

Village of North Syracuse Complete Streets and Re-Greening Plan

November, 2016



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GIS DATA Disclaimer

The original sources of each dataset is identified on the maps. Due to the different sources and scales of projection, key features such as roads, parcel boundaries and streams may not overlap accurately when comparing several data layers on the same map. Acreage calculations for various parameters in this report were generated through the use of ArcGIS and are an approximation of the actual size. For more precise measurements, contact the Onondaga County Planning Department.

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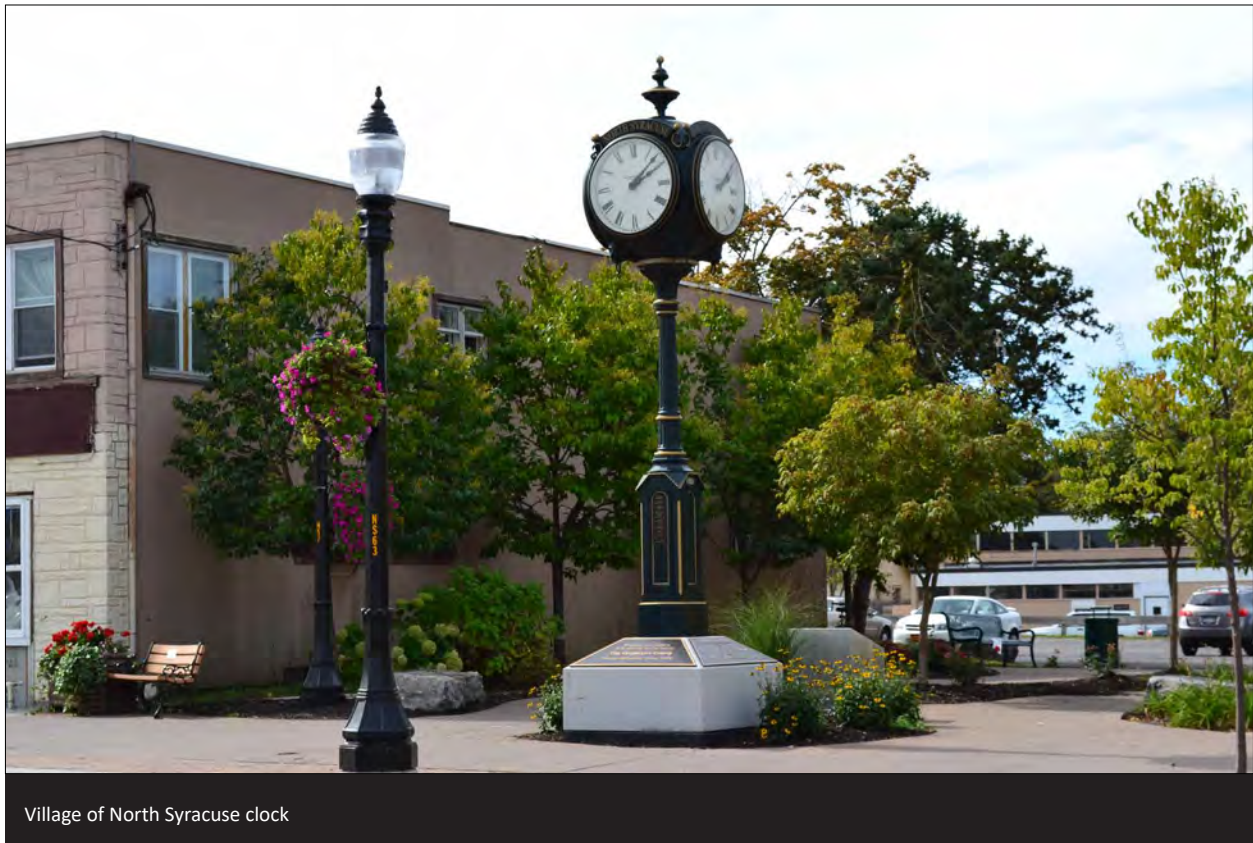
Funding for this project was awarded through Governor Andrew M. Cuomo's Cleaner, Greener Communities (CGC) program. The CGC program is a major statewide initiative, administered by the New York Energy Research and Development Authority (NYSERDA), encouraging communities to incorporate sustainability goals and principles into local decision-making, leading to a reduction of greenhouse gas emissions and the generation of economic development benefits. The CGC program is a key component of Governor Cuomo's REV strategy to build a clean, resilient and affordable energy system for all New Yorkers.

The collection and presentation of information for the Complete Streets and Re-Greening Plan is the result of considerable teamwork on the part of many local and regional partners. The project was led by Anne Saltman and Jeanie Gleisner, with mapping assistance provided by Bruce Keplinger, all of the Central New York Regional Planning and Development Board (CNY RPDB). Agencies, organizations, elected officials, and community members also contributed time, expertise, and resources to the report and their assistance is greatly appreciated.

The North Syracuse Complete Streets Committee was formed in 2015 with member selections provided by Mark Atkinson who was serving as Village Mayor. The committee is comprised of community stakeholders and representatives from the Village Mayor's office, North Area Meals on Wheels, the North Syracuse Chamber of Commerce, the North Syracuse School District, and CHA Consulting, Inc. The following groups were also consulted and/or participated in the report preparation: Syracuse Metropolitan Transportation Council; New York State Department of Transportation; Onondaga County Department of Transportation; Syracuse Onondaga County Planning Agency; and the North Syracuse Department of Public Works.

On behalf of the CNY RPDB, special appreciation goes to the members of the Complete Streets Committee for their loyalty and hard work during the past year, and to the Village Board of Trustees for their confidence as the committee forged ahead with the planning process. The following people served on the committee: Mark Atkinson, Brian Bouchard, Mayor Gary Butterfield, Jodi Butterfield, Ozzie Crisalli, David Robinson, Fred Wilmer, Gary Wilmer, Anne Saltman, and Jeanie Gleisner.

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Village of North Syracuse clock

CHAPTER 1: INTRODUCTION

The Village of North Syracuse is located north of the City of Syracuse in Onondaga County, New York (Figures 1 and 2). The North Syracuse Complete Streets and Re-Greening Plan provides recommendations for the development of safe, comfortable, and convenient accommodation for people that are walking, bicycling, riding public transportation or driving. The recommendations were developed for people of all ages and forms of mobility.

Development of the Complete Streets and Re-Greening Plan involved committee and public participation. In February 2015, the North Syracuse Complete Streets Committee was formed with member selections provided by Village Mayor Atkinson. The committee, led by the Central New York Regional Planning and Development Board (CNY RPDB), was comprised of community stakeholders and representatives from the Village Mayor's office, North Area Meals on Wheels, the North Syracuse Chamber of Commerce, the North Syracuse School District, and CHA Consulting, Inc. (an engineering and construction management firm). The following groups were also consulted and/or participated in the report preparation: Syracuse Metropolitan Transportation Council; New York State Department of Transportation; Onondaga County Department of Transportation; Syracuse Onondaga County Planning Agency; and the Onondaga Cycling Club.

The CNY RPDB provided research, writing, mapping, and overall project coordination through the Vision CNY Regional Partnership for Comprehensive Planning Project. The CNY RPDB conducted an initial

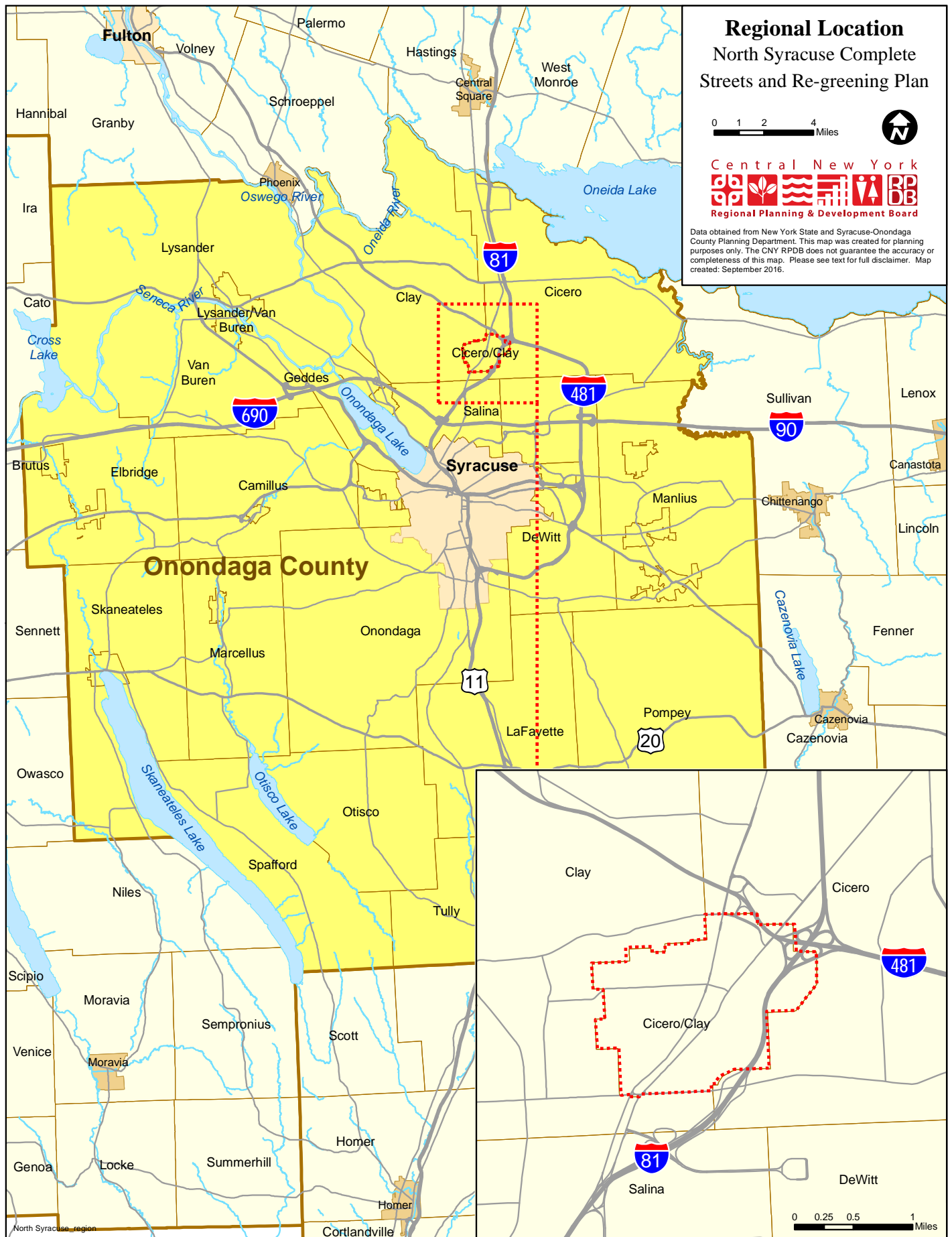
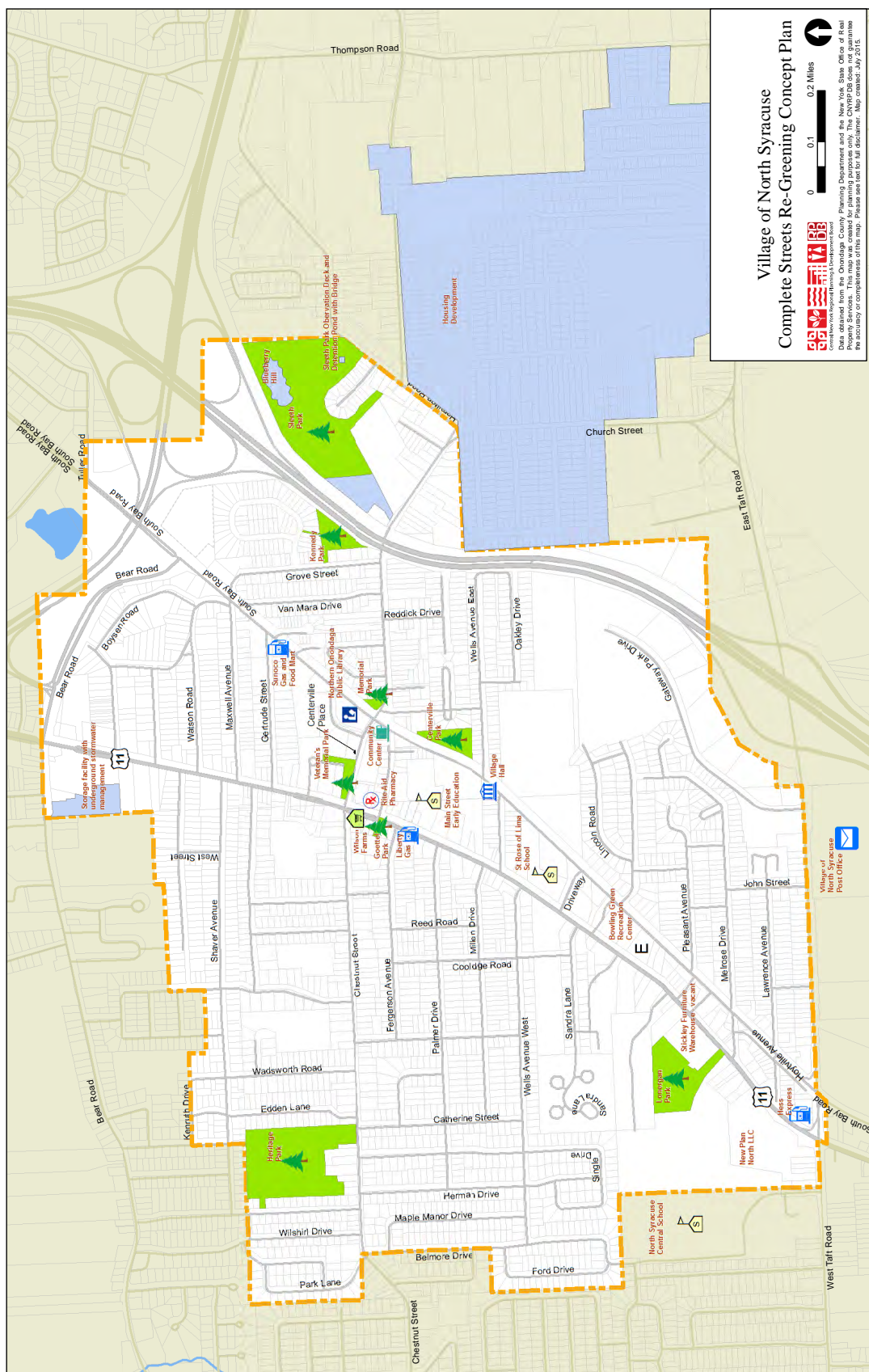


Figure 1: Regional Location, North Syracuse NY



baseline investigation of the planning structure and regulatory tools within the Village and provided a summary of focus areas for future sustainable efforts. Information was compiled following a thorough review of local and regional plans, Village board meeting minutes, media press releases, and from discussions with municipal elected officials and community members.

Understanding Complete Streets

Between 2009-2013 in the Village of North Syracuse, there were 14 accidents involving bicyclists and 19 involving pedestrians. Many of these accidents (42%) occurred along Route 11 (Figure 3).

Each year, pedestrians are involved in approximately one-quarter of the fatal motor vehicle crashes that occur on New York State roadways, more than twice the national average of 11%. Since 2004, the number of pedestrian fatal crashes has fluctuated, ranging from a high of 327 in 2005 to a low of 277 in 2007. Overall, there was a 6% decrease in pedestrian fatal crashes between 2004 and 2008. The number of motor vehicle crashes resulting in pedestrian injuries also decreased slightly between 2004 and 2008 (1.5%). Injury crashes involving pedestrians accounted for 10%-11% of all injury crashes over this five-year period.¹

Walking along the road accounts for 10-15% of fatal pedestrian crashes, with a greater number found in rural areas due to increased road speed. Studies have shown that paved shoulders have the potential to reduce pedestrian crashes by 70% and sidewalks can reduce pedestrian crashes by 88%.²

Benefits of a Complete Streets Policy

The primary goals of Complete Streets in North Syracuse include greater mobility for all street users, easier access to community destinations, improved access to local stores and restaurants, and an attractive Village environment.

Additional benefits from implementing a Complete Streets policy are summarized below.³

Complete Streets encourage a greater level of physical activity through increased walking and biking. In Onondaga County 28% of residents are obese and 21% report that they participate in no physical activity. By building and upgrading streets that provide safe and convenient walking and biking, communities create opportunities for people to become more physically active.

- Complete Streets can improve safety by reducing accidents. Research has shown that Complete Streets can reduce pedestrian injuries by as much as 28%. On-road bike lanes have been shown to reduce crashes by 50%.
- Complete Streets can improve access to community destinations. Providing several different types of transportation options allows everyone (including children, people with disabilities, and older adults) additional opportunities for safe and convenient access to parks, schools, libraries, retail stores and other community destinations.
- Walking and biking instead of using automobiles to reach community destinations will reduce greenhouse gas emissions and air pollution and lower our dependence on foreign oil.
- Complete Streets can boost economic development. Safe and well maintained streets are more appealing. This results in increased use by residents and visitors and can promote retail and commercial development. Pedestrians and bicyclists have better access to the store fronts and restaurants, resulting in increased visitation than drivers. Local resources such as historic sites and parks that have improved accessibility can attract more use and improve the community's quality of life.

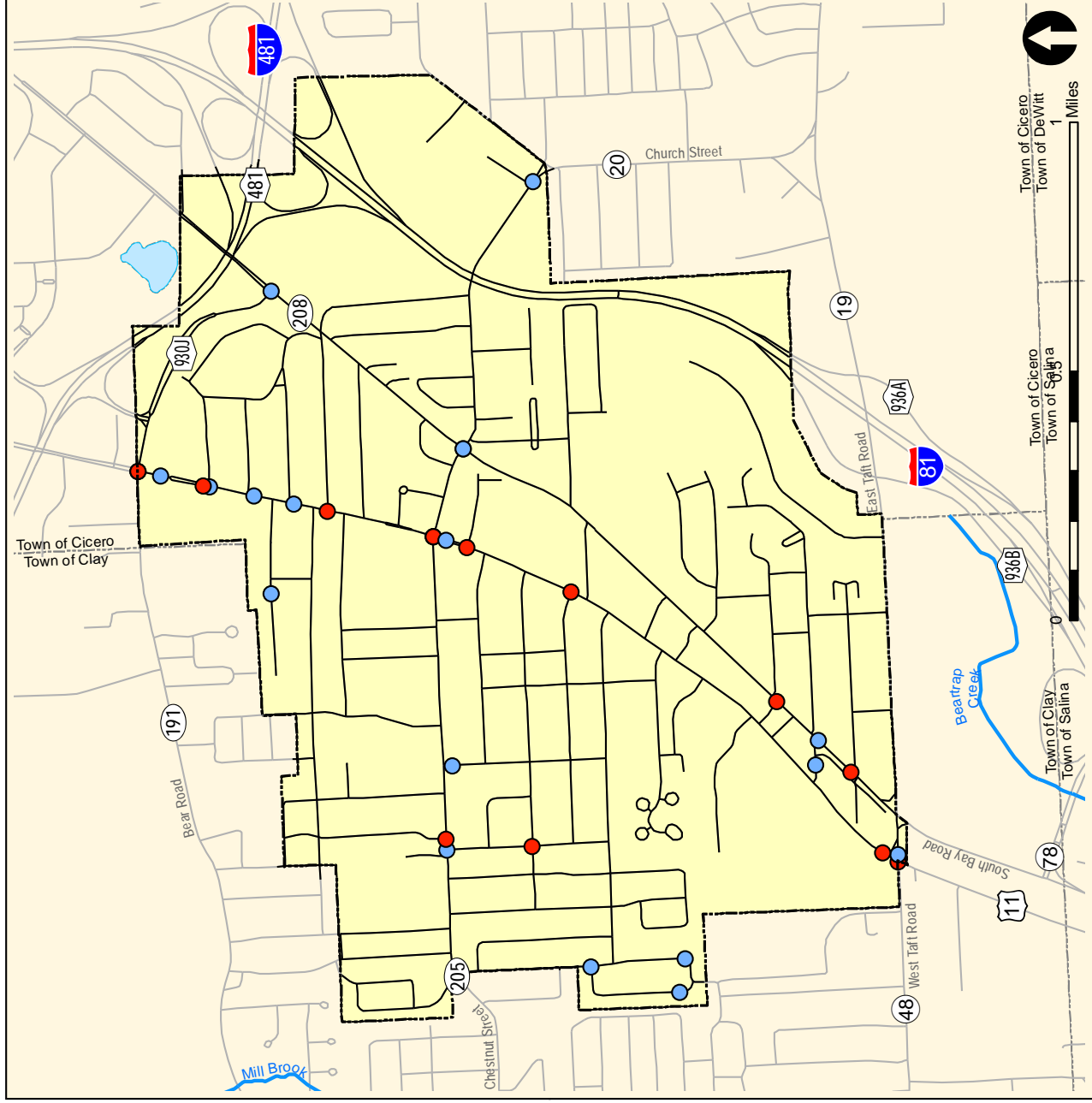
1 New York State Strategic Highway Safety Plan, NYS Department of Transportation, 2010

2 Designing for Pedestrian Safety Workshop, Peter Eun, FHWA Resources Center Safety and Design TST, 2015

3 Based on information from the Onondaga County Health Department presentation, October 2015

VILLAGE OF NORTH SYRACUSE

Bicycle and Pedestrian Accidents



**Central New York
Regional Planning & Development Board**

Data obtained from the Onondaga County Planning Department and the New York State Office of Real Property Services. This map was created for planning purposes only. The CNRPDB does not guarantee the accuracy or completeness of this map. Please see text for full disclaimer. Map created: September 2016.

Figure 3: Bicycle and Pedestrian Accidents 2009-2013

- Complete Streets can save money for municipalities by reducing roadway maintenance costs. Incorporating the needs of all forms of transportation planning can reduce automobile traffic and the costs of road repair and maintenance.

Benefits of Re-Greening

The term re-greening refers to the addition of trees and other vegetative plantings in an urban setting in order to create a more comfortable, pedestrian-friendly street environment, to reduce stormwater runoff, and to improve urban aesthetics. Economic and social benefits are important for decision-makers to consider when evaluating the significance of greening in public spaces or on private property. Trees provide beauty, shade, and comfort and help to address climate change by removing atmospheric carbon dioxide. Tree canopies lower temperatures from the heat island effect and help reduce heating and cooling costs. Vegetation intercepts stormwater runoff and reduces air pollution such as ozone, carbon monoxide, sulfur dioxide, and nitrogen dioxide.

The streetscape recommendations for North Syracuse are also designed to improve the charm, vibrancy, and pedestrian access in the Village shopping and business areas. Re-greening improvements involve transforming impervious areas from liabilities to assets that provide social and environmental benefits. Vegetative plantings in under-used paved areas will increase on-site stormwater control and reduce street puddling after storm events and spring snowmelt. Research has shown that trees and green spaces help to reduce asthma, encourage physical activity, contribute to healthy eating, and lower the ambient air temperature. Results from communities throughout the country have shown that green areas increase property values and improve quality of life.

Areas with more vegetation encourage outdoor activity such as walking and bicycling, promote spending at retail stores, and generally improve people's sense of health and well-being. People living in vegetated environments tend to work harder, get sick less often, and invest more in their communities.¹

¹ EPA. Tools, Strategies and Lessons Learned from EPA Green Infrastructure Technical Assistance Projects. December 2015; EPA 832-R-15-016

Road and Sidewalk Maintenance

The Onondaga County Department of Transportation (DOT) provides engineering and technical expertise for 808 miles of County roads and works to provide the public with a safe and efficient network of highways and bridges. There are four sections in the County DOT, each with a shop, equipment and employees to service its roads. North Syracuse is managed by the North Area Maintenance Facility on East Molloy Road in East Syracuse. Each section performs equipment maintenance and one of the sections handles major equipment repairs. The DOT also has administrative and engineering offices at the Civic Center in Syracuse.

