

January 2019

Pittsford

Active Transportation Plan



The Town & Village Moving Together



“There’s no machine known that is more efficient than a human on a bicycle. Bowl of oatmeal, 30 miles — you can’t come close to that.”

Bill Nye

Science Educator & Mechanical Engineer

Plan Support by the Genesee Transportation Council (GTC)

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Acknowledgments

Steering Committee

Lora Barnhill – Transportation Analyst, NYSDOT

Rochelle Bell – Senior Environmental Planner, Monroe County Planning

Bob Corby – Mayor, Village of Pittsford

Lisa Cove – Resident

Doug DeRue – Director of Planning, Zoning & Development, Town of Pittsford

Richard DeSarra – President, Rochester Cycling Alliance

Jessie Hollenbeck – Director of Recreation, Town of Pittsford

Daniel Kenyon – Transportation Planner, Rochester-Genesee Regional Transportation Authority

Alysa Plummer – Trustee, Village of Pittsford

Paul Schenkel – Commissioner of Public Works, Town of Pittsford

Bill Smith – Supervisor, Town of Pittsford

Renee Stetzer – Resident, Reconnect Rochester & Village

Bob Torzynski – Genesee Transportation Council

George VanArsdale – Resident

Project Partners



Planning Consultants

Prepared by:



In association with:



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Commonly Used Acronyms

AASHTO	American Association of State Highway and Transportation Officials	NACTO	National Association of City Transportation Officials
BLOS	Bicycle Level of Service	NYS	New York State
DOT	Department of Transportation	PLOS	Pedestrian Level of Service
DPW	Department of Public Works	RGRTA	Rochester-Genesee Regional Transportation Authority
FHWA	Federal Highway Administration	SEQRA	State Environmental Quality Review Act
GTC	Genesee Transportation Council	SRTS	Safe Routes to School
MC	Monroe County	US	United States

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Introduction

Pittsford values active transportation. From the bustling canal path at Schoen Place to the picturesque hills nestled along Clover Street, people choose to walk and bike throughout the community. Building on this strong legacy of the past and present, the Pittsford Active Transportation Plan aims to develop a thorough strategy to guide the future of active transportation in both the Town and Village.

Since 1975, the Town of Pittsford's growth has been guided by a Comprehensive Plan that focused on preservation of open space, farmland, and neighborhood character. The 1993 Parks and Recreation Master Plan was developed to guide the Town on sidewalk and trail priorities, which it has made an important component of capital improvements.



*Recreational cycling is a common activity in the community.
Photo by Town of Pittsford.*

The Village has also emphasized the importance of maintaining and improving walkability throughout the Village, which is evident not only in its planning efforts but in the development of its streets and crosswalks.

Although active transportation has always been important to Pittsford it lacked an overall vision and coordination. This Plan provides a broad-based vision for a cohesive bicycle and pedestrian network and provides recommendations that build on the extensive work the Town and the Village have completed.

Benefits of Active Transportation

“Active transportation” refers to human-powered mobility, primarily walking and biking. It can affect both a community and an individual in profound ways. The promotion of active transportation is important to the Pittsford community, as evidenced by its past work in providing places to bike and walk. There are significant benefits of active transportation in regard to the economy, health, the environment, and in consideration of social and human safety.

Economic

Although active transportation is often only associated with health benefits, it is important to recognize the economic benefits. The development of active transportation systems provides an opportunity for people to make affordable mobility choices. At the community level, active transportation networks offer high return on investment for a community. For example, the building of a multi-use trail could divert traffic from a road at a far lower cost than that of a road capacity increase. Other economic benefits include:

- Active transportation allows people to save money by decreasing or eliminating the cost of car ownership or use. Bicycling is very affordable and walking is free.
- By decreasing automobile trips, there is less damage to roads and traffic congestion. This decreases the need for expensive maintenance and capacity-building projects.
- All other things being equal, communities with active transportation networks are generally more desirable than those without. Furthermore, the 2015 National Community and Transportation Preference Survey

conducted by the National Association of Realtors found that millennials, those aged 18–34, prefer walking as a mode of transportation by 12 percentage points over driving.

- Trails and sidewalks in close proximity to residential areas have shown to increase property values.

Health

Active transportation offers many benefits to the health of individuals who choose to incorporate it into their lives.

Although the infrastructure improvements or policy changes do not directly make people healthier, they facilitate healthy choices. An important strength of active transportation investments are their versatility. For example, the installation of a new sidewalk may allow one person to walk to work (transportation) and another to achieve needed exercise (recreation). Some of the health benefits linked to active transportation include:

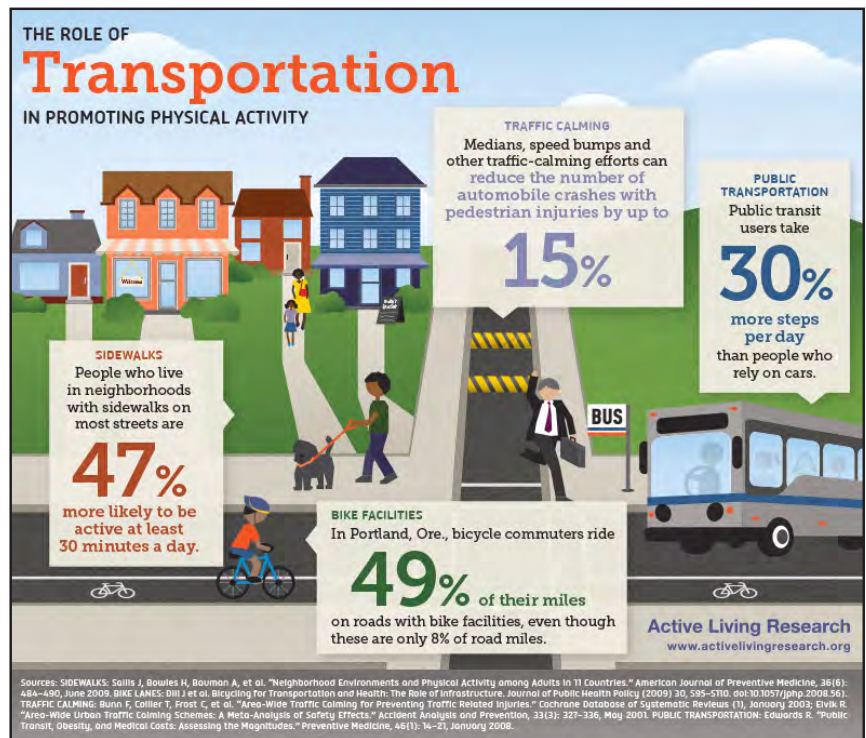
- Reduced risk of depression, heart disease and pollution-triggered respiratory health problems
- Increased energy levels
- Stress reduction

Environmental

Active transportation is a fundamental tool to mitigate threats to human life. The connections between automobile emissions, air pollution and climate change are clear. In 2013, greenhouse gas emissions from transportation accounted for about 27% of total U.S. greenhouse gas emissions. Communities without active transportation choices contribute to these issues at a high level.

Other environmental benefits to active transportation include:

- Reduces use of fossil fuels
- Promotes the conservation of sensitive natural features (e.g. trails and open space)



Social & Safety

Transportation networks have a large impact on human behavior. People both young and old, rich or poor depend on the same networks. Generally, communities with developed active transportation systems experience reductions in many of the negative aspects of auto-oriented communities. By providing alternatives to the use of an automobile, the following benefits may be achieved:

- Increased opportunity for social interaction
- Increased “eyes on the street” to deter crime and promote a quicker response to emergencies
- Increased social mobility through affordable mobility options

Although Pittsford is a relatively affluent community, the growing population of seniors and existing youth population represent a demand for active transportation. Further, the Town is an important employment and retail center for the Rochester area. These conditions represent a need for planning enhanced mobility approaches in the community.

Community's Vision & Goals

The following visions and goals are intended to guide the efforts of the Town and Village over the next decade. They are based upon the recommendations gleaned from previous plans and studies, the input provided by the Steering Committee, and the input received at the community workshops.

Village Vision

The Village's traditional development pattern, historic architecture, and tree-lined streetscapes, combined with the Canal Path and sidewalk network creates one of the most walkable environments in the region. However, we acknowledge that the accommodations and comfort experienced by bicyclists in the Village is not on the same level as the pedestrian experience our residents and visitors enjoy. It is our vision to aggressively pursue enhancements within and adjacent to the Village that create a sense-of-place and an unparalleled level of service for walkers and bicyclists.

Town Vision

Over the past three decades, the Town has been actively developing a system of trail segments and open spaces throughout the southern portion of Pittsford. The cumulative result is a series of transportation segments and public amenities in close proximity to neighborhoods, parks, and schools. Over the next decade, we will work to connect these resources to form a more interconnected multi-modal network that can be used for recreation and transportation purposes, while also partnering with the Village to improve access for pedestrians and bicyclists between the Town and the Villages.



Despite challenges to bicycling in the Village, it is already a common activity. This Plan will consider improvements to Village bicycling.



The significant open space areas of the Town complement the growing trail system. Photo by Town.

Community Transportation Goals

1. Create a bicycle and pedestrian transportation network that connects neighborhoods, commercial areas, and community uses located in the Town and Villages of Pittsford and East Rochester.
2. Provide an area around the Villages that slows incoming traffic and notifies motorists that they are entering an area with a large number of pedestrians and bicyclists.
3. Create a multi-modal transportation network that connects the southern portion of the Town to the Village of Pittsford and the commercial destinations along Monroe Avenue.
4. Foster a network and culture that makes commuting on foot or by bicycle a viable travel option.
5. Increase driver and community awareness of pedestrians and bicyclists in a manner that positively impacts the behavior of motorists.



Planning Process

The planning process included committee guidance, community input exercises, and broad areas of research by the consultant team. The overall intent of the planning process was to promote a dialogue between the different groups and allow the wants and needs of the community to be addressed. To guide the development of the Plan, a Steering Committee formed and was responsible for providing preliminary Plan direction and on-going review. The Committee included Town and Village officials and residents and representatives from other agencies including NYSDOT, RGRTA, GTC, and Monroe County.

Study Area

The Town of Pittsford is a suburban community situated southeast of the City of Rochester, bordered by the communities of Penfield, Perinton, East Rochester, Mendon, Henrietta, and Brighton. The setting includes a mix of residential densities reflecting a range of village and suburban type development and street network patterns. Much of the Town's 23.4 square miles include single-family residential neighborhoods. A sizable portion of Town land is occupied by recreational and community service uses including large golf courses and many educational facilities.

Although the Town features extensive low-density residential development, portions of the Town have maintained a rural character. The southwestern portion of the Town features an extensive amount of park land and open space. The existing and planned housing developments are buffered from one another and major roads with a combination of old-growth trees, landscaping, and trails.

It is important to recognize the common needs of the youth and senior populations in regards to active transportation. For the purposes of this Plan, the youth population includes persons between the ages of 5 and 19, while seniors refers to persons 65 years old or more. Generally, these groups want and need active transportation opportunities in their communities. Many youth lack the ability to drive a car and need the ability to develop a sense of autonomy and independence that walking and biking can provide. Demographic research has documented that seniors desire communities that are walkable for reasons related to exercise, mobility, and social interaction. Together, the youth and senior populations comprised 42% of the 2010 Town population.

There are five school districts located in Pittsford. They include:

- Pittsford Central School District, located in the majority of the Town
- Brighton Central School District, located in the northeast portion of the Town

- East Rochester Union Free School District, located in the northwest portion of the Town
- Rush-Henrietta Central School District, located in the western portion of the Town
- Fairport Central School District, located in the eastern portion of the Town

The Village of Pittsford is an Erie Canal community with significant tourism business that generates considerable pedestrian and bicycle activity both in the Village and within the surrounding areas of the Town. The Village is a historic, relatively dense community of traditionally-designed buildings. The Village is the most walkable area of the community featuring many different uses located in an area of less than one square mile. The historic four corners area and Schoen Place are the heart of the community featuring many small businesses, community services and public space. Beyond these areas, the Village primarily features single-family homes with many properties of architectural and historic significance.



STUDY AREA



Local Governments

-  Town of Pittsford
-  Village of Pittsford

School Districts

-  Brighton Central
-  Penfield Central
-  East Rochester Union Free
-  Rush-Henrietta Central
-  Pittsford Central

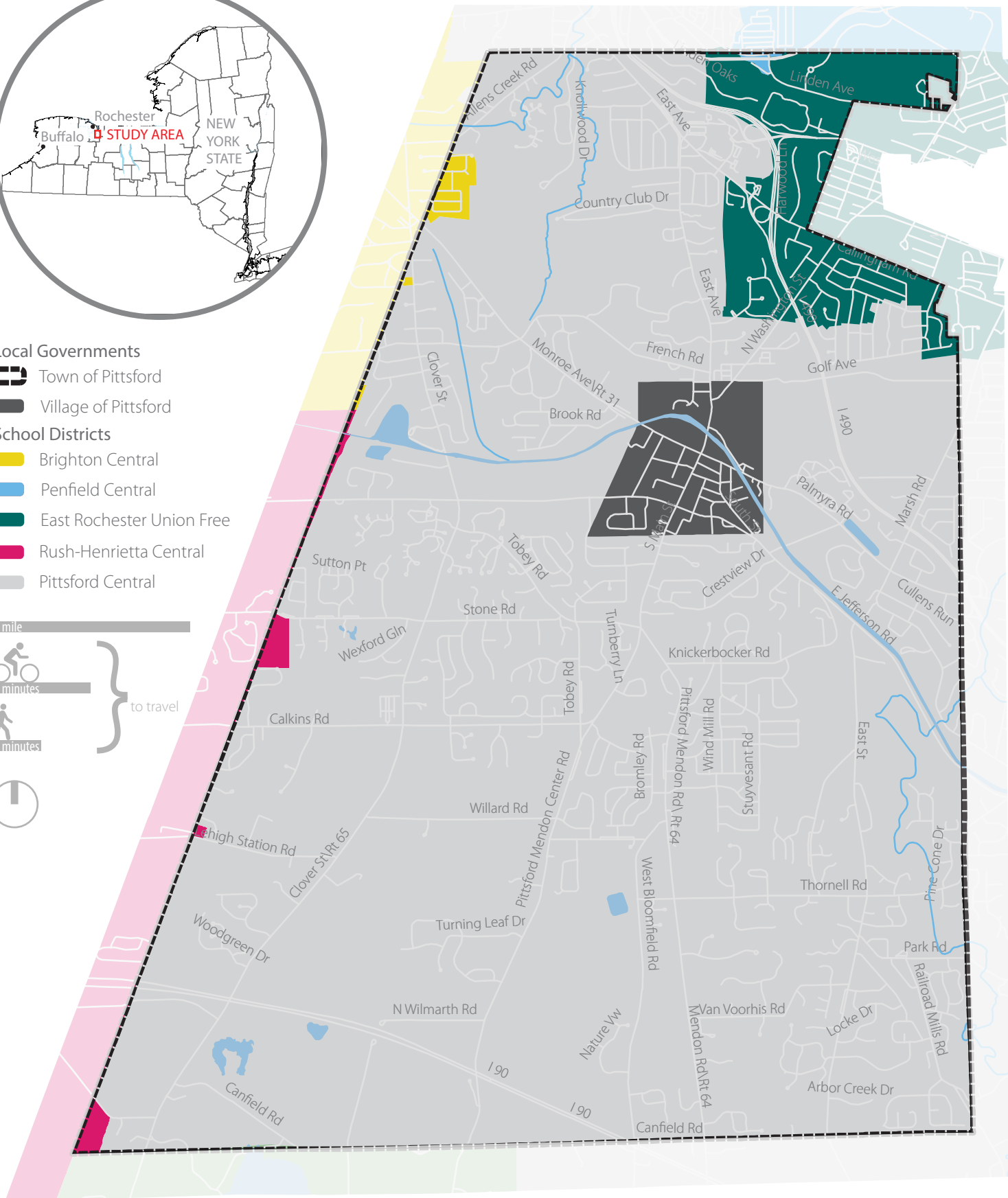
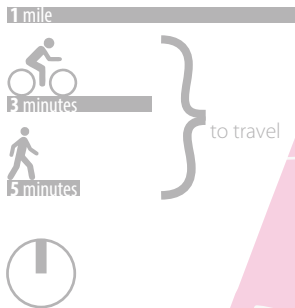


Figure 1: Study Area Map

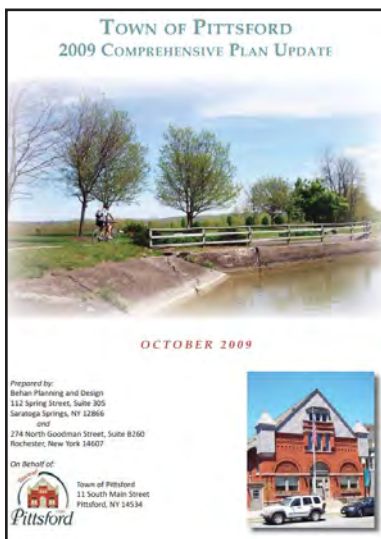
Inventory & Analysis

Previous Plans & Studies

Town of Pittsford

At the time of this writing, an update to the Comprehensive Plan is underway. The 2016 Comprehensive Plan Update will place an emphasis on advancing active transportation throughout the community.

The 2009 Comprehensive Plan is the latest complete Comprehensive Plan for the Town. The Plan focused on transportation as an area of particular



concern to the Village and Town. The Town developed a policy statement on future road and intersection improvements which set a new vision for the community. The statement affirmed that the preservation of the walkable and livable character of the community was more important than pursuing congestion-relief projects through road and intersection widening. Furthermore, the community set a minimum threshold for significant road capacity expansion. This standard includes the need to uphold the community character, provide long-term traffic relief and promote the surrounding land use vision.

The Plan formed broad strategies that reset the community's mobility agenda. The fundamental objectives include:

1. Incorporate the needs of pedestrians, bicyclists and public transit users during all stages of the implementation of road and development projects in the Town, including

but not limited to planning, design, and construction

2. Expand access to the Erie Canal Trail, extend existing trails, and close gaps in sidewalks and trails
3. Evaluate the town's major transportation corridors for opportunities to make them more attractive, safer, and pedestrian and bicycle friendly
4. Pursue traffic calming measures across the transportation network

Village of Pittsford

The Village of Pittsford is a historic, dense community within the Town. For years, the Village has focused on transportation from the standpoint of how it impacts quality-of-life. The Village is by far the most walkable area of the Town due to its traditionally-designed buildings, diverse land uses, and extensive sidewalk network. Furthermore, the Village is home to Schoen Place, a historic, walkable, and diverse active commerce hub on the Erie Canalway Trail. Because the Village is based at the confluence of Monroe Ave/NYS 31 and Main Street/NYS Route 96, it must work with NYS-DOT to determine the road design. The Village is connected to the Town by the Auburn Trail North section.

2002 Village of Pittsford Comprehensive Plan

The 2002 Comprehensive Plan set a vision for mobility in the Village. The need to calm traffic and improve pedestrian safety was fundamental to the Plan, while the plan also stressed the need to increase the supply and efficiency of public off-street parking. The Plan developed the following actions:

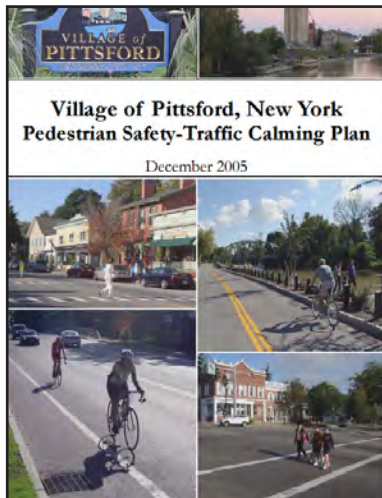
1. Develop a program to help pay for and supply parking.
2. Reconfigure the public parking area at Schoen Place based on the master plan developed for this area to maximize spaces.
3. Improve the walkway of the North Main

Street bridge over the Canal.

4. Negotiate with private parking lot owners to reconfigure the lots and open them for public use.
5. Work with the NYS DOT on any future improvements to the transportation network in Pittsford; this would include improvements within the Town to determine potential impacts on the Village.
6. Make pedestrian circulation improvements throughout the Village.
7. Complete a historically appropriate, detailed streetscape plan for Main Street, with the 'four corners' as the main focus.
8. Continue to work with NYS DOT to develop a streetscape plan - including

traffic calming techniques - for Monroe Avenue and State Street.

9. Develop a comprehensive signage system, in conjunction with the Town, NYS DOT and Monroe Avenue Corridor Coalition.



2005 Pedestrian Safety-Traffic Calming Plan

The Pedestrian Safety-Traffic Calming Plan focused on implementing the general vision of the Comprehensive Plan regarding the need to reduce the negative impacts associated with vehicular traffic and promote walkability. The following general principles guided the Plan:

1. Improve pedestrian safety.
2. Encourage safer driver behavior.
3. Reduce vehicular speeds.
4. Enhance the walkability of Village streets.
5. Restore the village's historic visual quality and the historic functional aspect of village

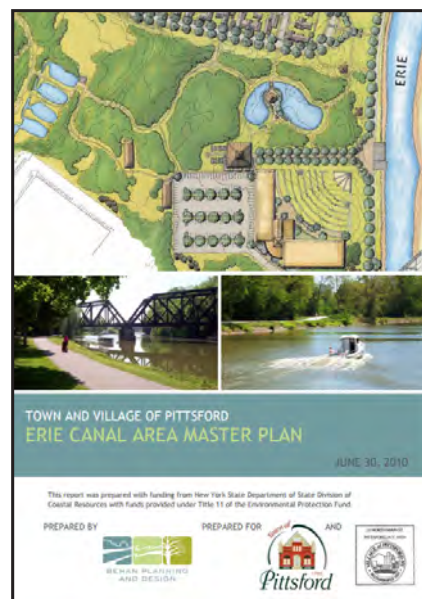
streets as public civic spaces accommodating a variety of uses.

6. Bolster the economic viability of the Village's pedestrian oriented business district.
7. Improve village residents' quality of life.
8. Stabilize and/or improve the value of real estate located along busy village streets.
9. Boost the desirability of the Village as a destination for Pittsford residents and visitors.
10. Remove areas of excessive pavement that encourage speeding.
11. Increase available on-street parking.

The Plan developed several design alternatives for Village road segments and intersections aimed at traffic calming and active transportation amenities. Bike lanes, pedestrian crossings, roundabouts, curb extensions, landscaping, travel lane width reductions and on-street parking were part of the recommendations.

2010 Erie Canal Area Master Plan

In cooperation with the Town, the Erie Canal Area Master Plan focused on developing a vision for a large undeveloped area in the northwest portion of the Village and adjacent areas of the Town. The plan included new trail linkages between the Erie Canalway and the Auburn Trails and the preservation of natural areas.



Active Transportation in Neighboring Communities

Pittsford is surrounded by communities who have focused on active transportation in recent years. Neighboring towns offer Pittsford the ability to coordinate infrastructure improvements to form a regional bicycle or pedestrian network. It is important to understand Pittsford's edges to understand the impact improvements can make.

Town of Brighton

The Town of Brighton is located northwest of the Town of Pittsford. In 2013, the Town of Brighton completed a comprehensive active transportation plan, which described extensive improvements to Brighton's bicycle and pedestrian infrastructure. Due to the many connections between the towns, Pittsford has an opportunity to provide greater mobility by focusing on closing infrastructure gaps between the two towns.



On-Street Connections

There are several key road connections between Brighton and Pittsford which offer opportunities for active transportation linkages. These include: East Avenue/Route 96, Monroe Avenue/Route 31, Clover Street/Route 65, Allens Creek Road, and French Road.

Trails

The Town of Pittsford is connected to Brighton by an abandoned railroad corridor that has, in sections, been converted to the Auburn Trail. Generally, the corridor surface is grass and dirt. It is used informally by the community as a hiking

and mountain biking trail. The Plan recommended that the Brighton Auburn Trail be developed as a multi-use trail connecting to Pittsford just north of Monroe Avenue near Clover Street/Route 65. Potential trail improvements include paving, lighting improvements, and seating. This trail project could provide a seamless connection between the railroad loop trail and developed areas to the north.

Town/Village of East Rochester

East Rochester lies to the northeast of the Town of Pittsford. The communities are connected by a several roads, including Washington Road/NYS Route 153 and Roosevelt Road. Fairport Road/NYS 31F forms a border between the communities. There are many opportunities to provide greater active transportation connections between the communities.

As a relatively densely populated area, East Rochester features an extensive sidewalk network and traditional, pedestrian-oriented development. The Town/Village of East Rochester does not have a current comprehensive plan that addresses alternative transportation. However, in 2014 the town implemented the East Rochester Transportation Improvement Plan. This plan made recommendations for improvements around the intersection of West Commercial Street and Roosevelt Road, just west of East Rochester. These improvements would calm traffic and provide greater pedestrian access areas in the Town of Pittsford.

Town of Henrietta

The Town of Henrietta lies to the west of Pittsford. Henrietta is a large suburban community with many road connections to Pittsford. In 2015, the Town of Henrietta Active Transportation Plan was adopted. To better accommodate cyclists, the Plan recommends wide shoulders on the following roads to better accommodate bicyclists:

1. Calkins Road
2. Lehigh Station Road/NYS Route 253
3. Pittsford-Henrietta Townline Road
4. Tobin Road

Pittsford is linked to the northeast corner of

Henrietta via the Erie Canalway Trail, west of Clover Street and Lock 32 State Canal Park. Trail users can access Henrietta via a connection to Edgewood Avenue.

Town of Mendon

The Town of Mendon lies to the south of Pittsford. Mendon is a largely rural town featuring significant agricultural land uses. However, the hamlets and the Village of Honeoye Falls are population centers in the town. The current comprehensive plan, adopted in 2005, made active transportation part of its long-term goals. The town developed the Mendon Hamlet Master Plan which recommended sidewalks in the historic hamlet. Currently, the towns are linked by several roads. Generally, these roads feature paved shoulders of less than 5' in mixed condition. There are no bike lanes on these roadways.

Mendon has resolved to practice the following active transportation strategies:

1. Work with public and private entities to construct hiking, biking and equestrian trails that connect existing parks, trails and recreation areas to residential neighborhoods and business districts.
2. Maintain sidewalks in the Hamlet and install remaining segments of proposed sidewalks.
3. Create designated bicycle lanes on certain well-traveled roads
4. Employ appropriate signage and traffic controls for motor vehicles, bicycles, pedestrians and users of public transit.

Town of Penfield

The Town of Penfield lies to the northeast of Pittsford. Although the towns share a border, few roads connect the towns directly, as Interstate 490 and a railroad act as barriers between the towns. The 2008 Town of Penfield Bicycle Facilities Master Plan made a positive step toward greater bicycle accessibility in Penfield. The Plan created a detailed inventory and action plan for roads and trails in Penfield. Penfield is connected to Pittsford by Penfield Road/NYS Route 441. The plan recommended that a 5' to 6' bike lane be created on this route. At the time of this writing, this has not occurred.

Town of Perinton

The Town of Perinton is a large community to the east of Pittsford. Currently, Perinton has an extensive sidewalk network along roads connecting to Pittsford. In addition, Pittsford is linked to Perinton via the Erie Canalway Trail near the Hamlet of Bushnell's Basin.

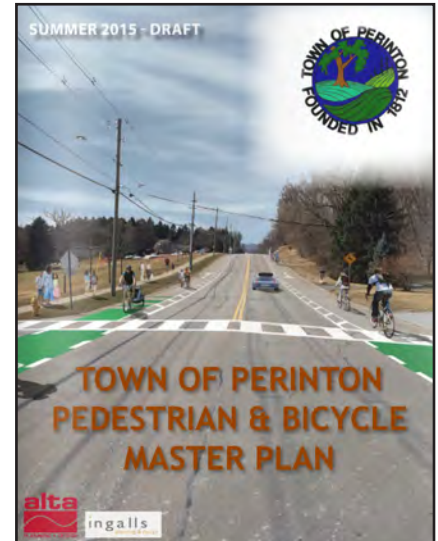
As of this writing the Draft Perinton Pedestrian & Bicycle Master Plan is under consideration and a final Plan has yet to be adopted. Currently, the plan focuses on creating a thorough strategy for making Perinton a walking and bike-friendly place. The Plan recommended

improvements to roads and trails connecting to Pittsford and includes focused improvements in the Bushnell's Basin area, just east of the Town line on East Jefferson Road/NYS Route 96.

The Plan recommended the following improvements to the area:

- Promote traffic calming through installation of textured or color contrasted shoulders
- Install a bike lane
- Improve pedestrian crossing areas

The Plan also made recommendations for new trail development that would link to Pittsford. It recommended the development of the "Powerline Trail." This development would include the utilization of an existing utility right-of-way to create a new multi-use path connecting to Pittsford.



Existing Zoning & Policies

Existing Policies

In the 2009 Comprehensive Plan, the Town of Pittsford identified several broad transportation goals. These goals focused on the overall vision of protecting the unique character of the Town while meeting the needs of all modes of transportation. In addition, the Town identified strategies aimed at adding to the sidewalk and trail network and reinforced the importance of traffic calming.

Town Policy Statement on Future Road and Intersection Improvements

The 2009 Comprehensive Plan recognized the relationship between the transportation system and quality-of-life. To guide decisions on road and intersection improvements on all future roads (including State and County-owned roads) the Town included a policy statement describing its values and intent regarding road improvements. The policy statement included the following points:

- The Town values the preservation of its walkable and livable character so much that it will tolerate some traffic congestion before supporting a capacity-building project.
- All significant capacity-building road and intersection projects must meet a minimum performance threshold to receive Town support. This threshold includes consistency with Town character, consistency with surrounding land use, and provision of long-lasting traffic relief.

Monroe Avenue Corridor Design Guidelines

The Town of Pittsford Zoning Code has extensive design guidelines that apply to the commercial parcels along Monroe Avenue/NYS Route 31. The guidelines apply from the Pittsford-Brighton Town line to the Village of Pittsford. The design guidelines express the desired character of the corridor and provide specific development directives.

These design guidelines apply to the extent practicable, and implementation depends on many factors. The guidelines require the following for all commercial parcels in regard to pedestrians:

1. Sites must provide tree-lined sidewalks forming a network connecting to the street, entrances, and throughout parking areas.
2. Sites should include ancillary components supporting pedestrians (.e.g. water fountains, benches, tables, trash receptacles etc).
3. Sites must connect to the trail network, forming a loop surrounding the area.
4. The street should feature appropriate signage, lighting and pedestrian crossing signals.
5. Sites should include bicycle racks.

After more than a decade of implementation, the Monroe Avenue Design Guidelines have facilitated several large improvements to the public and private realm in the area.

Village of Pittsford Crosswalk Flag Initiative

Recently, the Village of Pittsford community experienced safety issues regarding mid-block crossings on State Street/NYS Route 31 and on South Main Street/NYS Route 96. According to Village officials and traffic accident data, traffic collisions and near-collisions were a consistent threat to walkability. In 2014, the Village of Pittsford installed sets of pedestrian flags at two mid-block crosswalks. With the intention of promoting greater motorist awareness of crosswalk use, the flags have been used by many pedestrians.



The use of pedestrian flags in the Village indicate their are concerns regarding crossing safety. Photo by Reconnect Rochester.

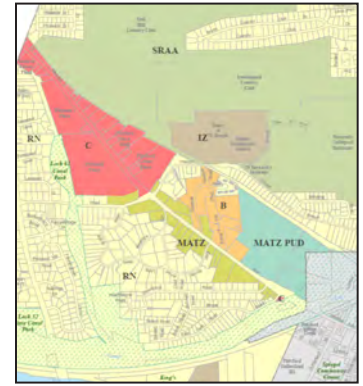
Town of Pittsford Zoning Code

The codes for the Town and Village of Pittsford, contain several chapters that are intended to ensure consideration is given to the needs of pedestrians as public and private investment occurs in the community. This summary is intended to highlight the provisions that are relevant to this planning effort and is not intended to be an exhaustive description of every applicable code or regulatory provision.

Within the Town Code there are three chapters that address the protection of pedestrian accommodations and the provision of pedestrian facilities. These include:

1. Chapter 148 – Storage of Vehicles: This chapter restricts the parking of commercial vehicles in residential districts, “...to protect the safety of pedestrians and for the purposes of traffic safety and/or for the purpose of maintaining the general health and welfare of the residents of residential zoning districts.”
2. Chapter 175 - Subdivision of Land: According to Section 175-2C(3), the approval of subdivisions shall be based on, “Recognition of desirable standards of subdivision design for pedestrian and vehicular traffic, surface water runoff, utility services and building sites for the land use contemplated.”
3. Chapter 185 – Zoning: There are a number of references throughout the zoning code that address pedestrian considerations. These include, but are not limited to:
 - A. Provisions that ensure loading operations (185-57) and freestanding signs (185-134) do not obstruct or interfere with pedestrian visibility or travel routes.
 - B. Parking lots over 100 spaces that serve places of worship (185-124) and schools (185-133) are required to, “...be broken up by aisles and/or landscaping, with adequate pedestrian walkways.”
 - C. As part of the Planning Board’s preliminary site plan approval (185-192), the Board shall consider the, “Adequacy and arrangement of pedestrian traffic access and circulation.”

- D. The additional requirements for the Monroe Avenue Transitional Zone (185-39.7) state that, “The Planning Board may require vehicle or pedestrian

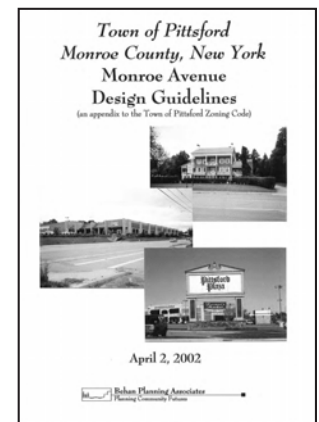


interconnections between properties, subject to a special permit review, in order to protect the safety of the public and to reduce congestion on Monroe Avenue.”

- E. As part of the Town Board’s approval of a Planned Unit Development, the Board may attach additional requirements or conditions that include, “...order of construction and/or occupancy; circulation systems, both vehicular and pedestrian...”

It should be noted that there is no specific code language intended to protect bicyclists or to ensure bicycle accommodations are incorporated into new public or private investments.

As previously stated, the Town completed the *Monroe Avenue Design Guidelines* in 2002. This document serves as an appendix to the Town’s Zoning Code. As a result the Town Zoning Code requires, “All extra building facade and site modifications shall conform to the Monroe Avenue Design Guidelines” within the Commercial (C) and Monroe Avenue Transitional Zone (MATZ). These districts encompass a large portion of the land along Monroe Avenue in the Town and are shown in red and green on the Town’s official zoning map. An excerpt from the zoning map that shows the extent of the C and MATZ Districts is contained in image above. A complete zoning map for the Town is in the Appendix.



Village of Pittsford Zoning Code

Within the Village Code there are numerous chapters that address the protection of pedestrian activity and the provision of pedestrian facilities. These include:

- Chapters 130, 168, 176, & 189 – These chapters contain multiple provisions that are intended to ensure pedestrian travel ways are kept clear from items such as newspaper vending machines, signs, and transient merchants. Collectively they serve to ensure that pedestrians have the right-of-way in the use of sidewalks in an unobstructed manner.
- Chapter 161 - Other Uses: This Chapter establishes, "...Schoen Place Waterfront Park

as a pedestrian plaza and festival court for events..." It also establishes, "The canal path between the North Main Street Bridge and the State Street Bridge is for pedestrians only and is a dismount zone. Bicyclists, skaters, and skateboarders must dismount or use the public street."

VILLAGE OF PITTSFORD

Historic and Architectural Design District Building Design Standards



Prepared by Paul Zachman and Bob Corby

Additional technical assistance for this project was provided by the Landmark Society of Western New York. Supplemental funding was provided by New York State's Certified Local Government Program.

