Village of Ballston Spa Pedestrian and Bicycle Master Plan

January 2022

Prepared for:
Village of Ballston Spa
Capital District Transportation Committee

Prepared by:
VHB
Planning4Places

Connecting Friends
Ballston Spa PBMP
Pedestrian & Bicycle Master Plan

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Introduction

The Village of Ballston Spa was settled in 1771 and remains a unique Victorian destination with a pedestrian oriented street layout. It has always been a walkable village, but lack of resources has led to broken and heaved sidewalks and gaps that make it difficult for pedestrians, especially the elderly, those with differing abilities, and children, to traverse the Village. Traffic volumes, especially on NY Route 50 which bisects the Village, and travel speeds on Village roadways are a concern to the Village residents and elected officials, and there is a desire to increase pedestrian and bicycle friendliness, comfort, and safety while taking a mindful approach to using the Village's public spaces to the benefit of all.

Background and Approach

The Ballston Spa Pedestrian and Bicycle Master Plan (The Plan) was sponsored by the Village of Ballston Spa and the Capital District Transportation Committee (CDTC) to help the Village continue to pursue its goals of promoting economic development, improving safety, and creating a connected and integrated multi-modal transportation network for users of all ages and abilities. The Plan will provide clear direction on priority locations and desired design treatments for inclusion in street restriping, signage, roadway modification, repaving, or reconstruction projects, based on a representative public input process.

The Study Advisory Committee (SAC) comprised of residents, business owners, elected officials, and agency representatives, guided the development of The Plan by providing input on local issues and acting as a conduit between the technical committee and the public. In addition to Village representation, the SAC included members from the Towns of Ballston and Milton, Ballston Spa Central School District, Saratoga County, Ballston Spa Business and Professional Association Board, Park and Tree Board, Friends of Kayaderosseras, Capital District Transportation Committee (CDTC), Capital District Transportation Authority (CDTA), Capital District Regional Planning Commission (CDRPC), and the New York State Department of Transportation (NYSDOT) Region 1.

It is envisioned that beyond this study, members of the SAC will continue to be advocates for implementation of The Plan in the Village of Ballston Spa and work to implement The Plan recommendations.

Purpose and Need

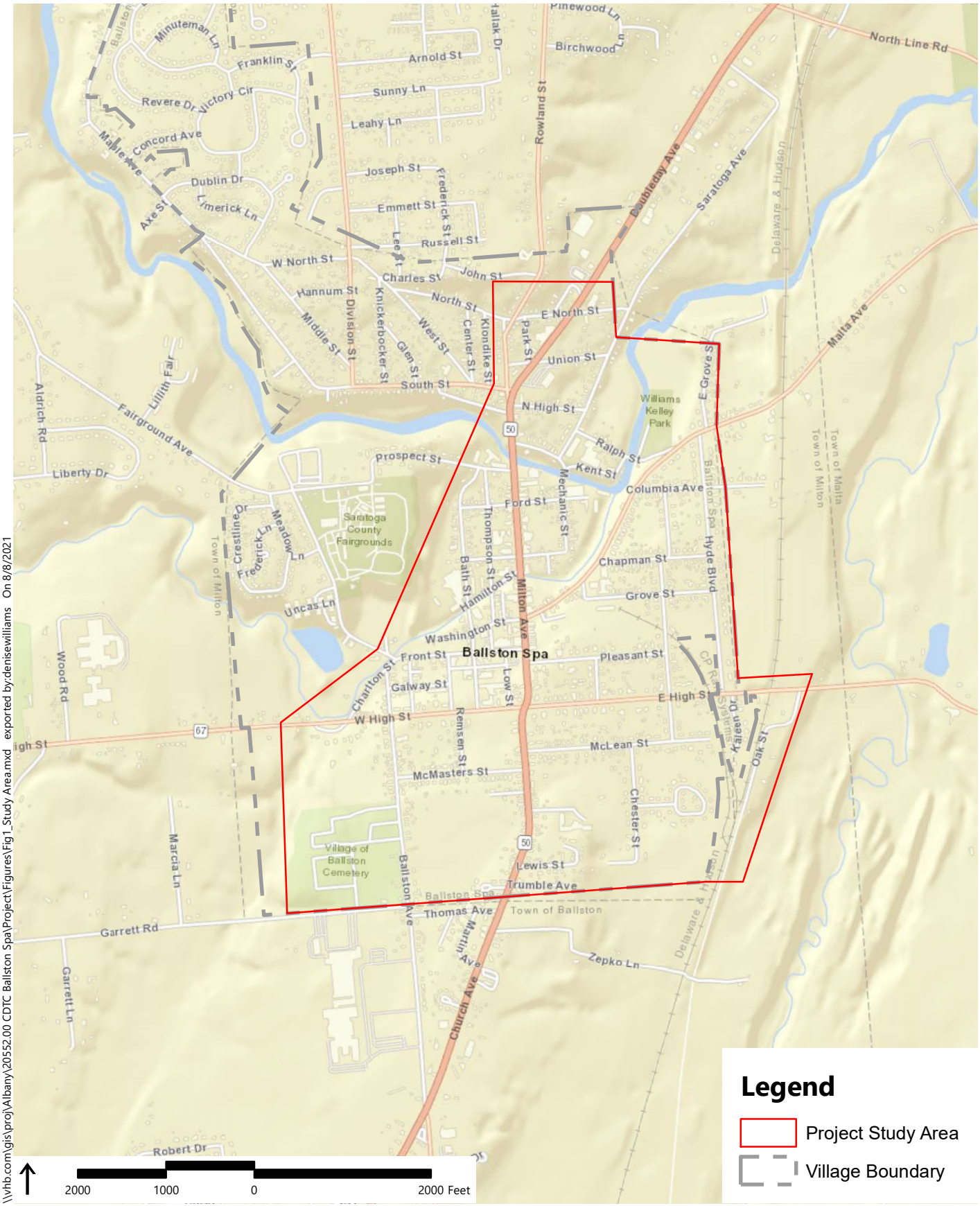
The purpose of the Village of Ballston Spa Pedestrian and Bicycle Master Plan is to enhance the Village Central Business District, surrounding area, and the NY Route 50 corridor by promoting economic development, improving safety, and creating a connected and integrated multi-modal transportation network for users of all ages and abilities.

The Village of Ballston Spa is home to many low-income individuals and other vulnerable populations such as seniors, homeless veterans, and disabled adults, many of whom don't drive. The Plan will identify missing links in the pedestrian network, potentially unsafe crossings, and priority connections between key Village and nearby locations, including the Zim Smith Trail. Recommendations for improvements to the multi-modal network in the Village will provide clear direction on priority locations and design treatments for inclusion in striping, signage, modification, repaving, and reconstruction projects. Recommendations will be made with guidance from a representative public input process inclusive of vulnerable populations in the Village.

Study Area

The study area for The Plan includes a large portion of the Village and encompasses much of the Central Business District, multi and single family residential, and recreational land uses. As shown in **Figure 1**, the study area extends from the southern Village boundary to John Street in the north and from Oak Street (which is just outside

of the Village boundary in the Town of Ballston) and the eastern Village boundary to the western Village Boundary exclusive of the Saratoga County Fairgrounds and nearby neighborhoods.



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Study Area

Previous Studies

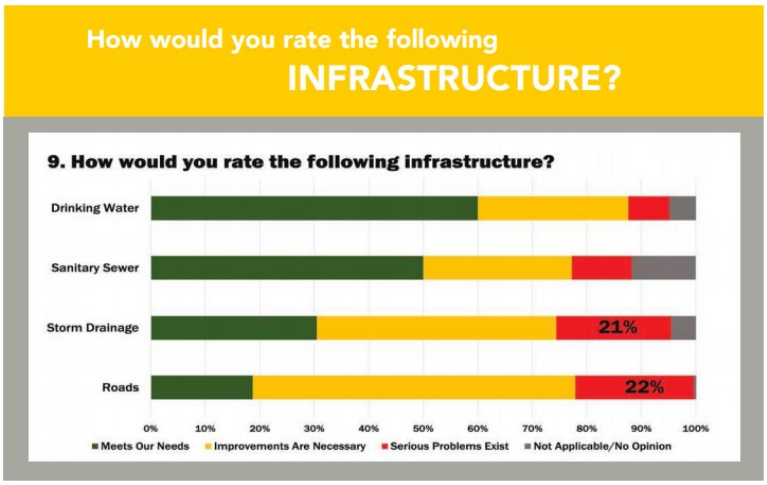
There are several previous studies that pertain directly to the study area. Additionally, some studies and programs in surrounding Saratoga County and the Capital District have potential implications and opportunities in the Village.

Village of Ballston Spa Economic Development Plan (EDP)

Published in 2020 by the Saratoga County Prosperity Partnership, this study was completed to provide the community solutions to the most pressing economic development needs. The EDP outlined four goals:

1. Enhance the Central Business District (CBD): Support activities that have helped generate revenue across the community to sustain the Village's fiscal health.
2. Quality of Place: Continue to enhance the character of and functionality of the Village as a means of attracting visitors and supporting quality of life for residents and businesses.
3. Economic Development and Marketing: Deliver effective economic development programs that utilize local and regional partners to build a competitive role in the regional economy and improve local economic health.
4. Small Businesses: Foster supportive conditions and offer valuable resources to help small businesses and proprietors prosper and grow throughout the Village.

Surveys completed as part of the EDP by residents and stakeholders indicated that traffic, roadways, and sidewalks are some of the largest challenges to developments in the Village. A majority of the survey responses noted that pedestrian and bicycle facilities within the Village need to be improved upon.



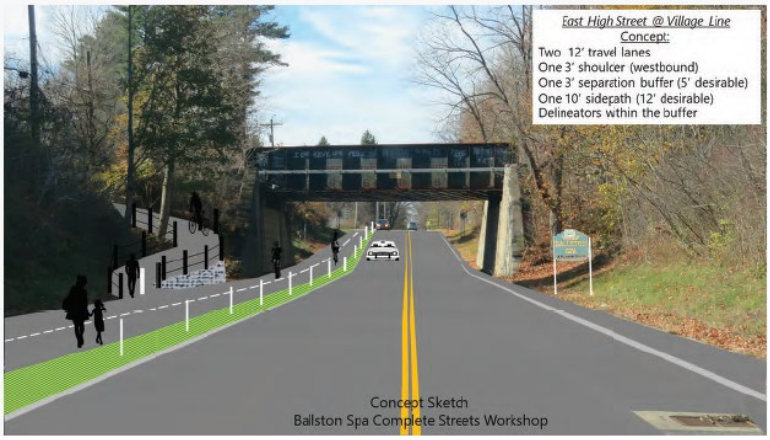
Graphic from the EDP showing that 22% of respondents felt that Serious Problems Exist with Village roads.

Specific steps to reach the overall goals include creating a fund for business owners to improve sidewalks/common areas and to increase and improve access to businesses by those disabled, improve connectivity throughout the Central Business District, especially connecting the Zim Smith Trail to the Village's other multi-modal facilities, and implementing an annual sidewalk replacement plan.

Ballston Spa Complete Streets Workshop

The Complete Street Workshop, sponsored by the CDTC, was completed in November and December 2020 with two virtual workshops and an independent roadway assessment. Attendees learned about Complete Streets through six modules:

1. Overview & Local Examples
2. Where have we been and where are we going
3. Complete Streets Design
4. Project Development Process, Getting Results & Self-Directed Assessment Findings
5. Complete Streets Policies
6. Concept Sketches



Concept sketch looking west on East High Street at the railroad overpass from the Complete Streets Workshop.

The workshop was intended to help local decision-makers identify and overcome barriers to implementing Complete Streets in the Village. In retrofit situations like the built network of the Village of Ballston Spa, each location is a unique situation with unique solutions and trade-offs. The conclusion of the workshop resulted in several Complete Streets ideas for the Village and a number of volunteers for a Complete Streets Committee.

Route 67 Corridor Study

The Route 67 Corridor Study was completed by BFJ Planning in January 2006 to provide solutions to rapidly growing traffic volumes on NY Route 67 between NY Route 50 in the Town of Ballston Spa and Interstate 87 (The Northway) at Exit 12 in the Town of Malta. The Village of Ballston Spa is outside of the study area for the Route 67 Corridor Study, but growth and development in the Towns of Ballston and Malta have the potential to increase traffic volumes in the Village. The Corridor Study provided recommendations for intersection improvements, safe and efficient roadway configurations, potential parallel access road configurations, and an access management plan to improve ingress and egress along the NY Route 67 Corridor.

Capital District Trails Plan

Completed in 2018 for the CDTC, the Trails Plan provided an updated vision for a trail network that connects the cities, towns, and villages throughout the Capital District. The Zim Smith Trail, which currently connects between Mechanicville and ends just outside the Village of Ballston Spa, is planned to be extended north into the Saratoga Spa State Park. The plan includes the Ballston Spa-Galway Link which would be a road-based trail that links the Zim Smith Trail to the Village of Galway via Malta Ave and Northline Road. This link would create a connection to the Lake Desolation Path and the Charlton Bike Route.

Saratoga County Regional Traffic Study (SRTS)

The purpose of this study completed in 2016 was to address mobility concerns in Saratoga County specifically centered around Interstate 87 Exits 11 and 12 by evaluating traffic conditions at 38 study intersections. The NY Route 50/NY Route 67/E High Street/Milton Avenue (NY Route 50) intersection, located in the Village of Ballston Spa Pedestrian and Bicycle Master Plan study area, was included in the SRTS. The Study recognized the importance of focusing on more than just engineering to address transportation conditions, but noted the importance of Engineering, Education, Enforcement, and Encouragement to address transportation concerns and evaluate mitigation measures. The SRTS did not identify specific mitigation measures for the NY Route 50/NY Route 67/E High Street/Milton Avenue (NY Route 50) intersection.

Additional Studies and Programs

In addition to the specific studies described above, additional information related to expansion of plans by the Capital District Transportation Authority (CDTA), CDPHP Cycle! Bike-share Program, Saratoga County, and private development plans in the Village were reviewed. At the time of review, no plans to expand any existing of the above mentioned services and no specific development plans were identified within the Village. Saratoga County is currently in the preliminary stages to identify the most feasible route to connect the Zim Smith Trail to Saratoga Spa State Park.

2

Existing Conditions

Understanding the current transportation and land use characteristics in the study area is an integral step in developing the Pedestrian and Bicycle Master Plan. By understanding the base conditions of the Village transportation system including desired connections, traffic volumes, travel speeds, location and condition of the existing pedestrian and bicycle networks, bus stop locations and features, and safety issues the opportunities and potential barriers can be identified and documented. The following chapter illustrates the existing transportation and land use conditions in the study area.

General Character

Looking north on NY Route 50 from Malta Avenue

Included in the overall effort to develop The Plan was a comprehensive review of land use, pedestrian, bicycle, and vehicular circulation and amenities within the study area. The Village of Ballston Spa (and subsequently the study area) is generally bisected by NY Route 50 which runs north/south through the Village and Saratoga County. Residential, commercial, recreational, and community services are located throughout the study area creating a desire for residents and visitors to cross NY Route 50 and other higher volume roadways. Sidewalks are provided along many, but not all study area roadways; however, poor sidewalk conditions (cracking, heaving, narrow widths, and lack of concurrence with current Americans with Disabilities Act (ADA) and NYSDOT guidelines) and lack of bicycle infrastructure can make it difficult to safely travel by bike or on foot throughout the Village.

