Lower Falls Shared-Use Trail Feasibility Study Leo J. Martin Golf Course to Quinobequin Road

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# **Acknowledgements**

The Massachusetts Department of Conservation and Recreation (DCR) would like to thank our many partners, listed below, as well as the community members who attended stakeholder and public outreach meetings and provided their input throughout the Lower Falls Shared-Used Trail Feasibility Study process.

#### **Legislators**

- The Office of State Senator Cynthia Creem
- The Office of State Representative Kay Khan

#### State Agencies

- MassDOT Bicycle and Pedestrian Advisory Board and Environmental Planning
- Metropolitan Area Planning Council

#### **City of Newton**

- Chief Operating Officer
- Civil Engineering
- Environmental Planning
- Transportation Planning

#### **Town of Wellesley**

- Council on Aging
- Natural Resources Commission, Trails Committee
- Planning Department
- Department of Public Works, Engineering Division
- Wetlands Protection Committee

#### **Stakeholders**

- Charles River Watershed Association
- Newton Conservators
- Newton Lower Falls Improvement Association
- Riverside Greenway Working Group
- The Solomon Foundation

# **Executive Summary**

In collaboration with community advocates and stakeholders, the Massachusetts Department of Conservation and Recreation (DCR) has been implementing the Charles River Greenway vision for decades. With the approval of the Riverside Station project by Mark Development, and the proposed renovations to Riverside Park trails and "Two Bridges," the abandoned Boston and Albany railroad crossings over Recreation Road and I-95, DCR decided to undertake the *Lower Falls Shared-Use Trail Feasibility Study* to synthesize the various proposals for trail connections through the Newton and Wellesley Lower Falls neighborhoods and develop a preferred scheme for planning purposes. In addition, legislative funding provided that "not less than \$50,000 shall be expended for the Department of Conservation and Recreation to conduct a study of the opportunities, challenges, and cost of developing the current informal trail, that runs on department land beside Quinobequin road in the city of Newton between Routes 9 and 16 connecting the Leo J. Martin memorial golf course with Hemlock gorge, into a formal trail." The Lower Falls project area extends from the western landing of Two Bridges, southwest to the Trestle Bridge and then southeast to the I-95 overpass on Quinobequin Road (*See Fig. 1*). AECOM was retained in April of 2020 for a 6-month study. The following considerations framed the work of the feasibility study:

- The community is in favor of trail connections through the neighborhood. Many stakeholders—including the Riverside Greenway Working Group and Solomon Foundation—have studied this area over the years. The various proposals are summarized in *Section 2: Past Planning Efforts*.
- The ownership of the former Boston and Albany railroad right of way that begins at Pine Grove Avenue and ends at Concord Street (north of the existing Trestle Bridge) is under litigation and was not considered as an option in this study.
- DCR cannot legally construct projects on land owned by others without easements and therefore
  wanted as much of the proposed shared-use trail route to be located on DCR or state land. The
  proposed trail will be an integral part of implementing the Charles River Greenway vision, and therefore
  a trail along Charles River Reservation, providing access to the river while protecting natural and
  cultural resources, was the preferred alignment.
- DCR's Leo J. Martin Memorial Golf Course is a popular year-round recreation destination, with golf, cross country trails and Nordic ski trails. DCR is reviewing the feasibility of a master planning process to better accommodate the different programs. At that time, the various active recreation programs can be better integrated with passive trails and a landscape management plan to protect water quality, enhance the riverine habitat and eco-system function as well as protect cultural resources.
- Within the study area, Route 16/ Washington Street ownership changes from MassDOT, City of Newton, MassDOT and the Town of Wellesley. Route 16 will undergo renovations by the City of Newton to create a Complete Streets design. At that time, the Lower Falls shared-use trail can be coordinated with Wellesley and MassDOT—and DCR as a stakeholder—to create safe, accessible trail connections and required crosswalks and signals.
- DCR is developing a concept design for Quinobequin Road from Route 9 to the I-95 overpass. A shareduse trail is proposed along the Charles River side. North of the I-95 overpass, which forms part of the current study area, Quinobequin Road serves as an on and off ramp for I-95. DCR would like to collaborate with MassDOT to 1) give Quinobequin Road a road diet to better accommodate a shareduse trail and crossing, 2) give Quinobequin Road as consistent a treatment as possible, and finally, 3) increase the visual and physical access to the river along its length.

There are challenges to designing a safe, accessible shared-use trail in the project area. Planning and collaboration with DCR partners will be critically important. The preferred option, detailed on the following pages, provides a safe, accessible trail that will celebrate the Charles River.



# 1. **Project Overview and Goals**

### 1.1. **Project Overview**

The project limit of work extends from the west end of the I-95 rail bridge at Leo J. Martin Golf Course to the southeast side of the I-95 overpass on Quinobequin Road. The project area includes DCR parklands connected by Commonwealth and municipal-owned roadways.

Northeast of the project area, a mixed-use development has recently been approved at the MBTA's Riverside Station. South of the project area, the segment of Quinobequin Road from Boylston Street/Route 9 up to the I-95 overpass is now undergoing concept design for roadway improvements and a shared-use trail. The objective of this feasibility study is to propose an alignment for the Charles River Greenway connecting Riverside Station to Quinobequin Road.



Figure 1-1. North Project Area and South Project Area

For the purposes of this study, we have divided the project area into two sections. The northern section extends from Two Bridges to the Trestle Bridge and the southern section from the Trestle Bridge to the southeast side of the I-95 overpass at Quinobequin Road.

### 1.2. Project Goals

The project goals are to:

- Implement the Charles River Greenway Vision;
- Provide safe and accessible bicycle and pedestrian accommodations;
- Enhance the experience of DCR's Charles River Reservation;
- Preserve the Natural and Cultural Resources of the Reservation; and
- Utilize DCR land for project development.





Figure 1-2 River view from Trestle Bridge



# 2. Past Planning Efforts

### 2.1. Review of Past Planning Efforts

This design of a shared-use trail alignment adjacent to and within the project area has had a long history.

The project team reviewed the following documents, summarized below, and evaluated the recommendations expressed in each plan and report.

### 2.1.1. Charles River Basin Master Plan (2002)

The team reviewed the master plan and principles for preserving and protecting the Charles River reservation. The fundamental goal is to restore the Charles River Basin's landscape character while addressing 21stcentury priorities including shared-use trails. The proposed trail alignment was located by carefully considering sensitive natural and cultural resource areas, potential for improving parkland, managing and improving access to the water and improving access to and maintenance of the Charles River Basin.

The full Charles River Basin Master Plan can be found at: <u>https://www.mass.gov/guides/master-plans#-</u> charles-river-basin-master-plan-(2002)-

#### 2.1.2. Charles River Reservation Footbridge Projects/Trail Corridor Proposal

As part of the MassDOT Accelerated Bridge Program, the focus of this study was to survey and renovate the existing footbridges that span the Charles River to provide safe and improved crossings. The Lower Falls Footbridge, also known as the Trestle Bridge, a former railroad bridge, was included in this study as a candidate for conversion into a pedestrian bridge. It was renovated in 2012. Alternative pedestrian/ bicycle routes considered for the Newton, Wellesley and Weston area include a loop around the river at Leo J. Martin Golf Course—called Leo J. Martin Hiking Trails—and a more direct connection along the railroad right of way between Two Bridges and the Trestle Bridge—called Riverside Rail Trail.



Figure 2-1. Charles River Reservation Footbridge Projects



The full Charles River Reservation Footbridge Projects/Trail Corridor Proposal can be found at: <a href="https://newtonconservators.org/wp-content/uploads/2018/10/CharlesRiverResFootbridges5-7-09-1.pdf">https://newtonconservators.org/wp-content/uploads/2018/10/CharlesRiverResFootbridges5-7-09-1.pdf</a>

## 2.1.3. The Riverside Greenway Working Group Conceptual Plan April 30, 2019

A small portion of this study, the proposed Pine Grove Path (S) and DeForest Spur (T) are located within the current project area. DeForest Spur is on City of Newton property.



Figure 2-2. Riverside Greenway Working Group Trail Alignments



## 2.1.4. Newton Lower Falls Improvement Association Study, 2009

The extensive routes recommended in this study are almost all located on MassDOT, City or Town property or located outside of the project area. However, Trail Route 2 has been incorporated as part of the preferred plan (rail trail to Pine Grove Avenue). This segment is located on the railroad right-of-way, and is a direct link to Two Bridges and the Riverside MBTA station. Additionally, the physical qualities of the right-of-way (broad, level and relatively clear of vegetation) are ideal conditions for the construction of an accessible rail trail.



Figure 2-3. Newton Lower Falls Improvements Study



### 2.1.5. Riverside Greenway Working Group Conceptual Plan

The study focuses on routes that are located primarily on the east side of I-95. The key connection to Newton Lower Falls is from Two Bridges along the natural gas easement owned by the City of Newton to City streets (in yellow).



Figure 2-4. Riverside Greenway Working Group Conceptual Plan

The full Riverside Greenway Working Group Conceptual Plan can be found at: https://riversidegreenwayma.wildapricot.org/Greenway-Conceptual-Plan



## 2.1.6. Riverside Vision Plan, May 2019

The team reviewed the vision plan specifically regarding the desire of the stakeholders to connect the proposed redevelopment of Riverside Station to Lower Falls. The Riverside Greenway Working Group Conceptual Plan described above was included in the overall vision plan.

The full Riverside Vision Plan can be found at: <u>http://www.newtonma.gov/gov/planning/current/riverside\_vision\_plan.asp</u>

## 2.1.7. Route 16/ Quinobequin Road Trail Connection Alternatives, March 2020

This Solomon Foundation study developed 4 alternatives for a shared-use trail along the northern end of Quinobequin Road: Alternative A, an at-grade crosswalk; Alternative B, a culvert under the I-95 on ramp; Alternative C, an underpass under the I-95 Charles River bridge; and Alternative D, removal of I-95 on-ramp and off ramp.

The current study determined that Alternative D, removing the I-95 ramps, would be the preferred scheme. If the ramps are redundant and warrant future removal, there is the potential for a swath of open space to be re-dedicated to the Charles River Reservation and form a more cohesive shared-use trail connection to the south end of Quinobequin Road. However, MassDOT cannot commit to removing one or both ramps in the short term. Alternative B was deemed costly for a potentially unsafe condition. With steep banks on both sides of the river, and with the vertical change exacerbated by the Cochituate Aqueduct, it would be difficult to create accessible trails using the alignments described in Alternative C. Moreover, construction would disturb the river's cultural and natural resources. Therefore, until MassDOT reconfigures the area access to I-95, Alternative A is the preferred scheme.



Figure 2-5. Route 16/ Quinobequin Road Trail Connection Alternatives, Alternative A



Figure 2-6. Route 16/ Quinobequin Road Trail Connection Alternatives, Alternative D

# 2.1.8. Quinobequin Road and Trail Improvements - Concept Design, Fall 2020

This project meets with another current DCR project, Quinobequin Road and Trail Improvements – Concept Design, at the southeast side of the I-95 Overpass.



Figure 2-7. Quinobequin Road and Trail Improvements – Concept Design Project Locus Plan

The Quinobequin Road and Trail Improvements – Concept Design proposals can be found at: https://www.mass.gov/doc/quinobequin-road-and-trail-improvements-meeting-presentation-2020-10-8/download

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# 2.1.9. Road Safety Audit, City of Newton, August 2019

In 2019, VHB completed a Road Safety Audit (RSA) for the following locations in the City of Newton that overlap with the Lower Falls project study area:

- 1. I-95 NB Ramps at Grove Street
- 2. I-95 NB at Exit 22
- 3. I-95 NB at Exit 23-24-25
- 4. Washington Street (Route 16) at Quinobequin Road
- 5. Washington Street (Route 16) at I-95 NB Ramps
- 6. Washington Street (Route 16) at Beacon Street

The RSA was a formal safety examination of the existing roadways and intersections by an independent, multi-disciplinary team. The purpose of the RSA was to identify potential safety issues and possible countermeasures to improve safety considering all roadway users. As part of the Massachusetts Department of Transportation's (MassDOT) Road Safety Audit guidelines, RSAs are required for Highway Safety Improvement Program (HSIP) eligible locations and should be conducted prior to the development of the 25-percent design submission or prior to the submission of a Draft Environment Impact Report for a project of regional impact.

AECOM reviewed the following RSA locations within the project study area: I-95 NB Ramps at Grove Street, I-95 NB at Exit 22, and Washington Street (Route 16) at Quinobequin Road. The RSA identified specific safety issues at these locations due to substandard pedestrian and bicycle accommodations; roadway geometry; signage; pavement marking; intersection operations; and lighting and weather conditions. Potential countermeasures, such as improved pedestrian and bicycle facilities, removal of slip lanes, and reconfigured intersections, were identified in the RSA to address the location-specific issues. The safety issues and potential countermeasures identified in the RSA were considered in the development of onstreet concept alternatives for the trail on Quinobequin Road and Washington Street.

#### The full Road Safety Audit can be found at:

https://gis.massdot.state.ma.us/arcgis/rest/services/Roads/RoadSafetyAudits/MapServer/0/18964/attach ments/20117



# 3. Site Inventory and Analysis

### 3.1. **Project Area Overview**

The character of DCR's open space, the state and municipal roads, and land use all change considerably from the north limit of the project area to the south. The study's northern trail connection point is the Two Bridges landing at Leo J. Martin Golf Course in the Newton Lower Falls neighborhood. The trail must then connect to the Trestle Bridge, which crosses the Charles River into Wellesley and the commercial district along Washington Street, including quaint historic stone buildings. The southern trail connection point is the proposed Quinobequin Road shared-use trail south of the I-95 underpass, in Newton's Waban neighborhood.

The Charles River, meandering through the project area, is the main attraction, transforming from a quiet, meandering waterway to the dramatic roaring falls at Cordingly Dam (with an 18' drop) and back again. The river's edges, adjacent trails and bridges provide a variety of vantage points to experience it. There is network of existing footpaths and paved trails located within the immediate vicinity of the project area which provide opportunities for links to the future Lower Falls shared-use trail. The river serves as municipal boundary, so with each crossing trail users will move between City and Town.

#### North Project Area – Two Bridges to Trestle Bridge Plan

The land use within the north project section, bounded by I-95 on the east and by the Leo J. Martin Golf Course and the Charles River on the north and west, is primarily single-family housing. Both the golf course and the river comprise a significant amount of open space. The neighborhood consists of tree-lined streets with Concord Street providing the main vehicular access to Route 16.

The Newton Lower Falls Branch of the Boston and Albany Railroad ran from Newton to Lower Falls to Wellesley and the railroad corridor parallels Saint Mary's Street and Clearwater Road. The right-of-way extends from the Two Bridges to Washington Street.

