



# STOW TOWN CENTER IMPROVEMENT PLAN

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

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# Agenda

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

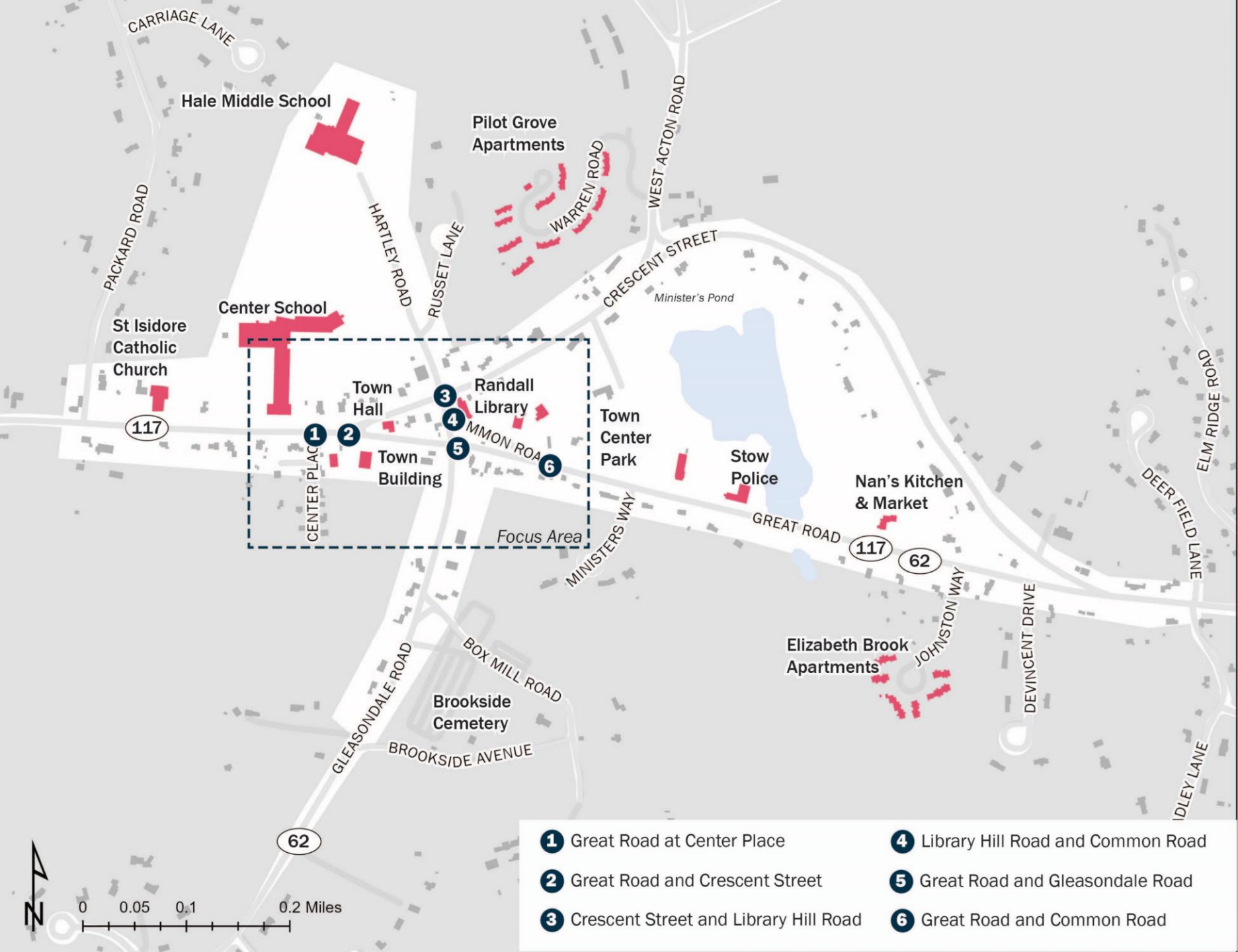
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# Project Goals

- 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



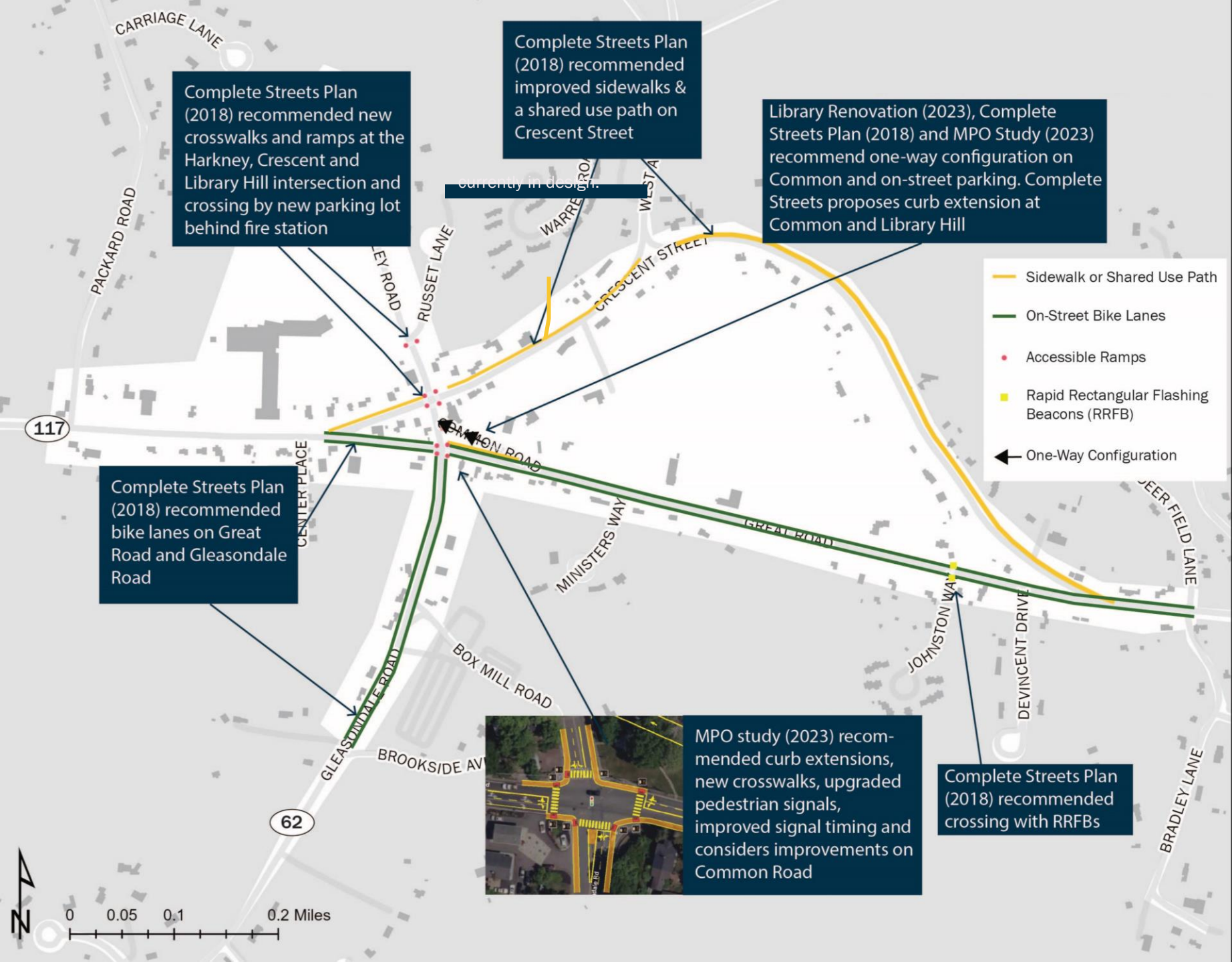


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Getting a sense of previous  
work that has occurred...

