



MAIN STREET (US ROUTE 9) CORRIDOR STUDY

Draft Complete Streets Report

Town of Warrensburg, Warren County NY

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MJ Project #1828

PREPARED FOR:



Floyd Bennett
Memorial Bandstand
Town Est. 1813

Town of Warrensburg
Warren County, NY



PREPARED BY:



Engineering
Architecture
Landscape Architecture
and Land Surveying, P.C.

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Study Area	1
2.0	LITERATURE REVIEW	3
3.0	EXISTING CONDITIONS	8
3.1	Data Collection.....	8
3.2	Zoning and Land Use	8
3.3	Property Ownership and Right-of-Way.....	11
3.4	Roadway Physical Characteristics.....	11
3.5	Pedestrian Accommodations	13
3.6	Bicycle Routes and Accommodations.....	16
3.7	Heavy Vehicles	17
3.8	Transit	17
3.9	Parking	17
3.10	Existing Traffic Data.....	21
3.11	Existing Traffic Analysis.....	21
3.12	Crash History	24
3.13	Environmental Resources	24
3.14	Public Outreach	24
4.0	RECOMMENDED IMPROVEMENTS	25
4.1	Intersection Improvements.....	25
4.2	Main Street (US Route 9) Corridor Improvements.....	29
5.0	IMPLEMENTATION STRATEGIES	31
5.1	Potential Funding Source	31
5.2	Planning-Level Cost Estimates.....	33
5.3	Public Education	34

APPENDICES

Appendix A: Land Use and Zoning Map

Appendix B: Study Area Intersection Summary

Appendix C: Traffic Information

Appendix D: NYSDOT Crash Data

Appendix E: Parking Information

Appendix F: Environmental Information

Appendix G: Conceptual Plans / Planning Level Cost Estimate

1.0 INTRODUCTION

This Complete Streets Report has been prepared in support of the Main Street (US Route 9) Corridor Study in the Town of Warrensburg. The Corridor Study is being undertaken by the Adirondack Glens Falls Transportation Council (A/GFTC) and the Town of Warrensburg to assess the safety and multi-modal access along a critical transportation link in the Town of Warrensburg.

The focus of the study is to identify feasible conceptual improvements that would transform the Main Street corridor into a welcoming, safe, and accessible environment for pedestrians, bicyclists, and motorists. Key areas of emphasis include enhancing pedestrian safety and improving traffic mobility along the corridor. Additionally, the study will address parking solutions to better accommodate both residents and visitors.

1.1 STUDY AREA

The study area consists of a 1.4-mile segment of Main Street in the Town of Warrensburg and includes the intersections of 4th Avenue, 3rd Avenue, 2nd Avenue, 1st Avenue, Hackensack Avenue, Elm Street / Adirondack Avenue, Mountain Avenue, Emerson Avenue, Stewart Farrar Avenue, Richards Avenue, Herrick Avenue, Water Street / Horicon Avenue and Judd Bridge.

Main Street (US Route 9) is a state-owned roadway that is a highly traveled route and provides vital links between I-87 and commercial and recreational destinations in the surrounding Adirondack Park. (See Figure 1-1). There are numerous public points of interest along the corridor, including local businesses, schools, recreation, and community service establishments that impact daily traffic within the study area. Several of these points of interest, such as the nearby Warrensburg Elementary School and Warrensburg Recreation Field, are key generators of multi-modal traffic along the study corridor.

2



2.0 LITERATURE REVIEW

Warrensburg's Main Street has played a critical role in shaping the Town's identity and fostering economic vitality. This section aims to synthesize relevant planning studies focused on the Town, Main Street, and revitalization and development principles that have guided regional stakeholders and partner organizations in planning, developing, and investing in the Study Area. The review of recently completed plans and studies provides insights into the desired function and aesthetic of the corridor as well as its challenges.

Several regional stakeholders and partner organizations have assisted the Town and invested in planning initiatives to guide development and preserve a high quality of life in the Warrensburg area. In addition to the Town of Warrensburg, the following entities have lent their resources to growing and developing the lower North Country, including Warren County, the Adirondack Glens Falls Transportation Council (A/GFTC), Lake Champlain – Lake George Regional Planning Board (LCLGRPB), Adirondack North Country Association (ANCA), and the Adirondack Park Agency (APA).

Table 2-1: Inventory of Relevant Studies and Plans

STUDY NAME	YEAR COMPLETED / ADOPTED	STUDY SPONSOR	LOCATION
Regional Economic Analysis for the Adirondack North Country	2018	ANCA	https://www.adirondack.org/wp-content/uploads/2018/11/ANCAECONOMYhi-resweb.pdf
Adirondack/Glens Falls Transportation Council: Regional Bike Plan	2021	A/GFTC	https://agftc.org/wp-content/uploads/2021/02/2.17.21_FINAL_bikeplan.pdf
2023 Rural Workforce Transportation Plan	2023	A/GFTC / LCLGRPB	https://agftc.org/wp-content/uploads/2023/12/Rural_Workforce_Plan_FINAL_12.8.23.pdf
2045 Ahead: Long Range Transportation Plan	2023	A/GFTC	https://agftc.org/wp-content/uploads/2023/09/2045-Ahead-FINAL.pdf
Warren County 2040	Ongoing	Warren County	https://warren-county-2040-warrencountyny.hub.arcgis.com/pages/survey
Lake Champlain – Lake George Regional Planning Safety Action Plan	Ongoing	LCLGRPB	https://lclgrpb-safetyactionplans.com/home-adirondack-gateway
Town of Warrensburg Comprehensive Plan and Waterfront Revitalization Study	2012	Town	https://warrensburgny.us/forms/compplan/Adopted%20Comprehensive%20Plan%20-%20March%202012.pdf
Comprehensive Plan (2023 Update)	2023	Town	https://warrensburgny.us/assets/pdf_files/Warrensbug_CompPlan_230912_small.pdf

Town of Warrensburg Comprehensive Plan and Waterfront Revitalization Study

The Town's Comprehensive Plan and Waterfront Revitalization Study was completed and adopted in 2012. This planning initiative laid the groundwork for the Main Street Corridor Study by recommending a **"Main Street Enhancement and Design Study"** that could explore potential enhancements and changes to the corridor to improve bicycle, pedestrian, and vehicle travel. Other recommendations related to the Main Street corridor included:

- Streetscape improvements such as sidewalks, shared use or bicycle lanes, crosswalks, street trees, lighting, and landscaping.
- New amenities like benches, bike racks, and community banners.
- A hamlet parking plan that identified locations for clearly marked parking areas and wayfinding.
- Strategic application of access management principles (e.g. reduce curb cuts/consolidate driveways, add curbing, etc.) to promote safe and orderly traffic movements and improved pedestrian conditions.
- **Design and development guidance to prevent "strip development" in the corridor and foster nodal, hamlet-scaled mixed-use development along the corridor.**
- Update the subdivision ordinance to support Complete Streets concepts.
- Identify and build partnerships to implement ongoing maintenance of the Main Street streetscape, such as The Beautification Committee that oversees the planting and maintenance of key features of Main Street at the intersection of Richards Avenue and Main Street.

Regional Economic Analysis for the Adirondack North Country

The Adirondack North Country Association (ANCA) commissioned a Regional Economic Analysis to assess the **14-county Adirondack North Country region's three primary sectors and economic drivers** – manufacturing, local foods/value-added agriculture, and tourism. Through interviews with key sector exports, the Study helped identify potential within these sectors to grow the eco-economy of the region and provide a framework for supporting the growth and development of these key drivers. An opportunity highlighted in the final report that is relevant to the Main Street Corridor Study is the need to improve and link transportation. The following transportation needs were identified:

- Visitors should be able to access and navigate the region without a personal vehicle.
- Planning around multimodal travel, for example, making it seamless for visitors to arrive to the region by train or plane and be able to rent or share a vehicle, or access a bus or bicycle.
- Thoughtful location of multimodal transportation amenities and how residents and visitors are able to access them.
- Bicycle-friendly roadway improvements.

Adirondack/Glens Falls Transportation Council: Regional Bike Plan

The A/GFTC prepared the Regional Bicycle Plan to support and encourage policies and projects that increase bicycling activity in the region. A/GFTC is the Metropolitan Planning Organization (MPO) for **Warren and Washington counties and maintains the region's** Transportation Improvement Plan (TIP) and provides transportation planning and policy support to communities within the region. The Regional Bike Plan identifies regional bike needs and opportunities and prioritizes types of capital improvements and site-specific projects.

General maintenance and spot improvement needs include:

- **Installation of “bike-friendly” drainage grates with perpendicular openings that prevent bike wheels from getting stuck.**
- Pavement conditions – potholes, cracks and sudden changes in grade make it hard for cyclists to maneuver, especially at night.
- Pavement overlays – ensure that the seam of the pavement is properly feathered and does not occur in the middle of the shoulder in order to create a regular surface for cyclists.
- Roadway sweeping is needed to prevent patches of gravel and other potential hazards that accumulate on the roadway, especially at corners.
- Bike racks are needed in public parking areas and near building buildings like schools, municipal centers, and post offices.

A/GFTC identified four (4) guiding principles to influence project selection criteria for the TIP, planning efforts supported by the Unified Planning Work Program (UPWP), and to influence other policies and planning efforts at the MPO. These guiding principles include:

1. Prioritize safe and comfortable bicycle access between neighborhoods and schools, government buildings, retail clusters, and employment centers.
2. Expand connections to the existing trail system, especially state and regional systems like the Empire State/Champlain Canalway Trail, Feeder Canal Trail, and the Warren County Bikeway.
3. Continue to prioritize the maintenance/expansion of bicycle/pedestrian facilities in pavement preservation project selection parameters. This means that A/GFTC will prioritize funding allocated for pavement preservation to a project that adequately accommodates bicycles, given the choice between two equal candidates where the other project does not.
4. Support incremental capital improvements, especially on the Priority Bicycle Network. This refers to support for small but meaningful projects that improve conditions for bicyclists in the short term and make a significant difference in cyclist comfort levels that can tip the balance towards a trip taken on the bike versus in the car.

Other general capital improvement guidance included in the Regional Bike Plan includes:

- The Plan recommends a 4-foot minimum roadway shoulder width intended to support bicycle traffic. Roadways shoulders should increase in width as the posted speed and traffic volume also increases.
- The selection of the design of bicycle facilities should consider the location of on-street parking and the potential conflict between cyclists and car doors opening sudden, or parked cars pulling into and out of traffic.

Lake George – Warrensburg Bikeway Extension

A Bikeway connection identified in the Regional Bike Plan is the Lake George – Warrensburg Bikeway Extension. This proposed connection intersects with the Main Street Corridor Study Area, extending the bicycle connection from the Warren County Bikeway in the Village of Lake George north to Warrensburg, terminating at the Warrensburg Recreation Field on Library Avenue. However, several challenges complicate its development:

- Proposed two-way cycle track on west side of Route 9, but right-of-way issues limit extension north of Prosser Road.
- Main Street north of the Schroon River bridge has limited space for bicycle facilities due to sidewalks, curbs, narrow shoulders, and on-street parking.
- River Road is narrow and winding, with limited shoulders, making it unsuitable for cycling.
- All bridges from River Street to the north of the Schroon River are narrow, with sidewalks on only one side.

2045 Ahead: Long Range Transportation Plan

2045 Ahead was approved and adopted as A/GFTC's Long Range Transportation Plan in September 2023. The Long Range Transportation Plan is a core, foundational document that each MPO uses to guide future transportation system investments and planning principles. *2045 Ahead* is shared around five (5) planning principles which are summarized below:

1. Strengthen and support regional character and economic vitality by coordinating planning efforts, fostering collaboration, supporting a diverse freight network, and improving public participation with a focus on equity.
2. Integrate all transportation modes by promoting multimodal access for all users. Prioritize capital projects with strong bicycle and pedestrian accommodations and improve coordination of public transportation services.
3. Balance system maintenance and expansion by improving pavement, safety, intersections, access, and multimodal features while addressing congestion with effective demand management strategies.
4. Protect the environment and reduce greenhouse gas emissions by reducing single-occupancy trips and congestion, supporting alternative fuel vehicles, and prioritizing investments in infill and redevelopment.
5. Adapt to innovation and adopt enhanced technologies and analytical capabilities into transportation planning and systems as funding opportunities become available.

The development of *2045 Ahead* included robust public outreach efforts. An online survey was conducted that found that, overall, "safety" was the most important transportation issue, followed by "bicycle/pedestrian issues." The most common transportation problem respondents noted they faced in **their daily life was "none" followed by "road and bridge conditions" and "traffic congestion,"** which were about even. **The factor respondents selected would be likely to reduce the amount they drive was "Safe, comfortable sidewalks and bicycle facilities."** And finally, an emerging technology that respondents selected they are most interested in was **"Electric or hybrid vehicles,"** closely followed by **"Increased fuel efficiency."**

The Main Street Corridor Study is an example of how A/GFTC is implementing the *2045 Ahead* Plan, by using engineering assistance to identify potential safety improvements that address local and regional safety concerns. *2045 Ahead* sets priorities for achieving federal performance measures and targets for safety and meeting Complete Streets requirements.

Town of Warrensburg Comprehensive Plan

A Comprehensive Plan was adopted in 2023 to set forth an updated direction and vision for the future of the Town that reflects the changes it has experienced since 2012. The updated vision aims to balance economic growth and support for local businesses with preserving the **Town's** natural and recreational assets. Similar to other recent plans, the Comprehensive Plan also emphasizes the importance of affordable housing. The key recommendations in the plan include:

- Increase housing diversity
- Improve and diversify recreational offerings
- Encourage new development, while preserving local identity and character
- Support and grow local businesses and new entrepreneurship
- **Promote and celebrate Warrensburg's Assets**

Though the major goals and recommendations do not address transportation, public input indicates that pedestrian mobility, parking, and congestion on Main Street are concerns.

Rural Workforce Transportation Plan

The 2023 study conducted by the Lake Champlain – Lake George Regional Planning and A/GFTC focused on the transportation needs of the workforce in Northern Saratoga, Warren, and Washington counties. Warrensburg emerged as one of the two hamlets in the study area with the highest population density. Commute data reveals that 702 individuals travel to Warrensburg for work, while 1,207 commute from Warrensburg to other employment centers, including Glens Falls/Queensbury, Saratoga, and Albany.

The demographic and economic conditions clearly indicate a need for improved transportation services in the study area, especially in Warrensburg. A significant finding designates Warrensburg as a "high priority area" for pilot programs like vanpools and micro-transit, which aim to provide effective transportation solutions for the rural workforce. Additionally, the recent merger between the Capital District Transportation Authority and Greater Glens Falls Transit may offer long-term opportunities for transit connections to Warrensburg.

The study outlines recommendations and next steps to enhance land use and transit connectivity, promoting future transit use. This includes developing pedestrian connections and installing amenities like bike racks as opportunities for growth and development arise.

Ongoing Planning Initiatives

Warren County has begun the process of developing a countywide Comprehensive Plan. The Comprehensive Plan will establish key priorities and chart a course for implementing a new and modern vision. To date, the County has hosted a public workshop and promoted an online survey to gather **feedback and input to help shape the Comprehensive Plan's long-term vision** for Warren County.

Another ongoing initiative is the Lake Champlain-Lake George Regional Planning Adirondack Gateway Safety Action Plan. This project is funded through the Federal Highway Administration Safe Streets for All (SS4A) program and will identify and priority safety **strategies and projects using a "Safe System Approach" to roadway safety**. The Study Area covers the A/GFTC area of Warren and Washington counties as well as the Town of Moreau and South Glens Falls in Saratoga County. Both planning initiatives could influence transportation planning and project priorities in Warrensburg and the region.

3.0 EXISTING CONDITIONS

3.1 DATA COLLECTION

An inventory of the physical characteristics of the corridor was performed along Main Street on July 30, 2024. MJ Engineering, Architecture, Landscape Architecture, and Land Surveying, P.C. (MJ) staff utilized MJ4D, a 3D LiDAR point cloud technology to visually document the entire study area. Additional existing conditions information was obtained from available sources described throughout the rest of the existing conditions memorandum.

3.2 ZONING AND LAND USE

A review of current land use and zoning data in the Study Area provides an idea of how residents are **using the area and how those activities may impact the roadway's traffic operations. An initial screening** of the Study Area shows a mix of residential and commercial areas along Main Street.

Zoning

The Study Area is within the Adirondack Park Boundary, also called the "Blue Line." This boundary encompasses approximately 6-million acres of public and private lands, making it the largest park in the contiguous United States.¹ Due to its setting within the Adirondack Park, most land use activities in the Town of Warrensburg are regulated by the Adirondack Park Agency (APA), which is a New York State **governmental agency. The APA Land Use Classification for the Study Area is "Hamlet." These are the** growth and service centers of the park, where the APA encourages development. Intentionally, the Agency has very limited permit requirements in hamlet areas. As of 2018, the areas designated as Hamlet made up less than one percent of total Adirondack Park acreage.²

The Adirondack Park Agency Act allows any local government within the park to develop its own local land use programs which, if approved by the Agency, may transfer some permitting authority from the Agency to local government. Within the Study Area, the Town of Warrensburg controls the land use regulations, and the remaining part of the Town is managed by the APA.

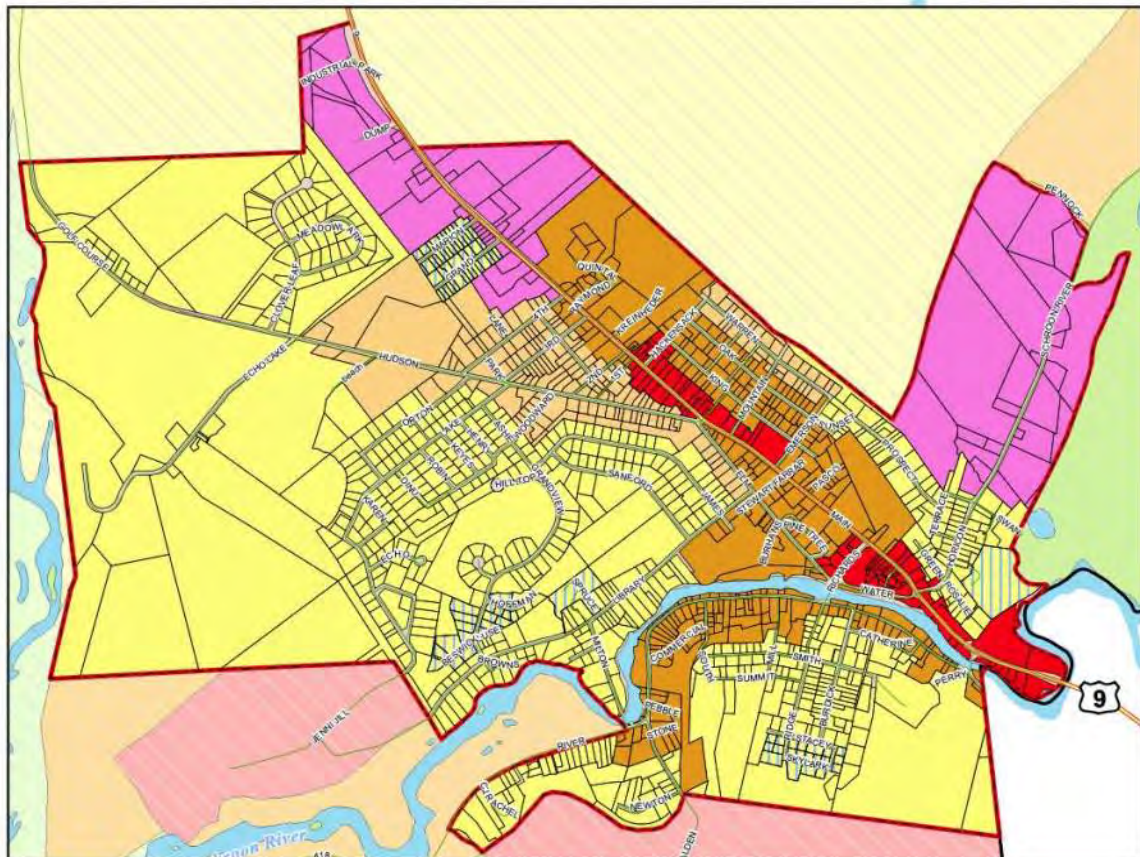
The Town of Warrensburg adopted its Zoning Code in May 2012. The code established six (6) zoning designations in the hamlet (see the hamlet zoning map in Figure 3-1 below). The current zoning over the project corridor and adjacent parcels is Core Commercial and Hamlet Mixed Use. The Hamlet Mixed Use (HMU) district was created to provide a traditional, pedestrian- oriented mix of residential, office and smaller scale commercial uses, generally in converted homes or other structures compatible with adjacent neighborhoods. The Core Commercial (CC) district was created to provide nodes of intensive commercial uses and a mix of other uses appropriate for a Main Street setting that maximizes the economic development potential by encouraging infill, reuse and expansion.

¹ <https://dec.ny.gov/maps/interactive-maps/decinfo-locator/layers>

² <https://apa.ny.gov/gis/stats/colc201803.htm>

Legend

- Business / Industrial
- Core Commercial
- Hamlet Mixed Use
- Residential Mixed Use
- Residential / Recreational



Land Use Overview

There are 118 properties (parcels) in the Study Area totaling over 78 acres. These parcels are a mix of commercial and residential uses. The three land uses that cover the largest portion of the Study Area include: Commercial (32%); Community Services (22.4%); and Residential – Low Density (16.1%). A breakdown of land uses in the Study Area can be seen in Figure 3-2.

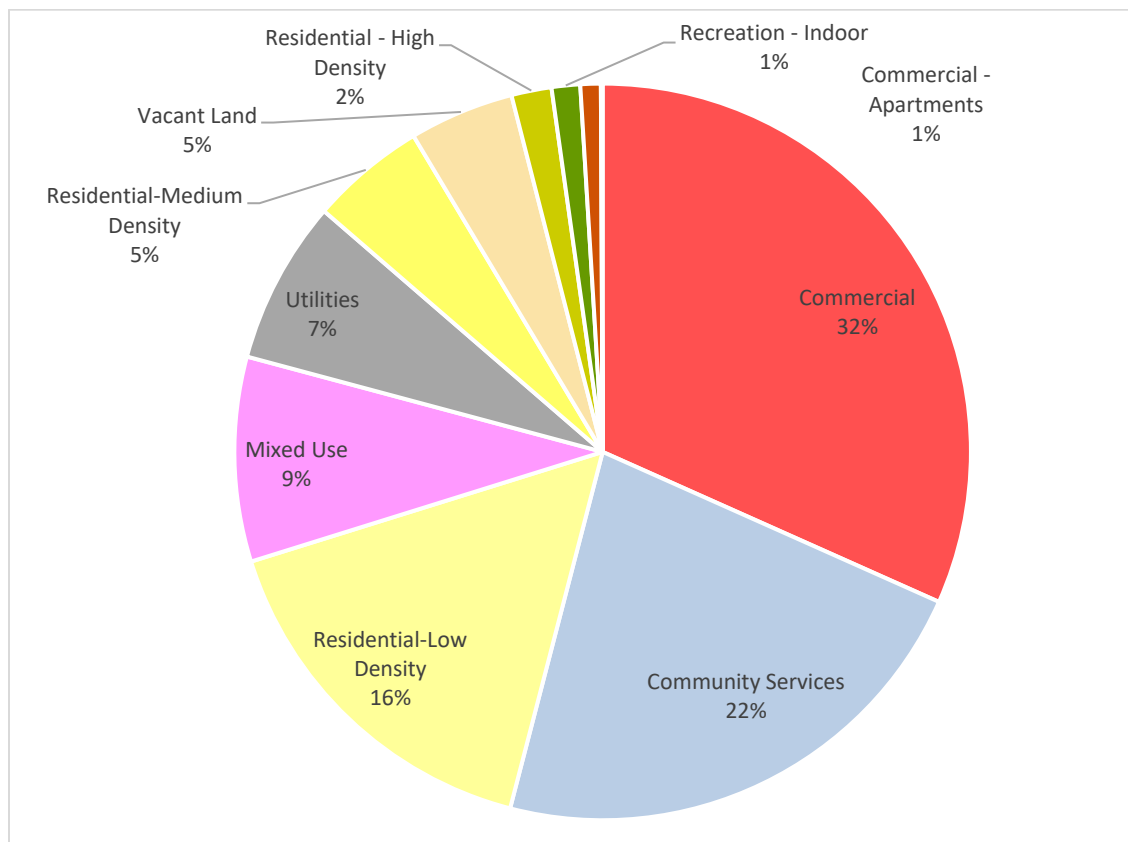


Figure 3-2: Study Area Land Use Acreage (by %)

As the core of the Warrensburg Hamlet area, US 9 is surrounded by a mix of restaurants, offices, retailers, and residences. But it is also home to critical community services such as Town Hall, a U.S. Post Office, health facilities, and community institutions like the Veterans of Foreign War (VFW). A deeper look into whether the land uses in the Study Area matches the zoning is warranted to see what is really on the ground. Six (6) of the commercial parcels, including gas stations, auto sales and vehicle services, are non-conforming uses according to the current Zoning ordinance; however, they make up a large part of the Commercial land uses. See Appendix A for Land Use and Zoning Maps.

3.3 PROPERTY OWNERSHIP AND RIGHT-OF-WAY

There are a total of 118 parcels adjacent to Main Street within the study area, including both privately and publicly owned properties. The highway boundary, or the limit of land owned and maintained by NYSDOT is located approximately 25-35 feet from the center of the road.

3.4 ROADWAY PHYSICAL CHARACTERISTICS

The Main Street corridor is in a rural area in the Town of Warrensburg and serves as a primary route for north-south travel. Main Street has a NYSDOT functional classification of Rural Minor Arterial. Main Street is comprised of two main segments within the study area. Segment 1, which spans from 4th Avenue to Adirondack Avenue, consists of a mixed light commercial and residential area with on-street parking on both sides of the road. Segment 2 of the study area spans from Adirondack Avenue to Judd Bridge and consists of a denser commercial area with local services and businesses. There is on street parking available on varying sides of the road until Horicon Avenue.

Rural Minor Arterial

Minor Arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity, and may carry local bus routes.

- Federal Highway Administration

Below Table 3-1 summarizes information on roadways within the study corridor.

Table 3-1: Summary of Roadways within Study Area				
Roadway Name	Functional Class ¹	Number of Lanes	Lane Width	Shoulder Width
Main Street	6	2	11'-12'	1' – 2'*
4 th Avenue	9	2	10'	0' – 4'
3 rd Avenue	9	2	12'	4'
2 nd Avenue	9	2	9'-10'	0' – 1'
1 st Avenue	9	2	9'-10'	0' – 1'
Hackensack Avenue	9	2	11'	0' – 2'
Adirondack Avenue	9	2	11'	2'
Elm Street	9	2	12'	2' – 3'
Mountain Avenue	9	2	11'-12'	0' – 2'
Emerson Avenue	9	2	11'	2'
Stewart Farrar Avenue	9	2	12'	4'
Richards Avenue	8	2	11'	4'-6'
Herrick Avenue	9	2	9'-10'	0' – 1'
Horicon Avenue	8	2	12'	0' – 2'
Water Street	9	2	11'-12'	0' – 2'
Judd Bridge	8	2	10'-11'	0' – 2'

Notes: Functional Classes: 6 – Rural Minor Arterial, 8 – Rural Minor Collector, 9 – Rural Local Road

* Shoulder widths varies where parking lanes do not exist.

A detailed summary of the intersections within the study area is described below.



Figure 3-3: Intersection Location Map

Table 3-2 below summarizes the characteristics of the study area intersections. See Appendix B for a more detailed summary of the intersections.

Table 3-2: Summary of Study Area Intersections

Intersection	# of Legs	Signalized (Y/N)	Crosswalks (Y/N)	Pedestrian Signals (Y/N)
1. Main Street / 4 th Avenue	3	N	N	N
2. Main Street / 3 rd Avenue	3	N	N	N
3. Main Street / 2 nd Avenue	3	N	N	N
4. Main Street / 1 st Avenue	3	N	N	N
5. Main Street / Hackensack Avenue	3	N	N	N
6. Main Street / Adirondack Avenue / Hudson Street / Elm Street	5	Y	Y	Y
7. Main Street / Mountain Avenue	3	N	Y	N
8. Main Street / Emerson Avenue	3	N	Y	N
9. Main Street / Stewart Farrar Avenue	3	N	Y	N
10. Main Street / Richards Avenue	3	Y	Y	Y
11. Main Street / Herrick Avenue	3	N	N	N
12. Main Street / Horicon Avenue / Water Street	4	Y	Y	Y
13. Main Street / Judd Bridge	3	N	N	N

3.5 PEDESTRIAN ACOMMODATIONS

Walkability and Accessibility

The Study Area is walkable and offers convenient access to surrounding businesses, services, and recreation opportunities. **“Walkability” refers to the ease and accessibility with which pedestrians can navigate their surroundings.** While the built environment that includes sidewalks and proximity to destinations is important, **so is the environment’s ability to support and encourage walking as a viable and enjoyable alternative to driving.** **For the purposes of this section, “accessibility” refers to the ease with which all people, regardless of their physical abilities, can safely use pedestrian facilities, including sidewalks and curb ramps.** The accessibility of the built environment has a significant impact on an **area’s walkability.** All pedestrian facilities are required to comply with the 2010 Americans with Disabilities Act (ADA) Standards for Design. New technical guidelines developed by the U.S. Access Board to improve accessibility are called **“Pedestrian Right-of-Way Accessibility Guidelines” (PROWAG),** took effect in September 2023 and will be enforceable once adopted by the U.S. Department of Justice and Department of Transportation.

The New York State Department of Transportation (NYSDOT) monitors the status of its roadway infrastructure relative to ADA needs. This includes an inventory of sidewalks, curbs, and crosswalks on state owned roadways. These features are assessed and rated based on their condition. A map including the accessibility rating of sidewalks and curb ramps, and crosswalk locations can be found in Figure 3-6. The map also includes a 0.25-mile/ 5-minute walking time buffer around the Study Area. This represents an acceptable walking distance for different purposes, across different population groups, based on U.S. research studies and supported by National Household Travel Survey data.