Between Two Bridges and Pine Grove Avenue, the railroad right-of-way is elevated above the adjacent golf course. At Two Bridges, there is a significant change in grade down to the adjacent parklands on the north and down to the City-owned property (and gas line) to the south. The rail corridor is elevated until it approaches Pine Grove Avenue, where it is at grade. Since the trains stopped running in 1957, volunteer species have encroached on this section of the right-of-way. A dense wooded buffer defines the edge of the golf course.



Figure 3-1. North Project Area



Railroad right-of-way adjacent to Leo J. Martin Golf Course

The golf course in the northeastern section of the project area is very narrow and shady. Consequently, the 16<sup>th</sup> green is difficult to maintain and has become overgrown.

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Plan and aerial photo of Leo J. Martin Golf Course near Two Bridges

Pine Grove Avenue is characterized by the mature pine trees that visually and physically screen the homes along the golf course. The rolling terrain offers views to the golf course and beyond to the river. An existing golf cart path parallels Pine Grove Avenue to the Pine Grove and Concord Street intersection.



Wooded buffer along edge of Leo J. Martin Golf Course and Pine Grove Avenue



Cart path winds between pine trees adjacent to Pine Grove Avenue

Along Concord Street the golf course becomes more intimate and narrower and affords fewer views to the river. The vegetated buffer along Concord Street is dense and blocks views of the traffic. The greens are defined by stands of large pines.



Character of Leo J. Martin Golf Course along Concord Avenue

Moving south within the project area, Holes 14 and 15 abut the residences along Grayson Lane at the southern property line of the golf course. A vegetated buffer and occasional fence screen the residential properties from the golf course. The northern riverbank becomes wider and less steep between the golf course and the Trestle Bridge.



Views to homes along Grayson Lane from Charles Riverbank near golf course



Figure 3-2. South Project Area

#### South Project Area – Trestle Bridge to Quinobequin Road

The match line for the north and south project sections is DCR's Trestle Bridge, rebuilt in 2012. The bridge and path provide a direct connection between Newton and Wellesley. The bridge offers beautiful views of river, slow-moving and wide in this location. South of the bridge, land use is mixed-use, with multifamily residential, commercial and service uses along Washington Street. The path becomes a well-defined concrete walk clearly separated from the adjacent driveways and parking. Granite signposts and an information kiosk identify the Charles River Reservation along Washington Street.

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View of Trestle Bridge from the south



View from Trestle Bridge towards Concord St.



Entrance to Charles River path from Washington St.



Charles River path towards Washington St.

Washington Street, portions of which are owned by Wellesley, Newton and MassDOT, is a busy arterial with shops and businesses lining both sides of the street until River Street. East of the Charles along Washington Street most of the retail shops are located along the south side of the road.



**Character of Washington Street west** 



**Character of Washington Street east** 





Northern Entrance to Hunnewell Fyffe



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Cordingly Dam Footbridge



Hunnewell Fyffe Footbridge



Southern Entrance to the Hunnewell Fyffe Footbridge

The Charles River Reservation is again accessible after crossing Walnut Street. The River winds its way through this area and provides respite from the adjacent roadways. The riverbank slopes gently to the water and consists of a triangular piece of open space that provides pedestrians close-up views to the river. The top of the bank is approximately 10' below the bridge with views to the Walnut Street Bridge.

Upstream of the Walnut Street Bridge, the Reservation provides connections to an existing trail system that continues south along the River.



The eastern end of the project area along Washington Street is defined the major intersection of Washington Street, Walnut Street, Quinobequin Road and where on-off ramps to/ from I-95/Route 128 converge. The intersection is dominated by fast-moving vehicular traffic and views of I-95. This is a hostile environment for pedestrians and bicyclists with limited opportunities for crossing Washington Street and accessing the Reservation.



View of Walnut Street Bridge



Walnut Street Bridge





Walnut Street Bridge

View of Charles River from Walnut Street Bridge

The South Project Area continues along Quinobequin Road and the on-ramp to I-95 south. The area is dominated by the highway and is characterized by a large detention area within the off ramp. The western edge of Quinobequin Road and the southbound on-ramp is located at the top of the riverbank until Quinobequin Road veers to the east and under I-95. There is a narrow, poorly maintained sidewalk along the north side of Quinobequin Road that eventually passes under the overpass to the end of the project area on the east side of I-95.



Washington Street/Walnut Street Intersection



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View to Quinobequin Road



**Quinobequin Road** 





View to west side of I-95 Overpass



View to east side of I-95 Overpass

## 3.2. Site Analysis Diagrams

The following Graphic Information System (GIS) layers illustrate the existing conditions of the study area.

## 3.2.1. Cultural Resources

Newton Lower Falls Historic District is located within the project area, in the area adjacent to St. Mary's Church. There are several structures and properties located as indicated in the map below. Notably, Quinobequin Road, a DCR Charles River Reservation Parkway, is listed on the National Register of Historic Places.



Figure 3-3. Cultural Resources



## 3.2.2. Demographics

The study area is dominated by the single-family residential neighborhood of Newton Lower Falls. Neighborhoods to the south and west of the River are more densely populated with an environmental justice population located in the southernmost region of the study area.



Figure 3-4. Demographics



# 3.2.3. Land Ownership

A large proportion of the project area is state-owned open space, namely DCR's Leo J. Martin Golf Course which encompasses the Charles River. There are also small amounts of City or Town-owned open space located within the project area. Much of the rest of the project area is privately owned single-family housing and businesses.



Figure 3-5. Land Ownership



## 3.2.4. Topography

The topography varies throughout the study area, with the most dramatic slopes (20%+) located along the banks of the Charles River. There are also steep banks adjacent to Two Bridges as the railroad right-of-way meets the western-most bridge at the I-95 Overpass and the area adjacent to the Cordingly Dam.



Figure 3-6. Topography



#### 3.2.5. Water Resources

The Charles River Reservation dominates the project area with the 200' Riverfront protection area extending into the Golf Course, into a portion of the neighborhood along Concord Street and within the Lower Falls commercial district along Route 16. The flood hazard zone also extends within the project area, particularly in the area of the intersection between Pine Grove Avenue and Concord Street.



Figure 3-7. Water Resources



### 3.2.6. Utilities

The project area is serviced by typical water and sewer lines. A brick sewer line traverses through the entire project area as indicated on the map below.



Figure 3-8. Utilities



## 3.2.7. Roadway Jurisdiction

The roads within the project area are predominately owned by either the City of Newton or the Town of Wellesley. The exceptions are locations along Washington Street (the bridge at the Wellesley/Newton line) and connections over and onto I-95, which are owned by MassDOT.



Figure 3-9. Roadway Jurisdiction

# 3.3. Traffic Study

The roads within the project area provide potential on-street connections for the trail between Two Bridges to the I-95 overpass on Quinobequin Road. Roadway conditions include roadway ownership, available right-of-way, curb cuts, parking, vehicular traffic movements, intersection operations, existing pedestrian, accessibility, and bicycle accommodations, and safety of roadway users. The roadways conditions determine the suitability of on-street connections in the project area.

In the North Project Area, between Two Bridges and the Trestle Bridge, the roadways are primarily local residential streets with limited right-of-way, on-street parking, low traffic volumes, and limited accommodations for pedestrians and bicyclists. The constrained right-of-way of local residential streets limits their suitability for a separated on-street facility.

In the South Project Area, between the Trestle Bridge and the I-95 overpass on Quinobequin Road, the primary roadways are Washington Street, Walnut Street, and Quinobequin Road. A summary of the roadway characteristics follows.



#### Figure 3-10. Route 16/ Walnut Street/ Quinobequin Road

Washington Street (Route 16) is a principal arterial with average daily traffic (ADT) of 21,600 vehicles per day. The right-of-way width and travel lanes varies along Washington Street, between the rail trail access point in Wellesley and the I-95 bridge overpass in Newton. Sidewalks are located on both sides of the street and are in good condition. There are no bicycle accommodations. On-street parking spaces are located on the south side of Washington Street in Newton, with several driveways for local businesses. On-street parking spaces and business driveways are located on both sides of the street in Wellesley, west of the Charles River bridge. There are signalized intersections at Concord Street and Quinobequin Road, and an existing



unsignalized crosswalk at Grove Street. Excessive vehicle speeds, poor lighting, and drivers not yielding to pedestrians in crosswalk are issues observed in the field and documented in prior studies.

Existing conditions for Washington Street in Newton between the Charles River and I-95 overpass are shown on Figures 3-10 and 3-11.



Figure 3-11. Existing Conditions – Washington Street Midblock Crossing at Cordingly Dam (Location 1)



Figure 3-12. Walnut Street Mid-Block Crossing (Location 2)

Walnut Street is an urban minor arterial in the Town of Wellesley. Walnut Street continues north in Newton as Wales Street, between the Charles River and Washington Street. There is one lane of traffic in each direction, with a double right turn lane for northbound traffic at Washington Street. There are sidewalks on each side of the street, with the sidewalks narrowing on the Walnut Street bridge. There are no bicycle accommodations and no on-street parking. Walnut Street is signalized at the intersections of River Street and Washington Street, with an unsignalized crosswalk at the Charles River trail crossing. There are numerous driveways on Walnut Street between the trail crossing and River Street. Excessive speeding and drivers not yielding to pedestrians in crosswalk are issues observed in the field and documented in prior studies.





Figure 3-13. Existing Conditions - Walnut Street Midblock Crossing (Location 2)



Figure 3-14. Route 16/Walnut Street/Quinobequin Road Intersection Improvements (Location 3)

Quinobequin Road is an urban minor arterial and DCR parkway. Quinobequin Road is primarily one lane in each direction, with a left and right turn lane for northbound traffic at Washington Street. There is a southbound I-95 on-ramp and off-ramp on Quinobequin Road, between Washington Street and the I-95 overpass. The right-of-way varies on Quinobequin Road, but there is sufficient right-of-way to accommodate a trail adjacent to the river without major impacts. There is a narrow sidewalk in poor condition on the north side of Quinobequin Road with an unsignalized marked crosswalk at the I-95 southbound off-ramp. There are no bicycle accommodations on Quinobequin Road: however, the road is frequently used by more confident recreational bicyclists. There is a signalized intersection at Washington Street in the project area with turn lanes and skewed geometry. Excessive speeding for drivers entering and exiting from I-95, poor lighting at the I-95 overpass, and drivers failing to yield to pedestrians at the southbound I-95 offramp and Washington Street intersection are issues observed in the field and documented in prior studies.

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The existing conditions for Quinobequin Road are shown on Figure 3-14, 3-15, 3-17, and 3-18.



Figure 3-15. Existing Conditions - Quinobequin Road (Location 4)



Figure 3-16 Existing Conditions – Quinobequin Road North of I-95 SB On-Ramp (Location 5)



Figure 3-17. Improvements – Quinobequin Road North of I-95 SB On-Ramp (Location 5)



Figure 3-18. Existing Conditions – Quinobequin Road (Location 6)



Figure 3-19. Existing Conditions – Quinobequin Road I-95 Underpass (Location 7)

# 3.4. Leo J. Martin Memorial Golf Course Master Plan

The Leo J. Martin Golf Course was first opened to the public in 1930 and the design has transformed over the years. One of the challenges regarding maintenance of the golf course is the proximity to the river. It was adversely affected after a series of storms in 2010/ 2011 where flooding occurred, highlighting a series of drainage issues.

The golf course is a locally important four-season open space. In addition to the 18-hole course, there is an active Nordic track, and locals currently use informal paths and cart paths as walking trails.

A significant part of the shared-use trail is proposed to be located along the edge of the golf course. As part of this study, it was determined that an accessible route is possible with some re-grading and reconfiguration of the holes. The original design has been altered over the years and there are opportunities to improve it to respond to changes in the sport; players want shorter playing times and shorter holes. Reconfiguring the holes could also provide an opportunity to restore and preserve the Charles River Reservation by removing holes from the 100-year flood plain.

DCR is reviewing the feasibility of a master planning process for the golf course to integrate passive and active recreation to prevent conflicts, reduce maintenance, and protect the site's natural and cultural resources.




Figure 3-20. Leo J. Martin Golf Course



## 4. Alternatives Analysis

The main factors in determining the viability of an alternative was the trail location and land ownership. The trail must be located on DCR property to be considered a feasible option. DCR cannot legally build projects on land owned by others.

# 4.1. Alternative 1 – Railroad Right-of-Way from Pine Grove Avenue to Concord Street

Many proposals for the suggested trail alternatives proposed over the years include the construction of a trail on the existing railroad right-of-way that parallels St. Mary's Street (the portion that extends from Concord Street to Pine Grove Avenue). This ownership of this segment of the right-of-way is under litigation and therefore this alignment is not under consideration for this study.

## 4.2. Alternative 2 – River Street to Walnut Street

The team considered aligning a segment of trail along River and Walnut Streets (to by-pass Washington Street). There is DCR property along the east side of River Street, including a public park at Finlay Dam. After evaluating the roadway width, curb cuts and grades, it was decided that the addition of an accessible recreational trail on Walnut and River Streets was not feasible. Wellesley and DCR may want to partner to create a one-way system or trail spur along this picturesque stretch of the river in the future.



Figure 4-1. River Street

## 4.3. Alternative 3 – Cochituate Aqueduct

The team evaluated formalizing and extending the existing trail (along the west side of the Charles River, parallel to Walnut Street) to the Cochituate Aqueduct. During a site walk and subsequent analysis, the team found that the existing trail and riverbank are both steep and narrow, making the alignment of an accessible trail difficult. Additionally, trail construction would disturb the cultural and natural resources along the river. Finally, the aqueduct is at same elevation as I-95, creating a loud and unpleasant environment.





Figure 4-2. Cochituate Aqueduct Steep Slope Site Conditions

### 4.4. Alternative 4 – Quinobequin Road

The team reviewed the Solomon Foundation's Kittleson study. During the public process, DCR did reach out to MassDOT to inquire about removing the redundant ramps along Quinobequin Road. MassDOT did not rule out the possibility of removing redundant maps in the future. The team determined that the best way to connect to Quinobequin Road was to provide a simple solution to provide access to the south by crossing the southbound on-ramp/Quinobequin Road split as preferred by the City of Newton.

### 4.5. Alternative 5 – Washington Street, North Side Only

Although any proposed alignment along Washington Street would require a collaborative effort between the Town of Wellesley, City of Newton, MassDOT and DCR, the team established that locating the trail on the north side of Washington Street would be preferable to a two-way bike lane system. A trail on the north side of the street would have fewer conflicts with driveways, parked cars, utilities and pedestrians.



## 5. Preferred Plan

The alignment of the preferred plan was developed as a recreational shared-use trail on DCR property with scenic spurs off the main trail to bring users closer to the Charles River. The Preferred Plan is illustrated in Figures 5-3, North Project Area and Figure 5-6, South Project Area and described in detail below.

