

## Part 2 | Recommendations



# Overview

The primary **goals** of the recommended enhancements to the roadways, bridges, paths and intersections within, and adjacent to, the Charles River Basin include:

- promotion of walking and bicycling as transportation and recreation;
- highlighting the recreational, environmental and cultural opportunities in the Basin;
- making the Reservation accessible for all users by developing a network of paths and other facilities oriented to walkers, joggers and bicyclists of all ages and skill levels.

The **study area** stretches from the Galen Street Bridge in Watertown downstream to the Craigie Dam Bridge and Drawbridge, including areas within a few blocks of the Reservation itself. When fully implemented, the roadway, trail and bridge improvements will enhance pedestrian and bicycle connectivity to the adjacent neighborhoods, many of which currently have limited or missing connections to the river.

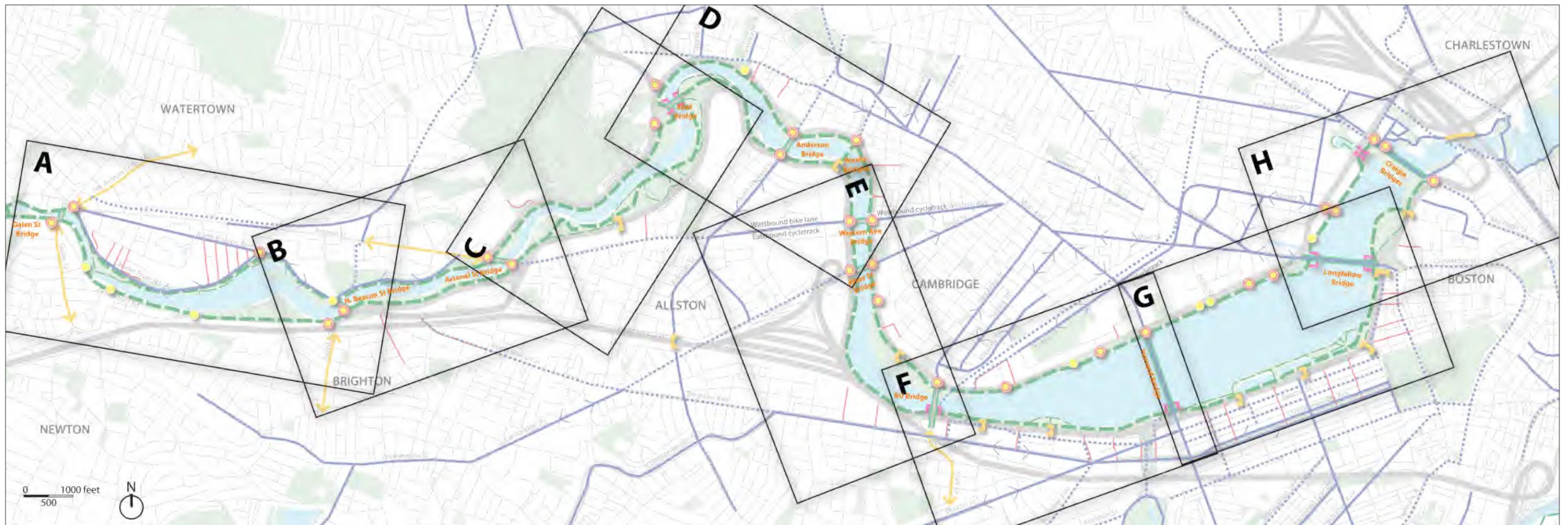
The proposed changes to the Basin are intended to connect the adjacent communities, transit and Hubway stations, and create a more coherent and well-connected network of paths, sidewalks, intersections and bike facilities.

These improvements seek to manage better the wide range of uses along the river, reduce negative impacts caused by overuse of the current infrastructure, and create a greenway network that supports sustainability in the Basin. They take into account the improved pedestrian and bike facilities that have been planned and, in some cases implemented, through MassDOT's Accelerated Bridge Program (ABP). For example, the ABP has recently included bike lanes on the Boston University Bridge and will soon design one-way cycle tracks on the River Street and Western Avenue bridges, bike lanes and intersection improvements to the Anderson Memorial Bridge and wider sidewalks and bike lanes along the Longfellow Bridge. The latter project will also include a replacement footbridge over Storow Drive from Charles Circle to the Esplanade.

