Outlook

NEPA Determination: VRE L'Enfant Station Project

From Koenig, Daniel (FTA) <daniel.koenig@dot.gov>

Date Tue 2026-02-10 4:20 PM

To Christine Hoeffner, AICP, PLA <choeffner@vre.org>

Cc Schilling, David (FTA) <david.schilling@dot.gov>; Keeley, Laura (FTA) <laura.keeley@dot.gov>; Tarone, Tony (FTA) <Tony.Tarone@dot.gov>; Tumurbaatar, Chimgae (FTA) <M.Tumurbaatar@dot.gov>; Dagmawie Shikurye <dshikurye@vre.org>; LEFManagementTeam@vhb.com <lefmanagementteam@vhb.com>; Farmer, Lee <lfarmer@vhb.com>; Nick Ruiz <nruiz@vre.org>; Brittany Sumpter <bsumpter@vre.org>; Mark Schofield <mschofield@vre.org>; Laurel D Hammig - National Park Service (Laurel_Hammig@nps.gov) <laurel_hammig@nps.gov>; Theuer, Jason (NPS) <Jason_Theuer@nps.gov>; Cynthia Porter-Johnson <cporter-johnson@omniride.com>; Krista_Sherwood@nps.gov <nps> <Krista_Sherwood@nps.gov>; joel_gorder <joel_gorder@nps.gov>

Christine,
On February 10, 2026, FTA determined that the Virginia Railway Express's (VRE) L'Enfant Station Project (project) meets the criteria of a Class II listed Categorical Exclusion as set forth in 23 CFR 771.118(d). The project will enhance rail operations and increase capacity by adding a fourth track between L'Enfant Interlocking and Virginia Interlocking and replacing the existing side platform with a longer and wider center platform in Washington, DC.
This NEPA determination is subject to review should the scope or locations of VRE's L'Enfant Station project change in a manner requiring FTA to conduct a NEPA re-evaluation of the Categorical Exclusion designation pursuant to 23 CFR 771.129(c).
Please retain this communication for your records and attach a copy of this email under the Application Documents section of the TrAMS grant for this project. Should you have any questions, please let me know. Thank you!
-Dan

Daniel Koenig
Community Planner
Federal Transit Administration, Region 3
U.S. Department of Transportation
(202) 366-8224 Office
daniel.koenig@dot.gov

Outlook

Designation of FTA as NEPA/106 Lead: VRE L'Enfant Track and Station Improvement

From Murphy, Amanda (FRA) <amanda.murphy2@dot.gov>

Date Wed 2024-01-24 12:38 PM

To Koenig, Daniel (FTA) <daniel.koenig@dot.gov>; Krofft, Heidi (FTA) <heidi.krofft@dot.gov>; Hearon, Rachel (FTA) <rachel.hearon@dot.gov>

Cc Christine Hoeffner <choeffner@vre.org>; Dagmawie Shikurye, MSc, PE, CBO, ENV-SP <dshikurye@vre.org>; Brown, Randall (FRA) <randall.brown@dot.gov>; Christine Fix <Christine.Fix@vpra.virginia.gov>; Naomi Klein (naomi.klein@vpra.virginia.gov) <naomi.klein@vpra.virginia.gov>; Mark Schnaufer (mark.schnaufer@vpra.virginia.gov) <mark.schnaufer@vpra.virginia.gov>; Farmer, Lee <lfarmer@vhb.com>; Mark Colgan PE, DBIA (mcolgan@vhb.com) <mcolgan@vhb.com>; Adeel Mysorewala <amysorewala@vhb.com>; Meghan Powell <mpowell@vhb.com>; Perez-Arrieta, Stephanie (FRA) <s.perez-arrieta@dot.gov>

FRA is providing financial assistance for Phase 2 of Transforming Rail in Virginia. Phase 2 includes a project with independent utility – improvements to L'Enfant Station in Washington, DC (the Project). FTA is also providing financial assistance for this Project. The Project is an undertaking subject to Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations 36 CFR § 800 (Section 106). This Project is also a Federal action under the National Environmental Policy Act (NEPA).

The purpose of this communication is to document FRA's designation of FTA as the lead federal agency per 36 CFR § 800.2(a)(2) for the Project. FRA requests to be a consulting party. FRA will accept FTA's determinations and findings, fulfilling our collective responsibilities under Section 106. Further, FRA will adopt FTA's NEPA decision for the Project when it is finalized.

Please let me know if you have any questions.

Thank you,

Amanda Murphy
Deputy Federal Preservation Officer
Federal Railroad Administration
U.S. Department of Transportation
202-339-7231 (cell)
Amanda.murphy2@dot.gov

From:	Theuer, Jason
To:	Koenig, Daniel (FTA)
Cc:	Lee Farmer; Christine Hoeffner, AICP, PLA; Nick Ruiz; Sherwood, Krista; Hammig, Laurel D; Li, Yue; Gorder, Joel S
Subject:	Re: [EXTERNAL] Section 4(f) De Minimis Impact Determination Concurrence - Hancock Park - L"Enfant 4th Track Project
Date:	Thursday, January 29, 2026 11:59:38 AM
Attachments:	image001.png image002.png Outlook-an04uivf.png 20260129_NAMA_Hancock Park-VRE L"Enfant Station Section 4f de minimis_1.A.2.pdf

---

The National Park Service concurs with the Federal Transit Administration's determination that the Virginia Railway Express L'Enfant Station project will result in a *de minimis* impact to Hancock Park under Section 4(f) of the U.S. Department of Transportation Act. Based on the information provided and coordination to minimize and mitigate impacts, we agree that the project will not adversely affect the activities, features, or attributes that qualify Hancock Park for protection as a Section 4(f) resource. This concurrence is provided with the understanding that the project will proceed as described and that all proposed minimization and mitigation measures will be implemented. Thank you for your continued coordination throughout the planning and review process.

Sent on behalf of the Superintendent, National Mall & Memorial Parks

Jason G. Theuer, Ph.D.
Acting Chief of Resource Management
National Mall and Memorial Parks
1100 Ohio Drive, SW
Washington, D.C. 20242
Jason_theuer@nps.gov
Office: 202-619-7273
Mobile: 202-993-3476 (preferred)

From: Koenig, Daniel (FTA) <daniel.koenig@dot.gov>
Sent: Thursday, January 22, 2026 2:21 PM
To: Hammig, Laurel D <Laurel_Hammig@nps.gov>; Theuer, Jason <Jason_Theuer@nps.gov>; Li, Yue <Yue_Li@nps.gov>; Gorder, Joel S <Joel_Gorder@nps.gov>
Cc: Lee Farmer <lfarmer@vhb.com>; choeffner vre.org <choeffner@vre.org>; Nick Ruiz <nruiz@vre.org>

From:	Koenig, Daniel (FTA)
To:	kevin_griess@nps.gov
Cc:	Tarone, Tony (FTA); Schilling, David (FTA); Keeley, Laura (FTA); Lee Farmer; Christine Hoeffner, AICP, PLA; Nick Ruiz; Laurel_Hammig@nps.gov; Joel_Gorder@nps.gov; Theuer, Jason (NPS); Yue_Li@nps.gov
Subject:	[External] Section 4(f) de minimis - Hancock Park - VRE L"Enfant Station Project
Date:	Thursday, January 22, 2026 2:16:09 PM
Attachments:	Hancock park de minimis_1.22.2026.pdf Enclosure 1 - Section 4f - Hancock Park_1.22.26.pdf

---

Dear Superintendent Griess,

Please see that attached letter for your attention. The Federal Transit Administration is seeking NPS concurrence on a Section 4(f) *de minimis* impact determination for Hancock Park for the Virginia Railway Express's (VRE) L'Enfant Station Project. FTA and VRE have been coordinating with NPS staff regarding this project and potential impacts on Hancock Park.

Please contact myself should you have any questions related to the attached. Thanks.

-Dan

Daniel Koenig
Community Planner Region III
U.S. Department of Transportation - Federal Transit Administration
1200 New Jersey Avenue, SE
East Building E56-202
Washington, DC 20590
202.366.8224 (o)

U.S. Department
of Transportation
Federal Transit Administration

REGION III
Delaware, District of
Columbia, Maryland,
Pennsylvania, Virginia,
West Virginia

1835 Market Street
Suite 1910
Philadelphia, PA 19103-42932
215-656-7100
215-656-7260 (fax)

January 22, 2026

Kevin Griess,
Superintendent, National Mall and Memorial Parks
1100 Ohio Drive, SW
Washington, D.C. 20242

RE: VRE L'Enfant Station – Section 4(f) De Minimis Impact Determination – Hancock Park, Washington, DC

Dear Mr. Griess:

The purpose of this letter is to request concurrence with the Federal Transit Administration's (FTA) *de minimis* impact determination for the Virginia Railway Express's (VRE) L'Enfant Station project (Project) pursuant to Section 4(f) of the U.S. Department of Transportation Act of 1966, codified at 49 U.S.C. 303 et seq and implemented in 23 CFR Part 774. This Section 4(f) *de minimis* impact determination is being sought for Hancock Park, which qualifies as a Section 4(f) resource as a publicly accessible park for which the National Park Service (NPS) is the Official with Jurisdiction.

The Project proposes to enhance rail operations and increase capacity at the VRE L'Enfant Station by adding a fourth track between L'Enfant Interlocking and Virginia Interlocking and replacing the existing side platform with a longer and wider center platform. VRE, in cooperation with FTA, has been coordinating with NPS during the National Environmental Policy Act (NEPA) and planning phase of the Project to minimize and mitigate impacts to Hancock Park. The Project would require temporary and limited impacts to Hancock Park totaling approximately 0.29 acres from construction laydown, access, and potential impacts to trees (see **Enclosure 1**). The planning process for the Project included efforts to minimize impacts on Hancock Park and coordination with the public, including:

- Alternatives Analysis phase
  - VRE convened two working groups (an agency working group and a stakeholder working group) that met four times. Materials presented at the meetings included discussion of the potential for impacts at Hancock Park and discussed ways that VRE was working to minimize impacts.
  - VRE also solicited feedback from riders and community members about the project through various means (i.e., pop-up outreach events, VRE web site, social media) throughout summer 2022.
- Preliminary Engineering/NEPA phase
  - VRE convened a working group that met three times. The meetings included discussion of potential impacts at Hancock Park and a potential *de minimis* impact under Section 4(f).
  - VRE hosted a public open house on February 5, 2025. The public display boards showed permanent and temporary impacts in Hancock Park.
  - VRE maintains a website with information about the project at https://www.vre.org/lenfant-station-improvements/

FTA, in coordination with NPS and VRE, has determined that the Project would not adversely affect or otherwise restrict the public's access to the park (see **Enclosure 1**). Pursuant to 23 CFR 774.5, FTA is requesting NPS concurrence that the project will not adversely affect the activities, features, or attributes that make the property eligible for protection as a Section 4(f) property. For convenience, a concurrence clause is provided at the end of this letter.