## 5.1. North Project Area

Proceeding north to south, first segment is located on the railroad right-of-way that extends from the western end of the Two Bridges southwest to the gate at Pine Grove Avenue. This segment is relatively uniform with a consistent slope and width with few trees. There is enough width to easily accommodate a standard 10' wide paved shared-use path with a 2'-wide shoulder on each side. The gentle slope is accessible and has direct access to the bridge crossing I-95.



Figure 5-1. North Project Area – Two Bridges to Pine Grove Avenue

The team has proposed a scenic spur that follows a more circuitous route along an existing woodland path with stunning views to the river. It is feasible to provide an accessible route through the wooded area with minor grading and minor disturbance to trees. As it is a minor route, a narrower 4'-wide path is envisioned. Because the spur is lower than the railroad right-of-way, a ramped deck or switchback would be required to provide access to the western landing of Two Bridges.



Moving westward, the next trail segment is proposed along the edge of the Leo J. Martin Golf Course, parallel to Pine Grove Avenue. This segment would require some grading and alterations to the golf course to provide an accessible trail (5% maximum slope). The team has determined that an accessible path can be installed while protecting the significant trees along this edge. There is an existing walking path and cart path that roughly traverse the location of the proposed trail.



Existing cart path through the pines

The proposed trail crosses the street at the intersection of Pine Grove Avenue and Concord Street to connect to the next trail section.

It was determined that an accessible route is feasible and can be designed to meander through the woodland along Concord Street within the golf course. The trees are generally located far enough apart to allow for the construction of a trail without adverse impacts. If necessary, the path can be narrower than the standard 10' width to preserve the trees.

The route also includes a trailhead and crosswalk at Saint Mary's Street to enable a more direct route to Two Bridges.



Figure 5-2. North Project Area – Pine Grove Avenue to Trestle Bridge

The accessible trail continues along the southeastern edge of the golf course, towards the river. It then turns to the east and leaves the manicured golf course landscape and enters the wooded upper bank of the river. To provide a continuous accessible route, a switchback trail or ramped deck would be required to connect the trail to the Trestle Bridge.

The proposed trail will meet the existing Charles River Path located on the Trestle Bridge. The Charles River Path crosses the Trestle Bridge and continues to the south with a direct connection to Washington Street in Wellesley marked by an existing DCR granite trail marker and interpretive signage.

dcr



Figure 5-3. North Project Area – Two Bridges to Trestle Bridge Plan





## 5.2. South Project Area

In the South Project Area, a significant portion of the proposed trail alignment is located along both the north and south sides of Washington Street to allow for a 2-way trail system. The future design and construction of a safe and accessible trail along this busy arterial—including crosswalks, signals and safety measures—will require coordination with the Town of Wellesley, the City of Newton, MassDOT and DCR.



Figure 5-4. South Project Area - Trestle Bridge to Cordingly Dam

As in the north, we have proposed a main trail with a scenic spur in the south. The trail system along Washington Street will consist of a main trail with a scenic spur that connects to the Hunnewell Fyffe Footbridge. The footbridge spans the Cordingly Dam and provides views to the dramatic falls. The spur crosses the footbridge to DCR's property along the edge of the parking lot of the office building at 15 Walnut Street.

At Walnut Street, the team has proposed two trail options. The first option is a main trail connection along the Walnut Street Bridge. The second option is to continue the scenic spur onto DCR Reservation property. The intent is to provide users with an opportunity to connect with the river via a proposed footbridge, as well as to avoid the busy Route 16/ Walnut Street/ Quinobequin intersection. The footbridge is located adjacent to the scenic stone bridge and will provide users with an intimate vantage point to enjoy the river. The spur continues up the bank and joins the main trail at the northern end of Quinobequin Road.



At this point, the trail follows the edge of the Quinobequin right-f-way as the adjacent riverbank is extremely steep. The proposed trail crosses the I-95 southbound on-ramp (at the point where Quinobequin Road and the on-ramp split) and continues along the south side of Quinobequin Road to the eastern end of the I-95 Overpass at the limit of the project area. We have determined that Quinobequin Road is wide enough to accommodate a protected shared-use trail with the intent that the Lower Falls project merges with the planned route for the shared-use trail along Quinobequin Road.



Figure 5-5. South Project Area – Cordingly Dam to Quinobequin Road



Figure 5-6. South Project Area – Trestle Bridge to Quinobequin Road

dcr



## 5.3. Permitting

As part of our environmental permitting assessment, AECOM conducted a desktop review of all available GIS and similar public/private database platforms to determine which environmental permits are likely to be required for the Preferred Plan, as well as those permits that could be potentially required if changes are made to the scope of the project. Our environmental permitting assessment for this project is provided in the table below. Note that the scope of this assessment does not address Massachusetts Contingency Plan or local zoning requirements.

Permit/Approval/Policy	Required/Not Required/Potential	Comments				
USEPA NPDES General Permit for Stormwater Discharge from Construction Activities	~	It is likely that nearly all project options will disturb over an acre of land during construction. To obtain coverage under the General Permit for Stormwater Discharge from Construction Activities, a Notice of Intent must be filed and development of a Stormwater Pollution Prevention Plan (SWPPP) for the site will be required.				
Massachusetts Natural Heritage and Endangered Species Program (NHESP)	×	According to the 14th Edition of the <i>Natural Heritage Atlas (2017)</i> there is no mapped Priority or Estimated Habitat within the Project area, and review under the Massachusetts Endangered Species Act will not be required.				
Massachusetts Environmental Policy Act, Secretary's Certificate		Based on the current configuration of the potential routes, the assumption has been made that the proposed project will not exceed the MEPA thresholds established at 310 CMR11.03(1) through (12), with one potential exception:				
	Р	Depending upon the size of the pedestrian foot bridge crossing the Charles River, the project may exceed the threshold established at 310 CMR11.03(3)(b)(6): Construction, reconstruction or Expansion of an existing solid fill structure of 1,000 or more sf base area or of a pile-supported or bottom-anchored structure of 2,000 or more sf base area, except a seasonal, pile-held or bottom-anchored float, provided the structure occupies flowed tidelands or other waterways.				
		If this threshold is exceeded an Environmental Notification Form will need to be filed with MEPA.				
Chapter 91, MassDEP Waterways License	$\checkmark$	This scenario involves the construction of a pedestrian/bike path and pedestrian bridge over the Charles River. Therefore, authorization is required.				
Massachusetts Department of Environmental Protection Section 401 Water Quality Certification	×	Based on the current configuration of the potential routes, the assumption has been made that impacts to jurisdictional wetland resource areas, if any, will be less than 5,000 square feet in size, and any dredging required for the construction of a pedestrian bridge over the Charles River will require dredging less than 100 cubic yards of sediment, therefore an individual 401 Water Quality Certificate should not be required.				
Massachusetts Wetlands Protection Act, Order of Conditions	~	<ul> <li>The following resource areas are present on the project site:</li> <li>Banks of or Land Under Ponds, Streams, Rivers, Lakes or Creeks that Underlie Anadromous/Catadromous ("Fish Run")</li> <li>Land under Water Bodies and Waterways (under any Creek, River, Stream, Pond or Lake) (scenario with pedestrian bridge over Charles River)</li> <li>Land Subject to Flooding (Bordering and Isolated Areas) (1% annual chance flood hazard)</li> <li>Riverfront Area (200-foot Riverfront Area)</li> </ul>				
		Based on the current configuration of the potential routes and the reconfiguration of the hole locations on the Leo J. Martin Memorial Golf Course, a Notice of Intent will need to be submitted to the Newton and/or Wellesley Conservation Commission(s). Several of the routes are located in the outer portion of the Riverfront and/or Buffer Zones and it is possible that a Request for Determination of applicability could be submitted to the respective Conservation Commissions in lieu of a Notice of Intent.				



Permit/Approval/Policy	Required/Not Required/Potential	Comments
Massachusetts Historical Commission	✓	A Project Notification Form (PNF) for submission to the Massachusetts State Historic Preservation Office (MA SHPO) to initiate review of the Project under Section 106 of the National Historic Preservation Act. The MA SHPO will determine whether the Project would have any potential adverse effects on any sites currently listed or eligible for listing in the Massachusetts State or National Registers of Historic Places or other significant historic, architectural and archaeological resources. This review will also determine whether any further subsurface testing, or impact avoidance, minimization, or mitigation measures are required by the MA SHPO.
U.S. Army Corps of Engineers Massachusetts General Permit	✓	Based on the current configuration of the potential routes, the assumption has been made that impacts to jurisdictional wetland resource areas, if any, will be less than 5,000 square feet in size, to include dredging required for the construction of a pedestrian bridge over the Charles River. Accordingly, the project will qualify for Self-verification under the U.S. Corps of Engineers General Permit for Massachusetts.
United States Coast Guard Bridge Permit	×	It is anticipated that the proposed pedestrian footbridge across the Charles River will receive a USCG Authorization Act Exemption or a Surface Transportation and Uniform Relocation Assistance Act (STURRA) authorization and not require a Bridge Permit.



## 6. Public Process

Stakeholder input and public outreach have been integral to the development of the trail alignment. Throughout the project, the team walked the site and met with DCR staff, the stakeholders, municipalities and the public.

The team, along with DCR staff, evaluated the site to determine project opportunities and constraints, options and alignment alternatives.

Public comments at the stakeholder meetings were typically wide-ranging, but the consensus was to consider the railroad right-of-way in the southern portion of the rail trail as a logical location for the commuter bicycle route. Constituents voiced frustration regarding the lack of progress in the resolution of the litigation. The preferred route is considered by many as being too circuitous for a direct connection to the Riverside MBTA station.

Other comments that several stakeholders voiced included:

- Locate the trail on Town and City streets. (This plan does not preclude other trails that the Town and City may want to implement.)
- Provide connection and crossing at the Cochituate Aqueduct.
- Protect the pine trees throughout the wooded areas.
- Design the golf course trail as a walking trail as few bicyclists will use the circuitous route.

Additional specific comments included:

- Provide connection with Wellesley's Crosstown Trail.
- Opposed to providing any thoroughfare through the neighborhood focused on loss of privacy, disturbance of woodland wildlife, dangers to/from golf course, the potential for unnecessary construction and disruption as related to the Riverside project and irresponsible use of state funds.
- Provide a trail adjacent to the river to minimize impacts on trees.
- Future plans should not preclude or impede repair to the abandoned underdrain and sewer line along Quinobequin Road.
- Provide a fitness station at the golf course.
- Add lighting to the I-95 Overpass.

Generally, there was approval for DCR's concept to provide a safe, shared-use trail as a healthy option for both recreational use and commuting by walking or biking.

Public Comments are included in the appendix.







Figure 6-2. Existing woodland paths, cart paths and tree spacing





## 7. Recommended Project Phasing

## 7.1. Project Phase Descriptions

The project has been divided into three phases for the purposes of developing the Schematic Estimate of Probable Costs as described below.

Phase 1 extends from Two Bridges, southwest along the existing railroad right-of-way for approximately 1,625 linear feet to the terminus of the right-of-way at Pine Grove Avenue. The improvements in this location include a 10'-wide paved bituminous concrete path, 2' shoulders on each side, screen fencing, screen planting, signage, invasive species removal, tree pruning and removals and revegetation. Refer to the Schematic Estimate of Probable Costs, Table 7-1 for a detailed cost breakdown.

Phase 2 includes the shared-use trail and trail spur that is located within DCR's Leo J. Martin Memorial Golf Course. The estimate includes the addition of an accessible crosswalk at Concord Street. This phase of work will also include a 10'-wide paved bituminous concrete path, 2' shoulders on each side, screen fencing, screen planting, signage, invasive species removal, tree pruning and removals, revegetation, and an accessible boardwalk connection to the Trestle Bridge.

Phase 3 consists of site improvements for the trail spur that will create accessible connections to the Hunnewell Fyffe Footbridge. The estimate includes trail improvements from both Washington Street and Walnut Street to the footbridge. Phase 3 also includes Walnut Street crosswalk improvements, a new footbridge, access to Quinobequin Road and the associated shared-use trial connections. The trail will consist of a 10'-wide paved bituminous concrete path, invasive species removal, tree pruning and removals and revegetation.





Figure 7-1. Phasing Plan



#### **Construction Cost Estimate** 8.

Cost Estimate Assumptions:

- All costs reflect 2020 unit prices;
   Cost escalation to future years not included;
- 3. Estimate does not include restoration of historic structures;
- 4. Estimate does not include utility relocations, procurement of easements or rights of way;
- 5. Estimate does not include restoration of drainage or sewer structures and
- 6. Estimate does not include archaeological survey.

