

**Before
Complete Streets**

**After
Complete Streets**

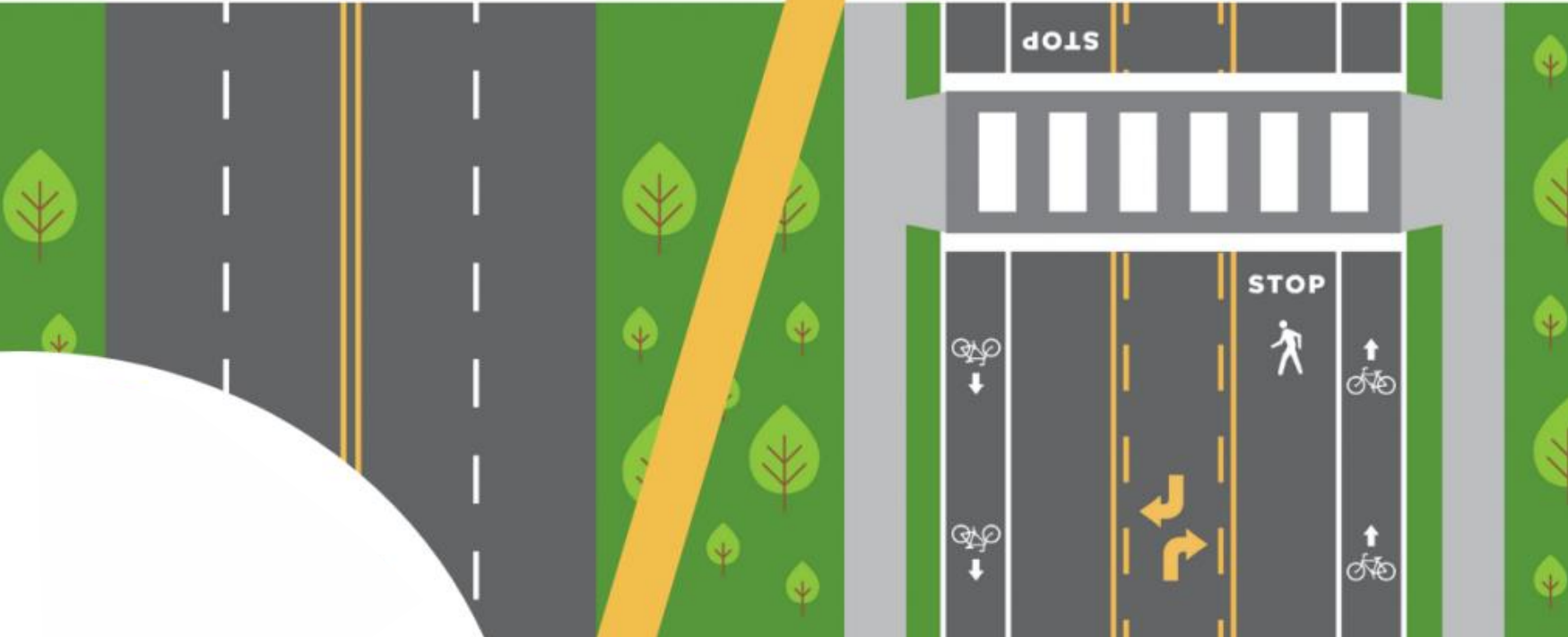


Photo Source: Smart Growth America



October 17
2022

Complete Streets Prioritization Plan

Northborough, Massachusetts





Agenda

- What are Complete Streets?
- Massachusetts Department of Transportation (MassDOT) Complete Streets Program
- Review Northborough's Complete Streets Policy
- Survey Results
- Review Prioritization Plan
- Public Input/Questions & Answers

What is a Complete Street?

- Designed and operated to make travel safe, comfortable, convenient, and accessible for people of all ages, abilities, and travel modes.
- Designing streets with these principles contributes toward:
 - Safety, health, economic viability and quality of life in a community by improving the pedestrian and vehicular environments.
 - Providing safer, more accessible and comfortable means of travel between home, school, work, recreation and retail destinations helps promote more livable communities.



Source: Michigan's Great Southwest



MassDOT Complete Streets Program

→ Program Purpose & Goals

- ▶ Educate Municipal & Transportation Professionals on Complete Streets
- ▶ Promote Adoption of Complete Streets Policy
 - » Northborough Complete Streets Policy adopted on January 10, 2022
- ▶ Increase Adoption of Strategic & Comprehensive Complete Streets Plans
 - » **In process now**
- ▶ Implement Complete Streets Policies & Plans
 - » Future phase: receive up to \$500,000 in construction funding from MassDOT to implement projects



MassDOT Complete Streets Program



→ Eligible project types

- ▶ **Environment & Streetscape:** street lighting, bicycle parking, street trees or landscaping, stormwater management
- ▶ **Intersection Redesigns:** roundabouts, curb extension, intersection signalization
- ▶ **Pedestrian & Bike Network Connections:** shared-use paths, bike lanes, sidewalks
- ▶ **Pedestrian Crossing Modifications:** ADA-compliant curb ramp, Rectangular Rapid Flashing Beacons, crossing islands, pedestrian signal upgrades
- ▶ **Street Configuration & Traffic Calming:** lane elimination, lane narrowing, traffic calming measures
- ▶ **Transit Investments:** transit station/stop access improvements, bus lanes, bus pullouts



Northborough Complete Streets Policy

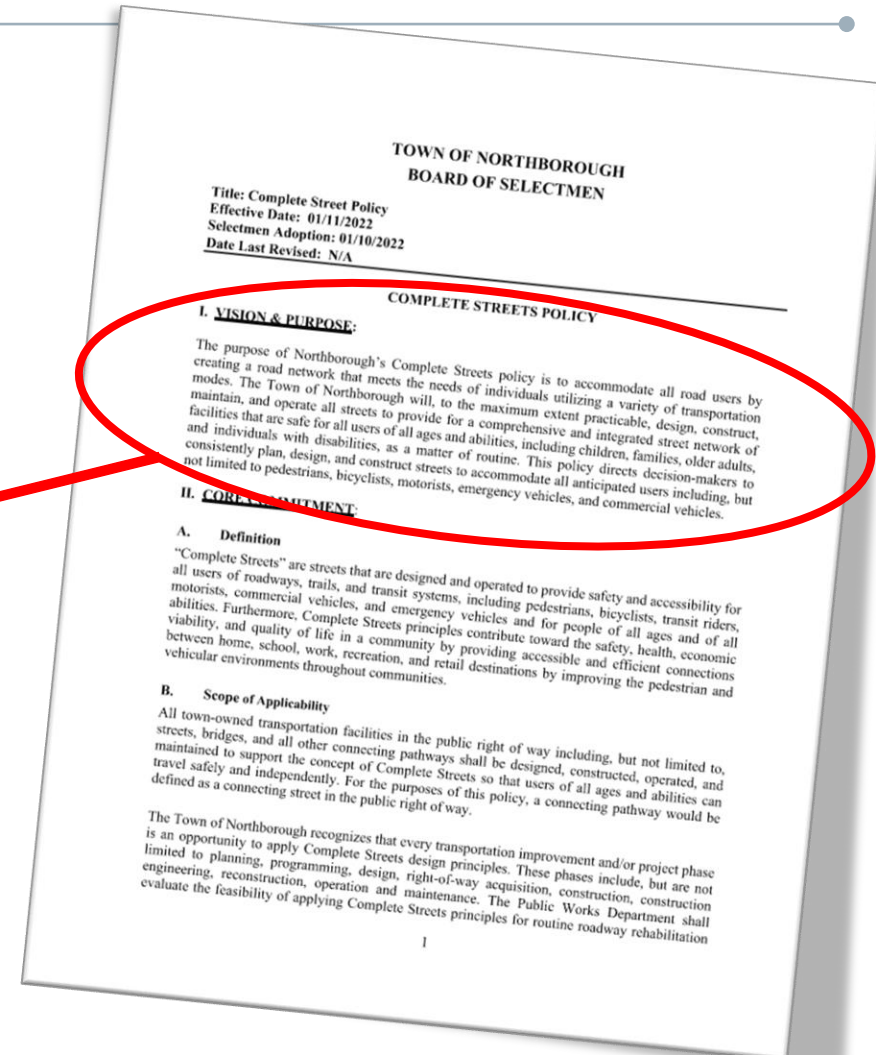


- Adopted January 2022
- Policy focuses on making roads easily navigable by people of all ages and abilities
- Received a \$35,200 technical assistance grant from MassDOT to develop a prioritization plan

COMPLETE STREETS POLICY

I. VISION & PURPOSE:

The purpose of Northborough's Complete Streets policy is to accommodate all road users by creating a road network that meets the needs of individuals utilizing a variety of transportation modes. The Town of Northborough will, to the maximum extent practicable, design, construct, maintain, and operate all streets to provide for a comprehensive and integrated street network of facilities that are safe for all users of all ages and abilities, including children, families, older adults, and individuals with disabilities, as a matter of routine. This policy directs decision-makers to consistently plan, design, and construct streets to accommodate all anticipated users including, but not limited to pedestrians, bicyclists, motorists, emergency vehicles, and commercial vehicles.



Why is Northborough Preparing the Prioritization Plan?

