

Description of Work and Project Overview

The City of Boston is submitting this application for the Phase 2 Muddy River Flood Damage Reduction Project (the Project.) The Project has been designed by the U.S. Army Corps of Engineers-New England District (ACOE) and aims to relieve the Muddy River of flooding, improve degraded riverine habitats, poor water quality, and other related water resource problems.

The construction of the Muddy River project requires the expertise of two different types of contractors. For this reason, the design and implementation of the project was conducted in two separate phases. The first phase consisted of the major structural features of the flood control improvements, daylighting of two sections (about 700 linear feet) of the Muddy River, sediment removal from the Upper Fens Pond and landscape restoration. Construction of Phase 1 began in 2013 and was substantially completed in August 2016. ‡

The second phase of the Muddy River Flood Damage Reduction Project consists of removal of sediment for flow conveyance in the Fens, Riverway, and Leverett Pond. Phase 2 is proposed to begin construction during Spring of 2019, and will include the following work:

- Excavate the river in the Back Bay Fens area to allow for increased flows and reduce flood damage.
- Excavate five stretches of the Riverway section of the river to allow for increased flows and reduce flood damage.
- Excavate the sandbar and island at Leverett Pond to allow for increased flows and reduce flood damage.
- Excavate deepened channel sections to delay need for maintenance dredging.
- Provide additional flood proofing at the Boston Fire Department Fire Control Center in the Back Bay Fens.
- Eradicate Phragmites in the Back Bay Fens and Riverway areas where necessary to achieve and maintain flood damage reduction.
- Restore wetland vegetation in dredged areas by seeding or planting appropriate wet meadow and emergent wetland plants.
- Restore riparian vegetation in upland areas where Phragmites or oriental knotweed are eradicated by planting grass, trees and shrubs. Installation of habitat logs for fish and turtles.
- Removal of the temporary flow restriction structure upstream of the Riverway.

- Restore vegetation and other landscape features following removal of temporary access roads, staging areas, and the flow restriction structure.

Plantings are informed by Olmsted's designed for the properties recognizing the changes since the original design (transformation from tidal to freshwater and redesign of Fens.) The plants are selected from the original Olmsted lists and plans for the Muddy River and Fens with a focus on native New England species and robust, diverse wetland plantings. The Army Corps engaged Pressley Associates, landscape architects with extensive landscape preservation experience and knowledge of these parks, to develop the planting palette and landscape rehabilitation plans.

#

Project History

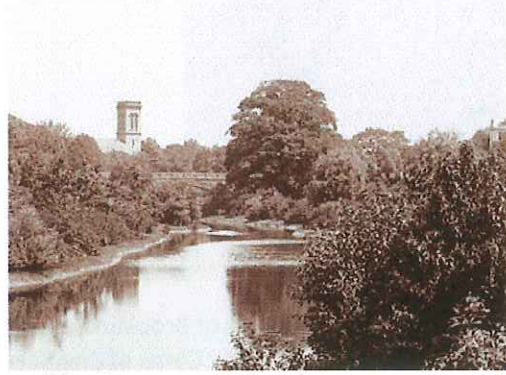
The Muddy River Project is a unique effort by federal, state, and local governments to improve flood control and enhance the environment by restoring an historic urban waterway.

The Muddy River:

In the late 1800s, the renowned landscape architect Frederick Law Olmsted worked with engineer Alexis French to create a park that would also serve as a flood control channel. They called the project the Muddy River Improvement and - by linking the Improvement to ponds upstream and the Fens downstream - created part of the historic Emerald Necklace Park System.



Muddy River Improvement in construction

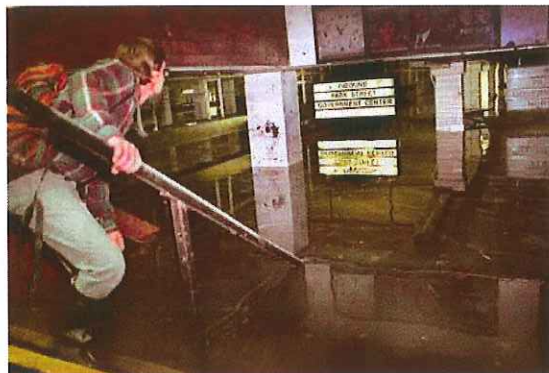
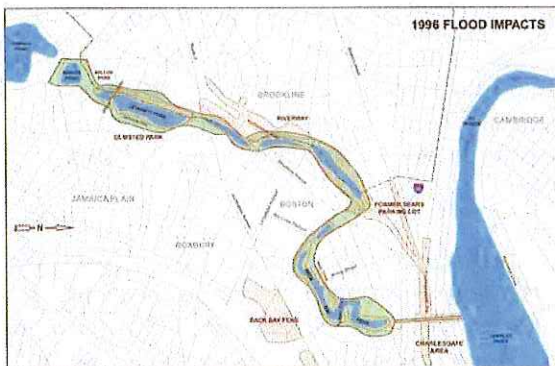


Muddy River post construction

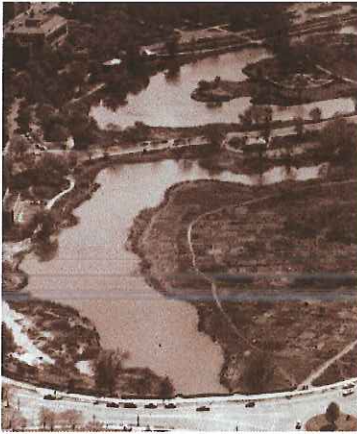
Images courtesy of the Loeb Library, Harvard University.

A century later, a master plan was developed for restoration of the historic system. It noted flooding but did not emphasize this particular function of the park. In 1996, a massive rain event changed that. The Muddy River overtopped its banks, and the park couldn't contain the flood.

