SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS

DRAFT

June 2024

Northford Center Connectivity Study

SCRCOG
SOUTH CENTRAL REGIONAL COUNCIL OF GOVERNMENTS

BL Companies
Architecture
Engineering
Environmental
Land Surveying

PREPARED & PRESENTED BY

BL Companies, Inc.

Table of Contents

FIGURES

TABLES

APPENDIX

INTRODUCTION

The South Central Regional Council of Governments (SCRCOG) and the Town of North Branford, in cooperation with the Connecticut Department of Transportation (CTDOT) have initiated the Northford Center Connectivity Study to evaluate existing challenges and opportunities throughout the Study Area. The purpose of this Study was to conduct a comprehensive transportation plan for various intersections along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) and prepare conceptual engineering drawings for improvements along the length of the corridors. The improvements would seek to improve connectivity and circulation throughout Northford Center. The comprehensive plan will:

- Collect data and identify safety deficiencies.
- Propose countermeasures to improve connectivity and circulation for all users that are consistent with the latest applicable design guidelines including, but not limited to, all CTDOT guidelines, Manual on Uniform Traffic Control Devices (MUTCD), Americans with Disabilities Act (ADA), and Public Right-of-Way Accessibility Guidelines (PROWAG).
- Work cooperatively with SCRCOG, Connecticut Department of Transportation (CTDOT), Town of North Branford, and other stakeholders; and
- Produce a final report summarizing the analysis and recommendations.

The study process includes four primary work tasks that were included in the overall scope of the Project:

- TASK 1 – Project Management
- TASK 2 – Data Collection and Analysis of Existing Conditions
- TASK 3 – Alternative Analysis
- TASK 4 – Report Preparation

Upon the review of the Study Area and its surrounding environment, the intersection of CT Route 22 (Clintonville Road) with CT Route 150 (Woodhouse Avenue) and Pistapaug Road was identified as an area potentially in need of improvement. While outside the limits of the Northford Center Connectivity Study, members of the Study Team will look to pursue a future opportunity to study this intersection.

Study Area

The Study Area includes CT Route 17 (Middletown Avenue), between Totoket Valley Elementary School and its intersection with Mansfield Drive, a distance of approximately one-quarter (0.25) mile. The Study Area also includes CT Route 22 (Clintonville Avenue / Forest Road), between its intersection with CT Route 17 (Middletown Avenue) and its intersection with Old Post Road, a distance of approximately 0.15 mile. This area is known locally as Northford Center. Eight (8) intersections were observed as a part of this Study. They are as follows, listed from north to south:

- CT Route 22 (Clintonville Road) at Old Post Road (Stop-Controlled)
- CT Route 17 (Middletown Avenue) at Mansfield Drive (Signalized)
- CT Route 17 (Middletown Avenue) at CT Route 22 (Clintonville Road) (Stop-Controlled)
- CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance Driveway (Stop-Controlled)
- CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue (Signalized)
- CT Route 22 (Forest Road) at Northford Center Shopping Center Driveway (Stop-Controlled)
- CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Saint Andrew's Episcopal Church Exit Driveway (Stop-Controlled)
- CT Route 17 (Middletown Avenue) at Totocket Valley Elementary School / North Branford Recreation Department Driveway (Stop-Controlled)

The Study Area limits and street names are shown in ***Figure 1***. The Study includes the assessment of eight intersections and the interconnecting roadway segments. Both CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) are intersected by access points to local businesses and other commercial developments. Notable developments within the Study Area include; Northford Community Church, Edward Smith Library, The Northford Store, Saint Andrew's Episcopal Church, Northford Center Shopping Plaza, Northford Volunteer Fire Department, Totoket Valley Elementary School, and the North Branford Recreation Department. Presently, there are no bus routes that provide service to the Study Area. There is sidewalk available along the east side of CT Route 22 (Clintonville Road), north of the intersection with CT Route 17 (Middletown Avenue) and Ardsley Avenue. There are no dedicated bicycle facilities available in the Study Area.

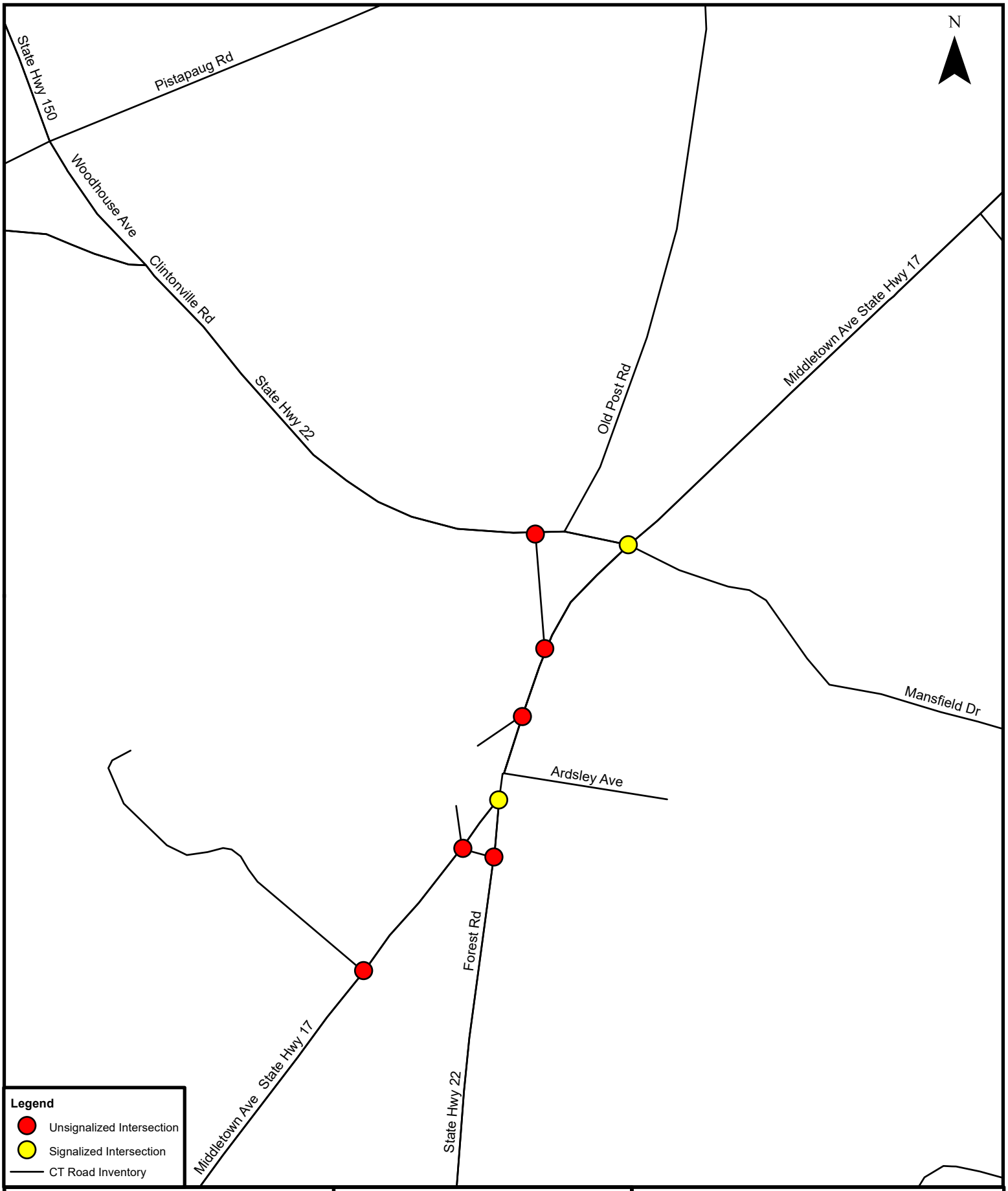
Study Team

The Study Team includes representatives from the Town of North Branford and SCRCOG. The consultant team is led by BL Companies.

BL Companies is the prime consultant on the project and is responsible for providing overall project management, traffic and transportation engineering, assessment of the existing natural resources, review of current transportation infrastructure, providing recommendations for future enhancements to improve connectivity and circulation in the Northford Center, and leading the public involvement process.

The Study's overall project manager is the Town of North Branford. Town of North Branford staff will lead the public outreach initiatives in cooperation with SCRCOG. Going forward, the Town of North Branford will work to identify and secure funding for projects based on the recommendations of this Study.

BL Companies has worked with the Connecticut Department of Transportation (CTDOT), SCRCOG, and the Town of North Branford to establish a Technical Advisory Committee (TAC). This committee will review the findings of the Existing Conditions Report and assist in finalizing the design alternatives. It is anticipated that the TAC will consist of representatives from CTDOT and the Town of North Branford.



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 1
PROJECT INTERSECTIONS
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

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Land Surveying

PROJECT INTERSECTIONS

The Study's comprehensive and cooperative approach ensures that the planning activities are consistent with the overall planning goals at all levels of government and correlate with the collective vision for Northford Center. A summary of the Study Team and the public involvement process is presented in ***Figure 2***.

Figure 2: Study Team and Public Involvement Process

Study Process

To understand the issues facing the corridor and to produce the recommendations of the study, the project team has conducted an assessment of existing transportation, land use, economic and environmental conditions to identify projected needs, deficiencies, and opportunities. Key elements include:

- Observing traffic volumes by segment and intersection, vehicle classifications, travel speeds within Northford Center
- Developing 2024 Existing Traffic volumes
- Analyzing traffic safety using a Connecticut Crash Data Repository (CTCDR)
- Analyzing traffic operations during the Weekday AM, Mid-day, PM, School Dismissal, and Saturday Mid-day peak hours
- Reviewing current multi-modal transportation services and facilities
- Identifying natural and environmental resources
- Reviewing previous reports prepared by others, including:
    - Municipal Plans of Conservation and Development
    - 2006 Route 22 Corridor Planning Study
    - 2023 North Branford Road Safety Audit
    - CTDOT planned or programmed projects and traffic growth factors
    - 1975 Feasibility Study for proposed Northford service road

These analyses will form the basis for the development of a series of improvement alternatives in Tasks 3 and 4 of the Study. This effort will include:

- Conduct technical analyses of all modes of travel (vehicular, transit, and active transportation), while identifying themes regarding safety, complete streets, and emerging technologies.
- Investigate issues affecting bicycle and pedestrian access and safety and provide recommendations for alternatives.
- Forecasting future travel demand, analyzing future traffic conditions, and identifying potential future areas of concern.
- Identify feasible infrastructure improvement alternatives that could mitigate the effects of future traffic on the corridor while providing opportunities to enhance the overall transportation system to improve connectivity and circulation through traffic operational improvements, via access management improvements, utility modifications, pedestrian and bicyclist accommodations, and right-of-way easements / acquisitions. Evaluate permitting procedures and costs required to implement potential improvements.
- Conduct a stakeholder meeting to obtain input on the study findings and to help guide the development of improvement alternatives.
- Participate in a comprehensive public outreach process involving a public information meeting to obtain input on the study process and recommendations that can be supported in the long-range transportation plan.
- Ultimately, the Study will result in a final report summarizing the findings of the review of existing conditions and assessment of future conditions upon completion of the alternatives analysis for bicyclists, pedestrians, and vehicles throughout the eight project intersections, and the roadway segments connecting these intersections.

Public Involvement and Outreach Initiatives

Community involvement and public outreach were important initiatives of this Study scope. A variety of techniques and methods will be used to inform the public of Study findings and to obtain feedback from project stakeholders throughout the Study process. Residents and businesses in the Study Area will have ample opportunities to monitor the progress of the Study and offer input to the Study Team to help inform the decisions and recommendations of the Study. The establishment of the TAC allows for an opportunity for project stakeholders to provide input on the findings of the Existing Conditions Report and proposed design alternatives. The goals of the community involvement and public outreach program include:

- Obtaining input from the public and TAC on recommendations and Study findings.
- Involving project stakeholders, the public, and the TAC in the development and refinement of recommendations that fit the character and future vision of the Town of North Branford at the public outreach meeting.

EXISTING CONDITIONS ASSESSMENT

The assessment of existing conditions includes an extensive data collection process to establish the current condition of the transportation system in the Study Area and identify existing needs and deficiencies, as well as opportunities for improvement. This section describes the assessment of the Study Area transportation system as it exists in 2024. This report provides an assessment of the Northford Center Connectivity Study Area relative to the existing roadway and traffic conditions, land use and development, pedestrian, bicyclist, and vulnerable user, and commuter systems.

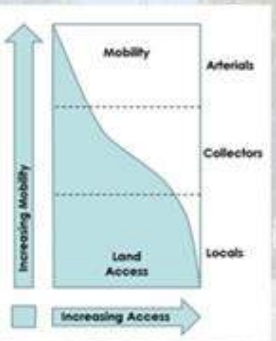
Stakeholder input is a key component of the data collection process to help complete the existing conditions assessment. The purpose of the existing conditions assessment is to identify deficiencies to establish a baseline against which future conditions and improvement recommendations can be evaluated.

Roadway and Traffic

This section identifies and evaluates the issues, deficiencies, and opportunities of the existing roadway system within Northford Center. It is important to note that portions of the Study Area are classified as CT Route 17 or CT Route 22.

Based on the classifications of the Study Area roadways, a review of roadway characteristics was conducted to determine where deficiencies exist. The following sections summarize the results.

What is Roadway Functional Classification (FHWA)



The FHWA classifies our Nation's urban and rural roadways into four major functional classes: Principal Arterials, Minor Arterial streets, Collector Streets, and Local Road. These roadways server two primary travel needs: access to / egress from specific location and travel mobility. In both rural and urban areas, the principal arterial provide the highest traffic volume and the greatest trip lengths. Conversely, local roads have the lowest volumes and provide the highest access to/ egress from specific location. A simple diagram illustrates the hierarchy.

Major Roadway Characteristics

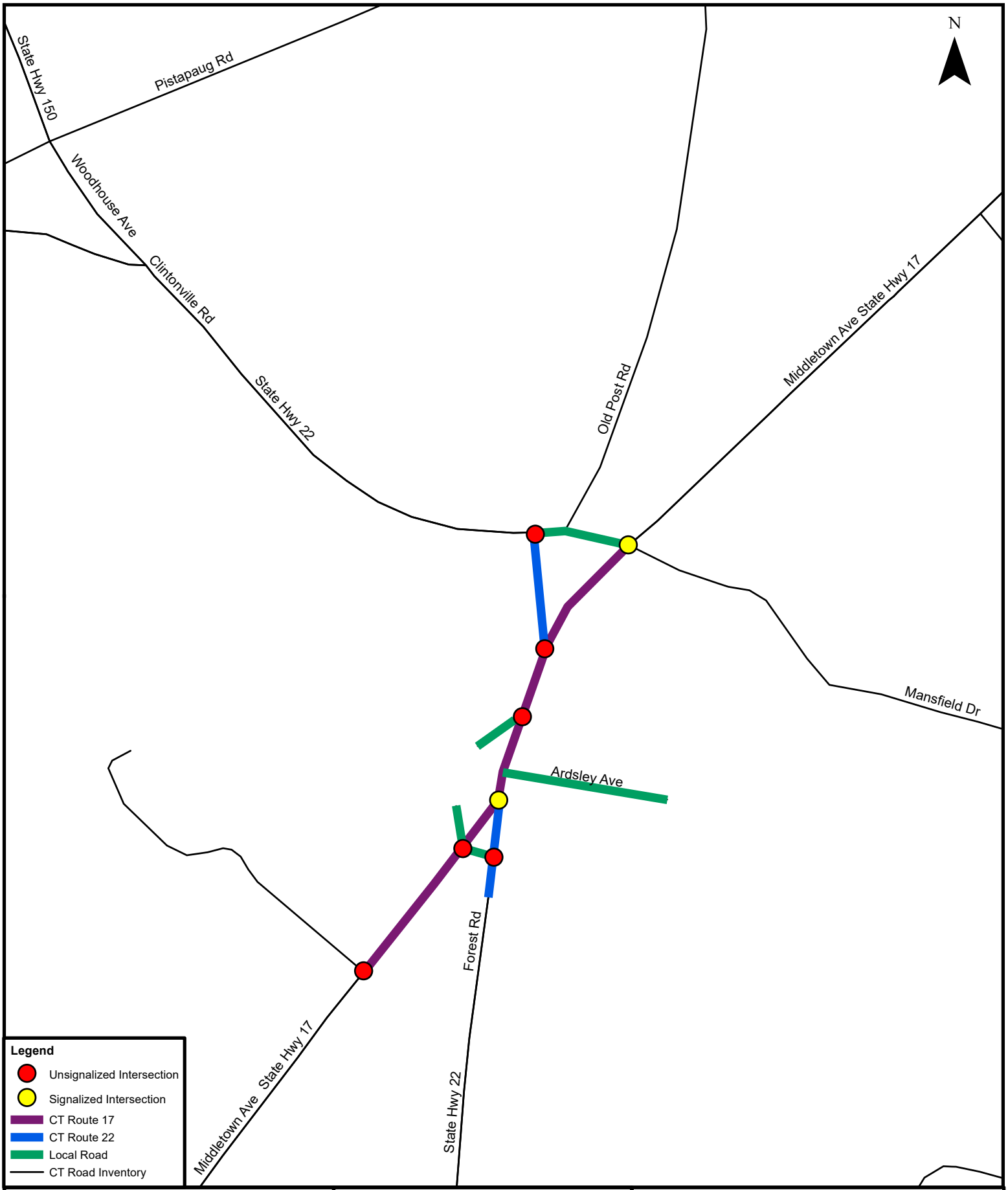
There are two major roads that are a part of the Northford Center Connectivity Study. These segments are described below and shown in ***Figure 3***.

CT Route 17 is a state highway that is known locally as Middletown Avenue. Within the Study Area, the posted speed limit for this road is 35 miles per hour (mph), though 85th percentile speeds in this area are approximately 44 mph. In the Study Area, CT Route 17 (Middletown Avenue) has one travel lane in each direction, with an exclusive left turn lane at the intersection with Mansfield Drive. CTDOT has an Annualized Average Daily Traffic (AADT) Monitoring Station along CT Route 17 (Middletown Avenue) south of the intersection with CT Route 22 (Forest Road) and Ardsley Avenue. AADT was recorded as 5,000 vehicles per day (vpd) in 2022.

CT Route 22 is a state highway that has two local names in the Study Area. North of the intersection with CT Route 17 (Middletown Avenue) and Saint Andrew's Episcopal Church Entrance Driveway, CT Route 22 is known locally as Clintonville Road and south of this intersection CT Route 22 is known locally as Forest Road. Within the Study Area, the posted speed limit for this road is 35 mph, though observed 85th percentile speeds in this area are between 38-44 mph. In the Study Area, CT Route 22 (Clintonville Road / Forest Road) has one travel lane in each direction, with an exclusive right-turn lane in the southbound direction at the intersection with CT Route 17 (Middletown Avenue). CTDOT has several AADT Monitoring Stations along CT Route 22 (Clintonville Road / Middletown Avenue). North of the intersection with CT Route 17 (Middletown Avenue) and Ardsley Avenue, AADT was recorded as 17,200 vpd in 2022. South of the intersection with CT Route 17 (Middletown Avenue) and Ardsley Avenue, AADT was recorded as 12,200 vpd in 2022.

What is Annualized Average Daily Traffic (AADT)?

AADT is the sum of two-way traffic volume passing through a specific perpendicular line on the roadway in a 24-hour period. AADT is measured in vehicles per day (vpd).



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 3
INTERSECTIONS & SEGMENTS
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

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INTERSECTIONS AND SEGMENTS

Other notable roadways in the vicinity of the project include Ardsley Avenue, Mansfield Drive, and Old Post Road.

Ardsley Avenue is a local road that originates at the intersection with CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road), and runs for approximately 350 feet easterly, before terminating at the Twin Lake Children's Center. The posted speed limit for this road is 25 mph. There is no 85th percentile speed information or ADT information available for this road. Ardsley Avenue has one travel lane in each direction and its intersection with CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) is stop-controlled. Ardsley Avenue provides access to several local businesses, including Twin Lake Children's Center and the Northford Center Shopping Plaza.

Mansfield Drive is a local road that originates at the intersection with CT Route 17 (Middletown Avenue) and runs for approximately 0.40 mile easterly before terminating. The posted speed limit for the road is 25 mph. There is no 85th percentile speed information or ADT information available for this road. Mansfield Drive has one travel lane in each direction and its intersection with CT Route 17 (Middletown Avenue) is signalized. Mansfield Drive provides access to Northford Square Shopping Plaza, a bank, and residential neighborhoods.

Old Post Road is a local road that originates at the intersection with CT Route 22 (Clintonville Road / Forest Road) and runs for approximately 1.5 miles northerly before terminating at the intersection with CT Route 17 (Middletown Avenue) and Farmington Drive. The posted speed limit for the road is 25 mph. There is no 85th percentile speed information or ADT information available for this road. Old Post Road has one travel lane in each direction and its intersection with CT Route 22 (Clintonville Road / Forest Road) is stop-controlled. Land use adjacent to Old Post Road is primarily residential.

Table 1: Northford Center Connectivity Study Project Intersections Roadway Geometry

Intersection	Signalized (Yes / No)	Type of Int.	Northern Leg Lane Arrangement	Southern Leg Lane Arrangement	Eastern Leg Lane Arrangement	Western Leg Lane Arrangement	Percent Heavy Vehicles	Posted Speed Limit
CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive	No	4 leg	1 Shared Through / Right Turn	One-way traveling south	One-way traveling west	1 Shared Through / Right / Left	2.4%	35
CT Route 17 (Middletown Avenue) at Mansfield Drive	Yes	4 leg	1 Shared Through / Left / Right	1 Exclusive Left Turn 1 Shared Through / Right Turn	1 Shared Through / Left / Right	One-way traveling west	3.1%	35
CT Route 22 (Clintonville Road) at CT Route 17 (Middletown Avenue) and The Northford Store Driveway	No	Y-Intersection	1 Shared Through / Left Turn 1 Through	1 Shared Through / Right Turn	1 Exclusive Left Turn 1 Exclusive Right Turn	1 Through / Left Turn	3.0%	35
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance	No	T-Intersection	1 Through	1 Through	-	One-way traveling west	3.2%	35
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	Yes	Y-Intersection	1 Through 1 Exclusive Right Turn	1 Shared Through / Right Turn (CT Route 17) 1 Shared Through / Right Turn (CT Route 22)	1 Through (Ardsley Avenue)	-	3.1%	35
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit and Turning Lane	No	T-Intersection	1 Through	1 Through	One Shared Left / Right Turn	-	6.6%	35
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza	No	T-Intersection	1 Through	1 Through	1 Shared Left / Right Turn	1 Shared Left / Right Turn	3.7%	35
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School	No	T-Intersection	1 Shared Through / Right Turn	1 Shared Through / Left Turn	-	1 Shared Left / Right Turn	10.2%	35

Roadway Standards

This section presents the design standards for the Study Area. According to the CTDOT Highway Design Manual (HDM) 2023 Edition, the following conditions apply:

- Other Principal Arterial, Minor Arterial, and Local roadway functional classifications

The posted speed limit in the Study Area is 35 miles per hour. Several of the adjacent road segments have posted speed limits of 25 or 30 miles per hour.

With different posted speed limits, the design speed will vary. Design speed is used in selecting the vertical and horizontal requirements for evaluation of roadways while speed limits are based on a statistical analysis of individual vehicular speeds. The design standards for the various roads in the Study Area are shown in ***Table 2***.

Average travel speeds in Northford Center are generally ±5 miles per hour when compared to the posted speed limit. The highest 85th percentile speed (the speed at which 85 percent of traffic travels at or below) was recorded at 10 miles per hour above the posted speed limit. Typically, 85th percentile speeds are higher than the posted speed limit, but the developmental density and associated land uses throughout the Study Area led to lower observed speeds.

What is Design Speed?

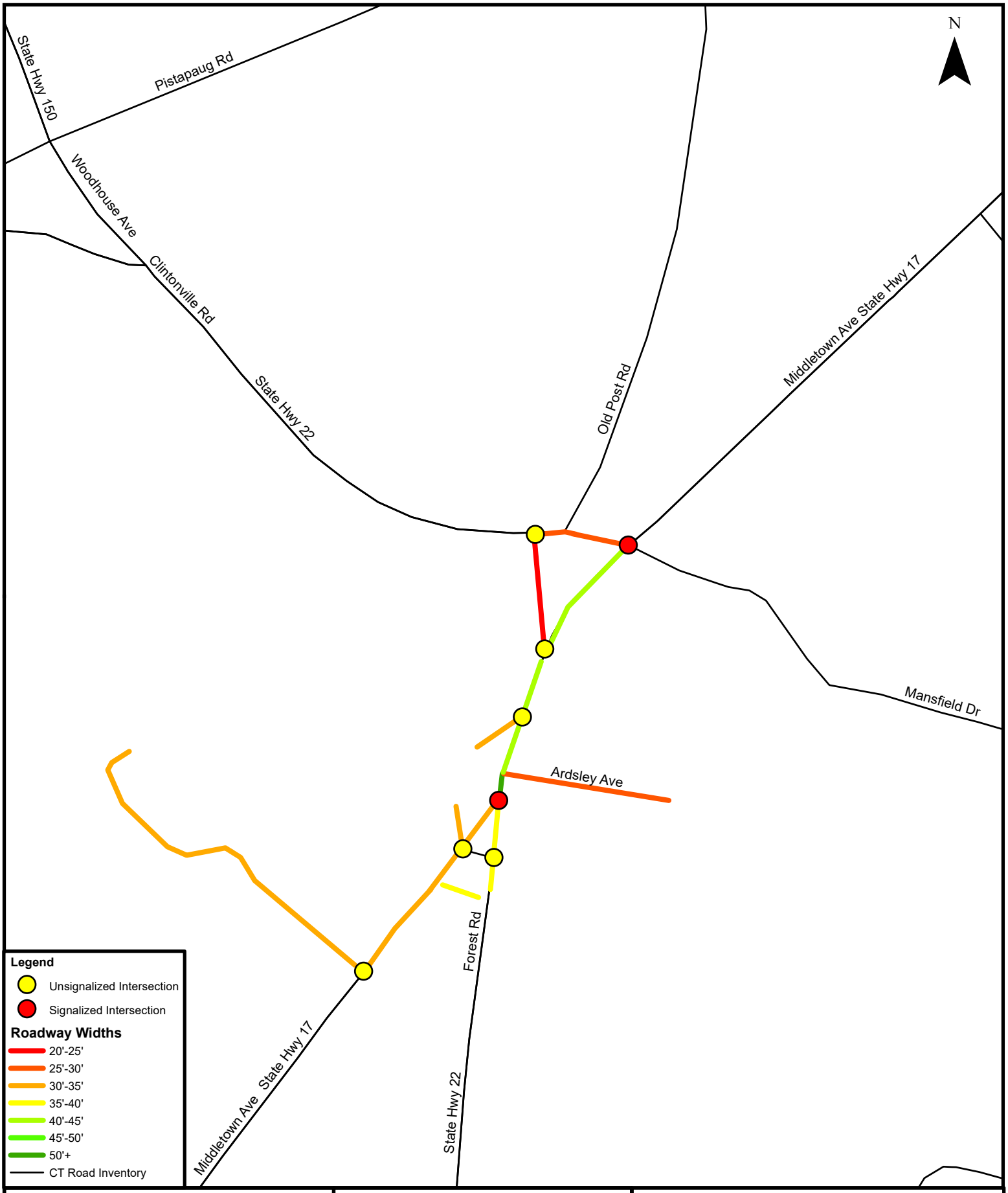
AASHTO states "the maximum safe speed that can be maintained over a specified section of highway when conditions are so favorable that the design features of the highway govern."

Table 2: Other Principal / Minor Arterial Design Standards

Design Element	Design Speeds		
	(30 mph)	(35 mph)	(40 mph)
Through Lane Width	11'-12'	12'	12'
Shoulder Width	4'-8'	4'-8'	4'-8'
Sidewalk Width	5' minimum	5' minimum	5' minimum
Bicycle Lane Width	5' minimum	5' minimum	5' minimum
Stopping Sight Distance	200'	250'	305'
B1- Left Turn Intersection Sight Distance	335'	390'	445'

The horizontal curvature of a road affects a driver's ability to see far enough to be able to stop safely to avoid a collision. Curves can also contribute to a loss of control of a vehicle if speed limits are significantly exceeded. The CTDOT Highway Design Manual indicates that a stopping sight distance of 305 feet is required for level surfaces with a posted speed limit of 35 mph (design speed of 40 mph).

Summary and direction of potential deficiencies is provided in ***Table 3***, while ***Figure 4*** illustrates the width of road along the CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road). Steep grades can present safety and operational challenges by restricting sight lines and increasing the distance a vehicle needs to safely stop. During inclement weather, steep grades can also contribute to the loss of traction between a vehicle's tires and the pavement surface. The CTDOT Highway Design Manual suggests that a 7% grade should be considered the maximum for an arterial.



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 4
ROADWAY WIDTHS
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

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ROADWAY WIDTHS

Table 3: Summary of Existing Geometric Conditions

Sidewalk Width			
Existing Feature / Location	**Existing Value (approx.)**	**Design Standard Value**	**Comments**
CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive	-	5 ft min.	No sidewalk present.
CT Route 17 (Middletown Avenue) at Mansfield Drive	Northeast Corner: 8' Northwest Corner: 5' Southeast Corner: 5'	5 ft min.	Pedestrian ramps are available at northeast, northwest, and southeast corners of the intersection. Crosswalk available across northern leg of the intersection.
CT Route 22 (Clintonville Road) at CT Route 17 (Middletown Avenue) and The Northford Store Driveway	Northeast Corner: 3.5' Southeast Corner: 3.5'	5 ft min.	Pedestrian ramps are available at the northeast and southeast corners of the intersection.
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance	-	5 ft min.	No sidewalk present.
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	-	5 ft min.	No sidewalk present.
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit and Turning Lane	-	5 ft min.	No sidewalk present.
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza	-	5 ft min.	No sidewalk present.
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School	-	5 ft min.	No sidewalk present.

Table 3 – Summary of Existing Geometric Conditions (cont.)

Bike Lane / Shoulder Width			
Existing Feature / Location	**Shoulder Present**	**Existing Value (approx.)**	**Comments**
CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive	SB: Yes EB: Yes WB: Yes	SB: 4 ft EB: 4 ft WB: 2 ft – 4 ft	Currently there are no bike lanes, dedicated bike routes, signage, or facilities for bicyclists along CT Route 17 (Middletown Avenue) or CT Route 22 (Clintonville Road / Forest Road)
CT Route 17 (Middletown Avenue) at Mansfield Drive	NB: Yes SB: Yes WB: Yes	NB: < 1 ft SB: 8 ft WB: 5 ft	
CT Route 22 (Clintonville Road) at CT Route 17 (Middletown Avenue) and The Northford Store Driveway	NB: Yes SB: Yes EB: No WB: No	NB: 2 ft SB: 6 ft - 8 ft	
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance	NB: Yes SB: Yes WB: No Delineation	NB: 3 ft SB: < 1 ft	
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	NB: Yes NEB: Yes SB: Yes WB: No Delineation	NB: 6 ft - 8 ft NEB: 4 ft SB: 1 ft	
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit and Turning Lane	NB: Yes SB: Yes EB: No Delineation WB: Yes	NB: 4 ft SB: 2 ft WB: 1 ft - 2 ft	
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza	NB: Yes SB: Yes EB: Yes WB: No Delineation	NB: 6 ft - 8 ft SB: 6 ft EB: 1 ft - 2 ft	
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School	NB: Yes SB: Yes EB: No	NB: 2 ft SB: 3 ft	

Table 3 – Summary of Existing Geometric Conditions (cont.)

Roadway Width		
Existing Feature / Location	**Existing Value (approx.)**	**Comments**
CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive	Northern Leg: 85' Southern Leg: 60' Eastern Leg: 25' Western Leg: 25'	Northern Leg: Wide at intersection before tapering down to approximately 30' Southern Leg: Wide at intersection before tapering down to approximately 30'
CT Route 17 (Middletown Avenue) at Mansfield Drive	Northern Leg: 35' Southern Leg: 35' Eastern Leg: 35' Western Leg: 30'	
CT Route 22 (Clintonville Road) at CT Route 17 (Middletown Avenue) and The Northford Store Driveway	Northern Leg: 40' Southern Leg: 40' Eastern Leg: 45' Western Leg: 35'	
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance	Northern Leg: 40' Southern Leg: 40' Western Leg: 20'	
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	Northern Leg: 45' Southern Leg: 35' Eastern Leg: 30'	
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit and Turning Lane	Northern Leg: 35' Southern Leg: 35' Eastern Leg: 50' Western Leg: 30'	
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza	Northern Leg: 40' Southern Leg: 40' Eastern Leg: 35' Western Leg:50'	
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School	Northern Leg: 35' Southern Leg: 35' Western Leg: 40'	

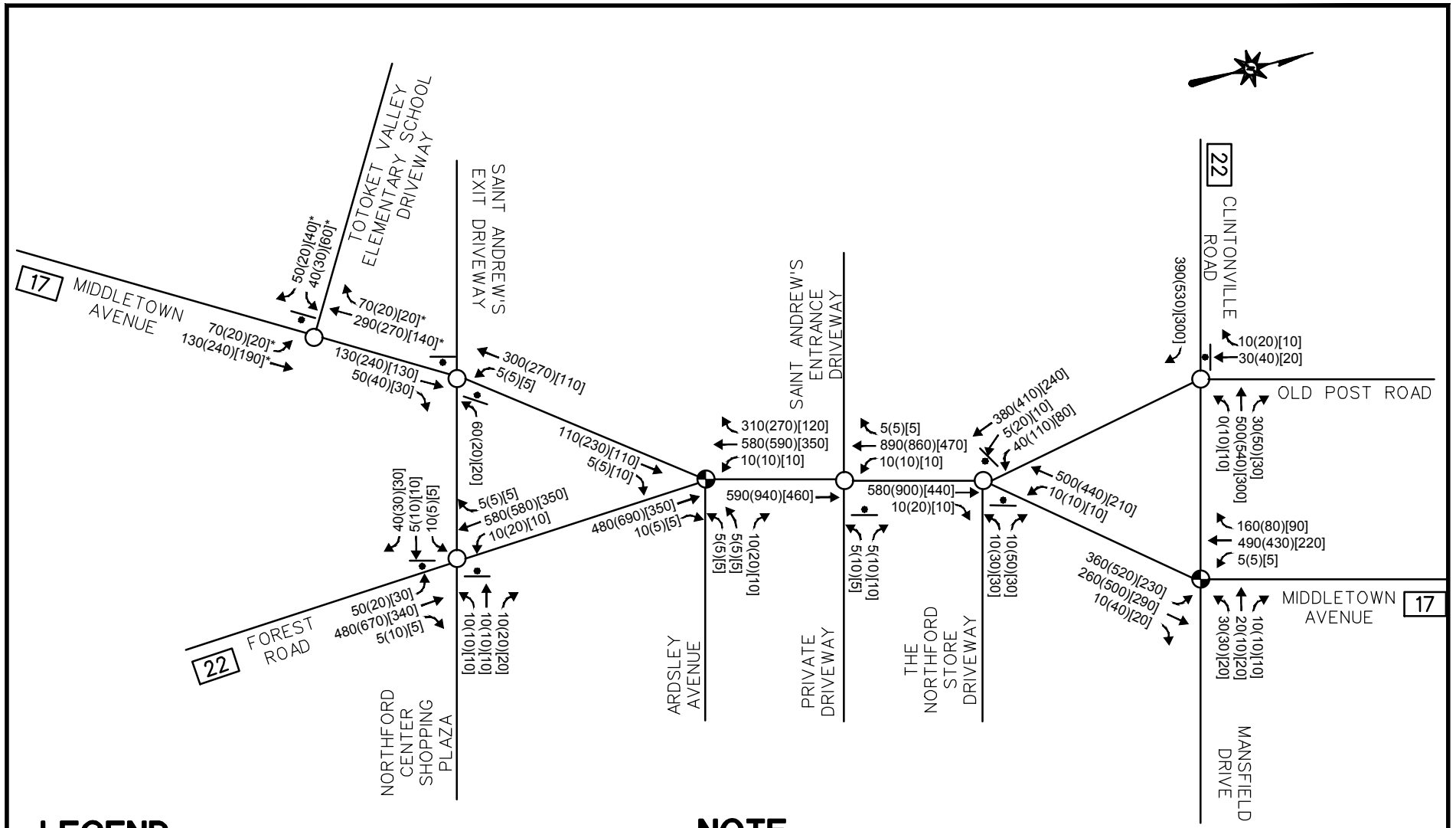
Table 3 – Summary of Existing Geometric Conditions (cont.)

