

## 1 15.0 Cultural Resources

### 2 15.1. Introduction

3 This chapter defines the cultural resources pertinent to the Long Bridge Project (the Project) and defines  
4 the regulatory context methodology, and Affected Environment. For each Action Alternative and the No  
5 Action Alternative, this chapter assesses the potential short-term and long-term impacts on cultural  
6 resources as required under National Environmental Policy Act (NEPA).

7 For the purposes of the NEPA analysis, cultural and historic resources include all local, state, and  
8 federally designated or eligible historic sites, sacred sites, cultural landscapes, traditional cultural  
9 properties, and archaeological sites. The Environmental Consequences Report, which can be found in  
10 **Appendix D3, Environmental Consequences Report**, was prepared to inform the analysis of impacts to  
11 these resources under NEPA and considered different degrees of impacts (negligible, minor, moderate,  
12 or major) and types of impacts (adverse and beneficial) to cultural and historic resources. As outlined in  
13 **Chapter 4, Impact Analysis Framework** of this DEIS, the degrees of impacts are defined as: negligible –  
14 may be adverse or beneficial but would occur at levels that are not measurable; minor – would be  
15 noticeable but would not affect the function or integrity of the resource; moderate – would be readily  
16 apparent and would influence the function or integrity of the resource; and, major – would be  
17 substantial and would result in severe adverse or exceptionally beneficial changes to the resource. Thus,  
18 using the above definitions for impact analysis, the NEPA analysis determined any impact intensity  
19 below moderate would not affect a resource’s integrity.

20 Concurrent with the NEPA analysis, an assessment of effects on historic properties under the National  
21 Historic Preservation Act of 1966 (NHPA) and its implementing regulations (36 CFR 800) was also  
22 conducted. Section 106, as the process is most commonly referred to, requires Federal agencies to  
23 consider and consult on the effects of their actions on historic properties.<sup>1</sup> Section 106 defines historic  
24 properties as properties listed in or eligible for listing in the National Register of Historic Places (NRHP).  
25 This is notably different from NEPA, which, as previously stated, goes beyond considerations of Section  
26 106 by also considering local, state, and federally designated or eligible resources. The Section 106  
27 Assessment of Effects report, which can be found in **Appendix E3, Section 106 Assessment of Effects**  
28 **Report**, prepared in accordance with the NHPA, was prepared to determine if the Project would cause  
29 an adverse effect to historic properties. Differing from the above level of impacts used for the NEPA  
30 analysis, adverse effects under Section 106 are defined as any effect that diminishes the integrity of a  
31 historic property by altering any characteristics – location, design, setting, materials, workmanship,  
32 feeling, or association – that qualify the property from inclusion in the NRHP.

33 While both NEPA and Section 106 analyze and assess effects and impacts to historic and cultural  
34 resources, they assess those effects and impacts differently. As a result, the two processes can  
35 sometimes reach different conclusions on effects and impacts. For ease of understanding, both

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<sup>1</sup> 36 CFR 800

36 conclusions have been stated in the following chapter. For the full analysis and conclusions under  
37 Section 106, please refer to **Appendix E3, Section 106 Assessment of Effects Report**.

## 38 **15.2. Regulatory Context and Methodology**

39 This section describes the most pertinent regulatory context for evaluation of impacts to cultural  
40 resources. It summarizes the methodology for evaluating current conditions and the probable  
41 consequences of the alternatives. This section also includes a description of the Study Area.

42 **Appendix D1, Methodology Report**, provides the complete list of laws, regulations, and other  
43 guidance considered, and a full description of the analysis methodology.

### 44 **15.2.1. Regulatory Context**

45 Under NEPA, impacts are analyzed in several contexts, as was explained above, but the Section 106  
46 process takes an additional step in the process by requiring consultation with identified stakeholders in  
47 the Project. This consultation, while not part of the NEPA process, was used to inform the impacts  
48 below. Consultation is the process of seeking, discussing, and considering the views of the Consulting  
49 Parties. The purpose of consultation is to identify and evaluate historic properties, assess impacts  
50 (adverse effects under Section 106), and resolve those impacts through avoidance, minimization, and  
51 mitigation strategies.

52 The Federal Railroad Administration (FRA), the lead Federal Agency, in consultation with the District  
53 Department of Transportation (DDOT), the District of Columbia State Historic Preservation Officer  
54 (DC SHPO) and the Virginia Department of Historic Resources (VDHR), identified Consulting Parties for  
55 the Project. **Chapter 25, Public Involvement and Agency Coordination**, provides a list of the Consulting  
56 Parties. DC SHPO and VDHR serve as the respective State Historic Preservation Offices (SHPOs) for their  
57 jurisdictions and are participating in consultation. Both agencies follow laws and guidelines specific to  
58 their jurisdictions, including the Virginia Antiquities Act of 1991;<sup>2</sup> *Guidelines for Conducting Historic  
59 Resources Survey in Virginia*;<sup>3</sup> the District of Columbia Historic Landmark and Historic District Protection  
60 Act of 1978;<sup>4</sup> and *Guidelines for Archaeological Investigations in the District of Columbia*.<sup>5</sup>

### 61 **15.2.2. Methodology**

62 The Local Study Area (**Figure 15-1**) for cultural resources is consistent with the Area of Potential Effects  
63 (APE) identified for NHPA Section 106 compliance.<sup>6</sup> Because the Project has no potential to adversely  
64 affect cultural resources beyond limits of the APE, FRA and DDOT did not find it necessary to define a  
65 Regional Study Area. Within the APE, Limits of Disturbance (LOD) were also defined. The LOD is the

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<sup>2</sup> Code of Virginia Title 10.1-2300

<sup>3</sup> VDHR. September 2017. *Guidelines for Conducting Historic Resources Survey in Virginia*. Accessed from [http://dhr.virginia.gov/pdf\\_files/SurveyManual\\_2017.pdf](http://dhr.virginia.gov/pdf_files/SurveyManual_2017.pdf). Accessed June 4, 2018.

<sup>4</sup> DC Code 6-1101

<sup>5</sup> DC Preservation League et al. April 1998. *Guidelines for Archaeological Investigations in the District of Columbia*. Accessed from <https://planning.dc.gov/sites/default/files/dc/sites/op/publication/attachments/DCArchaeologyGuidelines1998.pdf>. Accessed June 4, 2018.

<sup>6</sup> Section 106 implementing regulation defines the APE 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 APE 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 800.16(d))

66 geographic area within which ground disturbance may occur and was developed to better understand  
67 the potential effects to archaeological resources within the APE. The APE and LOD delineations  
68 identified and documented the areas from which the Project would cause impacts to cultural resources.  
69 As shown in **Figure 15-1**, the analysis mapped the APE and LOD boundaries two-dimensionally. The  
70 boundaries encompass both above-ground and below-ground cultural resources, including potential  
71 underwater and archaeological resources.