Stormwater filled MBTA tunnels and Kenmore station. Hospitals, schools, businesses and homes were damaged. It became clear that the cumulative effect of 100 years of changes meant that the Muddy's once-effective stormwater control system could no longer do its job.



The neighborhood had been covered by buildings, roads, and sidewalks that shed water into the Muddy. The river itself had been narrowed by undersized culverts (pipes) and the invasive vegetation that grew along the banks. Sediment from roadway runoff and eroding banks had reduced capacity even further.



Muddy River circa 1950s



Muddy River circa 2000 narrowed by invasives

Image courtesy of the Kepes-Lynch Photograph Collection

[MIT-Libraries](#)

The City of Boston and Town of Brookline worked in collaboration with the Commonwealth of Massachusetts and U. S. Army Corps of Engineers to develop a comprehensive program to restore the Muddy River. Funding for the \$92 million effort comes from the Army Corps; the Massachusetts Office of Energy and Environmental Affairs and its Department of Conservation and Recreation; Boston and Brookline.

The Project:

The U. S. Army Corps of Engineers designed the Muddy River Project to reduce flood damage and improve ecosystems. At the same time, the Project will restore an historic landmark, expand habitat areas, and improve access through the park system. The first phase of the project started in 2013 and involves daylighting the Muddy River in the areas in front of the Landmark Center and between Brookline Avenue and Avenue Louis Pasteur. ("Daylighting" means taking a river that has been put underground in pipes and opening it up to the daylight once again.) The work will include new river crossings with granite faced bridges and enhanced wetland plantings. Phase 2 includes dredging the Muddy upstream and downstream of the Phase 1 area, removing invasive reeds from construction areas and replanting disturbed areas of the river's edge with appropriate plants selected from the historic planting plans. The work in both phases – opening the river, dredging and removing invasive plants - improves habitat and lets the river convey more rainwater.

The Muddy River Project is an essential part of the on-going effort to rehabilitate the Emerald Necklace park system. The rehabilitation is guided by *The Emerald Necklace Environmental Improvements Master Plan* and the *Muddy River Flood Control, Water Quality, Habitat Enhancement and Historic Preservation Project*. This overarching effort includes improvements at Charlesgate (completed in 2005), as well as the Back Bay Fens, Riverway, and Olmsted parks.

#

Correspondence between Army Corps and Massachusetts Historical Commission

Due to federal and state involvement, the Project was subject to review by the Massachusetts Historical Commission. See attached.

HISTORIC AND ARCHAEOLOGICAL ASSESSMENT
MUDDY RIVER PHASE 2 FLOOD RISK MANAGEMENT PROJECT
BOSTON AND BROOKLINE, MA

Background:

The project area of the Muddy River Feasibility study is a portion of the Olmsted Park System which was accepted for inclusion on the National Register of Historic Places on 8 December 1971, as a National Register District. The Olmsted Park System includes a series of parks linked by continuous parkways. It curves south from the mouth of the Muddy River to Franklin Park. When originally conceived, the System also included Boston's existing parks, the Common, and the Public Garden which were linked to the Olmsted Plan by the Commonwealth Avenue mall. This historically significant area is composed of six properties: the Back Bay Fens, Muddy River, Olmsted (Leverett) Park, Jamaica Park, Arborway, and Franklin Park.

This comprehensive park system, which Frederick Law Olmsted Sr. planned for the City of Boston in the late 1870's, is one of the nation's outstanding examples of a multi-use open space and the landscape architect's finest design project in New England. Olmsted's work on the system, which became known as the "Emerald Necklace" around Boston, created a strong precedent, for it included all the design and planning elements which later landscape architects have applied to regional planning on a large scale.

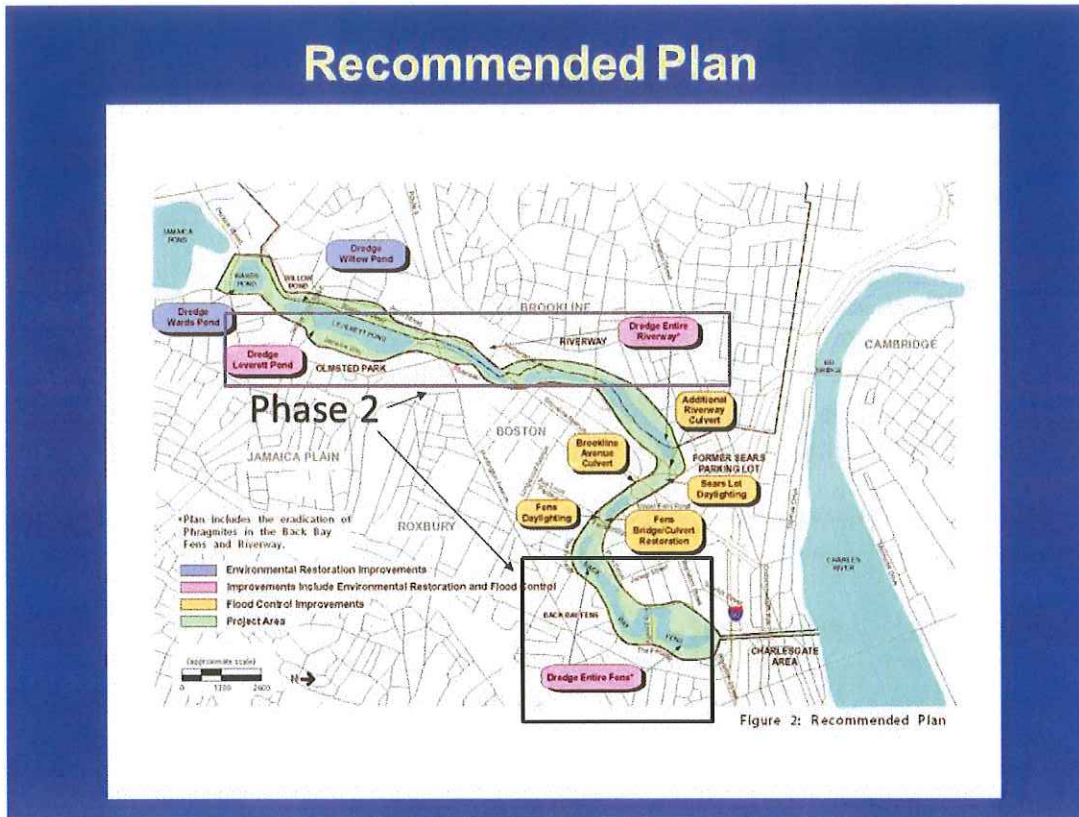
Olmsted's original plans for the park system had three purposes: to create needed municipal open space while solving an engineering problem; to link newly annexed parts of the city with its historic center; and to provide, as in his earlier designs for Central Park (1857-63), a variety of forms of recreation. Olmsted established a hierarchy of uses for areas within the system, creating large and medium sized parks for rural relaxation and picnicking, smaller landscaped areas with ponds for recreation and linear parkland for pleasure driving, riding, and hiking. Though they were never carried out completely, sketches of circulation patterns suggest that Olmsted intended to separate traffic within the park system according to volume and type, like his plans for Central Park in New York City.