Stopping Sight (SSD) / Intersection Sight (ISD) Distances			
Existing Feature / Location	**Required Values**	**Sight Deficiency Location**	**Comments**
CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive	SSD: 305 ft ISD: 445 ft	Southbound Approach	
CT Route 17 (Middletown Avenue) at Mansfield Drive	SSD: 305 ft ISD: 445 ft	Westbound Approach	Horizontal curvature and plantings along CT Route 17 (Middletown Avenue) obstruct sight distance when exiting Mansfield Drive.
CT Route 22 (Clintonville Road) at CT Route 17 (Middletown Avenue) and The Northford Store Driveway	SSD: 305 ft ISD: 445 ft	Westbound Approach	Horizontal curvature and plantings along CT Route 17 (Middletown Avenue) obstruct sight distance when exiting The Northford Store Driveway.
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance	SSD: 305 ft ISD: 445 ft	None	
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	SSD: 305 ft ISD: 445 ft	Westbound Approach	Horizontal curvature and plantings along CT Route 17 (Middletown Avenue) obstruct sight distance when exiting Ardsley Avenue.
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit and Turning Lane	SSD: 305 ft ISD: 445 ft	None	
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza	SSD: 305 ft ISD: 445 ft	None	
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School	SSD: 305 ft ISD: 445 ft	None	

Notes:
- CTDOT Highway Design Manual utilizes B1 – Left Turn for intersection sight distance as design standard.
- SSD and ISD are calculated using a design speed of 40 mph.

Existing Traffic Volumes

The existing traffic conditions assessment includes measures of traffic volumes, travel speeds, travel time, and traffic operations. These measures are used to quantify and evaluate trends and identify deficiencies. To accurately assess existing traffic conditions and predict future traffic volumes, Turning Movement Counts (TMCs) were collected at each of the eight project intersections, for three different peak time periods. Traffic counts were collected for the weekday morning peak period (7AM – 9AM), weekday afternoon peak period (4PM-6PM), Saturday midday peak period (11AM -1PM). At the intersection of CT Route 17 (Middletown Avenue) with Totoket Valley Elementary School counts were collected from 2PM – 6PM. The intent of this time frame was to capture the school dismissal period and afternoon peak hour, (2:45 PM – 3:45 PM) / (4:00 PM – 6:00 PM), respectively. These volumes were subsequently reviewed and verified by the CTDOT Bureau of Policy and Planning for traffic modeling purposes. These traffic volumes are presented in ***Figure 5*** below. A comparison of the TMCs with data from CTDOT's Traffic Monitoring Stations can be found in ***Table 4*** below**.** Full TMC data for the four peak hours of all eight intersections can be found in the ***Appendix***.



LEGEND

- SIGNALIZED INTERSECTION
- UNSIGNALIZED INTERSECTION
- STOP–CONTROLLED APPROACH

WEEKDAY AM: XXX
WEEKDAY PM: (XXX)
SATURDAY MID–DAY: [XXX]
SCHOOL DISMISSAL: [XXX]*

NOTE

THE SCHOOL DISMISSAL PEAK PERIOD DISPLAYS VOLUMES COLLECTED BETWEEN 2:45 – 3:45 PM.

6/3/2024, SSEPERACK, G:\JOBS23\24\2302477\DWG\TFLO-2302477.DWG,FIGURE 5.

BL Companies
ARCHITECTURE
ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

EXISTING TRAFFIC VOLUMES (2024)

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CT
SCHEMATIC, NOT TO SCALE

Project No. 2302477
Date JUNE 2024

FIGURE 5

CAD File TFLO-2302477

Xref (s): ; TBD-2302477

Table 4: Turning Movement Counts (TMCs) vs. CTDOT Traffic Monitoring Station Counts

Location	Time Frame	Northbound (TMC / CTDOT)	Southbound (TMC / CTDOT)	Eastbound (TMC / CTDOT)	Westbound (TMC / CTDOT)
CT Route 22 (Clintonville Road)[1]	7 AM – 8 AM	-	-	382 / 357	487 / 283
	8 AM – 9 AM			345 / 355	445 / 334
	4 PM – 5 PM			527 / 471	541 / 437
	5 PM – 6 PM			475 / 445	531 / 428
CT Route 17 (Middletown Avenue)[2]	7 AM – 8 AM	238 / 344	559 / 551	-	-
	8 AM – 9 AM	225 / 345	562 / 532		
	4 PM – 5 PM	501 / 624	402 / 499		
	5 PM – 6 PM	521 / 692	372 / 457		
CT Route 17 (Middletown Avenue)[3]	7 AM – 8 AM	550 / 483	812 / 636	-	-
	8 AM – 9 AM	547 / 556	674 / 705		
	4 PM – 5 PM	880 / 886	747 / 787		
	5 PM – 6 PM	914 / 964	701 / 814		
CT Route 17 (Middletown Avenue)[4]	7 AM – 8 AM	95 / 139	194 / 249	-	-
	8 AM – 9 AM	108 / 168	187 / 292		
	4 PM – 5 PM	189 / 238	177 / 211		
	5 PM – 6 PM	235 / 220	133 / 191		

1 – Traffic counts are sourced from CTDOT Monitoring Station nBRA-40. Counts referenced are from August 3, 2022 and are the latest available.

2 - Traffic counts are sourced from CTDOT Monitoring Station nBRA-15. Counts referenced are from August 3, 2022 and are the latest available.

3 - Traffic counts are sourced from CTDOT Monitoring Station nBRA-78. Counts referenced are from July 28, 2022 and are the latest available.

4 - Traffic counts are sourced from CTDOT Monitoring Station nBRA-35. Counts referenced are from August 3, 2022 and are the latest available.

Speed Limits and Speed Limit Signage

Speed limits and speed limit signs are a critical component of the roadway infrastructure. Speed limits are set at a speed deemed appropriate for the roadway conditions and are established to move traffic in a uniform and safe manner. Signs communicate this critical information to roadway users. In Connecticut, the Office of State Traffic Administration (OSTA), in conjunction with the Local Traffic Authorities (LTA) of the individual towns / cities, establishes speed limits for all public roads. However, if the local community LTA chooses to take on the responsibility and authority to do so, they become the sole authority within the municipal limits per outlined house bill ratified on June 7, 2021.

> Public Act No. 21-28: House Bill 5429: *Sec. 6. Section 14-218a*
>
> *(4) (c) (1) The traffic authority of any town, city or borough may establish, modify and maintain speed limits on streets, highways and bridges or in any parking area for ten cars or more or on any private road wholly within the municipality under its jurisdiction without approval from the Office of the State Traffic Administration, provided:*
>
> *B) The traffic authority notifies the office in writing that the traffic authority is permitted under subparagraph (A) of this subdivision and intends to assume such responsibility and authority*

Regulatory speed limits on state and local roads are based on an engineering investigation. Principal factors considered are:

- Road type and surface (curve, hill, etc.)
- Location and type of access points (intersections, entrances, etc.)
- Existing traffic control devices (signs, signals, etc.)
- Accident history
- Traffic volume
- Sight distances
- Test drive results
- Radar speed observations

CTDOT has ATR count locations at various points throughout the Study Area. These devices collect information such as traffic volumes, average speed, and 85th percentile spot speeds. ***Table 5*** illustrates the differences between posted speed limit, 85th percentile, and average speed.

What is the 85th Percentile Speed?

The 85th Percentile Speed is the speed that 85 percent of vehicles do not exceed. Another way of looking at this is that only 15 percent of vehicles go faster than this speed, and 85 percent go at or below this speed.

Throughout the Study Area along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road and Forest Road), the posted speed limit is 35 miles per hour. Several counters may be located just outside of Northford Center on approaches with different posed speed limits. ATR counter number and location is also shown in ***Table 5***.

Table 5: CTDOT ATR Count Location Speed Data (mph)

Location	Mile Post	CTDOT ATR #	Data Collection Year	Posted Speed Limit (mph)	85th Percentile Speed (mph)	Average Speed (mph)
CT Route 22 (Clintonville Road)[1]	6.37 mi	40	2022	35	38	34
CT Route 17 (Middletown Avenue)[2]	7.16 mi	15	2022	35	44	37
CT Route 17 (Middletown Avenue)[3]	7.02 mi	78	2022	35	38	30
CT Route 17 (Middletown Avenue)[4]	6.93 mi	35	2022	35	43	28

As shown in ***Table 5***, the average travel speeds along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) are generally plus 5-10 mph from the posted speed limits. The average difference between 85th percentile speeds and posted speeds along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) is approximately 6 miles per hour. Despite this, only one intersection recorded an average speed higher than the posted speed limit. The southbound approach of the intersection of CT Route 17 (Middletown Avenue) with Mansfield Drive has a downward grade of approximately 4% which is the leading factor in these increased observed speeds. Outside of this, speeds are generally limited due to the horizontal curvature, associated land uses, and developmental density of the Study Area. Other factors that impact observed 85th percentile speeds, irregular side street spacing, irregular intersection geometry, and high developmental density.

Heavy Vehicles

TMC data collected by the Study Team in 2024 shows that heavy vehicles, including trucks and buses, typically comprise 2% to 5% of the daily traffic volumes for major movements along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road). Several commercial driveways have an increased heavy vehicle percentage. The presence of delivery trucks using these driveways, combined with lower observed traffic volumes, result in the increased percentage. The highest heavy vehicle percentage is observed at the eastbound left movement exiting the Totoket Valley Elementary School Driveway at 40%. This is a result of school buses in the morning commuter peak period exiting after dropping off students. ***Table 6*** below displays any movement with a heavy vehicle greater than 2%. For full heavy vehicle data for all eight intersections, please see the ***Appendix***.

Table 6: TMC Heavy Vehicle Percentage

Location	Movement	Peak Hour		
		Weekday AM	Weekday PM	Saturday Midday
		Heavy Vehicle % / Peak Hour Volume	Heavy Vehicle % / Peak Hour Volume	Heavy Vehicle % / Peak Hour Volume
CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive	Old Post Road SBT	3.7% / 27	-	-
	Clintonville Road EBR	3.3% / 389	-	-
	Mansfield Drive WBR	-	-	4.2% / 24
CT Route 17 (Middletown Avenue) at Mansfield Drive	Middletown Ave NBL	2.8% / 354	-	-
	Middletown Ave NBT	7.1% / 254	-	-
	Middletown Ave NBR	-	2.9% / 35	-
	Middletown Ave SBT	-	3.0% / 332	-
	Middletown Ave SBR	-	3.8% / 79	2.2% / 90
	Mansfield Drive WBR	-	16.7 % / 6	-
CT Route 22 (Clintonville Road) at CT Route 17 (Middletown Avenue)	Middletown Ave NBT	4.7% / 578	-	-
	Middletown Ave SBT	-	2.9% / 342	-
	Clintonville Road SBHL	2.9% / 34	-	-
	Clintonville Road SBT	3.4% / 380	-	-
CT Route 17 (Middletown Avenue) at Church Entrance and Private Driveway	Middletown Ave NBT	4.6% / 590	-	-
	Middletown Ave SBT	2.8% / 795	-	-
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	Forest Road NBT	4.0% / 477	-	-
	Middletown Ave SBT	2.7% / 583	-	-
	Middletown Ave SBSR	3.3% / 209	4.2% / 168	-
	Middletown Ave NET	7.3% / 110	-	-
CT Route 17 (Middletown Avenue) at Church Exit and Turning Lane	Middletown Ave NBT	9.7% / 124	-	-
	Middletown Ave NBR	23.5% / 51	7.9% / 38	6.7% / 30
	Middletown Ave SBT	3.3% / 210	4.2% / 167	-
	Turning Lane WBL	25% / 56	-	10.5% / 19
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza	Forest Road NBL	27.1% / 48	-	4.3% / 23
	Forest Road NBT	3.8% / 473	-	-
	Forest Road SBL	16.7% / 6	-	-
	Forest Road SBT	2.6% / 576	-	-
	Turning Lane EBT	-	10% / 10	-
	Turning Lane EBR	20.5% / 39	7.1% / 28	4.2% / 24
	Northford Center Shopping Plaza WBR	40% / 5	-	-
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School	Middletown Ave NBL	2.8% / 71	-	-
	Middletown Ave NBT	7.3% / 124	2.5% / 242	-
	Middletown Ave SBT	-	4.2% / 165	-
	Middletown Ave SBR	23.6% / 72	-	-
	Totoket Valley Elementary School EBL	40.5% / 37	17% / 91	-
	Totoket Valley Elementary School EBR	10.6% / 47	-	-

Based on the latest available data from CTDOT, non-interstate principal arterials experience on average 2% to 5% of trucks and buses. ***Table 7*** provides a sample of site location, comparable AADTs and percentages of heavy vehicles.

Table 7: Sample of Connecticut Non-Interstate Principal Arterial Heavy Vehicle Percentages

Town	Route	Location	Heavy Vehicle Totals (Count)	Heavy Vehicle Percent	Annualized Average Daily Traffic (AADT)
Madison	79	Durham Road, South of Beachwood Dr	413	2.9%	8,200
Guilford	80	Killingworth Rd, West of Route 77	305	2.2%	8,300
West Haven	122	First Ave, South of Richards Street	238	1.6%	9,300
Hamden	10	Whitney Ave, North of Dixwell Ave	526	4.3%	12,800
New Haven	17	Middletown Ave, South of I-91	641	4.5%	13,800

Existing Traffic Operations

Existing traffic operations were evaluated for the Study Area intersections during the weekday morning, weekday evening, and Saturday midday peak hours. The capacity and queue analyses were conducted using Trafficware's Synchro plus SimTraffic 11 model, a Traffic Signal Coordination Software, based on the 2010 Highway Capacity Manual (HCM) methodology.

Signalized intersections are analyzed in terms of vehicle capacity and motorist delay. Capacity is the maximum rate of vehicle flow through an intersection given typical operating conditions. The number of vehicles traveling through an intersection is divided by the capacity of the intersection to determine an overall volume-to-capacity ratio (v/c). A v/c value under 1.00 indicates that the number of vehicles traveling through an intersection is less than capacity, while a v/c ratio greater than 1.00 is indicative of intersection congestion.

As stated in the HCM, level of service for signalized intersections is defined in terms of control delay. Control delay measures the increase in delay a motorist experiences while encountering a traffic control signal. These factors include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. This delay is measured per vehicle for a 15-minute analysis period and is associated with the levels of service, which are summarized in ***Table 8*** below:

Table 8: Signalized Intersection – Level of Service

Level of Service [1]	Average Control Delay (seconds per vehicle)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

[1] If volume-to-capacity ratio is over 1.0 for a lane group, LOS F. Intersection and approach-based LOS is based solely on control delay.

Level of Service A represents the optimum level where most motorists arrive at the subject intersection during the green phase and thus, experience virtually no delay. Conversely, Level of Service F indicates that motorists are delayed over 80 seconds while traveling through the intersection and can often imply a complete breakdown of that location. Level of Service D is generally considered the limit of delay acceptable to motorists.

Unsignalized intersections are generally evaluated in terms of average side street delay, as well as the capacity of the roadway approach. This analysis is based on the random arrival of vehicles and the associated gaps generated by this random arrival within the traffic stream. There is no overall level of service for unsignalized intersections. The relationship between levels of service and average side street delay are summarized in ***Table 9*** below:

Table 9: Unsignalized Intersection – Level of Service

Level of Service [1]	Average Control Delay (seconds per vehicle)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

[1] If volume-to-capacity ratio is over 1.0 for a lane group, LOS F. Intersection and approach-based LOS is based solely on control delay.

It should be noted that unsignalized levels of service do not correspond to those for signalized intersections, nor do they constitute warrants for the installation of traffic control signals. It is also recognized that the methodology is overly conservative and that computations can indicate operations at poor levels of service (E or F) with even very low side street volumes, although they often function without serious problems in the real world.

Table 10: Project Intersections – Existing Level of Service

	AM	PM	SAT
	2024 Existing	2024 Existing	2024 Existing
CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive	-	-	-
Old Post Road SB Through / Right	B/0.08/12/25	B/0.12/13/25	B/0.05/10/25
CT Route 17 (Middletown Avenue) at Mansfield Drive	**B/15**	**B/12**	**A/9**
Mansfield Drive WB Left / Through / Right	D/0.35/46/75	D/0.31/45/65	D/0.27/38/60
CT Route 17 (Middletown Avenue) NB Left	B/0.59/10/#180	B/0.73/15/#410	A/0.29/6/110
CT Route 17 (Middletown Avenue) NB Through / Right	A/0.19/5/120	A/0.36/5/275	A/0.22/5/150
CT Route 17 (Middletown Avenue) SB Left / Through / Right	B/0.61/18/#595	B/0.46/14/395	B/0.29/12/225
CT Route 17 (Middletown Avenue) at CT Route 22 (Clintonville Road) and Northford Store Driveway	-	-	-
CT Route 22 (Clintonville Road) Turning Lane EB Left / Through	D/0.25/32/25	F/>1.0/>50/295	C/0.30/21/30
Northford Store Driveway WB Left	D/0.06/26/25	F/0.38/>50/35	C/0.10/17/25
Northford Store Driveway WB Right	B/0.02/12/25	C/0.18/20/25	B/0.05/11/25
CT Route 22 (Clintonville Road) SB Left	A/0.01/9/25	B/0.02/10/25	A/0.01/8/25
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance and Private Driveway	-	-	-
Private Driveway WB Left / Right	C/0.05/24/25	E/0.21/47/25	B/0.04/14/25
CT Route 17 (Middletown Avenue) SB Left	A/0.01/9/25	B/0.02/11/25	A/0.01/8/25
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	**A/8**	**B/14**	**A/7**
Ardsley Avenue WB Left / Right	C/0.04/16/25	C/0.12/23/25	B/0.03/13/25
CT Route 17 (Middletown Avenue) NEB Through	D/0.47/35/90	D/0.72/39/170	C/0.40/27/80
CT Route 22 (Forest Road) NB Through	A/0.35/5/135	B/0.63/11/340	A/0.27/5/90
CT Route 17 (Middletown Avenue) SEB Through	A/0.41/5/170	A/0.54/10/260	A/0.27/5/90
CT Route 17 (Middletown Avenue) SB Right	A/0.26/4/85	A/0.29/7/65	A/0.11/4/35
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit Driveway and Turning Lane	-	-	-
Saint Andrew's Episcopal Church Exit Driveway EB Right	B/0.01/11/25	A/0.01/10/25	A/0.01/8/25
Turning Lane WB Left	C/0.20/17/25	B/0.06/14/25	B/0.04/11/25
CT Route 17 (Middletown Avenue) SB Left	A/0.01/8/25	A/0.01/8/25	A/0.01/8/25
CT Route 22 (Forest Road) at Turning Lane	-	-	-
Turning Lane EB Right	C/0.15/17/25	C/0.15/20/25	B/0.06/12/25
CT Route 22 (Forest Road) NB Left	A/0.07/10/25	A/0.02/9/25	A/0.03/8/25
CT Route 22 (Forest Road) at Northford Center Shopping Plaza	-	-	-
Northford Center Shopping Plaza Driveway WB Left / Right	C/0.09/17/25	C/0.15/20/25	B/0.07/12/25
CT Route 22 (Forest Road) SB Left	A/0.01/9/25	A/0.01/9/25	A/0.01/8/25
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School Driveway	-	-	-
Totoket Valley Elementary School Driveway EB Left / Right	C/0.32/19/35	B/0.10/13/25	B/0.06/10/25
CT Route 17 (Middletown Avenue) NB Left	A/0.09/9/25	A/0.02/8/25	A/0.02/8/25

Overall Intersection – X/XX - Level of Service/Intersection Signal Delay in sec
Approaches - X/X.XX/XX/XXX – Level of Service/Volume to Capacity Ratio/Approach Delay in Seconds/95% Queue Length in ft
– 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.
m – Volume for 95th percentile queue is metered by upstream signal.

Weekday Morning Peak Hour Operations

During the morning peak hour, the Study Area intersections and individual movements operate at acceptable LOS.

CT Route 17 (Middletown Avenue) at Mansfield Drive

It should be noted that the 95th percentile queue lengths for the northbound left-turn movement and southbound approach both have the potential to exceed capacity available at the intersection. The future conditions assessment will explore options to reduce this 95th percentile queue or expand upon the existing storage at this approach.

Weekday Afternoon Peak Hour Operations

During the afternoon peak hour, the Study Area intersections generally operate at acceptable levels of service.

Additionally, several individual movements at the intersection of CT Route 17 (Middletown Avenue) with CT Route 22 (Clintonville Road) and the Northford Store Driveway perform at inadequate LOS. The northbound left queue length is also a recurring condition in the PM peak hour. The following additional operational issues are exhibited in the analysis:

CT Route 17 (Middletown Avenue) at Mansfield Drive

As noted above, the 95th percentile queue length for the northbound left-turn movement has the potential to exceed capacity available at the intersection. The future conditions assessment will explore options to reduce this 95th percentile queue or expand upon the existing storage at this approach.

CT Route 17 (Middletown Avenue) at CT Route 22 (Clintonville Road) and Northford Store Driveway

CT Route 22 (Clintonville Road) Turning Lane EB Left / Through operates at inadequate LOS. Based on a review of the traffic simulation, there are no adequate gaps in the flow of traffic for vehicles to make a left turn onto CT Route 17 (Middletown Avenue). The same is true for the westbound left turn exiting the Northford Store Driveway. It is anticipated that the Future Conditions Report will explore opportunities to improve operations at this intersection.

CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance and Private Driveway

The westbound approach of this intersection, the private driveway, operates at an inadequate LOS. Despite this undesirable LOS, volume entering and exiting this driveway is negligible and does not impact operations of the adjacent intersections.

Saturday Midday Peak Hour Operations

During the morning peak hour, the Study Area intersections and individual movements operate at acceptable LOS.

Sources of Delay

Overall, the sources of delay during weekday AM, PM, and weekend midday peaks are:

- **Irregular Signal Spacing** – Federal Highway Administration recommends that intersection spacing along an arterial roadway should be regular, with constant distances between traffic signals. A minimum spacing of one-half mile is recommended to regulate traffic flow and preserve capacity along arterial routes, with one-mile spacing considered desirable. When the spacing between signals falls below one-quarter mile (1,320 feet), the traffic flow along the route may be disrupted. The ability of the route to carry through traffic will decrease, travel speeds may decrease, and delays and queues may develop at intersections. It is very difficult to maintain signal coordination when intersection spacing is irregular, as is the case, particularly in Northford Center.
- **Unique Intersection Geometry** – CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) have several unique geometric features that contribute to delay throughout Northford Center. The turning lane along CT Route 22 (Clintonville Road) across from the Northford Store Driveway has the tendency to develop queues that obstruct southbound traffic. Vehicles attempting to make a left turn onto CT Route 17 (Middletown Avenue) are often subject to longer than average delays. It is anticipated that the Future Conditions Assessment will explore opportunities to improve the geometry of this intersection.
- **Traffic Volumes and Concentrated Development** – With the concentration of development around the intersection of CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road), higher traffic volumes could yield increased delays and queue lengths. Concentrated development in Northford Center could lead to queueing spillback into upstream intersections.
- **Turning Vehicles** – Within the Study Area, vehicles waiting to turn at intersections generally block the through lane. Depending on the shoulder width available, through vehicles may be able to bypass turning vehicles, but even in these locations within the Study Area, they generally slow down when doing so. At some intersections, a left-turn lane is provided in lieu of shoulders. This significantly improves capacity when there are many left turns. The Future Conditions Assessment will explore opportunities to accommodate left turns in the Study Area, without compromising operations of adjacent intersections.
- **Heavy Vehicle Presence** – The proximity of Totoket Valley Elementary School introduces many school buses (heavy vehicles) to the Study Area. The presence of these heavy vehicles may negatively impact traffic flow throughout the Study Area, particularly in the morning peak hour as they are arriving to school to drop off students. The majority of these buses use the turning lane to access the school. As the school will remain unchanged, the Future Conditions Assessment will be sure heavy vehicles are accommodated in any proposed improvements.

- **Access Management** – Throughout Northford Center, several developments have multiple access points that increase conflict points and contribute to overall delay throughout the Study Area. Developments that have multiple access points include The Northford Store, Rite Aid, and the Northford Center Shopping Plaza. In the Future Conditions Assessment, the Study Team will evaluate opportunities to consolidate access points in an effort to improve traffic flow. The Wells Fargo bank has a driveway that connects to the middle of the intersection of CT Route 17 (Middletown Avenue) with Mansfield Drive. It is against general access management practices to have a driveway intersect in such a way that it is not aligned with the remainder of the intersection. Opportunities to revise access to the bank will be evaluated in the Future Conditions Assessment.

Traffic Safety

Motor vehicle collision data for the Study Area were collected from the University of Connecticut (UConn) Crash Data Repository (CTCDR-PR1). The repository was developed in cooperation with the CTDOT Bureau of Policy & Planning, Crash Data & Analysis Unit. The Connecticut system follows national crash data guidelines, referred to as the Model Minimum Uniform Crash Criteria Guideline (MMUCC). In addition, Uniform Fatal Crash Supplement Report (PR-2) is provided for fatal collisions. For the study, the three-year period from January 1, 2021, through December 31, 2023, was used for all crash types. A crash analysis was conducted to help understand how road and intersection conditions affect safety. Because comparing crash data by individual years may distort analysis results, crash totals were calculated for each intersection and segment. In addition to reviewing the number and type of crashes along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road), crash rates were calculated which account for segment length, average daily traffic (ADT), timeframe, and number of crashes. Summaries of the Study Area collisions with select intersections of significant focus or with high collision rates are provided below. The critical analysis factors identified from CTCDR were:

- Number of Crashes
- Crash Type
- Severity
- Crash Location
- Traffic Volume

The crash data collected and generated through this assessment were combined to identify and prioritize high crash locations along the corridor. A total of 45 crashes were recorded in the Study Area, 14% of which resulted in injury or possible injury.

Crash History

The crash data obtained from the CTCDR revealed that 45 crashes occurred within the Study Area over the three-year period from 2021 through 2023, an annual average of 15 crashes. The crashes were sorted into 8 intersections and 7 segments connecting these intersections. In total, there were 35 crashes recorded at intersections and 10 crashes recorded along roadway segments. The causes of crashes along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) resulted from a combination of many factors, including driver behavior, traffic density, weather and light conditions, and roadway geometry. On average, 12 crashes per year were associated with an intersection, while on average 3 crashes per year occurred on roadway segments between intersections. More detail about the types of accidents, severity and crash rates by location is provided in the following section.

The crash data was broken down by month. ***Figure 6*** illustrates the monthly distribution. The months of December and February experienced 13% of the crashes. The months of September and October experienced 11% of the crashes. The fewest crashes occurred in June and July. However, because of relatively small differences, time of year should not be considered a contributing factor for higher chance of collision to occur.

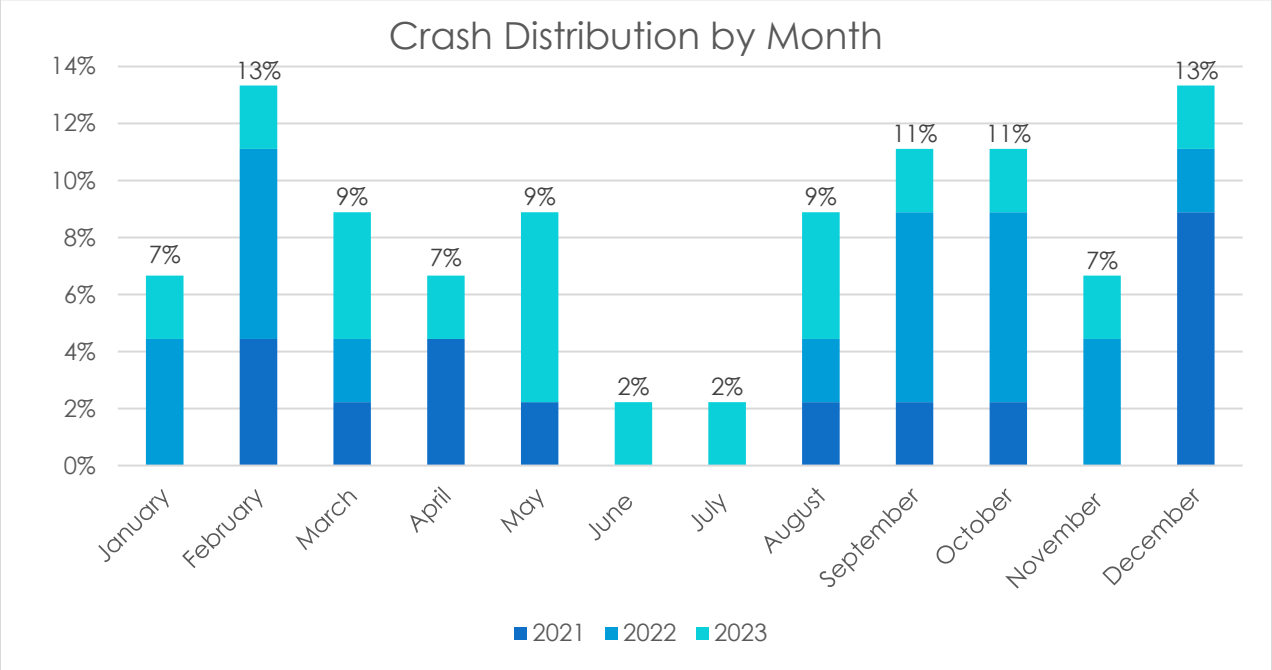


Figure 6: Percentage of Crashes by Month for 3-Year Time Period

The most common type of vehicle crash was a "Front to Rear" collision. Oftentimes, irregular side street spacing or high developmental density are factors in this crash type. Other contributing factors to this crash type include, but are not limited to, unstable traffic flow, and less than adequate sight distances. ***Table 11*** summarizes the corridor crash type totals for segments and intersections.

Table 11: Summary of Crash Type along the corridor during the 3-year period

Crash Type	Intersection Total	Percent	Segment Total	Percent	Total	Percent
Angle	13	29%	2	4%	15	**33%**
Front to Front	0	0%	0	0%	0	**0%**
Front to Rear	15	34%	7	16%	22	**50%**
Not Applicable	2	4%	0	0%	2	**4%**
Other	3	7%	1	2%	4	**9%**
Rear to Rear	1	2%	0	0%	1	**2%**
Rear to Side	0	0%	0	0%	0	**0%**
Sideswipe Opposite Direction	1	2%	0	0%	1	**2%**
Sideswipe Same Direction	0	0%	0	0%	0	**0%**
Total	**35**	**78%**	**10**	**22%**	**45**	**100%**

Please see the ***Appendix*** for a detailed summary of crash types by the 8 intersections along the corridor and the 7 segments between these intersections.

When considering the traffic volume throughout the Study Area, the severity of crashes observed is not a major concern. It should be noted that the majority (84%) of crashes resulted in property damage only with no apparent injuries. Approximately 14% of the crashes resulted in either possible, suspected minor, or suspected serious injury. Relatively low 85th percentile speeds are a contributing factor to the low percentage of serious injuries seen in the Study Area. Crash severity is summarized in **Table 12.** These are not just statistics and will be considered while developing design alternatives for the Study Area. More detailed analysis is provided in the following table.

Table 12: Summary of Crash Severity along the corridor during the 3-year period

Severity	Intersection Total	Percent	Segment Total	Percent	Total	Percent
Fatal Injury (K)	0	0%	0	0%	0	0%
Suspected Serious Injury (A)	0	0%	1	2%	1	2%
Suspected Minor Injury (B)	1	2%	1	2%	2	4%
Possible Injury (C)	2	4%	2	4%	4	8%
No Apparent Injury (O)	32	72%	6	14%	38	86%
Total	**35**	**78%**	**10**	**22%**	**45**	**100%**

Crash Rates

Intersection Crash Rate:

Intersection Crash Rate is calculated as follows:

$$Rate = \frac{1{,}000{,}000 * No.\ Crashes}{365 * Years\ of\ Data * Daily\ Traffic\ Volume}$$

Road Segment Crash Rate:

Road Segment Crash Rate is calculated as follows:

$$Rate = \frac{1{,}000{,}000{,}000 * No.\ Crashes}{365 * Years\ of\ Data * Daily\ Traffic\ Volume * Length\ of\ Segment}$$

In addition to reviewing the number and type of crashes along the CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) corridors, crash rates were calculated. These account for segment length, total number of vehicles entering the intersection (TEV), timeframe, and number of crashes. This approach normalizes the data so that individual segments and intersections can be compared, regardless of their respective length, volume, or crash statistics. For this reason, rates are better suited to reflect safety deficient locations than number of crashes alone. The individual crash rates by intersection are outlined in ***Table 13***. The yellow highlighted value represents the highest crash rate in the corridor.

Crash rates for intersections are expressed in terms of crashes per million entering vehicles and the rate for road segment represents the number of crashes per mile.

The highest crash rate in the study area was observed at the intersection of CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road) and The Northford Store Driveway. The crash rate for this intersection was 0.90 crashes per million entering vehicles. It should be noted that this highlighted crash rate of 0.90 is not considered significant. This translates to 0.9 crashes per million vehicles that enter the intersection. It is anticipated that the Future Conditions Assessment explores designs that improve the geometry of this intersection. Despite having the highest crash rate of any in the study area, neither this nor any intersection crash rate in the Study Area is of concern, as they are all lower than one crash per million vehicles entering.

