

STOW TOWN CENTER IMPROVEMENT PLAN

*Existing Conditions and Early Concept Ideas
Select Board Meeting 2/28/2024*

Agenda

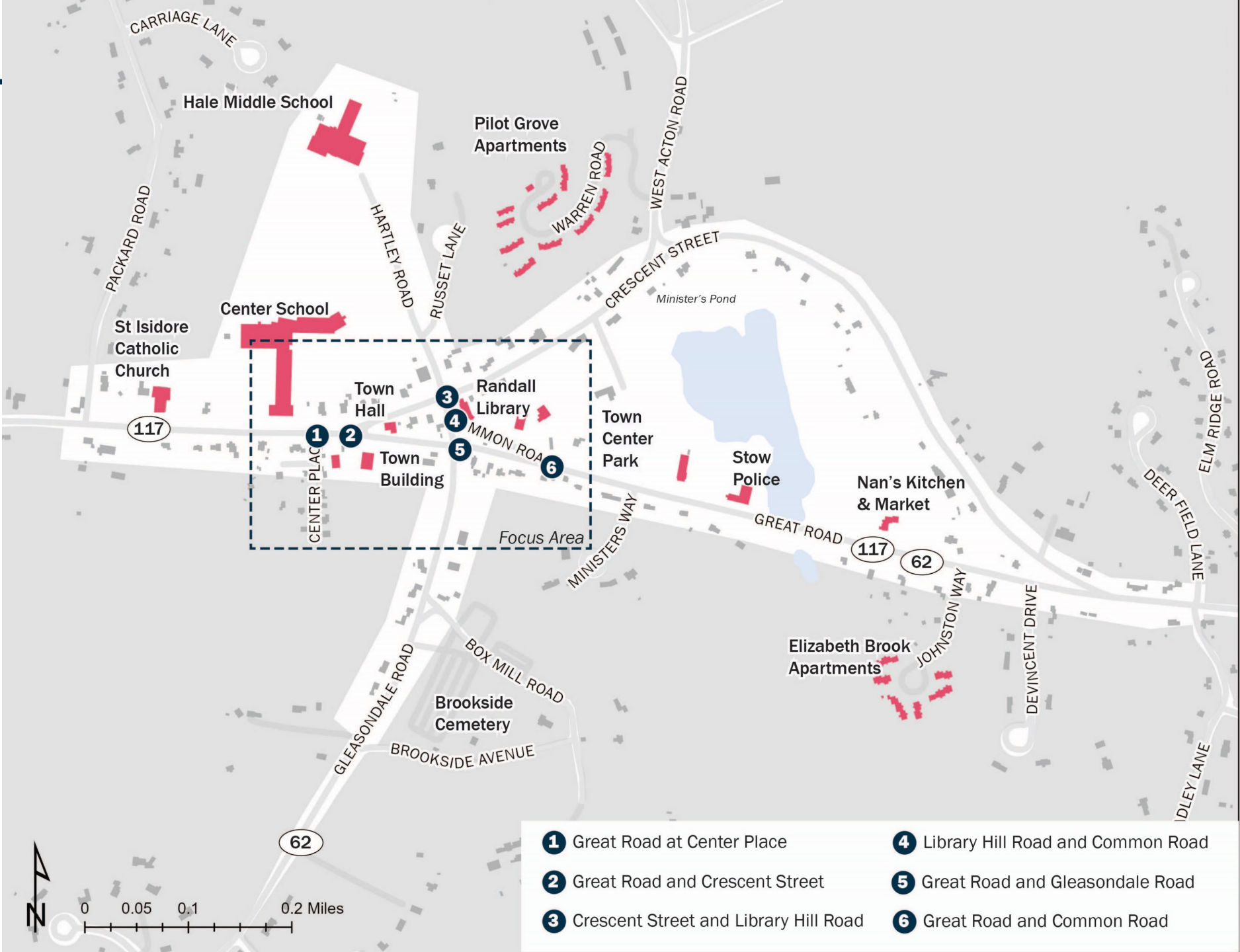
- Project Goals
 - Existing Conditions Overview
- Bike / Pedestrian Planning Toolbox
 - Preliminary Concept Ideas

Project Goals

- Enhance the experience for people walking and biking within and to Stow's Town Center.
- Improve connectivity between locations in and around the Town Center.
- Prioritize safety for all road users with future investments.
- Design for all ages and abilities.



STUDY AREA

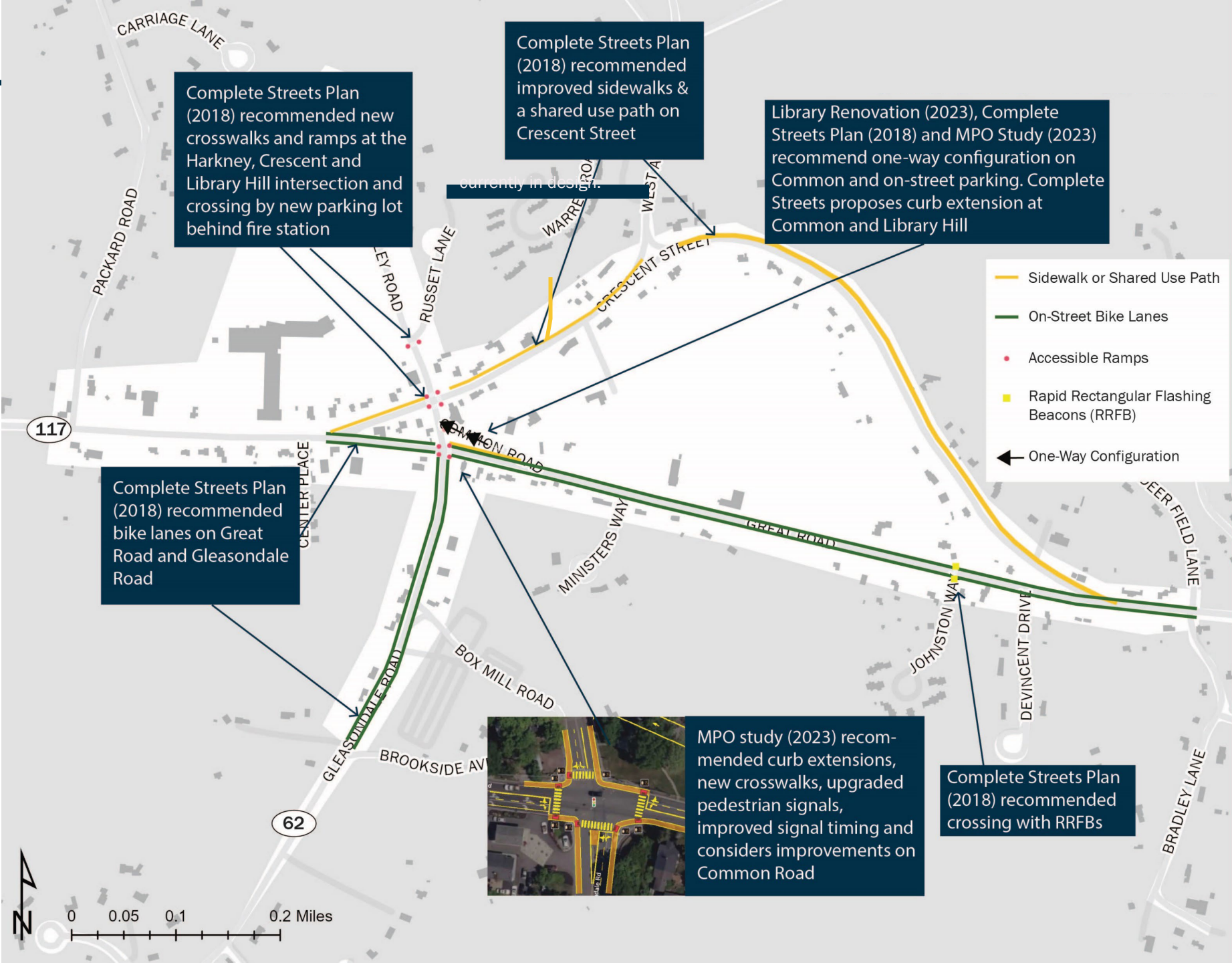


- | | |
|---|-------------------------------------|
| 1 Great Road at Center Place | 4 Library Hill Road and Common Road |
| 2 Great Road and Crescent Street | 5 Great Road and Gleasondale Road |
| 3 Crescent Street and Library Hill Road | 6 Great Road and Common Road |

Getting a sense of previous
work that has occurred...

