



U.S. Department  
of Transportation

**Federal Transit  
Administration**

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March 8, 2024

Joseph Cornish  
Director of Design Review  
Boston Landmarks Commission  
20 City Hall Avenue, 3<sup>rd</sup> Floor  
Boston, MA 02108

**RE: Section 106 Continuing Consultation Letter: Definition of Area of Potential Effects and Identification of Historic Properties**

Dear Joseph Cornish:

The Federal Transit Administration (FTA) is providing financial assistance to Massachusetts Bay Transportation Authority (MBTA) for the Longfellow Bridge Approach Viaduct Project (Undertaking). The Undertaking is in Boston, Suffolk County, Massachusetts. A project location map is enclosed as **Attachment 1**. Pursuant to Section 106 of the national Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR Part 800 (Section 106), this continuing consultation letter serves to define the area of potential effects (APE) and identify historic properties within the APE.

#### **Summary of Previous Consultation**

FTA initiated Section 106 consultation for the Undertaking in a letter dated May 2, 2023. In that letter, FTA also identified consulting parties to be invited to participate in Section 106 consultation for the Undertaking: Boston Landmarks Commission, Cambridge Historical Commission, Beacon Hill Architectural Commission, Beacon Hill Civic Association, and Massachusetts Department of Conservation and Recreation. FTA does not have a response from MHC in its files. As such, the consulting parties listed above will receive this letter. Please inform FTA if you are aware of any additional individuals and organizations with a demonstrated interest in the undertaking.

#### **Description of the Undertaking**

The Undertaking involves the rehabilitation and restoration of the Longfellow Approach Viaduct which carries the MBTA Red Line over Charles Circle in Boston and includes the Charles/MGH Station platforms and the portion of Span 1 of the Longfellow Bridge that supports the MBTA Red Line. It includes the construction of a new West Headhouse at Charles/MGH Station that incorporates additional egress capacity and an elevator serving each platform. The Undertaking will rehabilitate the Viaducts structural capacity, bring the structure into compliance with modern codes and standards, and improve accessibility at the platform and ground levels between Charles Circle and Charles/MGH station.

#### **Area of Potential Effects**

The APE for above ground resources comprises the area where the Undertaking has the potential to cause effects on historic properties and has been delineated to reflect the nature of the scope of work, scale of potential impacts to the built environment, and location of the Undertaking. The APE for the Undertaking

consists of the limits of work (LOW) plus a buffer extending between 150 and 300 feet from the LOW. The APE considers the potential for the Undertaking to cause physical, visual, auditory, and vibratory effects.

The APE for archaeology comprises the areas of ground disturbance within the LOW for the Undertaking. The APE for archaeology includes construction laydown and staging and stockpiling areas identified within the APE for above ground resources.

An APE map is enclosed as **Attachment 2**.

### **Identification of Historic Properties**

Under the direction of FTA, the MBTA employed the skills of a consultant with staff that meets or exceeds the *Secretary of the Interior's Professional Qualification Standards* (48 F.R. 44738-9, September 29, 1983), to identify historic properties within the APE. All historic preservation identification efforts complied with the guidelines in the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 F.R. 44716, September 29, 1983) and the Massachusetts Historical Commission's *Guidelines for the Identification of Historic and Archaeological Resources in Massachusetts* (July 1992, Revised September 1993 and September 1995).

Background data were reviewed from the national register of Historic Places (NRHP) and the Massachusetts State Register of Historic Places (SRHP) available on the Massachusetts Cultural Resource Information System (MACRIS). Historic maps, photographs, and historic aerial imagery were reviewed to determine previous occupation, ground disturbance, and development of the project area. Additional research, including a review of historic and current environmental conditions and regional histories contributed to the assessment of the presence of potential cultural resources within the APE. The effort to identify historic properties within the APE culminated in the preparation of the *Cultural Resources Assessment for MBTA Longfellow Approach Viaduct Rehabilitation* enclosed as **Attachment 3**.

### *Archaeological Resources*

There are no recorded archaeological sites within the APE for archaeology. Seven pre-contract archaeological sites are resourced within a 0.5-mile radius of the APE for archaeology. Three of these sites (19-SU-12, 19-SU-15, and 19-SU-29) are at or within the tidal flats west of the 1930 peninsula shoreline. MHC Site files contain no information other than the location of these sites. The four other sites (19-SU-14, 19-SU-60, 19-SU-113, and 19-SU-114) are on natural land along the north and west sides of Beacon Hill and removed from the APE.

The APE for archaeology overlaps areas that were assessed as having low archaeological sensitivity as part of archaeological reconnaissance surveys for the MBTA/Charles Connector Project (Bowe, et al. 1987) and the Longfellow Bridge Rehabilitation and Restoration Project (Cherau 2006). No significant archaeological resources are expected to be present within at least a 500-ft radius to either side of the Longfellow Bridge.

Given the documented filled shoreline reconfigurations and constructions related in large part to the twentieth century MBTA railroad infrastructure, including the Red Line's at-grade track and tunnels and portals on both sides of the Longfellow Bridge within the railroad ROW, the Undertaking is unlikely to impact any intact archaeological deposits. As such, the FTA has determined no further archaeological investigations are warranted.

### *Above Ground Resources*

The survey of historic standing structures identified eight historic properties within the APE: Charles River Basin Historic District, Beacon Hill National Historic Landmark, Beacon Hill Tunnel, Charles River Esplanade, Lindall Place, the Longfellow Approach Viaduct, Longfellow Bridge at the Boston Abutment and Span 1, and the Suffolk County Jail. Beacon Hill Tunnel is a contributing resource within Beacon Hill National Historic Landmark. Lindall Place is an MHC inventoried area that contributes to the significance of Beacon Hill National Historic Landmark. The Longfellow Approach Viaduct and Longfellow Bridge are individually eligible for the NRHP and additionally contribute to the significance of the Charles River Basin Historic District. The NRHP status of these properties is summarized in Table 1.

**Table 1. Historic Properties within the APE**

<b>MHC Inventory No.</b>	<b>Historic Name</b>	<b>NRHP Status</b>
BOS.CA	Charles River Basin Historic District	Listed District
BOS.ZI	Charles River Esplanade	Listed District
BOS.BY	Beacon Hill Historic District	National Historic Landmark
BOS.9034/CAM.912	Longfellow Bridge	Contributes to Charles River Basin HD
N/A	Longfellow Approach Viaduct	Contributes to Charles River Basin HD
BOS.9033	Beacon Hill Tunnel	Contributes to NHL
BOS.TJ	Lindall Place	Contributes to NHL
BOS.4200	Suffolk County Jail	Listed

One additional property in the APE – Charles/MGH Station (BOS.4198) – was previously determined eligible for the NRHP but was substantially altered between 2005-2007. FTA has determined that the substantial changes at the headhouse have deleteriously affected the NRHP eligibility of Charles/MGH Station such that Charles/MGH Station is no longer individually eligible for the NRHP. However, the property's remaining copper cladding and original platforms remain contributing elements within the Beacon Hill National Historic Landmark and Charles River Basin Historic District.

There are three additional properties within the APE that are greater than fifty years of age, listed in the MHC Historic Inventory, and have not been previously evaluated for NRHP eligibility. These properties are Boston Edison Electric Company Substation at 317-325 Cambridge Street, 313 Cambridge Street, and 309-311 Cambridge Street. These three properties are heavily altered and do not retain integrity sufficient to support historical significance. As a result, FTA has determined these properties are not eligible for the NRHP.

FTA requests MHC's concurrence on the NRHP eligibility determinations for the above properties.

### **Request for Comment**

Based on the information presented above and in the enclose attachments, FTA is requesting your review, comment, and concurrence (from MHC) on the APE and NRHP status of properties in the APE. Invited parties may indicate their willingness to participate as a consulting party and provide comments to Jon Schmidt, Environmental Projection Specialist, at 617-494-3439 or [Jonathan.Schmidt@dot.gov](mailto:Jonathan.Schmidt@dot.gov) within 30 days receipt of this letter. FTA looks forward to continuing consultation on this Undertaking.