Table 13: Summary of Crash Rates by Intersection during the 3-year period

Intersection	Total Crashes (3 yrs)	Percent Injury	Annualized Average Daily Traffic (AADT)	Million Entering Vehicles (MEV)	Crash Rate
CT Route 22 (Clintonville Road) at Old Post Road	3	0%	9,100	3.32	0.30
CT Route 17 (Middletown Avenue) at Mansfield Drive	7	0%	11,800	4.31	0.54
CT Route 17 (Middletown Avenue) at CT Route 22 (Clintonville Road) and The Northford Store Driveway	17	18%	17,200	6.28	0.90
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance Driveway	0	-	-	-	-
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	4	0%	17,200	6.28	0.21
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit Driveway and Turning Lane	2	0%	5,000	1.83	0.37
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza Driveway	2	0%	12,200	4.45	0.15
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School Driveway	0	-	-	-	-
Total Intersection Crashes	**35**				

The crash rates identified in this analysis were calculated using professionally recognized methodologies; therefore, they may be used in pursuit of Highway Safety Funds through the Federal Highway Administration (FHWA). The CTDOT has established the Highway Safety Improvement Program (HSIP). The HSIP allocates resources to incorporate safety improvements across a broad range of maintenance, safety, and non-infrastructure projects.

Table 14 below summarizes crash rates by segment for the Study Area.

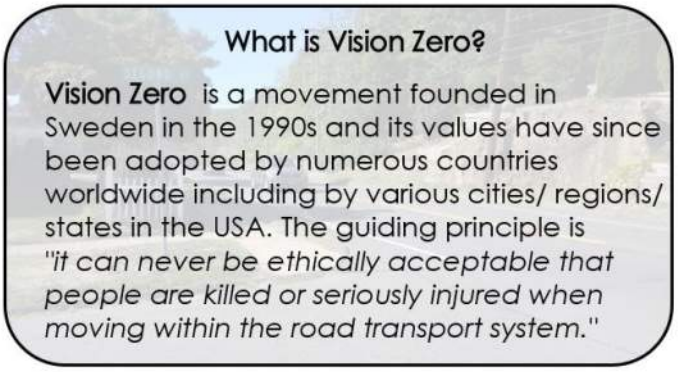
The highest segment crash rate along either CT Route 17 (Middletown Avenue) or CT Route 22 (Clintonville Road) was calculated for the segment of CT Route 22 (Forest Road) between Ardsley Avenue and the Turning Lane. The crash rate for this intersection was 7.49 crashes per million vehicle-miles of travel. The segments with the highest rates do not necessarily have the highest number of crashes, but rather high concentrations of accidents relative to traffic volume and the length of the corridor. The largest contributing factor to crash rates in this study area is that the road segments are very short, all less than one-tenth of a mile.

It should be noted that the second-highest crash rate observed was along the segment of CT Route 17 (Middletown Avenue) between CT Route 22 (Clintonville Road) and Saint Andrew's Episcopal Church Entrance Driveway. This segment, in conjunction with the intersection of CT Route 17 (Middletown Avenue) with CT Route 22 (Clintonville Road) and The Northford Store Driveway, will be explored in the Future Conditions Assessment.

Table 14: Summary of Crash Rates by Segment during the 3-year period

Segment	Total Crashes (3 yrs)	Percent Injury	Annualized Average Daily Traffic (AADT)	Length of Segment (mi)	Crash Rate
CT Route 22 (Clintonville Road) Segment between Old Post Road and CT Route 17 (Middletown Avenue)	1	0%	9,100	.06	1.67
CT Route 17 (Middletown Avenue) Segment between Mansfield Drive and CT Route 22 (Clintonville Road)	3	0%	11,800	.07	3.32
CT Route 17 (Middletown Avenue) Segment between CT Route 22 (Clintonville Road) and Saint Andrew's Episcopal Church Entrance Driveway	2	50%	17,200	.03	3.54
CT Route 17 (Middletown Avenue) Segment between Saint Andrew's Episcopal Church Entrance Driveway and Ardsley Avenue	1	100%	17,200	.02	2.65
CT Route 17 (Middletown Avenue) Segment between Ardsley Avenue and Turning Lane	0	-	-	-	-
CT Route 22 (Forest Road) Segment between Ardsley Avenue and Turning Lane	3	0	12,200	.03	7.49
CT Route 17 (Middletown Avenue) Segment between Turning Lane and Totoket Valley Elementary School	0	-	-	-	-
Total Intersection Crashes	**10**				

Fatal Crashes



There were zero (0) fatal crashes along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road). There was one (1) Suspected Serious Injury recorded in the study area in the three-year period from 2021 to 2023. As there was only one (1) significant injury in the study area over the three-year period, it is difficult to determine a trend that consistently results in injury. Overall, of the 45 crashes observed throughout the study area, fourteen percent (14%) resulted in an injury of any kind. While this injury rate is relatively low, the Future Conditions Assessment will propose features with the intention to further mitigate the frequency of crashes.

The CTDOT HSIP program is a Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads, such as on CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road). Under the development of improvements, various strategies will be developed to support SCRCOG's Vision Zero goal.

Bicycle and Pedestrian Crash History

The crash data for the Study Area was reviewed for crashes involving bicyclists or pedestrians. The data, summarized in ***Table 15,*** revealed there were zero collisions involving pedestrians and zero collisions with cyclists. There is a noticeable lack of pedestrian activity throughout the Study Area. This is likely due to the absence of continuous pedestrian accommodations available. The lone segment of sidewalk is located adjacent to The Northford Store, which provides connection to the Edward Smith Library. TMCs displayed a maximum of two (2) pedestrians at any project intersection during any peak hour. It is anticipated that the Future Conditions Analysis proposes some form of accommodation for bicyclists / pedestrians, to improve circulation and connectivity. Safety will be a key component in the development of these design alternatives.

Table 15: Summary of Bicycle and Pedestrian Crashes during the 3-year period

Location (Intersection / Segment)	Bicycle	Pedestrian
CT Route 22 (Clintonville Road) at Old Post Road	0	0
CT Route 17 (Middletown Avenue) at Mansfield Drive	0	0
CT Route 17 (Middletown Avenue) at CT Route 22 (Clintonville Road) and The Northford Store Driveway	0	0
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Entrance Driveway	0	0
CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue	0	0
CT Route 17 (Middletown Avenue) at Saint Andrew's Episcopal Church Exit Driveway and Turning Lane	0	0
CT Route 22 (Forest Road) at Turning Lane and Northford Center Shopping Plaza Driveway	0	0
CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School Driveway	0	0
Totals	**0**	**0**

Crash Observations

Crash statistics provide a tool for identifying locations with safety concerns and prioritizing locations along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) for improvement. The data also provides the basis for a more in-depth discussion of safety issues and opportunities.

- Over a three-year period, 45 crashes were recorded throughout the study area. The majority of these crashes resulted in "No Apparent Injury" at eighty-six percent (86%). Crashes were relatively evenly distributed across the three-year period with twenty-eight percent (28%) in 2021, thirty-six percent in (36%) in 2022, and thirty-six percent in (36%) in 2023. The intersection with the highest frequency of crashes is CT Route 17 (Middletown Avenue) at CT Route 22 (Clintonville Road / Forest Road), which experienced thirty-eight percent (38%) of all observed crashes. This is followed by the intersection of CT Route 17 (Middletown Avenue) at Mansfield Drive, which experienced sixteen percent (16%) of all observed crashes.
- After reviewing the existing conditions of the study area, there are several contributing factors to the observed crashes. Unique roadway geometry, 85th percentile speeds down CT Route 17 (Middletown Avenue), and high access point density are all factors. Other general factors include but are not limited to, driver behavior, a mix of local and through traffic, weather, and light conditions and poor visibility.
- In North Branford, the stretches of CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) in the Study Area are mainly characterized by high-developmental density. This section of North Branford has a high proportion of turning vehicles in the traffic stream and may contribute to the high percentage of angle and rear–end collisions when compared against corridor averages. Furthermore, the study area has unique roadway geometry, which is often a contributing factor in crash frequency. The Future Conditions Assessment will work to propose design alternatives that reduce driver uncertainty.
- A detailed summary of bicycle and pedestrian crashes crash data was developed. In total, there were no crashes recorded in the Study Area over the three-year period. This is largely due to the minimal amount of both pedestrian and cyclist traffic. Despite there being no observed crashes, the absence of accommodations for pedestrians and cyclists will be addressed in the Future Conditions Assessment.
- After reviewing the data, there was one highlighted area which will be addressed in the Future Conditions Assessment portion of the Study. Thirty-eight percent (38%) of the crashes observed in the study area occurred at the intersection of CT Route 17 (Middletown Avenue) with CT Route 22 (Clintonville Road) and the Northford Store Driveway. The geometry and observed 85th percentile speeds of this intersection are conducive to the increased frequency of crashes. It should be noted that despite the increase in the crash rate, there was only one injury recorded at this location.

Access Management

Access management is the process of balancing the competing needs of traffic movement and land access. Points of access introduce conflict and friction into the traffic stream. Access design characteristics of a roadway that directly impact traffic flow and safety include the location, spacing, and design of access drives entering the roadway, as well as the location of signals, medians, and turn lanes. Allowing dense, uncontrolled access spacing results in safety, operational, and aesthetic deficiencies for all users. Access management focuses on safety of travel and minimizing conflict points (locations where vehicles can cross paths) to maintain the smooth flow of traffic along a roadway. Maintaining smooth traffic flow can in turn reduce the need for roadway widening induced by growing congestion.

- According to NCHRP Report 420: Impact of Access Management Techniques, every unsignalized access increases the corridor crash rate by approximately two percent and decreases corridor travel speeds by 0.25 miles per hour.
- The safety and operational issues caused by dense access spacing potentially makes an area less attractive to developers and the general traveling public. Multiple national studies have shown most people are willing to accept a longer trip, including U-turns, to access destination businesses assuming the ride is pleasant and congestion free.

The disadvantages of multiple, uncoordinated, closely spaced access points include:

- Multiple points of conflict and increased potential for collisions
- Disruption to traffic flow and increased congestion
- Conflicts with existing or potential sidewalk network and bicycle lanes

There are numerous areas along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) where there are multiple closely spaced access points. ***Figure 7*** shows total number of access points by segment, type, and general location on the roadway.

There are numerous commercial driveways along the corridor, in addition to the controlled and uncontrolled road intersections. As new development and redevelopment is planned along the corridor, it is important to consider the management of access points as part of the site plan approval process. Access management strategies should be considered in any new development proposal, as well as when a site is redeveloped or a change in use is proposed. Access management includes a wide range of strategies. Common examples include shared driveways, consolidation of driveways, one-way driveways, two-way left-turn lanes (TWLTL), left-turn prohibitions, narrowing access points, and maintenance of sight lines.

This section contains a review of the existing driveways and access management deficiencies. These deficiencies were identified by a field visit, stakeholder interviews, a review of crash data, and aerial photos.

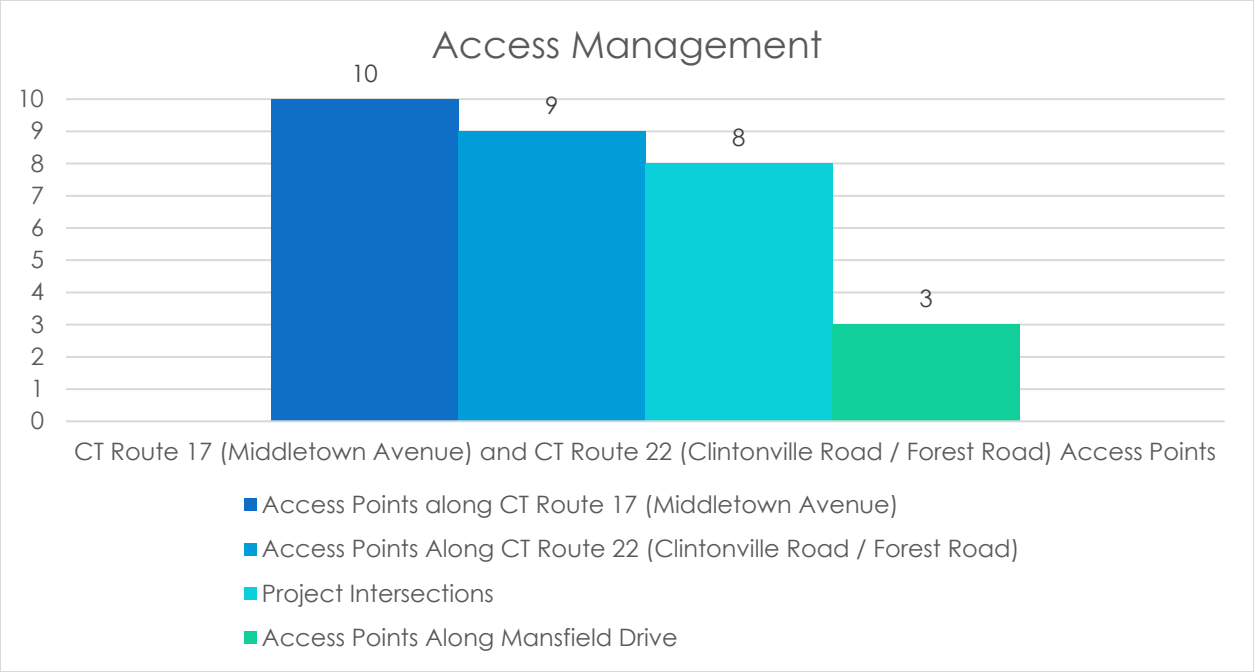


Figure 7: Access Management throughout Northford Center

In total, there are 22 access points throughout the study area. Many of these access points are clustered in groups. ***Figure 7*** illustrates the frequency and location of the intersection access and egress points along the corridor. The Town of North Branford regulates the construction of new driveways and access points through the provisions of their respective zoning regulations. Excerpts of this regulatory language is provided below:

Town of North Branford Access Management:

"35.5.2 Access: Provision shall be made for vehicular access to the property in such a manner as to safeguard against hazards to traffic and pedestrians in the street and on the lot and to avoid traffic congestion on any street.

Access shall also conform to the following:

a. Where reasonable alternate access is available, the vehicular access to the lot shall be arranged to avoid traffic use of existing local residential streets situated in or bordered by Residence Districts.

b. The street giving access to the lot shall have traffic carrying capacity and shall have suitable paving and other improvements to accommodate the traffic generated by the proposed use as well as other existing traffic on the street.

c. Provision shall be made for turning lanes and traffic controls within the street as may be necessary to provide safe access and avoid congestion.

d. Access driveways shall be of a design and have sufficient capacity to avid back up of entering vehicles within the street.

e. Driveways into the lot shall not exceed a grade of 8 % and shall conform to Town Ordinances or regulations of the State of Connecticut as applicable. Driveways connecting to a street shall not exceed a width of 30 feet unless a greater width is required by Town Ordinance, the Commission or by the State of Connecticut.

f. Unless otherwise approved by the Commission, there shall be no more than one (1) driveway entering any lot from any one street, except that there may be one (1) additional driveway for each 300 feet of lot frontage in excess of 150 feet.

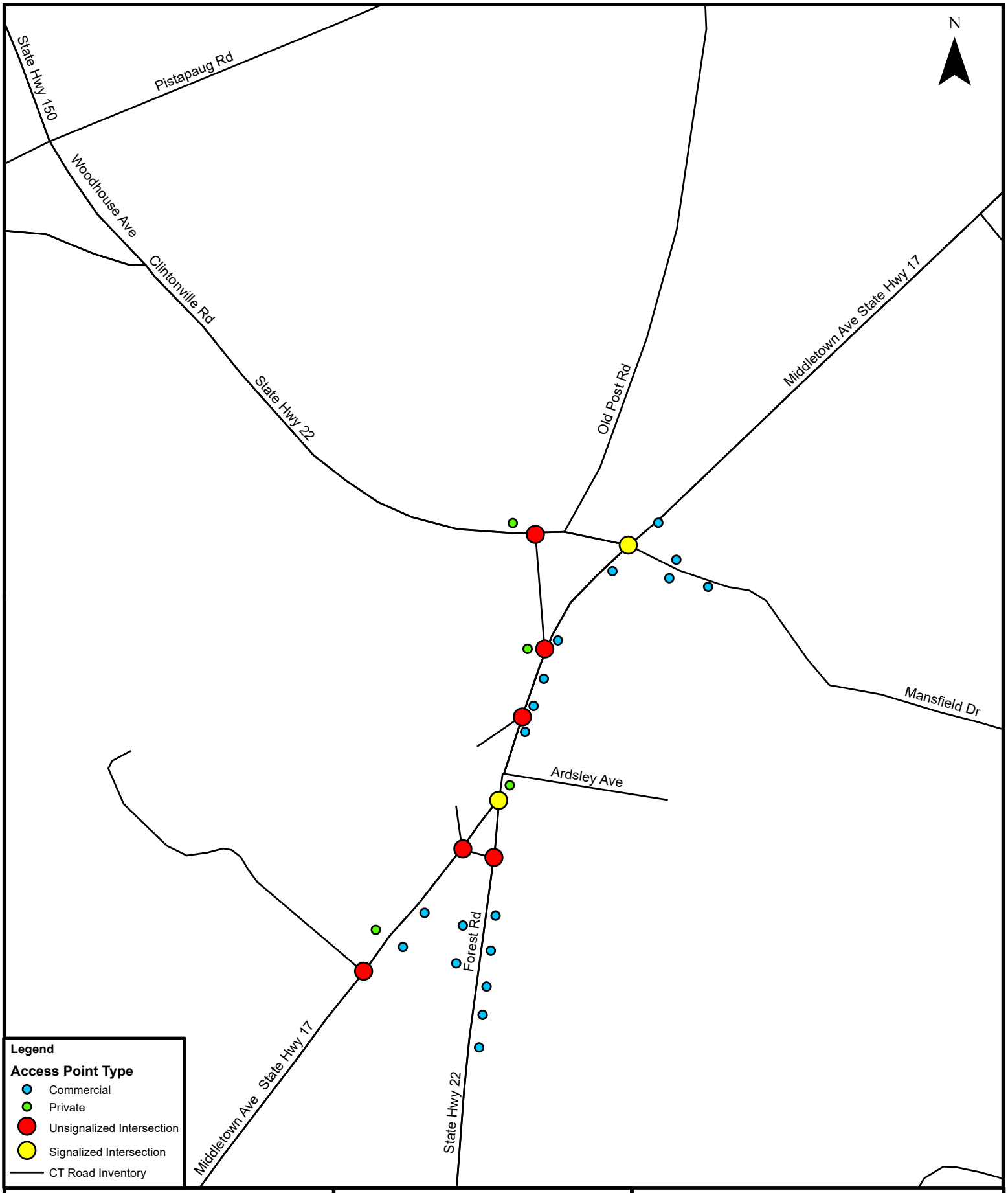
g. Suitable provision shall be made on the lot for access to buildings and other structures by fire, police and other emergency services and for fire hydrants, where public water supply is available, in accordance with good fire protection practices.

The passage above was taken from the Zoning Regulations of the Town of North Branford.

The recommended access management guidelines for this corridor should follow CTDOT access spacing guidelines. The study corridor is classified as an "Other Principal Arterial" that is intended to provide the mobility of a larger network, with lower category roadways feeding into them. Access guidance for this corridor permits primary access spacing every one-half mile and secondary intersections every one-quarter mile. Signalized intersections are permitted every one-quarter mile. Driveway access is allowed with spacings between 300-660 feet.

Each segment of the Study Area has access points greater than the recommended spacings. Many of the accesses are commercial driveways that are not aligned with an access across from it. This provides an increase in conflicts between traffic turning to and from these accesses and presents a safety risk along the corridor. A detailed map of the existing access along the corridor can be seen in ***Figure 8***.

Businesses with redundant driveway accesses or opportunities to consolidate access on CT Route 17 (Middletown Avenue) or CT Route 22 (Clintonville Road / Forest Road) can be better managed by providing access on a side street instead of these main roads, or by sharing access points with another development if not already done. Improvements to both access and signal timings will be considered as part of the alternative analyses.



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 8
ACCESS POINTS
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

BL Companies
Architecture
Engineering
Environmental
Land Surveying

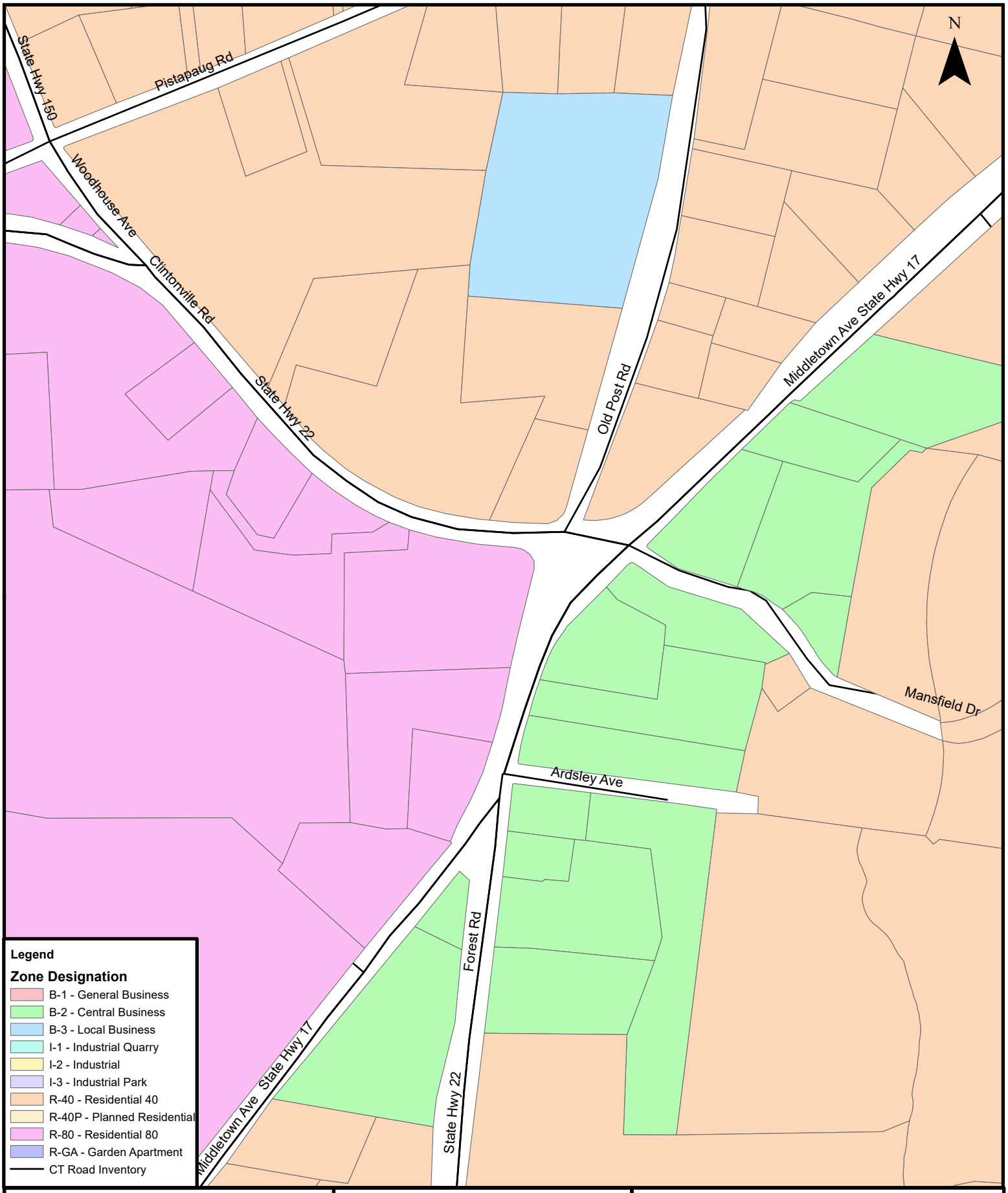
ACCESS POINTS

Land Use and Zoning

Transportation studies take into consideration the critical link between land use and how it is related directly to transportation demand. By promoting coordinated transportation and land use strategies, it is possible to help mitigate traffic growth and preserve capacity by reducing vehicular traffic, improve mobility for bicyclists and pedestrians, and generate need for transit facilities.

Zoning and other land use regulations can directly impact regional transportation systems and facilities. Intensively developed land uses, such as commercial and industrial developments in and around the Study Area, generate vehicular traffic that can lead to traffic congestion and potentially expansive roadway capacity improvements. It is therefore important to understand what development potential exists under current zoning regulations and how build-out of various land uses could impact traffic on both CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road).

The Town of North Branford has distinct zoning laid out to meet their local long-term development objectives. In order to show this effect, zoning by primary intended land uses was generated and is shown in ***Figure 9***. There are ten (10) categories recognized by The Town of North Branford's Zoning Regulations. The Study Area is a part of three (3) of the nine (9) zoning districts. These include Residential 40, Residential 80, and Central Business. Any new developments that qualify as major traffic generators will potentially have significant impacts on the transportation network.



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 9
ZONING MAP
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

BL Companies
Architecture
Engineering
Environmental
Land Surveying

NORTHFORD CENTER ZONING MAP

CT Route 17 (Middletown Avenue)

Along this segment of the Study Area, the primary land use is categorized as Central Business. Several local businesses can be found along the easterly side of CT Route 17 (Middletown Avenue), including The Northford Store and Guilford Savings Bank. In the southwestern portion of the Study Area, CT Route 17 (Middletown Avenue) is the home to several of the Town of North Branford's community service buildings. This includes the Recreation Department, Totoket Valley Elementary School, Volunteer Fire Department, and Food Pantry. These developments are classified under the Residential 80 Zoning District. To improve access to both the public resources and commercial developments, the Future Conditions Assessment will investigate opportunities to expand pedestrian accommodations available in this area. When exiting the Study Area, land use transitions from commercial developments to single-family homes.

CT Route 22 (Clintonville Road / Forest Road)

Similar to CT Route 17 (Middletown Avenue), the primary land use along this corridor is categorized as Central Business. Along the easterly side of CT Route 22 (Forest Road) there is the Northford Center Shopping Plaza, which contains several restaurants, a locally owned deli, locally owned bakery, and several other small businesses. The Twin Lake Children's Center is also located in this plaza. As mentioned above, in an effort to promote the relationship between the town's public resource buildings and local businesses, the Future Conditions Assessment will explore opportunities for the addition of pedestrian accommodation throughout this area. When exiting the Study Area, lane use along CT Route 22 (Clintonville Road / Forest Road) transitions from primarily commercial developments to single-family homes.

Plan of Conservation and Development (POCD)

The Town of North Branford adopted their most recent Plan of Conservation and Development (POCD) in 2019. This is a tool to guide the community's future development through the year 2029. Its purpose is to establish a common community vision and identify strategies to attain that vision.

While the POCD has the success of the overall community in mind, two areas in town were continually highlighted throughout the document. The Study Area, locally known as Northford Center, and North Branford Center were identified as "…the business and civic centers of the community." Through the National Register of Historic Places, the Study Area is classified as the "Northford Center Historic District". A goal is to promote business development, while maintaining the historical integrity of this area. This will be established by pursuing opportunities to revitalize the Central Business District, without encroaching on existing town facilities and religious institutions. Northford Center is a commercial plaza on the easterly side of CT Route 22 (Forest Road) that will be evaluated for redevelopment opportunities. The POCD proposes to "Reduce the front yard setback requirement in the B-2 (Central Business) zone and encourage that buildings are oriented towards the street with parking located behind the buildings." The redevelopment of existing commercial developments could play a key role in establishing a modern sense of place. The Future Conditions Assessment will work to maintain the historical aesthetic of the Study Area while coinciding with the future vision of the town.

To grow the tax base with existing infrastructure, the POCD proposes the strategy to "Use regulatory methods and incentives to reduce the size and number of curb cuts along Forest Road & Middletown Avenue in Northford Center." Throughout the review of existing conditions, redundant access points has been noted as a potential area of improvement for Northford Center. Elimination of unnecessary access points would reduce conflict points, in turn improving safety and reduce congestion throughout the Study Area.

The town lists potential transportation improvements for Northford Center, and include "…improvement of intersection geometry, improvement in access management and circulation between adjacent properties, enhanced pedestrian accessibility and the sidewalk network, incorporation of placemaking elements and green space." In addition to the redevelopment of commercial areas, the development of pedestrian accommodation in the Study Area is a key component of the POCD. A preliminary observation of the Study Area shows a lack of available sidewalk and dedicated bicycle facilities. In order to improve mobility between the town facilities and Central Business zone, the Future Conditions Assessment will attempt to find the optimal route for pedestrian movement throughout Northford Center. The POCD notes to "Target sidewalk improvements in areas near key community facilities and in the village center." The stretch of Route 17 (Middletown Avenue) between the community center and Edward Smith Library is identified as a priority area.

The POCD also notes to "Incorporate five-foot bicycle shoulders on state roadways as part of future improvement projects. Priority should be given to Route 17, which is a state-designated bicycle route." The combination of sidewalks and bicycle facilities would greatly improve pedestrian accommodation and circulation throughout Northford Center.

Environmental and Natural Resources

In addition to reviewing aerial images of the Study Area, current Geographic Information Systems (GIS) data from the Connecticut Department of Energy and Environmental Protection (CT DEEP), SCRCOG, and the Town of North Branford was obtained and reviewed during this screening analysis. The Study Area was screened for the following natural resources and physical environment features:

- Surface Water Resources
- Ground Water Resources
- Wetlands and Floodplains
- Threatened and Endangered Species and Habitats

These resources are generally considered constraints that could affect the feasibility of various improvement alternatives in the corridor. Potential impacts to these resources will be avoided where possible.

Surface Water Resources

There is one significant body of surface water adjacent to the Study Area. The Farm River runs along the easterly side of Northford Center. While this water resource is in the vicinity of the project, the Study Team will ensure that any proposed design alternatives will not have any impact on the environment. ***Figure 11*** depicts the Wetland Delineation performed by BL Companies, which identifies the wetland limits within the Study Area. Any design alternative proposed will consider the wetland limits and appropriate permitting processes. It should be noted the entire Study Area falls within the Public Supply Watershed. Several other key bodies of surface water located throughout the Town of North Branford include the Gulf Brook, Branford River, and Lake Gaillard.

Ground Water Resources

The groundwater in the Study Area is classified by CTDEEP as Class GA or Class GAA. The following definitions are per CTDEEP's Water Quality Classifications. Class GA designated uses are existing private and potential public or private supplies of water suitable for drinking without treatment and baseflow for hydraulically connected surface waterbodies. All ground waters not specifically classified are considered as Class GA. Class GAA designated uses are existing or potential public supply of water suitable for drinking without treatment and baseflow for hydraulically connected surface water bodies. For a full map of Ground Water Quality of the Town of North Branford, see the ***Appendix***.

Wetlands and Floodplains

Based on a review of CTDEEP GIS and the Federal Emergency Management Agency's (FEMA) mapping shown in ***Figure 10***, the Study Area is classified as Flood Zone X. By FEMA Standards, Flood Zone X indicates a minimal chance (less than 1%) of flood on an annual basis.

Just east of the Study Area along the Farm River, FEMA classifies this area under Flood Zone AE, which has a 1% annual chance of flooding and a 26% chance of flooding over the life of a typical 30-year mortgage. The river itself is classified as "Regulatory Floodway" and ***Figure 10*** shows the FEMA Flood Map for the Study Area. ***Figure 11*** shows the Wetlands Delineation Mapping performed by BL Companies.

Wetland Definition (Federal vs. State)

The **Federal Clean Water Act** definition for wetlands is based on three observations: soil characteristics, hydrophytic vegetation, and hydrology.
Connecticut's definition of inland wetlands is based on soil characteristics.

What are Floodplains and Floodways?

Floodplains are low-lying areas adjacent to rivers or streams that are inundated periodically by floodwaters.
Floodways consist of the river or stream channel plus any portion of the 100-year floodplain which carries stream flows during flood events.

Floodplains and floodways are important for storing floodwaters, so that adjacent properties and downstream areas are not damaged during flood events. During a 100-year flood storm, a floodplain is an area that has a one percent chance of being inundated by floodwaters in a given year, whereas a 500-year floodplain is an area that has a one-five hundredth chance (0.2%) of being inundated by floodwaters in a given year. There are no floodplains present in the Study Area.