- Chapter 210 – Zoning: There are a large number of pedestrian related provisions in the Village's Zoning Code. A listing of some key requirements are as follows:

A. A prime example of the attention to detail that the Village has taken in creating great streetscapes can be seen in Section 210-19.3; the Building and Dimensional Standards for the R-5 District. "Buildings shall be oriented with the primary facade and entrance doors facing the public street and shall be connected by sidewalk to the Village's public sidewalk system.

Freestanding garages shall be located behind the residence. Garage doors are not permitted in the primary facade facing the street." These requirements ensure that the streetscape is visually appealing and pedestrian oriented by minimizing the presence of curb cuts and garages. This required arrangement of residential buildings is consistent with the historic settlement pattern of the Village.

- B. According to the Performance Overlay District (210-56.3), "A key feature of the Village is the historic, walkable, compact retail business district located at its center. To avoid diminishing the economic viability and pedestrian activity in the Village's historic downtown district, the construction of new office or retail development outside the existing central business district is prohibited."
- C. The Board of Trustees approves Special Permits in the Village (210-74). In the Business and Industrial Districts located in the Village a determination must be made that, "The proposed use will not be detrimental to the flow of pedestrian and vehicular traffic in the vicinity. Egress to and from the location shall be accommodated safely throughout the proposed hours of operation."
- D. Section 210-81 contains the requirements for Design, Construction and Maintenance of Off-Street Parking and Loading Facilities. These provisions ensure parking areas have pedestrian walkways that are appropriately sloped and are not blocked by snow storage during the winter months.

It should be noted that there is very limited code language intended to protect bicyclists or to ensure bicycle accommodations are incorporated into new public or private investments. The two notable code references related to bicycles include:

- Section 176 - Streets & Sidewalks: There a number of provisions that prohibit riding a bike on a sidewalk and, "on the Erie Canal Towpath between the Monroe Avenue Bridge and State Street Bridge."
- Section 19.1 - R-5 District: It is the intent of the Village to, "Permit limited commercial

development upon issuance of a special permit that will make accessory amenities available to residents of the residential development and the public. Such uses may include one restaurant and other recreational activities related to use and enjoyment of the Erie Canal, such as boat docks, tour and excursion boats, and bicycle and watercraft rental facilities.”



The Village's attractive, pedestrian-friendly streets are a community asset.

As previously stated, the Village has completed a number of plans and studies to guide future decision making. A review of these documents, the presence of the Village's Historic District/Architectural and Preservation Review Board, and the building and site design related requirements in the zoning code create a very clear policy direction by the Village. The policy is that the Village expects investments that result in great architecture and great streetscapes. In an effort to clarify this position and address any potential gaps in its regulatory framework, the Village was one of the first communities in the region to adopt a Complete Streets Policy in 2011. The following excerpt from the Complete Policy illustrates the connection between the Village's character, its walkability, and its future economic development opportunities. The entire Complete Streets Policy is contained in the Appendix.

“WHEREAS, Attractive and pedestrian friendly streets are an integral part of the Village's historic charm and contribute greatly to the physical setting and quality of its neighborhoods, and commercial districts. Village real estate values, commercial viability, neighborhood health, and resident quality of life are directly affected by how streets look and function. **The street environment influences business opportunities and shapes resident, visitor and shopper experiences.** Pleasant walkable streets are required to attract and sustain compatible community development. Residents are attracted to and remain in the village because of its walkable environment. The future vitality of the village will depend in part on how its streets are improved, managed, and maintained.”

- Village of Pittsford Complete Streets Policy

Roadway Jurisdictions

A jurisdictional assessment of all roadways contained within the Town was performed. The Town has an inventory of federal, state, county, and local roadways. There are two interstate highways within the Town – the I-90 (Thruway) spanning across the southern portion and the I-490 spanning along the northeastern portion. It is important to know the distinction between roadway jurisdictions in relation to bicycling facilities, as transportation agencies may have differing policies on marking and signing. Figure 2 depicts the distribution of roadway mileage for each jurisdiction. The majority of mileage (out of an approximate total of 174.45 miles) are local roads – 61.7%. Figure 3 illustrates the types of roadways, and their corresponding centerline mileage, found throughout the town.

Maintenance of each of these roadways is generally left to the care of the owning-agency. When the Town and Village begin to implement the recommendations contained within this Plan, coordination with the appropriate DOT will be necessary to determine the extent of bicycle and pedestrian facility improvements as well as individual maintenance responsibilities.

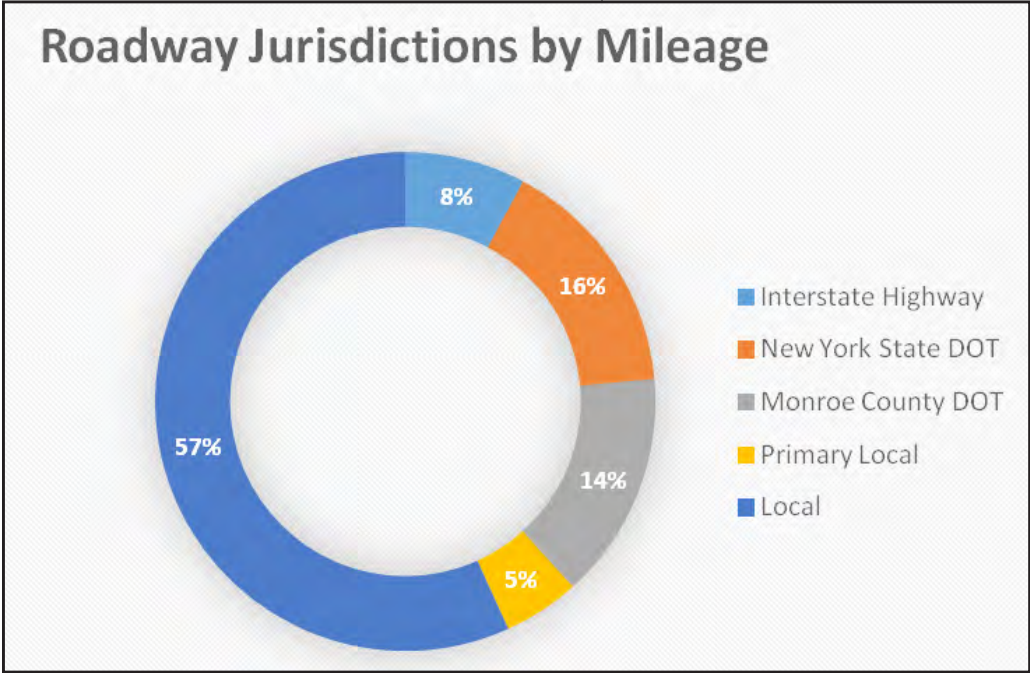


Figure 2: Roadway Jurisdictions Chart

ROADWAY JURISDICTIONS

- Interstate Highway (13.65 miles)
- New York State DOT (27.47 miles)
- Monroe County DOT (25.69 miles)
- Primary Local (8.61 miles)
- Local (99.03 miles)
- Trails
- Railroad

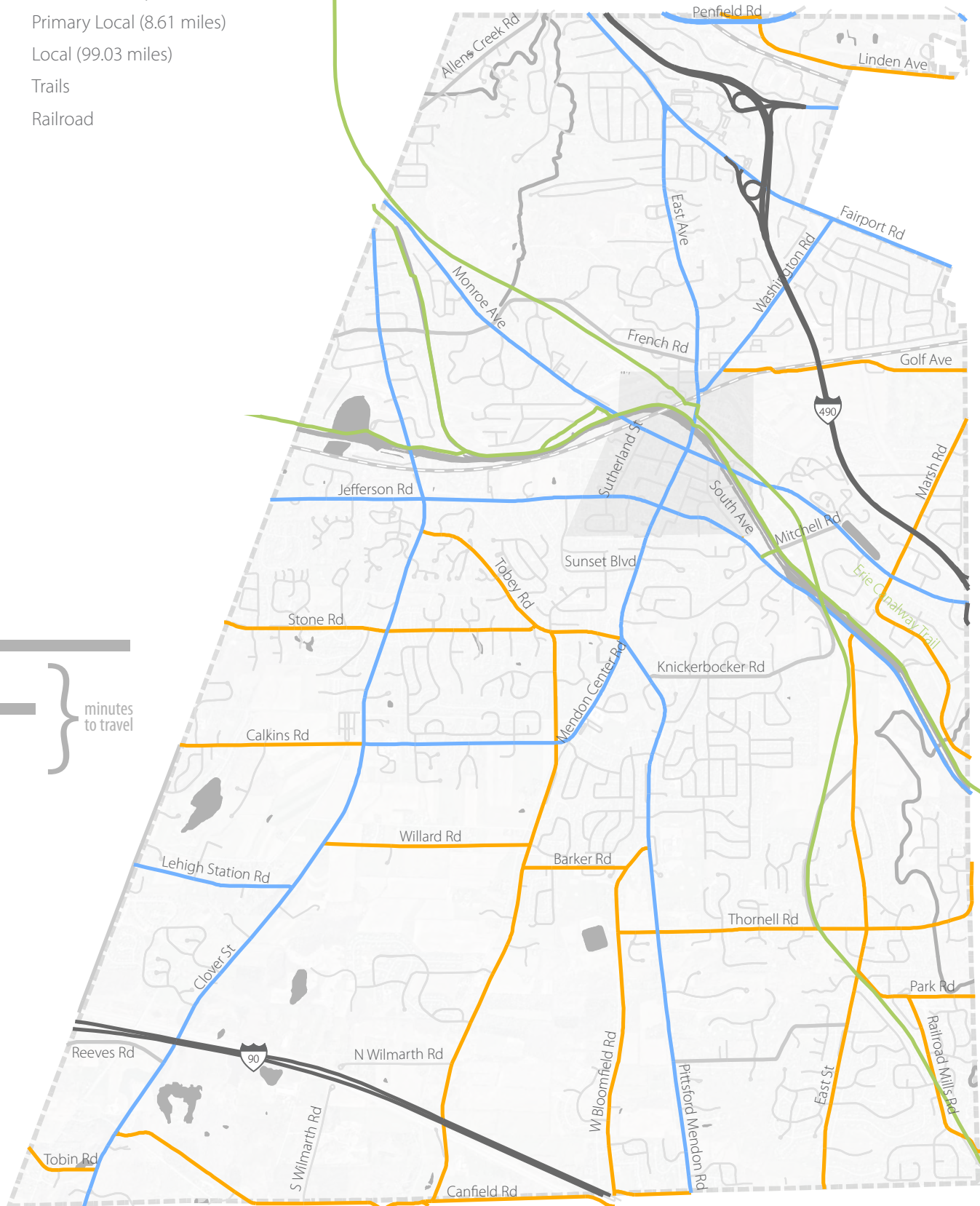
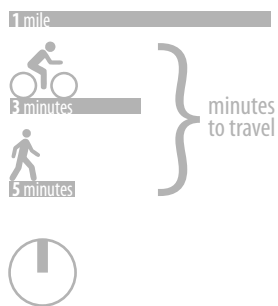


Figure 3: Roadway Jurisdictions Map

Traffic & Safety Conditions

Perceived and actual safety concerns are a prominent, if not, determining factor for people when choosing to walk and bike to their destinations. Places and roadways that are perceived to be safe and inviting, and are conducive to walking and biking can see higher volumes of foot and two-wheeled traffic, rather than car traffic. It is critical for communities to provide safe travel routes for all modes of travel, especially pedestrians and bicyclists, as these use groups are typically the most vulnerable. Communities can see lower rates of health-related issues when people are active, healthy, and feel their overall quality of life is prioritized.

Traffic Volumes

Using data collected by the New York State DOT and Monroe County DOT, Figure 5 illustrates the traffic volumes, measured in Average Daily Traffic (ADT) along State and County roadways. Areas with higher traffic volumes can affect the safety and friendliness of the environment for pedestrians and bicyclists. Monroe Avenue nearby Pitts-

ford Plaza has some of the highest traffic volumes in the Town, as well as the highest transit ridership with a cluster of pedestrian-related crashes; these are illustrated later in the report. This similar condition is also reflected within the Village along Monroe Avenue and Fairport Road between I-490 and Country Club Plaza.

Figure 4 shows how traffic volumes affect one's "home territory" (Donald Appleyard, 1980). As traffic volumes increase, the intersections between and sense of ownership of one's street decreases. Although interactions like this should not be expected along historically busy corridors like Monroe Avenue, improvements can be made to improve the active transportation network to achieve a more human-scaled environment, particularly in a human-scaled setting like the Village of Pittsford.

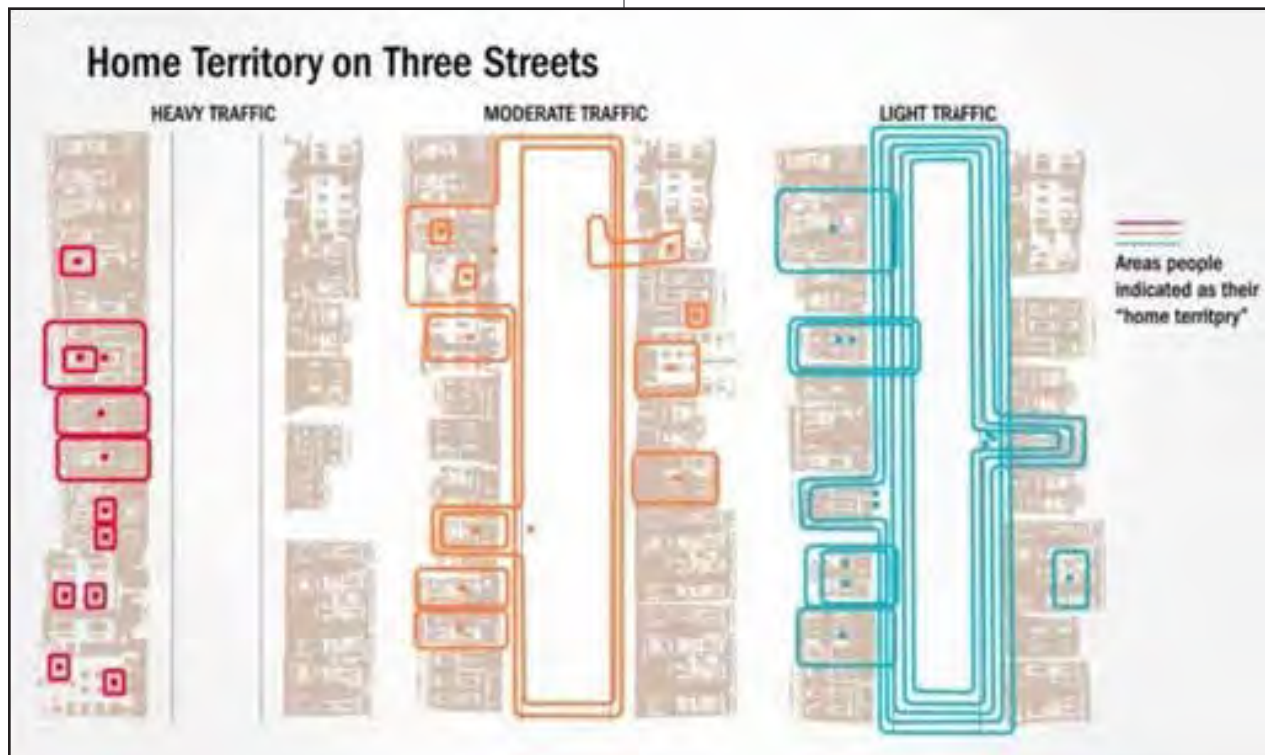


Figure 4: Street Home Territory Chart

AVERAGE DAILY TRAFFIC (ADT)

Vehicles Per Day



Figure 5: Average Daily Traffic Map

Speed

Roadway speeds play a critical role in the safety of motorized and non-motorized users. Higher speeds generally are associated with higher risks for injuries and fatalities. Figure 6 depicts the effect of vehicle speeds and mortality rates on pedestrians. As speeds increase by 10 MPH, the chance a pedestrian survives a crash decreases significantly.

Figure 8 illustrates the posted speeds limits on all roadways within the Town and Village.

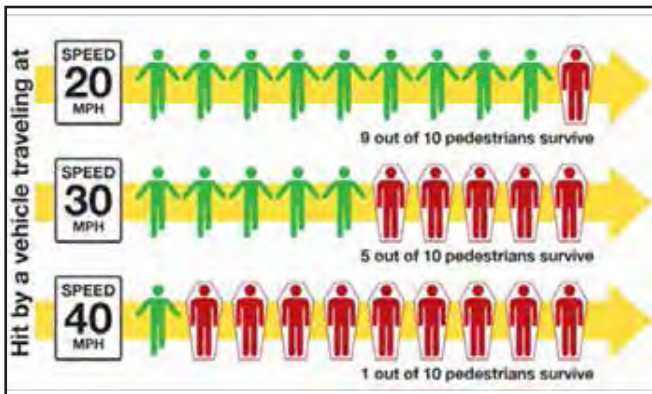


Figure 6: Speed and Fatalities Chart

The Federal Highway Administration (FHWA) classifies speeds along roadways as the posted speed limit, operating speeds, design speeds (the speed established as part of the geometric design process for a specific segment of roadway), and inferred speeds. For a posted road of 35 MPH, the inferred speed (the maximum speed for which

all critical design-speed-related criteria are met at a particular location) may be as high as 50 MPH based on factors such as road design, scale, setback, etc. of land uses and other fixed objects (e.g., trees) surrounding the road.

However, a speed classification more human-scaled that seeks to enhance streets for use by all modes of travel is a road's target speed (as described in the Institute of Transportation Engineers' Designing Walkable Urban Thoroughfares: A Context Sensitive Approach). A target speed differs from operating speed – the speed at which vehicles are observed operating during free flow conditions – in that it is the speed designers and community members intend for drivers to go. On streets within compact, walkable areas, the 85th percentile of observed speeds should fall between 10-30 MPH or less. As illustrated Figure 7, as vehicle speed increases, the field of view decreases. Additionally, the graphic shows that as speeds increase, so do the required stopping distances. In areas where walkability, bikeability, and transit friendliness are desired, slower speeds should be designed for through context sensitive solutions.

More communities both within the United States and in Europe are moving towards lowering their speed limits. New York City has lowered theirs to 25 MPH. Seattle has 20 MPH zones, as well as Portland. In the United Kingdom, a non-profit organization called “20's Plenty for Us”

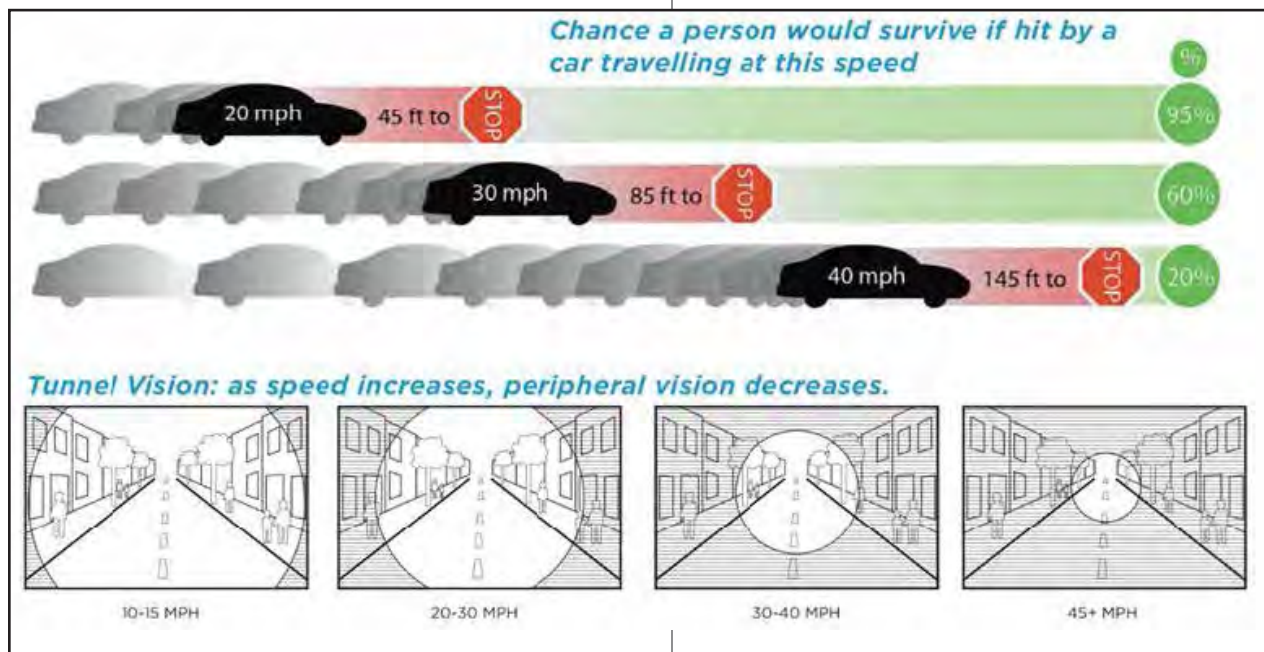


Figure 7: Speed and Vision Chart

ROADWAY SPEEDS

- 15 MPH
- 25 MPH
- 30 MPH
- 35-40 MPH
- 45-55 MPH
- 65 MPH
- Trails
- Railroad

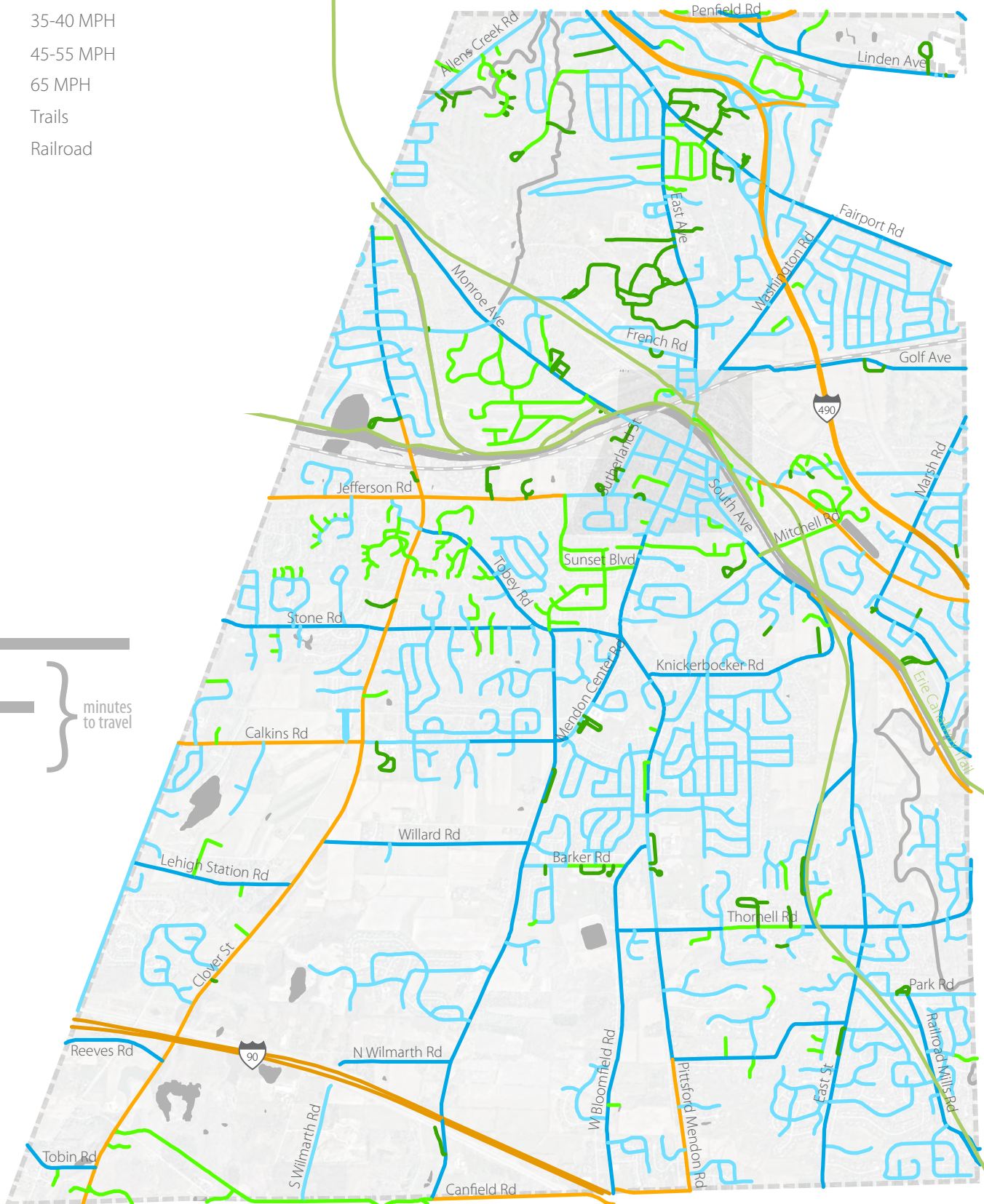
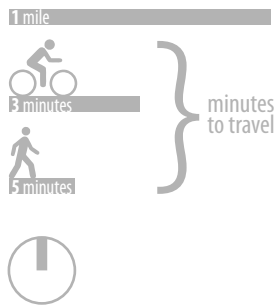


Figure 8: Roadway Speeds Map

was formed in 2007 to help communities set a mandatory 20 MPH speed limit for most roads. These initiatives are aimed at reducing, if not eliminating all together, pedestrian and bicycle-related traffic fatalities; all the while creating livelier, people-friendly, high quality of life places.

Crash Evaluation

A safety evaluation was performed for the Town of Pittsford using 10 years (2005-2014) of crash data obtained from the Genesee Transportation Council (GTC) and the Accident Location Information System (ALIS). Pedestrian and bicycle crash locations were identified and mapped to illustrate areas where safety is an issue and an opportunity for improvements. Figure 11 illustrates the crash density for pedestrians and bicyclists. Areas where there are higher levels of crash density are:

- Monroe Avenue between French Road and Clover Street (specifically pedestrian-oriented)
- The Village of Pittsford along N/S Main Street from Jefferson Road to Washington Road (a mixture of both user groups, however, more bicycle-oriented south of Jefferson Road and more pedestrian-oriented between Stonegate Lane and Schoen Place)
- State Street from N/S Main Street to Schoen Place (mostly pedestrian-oriented)
- Jefferson Road from Sutherland Street to S Main Street (specifically bicycle-oriented)
- Fairport Road from Main Street to St. John Fisher College (mostly pedestrian-oriented)

The areas of Monroe Avenue nearby Pittsford Plaza and Four Corners (and the greater Village), as well as Fairport Road to a somewhat lesser extent have a combination of high foot and two-wheeled traffic, and vehicle traffic.

The areas identified should not be assumed to be inherently unsafe taken at face value. These clusters may be associated with higher rates of pedestrian and bicycle traffic based on the land uses nearby. However, these areas should be considered higher priority areas when seeking cost effective, yet high-value improvements. Given the context between areas, such as Pittsford Plaza and the Four Corners of the Village vary greatly, despite high volumes of traffic, context sensitive solutions are important.

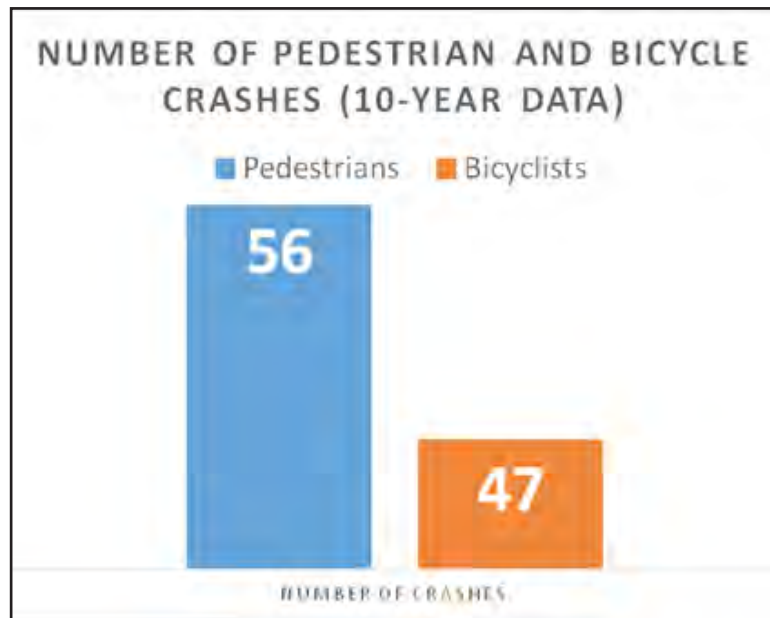


Figure 9: Pedestrian and Bicycle Crash Chart

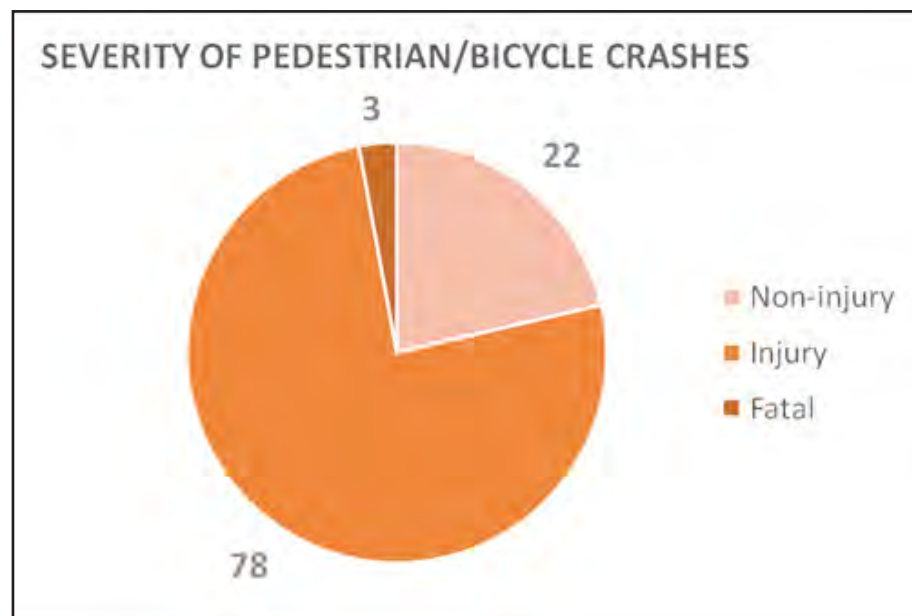


Figure 10: Crash Severity Chart

PEDESTRIAN AND BICYCLE CRASH DENSITY (2005-2014)

Crash Density (0.5 mile radius)



High

Low



Pedestrian event



Bicycle event



Trails



Sidewalks



Railroad

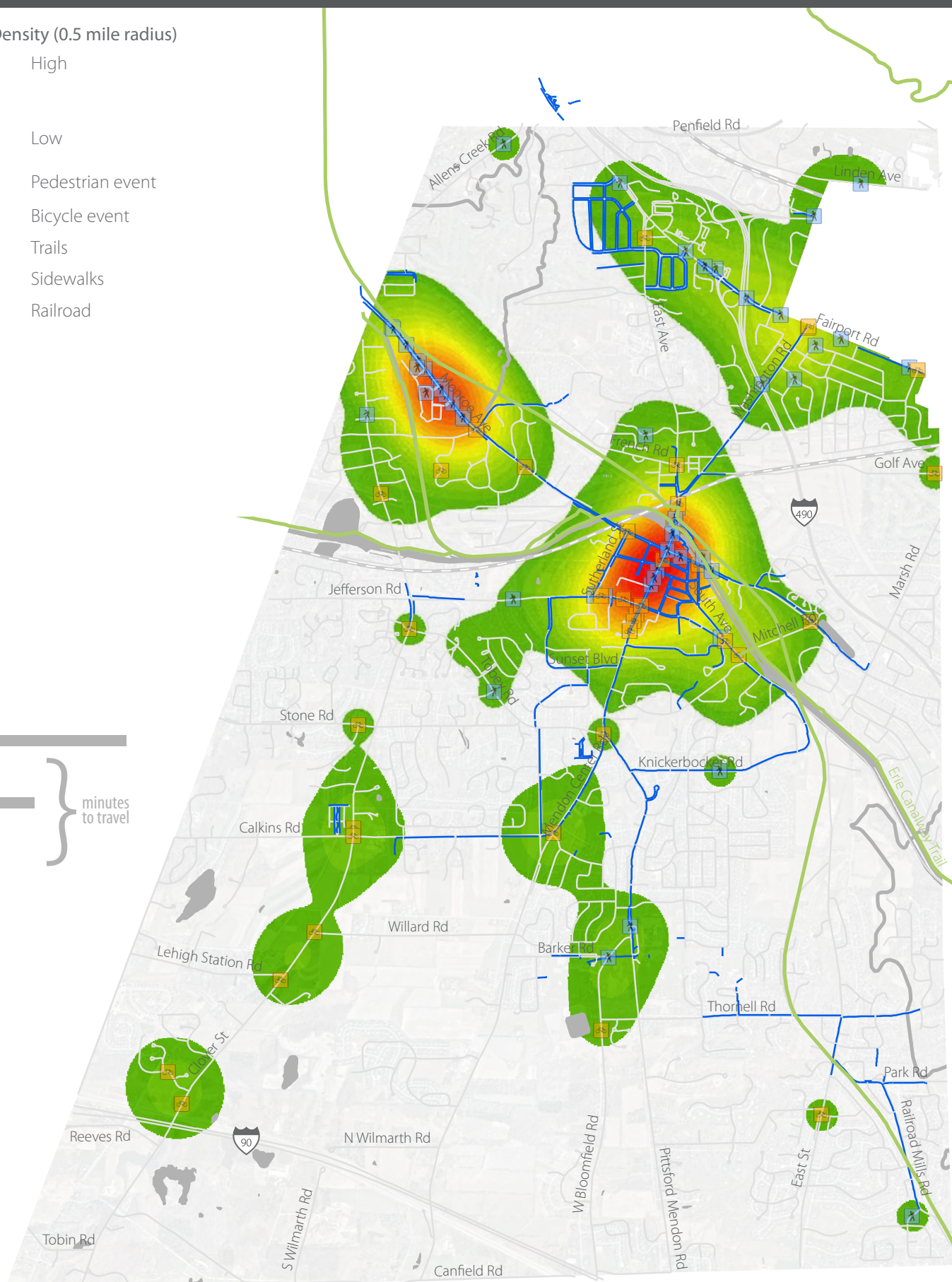
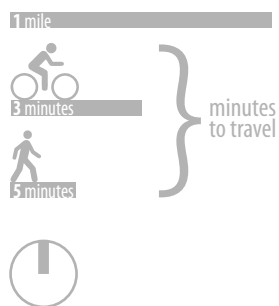


Figure 11: Pedestrian and Bicycle Crash Density Map

Transit

Transit plays a critical role in completing a fully integrated transportation network. The most successful cities and communities typically have high quality active transportation networks that incorporate transit as a key link between home, work, and service/commercial based destinations. Figure 12 shows the three transit routes provided by Rochester's Regional Transit Service (RTS) along with average daily total ridership for each transit stop location. Most of the transit stops have generally low ridership (<5), however, areas such as Pittsford Plaza and 3750 Monroe Avenue have the highest ridership. Other more frequently used stops are located at St. John Fisher College (park-n-ride), Nazareth College, and the Four Corners.

There appears to be a correlation between higher transit ridership (e.g., Pittsford Plaza area) and the high density of pedestrian crashes. Improvements to these areas will enhance the friendliness of the environments for pedestrians and bicyclists, as well as the experience of using transit, creating a more livable and accessible community.



Transit boosts destination accessibility for both cyclists and pedestrians in Pittsford. Photo by Reconnect Rochester.