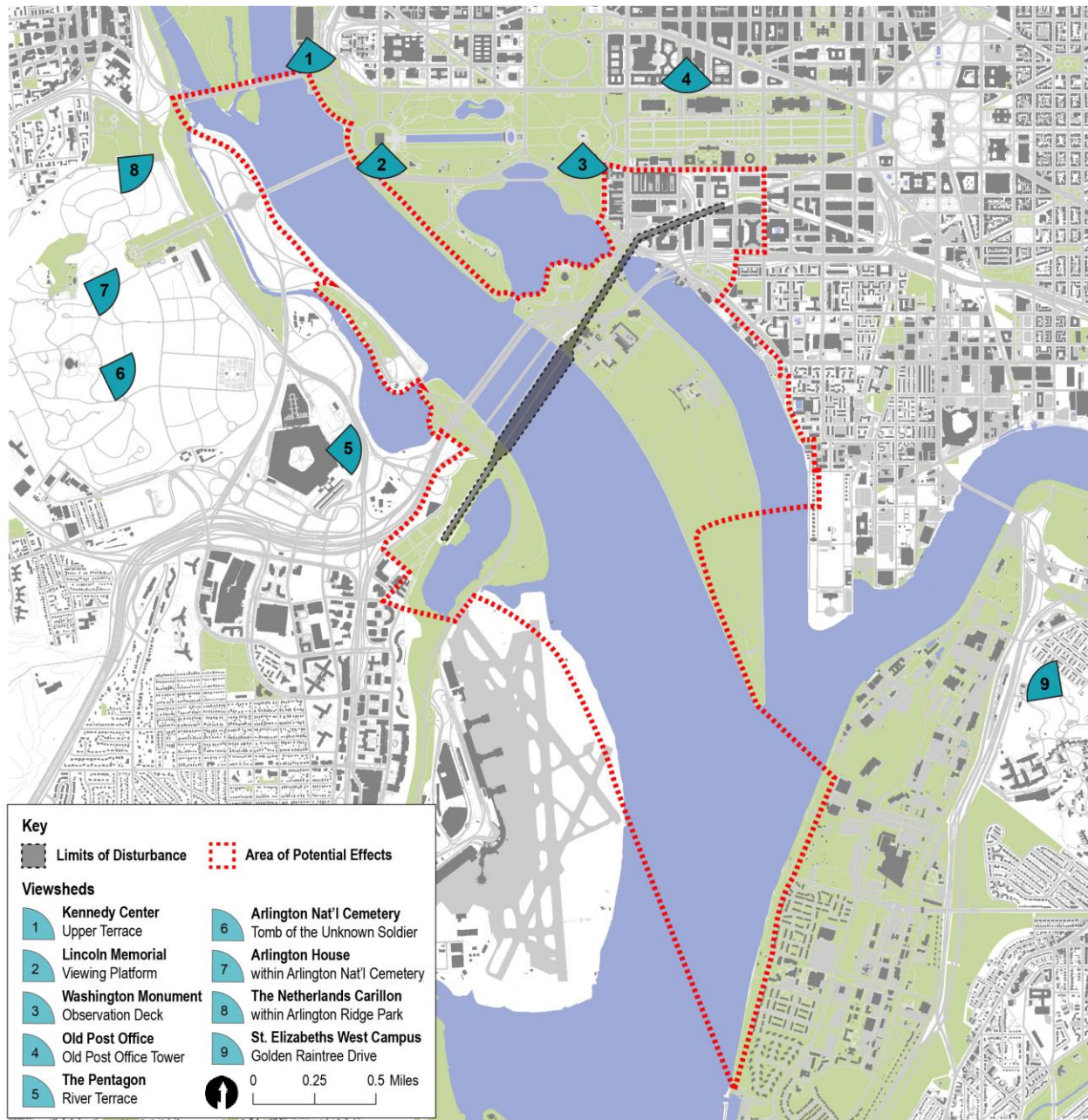
72 As field survey for the project was being conducted to support the APE delineation, it was discovered  
73 that there were potentially impacted viewshed locations outside of the APE boundary (shown in red in  
74 **Figure 15-1**). To compensate for this discrepancy, viewshed locations were identified as areas from  
75 which the Long Bridge Corridor was clearly visible from a specific exterior vantage point or publicly  
76 accessible plaza or viewing platform. However, the view was sufficiently limited in these locations to not  
77 warrant expanding the APE to encompass the entirety of each site (for example, Long Bridge was visible  
78 from high points such as Arlington House, the Robert E. Lee Memorial and the Tomb of the Unknown  
79 Soldier, but not from the entirety of Arlington National Cemetery). More detailed information on the  
80 cultural resources and viewshed analysis locations can be found in **Appendix E3, Section 106**  
81 **Assessment of Effects Report**.

82 Once the APE was established, FRA and DDOT identified and mapped cultural resources within the APE  
83 using a variety of data sources, as described in **Appendix D1, Methodology Report**, and **Appendix E3,**  
84 **Section 106 Assessment of Effects Report**. FRA and DDOT identified all properties designated or eligible  
85 local and state resources, as well as all the resources that are listed in, or are eligible for listing in, the  
86 NRHP located within the APE. The analysis also narratively described the historically significant  
87 characteristics of each resource and its specific historic designation, and graphically illustrated the  
88 appearance and location of each.

89 The NEPA impact analysis, which was conducted concurrently, but separately from the Section 106  
90 assessment, considered degrees of intensity, as described above and in **Chapter 4, Impact Analysis**  
91 **Framework**. Impact intensity was identified as negligible, minor, moderate, or major. As part of the  
92 consultation process, FRA and DDOT consulted with the Consulting Parties on the effects of the No  
93 Action and Action Alternatives on cultural resources. **Appendix E3, Section 106 Assessment of Effects**  
94 **Report**, provides a full description of the consultation and effects on cultural resources, and **Appendix**  
95 **E5, Draft Section 106 Programmatic Agreement (PA)**, provides a full description of the resolution to  
96 those effects. A PA is a flexible resolution document which outlines the avoidance, minimization, and  
97 mitigation measures of the identified adverse effects, as well as steps to be taken in the future when  
98 potential effects have yet to be identified. The public is welcome to comment on the PA through this  
99 DEIS.

100 FRA and DDOT developed and refined the APE and LOD boundaries in consultation with DC SHPO, VDHR,  
101 and the Consulting Parties. By letters dated March 23, 2018, DC SHPO and VDHR concurred with the APE  
102 and LOD (see **Appendix E2, Section 106 Correspondence**). Following the dismissal of the bike-pedestrian  
103 crossing option downstream of the existing Long Bridge (see **Chapter 22, Bike-Pedestrian Crossing**), FRA  
104 and DDOT revised the LOD to remove the alignment of that crossing option and its associated access  
105 ramps and landings. The APE boundary remained unchanged.