Sincerely,

PETER SHANNON  
BUTLER

Digitally signed by PETER  
SHANNON BUTLER  
Date: 2024.03.08 09:52:50  
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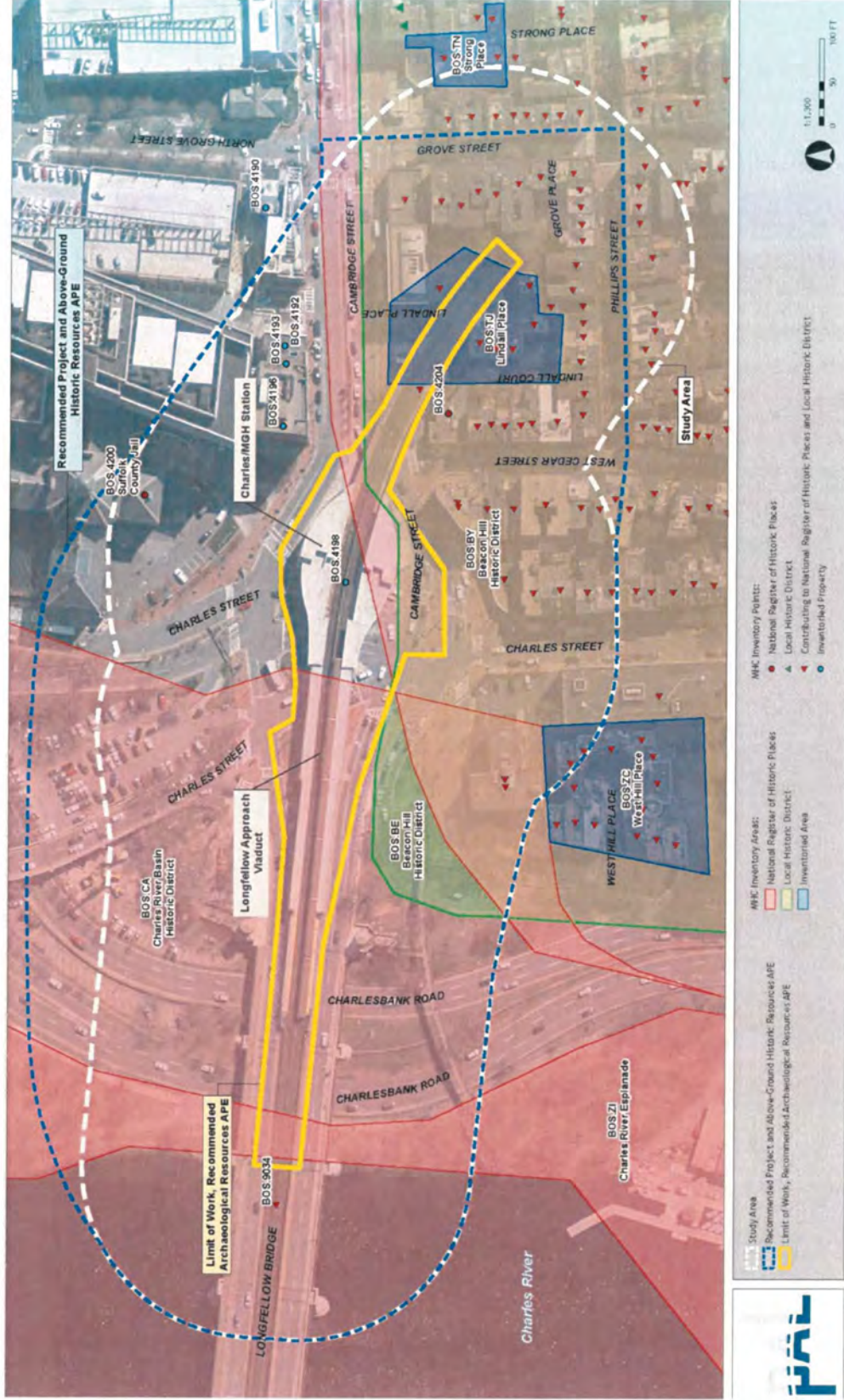
Peter S. Butler  
Regional Administrator

Attachments 1. Project Location Map  
2. APE Map  
3. Cultural Resources Assessment

cc: Nicholas Armata, Senior Preservation Planner, Beacon Hill Architectural Commission  
Megan Awe, Chair, Beacon Hill Civic Association  
Jennifer Gaugler, Architectural Historian and Liaison, Boston Landmarks Commission  
Patrice Kish, Chief of Planning and Engineering, Department of Conservation and Recreation  
Tess Paganelli, Director of Environmental Review and Permitting  
Brona Simon, Executive Director, Massachusetts Historical Commission  
Charles Sullivan, Executive Director, Cambridge Historical Commission



**Project Location Map**



# Area of Potential Effects Map



# Report MBTA Longfellow Approach Viaduct Rehabilitation Boston, MA

*Cultural Resources Assessment  
MBTA Contract No. B43PS02*

*August 11, 2023  
PAL No. 3849.01*

Submitted to:

**Jacobs Engineering Group, Inc.**  
120 St. James Avenue, Suite 500  
Boston, MA 02116

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This report presents the results of a cultural (historic and archaeological) resources assessment conducted by The Public Archaeology Laboratory, Inc. (PAL) for the Massachusetts Bay Transportation Authority's (MBTA's) proposed Rehabilitation of the Longfellow Approach Viaduct, Design Phase Services (Longfellow Viaduct Project, or the Project) (MBTA Contract No. B43PS02) in Boston, Massachusetts (Figures 1 and 2). The Project involves design, engineering, and construction phase services for the rehabilitation and restoration of the Longfellow Approach Viaduct (Viaduct; also referred to as the Charles Circle Viaduct – Bridge No. B-16-448 [A2P]); the Charles/MGH Station platforms; and the portion of the Longfellow Bridge on Span 1 that supports the MBTA Red Line (Figure 3). The Project also includes construction of a new West Headhouse at Charles/MGH Station. PAL conducted the cultural resources assessment as part of the Preliminary Design (0–30%) for the Project, initially in 2020, and updated the report in 2023.

PAL has also completed an early coordination review of federal, state, and local historic preservation agencies and processes for inclusion in the Project Environmental Management Plan and has prepared a separate Memorandum on the applicability of the Advisory Council on Historic Preservation's *Program Comment to Exempt Consideration of Effects to Rail Properties within Rail Rights-of-Way under Section 106 of the National Historic Preservation Act* (2018). The Program Comment provides exemptions primarily for routine right-of-way work and does not apply to this Project (ACHP 2018; Adams 2020).

## **Authority**

The Project is required to comply with Section 106 of the National Historic Preservation Act of 1966, as amended (54 USC 306108), and its implementing regulations (36 CFR 800); Massachusetts General Laws Chapter 9, as amended by Chapter 254 (950 CMR 71.00) with review by the State Historic Preservation Office (SHPO)/Massachusetts Historical Commission (MHC), the Boston Landmarks Commission (BLC), Cambridge Historical Commission (CHC), the Beacon Hill Architectural Commission, and the Beacon Hill Civic Association; the National Environmental Policy Act (NEPA); the Massachusetts Environmental Policy Act (MEPA) and Regulations, 301 CMR 11.00; and possibly Section 4(f) of the National Transportation Act of 1966. The Federal Transportation Administration (FTA) will be the lead federal agency. This report fulfills the requirements of 36 CFR 800.4 Identify and Evaluate Historic Properties.



## **Personnel**

PAL staff who participated in the historic and archaeological resources assessment were Virginia H. Adams, project manager/senior architectural historian; Suzanne Cherau, senior archaeologist/ principal investigator; Charles Hartfelder, architectural/industrial historian; and Tracy Jonsson, assistant architectural historian.

## **Longfellow Approach Viaduct Summary**

The Longfellow Approach Viaduct (the Viaduct) is a historically significant structure that is directly associated with the Longfellow Bridge due to the Viaduct's connection with the bridge's Boston Abutment. The Longfellow Bridge was constructed in 1900–1906 and spans the Charles River between Boston and Cambridge. The Longfellow Bridge and the Viaduct are partially within the Charles River Basin Historic District and the Beacon Hill Historic District and are close to several historic properties listed in the State and National Register of Historic Places (National Register).

The Viaduct was built in 1911–1912 and consists of 11 spans with 10 intermediate concrete and steel piers. Portions of the Viaduct have been modified and altered by the construction of the Charles Street Station in 1932, its expansion in 1982, and the demolition of the original headhouse followed by construction of a new Charles/MGH Headhouse in 2007. The Viaduct stands independent of the Charles/MGH Station (formerly the Charles Street Station). The Viaduct's east end is at the Beacon Hill Tunnel Portal (completed 1909); it extends west carrying the MBTA Red Line over Charles Circle and connects on its west end to the Longfellow Bridge at the Viaduct's West Abutment (completed 1906) and the Longfellow Bridge's Boston Abutment (completed 1907). The two Charles/MGH Station platforms extend between Spans 1 through 3 of the Viaduct, the West Abutment, the Boston Abutment, and Span 1 of the Longfellow Bridge. The Charles/MGH Station is one of the busiest transit stations in the MBTA light rail system (approximately 100,000 passengers daily) and serves as a vital link to Massachusetts General Hospital, to Cambridge from the south, and to Boston from the north and west.