In general, concrete sidewalks are located on both sides of Main Street throughout the entire Study Area are in fair condition and **rated “accessible.”** NYSDOT defines **“accessible”** as “may need additional improvements, such as no detectable warnings at curb ramp locations or **insufficient width.”**³ Data collection and observations indicate that sidewalk width varies between 4- and 5-feet and detectable warnings are present but vary in condition. While sidewalk conditions were satisfactory, the existing maintenance/planting strip ranging in width from 2-feet to 6-feet is inconsistent and lacks maintenance in some areas. Over time, the planting strip has evolved from a planted area to an impervious surface.



Figure 3-4: Examples of Main Street Pedestrian Environment

From Left: Sidewalk in front of U.S. Post Office looking north; sidewalk at 3839 US-9 looking south; and sidewalk and stamped concrete maintenance strip at 3815 US-9 looking south.

³ <https://www.dot.ny.gov/programs/adamanagement/ada-transition-plan>

Curb ramps are present at each intersection, except for Herrick Avenue and Kreinheder Drive. Five (5) **curb ramps were rated by NYSDOT as “partially accessible” meaning they are “not designed to current standards, for example, problems with the geometry of sidewalks, ramps and landings, absence of detectable warnings, lack of handrails.” One (1) curb ramp located on the east side of Main Street at Richards Avenue (see Figure 3-5) was rated as “not accessible,” meaning “significant discontinuity such as steps, no ramps, more than 100 feet of unpaved walkway, heaving, vertical displacement, other severe distress, flooding.”**

Crosswalks are located at key intersections to offer demarcated crossing points for pedestrians across Main Street, but are absent at some side streets, including Herrick Avenue, Hudson Street, and Kreinhelder Drive. All but one crosswalk is a ladder type and there is a standard parallel open crosswalk at Monroe Avenue. Crosswalk conditions vary between fair and poor condition, where the striping has some wear to it and less than optimum reflectivity. A midblock crosswalk is located on Main Street between Town Hall and St. Cecillas Catholic Church. During the July 30th site visit, MJ staff observed pedestrians crossing midblock outside of designated crosswalks at various locations in the Study Area.



Figure 3-5: Curb Ramp at Richards Avenue Rated as "Not Accessible"

Source: MJ4D



Figure 3-6: Study Area Walkability & Accessibility

Pedestrian Amenities

Benches, trash receptacles, dog waste bag dispensers, and limited wayfinding signage for community services and recreation areas can be found sporadically in the Study Area. These amenities were observed to be clustered in the area near Floyd Bennett Park, Stewarts Shops, Town Hall/Cumberland Farms, and the lower part of the Study Area at the National Grid property.



Figure 3-7: Pedestrian Amenities Observed in the Study Area

From Left: a bench and trash receptacle on east side of Main Street at National Grid property and dog waste bag dispenser and receptacle located on west side of Main Street at Viele's Automotive Services.

3.6 BICYCLE ROUTES AND ACCOMMODATIONS

There are currently no bicycle routes, bicycle racks, or other dedicated bicycle accommodations along Main Street. Shoulder width varies or are non-existent which require bicyclists to share the road in the travel lane. Main Street (US 9) is designated as a priority road on A/GFTC's Priority Bicycle Network. The Priority Bicycle Network "represents the ideal system of on-road and off-road trails to support bicycle mobility on a regional basis." This increases funding priority for bicycle improvements proposed on priority roadways. As mentioned in Section 2.0, the Main Street Corridor Study Area intersects with the proposed priority project limits of the Lake George – Warrensburg Bikeway Extension. This proposed project would provide a bicycle connection from the Warren County Bikeway in the Village of Lake George, north to Warrensburg. Currently, the Warren County Bikeway begins in Glens Falls and terminates in the Village of Lake George, about 6-miles south of the Study Area. US Route 9 is a logical connection between the Village and the Warrensburg Hamlet.

During the July 30th site visit, MJ staff observed a number of bicyclists using the sidewalk on Main Street, including two young adults who appeared to be leaving work from a nearby summer camp. Riding a bicycle on a sidewalk can cause conflicts with pedestrians and is generally discouraged. It is not prohibited by New York State statute, but some municipalities have passed ordinances prohibiting bicycle traffic on certain sidewalks. MJ staff was unable to identify any local ordinance or law related to bicycling on the sidewalk in Warrensburg. When bicyclists ride their bikes on the sidewalk, it can indicate unmet needs for bicycle accommodations.



Figure 3-8: Bicyclists observed riding on the sidewalk on Main Street

3.7 HEAVY VEHICLES

Main Street for the entirety of the study area does not fall under the National Highway System as an Access Highway. Heavy vehicles are defined by the Federal Highway Administration (FHWA) as two-axle, six-tire, single-unit trucks and larger.

The average heavy vehicle percentage is 6%, split equally between the northbound and southbound travel directions. Low average heavy vehicle volumes are typically considered to be less than 2%.

Access Highway

A highway designated for use by Surface Transportation Assistance Act (STAA) vehicles and 53' trailers. These vehicle combinations may not travel off the access highway for any distance.

- NYSDOT Official Description of Designated Qualifying and Access Highways in New York State

3.8 TRANSIT

There are currently no public transportation bus routes that exist along Main Street in the Town of Warrensburg.

3.9 PARKING

Data Collection

MJ staff gathered and reviewed the parking conditions of the Main Street Corridor to gain a better understanding of current issues. MJ observed parking availability and occupancy for the 1.4-mile Study Area, including the presence of on-street parking and location of public parking lots.

The parking observations were conducted on Tuesday, July 30th at 1:00 p.m.; Friday, August 30th at 4:00 p.m.; Saturday, August 31st at 11:15 a.m.; and Monday, September 2nd at 12:30 p.m. The purpose of the counts was to measure how effectively available parking spaces are being used within the Study Area and provide insights into parking demand and supply patterns. In general, there is an 8-foot parking lane on both sides of the street in Segment 1 and a parking lane alternates back and forth from the east to west side of Main Street in Segment 2. Conversations with Town staff and employees of businesses located on Main Street revealed that the availability of on-street parking is a concern, especially during the summer tourism season. Other concerns expressed include conflicts between traffic

due to narrow lanes and parked vehicles, difficulties plowing Main Street when vehicles are parked, and larger vehicles parking on the sidewalk.

Available Off-Street Parking

During the site visits it was discovered that most businesses in the corridor have off-street parking available. Parking lots vary in location and design in relation to the business, with some lots being in front and others being to the side or rear. Some of these parking lots have signage posted indicating that non-patrons will be towed, which suggests potential issues with unauthorized parking for nearby activities, events or other businesses.



Figure 3-9: A sample of signage that can be found in the Study Area to prevent unauthorized or unwanted use of parking lots related to specific businesses.

One public parking lot is in the Study Area. The lot is located at 9 Richards Avenue, with access from Main Street. One wayfinding sign for the parking lot was identified on Main Street southbound just before the driveway. The sign may be obscured by other street signs and wayfinding placed nearby. There are approximately 40 parking spaces available and overnight parking in the lot is prohibited according to signage. An approximate count is provided because striping was missing in some areas of the lot. The lot appeared to be approximately 75% full when it was observed during the July 30th site visit.



Figure 3-10. Left to Right: Public parking and other wayfinding signage on Main Street, and view of Public Parking Lot from Richards Avenue.

Direct Current (DCFC) Electric Vehicle Charging and parking is available for public use on the east side of Main Street at the Warren Ford Dealership. The station is public and equipped with 2 CCS1 plugs (common on Ford plug-in electric vehicles), which allows 2 vehicles to charge at the same time. Signage posted at the charging station and nearby alerts users that vehicles can only be parked at the location while charging. This limits the length of time the off-street parking spaces can be used.

Available On-Street Parking

While there are 8-foot-wide parking lanes striped in some areas of the Study Area, there are no striped/demarcated on-street parking spaces, which made inventorying available parking a challenge. To estimate the number of parking spaces available, staff measured the total length of the parking lane for each block using data and imagery from MJ4D. These measurements take into account driveways and other curb cuts, fire hydrants, as well as signed “No Parking” zones.

Appendix E provides an overview of parking availability and use for segments of the corridor. MJ staff observed a total of 7,514 feet of striped parking lane in the Study Area. The estimated number of parking spaces available is 22 feet for each on-street space (based on data from the ITE Traffic Engineering Handbook). Based on parking lane measurements, there is potential for 340 parking spaces, on-street in the Study Area.

Key observations of on-street parking availability in the Study Area:

- There are approximately 106 curb cuts and driveways (48 on the east side and 58 on the west side of Main St.)
- 2 designated handicap spaces
- 1 designated handicap unloading zone located at a yellow curb in a crosswalk in front of St. Cecilians Catholic Church (see Figure 3-12).
- No metered parking spaces
- An estimated 13 two-hour parking spaces (Herrick Ave to Richards Ave 290 ft. parking lane on west side)
- “No Parking Any Time” plaques are used inconsistently to mark driveways in Study Area
- The segment of the Study Area from Adirondack Ave. to 4th Ave. has the greatest number of potential spaces based on the feet of existing parking lane. This is the only segment that has parking on both sides of the street for its entirety.



Figure 3-12: Handicap parking unloading area at marked yellow curb in crosswalk.

On-Street Parking Occupancy

MJ staff observed parking occupancies for the Study Area during the site visit. Appendix E identifies the estimated number of parking spaces within each block and the number of vehicles observed occupying the available parking lane. As previously discussed, there are no striped parking spaces and the number of available parking spaces is estimated by dividing the length of the parking lane by 22 feet per space, based on ITE standards.

Key observations of on-street parking utilization in the Study Area:

- The corridor segment between Richards Avenue and Adirondack Avenue consistently has the lowest parking occupancy.
- Vehicles park on the sidewalk and curb in front of Warren Ford, between Judd Bridge and Horicon Ave. / Water St. (See Figure 3-13)
- Drivers of larger vehicles were observed to have challenges parking on-street and exiting vehicles into moving traffic lanes.



Figure 3-13: Vehicles parked on curb and sidewalk in front of Warren Ford

Parking Analysis Summary

The following conclusions are offered for the observed Study Area:

- No parking lane segment appeared to be at maximum capacity during the site visit.
- Parking rules and signage range from inconsistent to non-existent in the Study Area. For example, **2-hour parking in a limited segment, some driveways signed with “No Parking” signs,** and limited handicap accessible parking.
- The public parking lot on Richards Ave. is not well-signed or easy to find if you’re not familiar with the Study Area.
- There is not sufficient wayfinding and parking signage in the Study Area, which creates uncertainty and confusion for visitors looking for parking.
- Employees and business owners in the Study Area indicated that visitors prefer to park in parking lots but sometimes park in private parking lots when attending events at the VFW, Floyd Bennett Park, places of worship, etc. and are towed.
- The high number of curb cuts and driveways in the Study Area makes nearby parking lanes non-essential and impractical, while also creating conflicts for turning vehicles and traffic operations.
- There is designated parking for most businesses and offices in the Study Area, making on-street parking in some areas non-essential.
- The most on-street parking is available outside of the Core Hamlet Area, away from where most high-trafficked businesses are located.
- Lack of demarcated parking spaces leads to inefficient use of parking available in parking lane.
- **Some driveways have “No Parking” signs, but intersections are not treated the same, creating conflicts for turning vehicles, pedestrians, and traffic operations.**

3.10 EXISTING TRAFFIC DATA

Existing traffic data for the corridor was obtained from the NYSDOT Traffic Data Viewer and is summarized in Table 3-3 below. If information was not available on a particular street, it has been omitted from the table.

Table 3-3: Traffic Summary of Roadways within Study Area					
Roadway Name	Functional Class ²	AADT ¹	Calculation Year	Truck AADT ¹	Truck Percentage
Main Street	6	9,735	2023	585	6%
4 th Avenue	9	532	2023	N/A	N/A
Hackensack Avenue	9	403	2023	N/A	N/A
Hudson Street	9	1,916	2023	95	5%
Elm Street	9	2,165	2023	109	5%
Horicon Avenue	8	2,237	2023	201	9%
Judd Bridge	9	1,542	2023	93	6%

1. AADT – Average Annual Daily Traffic

2. Functional Classes: 6 – Rural Minor Arterial, 8 – Rural Minor Collector, 9 – Rural Local Road

Existing speed data for Main Street was obtained from the NYSDOT Traffic Data Viewer and is summarized in Table 3-4 below. If information was not available on a particular street, it has been omitted from the table.

Table 3-4: Speed Data			
Roadway Segment	Posted Speed Limit	85 th Percentile Speed ¹	Year Data Was Obtained
Main Street	30	33	2022
Hudson Street	40	40	2023
Elm Street	30	32	2023
Horicon Avenue	30	39	2023

1. The 85th percentile speed is defined as the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions past a monitored point.

3.11 EXISTING TRAFFIC ANALYSIS

To assess the quality of traffic operations along Main Street, intersection capacity analyses were conducted with respect to 2024 Existing traffic volume conditions. Capacity Analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them.

Study Methodology

A traffic model was developed for the corridor utilizing the traffic analysis software Synchro 11©, which is an industry standard design and analysis package. The software analyzes traffic conditions at intersections to provide a measure of effectiveness in terms of Level of Service (LOS). Procedures for the analysis are in conformance with the Transportation Research Board of the National Academies Highway Capacity Manual, 6th Edition. Intersection LOS is defined in terms of average delay per vehicle. The **New NYSDOT Highway Design Manual (HDM), Section 5.2.3.4, describes LOS as “a qualitative measure describing operational conditions within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. Levels of service are given letter designations, from A to F, with LOS A representing the best operating condition and LOS F the worst.”**

Table 3-5: Intersection Level of Service (LOS) Ranges			
Level of Service	Unsignalized Intersection Delay (sec/veh)	Signalized Intersection Delay (sec/veh)	Description
A	≤ 10	≤ 10	Excellent
B	> 10 & ≤ 15	> 10 & ≤ 20	Very Good
C	> 15 & ≤ 25	> 20 & ≤ 35	Good
D	> 25 & ≤ 35	> 35 & ≤ 55	Acceptable
E	> 35 & ≤ 50	> 55 & ≤ 80	Poor
F	> 50	> 80	Failing

Intersection design practice, as determined by the NYSDOT, strives to provide a minimum LOS D or better for each lane group in urban areas and a minimum LOS C in rural areas. Although LOS D is acceptable in urban environments, LOS C is the preferred minimum for overall approach LOS.

Traffic data was collected by The Traffic Group to aid with the development of an existing traffic model. The existing traffic counts were conducted at five (5) study area intersections on Thursday August 8, 2024, for the AM peak hour and the PM peak hour and Saturday August 10, 2024, for the Saturday Midday Peak Hour. The five (5) intersections that were part of the existing traffic analysis are as shown below:

1. Main Street / Adirondack Avenue / Hudson Street / Elm Street (Signalized)
2. Main Street / Stewart Farrar Avenue (Two-Way Stop-Controlled)
3. Main Street / Richards Avenue (Signalized)
4. Main Street / Horicon Avenue / Water Street (Signalized)
5. Main Street / Judd Bridge (Two-Way Stop-Controlled)

The turning movement data was collected for two (2) hours for the AM, PM and Saturday peak hours, at 7:00 AM to 9:00 AM, 4:00 PM to 6:00 PM, and 11:00 AM to 1:00 PM respectively. Based on the data collected, the peak hour periods for AM, PM and Saturday are as shown below:

- AM Peak: 8:00 AM – 9:00 AM
- PM Peak: 4:00 PM – 5:00 PM
- SAT Peak: 11:30 AM – 12:30 PM

The existing turning movement counts are presented in Appendix C.

Results

The intersection capacity analysis results are summarized below in Table 3-6. It is to be noted that only signalized intersections have overall intersection level of service values while the two-way stop-controlled intersections only analyzes the level of service values for stop-controlled and conflicting movements.

The Synchro output files are presented in Appendix C.

Table 3-6: 2024 Existing LOS Table (Delay in Seconds)

Int. No.	Location	Approach	Movement	Existing AM	Existing PM	Existing SAT
6	Main Street / Adirondack Avenue / Hudson Street / Elm Street	Northbound	L1/L2/T/R1	B (13.4)	B (18.7)	C (24.1)
		North-Eastbound	L1/L2/R1/R2	C (24.3)	C (33.5)	C (31.9)
		Southbound	L1/T/R1/R2	B (12.3)	B (16.4)	C (20.7)
		South-Eastbound	L1/L2/R1/R2	C (24.3)	C (31.0)	C (31.6)
		Westbound	L1/L2/R1/R2	C (28.8)	D (47.0)	D (54.9)
Overall Intersection				B (16.3)	C (22.3)	C (26.0)
9	Main Street / Stewart Farrar Ave	Northbound	L	A (8.1)	A (8.6)	A (8.7)
		Eastbound	L/R	B (12.7)	C (17.1)	C (18.0)
10	Main Street / Richards Ave	Northbound	L/T	A (4.9)	A (6.9)	A (6.5)
		Eastbound	L/R	B (11.6)	B (11.3)	B (11.6)
		Southbound	T/R	A (4.9)	A (7.0)	A (6.4)
Overall Intersection				A (5.5)	A (7.4)	A (6.8)
12	Main Street / Horicon Avenue / Water Street	Northbound	L/T/R	A (3.2)	A (3.7)	A (3.8)
		Eastbound	L/T/R	B (18.3)	B (18.1)	B (17.7)
		Southbound	L/T/R	A (2.9)	A (3.5)	A (3.5)
		Westbound	L/T/R	B (17.2)	B (17.2)	B (17.6)
Overall Intersection				A (6.0)	A (5.3)	A (5.3)
13	Main Street / Judd Bridge	Northbound	L	A (8.3)	A (9.4)	A (9.4)
		Eastbound	L/R	B (12.8)	C (15.4)	C (15.4)

Notes: Peak Hour Values: LOS (Delay in Seconds)

L = L1 = L2 = Left, T = Through, R = R1 = R2 = Right

Results of the intersection capacity analysis indicate that all five (5) intersections under existing 2024 conditions are operating at overall LOS D or better for all approaches to the intersections.

The Main Street / Adirondack Avenue / Hudson Street / Elm Street intersection experienced the longest delay times out of the five (5) intersections analyzed. The overall intersection operates at LOS B with 16.3 seconds of delay during the AM peak hour, LOS C with 22.3 seconds of delay for the PM peak hour, and LOS C with 26.0 seconds of delay for the Saturday peak hour. The westbound Adirondack Avenue approach reaches LOS D during the PM and Saturday peak hours. LOS D for this intersection is expected along a minor approach, due to the overall high volume of vehicles along the major approach to the intersection.

3.12 CRASH HISTORY

Crash data was obtained through the NYSDOT CLEAR system for the most recent three years of available data (January 1, 2021, to December 31, 2023). Crash data was examined on Main Street, from 4th Avenue to the Lake George Riverview Campground driveway. Crashes on side-streets that occurred within 100 feet of the intersections were also examined. See Table 3-7 below for a summary of crash severity that occurred along Main Street in the most recent three years. A summary of the crash data is in Appendix D.

Table 3-7: Crash Severity					
Roadway Name	Total Crashes	Crash Type			
		Fatal	Injury	PDO	NR
Main Street	77	2	9	66	0

Notes: PDO = Property Damage Only, NR = Non-reportable, no injury and less than \$1,000 in damages

Of the 77 reported crashes within the study area, two (2) involved a fatality, and nine (9) involved personal injuries. Two (2) crashes involved pedestrians; one pedestrian crash caused fatalities of two (2) pedestrians. One (1) crash involved a bicyclist who pulled out of a parking lot onto Main Street and struck the side of a vehicle.

The most common crash types that occurred within the study area were rear end, sideswipe and right-angle crashes. There were a total of 28 rear end crashes which made up 36% of the crashes on the corridor. 20 sideswipes occurred making up 26% of the total crashes. 17 right angle crashes occurred, making up 22% of the crashes. The remaining crash types that occurred within the study area were left-turns, fixed object, animal and head-on crashes.

3.13 ENVIRONMENTAL RESOURCES

Refer to the Existing Conditions Memo for more information on Environmental Resources.

3.14 PUBLIC OUTREACH

While the original scope of the Main Street Corridor Study included a public outreach component, this aspect was ultimately removed from the scope of work due to project timeline and resource constraints. Instead, the study focused on coordination with key stakeholders, including the Town of Warrensburg, the New York State Department of Transportation (NYSDOT), and the Adirondack/Glens Falls Transportation Council (A/GFTC). This approach allowed for targeted engagement with the organizations responsible for infrastructure planning, transportation policy, and local development, ensuring that the study's recommendations were aligned with both regional transportation goals and the needs of the Town. Although public input is often a valuable component in planning efforts, the decision to concentrate on stakeholder coordination allowed for the development of a feasible, actionable plan within **the project's limitations while still addressing the primary objectives of improving Main Street's accessibility and functionality for pedestrians and motorists.**

4.0 RECOMMENDED IMPROVEMENTS

The design alternatives discussed in this chapter were presented to A/GFTC in December 2024 and the Town of Warrensburg and NYSDOT in March 2024. Each entity was given the opportunity to review the concepts and provide feedback. Recommended improvements have been identified for the Main Street (US Route 9) corridor, as well as specific intersections throughout the corridor. The recommended improvements satisfy the study objectives and have been developed utilizing feedback from the involved agencies. Images of the concept-level improvements are provided within the subsection of this Chapter; however, full concept plans are available in Appendix G.

The following recommendations are conceptual in nature and do not commit the Town of Warrensburg (or other entities) to the proposed project. The concepts presented in this report need to be investigated in more detail before any commitment for funding is made. Additional engineering or follow-up work will be based upon funding availability.

4.1 INTERSECTION IMPROVEMENTS

Main Street (US Route 9) / Adirondack Avenue / Hudson Street / Elm Street

The five-legged signalized intersection at Main Street (US Route 9), Adirondack Avenue, Hudson Street, and Elm Street was evaluated for potential improvements based on feedback from the Town, A/GFTC, and NYSDOT. After careful consideration, several enhancements were evaluated. Recommendations include:

- Installation of a left-turn lane along the northbound Main Street (US Route 9) approach, within the existing footprint of the roadway.
- Curb bump-outs are recommended at each corner, as well as ADA-compliant curb ramps with pedestrian signal equipment.
- Reflectorized, striped crosswalks are proposed for all pedestrian crossings. Additionally, a new pedestrian crossing is recommended along the Hudson Street approach, as there is currently no pedestrian crossing between the east and west sides of Hudson Street.
- Realign the Hudson Street approach to improve traffic flow by addressing awkward vehicular movements, resulting in a more cohesive intersection design. The east end of Hudson Street can shift north to better align with the Main Street approach.
- Driveway consolidation at the Citgo/Deli & Meat Store in the north parking lot was considered. This would involve extending the sidewalk to reduce conflict points and discourage vehicles from entering and exiting too close to the intersection. Careful coordination with the property owners and tenants to accommodate delivery vehicles and truck turning movements is required prior to implementation.

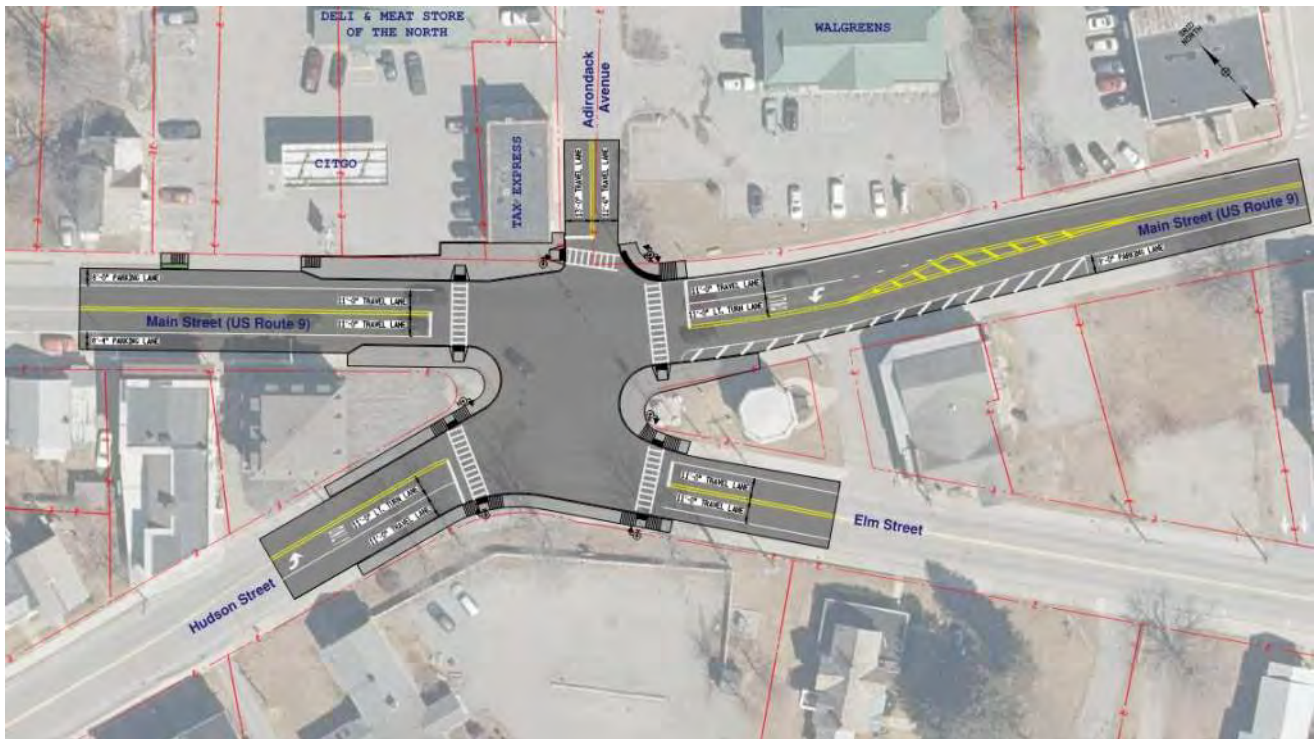


Figure 4-1: Main Street (US Route 9) / Adirondack Avenue / Elm Street / Hudson Street Intersection Improvements

An intersection capacity analysis was completed to investigate the traffic impacts of the recommended improvements for the Main Street / Adirondack Avenue / Hudson Street / Elm Street intersection. The results of the capacity analysis can be found in **Table 4-1** below.

The Synchro output files are presented in Appendix C.

Table 4-1: 2024 Recommended Improvements LOS Table (Delay in Seconds)

Int. No.	Location	Approach	Movement	Existing AM	Existing PM	Existing SAT
6	Main Street / Adirondack Avenue / Hudson Street / Elm Street	Northbound	T/R1	B (10.8)	B (15.2)	B (17.4)
		Northbound	L1/L2	A (9.9)	B (14.4)	B (15.6)
		North-Eastbound	L1/L2/R1/R2	C (26.9)	C (33.6)	C (31.3)
		Southbound	L1/T/R1/R2	B (16.4)	C (26.1)	C (28.5)
		South-Eastbound	L1/L2/R1/R2	C (27.2)	C (32.0)	D (35.4)
		Westbound	L1/L2/R1/R2	C (31.8)	D (40.5)	D (36.6)
Overall Intersection				B (17.4)	C (24.2)	C (25.9)

Notes: Peak Hour Values: LOS (Delay in Seconds)

L = L1 = L2 = Left, T = Through, R = R1 = R2 = Right

The installation of a northbound left-turn lane, operating under a protected and permitted signal phase and the addition of pedestrian signal phasing on all approaches to the intersection is expected to function

similarly to the current intersection setup, resulting in minimal changes to the overall intersection Level of Service (LOS). As part of this analysis, signal timing optimization was also implemented to more evenly distribute delays across the intersection's **approaches**. **The most significant improvements were** observed during the Existing Saturday Midday peak hour, particularly for the South-Eastbound (Hudson Street) and Westbound (Adirondack Avenue) approaches, which saw reductions in delay times of four (4) seconds and eighteen seconds, respectively.

Main Street (US Route 9) / Stewart Farrar Avenue

The intersection with Stewart Farrar Avenue is currently stop-controlled, with the stop control located on the Stewart Farrar Avenue leg. The intersection features three pedestrian crossings: two (2) on each Main Street approach and one (1) along the Stewart Farrar Avenue approach. Recommended improvements for this intersection include extending the existing curb bump-out on the east side of Main Street to shorten pedestrian crossing distances and draw vehicular attention to the crossing through back-to-back pedestrian crossing signage with reflective strips for increased visibility. Replacement of sidewalks and curb ramps with ADA-compliant designs is also recommended. The removal of one Main Street pedestrian crossing is suggested to reduce the number of conflict points at the intersection. Hatched striping in the parking lanes near the curb ramps would improve sightlines for vehicles and help drivers see pedestrians waiting to cross.