106 **Figure 15-1** | Local Study Area and Area of Potential Effects for Cultural Resources



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### 108 15.2.3. Archaeological Resources

109 FRA will identify archaeological resources using a phased approach. FRA and DDOT initiated the process  
110 for identifying archaeological resources by completing a Phase IA Archaeological Assessment in  
111 consultation with DC SHPO and VDHR. FRA and DDOT conducted the Phase IA Archaeological  
112 Assessment (Phase IA Assessment) in accordance with the Secretary of the Interior’s Standards and  
113 Guidelines for Archaeology and Historic Preservation,<sup>7</sup> the *Guidelines for Archaeological Investigations in  
114 the District of Columbia* as adopted by the DC SHPO,<sup>8</sup> and the VDHR *Guidelines for Conducting Historic  
115 Resources Survey in Virginia*.<sup>9</sup> The Phase IA Assessment consisted of a desktop review of known  
116 archaeological sites and areas that exhibit high archaeological potential within the LOD. The Phase IA  
117 Assessment addressed all Action Alternatives and identified additional surveys that will be needed based  
118 on the selection of Action Alternative A as the Preferred Alternative. Because the National Park Service  
119 (NPS) has jurisdiction over a majority of the area within the LOD (including the bottom lands of the  
120 Potomac River), FRA and DDOT will continue to coordinate with NPS and the Consulting Parties  
121 regarding potential impacts to archaeological resources, including potential underwater archaeological  
122 resources. For more details on the results of the Phase IA Assessment, see **Appendix E4, Phase IA  
123 Technical Report**. As the archaeological resources will be identified using a phased approach, the PA  
124 outlines the future Section 106 responsibilities of the agencies and the Consulting Parties. The full PA  
125 can be found in **Appendix E5, Draft Section 106 Programmatic Agreement**, and public comments are  
126 welcome.

## 127 15.3. Affected Environment

128 This section summarizes the existing cultural resources within the Local Study Area. For a complete  
129 description of the Affected Environment, see **Appendix D2, Affected Environment Report**, and  
130 **Appendix E3, Section 106 Assessment of Effects Report**. The cultural resources include designated  
131 historic properties, eligible historic properties, and undesignated cultural resources, as described below.

### 132 15.3.1. Listed and Eligible Resources

133 The properties listed in **Table 15-1** have been listed in the NRHP, are eligible for listing in the NRHP, or  
134 are potentially eligible for listing in the NRHP due to their age (at or greater than 45 years of age). Some  
135 are also concurrently NPS documented Cultural Landscapes (CL) and/or have state and local  
136 designations, including the DC Inventory of Historic Sites (DC) and the Virginia Landmarks Register (VLR).

137 As shown in **Table 15-1**, two properties have been designated as National Historic Landmarks (NHL). As  
138 noted in **Section 15.2.2, Methodology**, this list includes properties outside the APE boundary from  
139 which the Long Bridge Corridor is clearly visible from a specific exterior vantage point or publicly  
140 accessible plaza or viewing platform to account for potential effects to viewsheds.

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<sup>7</sup> NPS. September 1983. Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation. Accessed from [https://www.nps.gov/history/local-law/arch\\_stnds\\_0.htm](https://www.nps.gov/history/local-law/arch_stnds_0.htm). Accessed October 22, 2018.

<sup>8</sup> DC Preservation League et al. April 1998. Guidelines for Archaeological Investigations in the District of Columbia. [https://planning.dc.gov/sites/default/files/dc/sites/op/publication/attachments/DC%20Archaeology%20Guidelines%201998\\_1.pdf](https://planning.dc.gov/sites/default/files/dc/sites/op/publication/attachments/DC%20Archaeology%20Guidelines%201998_1.pdf). Accessed May 18, 2018.

<sup>9</sup> VDHR. September 2017. Guidelines for Conducting Historic Resources Survey in Virginia. Accessed from [http://dhr.virginia.gov/pdf\\_files/SurveyManual\\_2017.pdf](http://dhr.virginia.gov/pdf_files/SurveyManual_2017.pdf). Accessed June 4, 2018.

141 **Table 15-1** | Listed, Eligible, and Potentially Eligible Resources

No.	Name	Location	Designation
1	National Mall Historic District	Washington, DC	DC, NRHP
2	Parkways of the National Capital Region	Washington, DC	VLR, NRHP
3	Rock Creek and Potomac Parkway Historic District	Along the Potomac River and Rock Creek from the Lincoln Memorial to the National Zoo	DC, NRHP
4	George Washington Memorial Parkway (GWMP)	Washington, DC; Arlington County (extends to City of Alexandria and Fairfax County)	VLR, NRHP
5	Mount Vernon Memorial Highway (MVMH)	Washington, DC; Arlington County (extends to City of Alexandria and Fairfax County)	DC, VLR, NRHP, CL
6	Plan of the City of Washington <sup>1</sup>	Washington, DC	DC, NRHP
7	East and West Potomac Parks Historic District	Washington, DC	DC, NRHP
8	Thomas Jefferson Memorial	East Basin Drive SW, Washington, DC	DC, NRHP
9	Central Heating Plant	325 13th Street SW, Washington, DC	DC, NRHP
10	U.S. Department of Agriculture (USDA) Cotton Annex	300 12th Street SW, Washington, DC	DC, NRHP
11	U.S. Department of Housing and Urban Development Building (Robert C. Weaver Federal Building)	451 7th Street, SW, Washington, DC	DC, NRHP
12	USDA South Building	1352 C Street SW, Washington, DC	DC, NRHP
13	Bureau of Engraving and Printing	301 14th Street SW, Washington, DC	DC, Determined Eligible for NRHP

No.	Name	Location	Designation
14	Auditor's Building Complex	14th Street and Independence Avenue SW, Washington, DC	DC, NRHP
15	Arlington Memorial Bridge (and related features)	Memorial Avenue, Washington, DC & Virginia	DC, NRHP, CL
16	Fort Leslie J. McNair Historic District (The Old Arsenal)	4th and P Streets SW, Washington, DC	DC, Determined Eligible for NRHP
17	Titanic Memorial	Water and P Streets SW, Washington, DC	DC, NRHP
18	Lunch Room Building and Oyster Shucking Shed <sup>1</sup>	1100 Maine Avenue SW, Washington, DC	DC, Determined Eligible for NRHP
19	Cuban Friendship Urn	Reservation 332, Ohio Drive at 14th Street Bridge SW, Washington, DC	DC, NRHP
20	Theodore Roosevelt Island National Memorial (Analostan Island) <sup>1</sup>	Potomac River west of Georgetown Channel	DC, NRHP
21	Lyndon Baines Johnson Memorial Grove <sup>1</sup>	Columbia Island in Lady Bird Johnson Park	DC, NRHP
22	Lincoln Memorial (Statue of Lincoln) <sup>1</sup>	West Potomac Park, Washington, DC	DC, NRHP
23	Washington Monument and Grounds Historic District <sup>1,2</sup>	14th Street, between Constitution and Independence Avenues, Washington, DC	DC, NRHP
24	Arlington House, The Robert E. Lee Memorial Historic District <sup>3</sup>	Roughly bound by Sheridan Drive, Ord and Weitzel Drive, Humphrey's Drive, and Lee Avenue in Arlington National Cemetery	VLR, NRHP, CL
25	Arlington National Cemetery Historic District <sup>1</sup>	One Memorial Avenue, Arlington, VA	NRHP
26	St. Elizabeths Hospital Historic District <sup>2</sup>	2700 Martin Luther King Jr. Avenue SE, Washington, DC	DC, NRHP, NHL
27	Arlington Ridge Park (Netherlands Carillon) <sup>2</sup>	Northwest corner of N Meade Street and Marshall Drive in Arlington, VA	VLR, NRHP, CL
28	Old Post Office <sup>2</sup>	1100 Pennsylvania Avenue NW, Washington, DC	DC, NRHP

