22	4:26	..	4:36
<b>C3X</b>	3:55	4:00	..	4:12	..	4:17	4:23	•4:25	4:26	..	S4:34	..	..	..	..	..	..	..	..
<b>C2X</b>	4:15	4:20	..	4:32	..	4:37	..	..	..	4:41	4:47	4:52	..	4:54	..	5:02	5:06	..	..
<b>C1X</b>	4:35	4:40	..	4:52	..	4:57	..	..	..	5:01	5:06	5:11	..	5:13	..	5:21	5:25	..	5:35
<b>C2X</b>	5:10	5:15	..	5:27	..	5:32	5:38	•5:40	5:41	..	5:49	5:54	..	5:56	..	6:04	6:08	..	..
<b>C2X</b>	6:20	6:25	..	6:33	..	6:38	6:43	•6:45	6:46	..	6:52	6:56	..	6:58	..	7:06	..	..	..
<b>J1</b>	J9:07	J9:15	..	..	..	..	..	..	9:43	..	9:51	..	9:54	..	..	..	..	..	..



# NORTH HAVEN

Effective: March 21, 2010

## Routes

- C1 Meriden
- C2 Wallingford Center
- C3 North Haven Center
- C4 Universal Drive

## WEEKDAY SERVICE

Meriden/Wallingford > North Haven > Downtown New Haven																					
Route	19	18	17	16	15	14	12	13	11	10	9	8	7	6	5	4	3	21	20	1	
Route	Kohl's (Route 5) Meriden	Barnes Industrial Park North	Route 5 & Cedar Lane	Wallingford Center Main & Prince	Wharton Brook Ind Ctr	Bassett & Bradley	Gateway Com. College Bassett Rd.	Washington & Glenn	Washington & Clintonville (Rt. 22)	Universal & Sackett Pt.	BJ's Wholesale Universal Drive	Target Plaza Universal Drive	Quinnipiac & Hemingway North Haven	Quinnipiac & Middletown	Covidien Middletown Ave	Quinnipiac & Route 80	Grand & Ferry	Downtown New Haven Chapel & Church	Downtown New Haven Temple at Center Green	Downtown New Haven Church & George	
	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	AR	AR	AR	
C	..	..	..	..	..	..	..	..	5:48	..	..	..	5:51	5:54	..	5:59	6:08	6:21	..	..	
C	..	..	..	..	..	..	..	..	5:58	..	..	..	6:18	6:21	..	6:26	6:35	6:48	..	..	
Cx	..	..	6:23	6:29	..	6:38	6:41	..	6:46	6:53	6:55	6:58	..	6:46	..	6:51	7:00	7:13	..	..	
Cx	6:48	..	6:55	7:01	..	7:10	7:13	..	7:18	..	..	..	7:21	7:24	..	7:29	..	..	7:23	7:28	
Cx	..	7:18	7:25	7:31	..	..	..	7:40	7:46	..	..	..	7:50	7:53	..	7:58	..	..	8:13	8:18	
Cx	..	..	..	..	..	B7:50	7:54	..	7:59	..	..	..	8:03	8:06	..	8:11	..	..	8:26	8:31	
Cx	7:43	7:53	8:00	8:06	..	8:15	8:18	..	8:23	..	..	..	8:27	8:30	..	8:35	..	..	8:50	8:54	
C	8:52	..	9:00	9:06	..	9:15	9:18	..	9:23	9:30	9:32	9:36	..	9:41	..	9:46	9:55	10:08	..	..	
C	9:52	..	10:00	10:06	..	10:15	10:18	..	10:23	10:30	10:31	10:36	..	10:41	..	10:46	10:55	11:08	..	..	
C	10:52	..	11:00	11:06	..	11:15	11:18	..	11:23	11:30	11:31	11:35	..	11:40	..	11:45	11:53	12:07	..	..	
C	11:52	..	12:00	12:06	..	12:15	12:18	..	12:23	12:30	12:31	12:35	..	12:40	..	12:45	12:53	1:07	..	..	
C	12:52	..	1:00	1:06	..	1:15	1:18	..	1:23	1:30	1:31	1:35	..	1:40	..	1:45	1:53	2:07	..	..	
C	1:52	..	2:00	2:06	..	2:15	2:18	..	2:23	2:30	2:31	2:35	..	2:40	..	2:45	2:53	3:07	..	..	
Cx	..	..	..	..	..	..	..	..	S2:55	3:02	3:04	3:08	..	3:13	T3:15	..	..	..	3:30	..	
Cx	2:52	..	3:00	3:06	..	3:15	3:18	..	3:23	3:33	3:35	3:39	..	3:44	..	T3:49	..	..	4:04	..	
Cx	..	..	..	..	3:36	..	..	3:38	3:44	..	..	..	3:48	3:51	..	T3:56	..	..	4:11	..	
Cx	..	..	..	..	4:05	..	..	4:07	4:13	4:19	4:21	4:24	..	4:30	..	T4:35	..	..	4:50	..	
Cx	3:56	..	4:04	4:10	..	B4:21	4:25	..	4:30	4:37	4:39	4:42	..	4:47	..	T4:52	..	..	5:07	..	
Cx	..	4:35	4:42	4:48	..	B5:03	..	5:04	5:10	..	..	..	5:14	5:17	..	T5:22	..	..	5:37	..	
Cx	5:09	..	5:17	5:22	..	..	..	5:31	5:37	5:44	5:46	5:49	..	5:54	..	T5:59	..	..	6:15	..	
Cx	5:52	..	6:00	6:05	..	..	..	6:12	6:16	6:23	6:25	6:28	..	6:33	..	T6:38	..	..	6:50	..	
Cx	..	..	6:27	6:32	..	..	..	6:39	6:45	6:52	6:54	6:58	..	7:03	..	T7:08	..	..	7:20	..	
Cx	..	..	..	N7:07	..	..	..	7:14	7:20	7:27	7:29	7:33	..	7:38	..	T7:43	..	..	7:55	..	
D5	..	..	..	..	..	..	..	9:55	9:58	10:06	10:07	10:09	..	10:13	..	10:21	10:30	10:40	..	..	
Cx	..	..	..	..	..	..	..	..	..	..	11:18	11:22	..	11:27	..	T11:31	..	..	11:40	..	



# NORTH HAVEN

Effective: March 21, 2010

## Routes

- C1** Meriden
- C2** Wallingford Center
- C3** North Haven Center
- C4** Universal Drive

### DESTINATION SIGN Route Letter/Number

- C1** NORTH HAVEN - Grand Av - Quinnipiac Av - Universal Dr - Wallingford Ctr - Meriden - Kohl's
- C1x** NORTH HAVEN - I-91 Express - Wallingford Ctr - Meriden - Kohl's
- C1x** NORTH HAVEN - I-91 Express - Universal Dr - Wallingford Ctr - Meriden - Kohl's
- C1x** NORTH HAVEN - I-91 Express - Universal Dr - Wallingford Ctr - Barnes Ind Pk - Meriden - Kohl's
- C2x** NORTH HAVEN - I-91 Express - Universal Dr - Wallingford Ctr - Barnes Ind Pk
- C2x** NORTH HAVEN - I-91 Express - Wallingford Ctr - Cedar Ln
- C2x** NORTH HAVEN - I-91 Express - Universal Dr - Wallingford Ctr
- C2x** NORTH HAVEN - I-91 Express - Universal Dr - Wallingford Ctr - Cedar Ln
- C3** NORTH HAVEN - Grand Av - Quinnipiac Av - Universal Dr - North Haven Ctr

- C3** NORTH HAVEN - Quinnipiac Av - North Haven Ctr
- C3x** NORTH HAVEN - I-91 Express - North Haven Ctr
- C3x** NORTH HAVEN - I-91 Express - North Haven Ctr - Blue Cross
- C4x** UNIVERSAL DR - I-91 Express
- J1** WHITNEY AV - Centerville

**Additional Weekday service to Middletown Avenue and Universal Drive available on the D-Grand Ave route.**

### DESTINATION SIGN Route Letter/Number

- C** NEW HAVEN - Quinnipiac Av - Grand Av
- Cx** NEW HAVEN - I-91 Express
- D5** DIXWELL AV - Hamden Plz



## NORTH HAVEN

Effective: March 21, 2010

### Routes

- C1 Meriden
- C2 Wallingford Center
- C3 North Haven Center
- C4 Universal Drive

### Timetable notes:

■ = PM      .. = No Service

Timepoints are shown on the route map as ● and are listed at the top of the timetable.

- Trip operates past, but not into timepoint.
- B** Operates into Quinnipiac University-North Haven Campus/Anthem Blue Cross.
- F** Trip operates via Sackett Point to State Street, Dixwell Avenue to Centerville. Continues inbound via the "J" route.
- J** Trip operates via the "J" route to Centerville then continues via Dixwell, State, Sackett Point, Maple, Washington, Glen Rd North Haven.
- N** Trip leaves from Center St. and North Main (Hudson United Bank) and returns to New Haven via Center and Route 5.
- S** Trip operates into the Stop & Shop Shopping Center and stops in the parking lot near Walgreens.
- T** Trip via I-91 to Trumbull Street, Temple Street to the New Haven Green at Temple & Center Green.
- U** Board this trip inside Target Plaza and at the outbound bus stops on Universal Drive (on the side of the street going towards North Haven). This trip operates to downtown New Haven via Universal Drive, Sackett Pt. Rd., State St, Dixwell Ave, Centerville and Whitney Ave.
- X** Trip operates via Barnes Industrial Road North, Enterprise, Sterling to Tower before arriving at terminus.