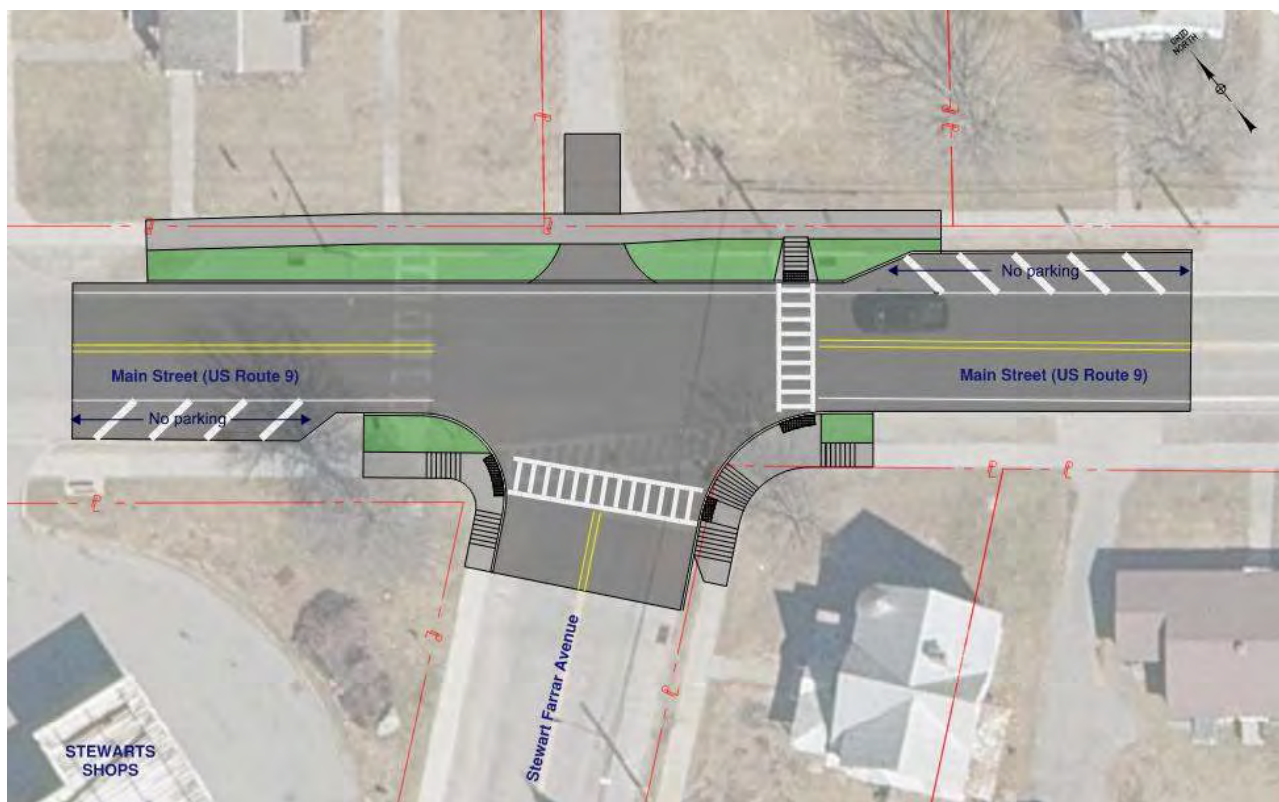


Figure 4-2: Main Street (US Route 9) / Stewart Farrar Avenue Intersection Improvements

Given the proximity of the Stewart Farrar Avenue and Emerson Avenue uncontrolled intersections, The Town identified heightened difficulty exiting Stewart Farrar Avenue at times due to turning movements associated with Emerson Avenue. It was also noted that vehicles turning out of Emerson Avenue often do not yield to pedestrians in the mid-block crosswalks at Stewart Farrar Avenue. It is recommended that the Town consider signing Emerson Avenue for one-way travel northbound, to prohibit vehicles from turning onto Main Street from Emerson Avenue.

Main Street (US Route 9) / Richards Avenue

The intersection with Richards Avenue is a signalized intersection. Recommended improvements include curb bump-outs on the east side of Main Street (US Route 9) to reduce pedestrian crossing distances. Additional curb bump-outs at the south corner of the intersection along Main Street and Richards Avenue. Pedestrian signals, along with ADA-compliant sidewalks and curb ramps at all corners to meet ADA standards for signalized intersections. The existing driveway entrance for the Sunoco station along Main Street (US Route 9) is approximately 80 feet wide, with part of the driveway exit located near the intersection. To improve safety and traffic flow, the consolidation of the existing driveway is recommended. This would involve extending the sidewalk and curb to create a more manageable 40-foot-wide driveway entrance. Benefits of consolidating commercial driveways include: providing larger buffer zones for pedestrians and vehicles, reducing the speeds of entering and exiting vehicles and increasing the available green space on the property.

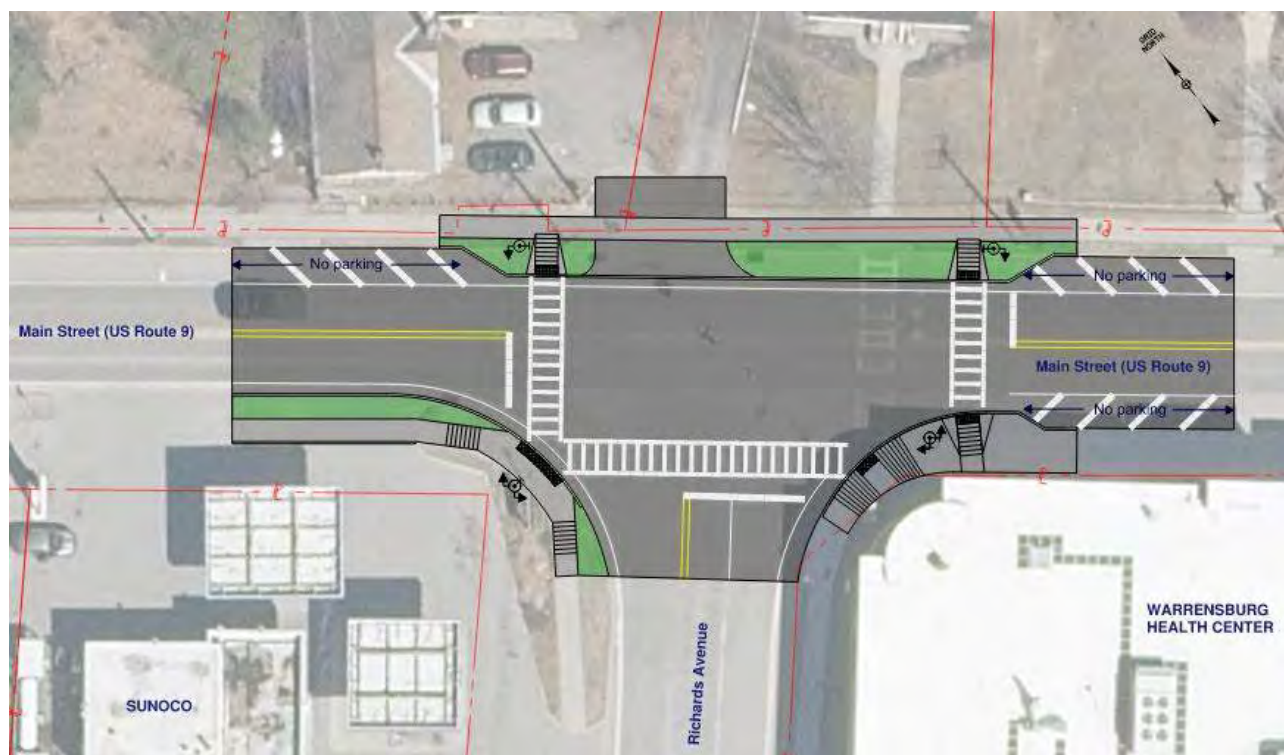


Figure 4-3: Main Street (US Route 9) / Richards Avenue Intersection Improvements

Main Street (US Route 9) / Horicon Avenue / Water Street

The intersection of Horicon Avenue and Water Street is currently signalized. Recommended improvements include installing ADA-compliant curb ramps at all corners of the intersection, along with adding pedestrian signals for the Horicon Avenue approach, the northbound Main Street approach, and the Water Street approach. It is important to note that constructing an ADA-compliant ramp on the southeast corner may be challenging due to the existing horizontal and vertical geometry of the intersection. At present, the intersection only has a pedestrian signal on the southbound Main Street (US Route 9) approach. To meet ADA standards for signalized intersections, pedestrian signals must be installed at all pedestrian crossings. Additionally, it is recommended to reconfigure the northeast corner to reduce the pedestrian crossing distance along Horicon Avenue and consolidate the driveway entrance **to Dragon Lee's restaurant from Main Street** to remove vehicle movements immediately adjacent to the intersection.

The Town is interested in maintaining access to Water Street from George Henry's since it is difficult to turn left onto Main Street at times. Turning movement evaluations will be required when designing the

curbed island in front of George Henry's to ensure vehicle flow does not conflict with parking turning movements.



Figure 4-4: Main Street (US Route 9) / Water Street / Horicon Avenue Intersection Improvements

4.2 MAIN STREET (US ROUTE 9) CORRIDOR IMPROVEMENTS

In addition to infrastructure upgrades at the study intersections, various corridor improvements have been explored for Main Street (US Route 9). The primary focus was on two types of improvements: parking lane improvements and the introduction of gateway signage.

Several locations have been identified along Main Street where the Town could make striping modifications and curb relocations to increase the available width of on-street parking lanes. Curb relocations are recommended at locations where there are unnecessary grass / hardscape buffers between the existing parking lanes and sidewalk. Two key areas were identified as feasible for striping modifications and three areas were identified for curb relocations.

Parking Lane Improvements – Striping Modifications

The first location for striping modification improvements is the segment between 4th Avenue and the Main Street / Adirondack Avenue / Elm Street / Water Street intersection. Using existing orthoimagery, the roadway widths were measured to assess the available space within the current road footprint. This section ranges from 40.5' to 42' in width. Based on this data and in compliance with NYSDOT Highway Design standards for the road's functional classification, there is sufficient space for two 11' travel lanes and parking lanes ranging from 9' to 10' in width. The current parking lanes, which vary from 8' to 8.5' can be restriped to create wider parking areas.

The second location identified for striping modifications is Stewart Farrar Avenue. The existing road **section is 40' wide curb-to-curb** with no signs restricting on-street parking. On-street parking is desirable for the post office, church and Stewart's along this road. The **existing width supports 11' travel lanes and 9' parking lanes, which meets design guidelines. Adding striped on-street parking lanes** to Stewart Farrar Avenue would be a good use of the wide footprint of the road and provide organized parking spaces for what can already be used as on-street parking.

Parking Lane Improvements – Curb Relocations

Several locations have been identified along Main Street (US Route 9) where relocation of curbs would allow for widening of existing on-street parking lanes without impacting privately-owned property. Much **of the corridor has grass and hardscape buffers ranging from 2' to 4' in width. Removing the buffers and relocating the curb to line up with the existing sidewalk** would allow for increases in parking lane widths.

The first location identified for curb relocation is the roadway segment of Mountain Avenue to Emerson Avenue. The side in which curb relocations would be recommended varies for this segment as parking lanes vary on both sides of the road. The existing **parking lane widths through this segment are 8.5' wide and widths could be increased to 10' width.**

The second location is Emerson Avenue to Richards Avenue specifically on the north side of the roadway. **Existing parking lane widths are 8' and they could also be widened by removing the existing 2-2.5' hardscape buffer that exists today.**

The third location identified for curb relocations is from the Lake George Barbershop to Judd Bridge and in front of Warren Ford. In the existing condition, vehicles frequently park on the sidewalk to avoid being sideswiped in the narrow parking lane. Curb relocations through this segment can increase parking lane **width from 8' to 10'.**

The fourth location identified for curb relocations is from the Dollar General to the New Way Lunch of Warrensburg specifically on the north side of the road. There are existing parking lanes on the south side of Main Street and with the curb relocation of the north side of the road, widening of the south side parking lane would be able to occur. Along with the curb relocation the centerline and edge line striping would have to shift to gain the increased parking width.

Gateway Signage

As part of the Main Street Corridor Study, it is essential to consider the role of gateway signage in shaping the identity and experience of the corridor. Gateway signage can serve as an important visual cue for travelers, indicating entry into a more densely developed area and signaling a transition to a more pedestrian-friendly and multi-modal environment.

Installation of improved gateway signage is recommended near the southern limit of the study area, **approximately 200'-250' west of the Riverview Campground Driveway.** The available public right of way sufficient at that location to **support a more substantial "Welcome to Warrensburg" sign with landscaping.** This specific location is ideal for the installation of gateway signage due to its visibility and strategic placement. Positioned near a key entry point into the town, it offers the opportunity to immediately capture the attention of both residents and visitors, setting the tone for the Main Street experience. The space available in the public right of way allows for a design that is not only eye-catching but also integrated with landscaping elements that enhance the town's overall aesthetic. Installation of a water service could reduce maintenance demand on the Town for the landscaping. An electric service to the sign would allow for lighting that would improve evening and nighttime visibility of the gateway signage.

While a similar gateway treatment is recommended near the northern study limits, on the southbound side of Main Street, sufficient public right-of-way does not appear available for such an installation. The Town may consider coordinating with a property owner in the future to discuss an easement on which signage could be installed.

Coordination of Traffic Signals

The Main Street corridor features several traffic signals that can benefit from coordinated traffic signal timing. Implementing a corridor-wide synchronization of traffic signal timings presents an opportunity to enhance traffic flow and reduce delays. Such coordination aims to create more efficient travel experience by minimizing stops and optimizing the progression of vehicles along the corridor. This approach can lead to smoother commutes, reduced fuel consumption, and lower emissions, contributing to overall improved traffic operations.

5.0 IMPLEMENTATION STRATEGIES

This chapter provides information to assist the Town of Warrensburg with implementation of the Main Street (US Route 9) Complete Streets Concept Plan. Included below is a list of potential funding sources, a breakout of major elements of the concept plan and anticipated project partners.

5.1 POTENTIAL FUNDING SOURCE

There are many potential funding sources that the Town of Warrensburg can pursue to help with the implementation of the Main Street (US Route 9) Complete Streets Concept Plan. The potential funding sources vary between federal, state, and local sources. It is important for the Town to submit applications for funding to the appropriate program, at the right time for the project to be progressed. Applications must have ample project information and local support to show why the project is important to the Town and that the Town is prepared to provide the required local match. Since funding opportunities can arise throughout the year, it is imperative that the Town maintain contact with the A/GFTC and NYSDOT Region 1 Local Program Liaison to ensure that no funding opportunities are missed.

Federal Funded Programs

Transportation Improvement Program (TIP): The Federal Highway Administration manages funding for all projects eligible under the Surface Transportation Block Grant Program (STBG), and the Highway Safety Improvement Program (HSIP). These reimbursement programs typically cover up to 80% of the project cost and the project Sponsor is responsible for the remaining 20%. Projects must be within the right-of-way of federal aid eligible roadways. Main Street (US Route 9) is federal aid eligible. The following formula funds serve as the basis for project programming in the TIP:

- National Highway Performance Program (NHPP)
- Surface Transportation Block Grant Program (STP – Flexible and Large Urban)
- Highway Safety Improvement Program (HSIP)

To apply for federal funding, the Town can respond to a TIP solicitation advertised by the A/GFTC. A/GFTC staff review applications and recommend projects to be funded, while the ultimate decision is made by various committees and is subject to public comment. The next solicitation for new TIP projects is expected to begin in September 2025.

State Funded Programs

NYS DOT TAP-CMAQ Program (TAP/CMAQ): Funding is available through NYSDOT to support bicycle, pedestrian, multi-use path, and non-motorized transportation-related projects, as well as programs that support the goals of New York's national-led Climate Leadership and Community Protection Act (CLCPA). Although these programs are administered by NYSDOT, the fund sources are ultimately federal and require a 20% local match. Projects must be within the right-of-way of federal aid eligible roadways; all roadways evaluated as part of this study are eligible. Funded projects will receive a minimum of \$500,000 and a maximum of \$5,000,000 (prior to the 20% local match). Municipalities may request funding from two different fund sources:



- **Transportation Alternatives Program (TAP):** TAP funding helps communities deliver safe, transformative, and innovative transportation projects which expand, enhance, and modernize walking and biking options and connections to transit. TAP project funding focuses primarily on benefits for bicyclists, pedestrians, and other amenities for non-drivers. Projects are expected **to improve mobility, accessibility, and the community's transportation character such that the street network is more vibrant, walkable, and safer for all transportation mode users, pedestrians, bicyclists, transit users, and drivers.** Specific project categories directly related to the recommended projects include:
 - Planning, design and construction of infrastructure-related projects to improve non-driver safety and access to public transportation and enhanced mobility;
 - Safe routes to school (enable and encourages children to walk or bike to school); and
 - Planning, design and construction of on-road and off-road trail facilities for pedestrians, bicyclists and non-motorized transportation users.
- **The Congestion Mitigation and Air Quality Improvement (CMAQ) Program:** The CMAQ program provides funding to State and local entities for transportation projects that reduce vehicle emissions and traffic congestion in areas where air quality does not meet or previously did not attain the National Ambient Air Quality Standards.
- **Carbon Reduction Program (CRP):** The CRP program provides funding for projects that support the reduction of transportation emissions in small urban areas and rural areas by facilitating the use of alternatives to single-occupancy vehicle trips, the development of facilities for biking, walking, and other forms of nonmotorized transportation, and other emission reduction strategies.

NYSDEC Climate Smart Communities Program (CSC): The Climate Smart Communities Grant program was established in 2016 to provide 50/50 matching grants to cities, towns, villages, and counties of the State of New York for eligible climate change mitigation, adaptation, and planning and assessment projects. Municipalities need not be registered or certified as a Climate Smart Community to apply for a grant. Implementation projects for which funding can be sought are those related to the reduction of greenhouse gas (typically transportation alternatives) and climate change adaptation. There are two funding pools for this grant. The first funding pool includes projects requesting funds ranging from \$5 million to \$100 million. The second funding pool includes projects requesting funds ranging from \$250,000 to \$4,999,999.



The NYSDEC typically requests applications for the Climate Smart Community Grant Program annually. Applications are prepared and submitted online using the NYS Consolidated Funding Application (CFA).

NYSDOT Multi-Modal Program (MM): The Multi-Modal Program is managed through NYSDOT's Local Programs Bureau and provides reimbursement funding for five (5) specifically authorized transportation

capital project "modes" found in State Transportation Law 14-k and NYSDOT Program Policy - Rail, Port, Fixed Ferry Facilities, Airport, and State and Local Highway and Bridge projects. The program does not have a required local match.

To obtain funding through the NYSDOT's Multi-Modal Program, the Governor or a Legislative Member must nominate the project, and NYSDOT will be notified when funding is secured. Additional information and current opportunities should be discussed with the NYSDOT Region 1 Local Programs Bureau. The funding ranges for this grant are not specified.

Regional Economic Development Council (REDC) Grants: Through the REDCs, community, business, academic leaders, and members of the public in each region of the state put to work their unique knowledge and understanding of local priorities and assets to help direct state investment in support of job creation and economic growth. The Town may consider REDC grants to fund sidewalk projects that will connect residents to businesses or to public transportation.

REDC Grants may be applied for through the CFA, which allows applicants to be considered for multiple sources of funding for a project by filling out just one application. The CFAs are typically announced in May each year with applications due at the end of July. Several of the grants under the CFA have a minimum funding amount, ranging from \$25,000 to \$150,000.

Community Resiliency, Economic Sustainability and Technology (CREST) Grant Program: The CREST program, administered by the Dormitory Authority of the State of New York (DASNY), provides reimbursement-based grants of capital costs for projects undertaken by eligible entities. The minimum grant award is \$50,000.

Empire State Development Grants (ESD): Available through the Consolidated Funding Application process, ESD provides funds for infrastructure investments under certain programs. Funds may be used to finance infrastructure investments with a goal of attracting new businesses and expanding existing businesses, thereby fostering further investment. Infrastructure projects may include transportation, water and sewer, and parking, among other investments. Depending on the applicable program, a funding match may be required.



Local Funding Partners and Programs

National Grid Grants (GRID): National Grid Economic Development offers grant assistance for many different phases of economic development and community revitalization projects. National Grid may be able to help with staff assistance and resources from their Public Service Commission approved Economic Development Plan. These grants could be explored for assisting with relocation of existing utility poles and infrastructure, and installation of energy efficient site lighting. This grant can be considered in order to upgrade street lighting at intersections throughout the study area.



5.2 PLANNING-LEVEL COST ESTIMATES

Planning-level cost estimates have been developed for the recommended improvements as summarized below. These estimates are based on recent unit pricing available through **NYSDOT's** Pay Item Catalog for Region 1 projects and are intended to give a sense of potential costs for major recommended elements. Further refinement through design and engineering will refine these planning-level cost estimates. The cost has been broken down per intersection.

Table 5-1: Intersection Improvements Cost Estimate Summary

Intersection	Planning-Level Costs (2025 Dollars ¹)
Main Street / Adirondack Avenue / Hudson Street / Elm Street	\$690,000
Main Street / Stewart Farrar Avenue	\$200,000
Main Street / Richards Avenue	\$250,000
Main Street / Horicon Avenue / Water Street	\$260,000
Total	\$1,400,000

1. Totals include work zone traffic control, survey, mobilization, contingencies, construction inspection, and design costs. ROW acquisition and incidental costs are not included.

Table 5-2: Corridor Improvements Cost Estimate Summary

Intersection	Planning-Level Costs (2025 Dollars)
Striping Modifications	\$70,000
Curb Relocations	\$330,000
Gateway Signage	\$10,000
Total	\$410,000

A more detailed summary of the estimated costs are provided in Appendix G.

5.3 PUBLIC EDUCATION

In addition to the physical design and construction of the recommended improvements, a public education component is needed to ensure the public is aware of the laws and recommended safety best practices associated with pedestrian travel in urban corridors. Education programs can include public workshops, school-based programs, and the distribution of educational materials to Town residents via websites, social media platforms, and mailings.

**Appendix A **

Land Use and Zoning Maps



TOWN OF WARRENSBURG

Main Street (US Route 9) Corridor Study

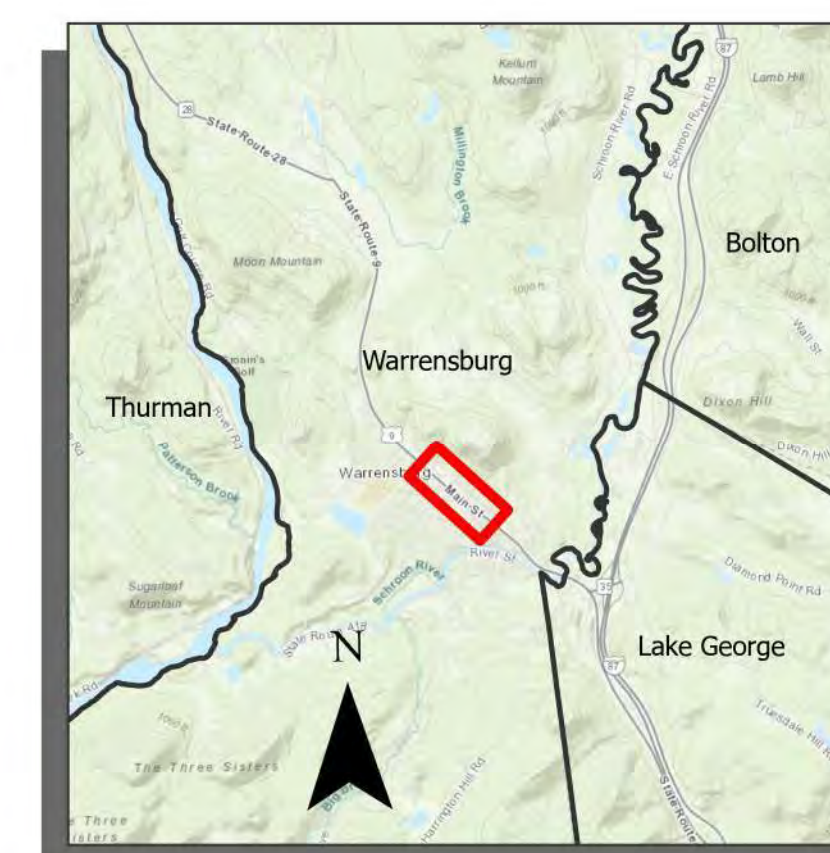
Land Use
August 2024

Legend

- Commercial
- Commercial - Apartments
- Community Services
- Mixed Use
- Parks and Recreation
- Recreation-Indoor
- Residential-High Density
- Residential-Medium Density
- Residential-Low Density
- Utilities
- Vacant Land

Existing Land Use	Land Area (Acres)	Land Area (%)
Commercial	24.80	31.7%
Community Services	17.51	22.4%
Residential-Low Density	12.64	16.2%
Mixed Use	7.03	9.0%
Utilities	5.62	7.2%
Residential-Medium Density	3.97	5.1%
Vacant Land	3.60	4.6%
Residential-High Density	1.38	1.8%
Recreation-Indoor	0.98	1.2%
Commercial - Apartments	0.70	0.9%
Parks and Recreation	0.06	0.1%
TOTAL	78.29	100%

This map was prepared for illustrative purposes only and is not suitable for engineering, surveying, or legal purposes.



Sources:
Esri, NYS ITS

0 200 400
Feet



DRAFT



**Appendix B **

Study Area Intersection Summary

Intersection 1: Main Street / 4th Avenue

The Main Street / 4th Avenue intersection is an unsignalized intersection located at the northern limit of the study area. Only the 4th Avenue approach is stop-controlled, and there are no marked crosswalks at this location.



Figure B-1: Intersection 1

Intersection 2: Main Street / 3rd Avenue

The Main Street / 3rd Avenue intersection is an unsignalized intersection located at the northern limit of the study area. Only the 3rd Avenue approach is stop-controlled, and there are no marked crosswalks at this location.



Figure B-2: Intersection 2

Intersection 3: Main Street / 2nd Avenue

The Main Street / 2nd Avenue intersection is an unsignalized intersection located in the northern portion of the study area. Only the 2nd Avenue approach is stop-controlled, and there are no marked crosswalks at this location.



Figure B-3: Intersection 3

Intersection 4: Main Street / 1st Avenue

The Main Street / 1st Avenue intersection is an unsignalized intersection located near the northern limit of the study area. Only the 1st Avenue approach is stop-controlled, and there are no marked crosswalks at this location.



Figure B-4: Intersection 4

Intersection 5: Main Street and Hackensack Avenue

The Main Street / Hackensack Avenue intersection is an unsignalized intersection located near the northern limit of the study area. Only the Hackensack Avenue approach is stop-controlled, and there are no marked crosswalks at this location.



Figure B-5: Intersection 5

Intersection 6: Main Street / Adirondack Avenue/ Hudson Street and Elm Street

The Main Street / Adirondack Avenue / Hudson Street and Elm Street intersection is a five-leg signalized intersection located in the middle of the study area. There are crosswalks located along the Main Street eastbound and westbound approaches as well as the Elm Street westbound approach. There are existing pedestrian signal accommodations at the crosswalks.



Figure B-6: Intersection 6

Intersection 7: Main Street and Mountain Avenue

The Main Street / Mountain Avenue intersection is an unsignalized intersection located in the middle of the study area. Only the Mountain Avenue approach is stop-controlled, and there is a marked crosswalk located along the Mountain Avenue approach.



Figure B-7: Intersection 7

Intersection 8: Main Street and Emerson Avenue

The Main Street / Emerson Avenue intersection is an unsignalized intersection located in the middle of the study area. Only the Emerson Avenue approach is stop-controlled, and there is a marked crosswalk located along the Emerson Avenue approach.



Figure B-8: Intersection 8

Intersection 9: Main Street and Stewart Farrar Avenue

The Main Street / Stewart Farrar Avenue intersection is an unsignalized intersection located in the middle of the study area. Only the Stewart Farrar Avenue approach is stop-controlled, and there are crosswalks located at all approaches to the intersection.



Figure B-9: Intersection 9

Intersection 10: Main Street and Richards Avenue

The Main Street / Richards Avenue intersection is a three-leg signalized intersection located in the southern portion of the study area. There are marked crosswalks at all approaches to the intersection. The southbound approach crossing contains pedestrian signal equipment while the remaining crossings do not have pedestrian signal accommodations.



Figure B-10: Intersection 10

Intersection 11: Main Street and Herrick Avenue

The Main Street / Herrick Avenue intersection is an unsignalized intersection located in the southern portion of the study area. Only the Herrick Avenue approach is stop-controlled, and there are no marked crosswalks at this location.



Figure B-11: Intersection 11

Intersection 12: Main Street / Horicon Avenue and Water Street

The Main Street / Horicon Avenue / Water Street intersection is a four-leg signalized intersection located in the southern portion of the study area. There are marked crosswalks along all approaches of the intersection. The southbound approach crossing contains pedestrian signal equipment while the remaining crossings do not have pedestrian signal accommodations.



Figure B-12: Intersection 12

Intersection 13: Main Street and Judd Bridge

The Main Street / Judd Bridge intersection is an unsignalized intersection located in the southern portion of the study area.

The southbound and northbound approaches on Main Street consist of one 11-foot lane in each direction. The Judd Bridge approach is stop-controlled and consists of a single 11-foot shared left/right turn lane. There are no marked crosswalks at the intersection.