# RECENT WORK

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

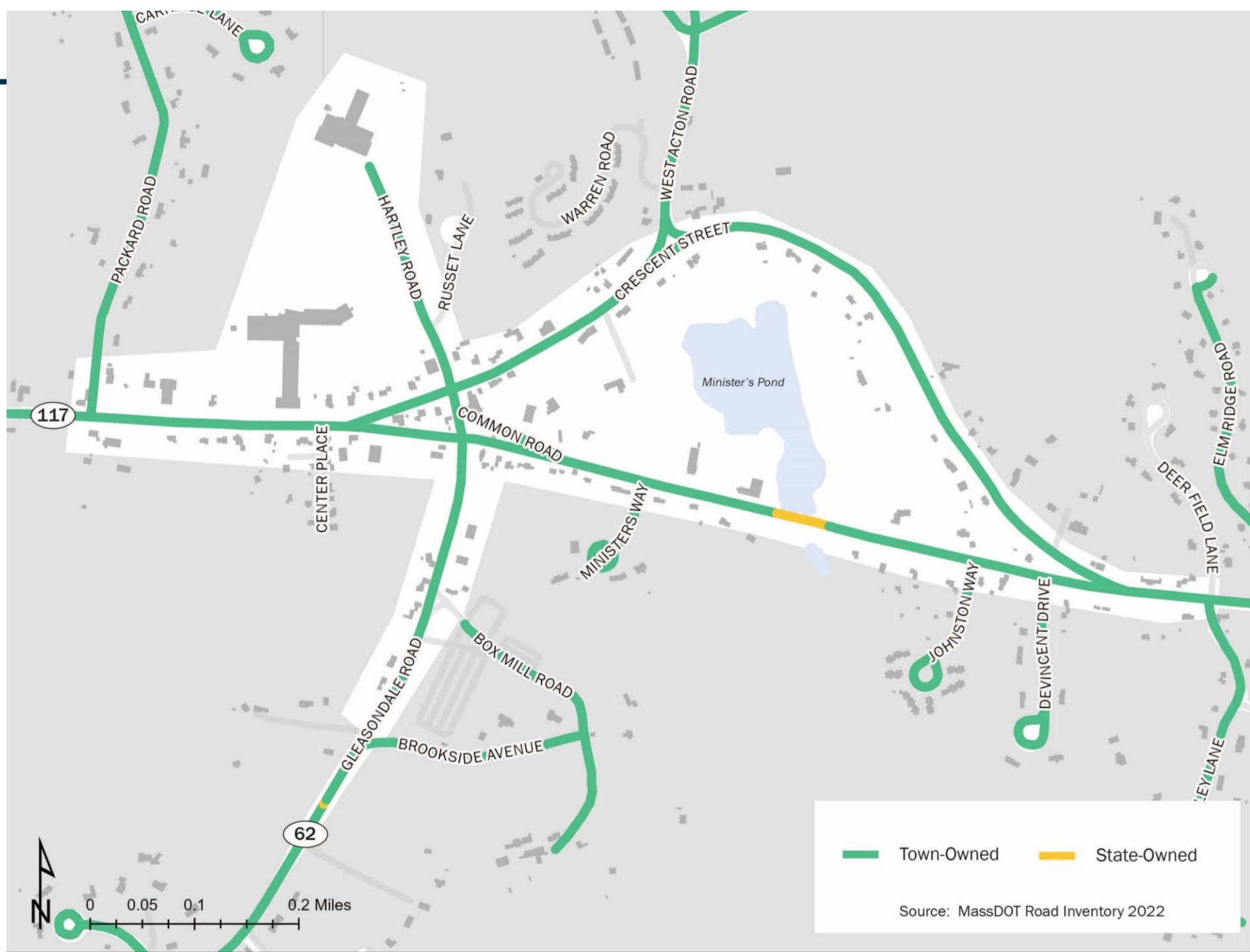


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What exists in the  
study area now?

# 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

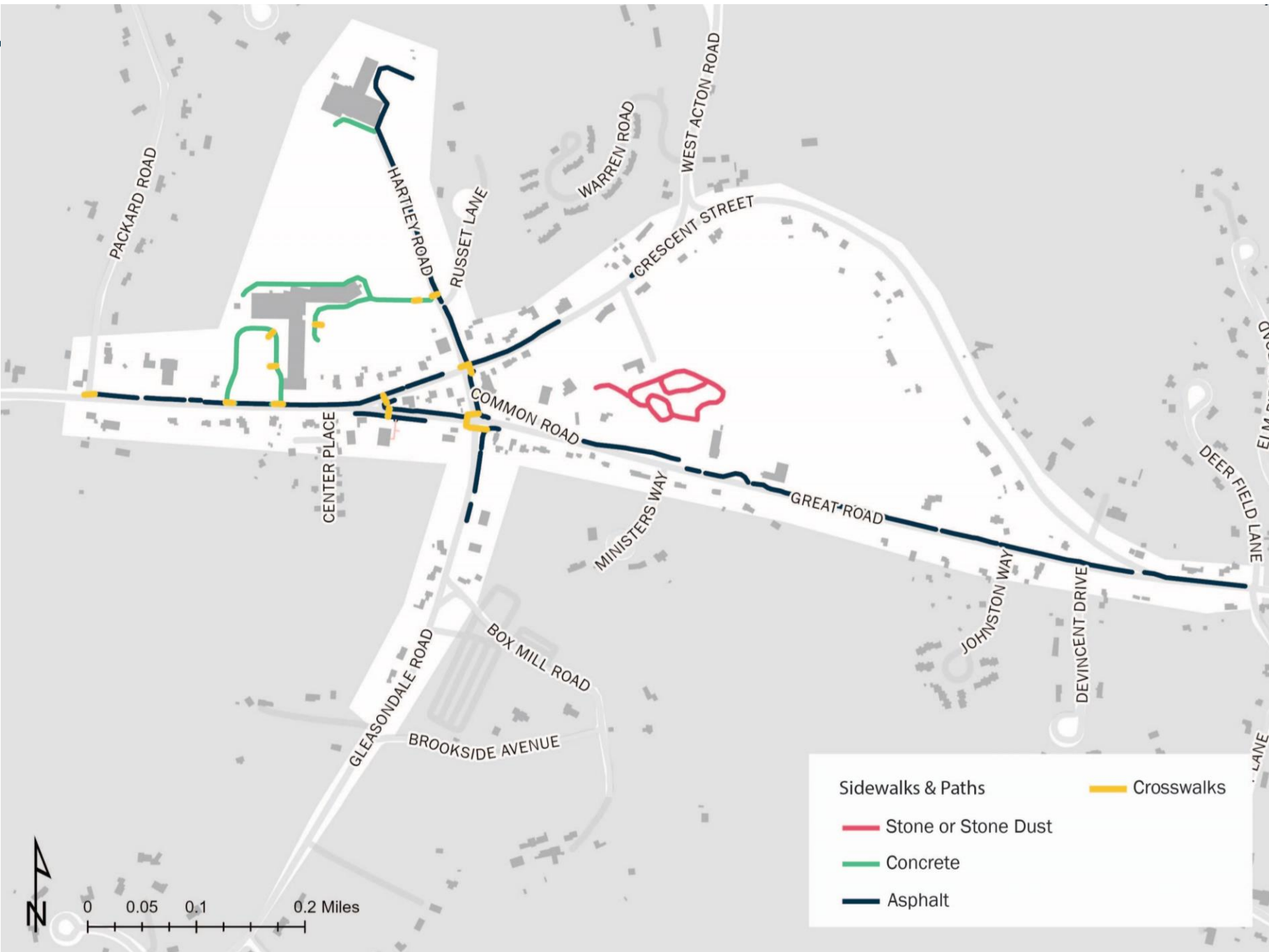
*Most sidewalks are asphalt, with the exception of the sidewalks within school property.*