# NORTH HAVEN

Effective: March 21, 2010

## Routes

- C1 Meriden
- C2 Wallingford Center
- C3 North Haven Center
- C4 Universal Drive

## SATURDAY SERVICE

Downtown New Haven > North Haven > Wallingford												
Route	2	3	4	6	8	9	10	11	13	16	17	19
	Downtown New Haven Church & Chapel	Grand & Ferry	Quinnipiac & Barnes	Quinnipiac & Middletown	Target Plaza Universal Drive	BI's Wholesale Universal Drive	Universal & Sackett Point	Washington & Clintonville (Rt. 22)	Washington & Glenn	Wallingford Center Main & Center	Route 5 & Cedar Lane	Kohl's (Route 5) Meriden
	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	LV	AR
<b>C4</b>	5:20	5:30	5:35	5:39	5:45	5:48	..	..	..	..	..	..
<b>C3x</b>	7:30	..	7:38	7:43	7:49	●7:51	7:52	57:59	..	..	..	..
<b>C3</b>	8:00	8:10	8:17	8:21	8:27	●8:30	8:31	8:38	8:41	..	..	..
<b>C1</b>	8:45	8:55	9:02	9:06	9:12	●9:15	9:16	9:23	9:26	9:34	9:39	9:49
<b>C3x</b>	9:30	..	9:38	9:43	9:49	●9:51	9:52	59:59	..	..	..	..
<b>C1</b>	10:12	10:22	10:28	10:33	10:39	●10:42	10:43	10:50	10:53	11:01	11:06	11:16
<b>C1</b>	11:48	11:59	12:06	12:12	12:18	●12:21	12:22	12:29	12:32	12:40	12:45	12:55
<b>C1</b>	1:12	1:23	1:30	1:36	1:42	●1:45	1:46	1:53	1:56	2:04	2:09	2:19
<b>C1</b>	2:36	2:47	2:54	3:00	3:06	●3:09	3:10	3:17	3:20	3:28	3:33	3:43
<b>C1</b>	3:48	3:59	4:06	4:12	4:18	●4:21	4:22	4:29	4:32	4:40	4:45	4:55
<b>C3</b>	5:24	5:35	5:42	5:48	5:54	●5:57	5:58	56:05	..	..	..	..

### DESTINATION SIGN Route Letter/Number

- C1** NORTH HAVEN - Grand Av - Quinnipiac Av - Universal Dr - Wallingford Ctr - Meriden - Kohl's
- C3** NORTH HAVEN - Grand Av - Quinnipiac Av - Universal Dr - North Haven Ctr
- C3** NORTH HAVEN - Grand Av - Quinnipiac Av - Universal Dr - North Haven Ctr - Glenn Rd
- C3x** NORTH HAVEN - I-91 Express - Universal Dr - North Haven Ctr
- C4** UNIVERSAL DR - Grand Av - Quinnipiac Av



# NORTH HAVEN

Effective: March 21, 2010

## Routes

- C1 Meriden
- C2 Wallingford Center
- C3 North Haven Center
- C4 Universal Drive

## SATURDAY SERVICE

Wallingford > North Haven > Downtown New Haven													
	19	17	16	13	11	10	9	8	6	4	3	21	20
Route	Kohl's (Route 5) Meriden LV	Route 5 & Cedar Lane LV	Wallingford Center Main & Center LV	Washington & Glenn LV	Washington & Clintonville (Rt. 22) LV	Universal & Sackett Pt. LV	BJ's Wholesale Universal Dr LV	Target Plaza Universal Drive LV	Quinnipiac & Middletown LV	Route 80 & Quinnipiac LV	Grand & Ferry LV	Downtown New Haven Chapel & Church AR	Downtown New Haven Temple at Center Green AR
D5	:	:	:	:	:	:	5:52	5:56	6:01	6:06	6:12	6:25	:
D5	:	:	:	8:48	8:51	8:58	•9:00	9:04	9:10	9:15	9:21	9:34	:
D5	10:04	10:12	10:16	10:24	10:27	10:34	•10:36	10:40	10:46	10:51	10:57	11:10	:
D5	11:52	12:00	12:04	12:12	12:15	12:22	•12:24	12:28	12:34	12:39	12:45	12:58	:
D5	1:04	1:12	1:16	1:24	1:27	1:34	•1:36	1:40	1:46	1:51	1:57	2:10	:
D5	2:40	2:48	2:52	3:00	3:03	3:10	•3:12	3:16	3:22	3:27	3:33	3:46	:
D5	3:52	4:00	4:04	4:12	4:15	4:22	•4:24	4:28	4:34	4:39	4:45	4:58	:
D5	5:06	5:15	5:19	5:27	5:30	5:37	•5:39	5:43	5:49	5:54	6:00	6:13	:
Cx	:	:	:	:	:	:	10:21	10:23	10:29	T10:33	:	:	10:40
Cx	:	:	:	:	:	:	11:21	11:23	11:29	T11:33	:	:	11:40

### DESTINATION SIGN Route Letter/Number

- Cx NEW HAVEN - I-91 Express
- D5 DIXWELL AV - Hamden Plz





# NORTH HAVEN

Effective: March 21, 2010

## Routes

- C1 Meriden
- C2 Wallingford Center
- C3 North Haven Center
- C4 Universal Drive

## SUNDAY SERVICE

### Downtown New Haven > North Haven

Route	1	2	4	6	8	9	10	11
	Downtown New Haven Church & George	Downtown New Haven Church & Chapel	Quinnipiac & Barnes	Quinnipiac & Middletown	Target Plaza Universal Drive	B.J.'s Wholesale Club Universal Drive	Universal & Sackett Point	Washington & Clintonville (Rt. 22)
	LV	LV	LV	LV	LV	LV	LV	AR
<b>C3x</b>	7:24	7:30	7:38	7:41	7:46	•7:48	7:50	S7:57
<b>C3x</b>	9:24	9:30	9:38	9:41	9:46	•9:48	9:50	S9:57
<b>C3x</b>	2:54	3:00	3:08	3:11	3:16	•3:18	3:20	S3:27
<b>C3x</b>	5:28	5:30	5:38	5:41	5:46	•5:48	5:50	S5:57
<b>C3x</b>	6:28	6:30	6:38	6:41	6:46	•6:48	6:50	S6:57

#### DESTINATION SIGN Route Letter/Number

**C3x** UNIVERSAL DR - I-91 Express - Universal Dr - North Haven Center

### North Haven > Downtown New Haven

Route	11	10	9	8	6	4	20
	Washington & Clintonville (Rt. 22)	Universal & Sackett Point	B.J.'s Wholesale Club Universal Drive	Target Plaza Universal Drive	Quinnipiac & Middletown	Quinnipiac & Barnes	Downtown New Haven Temple at Center Green
	LV	LV	LV	LV	LV	LV	AR
<b>Cx</b>	S7:57	8:04	•8:07	8:10	8:16	T8:19	8:28
<b>Cx</b>	S10:09	10:16	•10:19	10:22	10:28	T10:31	10:40
<b>Cx</b>	S3:37	3:44	•3:47	3:50	3:56	T3:59	4:08
<b>Cx</b>	S5:57	6:04	•6:07	6:10	6:16	T6:19	6:28
<b>Cx</b>	S6:57	7:04	•7:07	7:10	7:16	T7:19	7:28

#### DESTINATION SIGN Route Letter/Number

**Cx** NEW HAVEN - I-91 Express

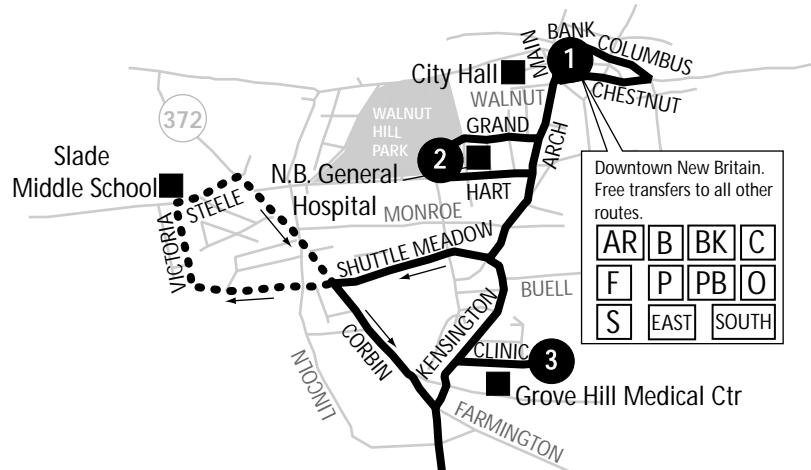
#### Timetable notes:

■ = PM      .. = No Service

Timepoints are shown on the route map as ● and are listed at the top of the timetable.

- Operates past but not into this timepoint.
- S Trip operates into the Stop & Shop Shopping Center and stops in the parking lot near Walgreens.
- T Trip operates via I-91 to Trumbull Street to the New Haven Green at Temple & Center Green.

Additional service to Middletown Avenue and Universal Drive on Saturday available on the D-Grand Ave route.



**WHAT THE SYMBOLS ON THE MAP MEAN**

**1** Timepoints are places the bus is scheduled to reach at a specific time (listed on the schedule). The timepoints are not the only places the bus will stop along the route.

**B** Transfer Points show connections with other bus routes. The connecting route letter is in the box. This is an example of where to transfer to the "B" route.

••• Part-time routing is shown for areas where the bus does not always travel. Refer to the schedule for trips that take the part-time route.