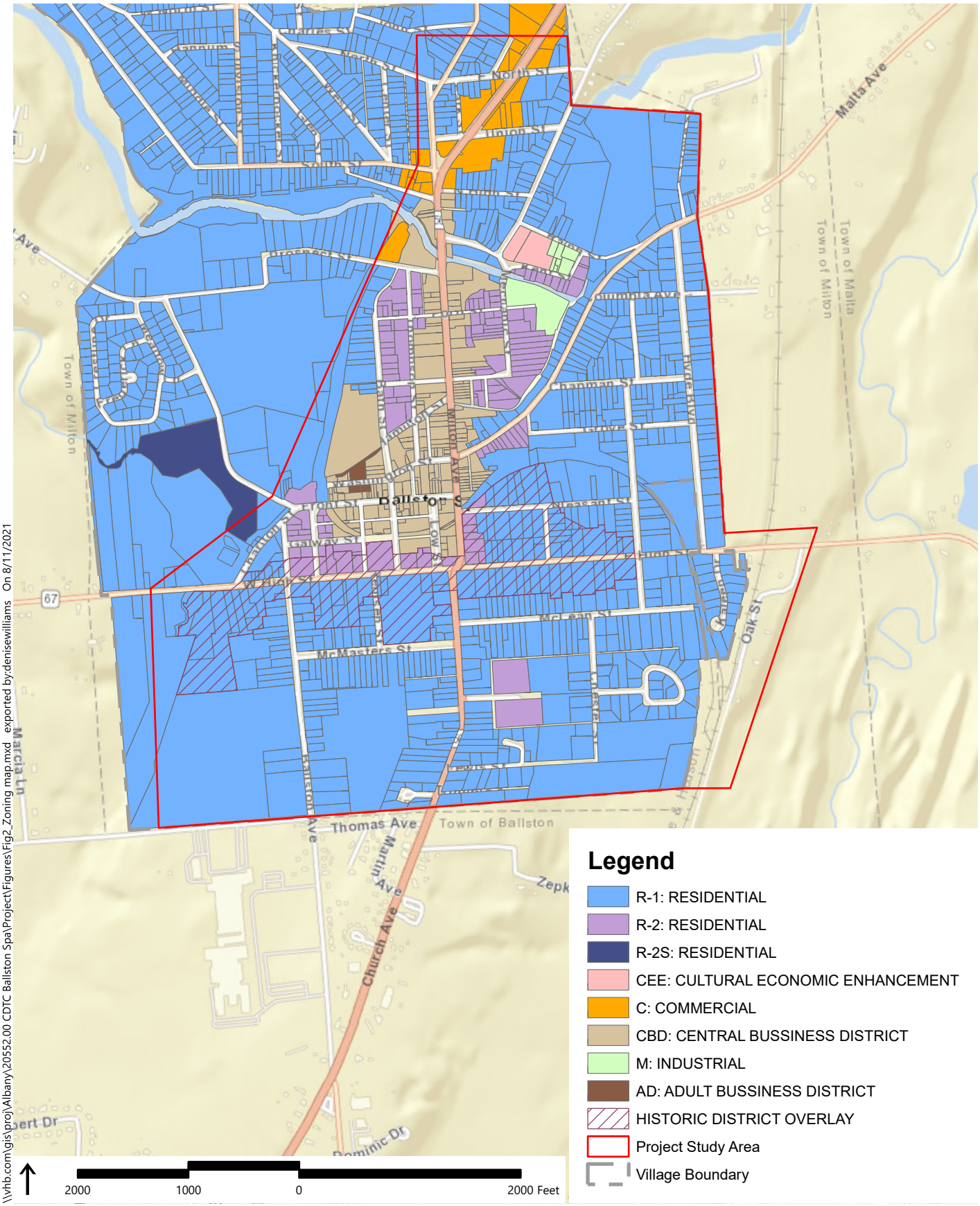
Land Use and Zoning

As noted, land uses within the study area are representative of a vibrant, village setting with a mix of single and multi-family residential, commercial retail, restaurant, and office uses, community service, religious, education, and recreational uses. As Shown in **Figure 2**, the majority of commercial land uses are concentrated on NY Route 50 and in the Central Business District (CBD) and include restaurants and retail shops, additionally Washington Street is known as the "Art District" and includes a variety of art studios. The mix and proximity of land uses in the study area allows residents of and visitors of Ballston Spa to complete many trips on foot or by bicycle. For example, a resident of the area can walk a short distance to a convenience market, restaurant, or the library without needing to travel by automobile.

Zoning is the process used to shape communities into districts and plan for the future use of land. These zones are achieved through regulations and restrictions to new development including, but not limited to; building size, density, lot coverage, use of green space, and land use type. The Village of Ballston Spa zoning code includes the central business, commercial, industrial, cultural/economic enhancement, adult-oriented, and three residential districts. The study area also includes a historic overlay zone (shown on the Zoning Map (Figure 2)) that generally encompasses properties that touch East and West High Street between Charlton Street and Eastern Avenue. Activities in the Historic District are governed by the Historic District Commission which is tasked with

safeguarding the heritage of the Village through preservation of historic districts and landmarks.

The Village is in the process of updating its 1995 Comprehensive Plan and will be updating the zoning thereafter. The results of this plan will be incorporated into the updated Comprehensive Plan.



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Zoning Source:Saratoga County Real Property Tax Services Tax Parcel Data 2020

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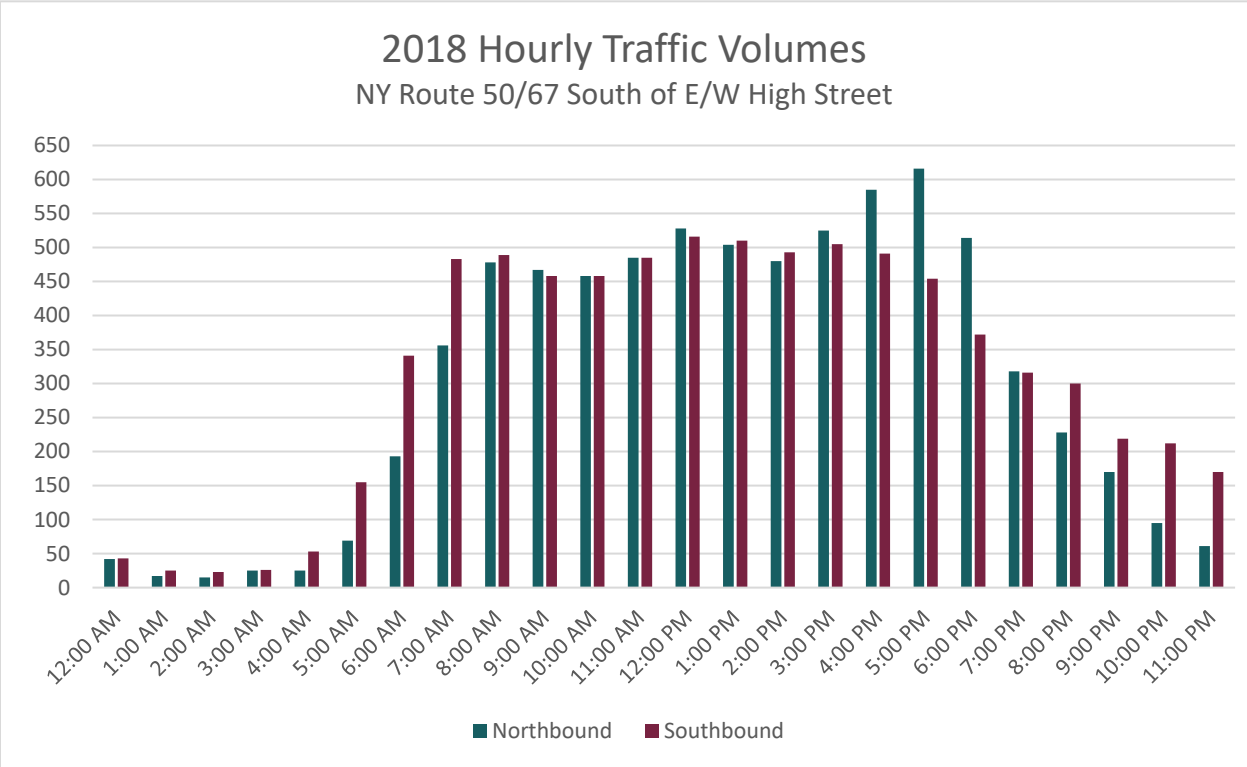
Village of Ballston Spa Zoning Map

Vehicle Accommodations and Activity

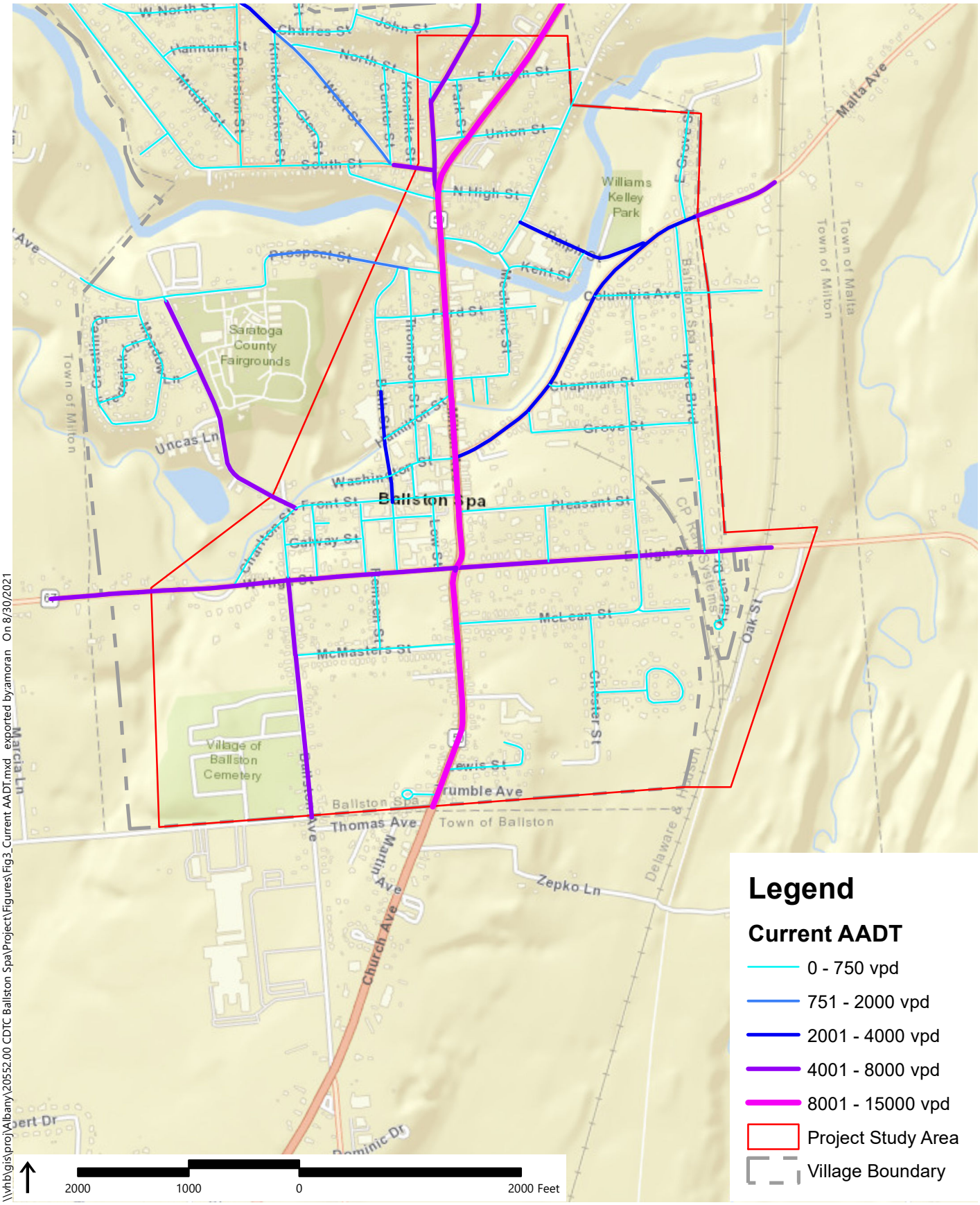
Roadways in the study area are primarily low-volume, urban local roads generally providing access to area land uses rather than intending to carry through traffic. Notable exceptions are NY Route 50 which is classified as an urban principal arterial and serves 13,000 to 15,000 vehicles per day (vpd) and NY Route 67 (W High Street) which is also classified as an urban principal arterial and serves approximately 8,000 vpd. There are also several study area roadways classified as urban major collectors as shown in **Figure 3**.

Most of the study area roadways serve fewer than 750 vpd as illustrated in **Figure 4**. NY Route 50, NY Route 67, and the other study roadways with higher functional classification carry a larger number of vehicles. The chart below illustrates the hourly traffic volumes on the NY Route 50/NY Route 67 overlap south of E/W High Street with relatively steady traffic volumes from 7:00 AM to 7:00 PM with some typical peaking during the morning commuter period (7:00 to 9:00 AM), a slightly extended evening peak period (3:00 to 6:00 PM), and a midday peak (12:00 to 1:00 PM).



NYSDOT hourly traffic volumes on NY Route 50/67 south of E/W High Street.

The NYSDOT traffic data also provides information regarding vehicle classification and travel speeds. The data shows that trucks account for approximately 6% of the daily traffic on NY Route 50/67 south of E/W High Street. The Village speed limit is posted at 30-mph and the NYSDOT data shows that the 85th percentile travel speed in the northbound direction is 36-mph and 35-mph in the southbound direction. The general traffic volumes in the study area for NY Routes 50 and 67 are summarized in **Table 1**.



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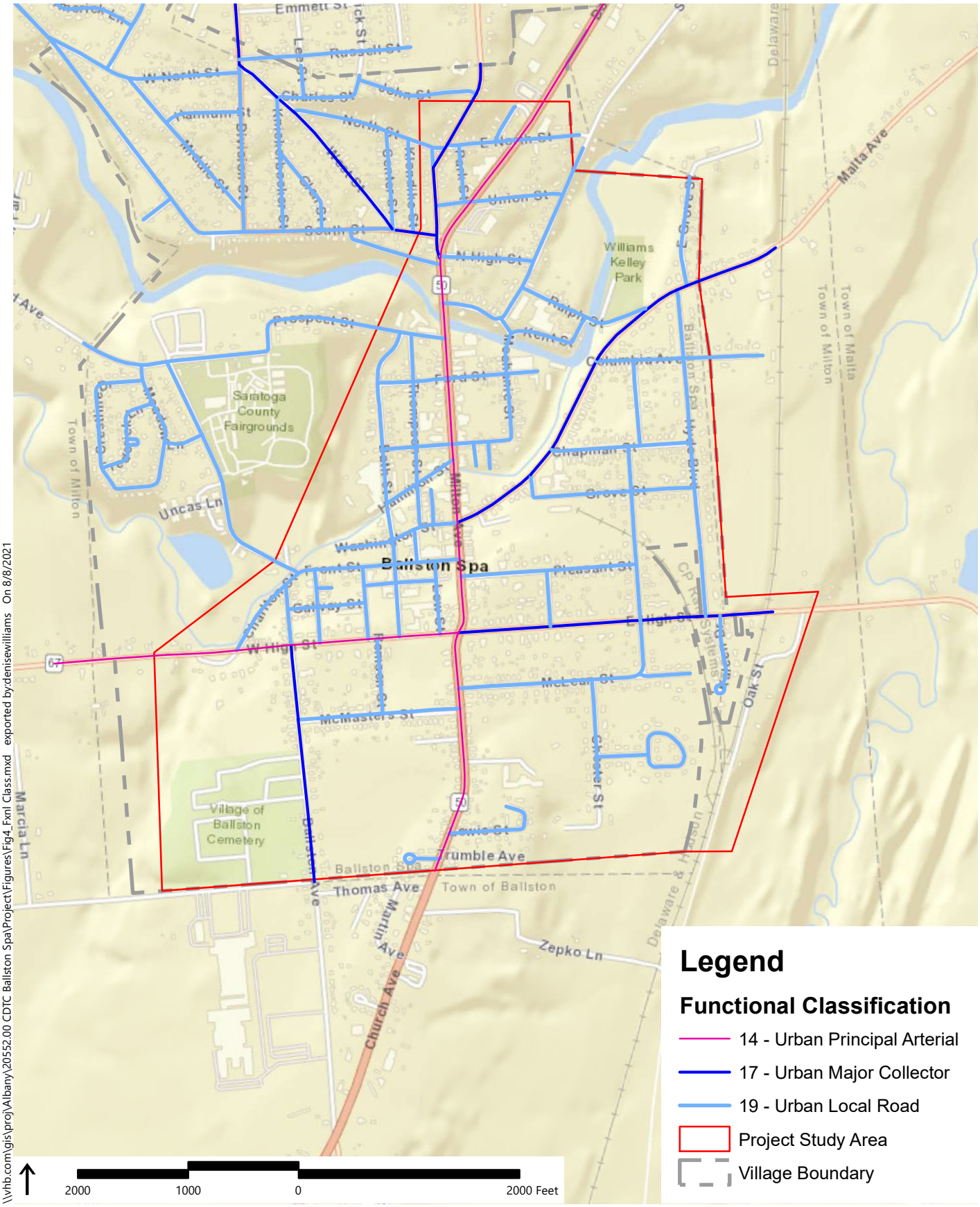
Current AADT



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Functional Classification

Table 1 NYSDOT Roadways Existing Traffic Volume Summary

Location	Weekday Daily Volume [a]	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		Vol [b]	K Factor [c]	Dir. Dist.	Vol	K Factor	Dir. Dist.
NY Rt 50/67 South of High Street [d]	14,851	1,064	6.5%	51%SB	1185	7.3%	54% NB
NY Rt 50 North of High Street [e]	13,435	846	6.3%	51% NB	1,104	8.2%	51% NB
NY Rt 67 west of NY Rt 50/67 [f]	8,023	686	8.0%	55% WB	803	9.4%	52% EB

a Daily traffic expressed in vehicles per day (vpd).
b Peak hour volumes expressed in vehicles per hour.
c Percent of daily traffic which occurs during the peak hour.
d Source: NYSDOT data dated July 2018.
e Source: NYSDOT data dated November 2017.
f Source: NYSDOT data dated May 2016.