In addition to the currently recommended pedestrian and bicycle facilities, the MassDOT ABP bridge teams have also studied the potential for underpasses below the intersections at the Anderson, River and Western Bridges. The ABP projects will not preclude the construction of such underpasses in the future, and MassDOT has committed to implement one underpass (at the South end of Anderson Bridge) in close cooperation with DCR, if it receives all required permits and has no adverse impacts to wetland resources and parkland.

The planning-level recommendations above are expected to be designed, funded and implemented, over time, with reference to MassDOT's ABP projects, the City of Boston's Bike Master Plan, the Esplanade 2020 Plan and DCR's on-going maintenance and upgrades of pathways and parkland within the Charles River Reservation.

For this Study, the 8-mile long Charles River Basin is divided into 8 sections (A-H). Recommendations for the north and south banks of each section are described on the following pages.



38. Key to the recommendation sections.

## Section A Galen Street Bridge to North Beacon Street Bridge

The Charles River Reservation between the Galen Street Bridge and the North Beacon Street Bridge is well connected along the Basin, although many improvements can be made to better connect the neighborhoods in Watertown, Newton and Brighton to the Basin. The western extent of the Connectivity Study area is Watertown Square and the Galen Street Bridge.

**North Bank.** On the north side of the river, the major corridors on which to focus bicycle and pedestrian connectivity improvements are Main Street, Mount Auburn Street, North Beacon Street, and Charles River Road. Though Main Street currently contains no facilities for bicyclists, re-striping the roadway with narrower travel lanes could provide enough space for standard-width bike lanes (see Figure 39).

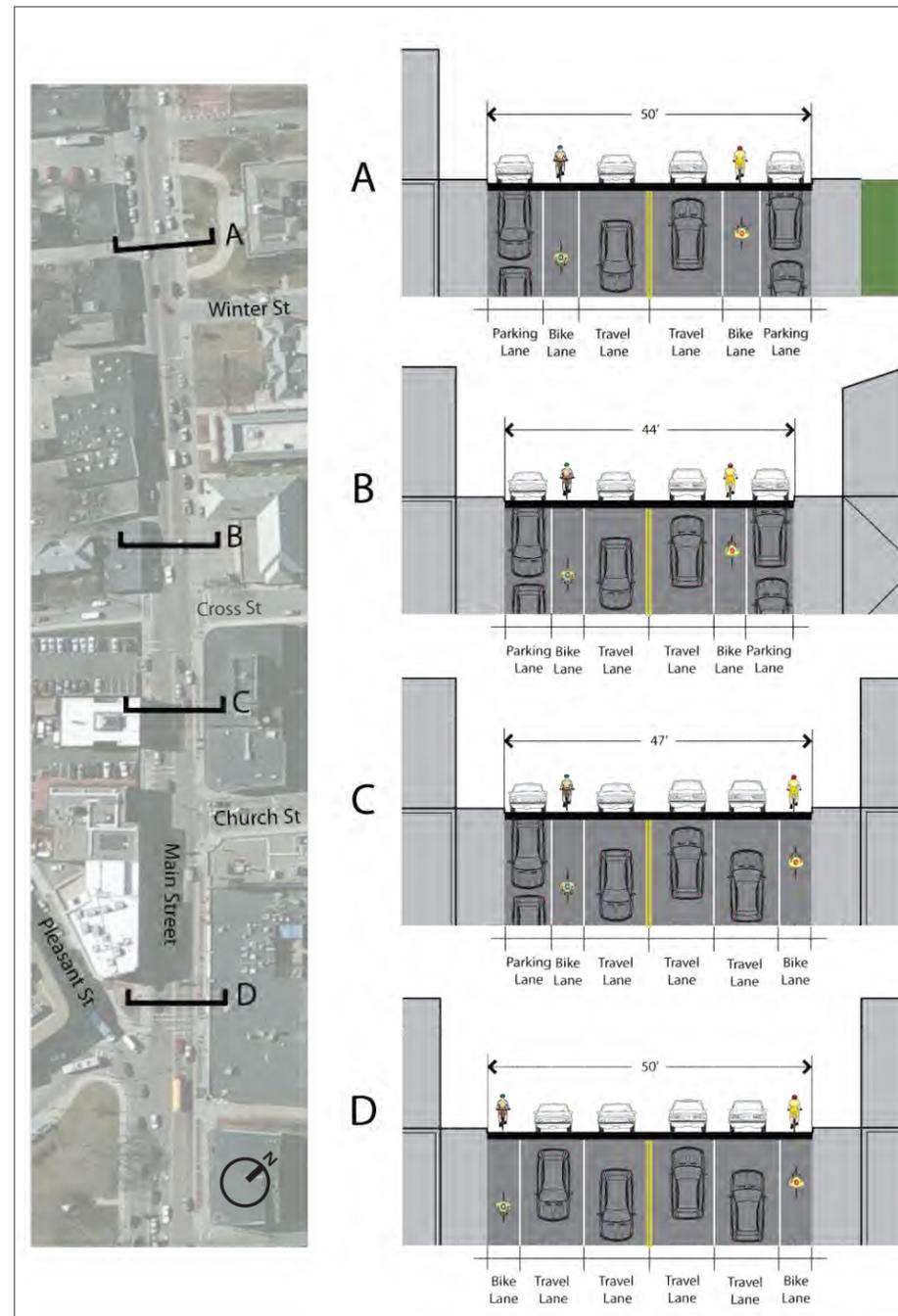
The existing bike lanes on Charles River Road and on North Beacon Street both end before they reach the intersection at Watertown Square. Shared lane markings should be added to continue the facilities to the intersection.