Should you have any questions or need additional information, please feel free to contact Mr. Daniel Koenig, Community Planner, at (202) 366-8224.

Sincerely,

Laura Keeley
Director, Planning and Program Development

Enclosures:
Section 4(f) *de minimis* evaluation

cc: Laurel Hammig, NPS
Jay Theuer, NPS
Joel Gorder, NPS
Yue Li, NPS
Christine Hoeffner, VRE
Nick Ruiz, VRE
Dan Koenig, FTA
David Schilling, FTA

CONCURRENCE:

We, the undersigned, concur that the existing activities, features, and attributes of Hancock Park would not be adversely impacted by the L'Enfant Station project (Project) pursuant to Section 4(f) of the U.S. Department of Transportation Act of 1966, codified at 49 U.S.C. 303 et seq and implemented in 23 CFR Part 774. Impacts of the Project to Hancock Park would be minor and would be limited to construction laydown and access areas and potential tree removal adjacent to the railroad. Any trees removed would be replaced in accordance with the Comprehensive Plan for the National Capital's Federal Environment Element's Tree Replacement Policy (FE.G.1, FE.G.2, and FE.G.3). Impacted areas of Hancock Park would be fully restored after construction, with the exception of the removal of the pathway connecting C Street SW to the pedestrian/ADA ramp to the VRE L'Enfant Station. The pathway would no longer be needed, as there would no longer be a ramp connecting to the L'Enfant Station at this location. Therefore, we agree that the Project impacts to Hancock Park meet the criteria for a *de minimis* impact determination under Section 4(f).

_____ _____

Kevin Griess, Superintendent Date
National Park Service - National Mall and Memorial Parks

VRE L'Enfant Station and Fourth Track Project Hancock Park – Section 4(f)

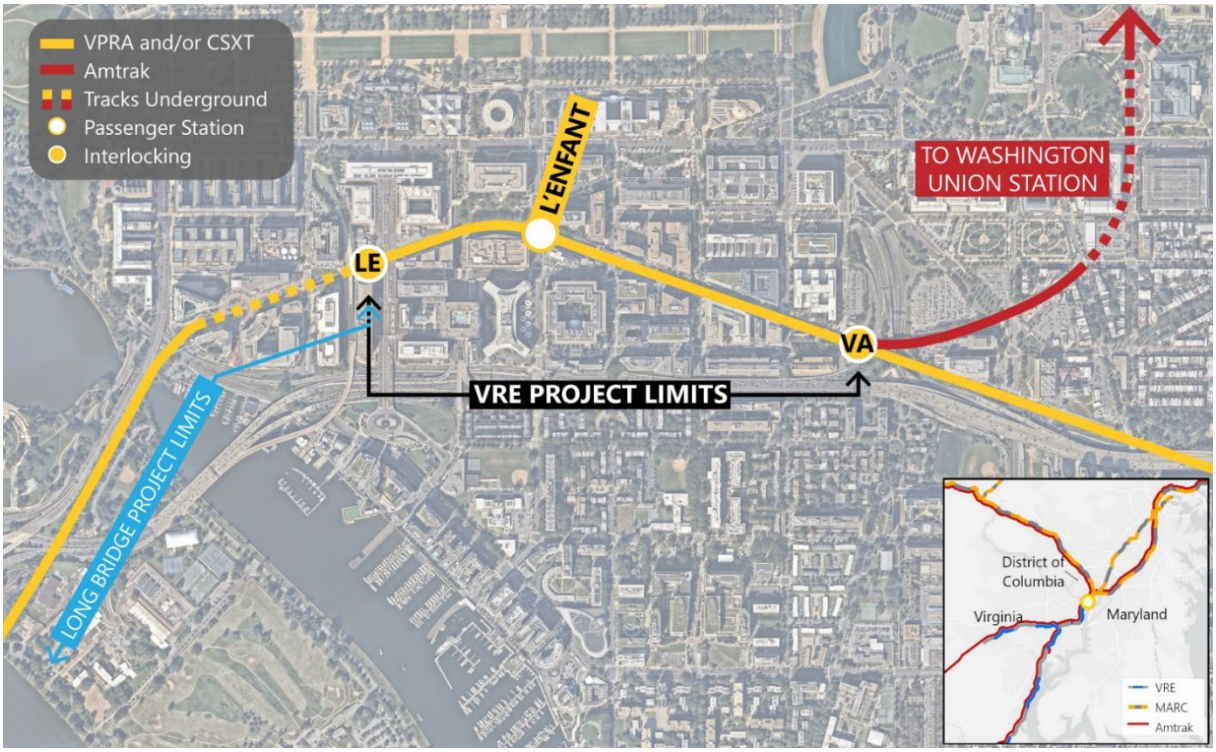
Introduction

Section 4(f) of the United States Transportation Act of 1966 (49 USC 303) prohibits using public parks and recreational lands, wildlife refuges, and public or private properties eligible for listing in the National Register of Historic Places for transportation purposes unless there is no feasible and prudent alternative to avoid the use and the project includes all possible planning to minimize harm to the resources, or the use meets the requirements for a *de minimis* impact (23 CFR 774). The purpose of this memorandum is to describe the impacts and any associated Section 4(f) "use" to Hancock Park a small, urban public park owned and maintained by the National Park Service (NPS), that is within the study area for the L'Enfant Station and Fourth Track Improvements Project (the Project).

Project Description

The Project proposes to enhance rail operations and increase capacity at the Virginia Railway Express (VRE) L'Enfant Station by adding a fourth track between L'Enfant (LE) Interlocking and Virginia (VA) Interlocking (see **Figure 1**) and replacing the existing side platform with a longer and wider center platform. The new platform would be able to accommodate two full-length VRE trains simultaneously, enabling bi-directional service and reducing crowding. Additionally, the Project would strengthen multimodal connectivity and accessibility by adding two elevators from street level to the platform. VRE anticipates using federal funds administered by the Federal Transit Administration (FTA) and therefore Section 4(f) applies to the Project.

Figure 1: Project Location



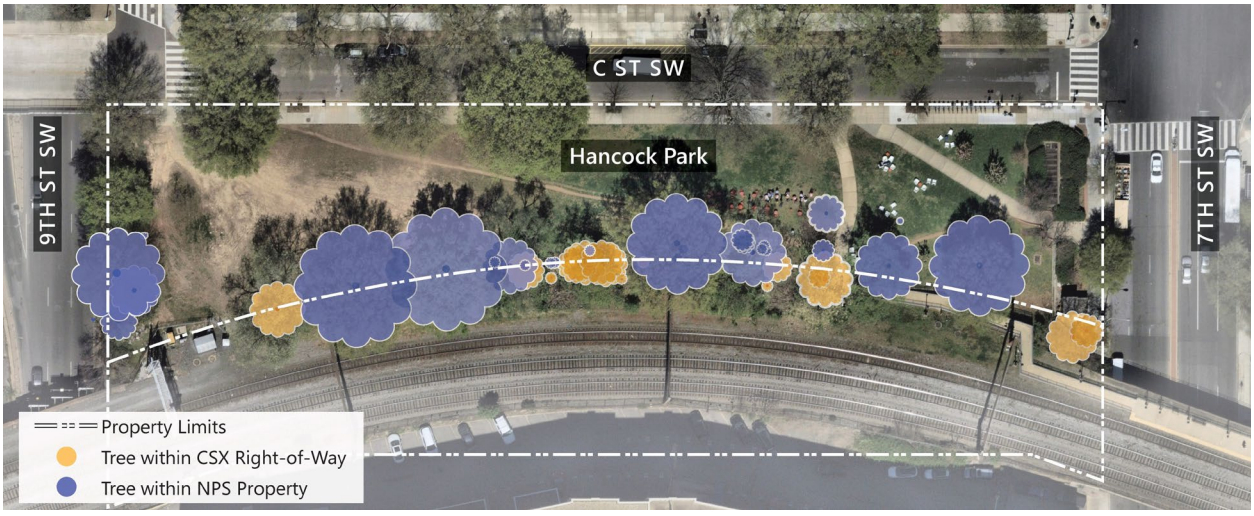
Park Description

Hancock Park is located immediately adjacent to the railroad, which forms the southern boundary of the park (see **Figure 2**). The park consists of 1.3 acres and primarily consists of lawn with mature trees around the western and southern peripheries. The eastern end includes a ramp and pathway to the existing VRE station. The section between the pathway and 7th Street SW is activated by the Southwest Business Improvement District (SWBID), which provides tables and chairs and hosts periodic events in the space. NPS is the Official with Jurisdiction for Hancock Park. As a publicly accessible park, Hancock Park qualifies as a Section 4(f) property of the U.S. Department of Transportation Act of 1966, codified at 49 U.S.C. 303 et seq. and implemented in 23 CFR Part 774.

De Minimis Impact Determination

The Project would not involve any permanent use of the park and the existing walkway to the VRE station would be removed. Temporary impacts would be limited to 0.29 acres of parkland. Some trees adjacent to the railroad may need to be removed based on the percentage of the critical root zone impacted by the Project and the amount of tree canopy removal required to provide sufficient horizontal and vertical clearance for the installation and operations of the new 4th track. Any trees removed would be replaced in accordance with the Comprehensive Plan for the National Capital's Federal Environment Element's Tree Replacement Policy (FE.G.1, FE.G.2, and FE.G.3). The remaining trees in the park would continue to provide shade and screening of the rail corridor. Over the long term, the replanted trees would also provide shade and screening. The removal of these trees would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). Based on these considerations, FTA is making a *de minimis* impact determination.