Figure B-13: Intersection 13

**Appendix C **

Traffic Information

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Hudson Street, Elm Street, & Adirondack Avenue
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/8/2024
Weather: Fair/Light Rain
Entered by: JDB

Thursday



TIME	Northbound on: Route9/Main Street						Northeastbound on: Elm Street						Southbound on: Route9/Main Street						Southeastbound on: Hudson Street						Westbound on: Adirondack Avenue						TOTAL N + S + E + W
	BEAR LEFT	LEFT	THRU	BEAR RIGHT	UTURN	TOTAL	HARD LEFT	BEAR LEFT	THRU	HARD RIGHT	UTURN	TOTAL	HARD LEFT	THRU	BEAR RIGHT	RIGHT	UTURN	TOTAL	LEFT	BEAR LEFT	RIGHT	BEAR RIGHT	UTURN	TOTAL	BEAR LEFT	THRU	BEAR RIGHT	HARD RIGHT	UTURN	TOTAL	
AM																															
7:00 - 7:15	0	9	40	0	0	49	1	1	2	0	0	4	0	37	4	0	0	41	0	0	8	10	0	18	0	0	0	0	0	0	71
7:15 - 7:30	0	7	38	0	0	45	3	17	0	0	0	20	0	42	1	0	0	43	0	0	13	9	0	22	1	0	1	0	0	2	89
7:30 - 7:45	1	11	69	0	0	81	8	9	1	0	0	18	0	52	5	0	0	57	0	0	20	16	0	36	2	1	1	2	0	6	141
7:45 - 8:00	0	17	57	1	0	75	13	16	0	0	0	29	0	59	3	0	0	62	0	0	8	27	0	35	1	0	0	0	0	1	140
8:00 - 8:15	0	14	39	1	0	54	11	15	1	0	0	27	0	53	6	0	0	59	2	1	6	11	0	20	4	0	1	1	0	6	107
8:15 - 8:30	0	11	56	1	0	68	6	9	1	0	0	16	0	42	2	1	0	45	1	0	19	12	0	32	4	0	1	1	0	6	122
8:30 - 8:45	0	12	76	0	0	88	9	9	0	0	0	18	0	55	6	0	0	61	0	0	12	18	0	30	2	1	1	0	0	4	140
8:45 - 9:00	2	12	74	1	0	89	10	12	2	1	0	25	0	72	6	0	0	78	0	0	6	20	0	26	6	1	0	2	0	9	149
2 Hr Totals	3	93	449	4	0	549	61	88	7	1	0	157	0	412	33	1	0	446	3	1	92	123	0	219	20	3	5	6	0	34	959
1 Hr Totals																															
7:00 - 8:00	1	44	204	1	0	250	25	43	3	0	0	71	0	190	13	0	0	203	0	0	49	62	0	111	4	1	2	2	0	9	441
7:15 - 8:15	1	49	203	2	0	255	35	57	2	0	0	94	0	206	15	0	0	221	2	1	47	63	0	113	8	1	3	3	0	15	477
7:30 - 8:30	1	53	221	3	0	278	38	49	3	0	0	90	0	206	16	1	0	223	3	1	53	66	0	123	11	1	3	4	0	19	510
7:45 - 8:45	0	54	228	3	0	285	39	49	2	0	0	90	0	209	17	1	0	227	3	1	45	68	0	117	11	1	3	2	0	17	509
8:00 - 9:00	2	49	245	3	0	299	36	45	4	1	0	86	0	222	20	1	0	243	3	1	43	61	0	108	16	2	3	4	0	25	518
PEAK HOUR																															
8:00 - 9:00	2	49	245	3	0	299	36	45	4	1	0	86	0	222	20	1	0	243	3	1	43	61	0	108	16	2	3	4	0	25	518
PM																															
16:00 - 16:15	0	12	90	1	0	103	20	11	3	2	0	36	0	97	9	0	0	106	0	1	24	29	0	54	7	1	1	3	0	12	205
16:15 - 16:30	1	12	114	1	0	128	15	11	2	0	0	28	1	96	9	0	0	106	1	1	14	22	0	38	5	1	5	1	0	12	206
16:30 - 16:45	0	14	89	0	0	103	12	9	2	1	0	24	0	90	12	0	0	102	1	1	19	10	0	31	11	1	1	2	0	15	173
16:45 - 17:00	0	18	92	0	0	110	12	7	1	0	0	20	1	85	4	0	0	90	0	1	22	28	0	51	8	1	1	2	0	12	193
17:00 - 17:15	0	10	81	1	0	92	18	7	3	0	0	28	1	101	8	1	0	111	1	2	17	16	0	36	5	3	2	0	0	10	166
17:15 - 17:30	1	10	82	0	0	93	12	5	1	1	0	19	0	80	1	0	0	81	0	2	15	16	0	33	3	4	1	2	0	10	155
17:30 - 17:45	1	14	89	0	0	104	4	5	1	0	0	10	0	56	6	1	0	63	0	1	16	15	0	32	6	0	0	3	0	9	155
17:45 - 18:00	0	7	65	0	0	72	13	6	1	1	0	21	0	47	7	0	0	54	3	0	20	12	0	35	4	2	0	2	0	8	136
2 Hr Totals	3	97	702	3	0	805	106	61	14	5	0	186	3	652	56	2	0	713	6	9	147	148	0	310	49	13	11	15	0	88	1389
1 Hr Totals																															
16:00 - 17:00	1	56	385	2	0	444	59	38	8	3	0	108	2	368	34	0	0	404	2	4	79	89	0	174	31	4	8	8	0	51	777
16:15 - 17:15	1	54	376	2	0	433	57	34	8	1	0	100	3	372	33	1	0	409	3	5	72	76	0	156	29	6	9	5	0	49	738
16:30 - 17:30	1	52	344	1	0	398	54	28	7	2	0	91	2	356	25	1	0	384	2	6	73	70	0	151	27	9	5	6	0	47	687
16:45 - 17:45	2	52	344	1	0	399	46	24	6	1	0	77	2	322	19	2	0	345	1	6	70	75	0	152	22	8	4	7	0	41	669
17:00 - 18:00	2	41	317	1	0	361	47	23	6	2	0	78	1	284	22	2	0	309	4	5	68	59	0	136	18	9	3	7	0	37	612
PEAK HOUR																															
16:00 - 17:00	1	56	385	2	0	444	59	38	8	3	0	108	2	368	34	0	0	404	2	4	79	89	0	174	31	4	8	8	0	51	777

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Hudson Street, Elm Street, & Adirondack Avenue
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/10/2024
Weather: Mostly Cloudy
Entered by: JDB

Saturday



TIME	Northbound on: Route9/Main Street						Northeastbound on: Elm Street						Southbound on: Route9/Main Street						Southeastbound on: Hudson Street						Westbound on: Adirondack Avenue						TOTAL N + S + E + W
	BEAR LEFT	LEFT	THRU	BEAR RIGHT	UTURN	TOTAL	HARD LEFT	BEAR LEFT	THRU	HARD RIGHT	UTURN	TOTAL	HARD LEFT	THRU	BEAR RIGHT	RIGHT	UTURN	TOTAL	LEFT	BEAR LEFT	RIGHT	BEAR RIGHT	UTURN	TOTAL	BEAR LEFT	THRU	BEAR RIGHT	HARD RIGHT	UTURN	TOTAL	
MID																															
11:00 - 11:15	1	13	87	0	0	101	20	13	2	1	0	36	1	85	4	1	0	91	0	0	15	16	0	31	4	4	1	3	0	12	180
11:15 - 11:30	0	7	127	0	0	134	18	14	3	1	0	36	0	115	11	1	0	127	0	3	15	13	0	31	12	3	2	1	0	18	219
11:30 - 11:45	1	14	100	1	0	116	24	18	2	1	0	45	0	99	4	1	0	104	0	1	13	19	0	33	16	7	0	2	0	25	219
11:45 - 12:00	0	17	92	3	0	112	22	8	2	1	0	33	0	99	5	0	0	104	2	0	15	16	0	33	10	3	1	2	0	16	194
12:00 - 12:15	3	8	98	1	0	110	18	20	8	4	0	50	1	102	4	0	0	107	2	0	13	24	0	39	10	5	0	1	0	16	215
12:15 - 12:30	0	14	104	1	0	119	17	18	3	3	0	41	0	107	3	0	0	110	1	1	13	19	0	34	13	5	3	4	0	25	219
12:30 - 12:45	0	12	105	4	0	121	14	7	3	2	0	26	1	98	7	0	0	106	1	0	15	18	0	34	10	3	2	7	0	22	203
12:45 - 13:00	0	6	123	1	0	130	16	9	4	1	0	30	0	86	11	3	0	100	0	1	17	13	0	31	11	2	0	3	0	16	207
2 Hr Totals	5	91	836	11	0	943	149	107	27	14	0	297	3	791	49	6	0	849	6	6	116	138	0	266	86	32	9	23	0	150	1656
1 Hr Totals																															
11:00 - 12:00	2	51	406	4	0	463	84	53	9	4	0	150	1	398	24	3	0	426	2	4	58	64	0	128	42	17	4	8	0	71	812
11:15 - 12:15	4	46	417	5	0	472	82	60	15	7	0	164	1	415	24	2	0	442	4	4	56	72	0	136	48	18	3	6	0	75	847
11:30 - 12:30	4	53	394	6	0	457	81	64	15	9	0	169	1	407	16	1	0	425	5	2	54	78	0	139	49	20	4	9	0	82	847
11:45 - 12:45	3	51	399	9	0	462	71	53	16	10	0	150	2	406	19	0	0	427	6	1	56	77	0	140	43	16	6	14	0	79	831
12:00 - 13:00	3	40	430	7	0	480	65	54	18	10	0	147	2	393	25	3	0	423	4	2	58	74	0	138	44	15	5	15	0	79	844
PEAK HOUR																															
11:15 - 12:15	4	46	417	5	0	472	82	60	15	7	0	164	1	415	24	2	0	442	4	4	56	72	0	136	48	18	3	6	0	75	847

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Stewart Farrar Avenue
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/8/2024
Weather: Fair/Mostly cloudy
Entered by: JDB



TIME	Northbound on: Route 9/Main Street					Southbound on: Route 9/Main Street					Eastbound on: Stewart Farrar Avenue					Westbound on:					TOTAL N + S + E + W
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
AM																					
7:00 - 7:15	3	35	0	0	38	0	43	0	0	43	1	0	14	0	15	0	0	0	0	0	96
7:15 - 7:30	5	47	0	0	52	0	57	2	0	59	2	0	14	0	16	0	0	0	0	0	127
7:30 - 7:45	7	90	0	0	97	0	78	1	0	79	2	0	14	0	16	0	0	0	0	0	192
7:45 - 8:00	9	76	0	0	85	0	62	3	0	65	4	0	17	0	21	0	0	0	0	0	171
8:00 - 8:15	16	59	0	0	75	0	56	1	0	57	7	0	10	0	17	0	0	0	0	0	149
8:15 - 8:30	8	77	0	0	85	0	64	3	0	67	3	0	9	0	12	0	0	0	0	0	164
8:30 - 8:45	8	77	0	0	85	0	60	2	0	62	3	0	21	0	24	0	0	0	0	0	171
8:45 - 9:00	12	101	0	0	113	0	85	2	0	87	3	0	17	0	20	0	0	0	0	0	220
2 Hr Totals	68	562	0	0	630	0	505	14	0	519	25	0	116	0	141	0	0	0	0	0	1290
1 Hr Totals																					
7:00 - 8:00	24	248	0	0	272	0	240	6	0	246	9	0	59	0	68	0	0	0	0	0	586
7:15 - 8:15	37	272	0	0	309	0	253	7	0	260	15	0	55	0	70	0	0	0	0	0	639
7:30 - 8:30	40	302	0	0	342	0	260	8	0	268	16	0	50	0	66	0	0	0	0	0	676
7:45 - 8:45	41	289	0	0	330	0	242	9	0	251	17	0	57	0	74	0	0	0	0	0	655
8:00 - 9:00	44	314	0	0	358	0	265	8	0	273	16	0	57	0	73	0	0	0	0	0	704
PEAK HOUR																					
8:00 - 9:00	44	314	0	0	358	0	265	8	0	273	16	0	57	0	73	0	0	0	0	0	704
PM																					
16:00 - 16:15	15	133	0	0	148	0	123	12	0	135	4	0	15	0	19	0	0	0	0	0	302
16:15 - 16:30	13	130	0	0	143	0	119	3	0	122	6	0	13	0	19	0	0	0	0	0	284
16:30 - 16:45	13	135	0	0	148	0	112	6	0	118	8	0	14	0	22	0	0	0	0	0	288
16:45 - 17:00	16	122	0	0	138	0	111	5	0	116	3	0	19	0	22	0	0	0	0	0	276
17:00 - 17:15	12	103	0	0	115	0	126	4	0	130	7	0	11	0	18	0	0	0	0	0	263
17:15 - 17:30	9	114	0	0	123	0	106	4	0	110	3	0	11	0	14	0	0	0	0	0	247
17:30 - 17:45	10	106	0	0	116	0	83	6	0	89	6	0	10	0	16	0	0	0	0	0	221
17:45 - 18:00	11	90	0	0	101	0	74	3	0	77	1	0	8	0	9	0	0	0	0	0	187
2 Hr Totals	99	933	0	0	1032	0	854	43	0	897	38	0	101	0	139	0	0	0	0	0	2068
1 Hr Totals																					
16:00 - 17:00	57	520	0	0	577	0	465	26	0	491	21	0	61	0	82	0	0	0	0	0	1150
16:15 - 17:15	54	490	0	0	544	0	468	18	0	486	24	0	57	0	81	0	0	0	0	0	1111
16:30 - 17:30	50	474	0	0	524	0	455	19	0	474	21	0	55	0	76	0	0	0	0	0	1074
16:45 - 17:45	47	445	0	0	492	0	426	19	0	445	19	0	51	0	70	0	0	0	0	0	1007
17:00 - 18:00	42	413	0	0	455	0	389	17	0	406	17	0	40	0	57	0	0	0	0	0	918
PEAK HOUR																					
16:00 - 17:00	57	520	0	0	577	0	465	26	0	491	21	0	61	0	82	0	0	0	0	0	1150

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Stewart Farrar Avenue
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/10/2024
Weather: Mostly Cloudy
Entered by: JDB



TIME	Northbound on: Route 9/Main Street					Southbound on: Route 9/Main Street					Eastbound on: Stewart Farrar Avenue					Westbound on:					TOTAL N + S + E + W
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
MID																					
11:00 - 11:15	8	146	0	0	154	0	115	6	0	121	5	0	15	0	20	0	0	0	0	0	295
11:15 - 11:30	15	135	0	0	150	0	122	4	0	126	2	0	14	0	16	0	0	0	0	0	292
11:30 - 11:45	5	129	0	0	134	0	122	8	0	130	9	0	15	0	24	0	0	0	0	0	288
11:45 - 12:00	11	135	0	0	146	0	118	5	0	123	6	0	15	0	21	0	0	0	0	0	290
12:00 - 12:15	9	138	0	0	147	0	131	1	0	132	5	0	12	0	17	0	0	0	0	0	296
12:15 - 12:30	9	148	0	0	157	0	135	9	0	144	5	0	13	0	18	0	0	0	0	0	319
12:30 - 12:45	10	136	0	0	146	0	133	4	0	137	4	0	15	0	19	0	0	0	0	0	302
12:45 - 13:00	10	146	0	0	156	0	105	4	0	109	4	0	13	0	17	0	0	0	0	0	282
2 Hr Totals	77	1113	0	0	1190	0	981	41	0	1022	40	0	112	0	152	0	0	0	0	0	2364
1 Hr Totals																					
11:00 - 12:00	39	545	0	0	584	0	477	23	0	500	22	0	59	0	81	0	0	0	0	0	1165
11:15 - 12:15	40	537	0	0	577	0	493	18	0	511	22	0	56	0	78	0	0	0	0	0	1166
11:30 - 12:30	34	550	0	0	584	0	506	23	0	529	25	0	55	0	80	0	0	0	0	0	1193
11:45 - 12:45	39	557	0	0	596	0	517	19	0	536	20	0	55	0	75	0	0	0	0	0	1207
12:00 - 13:00	38	568	0	0	606	0	504	18	0	522	18	0	53	0	71	0	0	0	0	0	1199
PEAK HOUR																					
11:45 - 12:45	39	557	0	0	596	0	517	19	0	536	20	0	55	0	75	0	0	0	0	0	1207

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Richards Avenue
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/8/2024
Weather: Fair/Mostly cloudy
Entered by: JDB



TIME	Northbound					Southbound					Eastbound					Westbound					TOTAL N + S + E + W
	on: Route 9/Main Street					on: Route 9/Main Street					on: Richards Avenue					on:					
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
AM																					
7:00 - 7:15	6	40	0	0	46	0	54	2	0	56	2	0	3	0	5	0	0	0	0	0	107
7:15 - 7:30	6	48	0	0	54	0	65	2	0	67	4	0	4	0	8	0	0	0	0	0	129
7:30 - 7:45	11	89	0	0	100	0	87	6	0	93	8	0	7	0	15	0	0	0	0	0	208
7:45 - 8:00	9	67	0	0	76	0	70	10	0	80	12	0	4	0	16	0	0	0	0	0	172
8:00 - 8:15	5	67	0	0	72	0	57	6	0	63	10	0	6	0	16	0	0	0	0	0	151
8:15 - 8:30	6	86	0	0	92	0	68	7	0	75	7	0	7	0	14	0	0	0	0	0	181
8:30 - 8:45	17	81	0	0	98	0	70	7	0	77	7	0	6	0	13	0	0	0	0	0	188
8:45 - 9:00	7	95	0	0	102	0	86	6	0	92	14	0	10	0	24	0	0	0	0	0	218
2 Hr Totals	67	573	0	0	640	0	557	46	0	603	64	0	47	0	111	0	0	0	0	0	1354
1 Hr Totals																					
7:00 - 8:00	32	244	0	0	276	0	276	20	0	296	26	0	18	0	44	0	0	0	0	0	616
7:15 - 8:15	31	271	0	0	302	0	279	24	0	303	34	0	21	0	55	0	0	0	0	0	660
7:30 - 8:30	31	309	0	0	340	0	282	29	0	311	37	0	24	0	61	0	0	0	0	0	712
7:45 - 8:45	37	301	0	0	338	0	265	30	0	295	36	0	23	0	59	0	0	0	0	0	692
8:00 - 9:00	35	329	0	0	364	0	281	26	0	307	38	0	29	0	67	0	0	0	0	0	738
PEAK HOUR																					
7:30 - 8:30	31	309	0	0	340	0	282	29	0	311	37	0	24	0	61	0	0	0	0	0	712
PM																					
16:00 - 16:15	7	128	0	0	135	0	124	13	0	137	15	0	13	0	28	0	0	0	0	0	300
16:15 - 16:30	16	131	0	0	147	0	115	16	0	131	14	0	16	0	30	0	0	0	0	0	308
16:30 - 16:45	6	132	0	0	138	0	123	12	0	135	15	0	17	0	32	0	0	0	0	0	305
16:45 - 17:00	15	128	0	0	143	0	121	9	0	130	16	0	7	0	23	0	0	0	0	0	296
17:00 - 17:15	12	105	0	0	117	0	126	9	0	135	13	0	17	0	30	0	0	0	0	0	282
17:15 - 17:30	16	112	0	0	128	0	109	13	0	122	12	0	8	0	20	0	0	0	0	0	270
17:30 - 17:45	15	113	0	0	128	0	83	6	0	89	8	0	10	0	18	0	0	0	0	0	235
17:45 - 18:00	14	101	0	0	115	0	79	11	0	90	6	0	17	0	23	0	0	0	0	0	228
2 Hr Totals	101	950	0	0	1051	0	880	89	0	969	99	0	105	0	204	0	0	0	0	0	2224
1 Hr Totals																					
16:00 - 17:00	44	519	0	0	563	0	483	50	0	533	60	0	53	0	113	0	0	0	0	0	1209
16:15 - 17:15	49	496	0	0	545	0	485	46	0	531	58	0	57	0	115	0	0	0	0	0	1191
16:30 - 17:30	49	477	0	0	526	0	479	43	0	522	56	0	49	0	105	0	0	0	0	0	1153
16:45 - 17:45	58	458	0	0	516	0	439	37	0	476	49	0	42	0	91	0	0	0	0	0	1083
17:00 - 18:00	57	431	0	0	488	0	397	39	0	436	39	0	52	0	91	0	0	0	0	0	1015
PEAK HOUR																					
16:00 - 17:00	44	519	0	0	563	0	483	50	0	533	60	0	53	0	113	0	0	0	0	0	1209

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Richards Avenue
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/10/2024
Weather: Mostly Cloudy
Entered by: JDB



TIME	Northbound on: Route 9/Main Street					Southbound on: Route 9/Main Street					Eastbound on: Richards Avenue					Westbound on:					TOTAL N + S + E + W
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
MID																					
11:00 - 11:15	13	152	0	0	165	0	124	7	0	131	8	0	12	0	20	0	0	0	0	0	316
11:15 - 11:30	10	136	0	0	146	0	123	10	0	133	16	0	13	0	29	0	0	0	0	0	308
11:30 - 11:45	11	145	0	0	156	0	146	4	0	150	8	0	11	0	19	0	0	0	0	0	325
11:45 - 12:00	10	125	0	0	135	0	119	5	0	124	4	0	16	0	20	0	0	0	0	0	279
12:00 - 12:15	10	135	0	0	145	0	133	8	0	141	16	0	10	0	26	0	0	0	0	0	312
12:15 - 12:30	15	141	0	0	156	0	137	8	0	145	14	0	6	0	20	0	0	0	0	0	321
12:30 - 12:45	13	138	0	0	151	0	137	6	0	143	13	0	7	0	20	0	0	0	0	0	314
12:45 - 13:00	5	148	0	0	153	0	127	10	0	137	10	0	9	0	19	0	0	0	0	0	309
2 Hr Totals	87	1120	0	0	1207	0	1046	58	0	1104	89	0	84	0	173	0	0	0	0	0	2484
1 Hr Totals																					
11:00 - 12:00	44	558	0	0	602	0	512	26	0	538	36	0	52	0	88	0	0	0	0	0	1228
11:15 - 12:15	41	541	0	0	582	0	521	27	0	548	44	0	50	0	94	0	0	0	0	0	1224
11:30 - 12:30	46	546	0	0	592	0	535	25	0	560	42	0	43	0	85	0	0	0	0	0	1237
11:45 - 12:45	48	539	0	0	587	0	526	27	0	553	47	0	39	0	86	0	0	0	0	0	1226
12:00 - 13:00	43	562	0	0	605	0	534	32	0	566	53	0	32	0	85	0	0	0	0	0	1256
PEAK HOUR																					
12:00 - 13:00	43	562	0	0	605	0	534	32	0	566	53	0	32	0	85	0	0	0	0	0	1256

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Horicon Avenue/Water Street
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/8/2024
Weather: Fair/Mostly cloudy
Entered by: JDB



TIME	Northbound					Southbound					Eastbound					Westbound					TOTAL N + S + E + W
	on: Route 9/Main Street					on: Route 9/Main Street					on: Water Street					on: Horicon Avenue					
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
AM																					
7:00 - 7:15	2	44	1	0	47	1	54	0	0	55	0	1	5	0	6	6	1	6	0	13	121
7:15 - 7:30	3	52	4	0	59	5	65	0	0	70	0	2	11	0	13	4	2	7	0	13	155
7:30 - 7:45	5	97	2	0	104	1	84	0	0	85	0	3	23	0	26	6	3	8	0	17	232
7:45 - 8:00	6	94	4	0	104	3	73	1	0	77	0	6	26	0	32	12	6	5	0	23	236
8:00 - 8:15	4	77	2	0	83	2	55	1	0	58	1	9	14	0	24	8	0	10	0	18	183
8:15 - 8:30	7	95	5	0	107	8	66	0	0	74	0	1	14	0	15	4	4	8	0	16	212
8:30 - 8:45	3	91	3	0	97	2	71	0	0	73	0	2	11	0	13	6	1	7	0	14	197
8:45 - 9:00	2	98	3	1	104	5	93	0	0	98	0	3	14	0	17	9	3	7	0	19	238
2 Hr Totals	32	648	24	1	705	27	561	2	0	590	1	27	118	0	146	55	20	58	0	133	1574
1 Hr Totals																					
7:00 - 8:00	16	287	11	0	314	10	276	1	0	287	0	12	65	0	77	28	12	26	0	66	744
7:15 - 8:15	18	320	12	0	350	11	277	2	0	290	1	20	74	0	95	30	11	30	0	71	806
7:30 - 8:30	22	363	13	0	398	14	278	2	0	294	1	19	77	0	97	30	13	31	0	74	863
7:45 - 8:45	20	357	14	0	391	15	265	2	0	282	1	18	65	0	84	30	11	30	0	71	828
8:00 - 9:00	16	361	13	1	391	17	285	1	0	303	1	15	53	0	69	27	8	32	0	67	830
PEAK HOUR																					
7:30 - 8:30	22	363	13	0	398	14	278	2	0	294	1	19	77	0	97	30	13	31	0	74	863
PM																					
16:00 - 16:15	7	126	12	0	145	8	122	3	0	133	0	4	18	0	22	6	4	5	0	15	315
16:15 - 16:30	6	137	7	0	150	6	134	5	0	145	1	4	22	0	27	6	1	7	0	14	336
16:30 - 16:45	4	130	11	0	145	6	127	1	0	134	1	6	13	0	20	7	4	11	0	22	321
16:45 - 17:00	7	131	6	0	144	10	111	2	0	123	0	4	16	0	20	6	2	7	0	15	302
17:00 - 17:15	9	117	13	0	139	4	126	2	0	132	0	4	10	0	14	14	3	4	0	21	306
17:15 - 17:30	9	120	14	0	143	7	122	2	0	131	2	4	12	0	18	8	2	7	0	17	309
17:30 - 17:45	10	132	9	0	151	5	90	1	0	96	0	0	13	1	14	6	1	10	0	17	278
17:45 - 18:00	9	108	12	0	129	5	75	6	0	86	1	4	15	0	20	6	4	4	0	14	249
2 Hr Totals	61	1001	84	0	1146	51	907	22	0	980	5	30	119	1	155	59	21	55	0	135	2416
1 Hr Totals																					
16:00 - 17:00	24	524	36	0	584	30	494	11	0	535	2	18	69	0	89	25	11	30	0	66	1274
16:15 - 17:15	26	515	37	0	578	26	498	10	0	534	2	18	61	0	81	33	10	29	0	72	1265
16:30 - 17:30	29	498	44	0	571	27	486	7	0	520	3	18	51	0	72	35	11	29	0	75	1238
16:45 - 17:45	35	500	42	0	577	26	449	7	0	482	2	12	51	1	66	34	8	28	0	70	1195
17:00 - 18:00	37	477	48	0	562	21	413	11	0	445	3	12	50	1	66	34	10	25	0	69	1142
PEAK HOUR																					
16:00 - 17:00	24	524	36	0	584	30	494	11	0	535	2	18	69	0	89	25	11	30	0	66	1274

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route9/Main Street
and: Horicon Avenue/Water Street
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/10/2024
Weather: Mostly Cloudy
Entered by: JDB



TIME	Northbound on: Route 9/Main Street					Southbound on: Route 9/Main Street					Eastbound on: Water Street					Westbound on: Horicon Avenue					TOTAL N + S + E + W
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
MID																					
11:00 - 11:15	15	147	7	0	169	6	127	2	0	135	0	3	21	0	24	5	3	15	0	23	351
11:15 - 11:30	7	142	10	0	159	8	125	0	0	133	1	2	18	0	21	10	2	12	0	24	337
11:30 - 11:45	8	153	20	0	181	9	129	2	0	140	0	0	14	0	14	9	2	6	0	17	352
11:45 - 12:00	9	127	9	0	145	4	131	2	0	137	0	2	16	0	18	9	3	9	0	21	321
12:00 - 12:15	7	137	10	0	154	7	138	3	0	148	1	5	17	0	23	15	1	7	0	23	348
12:15 - 12:30	9	144	11	0	164	5	137	2	0	144	1	3	15	0	19	5	1	13	0	19	346
12:30 - 12:45	7	142	13	0	162	7	136	1	0	144	1	2	17	0	20	7	2	9	0	18	344
12:45 - 13:00	3	149	8	0	160	6	124	0	0	130	0	3	12	0	15	11	2	12	0	25	330
2 Hr Totals	65	1141	88	0	1294	52	1047	12	0	1111	4	20	130	0	154	71	16	83	0	170	2729
1 Hr Totals																					
11:00 - 12:00	39	569	46	0	654	27	512	6	0	545	1	7	69	0	77	33	10	42	0	85	1361
11:15 - 12:15	31	559	49	0	639	28	523	7	0	558	2	9	65	0	76	43	8	34	0	85	1358
11:30 - 12:30	33	561	50	0	644	25	535	9	0	569	2	10	62	0	74	38	7	35	0	80	1367
11:45 - 12:45	32	550	43	0	625	23	542	8	0	573	3	12	65	0	80	36	7	38	0	81	1359
12:00 - 13:00	26	572	42	0	640	25	535	6	0	566	3	13	61	0	77	38	6	41	0	85	1368
PEAK HOUR																					
12:00 - 13:00	26	572	42	0	640	25	535	6	0	566	3	13	61	0	77	38	6	41	0	85	1368

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Judd Bridge
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/8/2024
Weather: Fair/Mostly cloudy
Entered by: JDB



TIME	Northbound					Southbound					Eastbound					Westbound					TOTAL N + S + E + W
	on: Route 9/Main Street					on: Route 9/Main Street					on: Judd Bridge					on:					
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
AM																					
7:00 - 7:15	3	49	0	0	52	0	59	1	0	60	0	0	14	0	14	0	0	0	0	0	126
7:15 - 7:30	10	60	0	0	70	0	81	1	0	82	0	0	21	0	21	0	0	0	0	0	173
7:30 - 7:45	6	104	0	0	110	0	114	1	0	115	1	0	23	0	24	0	0	0	0	0	249
7:45 - 8:00	13	108	0	0	121	0	104	1	0	105	2	0	24	0	26	0	0	0	0	0	252
8:00 - 8:15	12	85	0	0	97	0	75	3	0	78	4	0	15	0	19	0	0	0	0	0	194
8:15 - 8:30	8	102	0	0	110	0	81	3	0	84	2	0	15	0	17	0	0	0	0	0	211
8:30 - 8:45	8	95	0	0	103	0	90	1	0	91	3	0	17	0	20	0	0	0	0	0	214
8:45 - 9:00	7	110	0	0	117	0	114	2	0	116	3	0	21	0	24	0	0	0	0	0	257
2 Hr Totals	67	713	0	0	780	0	718	13	0	731	15	0	150	0	165	0	0	0	0	0	1676
1 Hr Totals																					
7:00 - 8:00	32	321	0	0	353	0	358	4	0	362	3	0	82	0	85	0	0	0	0	0	800
7:15 - 8:15	41	357	0	0	398	0	374	6	0	380	7	0	83	0	90	0	0	0	0	0	868
7:30 - 8:30	39	399	0	0	438	0	374	8	0	382	9	0	77	0	86	0	0	0	0	0	906
7:45 - 8:45	41	390	0	0	431	0	350	8	0	358	11	0	71	0	82	0	0	0	0	0	871
8:00 - 9:00	35	392	0	0	427	0	360	9	0	369	12	0	68	0	80	0	0	0	0	0	876
PEAK HOUR																					
7:30 - 8:30	39	399	0	0	438	0	374	8	0	382	9	0	77	0	86	0	0	0	0	0	906
PM																					
16:00 - 16:15	39	154	0	0	193	0	143	6	0	149	2	0	11	0	13	0	0	0	0	0	355
16:15 - 16:30	40	154	0	0	194	0	151	1	0	152	0	0	18	0	18	0	0	0	0	0	364
16:30 - 16:45	28	147	0	0	175	0	158	4	0	162	0	0	15	0	15	0	0	0	0	0	352
16:45 - 17:00	18	137	0	0	155	0	136	3	0	139	1	0	19	0	20	0	0	0	0	0	314
17:00 - 17:15	29	142	0	0	171	0	150	3	0	153	1	0	13	0	14	0	0	0	0	0	338
17:15 - 17:30	31	140	0	0	171	0	143	0	0	143	1	0	12	0	13	0	0	0	0	0	327
17:30 - 17:45	24	144	0	0	168	0	108	2	0	110	2	0	15	0	17	0	0	0	0	0	295
17:45 - 18:00	22	128	0	0	150	0	98	2	0	100	1	0	9	0	10	0	0	0	0	0	260
2 Hr Totals	231	1146	0	0	1377	0	1087	21	0	1108	8	0	112	0	120	0	0	0	0	0	2605
1 Hr Totals																					
16:00 - 17:00	125	592	0	0	717	0	588	14	0	602	3	0	63	0	66	0	0	0	0	0	1385
16:15 - 17:15	115	580	0	0	695	0	595	11	0	606	2	0	65	0	67	0	0	0	0	0	1368
16:30 - 17:30	106	566	0	0	672	0	587	10	0	597	3	0	59	0	62	0	0	0	0	0	1331
16:45 - 17:45	102	563	0	0	665	0	537	8	0	545	5	0	59	0	64	0	0	0	0	0	1274
17:00 - 18:00	106	554	0	0	660	0	499	7	0	506	5	0	49	0	54	0	0	0	0	0	1220
PEAK HOUR																					
16:00 - 17:00	125	592	0	0	717	0	588	14	0	602	3	0	63	0	66	0	0	0	0	0	1385