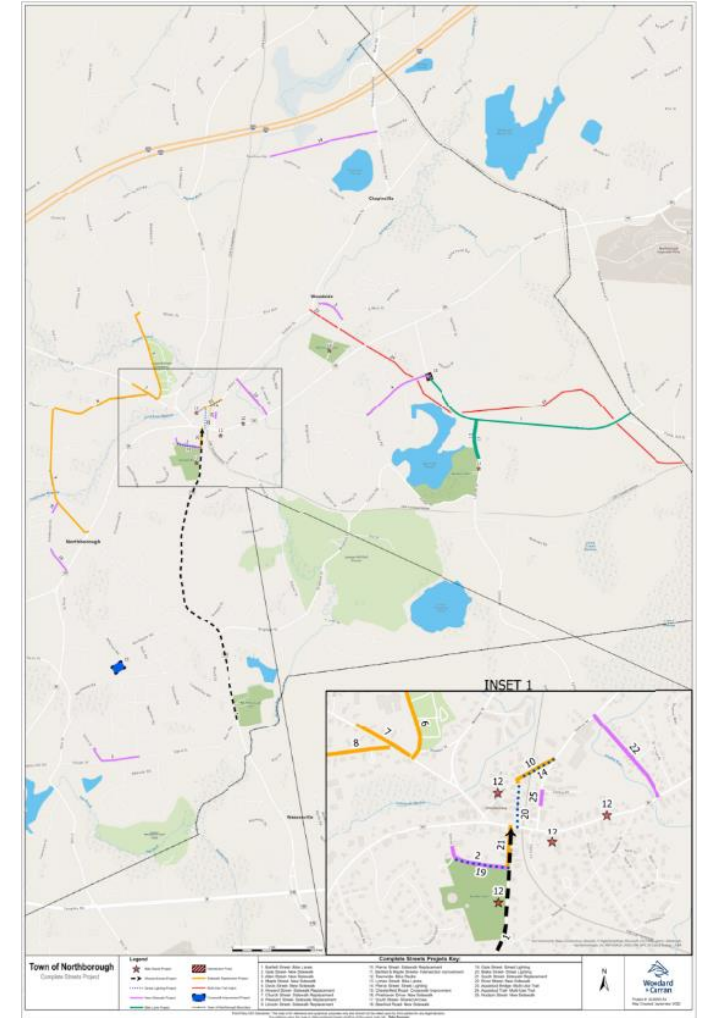


- To help the community think about how roads and safety can be improved and made more accessible for pedestrians, bikes, cars and alternate modes of transportation
- Eligible for funding from Mass DOT to help with implementation of projects identified in the Approved Plan (up to \$500k in any rolling four-year period)
- Applications due in May and October

Northborough Prioritization Plan Development



- Identified potential projects through public process
 - Initial list of projects identified by Town officials during a June 2nd workshop
 - Feedback collected from local residents via community survey
- Review feedback and develop final list of projects
- Prioritize and rank final projects based on:
 - Town Complete Street Policy goals
 - MassDOT's Complete Street Eligible Infrastructure list
 - Northborough's specific prioritization criteria
 - Feedback from residents and Town representatives



Complete Streets Community Survey



- Feedback collected from local residents via community survey
 - Available from August 15th – August 29th
- 808 resident responses
- Responses used to identify and prioritize potential projects

NORTHBOROUGH COMPLETE STREETS PRIORITIZATION PROJECT

(Photo Source: Smart Growth America)


What are Complete Streets?
Complete Streets are designed and operated to make travel safe, comfortable, convenient, and accessible for all travel modes - walking, biking, transit and vehicles - for people of all ages and abilities.

The concept of Complete Streets encompasses many approaches to planning, designing, and operating roadways and rights of way with all users in mind to make the transportation network safer and more efficient.

Why is this Important?
The Town received a grant from Massachusetts Department of Transportation (MassDOT) for technical assistance in developing a **Complete Streets Prioritization Plan**. Once the Prioritization Plan is accepted by MassDOT, the Town will be able to apply annually for up to \$400,000 in construction funding to implement projects through the MassDOT Complete Streets Funding Program.

How Can You Help?
Through an on-line survey, the Town is looking for public input on the desired types of projects, preferred project locations, and suggested Complete Streets projects for Prioritization Plan consideration. To take the on-line survey, use the QR Code or link above. The survey will be available starting at 8:00 am on August 15th and closes at 5:00 PM on August 29th.

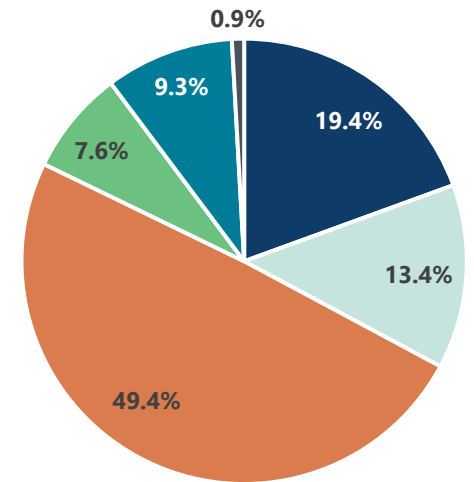
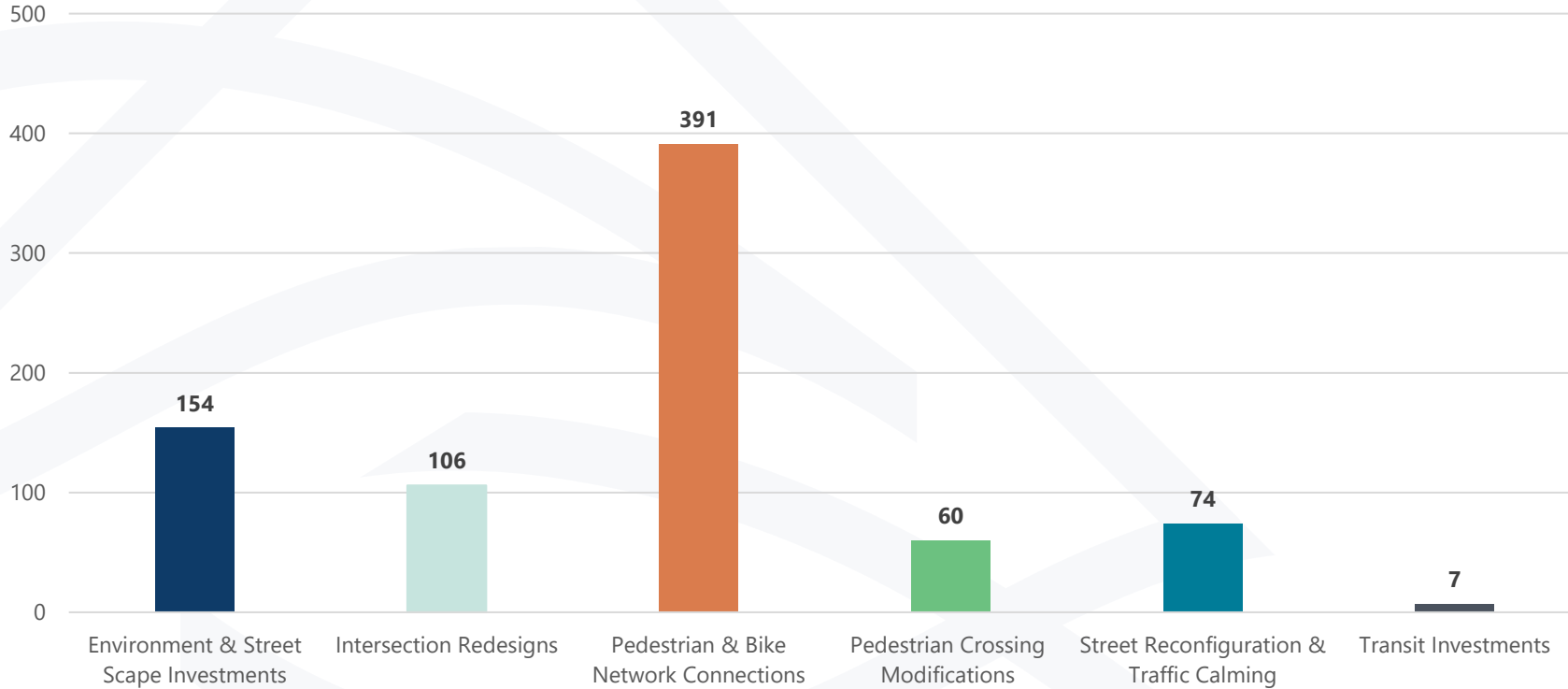
COMPLETE STREETS SURVEY
Use the QR Code below or [click here](#) to take the survey.

 Woodard & Curran

Complete Streets Community Survey Results



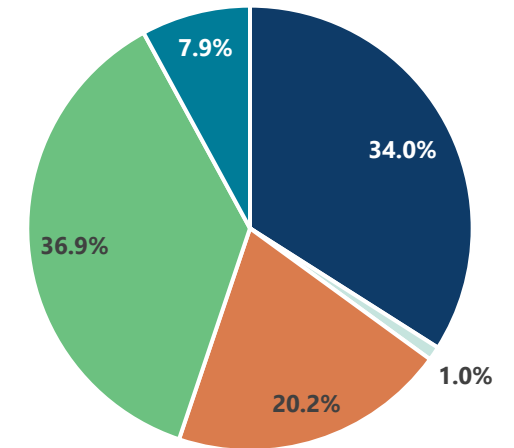
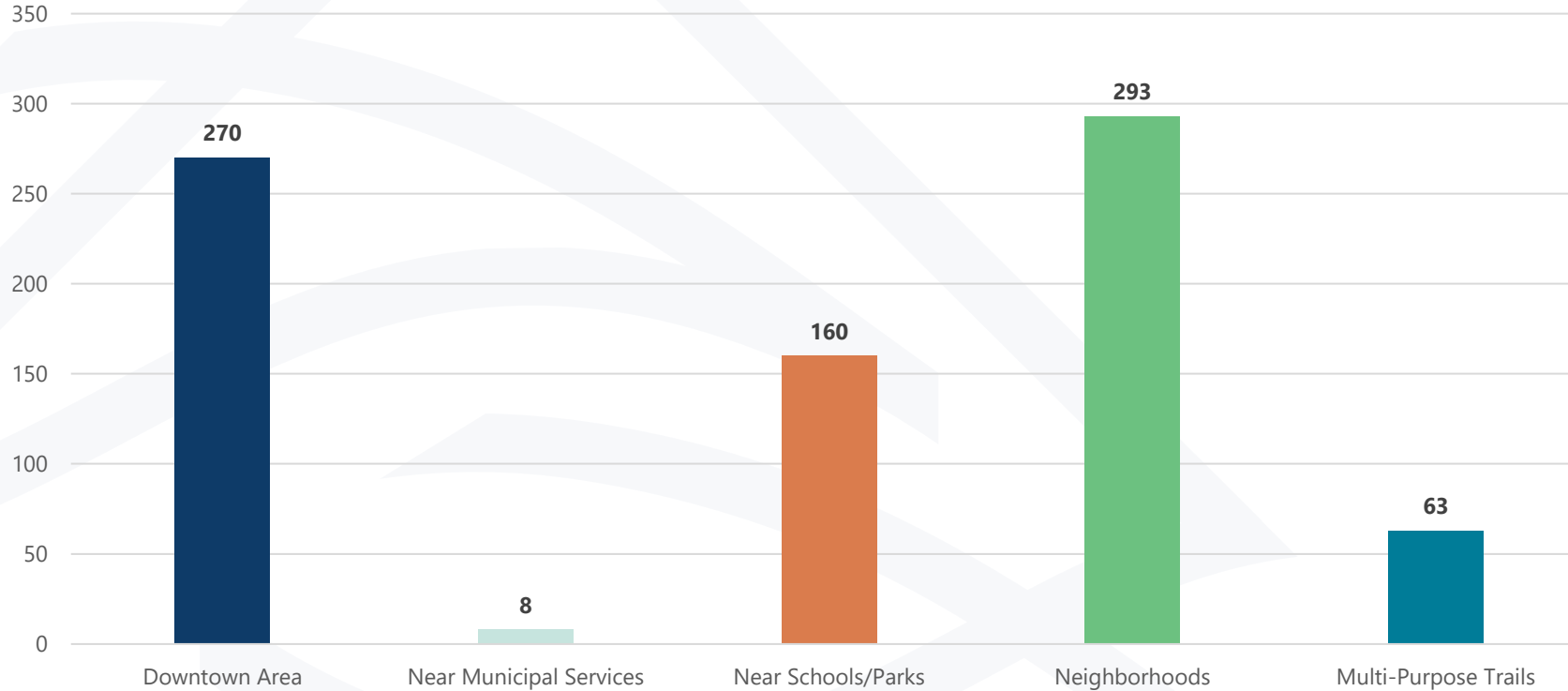
→ What eligible project type is most important to you?