## **Project Description Summary**

The Longfellow Viaduct Project includes the rehabilitation and restoration of the Viaduct, the Charles/MGH Station platforms, and the portion of Span 1 of the Longfellow Bridge that supports the MBTA Red Line. It includes construction of a new West Headhouse that incorporates additional egress capacity and an elevator serving each platform. The Project will restore the Viaduct's structural capacity and bring the structure into compliance with current codes and standards, in addition to improving station access and egress. To the extent possible, the repairs and modifications will be consistent with the historic character of the Longfellow Bridge, the Charles/MGH Station, and the Longfellow Approach Viaduct leading into the historic Beacon Hill Tunnel Portal, as well as the Charles River Basin Historic District, and the Beacon Hill Historic District (Jacobs 2015, 2019). Construction-phase effects will include work in the ROW near the alley way of Lindall Place with its historic buildings, and as the Viaduct enters the Beacon Hill Tunnel, construction activities will be adjacent to historic buildings in the Beacon Hill Historic District. Construction phase activities will also occur under the viaduct in the parking lot of the historic Advent School building, a contributing element. Other construction-phase effects may occur at construction staging or laydown areas, which at this time have not been defined, and which likely will be proposed by the contractor selected by its winning bid for Project. Technical studies are ongoing, and measures will be put in place to avoid, or minimize, if necessary, any vibration or other construction impacts to historic properties





in Beacon Hill. To the extent possible, project design and construction will be in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (36 CFR 68).

### **Previous Longfellow Bridge and Charles/MGH Station Projects**

Three previous rehabilitation and construction projects have been completed at the Longfellow Bridge, the Charles/MGH Station (aka Charles Street Station), and the Longfellow Approach Viaduct. In 2007, the MBTA demolished the original 1932 stone and steel Art Deco-style headhouse and constructed the present glass and steel headhouse to comply with ADA requirements (Jacobs 2013:9–10). The Memorandum of Agreement among the Federal Transit Authority, MBTA, MHC, and BLC required the MBTA to retain and restore historic elements, including copper-clad station platform enclosures with copper panels and multi-pane windows, the Viaduct structure (Spans 5 and 6 are enclosed within the station), and cast stone column enclosures (Elkus-Manfredi/HDR Engineering and Epsilon Associates 2002; Jacobs Engineering 2013:10, 19–20).

In 2006 and 2018, the Massachusetts Department of Transportation undertook a comprehensive rehabilitation and restoration project that has been recognized by and received awards from multiple state and national entities for the excellence of its design and preservation. The project did not include work on Span 1. PAL, working with Jacobs Engineering Group, Inc., facilitated all the historic regulatory coordination and review, which resulted in a Section 106 finding of no adverse effect, and completed historical identification and assessment reports and documentation of the bridge and the project area at that time (Kierstead et al. 2006). In 2019, ahead of the Longfellow Viaduct Project, the MBTA completed interim and temporary repairs of Viaduct Spans 8, 9, and 10 that were determined to have no adverse effect. PAL facilitated the historic regulatory review, which resulted in a finding of no adverse effect (Adams 2019).

### **Project Area Description**

The Project area is between the West End and Beacon Hill neighborhoods of Boston at the western end of the city and directly east of the Charles River. It comprises the full extent of the Longfellow Approach Viaduct between the Beacon Hill Tunnel Portal (eastern terminus) and the east face of Pier 1 of the Longfellow Bridge (western terminus), a length of approximately 1,000 linear feet (LF) (see Figure 3). The Project area includes the Charles/MGH Station, associated platforms west of the station, and all associated historic and non-historic platform siding. The Project area extends approximately 25 feet (ft) to the north and south of the outside edge of track and includes portions of Charles Circle for a total of approximately 2 acres within the Project Limits of Work (LOW) at the MBTA right-of-way (ROW) boundary as depicted on the current preliminary design plans and shown in Figures 2 and 3. No construction laydown or staging areas outside the LOW have yet been identified for the Project but are anticipated to be known as design progresses and will be reviewed at that time.

The land surrounding the Project area is densely developed with institutional, commercial, and residential properties to the east of Storrow Drive and the Charles River Basin Embankment and parkland on the east bank of the Charles River. This area includes portions of the National Register-listed Charles River Basin Historic District (BOS.CA, NRDIS 12/22/1978, NRIS #78000436). It also includes parts of the Beacon Hill Historic District (BOS.BY, NHL 10/15/1966, NRDIS 10/15/1966, NRIS #66000130), which was listed as a National Historic Landmark and National Register Historic District in 1966 using almost the same boundary, which in turn are almost identical to the earlier 1955 local landmark district designation as the Beacon Hill Local Historic District (BOS.BE, LHD 12/2/1955). The Project area is partially within the



boundary of the Charles River Esplanade (BOS.ZI, LL 7/29/2009) and the Longfellow Bridge (BOS.9034/CAM.912), which are contributing resources to the Charles River Basin Historic District. The area north of the Project area is primarily occupied by historic and non-historic buildings associated with Massachusetts General Hospital, including the Suffolk County Jail (aka Charles Street Jail) (BOS.4200), an individual National Register-listed property, while the area south of the Project area contains primarily commercial and residential buildings within the Beacon Hill neighborhood.

## Methodology

The purpose of the cultural resources assessment was to identify previously recorded and potential historic and archaeological resources within and around the Project area that are listed or eligible for listing in the National Register of Historic Places (National Register) and that may be affected by the Project; to recommend Areas of Potential Effects (APE) for aboveground historic and belowground archaeological resources; and to make recommendations about the need for any additional cultural resource investigations. PAL conducted research, fieldwork, and analyses to complete the assessment, and the results of the assessment appear later in this report.

### National Register Criteria

The NPS has established four criteria for listing significant cultural properties in the National Register (36 CFR 60). The criteria are broadly defined to include the wide range of properties that are significant in American history, architecture, archaeology, engineering, and culture. The quality of significance may be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. The criteria (known by the letters A–D) allow for the listing of properties

- A. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or
- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important to prehistory or history.

### Planning Documents Review

PAL reviewed existing documentation relevant to previous planning and project studies, including cultural resource and environmental reports. Project-related documents reviewed included the *Historical Identification and Assessment for the Longfellow Bridge Rehabilitation and Restoration Project* that PAL completed as part of the rehabilitation and restoration project (Kierstead et al. 2006); the Historic Regulatory Review for the *Longfellow Approach Strengthening Assessment* (Adams 2019); the *Longfellow Approach Historic Assessment Report* (Jacobs 2013); and the *Longfellow Approach 30% Design Draft Report* (Jacobs 2015) for the initial work on the Longfellow Approach Viaduct rehabilitation project. The 30% design proposal is being updated as the *Longfellow Approach Viaduct Rehabilitation Project – Conceptual Design Report* (Jacobs 2022) as part of the current Project.

PAL reviewed the APE described in the 2015 30% Design Report (Jacobs 2015) and developed an updated proposed APE based on current Project plans. PAL identified historic properties and reviewed the noise



and vibration monitoring information developed for the Project (Towers and Edwards 2020) to incorporate into the recommended APE for historic resources.

### **Archival Research**

PAL conducted archival research pertaining to the history and historic designation of the Longfellow Bridge, Longfellow Approach Viaduct, and historic and archaeological resources in the surrounding study area. The study area established for the cultural resources assessment was defined to provide information about the types, nature, and distribution of cultural resources in the vicinity of the Project area. The study area comprised approximately 15 acres with the boundary at 200 ft from the edge of the MBTA ROW on the north and south and 200 ft from the east and west ends of the Project area (see Figure 3). This boundary was confirmed and adjusted through research and field inspection to develop the recommended preliminary and extended APE for historic resources for archaeological resources (described below).

PAL reviewed Project engineering plans and reports, reports of relevant previous projects, and the MHC's Inventory of Historic Assets of the Commonwealth using the Massachusetts Cultural Resource Information System (MACRIS) and the State Register and National Register of Historic Places (National Register) files, all maintained by the MHC, to identify previously recorded cultural resources within the APE. The review included historic resources and archaeological resources that are listed or evaluated as eligible for listing in the State and National Registers, as well as surveyed resources that have not been listed or evaluated.

PAL reviewed published and unpublished cultural resource management reports relevant to the study area, such as the *MHC Reconnaissance Survey Town Report: Boston* (MHC 1981) and the National Register Nomination Forms for the Beacon Hill Historic District (Snell 1970; amended by Marxer and Meltsner 1985) and the Charles River Basin Historic District (Clark et al. 1978). Local histories and historical maps and images of Boston were also consulted, as were secondary resources pertaining to the history of MBTA service, including *Boston's Red Line: Bridging the Charles from Alewife to Braintree* (Cheney 2002) and *The Regional System and the MBTA* (MBTA 2015). PAL consulted the Beacon Hill Historic District and Charles River Basin Historic District National Register Nominations to identify any properties that overlap with the Project study area. *Gaining Ground: A History of Landmaking in Boston* (Seasholes 2003) was also reviewed for information about filled land within and adjacent to the Project area.

### **Site Visit**

On November 27, 2019, PAL staff conducted fieldwork, photography, and documentation within the Project study area to: 1) verify and document the characteristics, appearance, and historic designation status of the Project area and of any previously recorded and designated, or potential, historic resources that may be affected by the Project; and 2) establish a recommended APE for historic resources and to confirm the APE for archaeological resources.