*No dedicated bicycle facilities exist in the area.*

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

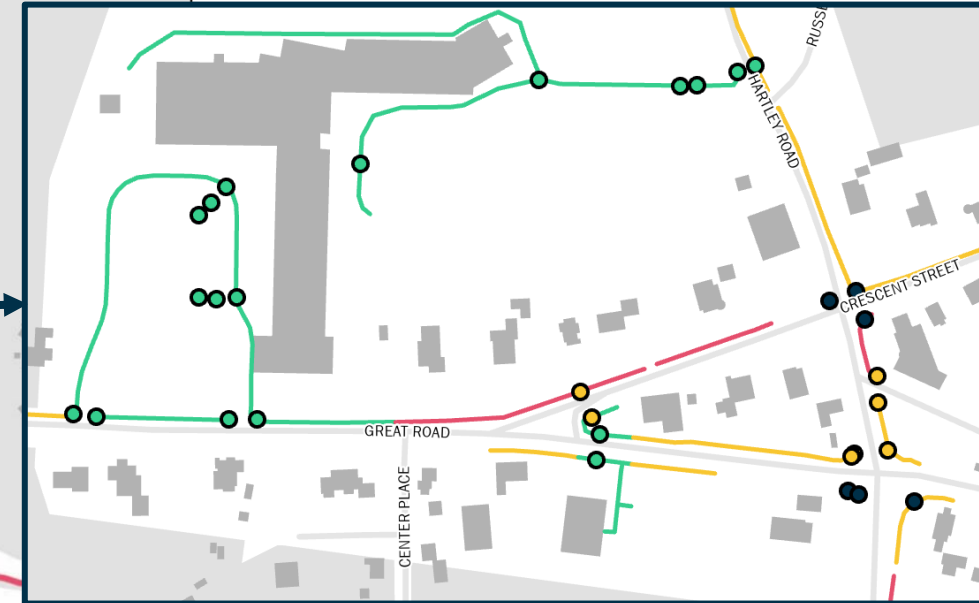
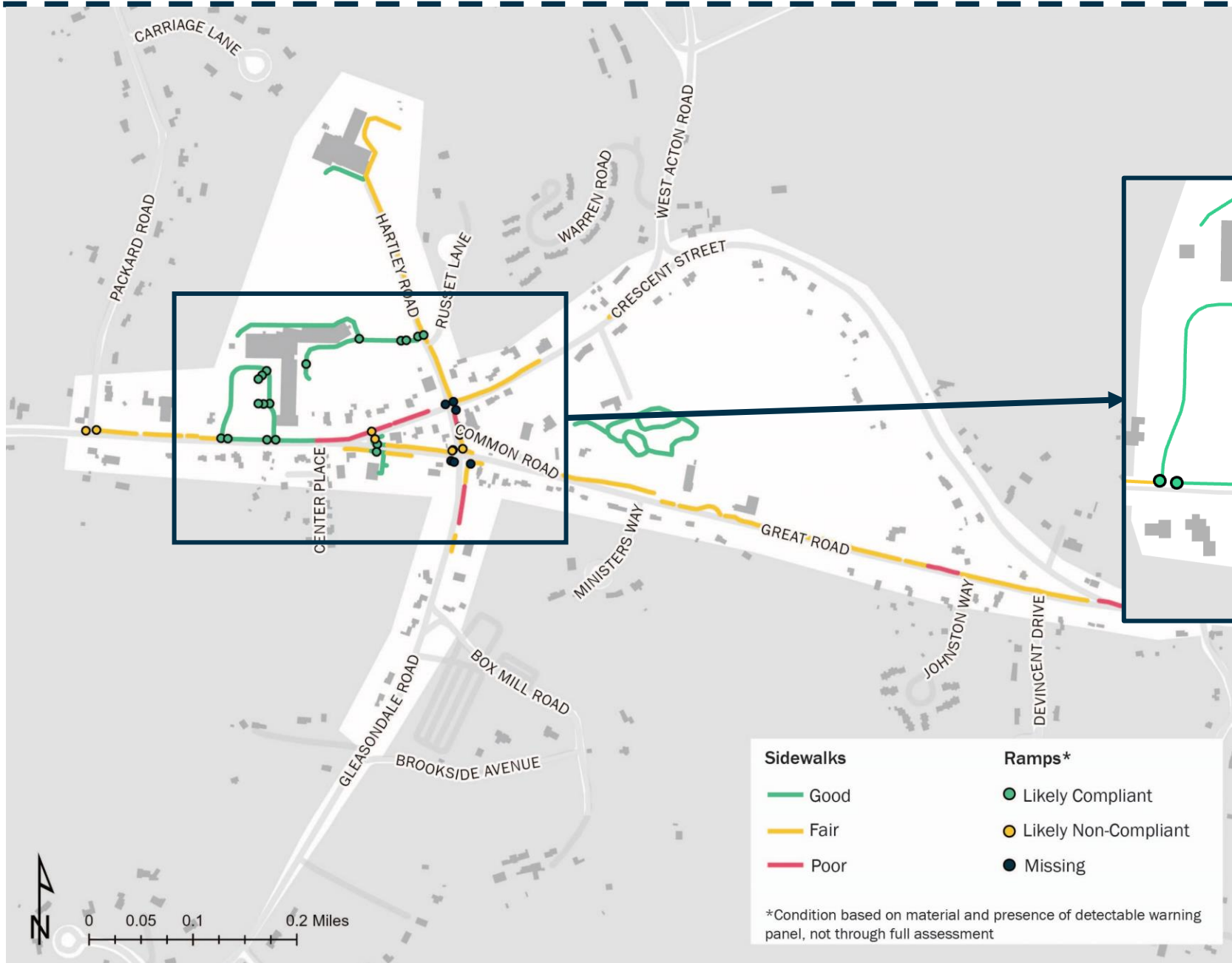
*Some gaps exist:*