The Back Bay Fens and the Fenway were the first portions of the park system to be planned. In the 1870's the Fens were a tidal swamp which served as a repository for sewage and were subject to violent floods. The three-man Boston Park Commission was created in 1875 primarily to find a solution to this problem. Following an unsuccessful competition for a design, Olmsted was asked to prepare a new plan for the Fens. Using swamp-like vegetation able to withstand periodic soakings with salt water, he created an informal park which was a unique feat of engineering skill and naturalistic landscaping.

(The above information is taken from the National Register Inventory Nomination Form 1971.)

Muddy River Phase II Area of Potential Effect (APE)

Phase 2 project area includes Riverway at Park Drive to Leverett Pond; and Back Bay Fens from Avenue Louis Pasteur to Boylston Street (including the Boston Fire Alarm HQ Building).



The Phase 2 project area is composed of 12 Work Areas: 6 non-contiguous areas within the Riverway (Work Areas 1-6 on project plans) and 6 contiguous areas within the Back Bay Fens (Work Areas 7-12). Work Area 1 is located at Leverett Pond. See attached drawings of specific work areas. Known historic properties are located within the Contractor's limits of work or adjacent to our project area. The Olmsted Park System National Register Historic District (aka Emerald Necklace) comprises all 12 work areas of the Phase 2 project.

Historic Properties within APE

The Massachusetts Historical Commission indicated that numerous individual properties

and districts on the National Register of Historic Places exist within or near the project area.

Historic Districts

- *Olmsted Park System (aka Emerald Necklace Parks), National Register Historic District and Boston Landmark (Boston and Brookline)*
- *Brookline Multiple Resource Area*
- *Metropolitan Boston Water Supply System Thematic Resource Area*
- *Brookline Village Historic District – adjacent to Leverett Pond*
- *Pill Hill Historic District (Brookline)- adjacent to Leverett Pond*
- *Longwood Historic District (Brookline) – adjacent to Riverway*

Historic Properties

- *Frederick Law Olmsted House, Brookline*
- *George R. Minot House, Brookline*

One known Native American archaeological site (19-SU-86-Olmsted Park) is recorded within State site files for the project area (eastern shore of Leverett Pond).

Historic properties within or immediately adjacent to or within the viewshed of the Phase 2 project area are listed below.

Work Area 1 – Leverett Pond

Olmsted Park – Cove Bridge at Leverett Pond, 1892-1894 (BOS.9301)
Leverett Pond – Pond Street, Boston and Huntington Ave., Brookline, 1881 (BOS.9298)
Leverett Pond Footbridge, Huntington Avenue, Brookline, 1894 (BKL.922)
Olmsted Park – Retaining Walls along Jamaicaaway (BOS.9310)
19-SU-86 (Olmsted Park), Native American archaeological site.

Work Area 2/3 – Riverway

Riverway – Brookline Avenue Bridge, Boston, 1894 (BOS.9293)

Work Area 3/4 – Riverway

Netherlands Road Bridge, 1894 (BOS.9292)

Work Area 4/5/6 – Riverway

Riverway Pathway (BOS.9617)

Work Area 5 – Riverway

Riverway Shelter/Toolhouse, Park Drive, 1893 (BOS.9288)
Chapel Street Bridge, Park Drive, 1890 (BOS.9289)
Bridle Path Bridge, Park Drive, 1892-1893 (BOS.9290)
Carlton Street Footbridge, Carlton Street, Brookline, 1894

Work Area 6 – Riverway

Riverway Administration Building, 440 Park Drive, 1894-1895 (BOS.7536)

Work Area 7/8 – Back Bay Fens
Clemente, Roberto Field (BOS.9286)

Work Area 9/10 – Back Bay Fens
Back Bay Fens World War II Memorial, Park Drive, 1948 (BOS.9275)
Back Bay Fens Rose Garden, Park Drive, 1924 (BOS.9278)

Work Area 10/11 – Back Bay Fens
Agassiz Road Bridge, 1888 (BOS.9279)
Agassiz Road Gate House (“Duck House”) (BOS.7710)

Work Area 10 – Back Bay Fens
Stony Brook Gate House #1 (1880) and #2 (1905) (BOS.7287 and 7288)

Work Area 11/12 – Back Bay Fens
Boston Fire Alarm Headquarters Building, 1925 (BOS.7286)

Work Area 12 – Back Bay Fens
Back Bay Fens Victory Garden, Park Drive, 1940 (BOS.9276)
Boylston Street Bridge, Boston, 1880 (BOS.9273)

Archaeological Sensitivity within APE

Within the Phase 2 Area of Potential Effect (APE), archaeological sensitivity is possible within the Riverway (from the former Sears Parking Lot to Route 9, with the Longwood Area having the most intact historic integrity), and at Olmsted Park (Leverett Pond). It has been noted that of the five park areas of the entire Emerald Necklace park system (Franklin Park, Jamaica Pond, Olmsted Park, Riverway and Back Bay Fens), Franklin Park and Jamaica Pond retain the greatest potential for archaeological resources (Loparto 1986). These two areas are not located within the project area of potential effect.