Figure 2: Trees Within or Adjacent to Railroad

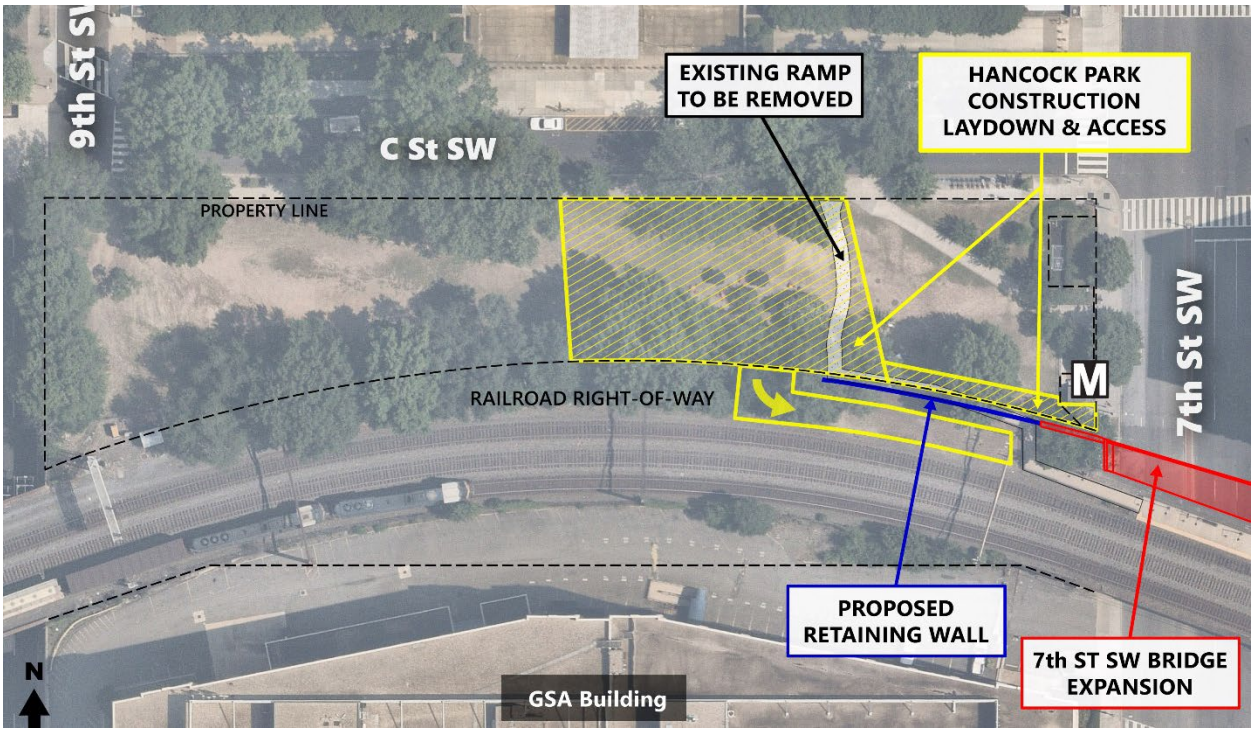


Temporary Use

The Project require a small portion of Hancock Park for construction laydown and access (see **Figure 3**). The area occupied by construction activities would be to the west of the area of the park commonly used by the public. The proposed construction area is mostly used by VRE passengers as a cut-through

between the VRE station and their destinations as evidenced by the desire lines worn into the grass. This section of the park would be fully restored after construction, with the exception of the removal of the pathway connecting C Street SW to the pedestrian/ADA ramp to the VRE station – the pathway would no longer be needed, as there would no longer be a ramp connecting to the station at this location. The area between the walkway to the VRE station and 7th Street SW would continue to be available as it is today for eating lunch, reading, conversation, and participation in SWBID-sponsored activities as it is today. Therefore, construction activities would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). Based on these considerations and pending concurrence from NPS, the Official with Jurisdiction, FTA recommends a *de minimis* finding for Hancock Park.

Figure 3: Proposed Hancock Park Construction Laydown and Access Area



L'Enfant Station and Fourth Track Project

Documented Categorical Exclusion

February 3, 2026

Table of Contents

Tables

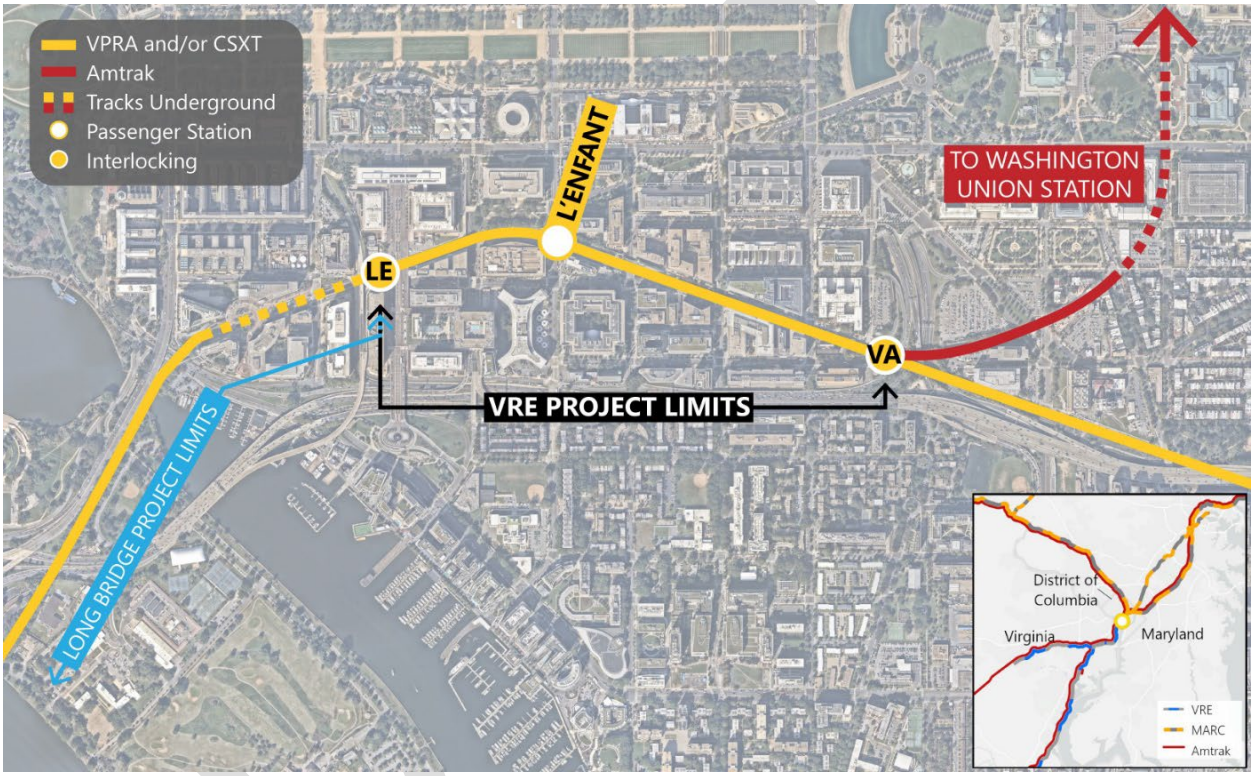
Figures

List of Appendices

1.0 Introduction

The L'Enfant Station and Fourth Track Improvements Project (the Project) proposes to enhance rail operations and increase capacity at the Virginia Railway Express (VRE) L'Enfant Station by adding a fourth track between L'Enfant (LE) Interlocking and Virginia (VA) Interlocking as shown in **Figure 1** and replacing the existing side platform with a longer and wider center platform. The new platform would be able to accommodate two full-length VRE trains simultaneously, enabling bi-directional service and reducing crowding. Additionally, the Project would strengthen multimodal connectivity and accessibility by adding two elevators from street level to the platform.

Figure 1: Project Location



VRE anticipates using federal funds administered by the Federal Transit Administration (FTA). Therefore, the Project must comply with the National Environmental Policy Act (NEPA). As the lead federal agency, FTA determined that the Project falls under FTA's "D-list" of categorical exclusions (CE), specifically "(8) Modernization or minor expansions of transit structures and facilities outside existing right-of-way, such as bridges, stations, or rail yards" (23 CFR 771.118(d)). VRE is preparing this Documented Categorical Exclusion (DCE) pursuant to 23 CFR 771.118(d), which requires applicants to "submit documentation that demonstrates that the specific conditions or criteria for these CEs are satisfied and that significant environmental effects will not result."

This document captures information included in the FTA Categorical Exclusion and Documented Categorical Exclusion Worksheet and is organized as follows:

- Sections 1, 2, and 3 provide detailed project description and location.

- Section 4 describes evaluated resources and effects that are likely to occur because of the Project.
- Section 5 describes public outreach.

Supporting technical documentation is provided in the appendices.

2.0 Location

The Project is located south of the National Mall in the Southwest quadrant of the District of Columbia (the District). It is within the Downtown D-5 zone, suited for high-density commercial and mixed-use development according to the DC Office of Zoning, and is along a transportation corridor in active use since the late 1800s. Most of the land surrounding L'Enfant Station is used for commercial office and institutional purposes. The project limits encompass approximately 0.75 miles of the CSX Baltimore Division Richmond, Fredericksburg, and Potomac (RF&P) Subdivision between LE Interlocking to the west, located at railroad milepost (MP) 111.5, and VA Interlocking to the east, located at MP 112.4.

The existing corridor, which is shared by passenger and freight rail, consists of three tracks numbered 2 through 4 from south to north. At VA Interlocking, the tracks split—Tracks 2 and 3 enter the Virginia Avenue Tunnel and continue along CSXT's freight rail network and Track 4 enters the First Street Tunnel, a two-track passenger rail tunnel serving Union Station where the railroad connects to Amtrak's Northeast Corridor. At LE Interlocking, the three tracks narrow to two (shared between freight and passenger), which cross the Potomac River to Virginia via Long Bridge before widening again to three tracks on the Virginia side.