County DOT employees maintain county roads, culverts, shoulders, rights of way, and bridges. They handle snow removal, issue highway work and access permits and review planning board cases, highway and drainage design and construction engineering, bridge design, and construction engineering survey activities. They also prepare right of way maps and handle acquisition of right of way, litigation investigation and the oversight of consultants for bridge contracts.

The North Syracuse Department of Public Works maintains all Village roads including paving and repair, snow removal, street sweeping, and signage and they own, maintain and repair the sidewalks. They collect residential brush and leaves and provide waste management information. The County is responsible for South Bay Road and completed a major road improvement and repaving project in 2015. They are not responsible for the Village portion of Chestnut and Church Streets.

The NYS Department of Transportation is currently developing a Safety Sidewalk Installation Project along Route 11 (Project # 380637). The project will provide improvements to meet American with Disabilities Act standards with sidewalk reconstruction or installation, curb ramp improvements or installation and crosswalk improvements on Route 11 in the Village of North Syracuse and Town of Cicero, Onondaga County. The Bid Opening is planned for the summer of 2017 and construction is expected to begin in the fall of 2017. Construction is expected to last a year. The project cost will be approximately \$800,000 and Federal and State funds will be used. Refer to Appendix E for additional information.

Complete Streets Legislation

Governor Cuomo signed the Complete Streets legislation on August 15, 2011, 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. S5411A-2011

enables safe access to public roads for all users by utilizing complete street design principals. The law states that transportation projects in New York shall consider the convenient access and mobility of all users: pedestrians, cyclists, and transit users. It requires transportation projects that are undertaken, overseen or funded by the New York State Department of Transportation to consider the needs of various users including motorists, pedestrians, cyclists, transit riders, citizens of all ages and abilities.⁴ The initiative provides an opportunity for NYSDOT to expand existing programs and collaborate with all users to identify best practices and designs for transportation facilities.

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) was enacted in 1990 to ensure equal participation for people of all abilities. These are evolving standards that provide guidance for making transportation facilities such as sidewalks and public transportation fully accessible. One of the important achievements of the ADA was to require that facilities in the public right of way are built to accommodate users with disabilities. This led to improved standards for items such as crosswalks, curb cuts, sidewalks and pedestrian warnings and signage. ADA guidelines should be incorporated into all Complete Streets policies.

Complete Streets in Upstate New York

Many municipalities throughout New York State have adopted Complete Streets ordinances or policies and the language that is used is often similar in content to New York State law. Resolutions and policies have been adopted in Syracuse, Fayetteville, DeWitt, Canandaigua, Buffalo, and Saratoga Springs. Budget considerations will determine implementation procedures recommended for North Syracuse. Community leaders and elected officials will need to prioritize their program needs, establish short and long-term goals, and seek creative funding options. Funding opportunities for Complete Streets are summarized in Appendix B and common practices are summarized in Appendix C.

4

Syracuse Metropolitan Transportation Council. Bicycle Commuter Corridor Study, 2013



Example of a green street (Source: <https://brooklyncountrylane.com/what-are-green-streets/>)

Local and Regional Planning Resources

The document, *Technical Guidance Manual for Sustainable Neighborhoods*, published in 2013 by United States Green Building Council (USGBC) and the Pace University Land Use Law Center, served as a primary guidance resource when this report was compiled. The manual provided criteria based on the Leadership in Energy and Environmental Design (LEED) for Neighborhood Development rating system. North Syracuse is encouraged to apply the LEED principals of Smart Growth and green planning and design, while promoting the environmental, economic and social benefits of sustainable land use principals that are presented in the Guidance Manual.

Local documents also served as valuable resources as this report was being compiled. The Village has a strong sense of community pride and municipal leaders have developed planning documents that enhance neighborhood identity and sustainability. The North Syracuse Comprehensive Plan, adopted in 2004, provides information on areas such as land use, infrastructure, economic development, and community services with goals and strategies for economic development, transportation, public infrastructure and community facilities, housing and neighborhoods, parks, recreation and open space, and historic resources. Priority recommendations of the Comprehensive Plan include developing a walkable community with efficient pedestrian and bicycle patterns, porous pavement for sidewalks and parking areas and connectivity with local services.

The report also prioritizes the maintenance and protection of the Village parks and includes recommendations for facility improvements and expansion. Goals are identified for open space preservation, efficient pedestrian and bicycle patterns, porous pavement for sidewalks and parking areas, educational signage for historic sites, energy efficient lighting, connectivity with local services, and the use of sustainable materials for park buildings.

The following documents were also reviewed while researching local accomplishments and planning initiatives: the Village Comprehensive Plan 2025, the Parks Master Plan, the Village Center Master Plan, the Village Center Streetscape Plan, and the MS4 Stormwater Management Plan. Information was also compiled on the parks, trails, permits requirements, codes, sanitary sewers, recycling, and other Village functions. Green infrastructure recommendations form the foundation for most of these local documents. Streetscape modifications are recommended to improve the charm, vibrancy, and pedestrian flow in the Village Center's shopping and business areas. Tree plantings and other green infrastructure installations for new development is perceived as a significant component of a sustainable community.

For many years local leaders have worked to promote a walkable community throughout the Village. A Walkable Village program, developed by the North Syracuse Department of Public Works (DPW) in 2010, provided signage and maps to encourage more pedestrian activity. Benches and mileage markers were installed throughout the Village and walking trail maps were developed. The DPW also maintains hiking trails at Blueberry Hill and Sleeth Park. The Walkable Village program was designed to promote outdoor recreational, education and local history. Additional information is available by contacting Gary Wilmer at the DPW.

The Erie Canalway National Heritage Corridor encompasses the Village of North Syracuse, providing important historic and recreational resources to the community. The Village Center redevelopment strategy contains guidance in the areas of land use, pedestrian and vehicular circulation, the use of public space and parking, green infrastructure, and redevelopment.

The City of Syracuse developed a Bike Plan soon after the Complete Streets mandate was passed by New York State and it was incorporated as a component of the Syracuse Comprehensive Plan 2040. The report outlines a strategy for a bicycling network in the City, provides guidelines for implementation and appropriate treatments in the Syracuse climate, and serves as a helpful educational opportunity to teach the public about the benefits of bicycling.

The following primary chapters are presented in the report:

- Making the Case - informs the public about the personal and social benefits of bicycling with details on economics, health, equity, safety, and community.
- Inventory Measure and Maps - provides a methodology for determining the best corridors for bicycle infrastructure.
- Tool Kit – provides infrastructure options for Syracuse.
- Neighborhood Recommendations – includes conceptual designs for specific corridors in Syracuse and identifies which users would be accommodated.

Another excellent resource was a 2008 report written by the Syracuse Metropolitan Transportation Council (SMTC). Soon after the completion of the *University Hill Transportation Study* in 2007, SMTC compiled a report called *The University Hill Bike Network Project* on behalf of the City of Syracuse. The report contains recommendations for bicycle routes, dedicated lanes and traffic calming measures in the University Area. According to SMTC, the network was designed to link to the community's greater bike lane and trail system, improve bicyclist safety, elevate the priority of bicyclists over cars, and encourage alternative modes of transportation. The project also created a tool for evaluating city streets for inclusion in the bike network and offered a selection of treatments for the city to use during design and construction.

In addition, SMTC produced a report titled *Bicycle Commuter Corridor Study* in 2013. The Study identifies suburban and urban corridors within the Metropolitan Planning Area that are most likely to maintain high average cycling speeds to encourage commuter cycling from the suburbs to the city. It also informs road owners about cooperative opportunities to develop a seamless bicycle network based on a consistent set of treatments. SMTC also produced the *Butternut Street Corridor Study* in 2015, a report that served as an additional resource for this Complete Streets Plan.

An additional resource included the 2010 *NYSDOT Pedestrian and Bicycle Policy* which promotes pedestrian and bicycle travel for everyone on the state transportation system.

NYSDOT's *Highway Design and Project Development Manuals* provides guidance for pedestrians, bicyclists and transit users. They also include information on how to make these facilities safer by integrating traffic calming, landscape architecture and community design. The transportation project design process considers potential project impacts on all transportation system users, including the elderly, people with disabilities, transit users, pedestrians and bicyclists. The *Capital Projects Complete Streets Checklist* is used to help identify needs for Complete Streets design features.



Kennedy Park, North Syracuse

Public Participation

The CNY RPDB worked with the Complete Streets Committee to identify priority problem areas, and project goals and objectives were then developed as a grassroots initiative. Committee meetings that were held in 2015 and 2016 provided an opportunity to discuss community issues, goals, and recommendations. Information was collected and GIS maps were developed that display features such as community destinations, land use, flood and ponding zones, population, road width, pavement conditions, and public transportation. Community partnerships were established with local retailers that contributed valuable information on road conditions and recommendations. A site review was conducted in July 2015 at which time committee members had an opportunity to visit problem areas and evaluate potential solutions. The sites were photographed and a list of recommendations for each site was compiled.

Community Survey

In order to encourage public involvement, the CNY RPDB worked with the committee to distribute a Complete Streets and Re-Greening survey throughout the Village in December 2015. It was distributed electronically and in hard-copy format with the help of Complete Streets Committee members, the Village Clerk/Treasurer, the Chamber of Commerce, the North Area Meals on Wheels, and the Public Library.

Of the 104 replies that were submitted, the majority (approximately 85%) were from people over the age of 36. A slight majority (53%) lived in North Syracuse (the remaining commuted through the village), and most of them (45%) had lived here for 21 or more years. Ten of the respondents owned local businesses and over 90% indicated that they commute through North Syracuse on a regular basis on their way to work or school. Bicycle safety, parking availability, and the condition of the road shoulders received relatively poor ratings of 37% or higher. Traffic speed through the Village was rated as 'good' by 32% and 'adequate' by 48%. 57% were in favor of installing a bike lane along Route 11, and 66% expressed support for the installation of a bike route to connect the Village to the City of Syracuse along Bear Trap Creek Bikeway at the Mattydale Kmart Plaza. 82% were in favor of efforts to improve safety conditions for students that walk or bike to school. The survey results (presented in Appendix A) helped to identify local problem areas and community goals. Final recommendations included in this report were based on committee contributions and the survey findings.



A Walkable Village mileage marker



Park signs, North Syracuse





Impervious surfaces contribute to stormwater runoff

CHAPTER 2: LOCAL ISSUES OF COMMUNITY CONCERN

The following issues were identified during committee discussions and through the analysis of the public survey findings. The goals and recommendations to address these issues are found in Chapter 3.

ISSUE: Stormwater Management

Poor drainage and flat terrain contribute to problems with stormwater runoff. North Syracuse is addressing this through vegetative plantings along Village streets and in under-used areas. Vegetative plantings increase on-site stormwater control, reduce street puddling after storm events and spring snowmelt, and will help to beautify the Village.

What is stormwater?

Stormwater is water from rain or melting snow that doesn't soak into the ground. As it flows towards nearby lakes and streams, it picks up pollutants along paved surfaces such as roadways, sidewalks, parking lots, construction sites, and industrial parks. The runoff is funneled through gutters, storm drains, and drainage ways into local surface waters. The primary pollutants of concern in North Syracuse and additional municipalities in the Syracuse Urban Area (SUA) are phosphorus and sediment. Pollutants carried by stormwater degrade the quality of the lakes, rivers, wetlands and other waterways. Nutrients such as phosphorus and nitrogen can promote the growth of algae in lakes and deplete oxygen

levels which can be harmful to aquatic life. Chemicals from automobiles, sediment from construction activities, and careless application of pesticides, herbicides and fertilizers can also be transported by stormwater runoff. Bacteria from animal waste and illicit connections to sewage systems can make waterbodies unsafe for wading, swimming and fishing.

Stormwater Phase II Regulations

Stormwater pollution is expensive to treat. Wastewater treatment facilities need to be large enough to treat peak storm flows but remain unused most of the time. The best way to control stormwater pollution is to prevent runoff from becoming contaminated in the first place. Federal stormwater management regulations, commonly known as Stormwater Phase II, are helping to address stormwater issues in North Syracuse. As part of a general permit program administered by the NYS Department of Environmental Conservation, regulated cities, towns, villages and counties are controlling the quantity and quality of stormwater being discharged from their Municipal Separate Storm Sewer Systems (MS4s). A statewide general construction permit requires developers to control the quantity and quality of stormwater runoff from construction projects that disturb one acre of soil or more.

North Syracuse is one of 31 permitted MS4 municipalities in the SUA. North Syracuse have joined 28 additional municipalities that are working with the Central New York Regional Planning and Development Board to implement a wide range of activities to reduce stormwater pollution including public education and training for municipal employees and elected officials.

The Village of North Syracuse is required to develop, implement, and enforce a Stormwater Management Program (SWMP) in order to reduce the discharge of pollutants from small Municipal Separate Storm Sewer Systems (MS4s) to the maximum extent practicable. The SWMP is intended to protect water quality and to satisfy water quality requirements of the Environmental Conservation Law and the Clean Water Act. According to the federal regulation, the SWMP for North Syracuse consists of the following six minimum control measures:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Pollution Prevention and Good Housekeeping

Green Infrastructure for Stormwater Management

Green infrastructure is a cost-effective way to control and treat stormwater runoff while delivering environmental, social, and economic benefits. In natural, undeveloped areas, precipitation is absorbed and filtered by soil, trees and plants so that stormwater runoff is cleaner and less of a problem. Green infrastructure uses vegetation, soils, and other elements and practices to restore some of the natural processes required to manage water and create healthier urban environments.

The installation of stormwater control measures require engineering designs and technical expertise to ensure that they function properly. When selecting stormwater management sites, it is important to consider the following:

- The sites should be a minimum size of 1/8th acre

- The site's lowest point should be within 20 feet of a stormwater inlet, or the site should contain soils that will allow for infiltration
- Impervious surfaces (such as rooftops, streets, or parking lots) that may be the source of stormwater runoff
- The amount of stormwater that can be collected and treated

Permeability is the ability of a material to allow water to pass through it. Permeable surfaces assist with stormwater management by allowing water to be absorbed into the ground instead of running off and overwhelming storm drains. As illustrated in Figure 4, many parcels along Route 11 are over 50% impervious. In addition, several paved areas are under-utilized. Inadequate roadside drainage causes puddles to form after heavy rain events and during periods of snowmelt. This creates safety concerns for vehicles and pedestrians.

Stormwater management sites selected for green infrastructure installations should either be purchased or designated a permanent green space by the Village. If a nonprofit or community group is interested in maintaining a stormwater management site, they may be able to adopt or lease the lot on a long-term basis.

Sites selected for green infrastructure should also be surveyed and the soil tested to determine the infiltration capacity. Soil replacement may be needed or construction of a drain system may be required. Stormwater installations should be situated so that runoff from nearby pavement or buildings can drain into the site. The endorsement and participation of nearby residents and businesses will also be important when determining site selection and design components. Community participation will encourage local acceptance and will help to avoid well-intended neighbors from mowing or removing the plants, thinking they are weeds.

Stormwater management projects will require ongoing maintenance such as mulching, weeding, pruning



Recent improvements in North Syracuse provide greening, stormwater management and traffic calming measures

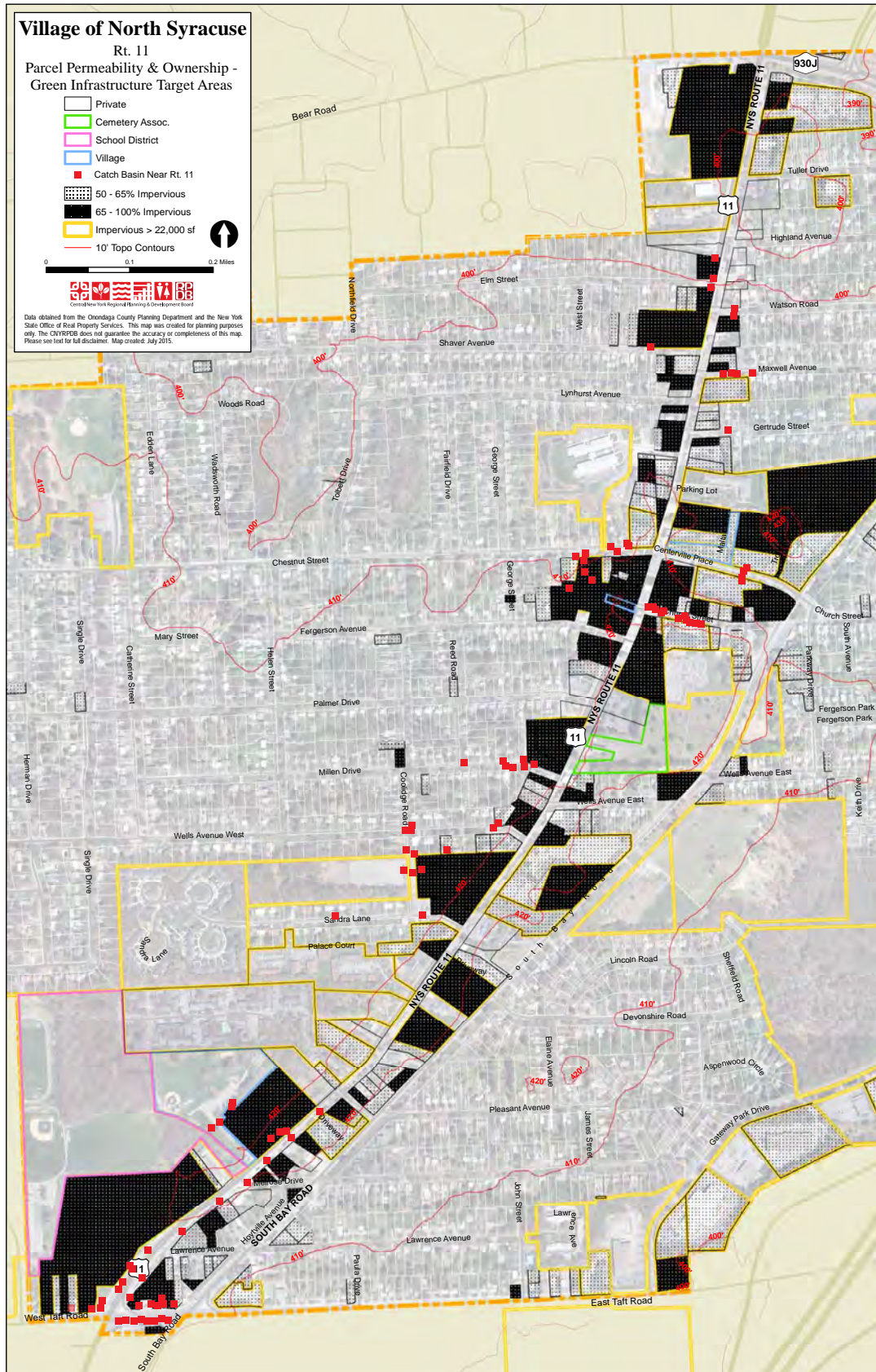


Figure 4: Parcel Permeability

and trash removal. Prior to installation of the project, the maintenance responsibilities should be identified. For most projects a community maintenance agreement or ‘memorandum of understanding’ should be created.

Local Examples of Green Infrastructure

Good examples of green infiltration projects are the Save the Rain sites located throughout the City of Syracuse. The State Street Green Corridor project for example, is an application on South State Street between Burt and East Adams streets, between East Fayette and East Water streets and along North State Street between James and North Salina streets. Green infrastructure applications were installed at these locations in order to capture stormwater and enhance the urban streetscape. The project incorporated tree plantings in the right-of-way; installation of porous pavers in parking lanes; use of infiltration trenches and planters; and traditional bioretention measures and landscape features throughout project boundaries along the State Street corridor. Parking bump outs will also be installed at priority intersections to improve pedestrian usage and to provide a greater definition of parking lanes.

Another project, the Southwest Community Center (SWCC) project included new stormwater infiltration and green infrastructure systems which improve stormwater capture, but also add significant improvements to the site. The SWCC’s parking lot improvements provide better functionality, safer access to visitors (including those with physical challenges), and stormwater infiltration, thus reducing the amount of runoff from the site into the sewer system. Stormwater capture is maximized by directing runoff from Lincoln Avenue and Clover Street to the parking lot infiltration system. Additional improvements to the SWCC campus include new plantings along Clover Street and improvements to its driveway and sidewalks. Green infrastructure options and resources are summarized on pages 22 and 23.

ISSUE: Pedestrian Safety and Community Connectivity

There are approximately 26 miles of public roadways in North Syracuse, including two minor arterials (US Route 11 and South Bay Road) and numerous side streets through residential areas. As with many communities throughout the United States, the roads were built to facilitate automobile transportation and commuting. Commercial, restaurant, and retail facilities are concentrated along car-dominated routes that aren’t always conducive to pedestrian activities. Cars don’t always stop at pedestrian crosswalks, creating hazardous conditions for pedestrians when crossing multi-lane roads. Wide driveways with multiple lanes can also cause significant safety concerns. Pedestrian and bicycle traffic is challenging due to the large number of vehicles traveling through the



Street repairs, improved signage, and brightly painted crosswalks will provide greater safety for motorists, pedestrians and bicyclists.

Green Infrastructure Options and Resources

Tree selections

An excellent resource for the North Syracuse tree selections is a computer program called i-Tree Design. It provides information on the benefits provided by individual trees such as greenhouse gas mitigation, air quality improvements, and stormwater interception. North Syracuse should focus primarily on native trees with stormwater control benefits. Tree benefits are estimated for (a) the current year, (b) a user-specified forecast year sometime in the future, (c) the projected total benefits across that future timespan, and (d) the total benefits based on estimated tree age. Multiple trees and buildings can be added to compare benefits or to provide a full accounting of a property's trees. The tool is intended as a simple and accessible starting point for understanding the value of individual trees or a small population of trees to a community.

A 2-inch diameter sugar maple will intercept 74 gallons of stormwater this year. Trees act as mini-reservoirs, controlling runoff at the source. Trees reduce runoff by intercepting and holding rain on leaves, branches, and bark; increasing infiltration and storage of rainwater through the tree's root system; and reducing soil erosion by slowing rainfall before it strikes the soil.

Bioretention areas

Bioretention is an effective landscape practice for stormwater management. A combination of sand, soil, and plants are used to filter contaminants and pollutants from stormwater runoff. Bioretention areas are designed to be dry most of the time but provide storage for runoff for snowmelt and after heavy rain events. Runoff is slowly filtered through the soil beneath before being collected by a perforated underdrain. The filtered stormwater is either returned to a storm drain through an underdrain or partially infiltrated into the soil. Placement of bioretention areas requires engineering or design drawings, as well as stormwater plans and permits.

Rain gardens

Rain gardens are shallow, vegetated areas that collect and absorb runoff from rooftops, sidewalks, and streets using water tolerant plants and soil. They are frequently planted in low elevation areas with soils to withstand high moisture content. The soil and plants absorb high concentrations of nutrients such as nitrogen and phosphorus that are transported by stormwater runoff. Plantings can include shrubs, grasses, and flowers. Rain gardens are typically smaller and simpler than a bioretention areas and do not include an underdrain. Rain gardens are best used to treat runoff from small impervious areas.