RECENT WORK

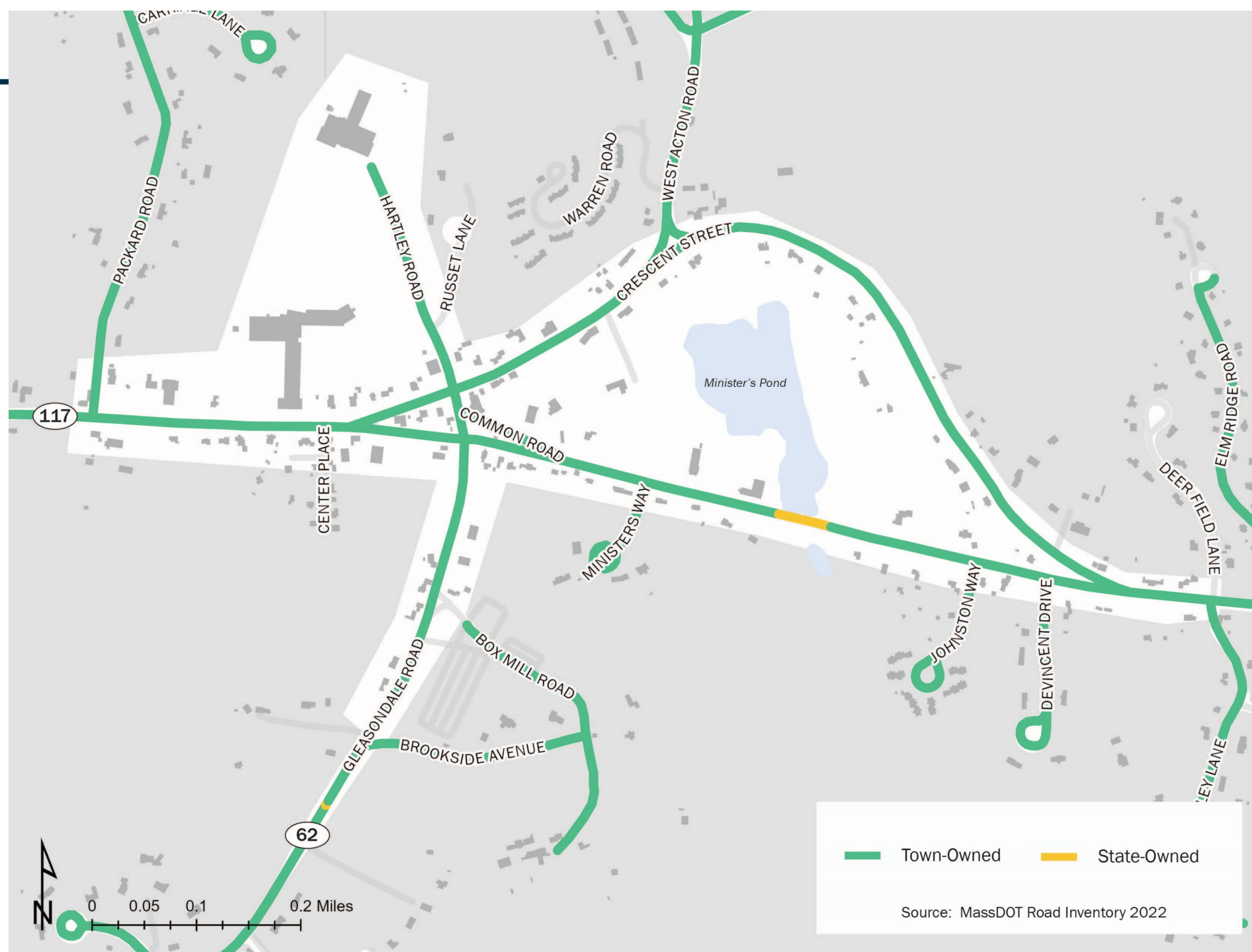
Several projects and planning efforts have taken place in the past few years.



What exists in the
study area now?

ROADWAY JURISDICTION

All study area roads are under Town jurisdiction, except for the bridge over Minister's pond, under State jurisdiction.



SIDEWALKS, PATHS, AND CROSSWALKS

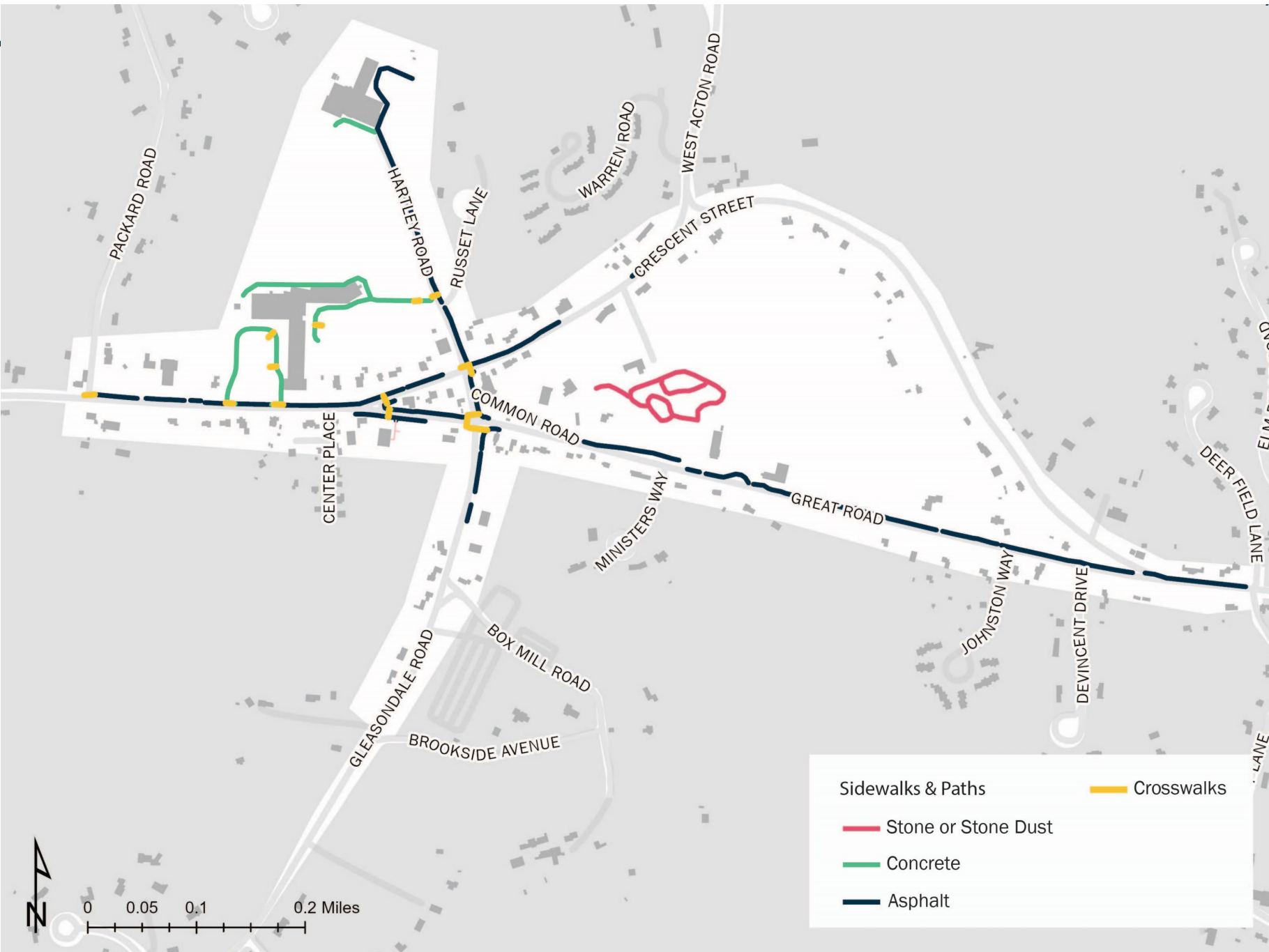
Most sidewalks are asphalt, with the exception of the sidewalks within school property.

No dedicated bicycle facilities exist in the area.