Complete Streets Community Survey Results



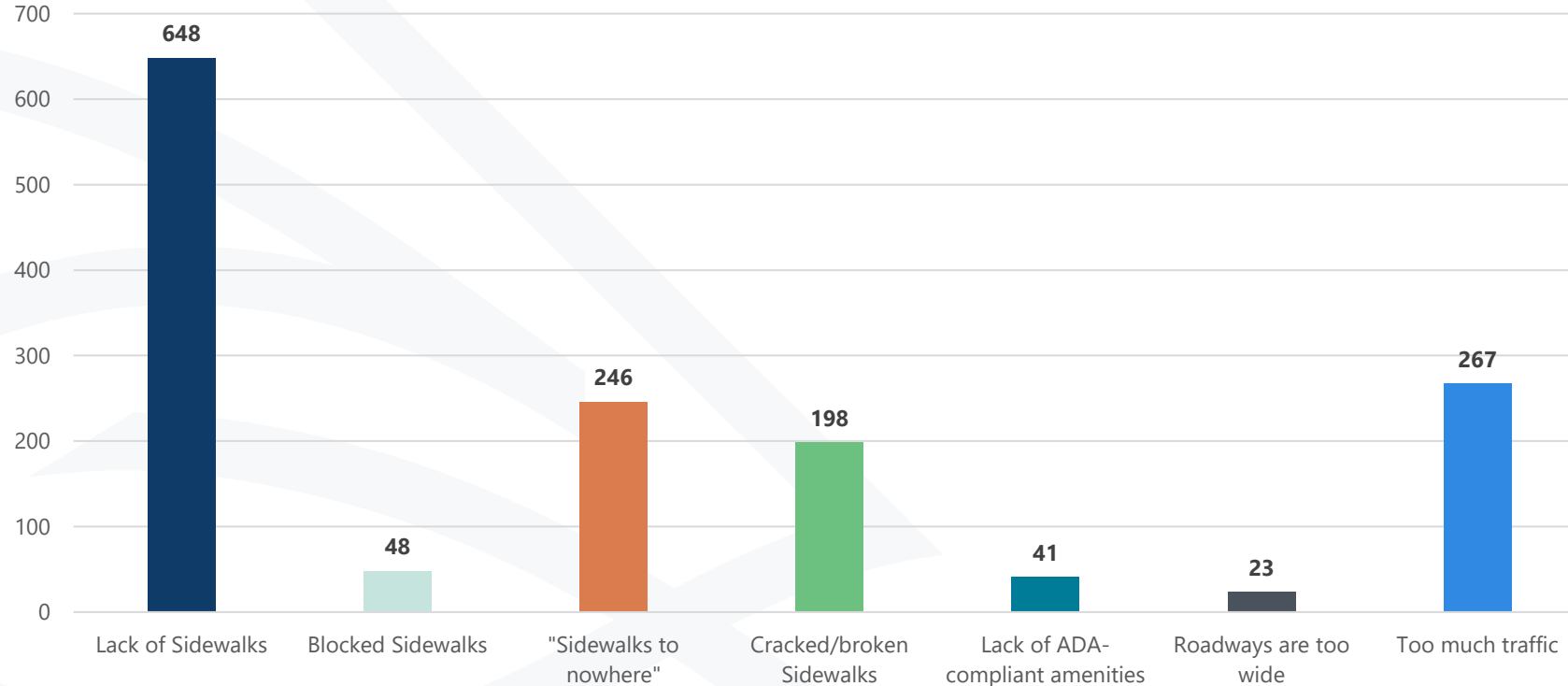
→ Where would you like to see a Complete Streets project implemented



Complete Streets Community Survey Results



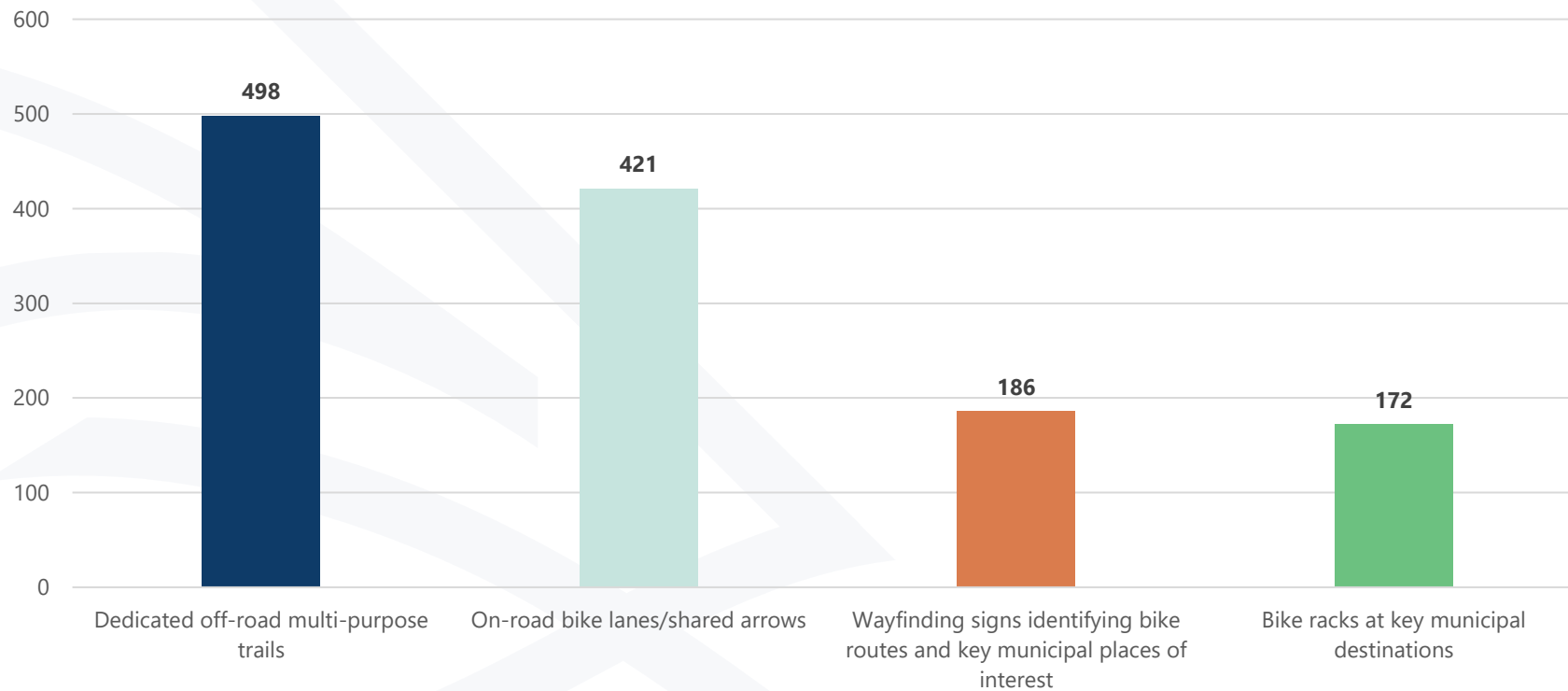
→ Identify your top two infrastructure impediments to walking



Complete Streets Community Survey Results



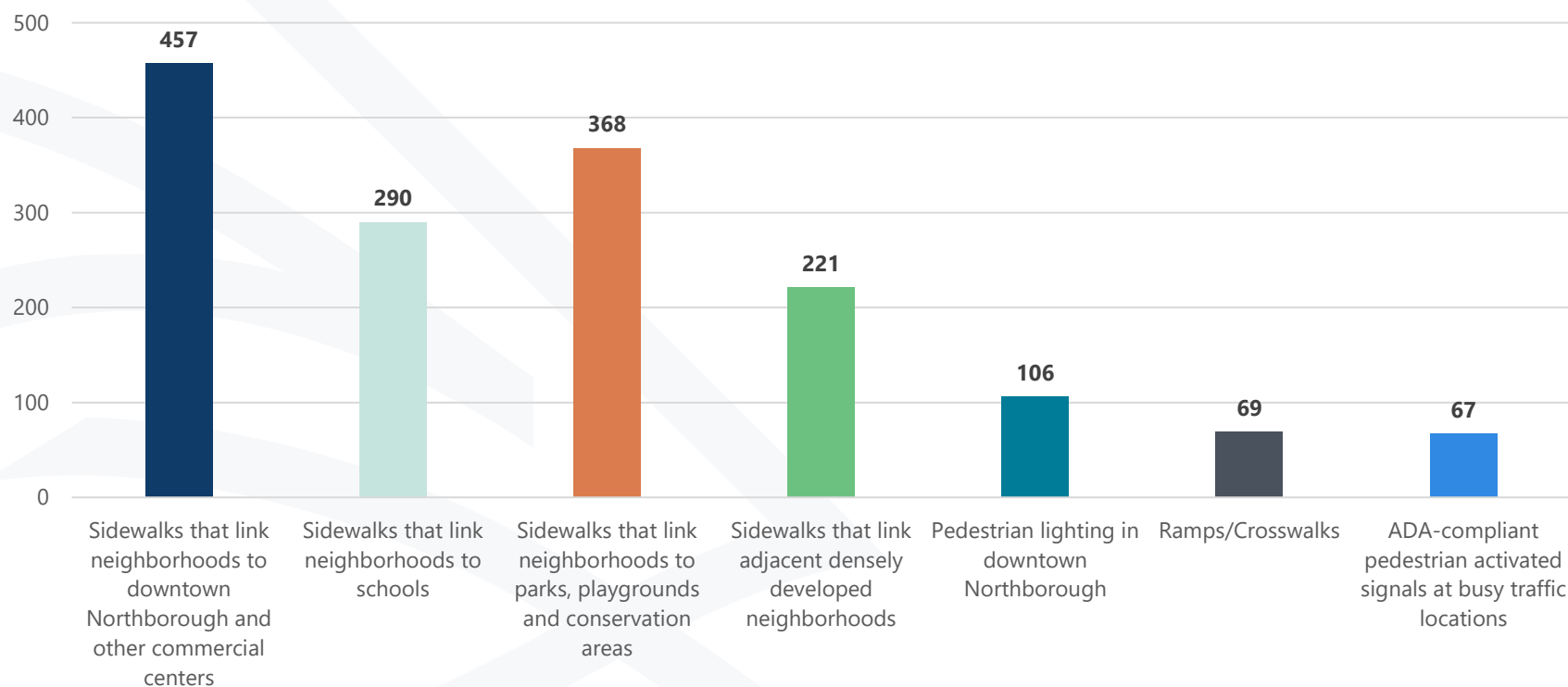
→ What two bicycle amenities do you feel are most needed?