### **Areas of Potential Effects**

An APE is defined in the regulations for implementing the Section 106 review process as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking” (36 CFR Part 800.16[d]). The APE is defined based on the historic properties in the vicinity of the Project and the potential for the Project to affect those resources through visual, physical, vibration, noise, air



quality, or cumulative changes. Historic properties are defined as any properties listed in, or eligible for listing in, the National Register and State Registers (including buildings, structures, districts, landscapes, and archaeological sites). The recommended APE for historic resources includes the Project area LOW and adjacent areas where Project impacts may occur.

Figure 3 presents the Project APE as the intersection and inclusion of various analysis and geographic areas, including: 1) the Study Area for this Project, as shown by the dashed white lines; 2) the APE for archaeological resources as shown by the solid yellow bounding line, which reflect the Limits of Work (LOW); and 3) the APE for historic resources which aligns with the recommended Project APE. The recommended Project APE encompasses the Project LOW and adjacent areas where the Project may have an effect on historic or archaeological resources.

The recommended Project APE is shown in Figure 3 as the blue dashed line. This recommended Project APE boundary is drawn at roughly 200 ft from the edge of the MBTA ROW with adjustments described as follows. Based on the potential for extended views of the Project, the boundary extends out to approximately 300 ft on the north across Charlesbank Road and Charles Street, and approximately 250 ft on the east along Cambridge Street at Grove and North Grove streets, and on the south on West Cedar Street at Phillips Street. At the southeast extent of the APE, the boundary is approximately 150 ft from the MBTA ROW and includes buildings on the west side of Grove Street and the north side of Phillips Street, where the backs of parcels are adjacent to the Beacon Hill Tunnel entrance. This APE takes into account physical Project work areas, the viewshed within which the Project may be visible, and the noise and vibration monitoring locations. The recommended APE contains a portion of two National Register-listed historic districts—the Charles River Basin Historic District, including the Longfellow Bridge, which is also individually eligible; and the Beacon Hill Historic District, which is also a Local Landmark district. The districts overlap within the APE and extend well beyond the APE boundary. It also includes one individual National Register-listed property—the former Suffolk County Jail, since converted in 2019 to the Liberty Hotel. The recommended APE for archaeological resources is limited to any areas of ground disturbances within the direct LOW for the Project. Any belowground disturbances needed for construction laydown or staging areas, once those locations have been identified by the MBTA, would also be included in the recommended APE for archaeological resources. It is assumed that those locations will fall within the overall Project APE.

## Historical Context

The Project area is entirely on filled land known as Beacon Hill Flat, which extends approximately 1,500 ft west from Grove Street to the east approach of the Longfellow Bridge. The 1630 shoreline on the Boston side of the bridge followed a north–south alignment that crossed present-day Grove Street south of Cambridge Street, turned west where it crossed West Cedar Street, and followed a southerly direction across Beacon Street and through the west side of Boston Common. This shoreline formed the east side of the West Cove of the original Shawmut peninsula and was originally tidal mud flats in the Charles River estuary that lay at the foot of the steep bluff at the west side of Beacon Hill (Seasholes 2003:134–135). According to Clough (1920), Cambridge Street had been laid out by 1676 and the land area south of the Project area between West Cedar and Grove streets and south of Cambridge Street consisted of large unimproved tracts that bordered the 1630 West Cove shoreline.

By 1775, a map shows new gridded street plans in this land area adjacent to the shoreline. Smaller subdivisions are recorded by 1798, but the shoreline itself remained unchanged (Figure 4; Clough 1900). In 1793, the West Boston Bridge was constructed on the site of the Longfellow Bridge, extending Cambridge Street westward (Clark et al. 1978:7–11). Following extensive landfilling by the Mount Vernon



Proprietors, organized in 1794 to develop a residential area north of Boston Common, the formerly open flats west of present-day West Cedar Street were filled so that Charles Street was extended north from Boston Common to the West Boston Bridge. By 1814, the area northwest of Southark Street (present-day Phillips Street) between Grove and Charles streets was filled (Seasholes 2003:135, 140–141; Krieger and Cobb 1999). Development increased during the first half of the nineteenth century, and Lindall Place appears on an 1839 (Boynton) map. By 1852, the Project area was densely developed with brick rowhouses; the area west of Charles Street was populated by the Massachusetts Eye and Ear Infirmary and various shipping businesses; and the Suffolk County Jail was constructed north of Cambridge Street (Figure 5; Slatter & Callan 1852). Housing and land development within the Project area remained unchanged between 1852 and 1908 (Figure 6; Slatter & Callan 1852; Hopkins 1874; Bromley 1908).

The West Boston Bridge adequately accommodated horsecar and streetcar traffic through the nineteenth century. By the turn of the twentieth century, however, the bridge had deteriorated and its narrow width and condition could no longer withstand modern traffic needs, despite an 1854 reconstruction and significant repairs in 1871 (Fisher 1999:2). In 1898, Cambridge Mayor Alvin Sortwell and Boston Mayor Josiah Quincy established the Cambridge Bridge Commission (CBC) to oversee the construction of a wider bridge to accommodate an elevated rail line on the site of the West Boston Bridge. A temporary bridge was erected in 1899 and the new West Boston Bridge officially opened on July 31, 1907, after seven years of continuous construction (Fisher and Kronemer 1999:3). The bridge was renamed the Longfellow Bridge in 1927 to honor Henry Wadsworth Longfellow. Construction of the new West Boston Bridge included widening the portion of Cambridge Street west of Charles Street, but this work did not directly affect the Project area (Seasholes 2003:146–147, 149, 151; Clark et al. 1978).

In 1911–1912, the Longfellow Approach project joined the “Cambridge Connector” subway line (or “Cambridge Main Street Subway” on the Cambridge side of the line) from the Kendall Square Station in Cambridge over the Longfellow Bridge to Park Street Station at Boston Common. The Longfellow Approach was designed to carry rail traffic from Longfellow Bridge over Charles Square on an elevated steel viaduct before descending under Beacon Hill via the Beacon Hill Tunnel Portal. The tunnel would bring rail travel under Beacon Hill and Boston Common and was the responsibility of the Boston Transit Commission, while the elevated connection of tracks that would run from the Beacon Hill Tunnel to Longfellow Bridge was the responsibility of the Boston Elevated Railway (BERy). The Beacon Hill Tunnel, completed in 1911, was constructed primarily using the bored tunnel method, in which a 32-ft-wide, semicircular roof shield was used to support the roof of the tunnel and shield workers as they dug (Jacobs 2013:16–17).

Given the tunnel’s alignment and the density of homes on Beacon Hill, the project required demolition or modification of several buildings in advance of construction, primarily in the area between Charles and Grove streets north of Phillips Street. Approximately 23 buildings, as well as the basements of several extant buildings at the northwest corner of Grove and Phillips streets, were purchased or seized by the City of Boston or the BERy and demolished (Figure 7; Bromley 1917, and see Figure 6; Bromley 1908). In some places, particularly where the Longfellow Approach Viaduct now crosses Lindall Place, the elevated section is within 1 ft of standing structures.

In 1931–1932, the original Charles Street Station was constructed in response to passenger demand and to pressure from neighborhood residents and institutions (Jacobs 2013:20; Belcher 2019). Before the station’s construction, the closest subway stop was at Bowdoin Street on the present-day Blue Line, and the new station provided rapid transit access to the area’s expanding medical and institutional communities, including Massachusetts General Hospital, the Massachusetts Eye and Ear Infirmary, and the Suffolk



County Jail. The station was designed by William Keefe (chief engineer) and H. Parker from the offices of Richard Clipston Sturgis (1860–1951), successor to the practice of John Hubbard Sturgis (1834–1888) and a prominent Boston architect responsible for several civic, commercial, and institutional buildings throughout Massachusetts. The station's construction included the original cast stone and steel-frame headhouse, concrete platforms supported by new steel posts, and approximately 300 ft of cast copper platform siding on the north and south platforms (extant) (Figure 8; Boston Planning Department 1980; Kierstead et al. 2006:8).

As part of the station's construction, a new circular traffic island was created in the center of Charles Square (Carolan 1987). Construction required demolition of three brick buildings at the southeast corner and four brick buildings at the northeast corner of Charles and Cambridge streets (Figure 9; Bromley 1928, 1938). Before the 1910 construction of the present-day Charles River Esplanade within the Charles River Basin Historic District (which was preceded with filling and parkland starting in the 1880s and continued with the construction of Storrow Drive in 1950–1951), Spans 1 and 2 of the Longfellow Bridge were built over the Charles River. During construction of Washington Circle in 1931, a curving loop road was constructed under Span 1 between Embankment Road to the south and the new Washington Circle to the northeast, when Span 2 was left as grassy parkland. The completed Charles Street Station and traffic circle are depicted in a 1932 photograph (Figure 10; Jacobs 2013:19;). During construction of Storrow Drive, eastbound and westbound traffic was routed under Spans 1 and 2 of the Longfellow Bridge, respectively, as it appears today. In 1955–1961, the circular traffic pattern at Charles Circle was reconfigured to accommodate new ramp connections to and from Storrow Drive; in 1961, pedestrian bridges were constructed over the new roadways between neighboring streets and the Charles Street Station (Elkus-Manfredi/HDR Engineering and Epsilon Associates 2002:7; BLC 2009:4–6).