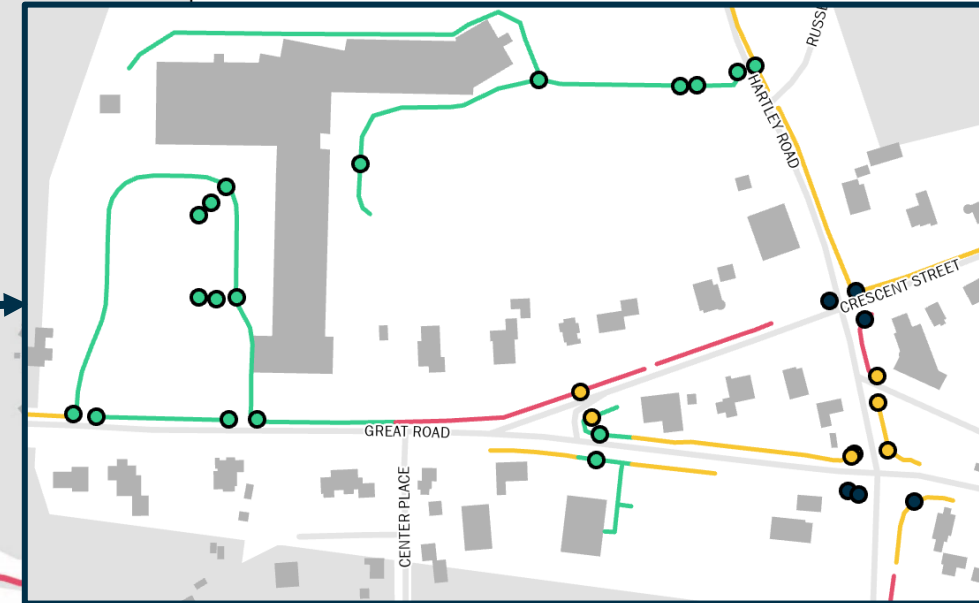
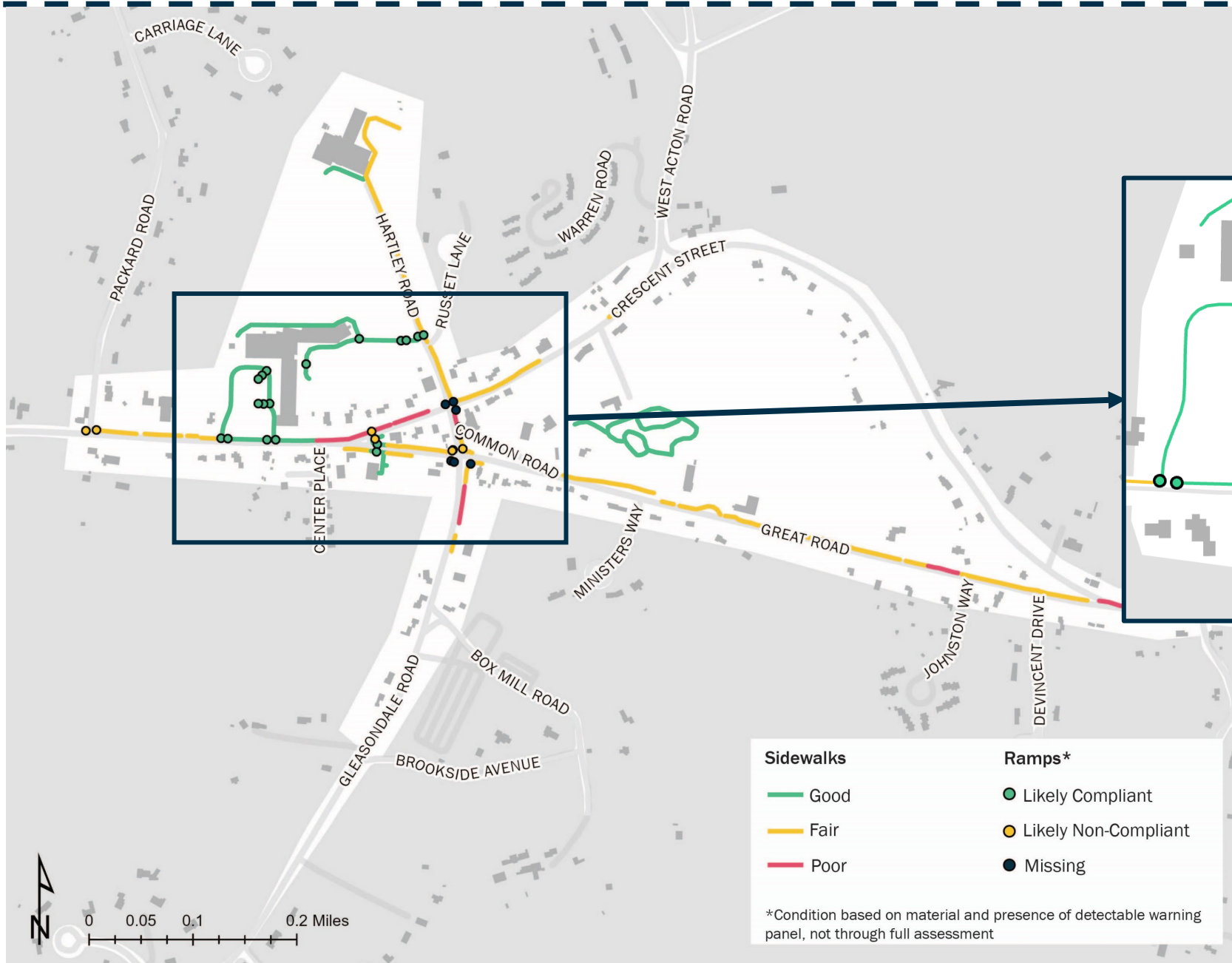
There are currently just two opportunities for people to cross Great Road from Crescent to Crescent.

Some gaps exist:

- Through the common.*
- From the town center to the Town Center Park.*
- On the south side of Great Road, by Center Elementary School, on Crescent Street in multiple locations.*
- On Gleasondale Road to Box Mill Road.*



SIDEWALK AND RAMP CONDITION



Apart from on school grounds, most sidewalks are in fair to poor condition.

Several ramps are either missing or likely non-compliant.

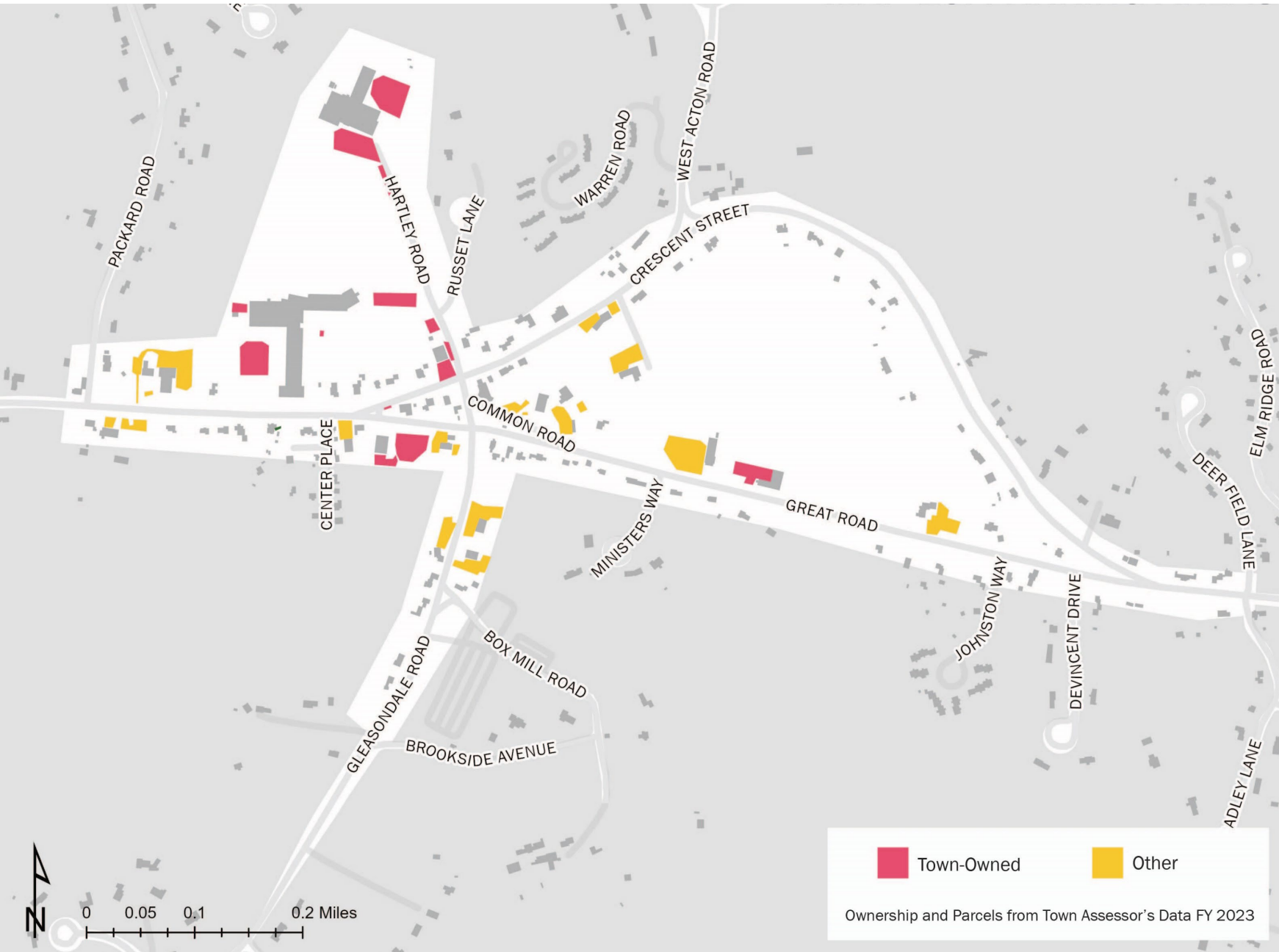
PARKING AREAS

Most parking in the area is off street on surface lots.

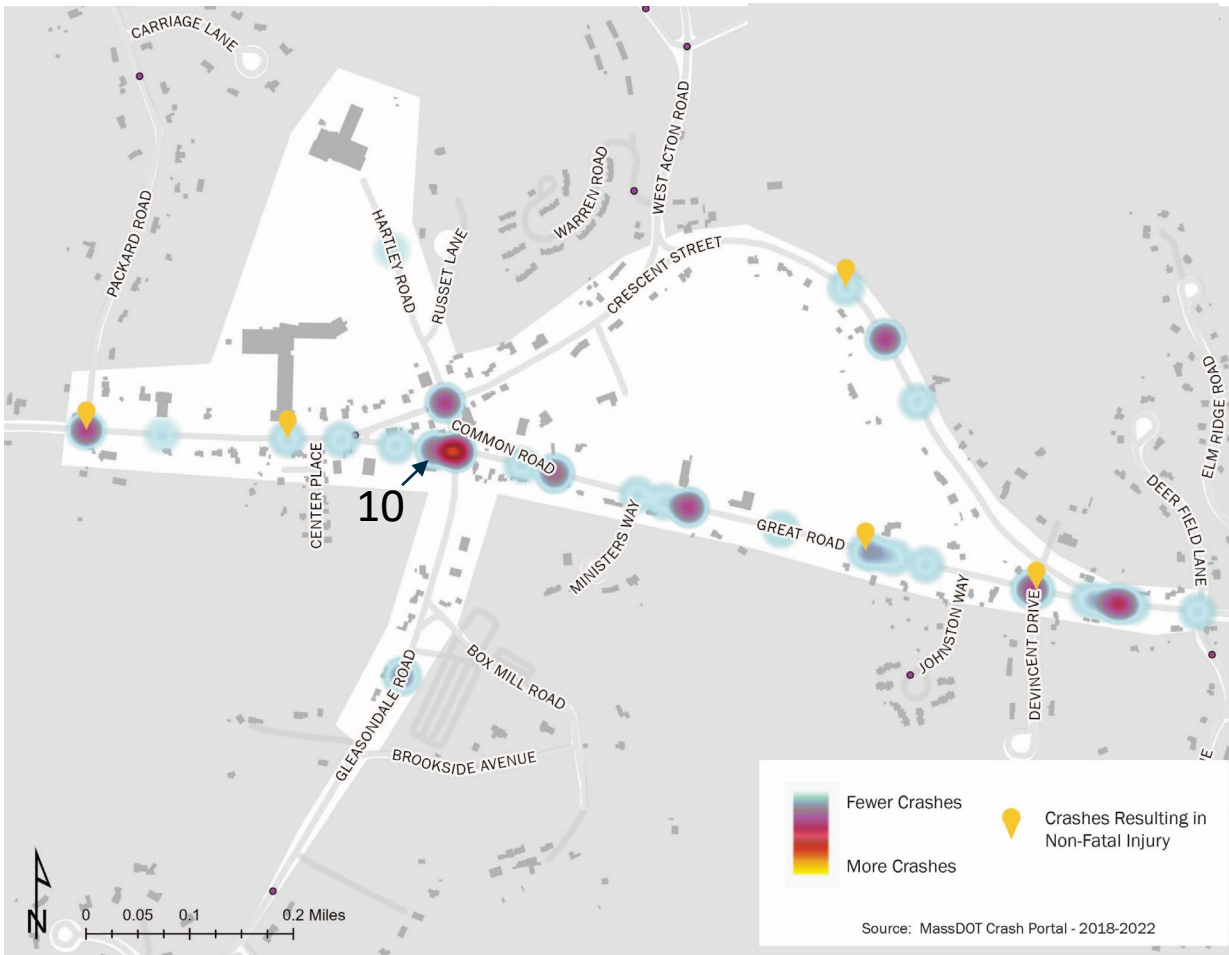
Several of the lots to the west by the schools and old fire station are town owned.