"People who used public transportation (i.e., buses, etc.) for any reason were less likely to be sedentary or obese than adults who did not use public transportation. **Nationwide, 29% of those who use transit were physically active for 30 minutes or more each day, solely by walking to and from public transit stops. Similarly, transit users took 30% more steps per day and spent 8.3 more minutes walking per day than did people who relied on cars.** Conversely, reliance on the automobile for travel was associated with higher obesity rates at both the county and individual level."

- Active Living Research/Robert Woods Johnson Foundation (2009) brief

TRANSIT ROUTES AND RIDERSHIP

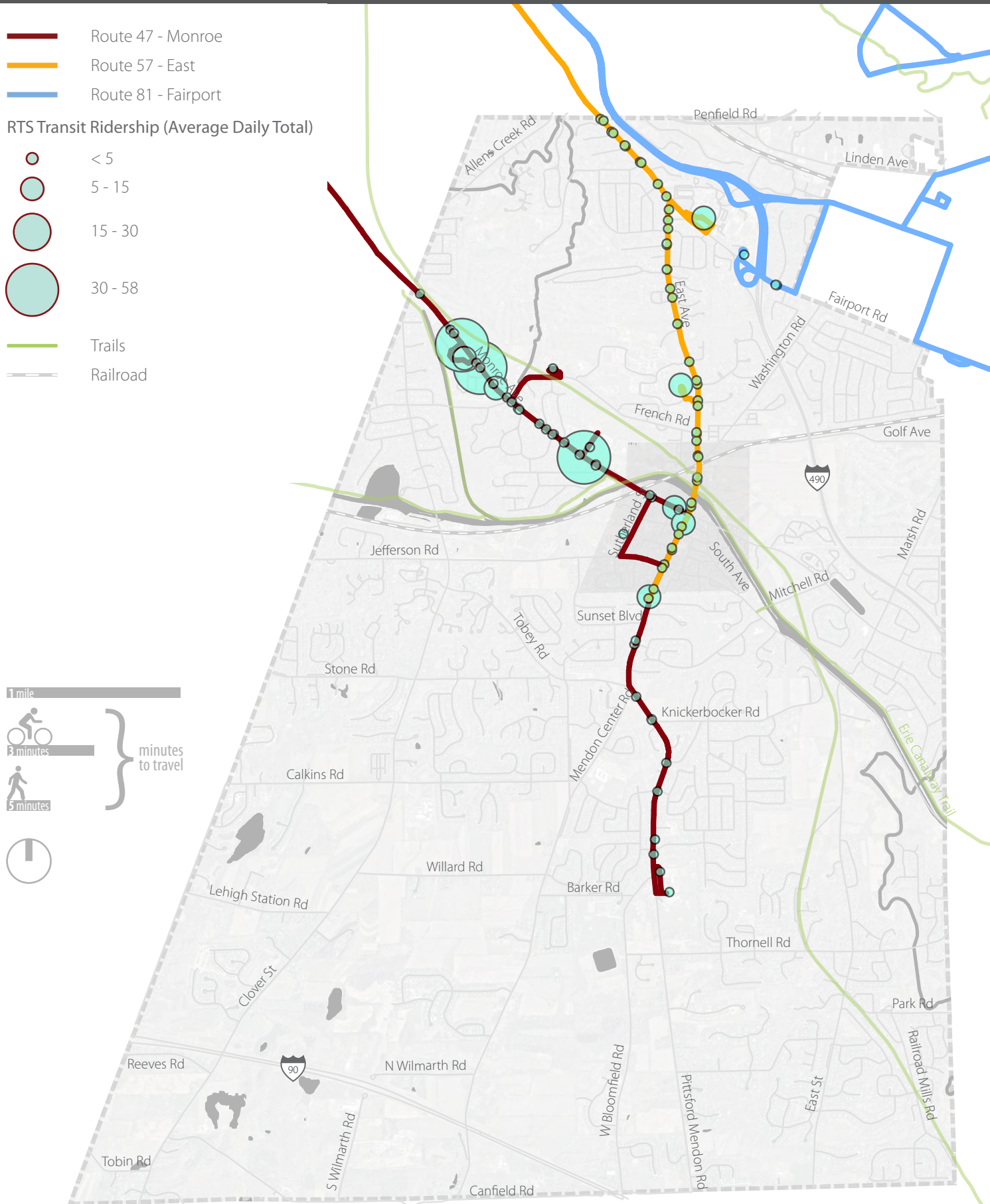


Figure 12: Transit Routes and Ridership Map

Existing Bicycle and Pedestrian Accommodations

Sidewalk Network

The Town features an expanding network of sidewalks. Generally, these sidewalks are located on arterial and collector roads. Figure 13 identifies the Village and Town sidewalk network. Few local streets in the Town offer sidewalks. In road segments without sidewalks, pedestrians have the opportunity to utilize paved shoulders as a walking route. However, the general speed and volume of vehicular traffic along such roads creates an unpleasant and often unsafe experience for pedestrians in the shoulder.

The Village features an extensive sidewalk network, with only a few public streets lacking them. The sidewalk network provides connections from the historic residential streets, to the historic Four Corners area and to Schoen Place. There are sidewalk connections to the Erie Canalway Trail. These connections provide important mobility options for the community.



"According to a study by the UNC Highway Safety Research Center conducted for the Federal Highway Administration, **the likelihood of a site with a paved sidewalk being a crash site is 88.2 percent lower than a site without a sidewalk** after accounting for traffic volume and speed limits [McMahon et al., 2002]. A study of the California SRTS program has shown that **providing sidewalks is one of the most effective engineering measures in encouraging children to walk to school** [Boarnet et al., 2005]."

-Pedestrian and Bicycle Information Center

SIDEWALKS

- Existing Sidewalks
- Conceptual Sidewalks
- Planned Sidewalks

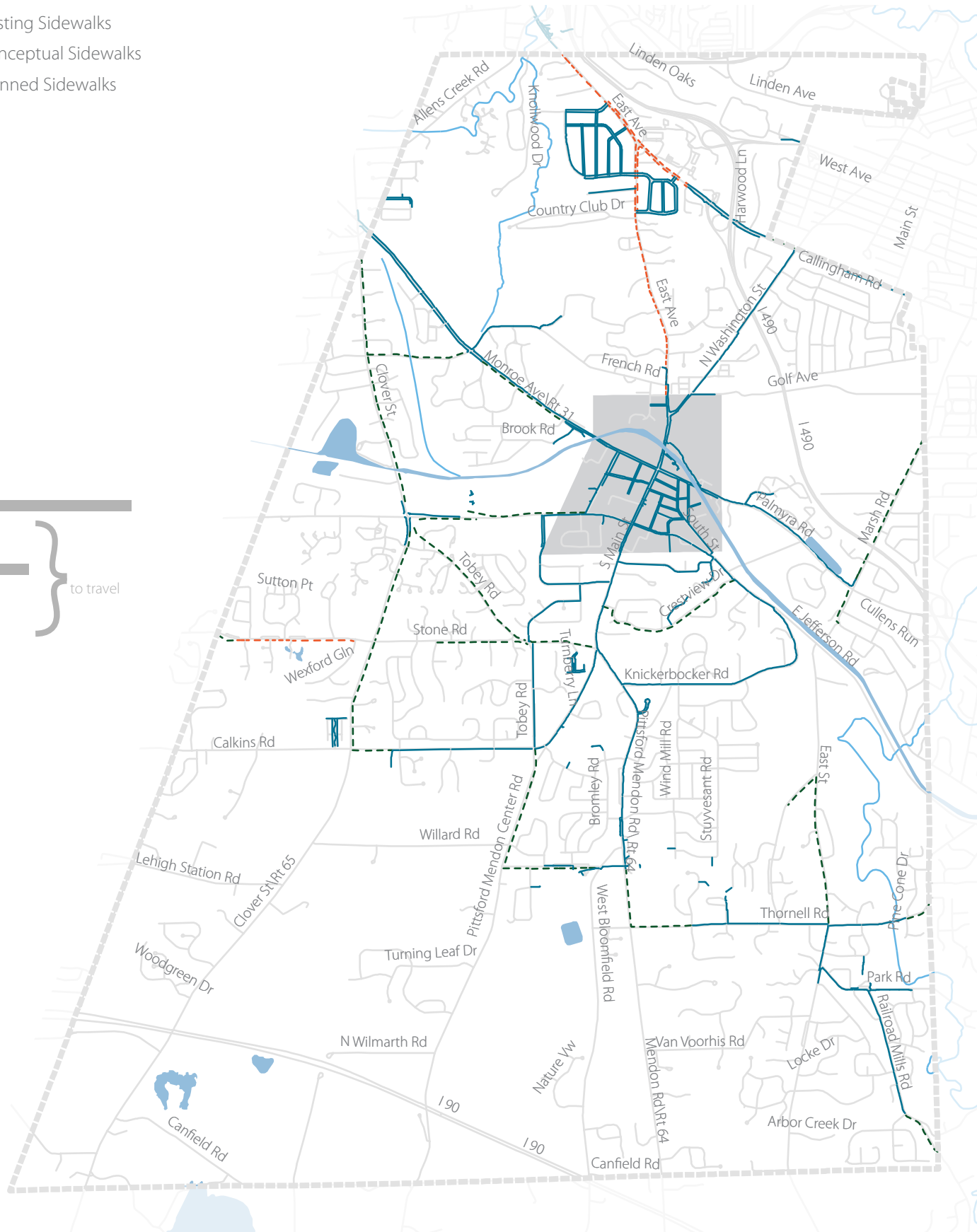
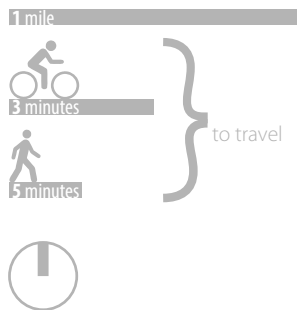


Figure 13: Sidewalks Map

Existing Sidewalk Conditions

A fundamental indicator of the strength of a sidewalk network is the condition of its walking surface. Using a rating system of 1 through 3 a visual assessment was performed for each sidewalk in the Town. The following condition standards were applied:

1. **Major Repair or Replacement Needed:** The sidewalk has severe cracking, displacement, or complete surface failure.
2. **Minor Wear or Maintenance Needed:** The sidewalk has minor cracks and minor unevenness, with some grass protruding above the walking surface.
3. **New or Like New:** The sidewalk surface is in new condition or shows little to no wear.

Figure 14 identifies the findings of the sidewalk inventory. The sidewalk inventory found that the majority of Town sidewalks are in good condition and received a rating of 3. According to the visual survey, the following segments received a rating of 2, indicating minor wear or maintenance is needed:

1. East Ave/NYS Route 96 between 4245 East Avenue to French Road
2. East Street between Thornell Road and Brickston Drive
3. Mendon Road/NYS Route 64 between Stone Road and Charter Oaks Drive
4. Monroe Avenue/NYS Route 31 (north side sidewalk) between Brittany Lane and the Village Line
5. Park Road between Railroad Mills Road and Park Bluff Way
6. South Main Street/NYS Route 64 between the Village Line to Thornell Road
7. Thornell Road between Oak Meadow Trail and Southern Woods
8. Washington Road/NYS Route 153 between the eastern Pittsford Cemetery Driveway and Random Woods

One short sidewalk segment was rated 1, indicating a need for major repair or replacement. This sidewalk segment is located on the west side of Mendon Road/NYS Route 64 between High Oaks Drive and 443 Mendon Road/NYS Route 64.

Concrete should be considered the preferred sidewalk material.



EXISTING SIDEWALK CONDITIONS

Town Maintained Sidewalks

- Poor Condition - Repair / Replacement Needed
- Satisfactory Condition - Maintenance Needed
- Good Condition - New or Like New

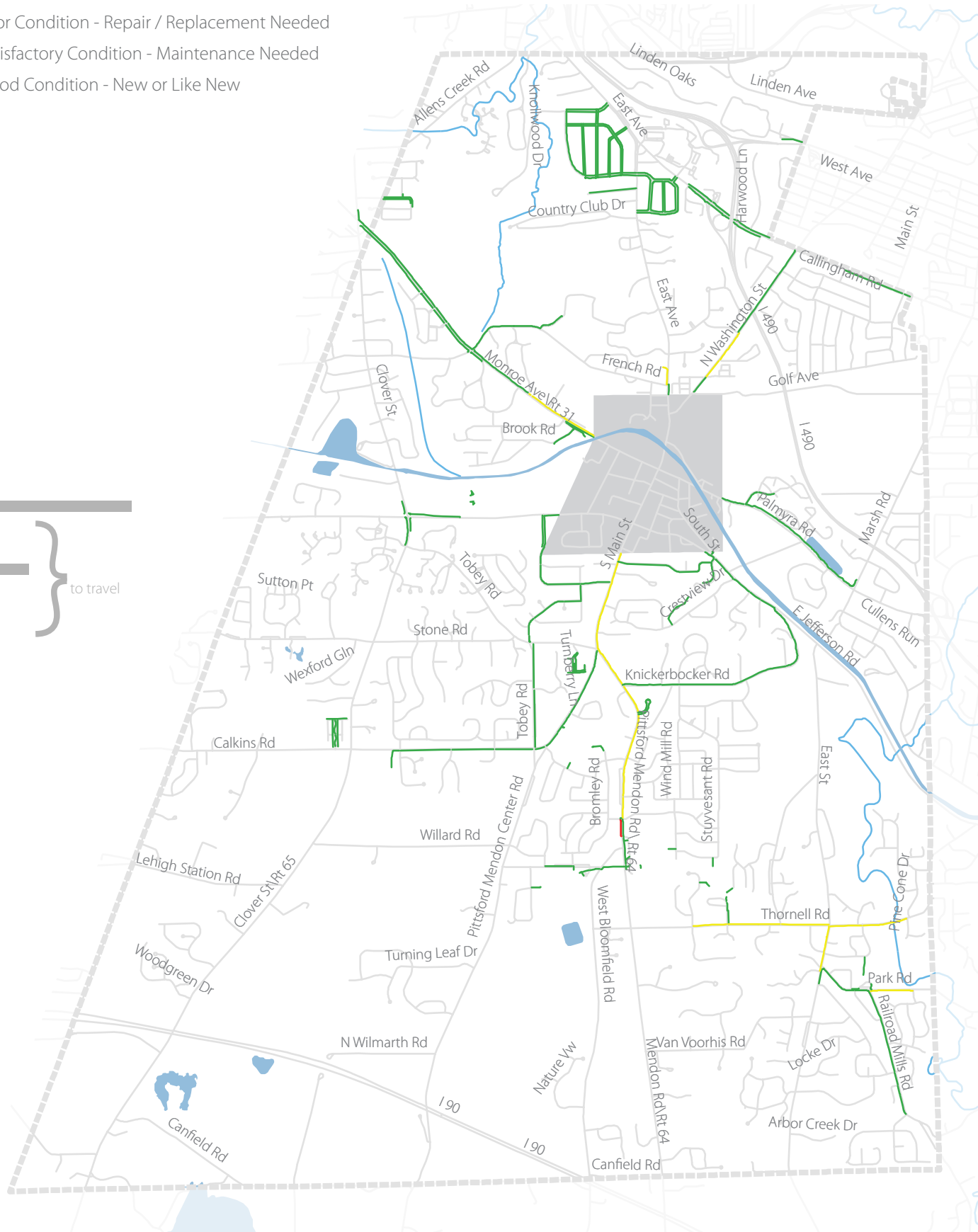
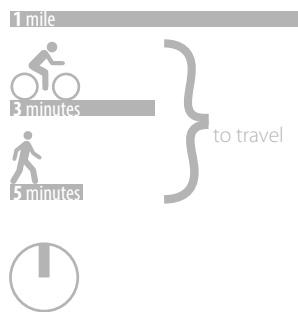


Figure 14: Existing Sidewalk Conditions Map

Trail Network

Pittsford is home to a diverse and growing system of trails. The network consists of trails owned and maintained by different agencies. Figure 15 identifies the Village and Town trail network. The Town is responsible for maintaining much of the trail network. The Erie Canalway Trail, the principal east to west trail connection in the community, is maintained by the New York State Canal Corporation. Some of the trails are intended only for hiking and can include rough terrain. Other trails feature asphalt-paved multi-use trails, which facilitate both bicycle and pedestrian transportation. Trails are found in open space next to single-family homes, in parks, and along the Erie Canal.

In addition to providing a safe place for people to enjoy recreational activities, **greenways and trails often function as viable transportation corridors. Trails can be a crucial element to a seamless urban or regional multi-modal transportation system.**

- Rails to Trails Conservancy



Trail signage differs in placement and content. There is an opportunity to develop a simplified trail wayfinding system.



The Erie Canalway Trail is heavily used for recreation. Photo by Town of Pittsford.

TRAILS

- Erie Canalway Trail
- Auburn Trail North
- Lock 62 Trail
- Auburn Trail South
- Other Trails
- Planned Trails
- - - Conceptual Trails
- Parks
- Open Space

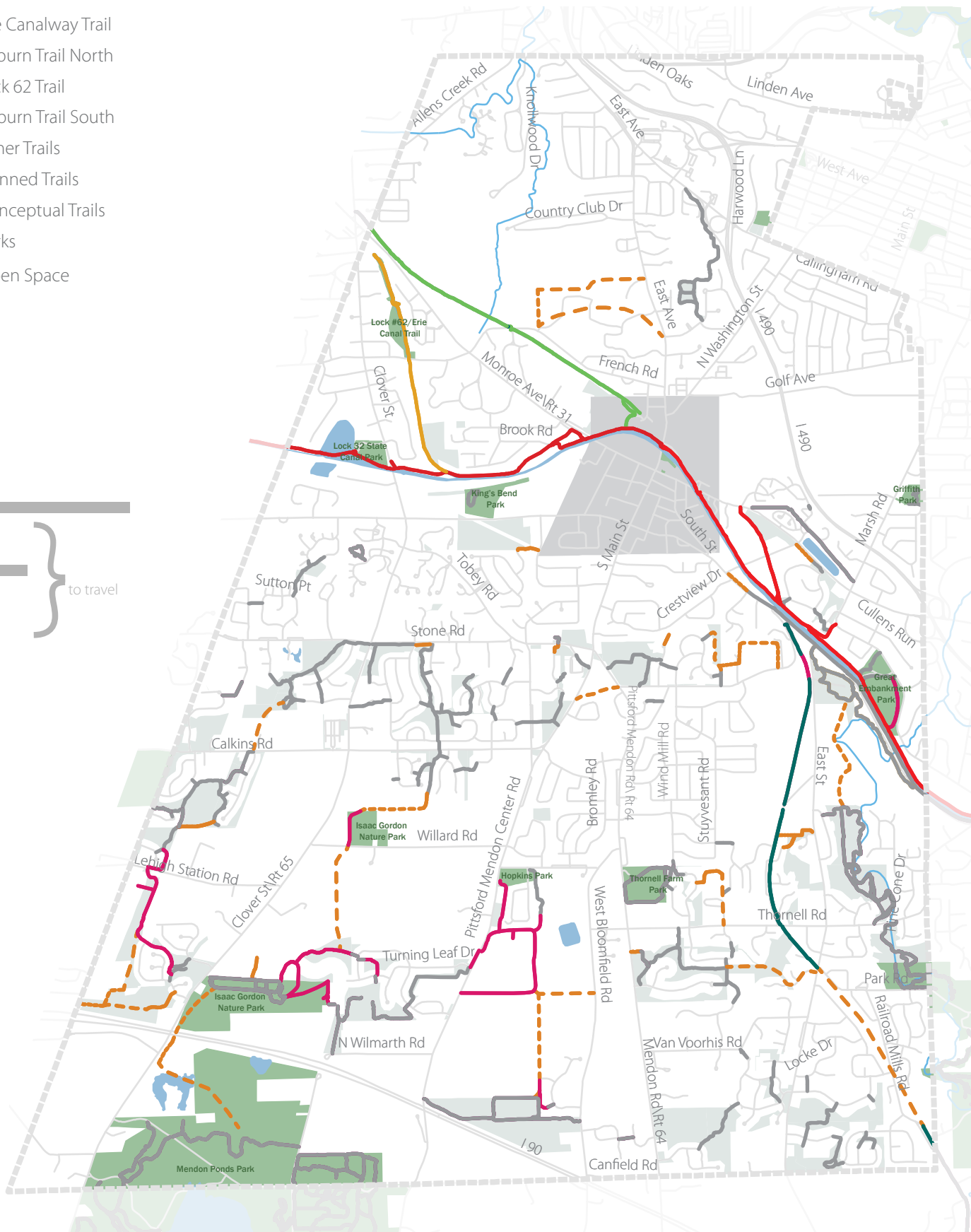
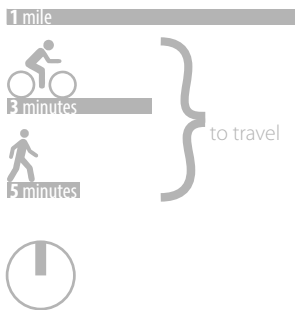


Figure 15: Trails Map

Existing Trail Conditions

It is important to understand the condition and extents of the existing trail system. To achieve this, a visual trail assessment was performed. Although much of these Town trails are paved, many trail segments feature a natural surface such as grass or compacted soil. Because trail maintenance needs greatly differ between paved and unpaved surface types, natural trails are identified separately. The following condition ratings were applied to trails in the assessment:

1. **Major Repair or Replacement Needed:** The trail surface features severe cracking, displacement, or complete surface failure.
2. **Minor Wear or Maintenance Needed:** The trail has minor cracking or displacement.
3. **New or Like New:** The sidewalk surface is in new condition or shows little to no wear.
4. **N - Natural Surface Trail:** The trail surface is dirt or grass and requires less maintenance than paved trails.

Figure 16 identifies the condition of the Town-maintained trails. The trail inventory found that the majority of Town trails are in good condition and received a rating of 3. According to the visual survey, the following trail segments received a rating of 2, indicating minor wear or maintenance needed.

- Mitchell Fitness Loop between Palmyra Road/NYS Route 31 and Erie Canalway Trail.
- Griffith Park Trail
- The Mitchell Fitness Loop Trail segments from Palmyra Road/NYS Route 31 to Hahnemann Trail and between Hahnemann Trail and Mitchell Road each received a rating of 1. Although the Town maintains the Mitchell Fitness Loop Trail, it is privately owned.

The Town must continue to ensure that natural surface trails are periodically mowed or rebuilt and take into consideration proper drainage.



EXISTING TRAIL CONDITIONS

Town-Maintained Trails

- Repair / Replacement Needed
- Maintenance Needed
- New or Like New
- Natural Surface Trail / Little or No Investment by Town

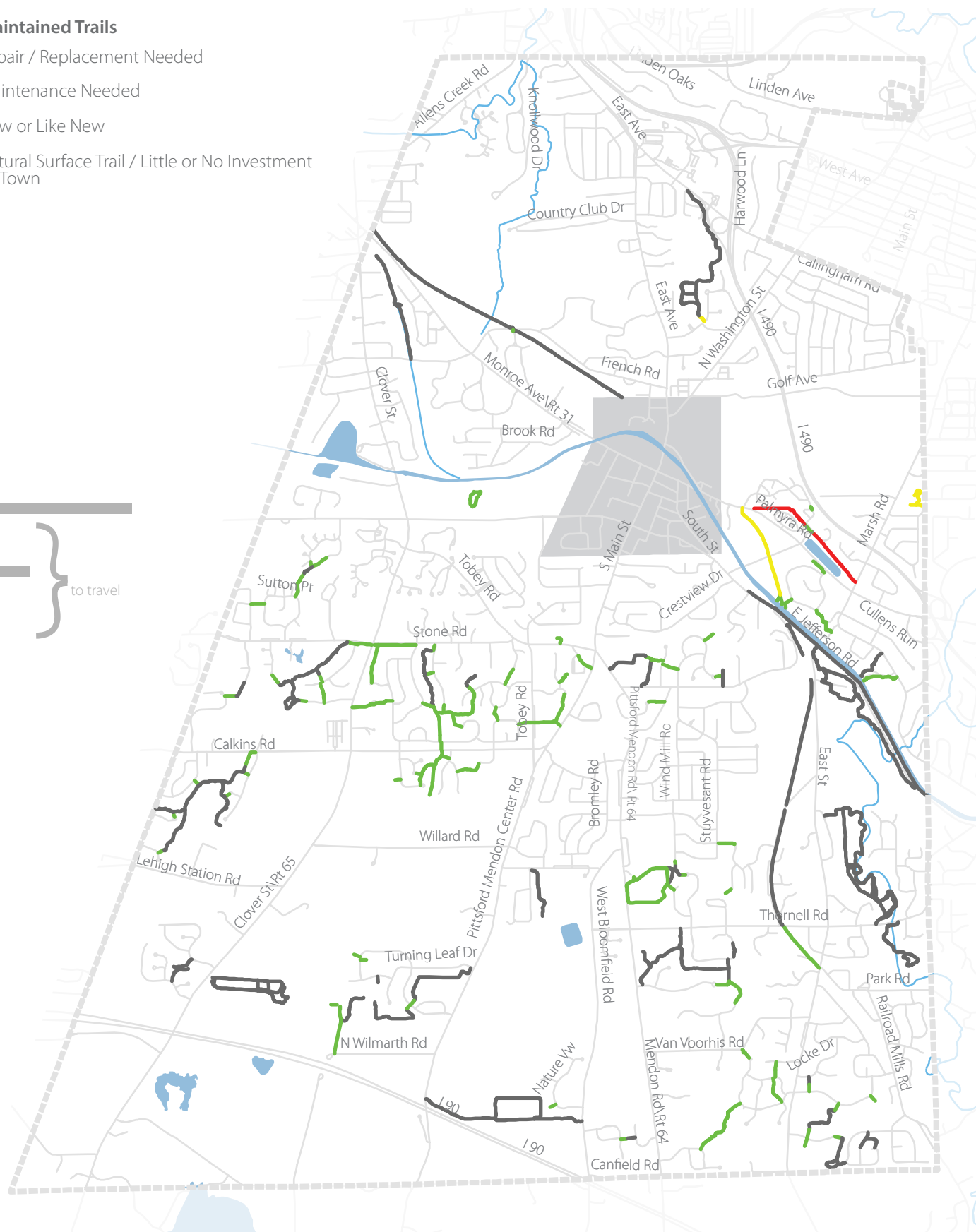
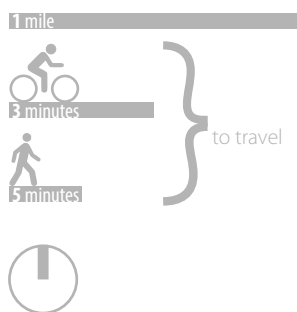


Figure 16: Existing Trail Conditions Map

Bike Routes & Shoulder Widths

The Town and Village of Pittsford has two signed State bicycle routes running through the community: State Bike Route 5 (NYS Route 31-Monroe Avenue/Pittsford-Palmyra Road) and NY 65 Clover Street Bicycle Route. State Bike Route 5 is part of a larger, continuous route that extends approximately 365 miles from Niagara Falls to the Massachusetts state line. The Clover Street bike route is signed for approximately 8.1 miles between Mendon Ponds Park and East Avenue in the Town of Brighton.

Both routes have paved shoulders which function, in part, as bicycle travel lanes for those wishing to use them. The segment of Monroe Avenue between French Road west to the town line has paved shoulder space signed and marked as a dedicated bicycle lane on both sides of the roadway. Marked bicycle lanes convey to riders that the space is to be used by bicyclists only. Bicyclists are benefited from these dedicated lanes as they separate vehicle traffic from bicycle traffic, they remind drivers that they should be aware of bicyclists, and can increase a bicyclist’s comfort level.

The only other dedicated bicycle facility located within the Town/Village is along Schoen Place. There are shared lane markings (i.e. sharrows) which were installed in the past two years. These markings provide a visual cue to drivers that bicyclists should be expected. They are typically used in locations where travelway widths are too narrow to include dedicated bike lanes or where transitions are needed to connect bicycle facilities to one another.

Other forms of bicycle accommodations are the availability of paved shoulder spaces along roadways. These spaces are not dedicated travel lanes and can act as parking spaces or pull-off areas for vehicles and should, therefore, be used by bicyclists with this in mind. The American Association of State Highway Transportation Officials (AASHTO) recommends shoulder spaces of 4 feet on roadways with no curbing. Roadways with curbing should have a space of at least 5 feet for bicyclists to ride with comfort. Additionally, the National Association of City Transportation Officials (NACTO) recommends a minimum 5 feet for bicycle space along travel lanes. Increasingly more communities and designers are opting for 6-foot wide bike lanes/spaces as they offer

increased clear width as a bicyclist’s “shy distance”; the distance a bicyclist will leave between themselves and the curb or moving vehicles. Figure 18 illustrates the shoulder widths along the study roadways.

Bicycle Level of Service

A statistically driven way of determining the conditions of a roadway that evaluates the bicyclist’s perceived safety and comfort with respect to shared roadways is using the systematic Bicycle Level of Service (BLOS) Model. The Model is utilized across the country using methodology adopted in the nationally used Highway Capacity Manual (HCM 2010) and quantifies the level of service for bicycle accommodations within the roadways. The Model can be used by planners, engineers, and decision makers to evaluate the roadways that have the greatest need for improvement. The Model is also used to assist in the determination of the types of improvement strategies that can be deployed along the roads in question (e.g., road diets, lane narrowing). With statistical precision, the Model clearly reflects the effect on bicycling suitability or “compatibility” due to factors such as roadway width, bike lane widths and striping combinations, traffic volume, pavement surface conditions, motor vehicles speed and type, and on-street parking.

These features are some of the factors that are used in evaluating the bicycle levels of service and compatibility levels. Levels of service for bicyclists can be compared to those used to describe intersection operating conditions on a letter grade scale of A-F and a numerical scale of ≤ 1.5 to > 5.5 .

Level of Service	Numerical Range
A	≤ 1.5
B	> 1.5 and ≤ 2.5
C	> 2.5 and ≤ 3.5
D	> 3.5 and ≤ 4.5
E	> 4.5 and ≤ 5.5
F	> 5.5

Figure 17: BLOS Grades and Scores Table

SHOULDER WIDTHS

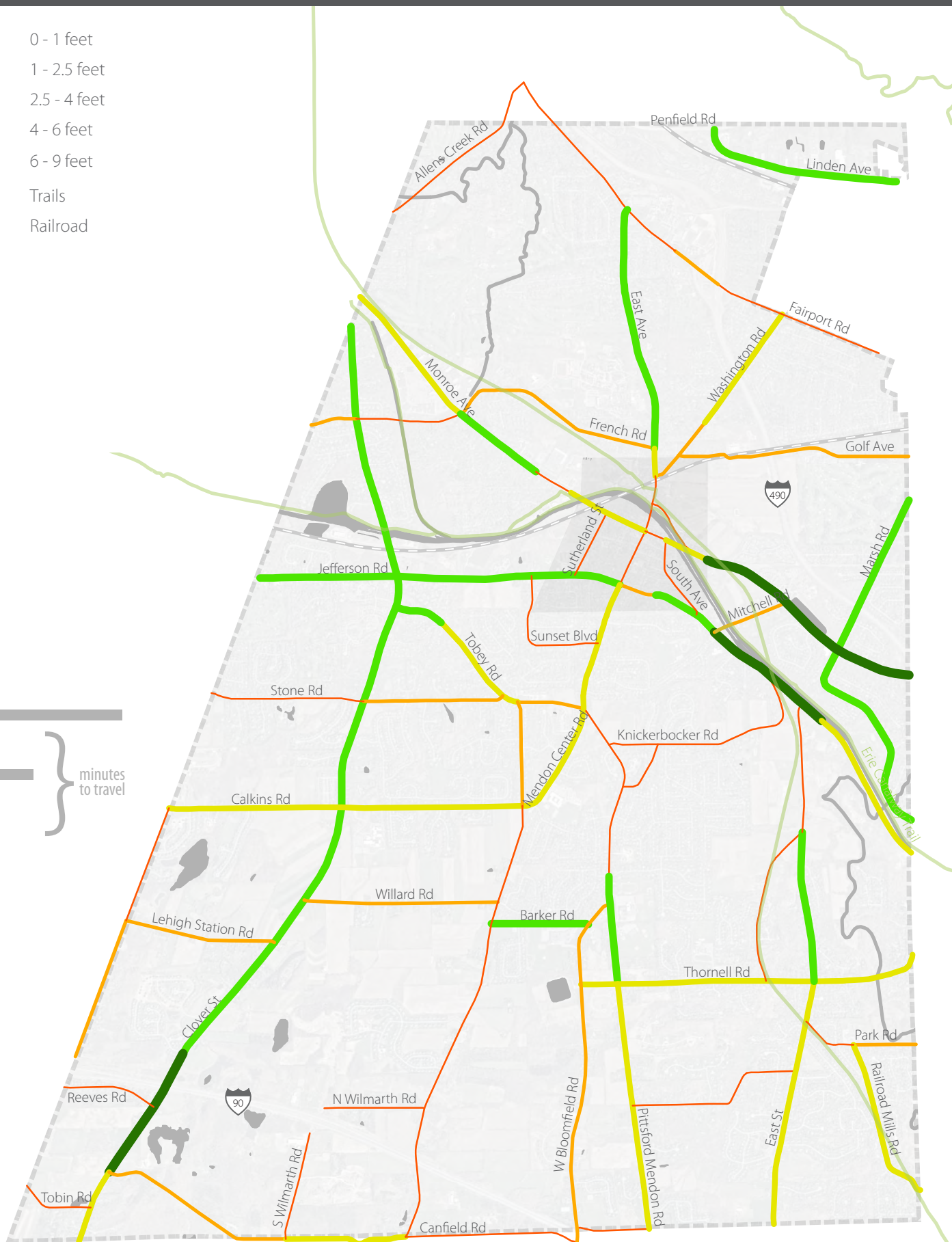
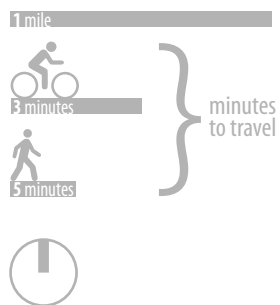
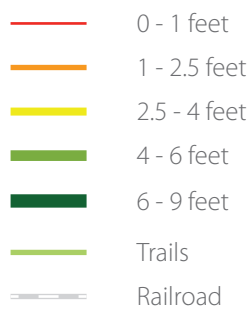


Figure 18: Shoulder Widths Map

Data collection was performed along the study roadways, consisting of arterials and collectors, totaling approximately 62 centerline miles. Figure 19 illustrates the BLOS results. Using a distance weighted average, the network-wide BLOS is “C” or 2.62, which is generally favorable compared to many other metropolitan area municipalities. Most segments were BLOS “C” and better. No segment resulted in a score of BLOS “F”. The segments of road found to be BLOS “E” were small portions along East Avenue, Fairport Road and Monroe Avenue. Reasons for these “E” scores can be related to high traffic volumes, narrow travel lanes, speed limits, and little to no shoulder space. All BLOS data is provided in the appendices.