In addition to the data available through NYSDOT, Hyde Boulevard was selected by the study team for additional analysis due to the roadway width (approximately 40-feet) and resident observations of faster travel speeds, generally higher traffic volumes than other residential roadways, and the presence of heavy vehicle traffic. Daily traffic volumes, travel speeds, and vehicle classifications data were collected on Hyde Boulevard between Malta Avenue and Columbia Avenue for a one week period from Thursday, June 10, 2021 through Thursday, June 17, 2021 using an automatic traffic recorder (ATR) and are summarized in **Table 2**.

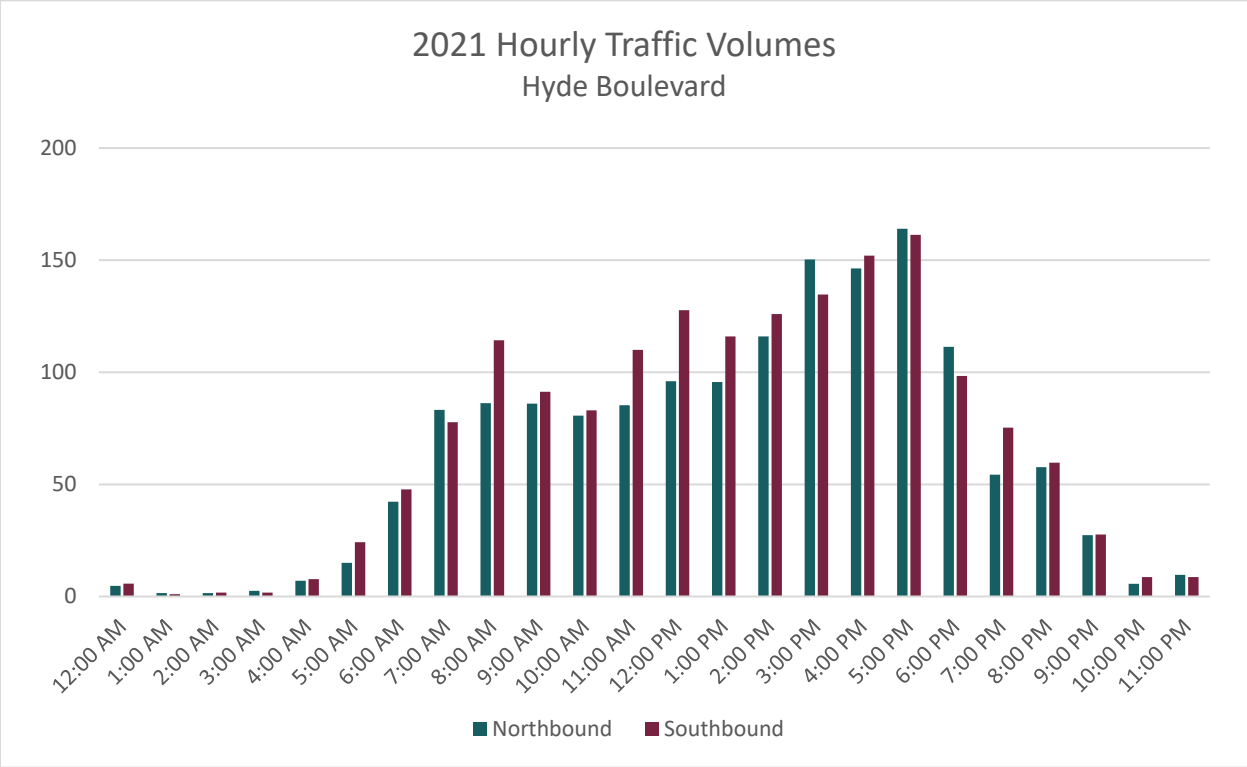
Table 2 Hyde Boulevard Existing Traffic Volume Summary

Location	Weekday Daily Volume [a]	Weekday Morning Peak Hour			Weekday Evening Peak Hour		
		Vol [b]	K Factor [c]	Dir. Dist.	Vol	K Factor	Dir. Dist.
Hyde Boulevard [d]	3,204	200	6.2%	57% SB	325	10.1%	50% NB/SB

a Daily traffic expressed in vehicles per day (vpd).
b Peak hour volumes expressed in vehicles per hour.
c Percent of daily traffic which occurs during the peak hour.
d Source: VHB data dated June 2021.

As shown in Table 2, Hyde Boulevard carries approximately 3,204 vehicles per day (vpd) on a typical weekday, with 6.2% of the daily traffic occurring during the weekday morning peak hour and 10.1% occurring during the evening peak hour. Hyde Boulevard traffic is heavier in the southbound direction during the morning peak hour and evenly distributed during the evening peak hour. The following chart illustrates the hourly traffic volumes on Hyde Boulevard with the primary peak occurring during a slightly

extended evening peak period (3:00 to 6:00 PM). The data shows that travel in the southbound direction has a morning and a midday peak.



Hourly traffic volumes on Hyde Boulevard between Malta Avenue and Columbia Avenue.

The ATR data also provides information regarding vehicle classification and travel speeds. **Table 3** illustrates the vehicle classifications on Hyde Boulevard. Passenger vehicles account for approximately 95% of all traffic on this segment of Hyde Boulevard. During the one week period, Class 6 vehicles (three axles or more) accounted for a total of 35 vehicles travelling northbound and 74 vehicles travelling southbound. Class 8 and above (single-unit tractor trailers with 5 or more axles) accounted for a total of 15 vehicles travelling northbound and 15 vehicles traveling southbound; an average of approximately 4 documented vehicles per day.

Table 3 Hyde Boulevard Vehicle Classification Summary

Classification [a]	Description	Northbound	Southbound
Class 1	Motorcycles/Bicycles	1.2%	1.7%
Class 2/3	Passenger Cars/Four Tires	95.5%	93.8%
Class 4	Buses	0.4%	0.7%
Class 5	Two Axles, Six Tires	2.6%	3.1%
Class 6<	Three Axles or More	0.3%	0.6%

a Vehicle classes as defined by the Federal Highway Administration 13 Vehicle Category Classification

The Village speed limit is posted at 30-mph. Based on the 40-foot width of Hyde Boulevard and general observations noted by residents it was expected that the travel speed on Hyde Boulevard would be above the 30-mph posted speed limit. The ATR data showed that the 85th percentile travel speed in the northbound direction is 33-mph and the 85th percentile travel speed is 32-mph in the southbound direction. The average speed documented was 27-mph in both directions on this segment of Hyde Boulevard.

Although the average speed is less than the 30-mph posted speed limit and the 85th percentile operating speed is slightly above the speed limit, there is a perception by many residents that most vehicles are speeding through the Village. This is especially true on wider roads like the north end of Hyde Boulevard where there are few visual cues to remind drivers to slow down in residential areas. While the data does not support that vehicles are generally traveling above the speed limit, public comments note a general lack of comfort with vehicle travel speed.

Roadway widths vary significantly throughout the study area. As noted, Hyde Boulevard is approximately 40-feet wide and accommodates one travel lane in each direction and on-street parking on both sides of the roadway. Grove Street, which intersects Hyde Boulevard, is approximately 30-feet wide while accommodating one lane of travel in each direction and on-street parking on both sides of the roadway. Similarly, the available public right-of-way also varies on area roadways. Available right-of-way is an important consideration when determining the appropriate pedestrian and/or bicyclist treatments.

Roadway striping, especially lane striping, is minimal on area roadways with the noted exceptions of East and West High Street, Eastern Avenue, Malta Avenue, NY Route 50, and Low Street. The lack of lane striping on village, town, or city roadways is not unusual as it becomes a necessary part of the regular maintenance schedule and can be an added cost for municipalities. However, lane striping should be considered for application because the markings delineate space for different users and, on wide roads like Hyde Boulevard, can provide a visual cue for drivers to slow their travel speeds.

On-street parking is provided in several areas throughout the study area with a mix of parallel and diagonal parking with different restrictions and limitations. Off-street public parking is also provided at several locations through the study area including Malta Avenue, Bath Street, and NY Route 50 south of Hamilton Street.

Pedestrian Accommodations and Activity

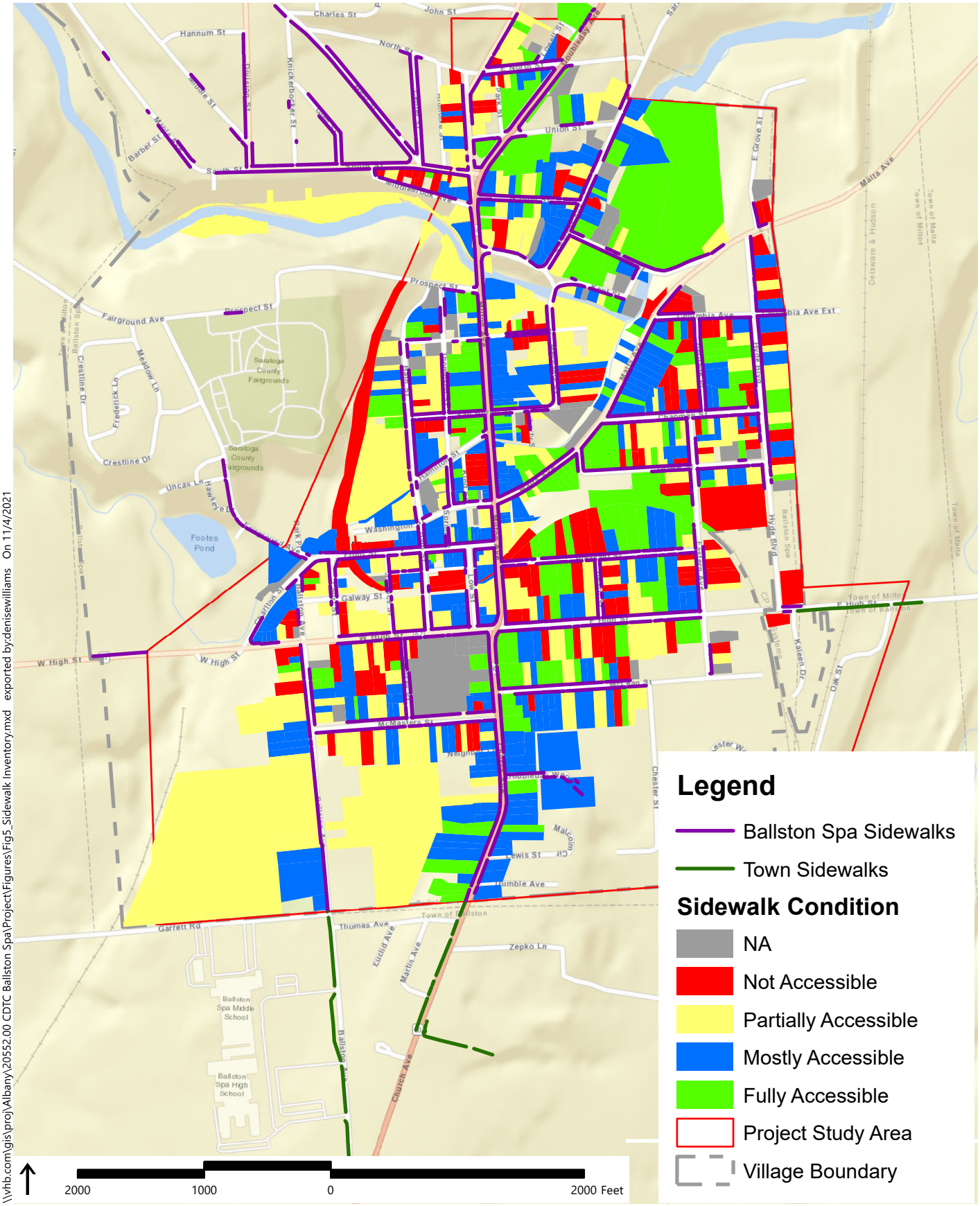
Sidewalks are generally present throughout the study area although the material, width, and condition of these sidewalks vary. A sidewalk conditions assessment was completed by Village volunteers in April to document the location and condition of all sidewalks within the study area. The sidewalk conditions assessment was designed to develop a general idea of sidewalk conditions to aid the Village in future planning decisions and was not an ADA compliance assessment. Due to the subjective nature of visual conditions ratings, there may be some variations in the conditions assessment depending upon the reviewer. The sidewalks were rated based on the following scale:

1. Not Accessible – Sidewalk may be seriously uneven with faulting greater than ½ inch that cannot be beveled/repaired and will require replacement, and is of an inadequate width (less than 4 feet). Sidewalk may have serious accumulation of dirt/debris, establishment of vegetation, or other obstructions.
2. Partially Accessible – Sidewalk may have small vertical faults larger than ½ inch but could potentially be beveled/repaired, large cracks, an inadequate width (less than 4 feet), small patches of spalling or another type of rough surface deterioration, and a small buildup of dirt/debris, creeping of vegetation between panels or cracks.
3. Mostly Accessible – Sidewalk is level and of adequate width (at least 4 feet wide) and is in like-new condition and may have minor cracks.
4. Fully Accessible – Sidewalk is in new or in like-new condition and is at least 4 feet wide. Sidewalk is level with no cracks, faults, or obstructions.

The sidewalk inventory also identified any gaps in the system. The results of the sidewalk condition assessment are included in Appendix A to this document and are summarized in **Figure 5**. Sidewalk condition and material varied between not present, "Not Accessible", and "Fully Accessible" on a parcel by parcel basis. Pursuant to Village Law, Chapter 174, all property owners in the Village are responsible for the maintenance of all sidewalks that border their properties.

In addition to the sidewalks, three trails are located within the study area: The John Romano Nature Trail, the Jim Tedisco Fitness Trail, and the Zim Smith Trail. A fourth trail, the East High Street Trail, is located just outside of the study area to the east. One of the primary goals of The Plan is to connect the Village and the Central Business District to the Zim Smith Trail, which ends on Oak Street, east of NY Route 50 off of E High Street. Currently, on the pedestrian route to the Zim Smith Trail, there is a gap in the sidewalk system on E High Street between Eastern Avenue and Kaleen Drive. The Town sidewalk on the south side of E High Street between Kaleen Drive and Oak Street is in disrepair and may be difficult to navigate.