Phase 2 Scope of Work

- Excavate the river in the Back Bay Fens area to allow for increased flows and reduce flood damage.
- Excavate five stretches of the Riverway section of the river to allow for increased flows and reduce flood damage.
- Excavate the sandbar and island at Leverett Pond to allow for increased flows and reduce flood damage.
- Excavate deepened channel sections to delay need for maintenance dredging.

- Provide additional flood proofing at the Boston Fire Department Fire Control Center in the Backbay Fens (see photo at end of narrative).
- Eradicate *Phragmites* in the Back Bay Fens and Riverway areas where necessary to achieve flood damage reduction.
- Restore wetland vegetation in dredged areas by planting appropriate emergent wetland plants.
- Restore riparian vegetation in upland areas where *Phragmites* or oriental knotweed are eradicated by planting grass, trees and shrubs.
- Restore vegetation and other landscape features disturbed at staging areas.
- Installation of boulders and habitat logs for fish, turtles and amphibians.

Assess Effects and Determination of Effect (DOE)

A review of archaeological site files at the Massachusetts Historical Commission indicated several prehistoric sites in the vicinity of the project area including 19-SU-86 in Olmsted Park on the eastern shore of Leverett Pond. Several prehistoric and historic archaeological resources were also noted for the Arnold Arboretum from a Reconnaissance Archaeological Survey of the Arnold Arboretum (Pendery 1992), outside of the project area.

Due to the heavily urbanized nature of the project area, many archaeological resources have most likely been disturbed or destroyed. Isolated areas of relatively undisturbed contexts may be found. However, both historic and archaeological properties are present throughout the Phase 2 project area as discussed above. Additionally, the pathways and vegetation throughout the Olmsted Park System were carefully designed by Olmsted to reflect a natural landscape appearance and should be maintained to the greatest degree possible. Pressley Associates is currently under contract with USACE to design the necessary replantings as part of this project.

The listed historic properties above (bridges and structures) will not be individually impacted outside of the overall project dredging and bank stabilization and/or restoration as depicted on the project plans. Dredging within the individual arches of the Agassiz Road Bridge will be conducted; however, no impacts to the bridge itself are expected. The only exception is at the rear of the Boston Fire Alarm Headquarters Building (The Fenway) where a new flood wall and security fence will be constructed at the same location of the existing security fence as a flood proofing measure. The new wall will be in keeping with the architectural features of the 1925 Fire Alarm Building and will be designed by a USACE project architect.

All project regulators, stakeholders and interested parties have been provided copies of the Phase 2 project 65% design plans and specifications for their review and comment. Comments will be addressed and incorporated into the draft 95% design plans, currently scheduled for Fall 2017, and which will also be provided to the stakeholders. This will be the final opportunity for review and comment of the Phase 2 design plans and specifications prior to the 100% submittal.

Based upon the preceding information, USACE has determined that the Muddy River

Phase 2 Project will result in a “no adverse effect” determination upon significant historic properties. This determination is based on the implementation of avoidance, minimization and monitoring activities during construction, as discussed below.

Measures to Avoid, Minimize and Mitigate for Adverse Effects

Known historic properties identified above shall be depicted on project plans and coordinated with the construction contractor prior to construction. During construction, river bank areas will be protected to the greatest extent possible. There will be minimal contractor access and staging/storage areas. Excavation will be limited to sediment in the river channel and *Phragmites* removal in and along the river bank. Engineered stone and riprap will be placed below the waterline only along the upstream and downstream areas of two 1978 footbridges in the Back Bay Fens (Central Lagoon Footbridge and Rose Garden Footbridge). Lastly, dredging will be conducted within the arches of the Agassiz Road Bridge; however, there will be no direct impacts to the bridge itself. Deviations from the above and introduction of any visual intrusions to the Olmsted Park System would require further coordination with the project stakeholders in accordance with Section 106 of the National Historic Preservation Act for any adverse impacts that cannot be avoided or minimized.

Coordination of Findings and DOE with Project Stakeholders (36 CFR 800.4 – 800.6)

This document with the project’s “no adverse effect” determination will be coordinated amongst all project stakeholders as requested by the Massachusetts State Historic Preservation Officer and in accordance with 36 CFR 800.5(b) and (c) – *Finding of No Adverse Effect* and *Consulting Party Review*. If there is disagreement with these findings, then further coordination with the stakeholders shall be conducted to attempt to resolve the dispute. If the dispute cannot be resolved, USACE shall request the comments of the Advisory Council on Historic Preservation in accordance with 36 CFR 800.5(c)(2) and (3). USACE shall take into account the Council’s comments in reaching a final decision on the finding. A summary of USACE decision shall then be provided to the Advisory Council and all stakeholders.

REFERENCES

Boston Landmarks Commission (BLC)

n.d. Boston Landmarks Standards and Criteria for Jamaica Pond, Olmsted Park, the Riverway and the Back Bay Fens, BLC, Boston, MA.