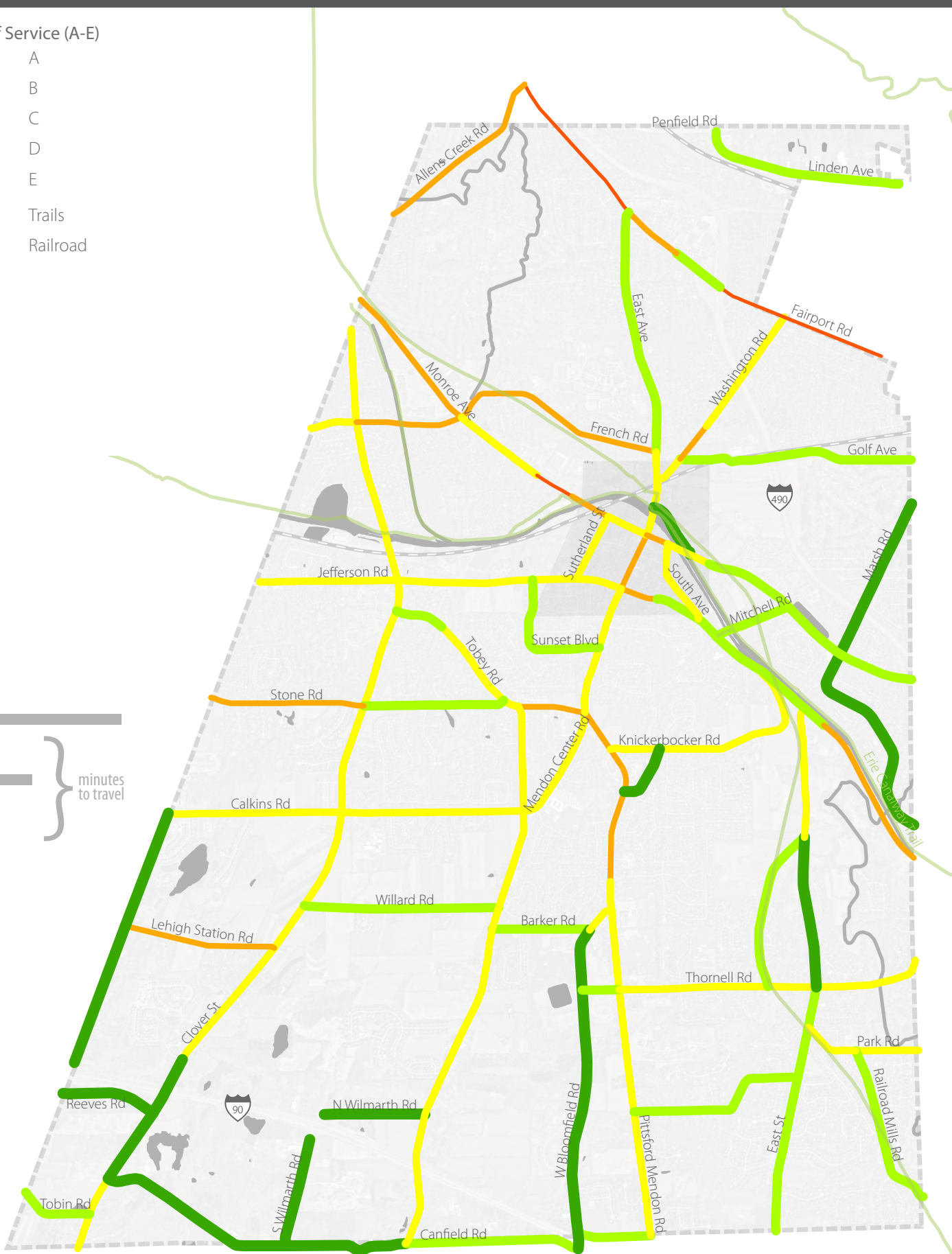


Examples of the BLOS scores are illustrated below.



The BLOS scoring method is a quantitative, objective method when analyzing a community’s roadways and does not take into account more qualitative measures, such as roadway curvature and elevation changes. A prime example is French Road from the east town line to East Avenue. Portions of French Road have vertical curvature differences, specifically that area nearby Quaker Road and the Auburn Trail crossing where there are vertical and horizontal curve variations that one must navigate. Although the BLOS figure indicates a “D”, in reality it may function as a lower classified segment. The same can be said of the segment of French Road west of Clover Street. This area, although striped with a shoulder space, generally consists of faster than posted speeds and traffic volumes consistent with typical collector-type streets.

BICYCLE LEVEL OF SERVICE ANALYSIS



Inventory & Analysis 36

Needs Assessment

Community

The Town and Village have a long history of developing a multi-modal transportation network for residents and visitors. Their combined level of success has placed Pittsford at the forefront of the Greater Rochester Region in creating a community that appeals to pedestrians and cyclists. As a result, the level of expectation for future enhancements to the existing network as well as improving the local walking and biking culture is very high.

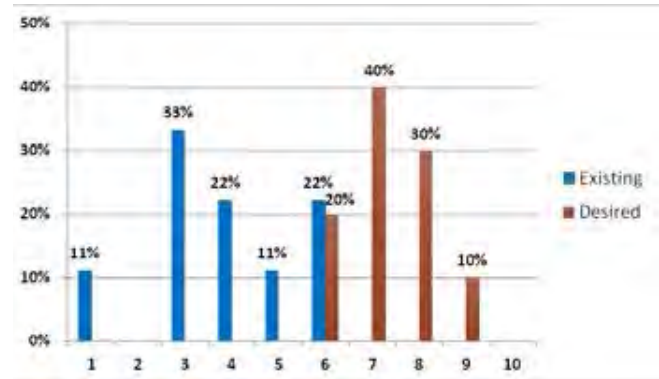


Project Kick-Off Meeting

In order to gauge the desired expectation for the level of improvement this plan should strive to accomplish and to inform the vision for the Town and Village, the Steering Committee participated in a discovery session at the Project Kick-Off Meeting. The discovery session was an attempt to answer the question, "How much improvement can the community make over the next decade?" Committee members were asked to rate the overall level of walkability and bike friendliness of the Town and Village now and in the future on a scale from 1 (lowest) to 10 (highest). They were also invited to share specific thoughts or observations that were relevant to this planning effort. The graphs below summarize the results and are accompanied by the results of the group discussion.

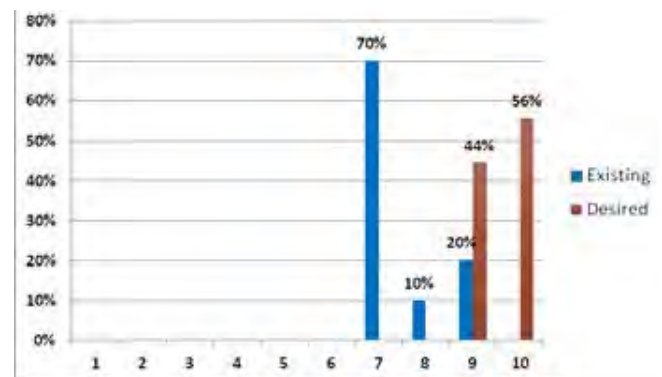
A rating or score of less than five indicates that a community is not walkable. A review of Figure 20 indicates that a majority of the Pittsford Committee (66% of responses) feels the Town is not

Figure 20: Town's Walkability Rating Chart



currently very walkable. Over the next decade, the Committee indicated the Town should strive to improve its average walkability rating from a 4.0 to a 7.3. In order to accomplish this the following issues must be addressed; expand the sidewalk system and connect gaps in the trail system, change aggressive behavior displayed by motorists, and require future developments to install sidewalks. It was also acknowledged that the priority should be to complete the sidewalk system around the Village of Pittsford in order to connect the Village to plazas and commercial areas in the Town.

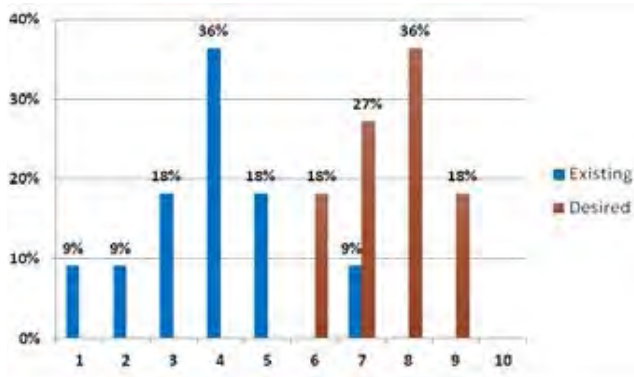
Figure 21: Village's Walkability Rating Chart



A rating or score of greater than six indicates that a community is considered very walkable. A review of Figure 21 indicates that a majority of the Pittsford Committee (100% of responses) feels the Village is currently very walkable. Over the next decade, the Committee feels the Village should strive to improve its average walkability rating from a 7.5 to a 9.6. In order to accomplish this the following issues must be addressed; connect gaps in the sidewalk system and extend it into the Town, reduce speeding from Town into the Village, reduce the pavement at the “Four Corners”, improve the consistency of drivers stopping at crosswalks, and reduce lane widths where appropriate. A comparison of Figure 20 and 21 provides a clear indication that the Village is at a different “starting point” than the Town when it comes to improving their overall walkability. As a result, some of the strategies and recommendations for the Village will be more aggressive than those proposed for the Town. For example, the Town is primarily interested in completing its pedestrian network and the Village’s priority is increasing the level of service that its network provides.

A rating or score of less than five indicates that

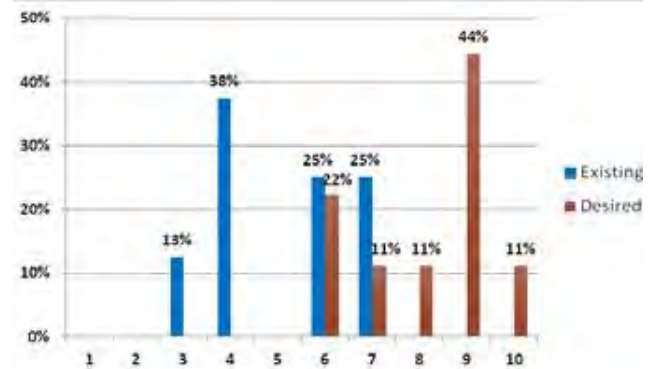
Figure 22: Town’s Bike Friendliness Rating Chart



a community is not bike friendly. A review of Figure 22 indicates that a majority of the Pittsford Committee (72% of responses) feels the Town is not currently very bike friendly. Over the next decade, the Committee feels the Town should strive to improve its average walkability rating from 3.8 to a 7.5. Despite the low rating by the Committee, the Town is a popular destination for serious cyclists from around the region. This can be attributed to the large number of organized rides that start in various parts of the Town, the presence of the Canal Path, and the beautiful roll-

ing terrain in the southern portion of the Town. In order to make the Town more bike friendly for the casual cyclist and for bike commuting the following issues must be addressed; lack of bike lanes, aggressive behavior and high travel speeds by motorists, better maintenance of paved shoulders (clearing of brush and debris), and better signage.

Figure 23: Village’s Bike Friendliness Rating Chart



A rating or score of less than five indicates that a community is not bike friendly. A review of Figure 23 indicates that a majority of the Pittsford Committee (51% of responses) feels the Village is not currently very bike friendly. This is in stark contrast to the extremely high walkability scores that the Village received. Over the next decade, the Committee feels the Village should strive to improve its average bike friendliness rating from 5.1 to 8.1. In order to achieve this, the following issues must be addressed; motor vehicle travel speeds are too high on some routes, too much traffic at the “Four Corners,” and riding together as a family needs to be more comfortable. The Committee also identified that bicyclists typically ride on the sidewalks even though it is illegal and that a physical separation between bicyclists and cars is preferable.



Steering Committee members used a bus tour to share ideas for the future of Pittsford and understand some of the opportunities.

Community Meeting

On December 10, 2015 attendees gathered at the Pittsford Library for the first community meeting. Approximately 40 people attended the meeting, which featured a dual lecture and open-house format. The meeting objectives included informing the public on the project and collecting issues and opportunities from the community members. After a welcome and introduction, attendees listened to a presentation on the project overview and process. Later, the consultant team discussed the concepts of walkability and bikeability and their applicability to Pittsford. After the presentation portion of the meeting, the event transitioned to an open house format consisting of several stations designed to collect input from the attendees. The stations asked the community members to identify the issues and opportunities regarding walking and biking in the Village and Town. Also, one station prompted attendees to describe their overall vision for biking and walking in the community.

**Join Us For A
Community Open House**

Pittsford Active Transportation Plan

The Town and Village are developing an active transportation plan! The collective goal is to create a bicycle and pedestrian friendly network that improves mobility and encourages safe bicycle and pedestrian travel for recreation and transportation purposes.

We want your input!

- Biking and walking infrastructure
- Connections to destinations
- Traffic calming
- Additional comments

A presentation will be followed by an Open House

7:00 - 7:30 Welcome and Presentation
7:30 - 9:00 Open House (stop in any time!)

December 10, 7:00 - 9:00 PM

Fisher Meeting Room - Pittsford Community Library | 24 State Street

INGALLS Pittsford



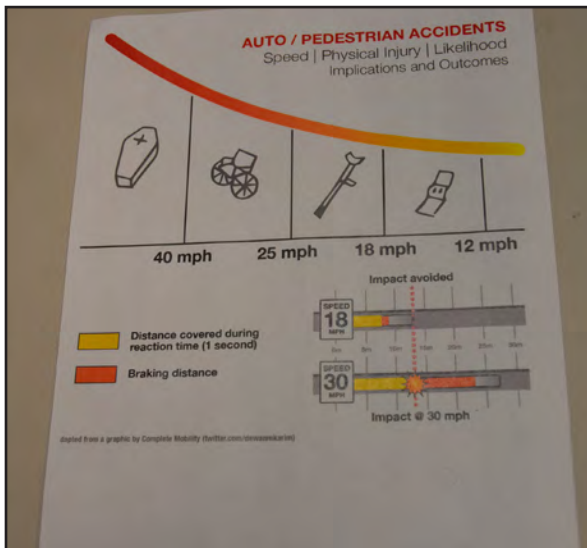
The Community Meeting offered attendees the opportunity to engage in the planning process.

The following ideas were expressed:

1. The Village should have a culture of “Stop for Pedestrians.”
2. The Village should have a 25 mph speed limit. This is “enforced” by effective traffic calming methodology.
3. Pedestrian safety should be the first priority, and bicycle safety second.
4. The Village should be a comfortable place to walk and bike.
5. All Village entry points should include traffic calming measures.
6. Signage should be placed on the streets to direct walkers or runners from one unconnected trail to another one in the Town.
7. The community needs walkable routes to school.
8. Drivers must be educated on pedestrian and bike safety.
9. Comprehensive traffic calming and other measures should be implemented including curbs, medians, plantings, signs, painted roads, education and law enforcement.
10. There is a need to keep shoulders clean of debris, sticks, rocks etc. to keep them safer for biking.



Comments flowed onto boards and maps, providing detailed input



VILLAGE COMMENTS

Issues and Opportunities for Bicycling & Walking

-  Bicycling Issue
-  Bicycling Opportunity
-  Walking Issue
-  Walking Opportunity
-  Existing Sidewalks
-  Existing Trails

1/4 mile



3 minutes

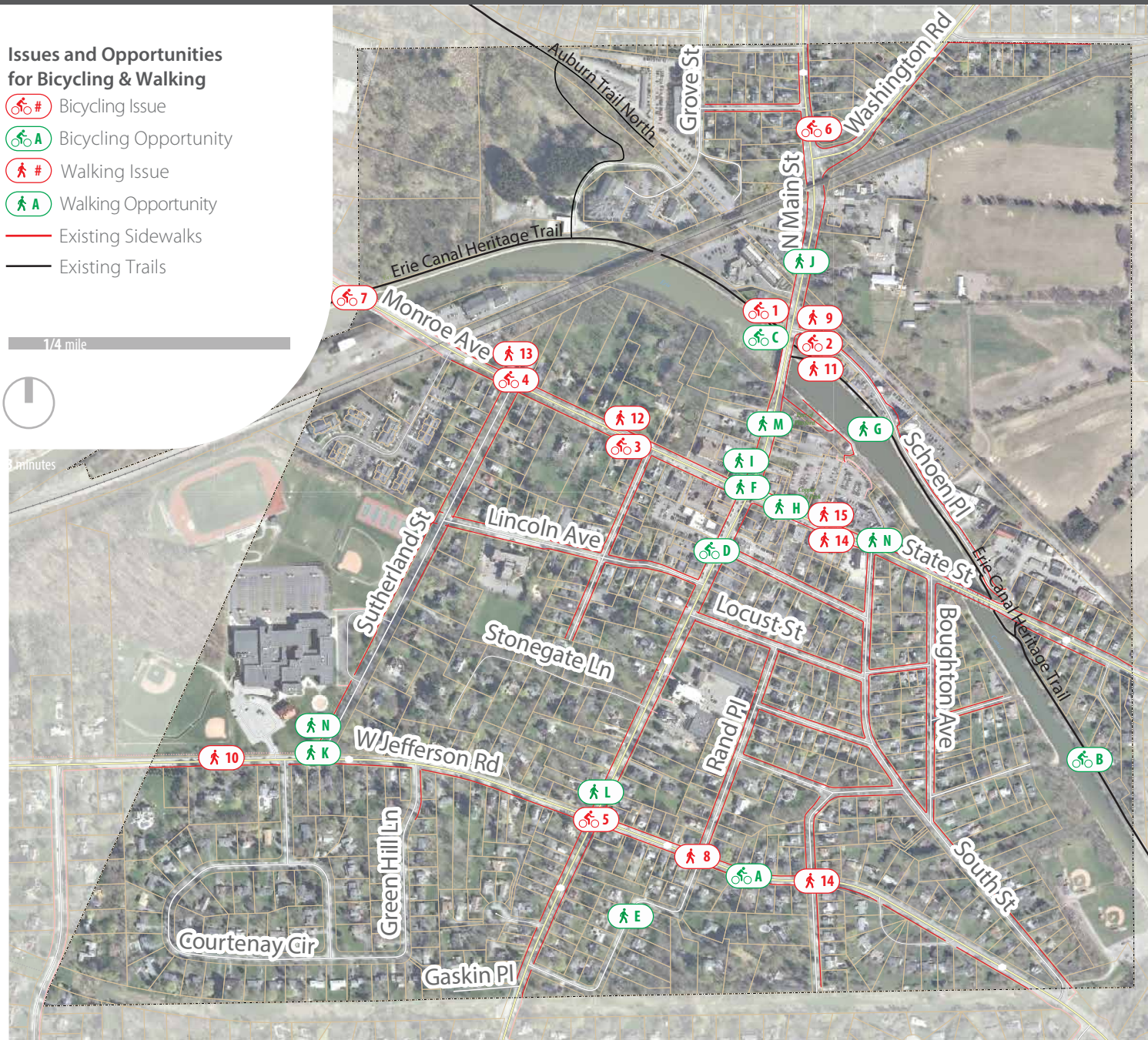


Figure 24: Village Comments Map

Community Input

The meeting attendees shared dozens of thoughtful issues and opportunities regarding walking and biking. Figures 24 and 25 identify these comments in the Village and Town respectively. The following general comments were generated at the meeting and apply to the entire study area:

- While the Village offers a walkable environment, there are several issues with existing crossings at signalized intersection and mid-block crossings.

- The Village offers significant opportunity to improve pedestrian crossings along Main Street/NYS Route 96 and Monroe Avenue and State Street/NYS Route 31
- There are many areas of the Town where biking and walking can be improved through wider shoulders, new trails, and traffic calming measures.

Issues

-  **1** Re-direct signage at the bridge and Schoen Place to direct walkers and bikers to take the path under the bridge.
-  **2** No one watches for bicycles.
-  **3** Add a protected bike lane on Monroe Avenue/NYS Route 31.
-  **4** The timing of the traffic light at the intersection of Sutherland Street and Monroe Avenue/NYS Route 96 is an issue, and a tree blocks the line of sight.
-  **5** The intersection of South Main Street/NYS Route 96 and Jefferson Road is terrible and dangerous for cyclists and pedestrians.
-  **6** The traffic light at intersection of Washington Street and North Main Street/NYS Route 96 is not triggered by bikes.
-  **7** The Village to Town transition is difficult, and speeding is an issue.
-  **8** The intersection of Rand Place and East Jefferson Road/NYS Route 96 is a dangerous pedestrian crossing. There is a need for traffic calming measures and lower speeds.
-  **9** There is a lack of curb at the corner of Schoen Place and North Main Street /NYS Route 96.
-  **10** The area is dangerous for pedestrians because there is only a sidewalk on one side of Jefferson Road.
-  **11** Motorists don't respect the pedestrian right-of-way in mid-block crossings.
-  **12** At the intersection of Monroe Avenue/NYS Route 31 and Washington, drivers do not stop for pedestrians in the crosswalk.
-  **13** At the intersection of Sutherland St and Monroe Avenue/NYS Route 31, drivers do not stop for pedestrians in the crosswalk.
-  **14** Motorists don't respect the pedestrian right-of-way in these crossings.
-  **15** On-street parking blocks the sight lines between motorists and pedestrians. Consider removing a parking space.

Opportunities

-  **A** Develop a bike lane on Jefferson Road and narrow the travel lanes for traffic calming. Protect bikes with curbs, medians and marked or painted lanes.
-  **B** Signs alerting pedestrians and "standing groups" to be alert that cyclists also use the path, and that a group should not spread out across a path blocking other users.
-  **C** To minimize trail conflicts, promote use of mirrors and a solid-painted median.
-  **D** South Main Street needs more bike racks.
-  **E** The amount of pedestrian traffic and nearby children indicates the need for a safer street. Create sidewalks, permanent speed bumps and implement further traffic calming measures.
-  **F** Provide advanced pedestrian crossing technology to promote safety.
-  **G** Create a better pedestrian experience from Schoen Place to the library.
-  **H** There should be raised medians instead of painted medians on State Street/NYS Route 31 in front of the library and near the intersection of Monroe Avenue/NYS Route 31 and Washington Avenue.
-  **I** Install raised medians to signify the Town/Village transition.
-  **J** Install a crosswalk on North Main Street/NYS Route 96 between Schoen Place and the railroad bridge.
-  **K** Prohibit right turns at red lights throughout the Village to promote pedestrian safety at crossings.
-  **L** At Jefferson Road and Main Street, install dedicated left-turn lanes for vehicles to keep traffic moving.
-  **M** To reduce jaywalking, provide a crosswalk on North Main Street/NYS Route 96 across from Carpenter Park.
-  **N** Implement flashing crosswalks for pedestrians on State Street/NYS Route 31 by the library, Sutherland Street and Jefferson Road (e.g. flashing crosswalks on Route 332 in the City of Canandaigua).

TOWN COMMENTS

Issues and Opportunities for Bicycling & Walking

-  Bicycling Issue
-  Bicycling Opportunity
-  Walking Issue
-  Walking Opportunity
- Planned Trails
- Conceptual Trails
- Existing Trails

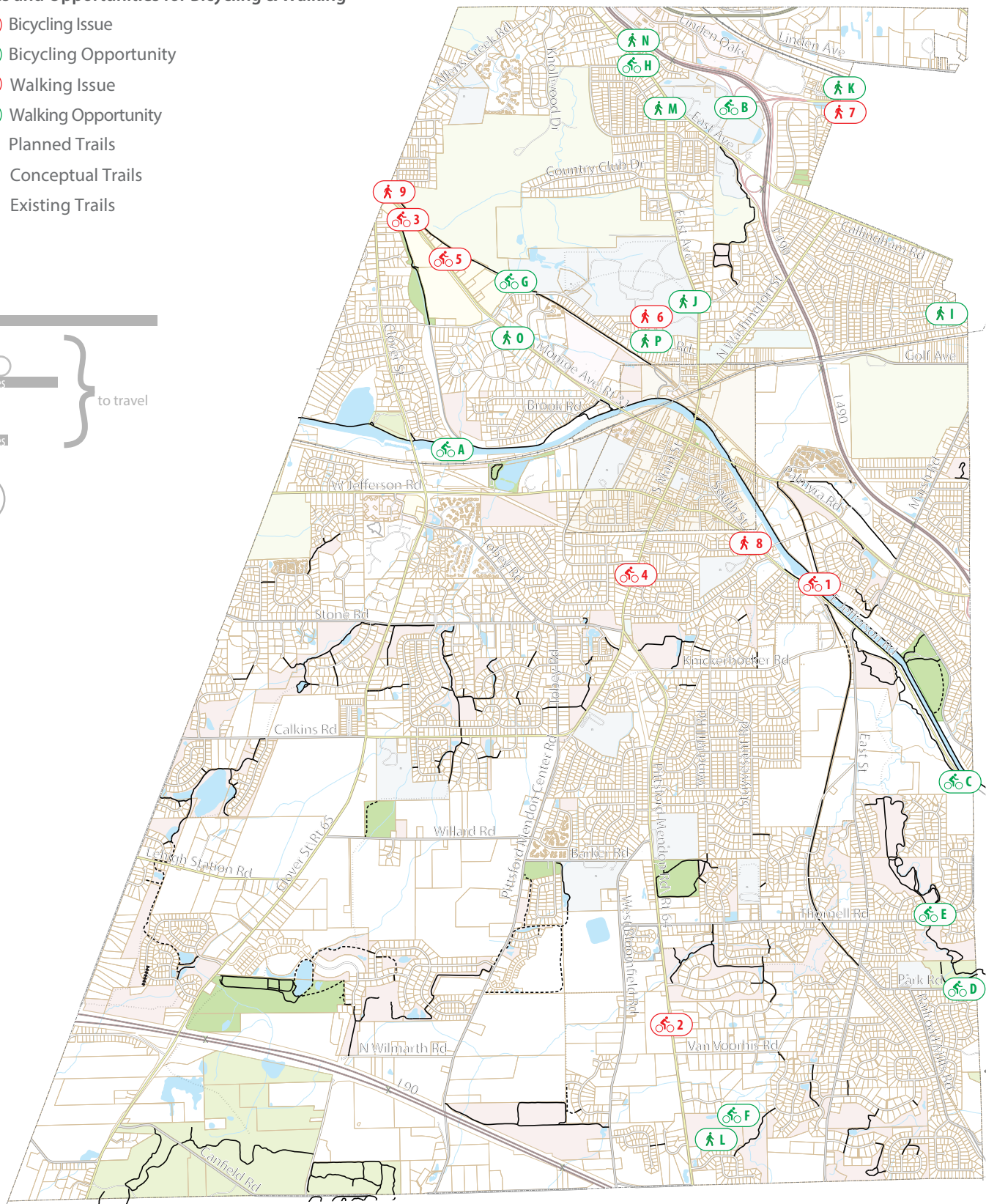
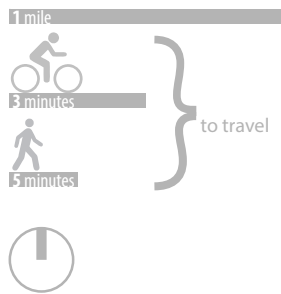


Figure 25: Town Comments Map

Issues

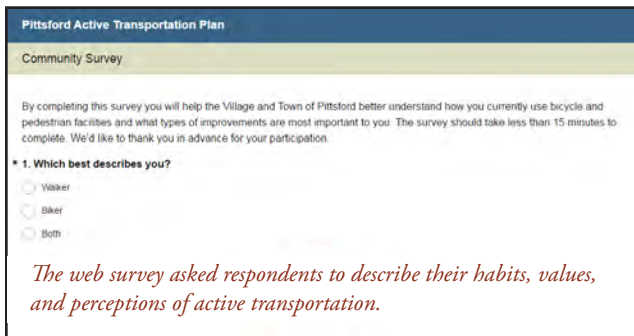
-  **1** At Knickerbocker Road, provide a safe way to bike from the Auburn Trail to the Erie Canal Heritage Trail. NYS Route 96 and Mitchell Road doesn't feel safe.
-  **2** Mendon Road/NYS Route 64 is a potentially dangerous road for bicyclists due to narrow shoulders and topography.
-  **3** Large commercial areas need more bicycle racks.
-  **4** South Main Street/Pittsford Mendon Road/ NYS Route 64 must have wider shoulders for bicycling.
-  **5** The Monroe Avenue/NYS Route 31 on-street bike lane should be wider.
-  **6** I-490 West Commercial Street intersection is dangerous.
-  **7** There is a need for a path to the Village (e.g. French Road).
-  **8** I-490 West Commercial Street intersection is dangerous.
-  **9** There is a need for traffic calming at the intersection of East Jefferson/NYS Route 252 and School Road.

Opportunities

-  **A** Provide a bicycle-bus connection along the Erie Canal Heritage Trail.
-  **B** Develop a bike path from Saint John Fisher College to the Village.
-  **C** A bike path from Bushnell's Basin along NYS Route 96 to the Village is needed.
-  **D** Provide a safe path along Thornell Road in cooperation with the Town of Perinton.
-  **E** Provide a bike path along Thornell Road between Bushnell's Basin and Thornell Road School.
-  **F** Implement another path to Turtle Creek to provide recreation opportunities.
-  **G** Develop an access trail to the parking area at the plaza.
-  **H** Bike lanes on East Avenue/NYS Route 96 are needed.
-  **I** Develop a shortcut from Sherwood Road to the shopping center.
-  **J** Create sidewalks on East Avenue/ NYS Route 96 from St. John Fisher College to the Village.
-  **K** Reduce the 490 exit ramp at the northern border of the Town where it meets East Rochester. Implement traffic calming measures identified in previous planning.
-  **L** Tying the Turtle Creek into the Wren Field Open Space would enable residents to safely get to the trails leading to Farm Park.
-  **M** Consider development of a sidewalk on East Avenue/NYS Route 96 from Saint John Fisher College to connect to sidewalks south of Nazareth College. Also consider a sidewalk from Allens Creek Elementary School to Saint John Fisher College.
-  **N** Make crossing improvements at the traffic light at East Avenue/NYS Route 96.
-  **O** On Monroe Avenue/NYS Route 31, create streetscape improvements including trees and a raised median.
-  **P** French Road needs sidewalks from Monroe Avenue/NYS Route 31 to the Village.

Survey Summary

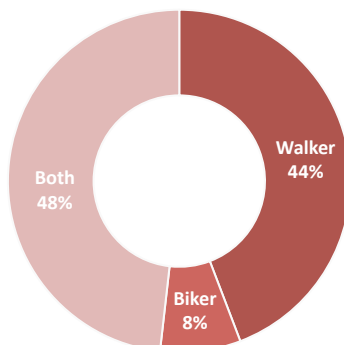
An online survey was created to identify the community's perceptions and values of active transportation. Respondents were asked to describe why they choose to bike or walk, the duration and purpose of such trips, and specific routes and destinations. The survey included questions aimed at identifying gaps in the sidewalk and trail network and why respondents choose to avoid biking and walking. At the end of the survey, respondents were asked to share any general comments regarding active transportation.



Who took the survey?

There were 760 respondents to the survey. It was open to the public and included responses from both the Town (76%) and Village (19%) as well as people from outside of Pittsford (5%). More than 40% of the respondents indicated they are between 30 to 50 years old and 56% are 65 years of age or older.

The needs and experiences of pedestrians and bicyclists are often different. Some people only walk or bike while others do both. To account for these differences the survey included a question near the beginning that asked respondents to identify themselves as a “walker,” “biker,” or “both.” The survey included question logic that provided questions tailored to each user group. Nearly half of users identified themselves as both walkers and bikers.



Walkers

The top reason for walker only respondents for choosing not to bike is “auto traffic is too fast and/or heavy.” This was followed by “motorists don’t exercise caution around bicyclists” and “I don’t have a bicycle.”

When asked how often you typically walk and for what purpose, respondents that walk four or more times per month do so for leisure/fitness. This was followed by shopping/errands/dining and walking the dog or pet. Purposes that people stated that they never walk for are “to get to transit” and “commuting to work.”

Of those that indicated they were “walkers only,” more than 64% stated that they typically walked more than one mile. More than 70% of the joint group indicated that they typically walk more than 1 mile.

The top three things that will help to increase the frequency or duration for people that walk are:

1. Additional sidewalks (fill in gaps)
2. Improved pedestrian crossings (signals, crosswalks, warning signs, etc.)
3. Off-road shared use paths

Bikers

Respondents that identified themselves as bikers stated that they choose not to walk because it “takes too long.” The “lack of destinations within walking distance” and the “lack of sidewalks and trails” also played a significant role.

More than 40% of the biker only group identified themselves as a “fearless” rider that feels comfortable bicycling in most or all traffic situations with or without bike lanes. However, that percentage drops to 12.6% for the respondents that identified themselves as both a walker and a biker.

Although both the biker only group and the biker and walker group bike four or more times per month for leisure/fitness purposes the biker only group bikes more often for commuting to work, visiting friends, and to shop/errands/dining.

Nearly 40% of biker only group bike more than 15 miles. In contrast, only 18% of the joint group bike that far.

Bikers varied in their top responses for improvements most likely to increase their current bicycling activity. The biker only group indicated that wide shoulders and bike lanes were the two most important improvements. Whereas the top choices for the walker and biker group indicated that the development of protected bikes lanes and more trails and paths would have a bigger impact on increasing their level of activity. These results are expected due to the difference in each group's comfort level with bicycling with vehicular traffic.

Sidewalk & Trail Gaps

Survey respondents were asked to identify gaps in the sidewalk and trails networks. There were nearly 300 responses. The gaps that were identified ten or more times include:

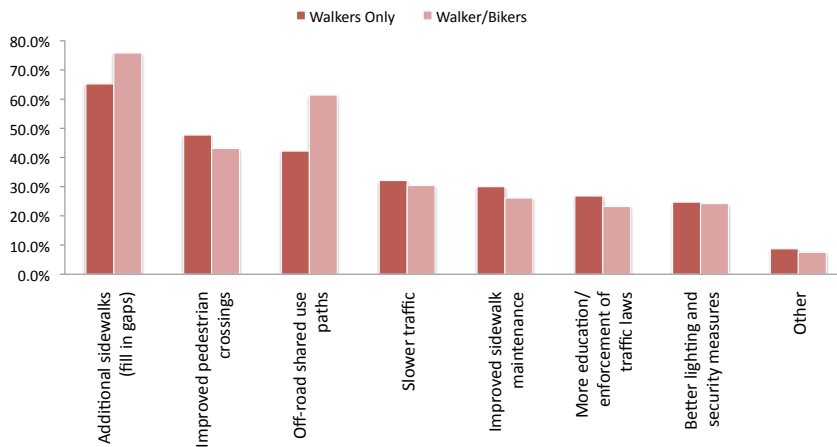
Sidewalk Gaps

- East Avenue / NYS Route 96
- Thornell Road
- W Jefferson Road / NYS Route 252
- Clover Steet / NYS Rt 65
- Tobey Road
- Calkins Road
- French Road
- East Street
- Mendon Center Road / NYS Rt 64
- Stone Road

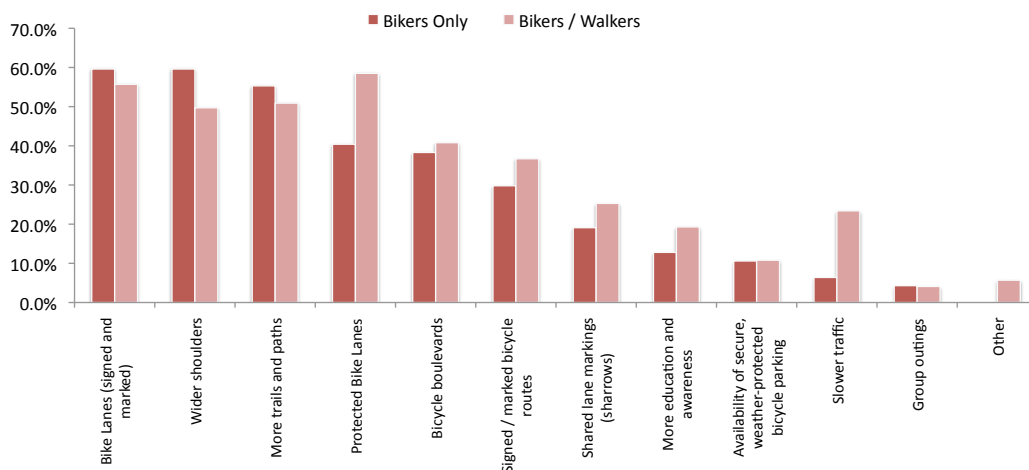
Trail Gaps

- Auburn Trail Extension (North or South)

Which facilities or amenities would most likely increase the frequency or duration that you currently walk?