#### **Table 8.1. Estimate of Probable Costs**

ITEN	MS	UNIT	QUANTITY	UNIT COST	TOTAL
PHA	SE I - SHARED-USE TRAIL ALONG EXISTING RA	ILROAD	RIGHT-OF-W	VAY	
Tota	Il Length = 1650 LF				
Dem	nolition and Removals				
1.	Clearing and Grubbing proposed alignment (assume 16' clear for a 14' wide trail)	AC	0.61	\$40,000.00	\$24,400
2.	Tree Trimming	FT	1650	\$15.00	\$24,750
3.	Invasive Plant Control	HR	40	\$490.00	\$19,600
Eart	hwork		-11		
4.	Unclassified excavation (assumed 14' wide plus 25% for grading to create accessible walk)	SY	3210	\$11.00	\$35,310
5.	Compaction	SY	2566	\$5.00	\$12,830
Utili	ties		•	•	
6.	Miscellaneous Utility Relocations	LS	1	\$5,000.00	\$5,000
Pav	ing (assume 10' wide paved area)				
7.	Bituminous Concrete Paving, assumption 4" thick, 4" dense grade, 8" gravel				
	a056 x SY x 4" = ton	TON	34	\$150.00	\$5,100
	b. 4" dense grade = item 402 cy,	CY	201	\$50.00	\$10,050
	c. 8" gravel = item 151 CY	CY	409	\$50.00	\$20,450
Sigr	nage and Markings			·	
8.	Thermoplastic Paving Markings	LF	0	\$3.00	\$0
9.	Wayfinding Signage at major intersections	EA	2	\$150.00	\$300
10.	Interpretive Signage	EA	2	\$2,800.00	\$5,600
11.	Granite posts (engraved)	EA	4	\$2,500.00	\$10,000
Site	Improvements			•	
12.	Boardwalk (10' wide, constructed with ipe hardwood, with helical piers, wood framed mesh railings)	SF	1307	\$1,000.00	\$1,307,000
13.	Screen Fencing (stockade fence, 6' height, cedar)	LF	1650	\$40.00	\$66,000
Lan	dscape - Planting				
14.	Screen Planting	LS	1	\$10,000.00	\$10,000
15.	Seeding	SY	733	\$3.00	\$2,199



CO	NSTRUCTION COSTS						
ITEN	NS	UNIT	QUANTITY	UNIT COST	TOTAL		
16.	Tree protection fencing	FT	3300	\$11.50	\$37,950		
17.	Tree removals - under 24" diameter	EA	10	\$1,500.00	\$15,000		
Sed	mentation and Erosion Control						
18.	Sediment Control Barrier (compost filter tube)	FT	3300	\$10.00	\$33,000		
Perr	nitting				· ·		
19.	Permitting costs	LS	1	\$5,000.00	\$5,000		
			PHASE	I SUB-TOTAL	\$1,649,539		
			Design Cor	ntingency 10%	\$164,954		
					\$1,814,493		
		Cons	struction Cor	ntingency 10%	\$181,449		
PHASE 1 TOTAL							
PHA	SE II - SHARED-USE TRAIL GOLF COURSE MAII	N TRAIL	AND SPUR				
	I Length = 6500 LF						
Dem	olition and Removals				_		
1.	Clearing and Grubbing proposed alignment	AC	2.4	\$40,000.00	\$96,000		
2.	(assume 16' clear for a 14' wide trail)	FT	6500	\$15.00	•		
2. 3.	Tree Trimming Invasive Plant Control			\$15.00	\$97,500 \$30,200		
	hwork	HR	80	\$490.00	\$39,200		
Eart	Unclassified excavation (assumed 14' wide plus						
4.	25% for grading to create accessible walk)	SY	12638	\$11.00	\$139,018		
5.	Compaction	SY	10111	\$5.00	\$50,555		
	•			·	Utilities		
6.	Miscellaneous Utility Relocations	LS	1	\$10,000.00	\$10,000		
Pavi	ng (assume 10' wide paved area)			. ,			
7.	Bituminous Concrete Paving assumption 4" thick, 4	1" dense	grade, 8" grav	/el			
	a056 x SY x 4" = ton	TON	133	\$150.00	\$19,950		
	b. 4" dense grade = item 402 cy,	CY	794	\$50.00	\$39,700		
	c. 8" gravel = item 151 CY	CY	1613	\$50.00	\$80,650		
Sigr	age and Markings			II			
8.	Thermoplastic Paving Markings	LF	600	\$3.00	\$1,800		
9.	Wayfinding Signage at major intersections	EA	7	\$150.00	\$1,050		
10.	Interpretive Signage	EA	1	\$2,800.00	\$2,800		
11.	Granite posts (engraved)	EA	0	\$2,500.00	\$0		
Site	Improvements						
	Boardwalk (10' wide, constructed with ipe						
12.	hardwood, with helical piers, wood framed mesh railings)	SF	1307	\$1,000.00	\$1,307,000		
13.	Screen Fencing (stockade fence, 6' height, cedar)	LF	1121	\$40.00	\$44,840		
14.	Golf ball stop net and post system	LF	4250	\$40.00	\$170,000		
Land	dscape - Planting						
15.	Screen Planting	LS	1	\$10,000.00	\$10,000		
16.	Seeding	SY	2889	\$3.00	\$8,667		



ITE	MS	UNIT	QUANTITY	UNIT COST	TOTAL
Tree	e Protection		-		
17.	Tree protection fencing	FT	13000	\$11.50	\$149,500
18.	Tree removals - under 24" diameter	EA	20	\$1,500.00	\$30,000
	limentation and Erosion Control			<i> </i>	<b>+ ,</b>
19.	Sediment Control Barrier (compost filter tube)	FT	13000	\$10.00	\$130,000
-	mitting		10000	\$10100	<i><i><i></i></i></i>
20.	Permitting costs	LS	1	\$10,000.00	\$10,000
20.					\$2,438,230
			FIASE		φ2,430,230
			Design Con	tingency 10%	\$243,823
			Design Con	ingency 1078	\$2,682,053
		Cons	truction Con	tingency 10%	\$268,205 \$268,205
		Cons		ASE 2 TOTAL	
-		[		ASE 2 IUTAL	\$2,950,258
пц	ASE 3 - SHARED-USE TRAIL IMPROVEMENTS CO				_
	OTBRIDGE				
-	LNUT STREET, CROSSWALK AND PROPOSED F	OOTBRIE	OGE		
	al Length = 734LF		, o L		-
	nolition and Removals		1		
Dei	Clearing and Grubbing proposed alignment				
1.	(assume 16' clear for a 14' wide trail)	AC	0.5	\$40,000.00	\$20,000
2.	Tree Trimming	FT	502	\$15.00	\$7,530
3.	Invasive Plant Control	HR	40	\$490.00	\$19,600
Ear	thwork			·	
4	Unclassified excavation (assumed 14' wide plus	01/	0	¢11.00	¢.0
4.	25% for grading to create accessible walk)	SY	0	\$11.00	\$0
5.	Compaction	SY	0	\$5.00	\$0
Util	ities				
6.	Miscellaneous Utility Relocations	LS	0	\$10,000.00	\$0
Pav	ing (assume 10' wide paved area)				
7.	Bituminous Concrete Paving (702) assumption 4" t 8" gravel	hick, 4" d	ense grade,		
	a056 x SY x 4" = ton	TON	15	\$150.00	\$2,250
					\$4,450
	b. 4" dense grade = item 402 cy,	CY	89	\$50.00	
	b. 4" dense grade = item 402 cy, c. 8" gravel = item 151 CY	CY CY	89 182	\$50.00 \$50.00	\$9,100
	c. 8" gravel = item 151 CY				
	c. 8" gravel = item 151 CY nage and Markings	CY	182	\$50.00	\$9,100
8.	c. 8" gravel = item 151 CY nage and Markings Thermoplastic Paving Markings	CY LF	182	\$50.00 \$3.00	\$9,100 \$450
8. 9.	c. 8" gravel = item 151 CY nage and Markings Thermoplastic Paving Markings Wayfinding Signage at major intersections	CY LF EA	182	\$50.00 \$3.00 \$150.00	\$9,100 \$450 \$300
8. 9. 10.	c. 8" gravel = item 151 CY nage and Markings Thermoplastic Paving Markings Wayfinding Signage at major intersections Interpretive Signage	CY LF EA EA	182 150 2 1	\$50.00 \$3.00 \$150.00 \$2,800.00	\$9,100 \$450 \$300 \$2,800
8. 9. 10. 11.	c. 8" gravel = item 151 CY nage and Markings Thermoplastic Paving Markings Wayfinding Signage at major intersections Interpretive Signage Granite posts (engraved)	CY LF EA	182 150 2	\$50.00 \$3.00 \$150.00	\$9,100 \$450 \$300
8. 9. 10. 11.	c. 8" gravel = item 151 CY nage and Markings Thermoplastic Paving Markings Wayfinding Signage at major intersections Interpretive Signage Granite posts (engraved) Improvements	CY LF EA EA	182 150 2 1	\$50.00 \$3.00 \$150.00 \$2,800.00	\$9,100 \$450 \$300 \$2,800
8. 9. 10. 11.	c. 8" gravel = item 151 CY nage and Markings Thermoplastic Paving Markings Wayfinding Signage at major intersections Interpretive Signage Granite posts (engraved)	CY LF EA EA	182 150 2 1	\$50.00 \$3.00 \$150.00 \$2,800.00	\$9,100 \$450 \$300 \$2,800
8. 9. 10. 11. <b>Site</b>	c. 8" gravel = item 151 CY nage and Markings Thermoplastic Paving Markings Wayfinding Signage at major intersections Interpretive Signage Granite posts (engraved) Emprovements Boardwalk (10' wide, constructed with ipe	CY LF EA EA EA	182 150 2 1 2	\$50.00 \$3.00 \$150.00 \$2,800.00 \$2,500.00	\$9,100 \$450 \$300 \$2,800 \$5,000



CO	NSTRUCTION COSTS				
ITEN	IS	UNIT	QUANTITY	UNIT COST	TOTAL
14.	Pedestrian Footbridge (length = 96' long and 6' wide)	LS	1	\$1,200,000.00	\$1,200,000
Land	dscape - Planting				
15.	Screen Planting	LS	0	\$10,000.00	\$0
16.	Seeding	SY	223	\$3.00	\$669
Tree	Protection				
17.	Tree protection fencing	FT	502	\$11.50	\$5,773
18.	Tree removals - under 24" diameter	EA	6	\$1,500.00	\$9,000
Sedi	mentation and Erosion Control				
19.	Sediment Control Barrier (compost filter tube)	FT	1004	\$10.00	\$10,040
Pern	nitting				
20.	Anticipated permitting costs	LS	1	\$10,000.00	\$10,000
			PHASE	<b>3 SUB-TOTAL</b>	\$1,259,832
			Design Cor	ntingency 10%	\$125,983
					\$1,385,815
		Cons	truction Cor	ntingency 10%	\$138,582
			PF	ASE 3 TOTAL	\$1,524,397
			PR	OJECT TOTAL	\$6,470,597

ROL	JTE 16 MUNICIPAL AND MASSDOT (COORDINAT	TION WITH	I DCR)			
Tota	al Length = 5034 LF, Length along Quinobequin F	Road = 110	)2 LF			
Note	e: Cost information developed using MassDOT's	Construc	tion Projec	t Estimator		
Den	nolition and Removals					
1.	Clearing and Grubbing proposed alignment (assume 16' clear for a 14' wide trail along west side of Quinobequin Road ( 619 LF)	AC	0.23	\$40,000.00	\$9,200	
2.         Tree Trimming         FT         619         \$15.00						
3.	Invasive Plant Control	HR	16	\$490.00	\$7,840	
Eart	hwork					
4.	Unclassified excavation (assumed 14' wide plus 25% for grading to create accessible walk)	SY	1202	\$11.00	\$13,222	
5.	Compaction	SY	962	\$5.00	\$4,810	
Utili	ties			•		
6.	Miscellaneous Utility Relocations	LS	0	\$40,000.00	\$0	
Pav	ing (assume 10' wide paved area) for trail along v	west side	of Quinobe	quin 619 LF		
7.	Bituminous Concrete Paving assumption 4" thick,	4" dense g	rade, 8" gra	vel		
	a056 x SY x 4" = ton	TON	18	\$150.00	\$2,700	
	b. 4" dense grade = item 402 cy,	CY	75	\$50.00	\$3,750	
	c. 8" gravel = item 151 CY	CY	153	\$50.00	\$7,650	
Sigr	nage and Markings	•				
8.	Thermoplastic Paving Markings	LF	0	\$3.00	\$0	
9.	Wayfinding Signage at major intersections	EA	2	\$150.00	\$300	
10.	Interpretive Signage	EA	0	\$2,800.00	\$0	
11.	Granite posts (engraved)	EA	0	\$2,500.00	\$0	



	NSTRUCTION COSTS				
ITEN	MS	UNIT	QUANTITY	UNIT COST	TOTAL
Site	Improvements				
12.	Boardwalk (10' wide, constructed with ipe hardwood, with helical piers, wood framed mesh railings)	SF	0	\$1,000.00	\$0
13.	Screen Fencing (stockade fence, 6' height, cedar)	LF	0	\$40.00	\$0
Lan	dscape - Planting				
14.	Screen Planting	LS	0	\$10,000.00	\$0
15.	Seeding	SY	275	\$3.00	\$825
Tree	e Protection				
16.	Tree protection fencing	FT	619	\$11.50	\$7,119
17.	Tree removals - under 24" diameter	EA	0	\$1,500.00	\$0
Sed	imentation and Erosion Control				
18.	Sediment Control Barrier (compost filter tube)	FT	2122	\$10.00	\$21,220
Perr	mitting				
19.	Anticipated permitting costs	LS	0	\$10,000.00	\$0
20.	Washington Street and Quinobequin Road Improvements				\$1,596,679
	(Refer to Traffic and Roadway Costs for Detailed Estimate)				
	Route 16 and Quir	nobequir	Road Out of	Scope Costs	\$1,684,600
				•	
			Design Con	tingency 10%	\$168,460
					\$1,853,060
		Cons	struction Con	tingency 10%	\$185,306
	ROUTE 16 MUNICIPAL AND MASS	SDOT (C	OORDINATIO	N WITH DCR)	\$2,038,366

### Table 8.2. Traffic and Roadway Estimate of Probable Costs

	Unit of Measure	Unit Cost	Project Quantity	Project Notes	Project Cost
Sidewalks / Asphalt					
N and S Sides WA Street Granite 6" Curb	LF	\$50.00	2400	Assumes 1200 LF of trail on north side of Washington (not including crossings)	\$120,000.00
Quinobequin Road Granite 6" Curb	LF	\$50.00	750	Assumes 1200 LF of trail on south side of Washington (not including crossings)	\$37,500.00
N and S Sides WA Street Asphalt Surface for Trail - 2" depth	SY	\$20.00	8000	Assumes 1200 LF of 10' wide trail on north side not including crossings.	\$160,000.00
Quinobequin Road Asphalt Surface for Trail - 2" depth	SY	\$20.00	577	Assumes 511LF of 10' wide trail on south side (not including crossings).	\$11,540.00
Wheelchair Ramp	Each	\$2,500.00	10	2x north leg of Concord, 2x midblock crossing at Grove, 2x midblock crossing at Cordingly Dam, 2x west leg of Washington at Walnut, 2x south leg of Washington at Walnut	\$25,000.00
Island/Median	SF	\$10.00	480	3x islands. Midblock crossing at Cordingly Dam, Midblock crossing at Grove, Refuge	\$4,800.00