There is no dedicated parking area for the library, so pedestrian connectivity to other town lots is important.

There is little on-street parking except two spaces on Crescent Street by the old town hall, and informal on-street parking on Common Road.



ROADWAY CRASHES 2018-2022



Few crashes (just 9%) in the area resulted in injury.

No crashes involved people walking or biking, but this is likely due to few people walking or biking in the area.

Crashes by Time of Day



58

Total
Crashes

4-6 PM

Time Period with
most crashes

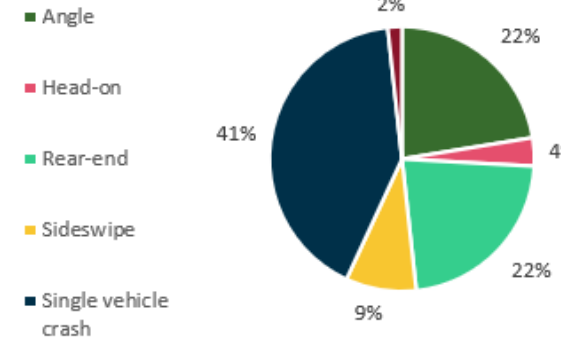
41%

Single
Vehicle
Crashes

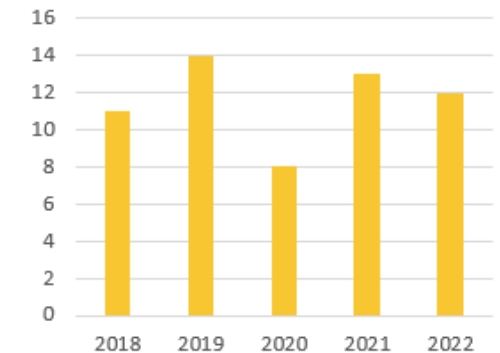
9%

Crashes resulting
in injury

Crash Type



Crash Year

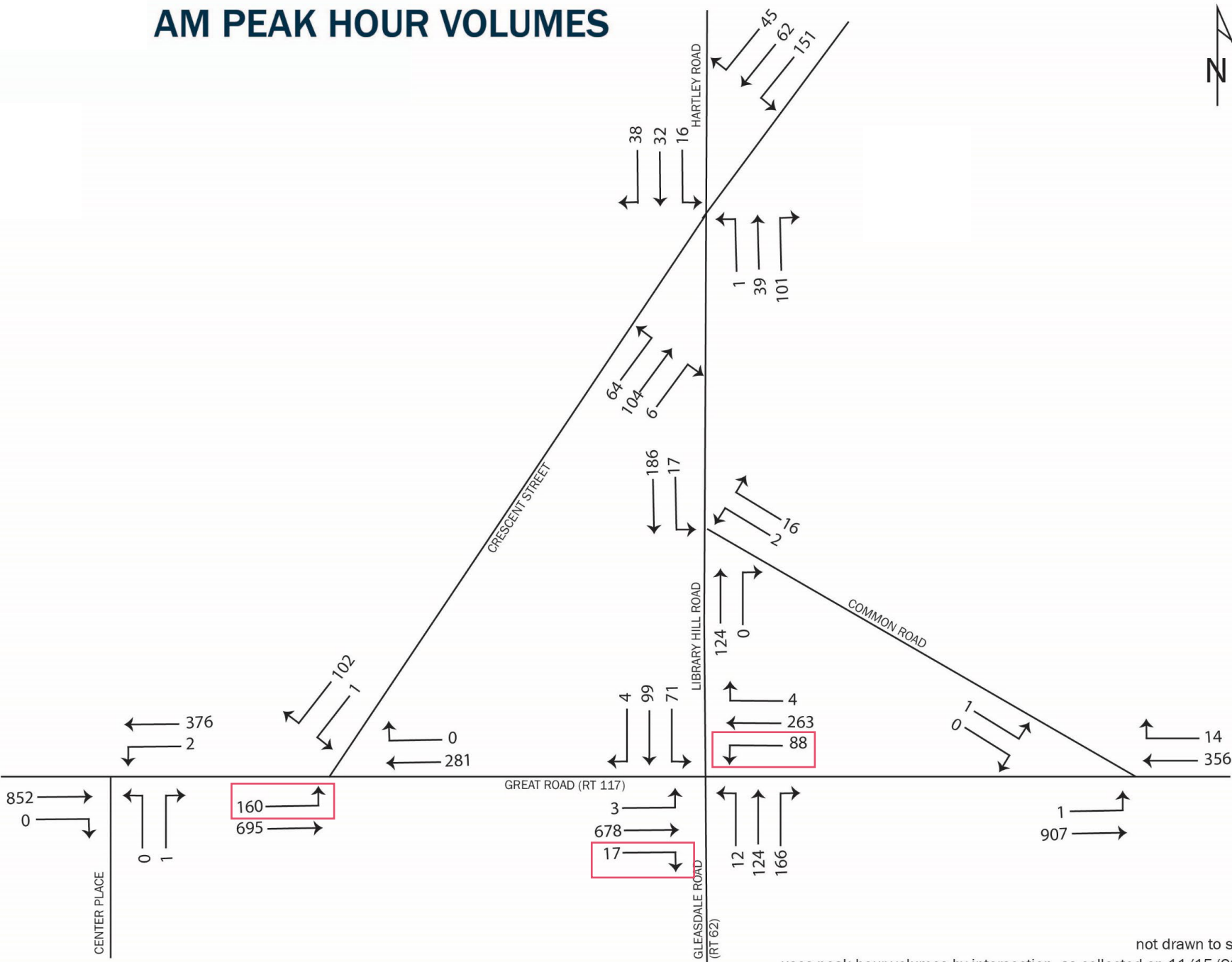


Most crashes occur during the PM peak period.

Almost half of crashes involved a single vehicle.