TOTALS TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Route 9/Main Street
and: Judd Bridge
Location: Warrensburg, NY

Counted by: The Traffic Group
Date: 8/10/2024
Weather: Mostly Cloudy
Entered by: JDB


















TIME	Northbound on: Route 9/Main Street					Southbound on: Route 9/Main Street					Eastbound on: Judd Bridge					Westbound on:					TOTAL N + S + E + W
	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	LEFT	THRU	RIGHT	UTURN	TOTAL	
MID																					
11:00 - 11:15	14	169	0	0	183	0	147	2	0	149	1	0	25	0	26	0	0	0	0	0	358
11:15 - 11:30	22	165	0	0	187	0	155	3	0	158	1	0	13	0	14	0	0	0	0	0	359
11:30 - 11:45	15	173	0	0	188	0	149	1	1	151	0	0	16	0	16	0	0	0	0	0	355
11:45 - 12:00	15	150	0	0	165	0	150	3	0	153	0	0	19	0	19	0	0	0	0	0	337
12:00 - 12:15	22	152	0	0	174	0	171	2	0	173	1	0	13	0	14	0	0	0	0	0	361
12:15 - 12:30	17	155	0	0	172	0	156	0	0	156	0	0	11	0	11	0	0	0	0	0	339
12:30 - 12:45	18	168	0	0	186	0	158	1	0	159	2	0	17	0	19	0	0	0	0	0	364
12:45 - 13:00	17	155	0	0	172	0	144	1	0	145	2	0	22	0	24	0	0	0	0	0	341
2 Hr Totals	140	1287	0	0	1427	0	1230	13	1	1244	7	0	136	0	143	0	0	0	0	0	2814
1 Hr Totals																					
11:00 - 12:00	66	657	0	0	723	0	601	9	1	611	2	0	73	0	75	0	0	0	0	0	1409
11:15 - 12:15	74	640	0	0	714	0	625	9	1	635	2	0	61	0	63	0	0	0	0	0	1412
11:30 - 12:30	69	630	0	0	699	0	626	6	1	633	1	0	59	0	60	0	0	0	0	0	1392
11:45 - 12:45	72	625	0	0	697	0	635	6	0	641	3	0	60	0	63	0	0	0	0	0	1401
12:00 - 13:00	74	630	0	0	704	0	629	4	0	633	5	0	63	0	68	0	0	0	0	0	1405
PEAK HOUR																					
11:15 - 12:15	74	640	0	0	714	0	625	9	1	635	2	0	61	0	63	0	0	0	0	0	1412

HCM Signalized Intersection Capacity Analysis

2024 Existing AM

1: Elm Street & Hudson Street/Adirondack Avenue & Main Street (US Route 9)

08/21/2024

												
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	3	1	43	61	16	2	3	4	2	49	245	3
Future Volume (vph)	3	1	43	61	16	2	3	4	2	49	245	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0					5.0				5.0	
Lane Util. Factor		1.00					1.00				1.00	
Frt		0.87					0.98				1.00	
Flt Protected		1.00					0.97				0.99	
Satd. Flow (prot)		1617					1755				1845	
Flt Permitted		0.99					1.00				0.90	
Satd. Flow (perm)		1608					1818				1681	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	3	1	49	70	18	2	3	5	2	56	282	3
RTOR Reduction (vph)	0	46	0	0	0	0	5	0	0	0	0	0
Lane Group Flow (vph)	0	77	0	0	0	0	23	0	0	0	343	0
Turn Type	Perm	NA			Perm	Perm	NA		Perm	Perm	NA	
Protected Phases		3					9				2	
Permitted Phases	3				9	9			2	2		
Actuated Green, G (s)		7.0					2.4				22.9	
Effective Green, g (s)		7.0					2.4				22.9	
Actuated g/C Ratio		0.12					0.04				0.40	
Clearance Time (s)		5.0					5.0				5.0	
Vehicle Extension (s)		3.0					3.0				3.0	
Lane Grp Cap (vph)		197					76				675	
v/s Ratio Prot												
v/s Ratio Perm		c0.05					c0.01				c0.20	
v/c Ratio		0.39					0.31				0.51	
Uniform Delay, d1		23.0					26.5				12.8	
Progression Factor		1.00					1.00				1.00	
Incremental Delay, d2		1.3					2.3				0.6	
Delay (s)		24.3					28.8				13.4	
Level of Service		C					C				B	
Approach Delay (s)		24.3					28.8				13.4	
Approach LOS		C					C				B	
Intersection Summary												
HCM 2000 Control Delay		16.3					HCM 2000 Level of Service				B	
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		57.0					Sum of lost time (s)			20.0		
Intersection Capacity Utilization		58.4%					ICU Level of Service			B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

2024 Existing AM




1: Elm Street & Hudson Street/Adirondack Avenue & Main Street (US Route 9)

08/21/2024



Movement	SBT	SBR	SBR2	NEL2	NEL	NER	NER2
Lane Configurations							
Traffic Volume (vph)	222	20	1	36	45	4	1
Future Volume (vph)	222	20	1	36	45	4	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0				5.0		
Lane Util. Factor	1.00				1.00		
Frt	0.99				0.99		
Flt Protected	1.00				0.96		
Satd. Flow (prot)	1841				1765		
Flt Permitted	1.00				0.96		
Satd. Flow (perm)	1841				1765		
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	255	23	1	41	52	5	1
RTOR Reduction (vph)	0	0	0	0	91	0	0
Lane Group Flow (vph)	279	0	0	0	8	0	0
Turn Type	NA			Perm	Prot		
Protected Phases	6				4		
Permitted Phases				4			
Actuated Green, G (s)	22.9				4.7		
Effective Green, g (s)	22.9				4.7		
Actuated g/C Ratio	0.40				0.08		
Clearance Time (s)	5.0				5.0		
Vehicle Extension (s)	3.0				3.0		
Lane Grp Cap (vph)	739				145		
v/s Ratio Prot	0.15						
v/s Ratio Perm					0.00		
v/c Ratio	0.38				0.06		
Uniform Delay, d1	12.0				24.1		
Progression Factor	1.00				1.00		
Incremental Delay, d2	0.3				0.2		
Delay (s)	12.3				24.3		
Level of Service	B				C		
Approach Delay (s)	12.3				24.3		
Approach LOS	B				C		




Intersection Summary

Intersection						
Int Delay, s/veh	1.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	57	44	314	265	8
Future Vol, veh/h	16	57	44	314	265	8
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	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	71	55	393	331	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	839	336	341	0	-	0
Stage 1	336	-	-	-	-	-
Stage 2	503	-	-	-	-	-
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	336	706	1218	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	317	706	1218	-	-	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	682	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.7	1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1218	-	556	-	-	
HCM Lane V/C Ratio	0.045	-	0.164	-	-	
HCM Control Delay (s)	8.1	0	12.7	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-	

HCM 6th Signalized Intersection Summary 3: Richards Avenue & Main Street (US Route 9)

2024 Existing AM
08/21/2024



















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	37	24	31	309	282	29
Future Volume (veh/h)	37	24	31	309	282	29
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	45	30	39	386	352	36
Peak Hour Factor	0.82	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	158	105	171	874	844	86
Arrive On Green	0.16	0.16	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1006	671	76	1728	1669	171
Grp Volume(v), veh/h	76	0	425	0	0	388
Grp Sat Flow(s),veh/h/ln	1699	0	1804	0	0	1840
Q Serve(g_s), s	1.2	0.0	0.0	0.0	0.0	3.9
Cycle Q Clear(g_c), s	1.2	0.0	4.3	0.0	0.0	3.9
Prop In Lane	0.59	0.39	0.09			0.09
Lane Grp Cap(c), veh/h	267	0	1045	0	0	931
V/C Ratio(X)	0.29	0.00	0.41	0.00	0.00	0.42
Avail Cap(c_a), veh/h	1433	0	3380	0	0	3412
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.0	0.0	4.7	0.0	0.0	4.6
Incr Delay (d2), s/veh	0.6	0.0	0.3	0.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.7	0.0	0.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.6	0.0	4.9	0.0	0.0	4.9
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	76			425	388	
Approach Delay, s/veh	11.6			4.9	4.9	
Approach LOS	B			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	20.0		9.7		20.0	
Change Period (Y+Rc), s	5.0		5.0		5.0	
Max Green Setting (Gmax), s	55.0		25.0		55.0	
Max Q Clear Time (g_c+I1), s	6.3		3.2		5.9	
Green Ext Time (p_c), s	3.1		0.2		2.7	
Intersection Summary						
HCM 6th Ctrl Delay			5.5			
HCM 6th LOS			A			




HCM 6th Signalized Intersection Summary

4: Main Street (US Route 9) & Water Street/Horicon Avenue

2024 Existing AM

08/21/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	19	77	30	13	30	22	363	13	14	278	2
Future Volume (veh/h)	1	19	77	30	13	30	22	363	13	14	278	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1	21	85	33	14	33	24	399	14	15	305	2
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	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	95	29	117	192	30	63	124	1130	38	115	1176	7
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.65	0.65	0.65	0.65	0.65	0.65
Sat Flow, veh/h	10	331	1318	674	339	711	38	1735	59	27	1806	11
Grp Volume(v), veh/h	107	0	0	80	0	0	437	0	0	322	0	0
Grp Sat Flow(s),veh/h/ln	1659	0	0	1724	0	0	1832	0	0	1844	0	0
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.4	0.0	0.0	1.6	0.0	0.0	4.1	0.0	0.0	2.8	0.0	0.0
Prop In Lane	0.01		0.79	0.41		0.41	0.05		0.03	0.05		0.01
Lane Grp Cap(c), veh/h	242	0	0	285	0	0	1291	0	0	1298	0	0
V/C Ratio(X)	0.44	0.00	0.00	0.28	0.00	0.00	0.34	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	1159	0	0	1506	0	0	2222	0	0	2231	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.0	0.0	0.0	16.7	0.0	0.0	3.1	0.0	0.0	2.8	0.0	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.5	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.6	0.0	0.0	0.5	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	0.0	0.0	17.2	0.0	0.0	3.2	0.0	0.0	2.9	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		107			80			437			322	
Approach Delay, s/veh		18.3			17.2			3.2			2.9	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		30.0		8.4		30.0		8.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		45.0		25.0		45.0		35.0				
Max Q Clear Time (g_c+I1), s		6.1		4.4		4.8		3.6				
Green Ext Time (p_c), s		2.1		0.4		1.4		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				6.0								
HCM 6th LOS				A								
















Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	77	39	399	374	8
Future Vol, veh/h	9	77	39	399	374	8
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	86	43	443	416	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	950	421	425	0	-	0
Stage 1	421	-	-	-	-	-
Stage 2	529	-	-	-	-	-
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	289	632	1134	-	-	-
Stage 1	662	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	275	632	1134	-	-	-
Mov Cap-2 Maneuver	275	-	-	-	-	-
Stage 1	629	-	-	-	-	-
Stage 2	591	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.8	0.7		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1134	-	556	-	-	
HCM Lane V/C Ratio	0.038	-	0.172	-	-	
HCM Control Delay (s)	8.3	0	12.8	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-	

HCM Signalized Intersection Capacity Analysis

2024 Existing PM

1: Elm Street & Hudson Street/Adirondack Avenue & Main Street (US Route 9)

08/21/2024

												
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	2	4	79	89	31	4	8	8	1	56	385	2
Future Volume (vph)	2	4	79	89	31	4	8	8	1	56	385	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0					5.0				5.0	
Lane Util. Factor		1.00					1.00				1.00	
Frt		0.87					0.98				1.00	
Flt Protected		1.00					0.97				0.99	
Satd. Flow (prot)		1619					1762				1850	
Flt Permitted		1.00					0.71				0.91	
Satd. Flow (perm)		1616					1297				1688	
Peak-hour factor, PHF	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)	2	4	84	95	33	4	9	9	1	60	410	2
RTOR Reduction (vph)	0	35	0	0	0	0	7	0	0	0	0	0
Lane Group Flow (vph)	0	150	0	0	0	0	48	0	0	0	473	0
Turn Type	Perm	NA			Perm	Perm	NA		Perm	Perm	NA	
Protected Phases		3					9				2	
Permitted Phases	3				9	9			2	2		
Actuated Green, G (s)		13.0					4.7				33.2	
Effective Green, g (s)		13.0					4.7				33.2	
Actuated g/C Ratio		0.17					0.06				0.44	
Clearance Time (s)		5.0					5.0				5.0	
Vehicle Extension (s)		3.0					3.0				3.0	
Lane Grp Cap (vph)		276					80				737	
v/s Ratio Prot												
v/s Ratio Perm		c0.09					c0.04				c0.28	
v/c Ratio		0.54					0.61				0.64	
Uniform Delay, d1		28.8					34.7				16.7	
Progression Factor		1.00					1.00				1.00	
Incremental Delay, d2		2.2					12.3				1.9	
Delay (s)		31.0					47.0				18.7	
Level of Service		C					D				B	
Approach Delay (s)		31.0					47.0				18.7	
Approach LOS		C					D				B	
Intersection Summary												
HCM 2000 Control Delay		22.3					HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio		0.56										
Actuated Cycle Length (s)		76.0					Sum of lost time (s)			20.0		
Intersection Capacity Utilization		86.8%					ICU Level of Service			E		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

2024 Existing PM




1: Elm Street & Hudson Street/Adirondack Avenue & Main Street (US Route 9)

08/21/2024



Movement	SBL	SBT	SBR	NEL2	NEL	NER	NER2
Lane Configurations		↔			↔		
Traffic Volume (vph)	2	368	34	59	38	8	3
Future Volume (vph)	2	368	34	59	38	8	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0		
Lane Util. Factor		1.00			1.00		
Frt		0.99			0.99		
Flt Protected		1.00			0.96		
Satd. Flow (prot)		1841			1758		
Flt Permitted		1.00			0.96		
Satd. Flow (perm)		1839			1758		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	2	391	36	63	40	9	3
RTOR Reduction (vph)	0	0	0	0	107	0	0
Lane Group Flow (vph)	0	429	0	0	8	0	0
Turn Type	Perm	NA		Perm	Prot		
Protected Phases		6			4		
Permitted Phases	6			4			
Actuated Green, G (s)		33.2			5.1		
Effective Green, g (s)		33.2			5.1		
Actuated g/C Ratio		0.44			0.07		
Clearance Time (s)		5.0			5.0		
Vehicle Extension (s)		3.0			3.0		
Lane Grp Cap (vph)		803			117		
v/s Ratio Prot							
v/s Ratio Perm		0.23			0.00		
v/c Ratio		0.53			0.07		
Uniform Delay, d1		15.7			33.2		
Progression Factor		1.00			1.00		
Incremental Delay, d2		0.7			0.2		
Delay (s)		16.4			33.5		
Level of Service		B			C		
Approach Delay (s)		16.4			33.5		
Approach LOS		B			C		




Intersection Summary

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	61	57	520	465	26
Future Vol, veh/h	21	61	57	520	465	26
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	64	60	547	489	27
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1170	503	516	0	-	0
Stage 1	503	-	-	-	-	-
Stage 2	667	-	-	-	-	-
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	213	569	1050	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	196	569	1050	-	-	-
Mov Cap-2 Maneuver	196	-	-	-	-	-
Stage 1	557	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	17.1	0.9		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1050	-	383	-	-	
HCM Lane V/C Ratio	0.057	-	0.225	-	-	
HCM Control Delay (s)	8.6	0	17.1	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0.2	-	0.9	-	-	

HCM 6th Signalized Intersection Summary 3: Richards Avenue & Main Street (US Route 9)

2024 Existing PM
08/21/2024



















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	53	44	519	483	50
Future Volume (veh/h)	60	53	44	519	483	50
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	56	46	546	508	53
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	183	162	156	818	793	83
Arrive On Green	0.21	0.21	0.48	0.48	0.48	0.48
Sat Flow, veh/h	884	786	69	1718	1665	174
Grp Volume(v), veh/h	120	0	592	0	0	561
Grp Sat Flow(s),veh/h/ln	1685	0	1787	0	0	1839
Q Serve(g_s), s	1.9	0.0	0.5	0.0	0.0	7.2
Cycle Q Clear(g_c), s	1.9	0.0	7.7	0.0	0.0	7.2
Prop In Lane	0.52	0.47	0.08			0.09
Lane Grp Cap(c), veh/h	348	0	974	0	0	876
V/C Ratio(X)	0.35	0.00	0.61	0.00	0.00	0.64
Avail Cap(c_a), veh/h	1337	0	3146	0	0	3211
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	10.7	0.0	6.3	0.0	0.0	6.2
Incr Delay (d2), s/veh	0.6	0.0	0.6	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.6	0.0	0.0	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.3	0.0	6.9	0.0	0.0	7.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	120			592	561	
Approach Delay, s/veh	11.3			6.9	7.0	
Approach LOS	B			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	20.0		11.5		20.0	
Change Period (Y+Rc), s	5.0		5.0		5.0	
Max Green Setting (Gmax), s	55.0		25.0		55.0	
Max Q Clear Time (g_c+I1), s	9.7		3.9		9.2	
Green Ext Time (p_c), s	4.9		0.4		4.3	
Intersection Summary						
HCM 6th Ctrl Delay			7.4			
HCM 6th LOS			A			




HCM 6th Signalized Intersection Summary

4: Main Street (US Route 9) & Water Street/Horicon Avenue

2024 Existing PM

08/21/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	18	69	25	11	30	24	524	36	30	494	11
Future Volume (veh/h)	2	18	69	25	11	30	24	524	36	30	494	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	2	19	73	26	12	32	25	552	38	32	520	12
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	29	107	180	27	65	117	1099	74	128	1132	25
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	25	348	1296	607	325	784	28	1677	112	43	1728	38
Grp Volume(v), veh/h	94	0	0	70	0	0	615	0	0	564	0	0
Grp Sat Flow(s),veh/h/ln	1669	0	0	1716	0	0	1818	0	0	1809	0	0
Q Serve(g_s), s	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.4	0.0	0.0	6.6	0.0	0.0	5.7	0.0	0.0
Prop In Lane	0.02		0.78	0.37		0.46	0.04		0.06	0.06		0.02
Lane Grp Cap(c), veh/h	234	0	0	271	0	0	1289	0	0	1285	0	0
V/C Ratio(X)	0.40	0.00	0.00	0.26	0.00	0.00	0.48	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	1167	0	0	1527	0	0	2216	0	0	2197	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.0	0.0	0.0	16.7	0.0	0.0	3.4	0.0	0.0	3.3	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.5	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.5	0.0	0.0	0.8	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	0.0	0.0	17.2	0.0	0.0	3.7	0.0	0.0	3.5	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h		94			70			615			564	
Approach Delay, s/veh		18.1			17.2			3.7			3.5	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		30.0		8.2		30.0		8.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		45.0		25.0		45.0		35.0				
Max Q Clear Time (g_c+I1), s		8.6		4.1		7.7		3.4				
Green Ext Time (p_c), s		3.3		0.3		3.0		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				5.3								
HCM 6th LOS				A								
















Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	63	125	592	588	14
Future Vol, veh/h	3	63	125	592	588	14
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	66	132	623	619	15
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1514	627	634	0	-	0
Stage 1	627	-	-	-	-	-
Stage 2	887	-	-	-	-	-
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	132	484	949	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	484	949	-	-	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	419	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.4	1.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	949	-	415	-	-	
HCM Lane V/C Ratio	0.139	-	0.167	-	-	
HCM Control Delay (s)	9.4	0	15.4	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0.5	-	0.6	-	-	

HCM Signalized Intersection Capacity Analysis

2024 Existing Saturday MIDDAY

1: Elm Street & Hudson Street/Adirondack Avenue & Main Street (US Route 9)

08/21/2024

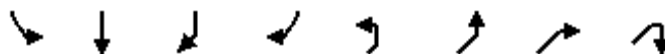
												
Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBT	WBR	NBL2	NBL	NBT	NBR
Lane Configurations												
Traffic Volume (vph)	4	4	56	72	48	18	3	6	4	46	417	5
Future Volume (vph)	4	4	56	72	48	18	3	6	4	46	417	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0					5.0				5.0	
Lane Util. Factor		1.00					1.00				1.00	
Frt		0.87					0.99				1.00	
Flt Protected		1.00					0.96				0.99	
Satd. Flow (prot)		1623					1765				1850	
Flt Permitted		1.00					0.66				0.91	
Satd. Flow (perm)		1622					1208				1701	
Peak-hour factor, PHF	0.97	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)	4	4	58	74	49	19	3	6	4	47	430	5
RTOR Reduction (vph)	0	39	0	0	0	0	3	0	0	0	1	0
Lane Group Flow (vph)	0	101	0	0	0	0	74	0	0	0	485	0
Turn Type	Perm	NA			Perm	Perm	NA		Perm	Perm	NA	
Protected Phases		3					9				2	
Permitted Phases	3				9	9			2	2		
Actuated Green, G (s)		10.6					7.2				29.7	
Effective Green, g (s)		10.6					7.2				29.7	
Actuated g/C Ratio		0.14					0.09				0.39	
Clearance Time (s)		5.0					5.0				5.0	
Vehicle Extension (s)		3.0					3.0				3.0	
Lane Grp Cap (vph)		225					114				662	
v/s Ratio Prot												
v/s Ratio Perm		c0.06					c0.06				c0.29	
v/c Ratio		0.45					0.65				0.73	
Uniform Delay, d1		30.1					33.3				19.9	
Progression Factor		1.00					1.00				1.00	
Incremental Delay, d2		1.4					12.6				4.2	
Delay (s)		31.6					45.9				24.1	
Level of Service		C					D				C	
Approach Delay (s)		31.6					45.9				24.1	
Approach LOS		C					D				C	
Intersection Summary												
HCM 2000 Control Delay		26.0					HCM 2000 Level of Service				C	
HCM 2000 Volume to Capacity ratio		0.60										
Actuated Cycle Length (s)		76.2					Sum of lost time (s)			20.0		
Intersection Capacity Utilization		91.1%					ICU Level of Service			F		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

2024 Existing Saturday MIDDAY

1: Elm Street & Hudson Street/Adirondack Avenue & Main Street (US Route 9)

08/21/2024






Movement	SBL	SBT	SBR	SBR2	NEL2	NEL	NER	NER2
Lane Configurations		↔				↔		
Traffic Volume (vph)	1	415	24	2	82	60	15	7
Future Volume (vph)	1	415	24	2	82	60	15	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0				5.0		
Lane Util. Factor		1.00				1.00		
Frt		0.99				0.98		
Flt Protected		1.00				0.96		
Satd. Flow (prot)		1848				1754		
Flt Permitted		1.00				0.96		
Satd. Flow (perm)		1847				1754		
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	1	428	25	2	85	62	15	7
RTOR Reduction (vph)	0	0	0	0	0	105	0	0
Lane Group Flow (vph)	0	456	0	0	0	64	0	0
Turn Type	Perm	NA			Perm	Prot		
Protected Phases		6				4		
Permitted Phases	6				4			
Actuated Green, G (s)		29.7				8.7		
Effective Green, g (s)		29.7				8.7		
Actuated g/C Ratio		0.39				0.11		
Clearance Time (s)		5.0				5.0		
Vehicle Extension (s)		3.0				3.0		
Lane Grp Cap (vph)		719				200		
v/s Ratio Prot								
v/s Ratio Perm		0.25				0.04		
v/c Ratio		0.63				0.32		
Uniform Delay, d1		18.8				31.0		
Progression Factor		1.00				1.00		
Incremental Delay, d2		1.8				0.9		
Delay (s)		20.7				31.9		
Level of Service		C				C		
Approach Delay (s)		20.7				31.9		
Approach LOS		C				C		

Intersection Summary

HCM 6th TWSC
2: Main Street (US Route 9) & Stewart Ferrar Ave

2024 Existing Saturday Midday
08/21/2024




Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	20	55	39	557	517	19
Future Vol, veh/h	20	55	39	557	517	19
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	58	41	586	544	20
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1222	554	564	0	-	0
Stage 1	554	-	-	-	-	-
Stage 2	668	-	-	-	-	-
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	198	532	1008	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	186	532	1008	-	-	-
Mov Cap-2 Maneuver	186	-	-	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	18	0.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1008	-	356	-	-	
HCM Lane V/C Ratio	0.041	-	0.222	-	-	
HCM Control Delay (s)	8.7	0	18	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-	

HCM 6th Signalized Intersection Summary

3: Richards Avenue & Main Street (US Route 9)

2024 Existing Saturday MIDDAY
08/21/2024



















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	53	32	43	562	534	32
Future Volume (veh/h)	53	32	43	562	534	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	56	34	45	592	562	34
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	184	112	156	866	874	53
Arrive On Green	0.18	0.18	0.50	0.50	0.50	0.50
Sat Flow, veh/h	1048	636	61	1731	1746	106
Grp Volume(v), veh/h	91	0	637	0	0	596
Grp Sat Flow(s),veh/h/ln	1703	0	1792	0	0	1851
Q Serve(g_s), s	1.4	0.0	0.4	0.0	0.0	7.3
Cycle Q Clear(g_c), s	1.4	0.0	8.0	0.0	0.0	7.3
Prop In Lane	0.62	0.37	0.07			0.06
Lane Grp Cap(c), veh/h	299	0	1022	0	0	926
V/C Ratio(X)	0.30	0.00	0.62	0.00	0.00	0.64
Avail Cap(c_a), veh/h	1380	0	3222	0	0	3300
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	11.1	0.0	5.8	0.0	0.0	5.7
Incr Delay (d2), s/veh	0.6	0.0	0.6	0.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.5	0.0	0.0	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.6	0.0	6.5	0.0	0.0	6.4
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	91			637	596	
Approach Delay, s/veh	11.6			6.5	6.4	
Approach LOS	B			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	20.4		10.4		20.4	
Change Period (Y+Rc), s	5.0		5.0		5.0	
Max Green Setting (Gmax), s	55.0		25.0		55.0	
Max Q Clear Time (g_c+I1), s	10.0		3.4		9.3	
Green Ext Time (p_c), s	5.4		0.3		4.7	
Intersection Summary						
HCM 6th Ctrl Delay			6.8			
HCM 6th LOS			A			




HCM 6th Signalized Intersection Summary

2024 Existing Saturday MIDDAY

4: Main Street (US Route 9) & Water Street/Horicon Avenue

08/21/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	13	61	38	6	41	26	572	42	25	535	6
Future Volume (veh/h)	3	13	61	38	6	41	26	572	42	25	535	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	13	62	39	6	42	27	584	43	26	546	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	102	24	107	196	9	64	118	1096	78	120	1167	12
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.66	0.66	0.66	0.66	0.66	0.66
Sat Flow, veh/h	51	300	1358	746	115	803	29	1665	119	31	1774	19
Grp Volume(v), veh/h	78	0	0	87	0	0	654	0	0	578	0	0
Grp Sat Flow(s),veh/h/ln	1709	0	0	1664	0	0	1814	0	0	1825	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	1.8	0.0	0.0	7.1	0.0	0.0	5.8	0.0	0.0
Prop In Lane	0.04		0.79	0.45		0.48	0.04		0.07	0.04		0.01
Lane Grp Cap(c), veh/h	233	0	0	269	0	0	1292	0	0	1299	0	0
V/C Ratio(X)	0.33	0.00	0.00	0.32	0.00	0.00	0.51	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	1169	0	0	1507	0	0	2220	0	0	2226	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.9	0.0	0.0	16.9	0.0	0.0	3.4	0.0	0.0	3.2	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.7	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	0.7	0.0	0.0	0.9	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	0.0	0.0	17.6	0.0	0.0	3.8	0.0	0.0	3.5	0.0	0.0
LnGrp LOS	B	A	A	B	A	A	A	A	A	A	A	A
Approach Vol, veh/h	78			87			654			578		
Approach Delay, s/veh	17.7			17.6			3.8			3.5		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	30.0			8.0			30.0			8.0		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	45.0			25.0			45.0			35.0		
Max Q Clear Time (g_c+I1), s	9.1			3.6			7.8			3.8		
Green Ext Time (p_c), s	3.6			0.2			3.0			0.3		
Intersection Summary												
HCM 6th Ctrl Delay	5.3											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	63	125	592	588	14
Future Vol, veh/h	3	63	125	592	588	14
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	66	132	623	619	15
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1514	627	634	0	-	0
Stage 1	627	-	-	-	-	-
Stage 2	887	-	-	-	-	-
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	132	484	949	-	-	-
Stage 1	532	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	484	949	-	-	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	419	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.4	1.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	949	-	415	-	-	
HCM Lane V/C Ratio	0.139	-	0.167	-	-	
HCM Control Delay (s)	9.4	0	15.4	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0.5	-	0.6	-	-	