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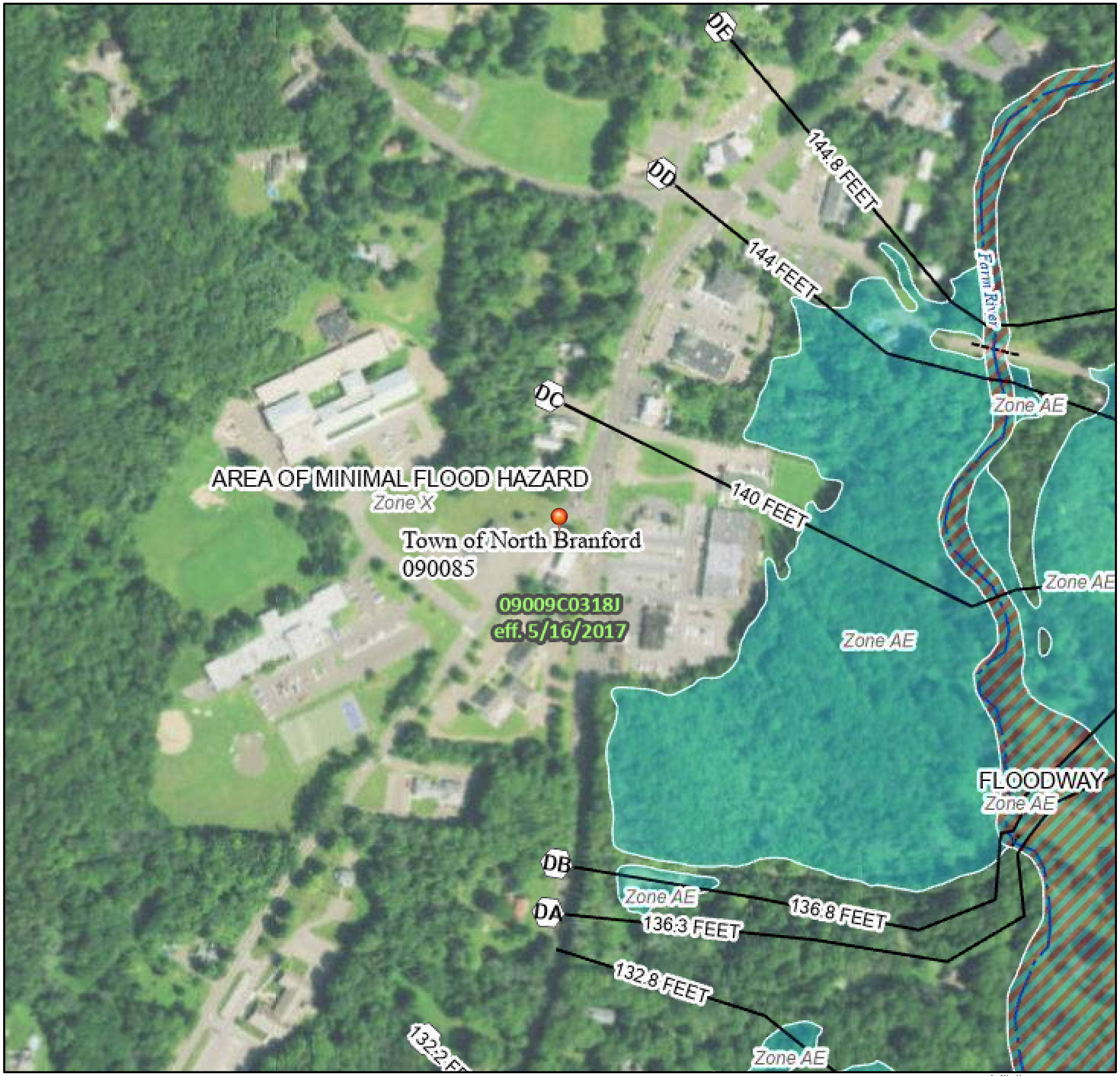

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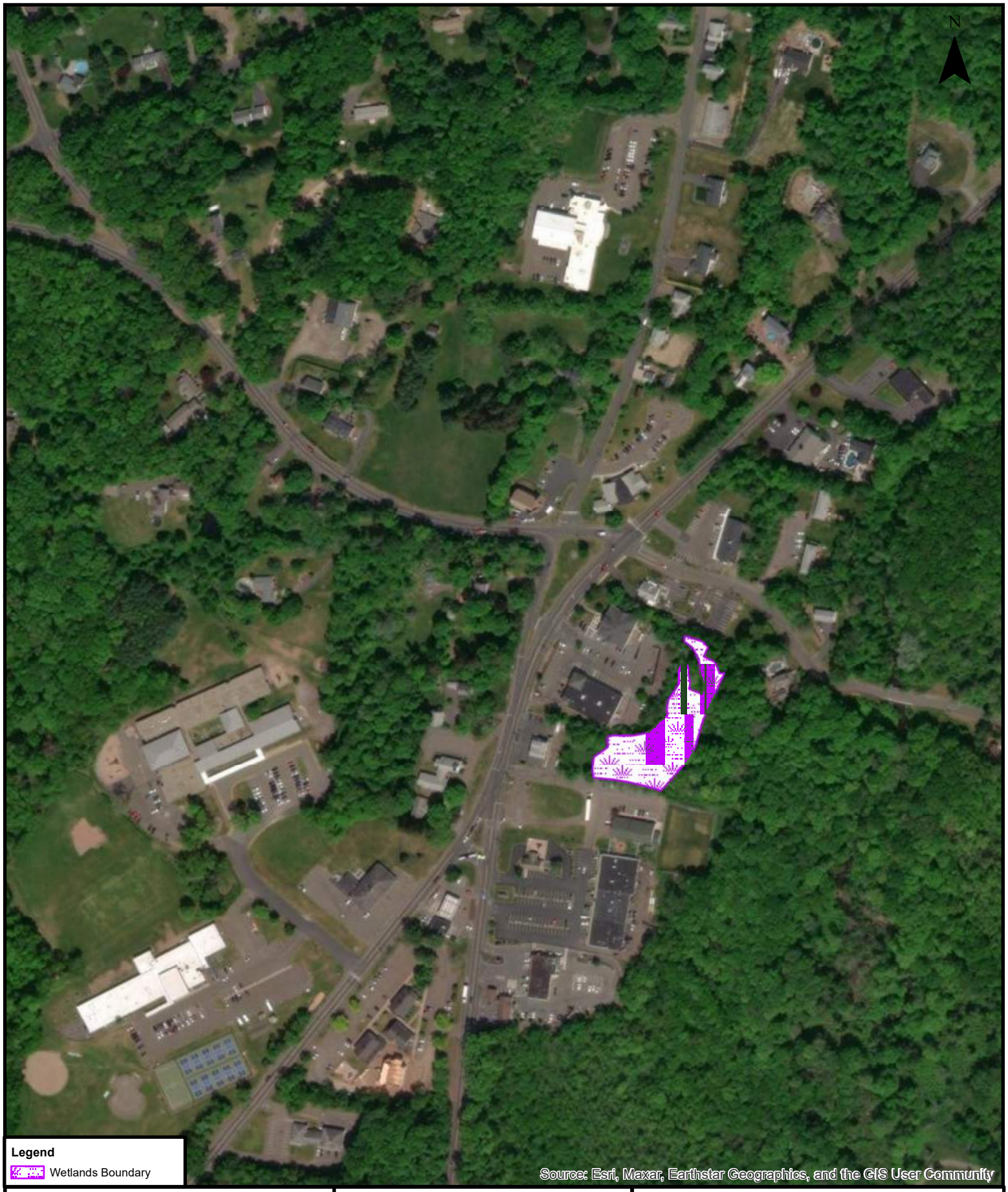

INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 11
WETLANDS DELINEATION
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

BL Companies
Architecture
Engineering
Environmental
Land Surveying

WETLANDS DELINEATION

Threatened and Endangered Species and Critical Habitats

Rare, threatened, and endangered species are protected by Federal and State legislation. Information on species designated (listed) as threatened and endangered at the State and Federal levels is compiled and made available through CTDEEP's Natural Diversity Data Base (NDDB).

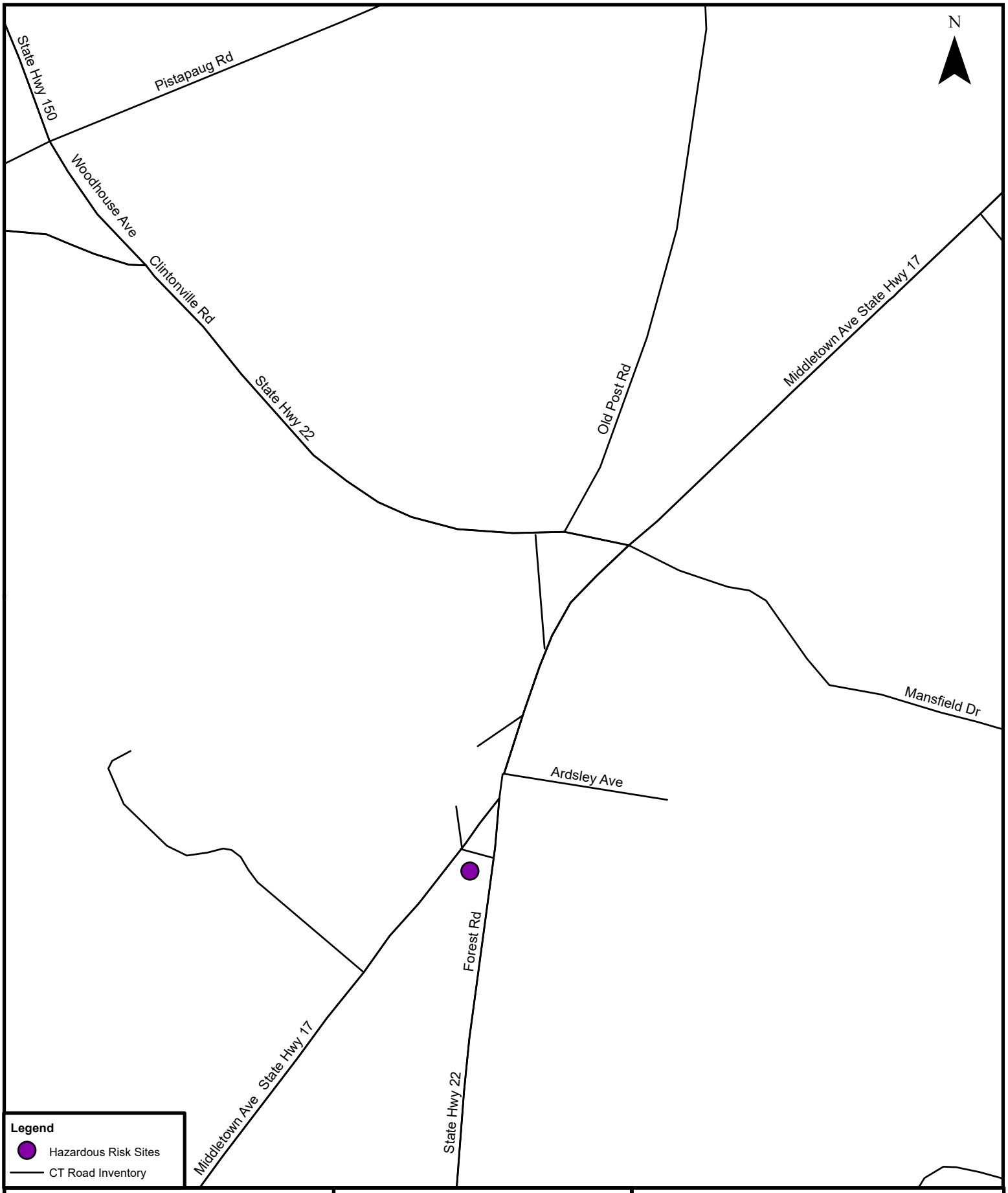
The CTDEEP NDDB GIS data layer was consulted to determine if there were any records in the Study Area. Due to the sensitivity of the information, the GIS data layer only depicts approximate locations of protected species, their habitats, and significant natural communities. The layer is updated every six months and reflects information that has been submitted and accepted up to that point. The last recorded update to the GIS file was done in December of 2023. The GIS data review revealed that the NDDB did not list any "Significant Natural Community Areas" in proximity of the Study Area. While there are no such areas in Northford Center, any improvements proposed in the Future Conditions Assessment will not impact surrounding environmental resources.

Hazardous Risk Sites

Data sources that were reviewed to identify potential hazardous materials and environmental risk sites within the Study Area include:

- The Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) GIS database,
- CTDEEP's List of Contaminated or Potentially Contaminated Sites,
- CT DEEP's Brownfields Inventory, and
- CTDEEP's Landfill Leachate and Wastewater Discharges GIS data.

CTDEEP's List of Contaminated or Potentially Contaminated Sites (Dated 05/02/24) identified one (1) site within the Study Area. These sites can be grouped into two types with various stages of remediation. This site, a Mobil gas station, is listed by CTDEEP as a "Hazard Notification". The site was added to the list in 1998, following the detection of pollution in the groundwater adjacent to the property. Based on CTDEEP's List of Contaminated or Potentially Contaminated Sites, remediation of this site is not complete. ***Figure 12*** shows the location of this site within the Study Area.



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 12
HAZARDOUS RISK SITES
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

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Environmental
Land Surveying

HAZARDOUS RISK SITES

Historically and Culturally Significant Resources

The Study Area, known locally as Northford Center, was settled in the early 18th century as part of Branford, before being developed into an industrial village in the 19th century. The village of Northford officially became part of North Branford in 1831 when the town was incorporated. North Branford can credit much of its early development to the manufacturing businesses of the Fowler family. Fowler and his six sons' business of manufacturing screws, silk, pins, and nails served as the economic identity of the town. The development of the railroad marked the end of industry in North Branford. With transportation costs too high to operate a sustainable business, many manufacturing plants moved away. The town pivoted to farming as its primary business, which remains true to the current day.

The most recent United States Census (2020) states the population of North Branford is 13,544 residents, making it Connecticut's 81st most populous town. Today, the Town of North Branford is home to the Branford Steam Railroad, Northford Ice Pavilion, and Lake Gaillard.

The U.S. National Register of Historic Places officially acknowledged Northford Center in 2002. This distinction encompasses CT Route 17 (Middletown Avenue) from the southern end of the village center to a point north of the intersection of Old Post Road. There are two other locations registered in the National Register of Historic Places, the Warham Williams House and the Fourth District School. Descriptions of these three and other notable landmarks are below:

What is Section 4(f) and Section 6(f)?

Section 4(f) is the strongest federal preservation law on the books. This law, which is part of the Department of Transportation Act of 1966, 49 U.S.C. § 303, requires transportation agencies to avoid harming historic places unless there is no "feasible and prudent" alternative to doing so.

Under **Section 6(f)**, it is prohibited to convert property acquired or developed with LWCF (Land and Water Conservation Fund Act) grant money to non-recreational purposes without approval from the National Park Service(NPS).

Northford Center Historic District

Officially listed on the National Register of Historic Places in 2002, this area was originally part of Branford. Northford Center became part of North Branford following its incorporation as a town in 1831. The area was originally a rural village, before slowly developing around its colonial meeting house. Northford Center initially served as a hub for the local farming community. The industrial revolution of the early 19th century saw Northford Center temporarily shift its business center towards manufacturing. Over time, the area reverted to its roots as a farming community. In the present day, Northford Center is the home to many local amenities, the North Branford Recreation Department, Stanley T. Williams Community Center, Totoket Valley Elementary School, the North Branford Volunteer Fire Department, Saint Andrew's Episcopal Church, the North Branford Food Pantry, Edward Smith Library, and Northford Community Church. This area is recognized as one of the historical centers of the town. ***Figure 13*** and ***Figure 14*** are images of Northford Center collected by BL Companies in May of 2024.

Figure 13: North Branford Volunteer Fire Department

Image Source: BL Companies

Figure 14: Edward Smith Library

Image Source: BL Companies

Warham Williams House

This house was originally built in 1752 in Northford Center for its namesake, Reverend Warham Williams. Reverend Williams served at the Northford Congregational Church, now Northford Community Church. Shortly after the house's construction, Reverend Williams moved, and Reverend William Noyes took over the house. It was listed on the National Register of Historical Places in 1971. The house remained in Northford Center until 1978, when it was deconstructed and moved to Roxbury, Connecticut.

Figure 15: Warham Williams House

Image Source: Library of Congress

Fourth District School

Located on the north side of Northford Center, this 18th century schoolhouse is owned and maintained by the Totoket Historical Society. The Fourth School District was established in 1769, and the construction of this specific school took place around 1800. The building was moved to its current location in 1928, restored in 1965, and added to the National Register of Historical Places in 1985.

Figure 16: Fourth District School

Image Source: Wikipedia

Saint Andrew's Episcopal Church

Located in Northford Center along CT Route 17 (Middletown Avenue), Saint Andrew's Episcopal Church was originally organized in 1750. This building was constructed in 1846 and stood until 1938, when it burned down in a fire. The church was eventually reconstructed in 1940 and has only undergone minor renovations since. The church shares a campus with the Town of North Branford Food Pantry.

Figure 17: Saint Andrew's Episcopal Church

Image Source: BL Companies

Northford Community Church

Located in Northford Center along Old Post Road, Northford Community Church was originally organized in 1750. The current building was constructed in 1846, heavily damaged by a fire in 1906 before being rededicated in 1908. The building is listed on the National Register of Historic Buildings.

Figure 18: Northford Community Church

Image Source: BL Companies

Outside of the study area there is another culturally and historically relevant area that should be recognized:

North Branford Center Historic District

This historic district is located around the intersection of North Street and Foxon Road in North Branford. As noted in the Plan of Conservation and Development, this area has been considered the center of civic and religious life since the inception of the town. Notable locations in this area include North Branford Town Hall, North Branford Library, Atwater Memorial Library, and the Totoket Historical Society.

Figure 19: **North Branford Center Historic District**

Image Source: Google Earth

Multimodal Accommodations

The Study Team reviewed and assessed the availability and the extent of the existing facilities and accommodations in the study corridor that supports alternative modes of transportation and their features:

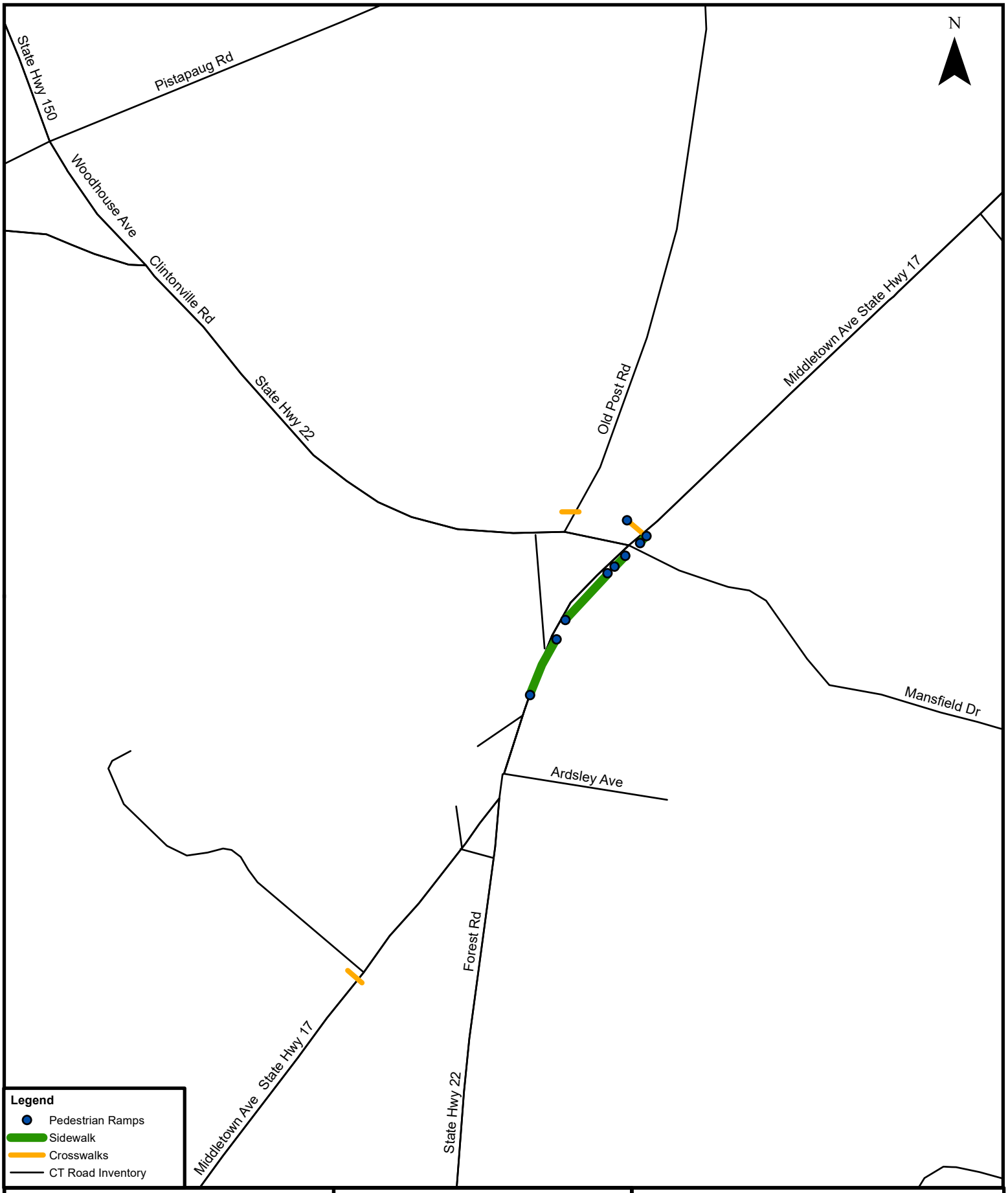
- Pedestrian Facilities
- Bicycle Facilities
- Transit Services
- ADA Compliance

The Study Area currently consists of little pedestrian accommodation. There is one segment of sidewalk throughout Northford Center. The sidewalk originates along the easterly side of CT Route 17 (Middletown Avenue), in front of the former Rite-Aid building and travels north. This continues north through the intersection of CT Route 17 (Middletown Avenue) at Mansfield Drive. There are pedestrian ramps across the eastern and northern legs of this intersection, with a crosswalk across CT Route 17 (Middletown Avenue) providing access to Edward Smith Library. This crossing is equipped with pedestrian signals, push buttons, and an exclusive walk phase. Outside of this stretch of sidewalk, there is little accommodation for pedestrians or bicyclists throughout the corridor. There is a crosswalk and accompanying signage across Old Post Road, but no sidewalk to provide access to this crossing. There is also a mid-block crosswalk and accompanying signage across CT Route 17 (Middletown Avenue), providing access to the recreation department, and Totoket Valley Elementary School.

Bicyclists ride on the shoulder, as delineated on-street bicycle facilities are not available for their use. Limited bicycle facilities within the Study Area act to discourage, rather than encourage, non-motorized travel.

Pedestrian Facilities

While the corridor is classified as the Central Business District, the area surrounding Northford Central is best categorized as rural. The Study Area embodies the typical rural characteristics, rather than the cultural and commercial center the Plan of Conservation and Development envisions for the area. ***Figure 20*** illustrates the location of pedestrian facilities for the overall Study Area.



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 20
PEDESTRIAN FACILITIES
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

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PEDESTRIAN FACILITIES

CT Route 22 (Clintonville Road) at Old Post Road and Mansfield Drive

This four-legged unsignalized intersection has no sidewalks, but does have a crosswalk and accompanying signage across Old Post Road. See ***Figure 21*** for an image of the crossing, which provides access from Edward Smith Public Library to Northford Congregational Church. While grading adjacent to this intersection is not ideal for pedestrian facilities, there is a sidewalk network adjacent to the library that would be a good subject to provide access to the existing crossing.

Figure 21: Pedestrian Crossing across Old Post Road

Image Source: BL Companies

CT Route 17 (Middletown Avenue) at Mansfield Drive

This four-legged signalized intersection has a sidewalk along the eastern side of the intersection. The sidewalk is approximately 5' wide. The northwest, northeast, and southeast corners of the intersection are equipped with pedestrian ramps. Despite the locations of the ramps, there is only a crosswalk across the northern leg of the intersection. This crossing is equipped with pedestrian signals, push buttons, and an exclusive pedestrian walk phase.

Figure 22: Pedestrian Crossing across CT Route 17 (Middletown Avenue)

Image Source: Google Earth

CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School

The T-intersection has a sidewalk along the entrance driveway to Totoket Valley Elementary School. There is a mid-block crosswalk across CT Route 17 (Middletown Avenue) that services this sidewalk, although there is no supplemental sidewalk along CT Route 17 (Middletown Avenue).

Figure 23: Pedestrian Crossing across CT Route 17 (Middletown Avenue)

Image Source: BL Companies

Pedestrian Safety

Safety is one of the most important elements that contributes to a pedestrian-friendly environment. As it currently exists, the Study Area does not have adequate accommodations for pedestrians to safely navigate Northford Center. This is reflected in the TMCs, as there was virtually no pedestrian activity recorded. In order to create a vibrant and connected community environment, pedestrian mobility is key. A goal of the Future Conditions Assessment will be to create a comprehensive sidewalk network so users can safely travel between town facilities and the commercial plazas throughout Northford Center.

While the Future Conditions Assessment will ultimately explore and determine the optimal safety measures for pedestrians, some common techniques include sidewalks, crosswalks, ADA Accessible Pedestrian Ramps, signalized pedestrian crossings, wide shoulders, and advanced warning signage.

It is important to note that there were no pedestrian-related or bicycle-related accidents in the three-year period prior to this study.

Bicycle Facilities

While there are currently no dedicated bike lanes, shared use pavement markings, signage, or other facilities for bicyclists along CT Route 17 (Middletown Avenue) or CT Route 22 (Clintonville Road / Forest Road), this mode of transportation has the potential to be utilized in the Study Area. There are consistent shoulders along various segments of CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road). In order for a bicycle route to be feasible, improvements to access management would be necessary, as well as the installation of advance warning signage.

CTDOT has generated a new tool "Connecticut Interactive Bike Map" for planning and design suitability. There are four classification codes for each segment of the roadway. The scoring is based on Average Daily Traffic (ADT) and shoulder width. Red segments are the least suitable for bicycling, while green segments are most favorable with wide shoulders and lower ADTs. CT Route 17 (Middletown Avenue) throughout the Study Area is primarily green while CT Route 22 (Clintonville Road / Forest Road) is yellow. The overlapping segment of CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) is red. CTDOT has developed a three-tier system to identify priorities in the bicycle planning process. CT Route 17 (Middletown Avenue) is listed as "Tier II-5" or "Tier II-6 to Tier II-8". The definitions for these classifications, based on CTDOT's Bicycle Network Facility Analysis Implementation Matrix, are as follows:

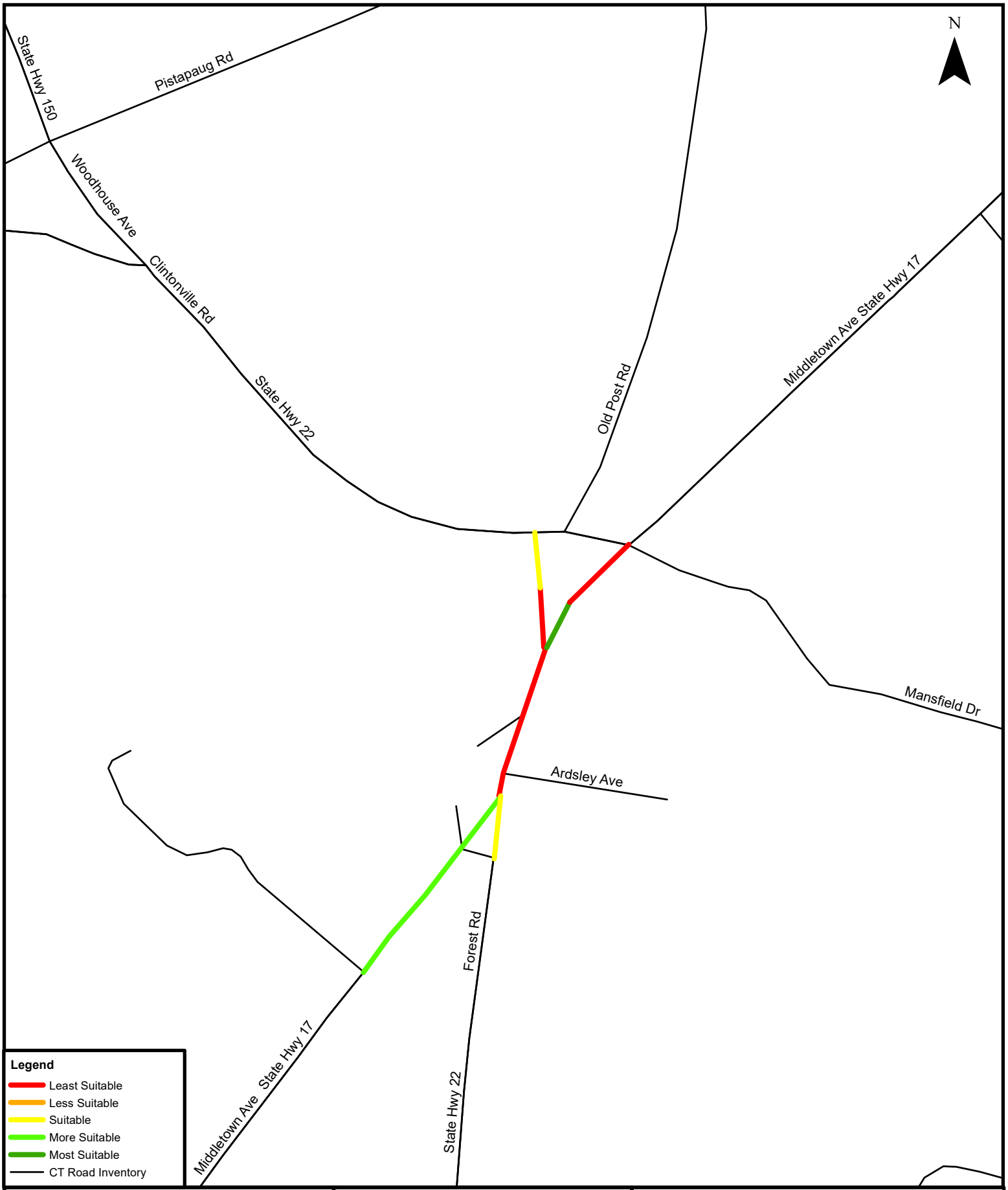
Tier II-5: Top 25-50% of existing conditions score which has possibility of road diet (any score) or the possibility for a relative shoulder improvement of 25% or more through restriping and shoulder rebalancing.

Tier II-6: Facility which requires marked bike lane.

Tier II-7: As needed basis.

Tier II-8: Lowest need – bottom 50% in terms of need and existing conditions.

CT Route 22 (Clintonville Road / Forest Road) has no designation; therefore, it is not identified by CTDOT as a priority in terms of developing bicycle facilities. Based on the review of existing conditions, the grade of this roadway in the Study Area is not suitable for bicyclist activity. Despite the Study Area not being considered as an area of priority, recommendations based on the findings of this study could display to the State the various benefits of implementing bike facilities in this area. ***Figure 24*** displays the feasibility for the implementation of bicycle facilities along the corridor.



INFORMATION OBTAINED VIA TOWN OF NORTH BRANFORD

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FIGURE 24
BICYCLE FACILITY FEASIBILITY MAP
NORTH BRANFORD, CONNECTICUT

NORTHFORD CENTER CONNECTIVITY STUDY
NORTH BRANFORD, CONNECTICUT

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BICYCLE FACILITY FEASIBILITY MAP

ADA Compliance and PROWAG

The Americans with Disabilities Act (ADA) of 1990 requires access to the public right-of-way be provided for people with disabilities and visual impairments. This includes providing accessible sidewalks, street crossings, and pedestrian push buttons at signals. ADA accessibility is a requirement for any project that receives federal funding. Specific ADA accessibility guidelines include:

- Minimum sidewalk widths of 4 feet, with 5 feet of space provided at 200-foot intervals for passing.
- Minimum sidewalk widths maintained without obstruction.
- Curb ramps transition from sidewalk elevation to street level at crossing locations.
- A detectable warning surfaces on all curb ramps.
- Accessible pedestrian signals provide non-visual (audible and vibrotactile) queues.
- Accessible pedestrian push button.

Public Right of Way Accessibility Guidelines (PROWAG) are guidelines for physical access for elements located within the public right of way. The public right of way is the roads, sidewalks, and shared-use paths controlled by a public entity. These are currently non-enforceable guidelines; however, PROWAG provides better guidance as a best practice in the absence of enforceable standards. In 2019, the CTDOT issued an Engineering Directive adopting the PROWAG for use in the development of updated accessibility design guidance.

Within the Study Area, there are ADA-compliant ramps at the intersection of CT Route 17 (Middletown Avenue) at Mansfield Drive. To create a more accommodating and pedestrian-friendly environment, it is recommended, at a minimum, that ADA-compliant ramps are fully provided at the following intersections listed below.

- CT Route 17 (Middletown Avenue) at Totoket Valley Elementary School
- CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Saint Andrew's Episcopal Church Exit Driveway
- CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Northford Center
- CT Route 17 (Middletown Avenue) at CT Route 22 (Forest Road) and Ardsley Avenue

Increased pedestrian accommodation will also be recommended throughout Northford Center.

NEXT STEPS

The preparation of the Existing Conditions Report is the first step of the Northford Center Connectivity Study. The intent of this task was to evaluate traffic and development issues along CT Route 17 (Middletown Avenue) and CT Route 22 (Clintonville Road / Forest Road) within the limits of Northford Center. The next step in the Study is to continue to work with representatives of the municipalities, stakeholders, and the public to develop a baseline for the future 'no-build' condition and establish a baseline to assess the success of future 'build' scenarios. This will lead to the identification and analysis of alternatives. The ultimate purpose of the Study is to develop a comprehensive transportation plan that will:

1. Improve safety and mobility of pedestrians, and bicyclists.
2. Recommend facilities to encourage multimodal transportation along the corridor, to encourage the relationship between town facilities and local businesses in Northford Center.
3. Assess travel future demand and its impacts on Northford Center, including traffic associated with existing and future developments within the Study Area.

The status of the Northford Center Connectivity Study is presented in ***Figure 25***.

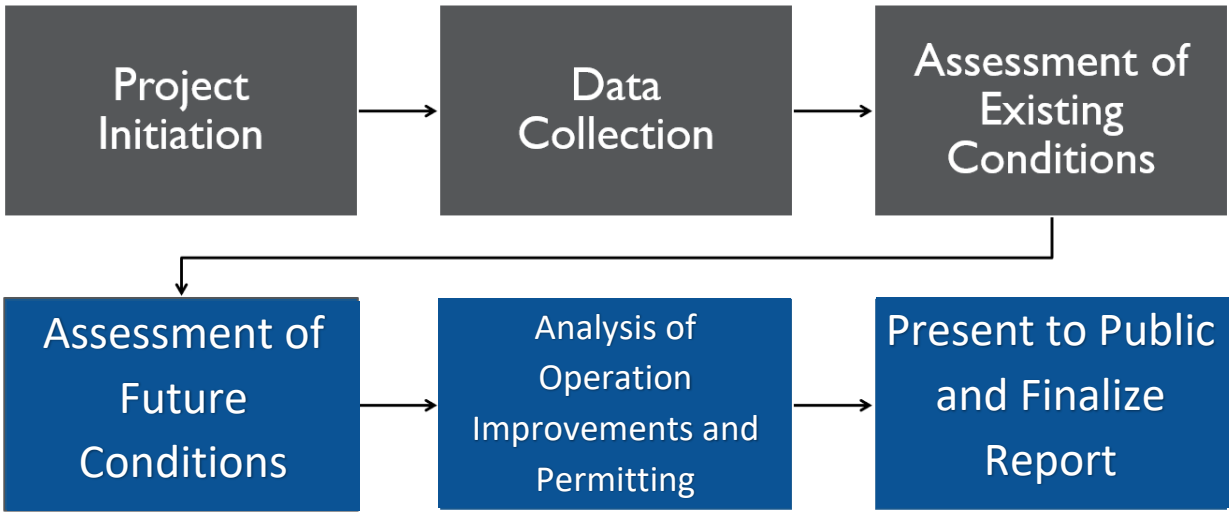


Figure 25: Outline of Northford Center Connectivity Study Progress

APPENDIX

Ground Water Resources

WATER QUALITY CLASSIFICATIONS
NORTH BRANFORD, CT

SURFACE WATER QUALITY CLASSES

A	A
AA	AA
B, B*	B, B*
SA	SA
SB	SB

NOTES:
Surface Water Classifications beginning with S refer to Coastal and Marine Surface Water.
B* is a subset of Class B where no direct wastewater discharges are allowed other than those consistent with Class AA, A and SA surface waters.