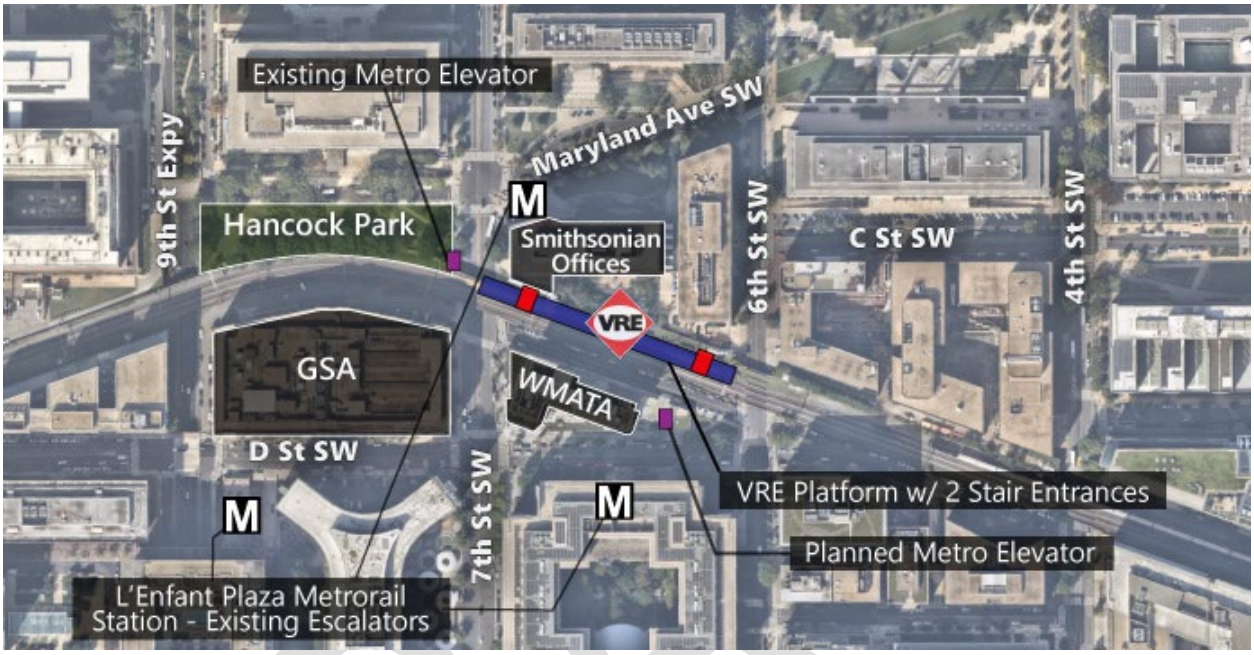
VRE L'Enfant Station is the first stop in the District and one of the most popular VRE destination stations in the system, serving as an important gateway for Virginia commuters. The station itself is located within the railroad right-of-way (ROW) at MP 111.9 between 6th and 7th Street SW (see **Figure 2** on next page). The existing 550-foot-long by 12.5-foot-wide side platform can only serve one train at a time. On a typical weekday, 30 VRE trains stop at L'Enfant Station, all of which must operate on Track 4 adjacent to the VRE platform. The existing three-track arrangement creates a bottleneck for passenger and freight rail, with limited flexibility for trains to navigate around one another. The rail corridor within the District is owned and controlled by CSXT. The corridor accommodates freight trains, VRE commuter rail service, and Amtrak intercity passenger rail. The Virginia Passenger Rail Authority (VPRA) has an easement over certain portions of the CSXT ROW for operation and maintenance of the existing Track 4 and future Track 5 through this section of the rail corridor as shown in the enhanced valuation maps in Exhibit B-1C of the Comprehensive Rail Agreement between the Virginia Department of Rail and Public Transportation (DRPT) and CSXT.[1] DRPT assigned the agreements with CSXT to VPRA on May 24, 2021.

The existing L'Enfant Station platform is elevated above street level, and passengers access the station in three ways. The east end of the platform has a flight of stairs connecting to the sidewalk on the west side of 6th Street SW. The west end of the platform similarly connects to the east side of 7th Street SW through a flight of stairs. A ramp from the VRE platform through the National Park Service (NPS)-managed Hancock Park, also known as Reservation 113, accommodates passengers requiring an

[1] DRPT/CSXT Comprehensive Rail Agreement, Exhibit B-1C. 2021. Accessed from https://vapassengerrailauthority.org/resources/rail-agreements/ on December 31, 2024.

accessible path to the west side of 7th Street SW, in accordance with the Americans with Disabilities Act (ADA). To transfer to or from the nearby Washington Metropolitan Transit Authority (WMATA) L'Enfant Plaza Metrorail Station, passengers use the Metrorail escalator entrances at Maryland Avenue SW or D Street SW or use the Metrorail elevator adjacent to Hancock Park on 7th Street SW.

Figure 2: Station and Immediate Surroundings

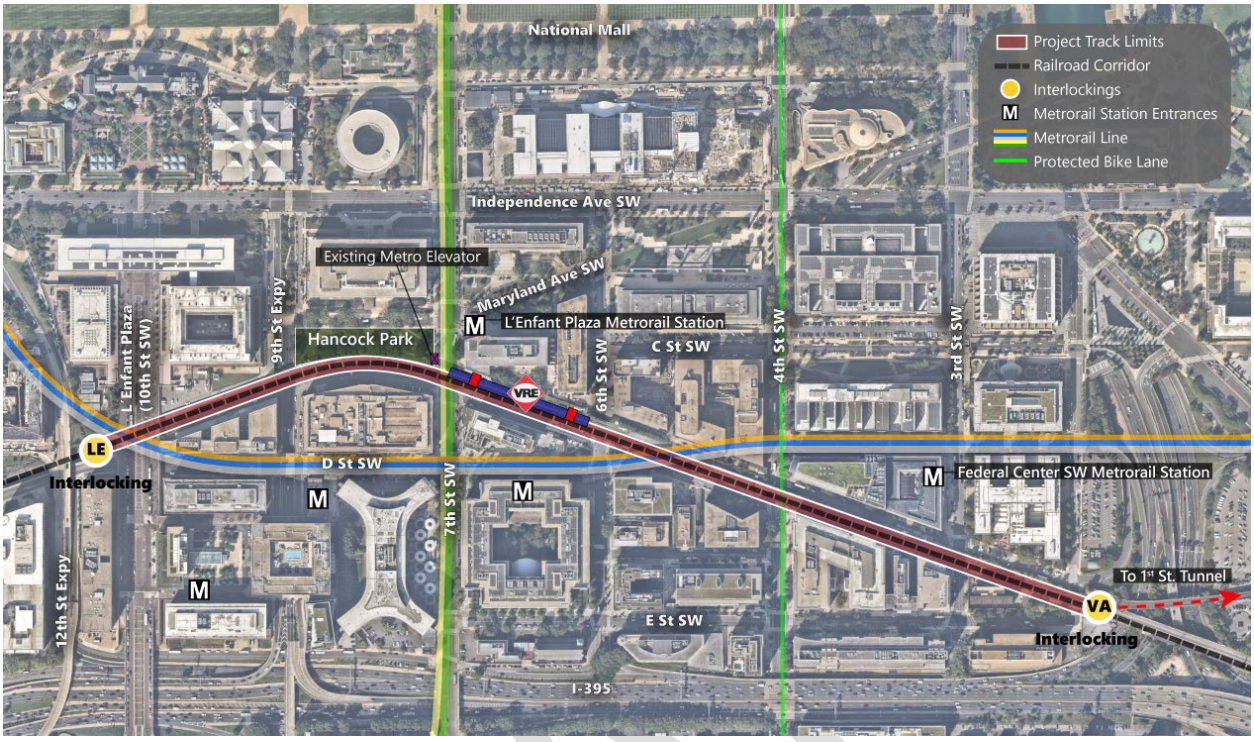


Within a quarter-mile radius of the station, the street grid is interrupted by the National Mall to the north and I-395 to the south and east (see **Figure 3** on next page). It is also bounded by the Tidal Basin and Washington Channel to the west and cut off from streets to the east by I-395. There are also several superblocks and multi-level roadways in the area, a result of redevelopment in the middle of the 20th Century. Both 7th Street SW and 4th Street SW cross the Mall and I-395 to provide north-south connectivity. Other north-south streets, including 6th Street SW, do not cross one or either of those barriers.

Elements of the surrounding transportation network include:

- The L'Enfant Plaza Metrorail Station serving the Yellow, Green, Orange, Blue, and Silver lines
- Metrobus routes C11 and C55
- OmniRide commuter bus routes 563, 612, 923, 943, and 953
- MTA commuter bus routes 610, 640, 650, 705, 810, 820, 830, and 840
- The free SW Neighborhood Shuttle between L'Enfant Plaza, the Wharf, and the National Mall
- Sidewalks on most streets, although widths vary; immediately adjacent to the rail corridor, Virginia Avenue SW lacks sidewalks on the side abutting the railroad retaining wall
- A protected bike lane on 4th Street SW from the National Mall to P Street SW
- Six Capital Bikeshare stations within a quarter mile of the Project

Figure 3: Transportation Context



3.0 Detailed Project Description

3.1 Project Description

The proposed VRE L'Enfant Station improvements would consist of a center platform between the existing Track 4 and future Track 5; two sets of stairs and two Americans with Disabilities Act (ADA)-compliant elevators for platform access; and new station entrances at 6th and 7th Streets SW. The proposed platform would be 680 feet long and 22 feet wide. The platform has been designed to accommodate two full-length (eight-car) VRE trains simultaneously, allowing bi-directional service and faster boarding and alighting for passengers. The Project would replace the existing platform canopy, benches, ticket machines, and other amenities with similar versions. The Project would include modifications to the LE and VA interlockings at either end of the project limits to integrate the new continuous fourth track (future Track 5). The addition of this fourth track would require the expansion of the existing 7th Street SW railroad bridge and replacement of the existing 6th Street SW railroad bridge. Construction of the Project would be staged to maintain passenger and freight operations for the duration of construction activities. The Project would also be coordinated with nearby projects, particularly the Long Bridge Project which is immediately adjacent.