Urban street tree canopy. (Source: https://depts.washington.edu/hwmb/Thm_Economics.html)



Bioretentions are landscaped depressions designed to slow and treat stormwater runoff. They are often used in parking lots and residential areas. (Source: <http://www.tataandhoward.com/tag/stormwater-management/>)



Rain garden, SUNY College of Environmental Science and Forestry, Syracuse. (Source: https://en.wikipedia.org/wiki/Rain_garden)

Vegetated Swales

Swales are channels that collect, filter, and slow the flow of stormwater. They are often planted with grass, shrubs, perennials or trees and may contain an underdrain. Swales are very effective at controlling stormwater when situated along the edge of parking lots.

Greening of Underused Paved Surfaces

Greening of under-used or paved surfaces along Route 11 would involve the removal of impervious asphalt, soil improvements, and plantings of grass, trees and bushes and horticultural maintenance. Greening these areas would improve the aesthetics of the site and neighboring properties, potentially increasing the property value. If mowing and site maintenance are concerns, North Syracuse should consider alternative ground covers for their re-greening initiatives. They could include, for example, clover, wildflowers, and native grasses that require less maintenance.

Community Gardens

Plans are being developed for a community garden to be placed in a field near Sleeth Park and the North Area Meals on Wheels. Assuming that water is accessible, the garden could boost local pride, community engagement, and social interaction, while providing opportunities to engage youth and seniors. Research has shown that community managed open spaces stabilize property values of the surrounding properties.¹

Initial plans for a community garden should include a full assessment of the site with soil testing and a review of previous land use to determine if any contaminants are present. The Syracuse Onondaga County Planning Agency would be a good source of land use information as well as Village historical documents. As a minimum, the soil analysis should include lead, arsenic, cadmium and chromium, as these are potentially harmful contaminants that are often found in urban soils.² Send the soil samples to a New York State-certified laboratory and avoid at-home soil testing kits that can be inaccurate. Consult with the County Health Department and Cornell Cooperative Extension for assistance selecting which parameters to test and with the analysis of the lab results.

Information about successful community gardens in Onondaga County is available through a grassroots network called Syracuse Grows which promotes education and resources in support of urban food production. Syracuse Grows offers support for community gardening and urban food production. Volunteers are available to help locate resources, build relationships with other organizations interested in supporting community gardens, and advocating for policies that will help to promote and sustain urban food production.



Vegetated swales slow, infiltrate, and filter stormwater runoff. They are well suited along streets and parking lots. (Source: <http://www.3riverswetweather.org/green/green-solution-vegetated-swale>)



Vegetables from a community garden. (Source: <https://healestate.com/community-gardens-plant-first-sustainable-crop/>)

¹ Green Pattern Book: Using Vacant Land to Create Greener Neighborhoods in Baltimore. September 2015. US Forest Service Northern Research Station

² Green Pattern Book: Using Vacant Land to Create Greener Neighborhoods in Baltimore. September 2015. US Forest Service Northern Research Station

Village, numerous curb cuts from homes and businesses along the major traffic corridors, and discontinuous sidewalks.

Better police traffic enforcement, reduced driveway widths, well-defined crosswalks, additional municipal parking, and better signage will help to improve safety as people walk and bike throughout the Village from residential areas to parks and community destinations such as shopping areas, medical facilities and schools.

The Complete Streets Committee members identified the following problem areas:

- Shoulders and sidewalks are often missing or poorly maintained on Chestnut and Church Streets and along Route 11. This causes safety issues for pedestrian and bike traffic.
- Telephone poles that are located in the right-of-way on Route 11 occasionally obstruct vehicle and pedestrian traffic.
- The drop-off at the shoulder of uncurbed roadways is dangerous for pedestrians and bicyclists.
- The paint has worn off of the crosswalk at several areas throughout the Village.
- Better police traffic enforcement is needed along Route 11 to address speeding vehicles and drivers that don't stop at pedestrian crossings.
- Truck deliveries create traffic congestion and safety problems for pedestrians.
- The intersection of South Bay Road, Watson, and Maxwell Roads is dangerous for pedestrians and bicyclists because of one-way traffic restrictions and complex traffic patterns.



Wide driveways create safety concerns for pedestrians and bicyclists.

ISSUE: Street and Sidewalk Maintenance

Better road and sidewalk maintenance is needed to provide safer pedestrian access to community destinations such as parks, retail stores, medical facilities, and schools. Several streets and sidewalks in North Syracuse are poorly maintained and don't provide adequate safety for pedestrians and bicyclists. In addition, several paved areas are under-utilized. Inadequate roadside drainage causes puddles to form after heavy rain events and during periods of snowmelt. This creates safety concerns for vehicles and pedestrians.



Sidewalk improvements will provide greater safety for pedestrians and bicyclists.

ISSUE: Bicycling Opportunities

Additional bicycling opportunities and bike racks are needed for Village residents. An improved bicycling network is needed to safely connect residential areas to parks and community destinations such as shopping areas, medical facilities and schools.

Opportunities for cyclists to access community destinations will reduce vehicle miles traveled and will support public health by encouraging physical activity. Bicyclists need to follow the same road guidelines (such as traffic signals and lane markings) as motor vehicles and should ride in the same direction as the vehicle traffic. According to the American Association of State and Highway Transportation Officials, bicyclists' needs should be addressed in all phases of transportation planning, design, construction, maintenance, and operations.⁵

ISSUE: Safe Routes to Schools

Students in North Syracuse generally take a school bus or are driven to and from school each day. Heavy traffic, inadequate signage, lack of sidewalks, and faded crosswalks in various parts of the Village can contribute to unsafe routes for children that walk or bike to school. Sidewalks and safe street crossing opportunities are needed, especially for students living in the residential areas in the southeastern area of the Village.

Safe Routes to School is a federal, state and local effort to enable and encourage children, including those with disabilities, to walk and bike to school. Improved pedestrian and bicycling access routes to the school would help to promote daily exercise and good health while minimizing air pollution by reducing vehicle miles traveled. In New York State, \$54 million has been awarded to 153 Safe Routes to School projects since 2005, benefitting 322 schools and 137 communities.⁶

The *Safe Routes to School* program has been applied to several locations in the City of Syracuse. In 2007, the Outer Comstock Neighborhood Association (OCNA) asked Syracuse Community Geography to help neighbors evaluate neighborhood safety conditions for children who walk or bike to Hughes Elementary School. OCNA members observed that heavy traffic, inadequate signage, a lack of sidewalks and faded crosswalks created unsafe conditions for children who walk or bike to school. In an effort to improve neighborhood safety, SCG worked with neighbors to survey and map pedestrian and bicycle friendliness in the area near the school.

Using GIS, GPS and visual observation, they were able to assess the safest walking and biking routes and created a "Safe Routes to Hughes School" map for children and parents. The report proposed recommendations for city engineers, the school administration, neighborhood residents and parents to improve neighborhood safety. A year after the Hughes School Safe Routes to School (SRTS) analysis, the U.S. Department of Transportation proposed federal funding for SRTS projects. Working with the City of Syracuse and two additional schools – McKinley Brighton and Ed Smith – a grant proposal was submitted to help fund some of the report's recommendations. Syracuse was then awarded \$175,000 to install new flashing speed signs, crosswalks, handicapped accessible curbs, and to implement safety programming in three elementary schools.

In another example, the NYS DOT provided a \$388,001 grant to the City of Syracuse in 2013 for the

⁵ American Association of State and Highway Transportation Officials. Guide for the Development of Bicycle Facilities, 4th Ed. AASHTO, 2012:2-4

⁶ NYS DOT website <https://www.dot.ny.gov/programs/completestreets/nysdot>

development of a Safe Routes to School program involving greenways connecting neighborhoods and schools. The funding was used to establish 1.25 miles of neighborhood greenways—a first in the Northeast. The greenways were designed to connect the Strathmore, Elmwood, and Southside neighborhoods, while connecting three schools: Bellevue, Roberts, and Danforth. The neighborhood greenways are low volume residential roads that provide a safe walking and biking route that connect to parks and schools. Traffic calming interventions are put in place to discourage cars from cutting through on these streets, keeping the streets for local car use, as well as walking and biking.



CHAPTER 3: GOALS AND RECOMMENDATIONS

The following pages provide goals and recommendations to address concerns regarding street connectivity, pedestrian and bicycle safety, and re-greening in North Syracuse. The recommendations are designed to improve community linkages and accessibility to community destinations, increase transportation efficiency, and improve public health by encouraging daily physical activity. Many are based on the LEED Complete Streets principals that have been adapted to meet North Syracuse objectives. Street and sidewalk inventories were not performed as part of this study and a detailed engineering evaluation of site conditions, traffic impact determinations, and cost benefit analyses may be needed prior to implementation.

Better community linkages to Sleeth, Heritage, and Lonergan parks and other destinations will improve public health by encouraging more walking and bicycling in the Village. Safer routes throughout the Village will encourage more physical activity and this, in turn, can result in improved physical and mental health while facilitating social networking, civic engagement, and time spent outdoors. Increased pedestrian and biking activity can also lower greenhouse gas emissions by reducing vehicle miles traveled.

An initial deliverable of the CNY RPDB was a comprehensive collection of maps showing local features such as transportation routes, community destinations, and pedestrian accident rates. Committee member contributions and user survey data were then used to identify potential improvements and the street networks were evaluated for intersection safety, block lengths and completeness to accommodate

pedestrians and bicycles. In order to compile these recommendations, the CNY RPDB noted appropriate street widths, the number of lanes, on-street parking, bus stops, and crosswalks. Village population densities were also evaluated in relation to schools, parks, the library, and retail stores (Figure 5).

Complete Streets and Re-Greening Goals

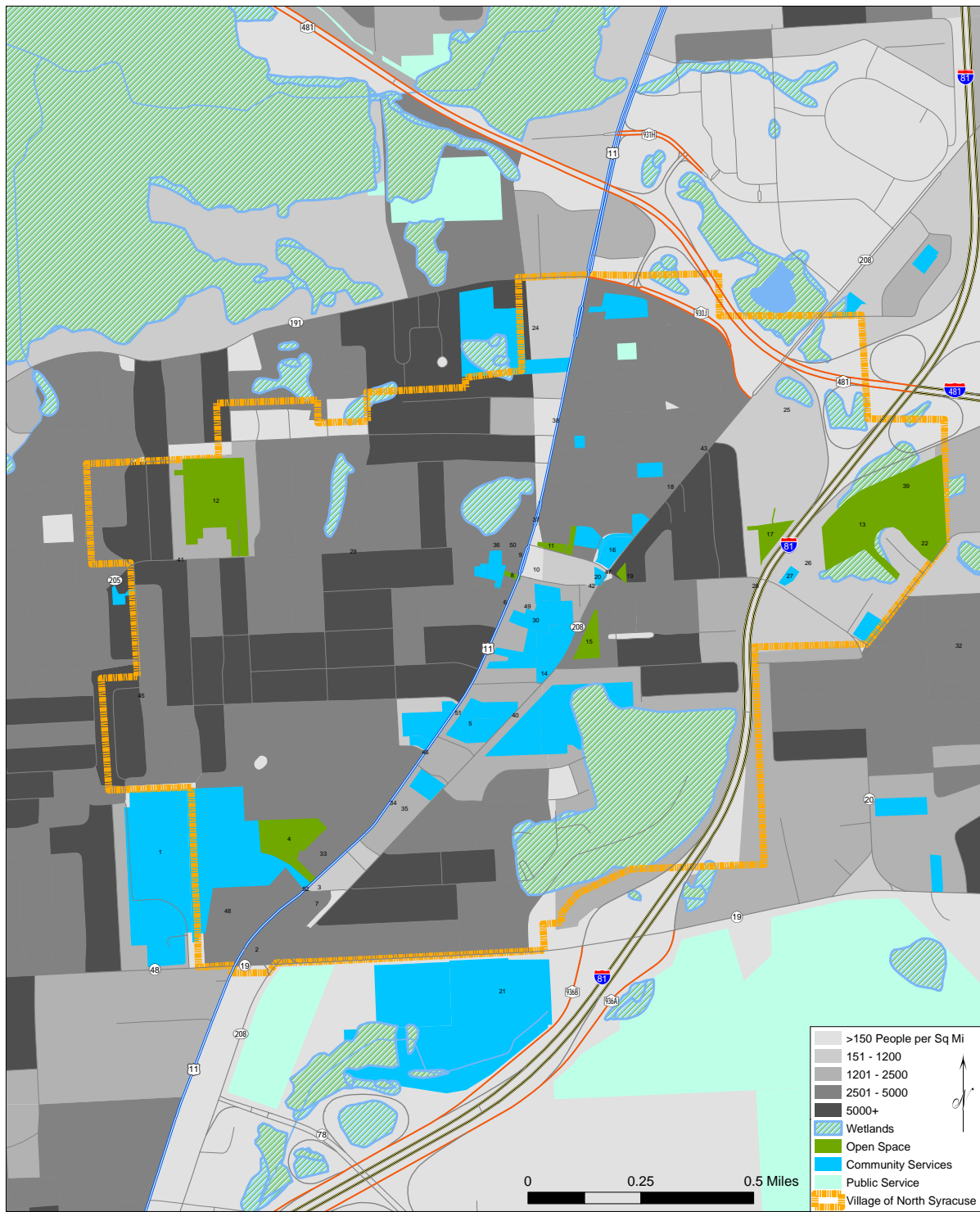
The following goals were established during committee discussions and with public input.

- Plant trees and other vegetation to reduce stormwater runoff, provide cooling, and improve the Village appearance.
- Improve pedestrian safety along Village streets.
- Maintain Village streets and sidewalks in good and complete condition.
- Improve connectivity between residential areas and community destinations.
- Establish safe bicycling opportunities within the Village with connectivity to the City of Syracuse and the Oneida Lake region.
- Provide safe and convenient access to school for students that walk or ride bicycles.

General recommendations for Complete Streets and re-greening in North Syracuse are presented below. Many are based on an analysis of population densities and community locations (Figure 5). Specific recommendations are also provided for four sections of Route 11 through the Village; for Church and Chestnut Streets; and for Bicycle Infrastructure. Conceptual designs and visualizations are provided for each section of Route 11 and are labeled as Drawing 1, Drawing 2, Drawing 3, and Drawing 4.

General Recommendations for North Syracuse

- Repair aging and damaged sections of roads and sidewalks along Rt. 11. Provide wider shoulders by decreasing vehicle lane widths. Narrower street widths will slow traffic speed, improve pedestrian safety, and create opportunities for bicycle infrastructure. Paved shoulders provide bicyclists a safe place to ride and space for motorists to pull over when needed. They also provide a place for pedestrians to walk when there are no sidewalks. Studies have shown that paved shoulders have the potential to reduce pedestrian crashes by 70% and sidewalks can reduce pedestrian crashes by 88%.
- Use permeable pavement when repairing old or installing new parking areas and sidewalks to provide a gradual filtration of surface runoff into the soil.
- Use recycled material when possible for new roadways, parking lots, sidewalks, unit paving, and curbs, among other road infrastructure.
- Re-paint crosswalks for improved visibility and pedestrian safety. Bold, closely-spaced crosswalk lines are the most effective design and should be used as a standard. They should be marked using the continental pattern of crosswalk striping, which consists of a series of wide stripes parallel to the curb for the length of the crossing. These are distinguished from ladder crosswalks, which retain the transverse side stripes of the standard crosswalk in addition to the wide rungs of the ladder, or zebra crosswalks, which have diagonal stripes (Figures 6 and 7)
- Retrofit driveways to meet reduced width standards of 24 feet for improved pedestrian and bicyclist safety.
- Reduce the number of driveway access points along Route 11 and restrict at-grade driveway crossings with sidewalks.



Village of North Syracuse - Population Density, Streets and Community Services

Data obtained from the Onondaga County Planning Department and the New York State Office of Real Property Services. This map was created for planning purposes only. The CNYRPDB does not guarantee the accuracy or completeness of this map. Please see text for full disclaimer. Map created: January 2015.

Figure 5: Population Density



Figure 6: Crosswalks Drawing NYS DOT

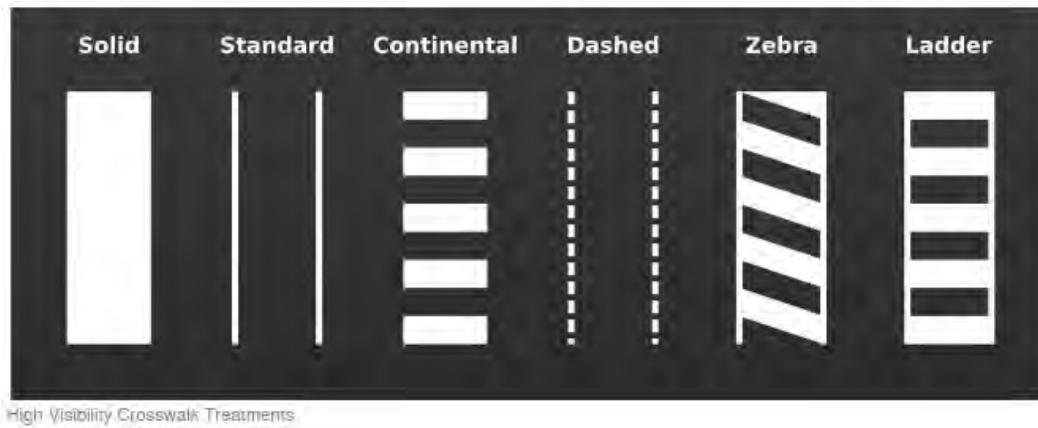


Figure 7: High Visibility Crosswalk Designs

- Encourage shared parking among neighboring businesses and relocate parking areas to the back of Rt. 11 establishments in order to reduce and consolidate surface parking, provide green space, and improve aesthetics.
- Consider compatibility of form, style and pattern of the built environment when introducing new or rehabilitated development.
- Install energy efficient and protective lighting to reduce energy expenditures, to minimize light trespass from the building and site, to increase night sky access and nighttime visibility through glare reduction, and to reduce the impact on nocturnal environments.
- Expand the use of solar powered light systems to warn drivers to reduce their speed through the Village.
- Where feasible, install green roofs on new buildings and on large area roofs. Green roofs are layers of soil and vegetation installed on rooftops that capture precipitation runoff. The vegetation allows evaporation and evapotranspiration to reduce the volume and discharge rate of stormwater.
- Improve pedestrian safety by maintaining continuous sidewalks to popular community destinations along both sides of streets.
- Redirect building downspouts. During heavy storm events, a large amount of precipitation flows out of downspouts and occasionally across lawns treated with pesticides and fertilizers, into an oily street, and eventually down storm drains that discharge into nearby streams, rivers, or lakes. To reduce the amount of precipitation runoff, divert gutter water into rain gardens or other grassy areas. Plants and soil absorb and filter water so that it percolates slowly into the ground.
- Provide greater traffic police presence to reduce vehicle speed and to encourage better compliance of crosswalk laws.
- Evaluate traffic signal timing in order to improve pedestrian safety. Traffic signal timing should be evaluated in relation to how fast people can comfortably walk to reach the curb on the other side. This becomes especially important when the local population is comprised of senior citizens, people with strollers, and people with mobility or visual impairments. Signal timing should factor in nearby land uses such as housing for senior citizens, schools, or transit stops. Use accessible pedestrian signals that have audible and or tactile indication when necessary.
- Conduct a sidewalk inventory and develop a long-term plan (five to ten-year) to install new and repair damaged sidewalks. Sidewalks connecting schools to nearby neighborhoods should have higher priority.

Recommendations for Drawing #1

- Landscape designated areas with vegetation and shade trees in municipal and business parking lots, in under-used paved surfaces, and along the sidewalks in order to buffer front parking areas, reduce stormwater runoff, provide shade and cooling, and to improve the Village appearance.
- Re-design the parking area using vegetative buffers, and one-way enter/exit at the business building at the corner of Elm Street and Rt. 11.
- Provide opportunities for additional green space and greater sidewalk continuity through shared access driveways for neighboring businesses (for example at the corner of Elm and Rt. 11).
- Develop an attractive Village gateway through the re-establishment of corner buildings, vegetative plantings, rear parking, and the installation of a 'Welcome to North Syracuse' sign near the junction of Rt 11 and Bear Road.