AM PEAK HOUR VOLUMES

VEHICLE VOLUMES

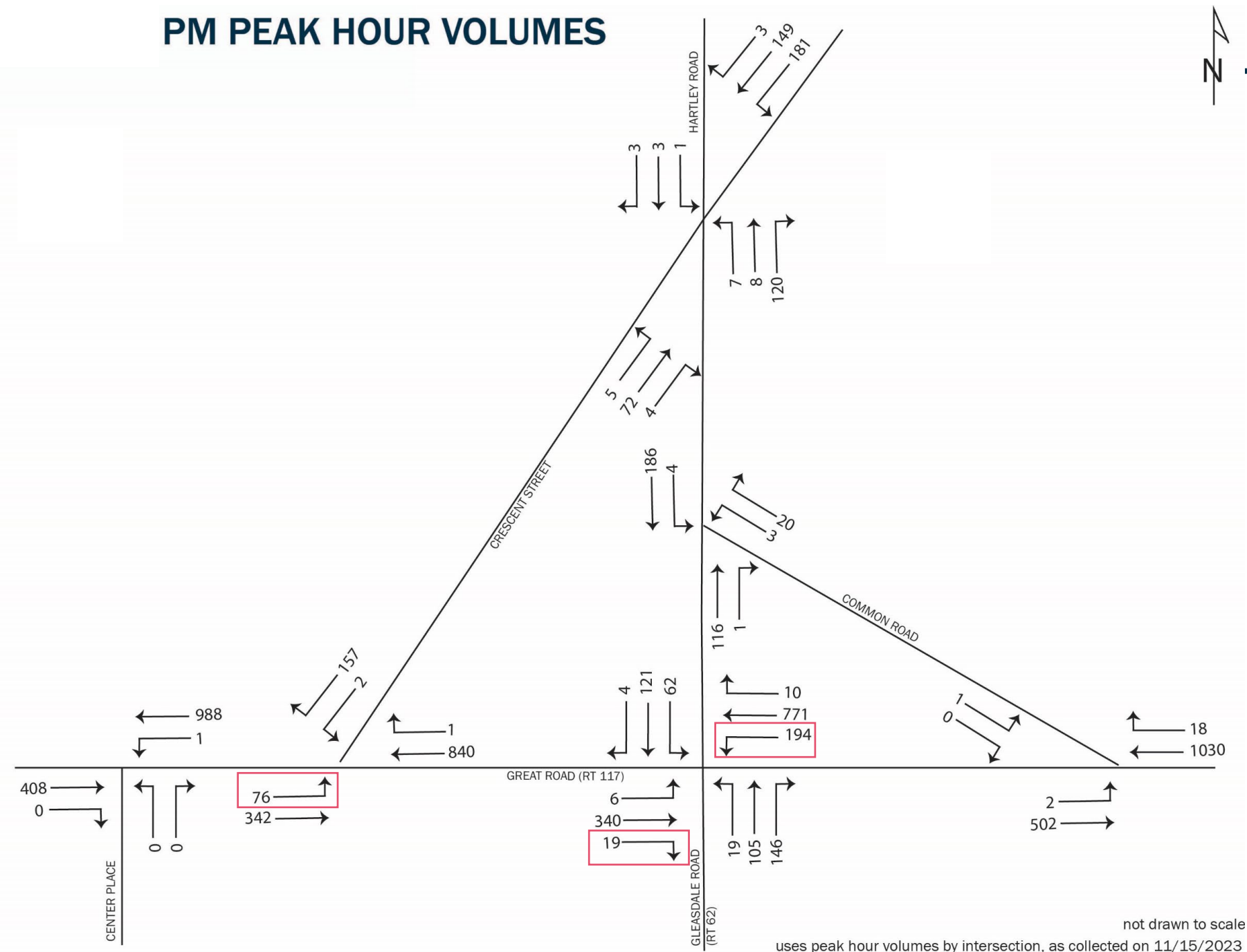


not drawn to scale

uses peak hour volumes by intersection, as collected on 11/15/2023

PM PEAK HOUR VOLUMES

VEHICLE VOLUMES

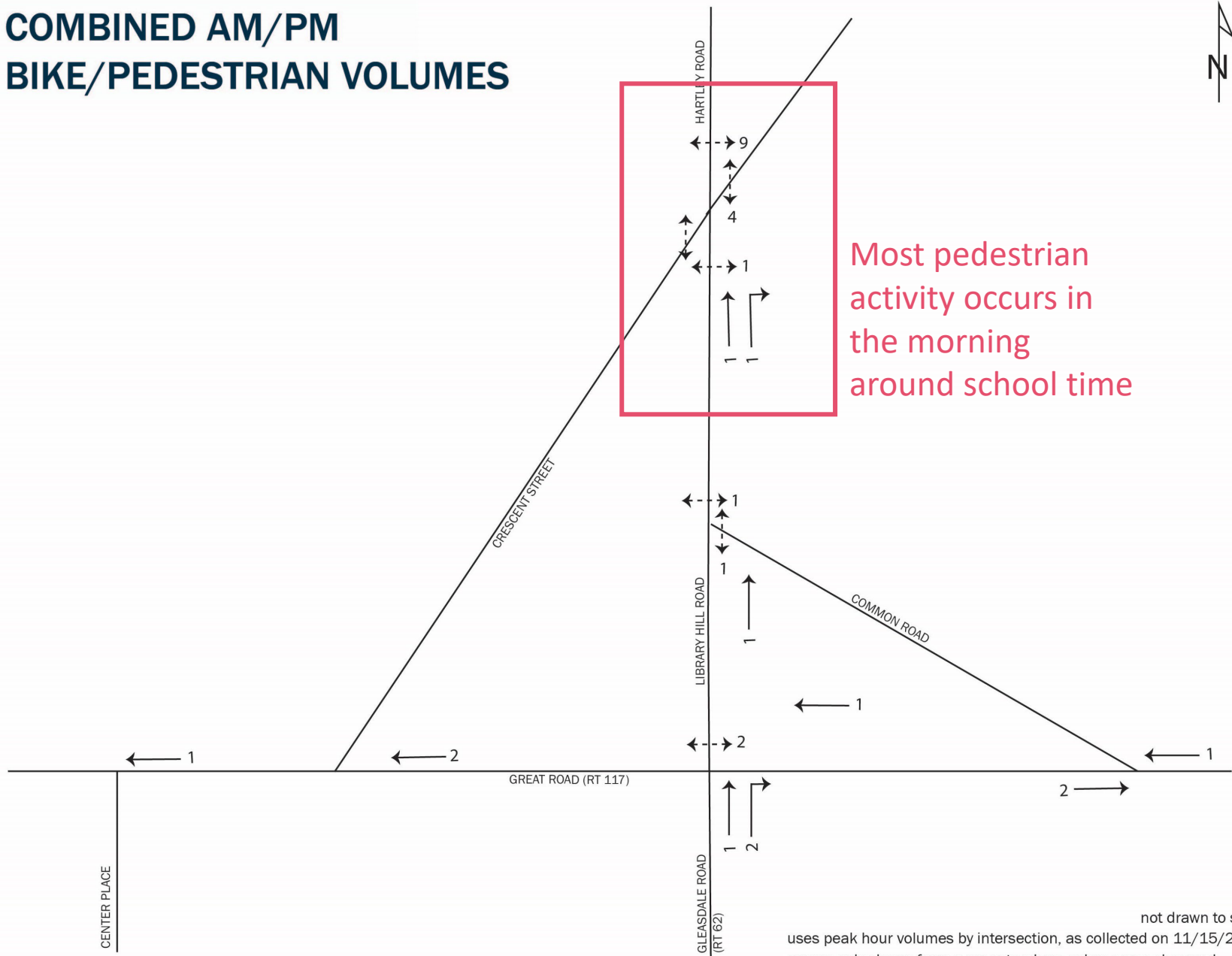


EXISTING OPERATIONS ANALYSIS

Intersection	AM Peak				PM Peak			
	LOS	Delay (s/veh)	v/c	95% Q (feet)	LOS	Delay (s/veh)	v/c	95% Q (feet)
<i>Great and Center – Northbound Stop-Controlled</i>								
Center - NB	C	15.4	0.011	0	A	0	-	-
Great – WBL	A	9.6	0.003	0	A	8.2	0.001	0
<i>Great and Crescent – Southbound Stop-Controlled</i>								
Great - EBL	A	8.3	0.135	12.5	B	10.3	0.105	10
Crescent - SB	B	11.5	0.206	20	D	32.8	0.625	100
<i>Hartley, Library Hill and Crescent – All-Way Stop-Controlled</i>								
Library Hill – NBL	B	10.8	0.303	32.5	A	8.6	0.2	17.5
Crescent - EBL	B	12.3	0.388	45	A	8.5	0.136	12.5
Crescent - WBL	B	13.5	0.467	62.5	B	11.1	0.439	55
Hartley -SBL	B	11.9	0.358	40	A	8.1	0.022	2.5
<i>Library Hill and Common – Westbound Stop-Controlled</i>								
Common - WB	A	9.5	0.039	2.5	A	9.3	0.037	2.5
Library Hill - SBL	A	7.5	0.017	2.5	A	7.5	0.003	0
<i>Great, Gleasondale and Library Hill – Signalized</i>								
Great - EBT	E	68.4	1.04	#460	B	17.3	0.58	170
Great - EBR	A	0.1	0.02	0	A	0.1	0.03	0
Great - WBL	C	33.3	0.49	#82	F	106.5	1.04	#186
Great - WBT	A	6.9	0.28	86	B	16.4	0.78	#414
Gleasondale - NBT	B	17.6	0.37	71	B	17.0	0.32	67
Gleasondale - NBR	A	7.6	0.27	51	A	2.3	0.20	22
Library Hill - SBT	C	23.1	0.58	93	C	21.6	0.55	98
Overall	D	38.0	-	-	C	25.3	-	-
<i>Great and Common – Eastbound/Westbound Stop-Contolled</i>								
Great - EBL	A	8.1	0.025	2.5	B	10.7	0.003	0
Common - SB	D	28.1	0.001	0	A	38.3	0.036	2.5

Most delay during peak times

COMBINED AM/PM BIKE/PEDESTRIAN VOLUMES



not drawn to scale
uses peak hour volumes by intersection, as collected on 11/15/2023
arrows only shown for movements where volume was observed

Strengths, Assets, and Issues

Existing Assets and Strengths



Town Center Park is a beautiful new addition to the community.



Town recently installed a new high visibility crosswalk across Great Road.