No.	Name	Location	Designation
29	The Pentagon <sup>2</sup>	US 1, Virginia Route 110, and I-395, Arlington, VA	VLR, NRHP, NHL
30	Bureau of Engraving and Printing Annex	300 14th Street SW, Washington, DC	Determined Eligible for NRHP
31	Federal Office Building 10A (Orville Wright Building)	800 Independence Ave SW, Washington, DC	Determined Eligible for NRHP
32	Benjamin Banneker Park and Overlook; 10th Street Overlook <sup>1</sup>	Terminus of 10th Street SW, Washington, DC	Determined Eligible for NRHP
33	Richmond, Fredericksburg and Potomac Railroad (RF&P) Historic District	Along CSX right-of-way in Virginia from Arlington County to the City of Richmond	Determined Eligible for NRHP
34	Washington Marina Building	1300 Maine Avenue SW, Washington, DC	Determined Eligible for NRHP
35	L'Enfant Promenade	Section of 10th Street SW between Independence Avenue and Banneker Park, Washington, DC	Determined Eligible for NRHP
36	Lady Bird Johnson Park <sup>1</sup>	GWMP	Determined Eligible for NRHP
37	John F. Kennedy Center for the Performing Arts <sup>2</sup>	2700 F Street NW, Washington, DC	Determined Eligible for NRHP
38	Liberty Loan Federal Building	401 14th Street SW, Washington, DC	Determined Eligible for NRHP
39	Astral Building (North Building, L'Enfant Plaza)	955 L'Enfant Plaza SW, Washington, DC	Potentially Eligible for NRHP
40	Comsat Building (South Building, L'Enfant Plaza)	950 L'Enfant Plaza SW, Washington, DC	Potentially Eligible for NRHP
41	Loew's L'Enfant Plaza Hotel (East Building, L'Enfant Plaza)	470–490 L'Enfant Plaza SW, Washington, DC	Potentially Eligible for NRHP
42	United States Postal Service Building (West Building, L'Enfant Plaza)	475 L'Enfant Plaza SW, Washington, DC	Potentially Eligible for NRHP

<sup>1</sup> All or portions of these properties have also been identified and evaluated as cultural landscapes.

<sup>3</sup> These properties are designated as viewshed locations outside of the APE boundaries.



143 Nine of the properties have been determined eligible by a Federal agency or recommended as eligible  
144 by a SHPO for listing in the NRHP and are shown in orange in **Figure 15-2**. As noted in **Section 15.2.2,**  
145 **Methodology**, this list includes properties outside the APE boundary from which the Long Bridge  
146 Corridor is clearly visible from a specific exterior vantage point or publicly accessible plaza or viewing  
147 platform to account for potential effects to viewsheds.

148 Four properties listed in **Table 15-1 and located within the District of Columbia** are properties within  
149 the APE constructed prior to 1972. For resources that were 45 years of age without formal  
150 Determinations of Eligibility, FRA made preliminary determinations regarding each property's potential  
151 eligibility for listing in the NRHP. All four resources were considered potentially eligible for the purposes  
152 of this document, and no formal request for the preparation of a Determination of Eligibility Form was  
153 made by DC SHPO. Per the DC SHPO letter dated March 23, 2018, which can be found in **Appendix E2,**  
154 **Section 106 Correspondence**, DC SHPO concurred "with the lists of Designated and Eligible Historic  
155 Properties included within the report [*The Area of Potential Effects and Historic Properties Technical*  
156 *Report*] and, for purposes of this undertaking, agree with the Preliminary Determinations of Eligibility for  
157 properties that are greater than forty-five years of age." *The Area of Potential Effects and Historic*  
158 *Properties Technical Report* can be found as **Appendix E1**. **Figure 15-2** shows these properties in brown.