	Unit of Measure	Unit Cost	Project Quantity	Project Notes	Project Cost
				island at west leg of Washington at Walnut. Assume 20' long x 8' wide = 160 SF per island	
Roadway					
Reconstruction	truction SF \$75.00 <b>7200</b> Assumes reconstruction of north side of Washington except for crossings (1200 LF x pushing north curb in by 6 extra feet). Does not include islands or curb extensions.		pushing north curb in by 6 extra feet). Does	\$540,000.00	
Utilities/Vegetation					
Loam and Seed	SF	\$0.84	3600	Assumes loam and seed for 3' buffer for 1200' LF of trail (not including crossings). Does not include islands or curb extensions.	\$3,024.00
New Catch Basin	Each	\$7,000.00	2	Assumes 2 catch basins relocated on north side of Washington Street.	\$14,000.00
Signals					
RRFB	Each	\$30,000.00	2	RRFB pairs at midblock crossings	\$60,000.00
Timing Changes	Each	\$1,000.00	2	Timing changes at Washington/Walnut/Q and Washington/Concord	\$2,000.00
APS	Each	\$1,000.00	2	APS at Washington/Walnut/Q	\$2,000.00
Ped Signal with Countdown	Each	\$2,000.00	8	New ped signals with countdowns at Washington/Walnut/Q. Assumes relocation of ped signal with countdowns at Washington/Concord	\$16,000.00
Signal Post R&R	Each	\$5,000.00	1	Assumes relocation of signal post on west leg median at Washington/Walnut	\$5,000.00
Pavement Markings (T	hermo)				
6" Thermoplastic Pavement Markings	LF	\$1.25	19200	Assumes new edge lines, trail markings, travel lane lines, double center yellow, parking lanes, and misc. markings. Assumes 12 LF of marking per 1 LF of trail (1600' total)	\$24,000.00
12" Thermoplastic Pavement Markings	LF	\$2.50	2540	Assumes 12 new crosswalk segments (200 LF (20x10) per crosswalk), 7 stop bars (20 LF per bar)	\$6,350.00
Pavement Marking Removal	LF	\$1.00	16000	Assumes removal of edge lines, travel lane lines, double center yellow, parking lanes, existing crosswalks. Assumes 10 LF of marking removal per 1 LF of trail (1600' total)	\$16,000.00
Traffic Calming					
Curb Extension	Each	\$13,000.00	5	5x curb extensions. NW corner of Q. at Washington. SW corner of Washington at Walnut. SE corner of Walnut at Washington. Midblock crossing at Grove. Midblock crossing at Cordingly Dam crossing.	\$65,000.00
Raised Crossing	Each	\$10,000.00	2	2x. Raised crossing of trail at north leg of Grove at Washington and north leg of Executive Park Drive at Washington	\$20,000.00
Other				-	
Sign and Post	Each	\$300.00	16	Assumes 1 sign per 100 LF of trail (1600' total)	\$4,800.00
Lighting	Each	\$5,000.00	4	New lighting for 2 midblock crossings	\$20,000.00
- •		Estimate (c	onstruction		\$1,157,014.00
	B. Design	Contingency		15%	\$173,552.10
	C. Constru	uction Conting	gencies	15%	\$173,552.10



Unit of Measure	Unit Cost	Project Quantity	Project Notes	Project Cost
D. Traffic Police			5%	\$57,850.70
E. Utility Relocation			3%	\$34,710.42
F. Total Construction Cost				\$1,596,679.32
G. Total P	roject Costs			\$1,596,679.32



## **Appendix A : Meeting Notes and Agendas**

## A.1 **Project Meeting Timeline**

Date	Meeting	Attendees (invitees; please confirm)
4/13/2020	Notice to proceed	
4/28/2020	Kick off; Site Walk	Lensing, Stella (DCR) <stella.lensing@mass.gov>; Decker,</stella.lensing@mass.gov>
		Lisa <lisa.decker@aecom.com>;</lisa.decker@aecom.com>
		joseph.ficociello@aecom.com; McDonough, Patrick
		(DCR) <patrick.mcdonough@mass.gov>; Decker, Lisa</patrick.mcdonough@mass.gov>
		<lisa.decker@aecom.com>; Jahnige, Paul (DCR)</lisa.decker@aecom.com>
		<paul.jahnige@mass.gov>; Mellett, Danielle (DCR)</paul.jahnige@mass.gov>
		<danielle.mellett@mass.gov>; Harris, Jeffrey (DCR)</danielle.mellett@mass.gov>
		<jeffrey.harris@mass.gov>;</jeffrey.harris@mass.gov>
5/12/2020	In-house DCR	Jahnige, Paul (DCR) <paul.jahnige@mass.gov>; Lensing,</paul.jahnige@mass.gov>
	Design Review	Stella (DCR) <stella.lensing@mass.gov>; Mellett, Danielle</stella.lensing@mass.gov>
		(DCR) <danielle.mellett@mass.gov>; Parenti, Jeffrey</danielle.mellett@mass.gov>
		(DCR) <jeffrey.parenti@mass.gov>; Driscoll, Dan (DCR)</jeffrey.parenti@mass.gov>
		<dan.driscoll@mass.gov>; McDonough, Patrick (DCR)</dan.driscoll@mass.gov>
		<pre><patrick.mcdonough@mass.gov>; Harris, Jeffrey (DCR)</patrick.mcdonough@mass.gov></pre>
		<jeffrey.harris@mass.gov>; Putnam, Nancy (DCR)</jeffrey.harris@mass.gov>
		<nancy.putnam@mass.gov>; Decker, Lisa</nancy.putnam@mass.gov>
		<lisa.decker@aecom.com>; Ficociello, Joseph H.</lisa.decker@aecom.com>
		Joseph.Ficociello@aecom.com; Thibeault, Kevin (DCR)
		<kevin.thibeault@mass.gov>; Fabiano, David (DCR)</kevin.thibeault@mass.gov>
		<david.fabiano@mass.gov>; Duggan, Casey (DCR)</david.fabiano@mass.gov>
		<casey.duggan@mass.gov></casey.duggan@mass.gov>
<b>5/19/</b> 2020	Lower Falls	Jahnige, Paul (DCR) <paul.jahnige@mass.gov>; Lensing,</paul.jahnige@mass.gov>
	Stakeholder	Stella (DCR) <stella.lensing@mass.gov>; Mellett, Danielle</stella.lensing@mass.gov>
	Meeting	(DCR) <danielle.mellett@mass.gov>; Parenti, Jeffrey</danielle.mellett@mass.gov>
		(DCR) <jeffrey.parenti@mass.gov>; Driscoll, Dan (DCR)</jeffrey.parenti@mass.gov>
		<dan.driscoll@mass.gov>; McDonough, Patrick (DCR)</dan.driscoll@mass.gov>
		<pre><patrick.mcdonough@mass.gov>; Harris, Jeffrey (DCR)</patrick.mcdonough@mass.gov></pre>
		<jeffrey.harris@mass.gov>; Putnam, Nancy (DCR)</jeffrey.harris@mass.gov>
		<nancy.putnam@mass.gov>; Decker, Lisa</nancy.putnam@mass.gov>
		<lisa.decker@aecom.com>; Ficociello, Joseph H.</lisa.decker@aecom.com>
		<joseph.ficociello@aecom.com>;</joseph.ficociello@aecom.com>
		ehchapman@verizon.net; erin@kandamar.com;
		president@newtonconservators.org;
		jsteel@newtonma.gov;
		dnackone@verizon.net; jmeyer@wellesleyma.gov;
		pmande@crwa.org; DLoutzenheiser@mapc.org; Herb
		Nolan <herbnolan@solomonfoundation.org>; Allison</herbnolan@solomonfoundation.org>
		Burson <allisonburson@solomonfoundation.org>;</allisonburson@solomonfoundation.org>
		Sutton, Peter (DOT) < Peter.Sutton@dot.state.ma.us>;



ł	1	Trepanier, Michael (DOT)
		Michael-Trepanier@dot.state-maus; Thibeault, Kevin
		(DCR) <kevin.thibeault@mass.gov>; Fabiano, David</kevin.thibeault@mass.gov>
		(DCR) <david.fabiano@mass.gov>; Fiesinger, Anne</david.fabiano@mass.gov>
		(DCR) <anne.fiesinger@mass.gov>; Norwood, Jennifer</anne.fiesinger@mass.gov>
		(DCR) <jennifer.norwood@mass.gov>; Cashman, Craig R</jennifer.norwood@mass.gov>
		(DCR) <craig.r.cashman@mass.gov>; Kish, Patrice</craig.r.cashman@mass.gov>
		(DCR) <patrice.kish@mass.gov>; Duggan, Casey (DCR)</patrice.kish@mass.gov>
		<casey.duggan@mass.gov>; Dwyer, Courtney (DOT)</casey.duggan@mass.gov>
		<courtney.dwyer@dot.state.ma.us>; Khan, Kay (HOU)</courtney.dwyer@dot.state.ma.us>
		<kay.khan@state.ma.us>; Balser, Ruth (HOU)</kay.khan@state.ma.us>
		<ruth.balser@state.ma.us>; Cynthia Creem</ruth.balser@state.ma.us>
		<cynthia.creem@masenate.gov>; Dwyer, Courtney</cynthia.creem@masenate.gov>
		(DOT) <courtney.dwyer@dot.state.ma.us>; Annie</courtney.dwyer@dot.state.ma.us>
		Fiesinger <anne.fiesinger1022@gmail.com>; Richard</anne.fiesinger1022@gmail.com>
		Howell <rhowell@wellesleyma.gov></rhowell@wellesleyma.gov>
6/3/2020	Lower Falls	Lisa Decker met with Patrick McDonough to discuss golf
	Coordination	course adjusted hole options.
	Meeting	
6/19/2020	Ponkapoag (and	
	LF) Site Visit	Danielle and Ginna; to understand integration of trails
6/30/2020	Meeting with Erin	and golf courses
	Kandamar	erin@kandamar.com; Mellett, Danielle (DCR)
		<danielle.mellett@mass.gov>; Decker, Lisa</danielle.mellett@mass.gov>
		Lisa.Decker@aecom.com; Norwood, Jennifer (DCR)
7/13/2020	Lower Falls Site	<jennifer.norwood@mass.gov></jennifer.norwood@mass.gov>
	Walk: Natural	Decker, Lisa Lisa, Decker@aecom.com; Backman, Andy
	Resources	(DCR) <andy.backman@mass.gov>: Mellett, Danielle</andy.backman@mass.gov>
9/10/2020	Lower Falls	(DCR) <u>Danielle.Mellett@mass.gov;</u> Patrick McDonough
	Municipal	Lensing, Stella (DCR) < stella.lensing@mass.gov>; Parenti,
	Coordination and	Jeffrey (DCR) < Jeffrey.Parenti@mass.gov>; Driscoll, Dan
	Design Review	(DCR) <dan.driscoll@mass.gov>; Jahnige, Paul (DCR)</dan.driscoll@mass.gov>
		<paul.jahnige@mass.gov>; Mellett, Danielle (DCR)</paul.jahnige@mass.gov>
		<danielle.mellett@mass.gov>; Cashman, Craig R (DCR)</danielle.mellett@mass.gov>
		<craig.r.cashman@mass.gov>; Norwood, Jennifer (DCR)</craig.r.cashman@mass.gov>
		<jennifer.norwood@mass.gov>; Decker, Lisa</jennifer.norwood@mass.gov>
		<lisa.decker@aecom.com>; Joseph H. Ficociello</lisa.decker@aecom.com>
		<joseph.ficociello@aecom.com>; McDonough, Patrick</joseph.ficociello@aecom.com>
		(DCR) <patrick.mcdonough@mass.gov>; Harris, Jeffrey</patrick.mcdonough@mass.gov>
		(DCR) <jeffrey.harris@mass.gov>; Putnam, Nancy (DCR)</jeffrey.harris@mass.gov>
		(DCR) <jeffrey.harris@mass.gov>; Putnam, Nancy (DCR)</jeffrey.harris@mass.gov>
		(DCR) <jeffrey.harris@mass.gov>; Putnam, Nancy (DCR) <nancy.putnam@mass.gov>;</nancy.putnam@mass.gov></jeffrey.harris@mass.gov>
		(DCR) <jeffrey.harris@mass.gov>; Putnam, Nancy (DCR) <nancy.putnam@mass.gov>; president@newtonconservators.org; jsteel@newtonma.gov; jmeyer@wellesleyma.gov; Richard Howell <rhowell@wellesleyma.gov>; Nicole</rhowell@wellesleyma.gov></nancy.putnam@mass.gov></jeffrey.harris@mass.gov>
		(DCR) <jeffrey.harris@mass.gov>; Putnam, Nancy (DCR) <nancy.putnam@mass.gov>; president@newtonconservators.org; jsteel@newtonma.gov; jmeyer@wellesleyma.gov;</nancy.putnam@mass.gov></jeffrey.harris@mass.gov>



		<rbowell@wellesleyma.gov>; Gridnev, Dmitriy (HOU) dmitriv.gridnev@mahouse.gov; Kish, Patrice (DCR) <patrice.kish@mass.gov>; Khan, Kay (HOU) <kay.khan@state.ma.us>; Balser, Ruth (HOU) <ruth.balser@state.ma.us>; Cynthia Creem <cynthia.creem@masenate.gov>; Fiesinger, Anne (DCR) <anne.fiesinger@mass.gov>; Echandi, Ale (DCR) <ale.echandi@mass.gov>; Itaverna@newtonma.gov; jyeo@newtonma.gov; Alfredo J. Vargas <avargas@newtonma.gov; dave="" hickey,<br=""></avargas@newtonma.gov;><dhickey@wellesleyma.gov>; Dave Hickey, <dhickey@wellesleyma.gov>; Dagan, Casey (DCR) <casey.duggan@mass.gov>; Seaborn, Eric (DCR) <eric.seaborn@mass.gov>; Isaac Prizant <iprizant@newtonma.gov; brandon<br="" schmitt,=""></iprizant@newtonma.gov;><bschmitt@wellesleyma.gov>; Showstead, Scott <sshowstead@wellesleyma.gov>; Ted Chapman <ehchapman@verizon.net>; Itaverna@newtonma.gov; jyeo@newtonma.gov&gt;; Dave Hickey, <dhickey@wellesleyma.gov>; Gridnev, Dmitriy (HOU) <dmitriy.gridnev@mahouse.gov>; Showstead, Scott <sshowstead@wellesleyma.gov>; Dave Hickey, <dhickey@wellesleyma.gov>; Itaverna@newtonma.gov; jyeo@newtonma.gov; Alfredo J. Vargas <avargas@newtonma.gov>; Dave Hickey, <dhickey@wellesleyma.gov>; Ted Chapman <ehchapman@verizon.net>; Itaverna@newtonma.gov; jyeo@newtonma.gov&gt;; Dave Hickey, <dhickey@wellesleyma.gov>; Isaac Prizant <iprizant@newtonma.gov>; Isaac Prizant <iprice@wellesleyma.gov>; Isaac Prizant </iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprice@wellesleyma.gov></iprizant@newtonma.gov></dhickey@wellesleyma.gov></ehchapman@verizon.net></dhickey@wellesleyma.gov></avargas@newtonma.gov></dhickey@wellesleyma.gov></sshowstead@wellesleyma.gov></dmitriy.gridnev@mahouse.gov></dhickey@wellesleyma.gov></ehchapman@verizon.net></sshowstead@wellesleyma.gov></bschmitt@wellesleyma.gov></eric.seaborn@mass.gov></casey.duggan@mass.gov></dhickey@wellesleyma.gov></dhickey@wellesleyma.gov></ale.echandi@mass.gov></anne.fiesinger@mass.gov></cynthia.creem@masenate.gov></ruth.balser@state.ma.us></kay.khan@state.ma.us></patrice.kish@mass.gov></rbowell@wellesleyma.gov>
9/22/2020	Lower Falls Public Outreach Meeting	See attendees list
10/6/2020	Public Outreach	See comments
	Meeting Comments	



### A.2 Meeting Notes



AECOM One Federal Street Boston, MA 02110 617-723-1700 tel.