3.2 Construction Description

To build the VRE platform, fourth track, and bridge expansions/replacements, construction would take place in several stages as described below and shown in **Figure 4** on the next page:

Stage 1

- Construct a temporary platform with access from the existing 7th Street SW entrance and ramp from Hancock Park
- Provide passenger access via 7th Street SW entrance only
- Demolish the eastern end of the existing platform, existing 6th Street SW entrance, portions of the 6th Street bridge, and portions of existing Track 4
- Construct new entrance at 6th Street SW including the pedestrian tunnel and elevator, the northern portion of the new 6th Street SW bridge, the eastern end of the future center platform, and portions of the new Track 5

Stage 2

- Provide passenger access via 6th Street SW entrance only
- Demolish western end of existing platform and existing 7th Street SW entrance and ramp
- Construct future 7th Street SW entrance, 7th Street SW bridge expansion, retaining wall A, the western end of the new center platform, and portions of the new Track 5
- Construct crossovers in the LE and VA interlockings and the new Track 4

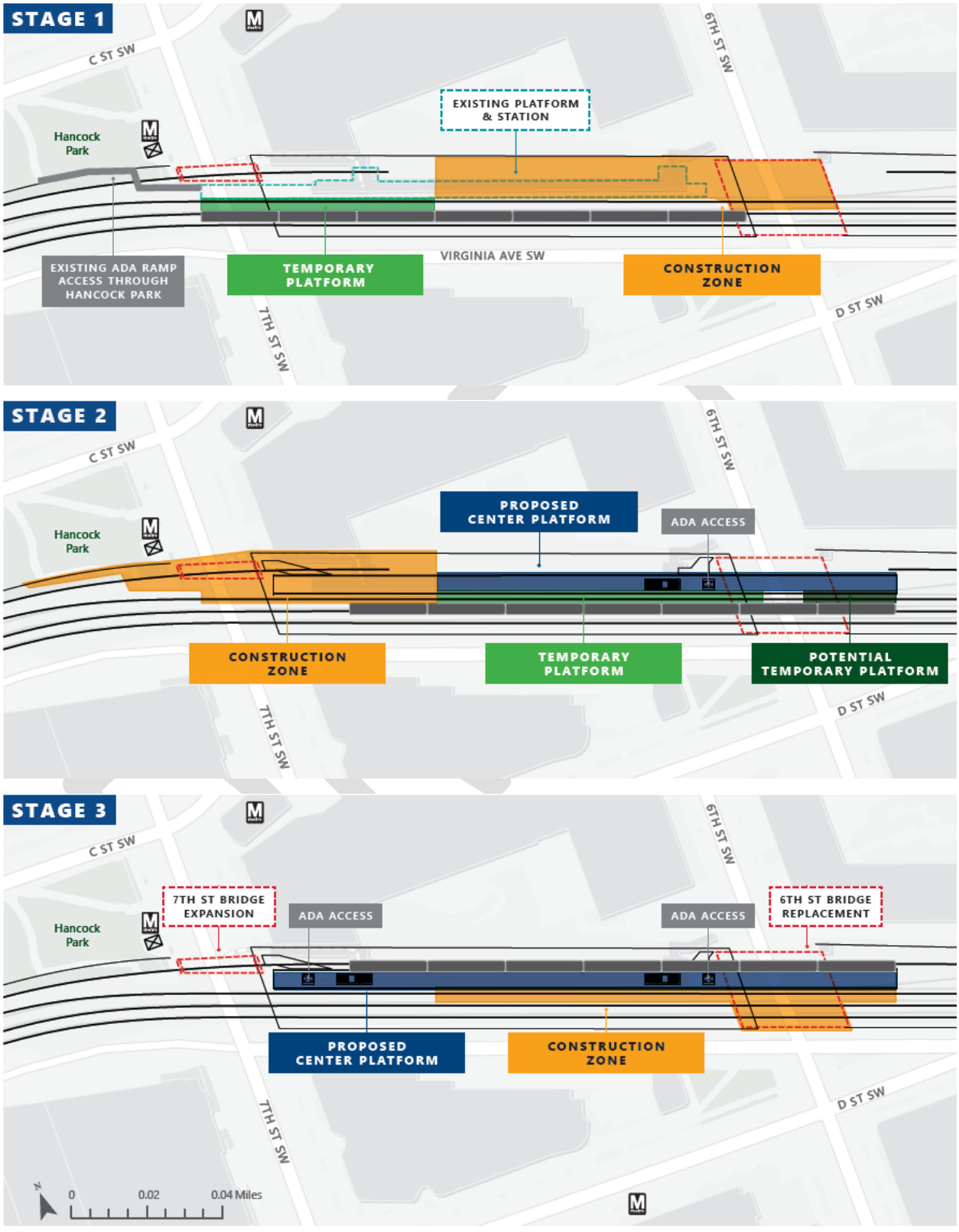
Stage 3

- Demolish temporary platform and shift rail traffic to the new Tracks 4 and 5 on either side of the new center platform, to maintain at least two active tracks
- Construct the remainder of the new 6th Street SW bridge, regrade Tracks 2 and 3, construct additional crossovers, and retrofit the Virginia Avenue SW retaining wall

Construction work at L'Enfant Station is planned to begin in the fourth quarter of calendar year 2027 and last about two years, finishing at the end of 2029. In addition to coordination with neighboring rail projects, the construction sequence would be planned to maintain continuous passenger rail service to the VRE station and CSXT freight operations, ensure ADA access for L'Enfant passengers, and provide staging and construction site access. VRE would make all efforts to maintain two tracks in service during construction, in order to minimize impacts to freight and passenger rail operations in the corridor (see **Appendix A** for track staging schematics). The station would remain open for VRE service throughout construction, using a temporary ADA-accessible platform for passengers while the new platform is built.

VRE would obtain any required right-of-way and access agreements with neighboring property owners prior to construction. Staging equipment, materials, and vehicles would require use of a portion of Hancock Park and restoration in kind of the park's appearance after construction ends. Construction activities would be coordinated closely with the proposed Long Bridge Project staging also in Hancock Park and with the NPS, which manages the park and would require an NPS Special Use Permit for activity there. Both this project and the Long Bridge Project would use the existing Hancock Park at-grade access to the railroad ROW, at the western end of the park, to deliver equipment and materials onto the ROW. The existing access from the CSXT service area along the north side of the tracks, just east of 6th Street SW, would also provide a means of entry onto the railroad ROW and delivery of materials.

Figure 4: Construction Phasing for the L'Enfant Station and Fourth Track Project



Construction activities may also require temporary closure of the northern parking and travel lanes of Virginia Avenue SW between 6th and 7th Streets SW and intermittent full closure of that block. Approval will be required from the District Department of Transportation (DDOT). Coordination with the DDOT and WMATA during the final design phase will help define work hours and road closures for staging and construction, with the goal of minimizing impacts to the nearby community.

4.0 Evaluated Resources

VRE evaluated the presence of applicable resources within the study area to determine if impacts to those resources could occur as a result of the Project. The evaluation was based on readily available public information (such as reports, GIS data, or database searches), field reviews, and inter-agency coordination. For most resources, the analysis evaluated impacts within a study area bounded by 12th Street SW to 2nd Street SW for the western and eastern limits and Independence Avenue SW and I-395 for the northern and southern limits. The study area encompasses the extent of the railroad corridor between the LE and VA interlockings; it also reflects the logical boundaries formed by the elevated I-395 interstate highway, which is up to ten lanes wide in this area, and Independence Avenue SW, which separates the NPS-administered National Mall from the Southwest neighborhood cluster (as defined by the DC Office of Planning). In addition, some resource areas may have specific study areas relevant to analyzing that resource.

This evaluation first considers impacts from the Project once completed and in full operation, then describes temporary construction-related impacts.

4.1 Resources Not Present or Not Affected

Resources not present or not likely to be affected within the study area include:

- **Air Quality:** The Project is included in the Metropolitan Washington Council of Governments (MWCOG) FY 2023-2026 Transportation Improvement Program (TIP), Project ID T11581, and is therefore considered in compliance with the transportation conformity rule. No hot spot analysis is required because the Project is not expected to impact intersection level of service, permanently affect bus routing, or require permanent relocation of any bus stops.
- **Land Use and Zoning:** Land use in the study area is predominantly commercial office and transportation. The Project is consistent with existing and future planned land uses, including those laid out in the DC Comprehensive Plan, and with existing zoning. It is listed as an action goal for "Making Multimodal Connections" within the DC Comprehensive Plan (see Chapter 25 of the plan) and has been included in neighborhood plans for transportation and open space.
- **Social Impacts and Community Disruption**: Residential communities are generally located to the south and east of I-395, outside of the study area. The Project does not involve the creation of any new barriers or impacts to community facilities. The Project would benefit its surrounding community by improving access to the VRE station for potential riders working, living, or visiting nearby, and by enhancing the capacity and functionality of this busy rail corridor.

- **Hazardous Materials:** According to EPA mapping data, there are no Superfund priority sites, brownfields, major water dischargers or generators of hazardous waste, or oil spills within the study area.
- **Wetlands and Waters of the U.S.:** No wetlands or other Waters of the U.S. are present within the study area.
- **Floodplains:** Most of the area within the Project limits is not within any Federal Emergency Management Agency (FEMA) regulatory floodplain (see **Appendix B**). A small part of the study area, just south and west of Independence Avenue SW and 2nd Street SW, is within the 100-year floodplain. However, the railroad tracks in this area are elevated more than twenty feet above the roadway, and the Project would not reduce this elevation or add any fill within the floodplain. The proposed station entrances are not within the floodplain.
- **Navigable Waterways:** The Project does not cross or have the potential to impact a navigable waterway.
- **Coastal Zone Consistency:** The Project is within the District of Columbia, which is not subject to the Coastal Zone Management Act.
- **Ecologically-Sensitive Areas and Endangered Species:** There are no waterfowl or wildlife refuges within the study area, and a search using the US Fish & Wildlife Service's Information, Planning, and Conservation System (IPaC) did not identify any critical habitat within the study area (see **Appendix C**). The IPaC search identified the Northern Long-eared Bat (Endangered), Tricolored Bat (Proposed Endangered), and the Monarch Butterfly (Proposed Threatened), as well as the Bald Eagle (no longer endangered but federally protected) as potentially occurring within the Project's study area. The Endangered Species Act review also used the IPaC Assisted Determination Key specific to the FHWA/FRA/FTA Programmatic Consultation for Transportation Projects affecting the Northern Long-eared Bat (NLEB). This tool found a preliminary determination of no effect for that species from the proposed action. See **Appendix C** for the official species list, IPaC report, and NLEB consistency letter.
- **Safety and Security**: The Project would be constructed in accordance with VRE standards and would therefore not adversely affect safety or security. All VRE facilities are designed and constructed in accordance with applicable laws, building codes, and accessibility guidelines in place at the time of construction.
- **Section 6(f):** There are no past projects funded by the Land and Water Conservation Fund in the study area. The Project would not involve any acquisition or conversion of Section 6(f) properties.
- **Energy:** Energy use in the proposed station would tap into the existing 1200-amp electric service and is not anticipated to be significantly more or less than that of the existing station. Proposed snow melter equipment for the platform surface would draw substantial energy but be infrequently used; lighting fixtures and other new equipment would use energy-efficient LEDs. Currently no plans for electrification are being considered for this section of the railroad corridor, though project design would not preclude that as a future change.