### 159 **15.3.2. Phase IA Archaeological Assessment**

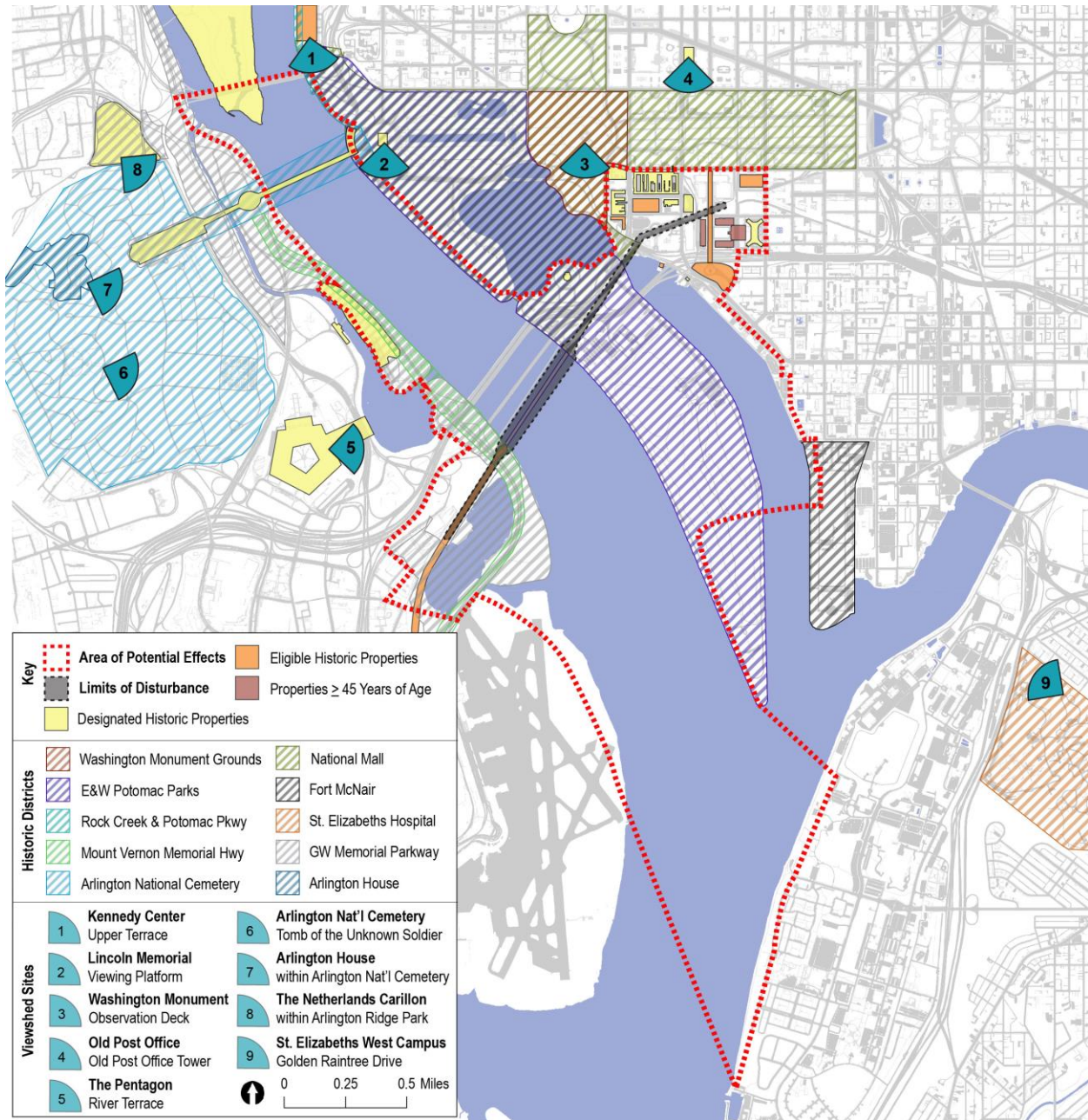
160 A Phase IA Archaeological Assessment conducted for the Project (see **Appendix E4, Phase IA**  
161 **Archaeological Assessment Technical Report**) identified three terrestrial areas of high potential for  
162 archaeological resources and one submerged area of moderate potential within the Long Bridge Project  
163 limits of disturbance (LOD). As shown in **Figure 15-3**, the three terrestrial areas are:

- 164 • The eastern half of the area from the GWMP south to RO Interlocking, which has a high  
165 potential for prehistoric Native American archaeological features and artifact deposits (Area 1 in  
166 **Figure 15-3**);
- 167 • Areas east and west of the existing railroad Corridor at GWMP, which are the location of Jackson  
168 City (archaeological site 44AR0037) (Area 2 in **Figure 15-3**); and,
- 169 • The area west of 12th Street SW, which has a high potential for prehistoric Native American and  
170 Historic period artifact and feature deposits (Area 3 in **Figure 15-3**).

171 The submerged area from the middle of the Potomac River to the shoreline of East Potomac Park has a  
172 moderate potential for piers associated with earlier bridges (Area I in **Figure 15-3**). This area was a  
173 terrestrial landform during the late Pleistocene/early Holocene epochs. While recent investigations at  
174 West Potomac Park concluded that river migration destroyed this landform, a Paleoindian projectile  
175 point was reported to DC SHPO from this approximate area. As such, the area from the middle of the  
176 Potomac River to the western shoreline of East Potomac Park has a moderate potential for prehistoric  
177 Native American artifact and feature deposits. All other terrestrial or submerged areas within the LOD  
178 have low or no potential for archaeological resources.

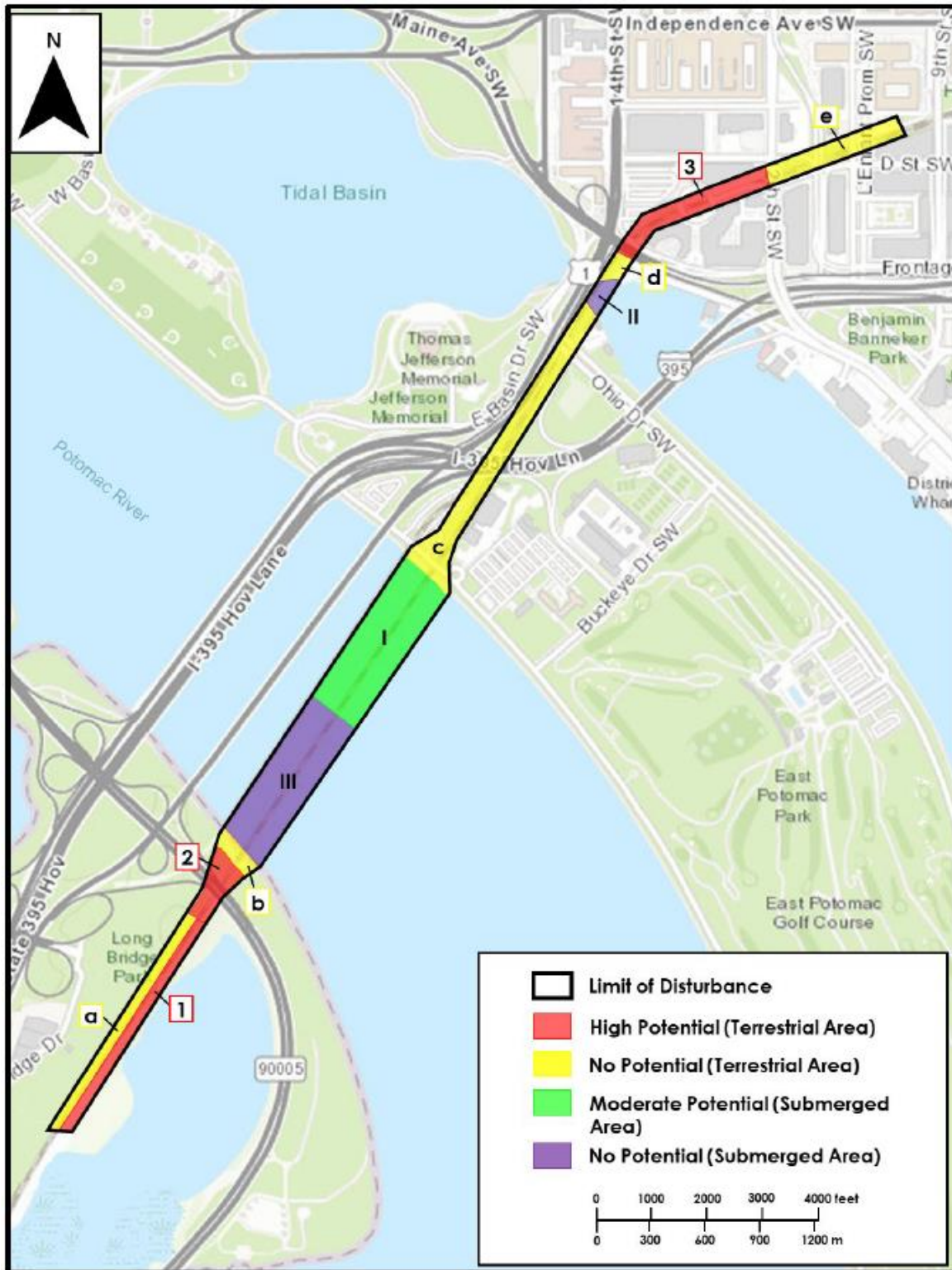
179 The need for further investigations will be determined later using a phased approach and in consultation  
180 with the appropriate SHPO and Consulting Parties pursuant to the terms of the PA. Required  
181 investigations and evaluations will be conducted during Final Design once it is clearly understood where  
182 ground disturbing activities will take place.