#### MEMORANDUM

Lower Falls Shared-Use Feasibility Study

May 21, 2020

#### Stakeholder Meeting 5.19.20

To: Ginna Johnson, DCR

From: Lisa Decker, AECOM

Present:

Ginna Johnson, Paul Jahnige, Danielle Mellett, Nancy Putnam, Casey Duggan, Dan Driscoll, Jeff Parenti, Jeffrey Harris, Jennifer Norwood, Craig Cashman - DCR

Ted Chapman, Project Manager, Riverside Greenway Working Group

Ted Kulinksi, Newton Conservators

David Loutzenheiser, MAPC

Pallavi Kalia Mande, CRWA

Julie Meyer, Wetlands administrator town of Wellesley Wetland Protection Committee

Denny Nackoney, Wellesley Trails Committee

Jennifer Steel, Chief Environmental Planner, City of Newton

Peter Sutton, Michael Trepanier, Courtney Worhunsky (MassDOT)

State Senator Cynthia Creem's office - Catherine Anderson

Representative Kay Kahn's office - Amani Mansour

Lisa Decker, Joe Ficociello (AECOM)

Claudia Paraschiv, Studioful (community engagement sub-consultant to AECOM)

The purpose of this meeting was to listen to the stakeholders and receive input to the team for developing trail alignment options.

1. Introductions: Ginna Johnson

Ginna introduced all of the participants of the meeting.

2. Past Planning Studies, presented by Ted Chapman, project manager of the Riverside Greenway Working Group and Herb Nolan, executive director of the Solomon Foundation:





- a. Ted Chapman presented the Lower Falls trail options:
  - i. TC would like to hold a community meeting at the Lower Falls Community Center.
  - ii. TC says the golf course is a great recreational opportunity, the community appreciates the value of parkland and encourages any opportunities we can to make more use of that parkland.
  - iii. There has been controversy about the rail trail and legality and have always been abutter issues in this neighborhood. There is a small contingent of immediate neighbors who are against using the rail trail.
  - iv. TC encouraged the team to look at DeForest Road as a spur and considers it an important link.
  - v. TC reviewed the plan that illustrates 24 options that include recreation, footpath and recreation corridors. We should refer to a Horsley Whitten study that evaluates trail options.
- b. Herb Nolan presented the Route 16/Quniobequin connection.
  - HN is recommending that we plan for a trail network, not just a single multi-use path for transportation purposes (i.e. consider adding side spurs for recreation). The network of trail opportunities could consist of one of which is fully accessible along with adding hiking trails that are not accessible.
  - iii. HN recommends looking at the entire golf course as part of the entire parkland area. Generally, golf course use is down 20% and the PGA recommends designing short innovative 9-hole courses to attract a more diverse, younger audience.
  - iii. HN recommends that we consider the Deforest Street spur which is part of the 2019 Riverside Greenway working group plan by BSC.
  - iv. HN described the Quinboequin study (by Kittleson). The connection will be a challenge to provide a safe, comfortable bicycle connection from Route 16 to Quinobequin Road. HN understands that AECOM, as part of this project, will look into more detail for each of these alternatives.
- 3. Stakeholder Roundtable Listening Session:
  - a. Jennifer Steel, Chief Environmental Planner, City of Newton
    - i. JS supports all the efforts of TC and HN and wonders what the legal ramifications are. GJ reported that the legal status is unresolved, there is nothing to report.
    - ii. JS also inquired about the status of the Master Planning effort for golf course. GJ reported that DCR did launch a master planning effort that has been tabled. The goal is to continue to provide access to cross country skiing and golf while integrating those activities with ecosystem function and passive recreation. DCR hopes to get that RFP out on the street soon.
  - b. Denny Nackoney, Wellesley Trails Committee
    - i. DN discussed opportunities to bike, jog and walk from Wellesley to Riverside MBTA station.
    - ii. DN would like the rail corridor opened and is interested in including a foot trail as a compromise if the rail corridor is not used.
    - iii. DN is supportive of the project and emphasized that it should be meaningful and within budget.





- iv. DN would really like to see a footpath connected to the footbridge at the Cordingly Dam. DN is supportive of a trail that would take advantage of the footbridge and views to dam.
- c. Julie Meyer, Wetlands administrator Town of Wellesley Wetland Protection Committee
  - i. JM would be happy to participate when things get to a permitting stage.
- II. David Loutzenheiser, MAPC
  - a. DL asked what DCR is committed to project-wise in this area. GJ responded with the list of projects that are currently underway. Dan would like a document that maps all the adjacent projects.
- III. Pallavi Kalia Mande, CRWA
  - a. Pallavi would like us to prioritize providing access to the River and improving water quality.
    b. PKM would like to stay involved once we develop the scheme further.
- IV. Michael Trepanier, MassDOT
  - a. Mike has a lot of knowledge of the work being done in this area and has been working closely with many of the adjacent projects and developments (including Auburndale Boat House, Commonwealth Greenway, 2 Bridges Trails). MT has been coordinating with DCR and Mark Development and will offer his expertise.
  - b. MT emphasized that the proposed routes should be practical, safe and efficient.
- V. Peter Sutton, MassDOT -
  - PS sees so much potential for connections and realizes the challenge of working within major intersections and providing off road connections.
- VI. Courtney Worhunsky, MassDOT
  - a. CW would like to be involved in reviewing the cross-section designs and details once we have developed the study.
- VII. Dan Driscoll, DCR
  - a. DD said that the even though the rail corridor is under litigation, it should still be considered as an important link. The segment from Concord Street to Route16 (via the Trestle Bridge) initially had strong neighborhood opposition as the neighbors were fearful of increased crime. That has not happened, and DD thinks that the neighborhood may be less resistant to utilizing the rail corridor.
  - b. DD described a possible spur that would extend down River Street (there is DCR parkland on the east of River Street) to connect with Walnut Street. Both streets could be redesigned as complete streets. There is width on River Street to allow for a 10' wide path.
     It would be more of a recreational family friendly greenway and would not involve extensive permitting and there would be few environmental issues.





The purpose of this meeting was to listen to the stakeholders and receive input on the draft shared use trail alignment option.

- 1. Introductions: Ginna Johnson Ginna introduced all the participants in attendance.
- 2. Meeting Goals: Ginna Johnson
  - a. Receive general feedback on proposed shared-use trail layout
  - b. 'Local Knowledge'. Specific comments about safety operations and maintenance, etc.'
- 3. Project Goals:
  - a. Safe and accessible bicycle and pedestrian accommodations
  - b. Charles River Greenway Vision Implementation
  - c. Experience of DCR's Charles River Reservation
  - d. Preservation of Natural and Cultural Resources
- 4. Review of the draft North and South layout Lisa Decker
- 5. Questions and comments

#### Stakeholder Comments:

Rep. Kay Khan -

KK has been wanting this project to happen for a long time and has been an advocate for using the existing railroad right of way. She would prefer for the trail to be located within the railroad right of way but understands that the legal issues prevent DCR from considering this alignment at this time. (KK lives on St. Mary's street and her house abuts the old railroad right of way.) This project provides an opportunity to repair the bridges and provide connections to Riverside Station. KK sees a big benefit for people getting to Riverside.

KK requested an update on the current railroad right of way ownership lawsuit. Ginna Johnson (GJ) responded that she does not have an update on the lawsuit. GJ will request DCR's general counsel to get back to Rep. Khan with an update.

KK would like pdfs of the presentation sent to her.

KK would like DCR to consider installing gym equipment as part of this project (similar to Lion's Field in Auburndale) on DCR land at the intersection of St. Mary's Street and Pine Grove Avenue. DCR's playground expert, Sandy Libby, may be able provide suggestions for a fitness station.

KK told the group that an elderly gardener is currently planting trees and other plants near the Trestle Bridge on both the Newton and Wellesley sides of the bridge. As the project moves forward, KK would like DCR to get his input on planting in the next phase of work. KK also mentioned that is difficult to get water to the plantings. GJ appreciated this local knowledge.

Caitlin Rougeau, Rep. Khan's aide -

CR would like also like today's presentation sent to her. CR is also looking forward to getting more information regarding the lawsuit.

CR would like guidance on how to engage the gardener for future planting.





CR asked if the two bridges improvements are dependent on Mark development? GJ responded that DCR is working with Mark Development and Mark Development will pay for the design but not the construction. The construction money not been identified.

#### Jennifer Steel -

JS has questions about the connection to the two bridges and the Pony Truss Connection. JS has been involved in discussion for connections on east side of two bridges. The design will include the design and renovation of two bridges and design and construction of the accessible ramp east of two bridges.

JS asked about the status of the golf course master plan. GJ responded that the master plan is in DCR's 5-year plan and could happen relatively quickly. The Lower Falls shared use trail construction however is not in DCR's plan 5-year plan and the golf course master plan will probably happen before this trail.

JS asked if there could be a connection from the Trestle bridge to Concord Road. GJ responded that DCR doesn't own property along Concord Road.

#### Jonathan Yeo -

JY remarked that Newton's mayor is very excited by the project. JY likes the option of locating the shared-use trail along the golf course.

#### Nicole Freedman -

NF's instinct is to divide bikes to each side of the street along Washington street, mostly a through movement along Washington Street. NF said that the City is considering converting 4 lanes to 3 – with a protected path.

NF asked if we considered locating the foot path spur (in the north section) closer to the water. GJ responded that an accessible trail would be difficult to locate along the river. There may also be cultural resources and first nation artifacts along the river's edge.

NF also asked if we considered integrating the existing golf cart path with the new shared use trail. GJ responded that we have considered this design and think we can get it to work,

NF would like us to add another cross walk at CVS.

#### Dmitry Gridnev -

DG rides his bike south to Quinobequin and is concerned about cars speeding up to merge onto I-95 in the area where we have proposed the crossing. GJ responded that DCR has reached out to MassDOT about the idea of removing redundant ramps. GJ described that there are complex issues that we are considering to meet the Quinobequin project. We will need to install pedestrian activated signal or hawk to stop traffic.

DG would like a copy of the presentation in pdf form.

#### Alfredo Vargas -

AV will share the information with the engineering group. AV asked about the trail dimensions. GJ explained the dimension of the path (14' total, 10' paved with 2 - 2' shoulders) and may need to narrow the path for tree preservation. Overall, DCR does not like to go below 8' wide. DCR's vision right now is for bituminous concrete paving and DCR have the capability to install porous pavement in the future.



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#### TOWN OF WELLESLEY

#### Don McCauley -

DM stated that Wellesley has long wanted the project to go forward and shares Rep. Khan's view that the town's need this project. DN is concerned about the tight stretch of roadway on Washington Street and about adding bike lanes and the crosswalk to Quinobequin. DM hasn't had a chance to consult with the executive director yet (DM is new to the job). DM prefers if the alignment follows the north side to Concord Street and then cross to south to Walnut Street/ Don wants would like to schedule a call with Ginna Johnson to discuss further.

#### Julie Meyer -

JM has no comments and is waiting to hear from the civil engineers.

#### Denny Nackney -

DN endorses the trail alignment through Newton and has been working on it for 25 years. DN likes the compromise of routing the trail through the golf course, along the river and along the railroad right of way. DN thinks the alignment works well on the north side of Washington Street to Concord Street with a crossing to Starbucks and then to the Cordingly Dam. DN also approves of the footbridge spur to the falls along with the proposed Walnut street footbridge. DN is concerned about the cross walk proposed at Washington and recommends a signalized cross walk with a push button DN also thinks there are advantages to staying on the south side for a spur.

#### Steve Park -

SP commutes by bike and finds the Walnut Street intersection terrifying. SP described that taking a left onto Washington Street from Quinobequin, is a big challenge. SP thinks that by providing the alignment on the south side of Quinobequin is advantageous and has its advantages. SP would like to see traffic calming measures at the Quinobequin/on-ramp cross walk as cars speed up to enter 195S. SP recommends that we consider adding underpass lighting as it is very dark. GJ responded that we should take another look at moving the sidewalk onto the south side on Quinobequin under the bridge and that we will need to get consensus on merging of projects. We will need to coordinate both packages. SP is concerned about the condition of the trail and benches along the trail that extends along the river on the east side of the office buildings.

#### CITY OF NEWTON

#### George Saraceno -

GS mentioned that Newton is currently redesigning Walnut Street and are in the preliminary stages of the field work. They are proposing sharrows and other improvements. GJ responded that we do have the width for a shared use trail, and improved bicycle facilities would be ideal for adding the foot bridge.

#### NEXT STEPS - GJ

We'll take the comments from today and revise the documents. GJ explained that we are doing a feasibility study cost estimate in the material for the public meeting Sept. 22. GJ requested that group send any comments via email.



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### MEMORANDUM

Lower Falls Shared-Use Feasibility Study

October 5, 2020

### Stakeholder Meeting 9.10.20

To: Ginna Johnson, DCR

From: Lisa Decker, AECOM

Present:

Ginna Johnson – DCR Danielle Mellett – DCR Jennifer Norwood – DCR Jeffrey Harris - DCR Ale Echandi - DCR Casey Duggen - DCR

Jennifer Steel – City of Newton Jonathan Yeo – City of Newton Isaac Prizant – City of Newton Ted Kuklinski – City of Newton Alfredo Vargas – City of Newton George Saraceno – City of Newton Nicole Freedman – City of Newton Claire Rundelli – City of Newton

Don McCauley – Town of Wellesley Julie Meyer – Town of Wellesley Denny Nackoney - Town of Wellesley Steve Park – Town of Wellesley Dave Hickey – Town of Wellesley Richard Howell - Town of Wellesley

Representative Kay Khan Caitlin Rougeau - Rep. Khan's aide Dmitry Gridnev – Rep. Balsar's aide

Lisa Decker - AECOM Joe Ficociello-AECOM



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MEMORANDUM

Lower Falls Shared-Use Feasibility Study

October 6, 2020

#### Public Meeting 9.22.20

6:30 p.m. - 8:00 p.m.

To: Ginna Johnson, DCR

From: Lisa Decker, AECOM

Present:

Ginna Johnson – DCR Danielle Mellett – DCR Jennifer Norwood – DCR

Lisa Decker – AECOM Ray Hayhurst - AECOM

The purpose of this meeting was to present the Lower Falls Trail Alignment and receive input from the public.