The intersection of Galen and Mount Auburn Streets creates a difficult connection between the east and west sections of the Charles River Reservation and path system. This can be improved by widening the sidewalk on the west side of Mount Auburn Street which leads between the Mount Auburn Street crosswalk and the trailhead of the path system to the west. Although raised crosswalks may not be suitable here (due to the electric bus traffic), high-visibility crosswalks and signage can be added to delineate the path crossing for motorists. An upcoming curb realignment project, to be completed by the Watertown Department of Public Works, may be a good opportunity to implement some of these improvements.

High visibility crosswalks should be added to the crossings at Mount Auburn Street and Charles River Road to the Charles River Reservation. Because it is visible from Watertown Center, this location is a good place for a gateway to the reservation, which may include benches, wayfinding, interpretive signage or public art. DCR has recently made improvements to the nearby dock to make it ADA compliant.

The **Watertown Riverfront Restoration Plan**—a public/private collaborative initiative—includes design documents for the restoring and improving the mile-long riverfront park south of Charles River Road between Watertown Square and Beacon Street. The overall plan specifies new access points and paths, riverbank restoration, and river overlooks.

Several new crossings across Charles River Road are planned, including on-street improvements that connect down Irving, Beechwood and Paul Streets. Although Beechwood Street may not be the preferred biking route due to topography, it may still serve as a valuable pedestrian connection from Charles River Road to North Beacon Street and Arsenal Street at signalized intersections. All on-road improvements should include 5- to 6-foot sidewalks, ADA-compliant curb ramps, bike lanes or shared use lanes, street trees,



39. Cross sections of Main Street in Watertown Square show how bike lanes can be accommodated on a roadway of varying widths.

enhanced lighting, and wayfinding signage. The improvements on Irving Street, including a signalized crossing at the Charles River Road intersection, will provide connection to Perkins School for the Blind, as well as to the proposed Watertown Community Path.

The first phase of the Plan, currently under construction, involves a 12-acre, 3,200-foot-long, section of parkland in close proximity to the Perkins School for the Blind. It includes a wheelchair-accessible Braille Trail and sensory garden, to provide expanded opportunities for engaging with and enjoying the qualities of the riverine environment for visitors with visual impairments or other disabilities.