183 **Figure 15-2** | Map of APE with Resources that are Listed, Eligible, and Potentially Eligible for the NRHP



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185 **Figure 15-3** | Results of the Phase IA Archaeological Assessment



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187 **15.4. Permanent or Long-Term Effects**

188 This section discusses the permanent or long-term impacts on cultural resources within the Local Study  
189 Area and the APE following the construction of the No Action Alternative and Action Alternatives under  
190 NEPA, taking NHPA determinations into account. This chapter only addresses cultural resources with  
191 identified impacts. For a complete description of the permanent or long-term impacts, see **Appendix D3,**  
192 **Environmental Consequences Report (Section 12).**

193 **15.4.1. No Action Alternative**

194 In the No Action Alternative, the Long Bridge Corridor would continue to operate with two tracks  
195 crossing the Potomac River. The No Action Alternative presumes that Long Bridge remains in service,  
196 with continued maintenance as necessary. The No Action Alternative also presumes that DRPT and VRE  
197 complete the other planned railroad projects that would expand capacity to four tracks on either side of  
198 the Long Bridge Corridor. Because numerous cultural resources exist within the Local Study Area,  
199 projects in the No Action Alternative may affect one or more of these cultural resources. However, the  
200 effects of these projects and any other large capital projects would be assessed within the context of  
201 each project.

202 **15.4.2. Action Alternative A (Preferred Alternative)**

203 Action Alternative A would result in moderate permanent adverse impacts to the GWMP, MVMH, and  
204 East and West Potomac Parks Historic Districts due to the removal or alteration of contributing  
205 features.<sup>10</sup> The contributing features that may be removed or altered include: 1) contributing vegetation  
206 to the GWMP and MVMH, especially mature trees that date to the 1932 planting plan of the GWMP,  
207 which were intended to visually screen the railroad bridge from the motorway; 2) the removal of up to  
208 four contributing Japanese cherry blossom plantings along the perimeter of East Potomac Park; and 3)  
209 other mature vegetation. The Japanese cherry blossom plantings date from 1966 to 1968, when friends  
210 of President and Mrs. Lyndon B. Johnson planted approximately 1,800 Japanese cherry blossom  
211 plantings (and other flowering) trees on both sides of Ohio Drive SW to honor President and Mrs.  
212 Lyndon B. Johnson's roles in the nationwide Beautification Program.

213 Action Alternative A would result in minor permanent adverse impacts to the National Mall Historic  
214 District and the RF&P Railroad Historic District. Impacts to the National Mall Historic District would be  
215 minor because, although the new bridge structures and expanded railroad trackage would be  
216 noticeable, no aspects of the contributing features within the historic district would be impacted.  
217 Impacts to the RF&P Railroad Historic District would be minor because, despite the addition of two  
218 tracks, the historic district would continue its use as a railroad corridor and the primary components of  
219 its operation and design would remain intact.

220 Action Alternative A would also create minor permanent adverse impacts resulting from visual changes  
221 on the National Mall, GWMP, MVMH, and RF&P Railroad Historic Districts due to the addition of a new  
222 railroad bridge. While the introduction of a new railroad bridge structure above the Potomac River

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<sup>10</sup> A contributing feature is a building, site, structure, or object that adds to the historic significance of a property. This assessment is based on existing NRHP, NHL, DC Inventory of Historic Sites, Virginia Landmarks Register, determination of eligibility, cultural landscape, and other available documentation for each historic property.

223 would alter views across the river, the findings of the viewshed analysis, when considered against the  
 224 criteria of adverse effect, indicate that these changes are insufficient to diminish the integrity of these  
 225 historic resources. In the East and West Potomac Parks Historic District, the addition of a new bridge  
 226 would obstruct views of the existing Long Bridge from the north, diminishing the visual integrity of this  
 227 contributing structure and resulting in a moderate adverse impact. For a full discussion of visual effects,  
 228 see **Appendix D3, Environmental Consequences Report (Section 11); Chapter 11, Aesthetics and Visual**  
 229 **Resources; and Appendix E3, Section 106 Assessment of Effects Report**. Analysis compiled to support  
 230 the noise and vibration section of the Draft Environmental Impact Statement (DEIS)—see **Chapter 13,**  
 231 **Noise and Vibration**—found there would be negligible impacts on the GWMP, MVMH, and Plan of the  
 232 City of Washington resulting from changes in operational noise (because these impacts would not  
 233 diminish the integrity of the resource, they were not considered to be adverse effects under Section  
 234 106). **Table 15-2** compares the NEPA and Section 106 evaluations of impacts and adverse effects for  
 235 Action Alternative A.

236 **Table 15-2 | Summary of Impacts and Comparison of Determinations, Action Alternative A**

Historic Property/Cultural Resource	NEPA Determination	Section 106 Determination
<b>GWMP Historic District</b>	Moderate adverse impact Minor adverse impact	Adverse effect
<b>MVMH Historic District</b>	Moderate adverse impact Minor adverse impact	Adverse effect
<b>East and West Potomac Parks Historic District</b>	Moderate adverse impact	Adverse effect
<b>National Mall Historic District</b>	Minor adverse impact	No adverse effect
<b>Plan of the City of Washington Historic District</b>	Negligible adverse impact	No adverse effect
<b>RF&amp;P Historic District</b>	Minor adverse impact	No adverse effect

237 Any effects on archaeological resources that could result from Action Alternative A will be determined  
 238 later using the phased approach described in **Section 15.2.3, Archaeological Resources** and in **Appendix**  
 239 **E5, Draft Section 106 Programmatic Agreement**.