There are four intersections on NY Route 50 in the study area that operate under traffic signal control: E High Street/W High Street (NY Route 67), Front Street, Malta Avenue/Washington Street, and Prospect Street. Marked crosswalks with pedestrian pushbuttons and countdown timers are provided on each intersection approach with the exception of the NY Route 50 northbound approach at Prospect Street. Signing at the intersections vary with no overhead signing at some and both "No Turn on Red" signs and "Turning Vehicles Yield to Pedestrians" at other intersections. The Front Street/Bath Street intersection also operates under traffic signal control. There are no pedestrian indicators, countdown timers, or pushbuttons at the intersection but marked crosswalks and ramps are provided.



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Sidewalk Condition

Marked crosswalks are provided across NY Route 50 and the side street approaches at the unsignalized intersections with Ford Street and Van Buren Street. The intersections include marked crosswalks, ramps, and detectable warning units on all four intersection approaches with supplemental pedestrian crossing signs.

Marked crossings are provided at unsignalized intersection in many other areas in the study area including along Front Street, Van Buren Street, Washington Street, and West High Street to name a few. These crossings generally include pavement markings, but most are lacking ramps, detectable warnings, and supplemental pedestrian signage.

Pedestrian crossing sign in the southwest quadrant of the NY Route 50/Ford Street intersection.

Pedestrian counts were conducted during two-hour blocks at seven locations in the Village identified by the Project Team and represent intersections where pedestrians may be travelling to a community destination like the park, swimming pool, or the downtown area. Counts were conducted on the day and time when pedestrian volumes at the intersections were expected to be highest. For example, counts were conducted at the Front Street/Low Street intersection from 5:00 to 7:00 pm to coincide with the timeline when people may be walking to the area for dinner at one of the local restaurants. The results of the pedestrian counts are summarized in **Table 4**.

Table 4 Pedestrian Count Summary

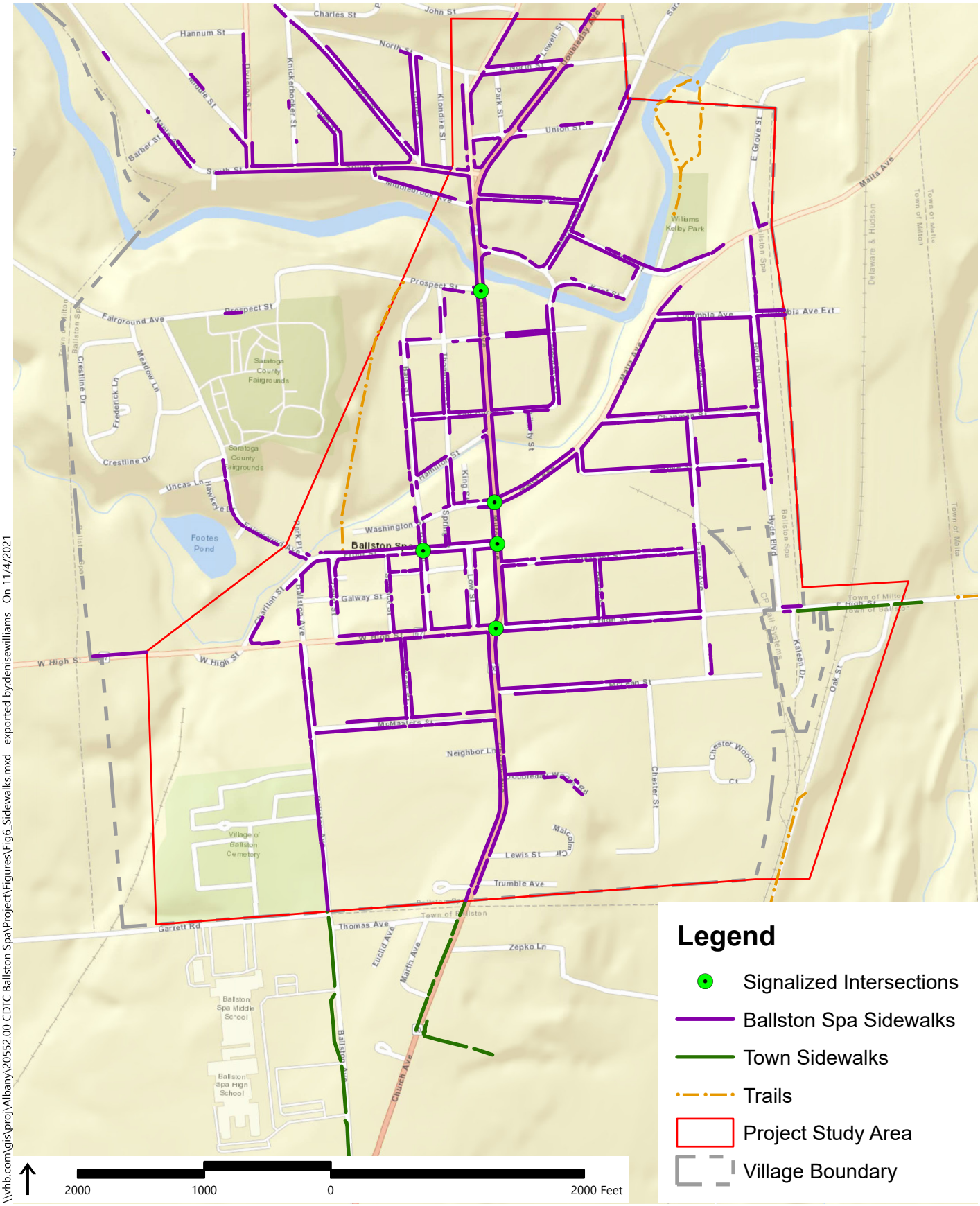
Location	Pedestrian Crossings East	West	North	South	Not Crossing at Intersection
Hyde Blvd/E. High St (weekend 12-2pm)	0	0	NA	2	4
Milton Ave/Malta Ave/Washington St (weekday 8-10am)	71	30	11	26	0
Milton Ave/Prospect St (weekday 4-6pm)	17	13	31*	8	16
Doubleday Ave/North St (weekday 4-6pm)	0	1	0	0	2
Church Ave/E. & W. High St/Milton Ave (weekday 3-5pm)	2	6	1	1	14
Front St/Low St (weekday 5-7pm)	40	25	69	48	38
Ralph St/Kent St (weekend 12-2pm)	5	2	NA	0	17

* This number includes a group of 20 kids crossing at once which is likely not a typical condition

Table 4 shows that the Front Street/Low Street intersection had the highest volume of pedestrian traffic during the two-hour count period. The on-street parking and nearby restaurant and retail land uses likely contribute to the increased pedestrian travel in this area. The Doubleday Avenue/North Street intersection located at the north end of the study area had the fewest observed pedestrians, which is understandable due to the surrounding land uses and partial pedestrian accommodations at this intersection.

Figure 6 illustrates the location of the existing sidewalks, trails, and traffic signal controlled intersections. **Figure 7** illustrates many of the primary destinations within the study area. In general, the following is noted regarding pedestrian accommodations throughout the study area:

- Sidewalks are generally present in the study area.
- The presence of stop bars, marked crosswalks, ramps, and detectible warning at unsignalized intersections varies and marked crosswalks are often missing at intersections within the residential area.
- Pedestrian equipment in the corridor is generally consistent at the signalized intersections with ramps, detectable warning units, pushbuttons, and countdown timers.
- The condition of the pedestrian accommodations in the overall study area varied with some in good condition and some in poor condition. For example, there are some brand new curb ramps with ADA detectable warning fields and some sidewalks in disrepair with uneven surfaces.
- Overhead and pedestrian specific signage in the corridor varies.



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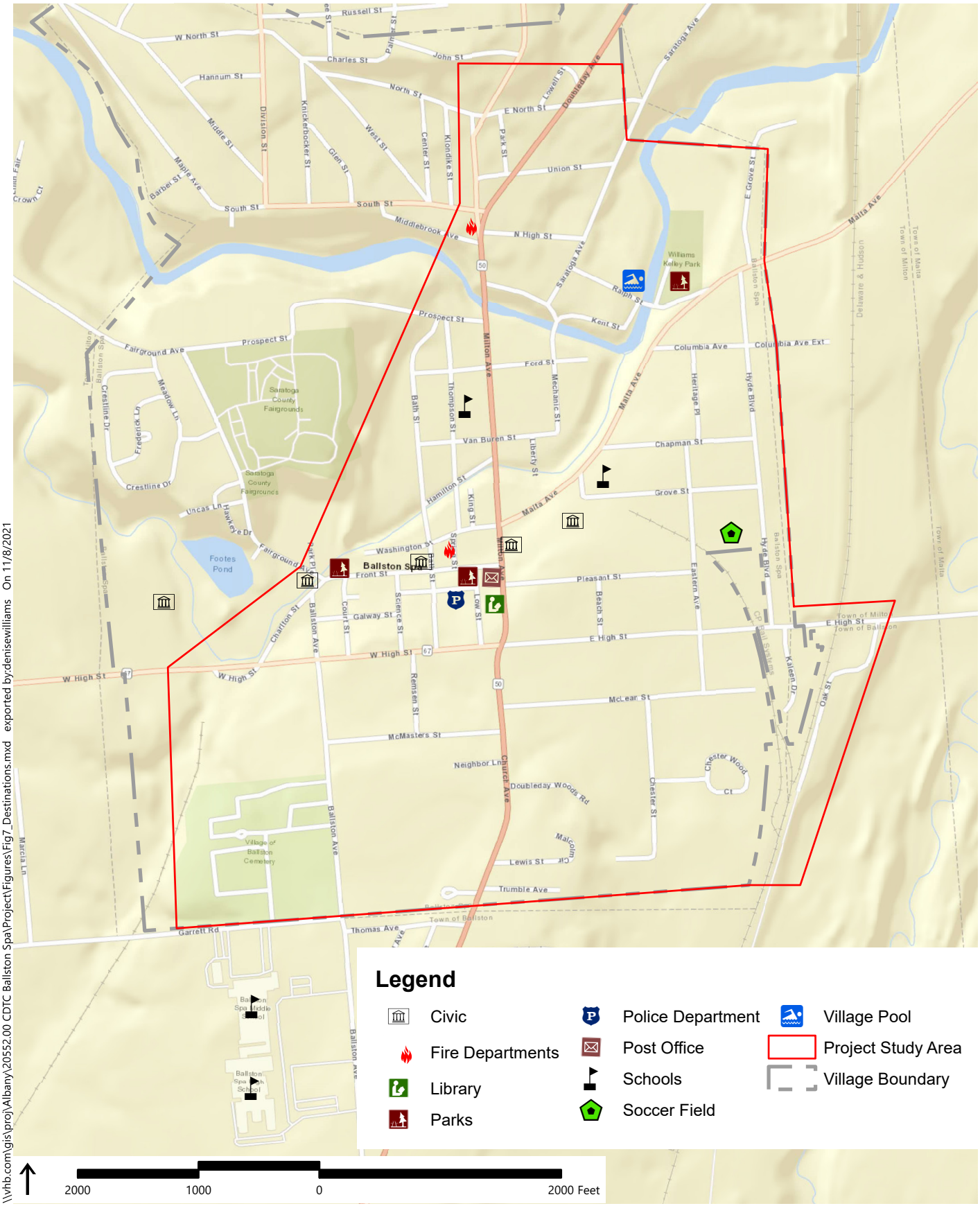
Village of Ballston Spa
Saratoga County, New York

BALLSTON SPA PED/BIKE MASTER PLAN

Sidewalks, Trails & Signalized Intersections



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Village of Ballston Spa
Saratoga County, New York

BALLSTON SPA PED/BIKE MASTER PLAN

Village Destinations

Bicycle Activity and Accommodations

Vehicles parked on Oak Street to access the Zim Smith

Bicyclists typically share the road with vehicle traffic throughout the study area. There are no designated bicycle facilities in the study area or the Village of Ballston Spa. In addition to sharing the road with motorized vehicles, the lack of designated bicycle facilities can also result in bicyclists using the sidewalk. Bicycle parking is provided at several locations within the study area including all of the public parking lots for vehicles, Wiswall Park, and the access to the Jim Tedisco Fitness Trail, among others. Bicyclist activity was observed when the pedestrian counts were conducted in June to document the number of bicyclists at the intersections identified by the Project Team. The results of the bicycle counts can be found in **Table 5**. As expected, the highest volume of bicycle activity was observed at the Hyde Boulevard/East High Street intersection where the cyclists are likely traveling to and from the Zim Smith Trail.

Table 5 Bicyclists Observed

Location	Bicyclists
Hyde Blvd/E. High St (weekend 12-2pm)	14
Milton Ave/Malta Ave/Washington St (weekday (8-10am)	6
Milton Ave/Prospect St (weekday 4-6pm)	0
Doubleday Ave/North St (weekday 4-6pm)	0
Church Ave/E. & W. High St/Milton Ave (weekday 3-5pm)	4
Front St/Low St (Weekday (5-7pm)	0
Ralph St/Kent St (weekend 12-2pm)	4

The Zim Smith Trail is a paved, multi-use trail connecting Oak Street in the Town of Ballston to the Champlain Canalway in Mechanicville. The trail is 11.5 miles long and travels through the Town of Malta, Village of Round Lake, and Town of Halfmoon. Data collected by volunteers of the Capital District Trails Plan, in 2016, indicates that the Zim Smith Trail near Ballston Spa served 53,781 users. The Zim Smith Trail is a popular

recreational trail and Oak Street fills with the parked vehicles of people using the trail on weekends. A 3.3 mile extension of the trail from the Town of Halfmoon to the City of Mechanicville was opened to the public in September 2020. Other proposed connections include Saratoga Spa State Park, Champlain Canal Trail, Ballston Veterans Bike Trail, Saratoga Greenbelt Trail, and Ballston Spa – Galway Link.

Transit Service

Transit service in the Village of Ballston Spa is provided by the Capital District Transportation Authority (CDTA). CDTA Route 450 provides service from downtown Schenectady to Saratoga and Wilton Mall via NY Route 50. Buses run 7 days a week with weekday and Saturday service from approximately 4:55 AM to 12:20 AM and Sunday service from approximately 8:05 AM to 8:15 PM. Bus stops for Route 450 in the study area are located on NY Route 50 at the intersections of Doubleday Woods Drive, East and West High Street, Malta Avenue, Van Buren Street, Prospect Street, Neighbor Lane, and Union Avenue. These bus stop locations are designated by signage, but do not include additional amenities like shelters or benches. **Figure 8** shows the bus route and stop locations in the study area. The average daily ridership data provided by CDTA is summarized in **Table 6**.