Loparto, Leonard

1986 Draft Report, Prehistoric Background Study, Olmsted Parks Project. Unpublished manuscript on file, Boston Landmarks Commission, Boston, MA.

Massachusetts Historical Commission (MHC)

1971 National Register Inventory-Nomination Form, Olmsted Park (Emerald Necklace), copy on file, MHC, Boston, MA.

n.d. Massachusetts Cultural Resource Information System. Available at:

<http://mhc-macris.net/index.htm>. Last accessed on May 26, 2017.

Muddy River Restoration Project Maintenance and Management Oversight Committee (MMOC)

2008 Bridges of the Emerald Necklace along the Muddy River. Draft document dated 8/1/2008. Provided by Ms. Fran Gershwin of the MMOC.

Pendery, Steven R.

1992 Report on Intensive Archaeological Site Survey, Olmsted Park, Jamaica Pond Park Bike Path, City Archaeology Program, Boston Landmarks Commission, Environmental Department, Boston, MA.

1993 Reconnaissance Archaeological Survey of the Arnold Arboretum, Boston Landmarks Commission, Boston, MA.

U.S. Army Corps of Engineers (USACE), New England District

2016 Muddy River Flood Damage Reduction Project, Phase 2, Boston and Brookline, MA. Basis of Design Report – 65% Design Submittal, USACE, Concord, MA.

BOSTON FIRE ALARM HEADQUARTERS BUILDING, 1925
STREET VIEW, FRONT SIDE
BOS.7286 – THE FENWAY, BOSTON
COURTESY OF MA CULTURAL RESOURCE INFORMATION SYSTEM (MACRIS)



**AGASSIZ ROAD BRIDGE, 1888 – BOS.9279
BACK BAY FENS, UPSTREAM VIEW
COURTESY OF MACRIS
CONSTRUCTED WITH ROXBURY PUDDINGSTONE
JOHN C. OLMSTED, DESIGNER**



**CHAPEL STREET FOOTBRIDGE
LOCATED BETWEEN LONGWOOD AVENUE BRIDGE
AND CARLTON STREET FOOTBRIDGE
SEAM-FACED GRANITE, IRON RAILING – 1894
VIEW LOOKING DOWNSTREAM
MUDDY RIVER MAINTENANCE AND MANAGEMENT OVERSIGHT COMMITTEE
(MMOC), BRIDGES OF THE EMERALD NECKLACE ALONG THE MUDDY RIVER
DRAFT 8/1/2008, PAGE 9**



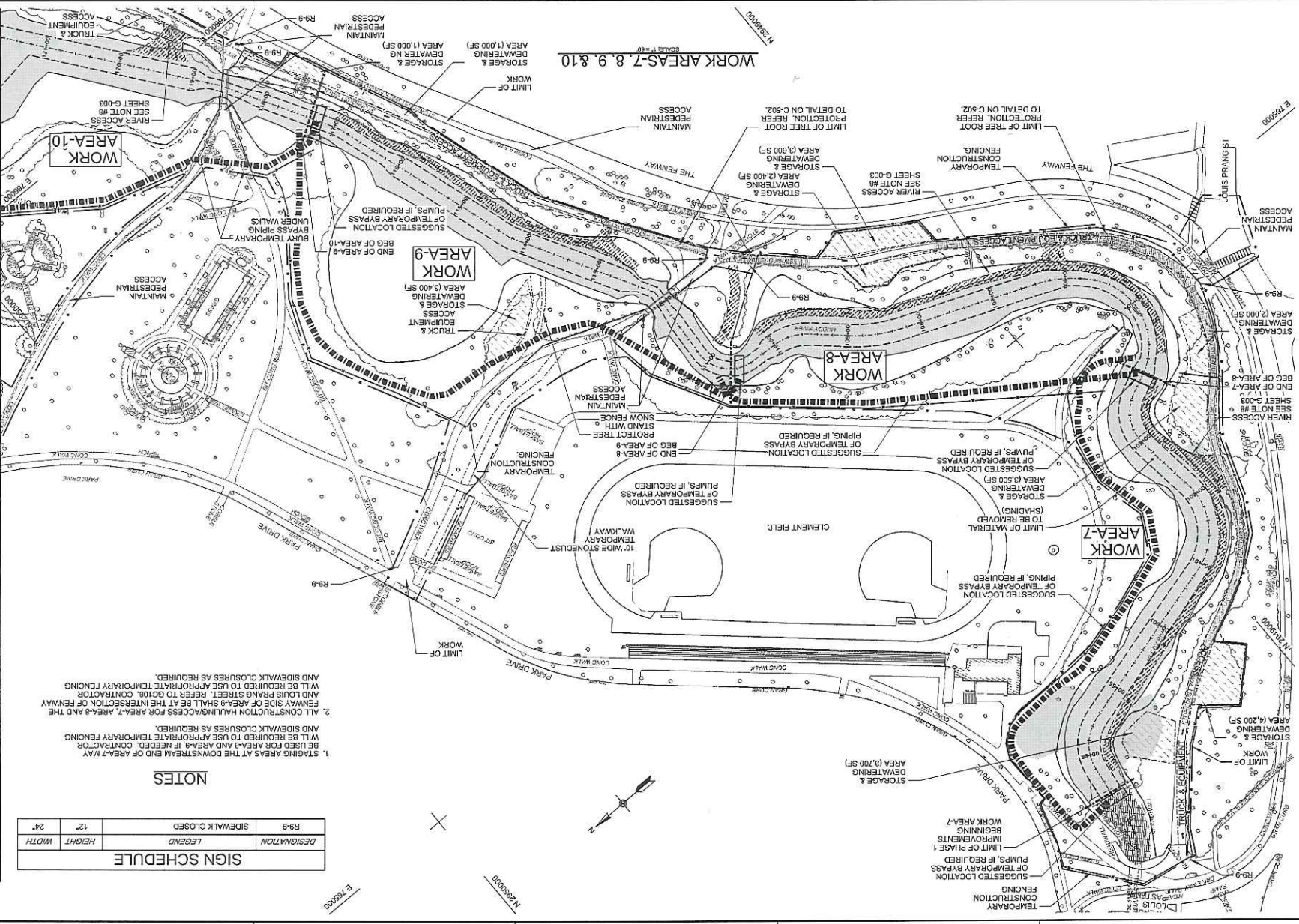
**BRIDLE PATH FOOTBRIDGE
BETWEEN LONGWOOD AVENUE AND CARLTON STREET FOOTBRIDGE
SEAM-FACED GRANITE WITH COPING OF RED GRANITE ON A
CONCRETE FOUNDATION
BUILT 1893
MUDDY RIVER MAINTENANCE AND MANAGEMENT OVERSIGHT COMMITTEE
(MMOC), BRIDGES OF THE EMERALD NECKLACE ALONG THE MUDDY RIVER
DRAFT 8/1/2008, PAGE 10**