- *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.*

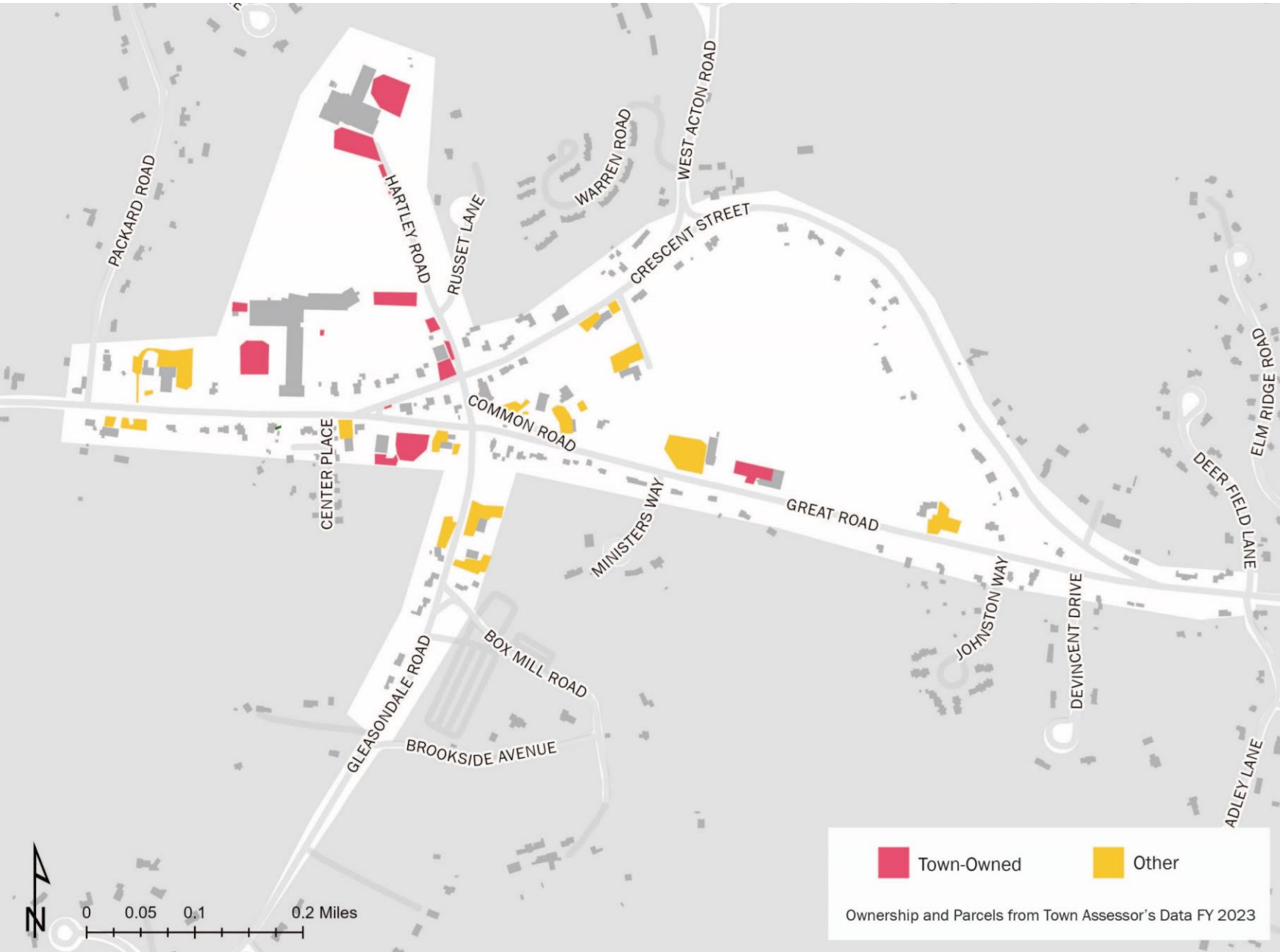
# PARKING AREAS

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

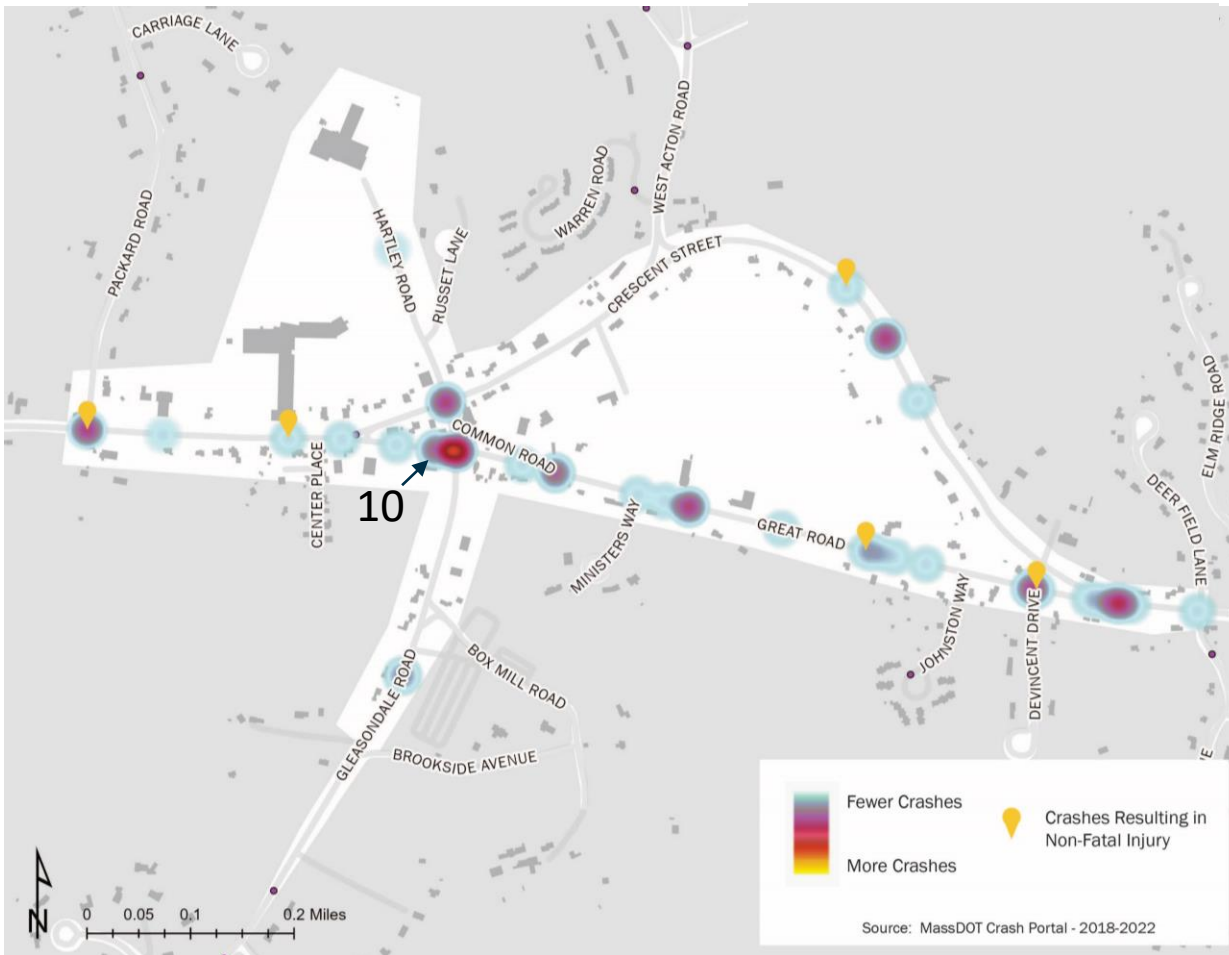
*Several of the lots to the west by the schools and old fire station are town owned.*

*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

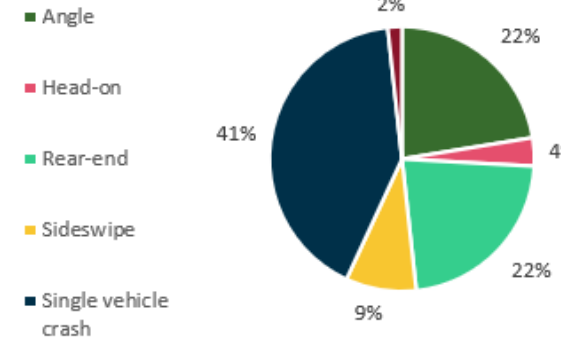
**41%**

Single  
Vehicle  
Crashes

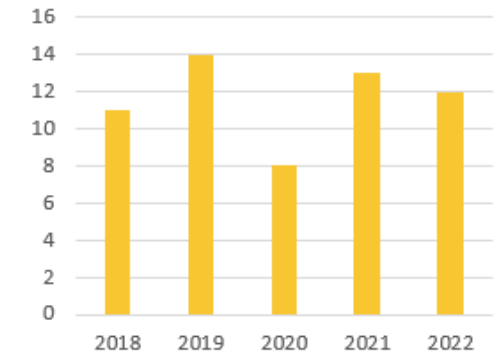
**9%**

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

The diagram illustrates the AM peak hour traffic volumes at the intersection of Great Road (RT 117) and Gleasdale Road (RT 62). The intersection is a T-junction where Gleasdale Road meets Great Road from the south. The diagram shows the layout of the roads and the direction of traffic flow, with volumes indicated by arrows and numbers. A north arrow is located in the top right corner.

**Streets and Intersections:**

- Great Road (RT 117):** The main horizontal road.
- Gleasdale Road (RT 62):** The vertical road intersecting Great Road from the south.
- Center Place:** A street intersecting Great Road from the west.
- Library Hill Road:** A street intersecting Great Road from the south, just north of the main intersection.
- Common Road:** A street intersecting Great Road from the south, further east.
- Hartley Road:** A street intersecting Great Road from the south, further east.
- Crescent Street:** A street intersecting Great Road from the south, further east.

**AM Peak Hour Volumes (Approximate):**

Location	Direction	Volume
Center Place / Great Road	Eastbound	852
	Westbound	0
	Northbound	0
	Southbound	1
Library Hill Road / Great Road	Eastbound	376
	Westbound	2
	Northbound	0
	Southbound	281
Common Road / Great Road	Eastbound	102
	Westbound	1
	Northbound	0
	Southbound	160
Hartley Road / Great Road	Eastbound	695
	Westbound	3
	Northbound	678
	Southbound	17
Crescent Street / Great Road	Eastbound	124
	Westbound	0
	Northbound	4
	Southbound	263
Common Road / Great Road	Eastbound	124
	Westbound	0
	Northbound	4
	Southbound	88
Hartley Road / Great Road	Eastbound	124
	Westbound	0
	Northbound	4
	Southbound	88
Crescent Street / Great Road	Eastbound	124
	Westbound	0
	Northbound	4
	Southbound	88

**Notes:**

- Not drawn to scale.
- Uses peak hour volumes by intersection, as collected on 11/15/2021.