**Appendix D **

NYSDOT Crash Data

DETAILS OF CRASH HISTORY FOR LOCATION (AS SHOWN ON COLLISION DIAGRAM)

DIAGRAM NO. 1

SHEET 1 OF 4

COUNTY <u>Warren</u>		P.I.N. <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>		ROUTE NO. OR STREET NAME <u>Main Street (US Route 9)</u>		CASE NO. <u> </u>	
<input checked="" type="checkbox"/> TOWN		OR IDENT. <u> </u>		AT INTERSECTION WITH/OR BETWEEN <u>4th Avenue and Riverview Campground</u>		FILE <u> </u>	
<input type="checkbox"/> CITY						BY <u>CKD</u>	
<input type="checkbox"/> VILLAGE OF <u>Warrensburg</u>						DATE <u>8/16/2024</u>	

TIME PERIOD			ENVIRONMENTAL Use codes from MV 104 (shown on right) for these categories		LIGHT CONDITIONS		ROADWAY CHARACTER		ROADWAY SURFACE CONDITION		WEATHER	
NUMBER OF MONTHS	FROM	TO	NO. OF VEHICLES	SEVERITY	CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER				
36	1/1/2021	12/31/2023	(4)	(5)	(6)	(7)	(8)	(9)				
(1) NO.	(2) DATE	(3) TIME	NO. OF VEHICLES	SEVERITY	CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	(10) APPARENT CONTRIBUTING FACTORS	(11) DESCRIPTION		
1	1/19/2021	14:22	2	PDO	1	1	1	2	7	V2 failed to stop entering onto Emerson Ave from Tops Market Plaza. V2 was a bicycle and struck the side of V1.		
2	2/5/2021	15:15	2	PDO	1	1	2	1	13 29	V1 traveling northbound on Main Street struck V2's side mirror also traveling northbound.		
3	1/29/2021	15:15	2	PDO	1	2	1	1	7	V2 traveling southbound on Main Street when V2 pulled out of the Stewarts parking lot and struck V1.		
4	1/26/2021	15:57	2	PDO	1	1	4	4	9 66	V2 traveling southbound on main street went to make a right hand turn into a gas station. V1 attempted to stop and slid into V2 due to the snow.		
5	1/10/2021	11:52	2	PDO	1	2	1	1	3	V1 turning right while backing out of the parking stall on Main Street struck the front of V2 in the adjacent parking stall.		
6	2/3/2021	10:40	2	PDO	1	1	4	2	4 5	V2 parked on the shoulder on Main Street was struck by a Warren County Plow Truck.		
7	5/20/2021	14:29	2	PDO	1	1	1	1	4	V1 traveling southbound on Main Streets foot slipped off the brake and rear ended V2.		
8	6/12/2021	8:15	2	PDO	1	1	1	1	9	V1 traveling southbound on Main Street rear ended V2 stopped at the signal on Main Street intersection Adirondack Avenue.		
9	6/12/2021	12:16	2	PDO	1	1	1	2	4 9	V2 traveling southbound on Main Street foot came off the break and rear ended V1 stopped at the red light.		
10	6/30/2021	16:46	2	PDO	1	1	2	3	7	V1 traveling north on Richards Avenue cut in front of V2 striking them and failing to yield the right of way.		
11	7/1/2021	13:01	2	PDO	1	1	1	2	9	V1 traveling north on Main Street foot slipped off the brake and rear ended V2.		
12	7/14/2021	16:00	2	PDO	1	1	1	2	4 9	V1 traveling north on Main Street rear ended V2 at a red light.		
13	7/5/2021	22:12	2	PDO	4	2	1	2	13 18	V1 (Police Car) attempted to make a U-Turn to pull a vehicle over when V2 attempted to pass V1 to the left and collided with V1.		
14	7/17/2021	19:33	1	PDO	1	1	1	2	61	V1 traveling east on 4th Avenue entered the roadway and struck a dog. Dog was uninjured.		
15	7/27/2021	9:35	2	PDO	1	1	1	1	4	V1 attempting to pull into a parking spot misjudged the turn and crashed into V2 that was already parked.		
16	8/11/2021	11:19	2	PDO	1	1	1	1	7 64	V1 was exiting the Hudson Headwaters Dental office and couldn't see northbound traffic and struck V2.		
17	8/16/2021	11:12	2	PDO	1	1	1	1	7	V1 attempting to inch out into traffic and struck V2 traveling southbound on Main Street.		
18	9/16/2021	14:58	2	PDO	1	1	1	1	4 13	V1 lost control of the motorcycle and overturned to the left into the side of V2.		
19	10/23/2021	12:31	3	PDO	1	1	1	2	9	V1 traveling north on main street rear ended V2 and V2 subsequently rear ended V3.		
20	4/23/2021	13:12	4	F	1	1	1	2	7	V1 stopped at the red light on Richards Ave and made a left turn and struck three pedestrians. Two pedestrians suffered fatal injuries.		

RM

DETAILS OF CRASH HISTORY FOR LOCATION (AS SHOWN ON COLLISION DIAGRAM)

DIAGRAM NO. 1

SHEET 2 OF 4

COUNTY <u>Warren</u>		P.I.N. <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>		ROUTE NO. OR STREET NAME <u>Main Street (US Route 9)</u>		CASE NO. <u> </u>	
<input checked="" type="checkbox"/> TOWN		OR IDENT. <u> </u>		AT INTERSECTION WITH/OR BETWEEN <u>4th Avenue and Riverview Campground</u>		FILE <u> </u>	
<input type="checkbox"/> CITY						BY <u>CKD</u>	
<input type="checkbox"/> VILLAGE OF <u>Warrensburg</u>						DATE <u>8/16/2024</u>	

TIME PERIOD			ENVIRONMENTAL Use codes from MV 104 (shown on right) for these categories		LIGHT CONDITIONS		ROADWAY CHARACTER		ROADWAY SURFACE CONDITION		WEATHER	
NUMBER OF MONTHS	FROM	TO	4	5	6	7	8	9	1	2	3	4
36	1/1/2021	12/31/2023							1. DAYLIGHT	1. STRAIGHT AND LEVEL	1. DRY	1. CLEAR
									2. DAWN	2. STRAIGHT AND GRADE	2. WET	2. CLOUDY
									3. DUSK	3. STRAIGHT AT HILLCREST	3. MUDDY	3. RAIN
									4. DARK RD. LIGHTED	4. CURVE AND LEVEL	4. SNOW/ICE	5. SLEET/HAIL/FREEZING RAIN
									5. DARK ROAD UNLIGHTED	5. CURVE AND GRADE	5. SLUSH	6. FOG/SMOG/SMOKE
									6. OTHER	6. CURVE AT HILLCREST	10. OTHER	10. OTHER

For Apparent Contributing Factors, use codes from MV 104 Police Report												
10	11 DESCRIPTION											
1	2	3	4	5	6	7	8	9	10			
NO.	DATE	TIME	NO. OF VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	APPARENT CONTRIBUTING FACTORS	DESCRIPTION		
21	10/22/2021	23:14	4	F	4	2	1	1	2 27	V1 traveling south on Main Street failed to keep to the right and sideswiped V2 and then V1 continued south striking V3 and V4 parked. Causing fatal injury to V1.		
22	11/16/2021	9:25	2	PDO	1	1	1	1	9 19	V2 traveling south on Main Street following V1 too closely didn't see V1 stop and rear ended them.		
23	11/29/2021	17:48	2	PI	4	1	1	1	9 21	V1 traveling south on Main Street was tired and rear ended V2.		
24	12/27/2021	12:21	2	PDO	1	1	1	2	7	V1 traveling east on 3rd avenue took a left turn and didn't see V2 striking them.		
25	1/11/2022	16:20	2	PDO	1	1	1	1	9 26	V2 made an emergency stop due to a vehicle stopping in front of them and V1 rear ended V2.		
26	1/1/2022	20:11	2	PDO	4	1	2	6	20 61	V1 traveling north on Main Street swerved to avoid a cat in the road and struck V2 that was parked.		
27	2/1/2022	14:29	2	PDO	1	1	1	1	13	V1 traveling north on Main Street passed V2 parked on the shoulder and sideswiped them.		
28	2/9/2022	3:00	2	PI	4	1	1	1	8 27	V1 fell asleep traveling north on Main Street fell asleep and drifted into the other lane and sideswiped V2 traveling south.		
29	2/11/2022	15:38	2	PDO	1	1	1	1	3	V2 stopped at the redlight at Hudson Street when V1 backed out of a driveway and hit V2.		
30	4/2/2022	12:15	2	PI	1	1	1	1	14	Pedestrian entered Main Street near Herrick Ave and was struck by a passing vehicle that fled the scene.		
31	4/15/2022	7:44	2	PDO	1	1	1	1	9	V1 traveling north on Main Street followed V2 too closely and V2 braked and V1 rear ended them.		
32	5/2/2022	15:32	2	PDO	1	2	1	2	9	V1 exited a parking lot heading south on Main Street rear ended V2 stopped in the roadway.		
33	5/9/2022	16:56	2	PDO	1	1	1	1	7	V1 turned in front of V2 out of the Stewarts parking lot and struck V2.		
34	5/13/2022	15:25	2	PDO	1	1	1	1	13	V2 parked on Main Street was struck by V1 passing by and sidesiped V2 mirror.		
35	5/10/2022	8:05	2	PDO	1	1	1	1	7	V1 pulled out of a parking lot onto Main Street and sideswiped V2.		
36	6/3/2022	21:20	1	PDO	4	1	1	1	61	V1 traveling north on main Street struck a deer crossing the road.		
37	6/11/2022	17:16	2	PI	1	1	1	1	9	V1 stopped on Main Street and went to pull to the shoulder when V2 hit them on the shoulder.		
38	6/15/2022	10:41	2	PDO	1	2	1	1	9	V1 traveling north on Main Street failed to observe the traffic at the intersection and V2 stopped and V1 rear ended V2.		
39	6/26/2022	10:58	2	PDO	1	1	1	1	7	V1 turned right on Main Street and V2 was traveling north on Main Street. V1 struck V2.		
40	7/1/2022	13:15	2	PDO	1	2	1	1	9	V1 traveling north on Main Street following to closely to V2 rear ended them when they slowed down.		

RM

DETAILS OF CRASH HISTORY FOR LOCATION (AS SHOWN ON COLLISION DIAGRAM)

DIAGRAM NO. 1

SHEET 3 OF 4

COUNTY <u>Warren</u>		P.I.N. <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>		ROUTE NO. OR STREET NAME <u>Main Street (US Route 9)</u>		CASE NO. <u> </u>	
<input checked="" type="checkbox"/> TOWN		OR IDENT. <u> </u>		AT INTERSECTION WITH/OR BETWEEN <u>4th Avenue and Riverview Campground</u>		FILE <u> </u>	
<input type="checkbox"/> CITY						BY <u>CKD</u>	
<input type="checkbox"/> VILLAGE OF <u>Warrensburg</u>						DATE <u>8/16/2024</u>	

TIME PERIOD			ENVIRONMENTAL Use codes from MV 104 (shown on right) for these categories		LIGHT CONDITIONS		ROADWAY CHARACTER		ROADWAY SURFACE CONDITION		WEATHER			
NUMBER OF MONTHS	FROM	TO	NO. OF VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER						
36	1/1/2021	12/31/2023	④	⑤	⑥	⑦	⑧	⑨						
① NO.	② DATE	③ TIME	NO. OF VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER						
									⑩ APPARENT CONTRIBUTING FACTORS			⑪ DESCRIPTION		
									For Apparent Contributing Factors, use codes from MV 104 Police Report					
41	7/12/2022	13:57	2	PDO	1	1	1	2	7	V1 attempting to make a left turn onto Main Street form a parking lot pulled into the path of V2.				
42	8/28/2022	11:07	2	PDO	1	1	1	1	9	V1 rear ended V2 traveling south on Main Street.				
43	11/4/2022	14:23	2	PDO	1	1	1	1	7 69	V1 attempted a left turn onto main street and made the turn into the path of V2.				
44	11/12/2022	8:50	2	PI	1	1	2	2	2 7	V1 turned onto Main Street from Cumberland Farms and hit V2 traveling south on Main Street.				
45	12/3/2022	13:32	2	PDO	1	1	2	2	3	V2 parked on Main Street was hit by V1 attempting to back out of the Dollar General parking lot.				
46	12/22/2022	15:34	2	PDO	1	2	1	2	4 7	V1 states they were waved out and he did not look on to Main Street and struck V2 traveling south on Main Street.				
47	12/17/2022	17:44	2	PDO	4	1	2	2	27	V1 was parked on Main Street when V2 sideswiped them and fled the scene.				
48	12/11/2022	11:55	2	PDO	1	1	4	4	4	V2 stopped on Stewart Ferrar Ave was rear ended by V1 at the stop sign.				
49	1/27/2023	8:45	2	PDO	1	1	1	1	9	V2 stopped in traffic at the signal was rear ended by V1 at River Street.				
50	2/2/2023	3:49	1	PI	4	1	1	1	8 27	V1 fell asleep at the wheel and hit a utility pole.				
51	2/5/2023	17:22	1	PDO	4	1	1	1	4 10	V1 exited Sunoco onto Richards Street and struck a snowbank.				
52	2/9/2023	12:28	2	PDO	1	1	2	5	26	V1 traveling south on Main Street was struck by a plow heading north.				
53	2/19/2023	12:50	2	PDO	1	1	1	2	3	V1 pulled out of a parking lot onto Main Street and struck V2.				
54	3/18/2023	10:35	2	PDO	1	1	1	2	3	V1 backing out of a parking stall backed V2 parked behind them.				
55	4/1/2023	12:09	2	PI	1	1	2	1	7	V1 traveling east on 3rd Avenue and V2 traveling south on main street. V1 went through the stop sign and struck the side of V2.				
56	4/10/2023	19:23	2	PDO	1	1	1	1	9	V2 stopped at the red light north on Main Street was rear ended by V1.				
57	4/18/2023	10:11	2	PDO	1	1	1	2	9	V2 slowing in traffic on Main Street was rear ended by V1 traveling too closely.				
58	5/16/2023	15:46	2	PDO	1	1	1	1	9	V2 was rear ended by V1 when stopped in traffic.				
59	5/18/2023	15:56	2	PDO	1	1	1	1	9	V2 was rear ended by V1 when stopped in traffic.				
60	6/3/2023	15:40	3	PI	1	1	1	1	2	V1 traveling north on Main Street struck V2 and V3 parked on the side of the road.				

RM

DETAILS OF CRASH HISTORY FOR LOCATION (AS SHOWN ON COLLISION DIAGRAM)

DIAGRAM NO. 1

SHEET 4 OF 4

COUNTY <u>Warren</u>		P.I.N. <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u>		ROUTE NO. OR STREET NAME <u>Main Street (US Route 9)</u>		CASE NO. <u> </u>	
<input checked="" type="checkbox"/> TOWN		OR IDENT. <u> </u>		AT INTERSECTION WITH/OR BETWEEN <u>4th Avenue and Riverview Campground</u>		FILE <u> </u>	
<input type="checkbox"/> CITY						BY <u>CKD</u>	
<input type="checkbox"/> VILLAGE OF <u>Warrensburg</u>						DATE <u>8/16/2024</u>	

TIME PERIOD			ENVIRONMENTAL Use codes from MV 104 (shown on right) for these categories		LIGHT CONDITIONS		ROADWAY CHARACTER		ROADWAY SURFACE CONDITION		WEATHER	
NUMBER OF MONTHS	FROM	TO	NO. OF VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER				
36	1/1/2021	12/31/2023	④	⑤	⑥	⑦	⑧	⑨				
① NO.	② DATE	③ TIME	NO. OF VEHICLES	SEVERITY	LIGHT CONDITIONS	ROADWAY CHARACTER	ROADWAY SURFACE CONDITION	WEATHER	⑩ APPARENT CONTRIBUTING FACTORS	⑪ DESCRIPTION		
61	6/21/2023	12:10	2	PDO	1	1	1	1	9	V1 leaving the parking lot of Grand Union foot slipped off the brake going into traffic hitting V2.		
62	5/25/2023	15:41	2	PDO	1	1	1	1	None	V2 parked at Warrenburg Health Center parking lot when V1 side swipes V2.		
63	7/16/2023	7:16	2	PDO	1	1	2	3	4 7	V1 entering Main Street from the Stewarts parking lot failed to yield the right of way and struck V2.		
64	9/13/2023	20:03	2	PDO	4	1	1	1	9	V2 northbound on Main Street slowed in traffic when V1 following too closely rear ended V2.		
65	9/16/2023	11:28	2	PDO	1	2	1	1	4 21	V2 was stopped at the traffic light when V1 rear ended V2.		
66	9/9/2023	15:09	2	PDO	1	1	1	1	7	V1 turned left onto Main Street and failed the right of way and struck V2.		
67	9/19/2023	6:59	2	PDO	1	1	1	1	9	V1 followed V2 too closely and rear ended V2.		
68	10/27/2023	7:48	2	PDO	1	2	2	2	27	V2 stopped at the red light on Main Street was struck by V1 traveling north on Main Street and crossed the double yellow.		
69	10/26/2023	16:08	2	PDO	1	1	2	2	9	V2 was stopped at Hackensack Ave and V1 struck V2 from behind.		
70	11/4/2023	9:18	2	PDO	1	1	1	2	17	V2 was making a left turn off Richards Ave when V1 traveling southbound was hit.		
71	11/6/2023	15:13	2	PDO	1	2	1	1	7 13	V1 traveling north on Main Street merged off Horicon Ave V1 merged back onto Main Street striking V2.		
72	11/7/2023	17:13	2	PI	4	1	2	3	9	V1 and V2 were stopped at red light on Main Street. The light turned green and V1 accelerated into the rear end of V2.		
73	11/27/2023	10:22	2	PDO	1	1	1	1	4 9	V2 northbound on Main Street stopped to turn onto Judd Bridge and V1 was following too closely and rear ended V2.		
74	12/8/2023	17:33	2	PDO	4	1	1	1	7	V1 making a left turn onto Main Street struck the side of V2 heading north on Main Street.		
75	12/17/2023	0:06	1	PDO	4	1	1	1	2 13	V1 traveling north on Main Street lost control and hit a bridge structure causing the vehicle to rollover.		
76	12/22/2023	15:31	2	PDO	1	1	1	1	7	V2 parked in a parking stall on Main Street was sideswiped by V2 and fled the scene.		
77	12/26/2023	14:54	2	PDO	1	1	1	2	27 28	V2 traveling south on Main Street was struck by V1 traveling north on Main Street when they veered into the southbound lane head on.		
78												
79												
80												

RM

CRASH SUMMARY SHEET

MUNICIPALITY: Warrensburg

COUNTY: Warren

LOCATION: Main Street (US Route 9)

HSI#: _____

TIME PERIOD: 1/1/2021 TO 12/31/2023

NO. OF MONTHS: 36

<u>Crash Type</u>	<u>No. of Crashes</u>
-------------------	-----------------------

Right Angle	<u>17</u>
Rear End	<u>28</u>
Overtaking	<u>0</u>
Left Turn	<u>3</u>
Parked Vehicle	<u>0</u>
Pedestrian	<u>2</u>
Bicycle	<u>1</u>
Side Swipe	<u>20</u>
Head-On	<u>1</u>
Animal	<u>2</u>
Fixed Object	<u>3</u>

w/Utility Poles	_____
w/Guide Rail	_____
w/Sign Posts	_____
w/Tree	_____
w/Ditch-Embank.	_____
w/Other	_____

TOTAL 77

<u>Pavement</u>	<u>No of Crashes</u>
-----------------	----------------------

Dry	<u>62</u>
Wet	<u>12</u>
Muddy	<u>0</u>
Snow/Ice/Slush	<u>3</u>
Other	<u>0</u>

TOTAL 77

<u>Weather</u>	<u>No of Crashes</u>
----------------	----------------------

Clear	<u>47</u>
Cloudy	<u>23</u>
Rain	<u>3</u>
Snow	<u>2</u>
Sleet/Hail/Freezing Rain	<u>1</u>
Fog/Smog/Smoke	<u>1</u>
Other	<u>0</u>

TOTAL 77

<u>Light Conditions</u>	<u>No. of Crashes</u>
-------------------------	-----------------------

Day	<u>64</u>
Dawn/Dusk	<u>0</u>
Night (unlighted)	<u>0</u>
Night (lighted)	<u>13</u>
Other	<u>0</u>

TOTAL 77

<u>Crash Severity</u>	<u>No. of Crashes</u>
-----------------------	-----------------------

Fatal	<u>2</u>
Personal Injury	<u>9</u>
Property Damage Only	<u>66</u>
Non-Reportable	<u>0</u>

TOTAL 77

**Appendix E **

Parking Information

Tuesday, July 30, 2024 1:00 p.m.

SEGMENT	EAST SIDE PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES [†]	EAST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)	WEST SIDE PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES [†]	WEST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)
Hamlet Gateway: Schroon River - Richards Ave										
Schroon River	245	11	4	0	0%	50	2	10	0	0%
Judd Bridge	398	18	5	0	0%	50	2	9	0	0%
Horicon Ave/Water St.	0	0	5	0	0%	212	10	3	2	21%
Herrick Ave	290	13	2	4	30%	390	18	2	6	34%
SUBTOTAL	933	42	16	4	9%	702	32	24	8	25%
Core Hamlet: Richards Ave – Adirondack Ave										
Richards Ave	850	39	3	0	0%	0	0	8	0	0%
Pasco Ave	350	16	4	0	0%	0	0	3	0	0%
Stewart Farrar Ave	40	2	1	0	0%	40	2	0	0	0%
Emerson Ave	180	8	5	0	0%	609	28	5	1	4%
Mountain Ave	0	0	1	0	0%	280	13	3	0	0%
SUBTOTAL	1,420	65	14	0	0%	929	42	19	1	2%
Hamlet Connector / Transition Zone: Adirondack Ave – 4th Ave										
Adirondack Ave / Hudson St	875	40	8	1	3%	875	40	7	0	0%
Hackensack Ave	125	6	1	1	18%	125	6	1	0	0%
1st Ave	300	14	3	4	29%	300	14	3	0	0%
Kreinheder Dr	330	15	4	1	7%	330	15	3	2	13%
3rd Ave	60	3	0	0	0%	60	3	0	0	0%
Raymond Ln	150	7	2	0	0%	0	0	1	0	0%
SUBTOTAL	1,840	84	18	7	8%	1,690	77	15	2	3%
TOTAL	4,193	191	48	11	6%	3,321	151	58	11	7%
TOTAL (EAST + WEST)	7,514	342	106	22	6%					

*includes driveways and no parking zones

[†] assumes 22 ft. long parking space

Friday, August 30, 2024 4:00 p.m.

SEGMENT	EAST SIDE					WEST SIDE				
	PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES ^t	EAST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)	PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES ^t	WEST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)
Hamlet Gateway: Schroon River - Richards Ave										
Schroon River	245	11	4	0	0%	50	2	10	0	0%
Judd Bridge	398	18	5	4	22%	50	2	9	0	0%
Horicon Ave/Water St.	0	0	5	0	0%	212	10	3	4	42%
Herrick Ave	290	13	2	1	8%	390	18	2	0	0%
SUBTOTAL	933	42	16	5	12%	702	32	24	4	13%
Core Hamlet: Richards Ave – Adirondack Ave										
Richards Ave	850	39	3	0	0%	0	0	8	0	0%
Pasco Ave	350	16	4	1	6%	0	0	3	0	0%
Stewart Farrar Ave	40	2	1	0	0%	40	2	0	0	0%
Emerson Ave	180	8	5	0	0%	609	28	5	0	0%
Mountain Ave	0	0	1	0	0%	280	13	3	0	0%
SUBTOTAL	1,420	65	14	1	2%	929	42	19	0	0%
Hamlet Connector / Transition Zone: Adirondack Ave – 4th Ave										
Adirondack Ave / Hudson St	875	40	8	1	3%	875	40	7	3	8%
Hackensack Ave	125	6	1	1	18%	125	6	1	0	0%
1st Ave	300	14	3	5	37%	300	14	3	1	7%
Kreinheder Dr	330	15	4	0	0%	330	15	3	0	0%
3rd Ave	60	3	0	0	0%	60	3	0	0	0%
Raymond Ln	150	7	2	1	15%	0	0	1	0	0%
SUBTOTAL	1,840	84	18	8	10%	1,690	77	15	4	5%
TOTAL	4,193	191	48	14	7%	3,321	151	58	8	5%
TOTAL (EAST + WEST)	7,514	342	106	22	6%					

*includes driveways and no parking zones

^t assumes 22 ft. long parking space

Saturday, August 31, 2024

SEGMENT	EAST SIDE PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES [†]	EAST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)	WEST SIDE PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES [†]	WEST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)
Hamlet Gateway: Schroon River - Richards Ave										
Schroon River	245	11	4	0	0%	50	2	10	0	0%
Judd Bridge	398	18	5	1	6%	50	2	9	0	0%
Horicon Ave/Water St.	0	0	5	0	0%	212	10	3	0	0%
Herrick Ave	290	13	2	1	8%	390	18	2	6	34%
SUBTOTAL	933	42	16	2	5%	702	32	24	6	19%
Core Hamlet: Richards Ave – Adirondack Ave										
Richards Ave	850	39	3	1	3%	0	0	8	0	0%
Pasco Ave	350	16	4	1	6%	0	0	3	0	0%
Stewart Farrar Ave	40	2	1	0	0%	40	2	0	0	0%
Emerson Ave	180	8	5	1	12%	609	28	5	1	4%
Mountain Ave	0	0	1	0	0%	280	13	3	0	0%
SUBTOTAL	1,420	65	14	3	5%	929	42	19	1	2%
Hamlet Connector / Transition Zone: Adirondack Ave – 4th Ave										
Adirondack Ave / Hudson St	875	40	8	4	10%	875	40	7	4	10%
Hackensack Ave	125	6	1	6	106%	125	6	1	1	18%
1st Ave	300	14	3	1	7%	300	14	3	0	0%
Kreinheder Dr	330	15	4	0	0%	330	15	3	0	0%
3rd Ave	60	3	0	0	0%	60	3	0	0	0%
Raymond Ln	150	7	2	1	15%	0	0	1	0	0%
SUBTOTAL	1,840	84	18	12	14%	1,690	77	15	5	7%
TOTAL	4,193	191	48	17	9%	3,321	151	58	12	8%
TOTAL (EAST + WEST)	7,514	342	106	29	8%					

*includes driveways and no parking zones

[†] assumes 22 ft. long parking space

Monday, September 2, 2024 12:30 p.m.