# NEW BRITAIN

# BERLIN

71A

Gnazzo Market

CHAMBERLAIN HWY

# MERIDEN

Connections with CTRANSIT  
 Meriden (800) 441-8901  
 and  
 Middletown Area Transit  
 (MAT) (860) 346-0212

**4** **A** **M Link**  
 Westfield Shoppingtown

**WEEKDAY SERVICE**
**Bank St > NBGH > Grove Hill Med Ctr >  
Westfield Shoppingtown > Bank St**

	1	2	3	4	3	2	1
	Bank Street Downtown New Britain	New Britain General Hospital	Grove Hill Medical Center	Westfield Shoppingtown Meriden	Grove Hill Medical Center	New Britain General Hospital	Bank Street Downtown New Britain
	LV	LV	LV	LV	LV	LV	AR
<b>AR</b>	..	..	..	..	5:45	..	6:00
<b>AR</b>	6:00	6:05	6:15	..	6:15	6:19	6:30
<b>AR</b>	6:30	6:35	6:45	..	6:45	6:49	7:00
<b>AR</b>	A7:30	7:35	7:45	..	7:45	7:49	8:00
<b>AR</b>	8:30	8:35	8:45	9:00	9:15	9:19	9:30
<b>AR</b>	9:30	9:35	9:45	10:00	10:15	10:19	10:30
<b>AR</b>	10:30	10:35	10:45	11:00	11:15	11:19	11:30
<b>AR</b>	11:30	11:35	11:45	12:00	12:15	12:19	12:30
<b>AR</b>	12:30	12:35	12:45	1:00	1:15	1:19	1:30
<b>AR</b>	1:30	1:35	1:45	2:00	2:15	2:19	2:30
<b>AR</b>	2:30	2:35	2:45	3:00	3:15	3:19	3:30
<b>AR</b>	3:30	3:35	3:45	4:00	4:15	4:19	4:30
<b>AR</b>	4:30	4:35	4:45	5:00	5:15	5:19	5:30
<b>AR</b>	5:30	5:35	5:45	6:00	6:15	6:19	6:30
<b>AR</b>	6:30	6:35	..	7:00	..	7:20	7:30
<b>AR</b>	7:30	7:35	..	8:00	..	8:20	8:30
<b>AR</b>	8:30	8:35	..	9:00	..	9:20	9:30
<b>AR</b>	9:30	9:35	..	10:10	..	B10:25	10:30
<b>AR</b>	C10:30	..	..	..	..	..	..

**DESTINATION SIGN Route Letter**
**AR** ARCH ST-NBGH-Grove Hill Med Ctr-Westfield Shoppingtown

**AR** ARCH ST-NBGH-Grove Hill Med Ctr

**AR** ARCH ST-Dntwn New Britain

**Timetable notes:**

■ = PM      .. = No service is provided to that timepoint.

Timepoints are shown on the map as ● and are listed at the top of the timetable.

- A** Trip goes to Slade School on school days.
- B** Trip goes to Hart Street/New Britain General Hospital on request only.
- C** Bus returns to the garage via Arch Street.

## SATURDAY SERVICE

No Sunday Service

### Bank St > NBGH > Grove Hill Med Ctr > Westfield Shoppingtown > Bank St

	①	②	③	④	③	②	①
	Bank Street Downtown New Britain	New Britain General Hospital	Grove Hill Medical Center	Westfield Shoppingtown Meriden	Grove Hill Medical Center	New Britain General Hospital	Bank Street Downtown New Britain
	LV	LV	LV	LV	LV	LV	AR
<b>AR</b>	6:15	6:20	6:30	..	6:30	6:34	6:45
<b>AR</b>	7:15	7:20	7:30	..	7:30	7:34	7:45
<b>AR</b>	8:15	8:20	8:30	..	8:30	8:34	8:45
<b>AR</b>	8:30	8:35	8:45	9:00	9:15	9:19	9:30
<b>AR</b>	9:30	9:35	9:45	10:00	10:15	10:19	10:30
<b>AR</b>	10:30	10:35	10:45	11:00	11:15	11:19	11:30
<b>AR</b>	11:30	11:35	11:45	12:00	12:15	12:19	12:30
<b>AR</b>	12:30	12:35	12:45	1:00	1:15	1:19	1:30
<b>AR</b>	1:30	1:35	1:45	2:00	2:15	2:19	2:30
<b>AR</b>	2:30	2:35	2:45	3:00	3:15	3:19	3:30
<b>AR</b>	3:30	3:35	3:45	4:00	4:15	4:19	4:30
<b>AR</b>	4:30	4:35	4:45	5:00	5:15	5:19	5:30
<b>AR</b>	5:30	5:35	5:45	6:00	6:15	6:19	6:30
<b>AR</b>	6:30	6:35	..	7:00	..	7:20	7:30
<b>AR</b>	7:30	7:35	..	8:00	..	8:20	8:30
<b>AR</b>	8:30	8:35	..	9:00	..	9:20	9:30
<b>AR</b>	9:30	9:35	..	10:10	..	B10:25	10:30
<b>AR</b>	C10:30	..	..	..	..	..	..

**DESTINATION SIGN Route Letter**

- AR** ARCH ST-NBGH-Grove Hill Med Ctr-Westfield Shoppingtown
- AR** ARCH ST-NBGH-Grove Hill Med Ctr
- AR** ARCH ST-Dntwn New Britain

**Timetable notes:**

■ = PM      .. = No service is provided to that timepoint.

Timepoints are shown on the map as ● and are listed at the top of the timetable.

- A** Trip goes to Slade School on school days.
- B** Trip goes to Hart Street/New Britain General Hospital on request only.
- C** Bus returns to the garage via Arch Street.

# **MERIDEN TOD STUDY**

## **APPANDIX C COST ESTIMATE**

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE  
PHASE 1 - STATE STREET AND ABANDONEMENTS**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY	
0202003	Earth Excavation	C.Y.	4,300	\$15.00	\$64,500	EARTH WORK <b>\$80,750</b>	
0202103	Rock Excavation	C.Y.	250	\$65.00	\$16,250		
0209001	Formation of Subgrade	S.Y.	7,015	\$2.00	\$14,030	PAVEMENT  <b>\$392,127</b>	
0212003	Subbase	C.Y.	2,338	\$28.00	\$65,464		
0406170	HMA S1	TON	1,613	\$110.00	\$177,430		
0406171	HMA S0.5	TON	1,210	\$110.00	\$133,100		
0406237	Material For Tack Coat	Gal	701	\$3.00	\$2,103		
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.		\$6.00	\$0		
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0		
	Drainage	LS	1	\$293,300.00	\$293,300	DRAINAGE  <b>\$293,300</b>	
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0		
0653010	Clean Existing Manhole	EA.		\$200.00	\$0		
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0		
0813021	Granite Stone Curbing	L.F.	1,530	\$46.00	\$70,380	WALKS & CURBS  <b>\$322,880</b>	
0921001	Concrete Sidewalk	S.F.	20,200	\$12.50	\$252,500		
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0		
0921032	A Textured Concrete Berm	S.F.		\$22.00	\$0		
0944002	Furnishing and Placing Topsoil	S.Y.	2,000	\$6.00	\$12,000		
0949500	Plantings	EST.	0	\$10,000.00	\$0.00	MISCELLANEOUS  <b>\$522,740</b>	
0950005	Turf Establishment	S.Y.	2,000	\$2.00	\$4,000		
0951xxx	A 4' x 6' Cast Iron Tree Grate	EA.	0	\$1,500.00	\$0		
0969062	A Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000		
0970004	A Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$57,600.00	\$57,600		
1008300	A Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0		
1100000	Traffic Signalization (new signals)	EA.		\$150,000.00	\$0		
1100000	Traffic Signalization (modification to existing)	EA.		\$20,000.00	\$0		
	Decorative Street Lighting	LS	1	\$444,140.00	\$444,140		
	<b>SUBTOTAL</b>				<b>\$1,611,797</b>		<b>\$1,611,797</b>
0971001	A Maintenance and Protection of Traffic (4%+/-)	LS	1	\$64,472	\$64,472		<b>\$370,713</b>
0975002	Mobilization (7%+/-)	LS	1	\$112,826	\$112,826		
0980001	A Construction Staking (1%+/-)	LS	1	\$16,118	\$16,118		
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$161,180	\$161,180		
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$16,118	\$16,118		
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$1,983,000</b>	<b>\$1,983,000</b>	
	Contingencies (10%+/-)	LS	1		\$198,300	\$198,300	
	Incidental (10%+/-)	LS	1		\$198,300	\$198,300	
	Escalation (5%/Yr to 2012)	LS	1		\$99,150	\$99,150	
						<b>\$495,750</b>	
					<b>\$2,479,000</b>		
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$2,479,000</b>	

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPWING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE**