Complete Streets Community Survey Results

→ What two pedestrian amenities do you feel are most needed?

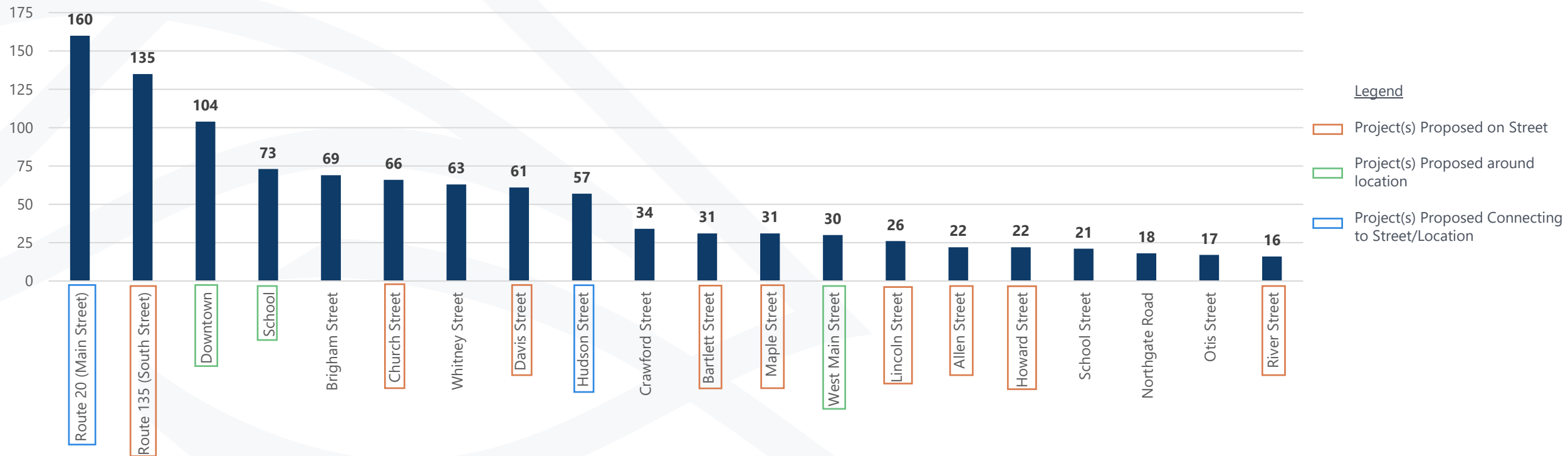


Complete Streets Community Survey Results



→ Is there a location where you would like to see a Complete Streets project implemented? If so, what type of project would you like to see?

Top 20 Locations Mentioned



Complete Streets Community Survey Results



→ Is there a location where you would like to see a Complete Streets project implemented? If so, what type of project would you like to see?

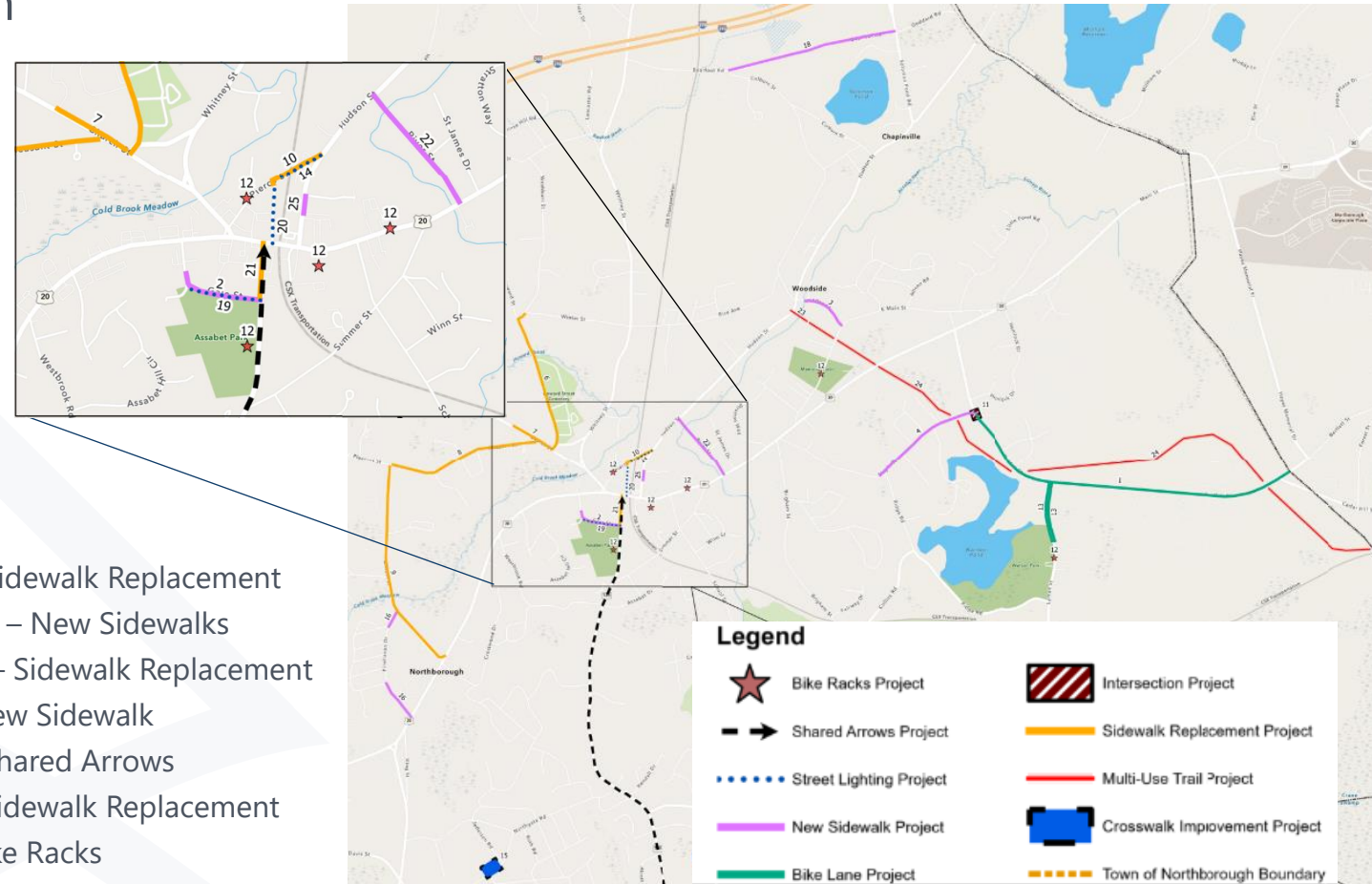
- ▶ 53% of responses included "sidewalk"
- ▶ 22% of responses included "traffic"
- ▶ 17% of responses included "bike" or "bicycle"
- ▶ 13% of responses included "light" or "lighting"
- ▶ 12% of responses included "speed" or "calming"
- ▶ 10% of responses included "intersection"

Northborough Complete Streets Prioritization Plan



→ Consists of 25 projects throughout Town totaling between \$3.5M - \$4.4M+

- ▶ Allen Street – New Sidewalk
- ▶ Aqueduct Bridge – Multi-Use Trail
- ▶ Aqueduct Trail – Multi-Use Trail
- ▶ Bartlett Street – Bike Lanes
- ▶ Bartlett & Maple Streets – Intersection Improvements
- ▶ Bearfoot Road – New Sidewalks
- ▶ Blake Street – Street Lighting
- ▶ Chesterfield Road – Crosswalk Improvements
- ▶ Church Street – Sidewalk Replacement
- ▶ Davis Street – New Sidewalk
- ▶ Gale Street – New Sidewalk
- ▶ Gale Street – Street Lighting
- ▶ Howard Street – Sidewalk Replacement
- ▶ Hudson Street – New Sidewalk
- ▶ Lincoln Street – Sidewalk Replacement
- ▶ Lyman Street – Bike Lanes
- ▶ Maple Street – New Sidewalk
- ▶ Pierce Street – Street Lighting
- ▶ Pierce Street – Sidewalk Replacement
- ▶ Pinehaven Drive – New Sidewalks
- ▶ Pleasant Street – Sidewalk Replacement
- ▶ River Street – New Sidewalk
- ▶ South Street – Shared Arrows
- ▶ South Street – Sidewalk Replacement
- ▶ Town Wide – Bike Racks