No other major landscape alterations are recorded until 2007, when the Charles Street Station (renamed the Charles/MGH Station) was reconstructed to provide Americans with Disabilities Act (ADA)-compliant accessibility and the preexisting traffic circle was reconfigured, though all modifications were within the area of the prior circle. Aside from construction of the Charles Street Station in 1932, modifications to the Longfellow Approach Viaduct include a platform extension in 1982 that added 120 ft west over the Boston Abutment and Span 1 of the Longfellow Bridge; demolition of the 1932 station followed by construction of the new Charles/MGH Station in 2007; and in installation in 2007 of 10-ft-tall noise barriers with copper cladding on portions of the Viaduct not within the station to mitigate train noise (Jacobs 2013:20–21).

## Results

During the archival research, PAL identified nine recorded historic resources (including three historic districts) that are within, or partially within the Project area (Table 1), and 48 others within the full recommended historic resources APE but outside the Project area (Table 2). No recorded archaeological sites are within the study area or in the recommended archaeological resources APE (direct LOW) for the Project.

The locations of these resources, and the boundary of the archaeological and historic resources recommended APEs are shown in Figures 3 and 4. Existing MHC Inventory forms and Updates for individual properties prepared as part of the Project, consisting of a new form for the Longfellow Approach Viaduct and Continuation Sheet updates to the original MHC Inventory forms for the Charles/MGH Station and Longfellow Bridge, focused on the Boston Abutment and Pier 1, are included as **Attachment A**. The inventory and National Register/NHL forms for the Beacon Hill Historic District and the Charles River Basin Historic District are available through the MHC's online MACRIS database. **Attachment B** contains



agency correspondence regarding Longfellow Approach Strengthening and Charles/MGH Station Red Line Accessibility and Modernization projects. **Attachment C** consists of the 2002 signed Memorandum of Agreement, a draft of which was in the *Charles/MGH Station Environmental Notification Form, Draft Environmental Assessment, Draft Section 4(f) Evaluation* (Elkus-Manfredi 2002:Appendix B).

### Historic Resources

The Project area includes portions of two historic districts: the Charles River Basin Historic District (BOS.CA, NRDIS 12/22/1978, NRIS #78000436), which is listed in the National Register, and the Beacon Hill Historic District (BOS.BY, NHL 10/15/1966, NRDIS 10/15/1966, NRIS #66000130), which is a National Historic Landmark, is listed in the National Register, and is also the Beacon Hill Local Historic District (BOS.BE, LHD 12/2/1955) (see Figures 3 and 4).

The three Beacon Hill historic districts have nearly identical boundaries. The Project area also includes the Longfellow Approach Viaduct (no MHC No.) and portions of the Longfellow Bridge (BOS.9034/CAM.912) and the Charles River Esplanade (BOS.ZI), which are contributing resources to the Charles River Basin Historic District; the Charles Street Station (aka the Charles/MGH Station), determined eligible for listing in the National Register in 2007 and included in the Charles River Basin Historic District but not called out specifically in the district's nomination; and the Beacon Hill Tunnel, a contributing resource to the Beacon Hill Historic District.

**Table 1. Historic Resources Within (or Partially Within) the Longfellow Approach Viaduct Project Area.**

MHC #	Designation	Historic Name	Address	Construction Date
BOS.CA	NRDIS	Charles River Basin Historic District	Multiple	1805–1966
BOS.ZI	LL NRDIS	Charles River Esplanade	Storrow Dr.	1910, 1951–1953
BOS.BY	NHL NRDIS	Beacon Hill Historic District	Multiple	1795–1955
BOS.BE	LHD	Beacon Hill Historic District	Multiple	1795–1955
BOS.9034/ CAM.912	NRDIS-C	Longfellow Bridge	MBTA Right-of-Way over Charles River	1907
No #	NRDIS-C	Longfellow Approach Viaduct	MBTA Right-of-Way over Cambridge St., Charles Circle and Lindall Place	1911–1912
BOS.9033	LHD NHL NRDIS-C	Beacon Hill Tunnel	Lindall Place	1909–1911
BOS.4198	NRDOE	Charles/MGH Station, aka Charles Street Station	Charles Circle	1932
BOS.TJ		Lindall Place	Lindall Place	1831–1912

LHD = Local Historic District  
 NHL = National Historic Landmark  
 NRDIS = National Register Historic District  
 NRDIS-C = National Register Historic District-Contributing  
 NRDOE = National Register Determination of Eligibility

The recommended APE also includes 1 property individually listed in the National Register (the Suffolk County Jail (aka Charles Street Jail) (BOS.4200, NRIND 4/23/1980, NRIS #80000670); 40 historic



resources that are contributing to the Beacon Hill National Historic Landmark and National Register Historic Districts; and one area and three individual resources recorded in the MHC Inventory that are outside a historic district (see Table 2). These historic resources are outside the Project area but within the 200-ft preliminary APE.

**Table 2. Historic Resources Within the APE and Outside the Longfellow Approach Viaduct Project Area.**

MHC #	Designation	Historic Name	Address	Construction Date
BOS.4200	NRIND	Suffolk County Jail (aka Charles Street Jail)	215 Charles St.	1851
BOS.4072	LHD NHL NRDIS-C	Macy – Draper – Badger House	100 Charles St.	1866
BOS.4073	LHD NHL NRDIS-C	Phillips Drugstore	155 Charles St.	1949
BOS.4075	LHD NHL NRDIS-C	Eye and Ear Infirmary Nurses' Residence	15 Embankment Rd.	1910
BOS.4077	LHD NHL NRDIS-C	Stockwell, George House	8 Lindall Place	1831
BOS.4078	LHD NHL NRDIS-C	Penniman, A. B. House	10 Lindall Place	1831
BOS.4079	LHD NHL NRDIS-C	Hammond, John House	12 Lindall Place	1831
BOS.4080	LHD NHL NRDIS-C	Goodyear Dental Vulcanite Company House	14 Lindall Place	1831
BOS.4081	LHD NHL NRDIS-C	Chadbourne, William G. House	3 Lindall Place	1831
BOS.4082	LHD NHL NRDIS-C		13 Lindall Place	1835
BOS.4083	LHD NHL NRDIS-C	Winthrop, Robert C. House	15 Lindall Place	1831
BOS.4181	LHD NHL NRDIS-C	Harvard Gardens Restaurant	310–316 Cambridge St.	1925
BOS.14578	LHD NHL NRDIS-C		141–143 Charles St	1924
BOS.14579	LHD NHL NRDIS-C		145 Charles St.	1905
BOS.14580	LHD NHL NRDIS-C	Hart, S. Rowland – Levi, Robert House	147–149 Charles St.	1815
BOS.14581	LHD NHL NRDIS-C	Kem, Frederick Tenement Building	151–151A Charles St.	1906
BOS.14600	LHD NHL NRDIS-C	Drooker, Nathaniel L. Tenement Building	7 Grove St.	1905
BOS.14601	LHD NHL NRDIS-C	Drooker, Nathaniel L. Tenement Building	9 Grove St.	1905
BOS.14689	LHD NHL NRDIS-C	Zieman, Dora Tenement House	81–83 Phillips St.	1907
BOS.14753	LHD NHL NRDIS-C	Flink, Israel – Zimmon, M. Tenement Building	81–83 West Cedar St.	1907





MHC #	Designation	Historic Name	Address	Construction Date
BOS.14754	LHD NHL NRDIS-C	Lipsky, Abraham Tenement Building	85-87 West Cedar St.	1900
BOS.14755	LHD NHL NRDIS-C	Finn, Bernard Tenement Building	88-88A West Cedar St.	1902
BOS.14756	LHD NHL NRDIS-C	Cedar Block	90-92 West Cedar St.	1908
BOS.14757	LHD NHL NRDIS-C	Standish, L. M. - Orcutt, Roger House	93 West Cedar St.	1843
BOS.15875	LHD NHL NRDIS-C	Chadbourne, Henry R. House	3 West Hill Place	1916
BOS.15876	LHD NHL NRDIS-C	Chase, M. N. House	4 West Hill Place	1916
BOS.15996	LHD NHL NRDIS-C		161 Charles St.	1980
BOS.15997	LHD NHL NRDIS-C		170 Charles St.	1908
BOS.16053	LHD NHL NRDIS-C		5 Grove St.	
BOS.16065	LHD NHL NRDIS-C		11 Grove St.	
BOS.16250	LHD NHL NRDIS-C		69-71 Phillips St.	1905
BOS.16251	LHD NHL NRDIS-C		73 Phillips St.	1905
BOS.16253	LHD NHL NRDIS-C		75 Phillips St.	
BOS.16254	LHD NHL NRDIS-C		77 Phillips St.	
BOS.16256	LHD NHL NRDIS-C		79 Phillips St.	1890
BOS.16260	LHD NHL NRDIS-C		85 Phillips St.	
BOS.16451	LHD NHL NRDIS-C		86 West Cedar St.	1905
BOS.16452	LHD NHL NRDIS-C		89 West Cedar St.	1905
BOS.16453	LHD NHL NRDIS-C		91 West Cedar St.	1905
BOS.16454	LHD NHL NRDIS-C		94 West Cedar St.	1905
BOS.16455	LHD NHL NRDIS-C		95 West Cedar St.	1850
BOS.16456	LHD NHL NRDIS-C		96-98 West Cedar St.	1905
BOS.16457	LHD NHL NRDIS-C		97 West Cedar St.	1850
BOS.4204	NHL NRDIS-C	Eye Research Institute	99 West Cedar St.	1957
BOS.ZC		West Hill Place	West Hill Place	1916



MHC #	Designation	Historic Name	Address	Construction Date
BOS.4192			301–303 Cambridge St.	1925
BOS.4193			305–307 Cambridge St.	1895
BOS.4196		Boston Edison Electric Company Substation	317–325 Cambridge St.	1924

(See key with Table 1)

The identified historic resources are described below by their designation type and in the order of proximity to the Project area, beginning with the Longfellow Approach Viaduct.