To create better connections between road crossings, the sidewalk on the north side of Charles River Road should be completed from the Perkins School eastward to North Beacon Street.

Improved crossings are needed where Charles River Road meets North Beacon Street north of the Watertown Yacht Club. This area is a pinch point for the path system, and the pavement should be widened to at least 10 feet.

At the north end of the North Beacon Street Bridge is an unsignalized intersection, four lanes wide, with a free right turn from the bridge onto Greenough Boulevard, making it a very difficult intersection for pedestrians and bicyclists to cross. The addition of a flashing signal or a refuge island will help assist this crossing. Other possible improvements include a bicycle jug handle to assist cyclists making the left turn from North Beacon Street onto Greenough Boulevard and a road narrowing to reduce the number of lanes on the bridge. Ultimately, the number of lanes over the bridge should be reduced to provide space for bike lanes.



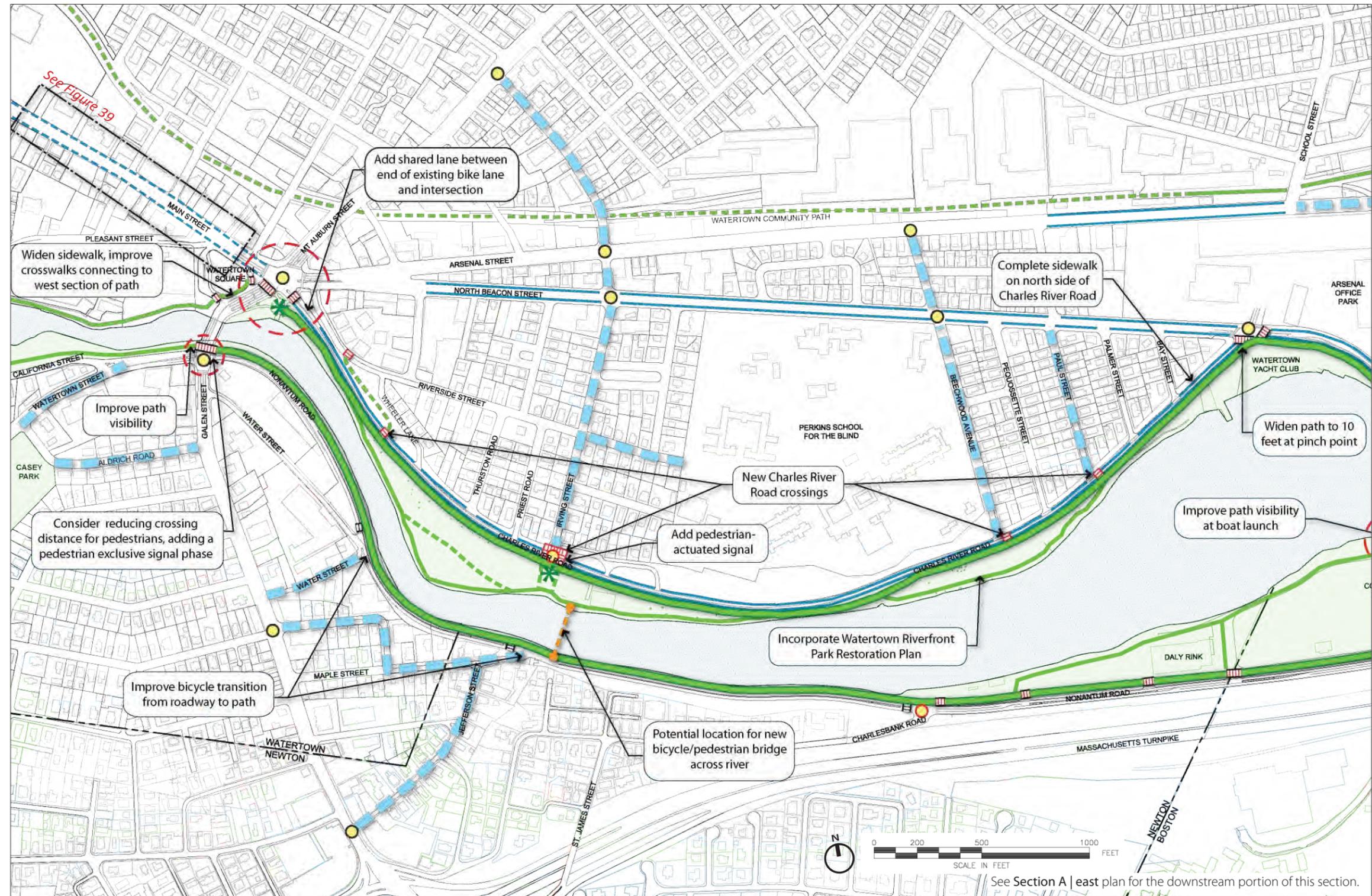
Figure 40

# Recommendations

## Section A | west Galen Street Bridge to North Beacon Street Bridge

### Legend

- Existing crosswalk, no improvements needed
- Existing crosswalk, needs improvement
- Proposed crosswalk
- Existing/funded signal
- Proposed signal
- Existing ped bridge/overpass
- Proposed ped bridge/overpass
- Existing Hubway station
- Existing/funded bike lane/cycle track
- Proposed bike lane/cycle track
- Existing/funded multi-use path/sidewalk (primary)
- Existing/funded multi-use path/sidewalk (secondary)
- Proposed multi-use path
- New path/landscaping/reduced lanes
- Proposed bike/ped and street-scape improvements within ROW
- Reconfiguration of intersection recommended
- Entry node to the river with art, seating, lighting, landscape elements and small plaza features



## Section A Galen Street Bridge to North Beacon Street Bridge continued

**South Bank.** On the south side of the Charles River, visibility to the path on the west side of the Galen Street Bridge needs to be improved. A high-visibility crosswalk should connect the two sides of the path across the south end of the Galen Street Bridge. The southwest corner of the bridge should be examined to see if a small turning radius or a curb extension can make the crossing distance shorter. Signal phasing should also be studied here to create an exclusive phase for pedestrians wishing to cross diagonally from the west side of the bridge to the bus depot on the southeast side of the intersection.

The connection to Casey Park, southwest of the Galen Street Bridge, should be improved via on-street improvements of Watertown Street and/or Aldrich Road.