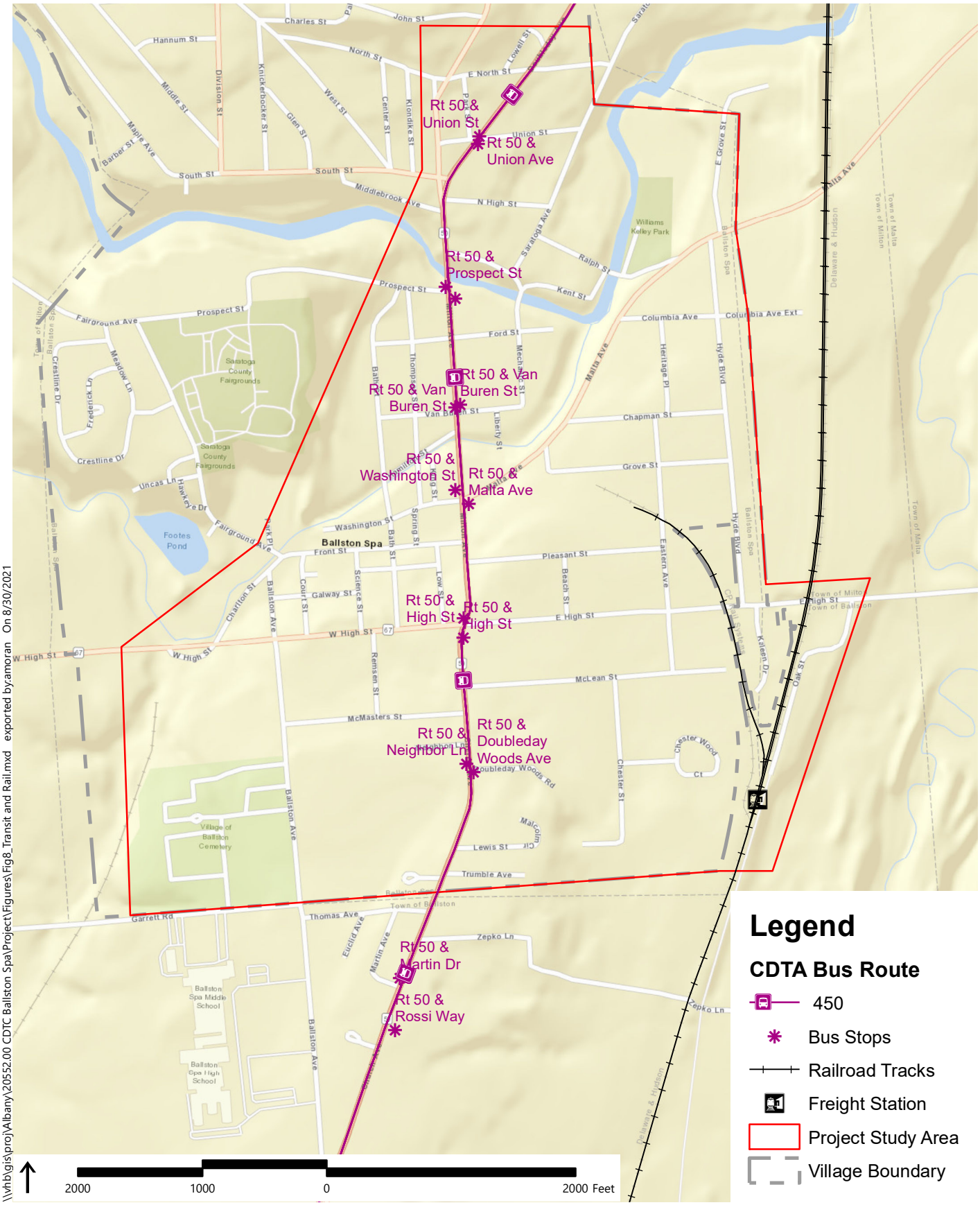
Table 6 Average Weekday Boarding and Alighting

	Northbound		Southbound	
Location	**Boardings**	**Alightings**	**Boardings**	**Alightings**
NY Rt 50/Doubleday Woods Dr	2.6	2.2	N/A	N/A
NY Rt 50/E. & W. High St	3.2	3.2	3.3	6.6
NY Rt 50/Malta Ave/ Washington St	30.6	9.9	12.6	17.9
NY Rt 50/Van Buren St	6.3	2.0	5.2	5.4
NY Rt 50/Prospect St	8.2	2.8	N/A	N/A
NY Rt 50/Union Ave	8.3	3.1	4.6	9.7
NY Rt 50/Neighbor Ln	N/A	N/A	1.5	3.9

The Village of Ballston Spa is also served by the Northway Express Commuter route which provides service to Downtown Albany and the Empire State Plaza from multiple park and ride lots and major destinations in Saratoga County. The Northway Express operates Monday through Friday during the commuter peaks.

A review of ridership data illustrates that the Malta Avenue bus stop has the highest usage levels averaging 31 boardings and 10 alightings on weekdays in the northbound direction and 13 boardings and 18 alightings in the southbound direction. The northbound stop at Malta Avenue accounts for approximately half of the ridership traveling northbound and the stops at Van Buren Street, Prospect Street, and Union Avenue combined account for approximately one third of the ridership traveling northbound. The southbound stops at Malta Avenue and Prospect Street account for approximately 40% and 20% of the ridership traveling southbound, respectively.

Individual waiting for a bus at the northbound stop at the NY Route 50/Malta Avenue intersection.



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Village of Ballston Spa
Saratoga County, New York

BALLSTON SPA PED/BIKE MASTER PLAN

Transit and Rail

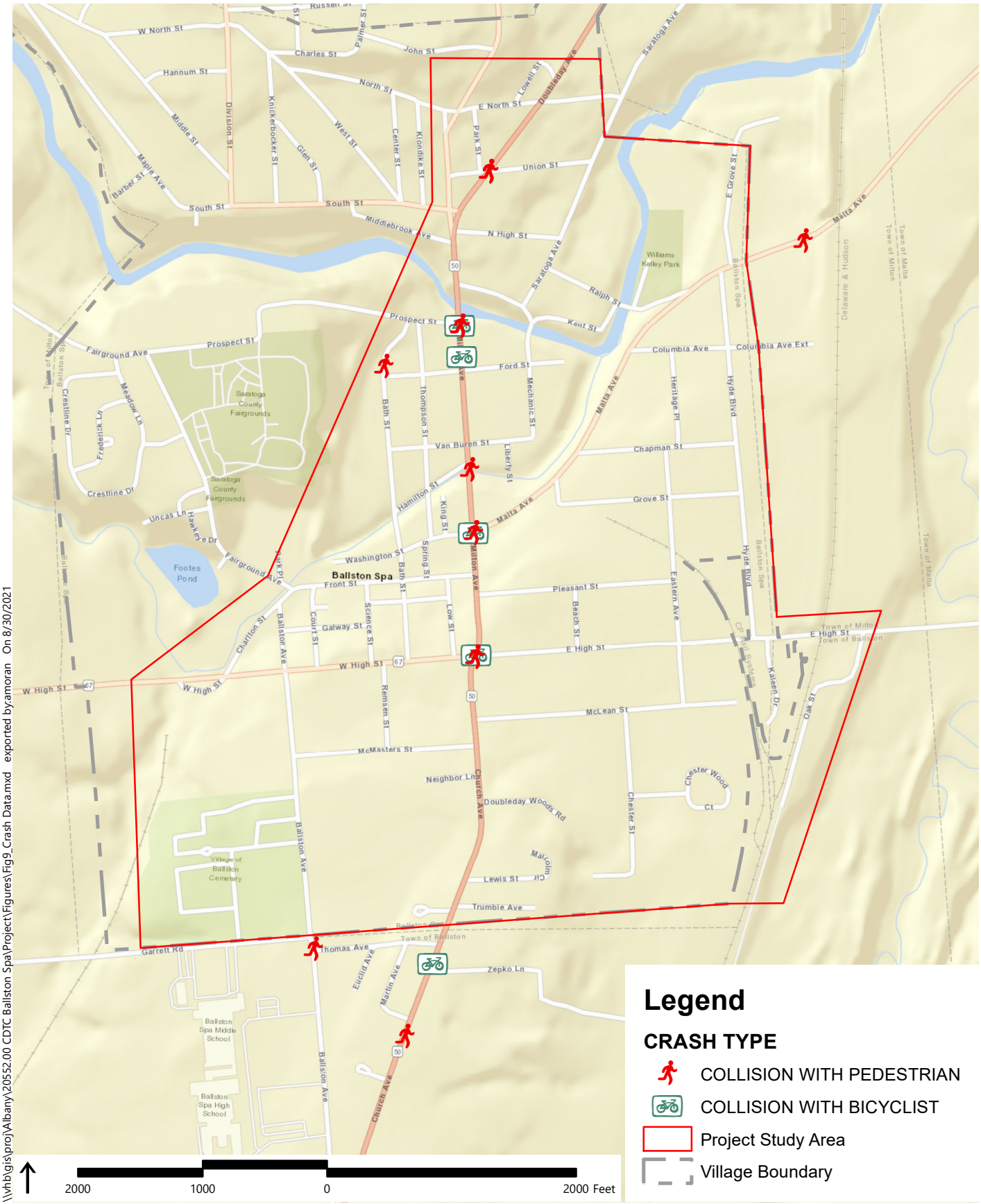
Crash Data Review

CDTC provided crash data for an area that is slightly larger than the study area boundary, for a five-year period from January 1, 2015 through December 31, 2019. The data includes an expanded area to confirm that pedestrian and bicyclist crashes immediately adjacent to the study area are also included in the crash history. Review of the data shows that during the five-year period a total of 20 pedestrian and bicycle crashes occurred within and just outside of the study area. The crash data is summarized in **Table7**.

Review of the intersection crash data revealed that of the 20 pedestrian/bicycle crashes that occurred, half took place at an intersection. Additionally, 17 of the crashes occurred on the NY Route 50 corridor. Of the three crashes that occurred outside of the NY Route 50 corridor, one was on Bath Street, one was at the Ballston Avenue/Thomas Avenue intersection, and one was on Malta Avenue. The five bicycle crashes primarily occurred while the bicyclist was travelling along the roadway rather than crossing the street. Review of the crash data did not identify any specific crash patterns or locations; however, as part of development of The Plan, recommendations will be provided to reduce the potential for pedestrian and bicyclist crashes using information and countermeasures included in the New York State Pedestrian Safety Action Plan (NYS PSAP) and Federal Highway Administration (FHWA) Proven Safety Countermeasures.

Table 7 Five-Year Pedestrian and Bicycle Crash History

	Crash Severity				
User	**Fatal**	**Injury**	**Property Damage**	**Non-Reportable**	**Total Crashes**
Pedestrian	0	14	0	1	15
Bicyclist	0	4	1	0	5



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Village of Ballston Spa
Saratoga County, New York

BALLSTON SPA PED/BIKE MASTER PLAN

Crash Locations

3

Analysis

The recommendations contained in the Pedestrian and Bicycle Master Plan will be compared using several factors. Chapter 3 provides an analysis of existing conditions and a comparison to the proposed bicycle and pedestrian facility recommendations.

Pedestrian Level of Traffic Stress

The Pedestrian Level of Traffic Stress (PLTS) is based on methodology outlined in the Analysis Procedures Manual published by the Oregon Department of Transportation (ODOT)[1]. Chapter 14 of the manual outlines how to classify pedestrian facility conditions on roadways by assessing sidewalk condition and user ability simultaneously.

The ODOT PLTS uses roadway and intersection characteristics to classify roadway segments (links) and intersections based on different levels of pedestrian skill and stress tolerance. The PLTS uses sidewalk condition/width, buffer type/width, bike lane and parking width, number of lanes, posted speed, and illumination as primary factors for the link analysis. The methodology uses functional class, average daily traffic (ADT), sidewalk ramps, and crosswalk signing and markings as primary factors for intersection crossing analysis. The PLTS rating system has the following four levels of classification:

1 Analysis Procedures Manual, Version 2, Oregon Department of Transportation, Last Updated October 2020

- **PLTS 1 – *All users.*** Represents little to no traffic stress and requires little attention to the traffic situation. This is suitable for all users including children 10 years or younger, groups of people, and people using a wheeled mobility device. The facility is a sidewalk or shared-use path with a buffer between the pedestrian and motor vehicle facility. Pedestrians feel safe and comfortable on the pedestrian facility. Motor vehicles are either far from the pedestrian facility and/or traveling at a low speed and volume.
- **PLTS 2 – *Most users.*** Represents little traffic stress but requires more attention to the traffic situation than of which young children may be capable. This would be suitable for children over 10, teens, and adults. All users should be able to use the facility, but some factors may limit people using wheeled mobility devices. Sidewalk condition should be good with limited areas of fair condition. Roadways may have higher speeds and/or higher volumes.
- **PLTS 3 – *Some users.*** Represents moderate stress and is suitable for adults. An able-bodied adult would feel uncomfortable but safe using this facility. This includes higher speed roadways with smaller buffers. Small areas in the facility may be impassable for a person using a wheeled mobility device and/or require the user to travel on the shoulder/bike lane/street.
- **PLTS 4 – *Most confident or trip-driven users.*** Represents high traffic stress. Only able-bodied adults with limited route choices would use this facility. Traffic speeds are moderate to high with narrow or no pedestrian facilities provided. Typical locations include high speed, multilane roadways with narrow sidewalks and buffers. This also includes facilities with no sidewalk. This could include evident trails next to roads or 'cut through' trails.

The detailed PLTS assessment is included in Appendix B to this document.

PLTS for segments is primarily driven by the sidewalk width and condition followed by the presence and width of a buffer area. For each roadway segment, the width and condition of the worst section of sidewalk will dictate the PLTS. A segment with a section of no sidewalks or of sidewalks less than 4 feet in width will automatically result in PLTS 4. To have a PLTS of 1, the sidewalk must be 6 feet or wider and in good or fair condition. Based on the sidewalk conditions assessment, most roadways in the study area have a PLTS of 3 or 4. This is not unexpected, since sidewalk condition has been a documented concern in the Village for several years. The sidewalk condition assessment will provide the Village with the data to start upgrading sidewalks by priority area.

The primary barrier to crossing at intersections for pedestrians is the travel speed and number of lanes being crossed. Intersection approaches in the study area are mostly unsignalized where roadways have a posted speed limit of 30-mph and crossings are 2-3 lanes. With these characteristics, the PLTS for the study area for all unsignalized intersections is 2 to 3. The presence of intersection lighting, ramps, and crosswalks can reduce the PLTS to a minimum score of 2. The guidance notes that traffic signal controlled crossings are identified as PLTS 1 if there are pedestrian indicators at the intersection, without the pedestrian indicators the PLTS drops to 2. This is because vehicle traffic is controlled at the intersection allowing pedestrians to cross more comfortably. If the intersection crossing lacks standard ramps it will change the PLTS to

3. Based on a review of the intersection crossing features, all of the signal controlled study area intersection crossings are PLTS 1 except for the following:

- Milton Avenue/Prospect Street northbound approach is PLTS 2 (no pedestrian indicators)
- Front Street/Bath Street northbound, southbound, and westbound intersection approaches have a PLTS of 2 (no pedestrian indicators)
- Front Street/Bath Street eastbound approach is a PLTS 3 (no pedestrian indicators or standard ramps)

Bicycle Level of Traffic Stress

Bicycle Level of Traffic Stress (BLTS) is based on methodology outlined in Low-Stress Bicycling and Network Connectivity published by the Mineta Transportation Institute (MTI)[2]. The report outlines a method of classifying bicycle conditions on roadways that assesses both bicycle routes and bicyclist abilities simultaneously.

The MTI Level of Traffic Stress method uses roadway segment and intersection characteristics to classify segments and intersections based on different levels of bicyclist skill and stress tolerance. The BLTS uses roadway speed and volume as primary factors. The methodology also accounts for roadway width since wider roadways tend to have more complicated intersections and on-street parking, which can increase the stress of bicyclists navigating within the roadway. Finally, the presence of bicycle only lanes impacts the BLTS as designated lanes for bicycles greatly reduces the stress bicyclists encounter on the roadway system as opposed to being mixed in with the concurrent traffic. The BLTS rating system has four levels of classification:

- **BLTS 1 – *Suitable to children.*** Presenting little traffic stress and demanding little attention from cyclists, and attractive enough for a relaxing bike ride. Suitable for almost all cyclists, including children trained to safely cross intersections. On links, cyclists are either physically separated from traffic, or are in an exclusive bicycling zone next to a slow traffic stream with no more than one lane per direction or are on a shared road where they interact with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential. Where cyclists ride alongside a parking lane, they have ample operating space outside the zone into which car doors are opened. Intersections are easy to approach and cross.
- **BLTS 2 – *Interested but concerned.*** Presenting little traffic stress and therefore suitable to most adult cyclists but demanding more attention than might be expected from children. On links, cyclists are either separated from traffic or are in an exclusive bicycling zone next to a well-confined traffic stream with adequate clearance from a parking lane or are on a shared road where they interact with only occasional motor vehicles (as opposed to a stream of traffic) with a low speed differential. Where a bike lane lies between a through lane and a right-turn lane, it is configured to give cyclists unambiguous priority where cars cross the bike lane and to keep car speed in the right-turn lane comparable to bicycling speeds. Crossings are not difficult for most adults.