4.2 Resources Present and Relevant Subject Areas

This section describes potential impacts to resources that are present within the L'Enfant Station project area, as well as subject areas relevant to the human and built environment, such as noise. The analysis includes both permanent impacts from the Project and its operations and temporary impacts from construction.

4.2.1 Permanent/Operational Impacts

This section describes the permanent impacts due to operation of the new station and fourth track as well as impacts related to the physical infrastructure associated with the Project.

A. Traffic and Transportation: The fourth track and expanded center platform would have positive impacts on the capacity and operational functionality of the railroad and VRE station, enable future expansion of passenger rail service, relieve congestion along this busy passenger and freight corridor, and enhance rail connectivity. As described in **Section 2.0**, adding the fourth track would remove a bottleneck for passenger and freight rail and allow trains to navigate around one another. Replacing the existing platform with a longer center platform would allow for full-length train boarding and bidirectional VRE service, with improved passenger rail service as a positive impact.

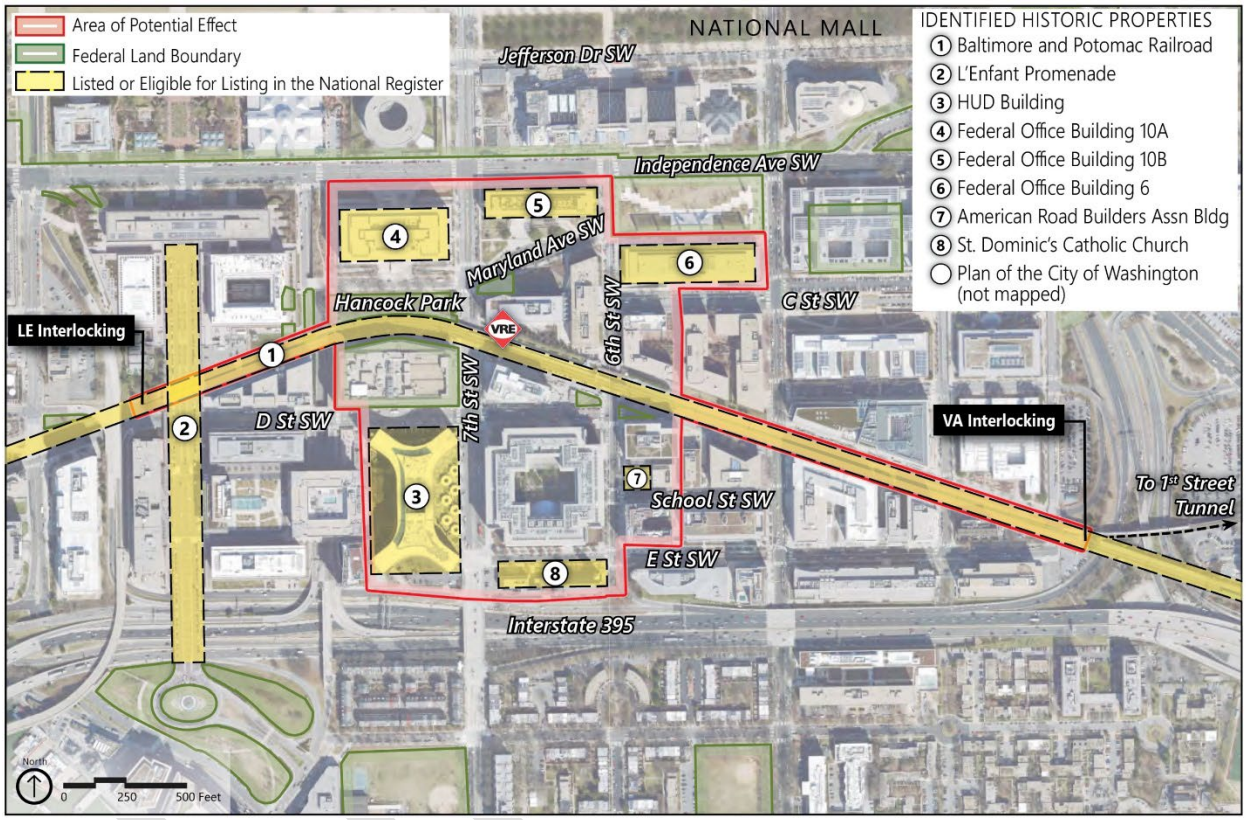
It is anticipated that the Project would also have positive impacts on the bus, bicycle, and pedestrian networks. The Project would replace the existing lengthy ramp to the VRE platform through Hancock Park with ADA-accessible entrances to the station at both 6th Street SW and 7th Street SW. It would enhance multimodal connectivity to the Metrorail, bus, and bike networks and improve the experience for passengers with mobility aids, bikes, strollers, or luggage, by:

- Providing a more direct, accessible connection from the VRE station to the numerous buses stopping at 7th Street SW and Maryland Avenue SW, approximately one hundred feet away, and to the Metrorail L'Enfant Plaza escalator entrance around the corner on Maryland Avenue SW;
- Adding an elevator access at 6th Street SW, closer to the Metrorail entrance on D Street SW and to other destinations east of the station; and
- Removing and replacing in kind portions of the sidewalks beneath the railroad bridges, which would improve their condition and appearance.

The Project would maintain at least 14 feet of vertical clearance between the roadway and the railroad bridges over 6th and 7th Streets SW. There are two VRE maintenance vehicle parking spaces on the west side of 6th Street right outside the station entrance; these will be temporarily removed and replaced following construction. The Project would not add (or remove) any customer parking spaces, as the station does not have dedicated commuter parking. Therefore, it is not anticipated to generate additional vehicular trips. Ongoing railroad infrastructure improvements supporting increased VRE and intercity passenger rail service being advanced as part of the Transforming Rail in Virginia (TRV) initiative, including this project, is anticipated to reduce vehicle miles traveled (VMT) within the District and surrounding region.

B. Historic Resources: The Project is part of an active rail corridor that has been in continuous use for over 100 years within a densely developed urban area close to the National Mall. Review of the District of Columbia Historic Preservation Office (DC HPO) Inventory of Historic Sites, the National Register of Historic Places (NRHP) database, and GIS mapping data via the DC Office of Planning identified previously surveyed historic resources within the Area of Potential Effect (APE) as shown in **Figure 5** (see **Appendix D** Section 106 Consultation for details).

Figure 5: Historic Properties within the Area of Potential Effect



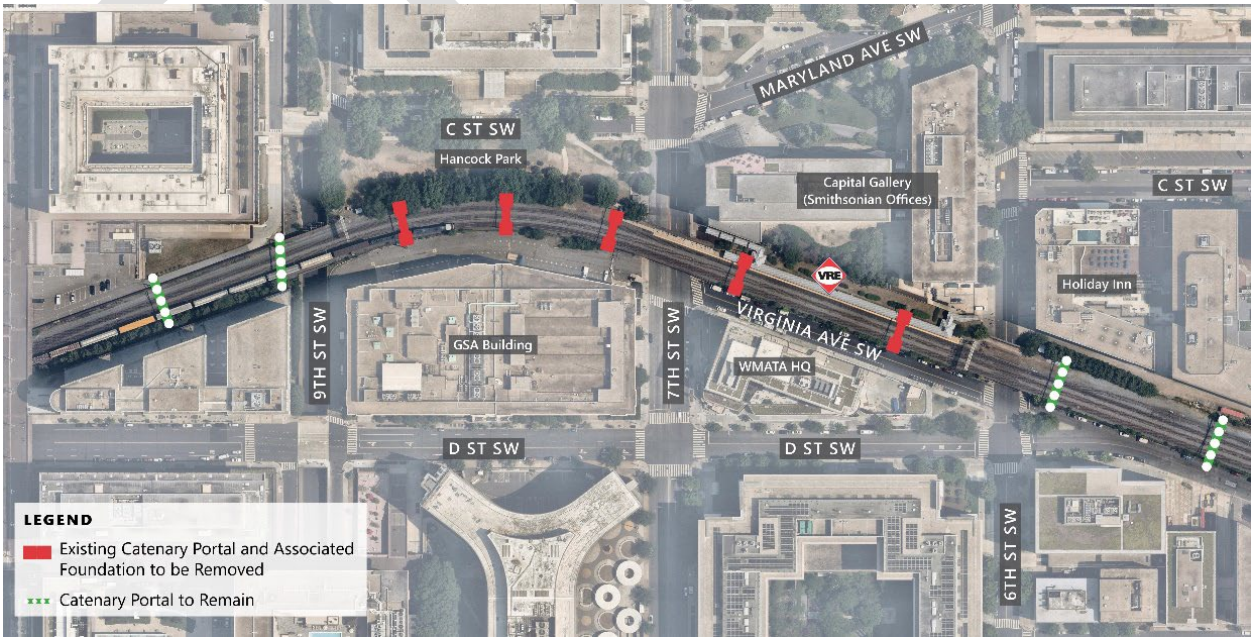
For many of the historic properties within the APE but outside of the Project footprint, the Project would implement changes within their viewshed but would not result in adverse visual impacts or any physical changes to those historic properties. The replacement bridge and entrance at 6th Street SW, widened bridge and entrance at 7th Street SW, and new platform and canopy would introduce visual changes within the viewshed of historic properties within the APE. However, the new and modified bridges would be similar in height, scale, and appearance as the existing ones and would not further obstruct the already-altered vistas along these streets. This is discussed in detail in the Assessment of Effects in **Appendix D**. See **Table 1** for the summary of effects on historic properties.