Which facilities or amenities would most likely increase your current level of bicycling activity?



Demand "Heat Map" Assessment

A priority map was assembled using a variety of Geographic Information System (GIS) variables. ArcGIS and its Spatial Analyst extension were used to analyze the combination of variables to produce a "heat map" identifying priority areas for pedestrian and bicycle improvements in the Town and Village of Pittsford. The variables used for the analysis included:

- School/university locations
- Parks/trails/neighborhood open space
- Retail locations
- Employment centers
- Transit stops
- Population density
- Youth population density (<18)
- Senior population density (>65)
- Median income
- Percent walking to work and
- Other activity centers (places of worship, Town/Village Hall, post offices, community center, senior health facility, and library)

Buffers were placed around pedestrian generators/ attractors at predetermined distances (1/8 mile, 1/4 mile, 1/3 mile, 1/2 mile, 3/4 mile, and 1 mile). A scoring system was used for each variable, with higher scores given to areas closer to the particular variable. A breakdown of the scoring system can be found in the appendices. The result is Figure 26, which illustrates the potential demand from high (warm colors) to low (cool colors) where higher values represent areas closer to pedestrian attractors/generators. The map illustrates the relationship between pedestrian and bicycle priority areas and the presence of a unified sidewalk and trail network, ultimately showing areas within the community where priority investments should be made to improve and enhance the pedestrian and bicycle environment.

The highest levels of demand appear to be centered around the Four Corners and immediate central business district, as well as nearby Nazareth College, and Monroe Avenue nearby Pittsford Plaza. Other pockets include St. John Fisher College, Thornell Farm Park/Pittsford Mendon High School and Barker Road Middle School.



The Four Corners area of the Village is an integral pedestrian crossing area.



North Main Street / NYS Route 96



State Street / NYS Route 31

PEDESTRIAN DEMAND MODEL

Pedestrian Demand



High

Low



Trails



Sidewalks



Railroad

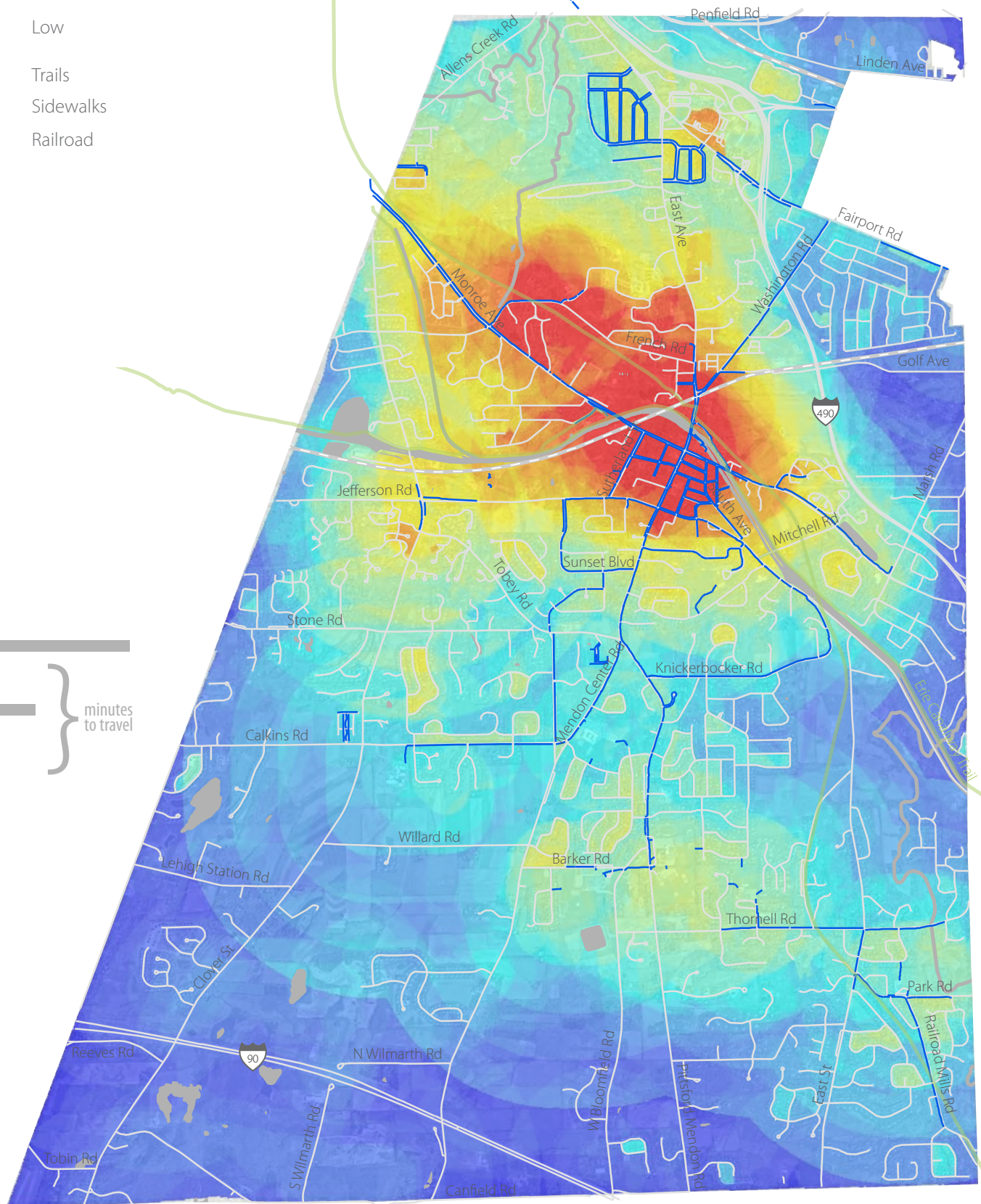
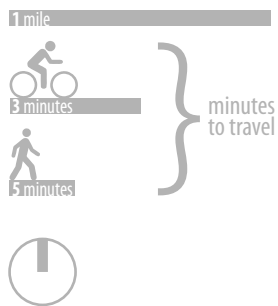


Figure 26: Pedestrian Demand Model Map

Town & Village Assessments

Schools and Colleges

The Town of Pittsford is home to St. John Fisher College and Nazareth College. Both colleges are prominent institutions within the community with students living both on and off campus. Residential complexes such as Briar Manor Apartments, Elmwood Terrace, Greystone Brighton, and Penfield Village Apartments provide housing for students, staff, and faculty. Therefore, it is important that safe, convenient, and accessible pedestrian and bicycle facilities are provided for those traveling between home and campus.

The Pittsford Central School District includes nine schools with an enrollment of approximately 6,500 students and more than 1,150 employees (out of a district population of more than 33,000) making it an important component of the community. A livable, sustainable municipality is supported by quality school districts and institutions, and can be a barometer of its health and quality of life. In addition, a safe and attractive active transportation system can encourage school-age children to walk and bike to school and reduce short distance vehicle trips. Benefits of active lives at an early age include reduce obesity levels, increased social cohesion, and better performance at school, amongst others.

All Pittsford CSD schools have bike racks, however, the elementary schools do not have walk/bike to school programs. According to the District's policy, "the District will provide transportation for children in grades K-5 who live 0.3 mile or more from school, and for children in grades 6-12 who live 0.7 mile or more from school." This is important information as it relates to enhancing or developing integrated linkages between the schools and the surrounding neighborhoods.

Key issues include addressing existing safety concerns, identifying network gaps, and providing guidance for creating a "Complete Streets" environment that will be safe, attractive and supportive for pedestrians and bicyclists. Figure 27 shows the locations of the noted schools and colleges. Also shown on the Schools and Colleges figure are the Town's sidewalk network and crossing guard locations for each school. There are 11 crossing guards in total. Several schools, such as Mendon Center ES, Park Road ES, and Thornell Road ES can be accessed via pathways connecting the school to the adjacent neighborhood.



Calkins Road Middle School is part of a SRTS project to provide active transportation opportunities. Photo by Pittsford CSD.



School crossing at Calkins Road Middle School. Photo by Google.

SCHOOLS AND COLLEGES

-  Schools and Colleges
-  Trails
-  Sidewalks
-  Crossing Guards
-  Railroad

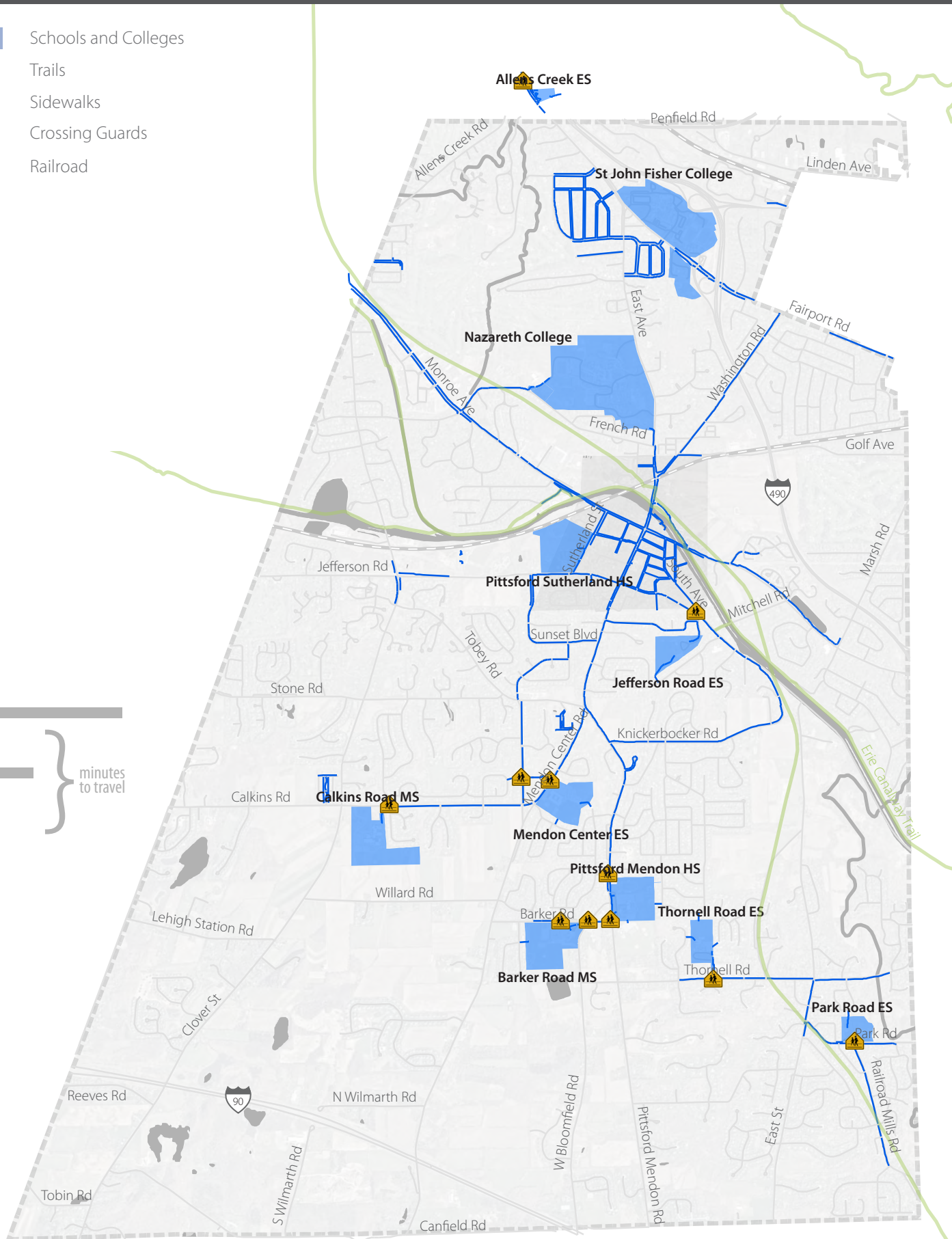
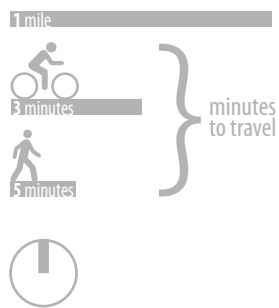


Figure 27: Schools and Colleges Map

Sidewalk Gaps

Although the Town offers dozens of miles of sidewalks and is currently expanding the network, several gaps exist. These gaps impede pedestrian mobility between key destinations such as schools and parks. The Town has identified segments of conceptual and planned sidewalks. The development of new sidewalks throughout the town is ongoing as funding sources and project implementation occurs.

Sidewalk gaps were identified through public input and through work of the consultant team. Key sidewalk network gaps include:

- East Avenue/NYS Route 96 between the Brighton Town Line and 4245 East Avenue
- French Road between Golden Flyer Drive and East Avenue/NYS Route 96
- Fairport Road/NYS Route 31F between East Avenue/NYS Route 96 and 80 Fairport Road/NYS 31F (both sides of road)
- Rand Place between East Jefferson Road/NYS Route 252 and South Main Street/NYS Route 96 (both sides of road)
- Mitchell Road (entire length, both sides of road)
- West Jefferson Road/NYS Route 252 between South Main Street and Sutherland Street (north side of road)
- East Jefferson Road/NYS Route 252 between Eastview Terrace and the Village line (north side of road)
- Sutherland Street (east side of road)
- Stone Road between the Henrietta Town Line and Chatham Woods



*Sidewalk dead ends make walking more difficult.
Photo by Streets MN.*



Closing sidewalk gaps can increase the ability of people to walk to destinations, such as Nazareth College. Photo by Google.

"The sidewalk is the area where people interface with one another and with businesses most directly in an urban environment.

-NACTO Urban Street Design Guide

The safe and efficient accommodation of pedestrians along the traveled way **is equally important as the provisions for vehicles.** Too often, pedestrians are a secondary consideration in the design of roadways, particularly in suburban areas.

-FHWA Context Sensitive Solutions Resources

RECOGNIZED SIDEWALK GAPS

- Recognized Sidewalk Gaps
- Existing Sidewalks
- - - Conceptual Sidewalks
- - - Planned Sidewalks

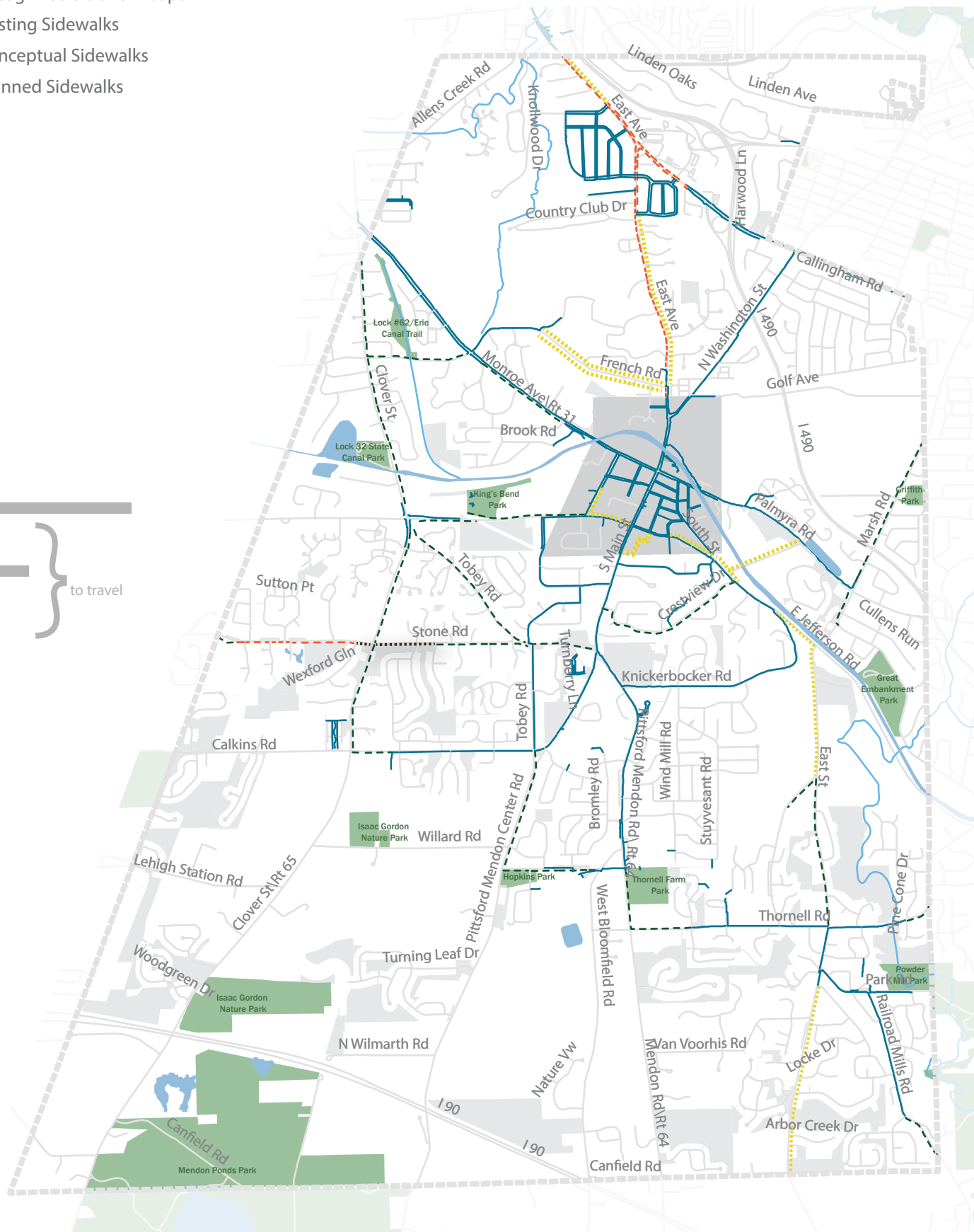
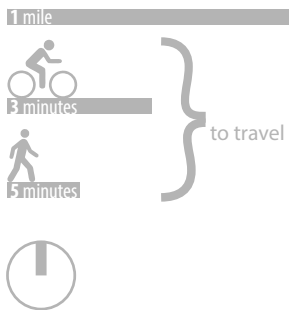


Figure 28: Recognized Sidewalk Gaps Map

Trail Gaps

The Town of Pittsford has an extensive trail network. The existing trail system consists of multi-use, paved trails to natural surface trails. The Town has developed general planned trail alignments. These planned trails will add connectivity between neighborhoods and schools. Active transportation connections to schools are particularly important connections and should be considered high priority. Most students lack access to personal vehicles and filling gaps in trail and sidewalk networks support the goals of the Safe Routes to School National Partnership.

Despite the extensive trail network in the Village and Town, there are gaps. These gaps were identified through a process of public participation and from the work of the consultant team. Some of these gaps may not be realistically able to be filled with a trail, but it is important to recognize the opportunity for greater connectivity.

Several important gaps exist, including:

- A trail connection between Saint John Fisher College and the Village
- Trail connection along Monroe Avenue between the Village and Pittsford Plaza (north side of road)
- A trail connection between West and East Jefferson Road/NYS Route 252 utilizing the existing utility right-of-way
- A trail connection along Thornell Road between the Thornell Road Elementary School and the Town line, with the intent to connect to Bushnell's Basin in Perinton
- A trail connection along East Jefferson Road/NYS Route 96 between the intersection of Crestview Drive and Bushnell's Basin in Perinton utilizing the south side of the Erie Canal



In addition to providing a safe place for people to enjoy recreational activities, **greenways and trails often function as viable transportation corridors.** Trails can be a crucial element to a seamless urban or regional multi-modal transportation system.

- *Rails to Trails Conservancy*

RECOGNIZED TRAIL GAPS

-  Recognized Trail Gap
-  Potential or Existing Trail/Road Crossing
-  Existing Trails
-  Planned Trails
-  Conceptual Trails
-  Parks
-  Open Space

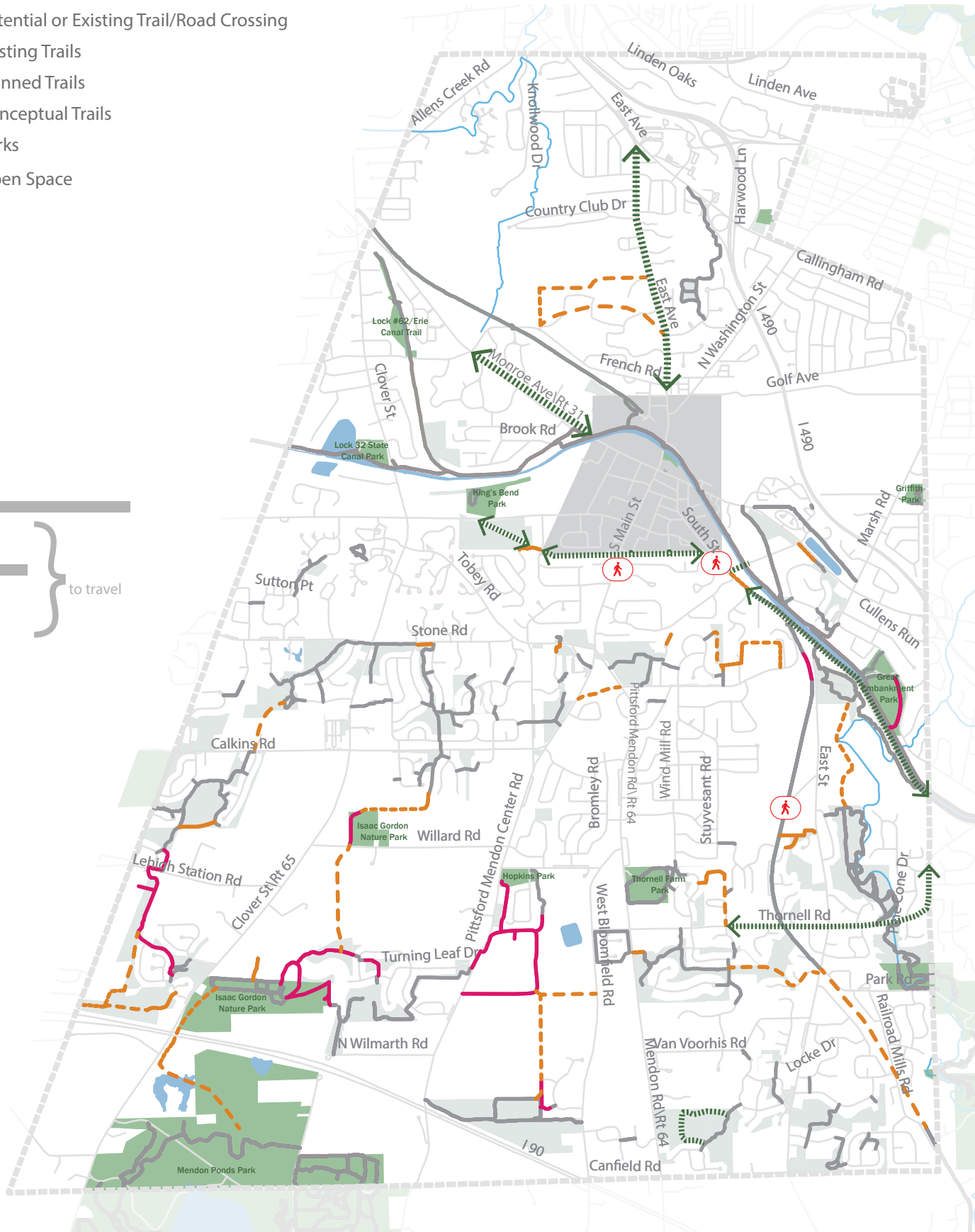
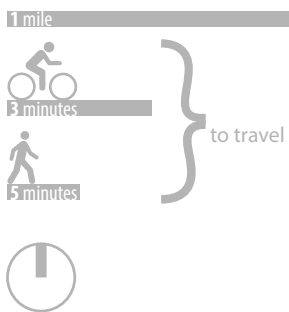


Figure 29: Recognized Trail Gaps Map

Bicycle Boulevards

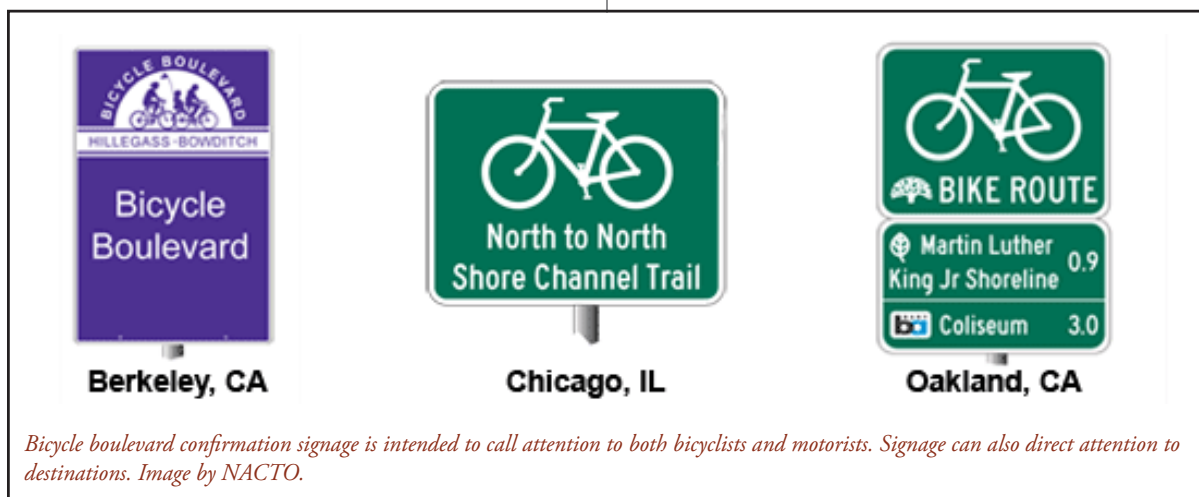
A major barrier to bicycling in Pittsford is the high traffic volume and speed on arterial and collector roads. Generally, only the most experienced cyclists consistently travel on these roads. Arterials and collectors are often uncomfortable places to ride a bike. For example, Clover Street/NYS Route 65, an important route in the Town, has a speed limit of 35 to 45 miles per hour. Actual speeds are often higher, especially in the southern portion of the Town. A vehicle-bicycle collision at 45 miles per hour or higher is likely to result in serious injury or death. Recognizing this trend, it is important to focus on utilizing the low-speed, low-traffic streets as bicycle routes.

Bicycle boulevards, low-speed and low-traffic routes optimized for cycling, can offer safe routes through communities which encourage people to ride a bicycle. Bicycle boulevards can include any of the following characteristics:

- Traffic calming treatments including roundabouts, channelizers, curb extensions and more
- Unique signage and pavement markings
- Intersection improvements including bicycle-oriented signaling, bike boxes and more

The City of Rochester and other local Towns are implementing bicycle boulevards. Figure 30 includes potential routes of future bicycle boulevards. The routes identified allow bicyclists to avoid high-traffic road segments and intersections. The routes are intended to connect to existing trails and destinations. A bicycle boulevard network could bolster Pittsford's existing trail network by filling trail gaps. These new bike routes can both discourage speeding on local streets and encourage people to ride a bicycle who may otherwise have avoided sharing the road with vehicles.

Additional road and shoulder treatments should be pursued for the major arterials that connect to mapped bike boulevards. These arterials should have travel lanes of 10 or 11 feet. Additional space should be applied to shoulders to the maximum extent practicable to ease a bicyclist's transition from a low-speed boulevard to a higher speed road.



OPPORTUNITIES FOR BIKE BOULEVARDS

- Bike Boulevards
- Erie Canalway Trail Auburn
- Trail North
- Lock 62 Trail
- Auburn Trail South
- Other Trails
- Planned Trails
- Conceptual Trails
- Parks
- Open Space

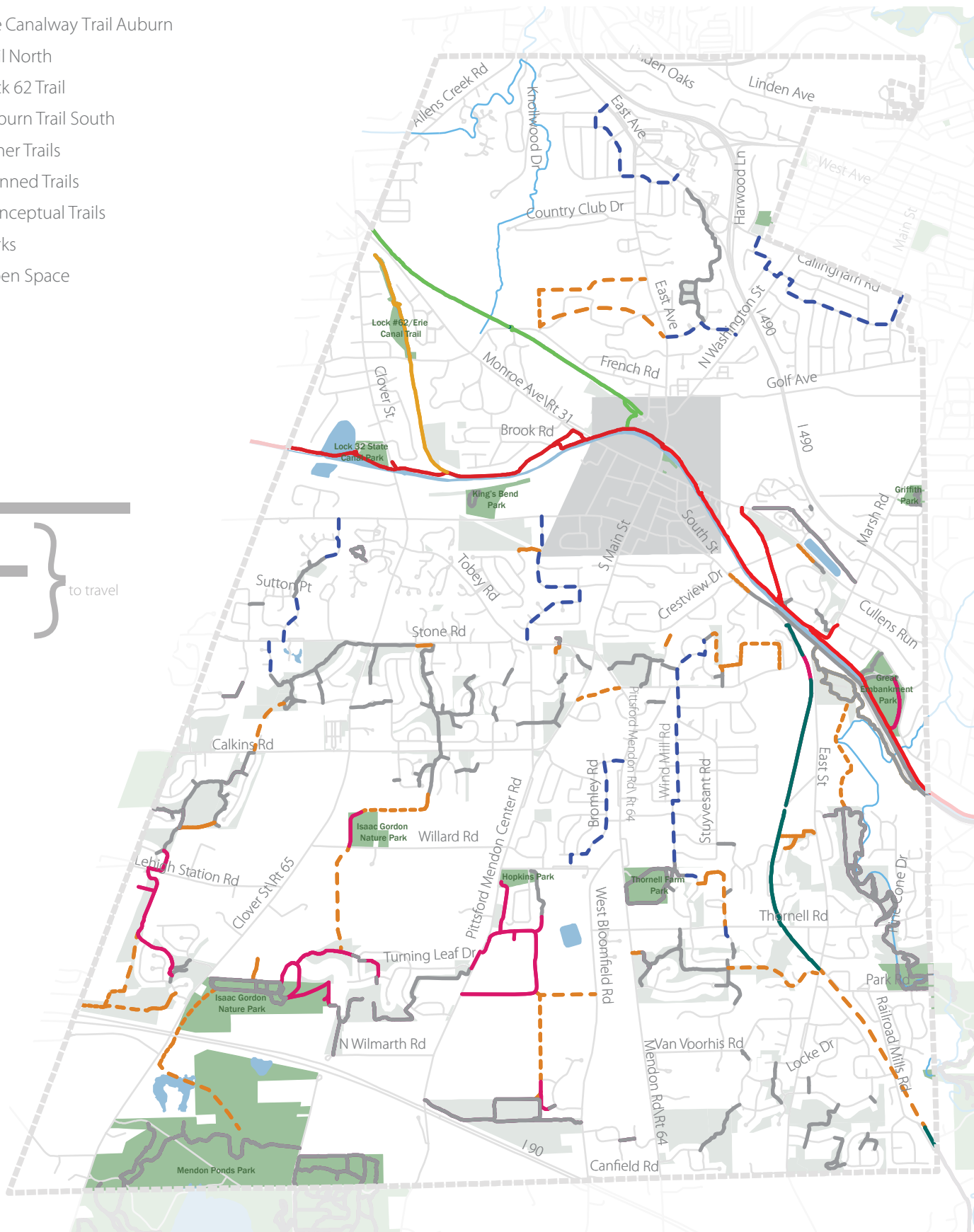
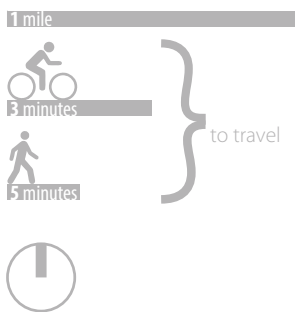


Figure 30: Opportunities for Bike Boulevards Map

Fairport Road/East Avenue Corridor Road Diet

Communities throughout the country are seeing the tangible benefits of re-balancing their roadways to provide space for pedestrians, bicyclists, and transit. This effort and resulting changes to the roadways is called a “Complete Street”. On August 15, 2011, Governor Andrew M. Cuomo signed the Complete Streets Act “requiring state, county, and local agencies to consider the convenience and mobility of all users when developing transportation projects that receive state and federal funding.” This includes all users regardless of age or ability. Simply, a “Complete Street roadway design features include sidewalks...bicycle lanes, paved shoulders for use by bicyclists, signage, crosswalks...raised crosswalks, ramps, and traffic calming measures.”

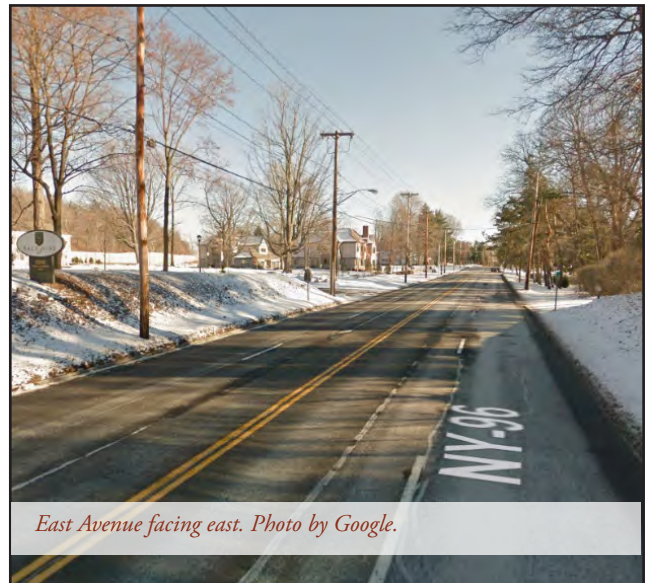
As part of this plan, traffic volume data was collected along Fairport Road (NYS Route 31F) and East Avenue (NYS Route 96) from St John Fisher College to NYS Route 441 to determine the feasibility of converting this segment from a four-lane undivided highway to a two lane roadway with left-turn lanes and pedestrian and bicycle safety enhancements. The intent of this street conversion is to improve safety for all roadway users, especially pedestrians and bicyclists.

Turning movement traffic counts were obtained on Tuesday, April 22, 2014 at the study intersections of NYS Route 31F at NYS Route 96 and Murphy Hall Access Road, and Tuesday April 21, 2015 at the study intersections of East Avenue/Elmwood Road, East Avenue/Allens Creek Road, and East Avenue/Kilbourne Road. Traffic counts were conducted between 7:00-9:00 AM and 4:00-6:00 PM for the weekday morning and evening peak hours.

The plan will identify and evaluate the anticipated traffic impacts that a Complete Street will have on the Fairport Road/East Avenue corridor.



East Avenue / NYS Route 96 facing east in front of Saint John Fisher College. Photo by Google.



East Avenue facing east. Photo by Google.



State Street / NYS Route 31 facing east. Photo by Google.

Village Four Corners and Beyond

The Four Corners intersection of Monroe, State, and North/South Main Streets is a focal point of the Village; it's a center for village retail and commercial activity. The arterials service local and inter-community traffic and, thus, experience high volumes of vehicular and pedestrian traffic. Parallel parking is mostly available along South Main Street and State Street.

Traffic volumes were collected on Tuesday and Wednesday, December 8-9, 2015 between 7:00-9:00 AM and 4:00-6:00 PM for the weekday morning and evening peak hours. In addition, vehicular queuing data was collected in each of the approaches' right-turn lanes to determine the number of vehicles queued in the lanes at the start of each signal cycle. Auxiliary lanes (e.g., left-/right-turn lanes) are used to alleviate traffic congestion, reduce vehicle delays, and reduce certain types of vehicular-related crashes. However, installing dedicated turning lanes can increase crossing distances for pedestrians and, ironically, increase vehicle delay.