Look for opportunities to reconfigure the building and parking design for the shopping area at the corner of Bear Road and Rt. 11 to incorporate sidewalks for improved pedestrian access and green space to

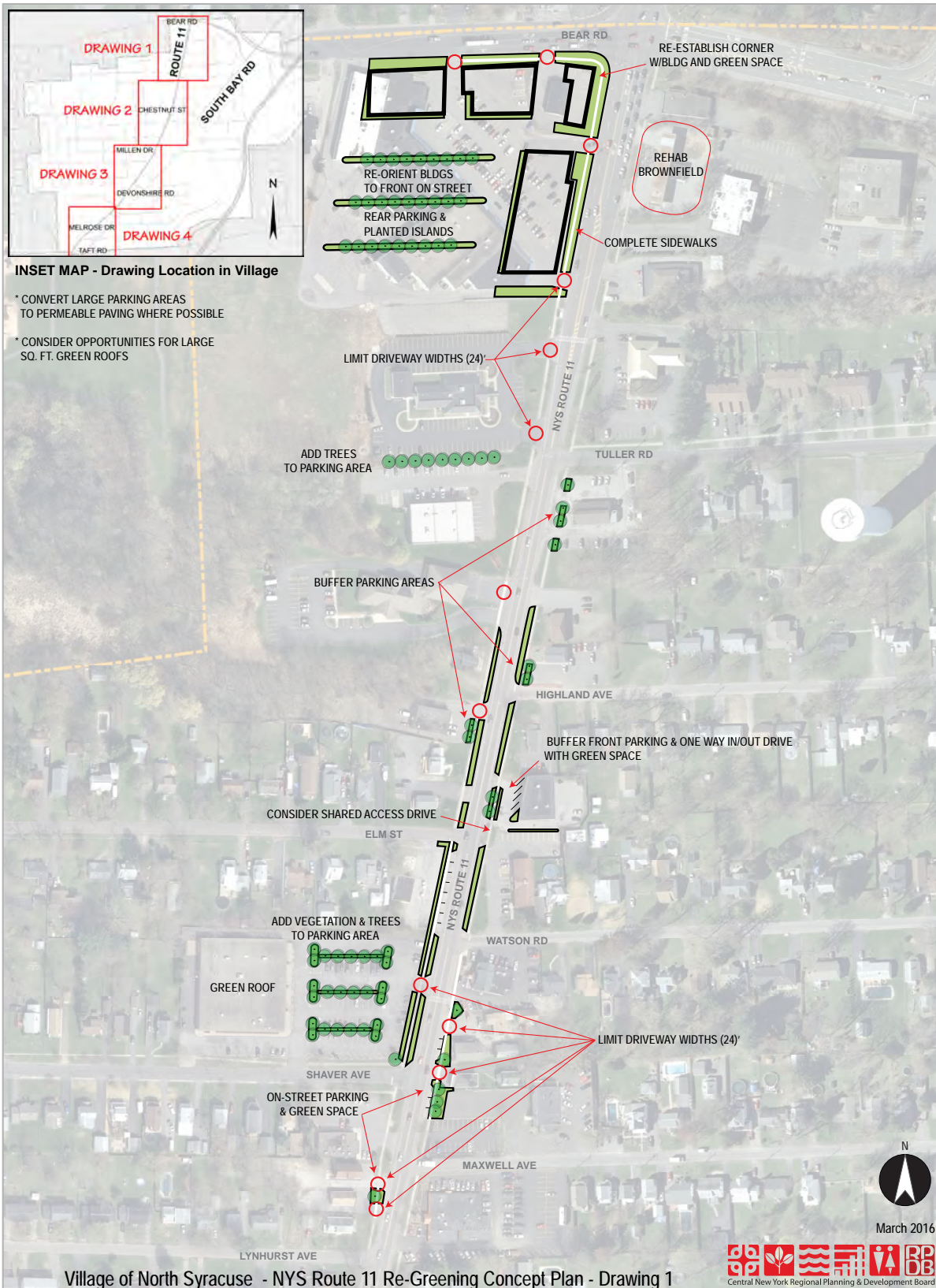
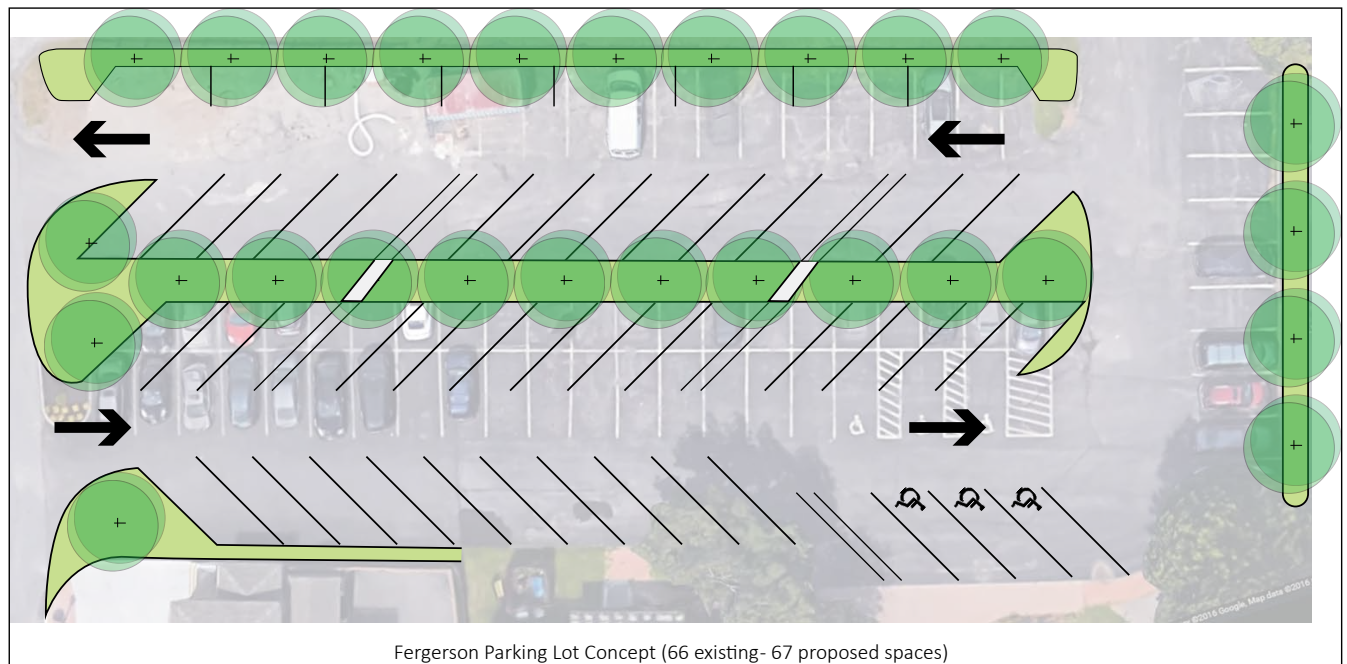


Figure 8: Drawing 1 Rt 11 Bear to Maxwell

enhance the aesthetic appeal of the streetscape. Position the buildings close to the street and locate off-street parking at the side or rear of buildings. This creates a “street wall” for enjoyable walking and driving.

Recommendations for Drawing #2

- Create opportunities for more municipal parking in the center of the Village such as in the municipal lot on Ferguson Avenue and work with local business owners to create opportunities for shared parking in neighboring lot areas. The addition of trees will reduce stormwater runoff while providing cooling and aesthetic benefits. Angled and parallel parking, vegetated islands, and one-way traffic patterns through the lot will maximize the available space (Figure 9).
- Landscape designated areas with vegetation and shade trees in municipal and business parking lots, in under-used paved surfaces, and along the sidewalks in order to buffer front parking areas, reduce stormwater runoff, provide shade and cooling, and to improve the Village appearance.
- Install municipal parking and wayfinding signs at the designated areas.
- Plantings (trees, bushes and grass, planter boxes, and/or rain gardens) are recommended in designated areas in municipal and business parking lots, in under-used paved surfaces, and along the sidewalks in order to reduce stormwater runoff, to provide shade, wind protection and cooling, and to improve the Village appearance.



Ferguson Parking Lot Concept (66 existing - 67 proposed spaces)

Figure 9: Ferguson Parking Lot

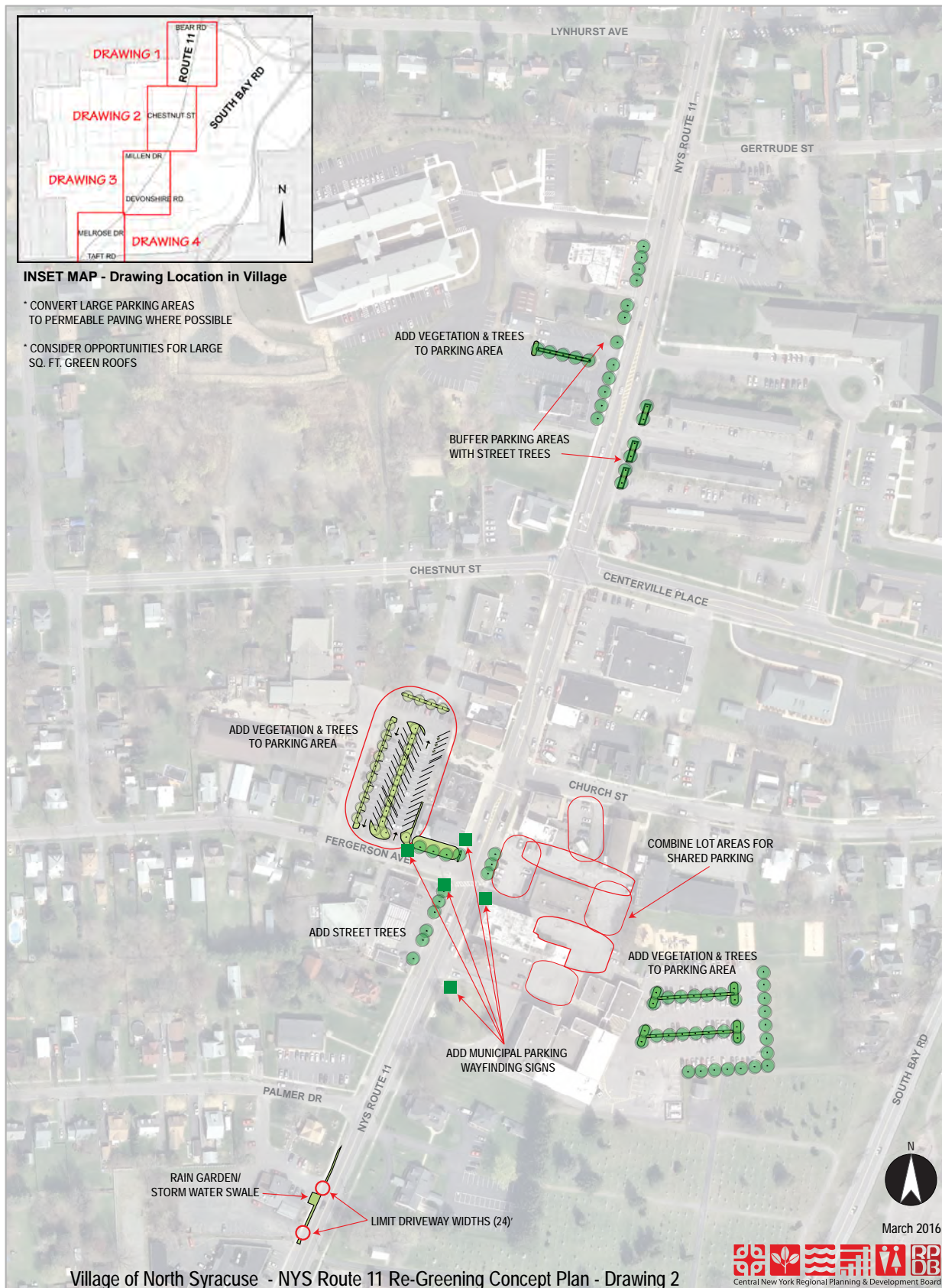


Figure 10: Drawing 2 Rt 11 Gertrude to Palmer

Recommendations for Drawing #3

- Landscape designated areas with vegetation and shade trees in municipal and business parking lots, in under-used paved surfaces, and along the sidewalks in order to buffer front parking areas, reduce stormwater runoff, provide shade and cooling, and to improve the Village appearance.
- Vegetated islands are recommended for paved areas near the churches and around the fire hydrant and telephone poles to improve aesthetics, provide cooling, and reduce stormwater runoff (Figure 12).
- Encourage shared parking among neighboring businesses and churches to provide better utilization of open space.
- Street trees, on-street parking, vegetated buffers in parking lots, and crosswalk improvements are recommended for the area near the intersection of Millen Drive and Rt. 11.
- On-street parking, vegetated buffers, a one-way parking circle, and reduced driveway widths are recommended to improve safety conditions for pedestrians and pedestrians (Figures 13 and 14).
- Improve parking opportunities in the back and along the side of the shopping area near Wells Avenue West. Vegetative plantings, a reduction in the number of driveway entry points, and re-configured street parking can greatly improve safety of pedestrians and bicyclists, and improve the streetscape aesthetics.
- Plant trees and other vegetation in large parking lots and along streetfront parking areas to provide cooling, stormwater control, and aesthetic improvements.

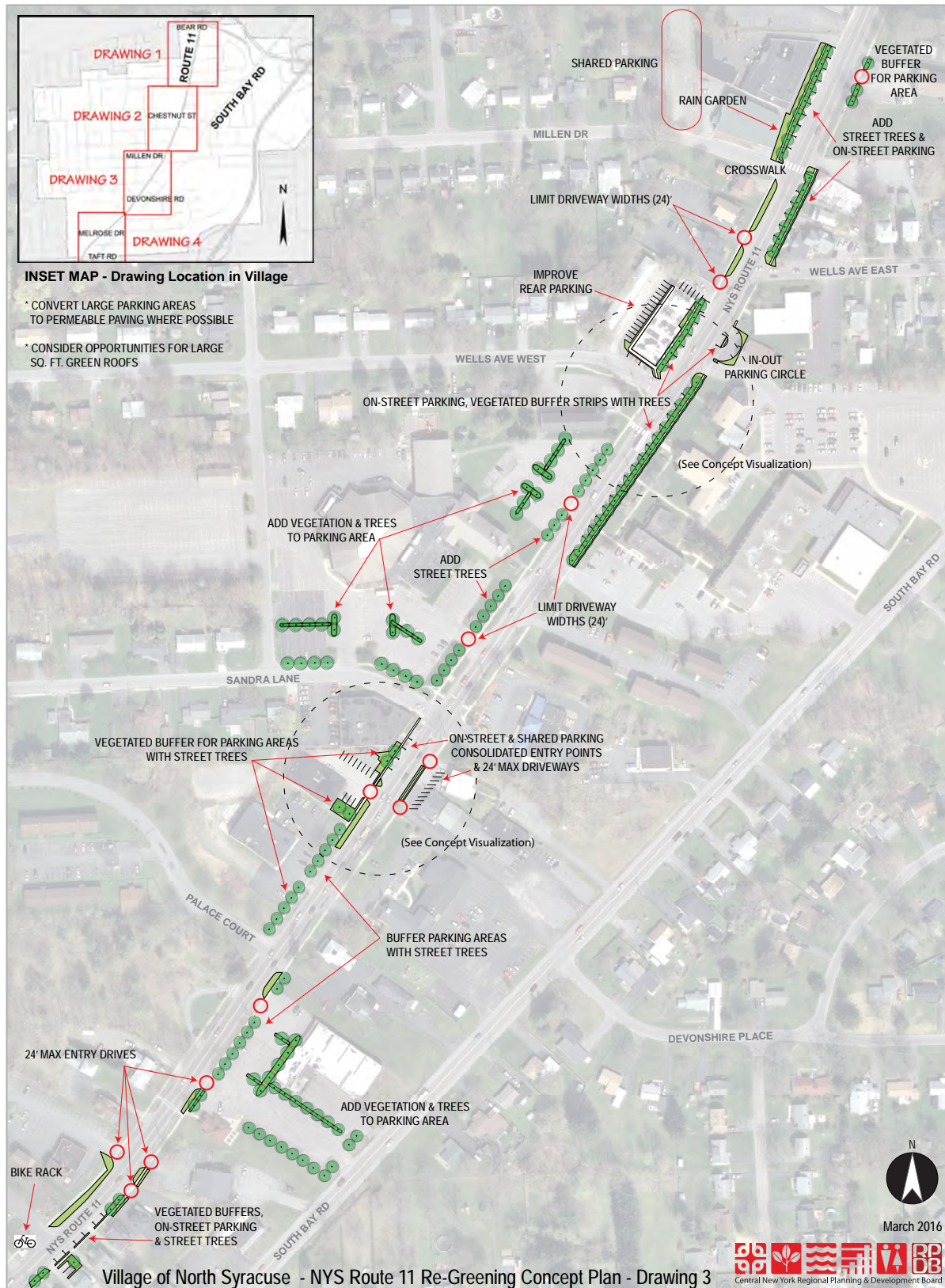


Figure 11: Drawing 3 Rt 11 Millen to Palace

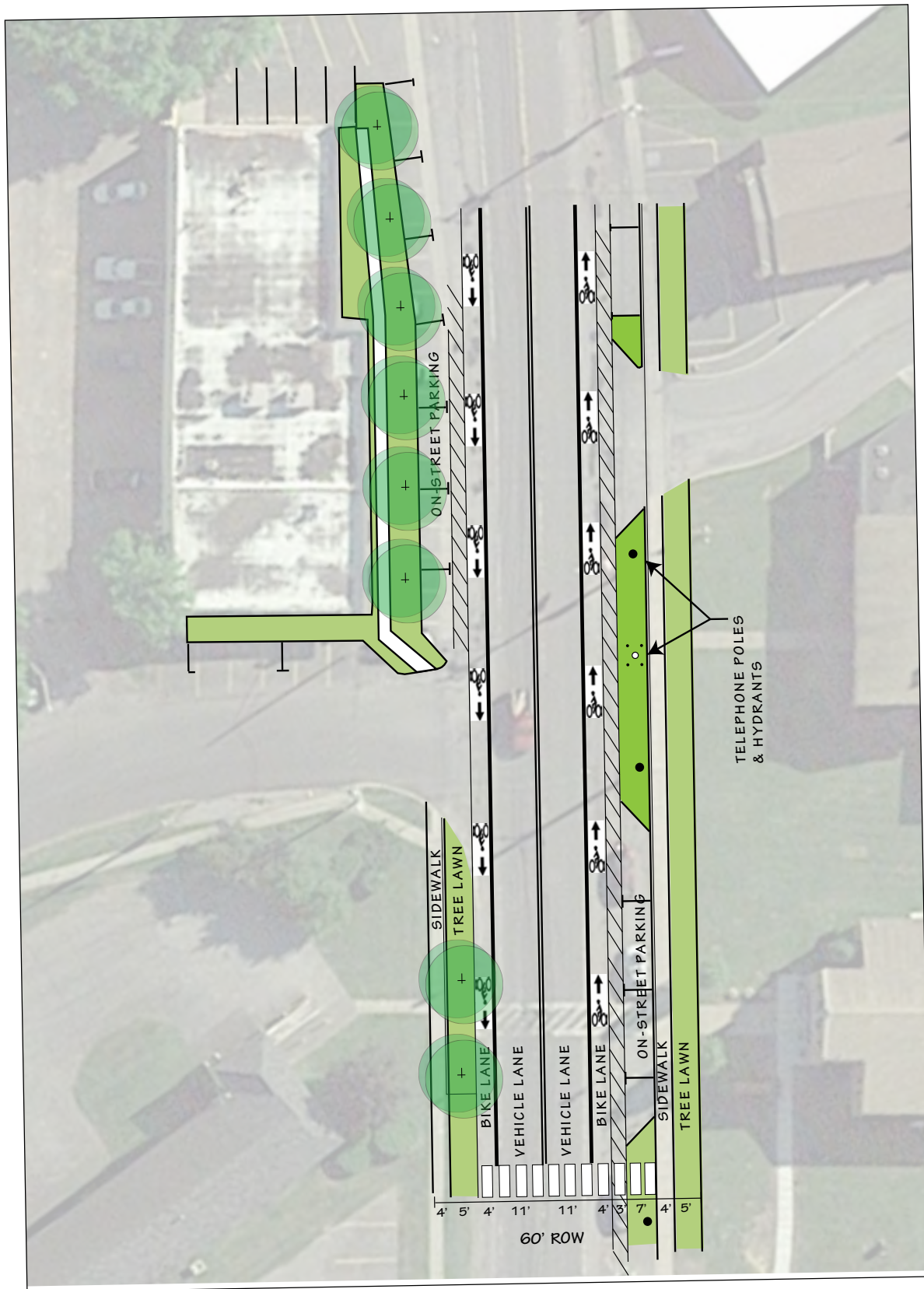
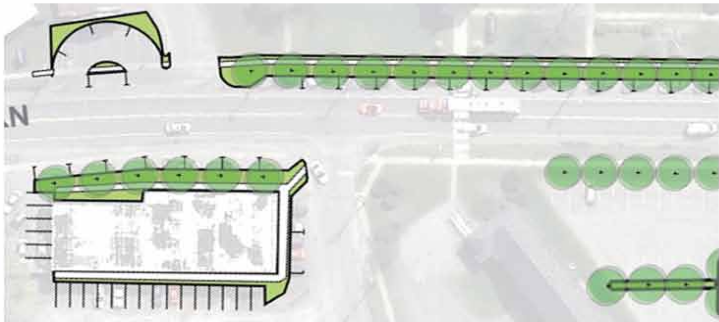
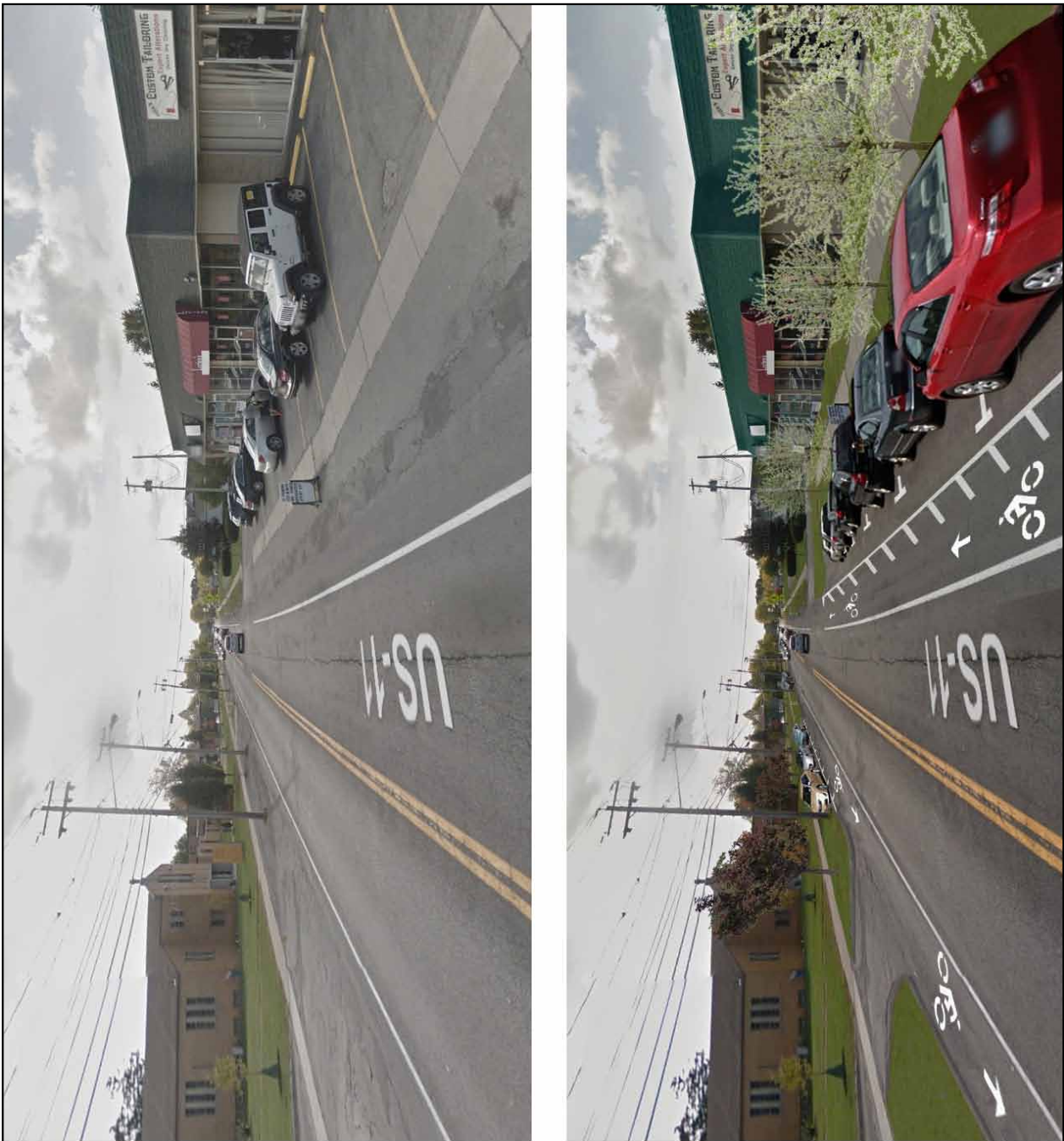


Figure 12: Concept, Route 11, North Syracuse NY

Figure 13: Before and After Concept, Route 11 Heading South



Regreening Concept (not a design)