**COVE FOOTBRIDGE, OLMSTED PARK, BOSTON
SEAM-FACED GRANITE WITH BRICK ARCH
BUILT 1894**

**MUDDY RIVER MAINTENANCE AND MANAGEMENT OVERSIGHT COMMITTEE
(MMOC), BRIDGES OF THE EMERALD NECKLACE ALONG THE MUDDY RIVER
DRAFT 8/1/2008, PAGE 16**





WORK AREAS-7, 8, 9, & 10

SCALE: 1/8" = 1'-0"

- NOTES**
1. STAGING AREAS AT THE DOWNSTREAM END OF AREA-7 MAY BE USED FOR AREA-8 AND AREA-9 IF NEEDED. CONTRACTOR WILL BE REQUIRED TO USE APPROPRIATE TEMPORARY FENCING AND SIDEWALK CLOSURES AS REQUIRED.
 2. ALL CONSTRUCTION HAULING/ACCESS FOR AREA-7, AREA-8 AND THE FENWAY SIDE OF AREA-9 SHALL BE AT THE INTERSECTION OF FENWAY AND LOUIS FRANCHET STREET. REFER TO C-1010, CONTRACTOR WILL BE REQUIRED TO USE APPROPRIATE TEMPORARY FENCING AND SIDEWALK CLOSURES AS REQUIRED.

SIGN SCHEDULE

DESIGNATION	LEGEND	HEIGHT	WIDTH
R9-9	SIDEWALK CLOSED	12"	24"

SHEET IDENTIFICATION
GC104

MAJOR RIVER FLOOD DAMAGE REDUCTION AND ENVIRONMENTAL IMPROVEMENT PROJECT (PHASE 2) BOSTON AND BROMFIELD, MASSACHUSETTS CONSTRUCTION STAGING, ACCESS, AND PEDESTRIAN MANAGEMENT PLANS

U.S. DEPARTMENT OF COMMERCE
NEW ENGLAND DISTRICT
CONCORD, MASSACHUSETTS
95% SUBMITTAL

NO.	DATE	DESCRIPTION	BY	CHKD.

NO.	DATE	DESCRIPTION	BY	CHKD.

US Army Corps of Engineers
New England District
Boston, MA

US Army Corps of Engineers
New England District
Muddy River Flood Damage Reduction and
Environmental Restoration Project
Boston and Brockline, Massachusetts
CONSTRUCTION STAGING,
ACCESS, AND PEDESTRIAN
MANAGEMENT PLANS