Table 1: Summary of Effects on Historic Properties within the APE

Resource	Potential Effect	Effect
Plan of the City of Washington	Physical	No Adverse Effect
Baltimore and Potomac Railroad	Physical	*Adverse Effect*
L'Enfant Promenade	Visual	No Adverse Effect
US Department of Housing and Urban Development Building	Visual	No Adverse Effect
Federal Office Building 10A	Visual	No Adverse Effect
Federal Office Building 10B	Visual	No Adverse Effect
Federal Office Building 6	Visual	No Adverse Effect
American Road Builders Association Building	Visual	No Adverse Effect
St. Dominic's Catholic Church	Visual	No Adverse Effect

Within the Project footprint, the **Baltimore and Potomac (B&P) Railroad** corridor has been determined as eligible for listing in the NRHP. The 6th Street SW Bridge, built circa 1903, is considered a contributing feature of the B&P Railroad, and its removal and replacement would have an adverse impact on the railroad corridor as a historic resource. In addition, removal of portions of the corridor's rusticated stone retaining wall and removal of several catenary portals would result in an adverse effect because these are contributing features to the historic railroad corridor (see **Figure 6**). The 7th Street SW Bridge, built outside of the railroad's period of significance and in a different style, is considered non-contributing.

Figure 6: Catenary Portals within the Area of Potential Effect



A Phase IA archaeological assessment determined that portions of the study area containing existing track either at-grade or at separated grade have no potential to contain significant precontact or historic era archaeological deposits. The current design intends to work within the existing rail right-of-way along this portion of the survey area. The improvements along the track alignment would involve replacing and widening the separated grade bridges at 6th and 7th streets SW. Additionally, the project would include the installation of a new platform for the VRE L'Enfant Station, along with related access facilities and retaining walls north of Virginia Avenue SW, between 6th and 7th Streets SW. Constructing the footings for the bridge improvements and retaining walls would require deep foundations. These anticipated deep pile foundations would be at least 100 ft below the ground surface.

For portions of the Survey Area involving Hancock Park, background research and existing conditions analysis indicate that a cap of historic fill is likely present to a depth of up to 2 meters. Current design plans involving the area of Hancock Park call for the park perimeter to be grubbed with some tree removal adjacent to the existing rail. Current design plans also identify Hancock Park as a temporary staging area where overall light grubbing and vehicular parking will occur. The nature of the historic fill cap and the current design intention to use the area as staging with light grubbing activity would not impact deeply buried precontact deposits should they be present.

During its development as a public space during the early nineteenth century, the area of Hancock Park was infilled, leveled, and graded. Since the nineteenth century, the park has seen little development besides track installation within the eastern section from a former rail line connected to the CSX line. These unused tracks may still exist just below the ground surface from when they were abandoned. In consultation with FTA, NPS, and DC SHPO, these onsite track remnants are not considered significant, and therefore, no further work or archaeological management considerations are warranted for the current project.

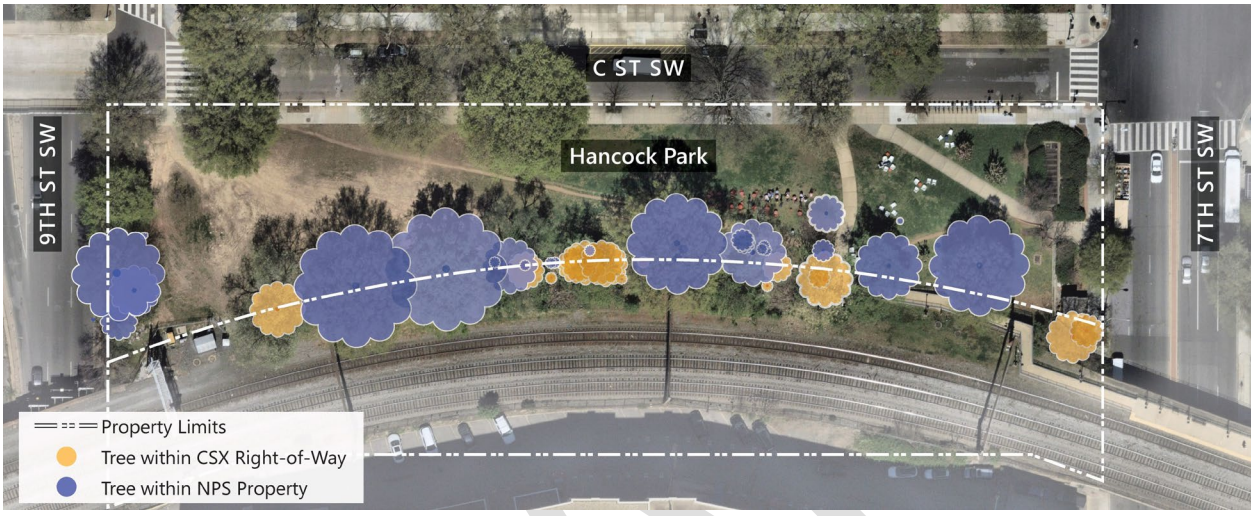
As currently designed, the project undertaking has no potential to impact archaeological features or deposits that would be considered significant or eligible for listing on the NRHP.

C. Aesthetics/Visual Quality: The Project is located within a highly urbanized environment, with the primary visual features consisting of buildings and transportation infrastructure. 7th Street SW is a view corridor from the National Mall, and 6th Street SW terminates at the Smithsonian National Air and Space Museum. (See **Appendix D**, Assessment of Effects, for viewshed analysis photos.) Visible elements from those view corridors could include the expanded 7th Street SW bridge and the 6th Street SW bridge replacement. The new platform canopy would be designed in a similar style to the existing one and would not extend over either 6th or 7th Streets SW to minimize viewshed impacts along those street corridors. (See **Appendix A** for renderings of the 30% design.) The station designs are subject to review by the Commission of Fine Arts (CFA) since it is considered a government project within their review authority. This review process is underway.

Some trees adjacent to Hancock Park within the railroad ROW and trees within the park adjacent to the railroad may be removed for the new fourth track or to construct the retaining wall from the expanded 7th Street SW bridge westward. Trees designated for removal would be based on the percentage of the critical root zone impacted by the Project and the amount of tree canopy removal required to provide sufficient horizontal and vertical clearance for the

installation and operations of the new fourth track. Removal of trees may have a minor effect on the visual or aesthetic quality of the park itself, since some of those trees provide shade and screening from the railroad tracks; however, most trees within the park would remain (see **Figure 7**). Any trees removed would be replaced in accordance with the Comprehensive Plan for the National Capital's Federal Environment Element's Tree Replacement Policy (FE.G.1, FE.G.2, and FE.G.3).

Figure 7: Trees Within or Adjacent to Railroad



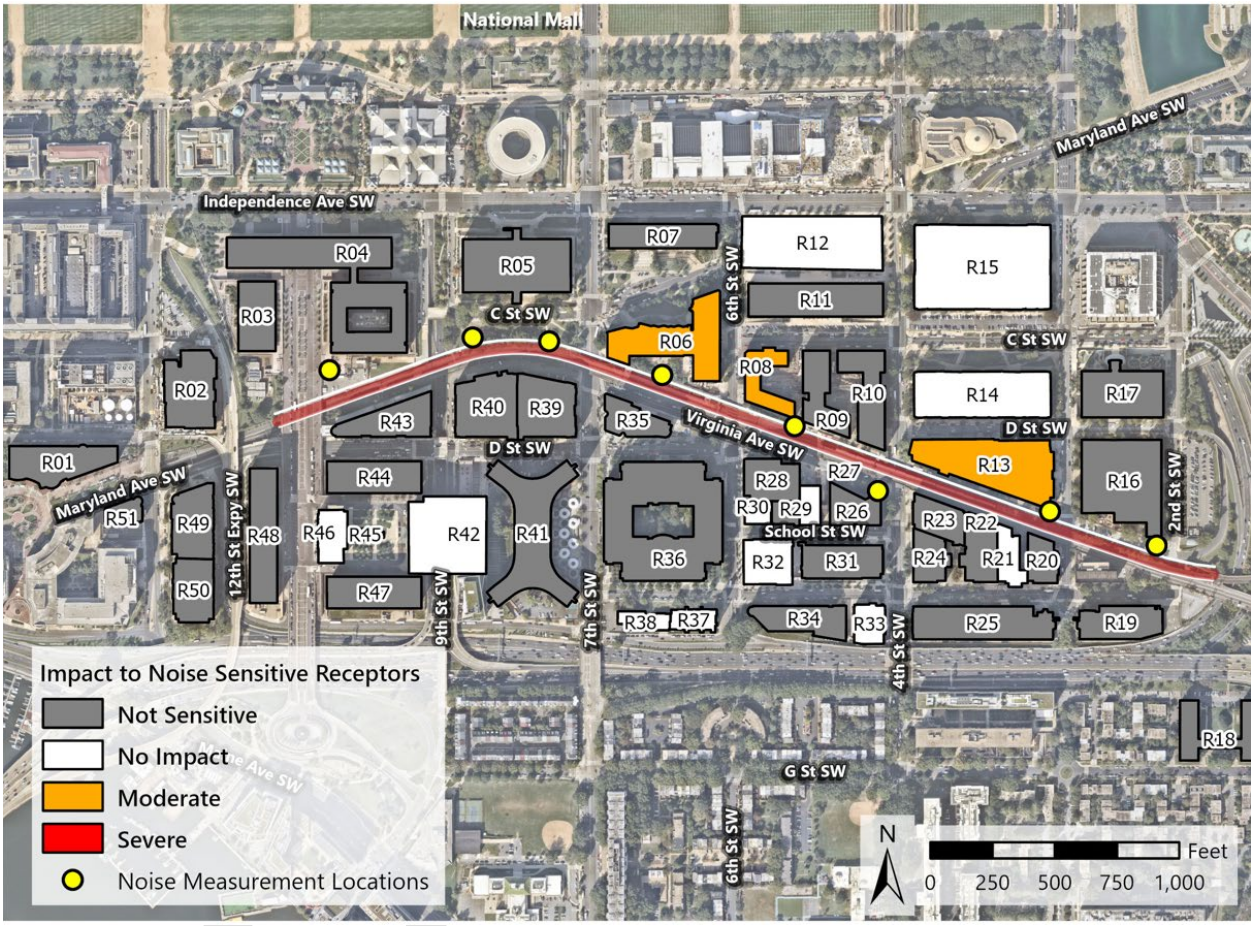
D. Noise: The noise impact analysis evaluated the existing environment for noise-sensitive land uses within a standard screening distance of 1,200 feet (commuter rail with horn blowing, considering intervening buildings), following the FTA Noise and Vibration Impact Assessment Manual. Sensitive noise receptors within the study area include hotels, museums, school facilities and daycare centers located within office buildings. Noise measurements at eight locations in the study area (see **Figure 8** on the next page) were used to characterize the existing noise environments at these receptors. See **Appendix E Noise and Vibration Technical Report** for more details.