2 Low-Stress Bicycling and Network Connectivity, Mineta Transportation Institute, May 2012

- **BLTS 3 – *Enthused and confident.*** More traffic stress than BLTS 2, yet markedly less than the stress of integrating with multilane traffic, and therefore welcome to many people currently riding bikes in American cities. Offering cyclists either an exclusive riding zone (lane) next to moderate-speed traffic or shared lanes on streets that are not multilane and have moderately low speed. Crossings may be longer or across higher-speed roads than allowed by BLTS 2 but are still considered acceptably safe to most adult bicyclists.
- **BLTS 4 – *Strong and fearless.*** A level of stress beyond BLTS 3.

The detailed results for the study area segments and intersections are included as Appendix C to this document.

There are no dedicated bicycle facilities in the study area; therefore, the results of the Bicycle Level of Traffic Stress generally show that all roadway segments in the study area have a minimum BLTS of 2. E. High Street has a BLTS of 4 since the posted speed limit is greater than 35 mph. All other study area roadways have a BLTS of 2 or 3 depending on the presence of centerline striping; roadways with centerline striping have a BLTS of 3 and those without have a BLTS of 2.

The primary barriers to bicycle crossings at intersections are the travel speed and number of lanes being crossed. Intersections in the study area are mostly comprised of unsignalized intersections where roadways have a posted speed limit of 30-mph and crossings are only 2 to 3 lanes. With these characteristics, the BLTS for the study area at unsignalized intersections is BLTS 1. The guidance notes that traffic signal controlled crossings do not usually present a barrier to cycling; therefore, the traffic signal controlled intersections were not included in the intersection evaluation. According to the BLTS classification system, the majority of the intersection crossings in the study area are “Suitable to children”. However, the roadways connecting the intersections have a BLTS of 2 “Interested but concerned” or 3 “Enthused and confident”.

4

Public Involvement

The Village of Ballston Spa Pedestrian and Bicycle Master Plan public engagement process included focus group meetings, a bicycle demonstration project and accompanying survey, two public open houses, a video posted online detailing the project, and distribution of printed materials throughout the Village including at the library and on a CDTA bus route, and posting of materials to the project website. Press releases and social media posts also helped inform the public about project details. A project distribution list that included over 100 members of the public received periodic updates during the course of the project.

Focus Groups

Four focus group virtual meetings were held in May 2021 with about a dozen participants (plus members of the SAC at each session). The meetings included three different focus areas: the downtown area, outside of the downtown area, and the Zim Smith Trail. An additional discussion with Saratoga County representatives was held related to the upcoming Saratoga County feasibility study that is looking at how to connect the Zim Smith Trail, in the vicinity of Ballston Spa, to Saratoga Spa State Park.

Focus Group Summary Conclusions

Below is a summary of the discussions that occurred among Focus Group participants.

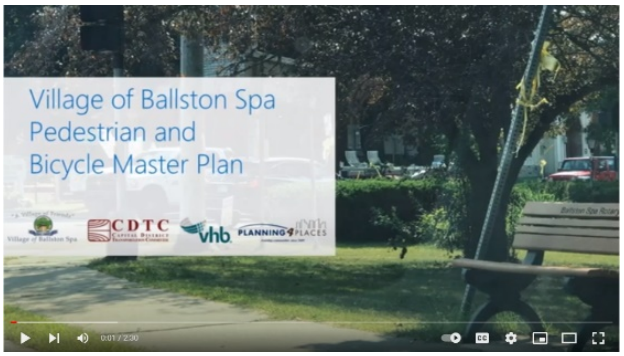
- Participants highest priority is connecting the sidewalk network and filling in gaps.
    - Key areas for sidewalk connections include: the downtown area, schools, grocery stores and important services, Kelley Park, the north side of the Village, and the Milton Town Center area.
- Participants prioritized connections to the Zim Smith Trail and ultimately connecting to Saratoga Spa State Park. Wayfinding signage to and from the Trail were considered to be very important.
- Utilizing the Kayaderosseras Creek, Tedisco Trail, and utility right-of-way for off-road connections.
- Bike lanes, sidepaths, shared use paths, and marking shared roadways with sharrows all received positive feedback.
- Other priorities include traffic calming, improving transit accessibility in the Village, placing appropriate street trees adjacent to sidewalks, adding streetscape amenities such as bike racks, benches, and pedestrian-scale lighting, and development of a bike share program.

The detailed Focus Group meeting summaries are included in Appendix D.

Publicizing the Project

The public involvement process included a number of ways to inform the public about the project. Outreach included printed materials distributed widely throughout the Village through several different venues, the use of the project website and Village of Ballston Spa social media, press releases distributed to a number of local news outlets, and a project e-blast distribution list. The SAC distributed the printed flyers, bookmarks, and rack cards throughout the Village. Bookmarks were distributed through the library books checked-out, and rack cards were placed on CDTA Route #450 buses. A number of news articles were published advertising the public open house, the demonstration project, and the final public meeting.

The materials shown here, used for the rack card and bookmark, included a link and QR code to the project website for more information on the project. The project video, screenshot shown here, was posted on CDTC's YouTube Channel.



Sample of Public Outreach Materials and the Project Video

Project Website and Interactive Map

The project website found at: https://projects.vhb.com/ballstonspapbmp/default.htm and the adjacent QR code included information about the project history and status, project meeting materials, and project documents. SAC meeting notes, presentations, and recordings of the virtual meetings were posted to the project website as well as presentations, project boards displayed at the Open House, and Open House and Public Meeting notes are also posted on the website. The website also hosted an interactive map where the public could indicate areas of needed improvement in the Village for pedestrian and bicycle infrastructure. As of September 2021, 158 comments had been received. The majority of the comments were related to the desire for sidewalk improvements and noted missing sidewalk connections in the Village. Comments on the map were primarily concentrated along Milton Avenue (NY Route 50), Malta Avenue, East and West High Street, Hyde Boulevard, Prospect Street, the north end of the Village (outside of the Study Area), and scattered in other locations. Other comments on the interactive map related to connecting to

the Zim Smith Trail, traffic calming, and the desire for improved bus shelters. The full set of comments can be seen in Appendix E.

Demonstration Project and Survey

Demonstration projects allow for a real-world example of a different traffic pattern, or new infrastructure to be tested out by the public. These temporary installations are intended to test desired or potential options for feasibility and garner feedback about the installation and/or the particular location. Temporary installations can be adjusted based upon public input received and installed permanently, if desired.

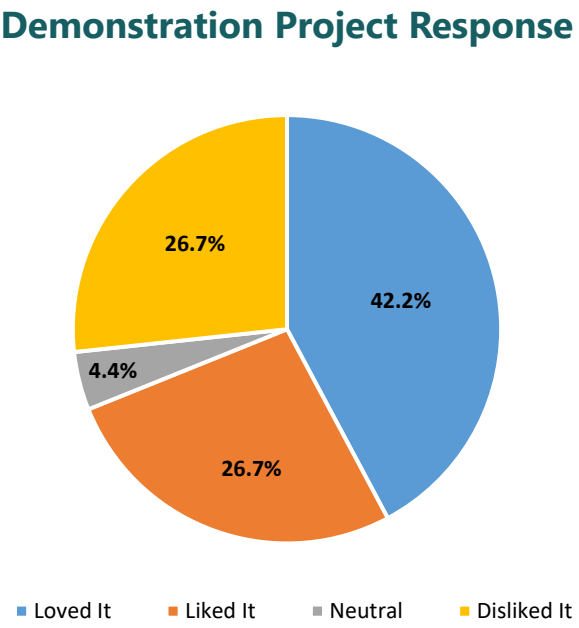
Project Team Volunteers

Installed Demonstration Project

The temporary Demonstration Project was installed on Hyde Boulevard between Chapman Street and Grove Street and was open between June 28 – July 6, 2021. This location was chosen due to its proximity to the soccer field and nearby Zim Smith Trail and based on the available width on Hyde Boulevard which allowed the space to maintain the existing on-street parking, stripe two bicycle lanes, and maintain approximately 11-foot wide vehicle travel lanes. The Demonstration Project included a bicycle lane in each direction and "sharrows" at the end of each bike lane at the Grove Street and Chapman Street intersections. The demonstration project dimensions were consistent with National Association of City Transportation Officials (NACTO) design guidelines for a road with the characteristics of Hyde Boulevard. Informational signage was placed at either end of the Demonstration Project limits during the approximately one-week demonstration period with a feedback link for people to share their thoughts through an online SurveyMonkey survey.

Members of the Project Team went door-to-door near the demonstration project to hand deliver a letter and map about the Demonstration Project prior to its installation. The Village Board of Trustees approved the installation of the Demonstration Project at their May 24, 2021 meeting. Several e-blasts were sent out to the project distribution list to publicize the Demonstration Project and advertise the survey.

There were 45 survey responses received during the survey time period. The majority of the respondents live in the vicinity of the Demonstration Project and use Hyde Boulevard as a motorist or other travel mode such as a walker and/or a bicyclist. As shown in the pie chart below, the majority of respondents loved or liked the Demonstration Project (68.9% total), while 4.4% were neutral and 26.7% disliked it.



One comment received noted the following:

"I like that the village may become more safe for bicyclists and pedestrians."

Some of the comments related to the design and placement of the bicycle lanes while some respondents noted that they would have liked to have seen a different bicycle treatment such as two-way bicycle traffic on one-side of the street. Regarding whether the respondents would like to see the Demonstration Project on their street, there were mixed results with 41.9% saying yes, 37.2% saying no, and 20.9% being unsure. When asked where permanent pedestrian and bicycle facilities would be appropriate, responses included the following locations: Hyde Boulevard, McMaster Street, Kaleen Drive, Eastern Avenue, Malta Avenue, Rowland Street, Church Street, Fairground Avenue, Ballston Avenue, E. High Street, Front Street, and to the Zim Smith Trail. Connections to the high school, improvements to sidewalks, and traffic calming were also mentioned in the responses. The Hyde Boulevard Demonstration Project Survey and results can be seen in Appendix F.

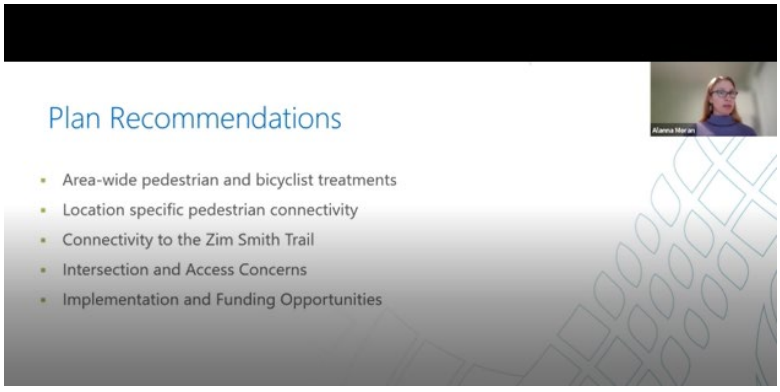
Public Open House and Public Meeting

On June 30, 2021, Public Open House #1 was held at Kelley Park from 6:00 to 8:00 PM to introduce the study to the community in person to supplement the virtual meetings and website, and receive input regarding pedestrian and bicyclist concerns and recommendations. The public was provided with a short presentation about the project and the planning process and had a chance to share their thoughts and ideas for pedestrian and bicycle improvements based upon some representative images. Information about the Hyde Boulevard Demonstration project was discussed and key Village destinations were identified and confirmed.

The second Public Meeting was held on November 18, 2021 on Zoom from 7:00 to 8:30 PM following release of the Draft Plan for public comments. The public was provided with a presentation on the Draft Plan's recommendations and there were several interactive polls throughout the meeting to solicit feedback from meeting participants about their priorities. There was also a question and answer session at the end of the meeting for participants to ask questions about the Draft Plan's recommendations.

Presentation during Public Open House #1

Discussion during Public House #1



Presentation During Virtual Public Meeting

5

Plan Recommendations

Using information obtained through review of the previously completed studies, the existing conditions assessment, and information obtained through public and Study Advisory Committee input, a number of plan recommendations were identified to address pedestrian and bicyclist accommodations. The recommendations often include a level of trade-off since there can be limited right-of-way and physical features (like bridges) that affect the buildability of options.

Area-Wide Pedestrian and Bicyclists Treatments

Several low cost pedestrian and bicyclist treatments were reviewed to determine the preferred option in different segments of the study area to improve pedestrian and bicyclist connectivity and accommodations. Most of the treatments have been included in the overall recommendations; however, the following treatments can be used Village-wide as needed to improve bicycle and pedestrian access and safety.

Sidewalks

Sidewalks in residential neighborhoods should be a minimum of 5 feet wide and can be 4 feet wide in constrained areas. Where space allows, a 2-5 foot-wide buffer should be planned between the sidewalk and the roadway. This buffer improves the walking environment, enhances livability of the neighborhood, and can provide space for utility

poles, street trees/landscaped green space, and other street appurtenances as appropriate.

Paved Shoulders

VHB photo of paved shoulder

Paved shoulders lie at the edge of roadways. Though not formally considered a pedestrian facility, they can serve as a functional space for walking in the absence of a nearby sidewalk. Pedestrian warning signs can be included to alert motorists to watch for pedestrians. (Note the pedestrians should always walk against traffic.) According to the Federal Highway Administration's (FHWA's) Proven Safety Countermeasures report, paved shoulders can reduce crashes involving pedestrians by 71%. Shoulder bikeways typically include a minimum 4' wide paved shoulder and often include bicycle route signage. Four feet is the preferred minimum width needed for bicyclists to ride with a modest level of comfort, depending on traffic speeds and vehicular volume. Signs alerting motorists of the presence of bicyclists may be used.

Marked Crosswalks

Though not always marked, pedestrian crossings are allowed at intersections. Crosswalks can be striped (marked) at intersections throughout the study area and the Village to emphasize a pedestrian crossing as desired. Marked crossings should lead to pedestrian facilities on both sides of the crossing. A marked crossing can be either a ladder style crossing or a pair of perpendicular lines.

High-Visibility Crosswalks

High-visibility crosswalks can be striped at key pedestrian crossing locations and at signalized intersections and should lead to pedestrian facilities on both sides of the crossing. A ladder style crossing enhances visibility of the crosswalk relative to a pair of perpendicular lines which can be are difficult for drivers to perceive. Crosswalks can be supplemented by In-Street Pedestrian Crossing signs or Pedestrian Crossing sign assemblies which increase drivers' awareness of the crosswalk, especially at night.

VHB photo of high-visibility crosswalk

Raised Crosswalks

Raised crosswalks place the pedestrian crossing at the same grade as the adjacent sidewalks and should incorporate the high-visibility striping with painted chevrons on the ramp up. Raised crosswalks create a visual cue that forces drivers to slow down on the approach and function similar to a speed hump. While beneficial to visibility and speed reduction, raised crosswalks can also make snow and ice removal difficult.

VHB photo of raised crosswalk

Curb Extensions

Curb extensions improve visibility for those waiting to cross a roadway and reduce the crossing distance for pedestrians. They also help to calm traffic by creating a visual "pinch point" in the roadway and reducing the typical turning radius for motor vehicles. They are most typically used adjacent to an on-street parking lane.

VHB photo of curb extensions

Rectangular Rapid Flashing Beacons (RRFBs)

Rectangular Rapid Flashing Beacons (RRFBs) as shown in the adjacent photograph are pedestrian-actuated warning beacons located at unsignalized intersections or mid-block crossings. They increase motorists' awareness of pedestrians and work well in conjunction with curb extensions and high-visibility crosswalks. According to FHWA's Proven Safety Countermeasures report, they reduce crosswalk-related crashes involving pedestrians by 69%. Generally, RRFB usage should be limited to locations with 20 or more pedestrians in a one-hour period.