The specific details of this intersection can be found on Figure 31 in combination with suggested improvements found later in the report.

Other Observations and Opportunities

The consultant team, with input from the Village and the public, has put together an initial issues and opportunities map for the Village. The look and feel of the Village is one that seeks to prioritize the pedestrian through human-scaled building design (i.e., buildings are typically 2-3 stories, well-articulated though architectural details), little to no setbacks (especially in the central business district), outdoor seating, pedestrian-oriented building signage, consolidated parking generally placed behind buildings, among other attributes. Schoen Place can be considered a good example of a space that seeks to blend multiple modes of transportation so that no one user group is dominant, therefore, exuding a sense of ownership to all that explore and visit the areas' numerous shops and eateries.



Mid-block crosswalk on South Main Street. Photo by Google.



South Main Street looking southwest. Photo by Google.

However, despite this, Village staff and the public have observed locations where opportunities for improvement may be present. Figure 31 illustrates those observations with several ideas for improvement. Several issues that have stood out are the desire for sidewalks along Sutherland and Jefferson (as indicated by marker "12"). The Four Corners intersection is a critical intersection for pedestrian traffic, as well as vehicular traffic, and is mentioned with particular importance. As well, the opportunities for improved pedestrian crossings have been noted at Sutherland Street/Monroe Avenue, Washington Street/N Main Street, Schoen Place/N Main Street, and the lack of a crosswalk between the Village Hall and the Port of Pittsford Park.

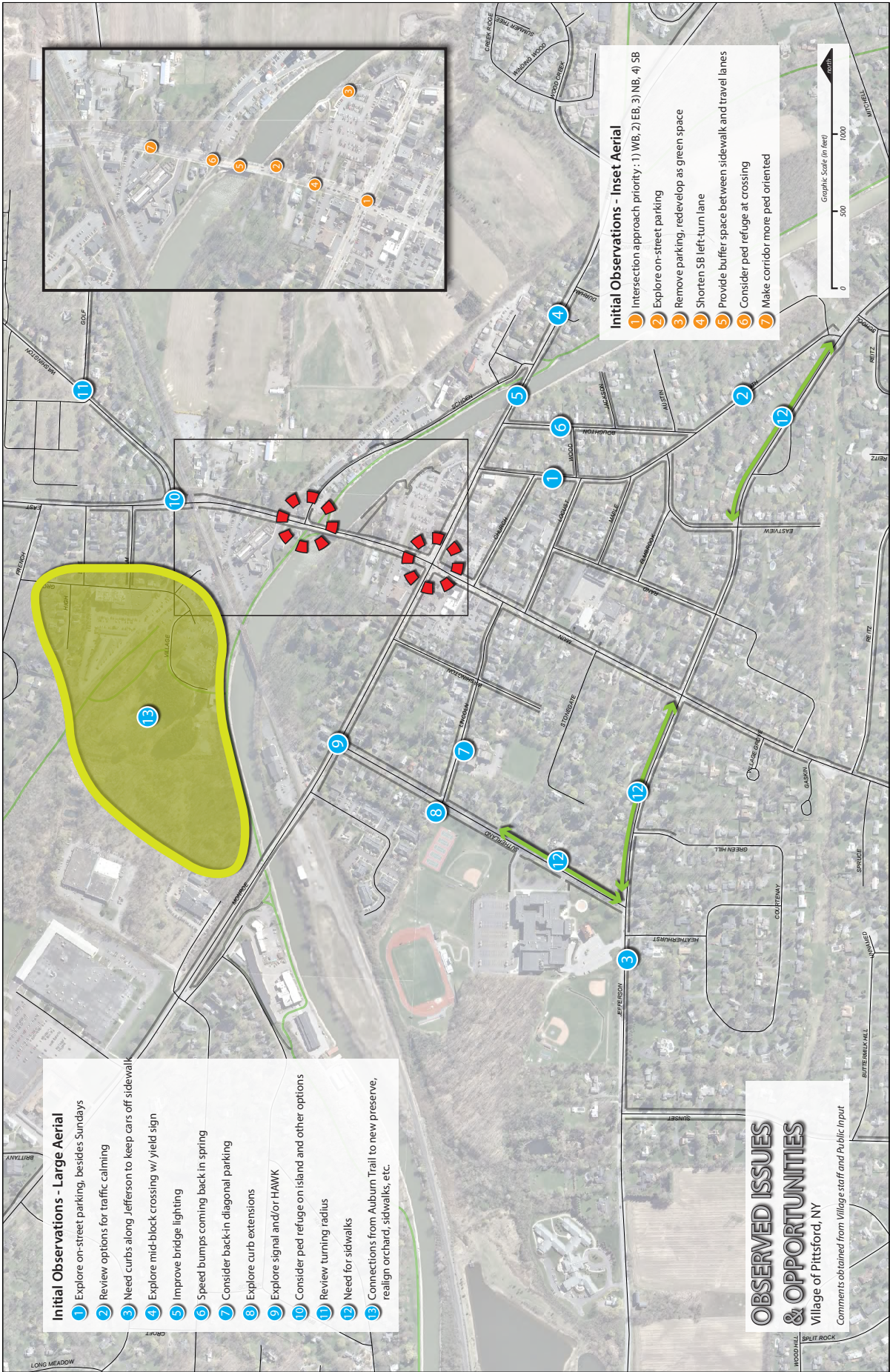


Figure 31: Observed Issues and Opportunities Map

Recommendations

Overview

A variety of strategies could be used to enhance the bicycle and pedestrian environment in Pittsford. When applied strategically throughout the community, the result is a cohesive network where pedestrians and bicyclists can feel safe and can reliably use walking and bicycling as a mode of transportation. While infrastructure is important in efforts to increase active transportation, these projects alone only have a limited impact. However, when infrastructure improvements are combined with programs to educate and encourage, and policies to enforce and support, a community can truly become walkable and bikable.

The following chapter will describe different types of pedestrian and bicycle treatments and the locations where they are recommended within the Town and Village of Pittsford, as well as program and policy recommendations to support those improvements.

1. Catalog of Active Transportation Strategies
2. Town of Pittsford Recommendations
3. Village of Pittsford Recommendations
4. Town & Village Recommendations
5. Program and Policy Recommendations
6. Creating a Pedestrian and Bicycle Safety Culture



Pedestrian on the Erie Canal Heritage Trail.

Catalog of Active Transportation Strategies

The following pages identify strategies that can be used to improve the pedestrian network, provide traffic calming, modify the bicycle network, and expand the trail system. In each category you will find generalized descriptions of recommended improvements, as well as a list of additional strategies that might be appropriate in the future.

Pedestrian Network

Sidewalks & Connectivity

Sidewalks are the backbone of the pedestrian network. These pedestrian lanes provide users with space to travel within the public right-of-way while remaining separated from vehicles in the roadway. Sidewalks are a vital facility when striving to maximize pedestrian safety. Sidewalks provide access to the community to users of all ages. Children, in particular, use sidewalks to walk, ride bikes, and play. The Federal Highway Administration (FHWA) recommends a five foot minimum width for sidewalks in order to allow two people to pass comfortably or walk side-by-side.

Sidewalks are most useful when they connect to other sidewalks and useful destinations. To make safe and efficient connections, a sidewalk network requires intersection crossing treatments and mid-block crossing treatments.

Pedestrian Intersection Crossing Treatments

Street crossings are points of conflict between vehicle and pedestrian traffic. To ensure that pedestrians are visible and safe at intersections, the following treatments are recommended:

ADA Compliant Curb Ramps

The ADA requires curb ramps to provide an accessible and safe transition, from a roadway to a sidewalk, for every person. Proper curb ramps are the safest way for a person using a wheelchair to transition from a crosswalk to a sidewalk. Curb ramps must be designed to meet ADA design standards for width, slope, cross slope, placement, and other features.

High-Visibility Crosswalks

Crosswalks that have a high level of visibility help pedestrians feel more comfortable and improve safety for both pedestrians. The installation of highly visible crosswalks increases the likelihood that drivers will see pedestrians crossing. Examples of high-visibility crosswalks include those with a ladder design, continental design, or diagonal markings. Additionally, crosswalks become more visible as their width increases.



High-visibility crosswalk. Photo by NACTO.

Pedestrian Refuge Islands

A pedestrian refuge island is one that creates a protected space in the median or center of a street to assist bicycle and pedestrian crossings. Two-way streets with more than two lanes can be difficult for both bicyclists and pedestrians to cross. The construction of a pedestrian refuge island allows people to wait for vehicle traffic to dissipate from a protected gap in the median.



Pedestrian refuge island. Photo by NACTO.

Curb Extensions

Curb extensions are traffic calming devices that physically narrow the roadway, while also giving the appearance of a much narrower roadway. They can create shorter crossings for pedestrians and also reduce vehicle speeds leading to a safer environment for both drivers and pedestrians.

Curb Radii

Reducing corner radii of intersection curbs forces vehicles to slow down. As a corner curb's radius increases, the ease and speed that vehicles turn also increases. Additionally, a longer curb radius creates longer crossing distances for pedestrians. The combination of higher vehicle speeds, easier turns for drivers, and longer crossing distances for pedestrians make for an unsafe and uncomfortable pedestrian environment.

Traffic Signals

Signalizing busy intersections can help to control the flow of traffic and provide sufficient time for safe and efficient pedestrian crossings. Signals are the highest form of traffic control and must be installed at appropriate locations in order to improve pedestrian safety. Signals are most effective for pedestrians when used in combination with marked crosswalks, pedestrian signal heads, curb ramps, and stop bars for vehicles.

Other Treatments

In addition to the recommended strategies described in this section, other pedestrian intersection crossing treatments exist that may be appropriate for Pittsford in the future. These include:

- Traffic signal timing;
- Audible pedestrian signals;
- Pedestrian countdown heads;
- Leading pedestrian intervals; and
- Advance stop lines.

Pedestrian Mid-Block Crossing Treatments

In some areas of Pittsford, intersection crossings are a great distance apart. Mid-block crossing treatments can be used in select locations to help pedestrians safely cross the roadway.

In-Street Yield to Pedestrian Sign

An in-street sign can be placed in a roadway to alert drivers to stop or yield for pedestrians thereby improving safety for crossing pedestrians. These signs can either be permanently mounted on the roadway or can be mounted on a portable base and used as needed. They can also include flashing lights.



Yield to Pedestrians Sign. Photo by Calm Streets Boston.

Rectangular Rapid Flash Beacon

A rectangular rapid flash beacon (RRFB) is used primarily to reduce incidents between vehicles and pedestrians. RRFBs have user-activated lights to warn drivers of crossing pedestrians at non-signalized intersections and mid-block crosswalks. They can also be activated by pedestrian movement through video or infrared detection.

Other Treatments

In addition to the recommended strategies described in this section, other pedestrian mid-block crossing treatments exist that may be appropriate for Pittsford in the future. These include:

- Advance yield lines;
- Hawk signals; and
- Tactile yield cues.

Traffic Calming

Traffic Calming Strategies

Traffic speed is an issue that many communities must address to keep residents safe. High vehicle speeds impact bicyclists who try to share the roadway, as well as pedestrian safety, vehicle safety and neighborhood quality of life. A number of strategies can be used to calm traffic. The most success will result from using a combination of traffic calming strategies.

Speed Bumps

A speed bump is a raised surface in the roadway that forces drivers to slow down. They generally have a height between 3-6 inches and are between 1-3 feet in length along the road. Speed bumps are not typically used in well-traveled roadways and are often limited to parking lots, apartment complexes, low-volume private and residential streets, and driveways.



Rectangular Rapid Flash Beacon. Photo by The Hour.

Speed Humps

Unlike speed bumps, speed humps are longer and tend to be lower to the roadway. Humps can have a rounded or flat top, and the shape may depend on the length of the speed hump. Flat-topped humps are also referred to as “speed tables.”

While both speed bumps and speed humps can be difficult for bicyclists to overcome, both can be designed with cuts at the side to allow for easy passage for riders. Multiple bumps or humps are needed at intervals of 300 to 600 feet apart to achieve lower vehicle speeds for an entire roadway.

Textured/Color Contrasted Paving

Textured or color contrasted pavement gives drivers tactile and audible cues within a traffic-calmed area. If the colors and textures of shoulders,



Speed Hump. Photo by NACTO.

crosswalks, or bicycle facilities contrast with those along the roadway, it will keep drivers alert and in vehicle traffic lanes. Using different textures and colors in paving will also remind drivers that they are in a traffic-restricted or traffic-calmed zone. Textured and color contrasting surfaces are often used in conjunction with one or more other traffic-calming devices.

Restriping

Restriping the roadway in order to narrow lanes is a less disruptive method of traffic calming. It requires far less construction or work on the actual roadway and also is more accommodating of emergency vehicles because they do not have to adjust to physical changes to a roadway. Roadway restriping allows for a narrower roadway with more shoulder room for bicycle or multi-use facilities. Additionally, roadway restriping can be implemented quickly and at low cost.

On-Street Parking

Creating a wider shoulder to allow for parallel on-street parking can greatly reduce vehicle speeds on a roadway. On-street parking lanes represent a physical barrier that clearly delineates the width of the street for drivers.

Speed Limit

The most effective way to reduce speeds is through traffic calming measures aimed at reducing operating speeds. Associate speed limit reductions are likely to follow.

Other Treatments

In addition to the recommended strategies described in this section, other traffic calming strategies exist that may be appropriate for Pittsford in the future. These include:

- Traffic Circles;
- Chicanes;
- Chokers; and
- Transverse Pavement Markings.

Bicycle Network

To select the most appropriate type of bicycle facility for a roadway, a number of factors must be considered. These include - but are not limited to: roadway speeds, volumes, right-of-way width, presence of parking, adjacent land uses, and expected bicycle user type.

Bicyclists of all skill levels need to be considered when developing new bicycle facilities for a community. Bicycle infrastructure should accommodate as many types of users as possible.



Types of Bicyclists

The Federal Highway Administration has defined a framework that classifies cyclists as Advanced, Basic or Child. A more detailed framework has been developed by planners in Portland, Oregon to provide alternative categories to address varying attitudes toward bicycling in the United States. This characterization includes the following four categories:

Strong and Fearless

Approximately 1% of the population will typically ride anywhere regardless of roadway conditions or weather. These bicyclists can ride faster than other user types, prefer direct routes and will typically choose roadway connections - even if shared with vehicles - over separate bicycle facilities.

Enthusied and Confident

Approximately 5-10% of the population are bicyclists who are fairly comfortable riding on all types of bikeways but usually choose low traffic streets or shared use paths when traveling.

Interested but Concerned

Approximately 60% of the population falls into this category, which is the majority of the cycling population. This user group represents bicyclists who typically only ride a bicycle on low traffic streets or multi-use trails under favorable weather conditions. These users perceive significant barriers to their increased use of cycling, specifically traffic and other safety issues.

No Way, No How

Approximately 30% of the population falls into this category of people who are not experienced bicyclists, and perceive severe safety issues with riding in traffic. Some people in this group may eventually become more regular cyclists with time and education. A significant portion of these people will not ride a bicycle under any circumstances.

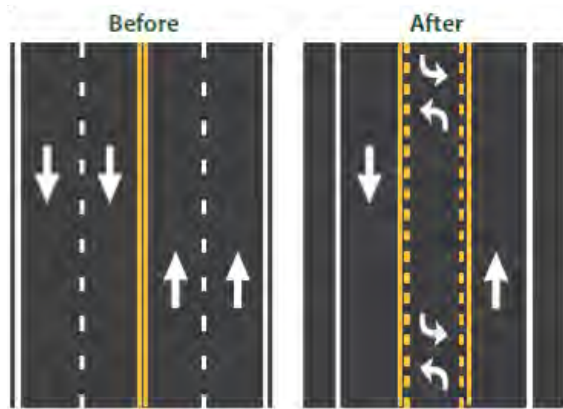
Bicycle Facility Types

Different types of bicyclists prefer different types of bicycle facilities that offer varying amounts of separation from motor vehicles. The range of bicycle facility types recommended for the Town and Village of Pittsford include:

Road Diets

A road diet is typically described as the removal or reduction of vehicle travel lanes to create space for other uses and modes, specifically bicycle and pedestrian facilities. As active transportation modes continue to increase in popularity, vehicle lanes

will be less needed. Road diets are a proven way to improve safety for all modes as long as the volume of auto traffic is low enough to justify the diet.



Road Diet Illustration.

Separated Bike Lanes

Bicycle facilities tend to feel safer for bicyclists if they are removed from vehicle traffic. Separated bike lanes are directly on the roadway and adjacent to vehicle lanes, but are still physically separated from vehicle traffic in some way. Different devices can be used to create separation from bicycle lanes and vehicle traffic, including raised curbs, bollards, landscaping, street trees, street furniture, parking lanes, or planters.

Roadway Restriping

This can be done in tandem with a road diet to encourage the development of bike lanes in existing road shoulders. Restriping can include removal or narrowing of a center turn lane, narrowing of existing vehicle lanes, or adjustments to a centerline.



Bicycle Boulevard Signage and Pavement Markings.

Bicycle Boulevards

On a bicycle boulevard, bicyclists and drivers share the roadway although priority is given to bicycle travel. Bicycle boulevards are most successful on low-speed and low-volume streets. Through taking advantage of a low-speed and low-volume network of residential streets, bicycle boulevards can promote and optimize bicycle travel over vehicle travel.

Bicycle Lanes

Bicycle lanes delineate an exclusive space for bicyclists through the use of pavement markings and signage. The bicycle lane is located adjacent to motor vehicle travel lanes and bicyclists ride in the same direction as motor vehicle traffic. Bicycle lanes are typically on the right side of the street (on a two-way street), between the adjacent travel lane and the curb, road edge or parking lane.

Buffered Bicycle Lanes

Buffered bicycle lanes are conventional bicycle lanes that are supplemented by a buffer space to separate the bicycle lane from the motor vehicle travel lane and/or parking lane. The buffer increases the safety and comfort for cyclists and motorists.

Shoulders/Signed Routes

A signed bicycle route is a roadway that includes wayfinding signs for bicyclists to assist in navigation. Shoulders of at least four feet in width should be maintained for the length of the roadway. Signage can be used to direct bicyclists along a certain route or to a certain destination and can also create a linkage between bicycle facilities and bikeways.

Marked Shared Roadways

Marked shared roadways use signage, shared lane markings (sharrows), and lanes to encourage shared travel between bicyclists and vehicle users. Bicyclists and motorists share outside lanes in shared roadways. This system is ideal for low-speed and low-volume roads.

Other Treatments

In addition to the recommended strategies described in this section, other bicycle facility types exist that may be appropriate for Pittsford in the future. These include:

- One-Way Separated Bicycle Lanes; and
- Two-Way Separated Bicycle Lanes.

Bicycle Intersection Treatments

There are a variety of roadway treatments that can be used at intersections to reduce conflict between bicyclists and vehicles by heightening the level of visibility, denoting clear right-of-way, and facilitating eye contact and awareness with other modes. Some of these strategies may be appropriate for Pittsford in the future. These include:

- Bike Boxes;
- Colored Bike Lanes in Conflict Areas;
- Intersection Crossing Markings; and
- Bicycle Signal Heads.



Auburn Trail, Pittsford.

Trail Facilities

Trail Heads

Trail heads are important in making a trail appealing and accessible. Trail heads act as starting points for trails and often provide services such as wayfinding signage, trail information, or parking. They do not need to be the beginning of the trail itself, but often provide a location where trail users can begin their journey, even if it is partway through the trail. They also assist in trail branding and can be coupled with parks and other open spaces in order to increase their popularity.

Trail Types

Trails exist in a variety of widths, lengths, and surface types, and the different trail characteristics attract a variety of users. The Town and Village of Pittsford already have a robust collection of trails, but could benefit from enhanced trail connections to create a stronger trail network. There are three main types of trails.

Multi-Use Trails

Multi-use trails (or shared use paths) may be used by pedestrians, bicyclists, skaters, wheelchair users, joggers and other non-motorized users. These facilities are frequently found in parks, or as neighborhood cut-throughs to shorten connections and offer an alternative to busy streets.

Multi-use trails should be a minimum of 8 feet wide for two-way bicycle travel in low traffic situations. 10 feet is recommended in most situations and will be adequate for moderate to heavy use. 12 feet is recommended for heavy use with a high concentration of multiple users. A separate track (5' minimum) can be provided for pedestrian use.

Side Paths

A side path is a multi-use trail parallel and adjacent to a roadway. A 5 foot buffer should be provided between the path and the roadway. These paths can be created by widening an existing sidewalk or creating a new asphalt path.

Soft Surface Trails

Soft surface trails, or natural surface trails, vary in trail width and clearance requirements. The important construction issues to consider are: drainage, erosion, compaction from use, presence of waterways, and environmental guidelines. Trails should follow the topography and not exceed 10%, except for short distances.

Depending on their intended use, trails can be 1.5 to 10 feet wide. Hiking trails can be the most narrow, then mountain biking, followed by cross country skiing. Horizontal and vertical clearances to adjacent branches and obstacles should be evaluated for safety.

Town of Pittsford Recommendations

Scope

If the recommendations in this section specific to the Town, and in the next section specific to the Village, appear ambitious and far-reaching, then this Plan succeeds in expressing correctly the intentions of the Village and Town governments and their residents who contributed to this Plan. No one holds illusions that these goals can be done overnight, or simultaneously, or without the willingness of our residents to pay for them. The purpose is to have a plan in place to chart a principled course of action for our two municipalities and a plan that State and County authorities must take into account in their roadway and sidewalk work in future.

Pedestrian Network

Making Pittsford a better place to walk requires more sidewalks to protect pedestrians from traffic. Of course, that alone is insufficient: pedestrians must feel safe on the sidewalk. If they don't feel safe, they won't use the sidewalk. It also requires taking advantage of trail connections. The Town's existing network of sidewalks is well positioned for improvement and extension by adding segments to connect sidewalks already in place. That represents one component of improving the pedestrian network. Another component consists of major sidewalk projects identified in this plan. A third component involves connecting sidewalks with existing trails to provide complete through-routes.

Recommended Sidewalk Connections

Figure 32 shows existing sidewalks on main routes, sidewalks already planned and intended for construction, and routes for possible future sidewalks identified by Town officials and residents in preparing this plan and in previous planning efforts. After the Town completes the sidewalks already planned, Town staff will review the conceptual sidewalk map to identify which sidewalks should be planned and built next. This Plan recommends that new sidewalk construction include crosswalks to connect sidewalks at all

intersections.

This Active Transportation Plan recommends the following sidewalk connections:

1. **Fairport Road between Lochnavar Parkway and Sherwood Drive.** This section of Fairport Road is a busy, four-lane thoroughfare. An existing sidewalk on the south side of the road ends at Lochnavar Parkway. Eastward from that point there is no sidewalk on the south side of Fairport Road until Sherwood Drive. An existing sidewalk on the other side of the road, between Lochnavar and Roosevelt Road is impractical as part of a contiguous eastward route from Lochnavar because of the difficulty and danger of crossing Fairport Road. This is a priority connection because of the proximity to East Rochester schools. This part of Pittsford falls within the East Rochester School District. *A multi-use trail is also recommended for a longer segment on the north side of Fairport Road to help bicyclists and pedestrians safely navigate the I-490 interchange. This is described in the Trail Recommendations.*
2. **French Road between East Avenue and Golden Flyer Drive.** This section of French Road is primarily residential, a two-lane road with narrow shoulders and no sidewalks. At the western end of this segment of French Road a sidewalk connects Golden Flyer Drive (an entrance to Nazareth College) with Monroe Avenue, along the north side of French. The proposed new sidewalk would connect Golden Flyer Drive to East Avenue just north of the Village line. This would create a contiguous sidewalk along French Road from Monroe Avenue to East Avenue.
3. **Jefferson Road west of Clover Street to the Pittsford/Henrietta town line.** This section of Jefferson Road is a busy four/five-lane road at the intersection with Clover Street, which then narrows to two-lanes with shoulders as it proceeds west. West Brook runs through this proposed route, and will need to be crossed.

TOWN SIDEWALK CONNECTIVITY RECOMMENDATIONS

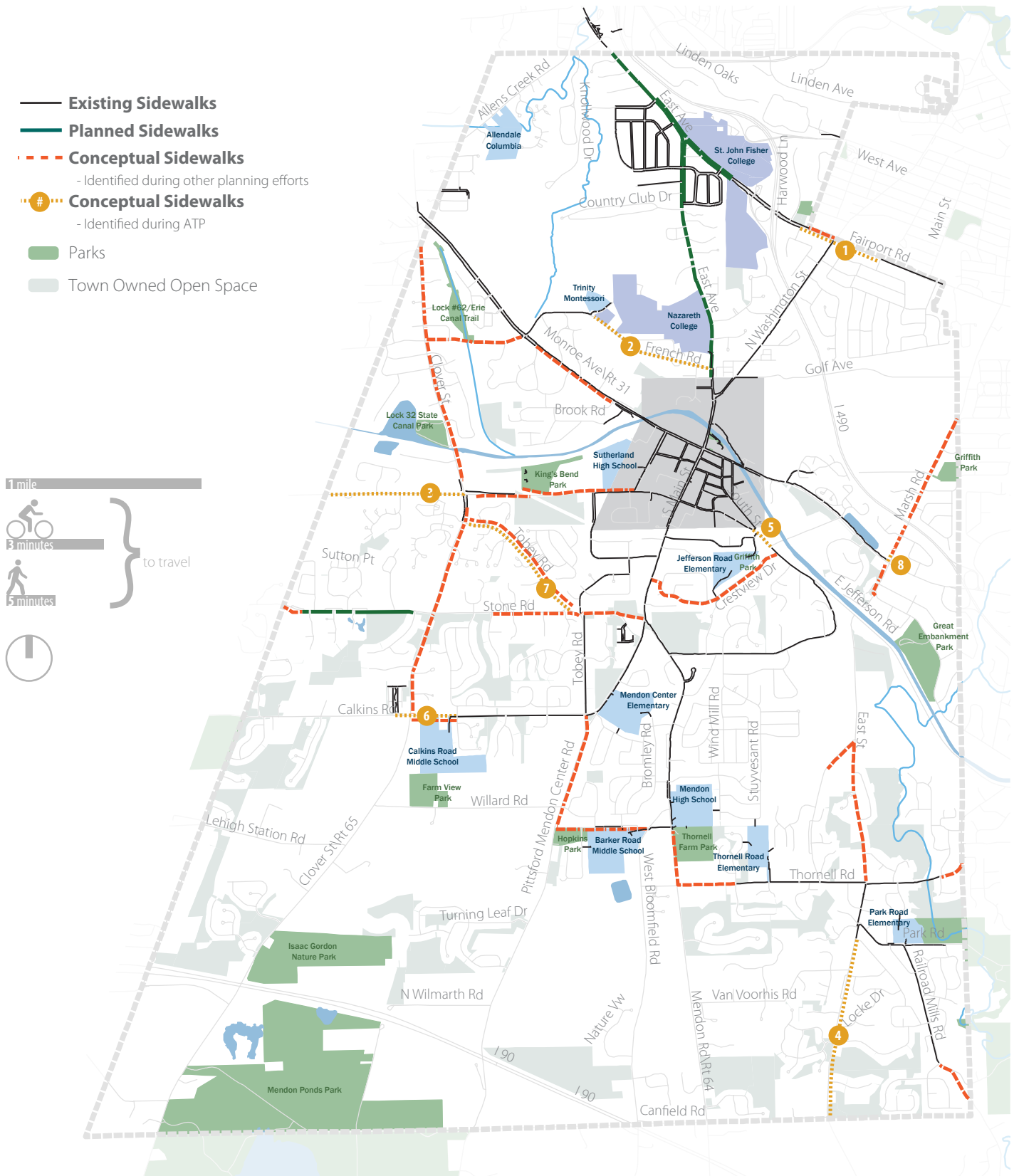


Figure 32: Town Sidewalk Connectivity Recommendations

This segment is a priority because of the new YMCA planned for the northwest corner of Clover and Jefferson and because of the density of houses and population along the proposed route.

4. East Street from Carriage Court to Arbor Creek Drive.

This section of East Street is two lanes with consistent roadway shoulders and no side-walks. The area is primarily residential. A sidewalk in this area would connect with a sidewalk that ends on the north side of Carriage Court, which is part of an existing sidewalk system that connects to Park Road Elementary School.

- 5. Jefferson Road from Mitchell Road to South Street.** Together with the short trail segment already planned for Jefferson Road between Greylock Ridge and Mitchell, this would provide a complete combined trail/sidewalk route along Jefferson Road from the Village to the eastern Town Line heading toward Bushnell's Basin. In addition, it would provide a complete pedestrian pathway running from the intersection of East Street and Park Road, along Mill Road to Knickerbocker, along Knickerbocker to Jefferson and from Jefferson into the Village at South Street. Once the planned trail section between the intersection of East Street and Park Road to the Town line at Railroad Mills Road is completed, this will provide a complete pedestrian pathway from the southeast corner of the Town, bordering with Mendon, into the Village and beyond. Another example of a short connection that completes an extensive pedestrian pathway: once the East Avenue sidewalk is complete, it will be possible to walk all the way across Pittsford from its northwest corner at the Brighton town line, to its southeast corner and into Mendon.

6. Calkins Road from Settlers Green to Coddington Grove.

This short stretch would connect the Settler's Green neighborhood to the end of the current sidewalk just west of Coddington Grove

at the Calkins Road Middle School. It would provide a contiguous sidewalk path from Settler's Green into the Village and beyond. *A multi-use trail is also recommended for a longer segment on the north side of East Jefferson Road, and is described in the Trail Recommendations.*

7. Complete previously proposed Tobey Road sidewalk from Cricket Hill to the intersection of Clover Street and Jefferson Road.

- 8. Construct short section of sidewalk on the northwest corner of Marsh Road and Palmyra Road, connecting existing sidewalk near the corner to the curb cut opposite the Post Office.**

Trail Facilities

In some locations, a multi-use trail is a more appropriate solution than a sidewalk or on-street bicycle accommodations. Multi-use trails allow for an efficient pathway for different uses.

Recommended Trail Improvements

Figure 33 illustrates conceptual trail possibilities that the Town of Pittsford had identified and mapped with the help of residents during previous planning efforts. Residents and officials also identified additional conceptual trails as part of the work on this Active Transportation Plan. Once this Plan is completed and adopted, Town staff will review the proposed new trails and connections to determine which should be built next. Crosswalks are recommended where trails cross roads.

This plan recommends new trails as follows:

- 1. A multi-use trail along the north side of Monroe Avenue between the Village of Pittsford and French Road.** The north side of this corridor already has some sidewalk segments. The entire length should be

TRAIL RECOMMENDATIONS

- Existing Trails
- Planned Trails
- - - Conceptual Trails
- # Conceptual Multi-use Trails
- Parks
- Town Owned Open Space

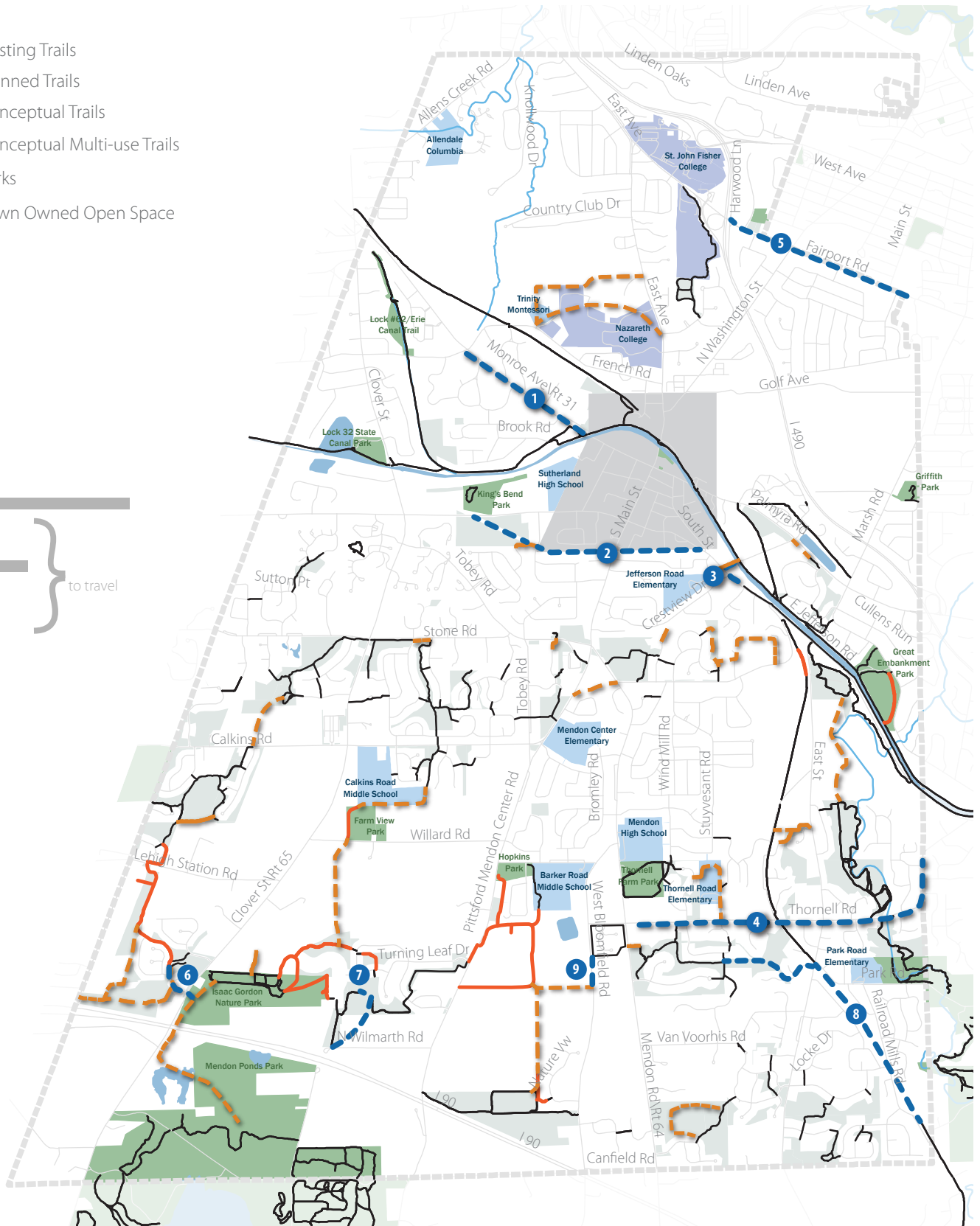
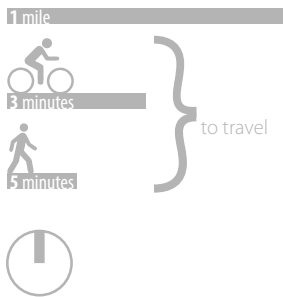


Figure 33: Trail Recommendations

upgraded to a multi-use trail 8 feet in width, to accommodate bicyclists and pedestrians. This would connect the Erie Canal and the Village with the shops in and around Pittsford Colony and Pittsford Plaza. Convert Monroe Avenue between the Village and French Road from the present 4-lane configuration to a 3-lane configuration, which would include a center turning lane as the third lane. On the western side of the intersection of Monroe Avenue at French Road, of the two eastbound lanes, convert the right hand lane into a turning lane to turn right onto French.