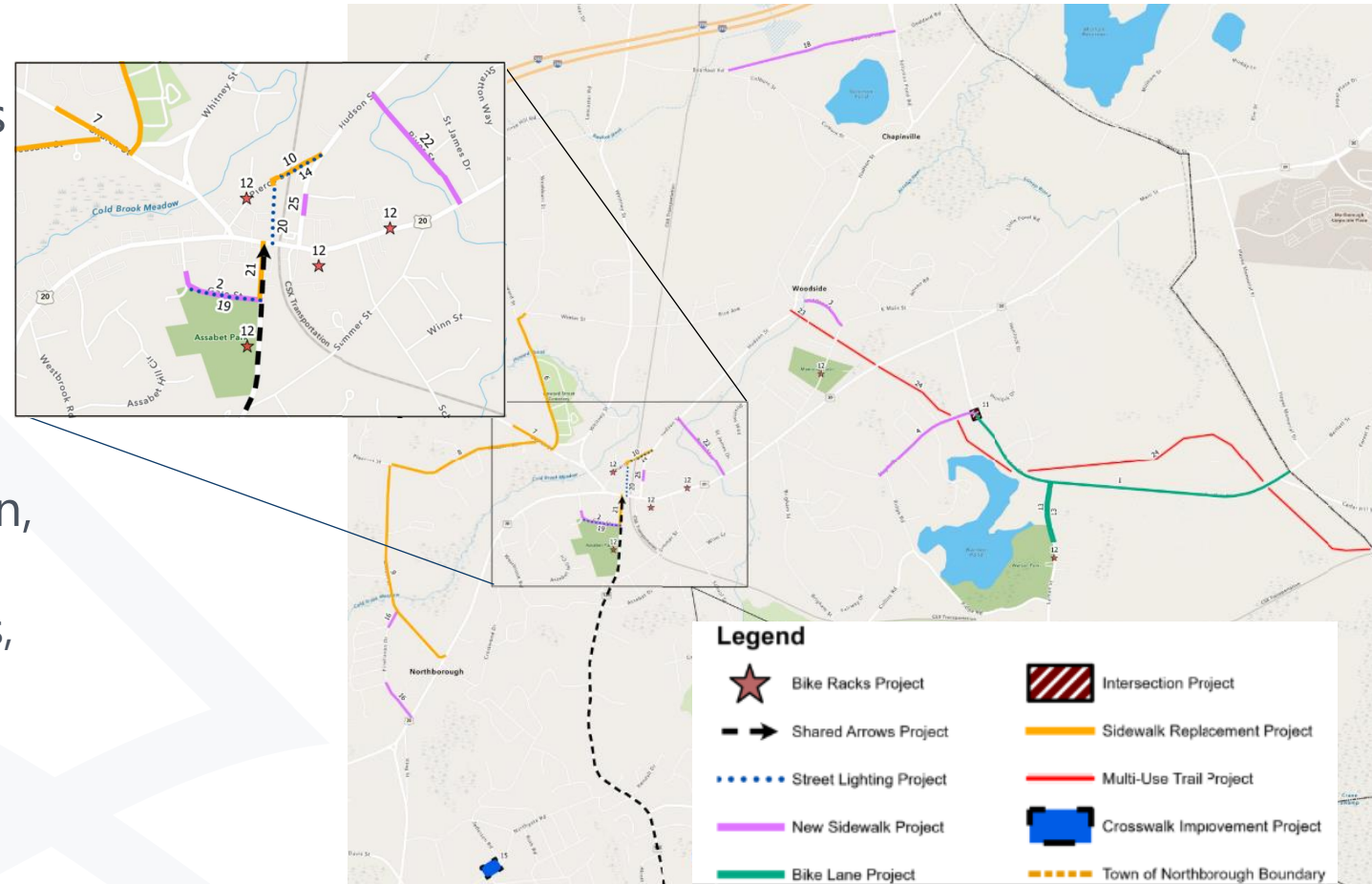


Northborough Complete Streets Prioritization Plan



→ Project types in Plan include:

- ▶ Bike lanes and/or shared arrows
- ▶ Bike racks
- ▶ Bump outs and other traffic calming measures
- ▶ Multi-purpose trails or paths
- ▶ Shoulder widening
- ▶ Sidewalk construction, extension, and/or replacement
 - » ADA detectable warning plates, crosswalks, RRFB
- ▶ Street lighting
- ▶ Street trees
- ▶ Turning lane reconfiguration



Northborough Complete Streets Prioritization Plan Project – Common Design Elements



- Pedestrian ramps with ADA detectable warning plates proposed at all street crossings
- Rectangular Rapid-Flashing Beacons (RRFBs) proposed where necessary
- Shared Arrows proposed for bicyclist use
- Bump outs used to calm traffic, reduce lane width

ADA Detectable Warning Plate



RRFB



Photo Source: MUTCD

Shared Arrows

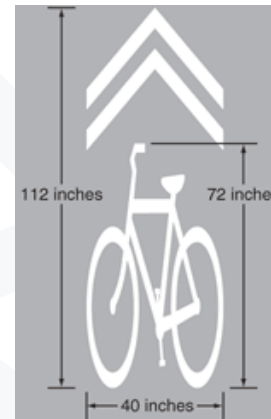


Photo Source: MUTCD

Bump Out



Photo Source: Federal Highway Administration

Northborough Complete Streets Prioritization Plan Projects



Allen Street – New Sidewalk

- Construct new bituminous sidewalk on Allen Street from East Main Street to existing sidewalk on the bridge.
- Estimated Project Cost: \$50,000 – \$75,000



Northborough Complete Streets Prioritization Plan Projects



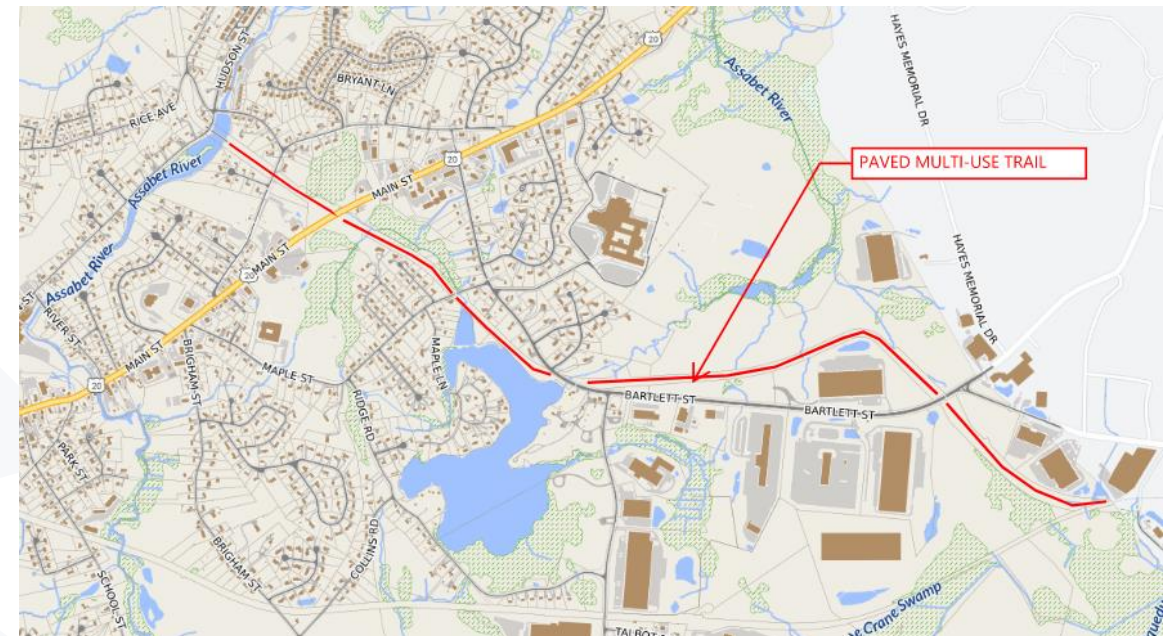
Aqueduct Bridge – Multi-Use Trail

- Construct multi-use trail from Hudson Street across Assabet River to the Aqueduct.
- Estimated Project Cost: >\$500,000



Aqueduct Trail – Multi-Use Trail

- Construct 12' wide bituminous multi-use trail including pedestrian ramps with detectable warning plates.
- Estimated Project Cost: >\$500,000

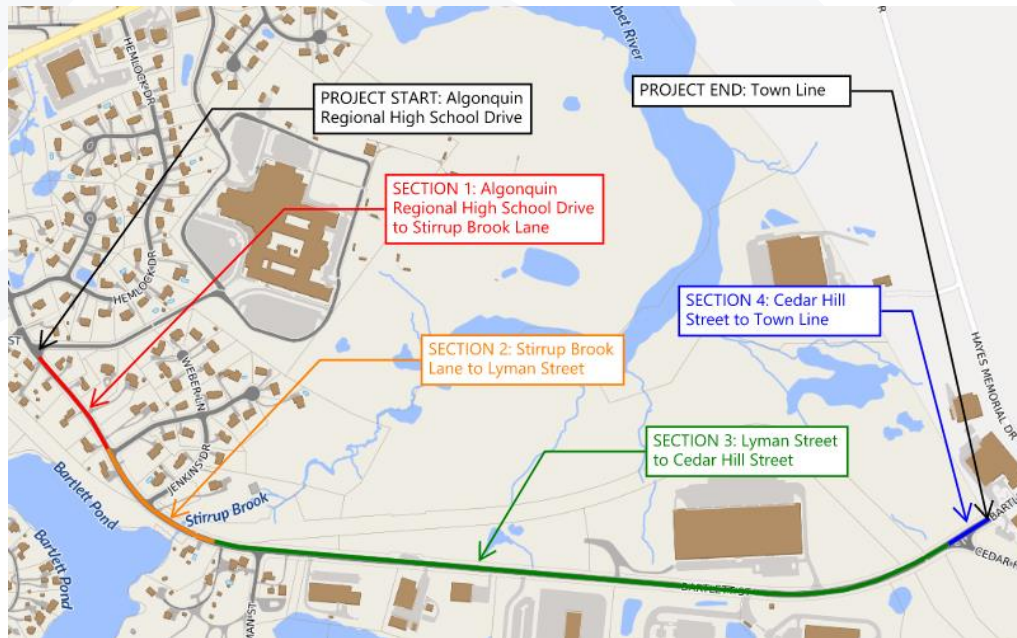


Northborough Complete Streets Prioritization Plan Projects



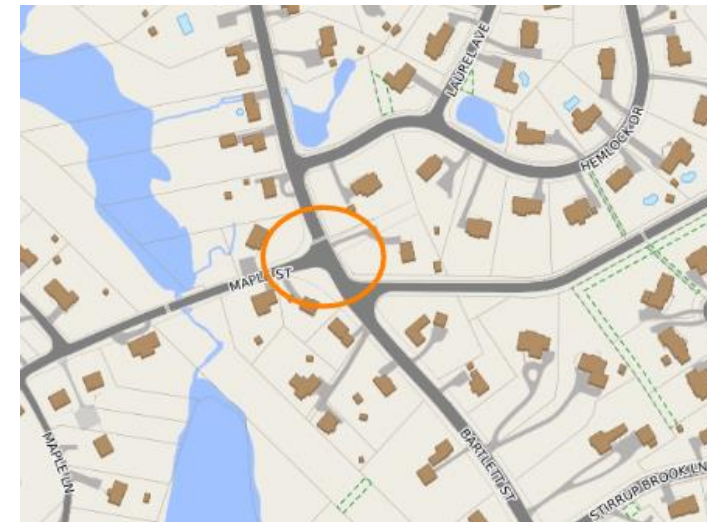
Bartlett Street – Bike Lanes

- On Bartlett Street, provide new bike lane (all Sections), widen existing shoulders of road (Sections 1 and 4), provide new on-road path (Sections 1 and 2).
- Estimated Project Cost: \$175,000 – \$265,000