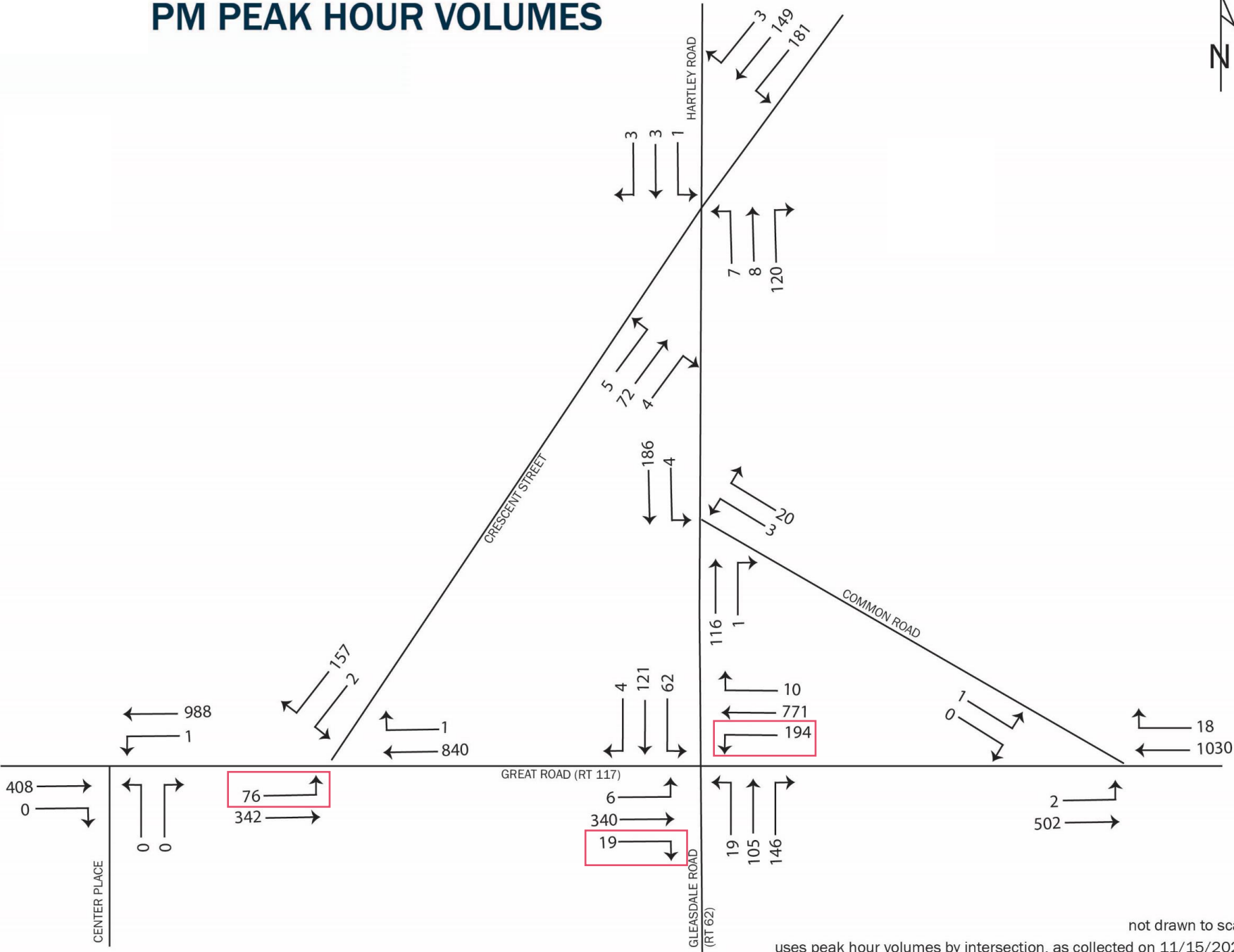
# VEHICLE VOLUMES

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

# PM PEAK HOUR VOLUMES

# VEHICLE VOLUMES



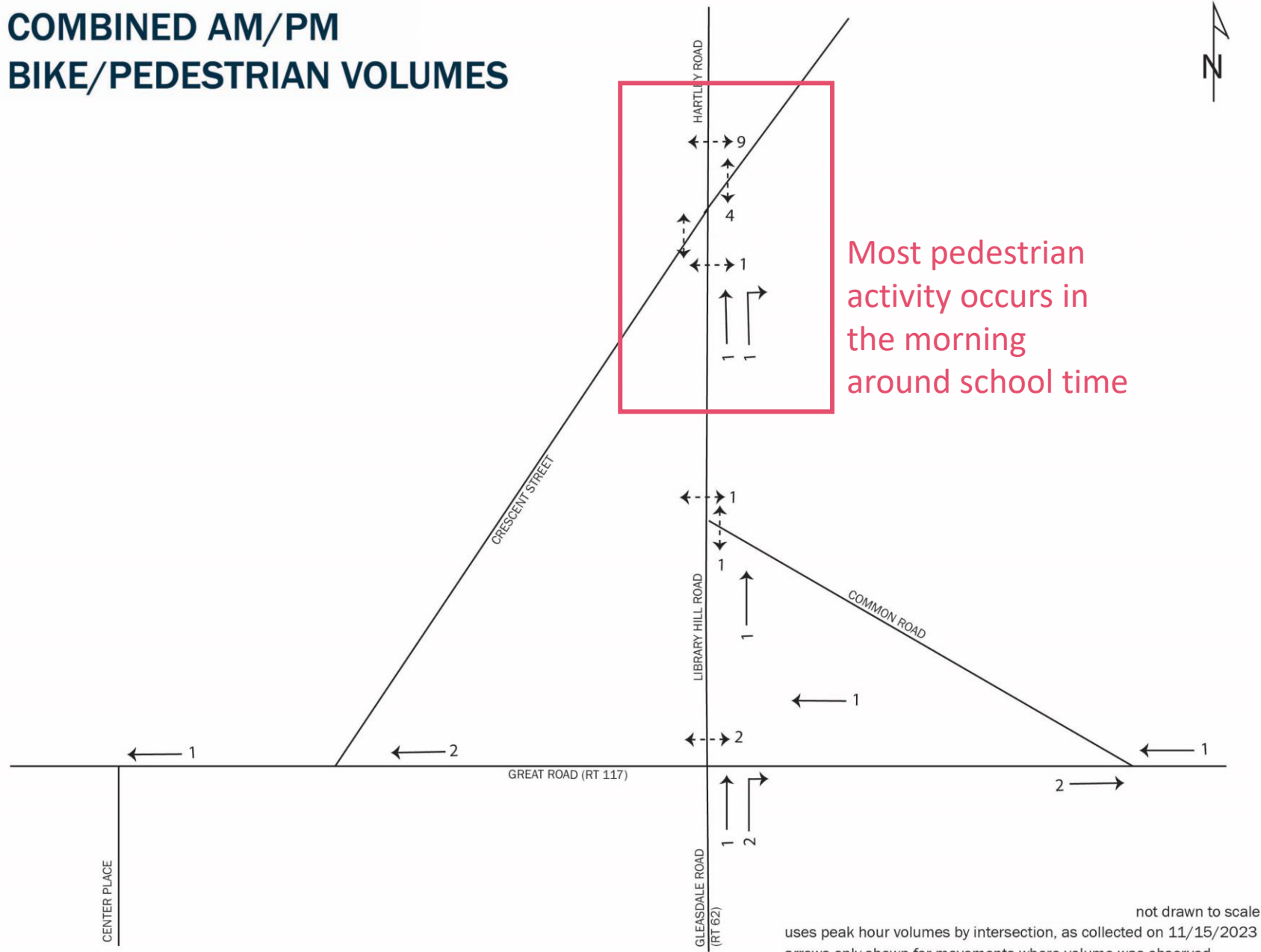
not drawn to scale  
uses peak hour volumes by intersection, as collected on 11/15/2023

# 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



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# 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.

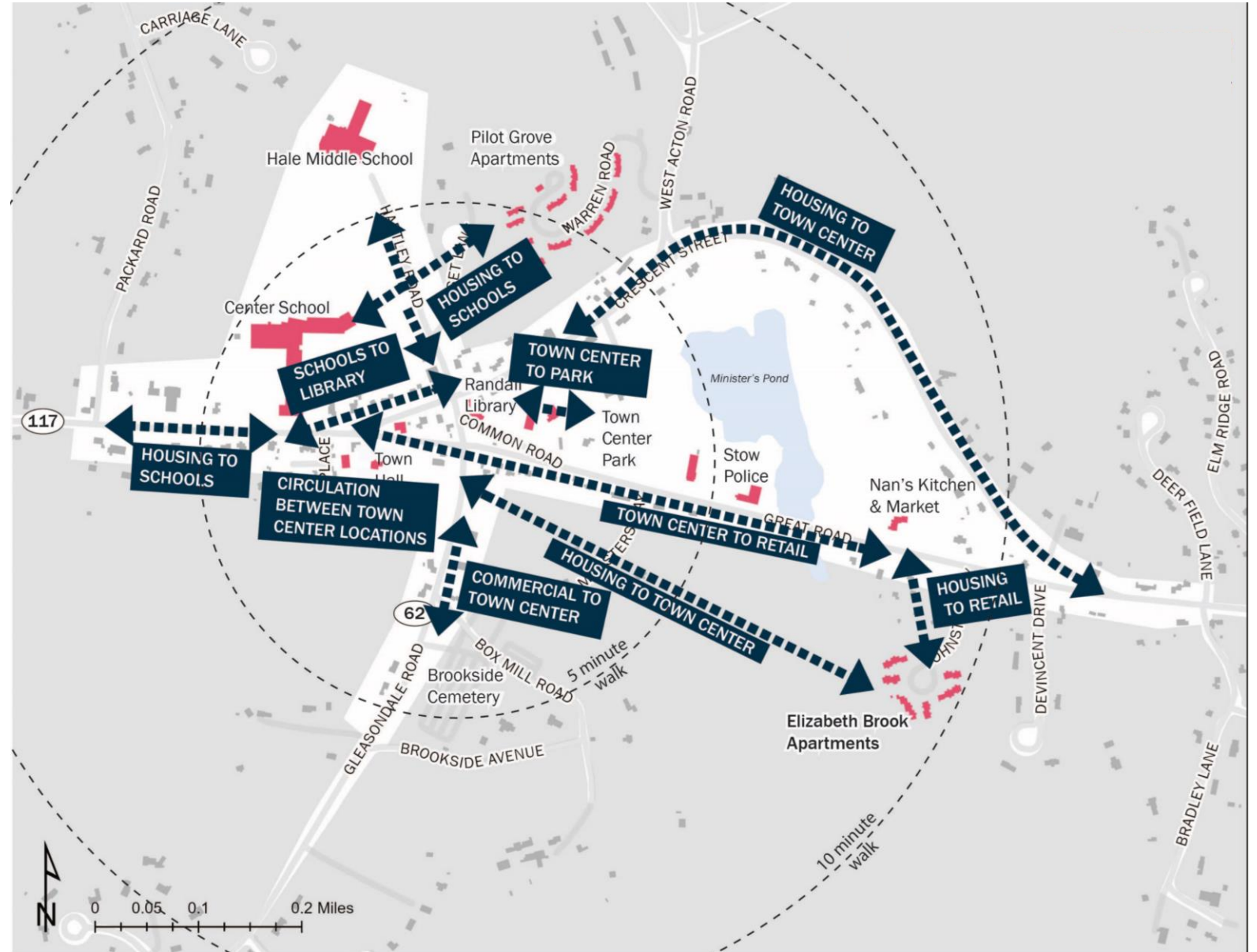


Existing sidewalks within the school facilities are in great condition with new ramps. The sidewalk network is built out to connect to the schools in areas.