**PHASE 2A - RECONSTRUCT PRATT STREET FROM CENTER STREET TO EAST MAIN STREET**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY	
0202003	Earth Excavation	C.Y.	8,045	\$15.00	\$120,675	EARTH WORK <b>\$136,925</b>	
0202103	Rock Excavation	C.Y.	250	\$65.00	\$16,250		
0209001	Formation of Subgrade	S.Y.	16,995	\$2.00	\$33,990	PAVEMENT  <b>\$950,217</b>	
0212003	Subbase	C.Y.	5,665	\$28.00	\$158,620		
0406170	HMA S1	TON	3,909	\$110.00	\$429,990		
0406171	HMA S0.5	TON	2,932	\$110.00	\$322,520		
0406237	Material For Tack Coat	Gal	1,699	\$3.00	\$5,097		
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.		\$6.00	\$0		
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0		
	Drainage	LS	1	\$199,238.00	\$199,238		DRAINAGE  <b>\$199,238</b>
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0		
0653010	Clean Existing Manhole	EA.		\$200.00	\$0		
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0		
0813021	Granite Stone Curbing	L.F.	4,405	\$46.00	\$202,630	WALKS & CURBS  <b>\$608,880</b>	
0921001	Concrete Sidewalk	S.F.	32,500	\$12.50	\$406,250		
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0		
0921032 A	Textured Concrete Berm	S.F.		\$22.00	\$0		
0944002	Furnishing and Placing Topsoil	S.Y.	1,000	\$6.00	\$6,000	MISCELLANEOUS  <b>\$470,100</b>	
0949500	Plantings	EST.	1	\$10,000.00	\$10,000.00		
0950005	Turf Establishment	S.Y.	1,000	\$2.00	\$2,000		
0951xxx A	4' x 6' Cast Iron Tree Grate	EA.	30	\$1,500.00	\$45,000		
0969062 A	Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000		
0970004 A	Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$57,600.00	\$57,600		
1008300 A	Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0		
1100000	Traffic Signalization (new signals)	EA.		\$150,000.00	\$0		
1100000	Traffic Signalization (modification to existing)	EA.		\$20,000.00	\$0		
	Decorative Street Lighting	LS	1	\$344,500.00	\$344,500		
							<b>\$470,100</b>
	<b>SUBTOTAL</b>				<b>\$2,365,360</b>		<b>\$2,365,360</b>
0971001 A	Maintenance and Protection of Traffic (4%+/-)	LS	1	\$94,614	\$94,614		<b>\$544,033</b>
0975002	Mobilization (7%+/-)	LS	1	\$165,575	\$165,575		
0980001 A	Construction Staking (1%+/-)	LS	1	\$23,654	\$23,654		
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$236,536	\$236,536		
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$23,654	\$23,654		
						<b>\$544,033</b>	
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$2,909,000</b>	<b>\$2,909,000</b>	
	Contingencies (10%+/-)	LS	1		\$290,900	\$290,900	
	Incidental (10%+/-)	LS	1		\$290,900	\$290,900	
	Escalation (5%/Yr to 2012)	LS	1		\$145,450	\$145,450	
						<b>\$727,250</b>	
					<b>\$3,636,000</b>		
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$3,636,000</b>	

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPWING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE  
PHASE 2B - HIGHWAY SIGNING**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY
0001159	Replace Guidance Sign And Panel	EA.	7	\$4,600.00	\$32,200	EARTH WORK
0202103	Rock Excavation	C.Y.		\$65.00	\$0	\$32,200
0209001	Formation of Subgrade	S.Y.		\$2.00	\$0	PAVEMENT
0212003	Subbase	C.Y.		\$28.00	\$0	
0406170	HMA S1	TON		\$110.00	\$0	
0406171	HMA S0.5	TON		\$110.00	\$0	
0406237	Material For Tack Coat	Gal		\$3.00	\$0	
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.		\$6.00	\$0	
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0	\$0
	Drainage	LS		\$293,300.00	\$0	DRAINAGE
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0	
0653010	Clean Existing Manhole	EA.		\$200.00	\$0	
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0	\$0
0813021	Granite Stone Curbing	L.F.		\$46.00	\$0	WALKS & CURBS
0921001	Concrete Sidewalk	S.F.		\$12.50	\$0	
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0	
0921032 A	Textured Concrete Berm	S.F.		\$22.00	\$0	\$0
0944002	Furnishing and Placing Topsoil	S.Y.		\$6.00	\$0	MISCELLANEOUS
0949500	Plantings	EST.		\$10,000.00	\$0.00	
0950005	Turf Establishment	S.Y.		\$2.00	\$0	
0951xxx A	4' x 6' Cast Iron Tree Grate	EA.		\$1,500.00	\$0	
0969062 A	Construction Field Office, Medium	MO		\$2,500.00	\$0	
0970004 A	Trafficperson (2 officer @ 40 hrs/week for 2 week	EST.	1	\$9,600.00	\$9,600	
1008300 A	Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0	
1100000	Traffic Signalization (new signals)	EA.		\$150,000.00	\$0	
1100000	Traffic Signalization (modification to existing)	EA.		\$20,000.00	\$0	
	Decorative Street Lighting	LS		\$444,140.00	\$0	
						\$9,600
	<b>SUBTOTAL</b>				<b>\$41,800</b>	<b>\$41,800</b>
0971001 A	Maintenance and Protection of Traffic (4%+/-)	LS	0	\$1,672	\$0	
0975002	Mobilization (7%+/-)	LS	1	\$2,926	\$2,926	
0980001 A	Construction Staking (1%+/-)	LS	0	\$418	\$0	
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	0	\$4,180	\$0	
0201030	Clearing and Grubbing (1%+/-)	LS	0	\$418	\$0	
						\$2,926
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$45,000</b>	<b>\$45,000</b>
	Contingencies (10%+/-)	LS	1		\$4,500	\$4,500
	Incidental (10%+/-)	LS	1		\$4,500	\$4,500
	Escalation (5%/Yr to 2012)	LS	1		\$2,250	\$2,250
						\$11,250
					<b>\$56,000</b>	<b>\$56,000</b>
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$56,000</b>

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION



**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE**

**PHASE 3 - PERKINS STREET AND EAST MAIN STREET FROM PRATT STREET TO COLONY STREET**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY
0202003	Earth Excavation	C.Y.	4,600	\$15.00	\$69,000	EARTH WORK <b>\$85,250</b>
0202103	Rock Excavation	C.Y.	250	\$65.00	\$16,250	
0209001	Formation of Subgrade	S.Y.	9,459	\$2.00	\$18,918	PAVEMENT  <b>\$638,920</b>
0212003	Subbase	C.Y.	3,153	\$28.00	\$88,284	
0406170	HMA S1	TON	3,176	\$110.00	\$349,360	
0406171	HMA S0.5	TON	1,632	\$110.00	\$179,520	
0406237	Material For Tack Coat	Gal	946	\$3.00	\$2,838	
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.		\$6.00	\$0	
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0	
	Drainage	LS	1	\$292,600.00	\$292,600	
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0	<b>\$292,600</b>
0653010	Clean Existing Manhole	EA.		\$200.00	\$0	
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0	
0813021	Granite Stone Curbing	L.F.	3,602	\$46.00	\$165,692	WALKS & CURBS  <b>\$615,942</b>
0921001	Concrete Sidewalk	S.F.	36,020	\$12.50	\$450,250	
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0	
0921032	A Textured Concrete Berm	S.F.		\$22.00	\$0	
0944002	Furnishing and Placing Topsoil	S.Y.	1,200	\$6.00	\$7,200	MISCELLANEOUS  <b>\$1,629,680</b>
0949500	Plantings	EST.	0	\$10,000.00	\$0.00	
0950005	Turf Establishment	S.Y.	1,200	\$2.00	\$2,400	
0951xxx	A 4' x 6' Cast Iron Tree Grate	EA.	0	\$1,500.00	\$0	
0969062	A Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000	
0970004	A Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$72,000.00	\$72,000	
1008300	A Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0	
1100000	Traffic Signalization (new signals)	EA.	6	\$150,000.00	\$900,000	
1100000	Traffic Signalization (modification to existing)	EA.	10	\$20,000.00	\$200,000	
	Decorative Street Lighting	LS	1	\$443,080.00	\$443,080	
	<b>SUBTOTAL</b>				<b>\$3,262,392</b>	<b>\$3,262,392</b>
0971001	A Maintenance and Protection of Traffic (4%+/-)	LS	1	\$130,496	\$130,496	<b>\$750,350</b>
0975002	Mobilization (7%+/-)	LS	1	\$228,367	\$228,367	
0980001	A Construction Staking (1%+/-)	LS	1	\$32,624	\$32,624	
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$326,239	\$326,239	
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$32,624	\$32,624	
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$4,013,000</b>	<b>\$4,013,000</b>
	Contingencies (10%+/-)	LS	1		\$401,300	\$401,300
	Incidental (10%+/-)	LS	1		\$401,300	\$401,300
	Escalation (5%/Yr to 2012)	LS	1		\$200,650	\$200,650
						<b>\$1,003,250</b>
					<b>\$5,016,000</b>	
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$5,016,000</b>

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE**

**PHASE 4A - RECONSTRUCT WEST MAIN STREET AND HANOVER STREET**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY
0202003	Earth Excavation	C.Y.	0	\$15.00	\$0	EARTH WORK
0202103	Rock Excavation	C.Y.	0	\$65.00	\$0	<b>\$0</b>
0209001	Formation of Subgrade	S.Y.	0	\$2.00	\$0	PAVEMENT
0212003	Subbase	C.Y.	0	\$28.00	\$0	
0406170	HMA S1	TON	0	\$110.00	\$0	
0406171	HMA S0.5	TON	1,678	\$110.00	\$184,580	
0406237	Material For Tack Coat	Gal	972	\$3.00	\$2,916	
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.	9,725	\$6.00	\$58,350	
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0	
	Drainage	LS	1	\$117,688.00	\$117,688	DRAINAGE
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0	
0653010	Clean Existing Manhole	EA.		\$200.00	\$0	
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0	
0813021	Granite Stone Curbing	L.F.	540	\$46.00	\$24,840	WALKS & CURBS
0921001	Concrete Sidewalk	S.F.	25,000	\$12.50	\$312,500	
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0	
0921032	A Textured Concrete Berm	S.F.		\$22.00	\$0	
0944002	Furnishing and Placing Topsoil	S.Y.	0	\$6.00	\$0	MISCELLANEOUS
0949500	Plantings	EST.	0	\$50,000.00	\$0.00	
0950005	Turf Establishment	S.Y.	0	\$2.00	\$0	
0951xxx	A 4' x 6' Cast Iron Tree Grate	EA.		\$1,500.00	\$0	
0969062	A Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000	
0970004	A Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$57,600.00	\$57,600	
1008300	A Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0	
1100000	Traffic Signalization (new signals)	EA.		\$150,000.00	\$0	
1100000	Traffic Signalization (modification to existing)	EA.		\$20,000.00	\$0	
	Decorative Street Lighting	LS	1	\$82,813.00	\$82,813	
	<b>SUBTOTAL</b>				<b>\$846,287</b>	<b>\$846,287</b>
0971001	A Maintenance and Protection of Traffic (4%+/-)	LS	1	\$33,851	\$33,851	CONTRACT ITEMS
0975002	Mobilization (7%+/-)	LS	1	\$59,240	\$59,240	
0980001	A Construction Staking (1%+/-)	LS	1	\$8,463	\$8,463	
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$84,629	\$84,629	
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$8,463	\$8,463	
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$1,041,000</b>	
	Contingencies (10%+/-)	LS	1		\$104,100	\$104,100
	Incidental (10%+/-)	LS	1		\$104,100	\$104,100
	Escalation (5%/Yr to 2012)	LS	1		\$52,050	\$52,050
						<b>\$260,250</b>
					<b>\$1,301,000</b>	
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$1,301,000</b>