Bartlett & Maple Streets – Intersection Improvements

- Combine separate left and right turning lanes out of Maple onto Bartlett Street into one lane to allow for better sight distances. Provide additional signage to discourage large tractor trailer trucks from entering Maple Street.
- Estimated Project Cost: \$2,500 – \$5,000

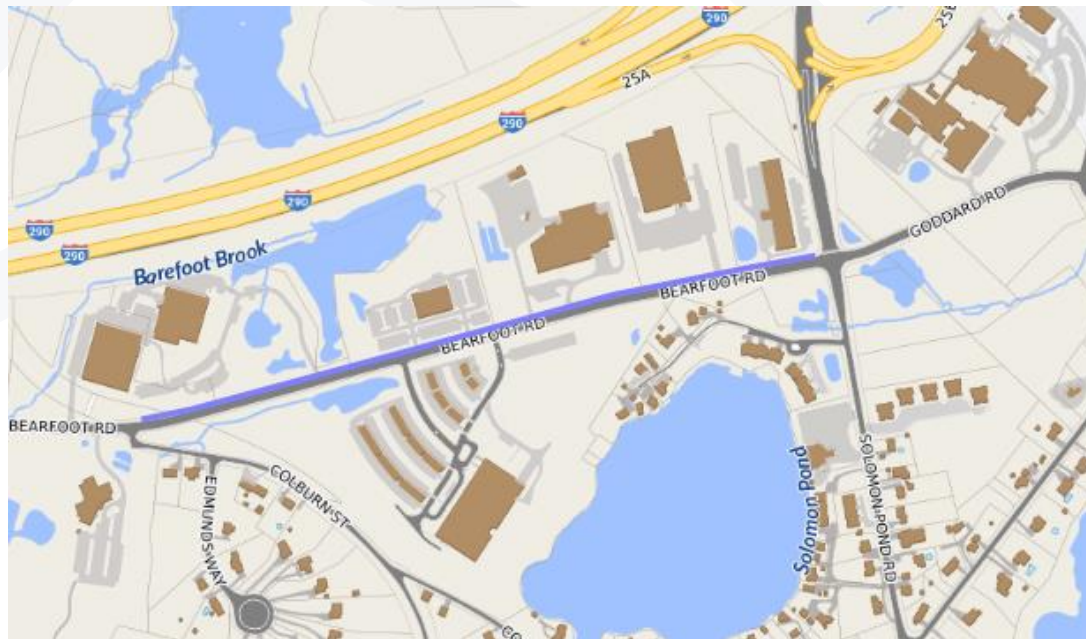


Northborough Complete Streets Prioritization Plan Projects



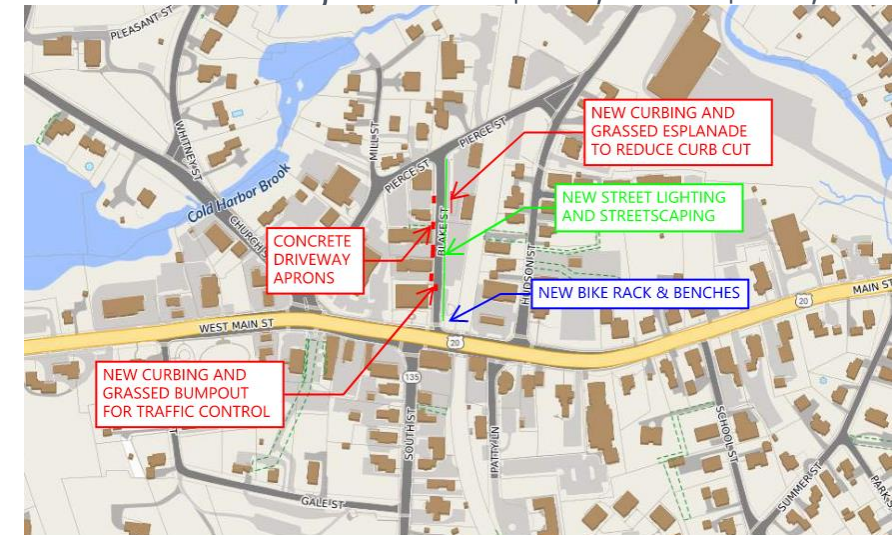
Bearfoot Road – New Sidewalks

- Provide shared pedestrian/bike path along Bearfoot Road from Industrial Park to Solomon Pond Road.
- Estimated Project Cost: > \$500,000



Blake Street – Street Lighting

- Provide street lighting and street trees along Blake Street from West Main Street to Pierce Street, curbing and grassed bump-out to reduce roadway width, curbing and grassed esplanades to reduce curb cuts, and benches and bike racks near West Main Street.
- Estimated Project Cost: \$125,000 – \$175,000

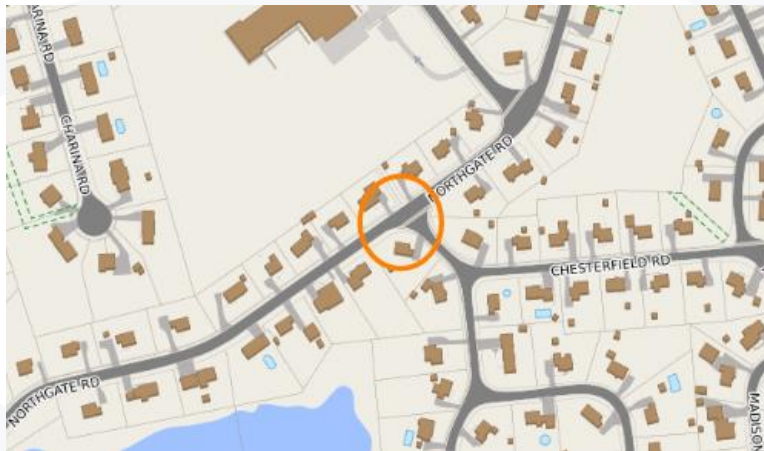


Northborough Complete Streets Prioritization Plan Projects



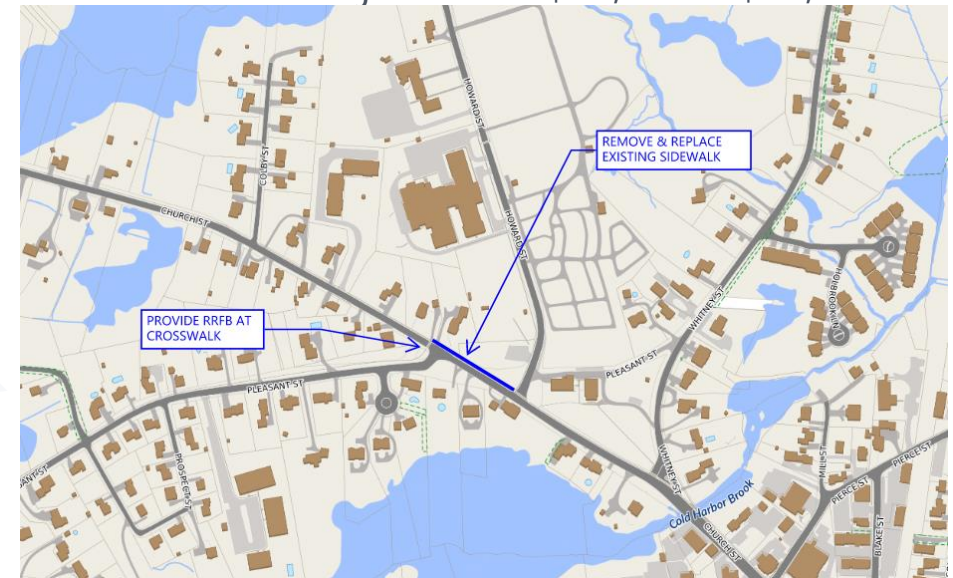
Chesterfield Road – Crosswalk Improvements

- Provide pedestrian ramps with detectable warning plates at crosswalks across Chesterfield Road and Northgate Road. Provide RRFB at Chesterfield Road and Northgate Road Crosswalks.
- Estimated Project Cost: \$25,000 – \$50,000



Church Street – Sidewalk Replacement

- Remove existing sidewalk and construct new bituminous sidewalk on Church Street from Howard Street to Pleasant Street. Provide RRFB at Church Street crosswalk.
- Estimated Project Cost: \$55,000 – \$80,000



Northborough Complete Streets Prioritization Plan Projects



Davis Street – New Sidewalk

- Construct new bituminous sidewalk on Davis Street from Lanthorn Road to existing sidewalk on Hamilton Road.
- Estimated Project Cost: \$85,000 – \$150,000

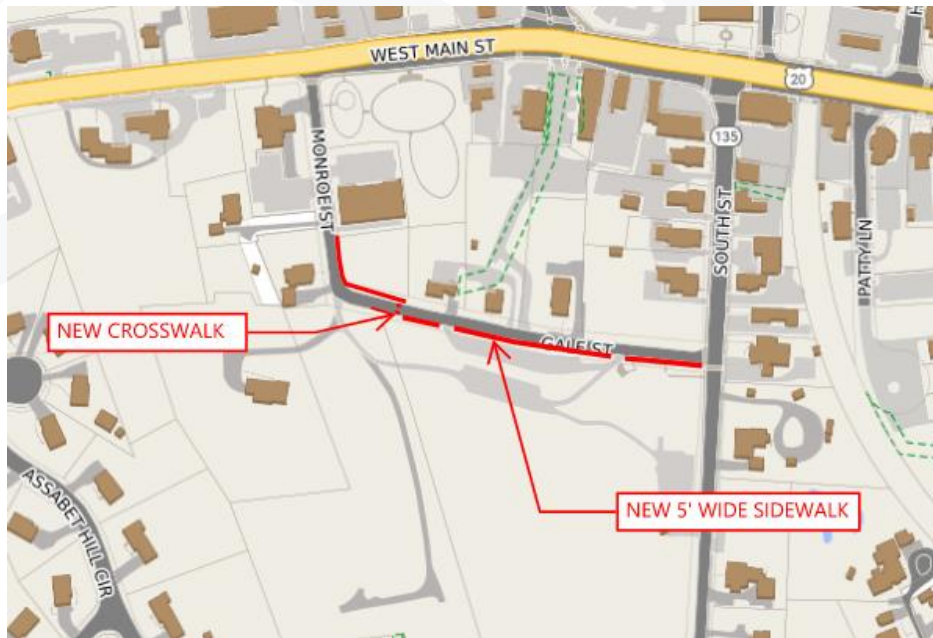


Northborough Complete Streets Prioritization Plan Projects



Gale Street – New Sidewalks

- Construct new bituminous sidewalk on Gale Street from South Street to existing sidewalk on Monroe Street.
- Estimated Project Cost: \$60,000 – \$90,000