EAST SIDE						WEST SIDE				
SEGMENT	EAST SIDE PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES [†]	EAST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)	WEST SIDE PARKING LANE (FT.)*	EST. NO. OF PARKING SPACES [†]	WEST SIDE CURB CUTS / DRIVEWAYS	NO. OF PARKED VEHICLES	OCCUPANCY (%)
Hamlet Gateway: Schroon River - Richards Ave										
Schroon River	245	11	4	0	0%	50	2	10	0	0%
Judd Bridge	398	18	5	0	0%	50	2	9	0	0%
Horicon Ave/Water St.	0	0	5	0	0%	212	10	3	0	0%
Herrick Ave	290	13	2	0	0%	390	18	2	6	34%
SUBTOTAL	933	42	16	0	0%	702	32	24	6	19%
Core Hamlet: Richards Ave – Adirondack Ave										
Richards Ave	850	39	3	0	0%	0	0	8	0	0%
Pasco Ave	350	16	4	1	6%	0	0	3	0	0%
Stewart Farrar Ave	40	2	1	0	0%	40	2	0	0	0%
Emerson Ave	180	8	5	0	0%	609	28	5	1	4%
Mountain Ave	0	0	1	0	0%	280	13	3	0	0%
SUBTOTAL	1,420	65	14	1	2%	929	42	19	1	2%
Hamlet Connector / Transition Zone: Adirondack Ave – 4th Ave										
Adirondack Ave / Hudson St	875	40	8	5	13%	875	40	7	4	10%
Hackensack Ave	125	6	1	1	18%	125	6	1	1	18%
1st Ave	300	14	3	2	15%	300	14	3	0	0%
Kreinheder Dr	330	15	4	0	0%	330	15	3	0	0%
3rd Ave	60	3	0	1	37%	60	3	0	0	0%
Raymond Ln	150	7	2	0	0%	0	0	1	0	0%
SUBTOTAL	1,840	84	18	9	11%	1,690	77	15	5	7%
TOTAL	4,193	191	48	10	5%	3,321	151	58	12	8%
TOTAL (EAST + WEST)	7,514	342	106	22	6%					

^{*}includes driveways and no parking zones

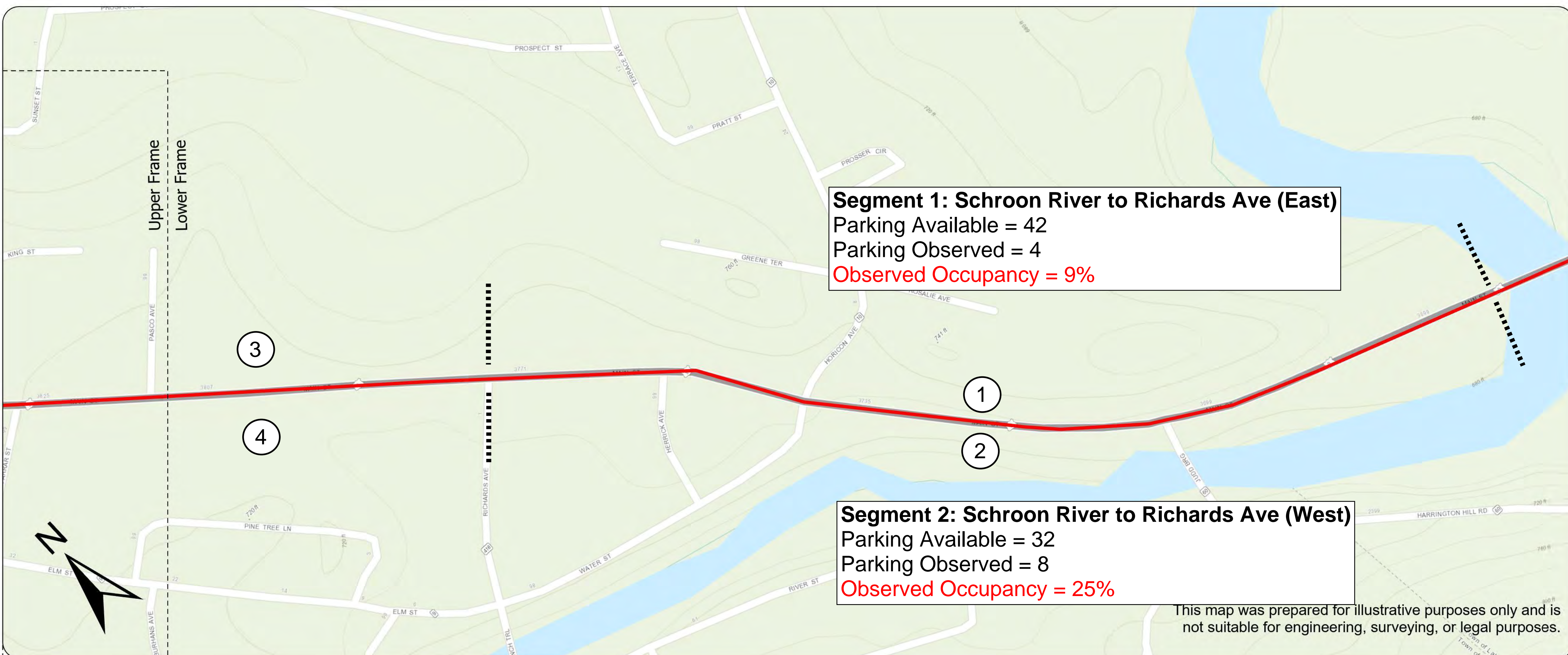
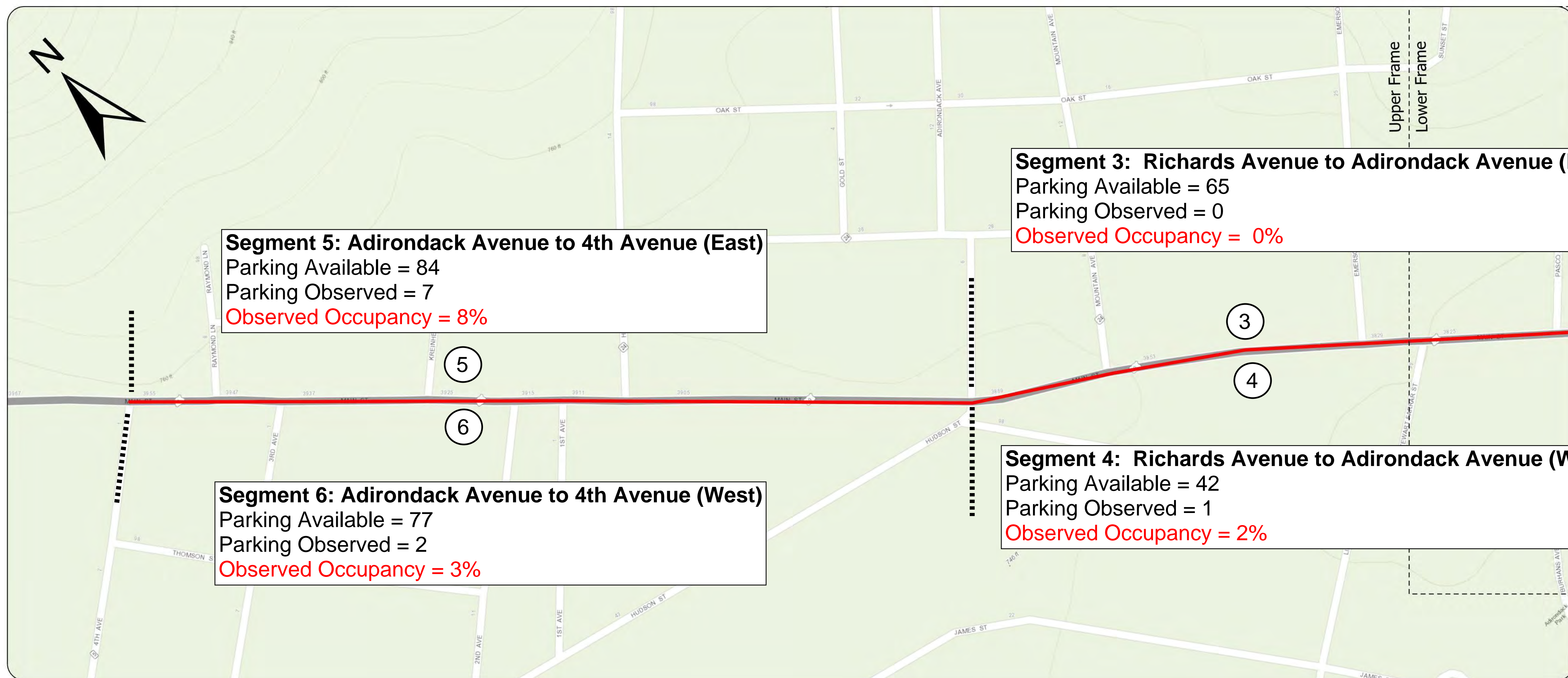
[†] assumes 22 ft. long parking space



TOWN OF WARRENSBURG

Main Street (US Route 9) Corridor Study

Parking Utilization Map
Tuesday, July 30, 2024
1:00 PM



This map was prepared for illustrative purposes only and is not suitable for engineering, surveying, or legal purposes.



Sources:
Esri, NYS ITS

0 200 400
Feet

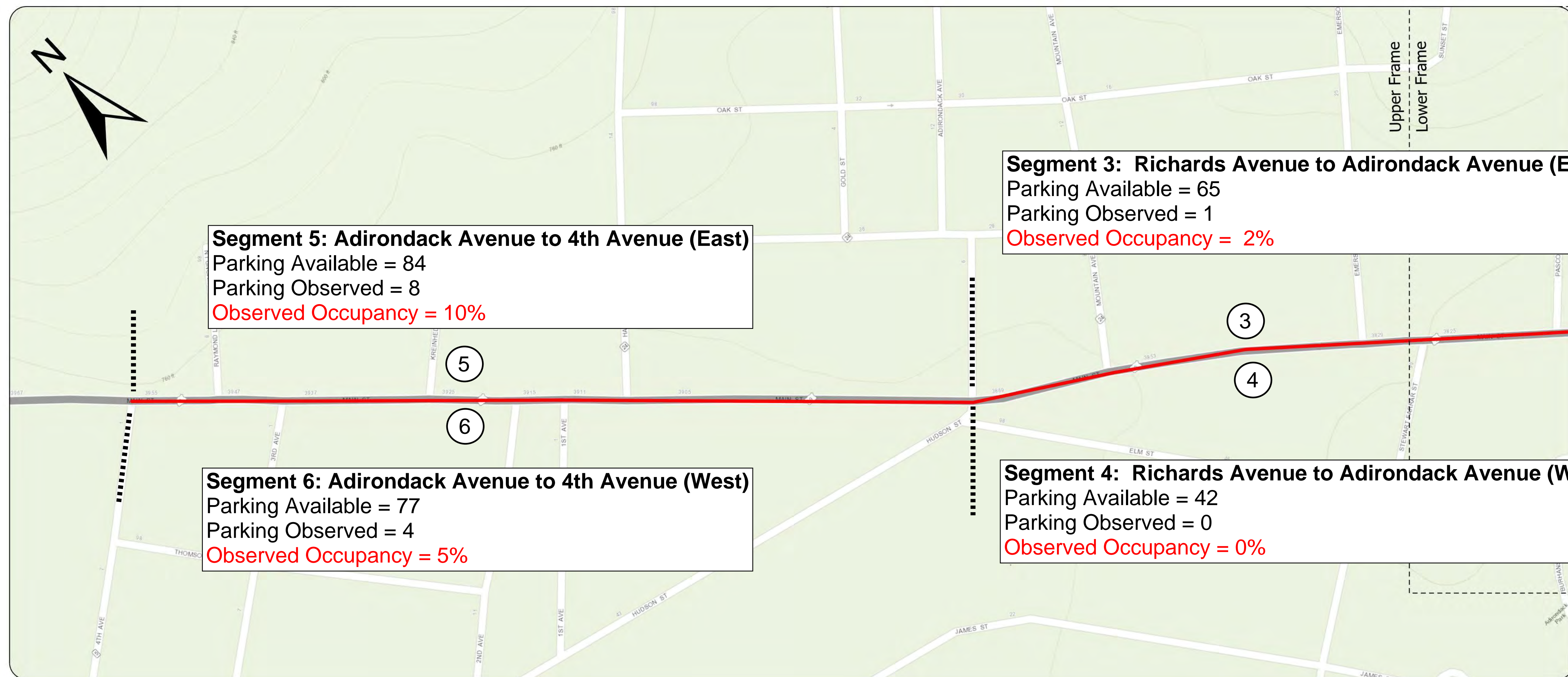




TOWN OF WARRENSBURG

Main Street (US Route 9) Corridor Study

Parking Utilization Map
Friday, August 30, 2024
4:00 PM



Sources:
Esri, NYS ITS

0 200 400
Feet





TOWN OF WARRENSBURG

Main Street (US Route 9) Corridor Study

Parking Utilization Map
Saturday, August 31, 2024
11:15 AM

Segment 5: Adirondack Avenue to 4th Avenue (East)
Parking Available = 84
Parking Observed = 12
Observed Occupancy = 14%

Segment 3: Richards Avenue to Adirondack Avenue (East)
Parking Available = 65
Parking Observed = 3
Observed Occupancy = 5%

Segment 6: Adirondack Avenue to 4th Avenue (West)
Parking Available = 77
Parking Observed = 5
Observed Occupancy = 7%

Segment 4: Richards Avenue to Adirondack Avenue (West)
Parking Available = 42
Parking Observed = 1
Observed Occupancy = 2%

Segment 1: Schroon River to Richards Ave (East)
Parking Available = 42
Parking Observed = 2
Observed Occupancy = 5%

Segment 2: Schroon River to Richards Ave (West)
Parking Available = 32
Parking Observed = 6
Observed Occupancy = 19%

This map was prepared for illustrative purposes only and is not suitable for engineering, surveying, or legal purposes.



Sources:
Esri, NYS ITS

0 200 400
Feet

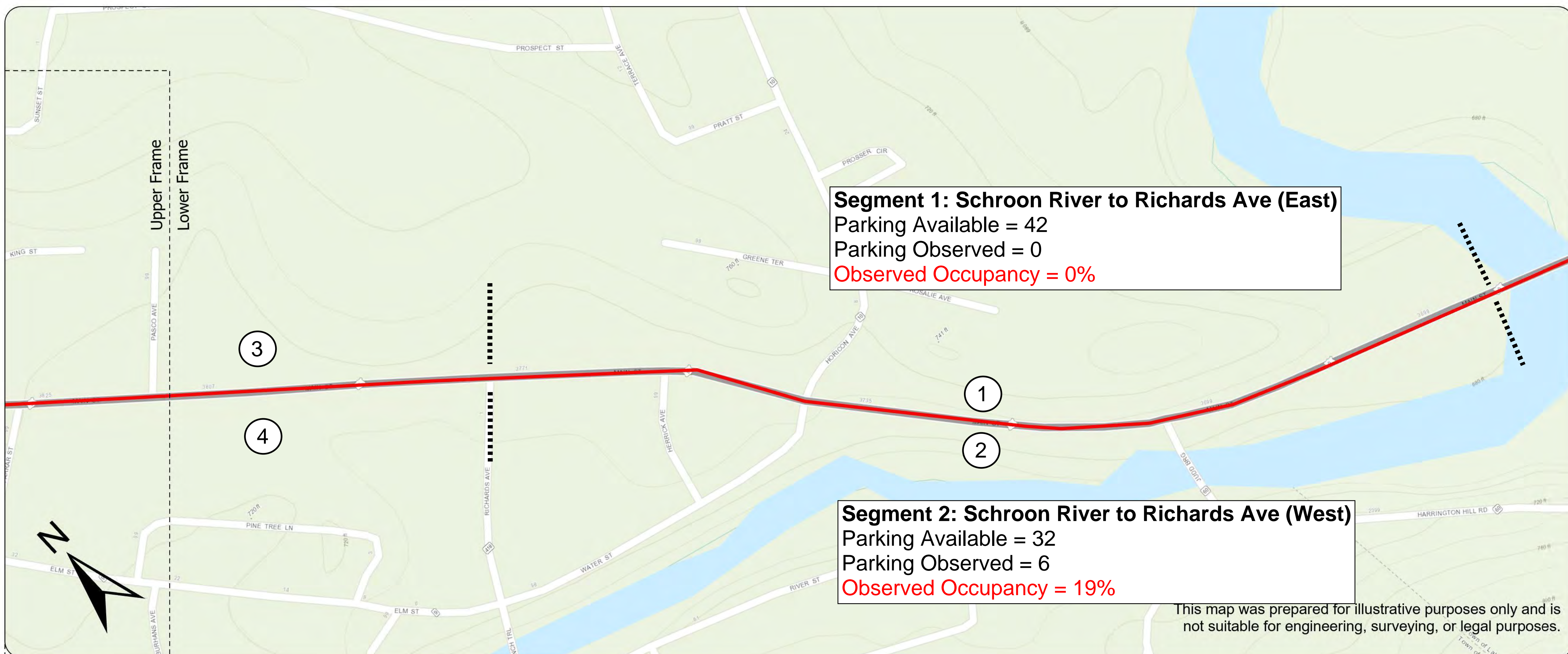
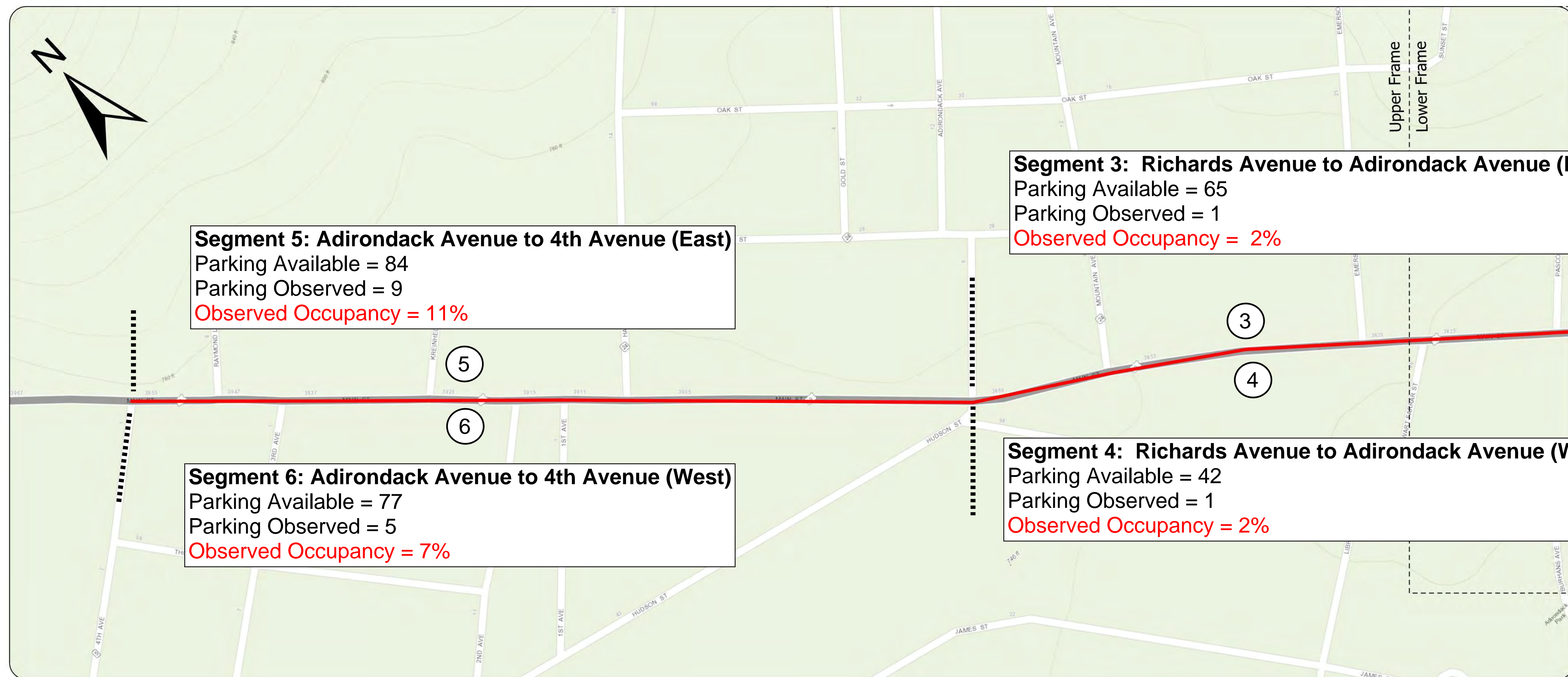




TOWN OF WARRENSBURG

Main Street (US Route 9) Corridor Study

Parking Utilization Map
Monday, September 2, 2024
12:30 PM



This map was prepared for illustrative purposes only and is not suitable for engineering, surveying, or legal purposes.



Sources:
Esri, NYS ITS

0 200 400
Feet



**Appendix F **

Environmental Information

Environmental Resource Mapper



The coordinates of the point you clicked on are:

UTM 18	Easting:	598979.8657282572	Northing:	4816689.12056939
Longitude/Latitude	Longitude:	-73.7757491152066	Latitude:	43.4965855231529

The approximate address of the point you clicked on is:

Floyd Bennett Park

County: Warren

Town: Warrensburg

USGS Quad: WARRENSBURG

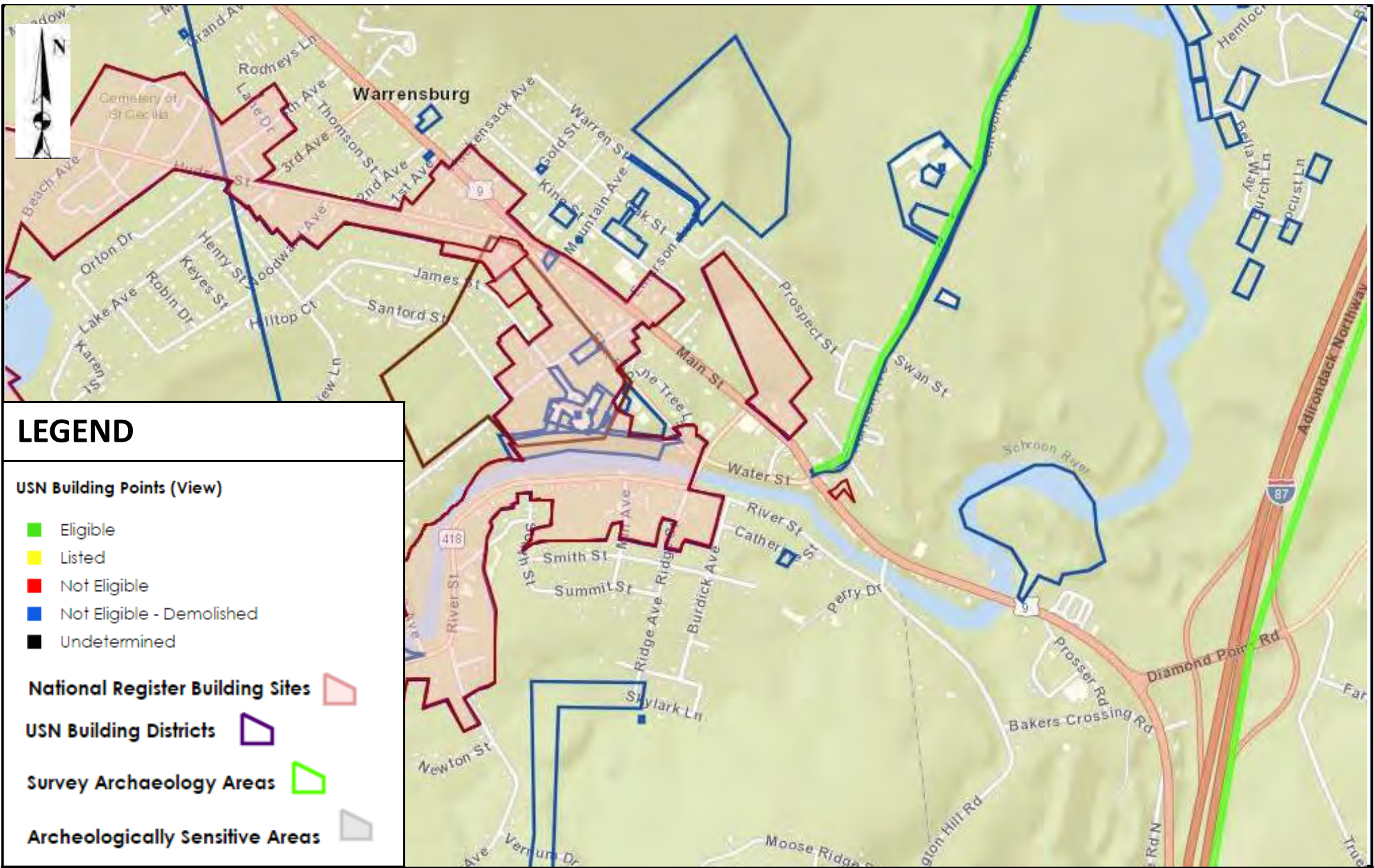
If your project or action is within or near an area with a rare animal, a permit may be required if the species is listed as endangered or threatened and the department determines the action may be harmful to the species or its habitat.

If your project or action is within or near an area with rare plants and/or significant natural communities, the environmental impacts may need to be addressed.

The presence of a unique geological feature or landform near a project, unto itself, does not trigger a requirement for a NYS DEC permit. Readers are advised, however, that there is the chance that a unique feature may also show in another data layer (ie. a wetland) and thus be subject to permit jurisdiction.

Please refer to the "Need a Permit?" tab for permit information or other authorizations regarding these natural resources.

Disclaimer: If you are considering a project or action in, or near, a wetland or a stream, a NYS DEC permit may be required. The Environmental Resources Mapper does not show all natural resources which are regulated by NYS DEC, and for which permits from NYS DEC are required. For example, Regulated Tidal Wetlands, and Wild, Scenic, and Recreational Rivers, are currently not included on the maps.



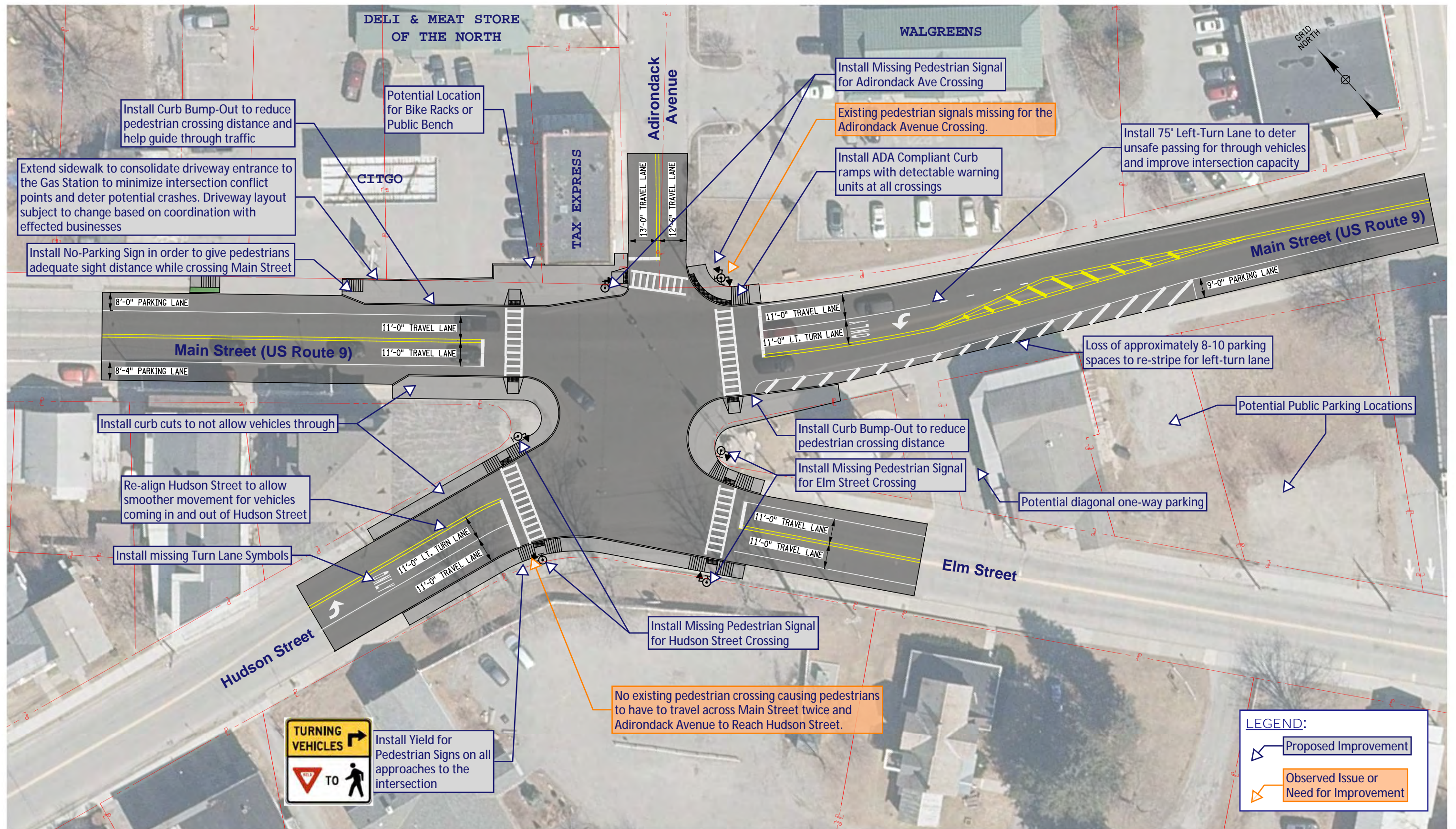
Engineering
Architecture
Landscape Architecture
and Land Surveying, P.C.