### *Longfellow Approach Viaduct*

The Longfellow Approach Viaduct (no MHC No.) (Photo 1) and the Longfellow Bridge (Photos 2 and 3) are contributing resources to the Charles River Basin Historic District (discussed below). The Viaduct (Photo 1) was constructed in 1911–1912 to carry the subway between Kendall Square in Cambridge and Park Street at Boston Common. It is considered part of the Charles River Basin Historic District but is partially within the Beacon Hill Historic District. The structure consists of 11 bridge spans and 10 intermediate piers that carry two Red Line Rapid Transit tracks between the Longfellow Bridge Boston Abutment and the Lindall Place abutment; the tracks continue at an elevated grade to the Beacon Hill Tunnel Portal. The Viaduct is approximately 600 ft long from the West Abutment to the East Abutment, measures approximately 33 ft wide, and has an approximate curve radius of 800 ft over Charles Circle (Jacobs 2015:14).

The original Longfellow Approach Viaduct is primarily riveted steel and formed concrete construction and employed distinct engineering designs in each of its spans. It is divided into three distinct structural sections (listed west to east): Spans 1–7 (over Charles Circle) between the West Abutment at the Longfellow Bridge and Pier 7, which are supported by concrete stem piers; Spans 8–10 (over a parking lot north of 99 West Cedar Street) between Piers 7 and 10, which are supported by riveted steel bents; and Span 11 (over Lindall Place) between concrete wall Pier 10 and the East Abutment at the Beacon Hill Tunnel Portal (Figures 11–14).

Viaduct Spans 1–7 extend between the West Abutment and Pier 7. The approximately 150-ft-long, earth-filled, hammered granite block West Abutment meets the Longfellow Bridge's Boston Abutment at the bridge's easternmost masonry towers, specifically at the outside (east) faces of granite stairwells that project from the sidewalk edges to create platforms for the towers on the upstream and downstream sides of the bridge (Photos 4 and 5). The intersection of the Boston Abutment and the Viaduct's West Abutment also correspond with the west impost of an arched passage at the base of the West Abutment that is accessed from the Charles River Esplanade. The West Abutment rises gradually from west to east and terminates at a granite ledger at its east end that supports Span 1 of the Viaduct (Photo 6). The original elements of Spans 1–7 consist of three main longitudinal riveted steel plate through-girders and transverse steel pier girders that rest on reinforced formed concrete piers (Photos 7–10; see Photo 6).

In 1932, the outside longitudinal plate through-girders at Spans 1–4 were cut down from their original 5-ft height to 3 ft to accommodate the Charles Street Station platform; one girder was sistered to the outside face of each original girder to augment the reduced load capacity of the cut girders (see Figure 12). The eight-sided concrete piers are each 17 ft wide, 7 ft 10 in deep, and approximately 10 ft high from finished grade to top of pier. The transverse pier girders support a grid of steel floor beams and stringers below a



haunched concrete deck, and the deck supports four steel stringers (two per track) set beneath timber rail ties and steel rail. The original riveted steel members are painted a medium tone forest green similar to that used on the ribbed steel arches of the Longfellow Bridge, and the haunched concrete deck panels have been painted white.

The junction of Spans 5 and 6 is supported by the replacement Pier 5 steel support frame set below the 1911–1912 plate girders (see Photo 8). The replacement Pier 5 supports the original riveted steel and concrete deck and is a rectangular, bolted steel I-beam and girder construction tied into steel I-beam piers that are set on four reinforced concrete piers. Span 7 (between concrete Piers 6 and 7) spans the east-facing lanes of Cambridge Street and is clad with metal noise barriers (installed 2007) attached to the outer longitudinal plate girders (see Photos 9 and 10). The concrete Piers 6 and 7 are identical to Piers 1–4.

Spans 8–10 between Piers 7 and 10 span a paved private parking area north of the Eye Research Institute, 99 West Cedar Street (1957, BOS.4204), a contributing resource within the Beacon Hill Historic District (Photo 11; see Photo 10). The through-span plate girder construction over Charles Circle transitions to a deck-span construction at Pier 7 to account for the lack of automobile traffic below. The construction of this section consists of longitudinal deck plate girders with transverse plate girder pier bents supported by curved brackets and cross-bracing, all of riveted steel construction and supported by riveted steel columns at the transverse bents. The steel frame supports the concrete ROW deck, and metal noise barriers (installed 2007) are attached to the outer longitudinal plate girders.

Pier 10 consists of a reinforced concrete wall with a lower ledge on its west side to support the deck-span construction at Span 10 and a higher ledge on the east side to support a through-span construction at Span 11 (Photo 12). Span 11 is structurally identical to Spans 5–7 with three through-girders (and identical to Spans 1–4 before they were modified during construction of the Charles Street Station platform in 1932). Span 11 consists of longitudinal steel plate through-girders and transverse steel pier girders that support a grid of steel floor beams and stringers and haunched concrete deck and is bounded by Pier 10 and the reinforced concrete counterfort, earth filled East Abutment on the east side of Lindall Place (Photo 13). The ROW then continues approximately 80 ft eastward over the East Abutment along a downward-sloping trajectory to the Beacon Hill Tunnel Portal (Photos 14 and 15).

In 1932, the Longfellow Approach Viaduct was modified to include an approximately 325-ft platform and a stone Art Deco-style headhouse associated with the Charles Street Station. The addition this station required certain modifications to the original fabric of the Longfellow Approach Viaduct. The original 1912 Viaduct structure stands independent of the 1932 platforms and the 1982 and 2007 alterations (see below), which resulted in the station's renaming as the Charles/MGH Station. The Viaduct is mostly intact, with the exception of some modifications to the structural framing within the station, the demolition of Pier 5, the addition of structural members to support the new station, and the installation of noise barriers between Spans 6 and 11. The structural components of the Longfellow Viaduct constructed in 1912, 1932, and 2007 are identified by their date of construction in Figures 11–14.

#### ***Charles Street Station (aka Charles/MGH Station)***

The Charles Street Station (aka Charles/MGH Station) (1931–1932, altered 2007, BOS.4198) is a rapid transit station within Charles Circle at the intersection of Charles and Cambridge streets in Boston. The present station, as modified, consists of an elevated structure, built of a steel frame with 1932 copper platform wall cladding with references to the Classical Revival and Art Deco styles (APA 1984), and a 2007 glass-clad, steel-frame headhouse (Photos 16–19; see Photos 4 and 5). In 1982, the station's inbound



and outbound platforms were extended approximately 120 ft westward with a metal picket perimeter fence onto Longfellow Bridge. The original Art Deco-style granite station headhouse of 1932 was demolished in 2005 as part of a station reconstruction to comply with modern ADA requirements and replaced by the present steel and glass headhouse (completed 2007). The copper platform walls were carefully restored, and new multi-paned windows were installed as part of the project. At present, the Viaduct consists of steel plate girders and various structural elements with some dating to its original 1912 structure and of others added with the construction of the 1932 station, including the original copper-clad station platforms' enclosures with copper panels and windows (Photos 4 and 5), or with the 2007 redesign of the Charles/MGH Station. The boundary of the Charles Street/MGH Station and associated platforms extends along the Longfellow Approach Viaduct; the remaining historic elements of the original 1932 station are the copper-clad platform enclosure walls and the girders and concrete piers that support the platform. These elements are at the west end of the Approach Viaduct at the Viaduct's masonry west abutment. All other historic elements of the station were removed when the station was rebuilt and the new headhouse constructed in 2007.