95% SUBMITTAL

DATE: 11/10/2009
DRAWN BY: J. J. O'NEILL
CHECKED BY: J. J. O'NEILL
SCALE: AS SHOWN
SHEET: GC105

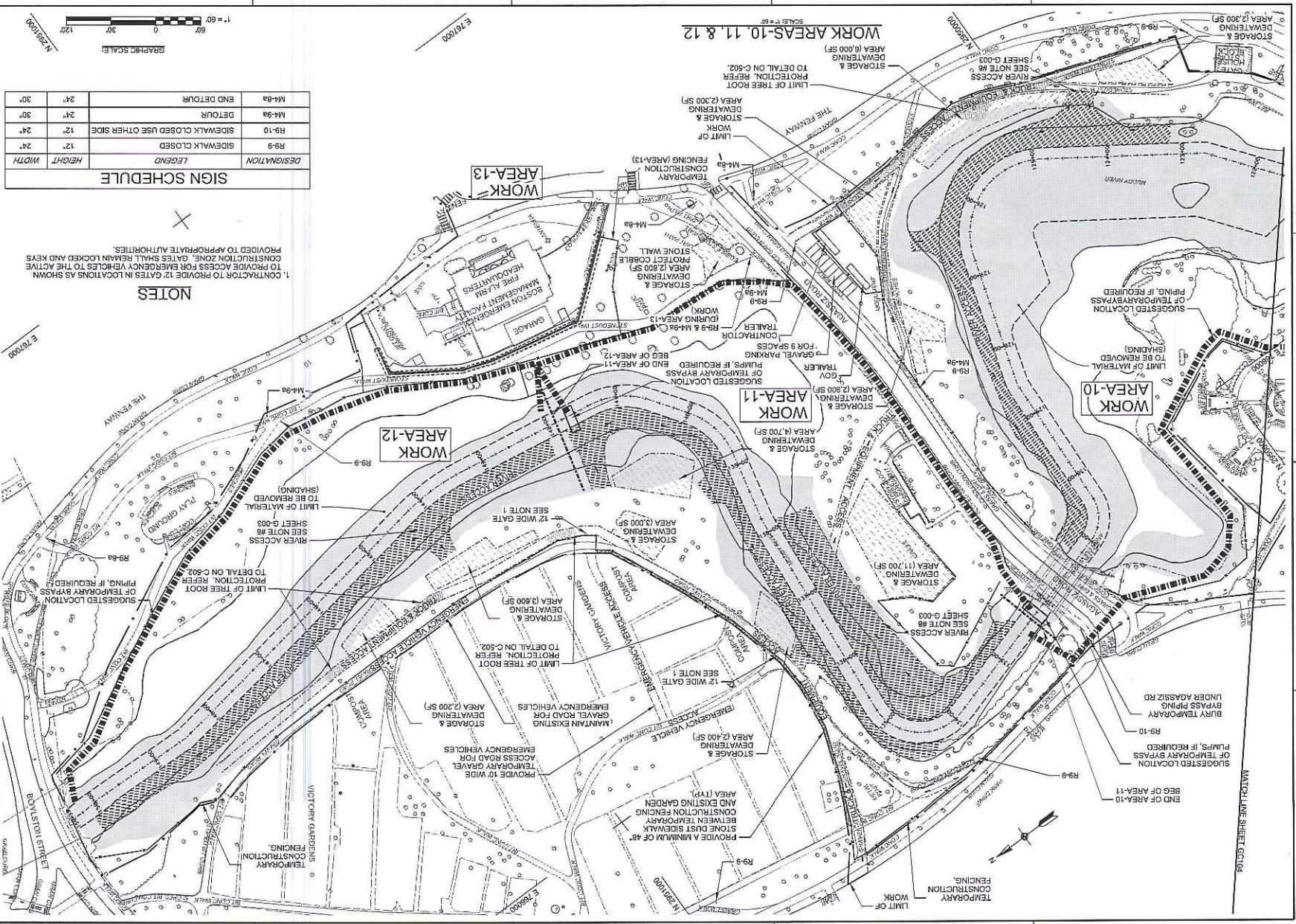


SIGN SCHEDULE

DESIGNATION	LEGEND	HEIGHT	WIDTH
RS-9	SIDEWALK CLOSED	12"	24"
RS-10	SIDEWALK CLOSED USE OTHER SIDE	12"	24"
M-9a	DETOUR	24"	30"
M-9b	END DETOUR	24"	30"

NOTES

1. CONTRACTOR TO PROVIDE 12 GATES IN LOCATIONS AS SHOWN TO PROVIDE ACCESS FOR EMERGENCY VEHICLES TO THE ACTIVE CONSTRUCTION ZONE. GATES SHALL REMAIN LOCKED AND KEYS PROVIDED TO APPROPRIATE AUTHORITIES.





DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
696 VIRGINIA ROAD
CONCORD MA 01742-2751

RECEIVED

OCT 20 2017

MASS. HIST. COMM

RC. 9170

October 4, 2017

Planning Division
Evaluation Branch

Ms. Brona Simon, Executive Director and SHPO
Massachusetts Historical Commission
The Massachusetts State Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

CONCURRENCE:

11/20/17

Brona Simon
BRONA SIMON
STATE HISTORIC
PRESERVATION OFFICER
MASSACHUSETTS
HISTORICAL COMMISSION

Dear Ms. Simon:

The U.S. Army Corps of Engineers (USACE), New England District, in response to the letter of January 27, 2017 (copy enclosed), has prepared the enclosed historic properties assessment for Phase 2 of the Muddy River Flood Damage Reduction Project in Boston and Brookline, Massachusetts for your review and consideration.

As requested, this assessment defines the project's area of potential effect; identifies known historic properties including areas of archaeological sensitivity; assesses effects upon these properties; and presents a plan to avoid, minimize or mitigate for any adverse effects. We are providing these findings and determinations to all consulting parties of the Muddy River project, in accordance with 36 CFR 800.4 to 800.6 of the Advisory Council on Historic Preservation's regulations.

The proposed Phase 2 activities (described in the assessment) will result in "no adverse effect" upon historic properties in accordance with Section 106 of the National Historic Preservation Act. We would appreciate your concurrence with this determination within 30 days of receipt of this correspondence. The draft 95% design plans and specifications are currently available for review and comment prior to the preparation of the final 100% design package in early 2018.

If you have any questions, please contact Ms. Jennifer Flanagan, Project Manager at 978-318-8015 or Mr. Marc Paiva, Project Archaeologist at 978-318-8796.

Sincerely,

Lawrence R. Oliver
Lawrence R. Oliver
Chief, Evaluation Branch

Enclosure

These folks below will send Q's to Marc Paiva

Ms. Brona Simon, Executive Director and SHPO
Massachusetts Historical Commission
The Massachusetts State Archives Building
220 Morrissey Boulevard
Boston, Massachusetts 02125

Ms. Roseanne Foley, Executive Director
Boston Landmarks Commission
One City Hall Square, Room 709
Boston, Massachusetts 02201

Ms. Frances Allou Gershwin
Chair, Maintenance and Management Oversight Committee
Burns & Levinson
125 Summer Street
Boston, MA 02110

Ms. Karen Mauney-Brodek, President
Emerald Necklace Conservancy
125 The Fenway
Boston, MA 02115

Meghan Hanrahan Richard, Preservation Planner
Brookline Preservation Commission
Town of Brookline
333 Washington St.
Brookline, MA 02445



The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

January 27, 2017

Jennifer Flanagan
Project Manager
US Army Corps of Engineers
New England District
696 Virginia Road
Concord MA 01742-2751

RE: Muddy River Flood Damage Reduction & Environmental Restoration Phase 2 Project,
Boston and Brookline, MA. MHC #RC.9170.