GROUND WATER QUALITY CLASSES

- GA (white background)
- GAA, GAAs
- GA, GAA may not meet current standards
- GB
- GC
- Area of Contribution to Public Supply Well
- Final Aquifer Protection Area (Level A)
- Major Basin Boundary

EXPLANATION

WATER QUALITY CLASSIFICATIONS (WQC) MAPS are one of the elements of the Water Quality Standards (WQS) for the State of Connecticut. The WQS are a part of Connecticut's clean water program and are essential for protecting and improving water quality. The WQS follow the principles of Connecticut's Clean Water Act which is in Chapter 446K of the Connecticut General Statutes. The WQS provide policy guidance in many areas, for example decisions on acceptable discharges to water resources, siting of landfills, remediation or prioritization of municipal sewerage system projects. The first two elements of the WQS are the Standards, which set an overall policy for management of water quality, and the Criteria, which are descriptive and numerical standards that describe the allowable parameters and goals for various water quality classifications. A discussion of these two elements is found in the Water Quality Standards document available on the CT DEEP website. The third element is the Classifications and the Water Quality Classification Maps which show the Classification assigned to each surface and groundwater resource throughout the State. The WQS are adopted using a public participation process. The WQC maps are also adopted using a public participation process but go through hearings separately from the Standards and Criteria hearings. Revision and adoption of the WQC data occurs in accordance with the public participation procedures contained in Section 22a-426 of the Connecticut General Statutes. Ground WQC is subject to Connecticut regulation and changes must be reviewed and adopted. All changes to the Surface WQC require an adoption process which is subject to federal review and approval in addition to CT regulation. The adoption dates for the WQC by major drainage basin are: Housatonic River, Hudson River and Southwest Coastal Basins - March 1999; Connecticut River and South Central Coastal Basins - February 1993; Thames River, Pawcatuck River and Southeast Coastal Basins - December 1986. Surface Water Classifications do not change after the adoption date until the next major revision. Ground Water Classifications may change after the adoption date under specific circumstances. The map may have more than one WQC adoption date because a town may be in more than one major drainage basin.

SURFACE WATERS in Connecticut are divided into freshwater classified as AA, A, B or B* and saline waters classified as SA or SB. Class AA designated uses are existing or proposed drinking water supplies; habitat for fish and other aquatic life and wildlife; recreation; and water supply for industry and agriculture. Class A designated uses are habitat for fish and other aquatic life and wildlife; potential drinking water supplies; recreation; navigation; and water supply for industry and agriculture. Class SA designated uses are habitat for marine fish, other aquatic life and wildlife; shellfish harvesting for direct human consumption; recreation; industrial water supply; and navigation. Class B designated uses are habitat for fish and aquatic life and wildlife; recreation; navigation; and industrial and agricultural water supply. Class B*, applicable to Candlewood Lake, is a subset of Class B and is identical in all ways to the designated uses, criteria and standards for Class B waters except for the restriction on direct discharges. Class SB designated uses are habitat for marine fish and aquatic life and wildlife; commercial shellfish harvesting; recreation; industrial water supply; and navigation.

Surface waters which are not specifically classified shall be considered as Class A or Class AA. Surface waters in GA ground water areas are assumed Class A or Class SA unless otherwise indicated. Surface waters in GAA ground water areas are assumed Class AA unless otherwise indicated.

On the WQC map a surface water quality goal of A is represented by blue colored water bodies. Surface water quality goal of AA is represented by purple colored water bodies. Surface water quality goal of B is represented by gold colored water bodies.

GROUND WATERS in Connecticut are classified as GAA, GA, GB and GC. Class GAA designated uses are existing or potential public supply of water suitable for drinking without treatment and baseflow for hydraulically-connected surface water bodies. The Class GAAs is a subclass of GAA for ground water that is tributary to a public water supply reservoir. The area of contribution to a public water supply well is represented by a 500-foot radius around the well and is assumed to be Class GAA unless otherwise classified. Class GA designated uses are existing private and potential public or private supplies of water suitable for drinking without treatment and baseflow for hydraulically-connected surface water bodies. All ground waters not specifically classified are considered as Class GA. Class GB designated uses are industrial process water and cooling waters and baseflow for hydraulically-connected water bodies and is presumed not suitable for human consumption without treatment. Class GC designated uses are assimilation of discharges authorized by the Commissioner pursuant to Section 22a-430 of the General Statutes.

On the WQC map GA is represented by white colored land areas. Class GAA and class GAAs are represented by blue colored land areas. The area of contribution to a public water supply well is shown by a blue cross-hatch overprint. A notation of GAA followed by a state abbreviation indicates a watershed that contributes to the public water supply for a state other than Connecticut. Class GA or Class GAA areas that currently may not be meeting the GA or GAA standards are represented on the WQC maps by tan colored land areas. Class GB is represented by green colored land areas. Class GC is represented by magenta colored land areas.

FINAL AQUIFER PROTECTION AREAS (Level A) are included on the WQC maps for informational purposes. These areas are anticipated to be reclassified GAA during the next major basin updates, subject to public participation. The Aquifer Protection Program helps protect Connecticut's public drinking water resources by delineating aquifer protection areas (also called wellhead protection areas) for public supply wells and establishing land use regulations within these areas. These areas represent the land area contributing ground water to active public water supply wells or well fields that serve more than 1000 people and are set in sand and gravel aquifers (stratified drift deposits).

DATA SOURCES

WATER QUALITY CLASSIFICATIONS DATA – Water quality classifications shown on this map are based on information from the following digital spatial datasets that are typically shown together – Ground Water Quality Classifications Poly, Surface Water Quality Classifications Line, and Surface Water Quality Classifications Poly. The map legend above reflects the content of these three data sources. These WQC data were initially compiled on 1:24,000-scale 7.5 minute USGS topographic quadrangle maps and later digitized at 1:24,000 scale. For example, the Surface Water Quality Classifications Line and Surface Water Quality Classifications Poly digital data assigns surface water quality classifications to water bodies such as rivers, streams, reservoirs, lakes, ponds and coves found in 1:24,000-scale hydrography data available from CT DEEP. The hydrography may not include all the waterbodies in Connecticut. The Ground Water Quality Classifications Poly data assigns ground water quality classifications, at 1:24,000 scale, to the remaining land areas in Connecticut.

AQUIFER PROTECTION AREA DATA – Aquifer Protection Areas shown on this map are from the Aquifer Protection Area digital dataset which contains polygon data intended to be used at 1:24,000 scale. The dataset contains regulated areas classified as Level A Aquifer Protection Area (Final) and Level B Aquifer Protection Area (Preliminary). The Level B areas are not shown on the WQC maps. The data was collected from 1991 to the present and is actively updated as Final area mapping replaces earlier Preliminary areas. The Aquifer Protection Areas are delineated by the individual water companies owning the well fields and submitted to the CT DEEP for approval. Preliminary mapping provides a general estimate of the area contributing ground water to the well field. Final mapping is based on extensive, site-specific, detailed modeling of the ground water flow system. CT DEEP may adjust Final area boundaries to be consistent with 1:24,000 scale topography and base map data where appropriate during the approval process.

MAJOR DRAINAGE BASIN DATA – Major drainage basins shown on this map are from Major Basin Line data developed by CT DEEP and intended to be used at 1:24,000 scale.

BASE MAP DATA - Based on data originally from 1:24,000-scale USGS 7.5 minute topographic quadrangle maps published between 1969 and 1992. It includes political boundaries, railroads, airports, hydrography, geographic names and geographic places. Streets and street names are from Tele Atlas® copyrighted data. Base map information is neither current nor complete.

RELATED INFORMATION
This map is intended to be printed at its original dimensions in order to maintain the 1:24,000 scale (1 inch = 2000 feet).
WATER QUALITY STANDARDS - Go to the CT DEEP website for a summary and the full text of the "Water Quality Standards" and for other information on water quality.
AQUIFER PROTECTION AREAS - Go to the CT DEEP website for more information.

ADOPTED DATES

Water Quality Standards
February 25, 2011

Thames River, Pawcatuck River and Southeast Coastal Basins: December 1986

Connecticut River and South Central Coastal Basins: February 1993

Housatonic River, Hudson River and Southwest Coastal Basins: March 1999

MAJOR BASINS

1 Pawcatuck
2 Southeast Coast
3 Thames
4 Connecticut
5 South Central Coast
6 Housatonic
7 Southwest Coast
8 Hudson

MAP LOCATION

State Plane Coordinate System of 1983, Zone 3526
Lambert Conformal Conic Projection
North American Datum of 1983

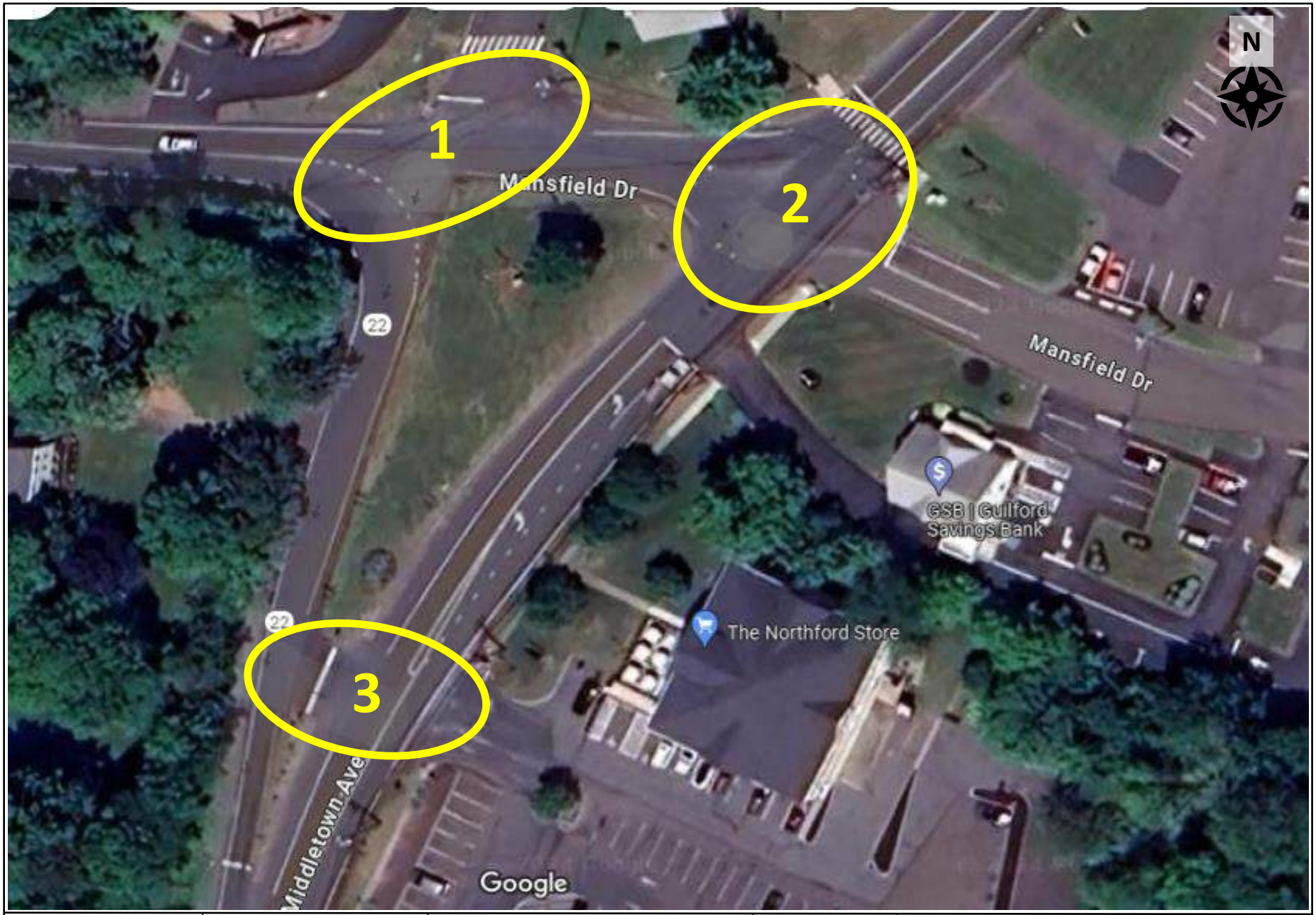
SCALE 1:24,000 (1 inch = 2000 feet) when map is printed at original size

STATE OF CONNECTICUT
DEPARTMENT OF
ENERGY & ENVIRONMENTAL PROTECTION
79 Elm Street
Hartford, CT 06106-5127

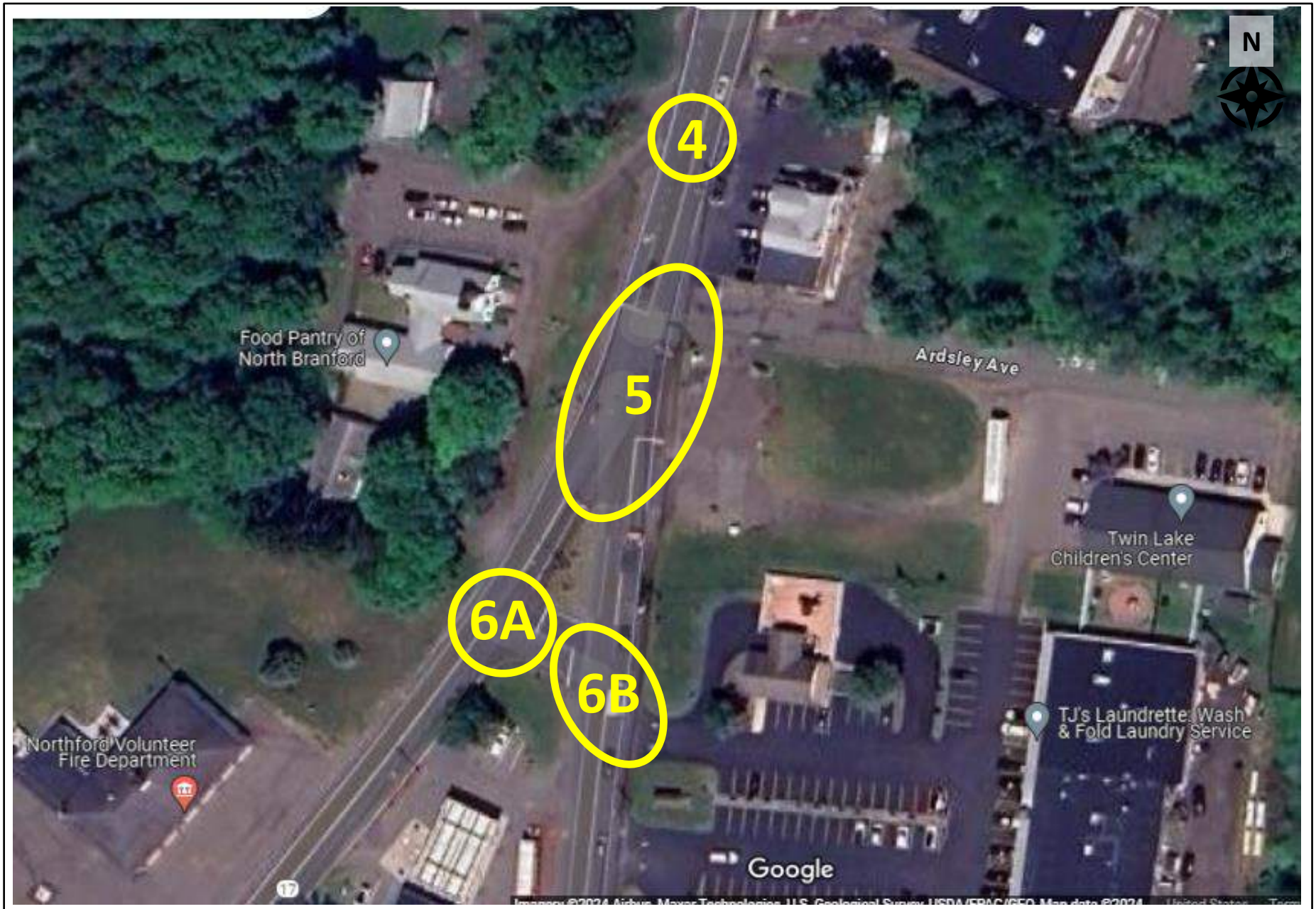
Map created by CT DEEP
October 2018

Map is not colorfast
Protect from light and moisture

Traffic Count Data



New England COUNTS	ID: 1485_1_BL	Northford, CT	# of TMC's: 07	Client: BL Companies
		Collected on March 21 & 23, 2024	# of ATR's: 00	Contact: Mike Kurker, P.E., Project Manager I



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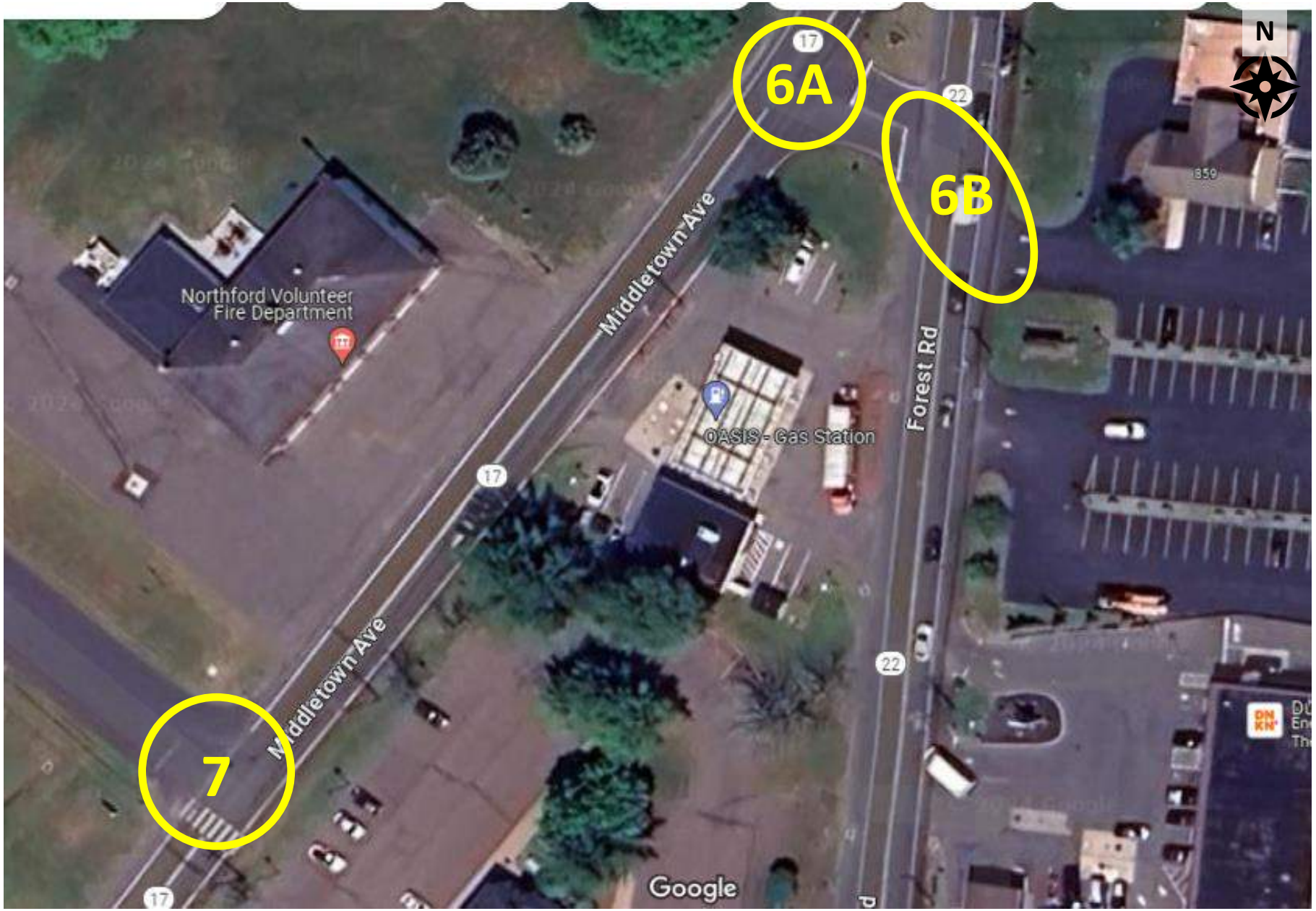


New England COUNTS	ID: 1485_1_BL	Northford, CT	# of TMC's: 07	Client: BL Companies
		Collected on March 21 & 23, 2024	# of ATR's: 00	Contact: Mike Kurker, P.E., Project Manager I

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 1
Location:	Northford, CT
Street 1:	Old Post Road
Street 2:	Clintonville Road
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	8	0	0	0	0	99	0	1	110	1
7:15 AM	0	0	0	0	0	0	7	1	0	0	0	89	0	0	121	1
7:30 AM	0	0	0	0	0	0	7	0	0	0	0	96	0	0	131	2
7:45 AM	0	0	0	0	0	0	6	1	0	1	0	97	0	0	125	8
8:00 AM	0	0	0	0	0	0	7	1	0	0	0	107	0	0	119	13
8:15 AM	0	0	0	0	0	0	5	0	0	1	0	77	0	0	108	10
8:30 AM	0	0	0	0	0	0	11	7	0	1	0	73	0	1	125	4
8:45 AM	0	0	0	0	0	0	6	0	0	0	0	86	0	0	93	3

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	10	13	0	0	0	139	0	2	109	16
4:15 PM	0	0	0	0	0	0	11	0	0	0	0	125	0	1	145	8
4:30 PM	0	0	0	0	0	0	6	2	0	0	0	126	0	0	136	10
4:45 PM	0	0	0	0	0	0	7	0	0	0	0	137	0	0	151	9
5:00 PM	0	0	0	0	0	0	6	2	0	0	0	104	0	0	136	9
5:15 PM	0	0	0	0	0	0	8	2	0	0	0	137	0	0	149	7
5:30 PM	0	0	0	0	0	0	6	2	0	0	0	123	0	0	139	6
5:45 PM	0	0	0	0	0	0	5	2	0	0	0	111	0	0	107	12

AM PEAK HOUR 7:15 AM to 8:15 AM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**27**	**3**	**0**	**1**	**0**	**389**	**0**	**0**	**496**	**24**
PHF	**0.00**				**0.94**				**0.91**				**0.98**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.3%**	**0.0%**	**0.0%**	**2.0%**	**0.0%**

PM PEAK HOUR 4:00 PM to 5:00 PM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**34**	**15**	**0**	**0**	**0**	**527**	**0**	**3**	**541**	**43**
PHF	**0.00**				**0.53**				**0.95**				**0.92**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.5%**	**0.0%**	**0.0%**	**1.7%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 1
Location:	Northford, CT
Street 1:	Old Post Road
Street 2:	Clintonville Road
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	5	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	2	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	4	0	0	4	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0
8:30 AM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	5	1
8:45 AM	0	0	0	0	0	0	3	0	0	0	0	4	0	0	4	0

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**1**	**0**	**11**	**0**	**0**	**16**	**1**
PHF	**0.00**				**0.42**				**0.75**				**0.71**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**9**	**0**
PHF	**0.00**				**0.00**				**0.50**				**0.56**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 1
Location:	Northford, CT
Street 1:	Old Post Road
Street 2:	Clintonville Road
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR[1] 4:00 PM to 5:00 PM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[1] *NOTE: Peak hour summaries here correspond to peak hours identified for passenger cars and heavy vehicles combined.*

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 1
Location:	Northford, CT
Street 1:	Old Post Road
Street 2:	Clintonville Road
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	6	1	0	0	0	69	0	0	65	4
11:15 AM	0	0	0	0	0	0	2	5	0	0	0	71	0	2	79	4
11:30 AM	0	0	0	0	0	0	3	1	0	0	0	70	0	0	80	8
11:45 AM	0	0	0	0	0	0	4	1	0	1	0	78	0	2	78	9
12:00 PM	0	0	0	0	0	0	3	2	0	0	0	66	0	0	63	7
12:15 PM	0	0	0	0	0	0	8	1	0	0	0	67	0	1	83	3
12:30 PM	0	0	0	0	0	0	5	0	0	0	0	89	0	0	77	5
12:45 PM	0	0	0	0	0	0	5	1	0	0	0	80	0	1	72	9

MID PEAK HOUR 11:45 AM to 12:45 PM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**20**	**4**	**0**	**1**	**0**	**300**	**0**	**3**	**301**	**24**
PHF	**0.00**				**0.67**				**0.85**				**0.92**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**4.2%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 1
Location:	Northford, CT
Street 1:	Old Post Road
Street 2:	Clintonville Road
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:00 AM to 12:00 PM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**1**	**1**
PHF	**0.00**				**0.00**				**0.38**				**0.25**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 1
Location:	Northford, CT
Street 1:	Old Post Road
Street 2:	Clintonville Road
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:45 AM to 12:45 PM	Clintonville Road Northbound				Old Post Road Southbound				Clintonville Road Eastbound				Mansfield Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 2
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Mansfield Drive
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	80	44	0	0	0	106	30	0	0	0	0	0	7	1	0
7:15 AM	0	83	59	3	0	0	114	37	0	0	0	0	0	6	2	3
7:30 AM	0	88	73	2	0	0	91	40	0	0	0	0	0	8	6	1
7:45 AM	0	89	62	2	0	0	98	43	0	0	0	0	0	5	3	0
8:00 AM	0	94	60	3	0	0	91	35	0	0	0	0	0	4	3	2
8:15 AM	0	89	62	4	0	1	91	23	0	0	0	0	0	4	3	1
8:30 AM	0	92	41	4	0	0	68	31	0	0	0	0	0	4	3	1
8:45 AM	0	60	62	4	0	0	86	37	0	0	0	0	0	3	3	1

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	101	133	3	0	0	71	23	0	0	0	0	0	4	3	0
4:15 PM	0	132	150	6	0	0	79	17	0	0	0	0	0	0	4	4
4:30 PM	0	128	118	11	0	0	89	19	0	0	0	0	0	9	2	2
4:45 PM	0	133	100	9	0	0	81	23	0	0	0	0	0	7	4	2
5:00 PM	0	124	145	6	0	1	71	18	0	0	0	0	0	4	3	1
5:15 PM	0	136	131	9	0	0	91	19	0	0	0	0	0	4	2	1
5:30 PM	0	123	142	11	0	0	64	19	0	0	0	0	0	2	3	1
5:45 PM	0	103	103	7	0	0	75	15	0	0	0	0	0	4	1	3

AM PEAK HOUR 7:15 AM to 8:15 AM	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**354**	**254**	**10**	**0**	**0**	**394**	**155**	**0**	**0**	**0**	**0**	**0**	**23**	**14**	**6**
PHF	**0.95**				**0.91**				**0.00**				**0.72**			
HV %	**0.0%**	**2.8%**	**7.1%**	**0.0%**	**0.0%**	**0.0%**	**2.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**521**	**494**	**35**	**0**	**1**	**332**	**79**	**0**	**0**	**0**	**0**	**0**	**24**	**11**	**6**
PHF	**0.95**				**0.94**				**0.00**				**0.79**			
HV %	**0.0%**	**1.2%**	**0.4%**	**2.9%**	**0.0%**	**0.0%**	**3.0%**	**3.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**16.7%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 2
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Mansfield Drive
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0
7:15 AM	0	2	3	0	0	0	2	0	0	0	0	0	0	0	0	0
7:30 AM	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0
8:00 AM	0	4	4	0	0	0	5	0	0	0	0	0	0	0	0	0
8:15 AM	0	3	9	0	0	0	1	0	0	0	0	0	0	0	0	0
8:30 AM	0	6	2	2	0	0	6	0	0	0	0	0	0	0	0	0
8:45 AM	0	3	4	0	0	0	2	0	0	0	0	0	0	0	1	0

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	3	5	0	0	0	2	0	0	0	0	0	0	0	1	0
4:15 PM	0	1	3	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	7	1	0	0	0	0	0	0	0	0
4:45 PM	0	1	1	1	0	0	2	1	0	0	0	0	0	0	0	1
5:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5:15 PM	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**16**	**19**	**2**	**0**	**0**	**14**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
PHF	**0.77**				**0.58**				**0.00**				**0.25**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**5**	**9**	**1**	**0**	**0**	**12**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
PHF	**0.47**				**0.44**				**0.00**				**0.50**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 2
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Mansfield Drive
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR[1]	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
7:15 AM																
to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR[1]	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
4:30 PM																
to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[1] *NOTE: Peak hour summaries here correspond to peak hours identified for passenger cars and heavy vehicles combined.*

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 2
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Mansfield Drive
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	52	68	5	0	1	44	18	0	0	0	0	0	5	1	1
11:15 AM	0	51	60	4	0	0	56	30	0	0	0	0	0	5	4	1
11:30 AM	0	60	78	5	0	1	56	19	0	0	0	0	0	3	8	3
11:45 AM	0	62	80	0	0	0	58	26	0	0	0	0	0	2	2	2
12:00 PM	0	54	73	4	0	0	54	15	0	0	0	0	0	4	0	0
12:15 PM	0	68	60	1	0	0	54	18	0	0	0	0	0	3	1	0
12:30 PM	0	59	78	2	0	0	49	25	0	0	0	0	0	3	0	0
12:45 PM	0	66	77	2	0	0	53	14	0	0	0	0	0	2	1	0

MID PEAK HOUR 11:15 AM to 12:15 PM	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**227**	**291**	**13**	**0**	**1**	**224**	**90**	**0**	**0**	**0**	**0**	**0**	**14**	**14**	**6**
PHF	**0.93**				**0.92**				**0.00**				**0.61**			
HV %	**0.0%**	**0.4%**	**1.7%**	**0.0%**	**0.0%**	**0.0%**	**1.3%**	**2.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 2
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Mansfield Drive
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0
11:45 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:15 AM to 12:15 PM	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**1**	**5**	**0**	**0**	**0**	**3**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.50**				**0.63**				**0.00**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 2
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Mansfield Drive
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:15 AM to 12:15 PM	Middletown Ave Northbound				Middletown Ave Southbound				Mansfield Drive Eastbound				Mansfield Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 3
Location:	Northford, CT
Street 1:	Clintonville Road
Street 2:	Middletown Ave
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
7:00 AM	0	0	113	0	0	1	116	0	0	7	0	95	0	0	0	0
7:15 AM	0	0	134	2	0	1	113	0	0	11	0	96	0	0	0	0
7:30 AM	0	0	150	0	0	0	105	0	0	8	1	87	0	1	0	2
7:45 AM	0	0	144	2	0	0	102	0	0	10	1	98	0	1	0	0
8:00 AM	0	0	150	3	0	3	92	0	0	5	0	99	0	1	0	2
8:15 AM	0	0	145	4	0	1	94	0	0	8	2	83	0	1	0	4
8:30 AM	0	0	129	2	0	0	72	0	0	8	0	69	0	3	0	2
8:45 AM	0	0	110	1	0	3	86	0	0	13	1	84	0	3	0	4

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
4:00 PM	0	0	201	3	0	2	69	0	0	29	6	109	0	4	0	8
4:15 PM	0	0	239	3	0	3	80	0	0	40	3	98	0	5	0	8
4:30 PM	0	0	216	2	0	3	93	0	0	31	2	99	0	3	0	10
4:45 PM	0	0	203	2	0	4	81	0	0	29	6	112	0	11	0	10
5:00 PM	0	0	241	3	0	3	74	0	0	25	4	80	0	2	0	11
5:15 PM	0	0	240	6	0	2	94	0	0	21	3	121	0	8	0	15
5:30 PM	0	0	229	2	0	4	62	0	0	30	2	94	0	2	0	16
5:45 PM	0	0	171	3	0	0	80	0	0	35	1	82	0	3	0	8

AM PEAK HOUR 7:15 AM to 8:15 AM	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
	0	**0**	**578**	**7**	**0**	**4**	**412**	**0**	**0**	**34**	**2**	**380**	**0**	**3**	**0**	**4**
PHF	**0.96**				**0.91**				**0.95**				**0.58**			
HV %	**0.0%**	**0.0%**	**4.7%**	**0.0%**	**0.0%**	**0.0%**	**1.9%**	**0.0%**	**0.0%**	**2.9%**	**0.0%**	**3.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
	0	**0**	**900**	**13**	**0**	**12**	**342**	**0**	**0**	**106**	**15**	**412**	**0**	**24**	**0**	**46**
PHF	**0.93**				**0.92**				**0.91**				**0.76**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**2.9%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 3
Location:	Northford, CT
Street 1:	Clintonville Road
Street 2:	Middletown Ave
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
7:00 AM	0	0	2	0	0	0	3	0	0	0	0	5	0	0	0	0
7:15 AM	0	0	5	0	0	0	2	0	0	0	0	4	0	0	0	0
7:30 AM	0	0	9	0	0	0	0	0	0	1	0	3	0	0	0	0
7:45 AM	0	0	5	0	0	0	1	0	0	0	0	2	0	0	0	0
8:00 AM	0	0	8	0	0	0	5	0	0	0	0	4	0	0	0	0
8:15 AM	0	0	12	1	0	0	1	0	0	0	0	2	0	0	0	0
8:30 AM	0	0	9	0	0	0	6	0	0	0	0	3	0	0	0	1
8:45 AM	0	0	6	0	0	0	2	0	0	1	0	4	0	0	0	0

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
4:00 PM	0	0	8	0	0	0	2	0	0	0	0	3	0	0	0	0
4:15 PM	0	0	4	0	0	0	1	0	0	0	0	2	0	0	0	0
4:30 PM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	0	0	0	2	0	0	1	0	2	0	0	0	0
5:00 PM	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0
5:15 PM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	2	0	0	1	0	1	0	0	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
	0	**0**	**35**	**1**	**0**	**0**	**14**	**0**	**0**	**1**	**0**	**13**	**0**	**0**	**0**	**1**
PHF	**0.69**				**0.58**				**0.70**				**0.25**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
	0	**0**	**14**	**0**	**0**	**0**	**12**	**0**	**0**	**1**	**0**	**7**	**0**	**0**	**0**	**0**
PHF	**0.44**				**0.43**				**0.67**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 3
Location:	Northford, CT
Street 1:	Clintonville Road
Street 2:	Middletown Ave
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Hard Left	Left	Thru	PED	Left	Thru	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Hard Left	Left	Thru	PED	Left	Thru	Right	PED
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Hard Left	Left	Thru	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Hard Left	Left	Thru	PED	Left	Thru	Right	PED
	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0

[1] *NOTE: Peak hour summaries here correspond to peak hours identified for passenger cars and heavy vehicles combined.*

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 3
Location:	Northford, CT
Street 1:	Clintonville Road
Street 2:	Middletown Ave
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
11:00 AM	0	0	103	1	0	2	49	0	0	20	2	59	0	5	0	3
11:15 AM	0	0	91	1	0	5	56	0	0	16	4	56	0	5	0	8
11:30 AM	0	0	107	1	0	8	51	0	0	27	3	41	0	7	0	10
11:45 AM	0	0	116	3	0	3	57	0	0	18	4	57	0	4	0	8
12:00 PM	0	0	105	1	0	4	56	0	0	21	3	48	0	9	0	4
12:15 PM	0	0	109	1	0	3	53	0	0	15	0	58	0	5	0	5
12:30 PM	0	0	107	3	0	3	47	0	0	23	3	72	0	5	0	11
12:45 PM	0	0	109	5	0	4	53	0	0	27	4	52	0	3	0	7