The Charles/MGH Station is within the boundary of the Charles River Basin Historic District (listed in 1978, see below) but is not mentioned in the district's National Register nomination. In correspondence between 2000 and 2001, as part of the new headhouse construction project, the station was determined eligible for inclusion in the National Register by consensus of the FTA, the MBTA, and the MHC. The MHC concurred with the BLC that the station would be eligible for listing as a contributing property to the Charles River Basin Historic District if the district's period of significance was extended, and would fall under criterion A in the area of significance of transportation. It was also the MHC's opinion that the station is individually eligible for listing under criterion A for its associations with the area's surrounding neighborhood and institutions and under criterion C as the only remaining and relatively well-preserved Art Deco above-ground transit station on the MBTA system (Elkus-Manfredi 2002:7, Attachment B—Agency Correspondence). However, there was no update to the 1978 National Register Nomination that was submitted as a result of these correspondences and the consensus that was developed.

### *Charles River Basin Historic District*

The western approximately one-third of the Project area is in the Charles River Basin Historic District. The Charles River Basin Historic District (BOS.CA, NRDIS 12/22/1978, NRIS #78000436) was listed in the National Register in 1978 because of its history and design contributions to Boston and Cambridge, and its association with major landscape designers. The district is on both banks of the Charles River between the Charles River Dam and the Eliot Bridge in Boston and Cambridge and contains the river, structures, parks, and roads from Memorial Drive in Cambridge to Storrow Drive in Boston, including eight bridges, two canals, six boathouses, and five roads (Cambridge Parkway, Embankment Road, Memorial Drive, Soldier's Field Road, and Storrow Drive). The district is significant as an integral component of the Boston park system, for its association with the development of the Boston waterfront, and for its affiliation with prominent landscape architects Charles Eliot and Frederick Law Olmsted (Kierstead et al. 2006:5). The recommended Project APE includes approximately 8.8 acres of the historic district.

The resource was originally National Register-eligible because of the following factors. The 1978 nomination form does not identify National Register criteria met; however, the statement of significance summary states that "The Charles River Basin is the most important element of Boston's metropolitan park system, the first such system realized in the United States," and that the chief designer, Charles Eliot, of the firm Olmsted, Olmsted, and Eliot, "is a major figure in the early history of the profession of landscape architecture, which developed principally in the Boston area. The summary also notes that the embankment



and park land are important recreational and attractive amenities for Boston and Cambridge (Clark et al. 1978:8-1). Accordingly, the District likely meets criterion A for association with broad patterns of history and criterion C in landscape architecture and architecture, for the following reasons. The areas of significance called out in the 1978 form are commerce, communications, community planning, conservation, economics, education, engineering, landscape architecture, military, politics/government, social/humanitarian, and transportation. These areas are similar to, although they do not fully align, with the NPS areas of significance in current guidance (NPS 1997).

The 1978 nomination form cites the district's specific dates as 1893–1910, which has been inferred and referenced as the period of significance (Elkus-Manfredi 2002:7, Attachment B–Agency Correspondence). However, the 33 resources listed and described in the nomination narrative mostly date to after 1910 and extend up to 1966 (Clark et al. 1978:8-1; MACRIS 2023). If the nomination were to be formally updated, it could extend the period of significance to 1966, and possibly 1970, to capture a sculpture within the boundary that is also a local Boston landmark. The areas of significance would likely be expanded to encompass architecture for the station, boat houses, and other buildings and would include recreation, related to land-based pedestrian and water-based boating activities. Charles/MGH Station, built in 1932, is within the District, and would be specifically listed as a contributing resource (see Charles/MGH Station section above and Attachment B–Agency Correspondence).

In addition to the Longfellow Approach Viaduct, described above, the Charles River Basin Historic District includes the Longfellow Bridge (1907, BOS.9034/CAM.912); the portion of the bridge comprising Span 1 and the Boston Abutment is within the Project area (see Photo 3). The Longfellow Bridge consists of 11 original steel arch spans (numbered 1 to 11 east-to-west) supported by 10 granite-clad concrete piers with semi-dome cutwaters (numbered 1 to 10 east-to-west), and two granite-clad concrete abutments (see Photo 2). The two pairs of central piers (Piers 5 and 6) include distinctive Beaux Arts-style towers that give the bridge its nickname, i.e., the “Salt-and-Pepper Shaker” Bridge (Kierstead et al. 2006:12–13).

The bridge was completed in 1907 to a design by acclaimed Boston City Architect (1891–1895) Edmund March Wheelwright (1854–1912). The bridge is individually significant as the oldest known example of a two-hinged steel arch bridge in Massachusetts and was determined to be individually eligible for listing in the National Register by a consensus finding of the MHC and the MHD under the MHD Historic Bridge Inventory, steel arch bridge segment (Roper 1991; Kierstead et al. 2006; Jacobs Engineering 2013:ii, 1, 2). The determination of eligibility occurred in planning for the Longfellow Bridge rehabilitation and restoration project, completed in 2018 (Kierstead et al. 2006).

### ***Beacon Hill Historic District***

The eastern approximately one-third of the Project area is in the overlapping Beacon Hill National Historic Landmark and National Register Historic District (BOS.BY, NHL 1962, NRDIS 10/15/1966, NRIS #66000130), and the Beacon Hill Local Historic District (BOS.BE, LHD 12/2/1955). Beacon Hill was designated as a Local Historic District in 1955 and as a National Historic Landmark (NHL) in 1962, and National Register Historic District in 1966. The Longfellow Approach Viaduct terminates at the Beacon Hill Tunnel, which is a contributing resource to the National Register district; the Beacon Hill Tunnel portal is in the Project area. The recommended Project APE includes approximately 6.0 acres of the overlapping historic districts.

The original NHL and National Register district nomination forms do not identify National Register criteria met; however, the forms state the significance of the district as laid out in 1795–1808 by noted architect



Charles Bulfinch as one of the finest and most intact examples of a large urban area of the period in the United States, encompassing numerous and outstanding examples of Federal-style brick row houses, which housed a variety of famous people (Snell 1970). The original district boundary was extended in 1970–1972, and an amendment studies began in the 1980s to expand the documentation and understanding of the architectural development (e.g., Meltsner and Parsons 1985). Additional Documentation prepared in 2006 clarified the early development of historic preservation and relationship to 19<sup>th</sup> and 20<sup>th</sup> century architectural styles, culminating in the establishment of the local historic district in 1955. The documentation established the period of significance as 1795–1955 and that the district meets National Register criteria A, B, C, and D, and identified areas of significance: ethnic heritage: African-American community, social and humanitarian movements, religion, art, literature, architecture, landscape architecture, environmental conservation, and historic preservation. The documentation also stated the applicable NHL criteria and themes (Chase-Harrell and Gordon 2006).

The portions of the three Beacon Hill districts that are in the southeast corner of the recommended APE contain 40 contributing properties (Photo 20; see Table 2). The districts comprise rowhouses dating to the 1790s to 1920s and are bounded by Cambridge Street on the north, Storrow Drive on the west, Beacon Street on the south, and Bowdoin Street on the east; the boundaries also include a small portion of the Esplanade park that connects to the Longfellow Bridge. Charles Bulfinch, one of the first native-born American architects, planned and developed Beacon Hill in 1795–1817 with other prominent Boston developers collectively known as the Mt. Vernon Proprietors (Marxer and Meltsner 1985:8–1). The proprietors regulated development of the area through the first half of the nineteenth century, setting an early precedent to modern zoning controls. The district is recognized for its collection of Federal, Greek Revival, Italianate, and Neoclassic architecture designed by early American architects such as Charles Bulfinch, Asher Benjamin, Solomon Willard, and Alexander Parris (Marxer and Meltsner 1985:8-3).

The Beacon Hill Tunnel (1909, BOS.9033) is a 2,488-ft, double-bore, steel and concrete tunnel that connects the Longfellow Approach Viaduct to Park Street Station at Boston Common (see Photos 14 and 15). The tunnel's double-barrel, concrete-arched portal connects to the Longfellow Viaduct by a steel and concrete elevated section above Lindall Place and West Cedar Street (see Photos 12 and 13). The elevated section is within the Project area. Construction of the elevated section and portal required demolition of several historic buildings on Lindall Place and modification of other buildings on Grove and Phillips streets, all of which are contributing properties to the Beacon Hill National Historic Landmark and National Register Historic districts.

Seven contributing properties are in close proximity to the Project area. The elevated section of the Longfellow Approach Viaduct passes within 1 ft of the Eye Research Institute Building, 99 West Cedar Street (1957, BOS.4207; present Advent School) before crossing over Lindall Place directly between the William G. Chadbourne House, 3 Lindall Place (1831, BOS.4081) to the northeast, the George Stockwell House, 8 Lindall Place (1831, BOS.4077) to the southwest, and 13 Lindall Place (ca. 1835, BOS.4082) to the south. The portal's formed-concrete, double-barrel opening cuts through the southwest corner of 13–15 Grove St (ca. 1900, BOS.16066). The concrete-covered portal then cuts through the lower levels of 59 Phillips Street (ca. 1900, BOS.16241), 61 Phillips Street (ca. 1905, BOS.16243), and 63 Phillips Street (ca. 1905, BOS.16245) before descending under Beacon Hill below the intersection of Grove and Phillips streets.