- 1. Review DCR's Goals for the Project: Ginna Johnson (DCR)
- 2. Introduce Project Team: Ginna Johnson
- 3. Present Project Locus and Limit of Work: Lisa Decker (AECOM)
- 4. Feasibility Study Presentation (Lisa Decker)
  - Site Analysis and Environmental Impacts LD presented the following maps and diagrams:
    - o Cultural Resources
    - Demographics
    - Land Ownership
    - Topography
    - Water Resources
    - o Utilities
    - o Roadway Jurisdiction
  - Alignment Presentation LD presented the proposed trail alignments of the North and South areas:



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- North Area Two Bridges to Trestle Bridge
- South Area Trestle Bridge to Quinobequin Road
- Traffic Studies LD presented the proposed trail alignments of the North and South areas:
  - Traffic Study Route 16/Walnut Street/Quinobequin Road Overall Plan
  - Traffic Study Route 16 Existing Conditions
  - o Traffic Study Walnut Street Mid-Block Crossing Plan
  - Traffic Study Walnut Street Mid-Block Crossing Existing Conditions
  - o Traffic Study Route 16/Walnut Street/Quinobequin Potential Intersection Improvements
  - $\circ \quad {\sf Traffic \ Study-Quinobequin \ Road \ Existing \ Conditions \ adjacent \ to \ Washington \ Street}$
  - $\circ$  ~ Traffic Study Quinobequin Road Existing Conditions north of SB on-ramp
  - $\circ$  ~ Traffic Study Quinobequin Road Potential Improvements Plan
  - $\circ$  ~ Traffic Study Quinobequin Road Existing Conditions Section North of I-95 Underpass
  - $_{\odot}$   $\,$  Traffic Study- Quinobequin Road Existing Conditions Section at I-95 Underpass
- 5. Solicit Stakeholder Comments and Questions:
  - a. Representative Kay Khan -

KK is very excited about the project and praised DCR for their work on the Pony Truss Trail. KK finds it upsetting that the existing railroad right-of-way (located behind her house, parallel to St. Marys Street) cannot be part of the system at this time considering it would be a convenient direct link to Riverside. DCR's legal affairs group will get back to KK regarding the legal status of the right-of-way. KK suggested adding fitness equipment to the plan and has some ideas of where it could be located.

GJ responded that Craig Cashman will reach out to her to discuss her ideas and that site furnishings and exercise equipment will be considered later in the design process. GJ explained that the alignment plans are diagrams at this point. GJ also said that we need to determine the final trail layout before siting equipment.

KK also thought it would be useful to add the granite posts to mark the trail similar to the Pony Truss trail markers. Overall, KK thinks the project is exciting and fabulous. KK has been involved for many years on the accelerated bridge project and offered to help as a legislator in any way to help push the project forward. Also, KK recommended to Ted Chapman and the Riverside Greenway group that it would be nice to celebrate the opening of the Pony Truss Trail with a ribbon cutting and event with kayakers and boaters to bring attention to the project.

b. Andrea Downs -

AD asked if there was any possibility of connecting Walnut Street to Quinobequin without following Quinobequin?

GJ described the site conditions, the riverbank it too steep to locate a trail closer to the river. GJ explained the concept of reducing the width of Quinobequin with a 'road diet' to allow for a flat area at the top of the riverbank and there is enough room to install a separated shared use trail.

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c. Written question (anonymous) -

Are there plans to open the blocked tunnel of the Pony Truss Trail?

GJ explained that the tunnel is not part of the Lower Falls Feasibility project. The Pony Truss tunnel project is currently being discussed with Mark Development and the City of Newton. DCR is considering this project which may be part of DCR's list of projects DCR for trail mitigation.

d. Ted Chapman -

TC questioned why we did not weigh alternatives and look at other options and wondered if there would be a matrix included in the report evaluating the pros and cons of various routes. TC mentioned that the scope includes publicly owned spaces and roads, and what we showed was mostly on DCR land except for the Washington street corridor and Walnut Street. TC noted that we did not include the connection to Riverside, from DeForest Street to Quinobequin Road east (which would be a more direct route to Riverside).

GJ praised TC's group and the work they have done. GJ explained that early in the study process, it was decided the trail should be on DCR land. DCR's goal was to provide a safe and accessible path that accessed the Commonwealth's land and reservation. This plan does not preclude other trails that the Town and City may want to implement. GJ said that DCR cannot legally build on non- DCR land except for minor connections. Also, locating the trail on DCR land precludes the need for establishing easements. GJ explained that keeping the trail on DCR land provides users a recreational route and takes advantage of the Charles River Reservation landscape.

TC was curious about alternative routes within the golf course and wanted to see if that data will be included in the report. GJ explained that DCR is considering developing a master plan for the golf course and explained that we looked at various alignments within the golf course during the study. We would need to redesign three holes for this plan.

TC encouraged DCR to connect with City of Newton for ongoing projects related to Riverside and stay updated.

e. Daniel Brody -

DB finds the stretch from Walnut Street to the I-95 underpass problematic. DB said that it is a miserable stretch of road to walk or bike on and has a question about utilizing the Town of Wellesley's trail that connects to the Cochituate aqueduct that crosses the river south of the project area. DB asked if we had considered utilizing that trail and bridge to connect to the east.

GJ explained that this trail is outside of the study area. During our site walk we found that the existing trail and riverbank is extremely steep and narrow with limited area to locate an accessible route to the top of the aqueduct. The aqueduct is at the same elevation of the highway, which is not an ideal location to enjoy the river. Consequently, traffic noise dominates this location and it would be difficult to add a deck on top of the aqueduct to provide access.

GJ said there are often cultural resources along the riverbank and the impact to the resources and habitat would not be worth the investment. If it were beautiful and quiet, DCR would consider it.

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f. Bob Persons -

BP asked if AECOM received the Solomon Foundation study of this area.

GJ said that we did review the Solomon Foundation's Kittleson study and that we did reach out to MassDOT to inquire about removing the redundant ramps along Quinobequin Road. MassDOT did not rule out the possibility of removing redundant maps in the future. Removing ramps would be a project for the future. In the meantime, we wanted a simple solution to provide access to the south and the City of Newton preferred that we locate the crosswalk across the on-ramp as shown.

g. Janet Schreiber (Michael Fox asked the same question) -

JS asked what will be done to protect people using the trail from errant golf balls.

GJ explained that we reviewed the plans with Patrick McDonough, Head Superintendent of the golf course. Patrick is knowledgeable about the history of the golf course and said that the golf course has been altered from the original design. PM thinks there are opportunities to modify it even more based on the change in the nature of the sport and change in demand. PM said that players are wanting shorter playing time and shorter greens. GJ said DCR needs to research ways to integrate passive recreation within the golf course and would be very mindful to design to avoid conflicts between golfers and trail users.

h. Alicia Bowman -

AB is one of the city councilors in Newton and a longtime advocate for trails and walking paths. AB is very excited to see this project. AB asked if the feasibility study will include phasing. Also, has DCR identified any quick fixes, like adding lighting to the underpass? AB said that it is disorienting as a cyclist to enter the dark underpass from daylight. Another quick fix could be restriping the lanes along Quinobequin Road to improve the conditions for bicyclists.

GJ said that phasing is part of the final report and cost estimate. Early action items are not part of the scope for this feasibility study. GJ responded that those are both great suggestions and there is possibility to coordinate with MassDOT to make these improvements.

i. Herb Nolan –

HN is happy that we are at the point to address one of the most difficult sections of the larger trail system. He questioned the location of the proposed trail along the golf course at the edge of the pines and noted that the path would be a better walking trail. It could be narrower than a shared use trail which would save trees. HN's recommended phasing approach would be to construct the northern leg (located on the railroad right-of-way connecting to the Two Bridges) and thinks more about where the unpaved trails would be located. HN discussed the Quinobequin Road area and discussed the Kittleson plan. HN thinks the alternative that we propose is similar to the Kittleson plan. HB thinks there is a way to consolidate the redundant ramps and is excited to see us working towards this goal. HN continues to be concerned about bringing wide shared use paths through mature trees.





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GJ reiterated that this is a diagram and it will be interesting to see which project proposed for this area will be developed first said that DCR wanted a practical and reasonable solution that is safe and accessible without adding a culvert (as shown in the Kittleson report).

HN agrees with KK to that a celebration of the Pony Truss trail should be planned.

j. James Jample -

JJ said that the connection of Two Bridges to Riverside is a key connection. JJ asked when that connection would open and added that without that connection this is a trail to nowhere on the north end.

GJ said that Mark Development has suggested several trail mitigation projects in the Riverside area and one project is Two Bridges. Mark Development is proposing that they would pay for the design for Two Bridges along with an access ramp to Recreation Road. These are bridges that DCR identified a long time ago as key connections. GJ said that funding is not identified for the construction yet. The project is still in the planning stages and DCR has an interest in the project.

JJ also asked us to explain the nature of the two different types of paths.

Lisa Decker explained that the blue dash is the main trail located along the railroad right-of-way is a commuter path, and the blue dot is a spur trail that is a natural place for meandering through the golf course. The two paths vary in character, the main trail is for commuters and the spur is for recreation.

JJ also asked a question about the proposal for new footbridge at Walnut Street. JJ is not convinced that it would be necessary especially after experiencing the beauty and drama of Cordingly Dam. JJ thinks that the proposed footbridge would be anti-climactic after crossing the footbridge of the Dam and that the expense would not be worth it. JJ suggests utilizing the Walnut Street bridge as an option.

GJ responded that DCR likes to make big plans, this intersection is very unpleasant, and it would be nice to get off the bridge and get close to the river. GJ explained that if the footbridge is value engineered out, that the Walnut street bridge is a viable option.

k. Jessica Mink -

JM is an avid biker and bikes a loop of 70 miles throughout the entire regional trail system every five years and has long been has working on the Neponset trail with DCR. JM asked if there are plans for south of Quinobequin Road and wondered the extent of that project.

GJ explained the difference between the project area for Lower Falls trail and Quinobequin Road and explained the adjacent projects and uncertainty of project timelines.

JM is happy that this is finally happening and described the network of off-road trails and JM's experience and history with the greenway trails.

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I. Written question (anonymous) -

The question relates to the first question from AD regarding the idea of locating the trail alignment that follows the east side of the river along Quinobequin Road considering it is so close to traffic and there is a lot of poison ivy in this area.

GJ answered that there would have to be a boardwalk or deck along the east side of the river. GJ said it is feasible to add a trail along the southwest side of Quinobequin Road, we have studied it and vegetation management is part of every project. DCR designs trail projects to try to preserve and restore the natural resources. Poison ivy can be managed, and the planted area can be designed to increase the diversity of species.

m. Written question (anonymous) -

Is there any thought of making a short section of Walnut Street one-way from Route 16 to River Street? If the street was designed as one-way, a grade separated multi-use path could be added to the west side of Walnut Street, along River Street and along the DCR parkland to Route 16. This route would mostly avoid Route 16 and provide a more family friendly path alternative.

RH responded that our team did evaluate the option of adding an on-street facility on Walnut Street. There are grades constraints that would make the feasibility of an on-street trail more difficult to construct along with many driveways and curb cuts.

n. Jeff Gallas -

JG asked if there is any prospect of connecting the northern end of the trail to Clearwater Road.

GJ responded that it had been requested that DCR consider adding the connection to Clearwater Road, but the triangular parcel of land that extends from Two Bridges to Clearwater Road is owned by the City of Newton, is on the MassDOT right-of-way and contains a gas easement. DCR decided as an agency to maintain a trail alignment on DCR land, restore natural resources in the Charles River reservation and provide access to the river.

o. Bob Schrieber -

BS asks how pedestrians and bicyclists will be protected at the crossings along Washington Street/Walnut Street and Quinobequin Road. BS said that drivers are generally going fast and a significant percentage of them are not paying attention to crosswalk and stop lights. Many vehicles are either coming from or going to Route 128.

Ray Hayhurst responded that we realize that cars are traveling at high speeds and entering and leaving the community. The key points of the traffic study is study the impact of narrowing travel lanes which will help to reduce vehicle speeds so crossings are safer for trail users. The study looks at a variety of traffic controls (such as rapid flashing beacons) to improve the visibility of the crosswalks. We are also looking at the lighting to improve the visibility of trail users. There are a variety of design strategies that we have employed to slow traffic and keep trail users safe.

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### A.3 On- Line Comments

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p. George Kirby -

GK was involved in the first phase of the rail trail construction from Concord Street across the Trestle bridge to Wellesley and echoed HN's idea that commuter bicyclists would rather follow a route down St. Marys Street instead of the traveling through the golf course to get to the Two Bridges. GK asked what the timing is for the trail proposals. Also, what if the timing coincides with the possible use of the actual rail trail segment paralleling St Mary's? In that case, St. Marys Street could be a temporary option until the rail trail litigation is settled. This would result in the least amount of changes to the proposed design.

GJ understands from this meeting that people are interested in the commuter option, to leave the DCR trail and travel along St. Marys Street.

GJ reiterated that the railroad right-of-way is currently under litigation, there is currently nothing to report and the case is moving very slowly. With that in mind, it is a good thing to bring people closer to the river. GJ said that the alignment that we have presented can be implemented without having to wait for the lawsuit to be resolved.

GK thinks it could be a helpful solution and that St. Marys is a direct path. It is not as desirable as a separated path along the railroad right-of-way, but a good interim solution. GK is hoping that the timing might work out. Since the walking trail is going to meander, GK asked if we thought about signage to direct people.

LD explained that DCR includes various types of signage on their projects for providing wayfinding and site interpretation. The signage costs will be included in the cost estimate.

GJ reiterated that this is a diagram and at this point we will not be locating signs. DCR is working on signage prototypes.

#### 6. Next Steps -

a. Jenny Norwood explained how to submit comments and additional information and that the comment period was from tonight (September 22, 2020) until October 6<sup>th</sup>.

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b. GJ closed with thanking the group and trail users.