Figure 14: Before and After Concept, Route 11 Heading North



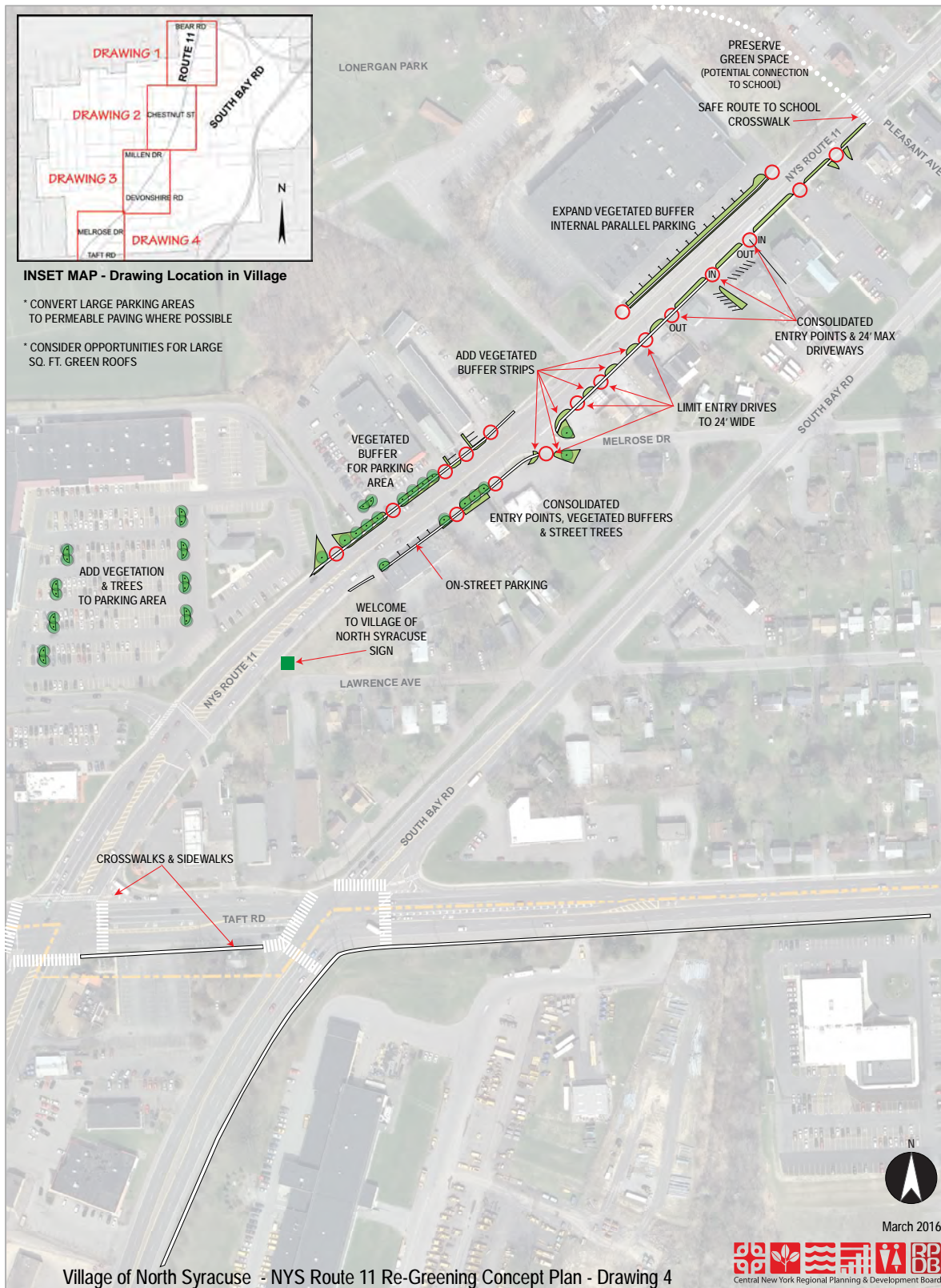


Figure 15: Drawing 4 Rt 11 Pleasant to Taft

Recommendations for Drawing #4

- Expand the vegetative buffer in front of the Stickley building to reduce stormwater runoff, provide shade and cooling, and to improve the Village appearance and pedestrian comfort.
- Reduce driveway entry points in several sites along this section of Rt. 11 in order to improve safety conditions for pedestrians and bicyclists.
- Develop an attractive Village gateway through the installation of a 'Welcome to North Syracuse' sign near the junction of Rt 11 and Lawrence Avenue.
- Improve pedestrian safety by providing crosswalks and sidewalks in designated areas at the Taft Road Route 11 intersection.
- Provide greater access to the school and the bus stop and to Lonergan Park by preserving and using green space and adding pedestrian crosswalks at Pleasant and S. Bay, and at Pleasant and Rt. 11.
- Establish a Task Force to develop and implement a "Safe Routes to School" program with grass-roots participation by students, parents, teachers, transit workers and others with an interest in developing safe commuting opportunities. Develop recommendations for Village engineers, the school administration, neighborhood residents and parents with flashing, slow speed signs, crosswalks, handicapped accessible curbs, and implementation of safety programs at the school.
- Evaluate the effectiveness of current speed limits near the school and recommend greater police traffic enforcement if needed to promote safety for students walking and biking to school.

Recommendations for Church and Chestnut Streets

- Provide safe pedestrian and bicyclist access to community destinations (such as Heritage, Kennedy and Sleeth Parks, North Area Meals on Wheels, and retail stores) along Church and Chestnut Streets by improving sidewalk and road shoulder conditions and by re-painting crossing areas.
- Landscape designated areas with vegetation and shade trees in municipal and business parking lots, in under-used paved surfaces, and along the sidewalks in order to buffer front parking areas, reduce stormwater runoff, provide shade and cooling, and to improve the Village appearance.
- Improve sidewalk and road shoulder conditions and install painted crosswalks along Grove Street to improve access between residential housing and community destinations (Figures 17 and 18).
- Provide freshly painted crosswalks for safer pedestrian crossing at Chestnut and Main, and at Centerville and South Bay.
- Request an SMTC route analysis to improve pedestrian safety at the intersection at South Bay and Maxwell/Watson.

Recommendations for Bicycle Infrastructure

- Install bike lanes along Route 11 (Figures 13 and 14) and a bike lane with road sharrows and ‘share the road’ signage on Chestnut Street (Figure 16) for improved public access to community destinations and services, parks, stores, and restaurants, and to enhance outdoor recreation opportunities. A sharrow (also called a shared-land marking) is a street marking installed on a road to indicate a shared lane environment for bicycles and automobiles and to show where people should preferably cycle. Sharrows encourage safe passing of bicyclists by motorists and reduce the incidence of wrong-way bicycling.
- Install bike racks, provide space for patrons with bikes, and display bike corridor maps at Village bus stops.
- Install bike racks and signage near community destination points and at Sleeth, Heritage, Loneragan, and Cerverville Parks.
- Work on completing the bike route from North Syracuse to Syracuse by extending the Bear Trap Creek Trail from the Mattydale Plaza north to the Village. Support efforts to further complete the bike route south towards Syracuse. A potential route to Bear Trap Creek Trail from North Syracuse is presented in Appendix F.
- Work toward development of a bike route from North Syracuse north to the Oneida Lake region via South Bay Road.



Figure 16: Potential Bicycle Route, Chestnut Street



Figure 17: Concept, Grove and Church Before Improvements



Figure 18: Concept, Grove and Church After Improvements



CHAPTER 4: IMPLEMENTING A COMPLETE STREETS POLICY

The New York State Department of Transportation (NYS DOT) and local agencies - typically counties and municipalities - are responsible for implementing Complete Streets. The law applies to county and local transportation projects that are undertaken by NYS DOT, or to local projects that receive both federal and state funding and are subject to NYS DOT oversight. Projects that are 100% locally funded are not subject to the law, but local agencies can choose to adopt Complete Streets practices. The law does not apply where any of the following conditions exist:

- Bicyclists and pedestrians are prohibited by law
- The cost is disproportionate to the need, as determined by factors such as land use context, current project traffic volumes, and population density
- There is a demonstrated lack of need, as determined by factors such as land use, current project traffic volumes, or lack of community support
- The use of design features would have an adverse impact on, or be contrary to, public safety

Governor Cuomo signed the Complete Streets Act and NYS DOT is currently reevaluating and enhancing its policies, programs and standards to ensure they comply with the law. The law includes 13 Complete

Street design features, all of which are represented in NYS DOT's design standards. They include the following: sidewalks, paved shoulders suitable for use by bicyclists, lane striping, bicycle lanes, signage, crosswalks, road diets, pedestrian control signalization, signals and delineation, bus pull-outs, curb cuts, ramps, traffic calming measures, and raised crosswalks.

NYS DOT has a variety of programs, initiatives and guidance documents that promote Complete Streets. Each of NYS DOT's 11 geographic regions across the state has a regional bicycle pedestrian coordinator responsible for promoting bicycle and pedestrian programs. NYSDOT also maintains a Bicycling in New York Web page, and is developing a similar page for pedestrians.

NYS DOT is also working to integrate the requirements of the New York State Smart Growth Public Infrastructure Policy Act. Some criteria of Smart Growth complement the goals of Complete Streets, such as furnishing transportation options other than automobiles, and reducing regional air pollution.

Moving Ahead

Now that the North Syracuse Complete Streets and Re-Greening Plan is available, the next step for the Village is to adopt a Complete Streets policy. The day-to-day decisions that community leaders make in funding, planning, design, maintenance, and operations should be aligned to the goals of that adopted policy document. Many communities blend their Complete Streets Plan into their Comprehensive Plan. The National Complete Streets Coalition recognizes several additional types of commitments to a Complete Streets approach:

- ✓ **Legislation** - Complete Streets legislation requires the needs of all users to be addressed in transportation projects by changing city, county, or state codes or statutes.
- ✓ **Resolutions** - Resolutions are non-binding official statements from a jurisdiction's legislative branch.
- ✓ **Executive Orders** - Executive orders are high-level directives issued by a mayor or governor.
- ✓ **Departments Policies** - Departmental policies are adopted by the leadership of a jurisdiction's transportation agency, office, or department without action from an elected body.
- ✓ **Board Policies** - Policies adopted by an elected board are policy statements, usually developed by a group of stakeholders, and are approved by an elected governing body via an adopting resolution or ordinance.

The following steps are recommended for the North Syracuse community:

- Maintain open lines of communication among elected officials, agencies, citizens, transportation professionals, law enforcement, public health, school district, and businesses professionals.
- Recruit an enthusiastic community leader to schedule Complete Streets committee meetings and maintain momentum for the implementation projects.
- Form a *Safe Routes to School* committee.
- Establish an annual date for updating or revising existing policies or procedures.
- Inform elected officials, public and internal stakeholders about implementation progress and prepare annual reports that include Complete Streets progress.
- Request continued advice and guidance from groups such as the National Complete Streets Coalition.
- Provide ongoing education and training for planners, engineers, consultants, and agencies.

Performance Measures

North Syracuse is encouraged to identify performance measures to track progress and to help Village elected officials and local agencies know if they are on the right track. Actual data that documents the performance of Complete Streets implementation can become a strong selling point for future projects and funding. Complete Streets projects in North Syracuse should be documented through the use of performance measures such as sidewalk improvement projects, miles of bike lanes added, number of street trees planted, transit performance such as percentage of buses running on time, percentage of children walking and bicycling to school, average vehicle miles traveled, and accident rates.

Implementation Resources

‘Taking Action on Complete Streets: A Toolkit for Implementation’ — This resource details the best practices and top tips related to the National Complete Streets Coalition’s steps to implementation. It includes several case studies and links to additional resources used in communities implementing Complete Streets.

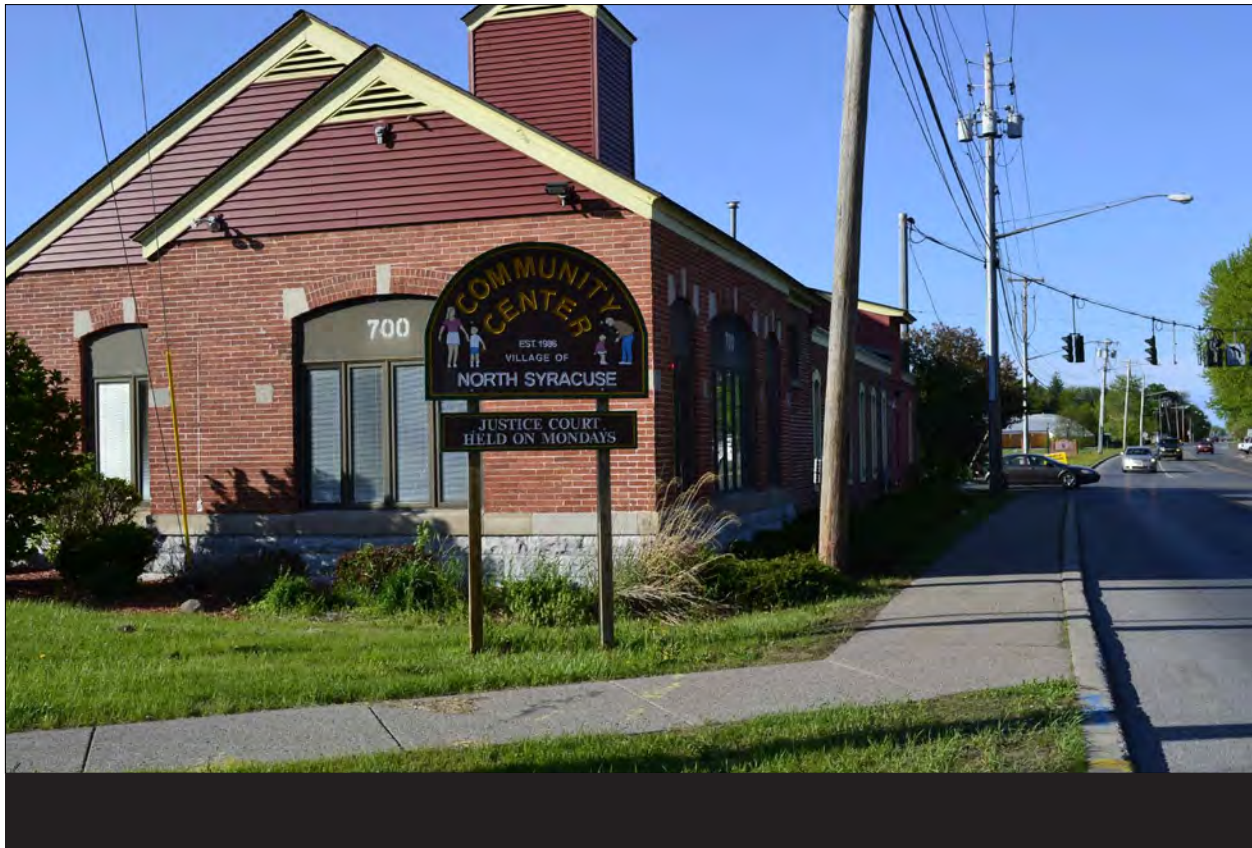
‘Safer Streets, Stronger Economies’ — This report details the outcomes that communities get for their investments in Complete Streets. Complete Streets projects tended to improve safety for everyone, increased biking and walking, and showed a mix of increases and decreases in automobile traffic, depending in part on the project goal.

‘Addressing Costs Concerns’ — A report and accompanying PowerPoint presentation materials to help transportation professionals, advocates, and decision-makers make the case that implementing Complete Streets won’t break the bank. The Guide provides four overarching points to make in answering cost questions, each supplemented with multiple examples from communities across the country.

‘Complete Streets in the Southeast: A Tool Kit’ — Developed with AARP, this tool kit includes research and examples specific to the Southeast U.S. that cover Complete Streets from policy adoption through implementation. The tool kit includes a template implementation plan and a worksheet to help communities apply a Complete Streets approach to projects, both based on tools used in the region.

Workshop: Complete Streets Policy Implementation — In this daylong workshop, national experts help transportation decision-makers in a single community examine current processes, identify real and perceived barriers, and draft next steps to best implement an adopted Complete Streets policy.

Workshop: Complete Streets Design Considerations — In the final workshop of our series, transportation practitioners discuss Complete Streets implementation in the context of design considerations and best practices.



CHAPTER 5: COMMUNITY INVENTORY AND ANALYSIS

Location and Demographics

The Village of North Syracuse is located in the Oswego-Seneca-Oneida Rivers watershed that drains to Lake Ontario, through the Gulf of St. Lawrence, and eventually to the Atlantic Ocean. The municipality is located in a physiographic province called the Lake Ontario Plain (also often referred to as the Erie-Ontario Lowlands) which is characterized by flat terrain, high groundwater levels, and occasional flooding. 1.6 acres in North Syracuse are located in the 100-year flood plain (Figure 19). Most of the land in North Syracuse has been actively developed with the exception of approximately 110 acres of New York State-designated wetlands and approximately 21 acres of federal wetlands.

The Village is comprised primarily of residential (62%) and commercial (18%) properties. 9% of land is classified as vacant, 8% is classified as community service, and 3% is classified as recreation. Less than 1% of land is classified as forested/conservation, public service, or other (Figure 20).

According to Census data, the population in 2010 was 6,800. Totals and percentages for certain age groups are displayed in Figures 21 and 22. The long term population trends show a gradual decrease since 1960 (Figure 23). According to the American Community Survey 2010-2014 five-year estimates, the median family income in North Syracuse in 2014 was \$60,617, which is an increase from \$47,853 in 2000.

North Syracuse has a moderate population density, with the majority of land parcels having over 2,501 people per square mile.

FEMA Flood Zones (Preliminary Data) and Flooding and Ponding Frequency



Central New York
Regional Planning & Development Board

Data obtained from the Onondaga County Planning Department and the New York State Office of Real Property Services. This map was created for planning purposes only. The CNYRPDB does not guarantee the accuracy or completeness of this map. Please see text for full disclaimer. Map created: September 2016.

Figure 19: FEMA Flood Zones and Flooding and Ponding Frequency

The housing unit totals have increased slightly from 2,876 in 1980 to 3,201 in 2010 (US Census Bureau). The median housing values for North Syracuse and several neighboring municipalities are displayed in Figure 24.

Local Government

The Village is governed by a mayor and four trustees. Most development occurred after World War II and approximately 50 properties have been identified for their historic value through a 1980 Preservation Association of Central New York (PACNY) survey. Zoning codes serve as the regulatory tool to manage growth and development. The Village has a Planning Commission and a Zoning Board of Appeals that oversee changes in zoning, new construction, building additions, and municipal plans for drainage, sewer, setback requirements and public structures.

The Village is divided into nine zoning districts including residential, business, commercial, storage unit, Village Center, planned development, and commercial transitional. Several documents provide guidance for local decision-makers, including a zoning ordinance; building codes; site plan review regulations; a subdivision ordinance; a NFIP flood damage prevention ordinance; a stormwater management plan; a comprehensive plan; an emergency response plan; and a post disaster recovery plan.

The Village provides many services to its residents including police protection, street maintenance, snow removal, garbage pick-up, fire protection, recreation, sewer service and street lighting. The services are funded primarily by real property taxes, fire protection contracts, State aid and user charges.

Water and Sewer Infrastructure

The Onondaga County Water Authority Water is responsible for transporting water to the Village from Lake Ontario and Otisco Lake. Households and businesses are served by the Onondaga County Metropolitan Sewage Treatment facility. The stormwater drainage system is separate from the sanitary sewer system and connects with trunk mains in Onondaga County. During the 1960s the Village invested in significant upgrades to its water and sewer network.

Natural Resources

Six parks and a community center are located in North Syracuse. Toll Road Park includes a school house that serves as a museum and Plank Road Village that features historical exhibits. The Plank Road Historical Village was designated as a Village Historical District in order to promote research and education.

The seven acres of old growth woodland, known as the Oak Grove Forest, is a significant natural and historic site in North Syracuse. It is located behind the North Syracuse Junior High School running track and contains some of the oldest and largest oak trees in Onondaga County. Most of the trees (primarily White, Northern Red and Black Oaks and Red Maple) are estimated to be between 130 and 170 years old and a few are thought to be over 200 years old. Because the area has never been plowed or completely cleared, it serves as a valuable greenspace for the region with educational and ecological importance.

Transportation

When Native Americans inhabited Onondaga Country, a footpath extended from Pennsylvania up to the St. Lawrence River, passing through the center of the Village. In 1844, the first plank road was built on the footpath. It was 16.5 miles long and 8 feet wide. The route eventually became US-11. Shortly after the Syracuse Northern Railroad was built in 1871, the plank road was abandoned from Central Square to Brewerton.

Most of the Village workforce travels to jobs in Syracuse or other municipalities in Onondaga County. There are currently 26 miles of public roadways in North Syracuse. The two main routes, US Route 11 and South Bay Road, are used for commuting through the Village, connecting with roadway networks in neighboring communities.

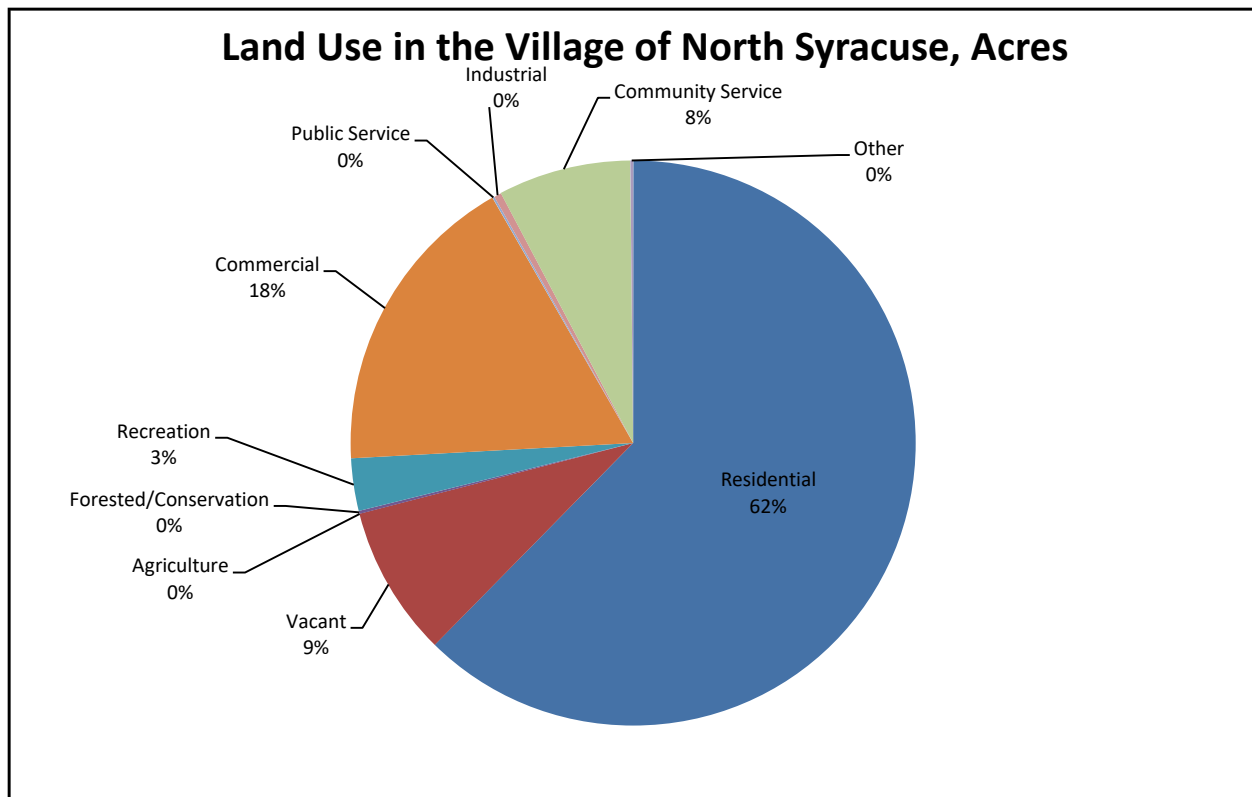


Figure 20: 2014 Land Use
(Source: NYS Office of Real Property Services)