### *Charles River Basin Esplanade*

The Charles River Esplanade (BOS.ZI) is a linear park extending along the east bank of the Charles River and is within the Charles River Basin Historic District (see Photos 2 and 3). It was listed in the National Register as a contributing resource to the Charles River Basin Historic District in 1978 and was designated a local landmark in 2009. The Esplanade includes the parkland that extends west from the upstream edge of the Craigie Drawbridge to the downstream edge of the Boston University Bridge. The easternmost segment, Charlesbank, extends from the Craigie Drawbridge west to the Longfellow Bridge and extends into the Project APE (BLC 2009). Charlesbank was filled tidal land with promenade and parkland designed by Frederick Law Olmsted in the 1880s and 1890s and expanded and modified by Guy Lowell in 1908. Construction of Charles Street in 1931 and Storrow Drive in 1950–1951, with related land filling, created the current configuration. In this section, the Esplanade narrows, running north–south at the west end of the APE where Storrow Drive passes under Span 1 of the Longfellow Bridge.

### *Individually Listed National Register and Local Landmark Property*

The Suffolk County Jail (aka Charles Street Jail), 215 Charles Street (1851, BOS.4200, NRIND 4/23/1980, NRIS #80000670) is at the northeast corner of Charles Circle, north of the Charles/MGH Station and the Longfellow Approach Viaduct (Photo 21). The building is a granite-faced masonry structure with a cruciform plan and 4 four-story wings with hip roofs that radiate from a central five-story octagonal structure. All elevations are similar with quoined, rusticated granite ashlar walls and window bays set in blind arches outlined by granite voussoirs. The jail was completed in 1851 and is an example of the Boston Granite style as designed by architect Gridley J. F. Bryant (1816–1899) (Jenkins 1980:4). The jail's last prisoners were removed in 1990, and Massachusetts General Hospital acquired the building in 1991. In 2001, the building was acquired by Carpenter & Company, a development company, and was rehabilitated for adaptive reuse as a hotel (Liberty Hotel 2019).

### *MHC Inventory Resources*

Four historic properties listed in the MHC Inventory are within the recommended historic resources APE and outside a historic district.<sup>1</sup> The Boston Edison Electric Company Substation (aka One Charles Circle), 317–325 Cambridge Street (1924, BOS.4196), is a formerly windowless, eight-story, brick masonry electric station that was converted into medical offices in 1984 (Photo 22). The top two floors were added during the building's conversion. The building was designed by the Boston-based firm of Bigelow and Wadsworth, which also designed the Edison Electric Substation at 42–48 Chauncy Street (1917, BOS.1650), additions to the Boston Athenaeum (ca. 1850, BOS.1547), and several other prominent industrial and institutional buildings throughout Massachusetts (BLC n.d. a).

The building at 313 Cambridge Street (1896, BOS.4195) is a five-story, brick masonry and cast concrete apartment building with first-floor commercial space (Photo 22). The original facade was several feet farther south, but the building was cut back during the 1924–1925 widening of Cambridge Street to

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<sup>1</sup> One other inventoried building, the Dr. John W. Pratt House (aka Massachusetts General Hospital Physician's House), 285 Cambridge Street, BOS.4190, is outside the recommended Project APE to the northeast, but due to its proximity to the Project area is shown for informational purposes only in Figure 3. The building has been moved twice, which makes it ineligible for listing in the National Register, and a proposal to designate it as a Boston landmark in 1982 was voted down (BLC n.d. d). It is shielded from the Project area by a modern building along Cambridge Street and is visible from North Grove Street.



accommodate increased traffic flow. The 1925 facade is now framed and divided into three spaces with pilasters, and windows are all replacement one-over-one sash with cast concrete panels beneath the sills. The MHC Inventory lists the building as demolished (BLC n.d. b).

The building at 309–311 Cambridge Street (ca. 1940, BOS.4194) is a two-story, yellow brick masonry building with first-floor commercial space (see Photo 22). The structure was built on the site of a ca. 1860s building that was demolished to accommodate the widening of Cambridge Street in 1924–1925, and the lot was vacant until the present structure was constructed in the 1940s. The storefront was heavily altered in the late twentieth century and a new east wall was constructed by Massachusetts General Hospital in the early twenty-first century. The MHC Inventory lists the building as demolished (BLC n.d. c).

### **Archaeological Resources**

No recorded archaeological sites are within the study area or in the recommended belowground resources APE (direct LOW) for the Project area. Seven pre-contact archaeological sites are recorded within the 0.5-mile radius of the Project area that is coterminous with the belowground resources recommended APE. Three of these sites (19-SU-12, 19-SU-15, and 19-SU-29) are at or within the tidal flats west of the 1630 peninsula shoreline. No information other than their location is known about these sites (MHC site files), but they may have been identified on the basis of shell middens containing chipped- and/or ground-stone tools. The other four sites (19-SU-14, 19-SU-60, 19-SU-113, and 19-SU-114) are on natural land along the north and west sides of Beacon Hill. Three of the sites are in Boston Common and provide evidence of Native American occupation targeting estuarine resources dating to as long as 8,000 years ago during the pre-contact Archaic and Woodland periods (MHC site files).

The recommended APE for archaeological resources overlaps areas that were assessed as having low archaeological sensitivity for pre-contact resources as part of archaeological assessment/reconnaissance surveys for the MBTA/Charles Connector Project (Bower et al. 1987) and the Longfellow Bridge Rehabilitation and Restoration Project (Cherau 2006). The 1987 survey assigned archaeological sensitivity to the area of Lindall Place and the city park at the corner of North Anderson and Cambridge streets in Boston, both of which are north and northeast and outside the recommended APE and MBTA ROW. The 2006 archaeological survey provided a detailed shoreline reconstruction on both sides of the Charles River, including the bridge approaches in Cambridge and Boston. The assessment concluded that documented eighteenth through twentieth-century filling and shoreline reconfigurations in the made land and former tidal flats on both sides of the Charles River in and surrounding the bridge approaches had resulted in severe disturbances to any natural land surfaces that may have been present. No significant archaeological resources were expected to be present within at least a 500-ft radius to either side of the Longfellow Bridge substructure (Cherau 2006:24–25). The 500-ft radius overlaps most of the recommended APE.

Given the documented filled shoreline reconfigurations and constructions related in large part to the twentieth-century MBTA railroad infrastructure, including the Red Line's at-grade track and tunnels and portals on both sides of the Longfellow Bridge within the railroad ROW, low archaeological sensitivity is assigned to the entirety of the recommended APE for the Approach Viaduct Project.





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## Conclusions and Recommendations

### Historic Resources

The recommended APE contains two individual historic properties listed in the State and National Registers as contributing to the Charles River Basin Historic District: all of the Longfellow Approach Viaduct and the east part of Longfellow Bridge at the Boston Abutment and Span 1. The recommended APE also contains one property (the Charles/MGH Station) determined eligible for listing in the National Register and subsequently altered. The Project will involve rehabilitation work on the three historic properties.

The Project area also contains portions of three State and National Register historic districts: the Charles River Basin Historic District, the Beacon Hill National Historic Landmark, National Register, and Local Historic districts, and the Charles River Esplanade. The Project will involve rehabilitation work on two contributing resources within these districts: modifications to the Longfellow Approach Viaduct and track and signal work in the Beacon Hill Tunnel Portal.

Outside the Project area, but within the recommended APE, are one State and National Register-listed individual historic property (the Suffolk County Jail [aka Charles Street Jail, now Liberty Hotel] at 215 Charles Street) and three historic resources listed in the MHC Inventory (the Boston Edison Electric Company Substation [aka One Charles Circle] at 317–325 Cambridge Street; 313 Cambridge Street; and 309–311 Cambridge Street). These four historic properties are directly across Charles Circle and Charles Street from the Project area with direct views of the Project. The Boston Edison Electric Company Substation at 317–325 Cambridge Street, 313 Cambridge Street, and 309–311 Cambridge Street are heavily altered and lack sufficient integrity to be considered eligible for listing in the National Register.

Because of the substantial changes that occurred with Charles/MGH Station headhouse work in 2005–2007, PAL recommends that the Charles/MGH Station no longer retains sufficient historic architectural integrity for individual National Register eligibility. However, the station's remaining copper cladding and original platforms are still contributing elements to the overall grouping of historic properties and the visual appearance within the Beacon Hill National Historic Landmark, National Register, and Local Historic Districts and within the Charles River Basin Historic District. Aside from confirmation of the reevaluation of the individual National Register eligibility of this one historic property, no further historic resources identification is recommended within the Longfellow Approach Viaduct Project area and recommended historic resources APE.

### Archaeological Resources

No further archaeological investigations are recommended within the Longfellow Viaduct Project area and recommended belowground resources APE. Construction staging and laydown areas have not yet been identified, but if Project activities occur outside the current Project LOW for the Viaduct and involve any belowground disturbances, additional archaeological assessment will be needed.



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