Building on the recent improvements along Nonantum Road, new crossings can be added to the streets that connect Galen Street to the riverfront path system. These include Water Street, Jefferson Street and Hunt/Maple Street. A curb ramp should be added to the north side of Jefferson Street so that bicyclists may use the crosswalk on the west side of the Jefferson Street/Nonantum Road intersection.

In the 2002 Charles River Master Plan, a new trail bridge is recommended over the Charles River between the Galen Street Bridge and North Beacon Bridges. This new bridge would connect the Maple Street/Nonantum Road intersection in Newton with a heavily used playground area and basketball courts in Watertown. It would also provide the opportunity for walkers and bicyclists to do mini-loops between two existing bridges that are nearly a mile and a half apart.

Greater path visibility is needed near the boat launch just north of the Community Rowing Boathouse building to eliminate the conflict with people using the pathway.

Brooks Street is one of a few streets that connect under the Massachusetts Turnpike to the Brighton neighborhood. On-street improvements to this roadway can enhance the connection to the path, facilitated by a traffic signal and crosswalk at Nonantum Road.

On the south end of the North Beacon Street Bridge, a new crossing is recommended between the bridge and the south side of Nonantum Road by the Brighton-Allston pool. This is a desire line for pedestrians, joggers and cyclists.

A connection is needed between the intersection of North Beacon Street and Greenough Boulevard and the Watertown Community Path to the north. The Watertown Community Path has regional connections to the Alewife Greenway in Cambridge, the Minuteman Bikeway and the Mystic River. There are several options for linking this path to the Charles River Reservation. The recommended route, Option 1, connects people from the Greenough Boulevard/North Beacon Street intersection through Arsenal Park and the Arsenal Mall parking lot (Figure 42). Much of this route runs through private property between DCR and the mall.



41. Existing and proposed view of the Arsenal Mall connection.



42. Proposed alternative connections from the Charles River to the Watertown Community Path through the Arsenal Mall and Arsenal Park.