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE**

**PHASE 4B - RECONSTRUCT ROUTE 71 (COOK AVE.) - WEST MAIN STREET TO HANOVER STREET**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY	
0202003	Earth Excavation	C.Y.	0	\$15.00	\$0	EARTH WORK	
0202103	Rock Excavation	C.Y.	0	\$65.00	\$0	\$0	
0209001	Formation of Subgrade	S.Y.	0	\$2.00	\$0	PAVEMENT	
0212003	Subbase	C.Y.	0	\$28.00	\$0		
0406170	HMA S1	TON	0	\$110.00	\$0		
0406171	HMA S0.5	TON	850	\$110.00	\$93,500		
0406237	Material For Tack Coat	Gal	493	\$3.00	\$1,479		
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.	4,927	\$6.00	\$29,562		
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0		\$124,541
	Drainage	LS	1	\$24,675.00	\$24,675		DRAINAGE
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0		
0653010	Clean Existing Manhole	EA.		\$200.00	\$0		
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0	\$24,675	
0813021	Granite Stone Curbing	L.F.	200	\$46.00	\$9,200	WALKS & CURBS	
0921001	Concrete Sidewalk	S.F.	0	\$12.50	\$0		
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0		
0921032	A Textured Concrete Berm	S.F.		\$22.00	\$0		\$9,200
0944002	Furnishing and Placing Topsoil	S.Y.	0	\$6.00	\$0	MISCELLANEOUS	
0949500	Plantings	EST.	0	\$50,000.00	\$0.00		
0950005	Turf Establishment	S.Y.	0	\$2.00	\$0		
0951xxx	A 4' x 6' Cast Iron Tree Grate	EA.		\$1,500.00	\$0		
0969062	A Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000		
0970004	A Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$57,600.00	\$57,600		
1008300	A Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0		
1100000	Traffic Signalization (new signals)	EA.	1	\$150,000.00	\$150,000		
1100000	Traffic Signalization (modification to existing)	EA.	3	\$20,000.00	\$60,000		
	Decorative Street Lighting	LS		\$0.00	\$0		
							\$272,600
	<b>SUBTOTAL</b>				<b>\$431,016</b>		<b>\$431,016</b>
0971001	A Maintenance and Protection of Traffic (4%+/-)	LS	1	\$17,241	\$17,241		\$99,134
0975002	Mobilization (7%+/-)	LS	1	\$30,171	\$30,171		
0980001	A Construction Staking (1%+/-)	LS	1	\$4,310	\$4,310		
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$43,102	\$43,102		
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$4,310	\$4,310		
						\$99,134	
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$530,000</b>	<b>\$530,000</b>	
	Contingencies (10%+/-)	LS	1		\$53,000	\$53,000	
	Incidental (10%+/-)	LS	1		\$53,000	\$53,000	
	Escalation (5%/Yr to 2012)	LS	1		\$26,500	\$26,500	
						\$132,500	
					<b>\$663,000</b>	<b>\$663,000</b>	
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$663,000</b>	

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE**

**PHASE 5 - COLONY STREET FROM EAST/WEST MAIN STREET TO BROOK STREET**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY
0202003	Earth Excavation	C.Y.	0	\$15.00	\$0	EARTH WORK
0202103	Rock Excavation	C.Y.	0	\$65.00	\$0	<b>\$0</b>
0209001	Formation of Subgrade	S.Y.	0	\$2.00	\$0	PAVEMENT
0212003	Subbase	C.Y.	0	\$28.00	\$0	
0406170	HMA S1	TON	0	\$110.00	\$0	
0406171	HMA S0.5	TON	977	\$110.00	\$107,470	
0406237	Material For Tack Coat	Gal	566	\$3.00	\$1,698	
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.	5,662	\$6.00	\$33,972	
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0	<b>\$143,140</b>
	Drainage	LS	1	\$30,267.00	\$30,267	DRAINAGE
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0	
0653010	Clean Existing Manhole	EA.		\$200.00	\$0	
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0	<b>\$30,267</b>
0813021	Granite Stone Curbing	L.F.	230	\$46.00	\$10,580	WALKS & CURBS
0921001	Concrete Sidewalk	S.F.	23,060	\$12.50	\$288,250	
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0	
0921032 A	Textured Concrete Berm	S.F.		\$22.00	\$0	<b>\$298,830</b>
0944002	Furnishing and Placing Topsoil	S.Y.	400	\$6.00	\$2,400	MISCELLANEOUS
0949500	Plantings	EST.	0	\$10,000.00	\$0.00	
0950005	Turf Establishment	S.Y.	400	\$2.00	\$800	
0951xxx A	4' x 6' Cast Iron Tree Grate	EA.	0	\$1,500.00	\$0	
0969062 A	Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000	
0970004 A	Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$57,600.00	\$57,600	
1008300 A	Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0	
1100000	Traffic Signalization (new signals)	EA.		\$150,000.00	\$0	
1100000	Traffic Signalization (modification to existing)	EA.		\$20,000.00	\$0	
	Decorative Street Lighting	LS	1	\$76,387.00	\$76,387	
						<b>\$142,187</b>
	<b>SUBTOTAL</b>				<b>\$614,424</b>	<b>\$614,424</b>
0971001 A	Maintenance and Protection of Traffic (4%+/-)	LS	1	\$24,577	\$24,577	
0975002	Mobilization (7%+/-)	LS	1	\$43,010	\$43,010	
0980001 A	Construction Staking (1%+/-)	LS	1	\$6,144	\$6,144	
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$61,442	\$61,442	
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$6,144	\$6,144	
						<b>\$141,318</b>
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$756,000</b>	<b>\$756,000</b>
	Contingencies (10%+/-)	LS	1		\$75,600	\$75,600
	Incidental (10%+/-)	LS	1		\$75,600	\$75,600
	Escalation (5%/Yr to 2012)	LS	1		\$37,800	\$37,800
						<b>\$189,000</b>
					<b>\$945,000</b>	
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$945,000</b>

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE**

**PHASE 6 - RELOCATE MILL STREET FROM STATE STREET TO PRATT STREET**

ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY	
0202003	Earth Excavation	C.Y.	4,880	\$15.00	\$73,200	EARTH WORK <b>\$89,450</b>	
0202103	Rock Excavation	C.Y.	250	\$65.00	\$16,250		
0209001	Formation of Subgrade	S.Y.	5,112	\$2.00	\$10,224	PAVEMENT  <b>\$285,849</b>	
0212003	Subbase	C.Y.	1,704	\$28.00	\$47,712		
0406170	HMA S1	TON	1,176	\$110.00	\$129,360		
0406171	HMA S0.5	TON	882	\$110.00	\$97,020		
0406237	Material For Tack Coat	Gal	511	\$3.00	\$1,533		
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.		\$6.00	\$0		
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0		
	Drainage	LS	1	\$207,900.00	\$207,900		DRAINAGE
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0	<b>\$207,900</b>	
0653010	Clean Existing Manhole	EA.		\$200.00	\$0		
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0		
0813021	Granite Stone Curbing	L.F.	600	\$46.00	\$27,600	WALKS & CURBS  <b>\$225,182</b>	
0814002	Reset Granite Stone Curbing	L.F.	1,776	\$32.00	\$56,832		
0921001	Concrete Sidewalk	S.F.	11,260	\$12.50	\$140,750		
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0		
0921032	A Textured Concrete Berm	S.F.		\$22.00	\$0		
0944002	Furnishing and Placing Topsoil	S.Y.	5,700	\$6.00	\$34,200	MISCELLANEOUS  <b>\$108,200</b>	
0949500	Plantings	EST.	0	\$10,000.00	\$0.00		
0950005	Turf Establishment	S.Y.	5,700	\$2.00	\$11,400		
0951xxx	A 4' x 6' Cast Iron Tree Grate	EA.	0	\$1,500.00	\$0		
0969062	A Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000		
0970004	A Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$57,600.00	\$57,600		
1008300	A Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0		
1100000	Traffic Signalization (new signals)	EA.		\$150,000.00	\$0		
1100000	Traffic Signalization (modification to existing)	EA.		\$20,000.00	\$0		
	Decorative Street Lighting	LS	1	\$0.00	\$0		
	<b>SUBTOTAL</b>				<b>\$916,581</b>		<b>\$916,581</b>
0971001	A Maintenance and Protection of Traffic (4%+/-)	LS	1	\$36,663	\$36,663		<b>\$210,814</b>
0975002	Mobilization (7%+/-)	LS	1	\$64,161	\$64,161		
0980001	A Construction Staking (1%+/-)	LS	1	\$9,166	\$9,166		
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$91,658	\$91,658		
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$9,166	\$9,166		
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$1,127,000</b>	<b>\$1,127,000</b>	
	Contingencies (10%+/-)	LS	1		\$112,700	\$112,700	
	Incidental (10%+/-)	LS	1		\$112,700	\$112,700	
	Escalation (5%/Yr to 2012)	LS	1		\$56,350	\$56,350	
						<b>\$281,750</b>	
					<b>\$1,409,000</b>		
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$1,409,000</b>	