Gale Street – Street Lighting

- Provide street lighting and street trees on Gale Street from South Street to Monroe Street.
- Estimated Project Cost: \$50,000 – \$75,000



Northborough Complete Streets Prioritization Plan Projects



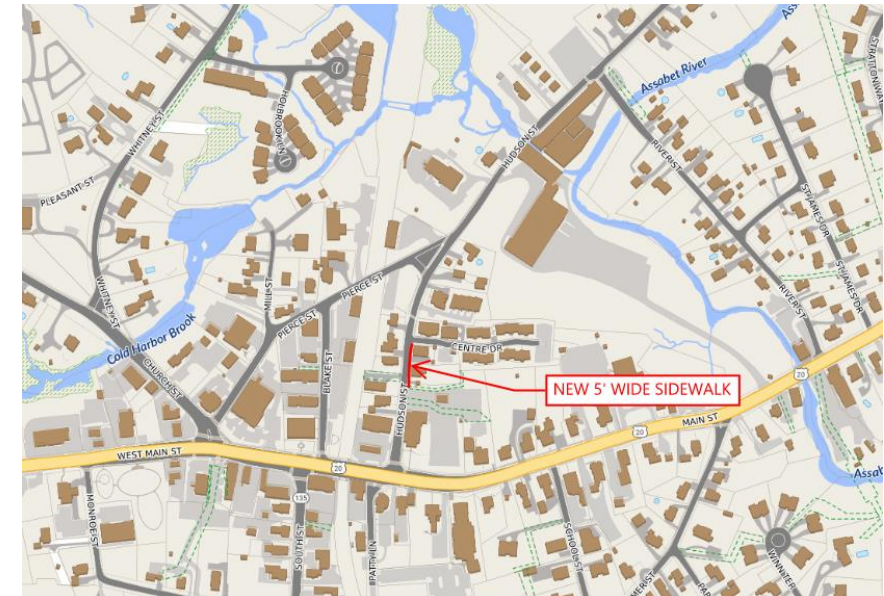
Howard Street – Sidewalk Replacement

- Remove existing sidewalk and construct new bituminous sidewalk on Howard Street from Washburn Street to Church Street.
- Estimated Project Cost: \$200,000 – \$300,000



Hudson Street – New Sidewalks

- Construct new concrete sidewalk on Hudson Street from Trinity Church to existing sidewalk on Centre Drive.
- Estimated Project Cost: \$20,000 – \$30,000



Northborough Complete Streets Prioritization Plan Projects



Lincoln Street – Sidewalk Replacement

- Remove existing sidewalk and construct new bituminous sidewalk on Lincoln Street from Pleasant Street to West Main Street.
- Estimated Project Cost: \$250,000 – \$365,000



Lyman Street – Bike Lanes

- Provide new bike lanes with pavement markings and signage on Lyman Street from Bartlett Street to Watson Park.
- Estimated Project Cost: \$155,000 – \$235,000



Northborough Complete Streets Prioritization Plan Projects



Maple Street – New Sidewalk

- Construct new bituminous sidewalk on Maple Street from Ridge Road to Bartlett Street.
- Estimated Project Cost: \$175,000 – \$250,000



Northborough Complete Streets Prioritization Plan Projects



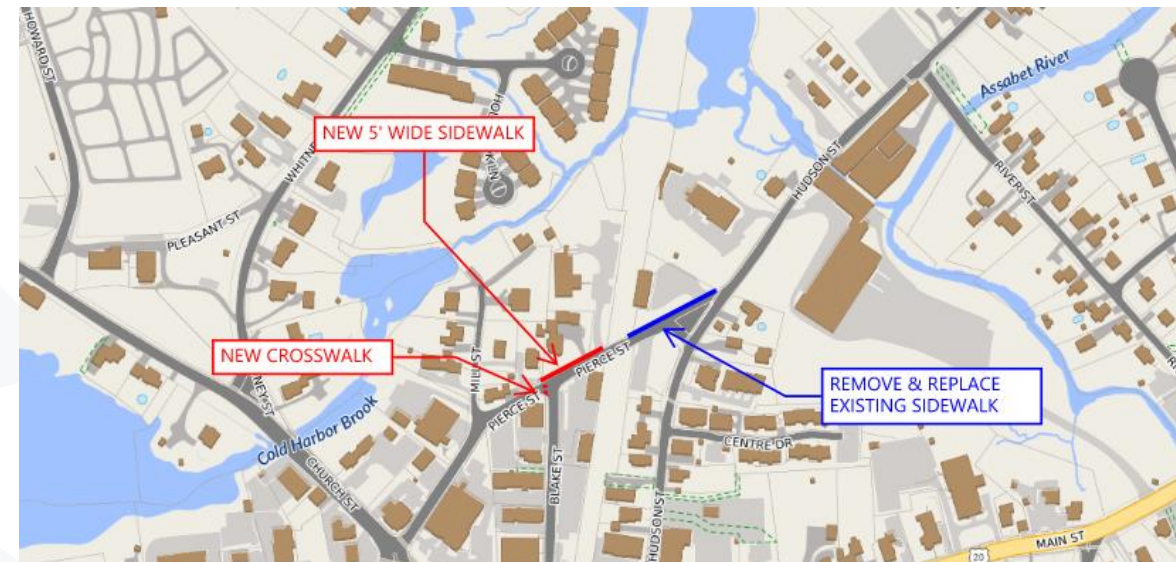
Pierce Street – Street Lighting

- Provide street lighting and street trees on Pierce Street from Hudson Street to Blake Street.
- Estimated Project Cost: \$65,000 – \$95,000



Pierce Street – Sidewalk Replacement

- Remove existing sidewalk and construct new concrete sidewalk on Pierce Street from Hudson Street to Railroad. Construct new concrete sidewalk on Pierce Street from railroad to existing sidewalk on Blake Street.
- Estimated Project Cost: \$40,000 – \$60,000



Northborough Complete Streets Prioritization Plan Projects



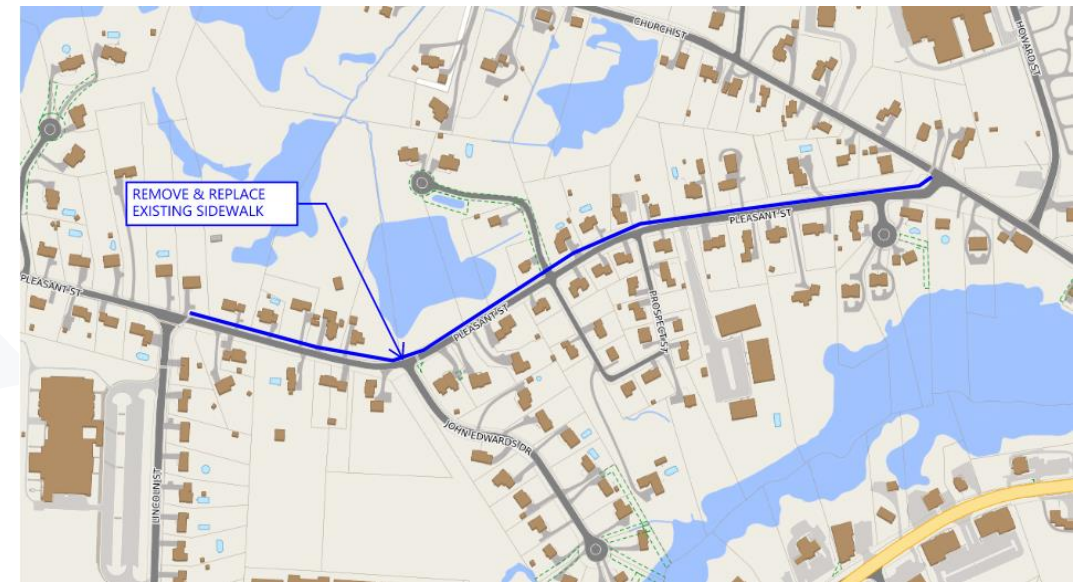
Pinehaven Drive – New Sidewalks

- Construct new bituminous sidewalks on Pinehaven Drive from West Main Street to Shadylane Avenue and from Lincoln Street to Shadylane Avenue.
- Estimated Project Cost: \$50,000 – \$75,000



Pleasant Street – Sidewalk Replacement

- Remove existing sidewalk and construct new bituminous sidewalk on Pleasant Street from Church Street to Lincoln Street.
- Estimated Project Cost: \$225,000 – \$325,000



Northborough Complete Streets Prioritization Plan Projects



River Street – New Sidewalk

- Construct new bituminous sidewalk on River Street from Main Street to existing sidewalk on bridge.
- Estimated Project Cost: \$75,000 – \$100,000

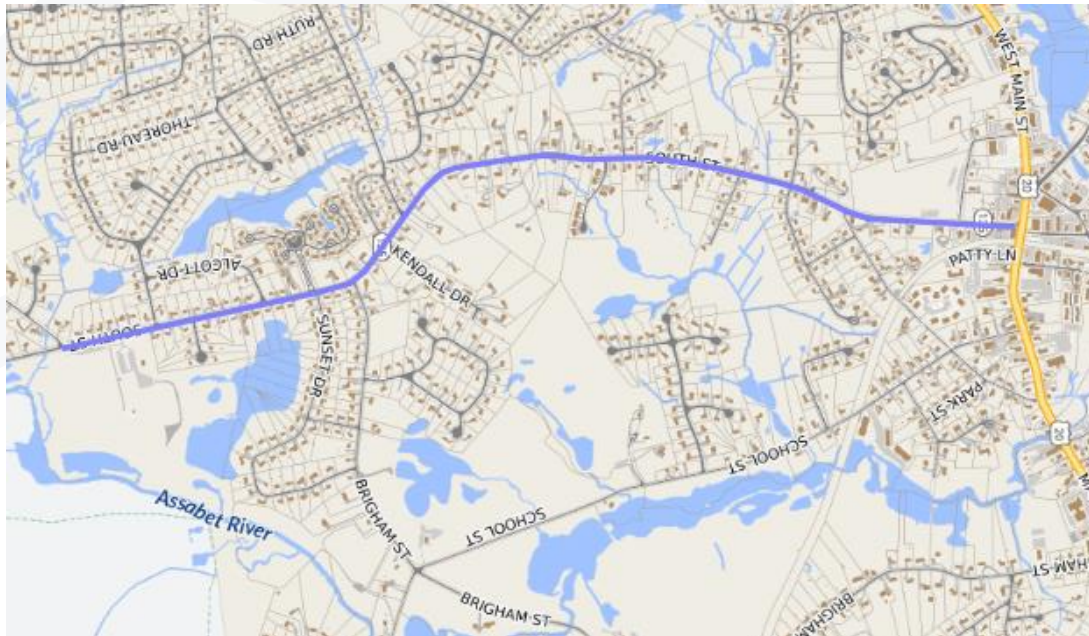


Northborough Complete Streets Prioritization Plan Projects



South Street – Sharrows

- Provide shared-use arrows on South Street from Main Street to Ellsworth McAfee Park.
- Estimated Project Cost: \$15,000 – \$25,000