MID PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
11:45 AM to 12:45 PM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
	0	**0**	**437**	**8**	**0**	**13**	**213**	**0**	**0**	**77**	**10**	**235**	**0**	**23**	**0**	**28**
PHF	**0.93**				**0.94**				**0.82**				**0.80**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 3
Location:	Northford, CT
Street 1:	Clintonville Road
Street 2:	Middletown Ave
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
11:00 AM	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
11:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
11:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Hard Left	Left	Thru	U-Turn	Left	Thru	Right
12:00 PM	**0**	**0**	**6**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**
PHF	**0.50**				**0.38**				**0.38**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 3
Location:	Northford, CT
Street 1:	Clintonville Road
Street 2:	Middletown Ave
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Hard Left	Left	Thru	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:45 AM to 12:45 PM	Middletown Ave Northbound				Middletown Ave Southbound [M]				Clintonville Road Southbound [C]				Driveway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Hard Left	Left	Thru	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 4
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Saint Andrew E. Church entrance
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	113	0	0	0	210	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	133	0	0	0	211	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	157	0	0	1	192	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	147	0	0	0	199	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	153	0	0	1	193	0	0	0	0	0	0	1	0	0
8:15 AM	0	0	145	0	0	0	169	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	135	0	0	1	148	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	114	0	0	0	164	0	0	0	0	0	0	0	0	0

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	195	0	0	1	187	0	0	0	0	0	0	1	0	3
4:15 PM	0	0	248	0	0	0	169	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	221	0	0	0	193	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	216	0	0	0	198	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	250	0	0	2	157	1	0	0	0	0	0	1	0	2
5:15 PM	0	0	248	0	0	1	214	0	0	0	0	0	0	1	0	3
5:30 PM	0	0	239	0	0	0	158	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	177	0	0	0	172	1	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:15 AM to 8:15 AM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**590**	**0**	**0**	**2**	**795**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
PHF	**0.94**				**0.94**				**0.00**				**0.25**			
HV %	**0.0%**	**0.0%**	**4.6%**	**0.0%**	**0.0%**	**0.0%**	**2.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**935**	**0**	**0**	**3**	**762**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**5**
PHF	**0.94**				**0.89**				**0.00**				**0.44**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**1.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 4
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Saint Andrew E. Church entrance
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	2	0	0	0	7	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	8	0	0	0	4	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	8	0	0	0	9	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	14	0	0	0	3	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	6	0	0	0	7	0	0	0	0	0	0	0	0	0

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	8	0	0	0	7	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**36**	**0**	**0**	**0**	**27**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.64**				**0.75**				**0.00**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**14**	**0**	**0**	**0**	**21**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.44**				**0.75**				**0.00**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 4
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Saint Andrew E. Church entrance
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[1] *NOTE: Peak hour summaries here correspond to peak hours identified for passenger cars and heavy vehicles combined.*

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 4
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Saint Andrew E. Church entrance
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	105	0	0	2	115	0	0	0	0	0	0	1	0	2
11:15 AM	0	0	102	0	0	1	114	0	0	0	0	0	0	2	0	2
11:30 AM	0	0	113	0	0	1	106	0	0	0	0	0	0	0	0	2
11:45 AM	0	0	121	0	0	1	112	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	112	0	0	1	113	0	0	0	0	0	0	1	0	1
12:15 PM	0	0	111	0	0	1	114	1	0	0	0	0	0	0	0	2
12:30 PM	0	0	111	0	0	1	128	0	0	0	0	0	0	0	0	3
12:45 PM	0	0	116	0	0	1	109	1	0	0	0	0	0	0	0	2

MID PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
11:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:45 PM	**0**	**0**	**455**	**0**	**0**	**4**	**467**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**6**
PHF	**0.94**				**0.91**				**0.00**				**0.58**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 4
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Saint Andrew E. Church entrance
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:00 AM to 12:00 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**6**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.50**				**0.75**				**0.00**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 4
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Saint Andrew E. Church entrance
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:45 AM to 12:45 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrew Episcopal Church entrance Eastbound				Driveway Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 5
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Forest Road & Ardsley Ave
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
7:00 AM	0	0	95	0	0	3	157	50	0	16	0	0	0	0	1	1
7:15 AM	0	0	117	1	0	1	161	49	0	19	0	0	0	0	0	1
7:30 AM	0	0	125	1	0	2	144	46	0	29	0	0	0	0	0	1
7:45 AM	0	0	119	1	0	1	150	48	0	28	1	0	0	0	0	1
8:00 AM	0	0	116	0	0	0	128	66	0	34	0	0	0	1	0	0
8:15 AM	0	0	120	0	0	0	123	47	0	30	0	0	0	0	0	1
8:30 AM	0	0	104	0	0	2	111	35	0	22	3	0	0	0	0	3
8:45 AM	0	0	91	2	0	3	129	37	0	20	0	0	0	1	0	2

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
4:00 PM	0	0	140	0	0	3	141	35	0	55	0	0	0	1	0	6
4:15 PM	0	0	197	1	0	5	127	44	0	49	2	0	0	1	0	8
4:30 PM	0	0	177	1	0	0	137	53	0	41	1	0	0	0	1	2
4:45 PM	0	0	170	0	0	0	154	44	0	44	0	0	0	1	0	2
5:00 PM	0	0	171	0	0	3	124	30	0	73	0	0	0	0	0	7
5:15 PM	0	0	171	0	0	1	177	41	0	74	0	0	0	0	0	4
5:30 PM	0	0	180	0	0	0	131	29	0	54	0	0	0	0	0	3
5:45 PM	0	0	132	0	0	0	131	33	0	33	0	0	0	0	1	3

AM PEAK HOUR 7:15 AM to 8:15 AM	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
	0	**0**	**477**	**3**	**0**	**4**	**583**	**209**	**0**	**110**	**1**	**0**	**0**	**1**	**0**	**3**
PHF	**0.95**				**0.94**				**0.82**				**1.00**			
HV %	**0.0%**	**0.0%**	**4.0%**	**0.0%**	**0.0%**	**0.0%**	**2.7%**	**3.3%**	**0.0%**	**7.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
	0	**0**	**689**	**1**	**0**	**4**	**592**	**168**	**0**	**232**	**1**	**0**	**0**	**1**	**1**	**15**
PHF	**0.97**				**0.87**				**0.79**				**0.61**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**1.0%**	**4.2%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 5
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Forest Road & Ardsley Ave
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
7:00 AM	0	0	2	0	0	0	7	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	2	0	0	0	7	0	0	3	0	0	0	0	0	0
7:30 AM	0	0	8	0	0	0	3	0	0	1	0	0	0	0	0	0
7:45 AM	0	0	5	0	0	0	2	1	0	0	0	0	0	0	0	0
8:00 AM	0	0	4	0	0	0	4	6	0	4	0	0	0	0	0	0
8:15 AM	0	0	7	0	0	0	2	0	0	7	0	0	0	0	0	0
8:30 AM	0	0	4	0	0	0	8	0	0	3	0	0	0	0	0	1
8:45 AM	0	0	4	0	0	0	7	0	0	2	0	0	0	0	0	0

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
4:00 PM	0	0	8	0	0	0	4	1	0	1	0	0	0	0	0	0
4:15 PM	0	0	3	0	0	0	2	1	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	3	4	0	0	0	0	0	0	0	0
4:45 PM	0	0	3	0	0	0	2	2	0	0	0	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
5:15 PM	0	0	2	0	0	0	1	0	0	2	0	0	0	0	0	0
5:30 PM	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
	0	**0**	**19**	**0**	**0**	**0**	**21**	**6**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**1**
PHF	**0.68**				**0.68**				**0.57**				**0.25**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
	0	**0**	**14**	**0**	**0**	**0**	**11**	**8**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.44**				**0.68**				**0.25**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 5
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Forest Road & Ardsley Ave
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	Hard Left	Thru	Right	PED	Left	Thru	Soft Right	PED	Thru	Right	Hard Right	PED	Left	Soft Left	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	Hard Left	Thru	Right	PED	Left	Thru	Soft Right	PED	Thru	Right	Hard Right	PED	Left	Soft Left	Right	PED
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR[1]	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
7:15 AM to 8:15 AM	Hard Left	Thru	Right	PED	Left	Thru	Soft Right	PED	Thru	Right	Hard Right	PED	Left	Soft Left	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR[1]	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
4:30 PM to 5:30 PM	Hard Left	Thru	Right	PED	Left	Thru	Soft Right	PED	Thru	Right	Hard Right	PED	Left	Soft Left	Right	PED
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[1] *NOTE: Peak hour summaries here correspond to peak hours identified for passenger cars and heavy vehicles combined.*

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 5
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Forest Road & Ardsley Ave
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
11:00 AM	0	0	82	0	0	2	87	27	0	22	1	0	0	0	0	1
11:15 AM	0	0	72	0	0	0	85	31	0	28	0	0	0	0	0	1
11:30 AM	0	0	81	0	0	2	82	22	0	30	1	0	0	0	0	2
11:45 AM	0	0	91	0	0	0	84	30	0	33	2	0	0	0	0	0
12:00 PM	0	0	84	0	0	2	87	24	0	26	4	0	0	1	0	2
12:15 PM	0	0	93	0	0	2	84	29	0	16	0	0	0	0	0	2
12:30 PM	0	0	78	0	0	2	97	29	0	30	0	0	0	0	0	2
12:45 PM	0	0	95	0	0	4	76	27	0	23	0	0	0	0	0	1

MID PEAK HOUR 11:45 AM to 12:45 PM	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
	0	**0**	**346**	**0**	**0**	**6**	**352**	**112**	**0**	**105**	**6**	**0**	**0**	**1**	**0**	**6**
PHF	**0.93**				**0.92**				**0.79**				**0.58**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 5
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Forest Road & Ardsley Ave
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
11:00 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:00 AM to 12:00 PM	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
	U-Turn	Hard Left	Thru	Right	U-Turn	Left	Thru	Soft Right	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Right
	0	**0**	**6**	**0**	**0**	**0**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.50**				**0.75**				**0.00**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 5
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Forest Road & Ardsley Ave
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
Start Time	Hard Left	Thru	Right	PED	Left	Thru	Soft Right	PED	Thru	Right	Hard Right	PED	Left	Soft Left	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:45 AM to 12:45 PM	Forest Road Northbound				Middletown Ave Southbound				Middletown Ave Northeastbound				Ardsley Ave Westbound			
	Hard Left	Thru	Right	PED	Left	Thru	Soft Right	PED	Thru	Right	Hard Right	PED	Left	Soft Left	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6A
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	St. Andrews Episcopal Church exit
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	17	6	0	0	51	0	0	0	0	0	0	14	0	0
7:15 AM	0	0	19	6	0	0	47	0	0	0	0	0	0	7	0	0
7:30 AM	0	0	30	8	0	0	48	0	0	0	0	0	0	13	0	0
7:45 AM	0	0	29	9	0	0	48	0	0	0	0	0	0	16	0	0
8:00 AM	0	0	35	20	0	0	66	0	0	0	0	0	0	18	0	0
8:15 AM	0	0	30	14	0	0	48	0	0	0	0	0	0	9	0	0
8:30 AM	0	0	23	3	0	0	36	0	0	0	0	0	0	8	0	0
8:45 AM	0	0	20	13	0	0	37	0	0	0	0	0	0	4	0	0

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	53	10	0	0	35	0	0	0	0	0	0	9	0	0
4:15 PM	0	0	50	7	0	0	44	0	0	0	0	0	0	5	0	0
4:30 PM	0	0	43	11	0	0	53	0	0	0	0	0	0	4	0	0
4:45 PM	0	0	43	5	0	0	45	0	0	0	0	0	0	7	0	0
5:00 PM	0	0	74	13	0	0	30	0	0	0	0	0	0	4	0	0
5:15 PM	0	0	74	9	0	1	39	0	0	0	0	0	0	4	0	0
5:30 PM	0	0	54	9	0	0	29	0	0	0	0	0	0	5	0	0
5:45 PM	0	0	33	7	0	0	35	0	0	0	0	1	0	3	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**124**	**51**	**0**	**0**	**210**	**0**	**0**	**0**	**0**	**0**	**0**	**56**	**0**	**0**
PHF	**0.80**				**0.80**				**0.00**				**0.78**			
HV %	**0.0%**	**0.0%**	**9.7%**	**23.5%**	**0.0%**	**0.0%**	**3.3%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**25.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**234**	**38**	**0**	**1**	**167**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**0**
PHF	**0.78**				**0.79**				**0.00**				**0.68**			
HV %	**0.0%**	**0.0%**	**0.9%**	**7.9%**	**0.0%**	**0.0%**	**4.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6A
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	St. Andrews Episcopal Church exit
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0
7:45 AM	0	0	1	1	0	0	1	0	0	0	0	0	0	6	0	0
8:00 AM	0	0	3	5	0	0	6	0	0	0	0	0	0	5	0	0
8:15 AM	0	0	7	5	0	0	0	0	0	0	0	0	0	2	0	0
8:30 AM	0	0	3	1	0	0	0	0	0	0	0	0	0	1	0	0
8:45 AM	0	0	2	5	0	0	0	0	0	0	0	0	0	1	0	0

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:45 AM to 8:45 AM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**14**	**12**	**0**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**0**
PHF	**0.54**				**0.29**				**0.00**				**0.58**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**1**	**3**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.50**				**0.50**				**0.00**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6A
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	St. Andrews Episcopal Church exit
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR[1] 7:30 AM to 8:30 AM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Middletown Ave Northbound				Middletown Ave Southbound				Saint Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[1] *NOTE: Peak hour summaries here correspond to peak hours identified for passenger cars and heavy vehicles combined.*

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6A
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	St. Andrews Episcopal Church exit
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound				St. Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	22	8	0	0	27	0	0	0	0	0	0	3	0	0
11:15 AM	0	0	31	7	0	0	32	0	0	0	0	0	0	6	0	0
11:30 AM	0	0	31	5	0	0	20	0	0	0	0	0	0	6	0	0
11:45 AM	0	0	36	7	0	0	31	0	0	0	0	0	0	4	0	0
12:00 PM	0	0	28	11	0	0	24	0	0	0	0	0	0	3	0	0
12:15 PM	0	0	16	2	0	0	27	0	0	0	0	0	0	12	0	0
12:30 PM	0	0	31	8	0	0	31	0	0	0	0	0	0	9	0	0
12:45 PM	0	0	21	5	0	0	27	0	0	2	0	0	0	9	0	0

MID PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound				St. Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
11:15 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:15 PM	**0**	**0**	**126**	**30**	**0**	**0**	**107**	**0**	**0**	**0**	**0**	**0**	**0**	**19**	**0**	**0**
PHF	**0.91**				**0.84**				**0.00**				**0.79**			
HV %	**0.0%**	**0.0%**	**0.8%**	**6.7%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**10.5%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6A
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	St. Andrews Episcopal Church exit
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound				St. Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound				St. Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
11:15 AM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
to 12:15 PM	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**
PHF	**0.38**				**0.00**				**0.00**				**0.25**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6A
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	St. Andrews Episcopal Church exit
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound				St. Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:15 AM to 12:15 PM	Middletown Ave Northbound				Middletown Ave Southbound				St. Andrews Episcopal Church exit Southeastbound				Turning Lane Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6B
Location:	Northford, CT
Street 1:	Forest Road
Street 2:	Northford Center Shopping Plaza
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	13	93	0	0	3	152	0	0	0	0	5	0	0	1	2
7:15 AM	0	6	115	1	0	1	159	0	0	2	0	5	0	2	0	0
7:30 AM	0	10	123	1	0	3	141	1	0	0	1	7	0	1	3	4
7:45 AM	0	16	119	0	0	1	149	0	0	0	0	9	0	1	0	1
8:00 AM	0	16	116	0	0	1	127	0	0	1	1	18	0	0	2	0
8:15 AM	0	9	115	0	0	2	122	0	0	0	0	14	0	1	0	2
8:30 AM	0	7	105	1	0	1	106	0	0	0	1	1	0	1	1	1
8:45 AM	0	4	90	0	0	1	129	0	0	0	0	14	0	2	0	1

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	5	136	0	0	5	135	0	0	0	0	10	0	1	4	3
4:15 PM	0	3	192	1	0	9	120	0	0	0	2	5	0	0	2	7
4:30 PM	0	3	165	1	0	6	132	0	0	0	4	7	0	1	1	12
4:45 PM	0	7	168	2	0	5	146	0	0	0	3	2	0	0	0	2
5:00 PM	0	2	169	0	0	0	128	0	0	0	0	13	0	2	2	3
5:15 PM	0	3	169	0	0	1	176	0	0	0	3	6	0	2	1	2
5:30 PM	0	3	176	0	0	2	127	0	0	0	0	10	0	1	2	4
5:45 PM	0	2	132	0	0	4	123	0	0	0	4	3	0	2	1	0

AM PEAK HOUR 7:15 AM to 8:15 AM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**48**	**473**	**2**	**0**	**6**	**576**	**1**	**0**	**3**	**2**	**39**	**0**	**4**	**5**	**5**
PHF	**0.97**				**0.91**				**0.55**				**0.44**			
HV %	**0.0%**	**27.1%**	**3.8%**	**0.0%**	**0.0%**	**16.7%**	**2.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**20.5%**	**0.0%**	**0.0%**	**0.0%**	**40.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**15**	**671**	**3**	**0**	**12**	**582**	**0**	**0**	**0**	**10**	**28**	**0**	**5**	**4**	**19**
PHF	**0.97**				**0.84**				**0.73**				**0.50**			
HV %	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**10.0%**	**7.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6B
Location:	Northford, CT
Street 1:	Forest Road
Street 2:	Northford Center Shopping Plaza
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	1	0	0	0	7	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	2	0	0	0	7	0	0	0	0	1	0	0	0	0
7:30 AM	0	1	7	0	0	0	3	0	0	0	0	1	0	0	0	1
7:45 AM	0	6	4	0	0	1	1	0	0	0	0	1	0	0	0	1
8:00 AM	0	5	5	0	0	0	4	0	0	0	0	5	0	0	0	0
8:15 AM	0	2	6	0	0	0	2	0	0	0	0	5	0	0	0	0
8:30 AM	0	1	4	1	0	0	8	0	0	0	1	0	0	0	0	0
8:45 AM	0	1	4	0	0	0	7	0	0	0	0	5	0	0	0	0

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	8	0	0	0	4	0	0	0	0	1	0	0	0	0
4:15 PM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	3	0	0	0	2	0	0	0	1	1	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
5:15 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 8:00 AM to 9:00 AM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**9**	**19**	**1**	**0**	**0**	**21**	**0**	**0**	**0**	**1**	**15**	**0**	**0**	**0**	**0**
PHF	**0.73**				**0.66**				**0.80**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**14**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**1**	**2**	**0**	**0**	**0**	**0**
PHF	**0.44**				**0.69**				**0.38**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6B
Location:	Northford, CT
Street 1:	Forest Road
Street 2:	Northford Center Shopping Plaza
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR[1] 7:15 AM to 8:15 AM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR[1] 4:30 PM to 5:30 PM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

[1] *NOTE: Peak hour summaries here correspond to peak hours identified for passenger cars and heavy vehicles combined.*

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6B
Location:	Northford, CT
Street 1:	Forest Road
Street 2:	Northford Center Shopping Plaza
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	2	81	0	0	2	87	0	0	0	1	7	0	1	1	1
11:15 AM	0	4	71	1	0	4	81	0	0	0	0	6	0	1	2	1
11:30 AM	0	5	75	0	0	2	74	0	0	1	0	5	0	0	1	5
11:45 AM	0	3	89	0	0	2	83	0	0	0	1	6	0	5	0	2
12:00 PM	0	4	82	1	0	2	87	0	0	0	2	9	0	0	0	3
12:15 PM	0	8	88	0	0	2	82	0	0	0	0	2	0	2	4	4
12:30 PM	0	8	76	0	0	0	97	0	0	0	1	7	0	1	1	3
12:45 PM	0	9	91	0	0	2	73	0	0	0	0	5	0	1	0	5

MID PEAK HOUR 11:45 AM to 12:45 PM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**23**	**335**	**1**	**0**	**6**	**349**	**0**	**0**	**0**	**4**	**24**	**0**	**8**	**5**	**12**
PHF	**0.93**				**0.91**				**0.64**				**0.63**			
HV %	**0.0%**	**4.3%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**4.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6B
Location:	Northford, CT
Street 1:	Forest Road
Street 2:	Northford Center Shopping Plaza
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
11:15 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0
11:30 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
11:45 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
12:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:00 AM to 12:00 PM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**1**	**5**	**0**	**0**	**0**	**6**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**
PHF	**0.50**				**0.75**				**0.25**				**0.25**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 6B
Location:	Northford, CT
Street 1:	Forest Road
Street 2:	Northford Center Shopping Plaza
Count Date:	3/23/2024
Day of Week:	Saturday
Weather:	Rain, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:45 AM to 12:45 PM	Forest Road Northbound				Forest Road Southbound				Turning Lane Eastbound				Northford Center Shopping Plaza Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 7
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Totoket Valley Elementary School
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PASSENGER CARS & HEAVY VEHICLES COMBINED

	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	3	19	0	0	0	59	6	0	3	0	2	0	0	0	0
7:15 AM	0	2	23	0	0	0	47	7	0	1	0	3	0	0	0	0
7:30 AM	0	10	35	0	0	0	55	5	0	3	0	2	0	0	0	0
7:45 AM	0	16	34	0	0	0	39	28	0	3	0	1	0	0	0	0
8:00 AM	0	30	31	0	0	0	55	29	0	19	0	24	0	0	0	0
8:15 AM	0	15	24	0	0	0	52	10	0	12	0	20	0	0	0	0
8:30 AM	0	1	27	0	0	0	38	6	0	3	0	5	0	0	0	0
8:45 AM	0	3	34	0	0	0	45	2	0	1	0	0	0	0	0	0
2:00 PM	0	2	33	0	0	0	28	5	0	4	0	1	0	0	0	0
2:15 PM	0	5	36	0	0	0	30	5	0	1	0	0	0	0	0	0
2:30 PM	0	10	29	0	0	0	31	20	0	7	0	11	0	0	0	0
2:45 PM	0	4	35	0	0	0	29	3	0	24	0	18	0	0	0	0
3:00 PM	0	2	46	0	0	0	33	3	0	13	0	10	0	0	0	0
3:15 PM	0	2	58	0	0	0	35	4	0	8	0	4	0	0	0	0
3:30 PM	0	4	48	0	0	0	41	2	0	8	0	6	0	0	0	0
3:45 PM	0	5	42	0	0	0	31	7	0	4	0	5	0	0	0	0
4:00 PM	0	5	39	0	0	0	35	10	0	15	0	9	0	0	0	0
4:15 PM	0	4	49	0	0	0	45	8	0	4	0	5	0	0	0	0
4:30 PM	0	4	40	0	0	0	49	6	0	10	0	9	0	0	0	0
4:45 PM	0	4	46	0	0	0	46	9	0	8	0	4	0	0	0	0
5:00 PM	0	3	86	0	0	0	28	3	0	9	0	5	0	0	0	0
5:15 PM	0	3	70	0	0	0	42	1	0	1	0	2	0	0	0	0
5:30 PM	0	0	57	0	0	0	31	2	0	3	0	2	0	0	0	0
5:45 PM	0	2	41	0	0	0	33	2	0	3	0	1	0	0	0	0

AM PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
7:30 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
8:30 AM	**0**	**71**	**124**	**0**	**0**	**0**	**201**	**72**	**0**	**37**	**0**	**47**	**0**	**0**	**0**	**0**
PHF	**0.80**				**0.81**				**0.49**				**0.00**			
HV %	**0.0%**	**2.8%**	**7.3%**	**0.0%**	**0.0%**	**0.0%**	**2.0%**	**23.6%**	**0.0%**	**40.5%**	**0.0%**	**10.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
4:30 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
5:30 PM	**0**	**14**	**242**	**0**	**0**	**0**	**165**	**19**	**0**	**28**	**0**	**20**	**0**	**0**	**0**	**0**
PHF	**0.72**				**0.84**				**0.63**				**0.00**			
HV %	**0.0%**	**0.0%**	**2.5%**	**0.0%**	**0.0%**	**0.0%**	**4.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 7
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Totoket Valley Elementary School
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

HEAVY VEHICLES

	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
7:45 AM	0	1	3	0	0	0	1	7	0	0	0	0	0	0	0	0
8:00 AM	0	1	3	0	0	0	2	9	0	8	0	4	0	0	0	0
8:15 AM	0	0	2	0	0	0	0	1	0	6	0	1	0	0	0	0
8:30 AM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	9	0	0	0	1	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0
2:15 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
2:30 PM	0	2	0	0	0	0	2	15	0	0	0	0	0	0	0	0
2:45 PM	0	1	1	0	0	0	5	1	0	15	0	3	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	1	0	0	0	3	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:45 AM to 8:45 AM	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**2**	**12**	**0**	**0**	**0**	**4**	**17**	**0**	**14**	**0**	**5**	**0**	**0**	**0**	**0**
PHF	**0.88**				**0.48**				**0.40**				**0.00**			

PM PEAK HOUR 2:00 PM to 3:00 PM	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**3**	**4**	**0**	**0**	**0**	**10**	**16**	**0**	**16**	**0**	**3**	**0**	**0**	**0**	**0**
PHF	**0.88**				**0.38**				**0.26**				**0.00**			

Client:	Mike Kurker, P.E.
Project #:	1485_1_BL
BTD #:	Location 7
Location:	Northford, CT
Street 1:	Middletown Ave
Street 2:	Totoket Valley Elementary School
Count Date:	3/21/2024
Day of Week:	Thursday
Weather:	Clouds & Sun, 40°F

New England COUNTS
PO Box 1723
Framingham, MA 01701

PEDESTRIANS & BICYCLES

	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
7:30 AM																
to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PEAK HOUR	Middletown Ave Northbound				Middletown Ave Southbound				Totoket Valley Elementary School Eastbound				Westbound			
4:30 PM																
to	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Capacity Analysis

Existing

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	390	0	500	30	0	0	0	0	30	10
Future Volume (vph)	0	0	390	0	500	30	0	0	0	0	30	10
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			0.865		0.992						0.965	
Flt Protected												
Satd. Flow (prot)	0	0	1596	0	1848	0	0	0	0	0	1772	0
Flt Permitted												
Satd. Flow (perm)	0	0	1596	0	1848	0	0	0	0	0	1772	0
Link Speed (mph)		35			35			35			25	
Link Distance (ft)		485			148			53			149	
Travel Time (s)		9.4			2.9			1.0			4.1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	0	0	411	0	526	32	0	0	0	0	32	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	411	0	558	0	0	0	0	0	43	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.6%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	390	0	500	30	0	0	0	0	30	10
Future Vol, veh/h	0	0	390	0	500	30	0	0	0	0	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	2	2	2	2	2	4	2
Mvmt Flow	0	0	411	0	526	32	0	0	0	0	32	11

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	-	542	542
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.54	6.22
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	4.036	3.318
Pot Cap-1 Maneuver	-	-	-	0	445	540
Stage 1	-	-	-	0	517	-
Stage 2	-	-	-	0	-	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	540
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s	0	12.2
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	540
HCM Lane V/C Ratio	-	-	-	0.078
HCM Control Delay (s)	0	-	-	12.2
HCM Lane LOS	A	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	390	0	500	30	0	0	0	0	30	10
Future Vol, veh/h	0	0	390	0	500	30	0	0	0	0	30	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	3	2	2	2	2	2	2	2	4	2
Mvmt Flow	0	0	411	0	526	32	0	0	0	0	32	11

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	-	542	542
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.54	6.22
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	4.036	3.318
Pot Cap-1 Maneuver	-	-	-	0	445	540
Stage 1	-	-	-	0	517	-
Stage 2	-	-	-	0	-	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	540
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s	0	12.2
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	540
HCM Lane V/C Ratio	-	-	-	0.078
HCM Control Delay (s)	0	-	-	12.2
HCM Lane LOS	A	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	30	20	10	360	260	10	5	490	160
Future Volume (vph)	0	0	0	30	20	10	360	260	10	5	490	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	50		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			125			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					0.978			0.995			0.967	
Flt Protected					0.975		0.950					
Satd. Flow (prot)	0	0	0	0	1776	0	1752	1770	0	0	1801	0
Flt Permitted					0.975		0.358				0.998	
Satd. Flow (perm)	0	0	0	0	1776	0	660	1770	0	0	1798	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		148			175			270			904	
Travel Time (s)		2.9			4.8			5.3			17.6	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	7%	2%	2%	2%	2%
Adj. Flow (vph)	0	0	0	31	20	10	367	265	10	5	500	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	61	0	367	275	0	0	668	0
Turn Type				Split	NA		pm+pt	NA		Perm	NA	
Protected Phases				4	4		1	1 2			2	
Permitted Phases							1 2			2		
Detector Phase				4	4		1	1 2		2	2	
Switch Phase												
Minimum Initial (s)				9.0	9.0		5.0			15.0	15.0	
Minimum Split (s)				13.9	13.9		9.0			21.1	21.1	
Total Split (s)				14.9	14.9		15.0			44.1	44.1	
Total Split (%)				15.8%	15.8%		15.9%			46.9%	46.9%	
Maximum Green (s)				10.0	10.0		11.0			38.0	38.0	
Yellow Time (s)				3.0	3.0		3.0			4.3	4.3	
All-Red Time (s)				1.9	1.9		1.0			1.8	1.8	
Lost Time Adjust (s)					0.0		0.0				0.0	
Total Lost Time (s)					4.9		4.0				6.1	
Lead/Lag				Lag	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0			2.5	2.5	
Recall Mode				None	None		Min			C-Min	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)					9.2		70.7	75.5			57.6	
Actuated g/C Ratio					0.10		0.75	0.80			0.61	
v/c Ratio					0.35		0.59	0.19			0.61	
Control Delay					45.6		10.4	4.6			18.0	
Queue Delay					0.0		0.0	0.0			0.0	
Total Delay					45.6		10.4	4.6			18.0	
LOS					D		B	A			B	
Approach Delay					45.6			7.9			18.0	
Approach LOS					D			A			B	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	2.0
Minimum Split (s)	20.1
Total Split (s)	20.1
Total Split (%)	21%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	0.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)					35		38	27			214	
Queue Length 95th (ft)					74		#179	118			#595	
Internal Link Dist (ft)		68			95			190			824	
Turn Bay Length (ft)							50					
Base Capacity (vph)					188		623	1420			1101	
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					0.32		0.59	0.19			0.61	

Intersection Summary			
Area Type:	Other		
Cycle Length: 94.1			
Actuated Cycle Length: 94.1			
Offset: 73 (78%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 14.5		Intersection LOS: B	
Intersection Capacity Utilization 75.7%		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: 2: CT Route 17 (Middletown Avenue) & Mansfield Drive

Lane Group	Ø3
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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	40	380
Future Volume (vph)	0	0	0	0	40	380
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						0.995
Satd. Flow (prot)	0	0	0	0	0	1853
Flt Permitted						0.995
Satd. Flow (perm)	0	0	0	0	0	1853
Link Speed (mph)	25		35			35
Link Distance (ft)	72		180			180
Travel Time (s)	2.0		3.5			3.5
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	0	0	0	0	40	384
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	424
Sign Control	Stop		Stop			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.5%		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												
Traffic Volume (vph)	40	5	0	10	0	10	0	580	10	10	500	0
Future Volume (vph)	40	5	0	10	0	10	0	580	10	10	500	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						0.850		0.998				
Flt Protected		0.957		0.950							0.999	
Satd. Flow (prot)	0	1783	0	1770	0	1583	0	1807	0	0	1861	0
Flt Permitted		0.957		0.950							0.999	
Satd. Flow (perm)	0	1783	0	1770	0	1583	0	1807	0	0	1861	0
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		72			175			194			270	
Travel Time (s)		1.4			4.8			3.8			5.3	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	2%	3%	2%	3%
Adj. Flow (vph)	40	5	0	10	0	10	0	586	10	10	505	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	0	10	0	10	0	596	0	0	515	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	5	0	10	0	10	0	580	10	10	500	0
Future Vol, veh/h	40	5	0	10	0	10	0	580	10	10	500	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2	3	2	3
Mvmt Flow	40	5	0	10	0	10	0	586	10	10	505	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1121	1121	-	1119	-	591	-	0	0	596	0	0
Stage 1	525	525	-	591	-	-	-	-	-	-	-	-
Stage 2	596	596	-	528	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	-	6.22	-	-	-	4.13	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	-	3.318	-	-	-	2.227	-	-
Pot Cap-1 Maneuver	183	206	0	184	0	507	0	-	-	976	-	0
Stage 1	536	529	0	493	0	-	0	-	-	-	-	0
Stage 2	490	492	0	534	0	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	178	203	-	179	-	507	-	-	-	976	-	-
Mov Cap-2 Maneuver	178	203	-	179	-	-	-	-	-	-	-	-
Stage 1	536	522	-	493	-	-	-	-	-	-	-	-
Stage 2	480	492	-	521	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.6	19.3	0	0.2
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	180	179	507	976	-
HCM Lane V/C Ratio	-	-	0.253	0.056	0.02	0.01	-
HCM Control Delay (s)	-	-	31.6	26.3	12.2	8.7	0
HCM Lane LOS	-	-	D	D	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.2	0.1	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	5	0	10	0	10	0	580	10	10	500	0
Future Vol, veh/h	40	5	0	10	0	10	0	580	10	10	500	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2	3	2	3
Mvmt Flow	40	5	0	10	0	10	0	586	10	10	505	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1121	1121	-	1119	-	591	-	0	0	596	0	0
Stage 1	525	525	-	591	-	-	-	-	-	-	-	-
Stage 2	596	596	-	528	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	-	6.22	-	-	-	4.13	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	-	3.318	-	-	-	2.227	-	-
Pot Cap-1 Maneuver	183	206	0	184	0	507	0	-	-	976	-	0
Stage 1	536	529	0	493	0	-	0	-	-	-	-	0
Stage 2	490	492	0	534	0	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	178	203	-	179	-	507	-	-	-	976	-	-
Mov Cap-2 Maneuver	178	203	-	179	-	-	-	-	-	-	-	-
Stage 1	536	522	-	493	-	-	-	-	-	-	-	-
Stage 2	480	492	-	521	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	31.6	19.3	0	0.2
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	180	179	507	976	-
HCM Lane V/C Ratio	-	-	0.253	0.056	0.02	0.01	-
HCM Control Delay (s)	-	-	31.6	26.3	12.2	8.7	0
HCM Lane LOS	-	-	D	D	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0.2	0.1	0	-