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CONNECTICUT**

**PRELIMINARY PROPOSAL COST ESTIMATE**

**PHASE 7 - RECONSTRUCT PRATT STREET FROM CAMP STREET TO CENTER STREET**


ITEM No.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT PRICE	AMOUNT	SUMMARY	
0202003	Earth Excavation	C.Y.	6,000	\$15.00	\$90,000	EARTH WORK	
0202103	Rock Excavation	C.Y.	250	\$65.00	\$16,250	<b>\$106,250</b>	
0209001	Formation of Subgrade	S.Y.	12,676	\$2.00	\$25,352	PAVEMENT	
0212003	Subbase	C.Y.	4,225	\$28.00	\$118,300		
0406170	HMA S1	TON	2,916	\$110.00	\$320,760		
0406171	HMA S0.5	TON	2,187	\$110.00	\$240,570		
0406237	Material For Tack Coat	Gal	1,268	\$3.00	\$3,804		
0406270	Milling of Bituminous Concrete (0"-6")	S.Y.		\$6.00	\$0		
0406301	Cut Bituminous Concrete Pavement	L.F.		\$4.00	\$0		<b>\$708,786</b>
	Drainage	LS	1	\$148,750.00	\$148,750		DRAINAGE
0653001	Clean Existing Catch Basin	EA.		\$150.00	\$0		
0653010	Clean Existing Manhole	EA.		\$200.00	\$0		
0653100	Clean Existing Culvert - 12" to 42" Diameter	L.F.		\$15.00	\$0	<b>\$148,750</b>	
0813021	Granite Stone Curbing	L.F.	3,780	\$46.00	\$173,880	WALKS & CURBS	
0921001	Concrete Sidewalk	S.F.	17,000	\$12.50	\$212,500		
0921013	Concrete Driveway Apron	S.F.		\$12.00	\$0		
0921032	A Textured Concrete Berm	S.F.		\$22.00	\$0		<b>\$386,380</b>
0944002	Furnishing and Placing Topsoil	S.Y.	1,000	\$6.00	\$6,000	MISCELLANEOUS	
0949500	Plantings	EST.	1	\$10,000.00	\$10,000.00		
0950005	Turf Establishment	S.Y.	1,000	\$2.00	\$2,000		
0951xxx	A 4' x 6' Cast Iron Tree Grate	EA.	30	\$1,500.00	\$45,000		
0969062	A Construction Field Office, Medium	MO	2	\$2,500.00	\$5,000		
0970004	A Trafficperson (3 Officers @ 40hrs/wk for 8 wks)	EST.	1	\$57,600.00	\$57,600		
1008300	A Lighting Standards Complete (Decorative)	EA.		\$10,000.00	\$0		
1100000	Traffic Signalization (new signals)	EA.		\$150,000.00	\$0		
1100000	Traffic Signalization (modification to existing)	EA.		\$20,000.00	\$0		
	Decorative Street Lighting	LS	0	\$0.00	\$0		<b>\$125,600</b>
	<b>SUBTOTAL</b>				<b>\$1,475,766</b>		<b>\$1,475,766</b>
0971001	A Maintenance and Protection of Traffic (4%+/-)	LS	1	\$59,031	\$59,031	<b>\$339,426</b>	
0975002	Mobilization (7%+/-)	LS	1	\$103,304	\$103,304		
0980001	A Construction Staking (1%+/-)	LS	1	\$14,758	\$14,758		
XXXXXX	Miscellaneous/Minor Items (10%+/-)	LS	1	\$147,577	\$147,577		
0201030	Clearing and Grubbing (1%+/-)	LS	1	\$14,758	\$14,758		
	<b>SUBTOTAL CONTRACT ITEMS</b>				<b>\$1,815,000</b>		<b>\$1,815,000</b>
	Contingencies (10%+/-)	LS	1		\$181,500	\$181,500	
	Incidental (10%+/-)	LS	1		\$181,500	\$181,500	
	Escalation (5%/Yr to 2012)	LS	1		\$90,750	\$90,750	
						<b>\$453,750</b>	
					<b>\$2,269,000</b>		
	<b>TOTAL PROJECT CONSTRUCTION COST</b>					<b>\$2,269,000</b>	

NOTE: THE ABOVE COST DOES NOT INCLUDE THE FOLLOPING:  
 COST FOR UTILITY DISTRIBUTION AND WIRING  
 COST FOR INSTALATION OF NEW UTILITIES  
 COST FOR RIGHT OF WAY ACQUISITION

**MERIDEN TOD STUDY  
MERIDEN, CT**

**PAVEMENT AREAS**

<b>A</b>	<b>B</b>	<b>C</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>
<b>Location</b>	<b>Length</b>	<b>Pavement Area Taken From Plans</b>	<b>Processed Aggregate Base</b>	<b>Processed Aggregate</b>	<b>Subbase and Formation Of Subgrade C + (B x 2 ft)</b>	<b>Milling</b>
	<b>(ft)</b>	<b>(sq. ft.)</b>	<b>(sq. ft.)</b>	<b>(sq. ft.)</b>	<b>(sq. ft.)</b>	<b>(sq. ft.)</b>
<b>Phase 1 -State St.</b>						
<b>STATE STREET</b>						
East Main St. to Cross St.	1676	63,132				
Brook Street (Removal)		6,930				
Cross Street (Removal)		9,796				
<b>Phase 2A -Pratt St.</b>						
<b>PRATT STREET</b>						
Center St. to East Main St.	2277	152,952				
<b>Phase 3 -Loop</b>						
<b>EAST MAIN STREET</b>						
Colony St. to Pratt St.	796	49,159				
<b>PERKINS STREET</b>						
Pratt St. to Colony St. (Southern Loop)	601	35,972				
Crown St. Intersection to Match	120					
South Colony St. Intersection to Match	155					
<b>Phase 4A - W. Main St. &amp; Hanover St.</b>						
<b>WEST MAIN STREET</b>						
Cook Ave. to Colony St.	1250	34,777				34777
<b>HANOVER STREET</b>						
Butler St. to Perkins St.	1440	52,746				52746
<b>Phase 4B - Route 71 (Cook Ave.)</b>						
<b>Route 71 (Cook Ave.)</b>						
Hanover St. to West Main St.	940	44,356				44356
<b>Phase 5 - Colony St.</b>						
<b>COLONY STREET</b>						
West Main St. to Brooks St.	1006	50,955				50955
Brooks St. Intersection to Match	147					
<b>Phase 6 - Mill St.</b>						
<b>FUTURE RELOCATED MILL STREET</b>						
State St. to Pratt St.	1188	46,004				
Mill Street (Removal)		30,232				
Cedar Street (Removal)		13,870				
<b>Phase 7 -Pratt St.</b>						
<b>PRATT STREET</b>						
Camp Ave. to Center St.	1700	114,088				


PREPARED BY: NI	DATE: Nov-11		PROJECT NO. DOT	SHEET NO.  OF
CHECKED BY: JRH	DATE: Nov-11		JOB NO. LCE	
SUBJECT:			MERIDEN TOD STUDY	

**PAVEMENT QUANTITY ESTIMATES**

ITEM NUMBER	AREA	DEPTH	DEPTH	209001	212004	304002	406236	406270	406XXX	406XXX
				FORMATION OF SUBGRADE	SUBBASE	PROCESSED AGGREGATE BASE	MATERIAL FOR TACK COAT	MILLING OF BITUMINOUS CONCRETE (0"-6")	HMA S0.5 INCH	HMA S1.0 INCH
LOCATION AND DESCRIPTION	S.F.	INCH	FT	S.Y.	C.Y.	C.Y.	GAL	S.Y.	TON	TON
<b>PHASE 1 - STATE ST.</b>										
<b>EAST MAIN ST. TO CROSS ST.</b>										
Formation of Subgrade	63132			7015						
Subbase	63132	12	1.00		2338					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	63132						701			
HMA S0.5 INCH	63132	3							1210	
HMA S1.0 INCH	63132	4								1613
<b>PHASE 1 SUBTOTALS:</b>				<b>7015</b>	<b>2338</b>	<b>0</b>	<b>701</b>	<b>0</b>	<b>1210</b>	<b>1613</b>
<b>PHASE 2A - PRATT ST.</b>										
<b>EAST MAIN ST. TO CENTER ST.</b>										
Formation of Subgrade	152952			16995						
Subbase	152952	12	1.00		5665					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	152952						1699			
HMA S0.5 INCH	152952	3							2932	
HMA S1.0 INCH	152952	4								3909
<b>PHASE 2A SUBTOTALS:</b>				<b>16995</b>	<b>5665</b>	<b>0</b>	<b>1699</b>	<b>0</b>	<b>2932</b>	<b>3909</b>
<b>PHASE 3 - THE LOOP</b>										
<b>EAST MAIN ST. - PRATT TO COLONY</b>										
Formation of Subgrade	49160			5462						
Subbase	49160	12	1.00		1821					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	49160						546			
HMA S0.5 INCH	49160	3							942	
HMA S1.0 INCH	49160	4								1256

FACTORS:  
 Bituminous Concrete - HMA : 0.0575 Ton / S.Y / inch depth  
 Material For Tack Coat: 0.10 Gal. / S. Y.