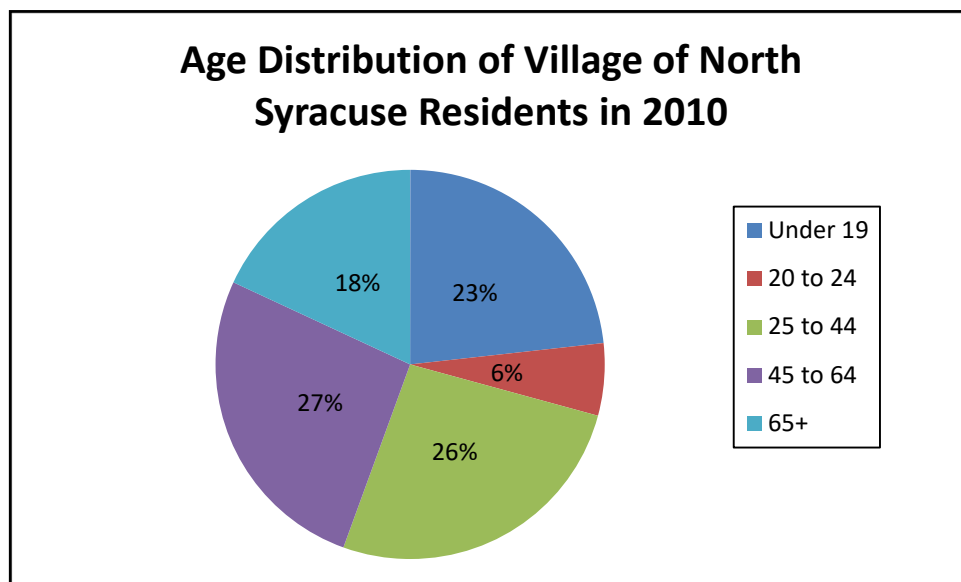


Figure 21: Age Distribution of Residents
(Source: 2010 US Census)

Population by Age Group in North Syracuse, 2010	
Under 19	1,581
20 to 24	407
25 to 44	1,790
45 to 64	1,793
65+	1,229

Figure 22: Population by Age Group
(Source: 2010 US Census)

Village of North Syracuse Population Trends	
1960	7,412
1970	8,687
1980	7,970
1990	7,363
2000	6,862
2010	6,800

Figure 23: Population Trends 1960 to 2010
(Source: US Census Bureau)

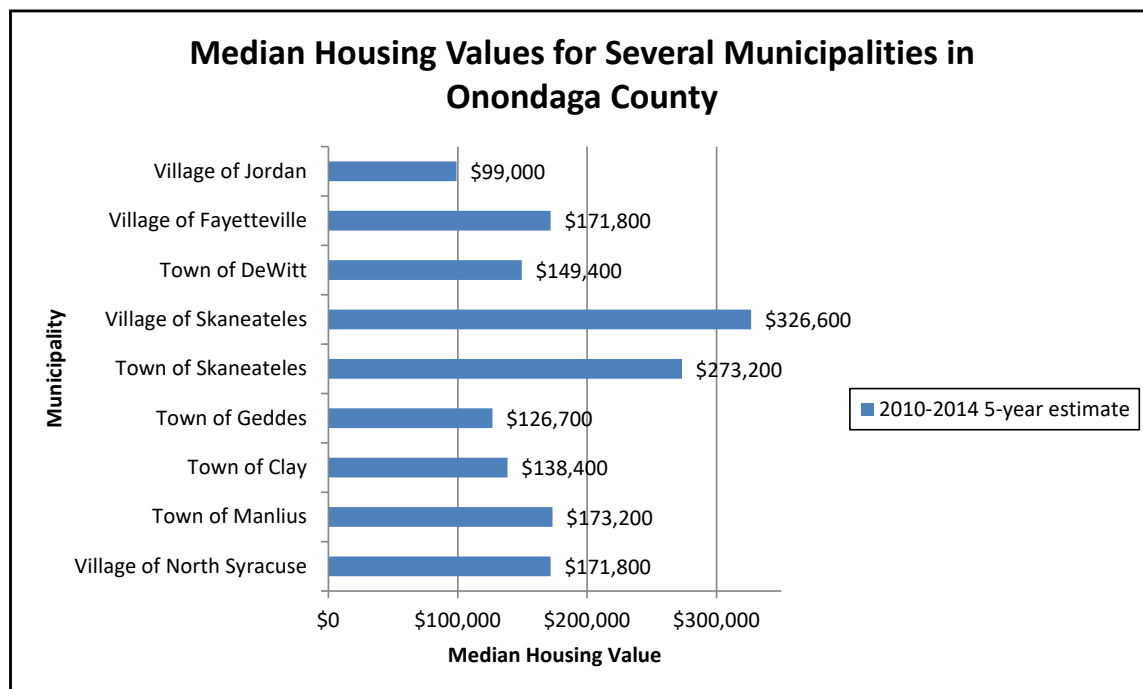
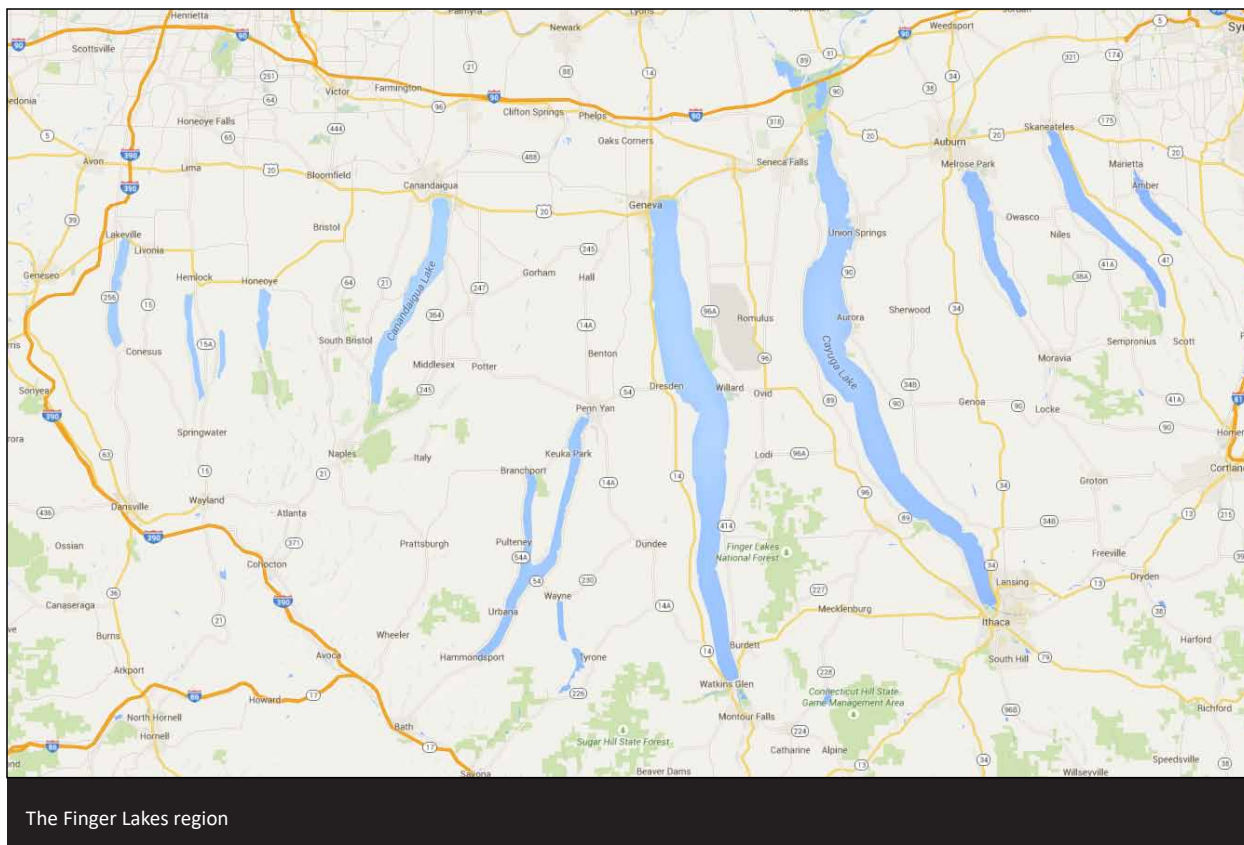


Figure 24: Median Housing Values in Onondaga County
(Source: 2010-2014 American Community Survey)



CHAPTER 6: REGIONAL INFLUENCES

Regional influences are an important consideration when evaluating Complete Streets plans for North Syracuse. Issues related to growth and economic activity, environmental impacts, natural resources, and infrastructure are among the many considerations that were considered in terms of regional transportation and municipal connectivity as this report was developed.

North Syracuse is located in the Finger Lakes region, an international tourism destination which encompasses 14 counties. The area includes eleven lakes ranging in size from 11 to 40 miles in length and more than 650 miles of shoreline. The Finger Lakes region is bordered by Pennsylvania to the south and Lake Ontario to the north. Lakes in the region include Canandaigua, Cayuga, Owasco, Keuka, Seneca, Skaneateles, Canadice, Conesus, Hemlock, Honeoye and Otisco. The names of these lakes reflect the region's rich Native American heritage and the area attracts visitors from all over the world to experience the wineries, beautiful scenery, waterfalls, and recreational opportunities. The five-county Central New York region, including Cayuga, Cortland, Madison, Onondaga, and Oswego, covers 3,120 square miles and has an approximate population of 780,000. A diverse and abundant collection of cultural, historic, and natural resources enhance the quality of life in the region. The rolling terrain and four season climate adds to the sense of environmental diversity.

By most measures, Central New York forms an area of interdependent economic activity. There is a central concentration of activity in Onondaga County and the City of Syracuse. In addition to this major

urban center, there are predominant areas of activity in cities located in each of the other four counties. These cities include Auburn (Cayuga County), Cortland (Cortland County), Oneida (Madison County), and Fulton and Oswego (Oswego County). The five-county region comprises a balance of an urban center, suburban areas, small cities, rural Towns and Villages, and farming communities. North Syracuse is located in the center of New York State, in close proximity to Rochester, Buffalo, Albany, and Binghamton; and just a few hours drive from NYC, Toronto, Boston, and other major cities in the Northeast.

Central New York has an extensive transportation network including Syracuse Hancock International Airport, the deep water Port of Oswego, a CSX intermodal rail center along with freight and passenger service, Interstate Routes 81 and 90 that bisect the region in a north/south and east/west direction. Central New York is also served by an extensive network of public sewer and water facilities. Electric and gas service is provided by several private utility companies including National Grid, New York State Electric and Gas, and Rochester Gas and Electric. The region is also served by an advanced telecommunications system that is provided by such major service providers as Verizon, Time Warner and AT&T. Annual wage cost is competitive with national levels and significantly below major metropolitan areas in the northeast. The skills of the Central New York labor force support a wide range of economic sectors including manufacturing, health care, education, professional business services, warehouse and distribution, wholesale and retail trade, the construction trades, transportation and utilities, and government.

Central New York has a strong foundation of several important industrial and occupation clusters. These include biosciences, digital and electronic devices, environmental systems, precision metalworking, packaging, information management, engineering, medical services, and logistics. These clusters account for more than 670 establishments in Central New York and employ more than 40,000 people – nearly 10% of the region's employment base. Economic activity in the Central New York Region includes a diversity of manufacturing types, a strong wholesaling sector, a significant agricultural activity, and a sizeable representation in the finance, insurance and real estate sectors. Although manufacturing employment has declined over the last two decades, it has maintained its importance as a critical part of the regional economy. The traditional role of manufacturing in generating supportive employment and paying relatively high wages is no less important to the Central New York Region than it is to the nation as a whole. The service sector of the economy in Central New York, represented by finance, insurance and real estate businesses, has accounted for a large amount of employment growth in the region since the 1960's. This trend represents the transformation of the region's postindustrial economy to a new service economy supported by an in-migration of financial and insurance companies.

The region's wholesaler sector is concentrated in the Syracuse area. Syracuse is the major center of economic activity and has helped define the region as a functioning economic unit due to intraregional flows of labor and products. Agriculture has been declining as an economic activity when measured by direct employment, number of farms, and land area, but displayed considerable strength in increasing the market value of agricultural sales. Recently, with advances in alternative energy technologies such as ethanol production, field crop production is focused more on corn rather than hay or soybeans. Agricultural activity and related agribusiness is the primary base of economic activity in the rural areas of the region, particularly in Cayuga, Cortland, and Madison Counties.

The Central New York Regional Planning and Development Board (CNY RPDB), a public planning agency, provides a comprehensive range of services associated with the growth and development of communities in the Central New York region with a focus on comprehensive planning, economic development, energy management, environmental management, information and research services, intergovernmental cooperation, and transportation planning. The CNY RPDB provides a wide range of resources and services to assist communities with planning and development initiatives.

Onondaga County

Onondaga County has a total land area of 499,200 acres (780 square miles). The northern portion of Onondaga County is within the Lake Plain region, while the southern portion is part of the Appalachian Upland region. In general, agriculture and forestry are the largest land uses in the county and dairying is the principal type of farming. Most of the forest acres are commercial, and the majority of the acres occur in small, scattered woodlots. Forests in the southern portion of the county are mostly natural and reforested areas owned by the county or state. The northern portion of Onondaga County is much more populated and developed than the rural farm and forest land to the south.

The City of Syracuse

The City of Syracuse, the county seat of Onondaga County just south of North Syracuse, is a major northeast metropolitan center. The City has an estimated population of 144,669 (in 2013) and over 136 million people live within a 750 mile radius of Syracuse. With a labor force of 333,000, Syracuse MSA is home to several major businesses that employ a majority of people in Onondaga and surrounding counties. Featuring much distinctive architecture from the nineteenth and twentieth centuries, Syracuse is also a major cultural center in Upstate New York.

The city area offers dozens of parks, nature centers, golf courses, the Rosamond Gifford Zoo at Burnet Park, several museums and galleries, including the nationally known Everson Museum of Art, designed by I.M. Pei, Syracuse Opera, the only year-round professional opera company serving Central New York, Syracuse Stage, Central New York's only professional theater, the Carrier Dome, home of Syracuse University athletics, the Museum of Science & Technology with New York State's only IMAX-Dome theatre, numerous music festivals including Jazz Fest, NYS Blues Fest and Empire Brewing Musical Festival, Ethnic festivals including the Polish Festival, Jewish Music & Cultural Festival, Bavarian Festival, Latino-American Festival, Irish Festival, La Festa Italiana, and Oktoberfest. Destiny USA is a major retail, entertainment and recreation complex. Publicized as a "green" building project, it is powered entirely by renewable resources.

Erie Canalway National Heritage Corridor

Onondaga County is traversed by the Erie Canalway National Heritage Corridor, a 524 mile-long scenic navigable waterway constructed in 1825 connecting the Great Lakes of New York State with the Atlantic Ocean at New York City via the St. Lawrence Seaway and the Hudson River. This National Heritage Corridor is celebrated for its rich history, including the birthplace of the women's rights movement, transportation, early settlement and industry, historic architecture, wine country, and world-class cultural and recreational attractions. Cultural events and festivals along the historic corridor are taking root as well as a multiple-use trail currently in development that will stretch 360 miles when completed, becoming the longest such trail in the nation. Currently, there are approximately 300 miles of completed trail that are open to the public. As the Canalway Trail continues development, it will become a significant recreational and economic asset promoted and open to hikers, joggers, bicyclists, cross country skiers, and visitors to the region, connecting and benefiting hamlets, villages and cities across New York State.

Colleges and Universities

There are over 44 institutions of higher education in Central New York with a combined enrollment in excess of 215,000 students. Several of these institutions are within a reasonable driving distance from North Syracuse. Many are part of the State University of New York (SUNY) system, the nation's largest comprehensive system of public higher education. The State University of New York's 64 geographically dispersed campuses bring educational opportunity within commuting distance of virtually all New Yorkers and offers students a wide diversity of educational options: short-term vocational/technical courses, certificate programs, associate degree programs, baccalaureate degree programs, graduate degrees and postdoctoral studies. The University offers access to almost every field of academic or professional study – over 7,670 degree and certificate programs overall. There are also numerous private colleges and universities within 50 miles of the Village, including Syracuse University and LeMoyne College.

Oneida Lake

Oneida Lake, the largest waterbody entirely within New York State, is located approximately 11 miles northeast of Syracuse. The watershed encompasses parts of the Appalachian Uplands, Tug Hill Uplands, and Lake Ontario Plain regions. The New York State Canal System traverses the Lake Plain Region as it flows east to west through the Oneida Lake watershed. Water exits the watershed through the western end of Oneida Lake via the Oneida River where it eventually makes its way to Lake Ontario.

The Oneida Lake region is a demographically diverse ecosystem that offers a variety of recreational and economic opportunities. Extending from the Tug Hill region in the north to the DeRuyter Reservoir in the south, and from the City of Syracuse in the west to the City of Rome in the east, the geographic diversity of the watershed is reflected in everything from population trends to local economic influences. The region boasts of a well-developed and extensive infrastructure, abundant wildlife, strong aesthetic appeal, and a wide range of tourism and recreational opportunities. Collectively, these features form the basis of a healthy, regional economy.

A variety of tourism and recreational opportunities are available in the Oneida Lake region. Annual events, extensive park and recreational facilities, excellent boating and fishing access, and other tourism opportunities enhance the region's value. Numerous municipal, county, and state parks and other recreational facilities offer a wide range of activities such as swimming, hiking, bird watching, fall foliage viewing, golfing, cross-country skiing, snowshoeing, snowmobiling, hunting, fishing, trapping, and camping. The NYS DEC operates the Oneida Lake Fish Cultural Station in Constantia. The station is the largest state-of-the-art walleye hatchery in the country. There are also two public piers on the lake, located in Sylvan Beach and Brewerton, and 12 state-run public fishing access sites.

Fishing and boating have played a major role in the social and economic development of the region, and today, they are two of the primary recreational uses of Oneida Lake. The lake's fishery is a major contributor to the region's tourism industry. Oneida Lake has been identified as the most important inland fishery and the fourth most important sport fishery in New York State. The integrity of the lake and watershed has a direct impact on the economic livelihood of local municipalities

APPENDIX A: NORTH SYRACUSE COMMUNITY SURVEY

In December 2015 and January 2016, the CNY RPDB distributed a community survey based on the Complete Streets objectives. It was placed on the North Syracuse website and committee members helped to distribute it throughout the community. The results, found on the following pages, were considered when the issues and recommendations were developed for this report.

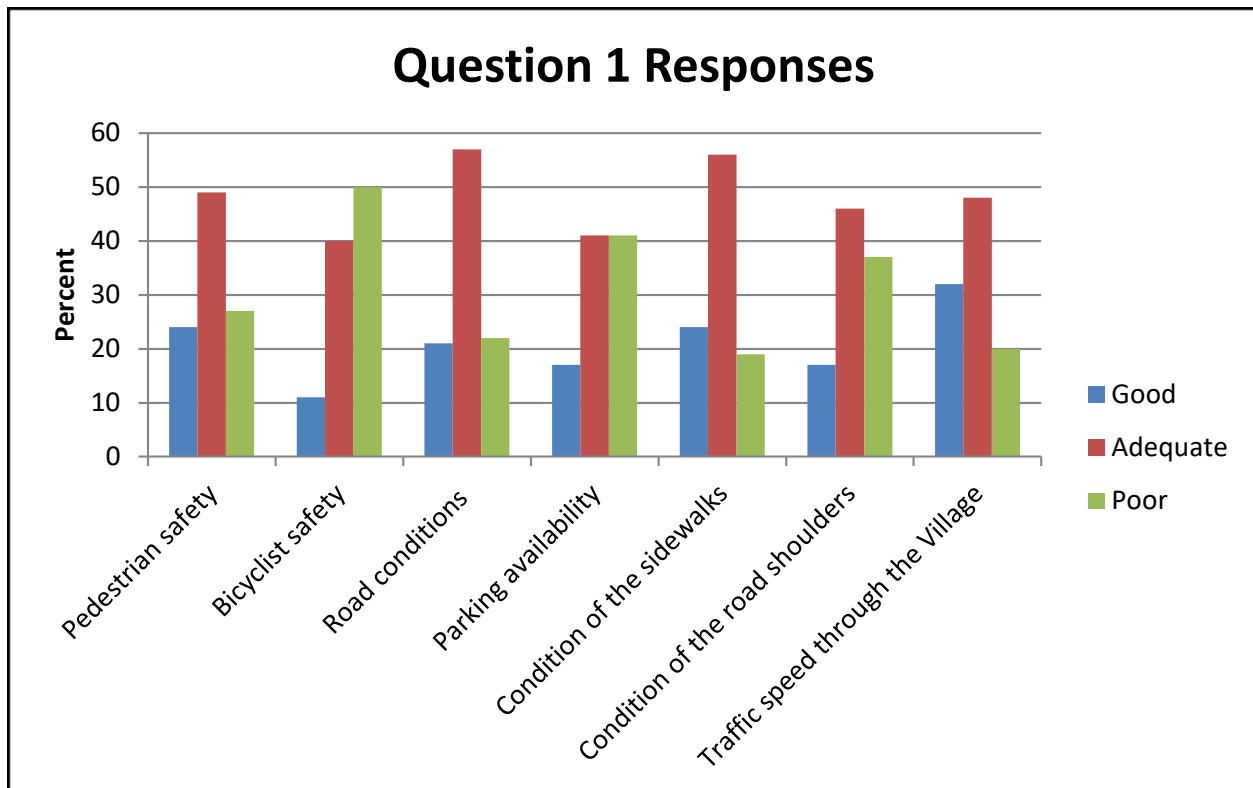


Village of North Syracuse, New York
**Complete Streets and
Re-Greening Survey**
January 2016



1. Please rate the following street conditions in North Syracuse, especially along Route 11, Church Street, and Chestnut Street.

Answer Options	Good (%)	Adequate (%)	Poor (%)	Response Count
Pedestrian safety	24	49	27	104
Bicyclist safety	11	40	50	103
Road conditions	21	57	22	100
Parking availability	17	41	41	104
Condition of the sidewalks	24	56	19	103
Condition of the road shoulders	17	46	37	103
Traffic speed through the Village	32	48	20	102



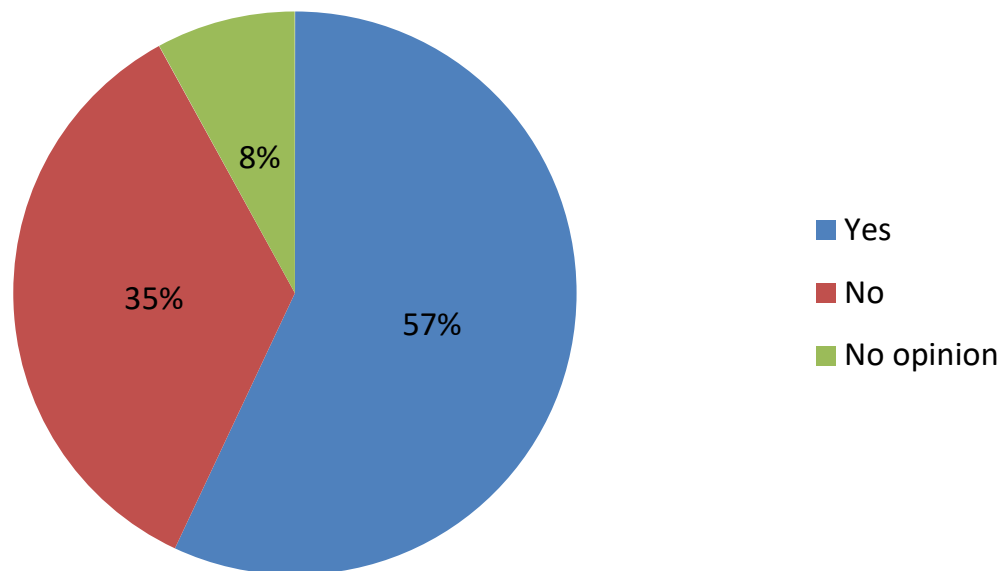
2. If speeding is a problem in the Village, what are potential solutions to address this issue?