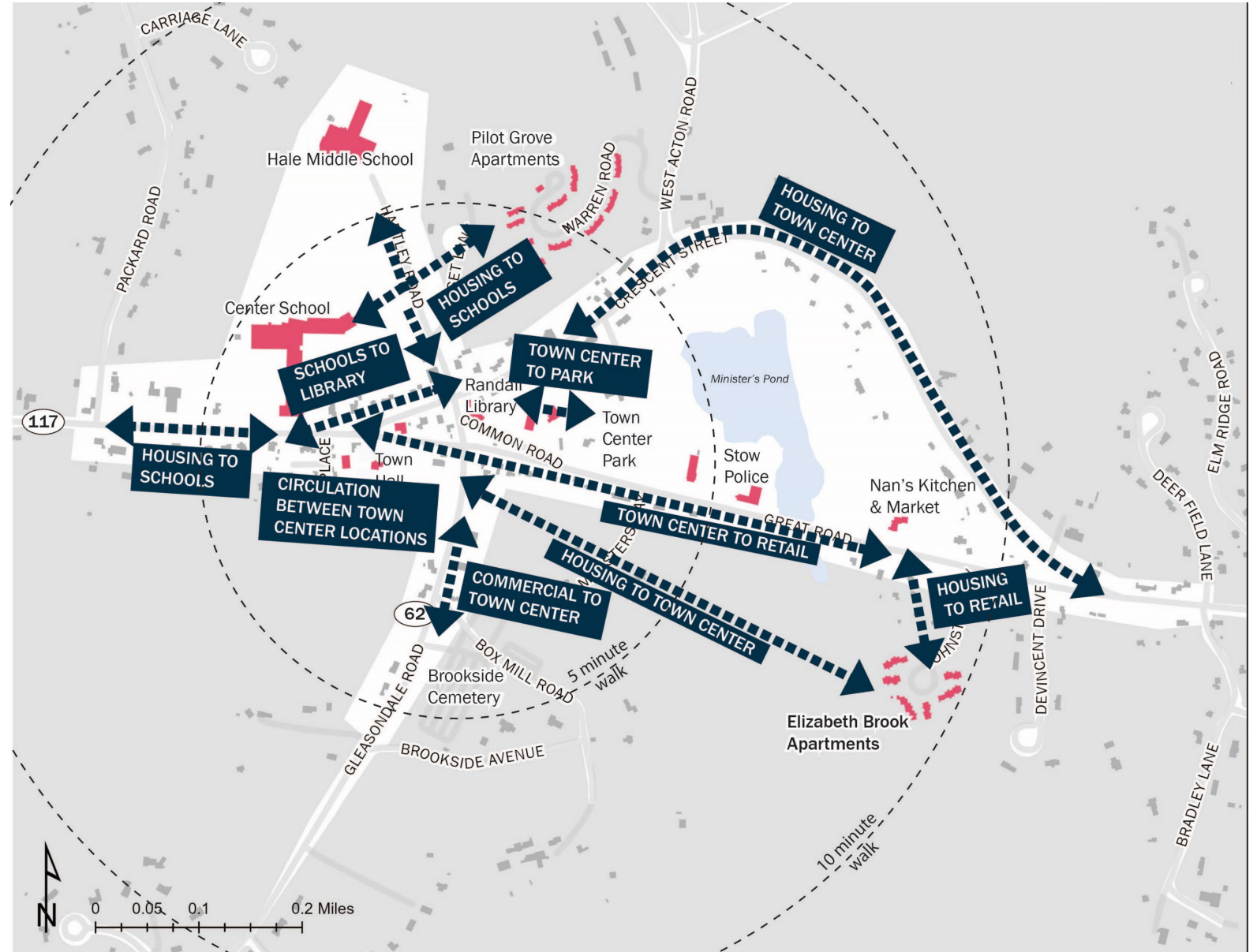
The town common has existing seating areas.



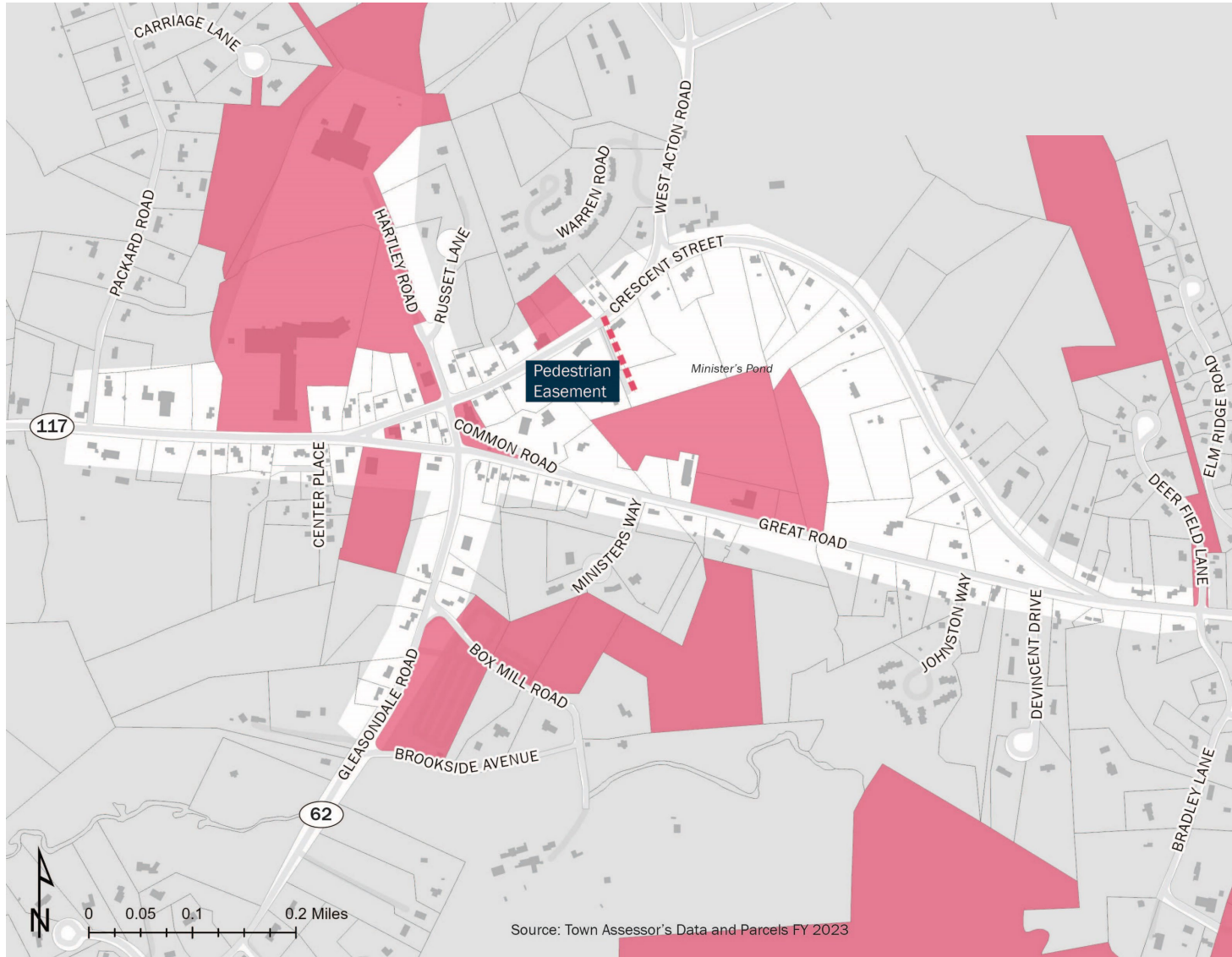
Existing sidewalks within the school facilities are in great condition with new ramps. The sidewalk network is built out to connect to the schools in areas.

Existing Assets and Strengths

Many destinations are within walking or biking distance of one another.



Stow Town Center Improvement Plan



Existing Assets and Strengths

Several parcels in the area are town-owned.

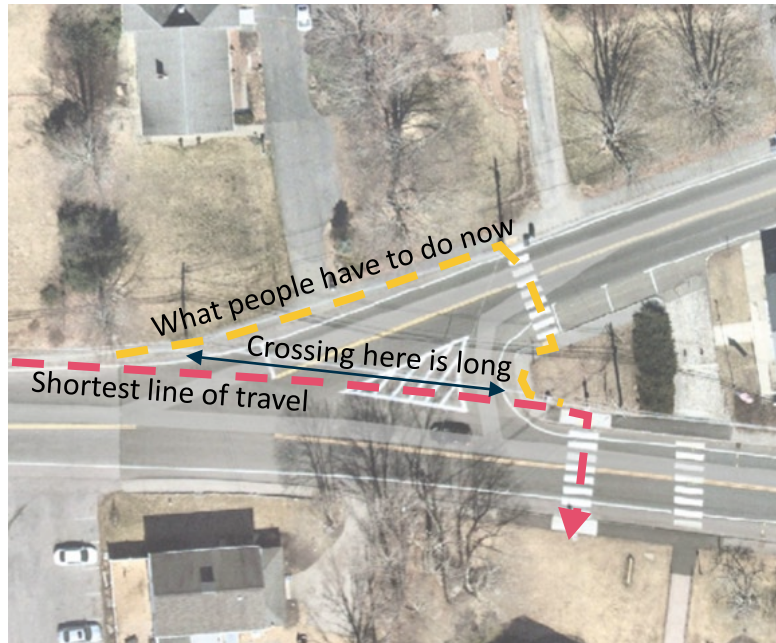
Existing Barriers to Walking and Biking



No pedestrian signals exist at Gleasondale Road and Great Road intersection, crossings are long, and ramps are missing.



Narrow sidewalks are interrupted by poles.



Crescent and Great Road intersection is wide and encourages high travel speeds.

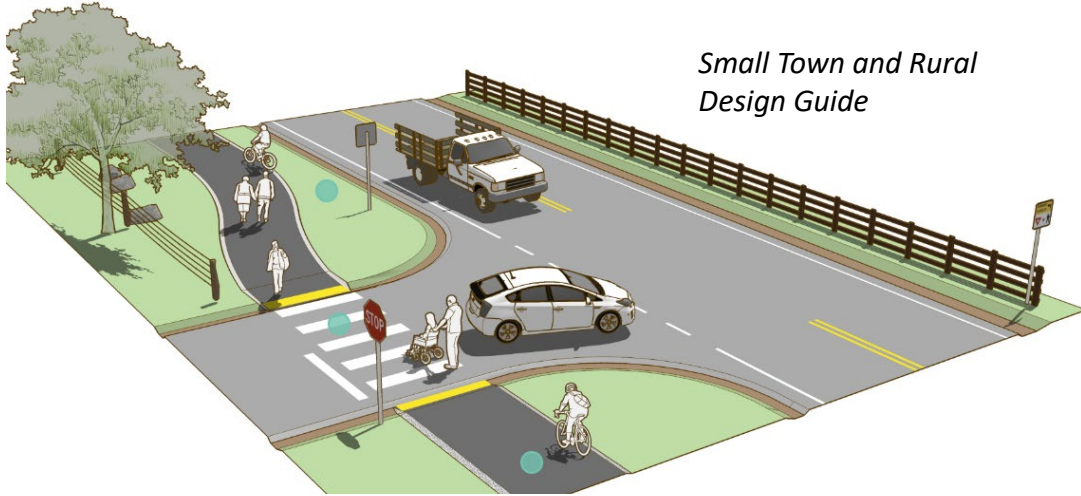


No dedicated bicycle facilities exist that are comfortable for all ages and abilities. Mostly confident cyclists currently ride in the street.