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	590	0	380	510	0
Future Volume (vph)	0	590	0	380	510	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	1565	0	1845	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1565	0	1845	1770	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	84			180	194	
Travel Time (s)	1.6			3.5	3.8	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	5%	2%	3%	2%	2%
Adj. Flow (vph)	0	596	0	384	515	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	596	0	384	515	0
Sign Control	Free			Stop	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.9%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (vph)	5	0	5	0	590	5	10	890	5	0	0
Future Volume (vph)	5	0	5	0	590	5	10	890	5	0	0
Ideal Flow (vphpl)	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
Frt		0.932			0.999			0.999			
Flt Protected		0.976						0.999			
Satd. Flow (prot)	0	1694	0	0	1808	0	0	1841	0	0	0
Flt Permitted		0.976						0.999			
Satd. Flow (perm)	0	1694	0	0	1808	0	0	1841	0	0	0
Link Speed (mph)		25			35			35		25	
Link Distance (ft)		109			113			84		113	
Travel Time (s)		3.0			2.2			1.6		3.1	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	2%	2%	5%	2%	2%	3%	2%	2%	2%
Adj. Flow (vph)	5	0	5	0	596	5	10	899	5	0	0
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	10	0	0	601	0	0	914	0	0	0
Sign Control		Stop			Free			Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 65.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	0	5	0	590	5	10	890	5	0	0
Future Vol, veh/h	0	5	0	590	5	10	890	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	5	2	2	3	2	2	2
Mvmt Flow	0	5	0	596	5	10	899	5	0	0

Major/Minor	Minor1		Major1			Major2		
Conflicting Flow All	1521	599	-	0	0	601	0	0
Stage 1	599	-	-	-	-	-	-	-
Stage 2	922	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	130	502	0	-	-	976	-	-
Stage 1	549	-	0	-	-	-	-	-
Stage 2	387	-	0	-	-	-	-	-
Platoon blocked, %				-	-		-	-
Mov Cap-1 Maneuver	127	502	-	-	-	976	-	-
Mov Cap-2 Maneuver	127	-	-	-	-	-	-	-
Stage 1	549	-	-	-	-	-	-	-
Stage 2	379	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.7	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	203	976	-	-
HCM Lane V/C Ratio	-	-	0.05	0.01	-	-
HCM Control Delay (s)	-	-	23.7	8.7	0	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	0	5	0	590	5	10	890	5	0	0
Future Vol, veh/h	0	5	0	590	5	10	890	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	5	2	2	3	2	2	2
Mvmt Flow	0	5	0	596	5	10	899	5	0	0

Major/Minor	Minor1		Major1			Major2		
Conflicting Flow All	1521	599	-	0	0	601	0	0
Stage 1	599	-	-	-	-	-	-	-
Stage 2	922	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	130	502	0	-	-	976	-	-
Stage 1	549	-	0	-	-	-	-	-
Stage 2	387	-	0	-	-	-	-	-
Platoon blocked, %				-	-		-	-
Mov Cap-1 Maneuver	127	502	-	-	-	976	-	-
Mov Cap-2 Maneuver	127	-	-	-	-	-	-	-
Stage 1	549	-	-	-	-	-	-	-
Stage 2	379	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.7	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	203	976	-	-
HCM Lane V/C Ratio	-	-	0.05	0.01	-	-
HCM Control Delay (s)	-	-	23.7	8.7	0	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	10	590	0	10	890
Future Volume (vph)	5	10	590	0	10	890
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.910					
Flt Protected	0.984					0.999
Satd. Flow (prot)	1668	0	1827	0	0	3501
Flt Permitted	0.984					0.999
Satd. Flow (perm)	1668	0	1827	0	0	3501
Link Speed (mph)	25		35			35
Link Distance (ft)	392		71			113
Travel Time (s)	10.7		1.4			2.2
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	4%	2%	3%	3%
Adj. Flow (vph)	5	10	596	0	10	899
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	596	0	0	909
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 41.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	10	590	0	10	890
Future Vol, veh/h	5	10	590	0	10	890
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	4	2	3	3
Mvmt Flow	5	10	596	0	10	899

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1066	596	0	-	596	0
Stage 1	596	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.145	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.2285	-
Pot Cap-1 Maneuver	231	503	-	0	973	-
Stage 1	549	-	-	0	-	-
Stage 2	596	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	226	503	-	-	973	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	357	973	-
HCM Lane V/C Ratio	-	0.042	0.01	-
HCM Control Delay (s)	-	15.5	8.7	0.1
HCM Lane LOS	-	C	A	A
HCM 95th %tile Q(veh)	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	10	590	0	10	890
Future Vol, veh/h	5	10	590	0	10	890
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	4	2	3	3
Mvmt Flow	5	10	596	0	10	899

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1066	596	0	-	596	0
Stage 1	596	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.145	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.2285	-
Pot Cap-1 Maneuver	231	503	-	0	973	-
Stage 1	549	-	-	0	-	-
Stage 2	596	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	226	503	-	-	973	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	583	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0.2
HCM LOS	C		

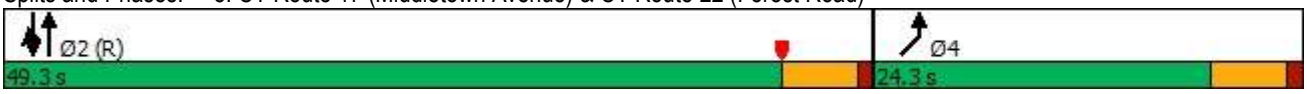
Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	357	973	-
HCM Lane V/C Ratio	-	0.042	0.01	-
HCM Control Delay (s)	-	15.5	8.7	0.1
HCM Lane LOS	-	C	A	A
HCM 95th %tile Q(veh)	-	0.1	0	-

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	480	580	310	110	0
Future Volume (vph)	0	480	580	310	110	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					0.950	
Satd. Flow (prot)	0	1827	1845	1568	1687	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1827	1845	1568	1687	0
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		35	35		35	
Link Distance (ft)		147	71		145	
Travel Time (s)		2.9	1.4		2.8	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	4%	3%	3%	7%	2%
Adj. Flow (vph)	0	485	586	313	111	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	485	586	313	111	0
Turn Type		NA	NA	Prot	Prot	
Protected Phases		2	2	2	4	
Permitted Phases						
Detector Phase		2	2	2	4	
Switch Phase						
Minimum Initial (s)		15.0	15.0	15.0	9.0	
Minimum Split (s)		20.3	20.3	20.3	14.3	
Total Split (s)		49.3	49.3	49.3	24.3	
Total Split (%)		67.0%	67.0%	67.0%	33.0%	
Maximum Green (s)		44.0	44.0	44.0	19.0	
Yellow Time (s)		4.3	4.3	4.3	4.3	
All-Red Time (s)		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.3	5.3	5.3	5.3	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		2.5	2.5	2.5	2.0	
Recall Mode		C-Min	C-Min	C-Min	None	
Act Effct Green (s)		56.5	56.5	56.5	10.4	
Actuated g/C Ratio		0.77	0.77	0.77	0.14	
v/c Ratio		0.35	0.41	0.26	0.47	
Control Delay		4.8	5.3	4.4	35.4	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		4.8	5.3	4.4	35.4	
LOS		A	A	A	D	
Approach Delay		4.8	5.0		35.4	
Approach LOS		A	A		D	
Queue Length 50th (ft)		64	84	38	48	
Queue Length 95th (ft)		131	169	83	90	
Internal Link Dist (ft)		67	1		65	
Turn Bay Length (ft)						
Base Capacity (vph)		1403	1417	1204	435	
Starvation Cap Reductn		0	0	0	0	

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.35	0.41	0.26	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 73.6			
Actuated Cycle Length: 73.6			
Offset: 1 (1%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.47			
Intersection Signal Delay: 7.2		Intersection LOS: A	
Intersection Capacity Utilization 46.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: CT Route 17 (Middletown Avenue) & CT Route 22 (Forest Road)



Lane Group	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Volume (vph)	60	0	0	5	0	130	50	5	300	0
Future Volume (vph)	60	0	0	5	0	130	50	5	300	0
Ideal Flow (vphpl)	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
Frt				0.865		0.963				
Flt Protected	0.950								0.999	
Satd. Flow (prot)	1444	0	0	1596	0	1607	0	0	1843	0
Flt Permitted	0.950								0.999	
Satd. Flow (perm)	1444	0	0	1596	0	1607	0	0	1843	0
Link Speed (mph)	25		25			35			35	
Link Distance (ft)	72		111			386			145	
Travel Time (s)	2.0		3.0			7.5			2.8	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	25%	2%	2%	3%	2%	10%	24%	2%	3%	2%
Adj. Flow (vph)	76	0	0	6	0	165	63	6	380	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	76	0	0	6	0	228	0	0	386	0
Sign Control	Stop		Stop			Free			Free	

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

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Vol, veh/h	60	0	0	5	0	130	50	5	300	0
Future Vol, veh/h	60	0	0	5	0	130	50	5	300	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	-	-	0	-
Grade, %	0	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	25	2	2	3	2	10	24	2	3	2
Mvmt Flow	76	0	0	6	0	165	63	6	380	0

Major/Minor	Minor1		Minor2		Major1			Major2		
Conflicting Flow All	592	-	-	380	-	0	0	228	0	0
Stage 1	197	-	-	-	-	-	-	-	-	-
Stage 2	395	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.35	-	-	6.23	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.35	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	-	-	3.327	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	386	0	0	665	0	-	-	1340	-	0
Stage 1	755	0	0	-	0	-	-	-	-	0
Stage 2	587	0	0	-	0	-	-	-	-	0
Platoon blocked, %		-				-	-		-	
Mov Cap-1 Maneuver	381	-	-	665	-	-	-	1340	-	-
Mov Cap-2 Maneuver	381	-	-	-	-	-	-	-	-	-
Stage 1	755	-	-	-	-	-	-	-	-	-
Stage 2	578	-	-	-	-	-	-	-	-	-

Approach	WB	SB	NE	SW
HCM Control Delay, s	16.8	10.5	0	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SBLn1	SWL	SWT
Capacity (veh/h)	-	-	381	665	1340	-
HCM Lane V/C Ratio	-	-	0.199	0.01	0.005	-
HCM Control Delay (s)	-	-	16.8	10.5	7.7	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	0	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Vol, veh/h	60	0	0	5	0	130	50	5	300	0
Future Vol, veh/h	60	0	0	5	0	130	50	5	300	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	-	-	0	-
Grade, %	0	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	25	2	2	3	2	10	24	2	3	2
Mvmt Flow	76	0	0	6	0	165	63	6	380	0

Major/Minor	Minor1			Minor2		Major1			Major2	
Conflicting Flow All	592	-	-	380	-	0	0	228	0	0
Stage 1	197	-	-	-	-	-	-	-	-	-
Stage 2	395	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.35	-	-	6.23	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.35	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.35	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	-	-	3.327	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	386	0	0	665	0	-	-	1340	-	0
Stage 1	755	0	0	-	0	-	-	-	-	0
Stage 2	587	0	0	-	0	-	-	-	-	0
Platoon blocked, %		-				-	-		-	
Mov Cap-1 Maneuver	381	-	-	665	-	-	-	1340	-	-
Mov Cap-2 Maneuver	381	-	-	-	-	-	-	-	-	-
Stage 1	755	-	-	-	-	-	-	-	-	-
Stage 2	578	-	-	-	-	-	-	-	-	-

Approach	WB	SB	NE	SW
HCM Control Delay, s	16.8	10.5	0	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SBLn1	SWL	SWT
Capacity (veh/h)	-	-	381	665	1340	-
HCM Lane V/C Ratio	-	-	0.199	0.01	0.005	-
HCM Control Delay (s)	-	-	16.8	10.5	7.7	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	40	60	480	590	5
Future Volume (vph)	10	40	60	480	590	5
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	0.891				0.999	
Flt Protected	0.990			0.994		
Satd. Flow (prot)	1429	0	0	1773	1843	0
Flt Permitted	0.990			0.994		
Satd. Flow (perm)	1429	0	0	1773	1843	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	72			55	147	
Travel Time (s)	2.0			1.1	2.9	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	21%	27%	4%	3%	2%
Adj. Flow (vph)	10	41	61	490	602	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	51	0	0	551	607	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	40	60	480	590	5
Future Vol, veh/h	10	40	60	480	590	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	21	27	4	3	2
Mvmt Flow	10	41	61	490	602	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1217	605	607	0	-	0
Stage 1	605	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Critical Hdwy	6.42	6.41	4.37	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.489	2.443	-	-	-
Pot Cap-1 Maneuver	200	464	861	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	181	464	861	-	-	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	492	-	-	-	-	-
Stage 2	541	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.9	1.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	861	-	353	-	-
HCM Lane V/C Ratio	0.071	-	0.145	-	-
HCM Control Delay (s)	9.5	0	16.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	40	60	480	590	5
Future Vol, veh/h	10	40	60	480	590	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	21	27	4	3	2
Mvmt Flow	10	41	61	490	602	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1217	605	607	0	-	0
Stage 1	605	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Critical Hdwy	6.42	6.41	4.37	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.489	2.443	-	-	-
Pot Cap-1 Maneuver	200	464	861	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	541	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	181	464	861	-	-	-
Mov Cap-2 Maneuver	181	-	-	-	-	-
Stage 1	492	-	-	-	-	-
Stage 2	541	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.9	1.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	861	-	353	-	-
HCM Lane V/C Ratio	0.071	-	0.145	-	-
HCM Control Delay (s)	9.5	0	16.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	20	530	5	10	620
Future Volume (vph)	10	20	530	5	10	620
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		0.999			
Flt Protected	0.984					0.999
Satd. Flow (prot)	1336	0	1825	0	0	1839
Flt Permitted	0.984					0.999
Satd. Flow (perm)	1336	0	1825	0	0	1839
Link Speed (mph)	25		35			35
Link Distance (ft)	96		451			55
Travel Time (s)	2.6		8.8			1.1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	40%	4%	2%	17%	3%
Adj. Flow (vph)	10	20	541	5	10	633
Shared Lane Traffic (%)						
Lane Group Flow (vph)	30	0	546	0	0	643
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	20	530	5	10	620
Future Vol, veh/h	10	20	530	5	10	620
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	40	4	2	17	3
Mvmt Flow	10	20	541	5	10	633

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1197	544	0	0	546	0
Stage 1	544	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.6	-	-	4.27	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.66	-	-	2.353	-
Pot Cap-1 Maneuver	205	472	-	-	952	-
Stage 1	582	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	202	472	-	-	952	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	510	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	327	952	-
HCM Lane V/C Ratio	-	-	0.094	0.011	-
HCM Control Delay (s)	-	-	17.1	8.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	20	530	5	10	620
Future Vol, veh/h	10	20	530	5	10	620
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	40	4	2	17	3
Mvmt Flow	10	20	541	5	10	633

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1197	544	0	0	546	0
Stage 1	544	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.42	6.6	-	-	4.27	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.66	-	-	2.353	-
Pot Cap-1 Maneuver	205	472	-	-	952	-
Stage 1	582	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	202	472	-	-	952	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	510	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	327	952	-
HCM Lane V/C Ratio	-	-	0.094	0.011	-
HCM Control Delay (s)	-	-	17.1	8.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	40	50	70	130	290	70
Future Volume (vph)	40	50	70	130	290	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	0.925				0.974	
Flt Protected	0.978			0.983		
Satd. Flow (prot)	1387	0	0	1769	1741	0
Flt Permitted	0.978			0.983		
Satd. Flow (perm)	1387	0	0	1769	1741	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	327			541	386	
Travel Time (s)	8.9			10.5	7.5	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	40%	11%	3%	7%	2%	24%
Adj. Flow (vph)	55	68	96	178	397	96
Shared Lane Traffic (%)						
Lane Group Flow (vph)	123	0	0	274	493	0
Sign Control	Stop			Free	Free	

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

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	50	70	130	290	70
Future Vol, veh/h	40	50	70	130	290	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	40	11	3	7	2	24
Mvmt Flow	55	68	96	178	397	96

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	815	445	493	0	-	0
Stage 1	445	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	6.8	6.31	4.13	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.86	3.399	2.227	-	-	-
Pot Cap-1 Maneuver	300	595	1065	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	270	595	1065	-	-	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	388	-	-
HCM Lane V/C Ratio	0.09	-	0.318	-	-
HCM Control Delay (s)	8.7	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	50	70	130	290	70
Future Vol, veh/h	40	50	70	130	290	70
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	40	11	3	7	2	24
Mvmt Flow	55	68	96	178	397	96

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	815	445	493	0	-	0
Stage 1	445	-	-	-	-	-
Stage 2	370	-	-	-	-	-
Critical Hdwy	6.8	6.31	4.13	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.86	3.399	2.227	-	-	-
Pot Cap-1 Maneuver	300	595	1065	-	-	-
Stage 1	573	-	-	-	-	-
Stage 2	622	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	270	595	1065	-	-	-
Mov Cap-2 Maneuver	270	-	-	-	-	-
Stage 1	516	-	-	-	-	-
Stage 2	622	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1065	-	388	-	-
HCM Lane V/C Ratio	0.09	-	0.318	-	-
HCM Control Delay (s)	8.7	0	18.5	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.3	-	1.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	530	10	540	50	0	0	0	0	40	20
Future Volume (vph)	0	0	530	10	540	50	0	0	0	0	40	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			0.865		0.989						0.955	
Flt Protected					0.999							
Satd. Flow (prot)	0	0	1596	0	1840	0	0	0	0	0	1756	0
Flt Permitted					0.999							
Satd. Flow (perm)	0	0	1596	0	1840	0	0	0	0	0	1756	0
Link Speed (mph)		35			35			35			25	
Link Distance (ft)		485			148			53			149	
Travel Time (s)		9.4			2.9			1.0			4.1	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	0	0	552	10	563	52	0	0	0	0	42	21
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	552	0	625	0	0	0	0	0	63	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 78.2%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	530	10	540	50	0	0	0	0	40	20
Future Vol, veh/h	0	0	530	10	540	50	0	0	0	0	40	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	2	621440	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	3	2	2	2	2	2	2	2	4	2
Mvmt Flow	0	0	552	10	563	52	0	0	0	0	42	21

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	-	609	589
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.54	6.22
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	4.036	3.318
Pot Cap-1 Maneuver	-	-	-	0	407	508
Stage 1	-	-	-	0	482	-
Stage 2	-	-	-	0	-	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	508
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s		13.1
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	508
HCM Lane V/C Ratio	-	-	-	0.123
HCM Control Delay (s)	-	-	-	13.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	530	10	540	50	0	0	0	0	40	20
Future Vol, veh/h	0	0	530	10	540	50	0	0	0	0	40	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	3	2	2	2	2	2	2	2	4	2
Mvmt Flow	0	0	552	10	563	52	0	0	0	0	42	21

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	-	609	589
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.54	6.22
Critical Hdwy Stg 1	-	-	-	-	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	4.036	3.318
Pot Cap-1 Maneuver	-	-	-	0	407	508
Stage 1	-	-	-	0	482	-
Stage 2	-	-	-	0	-	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	508
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s		13.1
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	508
HCM Lane V/C Ratio	-	-	-	0.123
HCM Control Delay (s)	-	-	-	13.1
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	30	10	10	520	500	40	5	430	80
Future Volume (vph)	0	0	0	30	10	10	520	500	40	5	430	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	50		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			125			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					0.974			0.989			0.979	
Flt Protected					0.971		0.950					
Satd. Flow (prot)	0	0	0	0	1712	0	1770	1841	0	0	1803	0
Flt Permitted					0.971		0.431				0.996	
Satd. Flow (perm)	0	0	0	0	1712	0	803	1841	0	0	1796	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		148			175			270			904	
Travel Time (s)		2.9			4.8			5.3			17.6	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	2%	2%	2%	2%	17%	2%	2%	3%	2%	3%	4%
Adj. Flow (vph)	0	0	0	31	10	10	542	521	42	5	448	83
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	51	0	542	563	0	0	536	0
Turn Type				Split	NA		pm+pt	NA		Perm	NA	
Protected Phases				4	4		1	1 2			2	
Permitted Phases							1 2			2		
Detector Phase				4	4		1	1 2		2	2	
Switch Phase												
Minimum Initial (s)				9.0	9.0		5.0			15.0	15.0	
Minimum Split (s)				13.9	13.9		9.0			21.1	21.1	
Total Split (s)				14.9	14.9		15.0			44.1	44.1	
Total Split (%)				15.8%	15.8%		15.9%			46.9%	46.9%	
Maximum Green (s)				10.0	10.0		11.0			38.0	38.0	
Yellow Time (s)				3.0	3.0		3.0			4.3	4.3	
All-Red Time (s)				1.9	1.9		1.0			1.8	1.8	
Lost Time Adjust (s)					0.0		0.0				0.0	
Total Lost Time (s)					4.9		4.0				6.1	
Lead/Lag				Lag	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0			2.5	2.5	
Recall Mode				None	None		Min			C-Min	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)					9.2		73.5	79.1			60.4	
Actuated g/C Ratio					0.10		0.78	0.84			0.64	
v/c Ratio					0.31		0.73	0.36			0.46	
Control Delay					44.6		14.8	5.4			13.9	
Queue Delay					0.0		0.0	0.0			0.0	
Total Delay					44.6		14.8	5.4			13.9	
LOS					D		B	A			B	
Approach Delay					44.6			10.0			13.9	
Approach LOS					D			A			B	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	2.0
Minimum Split (s)	20.1
Total Split (s)	20.1
Total Split (%)	21%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	0.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	3
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)					29		65	67			154	
Queue Length 95th (ft)					65		#406	274			395	
Internal Link Dist (ft)		68			95			190			824	
Turn Bay Length (ft)							50					
Base Capacity (vph)					181		740	1548			1153	
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					0.28		0.73	0.36			0.46	

Intersection Summary			
Area Type:	Other		
Cycle Length: 94.1			
Actuated Cycle Length: 94.1			
Offset: 73 (78%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 12.3		Intersection LOS: B	
Intersection Capacity Utilization 76.6%		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: 2: CT Route 17 (Middletown Avenue) & Mansfield Drive

Lane Group	Ø3
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

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	130	410
Future Volume (vph)	0	0	0	0	130	410
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						0.988
Satd. Flow (prot)	0	0	0	0	0	1836
Flt Permitted						0.988
Satd. Flow (perm)	0	0	0	0	0	1836
Link Speed (mph)	30		30			30
Link Distance (ft)	72		180			180
Travel Time (s)	1.6		4.1			4.1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	0	0	0	0	141	446
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	587
Sign Control	Stop		Stop			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.1%		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												
Traffic Volume (vph)	110	20	0	30	0	50	0	900	20	10	440	0
Future Volume (vph)	110	20	0	30	0	50	0	900	20	10	440	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						0.850		0.997				
Flt Protected		0.959		0.950							0.999	
Satd. Flow (prot)	0	1786	0	1770	0	1583	0	1805	0	0	1843	0
Flt Permitted		0.959		0.950							0.999	
Satd. Flow (perm)	0	1786	0	1770	0	1583	0	1805	0	0	1843	0
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		72			175			194			270	
Travel Time (s)		1.4			4.8			3.8			5.3	
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
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	5%	2%	2%	3%	2%
Adj. Flow (vph)	120	22	0	33	0	54	0	978	22	11	478	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	142	0	33	0	54	0	1000	0	0	489	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	38.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	110	20	0	30	0	50	0	900	20	10	440	0
Future Vol, veh/h	110	20	0	30	0	50	0	900	20	10	440	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2	2	3	2
Mvmt Flow	120	22	0	33	0	54	0	978	22	11	478	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1516	1500	-	1500	-	989	-	0	0	1000	0	0
Stage 1	500	500	-	989	-	-	-	-	-	-	-	-
Stage 2	1016	1000	-	511	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	-	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	-	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 98	122	0	100	0	299	0	-	-	692	-	0
Stage 1	553	543	0	297	0	-	0	-	-	-	-	0
Stage 2	287	321	0	545	0	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 79	119	-	85	-	299	-	-	-	692	-	-
Mov Cap-2 Maneuver	~ 79	119	-	85	-	-	-	-	-	-	-	-
Stage 1	553	531	-	297	-	-	-	-	-	-	-	-
Stage 2	235	321	-	511	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $	447.7	39.2	0	0.2
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	83	85	299	692	-
HCM Lane V/C Ratio	-	-	1.702	0.384	0.182	0.016	-
HCM Control Delay (s)	-	-	$ 447.7	71.6	19.7	10.3	0
HCM Lane LOS	-	-	F	F	C	B	A
HCM 95th %tile Q(veh)	-	-	11.8	1.5	0.7	0	-

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

Intersection	
Int Delay, s/veh	38.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	110	20	0	30	0	50	0	900	20	10	440	0
Future Vol, veh/h	110	20	0	30	0	50	0	900	20	10	440	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	5	2	2	3	2
Mvmt Flow	120	22	0	33	0	54	0	978	22	11	478	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1516	1500	-	1500	-	989	-	0	0	1000	0	0
Stage 1	500	500	-	989	-	-	-	-	-	-	-	-
Stage 2	1016	1000	-	511	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	-	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	-	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 98	122	0	100	0	299	0	-	-	692	-	0
Stage 1	553	543	0	297	0	-	0	-	-	-	-	0
Stage 2	287	321	0	545	0	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	~ 79	119	-	85	-	299	-	-	-	692	-	-
Mov Cap-2 Maneuver	~ 79	119	-	85	-	-	-	-	-	-	-	-
Stage 1	553	531	-	297	-	-	-	-	-	-	-	-
Stage 2	235	321	-	511	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, $	447.7	39.2	0	0.2
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	83	85	299	692	-
HCM Lane V/C Ratio	-	-	1.702	0.384	0.182	0.016	-
HCM Control Delay (s)	-	-	$ 447.7	71.6	19.7	10.3	0
HCM Lane LOS	-	-	F	F	C	B	A
HCM 95th %tile Q(veh)	-	-	11.8	1.5	0.7	0	-

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

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	950	0	410	440	0
Future Volume (vph)	0	950	0	410	440	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	0	1845	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	0	1845	1770	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	84			180	194	
Travel Time (s)	1.6			3.5	3.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Adj. Flow (vph)	0	1044	0	451	484	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1044	0	451	484	0
Sign Control	Free			Stop	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.2%		ICU Level of Service B	
Analysis Period (min) 15			

Lane Group	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (vph)	10	0	10	0	940	5	10	835	5	0	0
Future Volume (vph)	10	0	10	0	940	5	10	835	5	0	0
Ideal Flow (vphpl)	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
Frt		0.932			0.999			0.999			
Flt Protected		0.976						0.999			
Satd. Flow (prot)	0	1694	0	0	1861	0	0	1841	0	0	0
Flt Permitted		0.976						0.999			
Satd. Flow (perm)	0	1694	0	0	1861	0	0	1841	0	0	0
Link Speed (mph)		25			35			35		25	
Link Distance (ft)		109			113			84		113	
Travel Time (s)		3.0			2.2			1.6		3.1	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	2%
Adj. Flow (vph)	11	0	11	0	1033	5	11	918	5	0	0
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	22	0	0	1038	0	0	934	0	0	0
Sign Control		Stop			Free			Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 62.2%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	0	10	0	940	5	10	835	5	0	0
Future Vol, veh/h	0	10	0	940	5	10	835	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	2	2	2
Mvmt Flow	0	11	0	1033	5	11	918	5	0	0

Major/Minor	Minor1		Major1			Major2		
Conflicting Flow All	1979	1036	-	0	0	1038	0	0
Stage 1	1036	-	-	-	-	-	-	-
Stage 2	943	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	68	281	0	-	-	670	-	-
Stage 1	342	-	0	-	-	-	-	-
Stage 2	379	-	0	-	-	-	-	-
Platoon blocked, %				-	-		-	-
Mov Cap-1 Maneuver	66	281	-	-	-	670	-	-
Mov Cap-2 Maneuver	66	-	-	-	-	-	-	-
Stage 1	342	-	-	-	-	-	-	-
Stage 2	366	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	47.1	0	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	107	670	-	-
HCM Lane V/C Ratio	-	-	0.205	0.016	-	-
HCM Control Delay (s)	-	-	47.1	10.5	0	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	0	10	0	940	5	10	835	5	0	0
Future Vol, veh/h	0	10	0	940	5	10	835	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	3	2	2	2
Mvmt Flow	0	11	0	1033	5	11	918	5	0	0

Major/Minor	Minor1		Major1			Major2		
Conflicting Flow All	1979	1036	-	0	0	1038	0	0
Stage 1	1036	-	-	-	-	-	-	-
Stage 2	943	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	68	281	0	-	-	670	-	-
Stage 1	342	-	0	-	-	-	-	-
Stage 2	379	-	0	-	-	-	-	-
Platoon blocked, %				-	-		-	-
Mov Cap-1 Maneuver	66	281	-	-	-	670	-	-
Mov Cap-2 Maneuver	66	-	-	-	-	-	-	-
Stage 1	342	-	-	-	-	-	-	-
Stage 2	366	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	47.1	0	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	107	670	-	-
HCM Lane V/C Ratio	-	-	0.205	0.016	-	-
HCM Control Delay (s)	-	-	47.1	10.5	0	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	20	920	0	10	835
Future Volume (vph)	5	20	920	0	10	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.890					
Flt Protected	0.991					0.999
Satd. Flow (prot)	1643	0	1863	0	0	3468
Flt Permitted	0.991					0.999
Satd. Flow (perm)	1643	0	1863	0	0	3468
Link Speed (mph)	25		35			35
Link Distance (ft)	392		71			113
Travel Time (s)	10.7		1.4			2.2
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%
Adj. Flow (vph)	5	22	1011	0	11	918
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	1011	0	0	929
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.4%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	20	920	0	10	835
Future Vol, veh/h	5	20	920	0	10	835
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	5	22	1011	0	11	918

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1492	1011	0	-	1011	0
Stage 1	1011	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	125	290	-	0	684	-
Stage 1	350	-	-	0	-	-
Stage 2	588	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	121	290	-	-	684	-
Mov Cap-2 Maneuver	121	-	-	-	-	-
Stage 1	350	-	-	-	-	-
Stage 2	569	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	227	684	-
HCM Lane V/C Ratio	-	0.121	0.016	-
HCM Control Delay (s)	-	23	10.3	0.2
HCM Lane LOS	-	C	B	A
HCM 95th %tile Q(veh)	-	0.4	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	20	920	0	10	835
Future Vol, veh/h	5	20	920	0	10	835
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	5	22	1011	0	11	918

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1492	1011	0	-	1011	0
Stage 1	1011	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	125	290	-	0	684	-
Stage 1	350	-	-	0	-	-
Stage 2	588	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	121	290	-	-	684	-
Mov Cap-2 Maneuver	121	-	-	-	-	-
Stage 1	350	-	-	-	-	-
Stage 2	569	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23	0	0.3
HCM LOS	C		

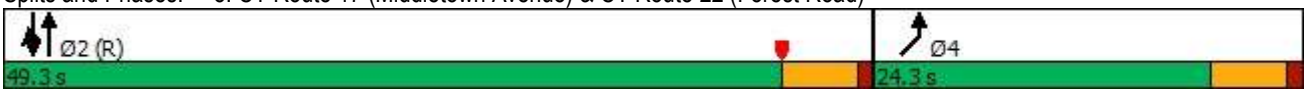
Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	227	684	-
HCM Lane V/C Ratio	-	0.121	0.016	-
HCM Control Delay (s)	-	23	10.3	0.2
HCM Lane LOS	-	C	B	A
HCM 95th %tile Q(veh)	-	0.4	0	-

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	690	590	270	230	0
Future Volume (vph)	0	690	590	270	230	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					0.950	
Satd. Flow (prot)	0	1827	1827	1583	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1827	1827	1583	1770	0
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		35	35		35	
Link Distance (ft)		147	71		145	
Travel Time (s)		2.9	1.4		2.8	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	4%	4%	2%	2%	2%
Adj. Flow (vph)	0	758	648	297	253	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	758	648	297	253	0
Turn Type		NA	NA	Prot	Prot	
Protected Phases		2	2	2	4	
Permitted Phases						
Detector Phase		2	2	2	4	
Switch Phase						
Minimum Initial (s)		15.0	15.0	15.0	9.0	
Minimum Split (s)		20.3	20.3	20.3	14.3	
Total Split (s)		49.3	49.3	49.3	24.3	
Total Split (%)		67.0%	67.0%	67.0%	33.0%	
Maximum Green (s)		44.0	44.0	44.0	19.0	
Yellow Time (s)		4.3	4.3	4.3	4.3	
All-Red Time (s)		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.3	5.3	5.3	5.3	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		2.5	2.5	2.5	2.0	
Recall Mode		C-Min	C-Min	C-Min	None	
Act Effct Green (s)		48.4	48.4	48.4	14.6	
Actuated g/C Ratio		0.66	0.66	0.66	0.20	
v/c Ratio		0.63	0.54	0.29	0.72	
Control Delay		11.3	9.6	6.9	39.1	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		11.3	9.6	6.9	39.1	
LOS		B	A	A	D	
Approach Delay		11.3	8.7		39.1	
Approach LOS		B	A		D	
Queue Length 50th (ft)		177	137	50	108	
Queue Length 95th (ft)		338	259	102	170	
Internal Link Dist (ft)		67	1		65	
Turn Bay Length (ft)						
Base Capacity (vph)		1201	1201	1041	456	
Starvation Cap Reductn		0	0	0	0	

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Spillback Cap Reductn		0	0	0	0	
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.63	0.54	0.29	0.55	

Intersection Summary			
Area Type:	Other		
Cycle Length: 73.6			
Actuated Cycle Length: 73.6			
Offset: 1 (1%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.72			
Intersection Signal Delay: 13.7		Intersection LOS: B	
Intersection Capacity Utilization 57.9%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 8: CT Route 17 (Middletown Avenue) & CT Route 22 (Forest Road)



Lane Group	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Volume (vph)	20	0	0	5	0	240	40	5	270	0
Future Volume (vph)	20	0	0	5	0	240	40	5	270	0
Ideal Flow (vphpl)	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
Frt				0.865		0.981				
Flt Protected	0.950								0.999	
Satd. Flow (prot)	1770	0	0	1596	0	1812	0	0	1826	0
Flt Permitted	0.950								0.999	
Satd. Flow (perm)	1770	0	0	1596	0	1812	0	0	1826	0
Link Speed (mph)	25		25			35			35	
Link Distance (ft)	72		111			386			145	
Travel Time (s)	2.0		3.0			7.5			2.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%	8%	2%	4%	2%
Adj. Flow (vph)	22	0	0	6	0	267	44	6	300	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	22	0	0	6	0	311	0	0	306	0
Sign Control	Stop		Stop			Free			Free	

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

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Vol, veh/h	20	0	0	5	0	240	40	5	270	0
Future Vol, veh/h	20	0	0	5	0	240	40	5	270	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	-	-	0	-
Grade, %	0	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	3	2	2	8	2	4	2
Mvmt Flow	22	0	0	6	0	267	44	6	300	0

Major/Minor	Minor1		Minor2		Major1			Major2		
Conflicting Flow All	604	-	-	300	-	0	0	311	0	0
Stage 1	289	-	-	-	-	-	-	-	-	-
Stage 2	315	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	-	6.23	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	3.327	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	410	0	0	737	0	-	-	1249	-	0
Stage 1	719	0	0	-	0	-	-	-	-	0
Stage 2	696	0	0	-	0	-	-	-	-	0
Platoon blocked, %		-				-	-		-	
Mov Cap-1 Maneuver	405	-	-	737	-	-	-	1249	-	-
Mov Cap-2 Maneuver	405	-	-	-	-	-	-	-	-	-
Stage 1	719	-	-	-	-	-	-	-	-	-
Stage 2	687	-	-	-	-	-	-	-	-	-