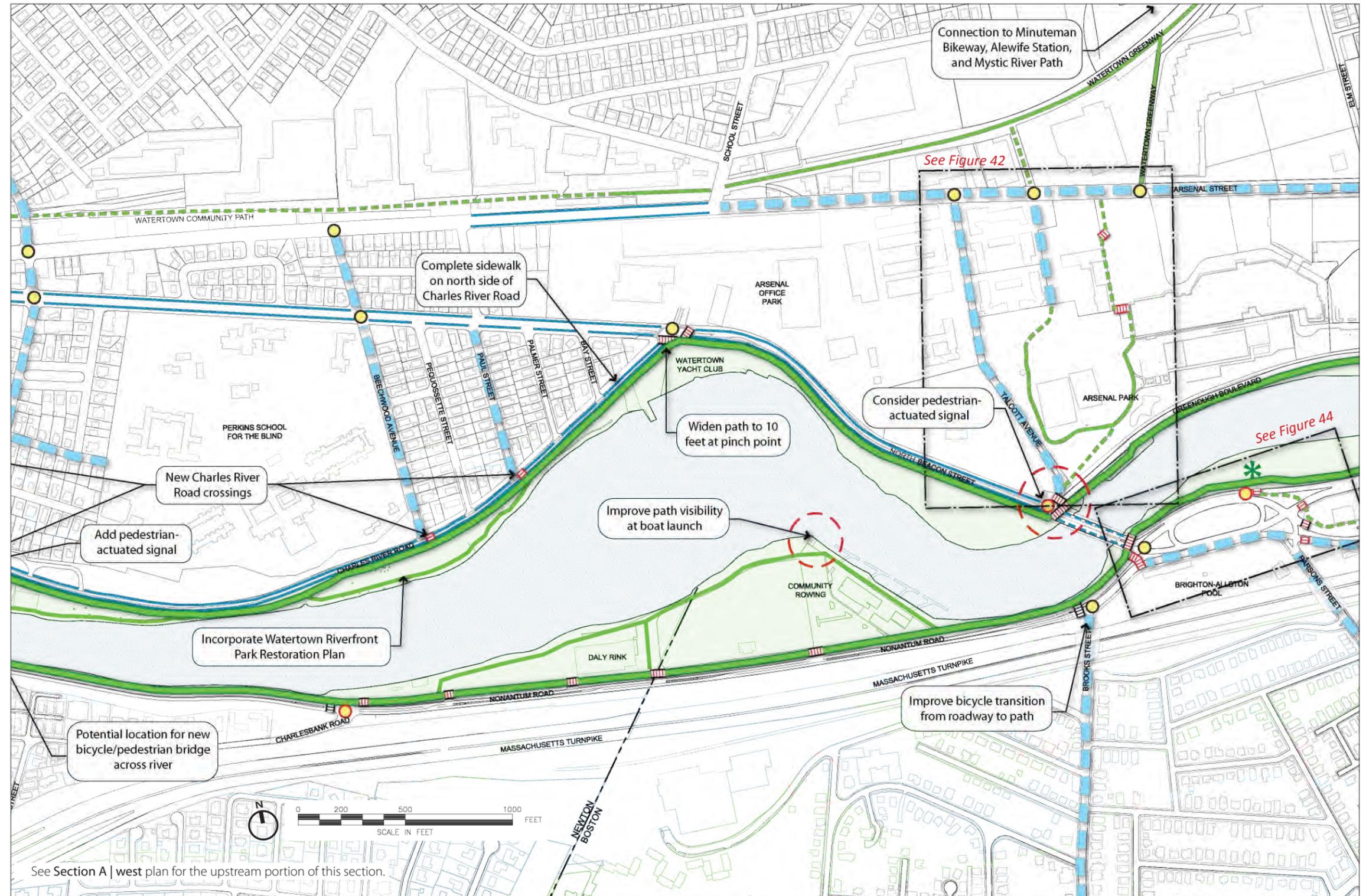
Figure 43

# Recommendations

## Section A | east Galen Street Bridge to North Beacon Street Bridge

### Legend

-  Existing crosswalk, no improvements needed
-  Existing crosswalk, needs improvement
-  Proposed crosswalk
-  Existing/funded signal
-  Proposed signal
-  Existing ped bridge/overpass
-  Proposed ped bridge/overpass
-  Existing Hubway station
-  Existing/funded bike lane/cycle track
-  Proposed bike lane/cycle track
-  Existing/funded multi-use path/sidewalk (primary)
-  Existing/funded multi-use path/sidewalk (secondary)
-  Proposed multi-use path
-  New path/landscaping/reduced lanes
-  Proposed bike/ped and street-scape improvements within ROW
-  Reconfiguration of intersection recommended
-  Entry node to the river with art, seating, lighting, landscape elements and small plaza features



## Section B North Beacon Street Bridge to Arsenal Street Bridge

The reservation between the North Beacon Street Bridge and the Arsenal Street Bridge needs connectivity improvements, primarily at the bridge intersections on the north and south sides.