PREPARED BY: NI	DATE: Nov-11		PROJECT NO. DOT	SHEET NO.  OF
CHECKED BY: JRH	DATE: Nov-11		JOB NO. LCE	
SUBJECT:			<b>MERIDEN TOD STUDY</b>	

**PAVEMENT QUANTITY ESTIMATES**

ITEM NUMBER	AREA	DEPTH	DEPTH	209001	212004	304002	406236	406270	406XXX	406XXX
				FORMATION OF SUBGRADE	SUBBASE	PROCESSED AGGREGATE BASE	MATERIAL FOR TACK COAT	MILLING OF BITUMINOUS CONCRETE (0"-6")	HMA S0.5 INCH	HMA S1.0 INCH
LOCATION AND DESCRIPTION	S.F.	INCH	FT	S.Y.	C.Y.	C.Y.	GAL	S.Y.	TON	TON
<b>PERKINS ST. - PRATT TO COLONY</b>										
Formation of Subgrade	35972			3997						
Subbase	35972	12	1.00		1332					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	35972						400			
HMA S0.5 INCH	35972	3							689	
HMA S1.0 INCH	35972	4								919
<b>PHASE 3 SUBTOTALS:</b>				<b>9459</b>	<b>3153</b>	<b>0</b>	<b>946</b>	<b>0</b>	<b>1632</b>	<b>2176</b>
<b>PHASE 4A - W. MAIN ST. &amp; HANOVER ST.</b>										
<b>WEST MAIN ST. - COLONY TO COOK</b>										
Formation of Subgrade	34777			0						
Subbase	34777	0	0.00		0					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	34777						386			
Milling of Bituminous Concrete	34777	3						3864		
HMA S0.5 INCH	34777	3							667	
HMA S1.0 INCH	34777	0								0
<b>HANOVER ST. - PERKINS TO COOK</b>										
Formation of Subgrade	52746			0						
Subbase	52746	0	0.00		0					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	52746						586			
Milling of Bituminous Concrete	52746	3						5861		
HMA S0.5 INCH	52746	3							1011	
HMA S1.0 INCH	52746	0								0
<b>PHASE 4A SUBTOTALS:</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>972</b>	<b>9725</b>	<b>1678</b>	<b>0</b>


FACTORS:  
 Bituminous Concrete - HMA : 0.0575 Ton / S.Y / inch depth  
 Material For Tack Coat: 0.10 Gal. / S. Y.

PREPARED BY: NI	DATE: Nov-11		PROJECT NO. DOT	SHEET NO.  OF
CHECKED BY: JRH	DATE: Nov-11		JOB NO. LCE	
SUBJECT:			<b>MERIDEN TOD STUDY</b>	

**PAVEMENT QUANTITY ESTIMATES**


ITEM NUMBER	AREA	DEPTH	DEPTH	209001	212004	304002	406236	406270	406XXX	406XXX
				FORMATION OF SUBGRADE	SUBBASE	PROCESSED AGGREGATE BASE	MATERIAL FOR TACK COAT	MILLING OF BITUMINOUS CONCRETE (0"-6")	HMA S0.5 INCH	HMA S1.0 INCH
LOCATION AND DESCRIPTION	S.F.	INCH	FT	S.Y.	C.Y.	C.Y.	GAL	S.Y.	TON	TON
<b>PHASE 4B - ROUTE 71 (COOK AVE.)</b>										
<b>HANOVER TO W. MAIN ST.</b>										
Formation of Subgrade	44356			0						
Subbase	44356	0	0.00		0					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	44346						493			
Milling of Bituminous Concrete	44346	3						4927		
HMA S0.5 INCH	44346	3							850	
HMA S1.0 INCH	44346	0								0
<b>PHASE 4B SUBTOTALS:</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>493</b>	<b>4927</b>	<b>850</b>	<b>0</b>
<b>PHASE 5 - COLONY ST.</b>										
<b>W. MAIN ST. TO BROOKS</b>										
Formation of Subgrade	50955			0						
Subbase	50955	0	0.00		0					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	50955						566			
Milling of Bituminous Concrete	50955	3						5662		
HMA S0.5 INCH	50955	3							977	
HMA S1.0 INCH	50955	0								0
<b>PHASE 5 SUBTOTALS:</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>566</b>	<b>5662</b>	<b>977</b>	<b>0</b>
<b>PHASE 6 - MILL ST.</b>										
<b>STATE TO PRATT</b>										
Formation of Subgrade	46004			5112						
Subbase	46004	12	1.00		1704					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	46004						511			
HMA S0.5 INCH	46004	3							882	
HMA S1.0 INCH	46004	4								1176
<b>PHASE 6 SUBTOTALS:</b>				<b>5112</b>	<b>1704</b>	<b>0</b>	<b>511</b>	<b>0</b>	<b>882</b>	<b>1176</b>

FACTORS:  
 Bituminous Concrete - HMA : 0.0575 Ton / S.Y / inch depth  
 Material For Tack Coat: 0.10 Gal. / S. Y.

PREPARED BY: NI	DATE: Nov-11		PROJECT NO. DOT	SHEET NO.  OF
CHECKED BY: JRH	DATE: Nov-11		JOB NO. LCE	
SUBJECT:		<b>MERIDEN TOD STUDY</b>		

PAVEMENT QUANTITY ESTIMATES										
ITEM NUMBER				209001	212004	304002	406236	406270	406XXX	406XXX
LOCATION AND DESCRIPTION	AREA	DEPTH	DEPTH	FORMATION OF SUBGRADE	SUBBASE	PROCESSED AGGREGATE BASE	MATERIAL FOR TACK COAT	MILLING OF BITUMINOUS CONCRETE (0"-6")	HMA S0.5 INCH	HMA S1.0 INCH
	S.F.	INCH	FT	S.Y.	C.Y.	C.Y.	GAL	S.Y.	TON	TON
<b>PHASE 7 - PRATT ST. CENTER ST. TO CAMP AVE.</b>										
Formation of Subgrade	114088			12676						
Subbase	114088	12	1.00		4225					
Processed Aggregate Base	0	0	0.00			0				
Material For Tack Coat	114088						1268			
HMA S0.5 INCH	114088	3							2187	
HMA S1.0 INCH	114088	4								2916
<b>PHASE 7 SUBTOTALS:</b>				<b>12676</b>	<b>4225</b>	<b>0</b>	<b>1268</b>	<b>0</b>	<b>2187</b>	<b>2916</b>
<b>TOTALS</b>				<b>51,256</b>	<b>17,085</b>	<b>0</b>	<b>7,157</b>	<b>20,314</b>	<b>12,346</b>	<b>11,789</b>


FACTORS:  
 Bituminous Concrete - HMA : 0.0575 Ton / S.Y / inch depth  
 Material For Tack Coat: 0.10 Gal. / S. Y.

PREPARED BY: AD	DATE: 1/10/2011							PROJECT NO.	SHEET NO.	
CHECKED BY: RL	DATE: 1/10/2011							DOT 15-XXX	OF	
SUBJECT:		MERIDEN TOD STUDY								
<b>ROADWAY QUANTITY ESTIMATES</b>										
ITEM NUMBER			0814002	0813021	0921013A	0921001A	0921032A	0951XXXXA		
LOCATION AND DESCRIPTION			Reset Granite Stone Curbing	Granite Stone Curbing	Concrete Driveway Apron	Concrete Sidewalk	Textured Concrete Berm	4' x 6' Cast Iron Tree Grate		
			L.F.	L.F.	S.F.	S.F.	S.F.	EA.		
<b>Phase 1 - State St.</b>										
<b>E. MAIN ST. TO EX. MILL ST.</b>										
Granite Stone Curbing				1380						
Concrete Sidewalk						13800				
Textured Concrete Berm										
<b>EX. MILL ST. TO CROSS ST.</b>										
Granite Stone Curbing				150						
Concrete Sidewalk						6400				
Textured Concrete Berm										
<b>PHASE 1 SUBTOTALS:</b>			<b>0</b>	<b>1530</b>	<b>0</b>	<b>20200</b>	<b>0</b>	<b>0</b>		
<b>Phase 2A - Pratt St.</b>										
<b>E. MAIN ST. TO EX. MILL ST.</b>										
Granite Stone Curbing				125						
Median Granite Stone Curbing				2600						
Concrete Sidewalk						12500				
<b>EX. MILL ST. TO CENTER ST.</b>										
Granite Stone Curbing				200						
Median Granite Stone Curbing				1480						
Concrete Sidewalk						20000				
<b>PHASE 2A SUBTOTALS:</b>			<b>0</b>	<b>4405</b>	<b>0</b>	<b>32500</b>	<b>0</b>	<b>0</b>		

PREPARED BY: AD	DATE: 1/10/2011		PROJECT NO.	SHEET NO.
CHECKED BY: RL	DATE: 1/10/2011		DOT 15-XXX	OF
SUBJECT:		MERIDEN TOD STUDY		


**ROADWAY QUANTITY ESTIMATES**

ITEM NUMBER		0814002	0813021	0921013A	0921001A	0921032A	0951XXXXA		
LOCATION AND DESCRIPTION		Reset Granite Stone Curbing	Granite Stone Curbing	Concrete Driveway Apron	Concrete Sidewalk	Textured Concrete Berm	4' x 6' Cast Iron Tree Grate		
		L.F.	L.F.	S.F.	S.F.	S.F.	EA.		
<b>Phase 3 - The Loop</b>									
<b>E. MAIN ST. PRATT TO COLONY</b>									
Granite Stone Curbing			1850						
Concrete Sidewalk					18500				
<b>PERKINS ST. - PRATT ST. TO COLONY ST.</b>									
Granite Stone Curbing			1752						
Concrete Sidewalk					17520				
<b>PHASE 3 SUBTOTALS:</b>		<b>0</b>	<b>3602</b>	<b>0</b>	<b>36020</b>	<b>0</b>	<b>0</b>		
<b>Phase 4A - W. Main St. &amp; Hanover St.</b>									
<b>W. MAIN ST. - COOK TO COLONY ST.</b>									
Granite Stone Curbing			250						
Concrete Sidewalk					25000				
Textured Concrete Berm									
4' x 6' Cast Iron Tree Grate									
<b>HANOVER ST. - PERKINS ST. - COOK ST.</b>									
Granite Stone Curbing			290						
Concrete Sidewalk					0				
Textured Concrete Berm									
<b>PHASE 4A SUBTOTALS:</b>		<b>0</b>	<b>540</b>	<b>0</b>	<b>25000</b>	<b>0</b>	<b>0</b>		