VHB photo of RRFB

Americans with Disabilities Act Upgrades

The Americans with Disabilities Act prohibits discrimination against people with disabilities in employment, public accommodation, communications, governmental activities, and transportation. Areas of improvement in the study area to meet ADA guidelines include:

- The design of curb ramps
- The inclusion of detectable warning surfaces
- The provision of a level sidewalk of sufficient width
- The addition of accessible pedestrian pushbuttons in appropriate locations

Marked Shared Lane (Sharrow)

A marked shared lane is a general purpose travel lane marked with shared lane markings (sharrow) used to encourage bicycle travel and proper bicyclist positioning within the lane. Under many conditions, sharrows may be placed in the middle of the lane to discourage unsafe passing by motor vehicles.

VHB photo of "sharrow" marking

Bicycle Lanes

Bicycle lanes designate a lane for the exclusive use of bicycles via roadway pavement markings and signage. Reducing travel lane width can help provide space for a standard 5'-wide bicycle lane. Bike lanes may be added to roads with extra wide travel lanes or in replacement of a parking or travel lane. To preserve curb-side parking, bicycle lanes can be striped next to parking; however, this design can create conflict points as drivers enter the bicycle lane when entering or exiting the designated on-street parking area. If space is available, a wide parking aisle or 2' buffer between the bicycle lane and the parking aisle decreases the likelihood that bicyclists will be struck by opened car doors of parked vehicles or conflict with people entering or exiting their vehicle. The buffers provide an enhanced visual separation from passing traffic and/or protection from the opening of car doors in the adjacent motor vehicle parking aisle.

Source: www.pedbikeimages.org/Dan Burden

Shared-Use Path/Sidepath

Shared-use paths typically align within former rail corridors, along rivers, and through parks while sidepaths are located adjacent to and parallel with a roadway. Sidepaths can offer a high-quality experience for users of all ages and abilities compared to on-road facilities. While more expensive than on-street bikeways, shared-use paths and sidepaths can help promote bicycle tourism and economic development. Additional design considerations at driveways and side street crossings are also needed for sidepaths to address potential conflicts.

VHB photo of shared-use/sidepath

Pedestrian Connectivity

Consistent with previously completed studies, many comments received on the project website, interactive map, and public input sessions noted the need for improved sidewalk conditions and infill of existing gaps in sidewalk infrastructure. Primary areas recommended for Village sponsored sidewalk construction include Hyde Boulevard, East High Street, West High Street, and Malta Avenue. As noted previously, pursuant to Village Law, property owners in the Village are responsible for the maintenance of sidewalks that border their properties. The Village code also states that sidewalks constructed to the appropriate Village standards can be reimbursed at a rate of $2.50 per square foot of sidewalk and curbing with proper receipts and billing information. This program is intended to help offset the cost of the sidewalk construction or repair borne by the property owner. Based on the sidewalk conditions assessment summarized on Figure 4, many of the existing sidewalks in the Village are in disrepair indicating that property owners are not adequately maintaining the sidewalks adjacent to their property. To further incentivize property maintenance and repair, the Village could increase the reimbursement amount or enforce the sidewalk maintenance policy and begin levying fees for substandard sidewalks. As cost of materials has increased, the Village may wish to re-evaluate the reimbursement program.

In addition to sidewalk infill, marked crosswalks may be beneficial at multiple locations in the study area. While often unmarked, crossings are legally allowed at an intersection. Often, due to budgeting and maintenance constraints, municipalities may choose to limit pavement striping, including crosswalks, within the municipality. Striping should be installed at key crossing locations near schools and at major pedestrian destinations (like Front and Bath Streets). High-visibility crosswalks were ranked as a high priority during the Virtual Public Meeting. In addition to these key locations, the SAC identified the need for a crossing of NY Route 50 near the south Village line to serve residents travelling to and from destinations in the Town of Ballston outside of the Village. Representatives of the Village should coordinate with representatives from the Town of Ballston and NYSDOT to identify the preferred crossing in this area.

Specific pedestrian connectivity projects and plans are listed below.

1. **Complete an ADA transition plan in the study area and the Village.** This plan will serve to identify the priority locations for repair and construction. Figures 5 and 6 can also be used to identify locations with sidewalk gaps in the study area. As opportunities arise, the gaps in the sidewalk network should be filled in by the property owner of individual parcels or by the Village.
2. **Construct a sidewalk on the north side of East High Street from Hyde Boulevard to Eastern Avenue.** Construction of this sidewalk will complete the pedestrian network between the soccer fields, playground, and park to downtown.
3. **Complete the sidewalk network on one side of West High Street from Charlton Street to the Saratoga County Office Building.** This connection is important for Village residents with limited mobility choices to access nearby services and requires coordination with the NYSDOT and adjacent landowners.
4. **Complete the sidewalk on the north side of Malta Avenue from East Grove Street to Ralph Street.** Construction of this segment will complete the pedestrian connection between Hyde Boulevard and Ralph Street with logical termini.
5. **Coordinate with NYSDOT and the Town of Ballston to identify the preferred location for a pedestrian crossing on NY Route 50 near the south Village line.** The crossing would serve residents travelling to and from destinations in the Town of Ballston outside of the Village.

Connectivity to the Zim Smith Trail

One of the primary goals of this study was to provide recommendations for a safe connection between the Zim Smith Trail and the Village. Although a direct connection is preferred, safety is the most important consideration in developing a route directing bicyclists to and from downtown and the Zim Smith Trail. Review of the study area indicates that the preferred route (illustrated below) between the Zim Smith Trail and downtown Ballston Spa is via East High Street to Hyde Boulevard to Grove Street, and then south on Pine Street into the parking lot for the Ballston Area Community Center and the Malta Avenue parking lot. To facilitate this connection for both bicyclists and pedestrians, recommendations are provided for several different roadway segments and intersections as described below.

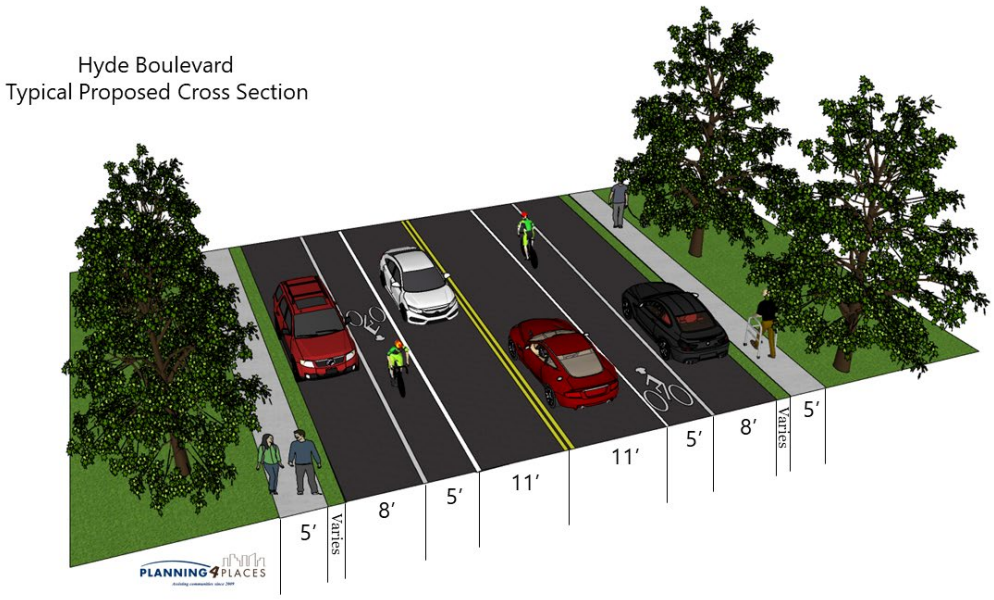
Preferred route between the Zim Smith Trail and downtown Ballston Spa

Generally, comments received from the public and the SAC noted that confident bicycle riders will access the trail travelling on East High Street to Oak Street. However, less confident riders often find the section of East High Street from Hyde Boulevard to Oak Street intimidating due to the lack of a dedicated bike facility and the increased speed limit east of Hyde Boulevard. As noted, Saratoga County is currently concluding a feasibility study to continue the Zim Smith Trail as an off-road facility from Oak Street to Saratoga Spa State Park. Although in the preliminary design phase, this portion of the Trail is expected to cross East High Street at Oak Street and will not change the cross section of East High Street west of Oak Street.

In anticipation of the increased crossings on East High Street associated with the trail connections, the Village should coordinate with the Town of Ballston and Saratoga

County to petition NYSDOT to lower the 45-mph posted speed on East High Street from Hyde Boulevard to the Zim Smith Trail connection at Oak Street. Additionally, the Village should coordinate with the Town of Ballston to provide way-finding signage directing Trail users to the Village. Sidewalks currently exist on both sides of East High Street between Hyde Boulevard and Oak Street to accommodate pedestrians; however, to better accommodate bicyclists East High Street could be re-striped to provide two 10-foot wide travel lanes and 5-foot bike lanes or as an alternative, the existing travel lanes can be marked with sharrows amplifying the shared use of the roadway by bicyclists.

Hyde Boulevard between East High Street and Grove Street allows on-street parking and has short sections of sidewalk on both sides of the roadway near Grove Street. The pavement width varies from 30 feet near East High Street to 45 feet near Grove Street. Maintaining on-street parallel parking on both sides of the roadway and providing bike lanes, sidewalks, and a maintenance strip (consistent with the remainder of Hyde Boulevard), would require approximately 66-feet of width depending on the width of the maintenance strip. This cross section is illustrated in the image below.



Hyde Boulevard proposed cross section with sidewalks, parking, and bike lanes

Other options for Hyde Boulevard include removing on-street parking on one or both sides of the roadway, removing the maintenance strip, or using a different type of bicycle treatment. For example, removal of on-street parking on one side of the roadway would allow for a two-way bicycle path (minimum of 8-feet wide) to provide a single side path to serve pedestrians and bicyclists on one side of the roadway. This project could include construction of a paved parking lot on the south end of the soccer fields to accommodate potential parking lost through the roadway modifications to Hyde Boulevard.

Grove Street is a two-lane roadway with on-street parking, curbing, and a mostly complete sidewalk network. To continue the connection from the Zim Smith Trail to

downtown for pedestrians, the missing sections of sidewalk should be constructed. In addition, Grove Street should be marked with sharrows and Share the Road and wayfinding signs should be installed.

There is an existing paved vehicle connection from Grove Street to the downtown Malta Avenue parking lot; however, it is not an intuitive route for pedestrians and bicyclists destined to the downtown area. Wayfinding signing should be provided between Grove Street and the Malta Avenue parking lot and sharrow markings with Share the Road signs should be installed on the existing paved section between Grove Street and the Malta Avenue parking lot. In addition, to better facilitate the pedestrian movement, an asphalt path should be constructed with pedestrian level lighting to separate pedestrians from vehicle and bicycle traffic between Grove Street and the Malta Avenue parking lot.

The segment of Hyde Boulevard between Grove Street and Malta Avenue has existing sidewalks, curbing, and on-street parking. To accommodate bicyclists along this segment of Hyde Boulevard, the northbound and southbound travel lanes should be separated by centerline striping and the roadway should be marked with sharrows and Share the Road signs to note the presence of bicyclists in the area.

Specific Zim Smith Trail connectivity projects are listed below.

6. **Re-stripe East High Street from Oak Street to Hyde Boulevard with 10-foot travel lanes and 5-foot bike lanes or wider travel lanes with sharrow symbols. Provide wayfinding signage directing Zim Smith Trail users to Hyde Boulevard to reach downtown.** These improvements will help less confident bicycle riders access the Zim Smith Trail. In anticipation of the increased crossings on East High Street associated with the trail connections, the Village should coordinate with the Town of Ballston and Saratoga County to petition NYSDOT to lower the posted speed on East High Street from Hyde Boulevard to the Zim Smith Trail connection at Oak Street. Additionally, the Village should coordinate with the Town of Ballston to provide way-finding signage directing Trail users to the Village.
7. **Install a high visibility crosswalk on the east leg of East High Street at Hyde Boulevard with approach signage.** As part of connectivity to the Zim Smith Trail, a high visibility crosswalk installed on the east leg of East High Street with appropriate signage on the eastbound and westbound approaches will increase the conspicuity of the crossing.
8. **Widen Hyde Boulevard between East High Street and Grove Street to provide a sidewalk on each side of the roadway, bike lanes, and separate the travel lanes with centerline striping. On-street parking can either be maintained or removed.** There are no dedicated pedestrian or bicyclist facilities on this section of Hyde Boulevard. As part of the primary route from the Zim Smith Trail to the downtown center, construct pedestrian and bicyclist facilities on this section of Hyde Boulevard to facilitate multi-modal connectivity. Other options for Hyde Boulevard include removing on-street parking on one or both sides of the roadway, removing the maintenance strip, or using a different type of bicycle treatment like a two-way bicycle path or a single side path to serve bicyclists on one side of the roadway. Construct a parking lot on the south end of the soccer fields to replace any lost parking.

9. **Provide wayfinding signage, sharrows, and Share the Road signs on Grove Street between Hyde Boulevard and Pine Street directing bicyclists to downtown and the Malta Avenue parking lot. Complete the sidewalk network on Grove Street.** Complete the multi-modal needs on Grove Street to connect the Zim Smith Trail with downtown.
10. **Provide wayfinding signage between Grove Street and the Malta Avenue parking lot and install sharrow markings with Share the Road signs. Construct an asphalt path with pedestrian level lighting to separate pedestrians from vehicle and bicycle traffic between Grove Street and the Malta Avenue parking lot.** These improvements will complete the connection for pedestrians and bicyclists between the Zim Smith Trail and downtown. Clarifying use of the existing paved vehicle connection from Grove Street to the Malta Avenue parking lot with sharrow markings and constructing an asphalt path for pedestrians with wayfinding signs will clarify the connection to downtown. Providing pedestrian level lighting will increase visibility during dark conditions improving safety for users.
11. **To accommodate bicyclists on Hyde Boulevard north of Grove Street, the northbound and southbound travel lanes should be marked with sharrows and Share the Road signs. Additionally, provide centerline striping.** Identifying the roadway segment for bicyclists through striping and signage will remind drivers that bicyclists also use this roadway segment.

The Zim Smith Trail connectivity projects can be completed individually; however, it may make most sense to complete them in the following order:

- Install a crosswalk across East High Street.
- Re-stripe East High Street from Oak Street to Hyde Boulevard and provide wayfinding signage.
- Widen Hyde Boulevard to provide pedestrian and bicycle accommodations and provide wayfinding signage.
- Provide striping and signage on Grove Street from Hyde Boulevard to Pine Street.
- Construct a pedestrian path and provide wayfinding signage and roadway striping between Grove Street and the Malta Avenue parking lot.
- Provide striping and signage on Hyde Boulevard north of Grove Street.

Additionally, should funding for the full construction projects be difficult to obtain, wayfinding signage and sharrows could be installed from Oak Street to the Malta Avenue parking lot (via the recommended route) as a short-term, low cost project to formalize the identified route from the Zim Smith Trail to the central business district.

Intersection and Access Concerns

Comments received on the project website and interactive map and at the public information session identified several intersections of concern in the study area. Concerns included a mix of pedestrian, bicyclist, and vehicle operations and safety. The specific concerns are noted:

- Hyde Boulevard/Malta Avenue – Concern with pedestrian safety while crossing

the intersection.