**North Bank.** Improvements along Arsenal Street will improve access to the reservation at the Arsenal Street Bridge. On-street enhancements should be considered along Arsenal Street between the existing bike lanes at the School Street intersection and the Arsenal Bridge. The sidewalk on the north side should be widened to provide a pedestrian connection to Greenough Boulevard, particularly on the block between Coolidge Avenue and Greenough Boulevard.

Crossings at the intersection on the north side of the Arsenal Street Bridge should be improved with high-visibility crosswalks. The two sections of Greenough Boulevard that are discontinuous at Arsenal Street should be realigned so that they connect at a simple 4-way intersection.

**South Bank.** On the south side of the Charles River, the rotary intersection south of the North Beacon Street Bridge is a very difficult intersection for pedestrians and bicyclists to

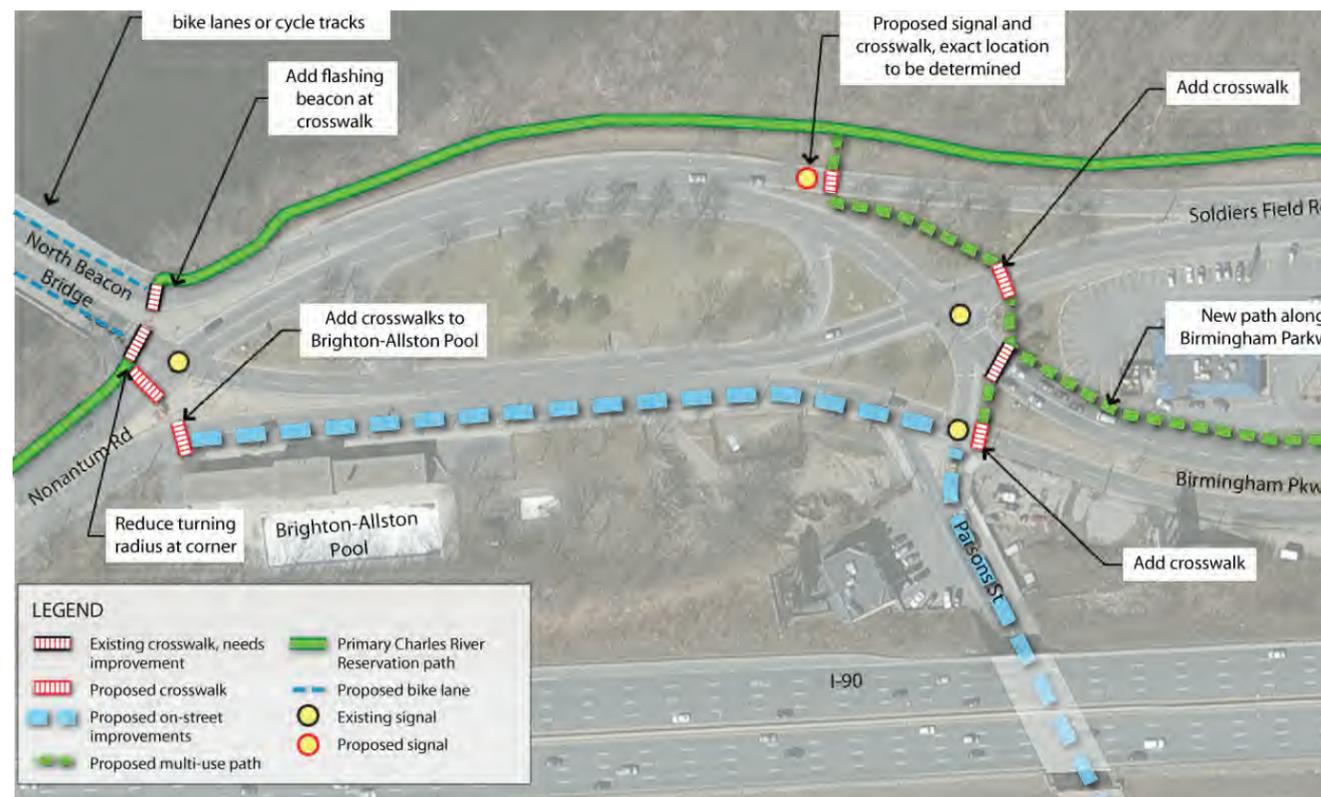
navigate. Long-term study is needed to determine if a reconfiguration of this intersection can improve bicycle and pedestrian connectivity, as well as motor vehicle flow.