2. **A multi-use trail along the utility corridor between East Jefferson Road and West Jefferson Road.** A trail in this location would connect the southern end of the Village with King's Bend Park. The trail would be located in an active utility corridor. The corridor has three road crossings at South Main Street, Sunset Boulevard, and West Jefferson Road.
3. **A sidewalk or multi-use trail along the north side of East Jefferson Road from Greylock Ridge to the existing YMCA.** This would complete a trail pathway from the eastern Town line to Mitchell Road and beyond, into the Village. It would complete a scenic connector for destinations on the south side of the canal, and would not require any road crossings.
4. **A sidewalk or a multi-use trail on the south side of Thornell Road between Route 64 and the eastern Town line.** A trail in this location would connect residential areas with schools and open space. Thornell Road has relatively narrow travel lanes with no road

shoulders. There are already some sidewalks along portions of Thornell Road that are used by both bicyclists and pedestrians. Upgrading to a wider multi-use trail would allow more users to safely travel along this corridor. Two creek crossings would be required at Mill Creek and Irondequoit Creek. A trail on Thornell Road would connect to the route of the Auburn Trail. This would require coordination with Perinton if the goal is to provide a safe pathway all the way to Bushnell's Basin.

5. **A multi-use trail on the north side of Fairport Road (31F) and East Avenue (96) from the I-490 interchange to Kilbourne Road.** This is densely populated by cyclists and pedestrians because of St. John Fisher College.
6. **Complete trails in the Woodgreen Drive neighborhood.** This would connect Lehigh Station Road near the Henrietta Town line with Isaac Gordon Nature Park.
7. **Connect the two trails immediately south of Dunnewood Court.** This would connect Copper Woods to North Wilmarth Road and, eventually, to Isaac Gordon Nature Park.
8. **Complete the trail proposed for south of Thornell Road and north of Van Voorhis Road.** This would connect Mendon Road with Powder Mills Park by a trail or path.
9. **Connect proposed trails south of the Tor Hill neighborhood.** Once other proposed trails are completed, this would connect Mendon Center Road with Powder Mills Park.

Future Town Planning Considerations

In order for the proposed trails and sidewalks to have the intended effect and to function optimally, certain general protocols are necessary. So are certain recommendations that pertain specifically to roadways, but have a direct effect on accomplishing the intended goals of this plan. Consequently, this Active Transportation Plan recommends the following:

- 1. Consider replacing and widening existing sidewalks.** The Town should pursue sidewalks that have a width of at least five feet. This is especially useful where a broader multi-use trail is desirable, but impractical due to other reasons.
- 2. Evaluate the intersection of Clover Street and Jefferson Road with consideration given to a roundabout.** This intersection is large and intimidating so pedestrian crossings are uncomfortably long.
- 3. Evaluate the intersection of Jefferson Road and Knickerbocker Road with consideration given to a traffic signal.** Turning at this intersections is difficult, especially at times when traffic volumes are high.
- 4. Evaluate the intersection of Jefferson Road and Sunset Boulevard with consideration given to a traffic signal.** Turning at this intersections is difficult, especially at times when traffic volumes are high.
- 5. Consider measures to reduce the operating speed along Sunset Boulevard.** Residents state that speeding is an issue and pedestrian safety is a concern at the intersections.
- 6. Consider reducing East Avenue from four lanes to two.** This should take place from the I-490 interchange heading west toward the Town of Brighton. A road diet could accommodate bike lanes or a multi-use trail.
- 7. Determine the feasibility of a trail from King's Bend Park to the Village.**
- 8. Determine the feasibility of a trail from the Pittsford Crew Facility along the canal to King's Bend Park.** Together with number 7, this would provide a connection from Clover Street to the Village of Pittsford enabling residents to better access the Park and the future YMCA.
- 9. Determine the feasibility of a trail in the Town-owned woods behind Hearthstone Road.** This trail would connect an existing canal trail spur with the Hearthstone Road neighborhood via the wooded area behind the neighborhood.

There are certain desirable improvements that may be easier to imagine than they are to implement. This is due to a combination of factors including existing topography and property ownership and acquisition. However, each of these three potential trails are worthy of scrutiny to see whether or not implementation is a possibility:

Sidewalk Recommendations *As shown on Figures 32 above.*

- 1** Fairport Road between Lochnavar Parkway and Sherwood Drive.



- 2** French Road between East Avenue and Golden Flyer Drive.



- 3** Jefferson Road west of Clover Street to the Pittsford/Henrietta Town line.



- 4** East Street from Carriage Court to Arbor Creek Drive



- 5** Jefferson Road from Mitchell Road to South Street.



- 6** Calkins Road from Settlers Green to Coddington Grove



- 7** Complete previously proposed Tobey Road sidewalk from Cricket Hill to the intersection of Clover Street and Jefferson Road.

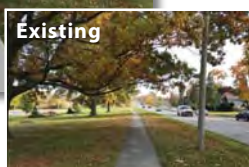
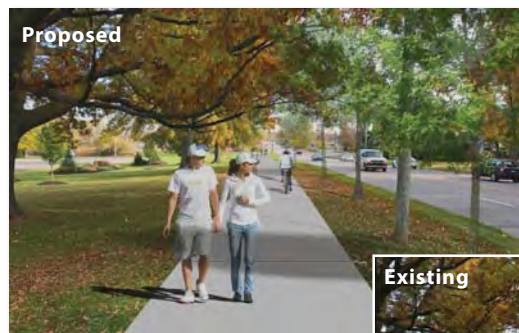


- 8** Construct short section of sidewalk on the northwest corner of Marsh Road and Palmyra Road, connecting existing sidewalk near the corner to the curb cut opposite the Post Office.



Trail Recommendations *As shown on Figures 33 above.*

- 1** A multi-use trail along the north side of Monroe Avenue between the Village of Pittsford and French Road.



- 2** A multi-use trail along the utility corridor between East Jefferson Road and West Jefferson Road.



- 3** A sidewalk or a multi-use trail along the north side of East Jefferson Road from Greylock Ridge to the existing YMCA.



- 4** A sidewalk or a multi-use trail on the south side of Thornell Road between Route 64 and the eastern Town line.



- 5** A multi-use trail on the north side of Fairport Road (31F) and East Avenue (96) from the I-490 interchange to Kilbourn Road.



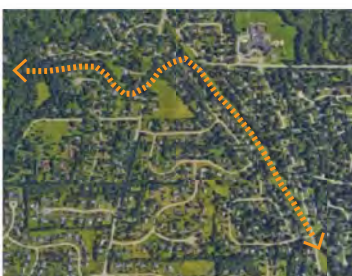
- 6** Complete trails in the Woodgreen Drive neighborhood.



- 7** Connect the two trails immediately south of Dunne-wood Court.



- 8** Complete the trail proposed for south of Thornell Road and north of Van Voorhis Road.



- 9** Connect proposed trails south of the Tor Hill neighborhood.



Figure 34: Town Sidewalk and Trail Recommendations

Village of Pittsford Recommendations

Pedestrian Network

Pedestrians need a safe and functional pedestrian network in order to reach their intended destinations without being subjected to vehicular traffic along linear stretches of their route. The pedestrian network in the Village can be enhanced through a variety of strategies designed to increase connectivity and safety. These include: pedestrian refuge islands, mid-block crossing improvements, lighting, signage, sidewalks, and curbs.

Recommended Pedestrian Improvements *As shown on Figures 35.*

Pedestrian Crossings

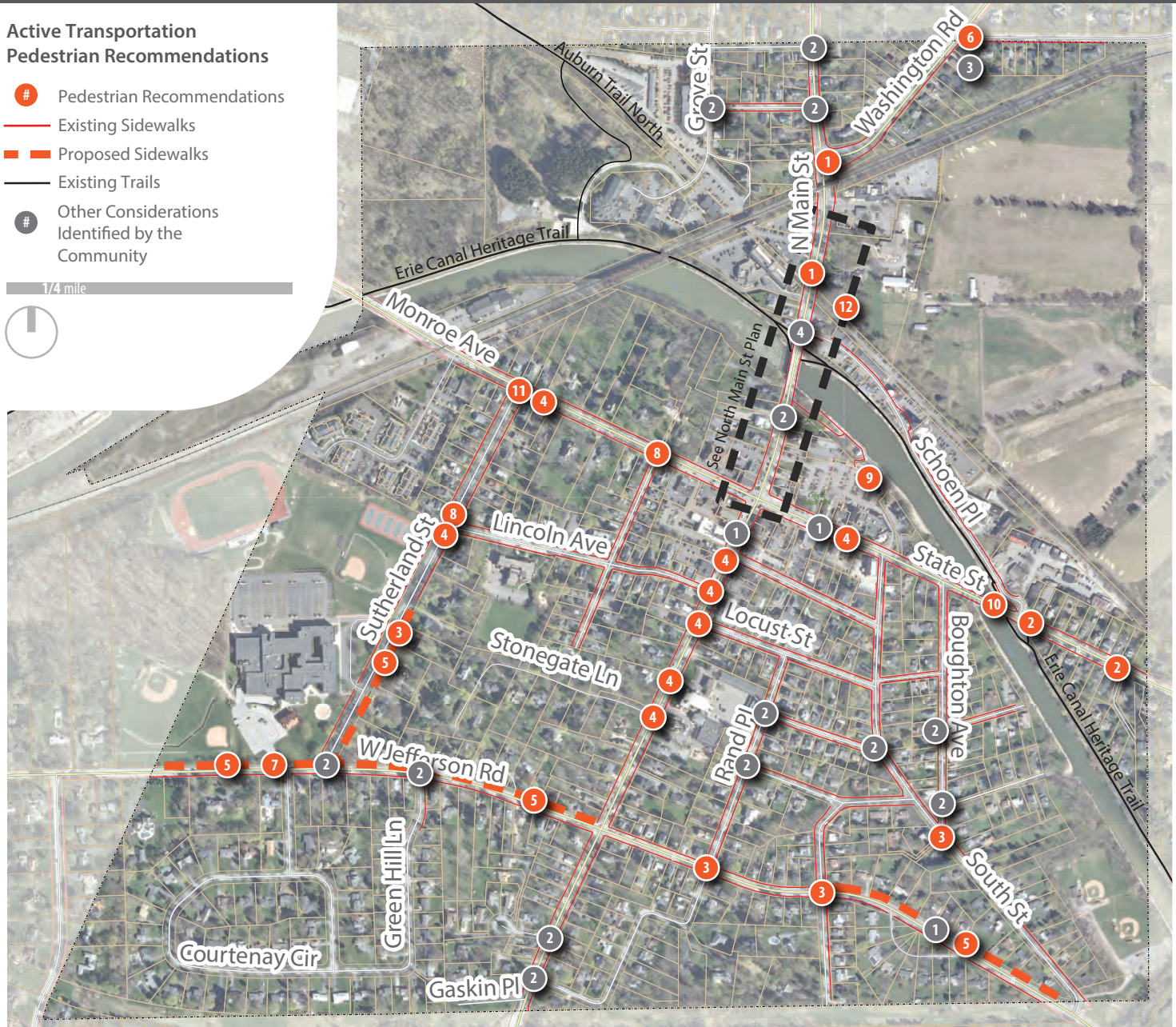
1. Develop a pedestrian refuge on traffic island at Washington Road intersection with North Main Street. This intersection already has a median at the terminus of Washington Road. Minor changes to clearly delineate and buffer pedestrians in the median would help improve pedestrian safety.
2. Consider mid-block crossings and 'yield to pedestrians' signs at the following intersections:
 - A. State Street at Schoen Place. This busy location near Schoen Place shops and restaurants and the Erie Canal Heritage Trail attracts many pedestrians and bicyclists. A new crosswalk and signage could improve traffic safety by organizing traffic movements and alerting motorists to the presence of pedestrians and bicyclists.
 - B. State Street at Durham Way. This intersection is at the eastern entrance to the Village, and the residents living in this area experience traffic moving at high speeds. A crosswalk and signage could help in pedestrian safety and traffic calming.
3. Consider installing and/or maintain 'yield to pedestrians' signs to improve pedestrian visibility at the existing crosswalks at the following intersections:
 - A. Boughton Avenue at South Street. Boughton meets South at a 45 degree angle, which does not encourage north-bound traffic to slow down when making the turn. An existing crosswalk across Boughton would be enhanced by high visibility signage.
 - B. Rand Place at East Jefferson Road. This busy intersection has crosswalks on three out of four crossings, as well as some existing signage. However, increased signage would improve the visibility and safety of pedestrians in this location.
 - C. Eastview Terrace at East Jefferson Road. This busy intersection has crosswalks on three out of four crossings, as well as some existing signage. However, increased signage would improve the visibility and safety of pedestrians in this location.
4. Consider installing and/or maintain 'yield to pedestrians' signs at the crosswalk and install ADA-compliant curb ramps at the following intersections:
 - A. Monroe Avenue at Sutherland Street. This intersection, located near Pittsford Sutherland High School, experiences heavy traffic on Monroe Avenue that does not always stop for pedestrians. There are crosswalks on two out of three legs of the intersection, as well as some existing signage. However, curb ramps and additional signage will increase the safety and visibility of pedestrians.
 - B. Lincoln Avenue at Sutherland Street. This intersection is immediately adjacent to Pittsford Sutherland High School, and has a lot of student pedestrian traffic. Curb ramps and high visibility signage would improve traffic safety for all users.
 - C. State Street mid-block crossing by Canandaigua National Bank. The accessibility and safety of this mid-block crossing on a busy section of State Street would be greatly improved through the addition of curb ramps and additional high-visibility signage.

PEDESTRIAN RECOMMENDATIONS

Active Transportation Pedestrian Recommendations

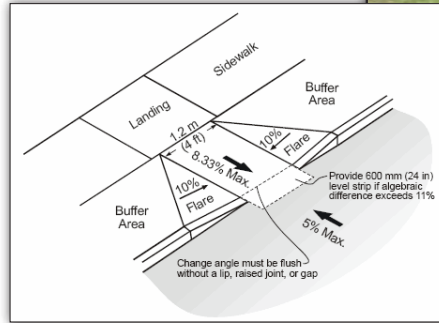
- # Pedestrian Recommendations
- Existing Sidewalks
- - - Proposed Sidewalks
- Existing Trails
- # Other Considerations Identified by the Community

1/4 mile



- | | |
|---|--|
| <ul style="list-style-type: none"> 1 Develop pedestrian refuge on traffic island. (3) 2 Consider mid-block crossing and 'yield to pedestrians' signs. (2) 3 Consider installing and/or maintain 'yield to pedestrians' signs at crosswalk. (3) 4 Consider installing and/or maintain 'yield to pedestrians' signs and ADA-compliant curb ramps. (7) 5 Install sidewalks. (3) 6 Evaluate and consider reducing curb radii. 7 Consider installing curbs. 8 Install curb extensions. | <ul style="list-style-type: none"> 9 Remove parking spaces that front on the Erie Canal and redevelop as usable green space. 10 Improve bridge lighting. 11 Discuss with NYSDOT the potential installation of a traffic signal. 12 Implement Conceptual North Main Street Streetscape Plan. 1 Consider a pedestrian refuge on a traffic island 2 Consider a crosswalk or a mid-block crossing and/or install 'yield to pedestrians' signs. 3 Consider installation of a 'yield to pedestrians' sign at the existing crosswalk. 4 Consider a flashing beacon for an existing pedestrian crossing. |
|---|--|

Figure 35: Village Pedestrian Recommendations



Pedestrian signs and ADA compliant curb ramps will help to improve safety of the crosswalks.

The accessibility and safety of the following mid-block crossings on South Main Street would be greatly improved through the addition of curb ramps and additional high-visibility signage:

- D. South Main Street at Church Street.
- E. South Main Street at Lincoln Avenue.
- F. South Main Street at Locust Street.
- G. South Main Street mid-block crossing by Saint Louis Church.
- H. South Main Street at Stonegate Lane.

Further study of key crossings is recommended to determine if additional improvements (beyond what is recommended here) are warranted. Possible strategies include: curb extensions, pedestrian refuge islands, and traffic calming strategies.

Sidewalks

5. Install sidewalks in the following locations to improve connections and pedestrian safety:

- A. North side of East Jefferson Road between Eastview Terrace and South Street. This section of East Jefferson Road only has a sidewalk on the south side of the roadway. Pedestrians would benefit from the safety offered by having sidewalks on both sides of the roadway in an area where there are no mid-block crossings.

- B. North side of West Jefferson Road between South Main Street and Sutherland Street. This section of West Jefferson Road only has a sidewalk on the south side of the roadway. Pedestrians would benefit from the safety offered by having sidewalks on both sides of the roadway in an area where there are no mid-block crossings. This will require some logistical considerations in working around utility poles and narrow sections of right of way. However, the proximity to Pittsford Sutherland High School makes this a priority.

- C. East side of Sutherland Street from West Jefferson Road to just south of Lincoln Avenue. A pathway is worn into the ground in this area, indicating that there is high foot traffic. With the proximity to Pittsford Sutherland High School and the Spiegel Community Center, a sidewalk in this location would provide safe pedestrian access for many children and youth.

Curb Improvements

6. Evaluate and consider reducing the curb radii at the intersection of Golf Avenue and Washington Road. Reducing the curb radii could tighten the intersection in a manner that would reduce vehicular speeds, shorten

the crossing distance for pedestrians, and potentially increase safety for all users.

7. Consider installing curbs to delineate pavement and help keep cars off adjacent lawns on West Jefferson Road in front of Sutherland High School. Curbs could complement sidewalks and keep cars away from pedestrians.
8. Install curb extensions at Sutherland Street and Lincoln Avenue. Curb extensions would reduce the crossing distance for pedestrians, and allow better visibility for pedestrians trying to cross the street in the vicinity of parked vehicles.

Improving Pedestrian Space

9. Remove parking spaces that front on the Erie Canal and redevelop as usable green space. 18 parking spaces along the back of the public parking lot (behind Pontillo's Pizzeria, Canandaigua National Bank and the Pittsford Library) abut the Port of Pittsford park, and are in very close proximity to the Erie Canal. If the Village redeveloped this canalfront property, the park could be expanded.
10. Improve the lighting on the bridge over the Erie Canal on State Street. The bridge currently has few lighting sources, causing it to feel quite dark to pedestrians using the bridge at night. Lighting is functional, but can also be used in aesthetic ways to enhance community character. Increased lighting will increase safety for all users, but enhanced lighting could also be a attractive feature.

Signalization

11. Discuss with NYSDOT the intersection of Sutherland Street and Monroe Avenue and the potential installation of a traffic signal. Marked crosswalks on all three parts of the intersection, pedestrian signal heads, curb ramps, and stop bars for vehicles should also be considered.

The prohibition of all right-on-red turning movements is another consideration that has been identified by the committee. This should be kept in mind for the future, and further evaluation should be done to determine if this is a rational and feasible pursuit.

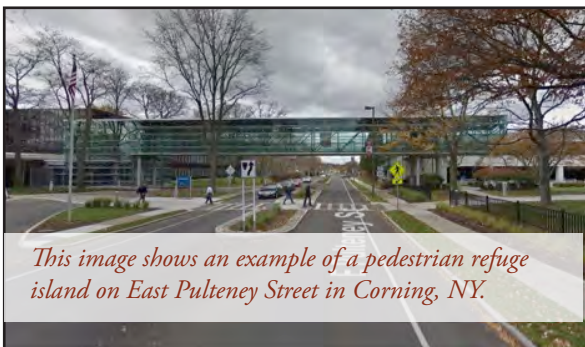
Conceptual North Main Street Streetscape Plan (see Figure 36).

12. Implement the pedestrian, bicycle, and traffic calming strategies selected to transform North Main Street between State Street and the railroad overpass.

Throughout the year, especially during the warmer months, pedestrians can be seen crossing North Main Street to go to destinations such as Pittsford Dairy, Schoen Place, and the Spa at the Del Monte. In addition, the roadway is heavily trafficked. Residents have expressed their concerns about the challenge of crossing the roadway, particularly at Schoen Place, and the lack of available crossings within this stretch. Additionally, bicyclists are told to cross at Schoen Place when riding along the Erie Canalway Trail, thus contributing to increased intersections between pedestrians and vehicles.

Figure #36 is the Conceptual North Main Street Transformational Streetscape Plan, which illustrates:

- A. Shortened southbound left turn lane.
- B. On-street parking is recommended adjacent to the Port of Pittsford Park.
- C. A new midblock crosswalk is also featured herein conjunction with the shortened southbound left-turn lane.
- D. All along this roadway segment, bike lanes are proposed with green enhancements at locations where vehicles are likely to drive over the lane turning onto or off of side roads.



This image shows an example of a pedestrian refuge island on East Pulteney Street in Corning, NY.

- E. RRFBs are proposed at the existing and proposed crosswalk locations.
- F. An additional crosswalk location is proposed in front of the Spa at the Del Monte with a pedestrian refuge island.
- G. Retain existing parking.

For additional information regarding improvements see the Village's Pedestrian Safety Plan.



Floating parking with bike lane. Photo by NACTO.

CONCEPTUAL NORTH MAIN STREET STREETScape PLAN

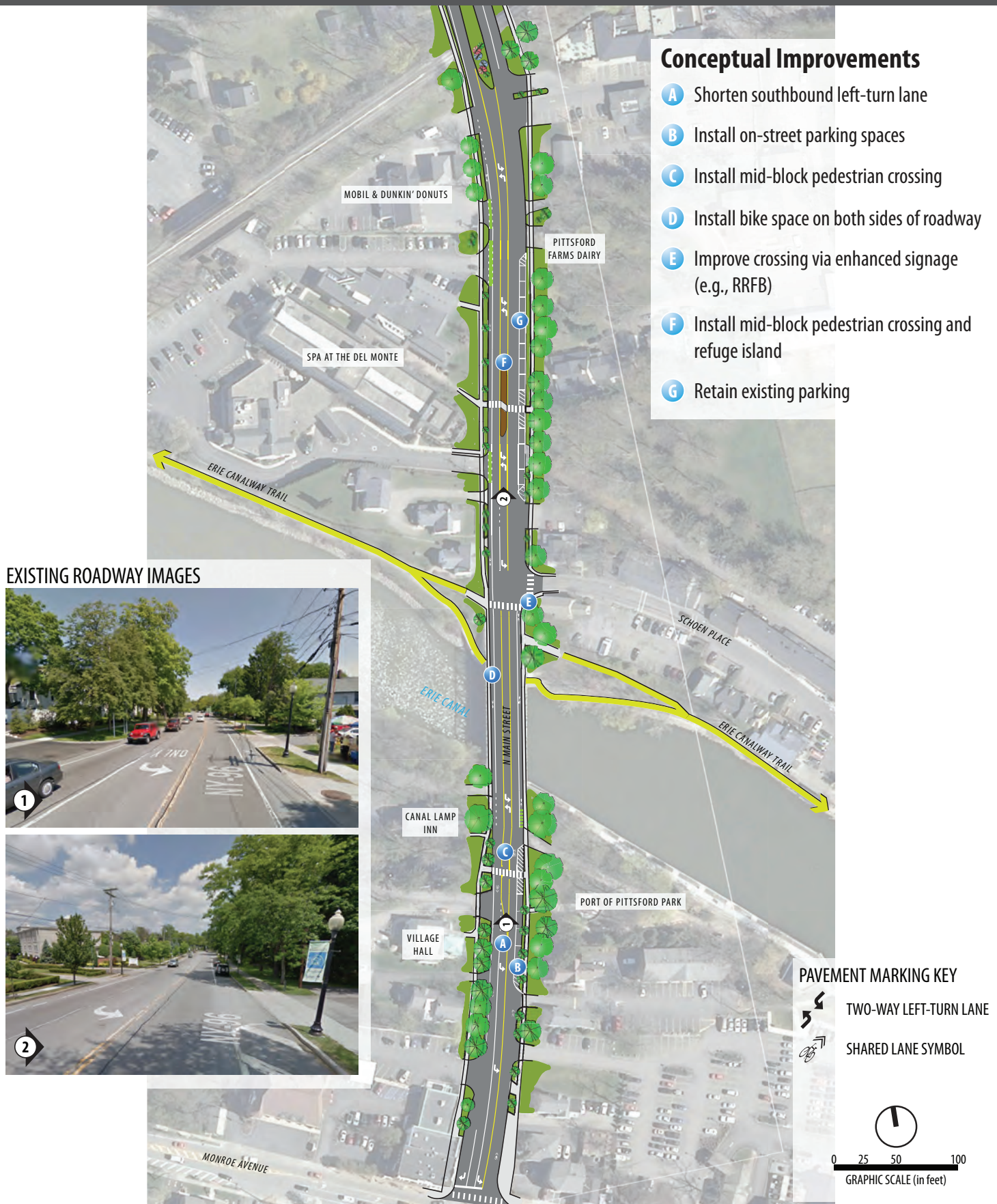


Figure 36: Conceptual North Main Street Transformational Streetscape Plan

Traffic Calming

As shown on Figures 37.

Traffic Calming Strategies

1. Consider allowing on-street parking every day on the northern portion of South Street. On-street parking is currently permitted on Sundays to accommodate additional people coming into the Village to attend church services. Since this has not been problematic, the Village should consider expanding this to all days of the week, not just Sundays. On-street parking will help slow traffic in this area.
2. Consider and/or maintain speed bumps on Boughton Avenue. The speed bumps that have been recently installed have been effective. The Village should continue the use of speed bumps on Boughton Avenue, and maintain them as needed to ensure maximum effectiveness and safety.
3. Consider re-striping the southern portion of South Street with 9.5' travel lanes and 1.5' painted edges. The change in roadway width will help to calm traffic and provide a buffer to pedestrians and bicyclists. See image to right.
4. Consider installing back-in angle parking on Lincoln Avenue in front of the Community Center. Back-in angle parking allows motorists to have a better view of bicyclists, pedestrians and other motorists as they exit a parking space and enter traffic. This type of parking also alleviates the difficulty that some drivers experience when backing into moving traffic. Back-in angle parking also allows for increased parking capacity over parallel parking, which is the current parking arrangement in this location.



5. Work with stakeholders and agencies to lower Village-wide speed limit to 25 mph. Reduced traffic speeds would make the roadway safer for all users, as motorists are able to stop more quickly.
6. The Village will strive to have travel lane width on all Village roadways reduced to 10'. Excess pavement will be reallocated to a painted "buffer lane" to accommodate parked car doors and shoulder space. This was done in the Village of Hamburg (see image below).



Bicycle Network

As shown on Figures 38.

Bicycle Network Recommendations

Develop bicycle boulevards and include signage and roadway markings. Other traffic calming strategies may be required or desired to encourage lower speeds and establish each roadway as a priority route for bicyclists. Traffic circles, diverters, speed humps and other physical changes can be applied on a case-by-case basis. Bike boulevards provide alternative routes that are less heavily trafficked, and are intended to appeal to casual, risk averse, or younger bicyclists. In addition, the Village should look to make roadways adjacent to bike boulevards more bicycle friendly by calming traffic using the strategies explained above. These roadways include Monroe Avenue, Main Street, and Jefferson Avenue.

Bike Boulevard #1

The first bicycle boulevard begins at the intersection of Monroe Avenue and Sutherland Street,

continues south along Sutherland, then splits at Lincoln Avenue. One portion heads east along Lincoln Avenue to South Main Street. The other portion continues south on Sutherland to Jefferson Road. These routes bypass the busy four corners intersection, and provide access to Pittsford Sutherland High School and the Spiegel Community Center.

Bike Boulevard #2

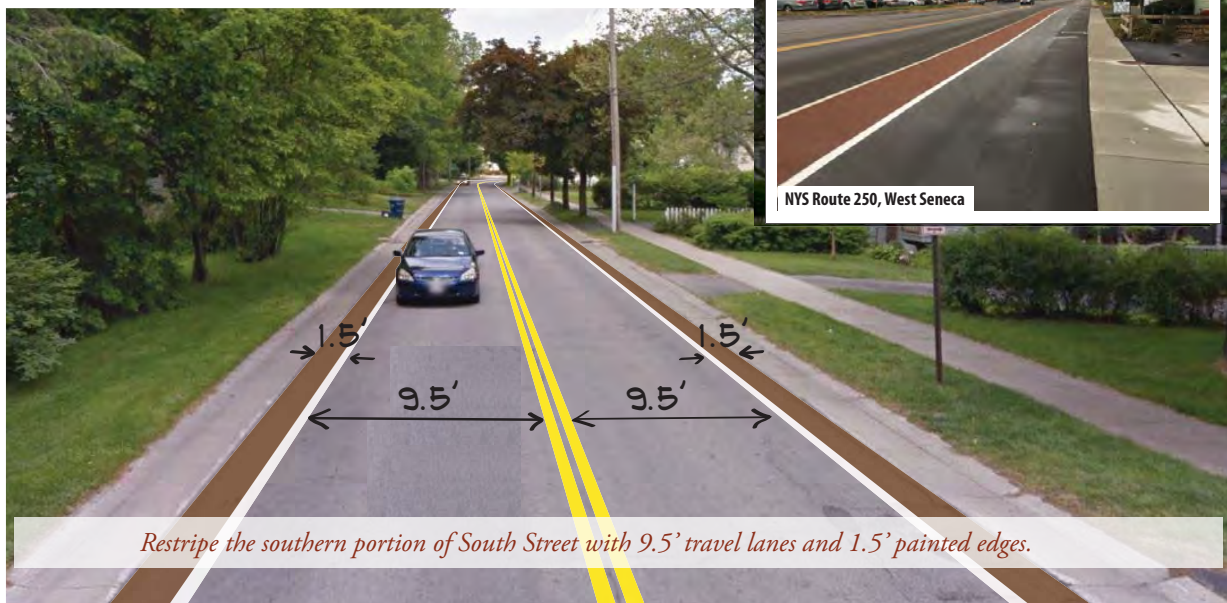
The second bicycle boulevard begins at the intersection of Schoen Place and North Main Street and heads southeast along Schoen Place to the intersection with State Street. This route is already heavily used by bicyclists because of the proximity to the Erie Canal Heritage Trail. Bicycle boulevard signage and improvements would formalize a bicycle route in this area and assist with wayfinding.

Bike Boulevard #3

The third bicycle boulevard begins at the intersection of South Street with State Street, and heads south along South Street to East Jefferson Road, near the Town/Village municipal boundary. Interventions to create a bicycle boulevard should



Bike boulevards are intended to appeal to casual, risk-averse, and/or younger bicyclists.



Restripe the southern portion of South Street with 9.5' travel lanes and 1.5' painted edges.

be coordinated with other recommended strategies for South Street, which include permitting on-street parking in the northern section of the corridor, and restriping with painted edges in the southern portion of the corridor.

Bike Boulevard #4

The fourth bicycle boulevard begins at the intersection of Rand Place and South Main Street, and follows Rand Place toward Locust Street, where the route turns east and intersects with the bike boulevard proposed on South Street. This route provides an excellent north-south route that allows bicyclists to stay off of more heavily trafficked South Main Street.

Trail Facilities

As shown on Figures 38.

Trail Recommendations

Develop a trail connection from the Auburn Trail to the new park/preserve and the Erie Canal Heritage Trail. This trail connection would build upon an informal trail connection that is already in use. Further study is needed, but a preliminary route the Village might consider would include a pathway through the wooded area south of the Auburn Trail which would link up with a path adjacent to the existing access road, Village Lane. Village Lane heads south right to the Erie Canal trail.

TRAFFIC CALMING RECOMMENDATIONS

Active Transportation

Traffic Calming Recommendations

- # Traffic Calming Recommendations
- Existing Sidewalks
- Existing Trails
- # Other Considerations Identified by the Community

1/4 mile



- 1 Consider allowing on-street parking every day.
- 2 Consider and/or maintain speed bumps.
- 3 Consider re-striping to 9.5' travel lanes with 1.5' painted edges.
- 4 Consider installing back-in angle parking.
- 5 Work to lower operating speeds Village-wide to 25 mph.

- 1 Consider the addition of on-street parking.
- 2 Consider installation of speed bumps or speed humps.
- 3 Consider widening the striped shoulder adjacent to sidewalk.
- 4 Consider narrowing the road's shoulder and adding a tree lawn.
- 5 Evaluate and consider removal of the right-turn lane on E Jefferson Road turning onto South Street. The Village will look closely at this intersection during a South Street traffic-calming study that will begin in 2019.

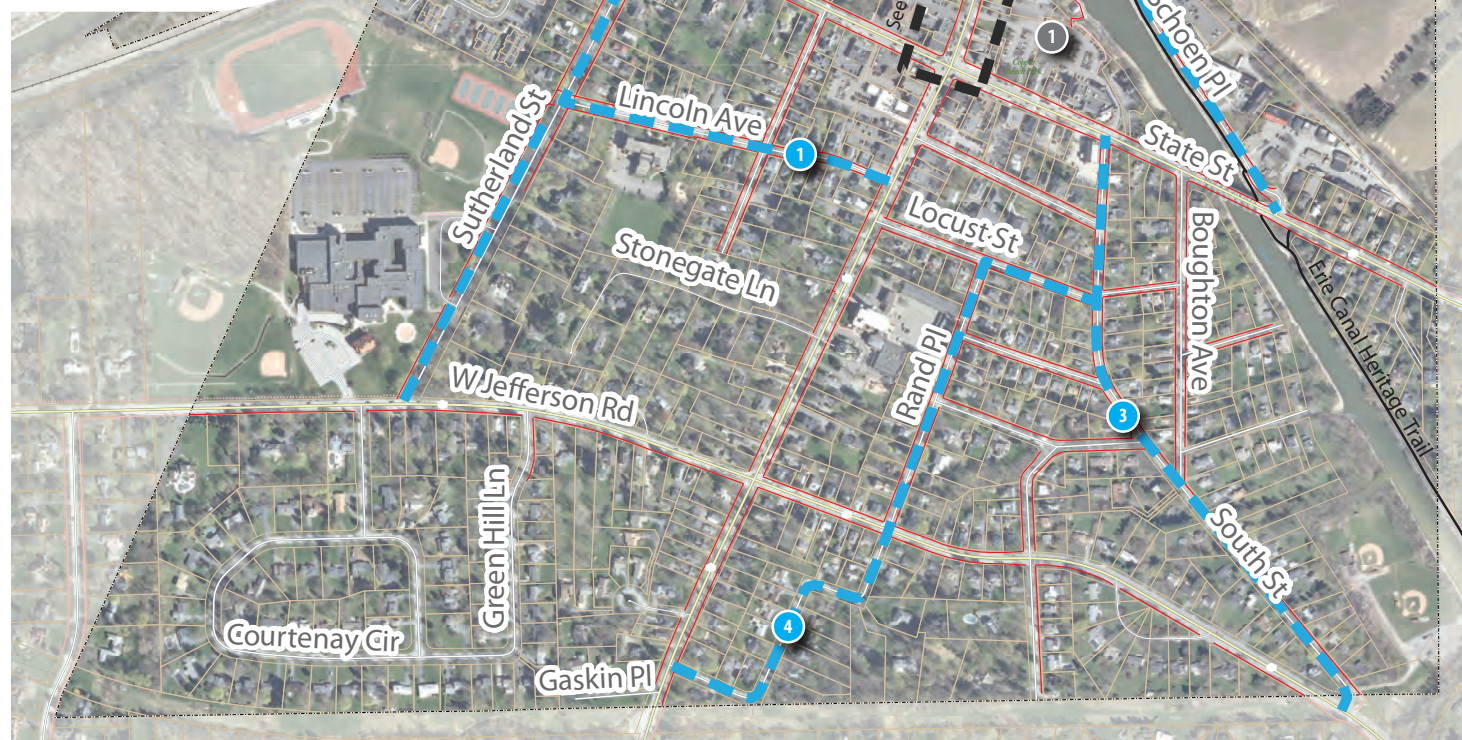
Figure 37: Village Traffic Calming Recommendations

BICYCLE AND TRAIL RECOMMENDATIONS

Active Transportation Bicycle and Trail Recommendations

- # Bicycle Recommendations
- # Trail Recommendations
- Existing Sidewalks
- Proposed Bicycle Boulevards
- Existing Trails
- # Other Considerations Identified by the Community

1/4 mile



- 1 Develop Bicycle Boulevard #1.
- 2 Develop Bicycle Boulevard #2.
- 3 Develop Bicycle Boulevard #3.
- 4 Develop Bicycle Boulevard #4.