### 240 **15.4.3. Action Alternative B**

241 Action Alternative B would have major permanent adverse impacts to the GWMP, MVMH, and East and  
 242 West Potomac Parks Historic Districts as a result of the removal of the existing Long Bridge (a  
 243 contributing resource to the East and West Potomac Parks Historic District) and a component railway  
 244 bridge above the MVMH and the GWMP (a contributing resource to the GWMP). Action Alternative B  
 245 would also remove the existing railroad bridge spanning above the GWMP roadway, which has been  
 246 recommended by VDHR as a contributing resource to the GWMP. In addition, Action Alternative B  
 247 would remove up to seven contributing Japanese cherry blossom plantings in East and West Potomac  
 248 Parks Historic District. Other impacts resulting from Action Alternative B would be the same as for  
 249 Action Alternative A.

250 Action Alternative B would also create moderate permanent adverse impacts resulting from visual  
 251 changes on the GWMP, MVMH, and East and West Potomac Parks Historic Districts. Removing the

252 existing railroad bridge above the GWMP roadway and replacing it with a modern bridge would diminish  
 253 the integrity of setting and association of the GWMP and MVMH historic districts. Action Alternative B  
 254 would remove the existing Long Bridge and its central through truss span, which form a significant visual  
 255 component of the GWMP when traveling north and south along the MVT and of East and West Potomac  
 256 Parks when traveling along the perimeter of East Potomac Park. Removing the bridge and truss would  
 257 eliminate important visual components of the historic viewshed. Other impacts resulting from Action  
 258 Alternative B would be the same as for Action Alternative A.

259 **Table 15-3** summarizes the permanent impacts and compares the NEPA and Section 106 evaluations of  
 260 impacts and adverse effects for Action Alternative B.

261 **Table 15-3 | Summary of Impacts and Comparison of Determinations, Action Alternative B**

Historic Property/Cultural Resource	NEPA Determination	Section 106 Determination
<b>GWMP Historic District</b>	Major adverse impact Moderate adverse impact	Adverse effect
<b>MVMH Historic District</b>	Major adverse impact Moderate adverse impact	Adverse effect
<b>East and West Potomac Parks Historic District</b>	Major adverse impact Moderate adverse impact	Adverse effect
<b>National Mall Historic District</b>	Minor adverse impact	No adverse effect
<b>Plan of the City of Washington Historic District</b>	Negligible adverse impact	No adverse effect
<b>RF&amp;P Historic District</b>	Minor adverse impact	No adverse effect

262 **15.5. Temporary Effects**

263 This section discusses the temporary impacts of the No Action Alternative and the Action Alternatives  
 264 during construction, based on conceptual engineering design. Properties where no temporary impacts  
 265 were identified have been excluded from this discussion. For the complete technical analysis of the  
 266 potential temporary effects to cultural resources, see **Appendix D3, Environmental Consequences**  
 267 **Report.**

268 **15.5.1. No Action Alternative**

269 Because numerous cultural resources exist within the Local Study Area, the construction of projects in  
 270 the No Action Alternative may affect one or more of these resources. However, the effects of  
 271 construction of these projects and any other large capital projects would be assessed within the context  
 272 of each project.

273 **15.5.2. Action Alternative A (Preferred Alternative)**

274 Action Alternative A would have moderate temporary adverse impacts to the GWMP, MVMH, and East  
 275 and West Potomac Parks Historic Districts due to construction access and staging. Impacts would occur  
 276 over approximately 5 years. Use of portions of these historic districts for construction access and staging  
 277 would temporarily diminish the integrity of setting, feeling, and association for these resources. Action  
 278 Alternative A would also create a moderate temporary adverse impact to the National Mall Historic

279 District and negligible adverse temporary impacts to the Plan of the City of Washington due to the  
280 location of construction access and staging areas within these historic districts.

281 Analysis compiled to support the noise and vibration chapter of the EIS found there would be no  
282 temporary adverse impacts on cultural resources resulting from vibration. There would be potential for  
283 moderate temporary adverse impacts on the GWMP, MVMH, and East and West Potomac Parks Historic  
284 Districts resulting from construction noise. These impacts could be minimized or avoided if appropriate  
285 construction management procedures are implemented as mitigation (see **Chapter 13, Noise and**  
286 **Vibration**).

### 287 **15.5.3. Action Alternative B**

288 Action Alternative B's temporary impacts would be similar to those described for Action Alternative A  
289 except that the estimated duration of construction impacts would be approximately 3 years and 3  
290 months longer due to the replacement of the existing Long Bridge and component railroad bridge that  
291 crosses the GWMP.

## 292 **15.6. Avoidance, Minimization, and Mitigation**

293 This section describes proposed mitigation for the impacts to cultural resources. Throughout the Project  
294 planning process, FRA and DDOT, in consultation with DC SHPO, VDHR, and the Consulting Parties, have  
295 identified measures to avoid, minimize, or mitigate adverse impacts on cultural resources. These  
296 measures vary by alternative. The Section 106 consultation process is ongoing. FRA and DDOT will  
297 continue to consult with DC SHPO, VDHR, and the Consulting Parties to identify ways to avoid, minimize,  
298 and mitigate adverse effects. The Section 106 agreement document, a PA, describes these measures and  
299 stipulates that consultation would continue through the final design and construction processes. The  
300 draft PA is included as an appendix to the DEIS (**Appendix E5, Draft Section 106 Programmatic**  
301 **Agreement**).

### 302 **15.6.1. Summary of Consultation**

303 FRA and DDOT jointly conducted consultation throughout the Section 106 process and held five  
304 Consulting Party meetings to date between April 2017 and August 2019. A thirty-day comment period  
305 was provided for any additional comments after each Consulting Party meeting. The feedback received  
306 during the meetings, and subsequent comment periods, informed the development of the APE, the  
307 identification of historic properties, the assessment of effects and impacts on cultural resources, and  
308 appropriate resolution strategies. **Table 15-4** provides a summary of the topics and input received from  
309 the Consulting Parties. The Section 106 consultation process is further described in **Appendix E3,**  
310 **Section 106 Assessment of Effects Report**.

311 Through the Section 106 process and in consultation with DC SHPO, VHDR, NPS and other Consulting  
312 Parties, alternatives that considered the construction of a new railroad bridge and associated railroad  
313 infrastructure outside of the existing Long Bridge Corridor were dismissed from consideration. This  
314 avoids potential effects generated by expanding the scope.

315 Through the consultation process a preference for Action Alternative A was identified as having fewer  
316 adverse effects on historic properties than Action Alternative B. Most notably Action Alternative A

317 would retain the existing Long Bridge and the railroad bridge over the GWMP, avoiding the adverse  
 318 effects on East and West Potomac Parks Historic District, MVMH, and GWMP.

319 In comments following the fourth Consulting Parties meeting, Consulting Parties requested that the new  
 320 bridge design be compatible with the existing Long Bridge. Further, they indicated a preference for a  
 321 through-plate-girder bridge type to create a consistent aesthetic for the railroad bridges and distinguish  
 322 them from the Metrorail bridge. Consulting Parties also suggested the installation of wayside signs on  
 323 the history and development of the Long Bridge corridor could mitigate the loss of views to and from  
 324 the historic Long Bridge.