South Street – Sidewalk Replacement

- Remove existing sidewalk and construct new concrete sidewalk on South Street from Main Street to Gale Street.
- Estimated Project Cost: \$35,000 – \$50,000

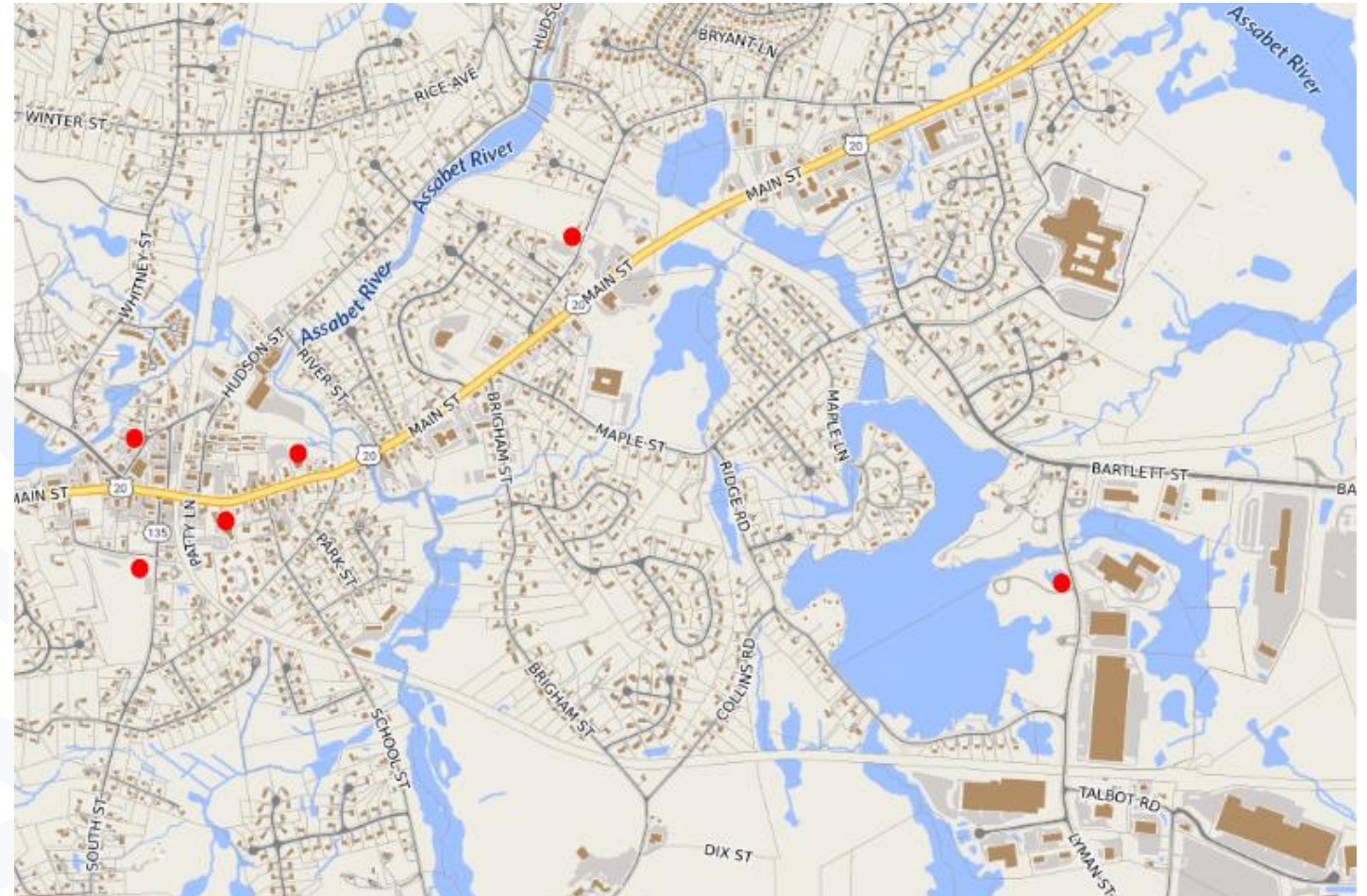


Northborough Complete Streets Prioritization Plan Projects



Townwide – Bike Racks

- Provide new bike racks at Public Locations including Library, Fire Station, Town Hall, Watson Park, Assabet Park, and Memorial Field.
- Estimated Project Cost: \$15,000 – \$30,000





Next Steps

- Obtain public feedback on projects and discuss evaluation criteria as part of tonight's public information & input session.
- Woodard & Curran & municipal staff will rank identified projects using the following evaluation criteria:
 - Benefits all users, incomes and abilities
 - Enhances/creates a safe route to school
 - Links neighborhoods to shopping, recreation areas and/or public facilities
 - Addresses gap in sidewalk network
 - ADA accessibility improvement
 - Benefits public health and the environment
 - Safety improvement
 - Shovel-ready project
 - Low-cost project or project with external funding opportunities
 - Identified as priority project via public input.





Next Steps

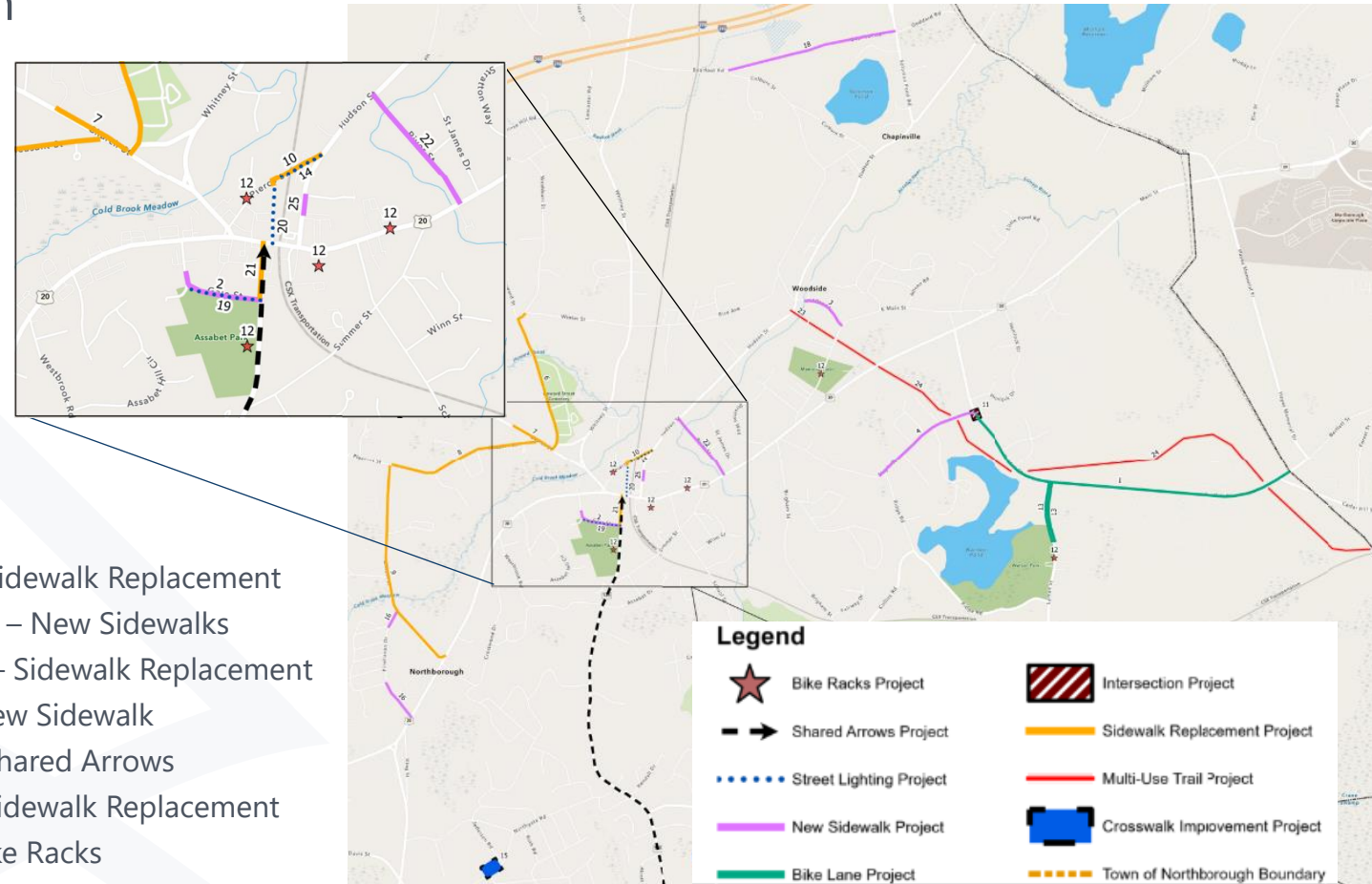
- Present Complete Streets Prioritization Plan, including rankings, to the Board of Selectmen for review and approval.
- Once approved by the Board of Selectmen, submit final Complete Streets Prioritization Plan to MassDOT for review and approval.
- Once approved by MassDOT, Town is eligible to submit funding requests for the construction of priority Complete Streets projects not to exceed \$500,000 within a 4-year period.

Northborough Complete Streets Prioritization Plan



→ Consists of 25 projects throughout Town totaling between \$3.5M - \$4.4M+

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Thank You!