There are short-term improvements that can be made to the existing rotary. Parsons Street, like Brooks Street, provides a connection under the Massachusetts Turnpike to the Brighton neighborhood. On-street improvements, such as widened sidewalks and bicycle facilities, should be made to Parsons Street in addition to new crossings that connect Parsons Street to the reservation. The addition of crosswalks across Leo Birmingham Parkway and Soldiers Field Road will make this desire line a safe crossing. A study of the Soldiers Field Road crossing is needed to determine if a pedestrian-actuated signal is appropriate. A flashing beacon is recommended on the Boston-side of the North Beacon Street bridge to warn motorists turning right onto the bridge of the path crossing there. Bike lanes are recommended for Parsons Street and North Beacon Street in the Boston Bicycle Master Plan, still in progress.

The North Beacon Street Bridge should be reconfigured from four to three lanes to provide space for a cycle track across the river. This will improve bike connections from Watertown to the Nonantum Road path and help cyclists heading into Watertown to avoid the right-turn lane from the bridge onto Greenough Boulevard.

Soldiers Field Road and Leo Birmingham Parkway are parallel roadways. Further study is needed to determine if the Birmingham Parkway is a candidate for road narrowing. The section of the Parkway between Parsons Street and North Beacon Street may be needed for queuing at the rotary. The addition of a path or a wide sidewalk on the north side of the roadway is recommended. Crosswalks should be added to the signalized intersection at North Beacon Street and Birmingham Parkway. From this intersection eastward to the Lincoln Street intersection, Birmingham Parkway can likely be narrowed from four lanes to two lanes, providing ample space for a separated shared-use path and additional parkland. At the Lincoln Street intersection, new crosswalks should be added to connect across the Parkway.

Further on-street improvements can be made to the Market Street/Birmingham Parkway corridor to enhance the connection from Brighton Center to the river. The intersection of Western Avenue and Birmingham Parkway can be improved with the addition of new, high-visibility crosswalks connecting to the reservation. Birmingham Parkway should be considered for a lane reduction here. Narrowing from four to three northbound lanes would allow for a curb extension to facilitate the pedestrian crossing.



44. Bicycle and pedestrian improvements at the North Beacon Street Bridge/Soldiers Field Road/Parsons Street/Birmingham Parkway rotary



45. Soldiers Field Road near the proposed new crossing to the reservation



Figure 46

# Recommendations

## Section B

### North Beacon Street Bridge to Arsenal Street Bridge

#### Legend

- Existing crosswalk, no improvements needed
- Existing crosswalk, needs improvement
- Proposed crosswalk
- Existing/funded signal
- Proposed signal
- Existing ped bridge/overpass
- Proposed ped bridge/overpass
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- Existing/funded bike lane/cycle track
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