<i>answered question</i>	26
<i>skipped question</i>	78

3. If grant funds become available, would you support efforts to develop safe bike lanes along Route 11?

Answer Options	Response Percent	Response Count
Yes	57.0%	57
No	35.0%	35
No opinion	8.0%	8
Additional comments regarding a bike lanes:	22	
<i>answered question</i>		100
<i>skipped question</i>		4

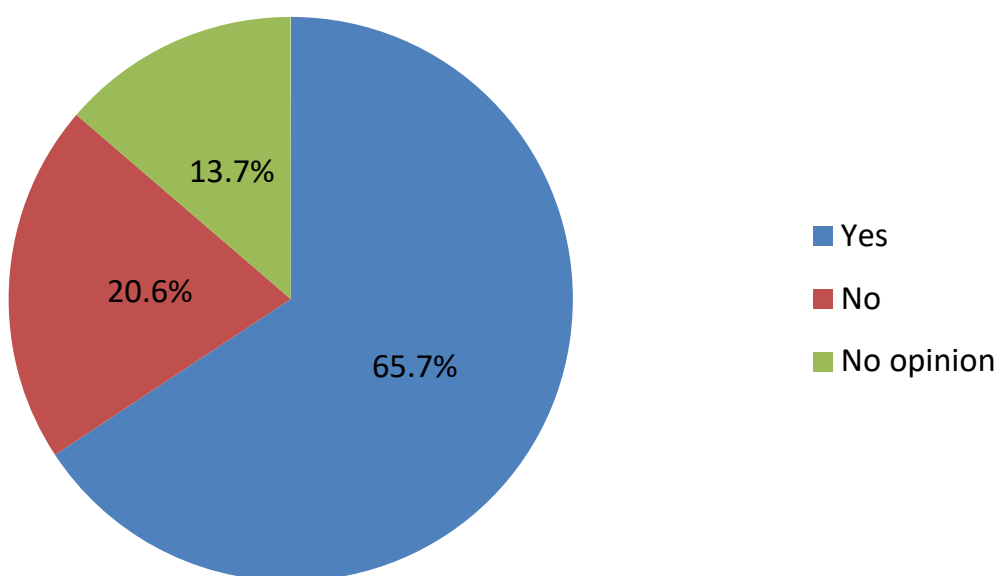
Question 3 Responses



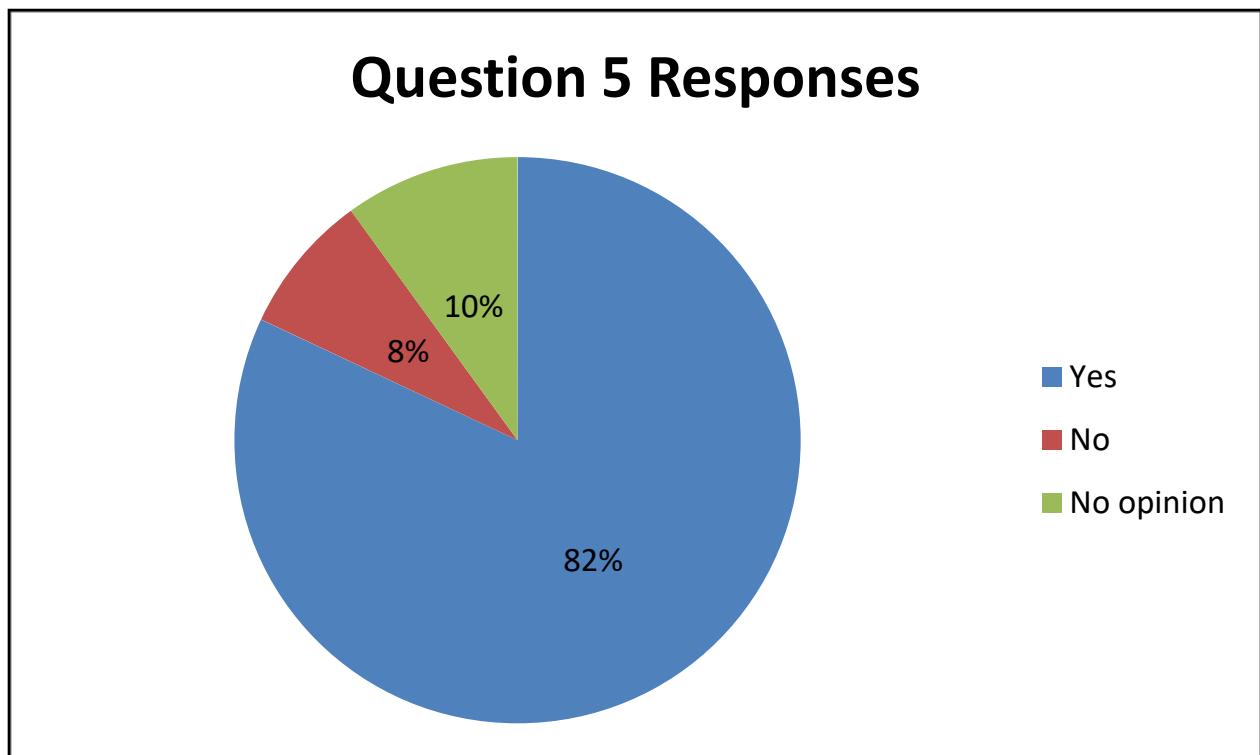
4. If grant funds become available, would you support efforts to develop a safe bike route that would connect the Village of North Syracuse to the City of Syracuse along Bear Trap Creek Bikeway at the Mattydale Kmart Plaza?

Answer Options	Response Percent	Response Count
Yes	65.7%	67
No	20.6%	21
No opinion	13.7%	14
<i>answered question</i>		102
<i>skipped question</i>		2

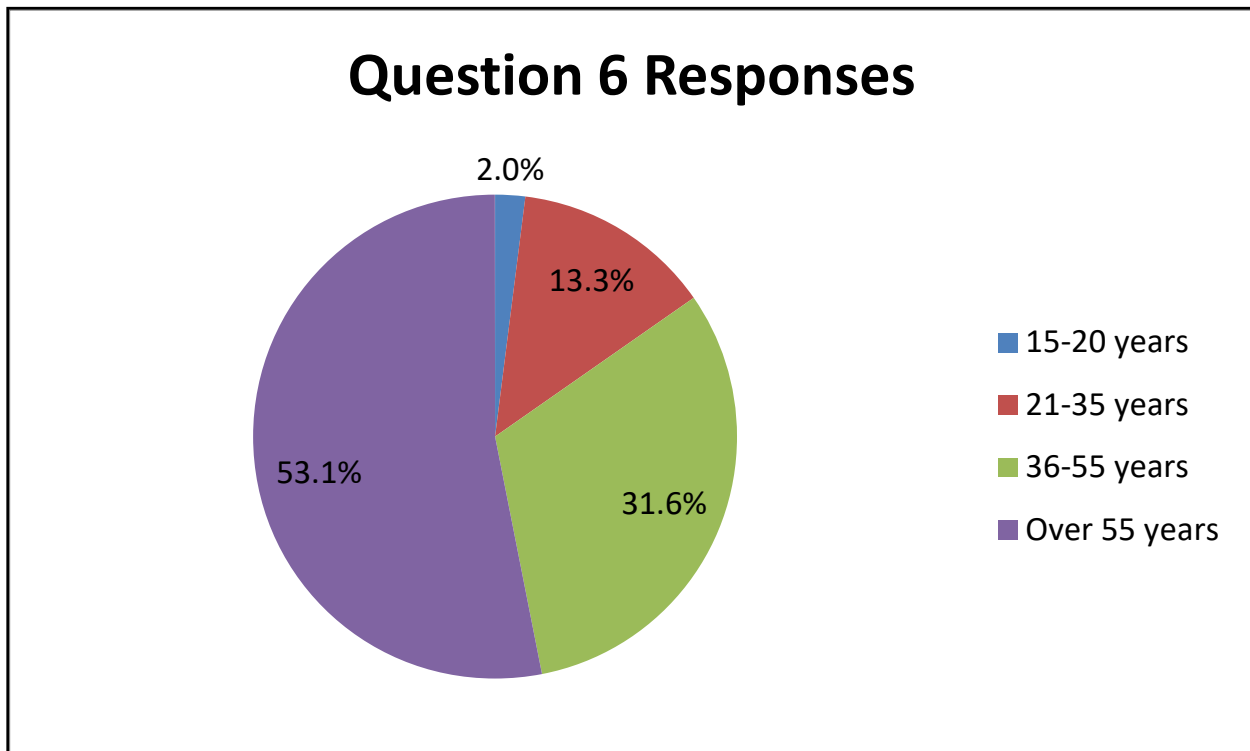
Question 4 Responses



5. Would you support local efforts to improve safety conditions for students that walk or bike to school?		
Answer Options	Response Percent	Response Count
Yes	82.0%	82
No	8.0%	8
No opinion	10.0%	10
<i>answered question</i>		100
<i>skipped question</i>		4

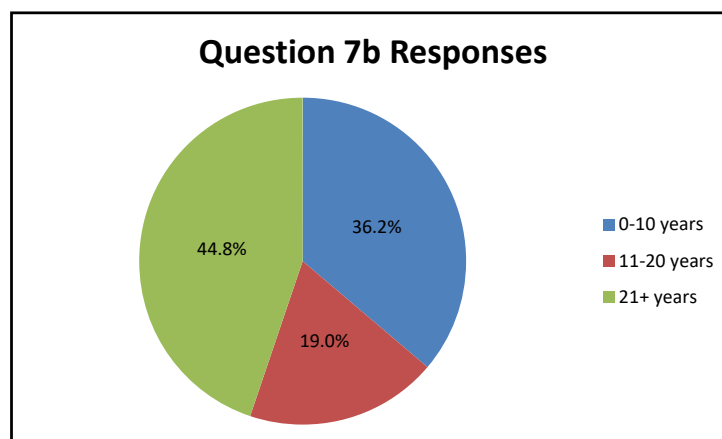
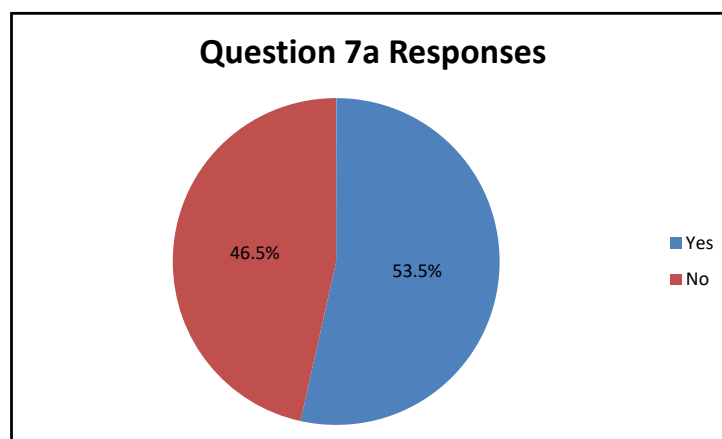


6. What is your age?		
Answer Options	Response Percent	Response Count
15-20 years	2.0%	2
21-35 years	13.3%	13
36-55 years	31.6%	31
Over 55 years	53.1%	52
<i>answered question</i>		98
<i>skipped question</i>		6



7a. Are you a resident of North Syracuse?		
Answer Options	Response Percent	Response Count
Yes	53.5%	53
No	46.5%	46
<i>answered question</i>		99
<i>skipped question</i>		5

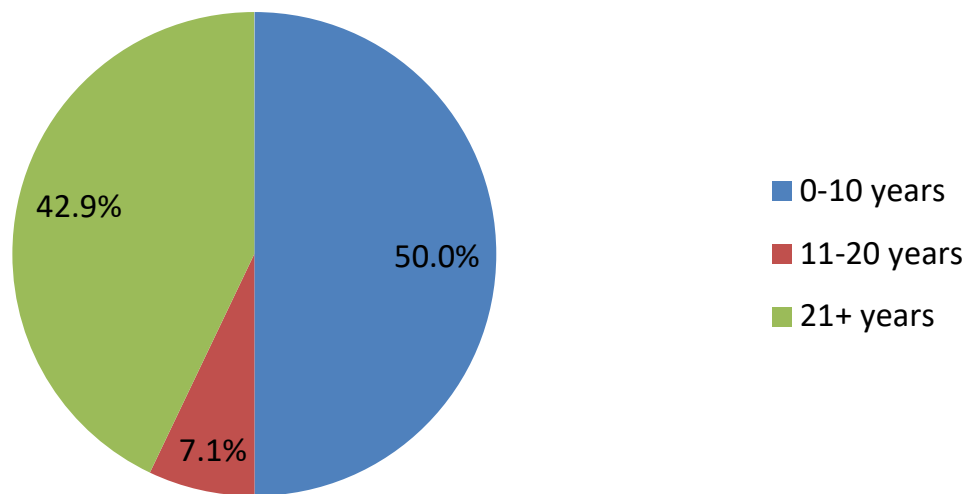
7b. If yes, how long have you lived in North Syracuse?		
Answer Options	Response Percent	Response Count
0-10 years	36.2%	21
11-20 years	19.0%	11
21+ years	44.8%	26
<i>answered question</i>		58
<i>skipped question</i>		465



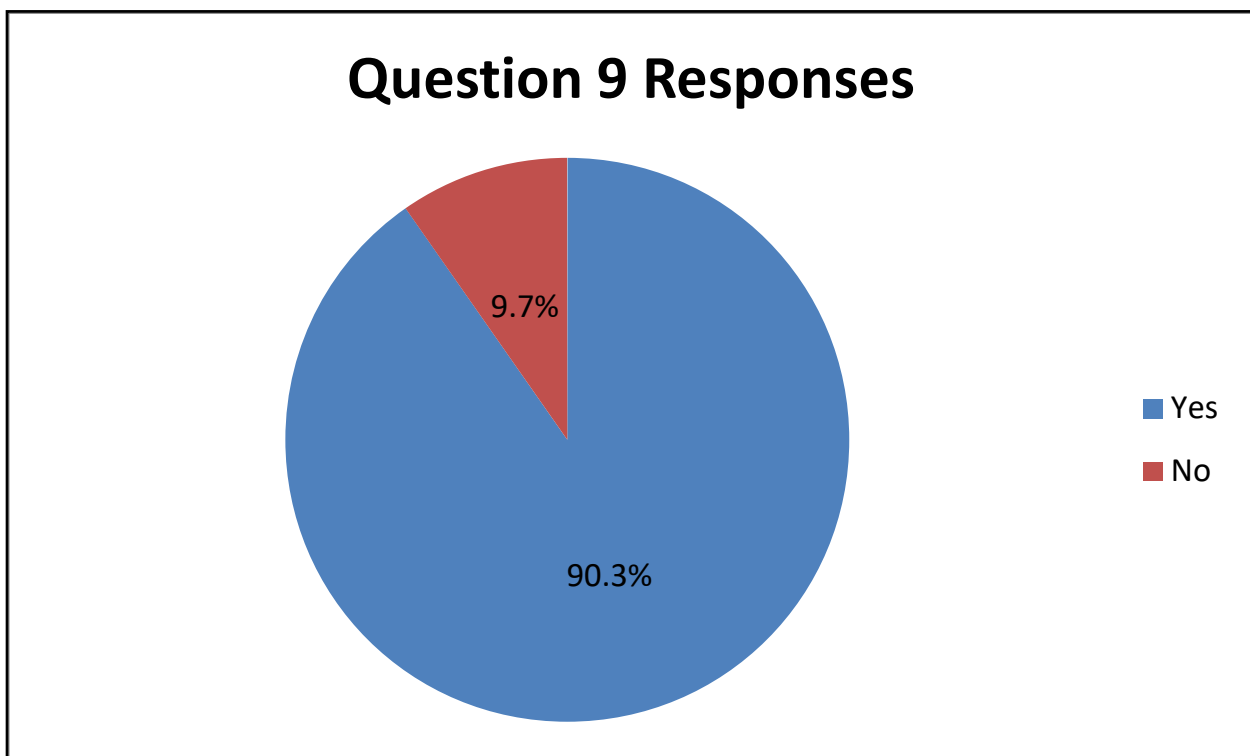
8a. Do you own a business in North Syracuse?		
Answer Options	Response Percent	Response Count
Yes	10.3%	10
No	89.7%	87
<i>answered question</i>		97
<i>skipped question</i>		7

8b. If yes, how long have you owned the business?		
Answer Options	Response Percent	Response Count
0-10 years	50.0%	7
11-20 years	7.1%	1
21+ years	42.9%	6
<i>answered question</i>		14
<i>skipped question</i>		90

Question 8b Responses



9. If you do not live in North Syracuse, do you commute through the Village on a regular basis on your way to work or school?		
Answer Options	Response Percent	Response Count
Yes	90.3%	56
No	9.7%	6
<i>answered question</i>		62
<i>skipped question</i>		42



APPENDIX B: FUNDING RESOURCES FOR COMPLETE STREETS

In the 2016 NYS budget, Governor Cuomo pledged over \$55 billion for transportation investments statewide, including \$27.14 billion for the New York State Department of Transportation (NYSDOT) and Thruway programs and \$27.98 billion for Metropolitan Transportation Authority programs. According to NYSDOT, “bicycle projects are broadly eligible for funding from almost all major Federal-aid highway, transit, safety and other programs,” but “Bicycle projects must be ‘principally for transportation purposes rather than for recreation purposes.’”⁷

Several federal, state, and county funding options may be available to help North Syracuse implement the Complete Street recommendations in this report. They include: the Transportation Alternatives Program (TAP); the Highway Safety Improvement Program (HSIP); the Congestion Mitigation and Air Quality (CMAQ) program; the Consolidated Local Street and Highway Improvement Program (CHIPS); the New York Main Street Program; the Transportation Investment Generating Economic Recovery Discretionary Grant (TIGER) Program; and the Suburban Green Infrastructure Program (SGIP).

NYSDOT’s Transportation Alternatives Program (TAP) is a state initiative funded by the Federal Highway Administration. It was originally created through funds provided by the previous surface transportation act, Moving Ahead for Progress in the 21st Century (MAP-21), that was replaced by the Fixing America’s Surface Transportation (FAST) Act in December 2015. TAP funds the activities previously funded by the Transportation Enhancement Program (TEP), the Recreational Trails Program, and the Safe Routes to School Program. TAP focuses on

“...projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; Safe Routes to School projects; and projects for the planning, design or construction of boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.”⁸

The Highway Safety Improvement Program (HSIP), also funded through the Federal FAST Act, HSIP provides funding for transportation improvements that could increase safety for pedestrians, including implementing sidewalks, street crossing/crosswalks, and/or shoulder improvements, and pedestrian countdown timers.⁹ North Syracuse is advised to contact the Syracuse Metropolitan Transportation Council (SMTCC) or the NYSDOT Regional Planning Office for additional information about HSIP funding.

The Congestion Mitigation and Air Quality (CMAQ) program provides federal funds for projects that reduce congestion and improve air quality in areas that have failed to meet air-quality standards for ozone, carbon monoxide and small particulate. Funds may be used to reduce automobile travel and emissions through the construction of bicycle and pedestrian facilities.

The Consolidated Local Street and Highway Improvement Program (CHIPS) is a New York State-funded program that provides financing for construction, reconstruction or improvement of local highways,

⁷ <https://www.dot.ny.gov/display/programs/bicycle/funding-sources/federal-funding>

⁸ <https://www.dot.ny.gov/programs/completestreets/funding>

⁹ <https://www.dot.ny.gov/programs/completestreets/funding>

bridges, highway-railroad crossings, and other local facilities. Funds are distributed to municipalities annually by the Office of the State Comptroller according to a formula based on local highway inventory mileage and motor vehicle registrations, among other variables. Visit <https://www.dot.ny.gov/programs/chips> for more information.

The New York Main Street Program, administered by the NYS Office of Community Renewal, provides funds from the New York State Housing Trust Fund Corporation to help communities revitalize the state's traditional Main Streets and neighborhoods. Visit <http://www.nyshcr.org/programs/nymainstreet/> for more information.

The Transportation Investment Generating Economic Recovery Discretionary Grant (TIGER) Program is a federal funding opportunity that provides funds for capital investments in surface transportation infrastructure. Visit <https://www.transportation.gov/tiger> for more information.

Onondaga County provides funding for green infrastructure through the Save the Rain program. The Suburban Green Infrastructure Program (SGIP) provides funding to municipalities located within the Onondaga County sanitary sewer district but outside of the City of Syracuse for the implementation of green infrastructure and stormwater mitigation techniques. Visit <http://savetherain.us/sgip/> for more information.

APPENDIX C: EXAMPLES OF COMPLETE STREETS PROGRAMS

The project summaries found below include several exemplary activities in New York State that focus on Complete Streets. These practices can be replicated in future projects - either in projects that NYSDOT will initiate or lead, or in projects that partner agencies, local jurisdictions, and stakeholders will initiate or lead. The following information is from the NYS DOT website: <https://www.dot.ny.gov/programs/completestreets/best-practices>.

Route 11 in Canton Village

The Canton Village Reconstruction Project, which revitalized a one-mile stretch of Route 11 in Canton, NY, was completed in 2013 by NYSDOT (Region 7). The project objectives were to improve pavement conditions and storm drainage, correct existing and emerging operational and safety issues, and provide improved access for pedestrians and bicyclists. Project development involved significant community input through the formation of a stakeholder advisory committee which provided input on the functionality and aesthetics of the redesign.

Not only has the redesign of the Main Street corridor of downtown Canton improved traffic flow and safety for bicyclists, pedestrians, and motorists, but it is also expected to improve the long-term economic stability of Canton Village.

With two universities - St. Lawrence University and the State University of New York at Canton - located just outside downtown Canton, greatly improved traffic flows and better bicycle and pedestrian access may serve to attract new residents and college students. An influx of new residents coupled with improved access to local businesses will benefit existing businesses, and also attract new businesses. Local stakeholders see the redesign of the Main Street section of Route 11 through downtown Canton as providing a foundation for long-term economic growth and stability in the region.

NY Route 347

Route 347, Hauppauge to Port Jefferson - The portion of NY Route 347 termed the “Parks to Ports Greenway” is a 15-mile intercommunity corridor that originates in Hauppauge and terminates in Port Jefferson, Long Island. This traditionally busy roadway has little or no multi-modal support and has seen vehicle use grow, from 48,000 vehicles per day in 1969 to 71,000 vehicles per day in 2010. This NYSDOT-led project incorporated significant community involvement, including feedback from advocacy groups such as the Tri-State Transportation Campaign, Vision Long Island, Neighborhood Network, and Committee for a New 347, to develop a vision for Route 347 that would transform the corridor into a pedestrian and bicycle-friendly modified boulevard and suburban greenway.

The vision for the new “Parks to Ports Greenway” addresses congestion through an additional travel lane in each direction and Intelligent Transportation System (ITS) elements, while implementing various measures and designs to make the corridor more accessible to bicyclists and pedestrians, as well as more amenable to transit. The improvements include:

- Traffic calming measures, such as narrower lane widths and lower speed limits
- A continuous, 15-mile separate bicycle and shared-use pedestrian path
- Pedestrian refuge areas, a raised, planted median, high-visibility crosswalks, and pedestrian countdown timers

- Transit facility improvements, such as bus stops and solar lighting at new bus shelters

Throughout the development of the project vision and plan, NYSDOT continued to engage stakeholders, providing project development updates on the project website and holding meetings with local stakeholders. NYSDOT also formed partnerships with local businesses to discuss how the vision could help create community centers and walkable downtowns that would benefit businesses and residents. NYSDOT has also worked with local municipalities on integrating the transportation system with local land use plans.

The 13-phase, \$600 million project, expected to be completed in 2015, uses the “Parks to Ports” theme to tie together regional assets and destinations (thus promoting tourism), and provides an easy and accessible means for pedestrians, cyclists, and transit users to reach communities and business areas typically only accessible by driving.