325 **Table 15-4 | Section 106 Consulting Parties Meetings**

Meeting Date	Topic(s)	Input from Consulting Parties
<b>April 25, 2017</b> 1:00 PM to 3:00 PM	<ul style="list-style-type: none"> <li>• Project overview</li> <li>• Purpose and Need</li> <li>• Preliminary concepts and screening</li> <li>• Preliminary identification of historic properties</li> </ul>	<ul style="list-style-type: none"> <li>• Comments on concept screening</li> <li>• Comments on delineation of APE</li> <li>• Comments on identification of historic properties</li> </ul>
<b>November 15, 2017</b> 12:30 PM to 2:00 PM	<ul style="list-style-type: none"> <li>• Draft APE</li> <li>• Methodology Report</li> <li>• Field survey methodology</li> <li>• Refine identification of historic properties</li> </ul>	<ul style="list-style-type: none"> <li>• Comments on APE encompassing worst-case scenario</li> <li>• Input on important viewsheds to include in the APE</li> <li>• Additional areas/resources to be surveyed, including archaeology</li> </ul>
<b>May 30, 2018</b> 1:00 PM to 2:30 PM	<ul style="list-style-type: none"> <li>• Introduction of Phase IA Archaeological Assessment</li> <li>• Action Alternatives to be analyzed</li> <li>• Methodology for assessing effects to historic properties</li> </ul>	<ul style="list-style-type: none"> <li>• Comments on methodology</li> <li>• Comments on the identified historic resources within APE</li> </ul>
<b>October 24, 2018</b> 10:30 AM to 12:00 PM	<ul style="list-style-type: none"> <li>• Findings of Phase IA Archaeological Assessment</li> <li>• Determination of effects to historic properties</li> <li>• Introduction of strategies for avoidance, minimization, and mitigation</li> </ul>	<ul style="list-style-type: none"> <li>• Comments on Determination of effects to historic properties</li> <li>• Input on alternatives and suggestions for Preferred Alternative A</li> <li>• Input on strategies for avoidance, minimization, and mitigation</li> </ul>
<b>August 1, 2019</b> 1:00 PM to 2:30 PM	<ul style="list-style-type: none"> <li>• Strategies for avoidance, minimization, and mitigation as presented in the PA</li> </ul>	<ul style="list-style-type: none"> <li>• Comments on strategies for avoidance, minimization, and mitigation</li> </ul>

326 Consulting Parties requested that any new bridges or other structures introduced into NPS-administered  
 327 properties be designed and aesthetically treated to be compatible with the existing character of these  
 328 resources. This would minimize the adverse effect of introducing new features into historic districts. For  
 329 example, within the GWMP and MVMH Historic Districts, new bridge piers could be clad with stone to  
 330 match the piers of the existing railroad bridge. Also requested, was the development of a Viewshed  
 331 Protection Plan that would ensure minimization and mitigation for potential interrupted or affected  
 332



333 views throughout the Long Bridge corridor. Added to that suggestion, was the development of Cultural  
334 Landscape Inventories of MVMH and East and West Potomac Parks that would mitigate the insertion of  
335 contemporary features within the cultural landscapes.

### 336 **15.6.2. Action Alternative A (Preferred Alternative)**

337 To date, FRA and DDOT adopted the following measures for Action Alternative A in order to minimize  
338 and mitigate anticipated effects:

- 339 • The new railroad bridge would be designed with a vertical clearance, structural system, and  
340 alignment that closely references that of the existing Long Bridge as well as of the adjacent 14<sup>th</sup>  
341 Street Bridge Complex. This design approach minimizes potential adverse visual effects that  
342 could have been caused by a different type of structure, including a signature span bridge, by  
343 reducing the visual impact of a new structure.
- 344 • Aspects of the Project introducing new structures and elements in historic districts would go  
345 through design review consultation with DC SHPO, VDHR, NCPC, CFA, and NPS as engineering  
346 and designs are progressed, including final engineering and design documents. Design review  
347 could address, but would not be limited to, the following unresolved design elements: a) new  
348 railroad bridge design and engineering, including structure type, vertical clearance, visual  
349 appearance of the structural system, and alignment; b) aesthetic treatment of new component  
350 bridges or other structures introduced into NPS-administered properties; c) landscape design  
351 within the limits of disturbance of the Project; d) any additional signage or lighting necessitated  
352 by the Project; e) design of the bike-pedestrian crossing and any associated access ramps and  
353 trail connections; and f) construction staging and access procedures.
- 354 • To the extent possible, effects to the trees and other vegetation would be minimized by  
355 preserving extant trees and vegetation *in situ*. A Tree Protection Plan would ensure protection  
356 of trees and vegetation construction.
- 357 • To the extent possible, trees and other vegetation would be introduced to partially mitigate the  
358 loss of mature vegetation and to visually screen new bridge structures in coordination with the  
359 replanting of vegetation described in **Chapter 5, Natural Ecological Systems and Endangered**  
360 **Species** and **Chapter 14, Aesthetics and Visual Resources**. In addition, the loss of trees and  
361 other vegetation would be mitigated with reintroduction of equal caliper trees and vegetation in  
362 other areas of the historic districts, through the development of execution of a Tree Restoration  
363 Plan.
- 364 • An Interpretation Plan would mitigate the loss of views to and from the historic Long Bridge.  
365 This could include the installation of wayside signs on the history and development of the Long  
366 Bridge corridor or a web-based media interpretive element.
- 367 • A Viewshed Protection Plan would be developed and executed to ensure minimization and  
368 mitigation for potential interrupted or effected views throughout the Long Bridge corridor.
- 369 • Cultural Landscape Inventories of MVMH and East and West Potomac Parks would mitigate the  
370 insertion of contemporary features within the cultural landscapes.

- 371 • Temporary effects resulting from noise and vibration would be avoided or minimized using a  
372 variety of construction management techniques as detailed in **Chapter 13, Noise and Vibration**.  
373 Visual impacts would be minimized by providing appropriate screening between construction  
374 staging areas and cultural resources, limiting the size of construction staging areas, and locating  
375 them away from sensitive views and viewsheds.
- 376 • For construction access and staging activities, potential effects on archaeological resources  
377 would be minimized or avoided by locating these activities away from areas of high  
378 archaeological potential or within sites that are paved or have been previously disturbed.

### 379 **15.6.3. Action Alternative B**

380 With the exception of the retention of Long Bridge and the railroad bridge above the GWMP, all other  
381 avoidance and minimization measures described for Action Alternative A would be similar for Action  
382 Alternative B. The greater intensity of permanent impacts and longer duration of temporary impacts  
383 resulting from Action Alternative B—including the replacement of the two existing railroad bridges and  
384 the mature, contributing vegetation within the GWMP, MVMH, and East and West Potomac Parks  
385 Historic Districts, would require additional mitigation measures.