PREPARED BY: AD	DATE: 1/10/2011		PROJECT NO.	SHEET NO.
CHECKED BY: RL	DATE: 1/10/2011		DOT 15-XXX	OF
SUBJECT:		MERIDEN TOD STUDY		
		LUCHS		

**ROADWAY QUANTITY ESTIMATES**

ITEM NUMBER	0814002	0813021	0921013A	0921001A	0921032A	0951XXXXA		
LOCATION AND DESCRIPTION	Reset Granite Stone Curbing	Granite Stone Curbing	Concrete Driveway Apron	Concrete Sidewalk	Textured Concrete Berm	4' x 6' Cast Iron Tree Grate		
	L.F.	L.F.	S.F.	S.F.	S.F.	EA.		
<b>Phase 4B - Route 71 (Cook Ave.)</b>								
<b>W. MAIN ST. - HANOVER ST.</b>								
Granite Stone Curbing		200						
Concrete Sidewalk				0				
Textured Concrete Berm								
4' x 6' Cast Iron Tree Grate								
<b>PHASE 4B SUBTOTALS:</b>	<b>0</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Phase 5 - Colony St.</b>								
Granite Stone Curbing		230						
Concrete Driveway Apron								
Concrete Sidewalk				23060				
Textured Concrete Berm								
<b>PHASE 5 SUBTOTALS:</b>	<b>0</b>	<b>230</b>	<b>0</b>	<b>23060</b>	<b>0</b>	<b>0</b>		
<b>Phase 6 - Mill St.</b>								
<b>RELOCATED MILL ST.</b>								
Granite Stone Curbing		600						
Reset Granite Stone Curbing	1776							
Concrete Driveway Apron								
Concrete Sidewalk				11880				
Textured Concrete Berm								
4' x 6' Cast Iron Tree Grate								
<b>PHASE 6 SUBTOTALS:</b>	<b>1776</b>	<b>600</b>	<b>0</b>	<b>11880</b>	<b>0</b>	<b>0</b>		

PREPARED BY: AD	DATE: 1/10/2011		PROJECT NO.	SHEET NO.
CHECKED BY: RL	DATE: 1/10/2011		DOT 15-XXX	OF
SUBJECT:		MERIDEN TOD STUDY		

**ROADWAY QUANTITY ESTIMATES**

ITEM NUMBER	0814002	0813021	0921013A	0921001A	0921032A	0951XXXXA			
LOCATION AND DESCRIPTION	Reset Granite Stone Curbing	Granite Stone Curbing	Concrete Driveway Apron	Concrete Sidewalk	Textured Concrete Berm	4' x 6' Cast Iron Tree Grate	L.F.	L.F.	S.F.
<b>Phase 7 - Pratt St.</b>									
<b>PRATT ST. - CAMP ST. TO CENTER ST.</b>									
Granite Stone Curbing		340							
Median Granite Stone Curbing		3440							
Concrete Driveway Apron									
Concrete Sidewalk				17000					
Textured Concrete Berm									
4' x 6' Cast Iron Tree Grate									
<b>PHASE 7 SUBTOTALS:</b>	<b>0</b>	<b>3780</b>	<b>0</b>	<b>17000</b>	<b>0</b>	<b>0</b>			
<b>TOTALS:</b>	<b>1,776</b>	<b>14,887</b>	<b>0</b>	<b>165,660</b>	<b>0</b>	<b>0</b>			

**MERIDEN TOD STUDY  
CITY OF MERIDEN**

**STORM DRAINAGE - STUDY COST ESTIMATE**

<u>Item #</u>	<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Adj Factor</u>	<u>Adj Unit Price</u>	<u>Item Cost</u>	<u>Total Cost</u>
0205003	Trench Excavation (0'-10' Deep)	LF	1.00	\$ 20.00	1	\$ 20.00	\$ 20.00	
0205004	Rock in Trench Excavation (0'-10' Deep)	LF	1.00	\$ 95.00	0.1	\$ 9.50	\$ 9.50	
0507001	Type "C" Catch Basin	EA	0.01	\$ 2,750.00	1	\$ 2,750.00	\$ 27.50	
0507170	Hydrodynamic Separator	EA	0.0003	\$ 75,000.00	1	\$ 75,000.00	\$ 24.75	
0507601	Manhole	EA	0.0020	\$ 3,000.00	1	\$ 3,000.00	\$ 6.00	
0651015	24" R.C. Pipe	LF	1.00	\$ 85.00	1	\$ 85.00	\$ 85.00	

\$ 172.75

Say \$ 175.00

<u>Location</u>	<u>Length</u>	<u>Drainage Cost</u>	<u>Assumed Percentage</u>	<u>Actual Drainage Cost</u>
	<u>(ft)</u>	<u>(sq. ft.)</u>	<u>(%)</u>	
<b>PHASE 1 - STATE STREET</b>				
West Main St. to Cross St.	1676	\$293,300	100	\$293,300
<b>PHASE 2A - PRATT STREET</b>				
Center St. to East Main St.	2277	\$398,475	50	\$199,238
<b>PHASE 3 - DOWNTOWN LOOP</b>				
East Main St. - Pratt to Colony	796	\$139,300	100	\$139,300
Perkins St. - Pratt to Colony	601	\$105,175	100	\$105,175
Crown St. - Perkins to Match	120	\$21,000	100	\$21,000
South Colony St. - Perkins to Match	155	\$27,125	100	\$27,125
<b>PHASE 4A - W. MAIN ST. &amp; HANOVER ST.</b>				
West Main St. - Colony to Cook	1250	\$218,750	25	\$54,688
Hanover St. - Perkins to Butler	1440	\$252,000	25	\$63,000
<b>PHASE 4B - ROUTE 71 (COOK AVE.)</b>				
West Main St. - Hanover St.	940	\$164,500	15	\$24,675
<b>PHASE 5 - COLONY STREET</b>				
West Main St. to Brooks St.	1006	\$176,050	15	\$26,408
Brooks St. Intersection to Match	147	\$25,725	15	\$3,859
<b>PHASE 6 - RELOCATED MILL STREET</b>				
State St. to Pratt St.	1188	\$207,900	100	\$207,900
<b>PHASE 7 - PRATT STREET</b>				
Camp Ave. to Center St.	1700	\$297,500	50	\$148,750
		<b>\$2,326,800</b>		<b>\$1,314,416</b>



MERIDEN TOD STUDY  
CITY OF MERIDEN

STREET LIGHTING - STUDY COST ESTIMATE

<u>Item #</u>	<u>Description</u>	<u>Units</u>	<u>Quantity</u>	<u>Unit Price</u>	<u>Adj Factor</u>	<u>Adj Unit Price</u>	<u>Item Cost</u>	<u>Total Cost</u>
0000159	2" Schedule 40 PVC Conduit in Trench	LF	1.00	\$ 3.50	1	\$ 3.50	\$ 3.50	
1002010	Light Pole Base	EA	0.04	\$ 700.00	1	\$ 700.00	\$ 28.00	
1003582	Decorative Light Pole (20' Mounting Height) With Single Luminaire	EA	0.04	\$ 5,500.00	1	\$ 5,500.00	\$ 220.00	
1014123	Cable in Duct (Three No. 2 & One No. 8 Conductors)	LF	1.00	\$ 663.00 \$ 8.00	1 1	\$ 663.00 \$ 8.00	\$ 0.00 \$ 8.00	\$ 256.00
							Say	\$ 265.00

<u>Location</u>	<u>Length</u>	<u>Lighting Cost</u>	<u>Assumed Percentage</u>	<u>Actual Lighting Cost</u>
	<u>(ft)</u>	<u>(sq. ft.)</u>	<u>(%)</u>	
<b>PHASE 1 - STATE STREET</b>				
West Main St. to Cross St.	1676	\$444,140	100	\$444,140
<b>PHASE 2A - PRATT STREET</b>				
East Main St. to North of HUB Site	1300	\$344,500	100	\$344,500
<b>PHASE 3 - DOWNTOWN LOOP</b>				
East Main St. - Pratt to Colony	796	\$210,940	100	\$210,940
Perkins St. - Pratt to Colony	601	\$159,265	100	\$159,265
Crown St. - Perkins to Match	120	\$31,800	100	\$31,800
South Colony St. - Perkins to Match	155	\$41,075	100	\$41,075
<b>PHASE 4A - W. MAIN ST. &amp; HANOVER ST.</b>				
West Main St. - Colony to Cook	1250	\$331,250	25	\$82,813
Hanover St. - Perkins to Butler	1440	\$381,600	0	\$0
<b>PHASE 4B - ROUTE 71 (COOK AVE.)</b>				
West Main St. - Hanover St.	940	\$249,100	0	\$0
<b>PHASE 5 - COLONY STREET</b>				
West Main St. to Brooks St.	1006	\$266,590	25	\$66,648
Brooks St. Intersection to Match	147	\$38,955	25	\$9,739
<b>PHASE 6 - RELOCATED MILL STREET</b>				
State St. to Pratt St.	1188	\$314,820	0	\$0
<b>PHASE 7 - PRATT STREET</b>				
Camp Ave. to Center St.	1700	\$450,500	0	\$0
		<b>\$3,264,535</b>		<b>\$1,390,919</b>

Note: Phases 4B, 6 & 7 will have Cobra lighting provided by CL&P.