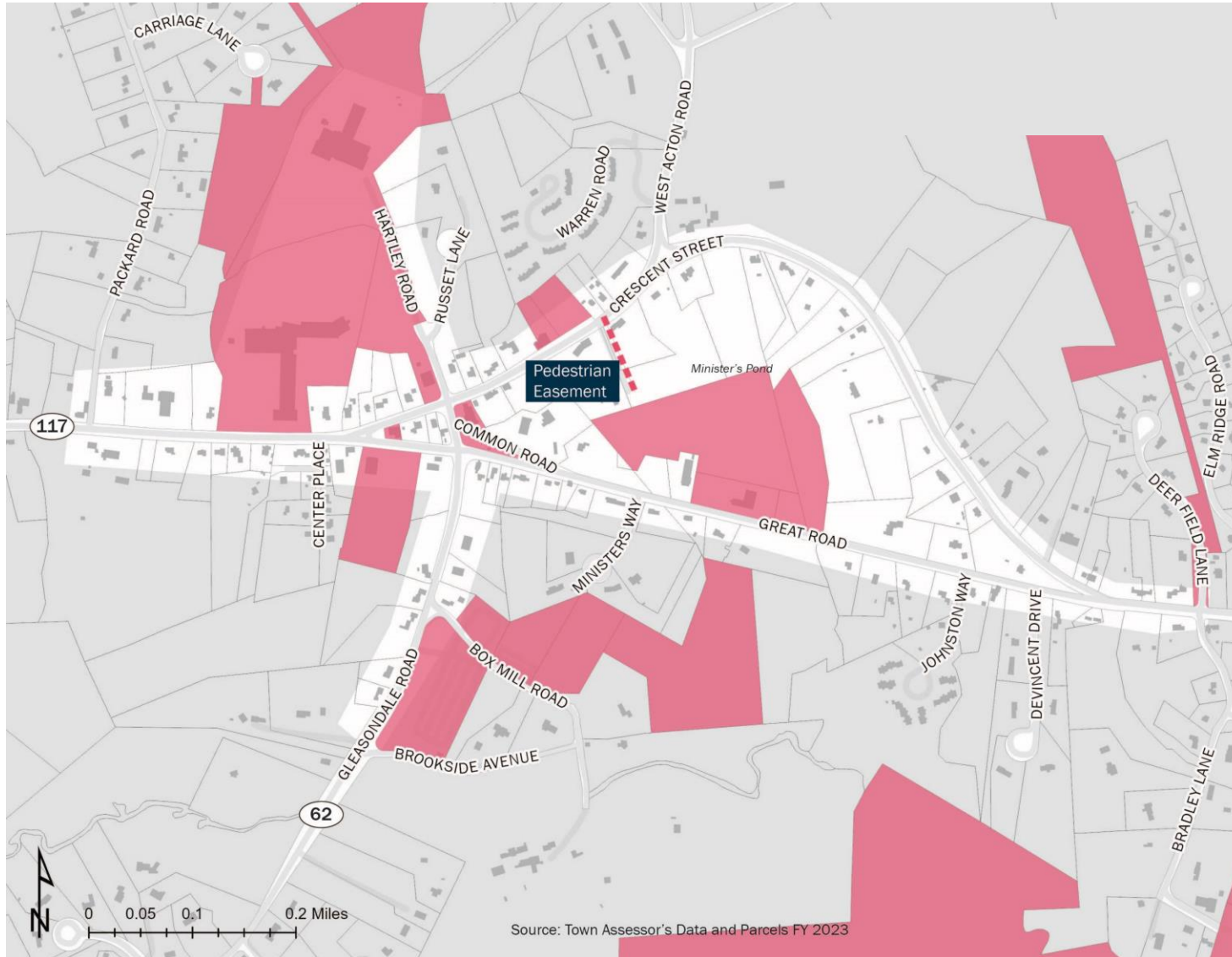


# Existing Assets and Strengths

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.



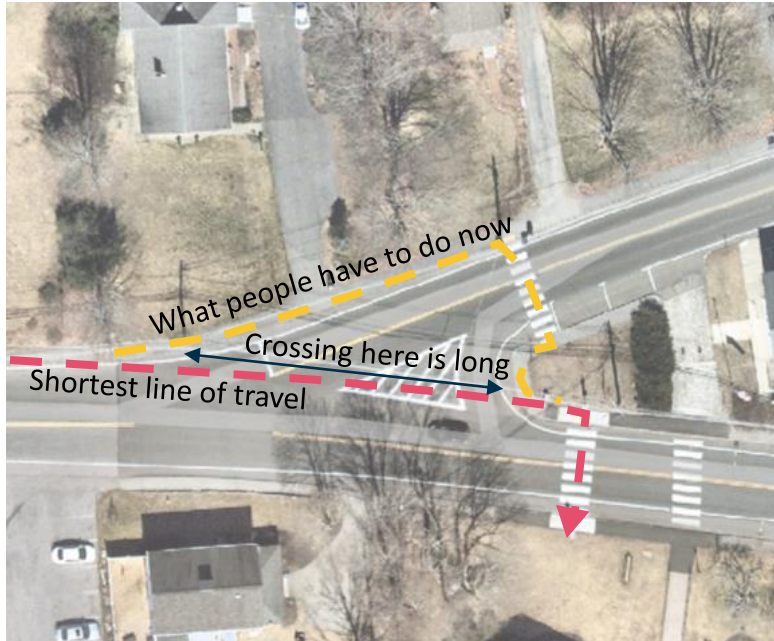
# Existing Barriers to Walking and Biking



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.



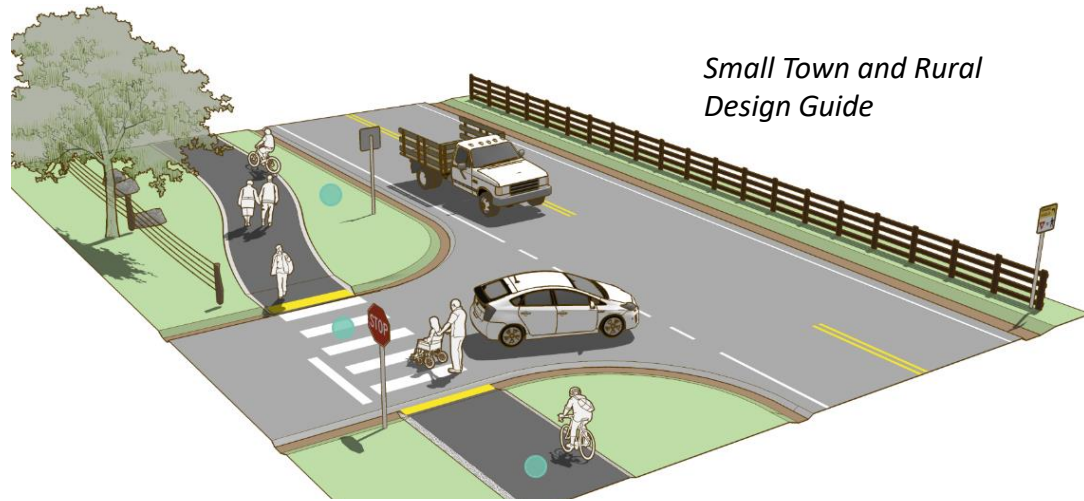
No dedicated bicycle facilities exist that are comfortable for all ages and abilities. Mostly confident cyclists currently ride in the street.