What tools can we use to better connect
the area for people walking and biking?

Bike Design Guidance

*Small Town and Rural
Design Guide*



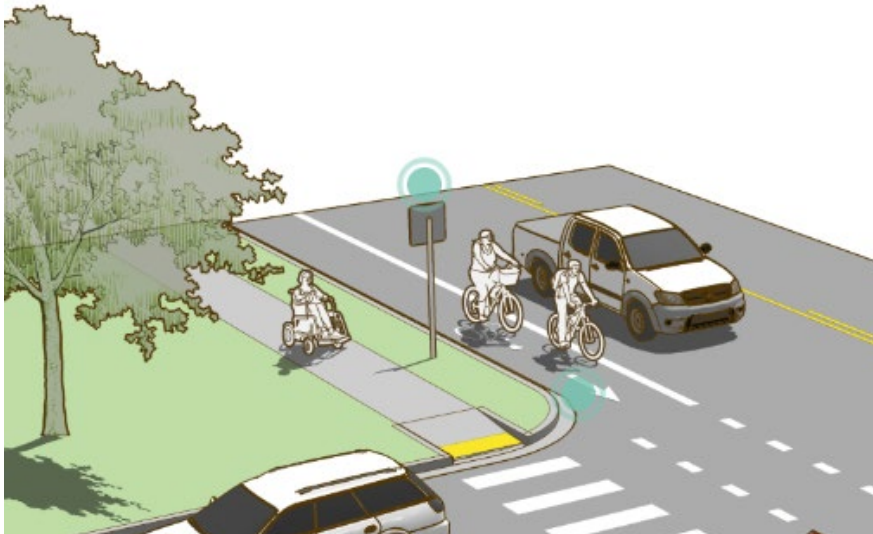
SHARED-USE PATH ("SIDE PATH")

*MassDOT Separated
Bike Lane Planning &
Design Guide*



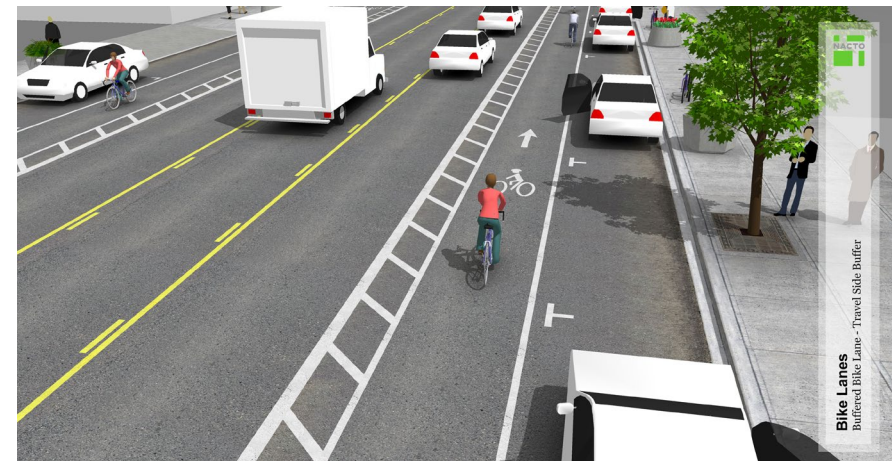
SIDEWALK SEPARATED BIKE LANE

*Small Town and Rural
Design Guide*



CONVENTIONAL BIKE LANE

NACTO



BUFFERED BIKE LANE

Bike Toolbox



SHARED USE PATH,
NANTUCKET, MA



SHARED USE PATH,
FRANKLIN, MA



SHARED USE SIDE PATH,
SUDBURY, MA



CONVENTIONAL BIKE LANE,
NATICK, MA



RAIL TRAIL, NATICK, MA



SIDEWALK LEVEL BIKE LANES
CAMBRIDGE, MA

Pedestrian Toolbox



CURB EXTENSION, *NEWTON, MA*



RECTANGULAR RAPID FLASHING
BEACON, *STOW, MA*



RAISED CROSSWALK, *LENOX, MA*



PEDESTRIAN SCALE
LIGHTING AND STREET
TREES, *RANDOLPH, VT*



COUNTDOWN PEDESTRIAN
SIGNAL, *BOSTON, MA*



RAISED INTERSECTION,
NEWTON, MA

Let's consider the future bicycle and pedestrian network in the area...

Preliminary Concepts —————→

Focus Area Preliminary Concepts



Town Common - Existing



Path and Landscaping







Great Road by Town Hall



Stow Town Center Improvement Plan

Path and Gathering areas

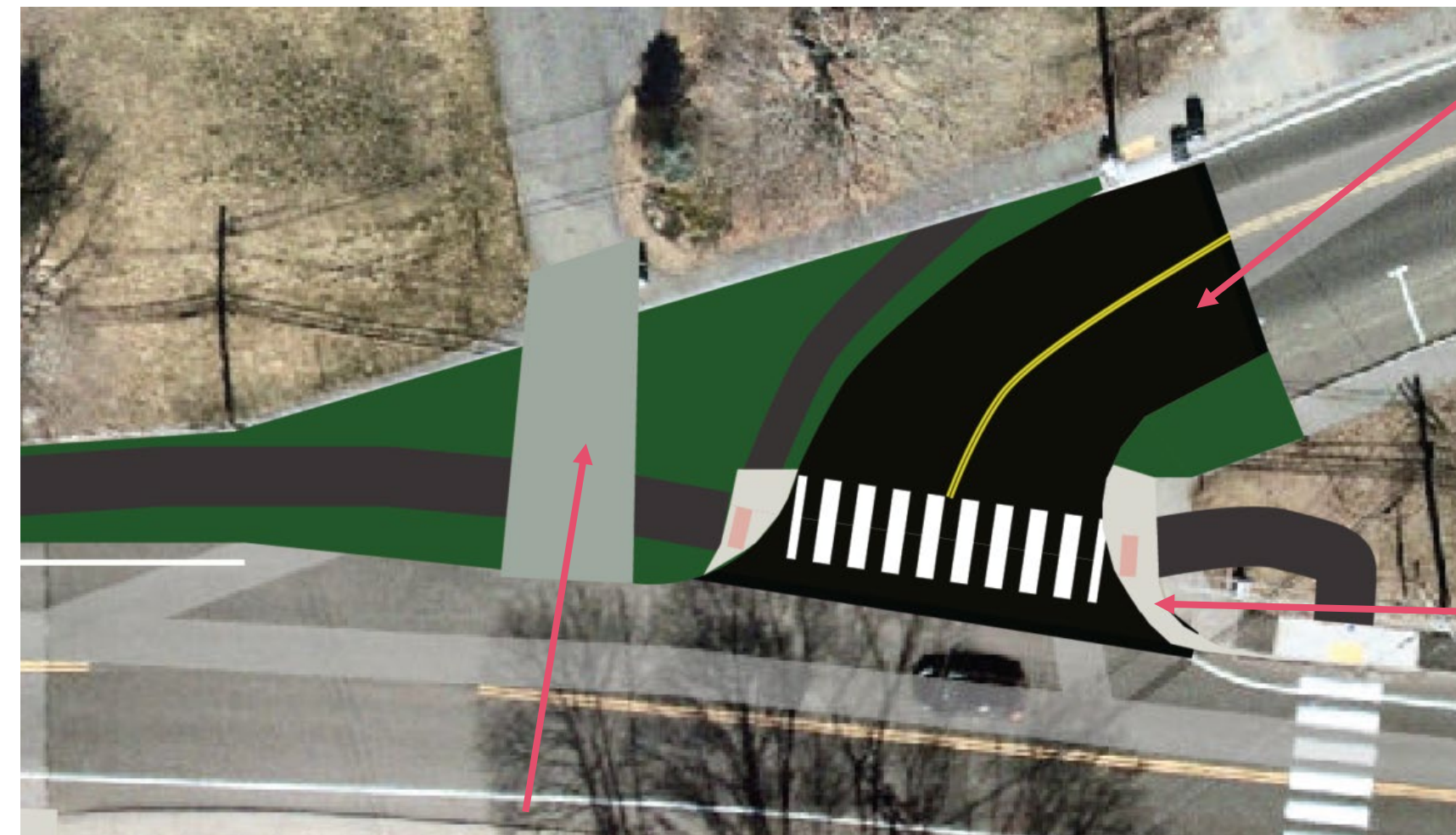


Stow Town Center Improvement Plan





Great Road and Crescent Street Realignment



Remove existing crossing

Potential to tighten or remove ability to take right from east

Need to consider existing driveway and consider design vehicle turning radius with design.

Great Road and Crescent Street - Existing



Stow Town Center Improvement Plan

Realignment



Stow Town Center Improvement Plan

Great Road/ Gleasondale Road/ Library Hill Road

Add pedestrian signal equipment with countdown beacons on all legs.