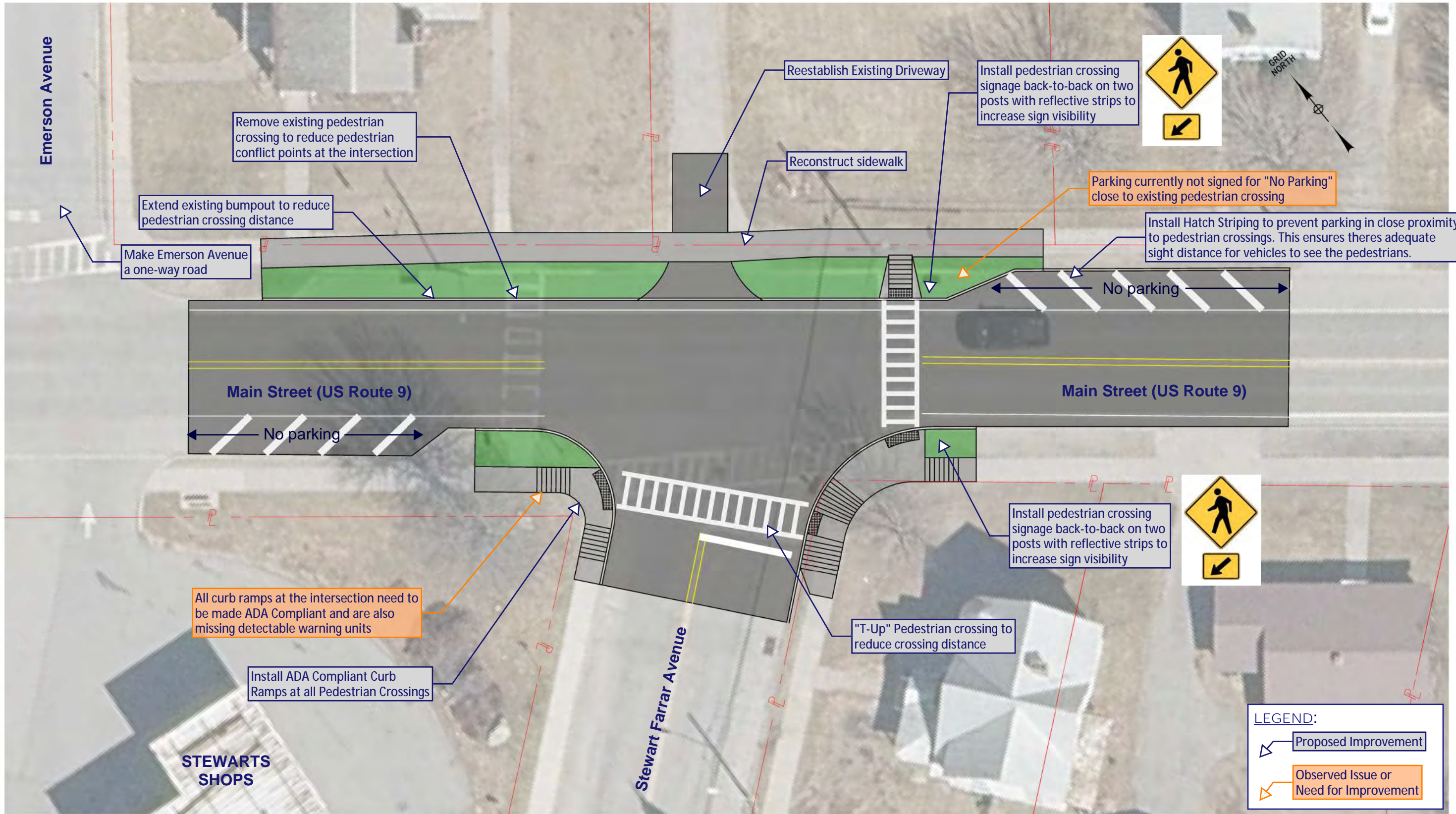
NYSHPO CULTURAL RESOURCE INFORMATION SYSTEM (CRIS) MAP
MAIN STREET (US ROUTE 9) CORRIDOR STUDY
TOWN OF WARRENSBURG
WARREN COUNTY

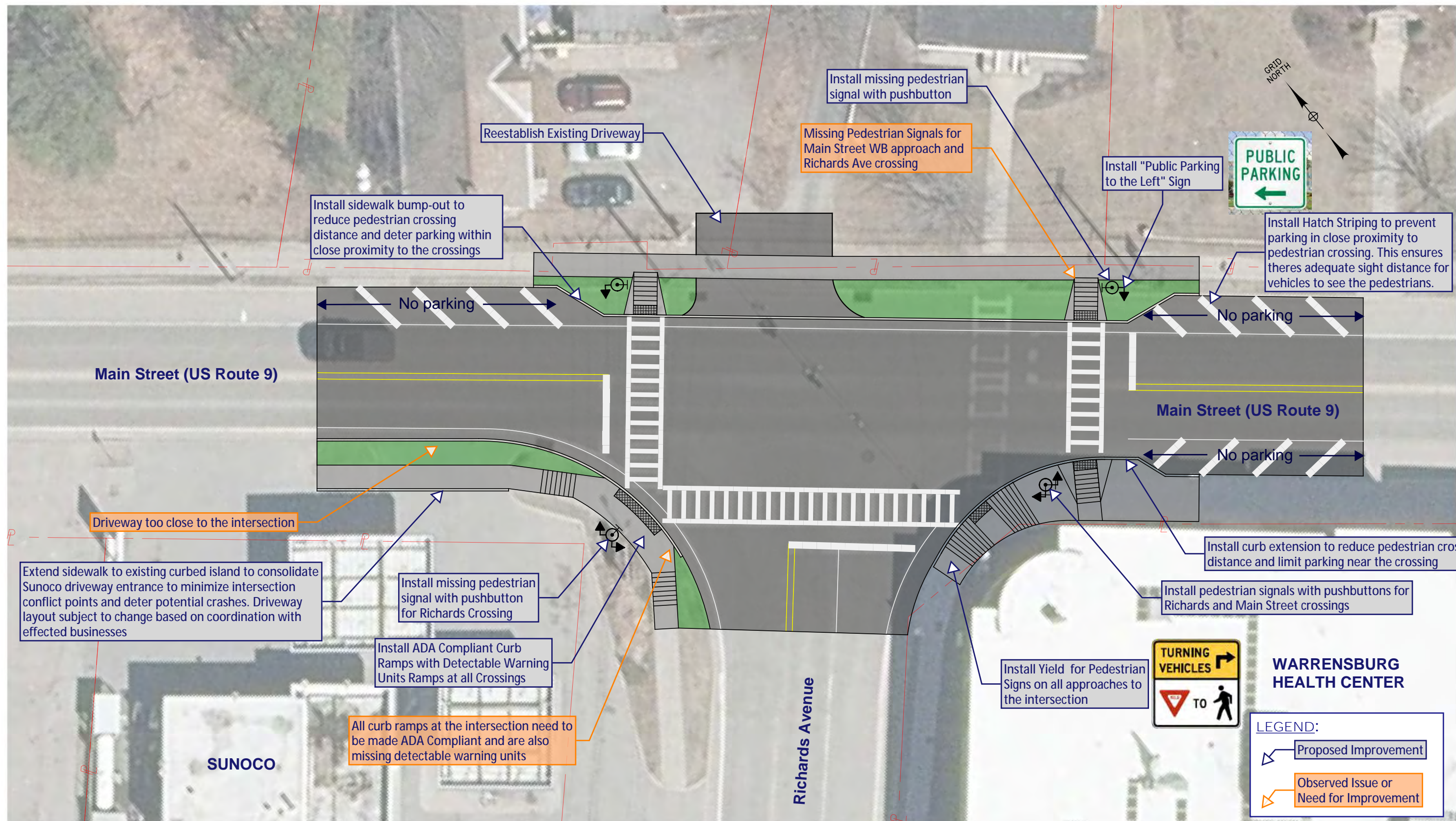
DATE ACCESSED: 08/16/2024

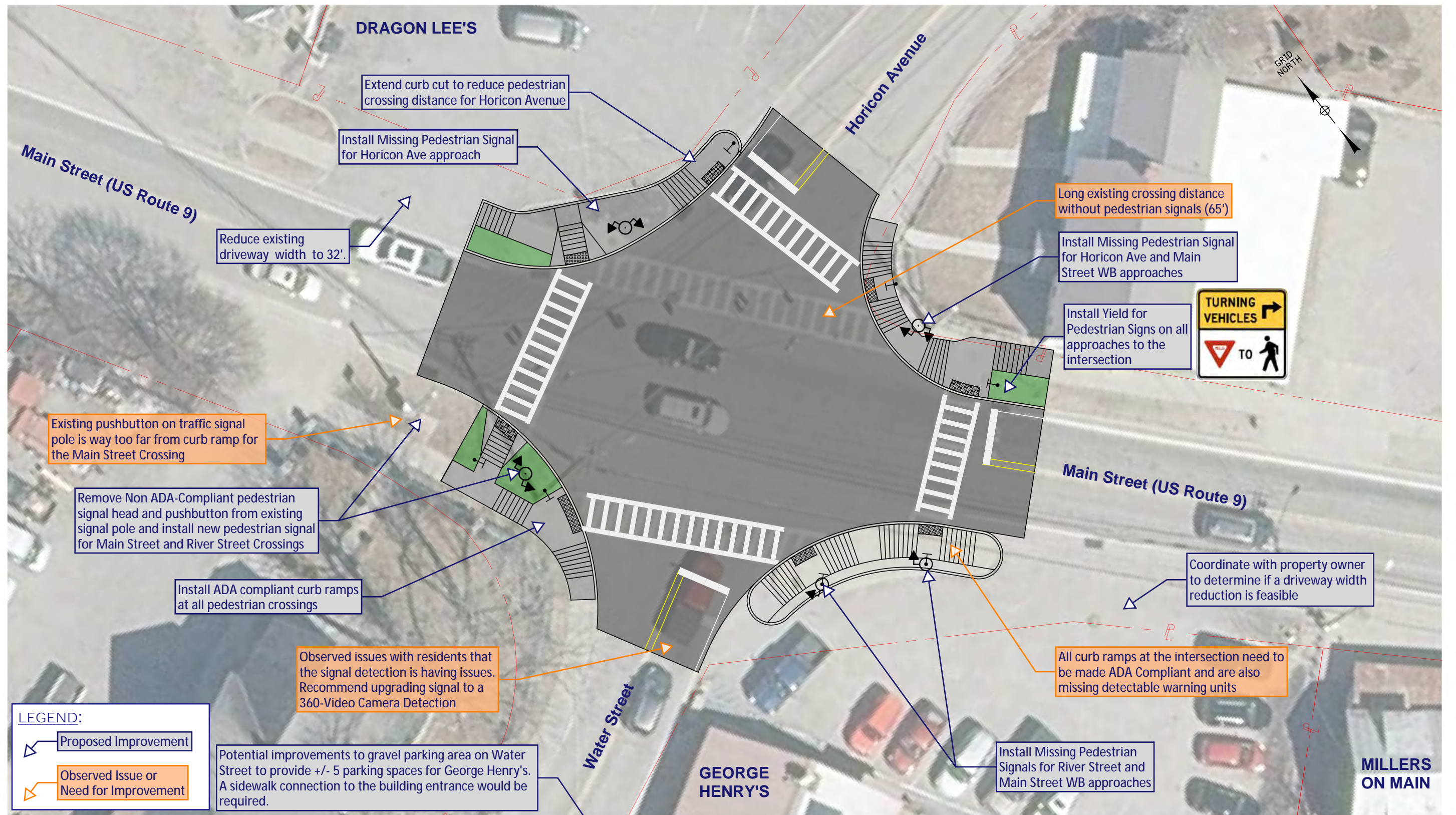
**Appendix G **

Conceptual Plans / Planning Level Cost Estimate











PARKING LANE IMPROVEMENTS

Striping Modifications:

- 1. 4th Avenue to Adirondack Avenue / Elm Street / Water Street Intersection (North & South Sides): There is currently 40.5' to 42' of pavement width available in this segment. With restriping we can increase parking lanes to 9-10' wide from the existing 8-8.5' width.
- 2. Stewart Farrar Road (East or West Side): The existing road section is 40' wide curb-to-curb with no signs restricting on-street parking. On-street parking is desirable for the post office, church and Stewart's. The existing width supports 11' travel lanes and 9' parking lanes, which meets typical design guidelines. The Town may consider striping the parking lanes to promote use and guide through vehicles.

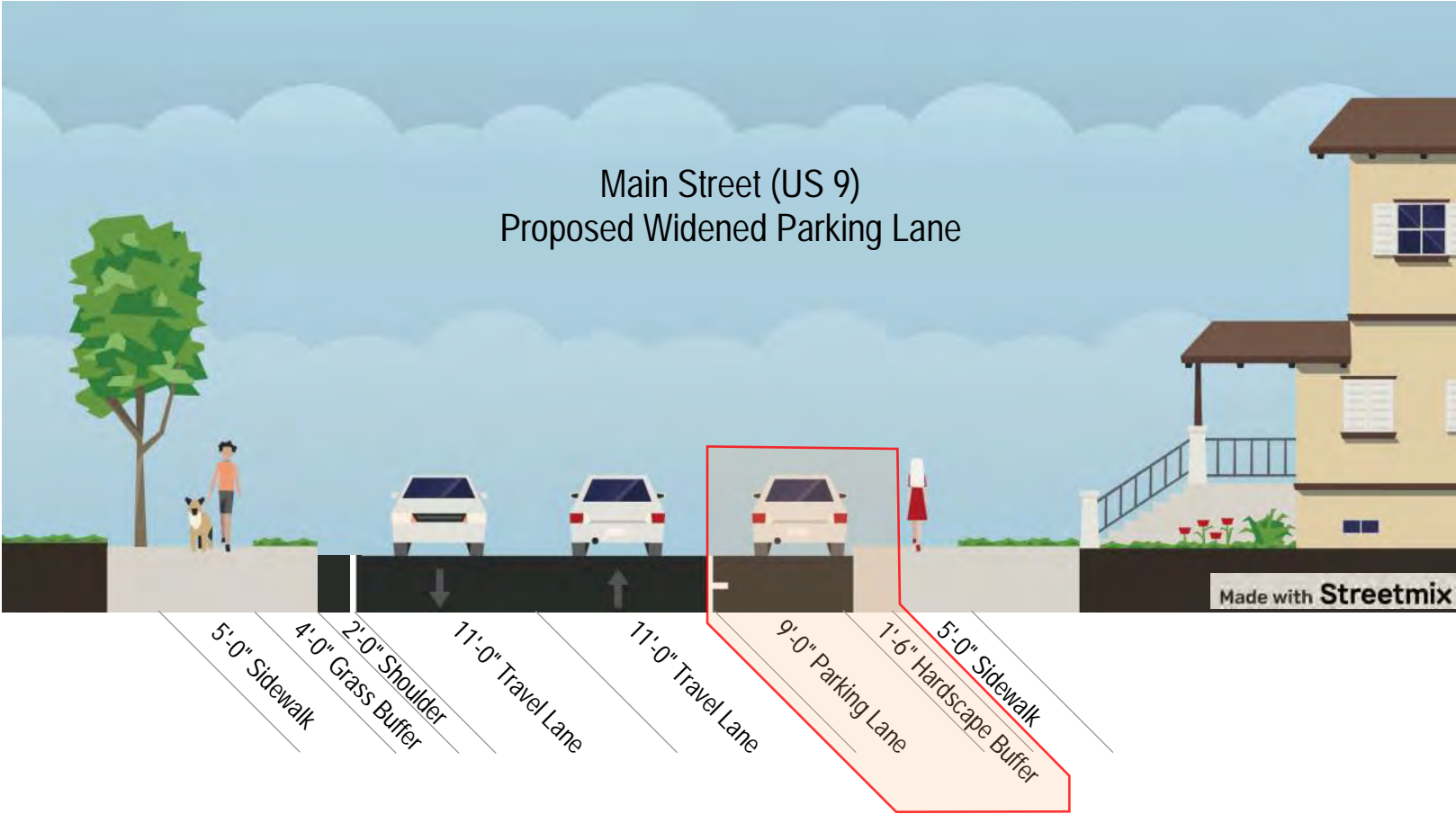
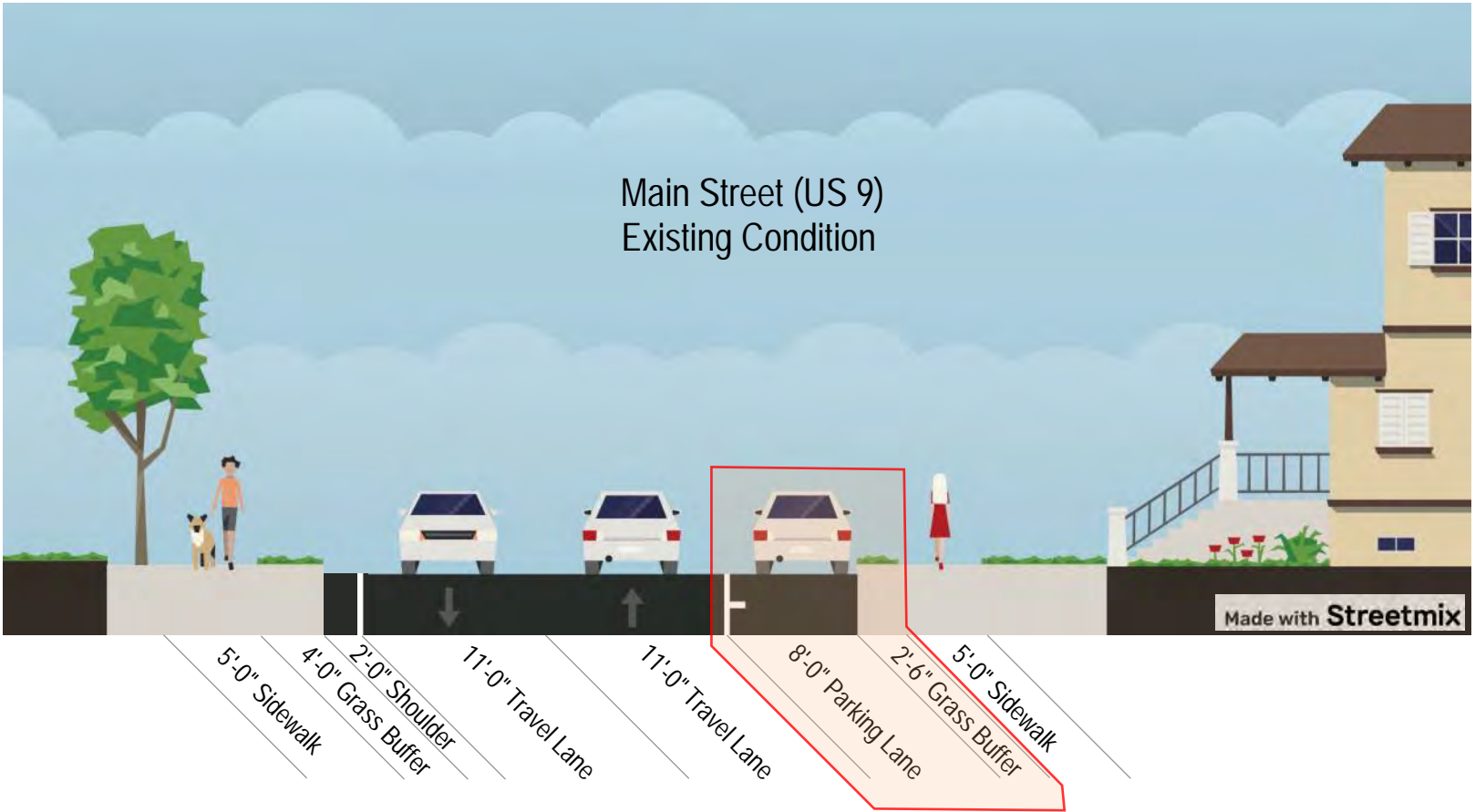
Curb Relocation Improvements:

- 1. Mountain Avenue to Emerson Avenue (Side Varies): Existing 8.5' parking lane could be widened by eliminating or reducing the existing 2.0'-2.5' grass buffer. Remaining buffer would be hardscape.
- 2. Emerson Avenue to Richards Avenue (North Side): Existing 8.0' parking lane could be widened by eliminating or reducing the existing 2.0'-2.5' grass buffer. Remaining buffer would be hardscape.
- 3. Lake George Barbershop to Judd Bridge / Warren Ford (North Side): See concept plan. Existing 8.0' parking lane could be widened by eliminating or reducing the existing 2.0'-2.5' hardscape buffer.

GATEWAY SIGNAGE SUGGESTIONS

Southern Study Limit: Approximately 200'-250' west of the Riverview Campground Driveway, the large area of public right of way would support a more substantial "Welcome to Warrensburg" sign with landscaping.

Northern Study Limit: Sufficient public right of way does not appear to be available for a similar treatment.





Project: Main Street Warrensburg Corridor Study
 MJ No. MJ1828
 Date: April 24, 2025

Highway Estimate

Draft Concept - Engineer's Estimate Summary
Main Street / Adirondack Avenue / Water Street / Hudson Street

ITEM	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL PRICE
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	298.0	\$ 45.00	\$ 13,410.00
304.12	SUBBASE COURSE, TYPE 2	CY	178.0	\$ 100.00	\$ 17,800.00
404.1283	12.5 F3 TOP COURSE ASPHALT, 80 SERIES COMPACTION	TON	334.0	\$ 200.00	\$ 66,800.00
404.1989	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	TON	20.0	\$ 200.00	\$ 4,000.00
404.3789	37.5 F9 BASE COURSE ASPHALT, 80 SERIES COMPACTION	TON	27.0	\$ 200.00	\$ 5,400.00
407.0102	DILUTED TACK COAT	GAL	210.0	\$ 5.00	\$ 1,050.00
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	SY	3,810.0	\$ 15.00	\$ 57,150.00
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	CY	65.0	\$ 1,200.00	\$ 78,000.00
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	LF	760.0	\$ 45.00	\$ 34,200.00
627.50140008	CUTTING PAVEMENT	LF	810.0	\$ 2.50	\$ 2,025.00
645.5102	GROUND-MOUNTED SIGN PANELS LESS THAN OR EQUAL TO 32 SF, WITH Z-BARS	SF	52.0	\$ 60.00	\$ 3,120.00
645.81	TYPE A SIGN POSTS	EACH	6.0	\$ 200.00	\$ 1,200.00
685.1102	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	4,015.0	\$ 2.50	\$ 10,037.50
685.1202	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	1,844.0	\$ 2.50	\$ 4,610.00
685.3304	WHITE EPOXY REFLECTORIZED PAVEMENT LETTERS -20 MIL PORTABLE/HAND APPLICATION	EACH	8.0	\$ 150.00	\$ 1,200.00
685.3404	WHITE EPOXY REFLECTORIZED PAVEMENT SYMBOLS -20 MIL PORTABLE/HAND APPLICATION	EACH	2.0	\$ 200.00	\$ 400.00
680.xxx	PEDESTRIAN SIGNALS	EACH	6.0	\$ 8,000.00	\$ 48,000.00
697.03	FIELD CHANGE PAYMENT	DC	\$ 31,000.00	\$ 1.00	\$ 31,000.00

Construction Sub-Total	\$379,403
Work Zone Traffic Control (5%)	\$18,970
Survey (2%)	\$7,588
Mobilization (4%)	\$16,238
Contingency (30%)	\$126,660
2025 Construction Total	\$548,859
CI (9%)	\$49,397
Design (15%)	\$82,329
GRAND TOTAL	\$680,585
SAY	\$690,000



Project: Main Street Warrensburg Corridor Study
 MJ No. MJ1828
 Date: April 24, 2025

Highway Estimate

Draft Concept - Engineer's Estimate Summary
Main Street / Stewart Farrar Avenue

ITEM	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL PRICE
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	114.0	\$ 45.00	\$ 5,130.00
304.12	SUBBASE COURSE, TYPE 2	CY	66.0	\$ 100.00	\$ 6,600.00
404.1283	12.5 F3 TOP COURSE ASPHALT, 80 SERIES COMPACTION	TON	81.0	\$ 200.00	\$ 16,200.00
407.0102	DILUTED TACK COAT	GAL	55.0	\$ 5.00	\$ 275.00
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	SY	955.0	\$ 15.00	\$ 14,325.00
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	CY	22.0	\$ 1,200.00	\$ 26,400.00
608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS,AND VEGETATION CONTROL STRIPS	TON	9.0	\$ 250.00	\$ 2,250.00
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	LF	340.0	\$ 45.00	\$ 15,300.00
610.1605	TURF ESTABLISHMENT PERFORMANCE	SY	138.0	\$ 30.00	\$ 4,140.00
627.50140008	CUTTING PAVEMENT	LF	360.0	\$ 2.50	\$ 900.00
645.5102	GROUND-MOUNTED SIGN PANELS LESS THAN OR EQUAL TO 32 SF, WITH Z-BARS	SF	25.0	\$ 60.00	\$ 1,500.00
645.81	TYPE A SIGN POSTS	EACH	2.0	\$ 200.00	\$ 400.00
685.1102	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	1,477.0	\$ 2.50	\$ 3,692.50
685.1202	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	338.0	\$ 2.50	\$ 845.00
697.03	FIELD CHANGE PAYMENT	DC	\$ 10,000.00	\$ 1.00	\$ 10,000.00

Construction Sub-Total	\$107,958
Work Zone Traffic Control (5%)	\$5,398
Survey (2%)	\$2,159
Mobilization (4%)	\$4,621
Contingency (30%)	\$36,041
2025 Construction Total	\$156,176
CI (9%)	\$14,056
Design (15%)	\$23,426
GRAND TOTAL	\$193,658
SAY	\$200,000



Project: Main Street Warrensburg Corridor Study
 MJ No. MJ1828
 Date: April 24, 2025

Highway Estimate

Draft Concept - Engineer's Estimate Summary
Main Street / Richards Avenue

ITEM	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL PRICE
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	127.0	\$ 45.00	\$ 5,715.00
304.12	SUBBASE COURSE, TYPE 2	CY	72.0	\$ 100.00	\$ 7,200.00
404.1283	12.5 F3 TOP COURSE ASPHALT, 80 SERIES COMPACTION	TON	88.0	\$ 200.00	\$ 17,600.00
407.0102	DILUTED TACK COAT	GAL	60.0	\$ 5.00	\$ 300.00
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	CY	24.0	\$ 1,200.00	\$ 28,800.00
608.020102	ASPHALT SIDEWALKS, DRIVEWAYS AND BICYCLE PATHS,AND VEGETATION CONTROL STRIPS	TON	13.0	\$ 250.00	\$ 3,250.00
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	LF	320.0	\$ 45.00	\$ 14,400.00
610.1605	TURF ESTABLISHMENT PERFORMANCE	SY	117.0	\$ 30.00	\$ 3,510.00
627.50140008	CUTTING PAVEMENT	LF	340.0	\$ 2.50	\$ 850.00
645.5102	GROUND-MOUNTED SIGN PANELS LESS THAN OR EQUAL TO 32 SF, WITH Z-BARS	SF	25.0	\$ 60.00	\$ 1,500.00
645.81	TYPE A SIGN POSTS	EACH	4.0	\$ 200.00	\$ 800.00
680.xx	PEDESTRIAN SIGNALS	EACH	4.0	\$ 8,000.00	\$ 32,000.00
685.1102	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	2,600.0	\$ 2.50	\$ 6,500.00
685.1202	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	262.0	\$ 2.50	\$ 655.00
697.03	FIELD CHANGE PAYMENT	DC	\$ 13,000.00	\$ 1.00	\$ 13,000.00

Construction Sub-Total	\$136,080
Work Zone Traffic Control (5%)	\$6,804
Survey (2%)	\$2,722
Mobilization (4%)	\$5,824
Contingency (30%)	\$45,429
2025 Construction Total	\$196,859
CI (9%)	\$17,717
Design (15%)	\$29,529
GRAND TOTAL	\$244,105
SAY	\$250,000



Project: Main Street Warrensburg Corridor Study
 MJ No. MJ1828
 Date: April 24, 2025

Highway Estimate

Draft Concept - Engineer's Estimate Summary

Main Street / Horicon Avenue / Water Street

ITEM	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL PRICE
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	117.0	\$ 45.00	\$ 5,265.00
304.12	SUBBASE COURSE, TYPE 2	CY	63.0	\$ 100.00	\$ 6,300.00
404.1283	12.5 F3 TOP COURSE ASPHALT, 80 SERIES COMPACTION	TON	73.0	\$ 200.00	\$ 14,600.00
407.0102	DILUTED TACK COAT	GAL	50.0	\$ 5.00	\$ 250.00
490.30	MISCELLANEOUS COLD MILLING OF BITUMINOUS CONCRETE	SY	835.0	\$ 15.00	\$ 12,525.00
608.0101	CONCRETE SIDEWALKS AND DRIVEWAYS	CY	21.0	\$ 1,200.00	\$ 25,200.00
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	LF	400.0	\$ 45.00	\$ 18,000.00
610.1605	TURF ESTABLISHMENT PERFORMANCE	SY	36.0	\$ 30.00	\$ 1,080.00
627.50140008	CUTTING PAVEMENT	LF	440.0	\$ 2.50	\$ 1,100.00
645.5102	GROUND-MOUNTED SIGN PANELS LESS THAN OR EQUAL TO 32 SF, WITH Z-BARS	SF	36.0	\$ 60.00	\$ 2,160.00
645.81	TYPE A SIGN POSTS	EACH	4.0	\$ 200.00	\$ 800.00
680.xx	PEDESTRIAN SIGNALS	EACH	5.0	\$ 8,000.00	\$ 40,000.00
685.1102	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	1,275.0	\$ 2.50	\$ 3,187.50
685.1202	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	78.0	\$ 2.50	\$ 195.00
697.03	FIELD CHANGE PAYMENT	DC	\$ 14,000.00	\$ 1.00	\$ 14,000.00

Construction Sub-Total	\$144,663
Work Zone Traffic Control (5%)	\$7,233
Survey (2%)	\$2,893
Mobilization (4%)	\$6,192
Contingency (30%)	\$48,294
2025 Construction Total	\$209,275
CI (9%)	\$18,835
Design (15%)	\$31,391
GRAND TOTAL	\$259,500
SAY	\$260,000



Project: Main Street Warrensburg Corridor Study
 MJ No. MJ1828
 Date: April 24, 2025

Highway Estimate

Draft Concept - Engineer's Estimate Summary

Parking Lane - Striping Modifications

ITEM	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL PRICE
619.080102	REMOVE PAVEMENT MARKING STRIPES, EPOXY PAINT	LF	4,100.0	\$ 1.50	\$ 6,150.00
685.1102	WHITE EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	4,400.0	\$ 2.50	\$ 11,000.00
685.1202	YELLOW EPOXY REFLECTORIZED PAVEMENT STRIPES - 20 MIL	LF	4,100.0	\$ 2.50	\$ 10,250.00
697.03	FIELD CHANGE PAYMENT	DC	\$ 3,000.00	\$ 1.00	\$ 3,000.00

Construction Sub-Total	\$30,400
Work Zone Traffic Control (+/-)	\$5,000
Survey (+/-)	\$3,000
Mobilization (4%)	\$1,536
Contingency (30%)	\$11,981
2025 Construction Total	\$51,917
CI (+/-)	\$8,000
Design (15%)	\$7,788
GRAND TOTAL	\$67,704
SAY	\$70,000



Project: Main Street Warrensburg Corridor Study
 MJ No. MJ1828
 Date: April 24, 2025

Highway Estimate

Draft Concept - Engineer's Estimate Summary

Parking Lane - Curb Relocations

ITEM	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	TOTAL PRICE
203.02	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	402.0	\$ 45.00	\$ 18,090.00
304.12	SUBBASE COURSE, TYPE 2	CY	230.0	\$ 100.00	\$ 23,000.00
404.1283	12.5 F3 TOP COURSE ASPHALT, 80 SERIES COMPACTION	TON	59.0	\$ 200.00	\$ 11,800.00
404.1989	19 F9 BINDER COURSE ASPHALT, 80 SERIES COMPACTION	TON	117.0	\$ 200.00	\$ 23,400.00
404.3789	37.5 F9 BASE COURSE ASPHALT, 80 SERIES COMPACTION	TON	154.0	\$ 200.00	\$ 30,800.00
407.0102	DILUTED TACK COAT	GAL	40.0	\$ 5.00	\$ 200.00
609.0401	CAST-IN-PLACE CONCRETE CURB TYPE VF6	LF	1,265.0	\$ 45.00	\$ 56,925.00
697.03	FIELD CHANGE PAYMENT	DC	\$ 17,000.00	\$ 1.00	\$ 17,000.00

Construction Sub-Total	\$181,215
Work Zone Traffic Control (5%)	\$9,061
Survey (2%)	\$3,624
Mobilization (4%)	\$7,756
Contingency (30%)	\$60,497
2025 Construction Total	\$262,153
CI (9%)	\$23,594
Design (15%)	\$39,323
GRAND TOTAL	\$325,070
SAY	\$330,000