## A.4 Public Comments

Time	Comment	First	Last	Email	Address	City	Zip
9/26/20 3:25 AM	I agree with State Representative Kay Khan that it is absurd to circumvent the obvious route through the Lower Falls neighborhood in the design of this project. Rather than wait years for this issue to wend its way through land court, based on the objections of just a couple of neighbors, how about a class action suit on behalf of the thousands of pedestrians and cyclists this will inconvenience vs. the land court's failure to resolve the case in a timely manner? Or an eminent domain taking by the Commonwealth? The neighbors should realize that being on a rail trail only increases the value of every house in the neighborhood, including theirs.	Robert	Persons	rpersons@rcn.com	2396 Commonwealth Ave	Auburndale	MA
10/5/20 8:53 AM	I am writing to support the Lower Falls shared-use trail feasibility study. I live in Newton Lower Falls with my husband and two daughters. We have long been in favor of a shared use trail in our neighborhood. We anticipate that such a trail would have benefits to both our health and the environment. This particular trail proposal may also have social and educational benefits. The children of Lower Falls are districted to Angier Elementary School in Waban. Even though it is close by, there is no safe way to walk or bike to the school. This means that our children cannot participate in the "walk to school days" and requires car transportation for playdates with peers. Having a healthy transportation option for fair weather days would be wonderful. Please allow this proposal to pass so that it can improve our community.	Rebecca	Connor	RFConnor@gmail.com	135 Cornell St	Newton lower falls	MA
10/5/20 8:59 AM	I wish to express strong approval for all efforts to make additional areas accessible for safe bike and pedestrian use, including marked roadways, barriers and lights that include bikes. More safe walking and biking is better for everyone.	Claudette	Beit-Aharon	Claudette.bei taharon @gm ail.com	566 Centre St	Newton	MA
10/5/20 6:26 PM	I have seen your proposed trail plan, and frankly find it wanting in several respects that are probably already obvious to you. However, a better alternative has recently been identified by Dan Brody of the Newton Conservators. I am now sending this letter urging you to take advantage of his creativity and insight to build the bicycle element of the trail on the old railroad right-of- way that runs parallel to Saint Marys Street, rather than on a circuitous route on the Martin Golf Course. This alternative alignment of the southern end of the route would also follow the Charles River and cross the river on the existing Cochituate Aqueduct bridge. It is clearly better in many ways. Go for it! Sincerely, Robert Fizek 47 Forest Street Newton Highlands, MA	Robert	Fizek	rjfizek@gmail.com	47 Forest Street	Newton	MA



Time	Comment	First	Last	Email	Address	City	Zip
10/5/20 7:21 PM	One of my primary concerns with the DCR trail system and proposed expansion is maintenance. The majority of maintenance of the Lower Falls trestle bridge appears to be done by volunteers who deserve credit for their great work. But there is more substantial maintenance and repairs that have not been done (water pools on the bridge walkway after a hard rain) or took a long time to complete (cleaning black spray painted graffiti, removing a downed tree limb from the railing, etc.). The Boston Globe once reported the DCR had a billion dollar plus backlog of deferred maintenance on its properties, in part, because it was chronically underfunded. I'd like to hear more about: a) whether the DCR's funding has changed and have they substantially reduced the backlog on deferred maintenance; b) the specific plans for the ongoing maintenance and repairs (that is, what they commit to versus what volunteers might do).	J. Alan	Armstrong	easthambarn@gmail.com	17 Baker Place	Newton Lower Falls	MA



Time	Comment	First	Last	Email	Address	City	Zip
10/6/20 8:25 AM	The trail from Pine Grove Ave to the Trestle bridge should follow the railroad right-of-way. I don't understand the lack of progress towards securing the right to build on this right-of-way since this plan was proposed more than a decade ago. Until building on the right-of-way is possible, DCR should defer its plan for a bicycle path in this area, and build only a pedestrian trail on the golf course. Bicyclists already have a perfectly usable route along St Marys St. Few bicyclists would be tempted by a circuitous route on the golf course. Building this path to accommodate cyclists would be a waste of money and would degrade its desirability for walkers. I urge DCR to relocate the southernmost section of the trail to follow the existing Charles River Path in Wellesley and cross the river on the Cochituate Aqueduct bridge. This route is far superior to the current plan, which includes a 400-yard walk along busy Quinobequin Rd. This web page describes my proposal: https://newtonconservators.org/lower-falls-trail-options/ This route would require construction of two segments: from the top of the aqueduct bridge down to the riverbank, and along the riverbank under the I-95 bridge. It might be preferable to build this section in a way that is not ADA-compliant. A bicycle route could follow Walnut St to Quinobequin, with safety improvements as in the current plan. The recent DCR meeting about Quinobequin south of I-95 discussed the idea of splitting the bicycle and pedestrian routes, with a woodland path along the river for walkers and a safe, ADA- compliant route for bicycles along the road. If separate pedestrian and bicycle routes are possible in this section, they also should be considered in the section between Walnut Street and Quinobequin. My route would also provide a direct connection between the two trails that follow the Cochituate Aqueduct: the Crosstown Trail in Wellesley and the Cochituate Aqueduct Trail in Newton.	Dan	Brody	danielsbrody@gmail.com	15 Brewster Road	Newton	MA
10/6/20 10:18 AM	To: MA Department of Conservation and Recreation From: Newton Conservators On behalf of the Board of the Newton Conservators (newtonconservators.org), I am writing to convey our appreciation for helping to move this Lower Falls Shared Use Trail project forward. At our recent board meeting on 9/30/20, referring to the "North Area - Two Bridges to Trestle Bridge", it was resolved to convey our support for a walking trail on the circuitous path along the river and a bike path along the railroad right of way. This includes the railway portion parallel to Saint Mary Street where a resolution in all haste of the legal issues is strongly encouraged. Best regards, Ted Kuklinski, President	Theodore	Kuklinski	president@newtonconservators.org	24 Henshaw Terrace	Newton	MA



Time	Comment	First	Last	Email	Address	City	Zip
10/6/20	I support the pedestrian pathway section of this projectbut not the bicycle pathway. I am a Director of Newton Conservators and its former president. I strongly support the recommendation of the Newton Conservators Board that the preferred alignment for the bicycle portion of this project is on the railroad right-of-way that runs parallel to Saint Marys Street. Until building on the right-of-way is possible, I believe that DCR should defer its plan for an off-road bicycle path in this area, and build only a pedestrian trail along the edge of the golf course. Bicyclists already have a perfectly usable route from Pine Grove to the Trestle Bridge, using Saint Marys Street. Few bicyclists would be interested in the proposed circuitous route on the Martin Golf Course. Building this path to accommodate cyclists would be a waste of money and would degrade its desirability for walkers. A great advantage of the proposed alternative for bicycles on St. Mary's Street is that it would provide a direct connection between the two trails that follow the route of the Cochituate Aqueduct: the Crosstown Trail in Wellesley and the Cochituate Aqueduct Trail in Newton.		Wilkinson	Bethwilkinsonson@mac.com	14 Trowbridge Street	Newton	MA .
10/6/20 3:42 PM	I am the Planning Director for the Town of Wellesley. Due to family issues I have not been able in the last two weeks to coordinate this response with other officials in the Town or prepare a more formal response, but I do wish to submit certain concerns by today's deadline. I am grateful for all the efforts you have made to improve trails and increase connectivity between Wellesley, Newton and other towns. The use of Leo J. Martin grounds for trails is most welcome. Efforts should continue though to use the right of way along St. Mary's Street. I also suggest that the examination of alternatives look to a connection with Wellesley's Crosstown Trail. Traveling a short distance west along Route 16 from the Trail's intersection with Route 16 will bring you to the Crosstown Trail, a crossing which is protected by an existing signal. At this point users can proceed west or east along the Crosstown Trail. Traveling east along the Crosstown Trail will lead to the Newton border. I have not explored the feasibility of connections to Newton at this point, but it should be explored. The proposed routing along Route 16 to the 128/16 intersection and the crossing across the Route 128 entrance ramps present very significance safety issues. These could well be alleviated by instead focusing on utilizing the Crosstown Trail. Thank you for your consideration. Don	Don	McCauley	dmccauley@wellesleyma.gov	525 Washington Street	Kellesley	MA



Time	Comment	First	Last	Email	Address	City	Zip
10/6/20 4:42 PM	Please avoid damaging the roots of the mature pine trees on the proposed route. Excavation for laying the path that would cut roots near the surface is one concern. Another is soil compaction over time from repeated pressure of walkers and cyclists, and depriving roots of oxygen if the grade is raised. Best to avoid root zones of significant trees if at all possible.	Julia	Malakie	jmalakie@newtonma .gov	50 Murray Road	West Newton	MA
10/6/20 4:43 PM	Lower Falls Trails City of Newton_10-6-20.pdf	Andreaa	Downs	adowns@n ewton.gov	1000 Commonwe alth Avenue	Newton	MA



Time	Comment	First	Last	Email	Address	City	Zip
<u>Time</u> 10/6/20 5:21 PM	Comment           As a resident of Newton Lower Falls for more than 23 years, I am deeply concerned about the lasting and irreversible effects caused by the proposed shared-use trail. The proposed trail would cut through the neighborhood to provide an unnecessary thoroughfare for bicycle enthusiasts who don't live in the neighborhood. There are at least five reasons why the plan as proposed should not go forward:           1. Loss to abutting property owners. There are at least seventeen families on Clearwater Road who will lose privacy and the quiet enjoyment of their property by the destruction and construction necessitated by this plan. Additionally, there at least ten more families on the private portion of Pine Grove Avenue who will suffer the same losses. The proposal makes no mention of these concerns.           2. Disturbance of woodland wildlife. The wooded area encompassed by this plan has long been a pathway for indigenous animal species whose habitats will be unnecessarily compromised. Many deer, foxes, coyotes, owls, hawks, and other species depend on these woodland byways for their survival, only a few hundred feet from the Charles River. The proposed plan makes no mention whatsoever of the possible effects on wildlife.           3. Dangers to and from the golf course. Much of the proposed trail encroaches upon and encumbers the Leo J. Martin Memorial Golf Course. The course was developed in the 1930s by legendary (and Newton-based) golf-course designer Donald Ross, giving the municipal course historical significance. Destroying trees along several holes will undeniably impact fare-paying players' enjoyment of the golf course. Additionally, future users of the proposed trail will be in danger of serious injury from the many errant golf balls that regularly tear through that area. The proposal contains no mention of any of the dangers to the course itself, nor to trail user	Jay	Shepherd	jay@jayshep.com	Address Submitted via email	City	Zip
	residents of Newton and the Commonwealth are suffering as a						



Time	Comment	First	Last	Email	Address	City	Zip
10/6/20 6:14 PM	My comment is specifically centered on support of the Rail Road RoW, for a path, a transportation corridor, from the Trestle Bridge in Lower Falls, to the best and least complicated connection to crossing the two Bridges to Riverside, the beautiful Pony Truss Trail, the Pony Truss Bridge, and other potential amenities in the planning stages. This would also provide the least complicated connection to Quinobequin Road and trails on the other side of Washington Street. The Rail Road RoW abuts my property in Lower Falls and has been a proposal for 25 years. It is unfortunate that DCR has not been able to close the loop though the original lawsuit by 2 abutters was thrown out by the court. The path would also provide an off road bike and pedestrian opportunity to get Riverside for transportation or shopping at the site without the use of a car.	Kay	Khan	kaykhan7@gmail.com	18 St. Mary's Street	Newton	MA
10/6/20 9:58 PM	I welcome the linkage of Lower Falls. with the Upper Charles trail at Quinobequin Road. I also would ask that whatever plan that is taken up might not preclude or impede repair to the abandoned underdrain and sewer line that heads north and then west on Quinobequin Road and then up to Washington St. Sincerely Maureen Reilly Meagher 342 Quinobequin Road		Reilly Meagher	mreillymeagher@aol.com	342 Quinobequin Road	waban	MA



10/7/20 12:00 AM	I am writing to comment on the plan to create a bike path along Concord Street and Grayson Lane. My mother lives at 11 Grayson Lane; I grew up there. She bought the house in 1960 and has enjoyed the peaceful, quiet view of the woods behind the golf course for 60 years. The back yard of the house abuts the golf course and the proposed path. In fact, we were alerted to the existence of the path project by a guy walking in the woods immediately behind the house. We had never seen anyone there before, so we asked him what he was doing there; he said that he was surveying for the new path. I am a frequent bike path and trail user. I am very pleased with the addition of the trail over the trestle bridge, which in my youth was "the trestle," a place that kids dared each other to cross, one widely-spaced railroad tie at a time, watching their feet and looking at the water far below. It was pretty creepy! I was very glad to see the bridge restored as a walking and bicycle path. I think that connecting the trails together is a great idea, and I hope that the route using the old railroad bed becomes available as a bike path at some point in the future. I am concerned about the existing plan of running a bike path through the Concord Street woods and directly behind Grayson Lane. As a commenter at the recent meeting noted, sending a 14 foot wide path through the dense, mature Concord Street woods would cause significant damage to the mature forest there. In the past, there was a walking trail through that section, and I used to use it to walk our dog; the trail has since become overgrown, and the access from near the intersection of Grayson Lane. As a commenter at the reset the walking trail restored, but I do not support nunning a large bike path, when there is plenty of land in the golf course to avoid creating such a disturbance. The houses on Grayson Lane has werey mal back yards, so the feeling of encroachment is, in my opinion, significant. That said, it would be nice perhaps, to see the Walking trai	Simon	Rakov	simonrakov@gmail.com	Submitted via email	
	If the Concord/Grayson Lane alignment remains, I think that it should be designated as a hiking trail. This would narrow the trail					



Time	Comment	First	Last	Email	Address	City	Zip
	significantly, so that trees could be spared and disturbance reduced. For biking, the DCR could mark St Mary's St as a bike route to allow connection to the trestle bridge, until a bike path could be run along the old railroad bed. As another commenter during the meeting noted, St Mary's provides the most practical connecting route for a cyclist wishing to save time. As for the railroad bed, unlike the area behind Grayson Lane, the railroad bed has been a transportation right of way in the neighborhood for decades if not centuries. I personally remember trains running along the line in my very early childhood. Neighbors of the rail bed may be more aware of its past and potentially future use as a transportation corridor. I believe that Grayson Lane						

### City Council

2020-2021

City of Newton



Department of Conservation & Recreation Public Comment on Lower Falls Trails c/o Jennifer.norwood@mass.gov

Dear Ms. Norwood & DCR:

Thank you for the opportunity to comment on the DCR Lower Falls Shared Use Trails Feasibility Study as presented Sept. 22, 2020.

As advocates for walking and biking in this region, we are excited about the additional off-road access provided by this plan. We share DCR's goals for a quick-build, safe recreational and active transportation connections in this area.

However, we urge you to improve the plan for all users. People using the trails for transportation, whether on bikes or on foot, will want a more direct connection from the Concord St./Wellesley bridge to Riverside. The current proposed route is too circuitous. An inexpensive, quick alternative would be directing such users from Concord St. to St. Mary's St. to connect to the multi-use path along the golf course at Pine Grove and Clearwater (see diagram).

To accommodate recreational users—which we expect will be mostly those out for a longer walk—allows DCR to create a more scenic path nearer to the river—and thus sparing the root systems of the mature pines along Pine Grove (again, see diagram). This re-routing also gives users a more rustic experience, on a narrower and softer trail, away from vehicles.

Finally, we strongly favor final designs that enable a future muti-modal connection with the southern half of the rail right-of-way. As this is 20° and change along its length, DCR can address neighbors' privacy concerns with planting and screening.

Thank you again for the opportunity to comment. We look forward to seeing the next iteration of this study!

Andreae Downs, Ward 5 Alicia Bowman, Ward 6 Alison Leary, Ward 1

**City Councilors** 

1000 Commonwealth Avenue - Newton, MA 02459 617-796-1210 www.newtonma.gov