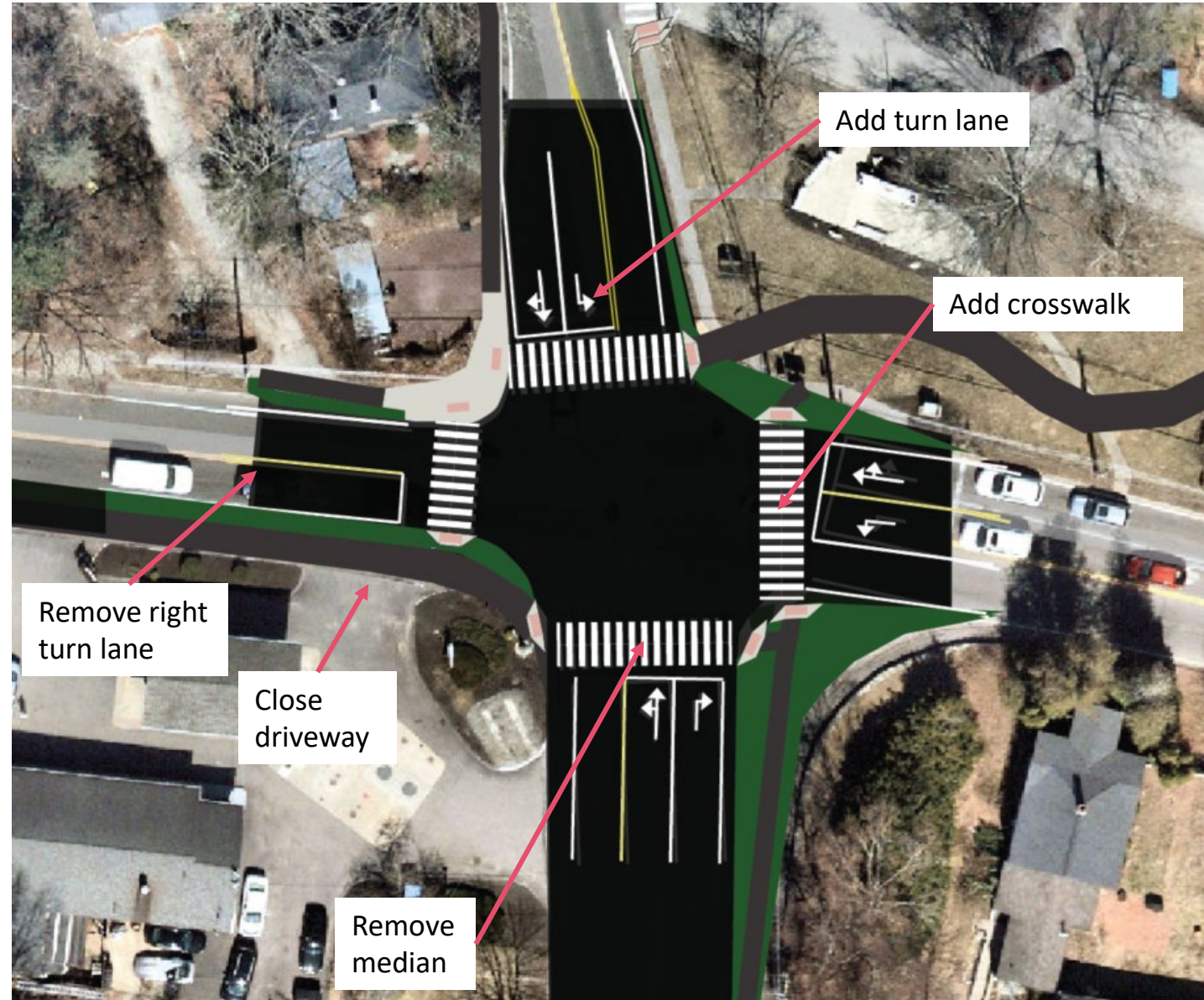
Introduce an exclusive pedestrian phase.

Change to video detection.

Install mast arms.

Better alignment of Library Hill Road across intersection

Improved ramps



Stow Town Center Improvement Plan

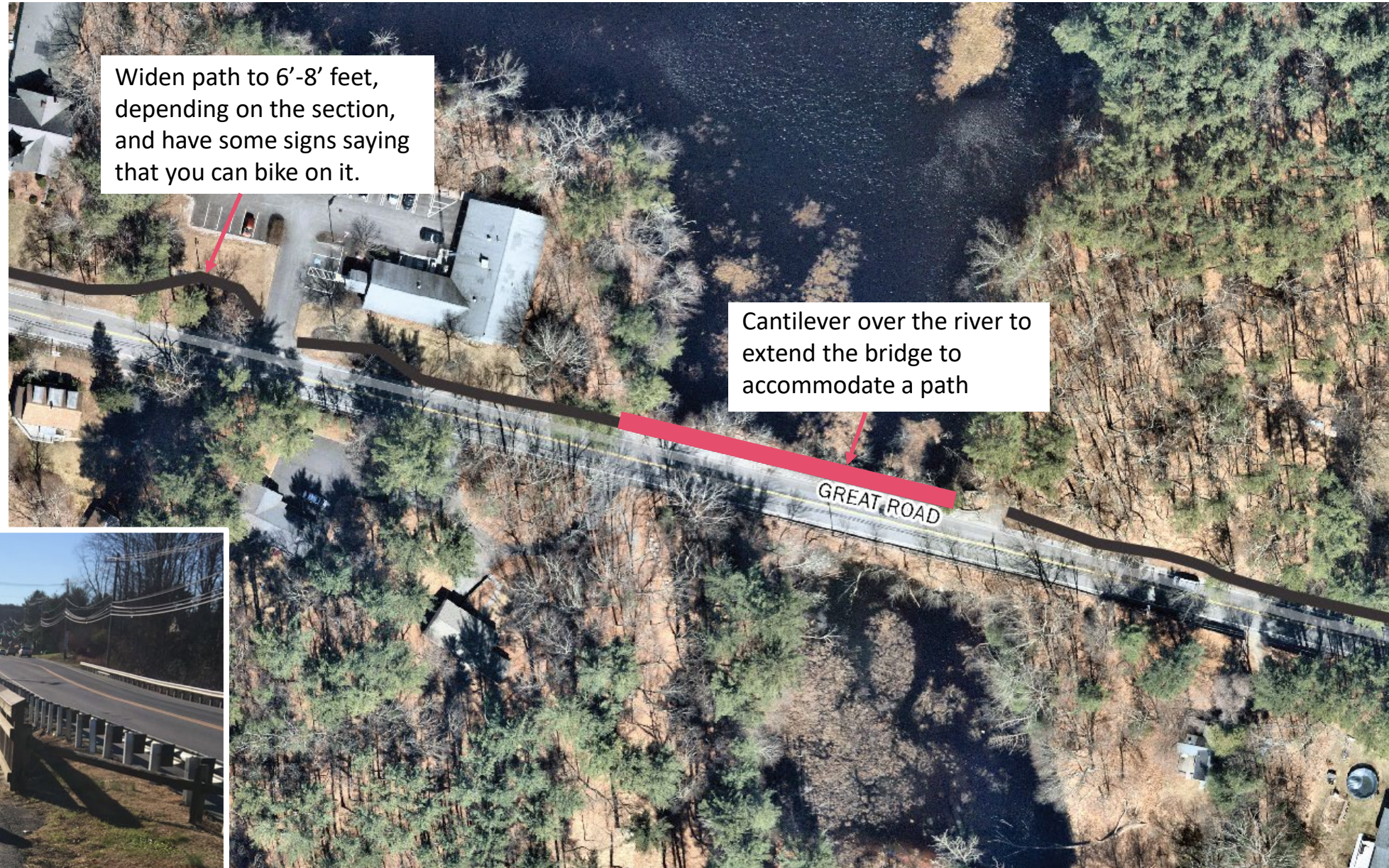
Path from School to Library, and Upgraded Crossings

Shared use path on town land connecting from the school down to the library



Add raised crosswalk and construct missing ramps

Cantilever Shared Use Path over the River on Great Road



Example in Woodbury, CT



Great Road over Minister's Pond - Existing



Path with Cantilever



Path using shoulder



Other conceptual ideas



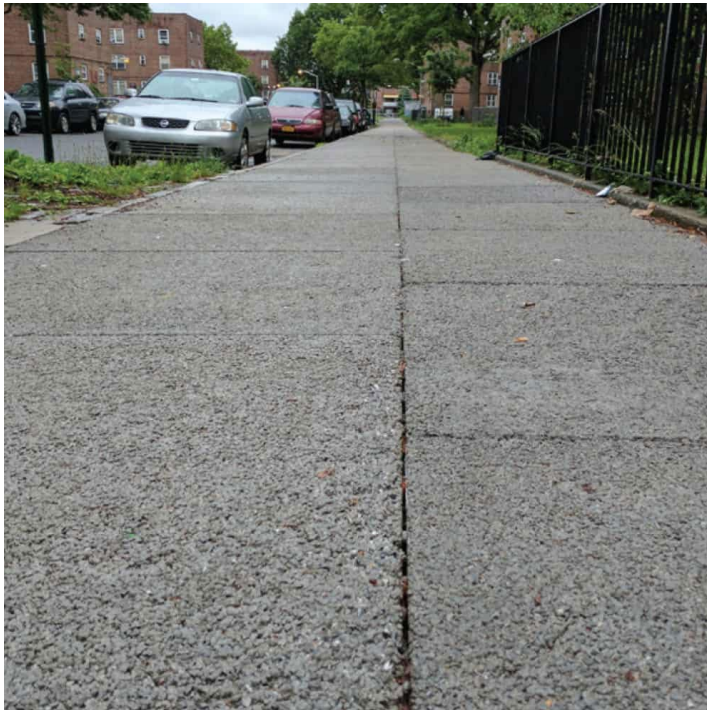
Consider working with private land owner to create a path through the woods from the Pilot Grove Apartments to Russett Lane. Consider traffic calming, like humps, on Russett Lane.



Consider traffic calming ideas on Crescent Street between Great Road and Hartley Road to improve bike safety.

Permeable Paving Options

- Benefits – potential to help meet MS4 requirements



Stormcrete



Stone Dust



Pavers

Thank you! Questions?