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



# Bike Design Guidance



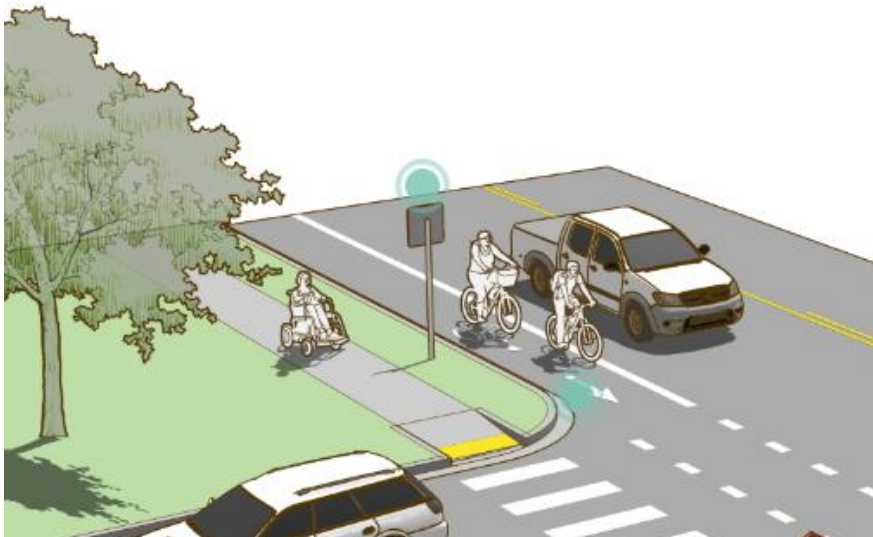
*Small Town and Rural  
Design Guide*

SHARED-USE PATH ("SIDE PATH")



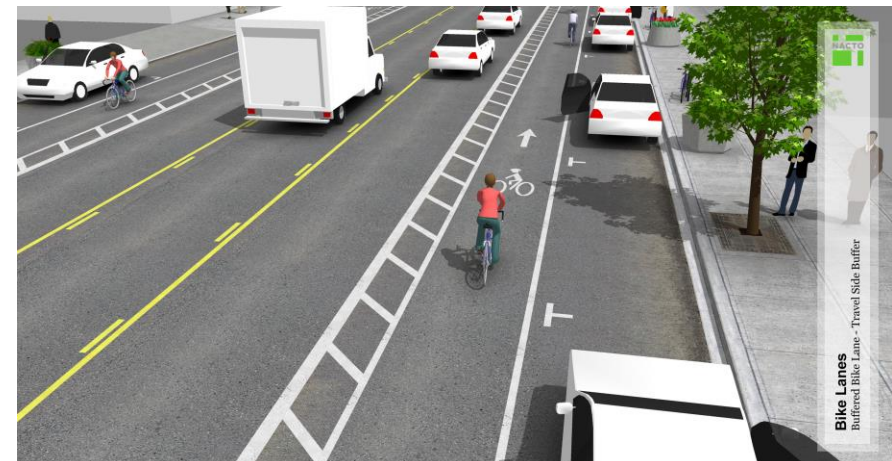
*MassDOT Separated  
Bike Lane Planning &  
Design Guide*

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*

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

*Preliminary Concepts* —————→



# Focus Area Preliminary Concepts





# Town Common - Existing

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# Path and Landscaping













# Great Road by Town Hall

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Stow Town Center Improvement Plan



# Path and Gathering areas



Stow Town Center Improvement Plan



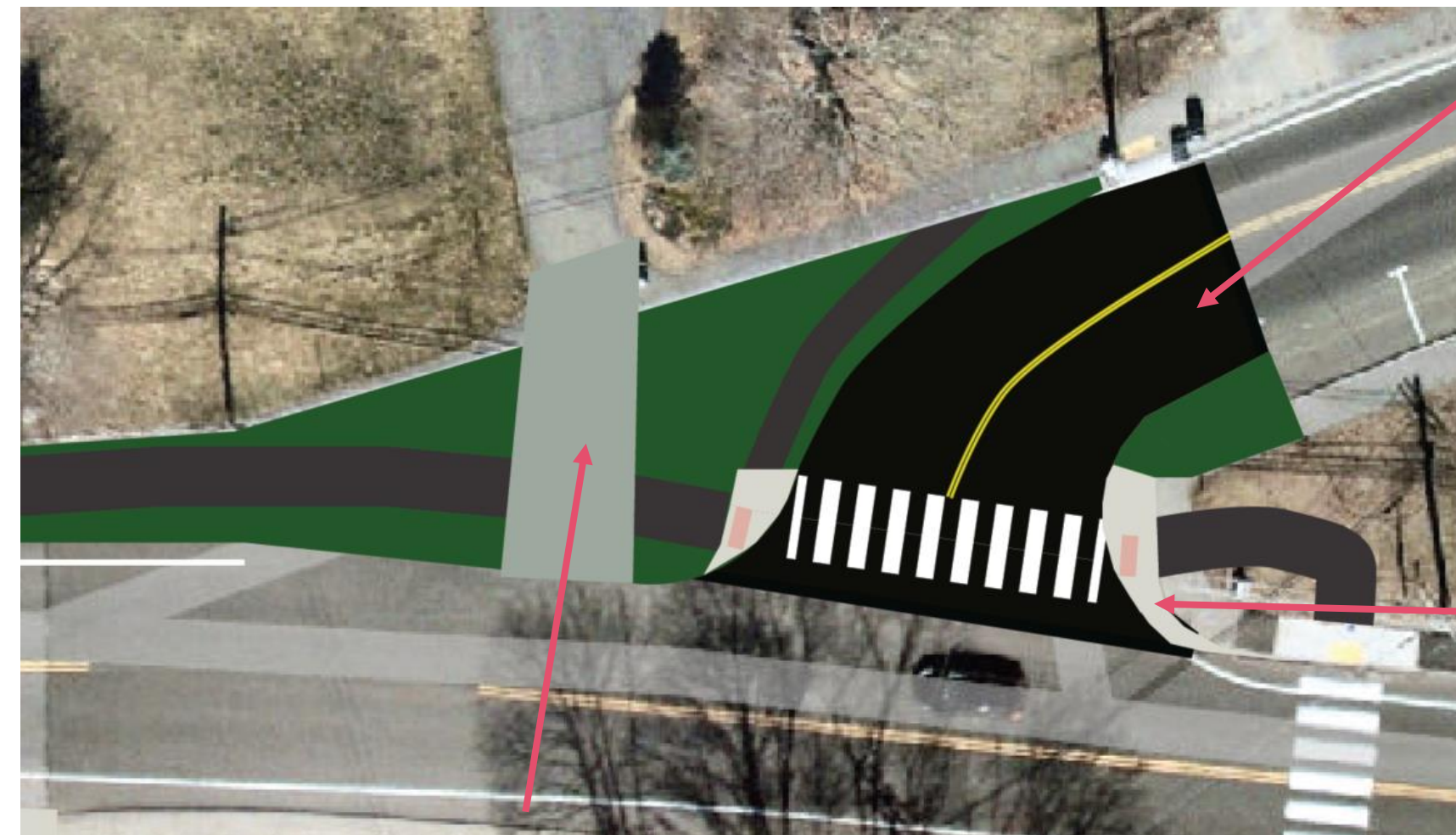








# Great Road and Crescent Street Realignment



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

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Stow Town Center Improvement Plan