Village of Great Neck Plaza

Great Neck Road - The Village of Great Neck Plaza’s (Village) “Great Neck Road” project is a showcase of several Complete Streets principles. Residents and Village officials had noted increasing safety concerns along the corridor, as motorists consistently sped through the town, causing severe auto accidents. To address the issues, Village officials worked with the community to redesign Great Neck Road in an effort to reduce vehicle speeds, improve the downtown environment and economic viability, enhance walkability and accommodate bicyclists and transit vehicles. Through its community visioning process, the Village opted for a “road diet,” whereby the number of automobile travel lanes was reduced and other traffic calming devices were built in their place. The result is a safer (64.3% annualized reduction in injury-related accidents), more vibrant, and more visually pleasing main street.

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North Country Healthy Heart Network

Public outreach campaign - The North Country Healthy Heart Network (the Heart Network) is a non-profit organization with a mission to design, develop, and implement strategies to decrease the incidence of cardiac disease, stroke, and related chronic diseases in Northern NYS. The Heart Network mainly focuses on helping rural communities modify their policies and plans and implement projects to increase opportunities for physical activity, access to nutritious food, and tobacco free environments for all residents. As positive changes are made, the Heart Network - in conjunction with others - promotes ways in which people can incorporate healthy behaviors into daily living.

In Franklin County, NY, the Heart Network coordinated the creation of the Complete Streets Partnership in Malone, NY. The Partnership successfully secured the passage of the Malone Complete Streets Policy

and Implementation Plan. In Saranac Lake, the Heart Network facilitated the Village's establishment of the Healthy Infrastructure Advisory Board, participated on the Village's Comprehensive Plan and Trails Master Plan Committees, and provided language to support opportunities for active, healthy living.

The Heart Network wrote a successful Safe Routes to School grant application on the County's behalf that will allow Malone and Saranac Lake to improve challenging sections of sidewalks and crossings, making it easier and safer for students to walk to school. To promote physical activity, the Heart Network, with its counterparts in Essex and St. Lawrence County, initiated a public outreach campaign, "Get Out & Live North Country." The campaign encourages residents to increase their physical activity by submitting stories and photos via social media, thereby inspiring others to do the same. In addition, local testimonies will be used to educate decision makers, and policymakers on the benefits and support for additional changes in policy, plans and projects to increase opportunities for active transportation.

Capital District Complete Streets Efforts

The Capital District Transportation Committee (CDTC) - the MPO for the Albany region - has several programs that promote the implementation of Complete Streets:

CDTC's planned Bicycle and Pedestrian Priority Network

- **Bicycle and Pedestrian Task Force:** CDTC's Bicycle and Pedestrian Task Force is made up of a number of relevant agencies in the region, including local municipalities, NYSDOT, the NYS Department of Health, local advocacy and interest organizations, and the Capital District Transportation Authority. The Task Force initially was formed to research bicycle and pedestrian issues in the region and to provide suggestions to the MPO's Planning and Policy Committee. One of the major undertakings of the Task Force has been the development of a vision for a more than 350-mile Bicycle and Pedestrian Priority Network. The goal is to eventually create safe and accessible bicycle and pedestrian connections to all major travel routes throughout the region. Madison Avenue in Albany is one location included on the Bicycle and Pedestrian Priority Network, and, if adequate funding is received, it will undergo a "road diet" to improve access for bicyclists and pedestrians on the corridor.
- **Complete Streets Working Group:** This CDTC Working Group is the latest in a series of MPO-level Complete Streets efforts. The Working Group, created in 2013, is tasked with providing input on preservation projects, identifying low cost Complete Streets features to be incorporated into projects, and linking design processes to regional and community plans.
- **Community and Transportation Linkage Planning Program:** The Linkage Program was developed to assist with the implementation of the region's transportation plan, New Visions 2035. The Program, which is an integrated land use and transportation planning program, provides funding or technical assistance for joint regional-local projects that link transportation and land use. To date, more than 75 studies have been funded during the last 11 years to support urban revitalization and redevelopment, create an integrated multi-modal network, enhance activity centers and downtown areas, improve transit corridors, encourage a greater mix of land uses, and develop bicycle and pedestrian-friendly design standards. One recently funded study was a "road diet" on US 9/20 in the Schodack Town Center.

APPENDIX D: PEDESTRIAN AND BICYCLE LAWS

In order to implement an effective Complete Streets program in North Syracuse, it is important to understand local pedestrian and bicycling laws. The following information provides a brief summary of the laws that are found in the New York State Vehicle and Traffic Law. For additional information, refer to “NYSAMPO Fact Sheet Safety” at www.nysmpos.org.

Pedestrian laws

When you are in a crosswalk where there isn’t a traffic control signal, drivers must yield the right of way to pedestrians. At mid-block locations, if there isn’t a crosswalk, sign or signal, pedestrians must yield right of way to the vehicles in the roadway. If sidewalks aren’t present, walk on the left side of the roadway or shoulder, facing traffic. Wear bright and/or reflective clothing, especially at night.

Bicycling laws

Bicyclists have the right to ride a bicycle on most public highways, except the Interstate and certain expressways. Bicycles are required to follow all of the laws applicable to vehicle drivers. Always ride in the same direction as the traffic and ride along the right shoulder or near the right edge or curb of the roadway. Riding a bicycle on the sidewalk is not prohibited by NYS law but this is often dangerous and is not recommended. Some municipalities pass local ordinances prohibiting bicycles on sidewalks except for young children that are accompanied by an adult.

When riding with a friend, you may ride two abreast on the roadways but must ride single file when being overtaken by other vehicle or when passing vehicles, pedestrian or other bicycles. Use the same through or turning lanes as motorists. When making a left turn, it is safe to dismount and use the crosswalk. Your position when preparing for a turn is determined by the turning rules that apply to other traffic. When preparing for a left turn, move to the center of the lane to prevent a following motorist from sharing the lane. Use hand signals before making a turn.

Safety approved helmets are required for everyone under 14 years old. Young passengers that are ages one through four must ride in a child safety seat. Children under the age of one are prohibited from being transported on a bicycle.

Every bicycle must be equipped with a brake capable of making the tires skid on dry level pavement; a bell, horn or other audible device that can be heard at least a hundred feet away; and a headlight, taillight, front and rear reflectors, spoke reflectors, and peddle reflectors when riding at night. Bicyclists should never wear more than one earphone attached to an audio device. Leave three feet between yourself and parked cars so you can avoid a door that opens unexpectedly.

Driving laws

At a crosswalk without a traffic signal, motorists must yield to pedestrians at the crosswalk, slowing down or stopping if needed. At crosswalks where there is a traffic signal, pedestrians have the right of way when crossing with the signal. At intersections and crossings, vehicles should stop at the painted stop or yield line. When entering or exiting a street, always yield the right of way to pedestrians. Remember to share the road with bicyclists. Bicyclists are fully entitled to use the road and have the right to ‘take the lane’ by positioning themselves at or near the center of the lane when needed to avoid hazards or if the lane is too narrow to safely travel side by side with motorists. If passing a bicycle, always pass on the left. When turning left or entering a roadway, yield to oncoming bicycles as you would to any vehicle.

APPENDIX E: NYS DOT PROJECTS IN NORTH SYRACUSE

Data source: https://www.dot.ny.gov/portal/pls/portal/MEXIS_APP.DYN_PROJECT_DETAILS.show?p_arg_names=p_pin&p_arg_values=304367, February 2016

Pin	Description	Status
304367	<p>MbC ROUTE 11, TAFT ROAD TO BEAR ROAD, VILLAGE OF NORTH SYRACUSE, ONONDAGA COUNTY</p> <p>This project will remove and replace the top 1.5 inches of asphalt surface in both directions of Route 11 between Taft Road and Bear Road, a distance of just over 4 miles in the Village of North Syracuse, Onondaga County.</p> <ul style="list-style-type: none"> • The current status of the project is Future Development. • The Bid Opening is expected to be in Fall 2020. • Construction is expected to begin in Winter 2020/2021. • Construction is expected to be completed in Fall 2021. <p>The project cost is approximately \$1,200,000.</p>	Future Development
304368	<p>ROUTE 11 ADA PROJECT, TAFT ROAD TO BEAR ROAD, VILLAGE OF NORTH SYRACUSE, ONONDAGA COUNTY</p> <p>This project will address sidewalks and curb ramps that are not compliant with the American's with Disabilities Act (ADA). Work will take place on Route 11 between Taft Road and Bear Road in the Village of North Syracuse in Onondaga County. Work performed may include adding or improving crosswalks, sidewalks, curb ramps and pedestrian signals.</p> <p>The current status of the project is Future Development.</p> <ul style="list-style-type: none"> • The Bid Opening is expected to be in Fall 2024. • Construction is expected to begin in Fall 2024. • Construction is expected to be completed in Fall 2025. <p>The project cost is approximately \$600,000.</p>	Future Development
305623	<p>ROUTE 481 SIGN PROJECT, I81 TO OSWEGO COUNTY LINE, , TOWNS OF CICERO & CLAY, VILLAGE OF NORTH SYRACUSE, ONONDAGA COUNTY</p> <p>This project (which is under construction) will replace all ground mounted signs on NY 481 from the I-81 interchange in Cicero to the Oswego County Line and install additional enhanced mile markers every tenth of a mile. North Syracuse is located in the towns of Salina, Cicero and Clay and may be impacted by this work. The estimated completion date is 7/29/16. Federal and state funds have been used.</p>	Under Construction
305625	<p>RAMP RESURFACING PROJECT RT 481 SB OFFRAMP TO I81SB, VILLAGE OF NORTH SYRACUSE, TOWN OF CICERO AND ROUTE I-481 SB OFFRAMP FROM I90 THRUWAY, TOWN OF DEWITT, ONONDAGA COUNTY</p> <p>This project will resurface two ramps on Route 481 with a modified asphalt surface meant to improve surface friction and reduce the number and severity of run-off-the-road accidents. The ramps in this project connect southbound NY 481 to southbound I-81, and the Thruway (I-90) ramp to southbound I-481. This project was finished in November 2015.</p>	Completed Project

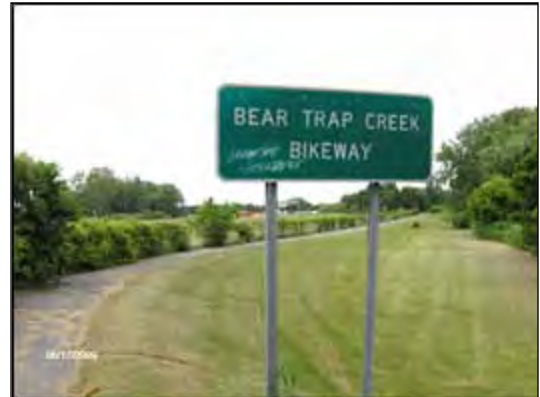
Pin	Description	Status
305627	<p>MbC Route 481, I-81 to the Oswego County line, Towns of Cicero and Clay, Village of North Syracuse, Onondaga County</p> <p>This project will remove and replace the top 1½ inches of asphalt surface in both directions of Route 481 from I-81 to the Oswego County line, a distance of 9.5 miles in the Towns of Cicero and Clay and the Village of North Syracuse, in Onondaga County.</p> <p>The current status of the project is Future Development. The Bid Opening is expected to be in Spring 2020. Construction is expected to begin in Spring 2020. Construction is expected to be completed in Summer 2021.</p>	Future Development
360370	<p>MbC ROUTE 11, I-81 MATTYDALE OVAL TO TAFT ROAD, TOWNS OF CLAY AND SALINA, ONONDAGA COUNTY</p> <p>This project will remove and replace the top 1-1/2 inches of asphalt on Route 11 from the I-81 Mattydale oval to Taft Road, a distance of just under 1 mile in the Towns of Clay and Salina, Onondaga County.</p> <p>The current status of the project is Future Development. The Bid Opening is expected to be in Spring 2025. Construction is expected to begin in Summer 2025. Construction is expected to be completed in Spring 2026.</p>	Future Development
380491	<p>REGIONAL HIGHWAY STANDBY PROJECT, VARIOUS LOCATIONS 2013 & 2014, 2 YEAR</p> <p>This “where and when” contract provides the mechanism for a quick response to emergency situations that may arise in Cayuga, Cortland, Onondaga, Oswego, Seneca and Tompkins Counties that are beyond the capabilities of NYSDOT personnel. Work can cover bridge or highway needs. This project was substantially completed in September 2015.</p>	Completed Project
380637	<p>ROUTE 11 SAFETY SIDEWALK INSTALLATION PROJECT, BEAR RD TO CAUGHDENROY RD, VILLAGE OF NORTH SYRACUSE AND TOWN OF CICERO, ONONDAGA CO.</p> <p>This project will provide improvements to meet American with Disabilities Act standards with sidewalk reconstruction or installation, curb ramp improvements or installation and crosswalk improvements on Route 11 in the Village of North Syracuse and Town of Cicero, Onondaga County.</p> <p>The current status of the project is In Development. The Bid Opening is expected to be in Summer 2017. Construction is expected to begin in Fall 2017. Construction is expected to be completed in Fall 2018.</p>	In Development
380652	<p>REGIONAL DECK TREATMENT AND JOINT REPAIR CONTRACT - PREVENTATIVE MAINTENANCE OF BRIDGES TO EXTEND SERVICE LIFE, CAYUGA, CORTLAND, ONONDAGA AND OSWEGO COUNTIES</p> <p>This project will place thin bridge deck overlays or surface sealants on state owned bridges in Cayuga, Cortland, Onondaga and Oswego counties in an effort to extend their service lives.</p> <p>The current status of the project is Under Construction. The Bid Opening was on 11/20/2014. Anticipated completion date is August 2016.</p>	Under Construction
380751	<p>REGIONAL BRIDGE DECK AND JOINT REPAIR CONTRACT- PREVENTATIVE MAINTENANCE OF BRIDGES TO EXTEND SERVICE LIFE.</p> <p>This project will preserve bridge decks in Central New York by either sealing the surface or by applying a thin overlay. Work will take place on various bridges on State roads in Cayuga, Cortland, Onondaga, Oswego, Seneca and Tompkins Counties.</p>	Future Development

Pin	Description	Status
3M1400	<p>INTERSTATE MOWING AND ROADSIDE CLEAN-UP PROJECT, SFY's 2015 & 2016 FOR I81, I481, 481, 370 AND I690 TOWNS OF CLAY, CICERO, DEWITT, GEDDES, ONONDAGA, SALINA AND VANBUREN, VILLAGES OF NORTH SYRACUSE AND EAST SYRACUSE, CITY OF SYRACUSE, ONONDAGA COUNTY</p> <p>Several times during the warmer weather months, this contract will clean shoulders and roadsides and mow grassy areas along the interstate highways in and around the city of Syracuse. The work areas include: I-81 between the north and south I-481 interchanges; all of I-481; and I-690 from the NYS Thruway to I-481. This contract covers cleanup and mowing operations for 2015 and 2016.</p>	Under Construction
3M1402	<p>GENERAL AND EMERGENCY RESPONSE CONTRACT FOR HIGHWAY REPAIRS FOR SFY'S 2015 AND 2016. 2 YEAR CONTRACT. CAYUGA, CORTLAND, ONONDAGA, OSWEGO, SENECA AND TOMPKINS COUNTIES.</p> <p>This project will restore/replace/rehabilitate pavement surfaces on State Highways to a safe, functional condition as needs are identified or during an emergency. Element specific maintenance type work will be undertaken for safety and other necessary improvements to keep selected State Highways in a state of good repair.</p>	Under Construction
3M1504	<p>BRIDGE JOB ORDER CONTRACT. MAINTENANCE, REGIONWIDE, EXTEND SERVICE LIFE OF BRIDGE</p> <p>This job order contract will provide for specific maintenance and repair work, on an as-needed basis, on state-owned bridges in Cayuga, Cortland, Onondaga, Oswego, Seneca and Tompkins counties. The work tasks included in this project are above and beyond the capabilities of NYSDOT bridge repair crews.</p>	In Development
3M1900	<p>INTERSTATE MOWING AND ROADSIDE CLEAN-UP PROJECT, SFY's 2021 & 2022 FOR I81, I481, 481, 370 AND I690 TOWNS OF CLAY, CICERO, DEWITT, GEDDES, ONONDAGA, SALINA AND VANBUREN, VILLAGES OF NORTH SYRACUSE AND EAST SYRACUSE, CITY OF SYRACUSE, ONONDAGA COUNTY</p> <p>Several times during the warmer weather months, this contract will clean shoulders and roadsides and mow grassy areas along the interstate highways in and around the city of Syracuse. The work areas include: I-81 between the north and south I-481 interchanges; all of I-481; and I-690 from the NYS Thruway to I-481. This contract covers cleanup and mowing operations for 2021 and 2022. The current status of the project is Future Development. The Bid Opening is expected to be in Spring 2021. Construction is expected to begin in Spring 2021. Construction is expected to be completed in Summer 2021.</p>	Future Development

APPENDIX F: BICYCLE NETWORK TO THE CITY OF SYRACUSE

The Village is bisected by two major north-south arterials above Taft Rd., U.S. Route 11 and South Bay Rd., and is located just 6 miles from Downtown Syracuse. Travel demand modelling indicates high levels of work/home travel between the City and Village, and Village residents have expressed a desire to have bike linkages to the City of Syracuse.

Currently, an existing 1.6 mile long paved, off-road bikeway in very good condition, runs north-south within the 6 mile commuting distance between the Village of North Syracuse and the City of Syracuse. Unfortunately, this 8'-wide multi-use path 'Bear Trap Creek Bikeway' in the Town of Salina is underused, as it is disconnected from safe bike routes at both ends, at the back of a shopping center in Mattydale, and at 7th North Street in Syracuse. The Bear Trap Creek Bikeway was constructed in the 1980's as a part of the I81 improvements at that time. Regional bike corridor planning efforts for the North Syracuse area seem to have favored introducing bike use on busy Buckley Rd. via Elbow and Pitcher Rd. which have safety issues such as speed of vehicular travel and physical road width that limits options for safe and comfortable bicycle use. Since the existing dedicated Bear Trap Creek Bikeway provides nearly 1/3 of the needed bike connectivity between the Village of North Syracuse and downtown Syracuse, its activation through the resolution of barrier issues to connectivity is recommended in this plan.



To resolve the connectivity barriers with the Village of North Syracuse at the north end of the 1.6 mile Bikeway, it is recommended that the 8'-wide dedicated path be extended around the north edge of the Mattydale Kmart Plaza to the traffic light at the entrance. At the light, the path would cross the east bound side of Brewerton Rd and follow through the grass median area west to the traffic light at the entrance to Northern Lights Plaza where it would cross the west bound side of Brewerton Road. From here it would run north along Brewerton/South Bay as a dedicated bikeway to where the I81 on-ramp begins, cross the on-ramp at a signed pedestrian crossing and follow adjacent to South Bay Rd, on its east side to Taft Rd. and the Village of North Syracuse. This route features sufficient R.O.W. space, few entry drives or roads to cross, and would therefore provide safe, minimally interrupted travel for a continued urban bikeway between Syracuse and North Syracuse. All of the needed road crossings (12) to resolve what is now a significant 1-mile barrier to bike and pedestrian use would only require simple painted pedestrian crosswalks, with the exception of 4 that would benefit from the introduction or retrofitting of 'corner refuge islands' which would increase pedestrian and bicyclist safety at key points. The introduction of these refuge islands would also provide an opportunity to bring human scale back into a vehicle dominated environment, and add much needed aesthetic improvement along the route between the Village, shopping centers and Bear Trap Creek Bikeway. These types of design retrofits would create conditions conducive to pedestrian and bike use, and serve to promote community health, economic development, and quality of life in an otherwise barren, auto-centric environment.

From Taft Road at South Bay, the bikeway would transition to separate north-south dedicated bike lanes and could either follow South Bay Road or Route 11 north through the Village. The South Bay option was recommended in the SMTC Bike Corridor Study, which was an MPO-wide study. The Route 11 option arose out of a specific North Syracuse study and would provide more direct access via bicycle to a variety of destinations and businesses for the Village community. It could also serve to catalyze Main Street revitalization, re-greening and aesthetic and pedestrian improvements along the Route 11 corridor through the Village. A well-marked connector bike and pedestrian route would link the south Village neighborhood (across both South Bay Road and Route 11) to the high school via Melrose Drive. The northeast and west neighborhoods would be connected to the Village business district and high school via complete streets infrastructure along Church Street, Chestnut Street and Belmore Road.

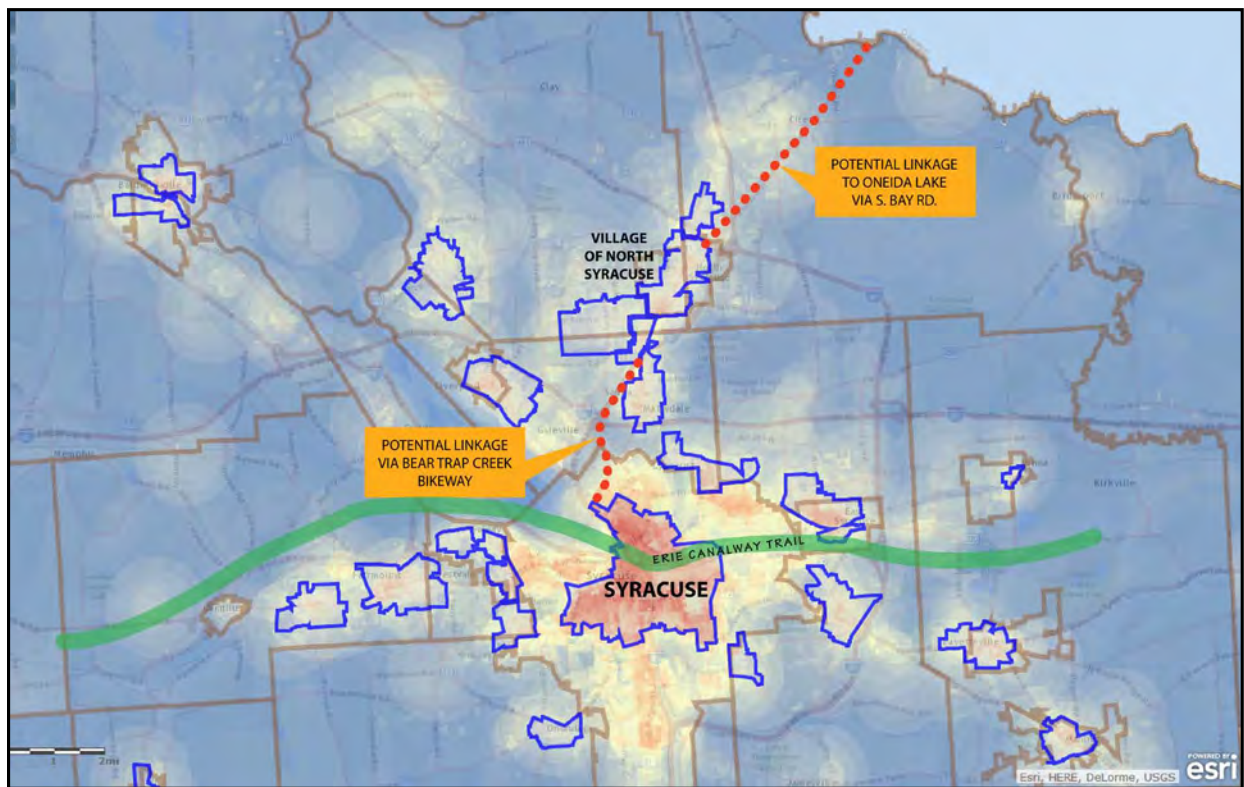


Figure 25: Potential Bicycle Linkages