- Malta Avenue/Ralph Street – Concern with pedestrian safety while crossing Malta Avenue. Students at the Ballston Area Community Center near Pine Street often travel to and from Kelley Park and the Village pool.
- NY Route 50/Front Street – Concern with vehicular delays associated with the northbound left-turn movements at the intersection. To minimize vehicular delays to northbound traffic at this intersection the traffic signal could be modified to provide an exclusive northbound phase allowing drivers to turn left onto Front Street with a protected movement.
- Ballston Ave/West High Street (NY Route 67) – Concern with safety for drivers turning left from Ballston Avenue to West High Street.
- Front Street Central Business District – Concern with pedestrian access, parking, and circulation in the central business district.

The following projects are recommended to address intersection access and safety concerns.

12. **Complete the sidewalk on the southeast side of Malta Avenue to Hyde Boulevard and install and a high visibility crosswalk on the west leg of Malta Avenue at Ralph Street with flashing beacons and approach signage.** Students at the Ballston Area Community Center near Pine Street often travel to and from Kelley Park and the Village pool. Construction of the sidewalk and enhanced crossing will better facilitate student travel to and from these destinations.
13. **Install high visibility crosswalks on all intersection approaches to the Malta Avenue/Hyde Boulevard intersection with approach signage.** The additional signage and high visibility crosswalks will increase the increase the conspicuity of the crossings.
14. **Complete a study to determine the benefits and trade-offs associated with implementation of an exclusive northbound phase at the NY Route 50/Front Street intersection.** This study would address concerns with vehicular delays associated with the northbound left-turn movements at the intersection. To minimize vehicular delays to northbound traffic at this intersection the traffic signal could be modified to provide an exclusive northbound phase allowing drivers to turn left onto Front Street with a protected movement. Identify the feasibility of a traffic signal phasing change from an operational and constructability standpoint and coordinate with the NYSDOT to implement the change if it is supported by the study and the NYSDOT.
15. **Complete a sight distance evaluation at the Ballston Avenue/West High Street intersection.** The sight distance evaluation will confirm the sight lines to address safety concerns for drivers turning left from Ballston Avenue to West High Street and determine the need for any mitigation such as vegetation clearing or sign installation. As of October 2021, NYSDOT is evaluating this location.
16. **Complete a study to determine the preferred pedestrian and vehicle circulation on Front Street and in the Central Business District.** This study would evaluate the vehicle and pedestrian circulation and provide options for parking and travel patterns to maximize the usage of the public space for all users.

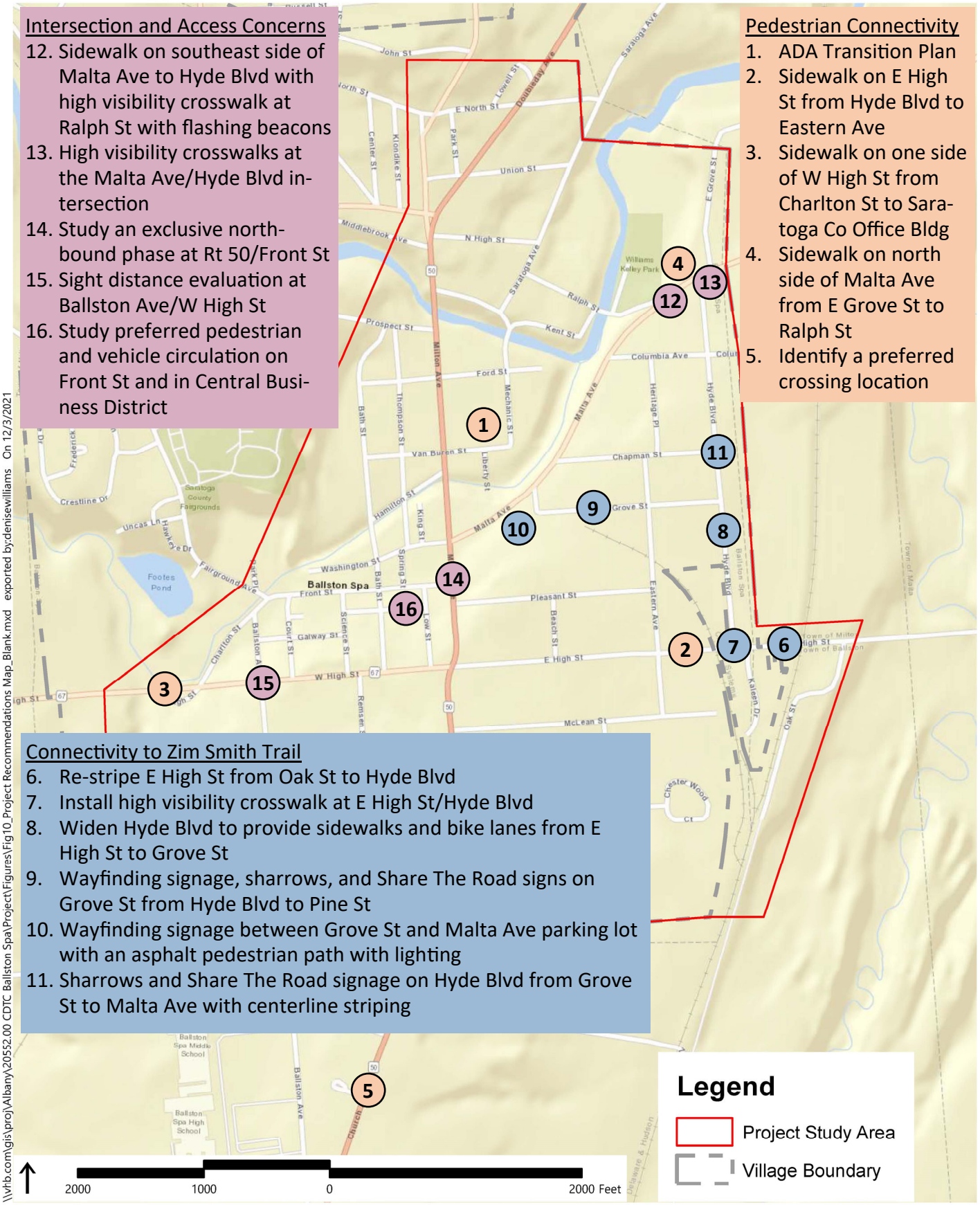
Potential Projects and Plans

The recommendations identified above are divided into individual projects and summarized in **Table 8**. The table also provides a relative timeframe (short 1-2 years, 3-5 years, long 6 or more years) and cost for construction and or implementation. The recommended projects are also shown on **Figure 10**. The costs for construction projects include construction only to provide appropriate information for typical grant funding applications. Additional components of the construction projects include design, construction management and oversight, and project closeout. These additional items can add up to 40% to the overall project cost.

Table 8 Potential Projects

No.	Project	Timeframe [a]	Cost [b]
1	Complete an ADA transition plan.	Medium	$90,000 [c]
2	Construct a sidewalk on the north side of East High Street from Hyde Boulevard to Eastern Avenue.	Long	$100,000
3	Complete the sidewalk network on one side of West High Street from Charlton Street to the Saratoga County Office Building.	Long	$300,000
4	Complete the sidewalk on the north side of Malta Avenue from E Grove Street to Ralph Street.	Medium	$35,000
5	Coordinate with NYSDOT and the Town of Ballston to identify the preferred location for a pedestrian crossing on NY Route 50 near the south Village line.	Short	$8,000
6	Re-stripe East High Street from Oak Street to Hyde Boulevard with 10-foot travel lanes and 5-foot bike lanes or wider travel lanes with sharrow symbols. Provide wayfinding signage directing Zim Smith Trail users to Hyde Boulevard to reach downtown.	Medium	$16,500
7	Install a high visibility crosswalk on the east leg of East High Street at Hyde Boulevard with approach signage.	Short	$30,000
8	Widen Hyde Boulevard between East High Street and Grove Street to provide a sidewalk on each side of the roadway, bike lanes, and separate the travel lanes with centerline striping. On-street parking can either be maintained or removed and can be replaced with a new parking lot at the south end of the soccer fields.	Medium	$535,000
9	Provide wayfinding signage, sharrows, and Share the Road signs on Grove Street between Hyde Boulevard and Pine Street directing bicyclists to downtown and the Malta Avenue parking lot. Complete the sidewalk network on Grove Street.	Medium	$275,000
10	Provide wayfinding signage between Grove Street and the Malta Avenue parking lot and install sharrow markings with Share the Road signs. Construct an asphalt path with pedestrian level lighting to separate pedestrians from vehicle and bicycle traffic between Grove Street and the Malta Avenue parking lot.	Medium	$165,000
11	To accommodate bicyclists on Hyde Boulevard north of Grove Street, the northbound and southbound travel lanes should be marked with sharrows and Share the Road signs. Additionally, provide centerline striping.	Short	$9,500
12	Complete the sidewalk on the southeast side of Malta Avenue to Hyde Boulevard and install a high visibility crosswalk on the west leg of Malta Avenue at Ralph Street with flashing beacons and approach signage.	Medium	$90,000
13	Install high visibility crosswalks on all intersection approaches to the Malta Avenue/Hyde Boulevard intersection with approach signage.	Medium	$30,000
14	Complete a study to determine the benefits and trade-offs associated with implementation of an exclusive northbound phase at the NY Route 50/Front Street intersection.	Medium	$8,000
15	Complete a sight distance evaluation at the Ballston Avenue/West High Street intersection to determine the need for sight distance mitigation	Medium	$5,000
16	Complete a study to determine the preferred pedestrian and vehicle circulation on Front Street and in the Central Business District.	Long	$30,000

a Short-term = 1 to 2 years, Medium-term = 3 to 5 years, Long-term = 6 or more years
b Planning level costs based on 2021 dollars.
c CDTC currently offers ADA transition plan assistance that could significantly reduce this cost. This cost may be closer to $30,000 if completed through the CDTC program.



USGS Background: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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Village of Ballston Spa
Saratoga County, New York

BALLSTON SPA PED/BIKE MASTER PLAN

Project Recommendations Map

Implementation and Funding

Prioritization of individual projects is determined through funding availability and implementation opportunity. Projects that are limited to striping and signage can often be included in the municipal roadway maintenance budgets and schedules. Projects that involve new construction will often be implemented through private development and federal and/or state funding programs. Municipal boards should strive to consistently be aware of the Plan recommendations and leverage municipal maintenance plans, private development projects, and public grant opportunities to implement Plan recommendations.

Potential Funding Sources

Funding for public improvement and benefit projects does not have to be obtained solely by a municipality. There are many different funding sources available including methods to utilize one type of funding to obtain another type of funding (i.e., using a planning grant to help secure a construction grant). Many transportation funding programs involve federal dollars passing through to state and regional agencies that manage and plan for the expenditure of federal funding programs.

Grant funding is highly competitive with a number of associated stipulations. For example, funding obtained for a sewer project cannot be used for sidewalk construction or maintenance project. Additionally, funding is often a multi-step process requiring that the applicant has completed a planning study or similar type base study prior to applying for construction funding. Most grants also require a local match of up to 20% in funds and/or services.

In addition to federal funding options, many state and local government, quasi-government, and non-government agencies also provide potential sources of funding for non-vehicular improvements in our communities utilizing tax dollars and other funding sources collected by state and local or regional agencies. One funding source can typically be used to match other funding sources and local funds and in-kind services, such as volunteer time, can also often be used to match grants.

Table 9 summarizes the potential project funding sources that may be used to implement the projects identified in Table 8. The amount of available funds and the funding sources can often change so it is important that the Village strive to be aware of the various funding options. CDTC will often notify member communities about various funding opportunities.

Table 9 Potential Project Funding

Source	Project Funding Type	Potential Project	More Information
FHWA Surface Transportation Block Grant Program (STBG)	Projects to preserve and improve conditions and performance on federal-aid highway, bridge, and tunnel projects		https://www.fhwa.dot.gov/specialfunding/stp/
FHWA & NYSDOT Highway Safety Improvement Program (HSIP)	Projects that achieve a significant reduction in traffic fatalities and serious injuries through the implementation of infrastructure-related highway safety improvements	6, 7, 15	https://safety.fhwa.dot.gov/hsip/ https://www.dot.ny.gov/divisions/operating/osss/highway/improvement-program
USDOT Rebuilding American Infrastructure with Sustainability and Equity (RAISE in 2021, formerly BUILD)	Funds projects that modernize and create new infrastructure (in 2021, though future programs are likely)	12, 13	https://www.transportation.gov/RAISEgrants
Transportation Improvement Program (TIP) and Statewide Transportation Improvement Program (STIP)	Funds transportation projects that implement the products of the planning process described in New Visions 2050, CDTC's long-range transportation plan. The TIP is included in the STIP.	8, 9, 10, 11	https://www.cdtcmpo.org/transportation-plans/transportation-improvement-program https://www.dot.ny.gov/programs/stip
CDTC Community Planning Technical Assistance Program	Offers CDTC and CDRPC staff time and expertise to local municipalities undertaking small scale community planning initiatives that are consistent with CDTC's New Visions 2050 Regional Transportation Plan.	15, 16	https://www.cdtcmpo.org/what-we-do/technical-assistance
NYSDOT Transportation Alternatives Program (TAP) and Congestion Mitigation & Air Quality Improvement Program (CMAQ)	Funds bicycle, pedestrian, multi-use path, and non-motorized transportation-related projects.	2, 3, 4 and 6 through 13	https://www.dot.ny.gov/tap-cmaq
NYS Consolidated Local Street and Highway Improvement Program (CHIPS)	Individual apportionments to municipalities for CHIPS are calculated annually.	8	https://www.dot.ny.gov/programs/chips
NYS OPHRP Recreational Trails Program	Federal funds provided to develop and maintain nonmotorized and motorized recreational trails uses	6, 7	https://parks.ny.gov/grants/recreational-trails/default.aspx

NYS Consolidated Funding Application (CFA)	The CFA application process provides a single application portal to funding from several agencies including the NYS Environmental Facilities Corporation, Department of Environmental Conservation, Department of State, Empire State Development, Homes and Community Renewal, NYSERDA, NYPA, and OPRHP	Review for all listed projects	https://regionalcouncils.ny.gov/cfa/process-guide
NYS Clean Energy Communities	Funding available for projects such as LED streetlights and Climate Smart Communities Certification (among others)	11	https://www.nyserda.ny.gov/all-programs/programs/clean-energy-communities
NYS HCR Main Street Program	Funding to strengthen economic vitality of traditional Main Streets and Neighborhoods including Streetscape Enhancements	1, 6 through 10	https://hcr.ny.gov/new-york-main-street
NYS Community Development Block Grant (CDBG)	Funding available through many different avenues for many different opportunities or needs including public facilities (sidewalks), community facilities, and removal of architectural barriers	2, 3, 4 and 6 through 13	https://hcr.ny.gov/community-development-block-grant
Saratoga County IDA	Financial assistance and incentive to the business community to maximize private capital investment in the economy of Saratoga County	16	https://www.saratogacountyida.org/how-to-apply/application-benefit/
Private Developers	Installation of needed or desired facilities as part of a proposed project	As identified through Site Plan review	
Foundation Grants	Many foundations provide funding focused on improvements that advance their core mission(s)	Review grant opportunities as they arise	

Sources: Review and assessment of programs utilizing information provided on websites/webpages.

Notes: NYSDOT has a Complete Streets webpage which discusses the statewide program. While it does not provide a specific funding stream/source, the webpage does provide links to relevant potential funding programs, all of which are listed in the matrix above. More information can be found at: https://www.dot.ny.gov/programs/completestreets/funding

The Saratoga County Planning Department can provide technical assistance and guidance to communities regarding a range of planning topics. More information can be found at: https://www.saratogacountyny.gov/departments/planning/

The Capital District Transportation Committee (CDTC) can provide technical assistance and guidance to Albany, Rensselaer, Saratoga, and Schenectady County communities (with the exception of the Village of South Glens Falls and Town of Moreau) regarding a range of transportation planning topics. They fund studies and assessments, are a forum for local elected officials and transportation representatives to share ideas and make decisions about major transportation capital investments, and through consensus decisions of the CDTC, controls federal transportation funding of approximately $100 million per year through the Transportation Improvement Program (TIP). More information can be found at: https://www.cdtcmpo.org