# Great Road/ Gleasondale Road/ Library Hill Road

*Add pedestrian signal equipment with countdown beacons on all legs.*

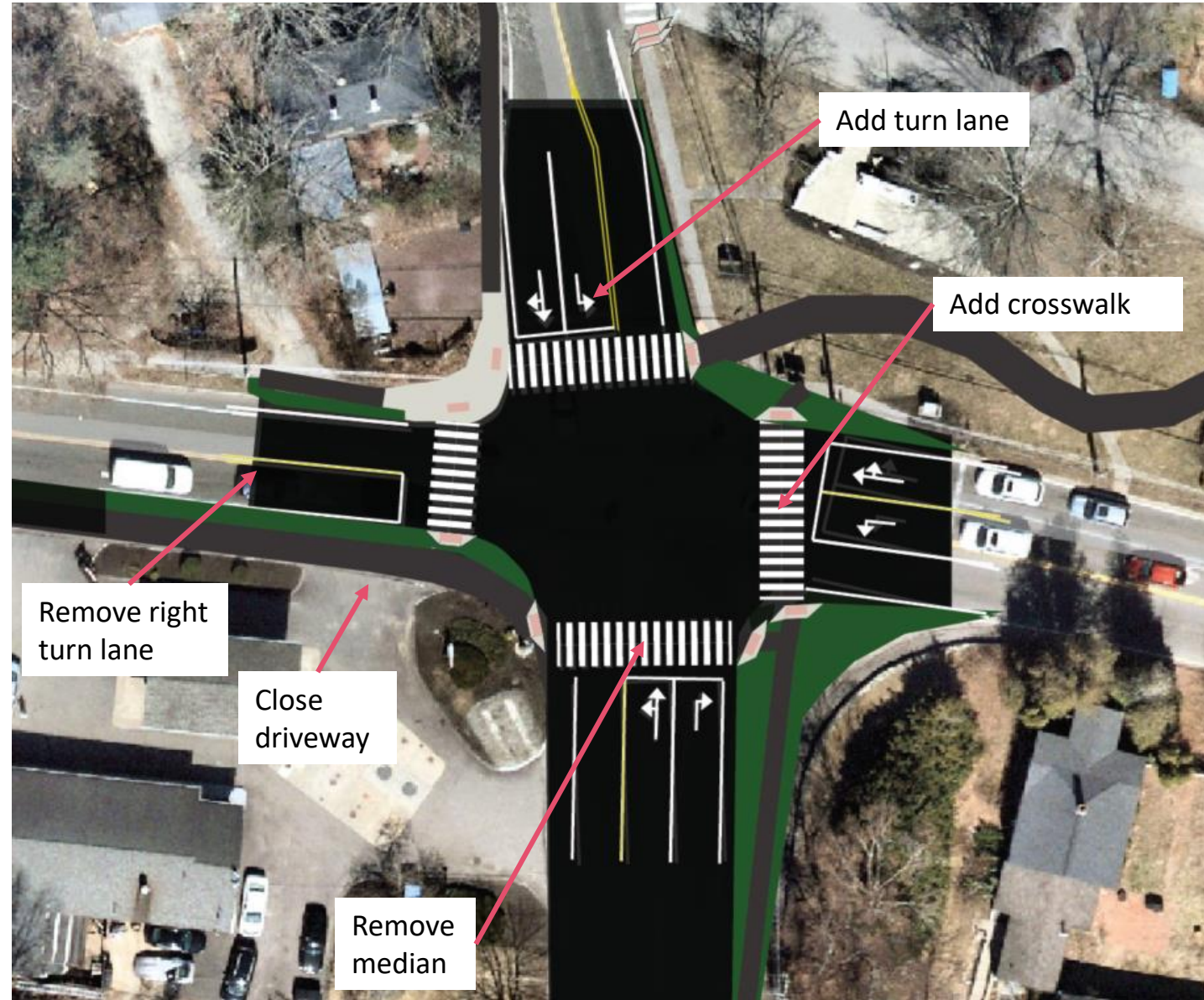
*Introduce an exclusive pedestrian phase.*

*Change to video detection.*

*Install mast arms.*

*Better alignment of Library Hill Road across intersection*

*Improved ramps*



# Path from School to Library, and Upgraded Crossings

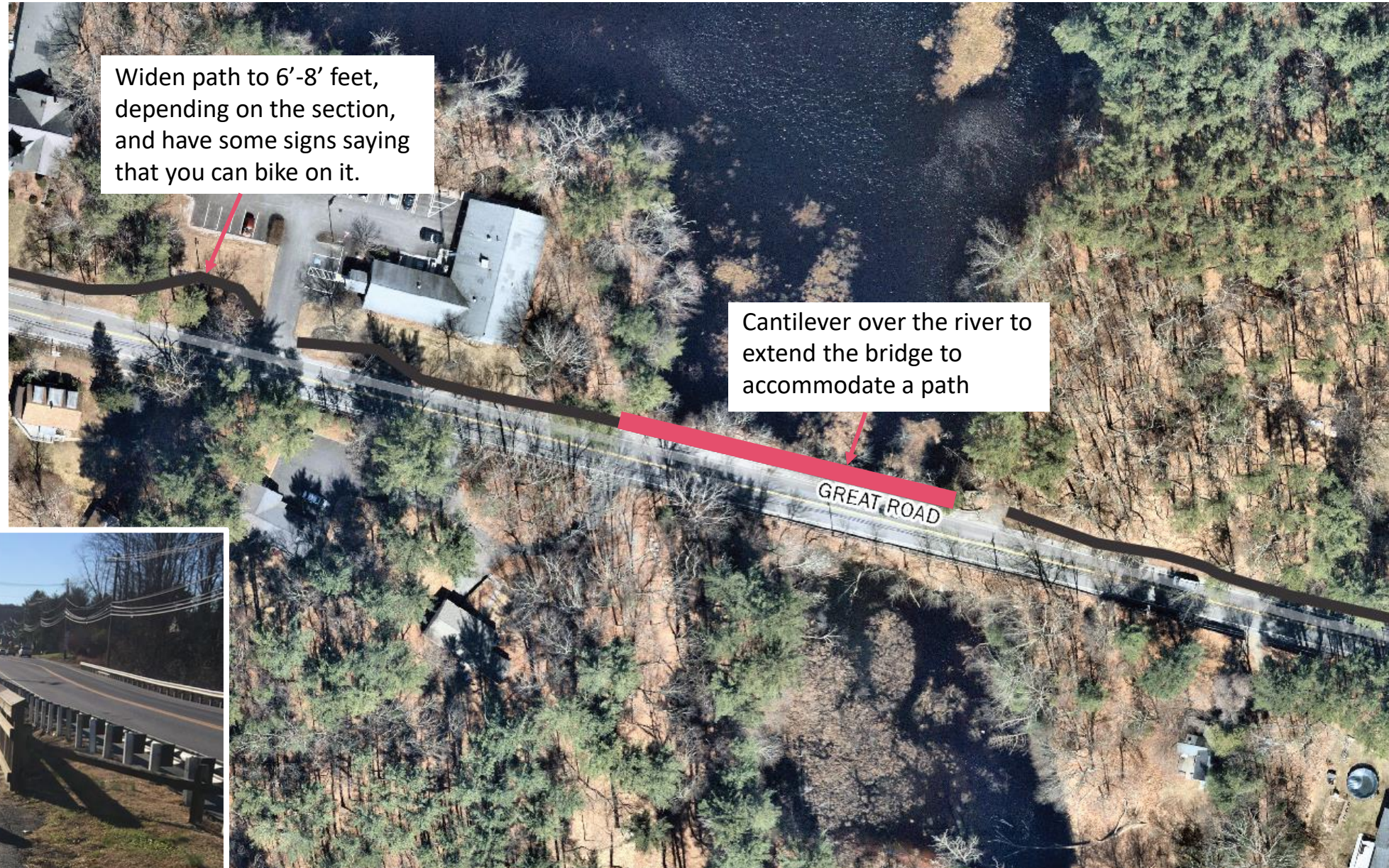
Shared use path on town land connecting from the school down to the library



Add raised crosswalk and construct missing ramps



# Cantilever Shared Use Path over the River on Great Road



Widen path to 6'-8' feet, depending on the section, and have some signs saying that you can bike on it.

Cantilever over the river to extend the bridge to accommodate a path

*Example in Woodbury, CT*





# Great Road over Minister's Pond - Existing





# Path with Cantilever





# Path using shoulder





# Other conceptual ideas

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Consider working with the church to allow people to walk through property to the town center park, and add wayfinding



Consider coordinating with Advanced Mechanical Systems Inc to allow access to the park through their property



# Other conceptual ideas

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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.



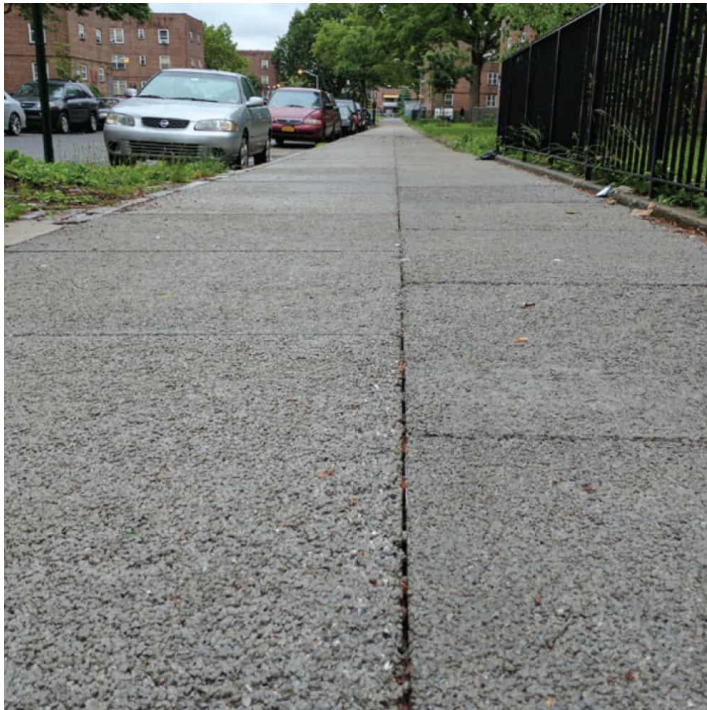
Consider traffic calming ideas on Crescent Street between Great Road and Hartley Road to improve bike safety.



# Permeable Paving Options

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- Benefits – potential to help meet MS4 requirements



Stormcrete



Stone Dust



Pavers