Approach	WB	SB	NE	SW
HCM Control Delay, s	14.4	9.9	0	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SBLn1	SWL	SWT
Capacity (veh/h)	-	-	405	737	1249	-
HCM Lane V/C Ratio	-	-	0.055	0.008	0.004	-
HCM Control Delay (s)	-	-	14.4	9.9	7.9	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Vol, veh/h	20	0	0	5	0	240	40	5	270	0
Future Vol, veh/h	20	0	0	5	0	240	40	5	270	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	-	-	0	-
Grade, %	0	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	3	2	2	8	2	4	2
Mvmt Flow	22	0	0	6	0	267	44	6	300	0

Major/Minor	Minor1		Minor2		Major1			Major2		
Conflicting Flow All	604	-	-	300	-	0	0	311	0	0
Stage 1	289	-	-	-	-	-	-	-	-	-
Stage 2	315	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	-	6.23	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	3.327	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	410	0	0	737	0	-	-	1249	-	0
Stage 1	719	0	0	-	0	-	-	-	-	0
Stage 2	696	0	0	-	0	-	-	-	-	0
Platoon blocked, %		-				-	-		-	
Mov Cap-1 Maneuver	405	-	-	737	-	-	-	1249	-	-
Mov Cap-2 Maneuver	405	-	-	-	-	-	-	-	-	-
Stage 1	719	-	-	-	-	-	-	-	-	-
Stage 2	687	-	-	-	-	-	-	-	-	-

Approach	WB	SB	NE	SW
HCM Control Delay, s	14.4	9.9	0	0.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SBLn1	SWL	SWT
Capacity (veh/h)	-	-	405	737	1249	-
HCM Lane V/C Ratio	-	-	0.055	0.008	0.004	-
HCM Control Delay (s)	-	-	14.4	9.9	7.9	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	10	30	20	670	580	20
Future Volume (vph)	10	30	20	670	580	20
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	0.900				0.995	
Flt Protected	0.987			0.999		
Satd. Flow (prot)	1566	0	0	1861	1853	0
Flt Permitted	0.987			0.999		
Satd. Flow (perm)	1566	0	0	1861	1853	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	72			55	147	
Travel Time (s)	2.0			1.1	2.9	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	10%	7%	2%	2%	2%	2%
Adj. Flow (vph)	11	32	22	720	624	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	0	742	646	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 61.4%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	30	20	670	580	20
Future Vol, veh/h	10	30	20	670	580	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	10	7	2	2	2	2
Mvmt Flow	11	32	22	720	624	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1399	635	646	0	-	0
Stage 1	635	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Critical Hdwy	6.5	6.27	4.12	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	2.218	-	-	-
Pot Cap-1 Maneuver	149	470	939	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	143	470	939	-	-	-
Mov Cap-2 Maneuver	143	-	-	-	-	-
Stage 1	493	-	-	-	-	-
Stage 2	446	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.1	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	939	-	299	-	-
HCM Lane V/C Ratio	0.023	-	0.144	-	-
HCM Control Delay (s)	8.9	0	19.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	30	20	670	580	20
Future Vol, veh/h	10	30	20	670	580	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	10	7	2	2	2	2
Mvmt Flow	11	32	22	720	624	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1399	635	646	0	-	0
Stage 1	635	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Critical Hdwy	6.5	6.27	4.12	-	-	-
Critical Hdwy Stg 1	5.5	-	-	-	-	-
Critical Hdwy Stg 2	5.5	-	-	-	-	-
Follow-up Hdwy	3.59	3.363	2.218	-	-	-
Pot Cap-1 Maneuver	149	470	939	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	143	470	939	-	-	-
Mov Cap-2 Maneuver	143	-	-	-	-	-
Stage 1	493	-	-	-	-	-
Stage 2	446	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.1	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	939	-	299	-	-
HCM Lane V/C Ratio	0.023	-	0.144	-	-
HCM Control Delay (s)	8.9	0	19.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	30	690	10	10	580
Future Volume (vph)	10	30	690	10	10	580
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	0.900		0.998			
Flt Protected	0.987					0.999
Satd. Flow (prot)	1655	0	1859	0	0	1861
Flt Permitted	0.987					0.999
Satd. Flow (perm)	1655	0	1859	0	0	1861
Link Speed (mph)	25		35			35
Link Distance (ft)	96		451			55
Travel Time (s)	2.6		8.8			1.1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	11	32	742	11	11	624
Shared Lane Traffic (%)						
Lane Group Flow (vph)	43	0	753	0	0	635
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	30	690	10	10	580
Future Vol, veh/h	10	30	690	10	10	580
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	32	742	11	11	624

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1394	748	0	0	753	0
Stage 1	748	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	156	412	-	-	857	-
Stage 1	468	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	153	412	-	-	857	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	512	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.6	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	289	857	-
HCM Lane V/C Ratio	-	-	0.149	0.013	-
HCM Control Delay (s)	-	-	19.6	9.3	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	30	690	10	10	580
Future Vol, veh/h	10	30	690	10	10	580
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	32	742	11	11	624

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1394	748	0	0	753	0
Stage 1	748	-	-	-	-	-
Stage 2	646	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	156	412	-	-	857	-
Stage 1	468	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	153	412	-	-	857	-
Mov Cap-2 Maneuver	153	-	-	-	-	-
Stage 1	468	-	-	-	-	-
Stage 2	512	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.6	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	289	857	-
HCM Lane V/C Ratio	-	-	0.149	0.013	-
HCM Control Delay (s)	-	-	19.6	9.3	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	20	20	240	270	20
Future Volume (vph)	30	20	20	240	270	20
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				0.991	
Flt Protected	0.971			0.996		
Satd. Flow (prot)	1711	0	0	1839	1843	0
Flt Permitted	0.971			0.996		
Satd. Flow (perm)	1711	0	0	1839	1843	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	327			541	386	
Travel Time (s)	8.9			10.5	7.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	2%	2%	2%	3%	2%	4%
Adj. Flow (vph)	33	22	22	264	297	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	55	0	0	286	319	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	20	20	240	270	20
Future Vol, veh/h	30	20	20	240	270	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	3	2	4
Mvmt Flow	33	22	22	264	297	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	616	308	319	0	-	0
Stage 1	308	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	454	732	1241	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	444	732	1241	-	-	-
Mov Cap-2 Maneuver	444	-	-	-	-	-
Stage 1	729	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1241	-	527	-	-
HCM Lane V/C Ratio	0.018	-	0.104	-	-
HCM Control Delay (s)	8	0	12.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	20	20	240	270	20
Future Vol, veh/h	30	20	20	240	270	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	3	2	4
Mvmt Flow	33	22	22	264	297	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	616	308	319	0	-	0
Stage 1	308	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	454	732	1241	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	745	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	444	732	1241	-	-	-
Mov Cap-2 Maneuver	444	-	-	-	-	-
Stage 1	729	-	-	-	-	-
Stage 2	745	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1241	-	527	-	-
HCM Lane V/C Ratio	0.018	-	0.104	-	-
HCM Control Delay (s)	8	0	12.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	300	10	300	30	0	0	0	0	20	10
Future Volume (vph)	0	0	300	10	300	30	0	0	0	0	20	10
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			0.865		0.988						0.955	
Flt Protected					0.998							
Satd. Flow (prot)	0	0	1611	0	1834	0	0	0	0	0	1779	0
Flt Permitted					0.998							
Satd. Flow (perm)	0	0	1611	0	1834	0	0	0	0	0	1779	0
Link Speed (mph)		35			35			35			25	
Link Distance (ft)		485			148			53			149	
Travel Time (s)		9.4			2.9			1.0			4.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	0	323	11	323	32	0	0	0	0	22	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	323	0	366	0	0	0	0	0	33	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	300	10	300	30	0	0	0	0	20	10
Future Vol, veh/h	0	0	300	10	300	30	0	0	0	0	20	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	4	2	2	2	2	2	2
Mvmt Flow	0	0	323	11	323	32	0	0	0	0	22	11

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	-	361	339
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	0	566	703
Stage 1	-	-	-	0	626	-
Stage 2	-	-	-	0	-	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	703
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s		10.4
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	703
HCM Lane V/C Ratio	-	-	-	0.046
HCM Control Delay (s)	-	-	-	10.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	300	10	300	30	0	0	0	0	20	10
Future Vol, veh/h	0	0	300	10	300	30	0	0	0	0	20	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	4	2	2	2	2	2	2
Mvmt Flow	0	0	323	11	323	32	0	0	0	0	22	11

Major/Minor	Major2			Minor2		
Conflicting Flow All	0	0	0	-	361	339
Stage 1	-	-	-	-	361	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.12	-	-	-	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.218	-	-	-	4.018	3.318
Pot Cap-1 Maneuver	-	-	-	0	566	703
Stage 1	-	-	-	0	626	-
Stage 2	-	-	-	0	-	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	0	703
Mov Cap-2 Maneuver	-	-	-	-	0	-
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-

Approach	WB	SB
HCM Control Delay, s		10.4
HCM LOS		B

Minor Lane/Major Mvmt	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	703
HCM Lane V/C Ratio	-	-	-	0.046
HCM Control Delay (s)	-	-	-	10.4
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.1

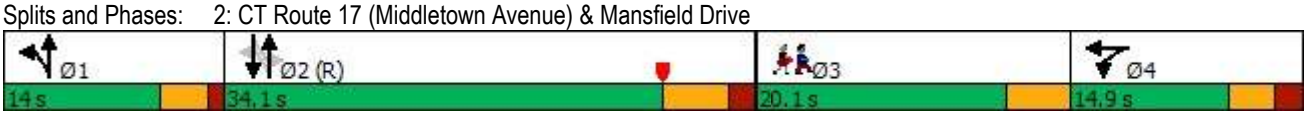
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	20	20	10	230	290	20	5	220	90
Future Volume (vph)	0	0	0	20	20	10	230	290	20	5	220	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	50		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			125			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					0.972			0.990			0.961	
Flt Protected					0.981		0.950				0.999	
Satd. Flow (prot)	0	0	0	0	1776	0	1770	1844	0	0	1788	0
Flt Permitted					0.981		0.562				0.996	
Satd. Flow (perm)	0	0	0	0	1776	0	1047	1844	0	0	1783	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		148			175			270			904	
Travel Time (s)		2.9			4.8			5.3			17.6	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	21	21	11	245	309	21	5	234	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	53	0	245	330	0	0	335	0
Turn Type				Split	NA		pm+pt	NA		Perm	NA	
Protected Phases				4	4		1	1 2			2	
Permitted Phases							1 2			2		
Detector Phase				4	4		1	1 2		2	2	
Switch Phase												
Minimum Initial (s)				9.0	9.0		5.0			15.0	15.0	
Minimum Split (s)				13.9	13.9		9.0			21.1	21.1	
Total Split (s)				14.9	14.9		14.0			34.1	34.1	
Total Split (%)				17.9%	17.9%		16.8%			41.0%	41.0%	
Maximum Green (s)				10.0	10.0		10.0			28.0	28.0	
Yellow Time (s)				3.0	3.0		3.0			4.3	4.3	
All-Red Time (s)				1.9	1.9		1.0			1.8	1.8	
Lost Time Adjust (s)					0.0		0.0				0.0	
Total Lost Time (s)					4.9		4.0				6.1	
Lead/Lag				Lag	Lag		Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)				2.0	2.0		2.0			2.5	2.5	
Recall Mode				None	None		Min			C-Min	C-Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)					9.2		62.6	68.2			53.3	
Actuated g/C Ratio					0.11		0.75	0.82			0.64	
v/c Ratio					0.27		0.29	0.22			0.29	
Control Delay					37.7		5.6	5.0			11.8	
Queue Delay					0.0		0.0	0.0			0.0	
Total Delay					37.7		5.6	5.0			11.8	
LOS					D		A	A			B	
Approach Delay					37.7			5.3			11.8	
Approach LOS					D			A			B	
Queue Length 50th (ft)					26		24	33			70	

Lane Group	Ø3
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	3
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	1.0
Minimum Split (s)	20.1
Total Split (s)	20.1
Total Split (%)	24%
Maximum Green (s)	16.0
Yellow Time (s)	4.0
All-Red Time (s)	0.1
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	Lead
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	9.0
Pedestrian Calls (#/hr)	3
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)					60		108	146			224	
Internal Link Dist (ft)		68			95			190			824	
Turn Bay Length (ft)							50					
Base Capacity (vph)					213		906	1496			1144	
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					0.25		0.27	0.22			0.29	

Intersection Summary			
Area Type:	Other		
Cycle Length: 83.1			
Actuated Cycle Length: 83.1			
Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.29			
Intersection Signal Delay: 9.3		Intersection LOS: A	
Intersection Capacity Utilization 53.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: CT Route 17 (Middletown Avenue) & Mansfield Drive



Lane Group	Ø3
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	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	0	0	90	240
Future Volume (vph)	0	0	0	0	90	240
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						0.987
Satd. Flow (prot)	0	0	0	0	0	1834
Flt Permitted						0.987
Satd. Flow (perm)	0	0	0	0	0	1834
Link Speed (mph)	35		35			35
Link Distance (ft)	72		180			180
Travel Time (s)	1.4		3.5			3.5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	0	0	0	0	95	253
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	0	0	348
Sign Control	Stop		Stop			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.9%		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												
Traffic Volume (vph)	80	10	0	30	0	30	0	440	10	10	210	0
Future Volume (vph)	80	10	0	30	0	30	0	440	10	10	210	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						0.850		0.997				
Flt Protected		0.958		0.950							0.998	
Satd. Flow (prot)	0	1785	0	1770	0	1583	0	1857	0	0	1842	0
Flt Permitted		0.958		0.950							0.998	
Satd. Flow (perm)	0	1785	0	1770	0	1583	0	1857	0	0	1842	0
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		72			175			194			270	
Travel Time (s)		1.4			4.8			3.8			5.3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	84	11	0	32	0	32	0	463	11	11	221	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	32	0	32	0	474	0	0	232	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 42.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	80	10	0	30	0	30	0	440	10	10	210	0
Future Vol, veh/h	80	10	0	30	0	30	0	440	10	10	210	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	3	2
Mvmt Flow	84	11	0	32	0	32	0	463	11	11	221	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	728	717	-	718	-	469	-	0	0	474	0	0
Stage 1	243	243	-	469	-	-	-	-	-	-	-	-
Stage 2	485	474	-	249	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	-	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	-	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	339	355	0	344	0	594	0	-	-	1088	-	0
Stage 1	761	705	0	575	0	-	0	-	-	-	-	0
Stage 2	563	558	0	755	0	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	318	351	-	333	-	594	-	-	-	1088	-	-
Mov Cap-2 Maneuver	318	351	-	333	-	-	-	-	-	-	-	-
Stage 1	761	697	-	575	-	-	-	-	-	-	-	-
Stage 2	533	558	-	735	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.8	14.2	0	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	321	333	594	1088	-
HCM Lane V/C Ratio	-	-	0.295	0.095	0.053	0.01	-
HCM Control Delay (s)	-	-	20.8	16.9	11.4	8.3	0
HCM Lane LOS	-	-	C	C	B	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.3	0.2	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	80	10	0	30	0	30	0	440	10	10	210	0
Future Vol, veh/h	80	10	0	30	0	30	0	440	10	10	210	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	3	2
Mvmt Flow	84	11	0	32	0	32	0	463	11	11	221	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	728	717	-	718	-	469	-	0	0	474	0	0
Stage 1	243	243	-	469	-	-	-	-	-	-	-	-
Stage 2	485	474	-	249	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	-	7.12	-	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	3.518	-	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	339	355	0	344	0	594	0	-	-	1088	-	0
Stage 1	761	705	0	575	0	-	0	-	-	-	-	0
Stage 2	563	558	0	755	0	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver	318	351	-	333	-	594	-	-	-	1088	-	-
Mov Cap-2 Maneuver	318	351	-	333	-	-	-	-	-	-	-	-
Stage 1	761	697	-	575	-	-	-	-	-	-	-	-
Stage 2	533	558	-	735	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.8	14.2	0	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	321	333	594	1088	-
HCM Lane V/C Ratio	-	-	0.295	0.095	0.053	0.01	-
HCM Control Delay (s)	-	-	20.8	16.9	11.4	8.3	0
HCM Lane LOS	-	-	C	C	B	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0.3	0.2	0	-

Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	440	0	240	210	0
Future Volume (vph)	0	440	0	240	210	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	0	1863	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1611	0	1863	1770	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	84			180	194	
Travel Time (s)	1.6			3.5	3.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	458	0	250	219	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	458	0	250	219	0
Sign Control	Free			Stop	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	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations											
Traffic Volume (vph)	5	0	10	0	460	0	10	470	5	0	0
Future Volume (vph)	5	0	10	0	460	0	10	470	5	0	0
Ideal Flow (vphpl)	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
Frt		0.910						0.999			
Flt Protected		0.984						0.999			
Satd. Flow (prot)	0	1668	0	0	1863	0	0	1859	0	0	0
Flt Permitted		0.984						0.999			
Satd. Flow (perm)	0	1668	0	0	1863	0	0	1859	0	0	0
Link Speed (mph)		25			35			35		25	
Link Distance (ft)		109			113			84		113	
Travel Time (s)		3.0			2.2			1.6		3.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	5	0	10	0	474	0	10	485	5	0	0
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	15	0	0	474	0	0	500	0	0	0
Sign Control		Stop			Free			Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 43.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	0	10	0	460	0	10	470	5	0	0
Future Vol, veh/h	0	10	0	460	0	10	470	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	474	0	10	485	5	0	0

Major/Minor	Minor1		Major1			Major2		
Conflicting Flow All	982	474	-	0	0	474	0	0
Stage 1	474	-	-	-	-	-	-	-
Stage 2	508	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	276	590	0	-	-	1088	-	-
Stage 1	626	-	0	-	-	-	-	-
Stage 2	604	-	0	-	-	-	-	-
Platoon blocked, %				-	-		-	-
Mov Cap-1 Maneuver	272	590	-	-	-	1088	-	-
Mov Cap-2 Maneuver	272	-	-	-	-	-	-	-
Stage 1	626	-	-	-	-	-	-	-
Stage 2	596	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	425	1088	-	-
HCM Lane V/C Ratio	-	-	0.036	0.009	-	-
HCM Control Delay (s)	-	-	13.8	8.3	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER
Lane Configurations										
Traffic Vol, veh/h	0	10	0	460	0	10	470	5	0	0
Future Vol, veh/h	0	10	0	460	0	10	470	5	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	-	None	-	-	None	-	-
Storage Length	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	0	-
Grade, %	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	10	0	474	0	10	485	5	0	0

Major/Minor	Minor1		Major1			Major2		
Conflicting Flow All	982	474	-	0	0	474	0	0
Stage 1	474	-	-	-	-	-	-	-
Stage 2	508	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	276	590	0	-	-	1088	-	-
Stage 1	626	-	0	-	-	-	-	-
Stage 2	604	-	0	-	-	-	-	-
Platoon blocked, %				-	-		-	-
Mov Cap-1 Maneuver	272	590	-	-	-	1088	-	-
Mov Cap-2 Maneuver	272	-	-	-	-	-	-	-
Stage 1	626	-	-	-	-	-	-	-
Stage 2	596	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	-	-	425	1088	-	-
HCM Lane V/C Ratio	-	-	0.036	0.009	-	-
HCM Control Delay (s)	-	-	13.8	8.3	0	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	5	10	460	0	10	470
Future Volume (vph)	5	10	460	0	10	470
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Frt	0.910					
Flt Protected	0.984					0.999
Satd. Flow (prot)	1668	0	1863	0	0	3469
Flt Permitted	0.984					0.999
Satd. Flow (perm)	1668	0	1863	0	0	3469
Link Speed (mph)	25		35			35
Link Distance (ft)	392		71			113
Travel Time (s)	10.7		1.4			2.2
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	2%	4%
Adj. Flow (vph)	5	10	474	0	10	485
Shared Lane Traffic (%)						
Lane Group Flow (vph)	15	0	474	0	0	495
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	10	460	0	10	470
Future Vol, veh/h	5	10	460	0	10	470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	5	10	474	0	10	485

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	737	474	0	-	474	0
Stage 1	474	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	369	590	-	0	1086	-
Stage 1	625	-	-	0	-	-
Stage 2	758	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	364	590	-	-	1086	-
Mov Cap-2 Maneuver	364	-	-	-	-	-
Stage 1	625	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	489	1086	-
HCM Lane V/C Ratio	-	0.032	0.009	-
HCM Control Delay (s)	-	12.6	8.3	0.1
HCM Lane LOS	-	B	A	A
HCM 95th %tile Q(veh)	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	10	460	0	10	470
Future Vol, veh/h	5	10	460	0	10	470
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	4
Mvmt Flow	5	10	474	0	10	485

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	737	474	0	-	474	0
Stage 1	474	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Critical Hdwy	6.63	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	369	590	-	0	1086	-
Stage 1	625	-	-	0	-	-
Stage 2	758	-	-	0	-	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	364	590	-	-	1086	-
Mov Cap-2 Maneuver	364	-	-	-	-	-
Stage 1	625	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0.3
HCM LOS	B		

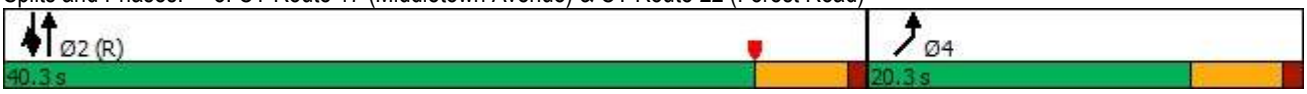
Minor Lane/Major Mvmt	NBT	WBLn1	SBL	SBT
Capacity (veh/h)	-	489	1086	-
HCM Lane V/C Ratio	-	0.032	0.009	-
HCM Control Delay (s)	-	12.6	8.3	0.1
HCM Lane LOS	-	B	A	A
HCM 95th %tile Q(veh)	-	0.1	0	-

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	350	350	120	110	0
Future Volume (vph)	0	350	350	120	110	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					0.950	
Satd. Flow (prot)	0	1863	1863	1583	1770	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	1863	1863	1583	1770	0
Right Turn on Red				No		No
Satd. Flow (RTOR)						
Link Speed (mph)		35	35		35	
Link Distance (ft)		147	71		145	
Travel Time (s)		2.9	1.4		2.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	361	361	124	113	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	361	361	124	113	0
Turn Type		NA	NA	Prot	Prot	
Protected Phases		2	2	2	4	
Permitted Phases						
Detector Phase		2	2	2	4	
Switch Phase						
Minimum Initial (s)		15.0	15.0	15.0	9.0	
Minimum Split (s)		20.3	20.3	20.3	14.3	
Total Split (s)		40.3	40.3	40.3	20.3	
Total Split (%)		66.5%	66.5%	66.5%	33.5%	
Maximum Green (s)		35.0	35.0	35.0	15.0	
Yellow Time (s)		4.3	4.3	4.3	4.3	
All-Red Time (s)		1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	
Total Lost Time (s)		5.3	5.3	5.3	5.3	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)		2.5	2.5	2.5	2.0	
Recall Mode		C-Min	C-Min	C-Min	None	
Act Effct Green (s)		44.2	44.2	44.2	9.8	
Actuated g/C Ratio		0.73	0.73	0.73	0.16	
v/c Ratio		0.27	0.27	0.11	0.40	
Control Delay		4.8	4.8	4.2	27.0	
Queue Delay		0.0	0.0	0.0	0.0	
Total Delay		4.8	4.8	4.2	27.0	
LOS		A	A	A	C	
Approach Delay		4.8	4.6		27.0	
Approach LOS		A	A		C	
Queue Length 50th (ft)		43	43	13	38	
Queue Length 95th (ft)		88	88	32	76	
Internal Link Dist (ft)		67	1		65	
Turn Bay Length (ft)						
Base Capacity (vph)		1357	1357	1153	438	
Starvation Cap Reductn		0	0	0	0	
Spillback Cap Reductn		0	0	0	0	

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Storage Cap Reductn		0	0	0	0	
Reduced v/c Ratio		0.27	0.27	0.11	0.26	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60.6			
Actuated Cycle Length: 60.6			
Offset: 1 (2%), Referenced to phase 2:NBSB, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 34.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 8: CT Route 17 (Middletown Avenue) & CT Route 22 (Forest Road)



Lane Group	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Volume (vph)	20	0	0	5	0	130	30	5	110	0
Future Volume (vph)	20	0	0	5	0	130	30	5	110	0
Ideal Flow (vphpl)	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
Frt				0.865		0.975				
Flt Protected	0.950								0.998	
Satd. Flow (prot)	1626	0	0	1611	0	1816	0	0	1859	0
Flt Permitted	0.950								0.998	
Satd. Flow (perm)	1626	0	0	1611	0	1816	0	0	1859	0
Link Speed (mph)	25		25			35			35	
Link Distance (ft)	72		111			386			145	
Travel Time (s)	2.0		3.0			7.5			2.8	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	11%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	22	0	0	6	0	144	33	6	122	0
Shared Lane Traffic (%)										
Lane Group Flow (vph)	22	0	0	6	0	177	0	0	128	0
Sign Control	Stop		Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Vol, veh/h	20	0	0	5	0	130	30	5	110	0
Future Vol, veh/h	20	0	0	5	0	130	30	5	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	-	-	0	-
Grade, %	0	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	11	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	0	0	6	0	144	33	6	122	0

Major/Minor	Minor1			Minor2		Major1			Major2		
Conflicting Flow All	298	-	-	122	-	0	0	177	0	0
Stage 1	161	-	-	-	-	-	-	-	-	-
Stage 2	137	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.21	-	-	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.21	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.21	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.599	-	-	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	637	0	0	929	0	-	-	1399	-	0
Stage 1	820	0	0	-	0	-	-	-	-	0
Stage 2	845	0	0	-	0	-	-	-	-	0
Platoon blocked, %		-				-	-		-	
Mov Cap-1 Maneuver	631	-	-	929	-	-	-	1399	-	-
Mov Cap-2 Maneuver	631	-	-	-	-	-	-	-	-	-
Stage 1	820	-	-	-	-	-	-	-	-	-
Stage 2	836	-	-	-	-	-	-	-	-	-

Approach	WB	SB	NE	SW
HCM Control Delay, s	10.9	8.9	0	0.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SBLn1	SWL	SWT
Capacity (veh/h)	-	-	631	929	1399	-
HCM Lane V/C Ratio	-	-	0.035	0.006	0.004	-
HCM Control Delay (s)	-	-	10.9	8.9	7.6	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	SBL	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations										
Traffic Vol, veh/h	20	0	0	5	0	130	30	5	110	0
Future Vol, veh/h	20	0	0	5	0	130	30	5	110	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0	-	-	0	-
Grade, %	0	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	11	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	0	0	6	0	144	33	6	122	0

Major/Minor	Minor1		Minor2		Major1			Major2		
Conflicting Flow All	298	-	-	122	-	0	0	177	0	0
Stage 1	161	-	-	-	-	-	-	-	-	-
Stage 2	137	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.21	-	-	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	6.21	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.21	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.599	-	-	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	637	0	0	929	0	-	-	1399	-	0
Stage 1	820	0	0	-	0	-	-	-	-	0
Stage 2	845	0	0	-	0	-	-	-	-	0
Platoon blocked, %		-				-	-		-	
Mov Cap-1 Maneuver	631	-	-	929	-	-	-	1399	-	-
Mov Cap-2 Maneuver	631	-	-	-	-	-	-	-	-	-
Stage 1	820	-	-	-	-	-	-	-	-	-
Stage 2	836	-	-	-	-	-	-	-	-	-

Approach	WB	SB	NE	SW
HCM Control Delay, s	10.9	8.9	0	0.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NET	NER	WBLn1	SBLn1	SWL	SWT
Capacity (veh/h)	-	-	631	929	1399	-
HCM Lane V/C Ratio	-	-	0.035	0.006	0.004	-
HCM Control Delay (s)	-	-	10.9	8.9	7.6	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	30	40	350	360	5
Future Volume (vph)	5	30	40	350	360	5
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	0.884				0.998	
Flt Protected	0.993			0.995		
Satd. Flow (prot)	1635	0	0	1850	1859	0
Flt Permitted	0.993			0.995		
Satd. Flow (perm)	1635	0	0	1850	1859	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	72			55	147	
Travel Time (s)	2.0			1.1	2.9	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%
Adj. Flow (vph)	5	30	40	354	364	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	0	0	394	369	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	30	40	350	360	5
Future Vol, veh/h	5	30	40	350	360	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	4	2	2	2
Mvmt Flow	5	30	40	354	364	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	801	367	369	0	-	0
Stage 1	367	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.14	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.236	-	-	-
Pot Cap-1 Maneuver	354	678	1179	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	339	678	1179	-	-	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1179	-	593	-	-
HCM Lane V/C Ratio	0.034	-	0.06	-	-
HCM Control Delay (s)	8.2	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	30	40	350	360	5
Future Vol, veh/h	5	30	40	350	360	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	4	2	2	2
Mvmt Flow	5	30	40	354	364	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	801	367	369	0	-	0
Stage 1	367	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.14	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.236	-	-	-
Pot Cap-1 Maneuver	354	678	1179	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	339	678	1179	-	-	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.5	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1179	-	593	-	-
HCM Lane V/C Ratio	0.034	-	0.06	-	-
HCM Control Delay (s)	8.2	0	11.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	30	370	5	10	350
Future Volume (vph)	10	30	370	5	10	350
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	0.899		0.998			
Flt Protected	0.988					0.999
Satd. Flow (prot)	1655	0	1824	0	0	1861
Flt Permitted	0.988					0.999
Satd. Flow (perm)	1655	0	1824	0	0	1861
Link Speed (mph)	25		35			35
Link Distance (ft)	96		451			55
Travel Time (s)	2.6		8.8			1.1
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	4%	2%	2%	2%
Adj. Flow (vph)	10	30	374	5	10	354
Shared Lane Traffic (%)						
Lane Group Flow (vph)	40	0	379	0	0	364
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	30	370	5	10	350
Future Vol, veh/h	10	30	370	5	10	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	4	2	2	2
Mvmt Flow	10	30	374	5	10	354

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	751	377	0	0	379	0
Stage 1	377	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	378	670	-	-	1179	-
Stage 1	694	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	374	670	-	-	1179	-
Mov Cap-2 Maneuver	374	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	559	1179	-
HCM Lane V/C Ratio	-	-	0.072	0.009	-
HCM Control Delay (s)	-	-	11.9	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	30	370	5	10	350
Future Vol, veh/h	10	30	370	5	10	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	2	2	4	2	2	2
Mvmt Flow	10	30	374	5	10	354

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	751	377	0	0	379	0
Stage 1	377	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	378	670	-	-	1179	-
Stage 1	694	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	374	670	-	-	1179	-
Mov Cap-2 Maneuver	374	-	-	-	-	-
Stage 1	694	-	-	-	-	-
Stage 2	688	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	559	1179	-
HCM Lane V/C Ratio	-	-	0.072	0.009	-
HCM Control Delay (s)	-	-	11.9	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	20	20	20	140	115	20
Future Volume (vph)	20	20	20	140	115	20
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				0.980	
Flt Protected	0.976			0.994		
Satd. Flow (prot)	1694	0	0	1852	1825	0
Flt Permitted	0.976			0.994		
Satd. Flow (perm)	1694	0	0	1852	1825	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	327			541	386	
Travel Time (s)	8.9			10.5	7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	22	152	125	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	44	0	0	174	147	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	20	20	140	115	20
Future Vol, veh/h	20	20	20	140	115	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	22	22	152	125	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	332	136	147	0	-	0
Stage 1	136	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	663	913	1435	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	652	913	1435	-	-	-
Mov Cap-2 Maneuver	652	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	837	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1435	-	761	-	-
HCM Lane V/C Ratio	0.015	-	0.057	-	-
HCM Control Delay (s)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	20	20	140	115	20
Future Vol, veh/h	20	20	20	140	115	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	22	22	152	125	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	332	136	147	0	-	0
Stage 1	136	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	663	913	1435	-	-	-
Stage 1	890	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	652	913	1435	-	-	-
Mov Cap-2 Maneuver	652	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	837	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1435	-	761	-	-
HCM Lane V/C Ratio	0.015	-	0.057	-	-
HCM Control Delay (s)	7.5	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Summary of Crash Data

Northford Center Connectivity Study, North Branford, Connecticut																
	CT Route 22 at Old Post Road	CT Route 17 at Mansfield Drive	CT Route 22 Segment between Old Post Road and CT Route 17	CT Route 17 Segment between Mansfield Drive and CT Route 22	CT Route 17 at CT Route 22 and The Northford Store Driveway	CT Route 17 Segment between CT Route 22 and Church Entrance Driveway	CT Route 17 at Saint Church Entrance Driveway	CT Route 17 Segment between Church Entrance Driveway and Ardsley Avenue	CT Route 17 at CT Route 22 and Ardsley Avenue	CT Route 17 Segment between Ardsley Avenue and Turning Lane	CT Route 22 Segment between Ardsley Avenue and Turning Lane	CT Route 17 at Church Exit Driveway and Turning Lane	CT Route 22 at Turning Lane and Northford Center Shopping Plaza Driveway	CT Route 17 Segment between Turning Lane and Totoket Valley Elementary School	CT Route 17 at Totoket Valley Elementary School Driveway	Total
Year																
2021	2	1	0	1	4	1	0	1	1	0	0	1	1	0	0	13
2022	1	4	0	2	8	0	0	0	0	0	0	0	1	0	0	16
2023	0	2	1	0	5	1	0	0	3	0	3	1	0	0	0	16
Total	**3**	**7**	**1**	**3**	**17**	**2**	**0**	**1**	**4**	**0**	**3**	**2**	**2**	**0**	**0**	**45**
Crash Type																
Angle	0	3	0	1	8	0	0	1	0	0	0	1	1	0	0	15
Front to Front	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Front to Rear	2	2	1	1	7	2	0	0	3	0	3	0	1	0	0	22
Not Applicable	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Other	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	4
Rear to Rear	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
Rear to Side	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sideswipe, Opposite Direction	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
Sideswipe, Same Direction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**3**	**7**	**1**	**3**	**17**	**2**	**0**	**1**	**4**	**0**	**3**	**2**	**2**	**0**	**0**	**45**
Severity																
Fatal Injury (K)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Suspected Serious Injury (A)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Suspected Minor Injury (B)	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
Possible Injury (C)	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0	4
Total	**3**	**7**	**1**	**3**	**17**	**2**	**0**	**1**	**4**	**0**	**3**	**2**	**2**	**0**	**0**	**45**
Note: Data collected from the Connecticut Crash Data Repository																