Dear Ms. Flanagan:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the information that you submitted for the proposed project referenced above. The MHC recommends that the Corps take into account comments from consulting and interested parties and the public regarding the 65% project drawings.

The MHC advises that the Corps should determine the area of potential effect; identify historic properties (including any areas sensitive for significant archaeological resources); assess effects; develop a draft plan to avoid, minimize, or mitigate any adverse effects; and provide the findings and determinations to the consulting parties for comment (36 CFR 800.4 to 800.6).

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). Please contact Edward L. Bell, Deputy State Historic Preservation Officer, if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brona Simon".

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc:

Myra Harrison, NPS Olmsted National Historic Site
Patrice Kish, Massachusetts Dept. of Conservation & Recreation
Rosanne Foley, Boston Landmarks Commission
Margaret Dyson, Boston Parks and Recreation Department
Joe Bagley, Boston City Archaeologist
David King, Brookline Preservation Commission
Frances Allou Gershwin, Muddy River Maintenance & Management Oversight Committee
Karen Mauney-Brodek, Emerald Necklace Conservancy



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The U.S. Army Corps of Engineers (USACE), New England District, in response to the letter of January 27, 2017 (copy enclosed), has prepared the enclosed historic properties assessment for Phase 2 of the Muddy River Flood Damage Reduction Project in Boston and Brookline, Massachusetts for your review and consideration.

As requested, this assessment defines the project's area of potential effect; identifies known historic properties including areas of archaeological sensitivity; assesses effects upon these properties; and presents a plan to avoid, minimize or mitigate for any adverse effects. We are providing these findings and determinations to all consulting parties of the Muddy River project, in accordance with 36 CFR 800.4 to 800.6 of the Advisory Council on Historic Preservation's regulations.

The proposed Phase 2 activities (described in the assessment) will result in "no adverse effect" upon historic properties in accordance with Section 106 of the National Historic Preservation Act. We would appreciate your concurrence with this determination within 30 days of receipt of this correspondence. The draft 95% design plans and specifications are currently available for review and comment prior to the preparation of the final 100% design package in early 2018.

If you have any questions, please contact Ms. Jennifer Flanagan, Project Manager at 978-318-8015 or Mr. Marc Paiva, Project Archaeologist at 978-318-8796.

Sincerely,

Lawrence R. Oliver
Lawrence R. Oliver
Chief, Evaluation Branch

Enclosure



The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth

January 27, 2017

Massachusetts Historical Commission

Jennifer Flanagan
Project Manager
US Army Corps of Engineers
New England District
696 Virginia Road
Concord MA 01742-2751

RE: Muddy River Flood Damage Reduction & Environmental Restoration Phase 2 Project,
Boston and Brookline, MA. MHC #RC.9170.

Dear Ms. Flanagan:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the information that you submitted for the proposed project referenced above. The MHC recommends that the Corps take into account comments from consulting and interested parties and the public regarding the 65% project drawings.

The MHC advises that the Corps should determine the area of potential effect; identify historic properties (including any areas sensitive for significant archaeological resources); assess effects; develop a draft plan to avoid, minimize, or mitigate any adverse effects; and provide the findings and determinations to the consulting parties for comment (36 CFR 800.4 to 800.6).

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). Please contact Edward L. Bell, Deputy State Historic Preservation Officer, if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Brona Simon".

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc:

Myra Harrison, NPS Olmsted National Historic Site
Patrice Kish, Massachusetts Dept. of Conservation & Recreation
Rosanne Foley, Boston Landmarks Commission
Margaret Dyson, Boston Parks and Recreation Department
Joe Bagley, Boston City Archaeologist
David King, Brookline Preservation Commission
Frances Allou Gershwin, Muddy River Maintenance & Management Oversight Committee
Karen Mauney-Brodek, Emerald Necklace Conservancy

**COVE FOOTBRIDGE, OLMSTED PARK, BOSTON
SEAM-FACED GRANITE WITH BRICK ARCH
BUILT 1894**

**MUDDY RIVER MAINTENANCE AND MANAGEMENT OVERSIGHT COMMITTEE
(MMOC), BRIDGES OF THE EMERALD NECKLACE ALONG THE MUDDY RIVER
DRAFT 8/1/2008, PAGE 16**





Photograph 1: Leverett Pond - Work Area 1.



Photograph 2: FRCS near Park Drive.



Photograph 3: FRCS.



Photograph 4: Riverway walking path and footbridge near Work Area 5.



Photograph 5: Riverway pathways near Work Area 2.



Photograph 6: Tannery Brook storm drain at Work Area 2.



Photograph 7: Eroding stream banks along the Riverway .



Photograph 8: Erosion control downstream of the Longwood Avenue Bridge.



Photograph 9: Work Area 2.



Photograph 10: Work Area 3.



Photograph 11: Work Area 3.



Photograph 12: Parkland near work Area 3.



Photograph 13: Work Area 5.



Photograph 14: Work Area 6.



Photograph 15: Back Bay Fens, including Work Areas 10 – 12.



Photograph 16: Island near Boston Gatehouse , Work Area 10.



Photograph 17: Work Area 12 viewed from Boylston Street bridge.



Photograph 18: Work Area 12.



Photograph 19: Work Area 12.



Photograph 20: Boston Fire Department...



Photograph 21: Brookline Avenue culvert installed during Phase 1.



Photograph 22: Phase 1 dayligned area looking upstream from Avenue Louis Pasteur.



Photograph 23: Island restored during Phase 1.



Photograph 24: Riparian habitat restored during Phase 1.



Photograph 25: Riparian habitat restored during Phase 1.



Photograph 26: Emergent wetland habitat restored during Phase 1.



Photograph 27: Emergent wetland habitat restored during Phase 1.



Photograph 28: Great blue heron foraging in habitat restored during Phase 1.