- 1 Develop connection from Auburn Trail to new park/preserve and Canal Trail.
- 1 Consider locating a bike share station.

Figure 38: Village Bicycle and Trail Recommendations

Town & Village Recommendations

Bicycle Network

The residents of the Town of Pittsford have expressed their desire for a complete and connected bicycle network for all types of bicyclists. Illustrated in Figure 38 is the recommended bicycle facility network. The preceding Traffic Calming Strategies described the variety of specific treatments that could be implemented.

Bicycle Facility Recommendations

The recommendations shown on the map are broken into the following categories:

- No Recommended Improvement
- Roadway Restripe Candidate
- Road Diet Candidate
- Add or Widen Paved Shoulders
- Streetscape/Pedestrian Enhancement
- Other Treatments

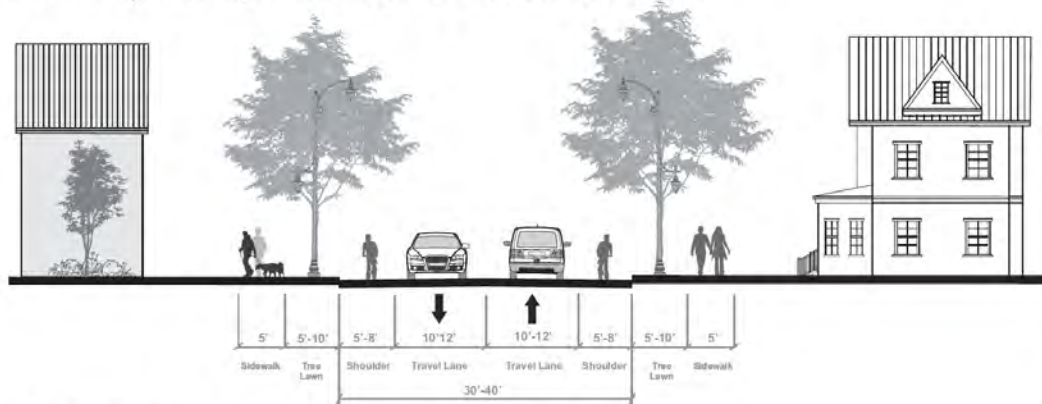
No Recommended Improvement

These segments shown currently have some type of bicycle facility. An existing facility consists of either a bike lane or a shoulder of at least four (4) feet in width. Although Monroe Avenue between Brighton and French Road has a designated bike lane, it is recommended that roadway restriping be performed to increase the width of the bike lane – currently five (5) feet – to create a larger buffer space between the highly-trafficked vehicle lanes and the bike lane.

Roadway Restripe Candidate

Many roadways throughout Pittsford have travel lanes of at least 11 feet in width. Other roadways, such as Marsh Road have travel lanes measuring 10 feet in width. Typically, 11-foot wide travel lanes for outside lanes on four-lane roadways are desirable. Roadway restriping can be performed with minimal cost, especially when coordinated with a routine maintenance project, and can have a favorable impact for bicycling conditions.

Roadway Restripe Candidate - Widen Shoulders



Add or Widen Paved Shoulders - Rural

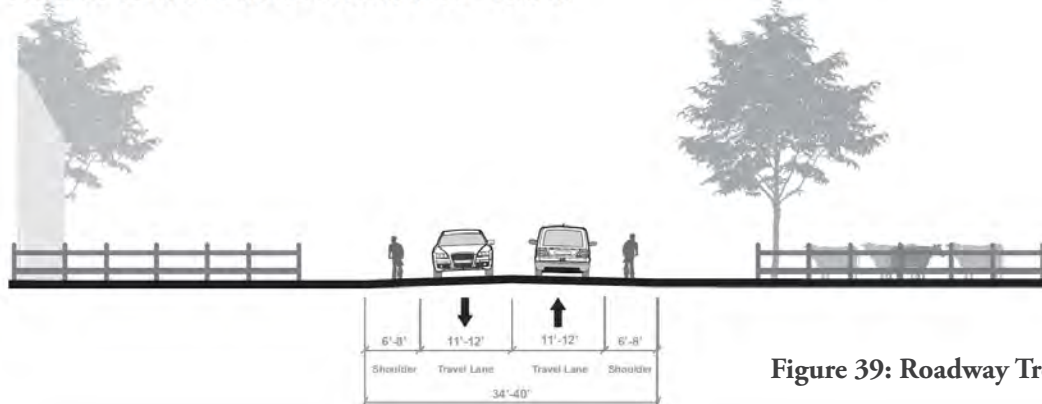


Figure 39: Roadway Treatments

BICYCLE FACILITY RECOMMENDATIONS

- No Recommended Improvement
- Add or Widen Paved Shoulders
- Road Diet Candidate
- Roadway Restripe Candidate
- Streetscape/Pedestrian Enhancement

Other Treatments

- Bike Boulevard
- Shared Lane Markings
- Trails (public and private)
- Planned Trails
- Conceptual Trails
- Bike Boulevards (Proposed as part of Bike Boulevard Plan)
- Parks

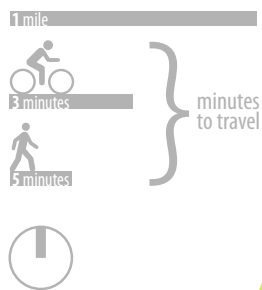


Figure 40: Bicycle Facility Recommendations

For this strategy, a minimum 10-foot wide travel lane was used. A roadway was classified as a roadway restripe candidate if the resulting assessment could maintain a 10-foot wide travel lane with a four-foot wide shoulder in both directions. Calkins Road, Tobey Road, and State Street are some examples that are feasible for this treatment.

Road Diet Candidate

Road diets are typically performed on roadways with at least four travel lanes and when Average Daily Traffic (ADT) volumes measure 18,000 vehicles per day (vpd) or less. A road diet will convert the target four-lane roadway to two travel lanes in each direction with a center two-way left-turn lane. In many cases, there is remaining roadway space that can be used for a shoulder or bicycle-type facility.

Two segments of roadways were identified as ideal candidates: East Avenue between Allens Creek Road and I-490 and Monroe Avenue between French Road and the bridge. Figure 39 shows a conceptual cross-section of a road diet.

Add or Widen Paved Shoulders

The previous treatments seek to provide bicycle facilities that are cost effective and can have a measurable impact to the bicycling network. For segments that cannot feasibly provide a bicycle facility within the existing roadway width, paved shoulders are recommended to address the gaps.

Adding or widening paved shoulders impact adjacent properties or roadside features, thus additional engineering assessment of the recommended segments should be performed prior to construc-

tion. The candidates should have open shoulders and not consist of a roadside curb and gutter. Costs for this treatment will vary depending on the roadside profile, as more expensive projects are likely for profiles with adjacent drainage ditches.

Streetscape/Pedestrian Enhancement

North Main Street between State Street and Washington Road was identified as a high-activity area requiring bicycle and pedestrian enhancements. A more detailed description is offered later in the Village Recommendations section.

Other Treatments

For those segments that do not offer the opportunities previously described, additional bicycle facility treatments are required to complete the network. Treatments along these segments include a bike boulevard, multi-use path, or shared lane markings (sharrows).

Conditions along French Road make it challenging to construct a designated bicycle facility. Sharrows can be used to make drivers aware of bicyclists traveling along the roadway. However, bicyclists are encouraged to use alternate other routes, such as the Lock 62 and Auburn Trails.

Figure 41: East Avenue Conceptual Road Diet



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Policy & Regulatory Recommendations

Pittsford must develop and support a comprehensive policy and education program to support physical bicycle and pedestrian improvements recommended in this plan. A healthy bicycle and pedestrian network demands that all users understand how and why they should use the system. The information below briefly describes the roles of three major groups:

1. **Government** – Town and Village of Pittsford, New York State Department of Transportation, Monroe County Sheriff, Monroe County Department of Transportation, Regional Transit Service, etc.
 - Plan and maintain safe, infrastructure for each travel mode;
 - Consistently enforce traffic, zoning, and other laws concerning mobility;
 - Educate the public on safety and the benefits of biking and walking;
 - Study the use of driving, walking and biking; and
 - Provide transit service.
2. **Citizens** - Pedestrians, Bicyclists, Motorists, Transit Users, etc.
 - Learn traffic laws and best practices regarding mobility; and
 - Use the network in a safe and legal manner.
3. **Private Organizations** – Non-profit organizations, businesses, etc.
 - Partner with government and citizens to promote walking and biking through education; and
 - Advise government agencies and boards on decisions affecting bicyclists, pedestrians, and road infrastructure.

The policies and program recommendations below are not exhaustive. The Town and Village along with local pedestrian and bicycle advocacy groups and organizations should work together to not only implement the recommendations in this Plan but also develop additional policy and programs that further the active transportation culture in Pittsford.

The Town and Village have a proven track record of expanding the bicycle and pedestrian network within the community. These efforts have helped to make the comfort level and environment for walkers and bikers one of the most notable in our region. The following set of policy and regulatory recommendations are intended to continue this trend and guide future public and private investments in a manner that will achieve the goals of this study.

Off-Street Parking

Excessive off-street parking requirements can create urban landscapes that are dominated by parking lots and pavement. In traditional, mixed-use settings off-street parking requirements can be lessened due to the presence of public parking, transit service, and the walkable environment created by the close proximity of various land uses. Section 210-78 of the Village code requires the provision of 5 parking spaces per 1,000 square feet of ground floor area, plus 1 space for each 300 square feet of floor area above or below the ground floor for commercial and office uses. The Village should consider reducing its off-street parking requirements for these uses to as little as 2 to 3 spaces per 1,000 square feet.

Bike Parking

The Town and Village should add minimum bike parking requirements to their zoning codes for private developments. Typically bike parking requirements should be 10% to 20% of the number of off-street spaces that are required with a minimum of two bike parking spaces provided on-site. This provision could be waived if public facilities are available nearby.

The Town and Village should continue to ensure bicycle racks are placed in public areas and pedestrian activity centers. These areas include, but are not limited to parks, civic uses, churches, and schools. These efforts should consist of the Town and Village governments placing bike racks or working with other public institutions to have them placed on site.

Access Management

The presence of driveways (or curb cuts) along a corridor creates conflict points between motor vehicles, bicyclists, and pedestrians. As the number of curb cuts increase, the level of safety and comfort decreases for bicyclists and pedestrians. Every effort should be made to reduce the number of curb cuts along commercial corridors and increase shared vehicular access and parking arrangements, most notably along Monroe Avenue west of the Village. A review of the existing conditions indicates that between French Road and the Brighton town-line, there are currently 28+ driveways along the north side of Monroe Avenue and 12+ on the south side of Monroe Avenue. The role that this road segment plays in the local economy and the regional transportation system cannot be overstated. As a result, a reduction in curb cuts combined with improved vehicular access management and on- and off-street non-motorized traffic accommodations will not only serve to improve the accessibility of this segment for workers and patrons arriving by bicycle and on foot, but also improve the overall aesthetic of the corridor.

"Excessive curb cuts should be eliminated or reduced."

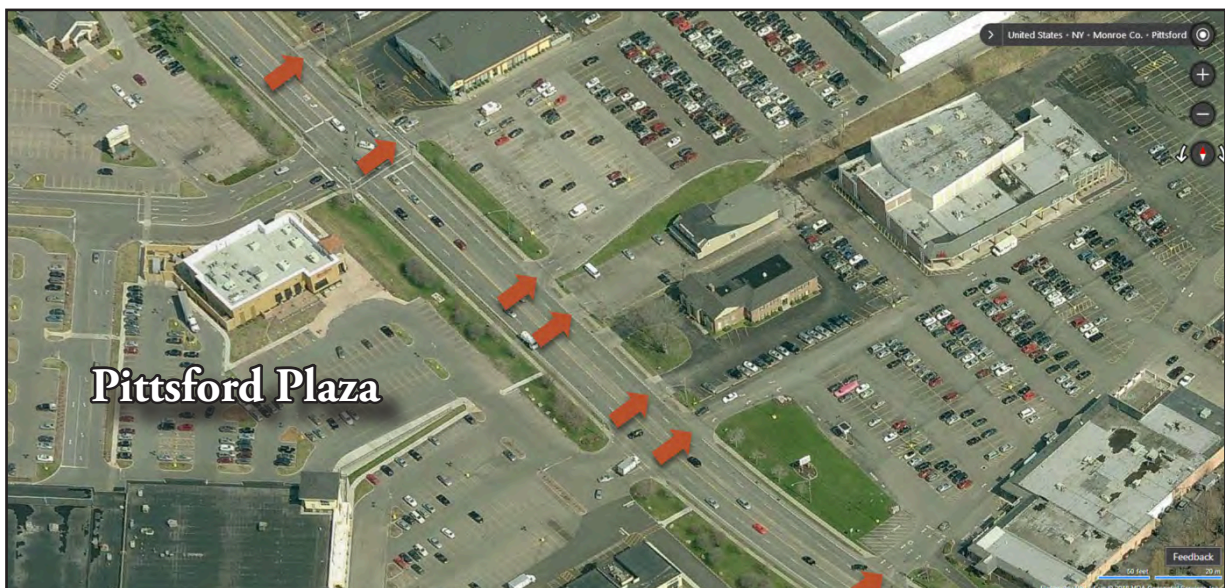
Monroe Avenue Corridor Design Guidelines

Traffic Impact Studies

Developers of commercial property and large residential subdivisions may be required to mitigate the traffic impacts of their proposed project on the affected state or county highway(s) to maintain the same level of service, safety, operations, and mobility post-development as exists prior to the development. The purpose of a Traffic Impact Study is to fully assess and document the traffic impacts of the proposed development, and to identify mitigating measures to minimize those impacts, subject to DOT approval (source: www.dot.ny.gov). The Town and Village should work with NYSDOT and MCDOT to ensure that future Traffic Impact Studies adequately address the needs of bicyclists and pedestrians and advance the recommendations contained in this study.

Incentive Zoning

The Town may wish to work with developers and large employers to provide bicycle and pedestrian amenities that exceed the minimum code requirements. For example, some employers may choose to encourage bicycle commuting with the provision of certain amenities such as bike locker rooms or showers. The Town should consider amending its current Incentive Zoning provisions in Article XXXIII to include the provision of on- and off-site pedestrian and bicycle supportive infrastructure as acceptable community benefits or amenities.



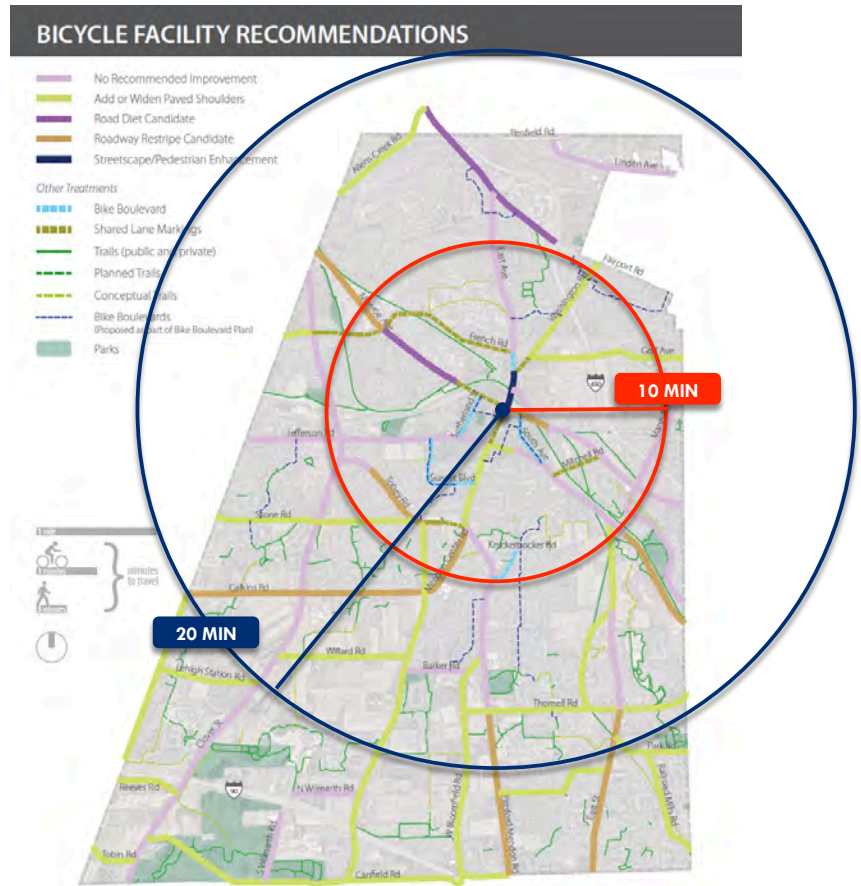
Pittsford Plaza is a good example of access management. However, the opposite side of Monroe Avenue has too many curb cuts. The number and frequency of these curb cuts create an uncomfortable environment for walking and biking.

Bicycle Commuting

According to the League of American Bicyclists the average commuting time by bike is 19.3 minutes, while most commutes were between 10 and 14 minutes in length. Figure 40 shows the 10 and 20 minute bicycle commuter sheds from downtown Pittsford. A review of Figure 40 indicates that the areas of the Town and Village with the highest demand for bicycle access are primarily situated within the 10 minute commuter shed. In other words, Pittsford Plaza, Wegmans, and the remaining commercial establishments along Monroe Avenue are within a 10 minute bike ride from downtown Pittsford. A 20 minute bike ride from downtown encompasses the areas of the Town with moderate to high demand for bicycle access, including destinations such as St. John Fisher College, Nazareth College, and Mendon High School Campus. The proximity of various destinations throughout the Village and the Town make commuting by bicycle a viable option. However, upgrades to public infrastructure and enhancements to private developments will be necessary to maximize commuting opportunities. These upgrades and enhancements may consist of:

- Adding and improving bike lanes, sharrows, wide shoulders, bike boulevards, trails, and other bicycle network accommodations system improvements identified in this study;
- Enhancing major street crossings to improve the level of comfort for pedestrians and bicyclists;
- Upgrading specific corridors with the greatest potential for use by non-motorist commuters, such as Monroe Avenue;
- Ensuring bus shelters are connected to the public sidewalk system; and
- Requiring nonresidential and multifamily development projects to provide on-site bike parking or storage in a visible and convenient location.

Figure 42: Bicycle Commuter Shed In Pittsford



Complete Streets Policy for the Town

As previously stated, the Village is one of the first municipalities within our region to adopt a Complete Streets Policy. According to the National Complete Street Coalition, “Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.”

“Creating Complete Streets means transportation agencies must change their approach to community roads. By adopting a Complete Streets policy, communities direct their transportation planners and engineers to routinely design and operate the entire right of way to enable safe access for all users, regardless of age, ability, or mode of transportation. This means that every transportation project will make the street network better and safer for drivers, transit users, pedestrians, and bicyclists – making your community a better place to live.”

As part of this study, a preliminary Complete Streets Policy for the Town of Pittsford has been prepared and is contained in the Appendix. This Complete Streets Policy has been based upon local and national models, but has been tailored to meet the Town’s needs. The exact language and level of flexibility that is appropriate for Pittsford will need to be determined through a process that would involve elected officials, Planning and Zoning Board members, and transportation officials.

Village Speeds

A growing number of communities are reducing speed limits from 30 to 25 mph in an effort to increase the safety of bicyclists and pedestrians. Based upon public input received throughout this planning process, there is a strong desire to reduce the speed limit in the Village. The first step toward reducing the speed limit is to reduce the operating speed on Village streets. The Village should continue to discuss solutions with the NYSDOT and use traffic calming techniques and design to help reduce speeds.



Balance Between Emergency Vehicles & Friendly Streets

There is a misconception that traffic calming and pedestrian friendly streets adversely impact emergency response by restricting access, lengthening response times, and even damaging equipment. However, it is well documented that well-conceived traffic calming techniques can accommodate the needs of emergency responders while also creating safe and livable streets. It all starts with recognizing that streets are not just for cars and trucks. They are for people. From kids walking to school or riding their bikes to people walking their dogs or enjoying their morning jog. In an urban setting like a village, streets are the primary public space. No one should argue that emergency response is not critically important. We all agree that it is but it is not the only thing that is important. Safe pedestrian friendly streets in the Village are also critically important for a multitude of reasons from maintaining quality-of-life for residents to protecting property values. Both education and communication must play a role in finding common ground.

As the Village moves forward with implementing traffic calming strategies, it should continue a dialogue with emergency response personnel. Sharing examples and having speakers from other villages and cities where emergency response and traffic calming have been successful will be beneficial. This will help provide fire department and other emergency response personnel with a real world understanding of traffic calming and urban street design so that they can be a partner in discussing and implementing these measures. It will also give elected officials and residents a greater understanding of some of the challenges that emergency responders face.

Ultimately the Village should establish a policy centered around working together to develop safe and friendly urban streets that effectively meet the needs of all users without compromising emergency response. This will require patience, understanding, and thinking about and doing things differently from the way they have always been done.

Creating a Pedestrian and Bicycle Safety Culture – The Next Paradigm Shift for Pittsford

Safety for all road users - particularly non-motorized users - is of paramount importance to creating a vibrant and sustainable Village and Town of Pittsford. Citizens and elected officials both recognize more than ever that a safe, inviting, walkable, and connected community is good for business and good for the overall vitality of a community and its people.



State Street, Pittsford.

While the Village of Pittsford has worked proactively for years to calm traffic, improve pedestrian safety, and to provide for a more pedestrian friendly environment, it also recognizes that it is time to go beyond the traditional 3 E's approach of education, engineering and enforcement. A broader, deeper, and systemic vision and approach to safety for all users is essential for sustaining a highly desirable, livable, and thriving community in the future. Striving for and attaining the utmost in safety, for all users, requires revising values and priorities beyond today's practices and procedures.

Several key strategies for reaching the next level of safety include:

1. Reduce Village speed limit
2. Re-allocate roadway and public realm space
3. Improve street crossings and crosswalks
4. Keep travel lanes and lane widths to a minimum

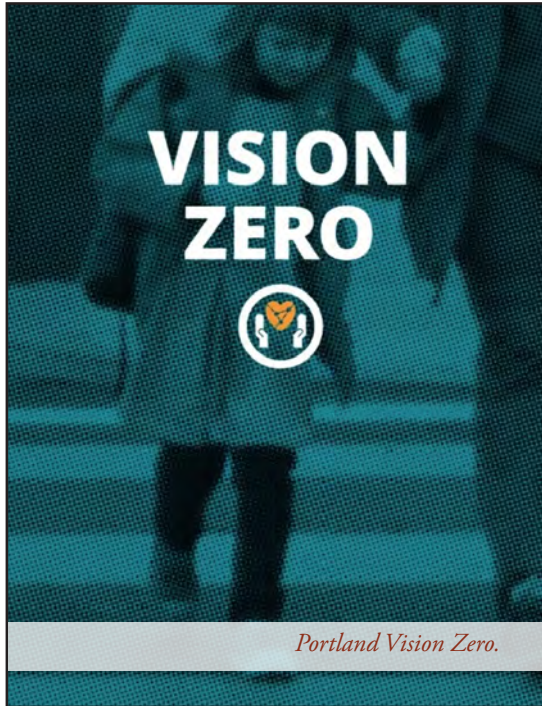
The strategies listed above relate to the ever-growing Vision Zero movement. Simply put, Vision Zero means no loss of life is acceptable; that traffic related injuries and deaths are preventable. Vision Zero was born in Sweden in 1994. The following excerpt is from the Vision Zero Initiative (<http://www.visionzeroinitiative.com/about-us/>):

"The Vision Zero was conceived in 1994. Like all good ideas, this one travelled fast. Just three years later, Parliament passed a Road Traffic Safety Bill that wrote the Vision Zero into Swedish law. The bill sets an ultimate target of no deaths or serious injuries on Sweden's roads and is not satisfied with merely reducing accidents to an economically manageable level. Sweden has since modelled its road safety reform strategy on the Vision Zero approach."

"The Vision Zero has also contributed to competence and technical developments that we think can be useful for the rest of the world because road safety is still one of the greatest safety risks for people around the world."

This fundamental shift for American communities places the priority on not only reducing severe injuries or deaths from traffic related incidents, but attempting to eliminate them altogether. Cities, such as New York City, Seattle, Portland, Austin, San Francisco, San Antonio, and Tampa have adopted such policies.

Related to this concept is the practice of changing the terminology given to traffic incidents. Commonly, "accident" is used to report a traffic crash. However, this way of thinking effuses the idea that these events are unavoidable and are a part of the transportation system. Using the word "crash", as the Vision Zero Network (<http://crashnotaccident.com/>) has advocated, shifts the meaning to one that describes the incident as one that is "fixable." These crashes are "caused by dangerous streets and unsafe drivers."



Portland, for example, uses the following approach to achieve their Vision Zero goal:

- Street design that encourages safe behavior and provides facilities to accommodate all travel modes
- Building a complete network that supports our most vulnerable users, particularly pedestrians, through separation, reducing speeds, and designing for slower users
- An educated populace who respects and protects one another as we share our streets, including the possibility of changing state laws on driver education
- Consistent enforcement of traffic safety laws with focused effort on our highest crash roadways and adjacent to places that attract our most vulnerable road users

Specific actions that take place as part of such a shift include some of those found in Seattle's Vision Zero Plan:

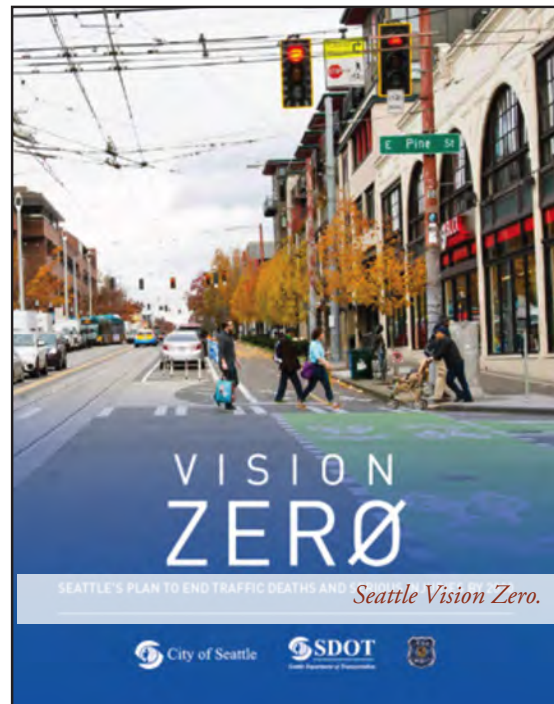
- Reduce posted speed limits and create slow speed zones
- Encourage greater safety through data-driven analysis

- Implement actions identified in the local pedestrian and bicycle master plan
- Make transit safety improvements
- Utilize Safe Routes to School approach
- Use high visibility crosswalks and pavement markings
- Establish a Vision Zero campaign
- Provide a Transportation System User Guide
- Conduct public engagement events that promote road safety

Other strategies include:

- Eliminate sidewalk gaps
- Install new crosswalks and enhance the safety of existing locations
- Ensure ADA standards are met
- Encourage consistent evaluation and monitoring of safety-related data

Vision Zero is a movement and policy action that is currently taking place at the city level.



However, the actions contained within such plans are scalable to Pittsford, where focused improvements can have a meaningful impact. This Active Transportation Plan has developed strategies to be implemented throughout the Village and Town that seek to rebalance the transportation system, improve pedestrian and bicycle awareness, and enhance the Village and Town's already high quality of life.

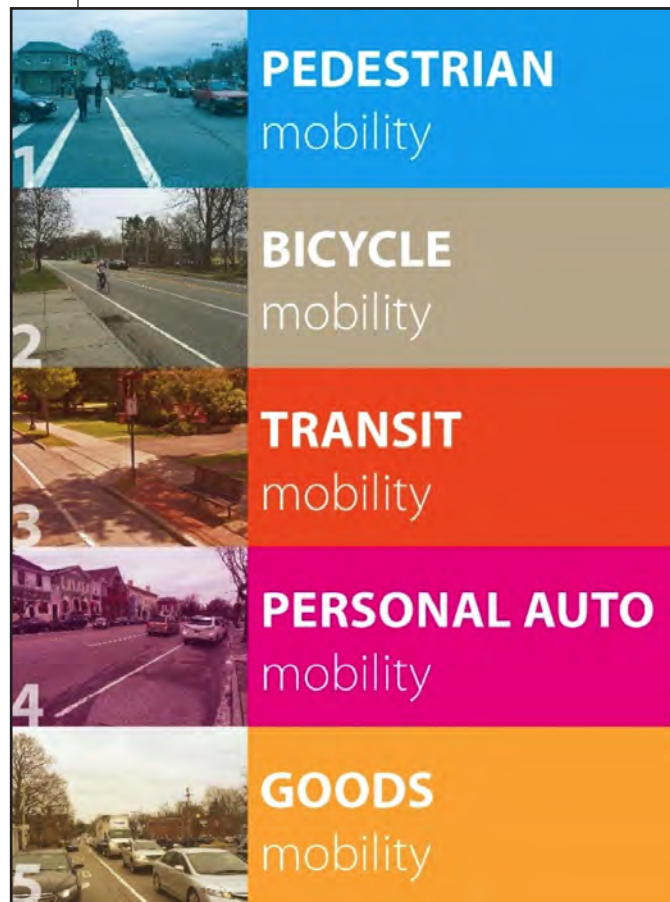
Places from Ithaca, NY to Barcelona, Spain understand that walkability is key to a vibrant, healthy, and safe community. At every point throughout a person's day, no matter if they drive, use a bicycle, or take transit, they become a pedestrian. Therefore, providing a safe and accessible multi-modal transportation system is critical. Reducing the need to use personal vehicles for even the simplest of tasks means reprioritizing the transportation system: pedestrians, bicycles, transit, personal vehicle, goods movement. Shifting the focus and usage from personal vehicles to more sustainable transport modes equates to a higher quality of life, improved air quality, reduced energy requirements, and reduced congestion.

Currently the Village of Pittsford's primary roadways (i.e., State Street/Monroe Avenue and North-South Main Street) are designed for automobiles with pedestrians in mind. A goal of this Plan is to flip that thinking and to redesign the transportation system for the most vulnerable users with automobiles in mind; which is a point that has been stated by the public throughout the development of the Plan. Walkability is critical for both the short and long-term success of the Village. Going beyond standard sidewalks, the transportation system must be designed in an equitable, aesthetically pleasing, and functional manner:

- Pedestrian crossings should go beyond standard application and be enhanced for full awareness by drivers
- Street trees should be actively used to act as a natural buffer between the sidewalk and street, amongst other important benefits

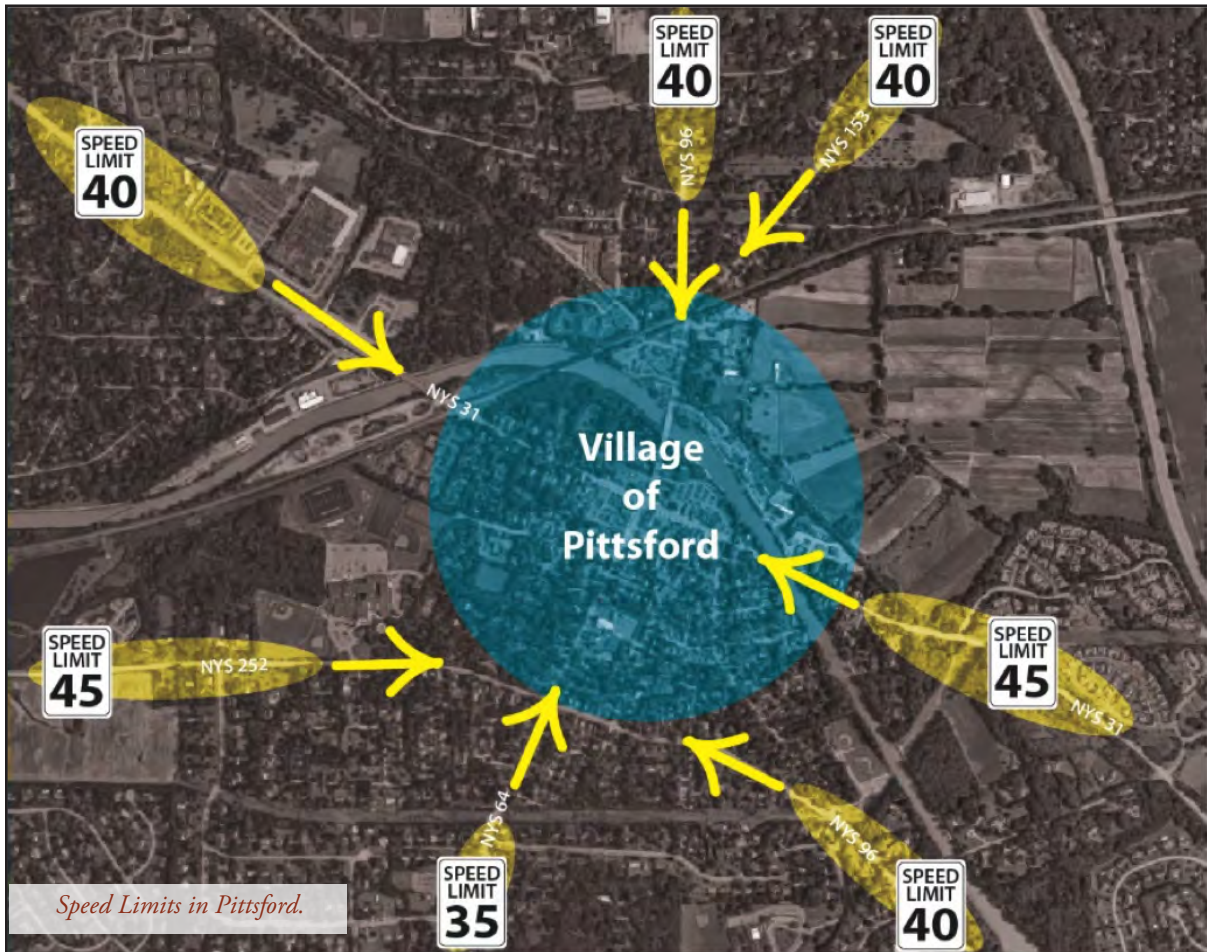
- Vehicle speeds should be kept low
- On-street parking allows for convenient access to businesses as well a buffer between pedestrians and moving vehicles

Typical traffic engineering studies seek to identify vehicle operating conditions (Level of Service) and can recommend physical capacity improvements (e.g., adding travel and turn lanes). These treat-



ments help maintain optimal Levels of Service for vehicles but can adversely impact other users. Although there are safety benefits to utilizing turn lanes at intersections, the additional lane increases the distance a pedestrian must walk to cross an approach, thus increasing exposure to vehicles. A more holistic approach to assessing and designing the Village and Town's transportation system is needed; one that identifies not only the impacts to vehicles, but to pedestrians, bicycles, and transit.

Creating a pedestrian culture for the Village also means that the corridors and transition areas entering the Village need to be designed to a target



speed consistent with the Village. Residents have repeatedly expressed their concerns about vehicle speeds entering and exiting the Village. The following graphic illustrates the speed limits outside the Village. Within Village limits, the speed limit is 30 MPH. This Plan recommends lowering the Village speed limit to 25 MPH which means that the transition areas highlighted on the graphic should feature design treatments that reflect this change.

This Plan provides strategies and specific location treatments for implementation. However, it is also understood that there may be scenarios where further study of locations is required. One such example is the recent hit and run pedestrian crash on South Main Street at Church Street (see the photo to the right). This crosswalk has been identified in this Plan as requiring ADA compliant curb ramps and yield-to-pedestrian signage. However a follow-on study of this location may reveal that additional enhancements are necessary, such as curb extensions, traffic calming strategies or a pedestrian refuge island.