Adding a fourth track on the north (railroad west) side of the rail corridor would move some passenger trains closer to sensitive receptors, while also moving some passenger and freight trains farther away from sensitive receptors on the south side of the corridor. The analysis assumed that the future condition would include six additional VRE trains and six additional Amtrak regional trains, based on the planned opening of VRE's new midday storage facility at Seminary Yard, expected available funding, and TRV service plans. The analysis assumed the same number of trains in the Build and No Build conditions as the Build condition does not introduce any additional trains. The FTA Noise and Vibration Impact Assessment Manual however specifies that noise predictions of future noise exposure in the No Build scenario should not be included in the analysis.

The noise impact analysis identified moderate noise impacts at locations adjacent to the rail corridor and in close proximity to the station platform – namely, Holiday Inn and the Smithsonian Institution offices within the Capital Gallery building. Shown in orange on **Figure 8**, these buildings are labeled R08 and R06, respectively. Although the Smithsonian Center for

Folklife and Cultural Heritage has a recording studio, it is currently not in use and appears to be located towards the center of the building, not adjacent to the tracks. The analysis also identified moderate noise impacts at the Museum of the Bible, which is located across Virginia Avenue SW from the rail corridor at 4th Street SW (labeled R13 on **Figure 8**).

Figure 8: Noise Analysis Map



These impacts are primarily due to the fourth track moving closer to the affected locations and an increased volume of VRE trains operating on the third and fourth tracks relative to current VRE operations. The dominant noise source is trains sounding their horns as they approach the station platform, which is a CSX requirement.

The FTA Noise and Vibration Impact Assessment Manual states that for moderate impacts, mitigation should be considered. However, the decision on whether to adopt mitigation measures should be based on whether those measures are reasonable based on various factors, including but not limited to:[2]

- Number of noise-sensitive sites affected

[2] FTA. Noise and Vibration Impact Assessment Manual. 2018. Accessed from https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf on April 9, 2025.

- Increase over existing noise levels
- Noise sensitivity of the property
- Effectiveness of the mitigation measures
- Feasibility of the mitigation measures
- Implementation cost

As described in more detail in **Appendix E**, FTA guidelines were applied to address the moderate noise impacts identified at the Capital Gallery building, Museum of the Bible, and Holiday Inn. The assessment evaluated source treatments (quiet zones, wayside horns), path treatments (noise barriers), and receiver treatments (sound insulation).

- **Source Treatments** were deemed not reasonable due to CSX safety regulations requiring locomotive horns near passenger stations and the balance of infrastructure costs to benefits.
- **Path and Receiver Treatments** evaluated were noise barriers and interior treatments:
  - Noise barriers were ruled out due to space constraints and structural limitations.
  - Interior treatments were evaluated based on noise assessments and it was determined that despite moderate exterior impacts, all interior spaces would remain within acceptable noise limits (below 52 $L_{eq(1hr)}$ dBA for institutional receivers and below 45 L_{dn} dBA for residential spaces) due to existing building construction.[3]

Consequently, no additional mitigation measures were recommended for any of the impacted receptors. While the analysis determined that all interior spaces would remain within acceptable noise measurements, the moderate impact at the Smithsonian Institution courtyard would remain.

E. Vibration: The vibration impact analysis evaluated nearby vibration-sensitive buildings or land uses (such as certain research facilities, hospitals, hotels, libraries, churches, recording studios, or performance spaces) in accordance with the FTA Noise and Vibration Impact Assessment Manual. Identified sensitive receptors were (see **Figure 8** for building locations):

- Folkways Recordings Studio within the Capital Gallery building (R06; currently not in use)
- Holiday Inn Washington Capitol – National Mall (R08)
- Museum of the Bible (R13)
- Voice of America Studio (R14)
- Residence Inn Washington, DC National Mall (R21)
- Richard Wright Public Charter School (R28)

The methodology for projecting ground-borne vibration impact for future operations is based on existing vibration levels in the rail corridor and train frequency from existing and future planned conditions. It was assumed that the Build condition would include additional VRE and Amtrak trains, with the number of trains based on available funding and Transforming Rail in

[3] $L_{eq(1hr)}$ refers to the Equivalent Sound Level, in this case the level of cumulative noise exposure over one hour. L_{dn} is the Day-Night Sound Level, or the sound exposure level for a 24-hour day calculated by adding the exposure level obtained during the daytime (7 am to 10 pm) to ten times the level from nighttime (10 pm to 7 am). dBA stands for A-weighted decibels, the basic noise unit for transit noise analyses. It represents the overall noise at a receiver that is adjusted in frequency to approximate typical human hearing sensitivity.

Virginia plans. The results from the general vibration show that there is no potential ground-borne vibration impact from transit operations to sensitive land uses. See **Appendix E Noise and Vibration Technical Report** for more details.

F. Acquisitions and Relocations Required: The Project design at this stage of preliminary engineering avoids permanent impacts to adjacent Hancock Park, an NPS park property. The proposed fourth track, platform, and station structure would remain within the existing rail right-of-way and easements, requiring no property acquisitions or relocations (see **Appendix A**). However, VPRA and DDOT would work to establish the following additional permanent easements at each of the railroad bridges:

- ROW easements at the northwest and northeast corners of the 7th Street SW bridge expansion: the footings of the widened bridge would extend below grade into the public ROW that is under DDOT's authority.
- ROW easements for the 6th Street SW bridge piers: existing steel columns would be removed, and new piers would be installed in the same section of public ROW along 6th Street SW, below the bridge.[4]
- Aerial easements, one at each bridge: DDOT requires aerial easements for any bridge infrastructure over the public ROW within the District; both the 6th and 7th Street SW bridges predate this standard practice.

G. Section 4(f): Section 4(f) of the United States Transportation Act of 1966 (49 USC 303) prohibits using public parks and recreational lands, wildlife refuges, and public or private properties eligible for listing in the National Register of Historic Places for transportation purposes unless there is no feasible and prudent alternative to avoid the use and the project includes all possible planning to minimize harm to the resources, or the use meets the requirements for a *de minimis* impact (23 CFR 774). The study area for Section 4(f) is the same as the Section 106 APE (see **Figure 5**). Three parks that are Section 4(f) resources are located near the Project and are described below:

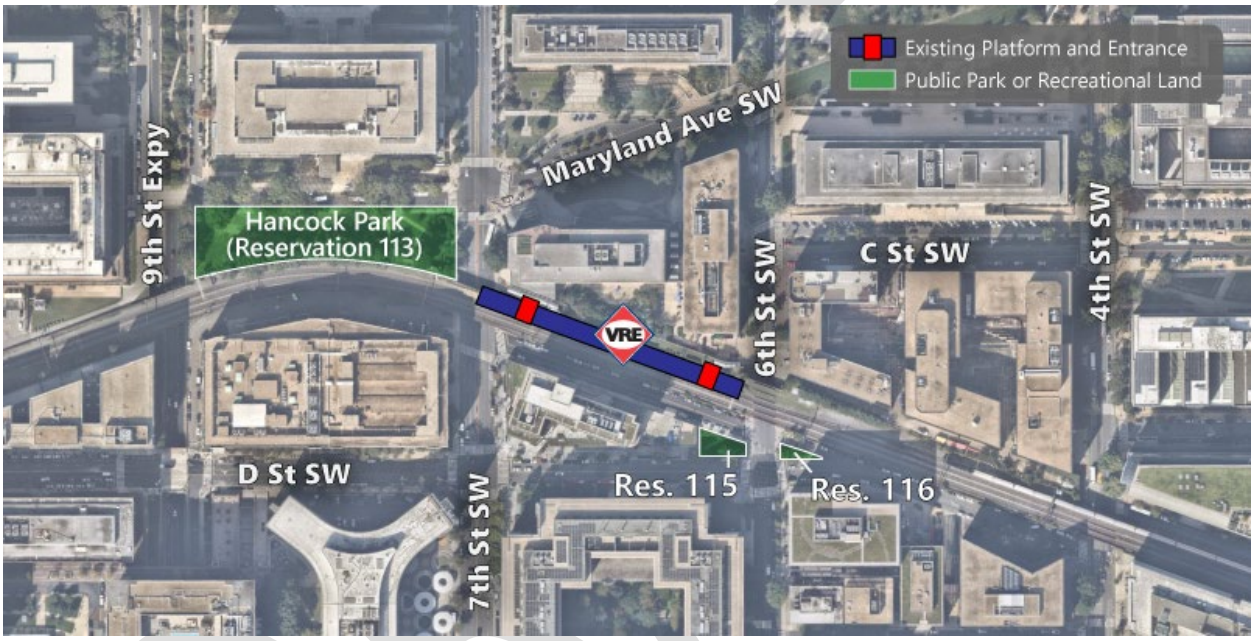
- **Hancock Park**, a small, urban public park owned and maintained by NPS, is within the study area adjacent to the station (see **Figure 9**). The Project is not expected to involve any permanent use of the park. As noted above in **Section C. Aesthetics/Visual Quality**, some trees adjacent to the railroad may need to be removed based on the percentage of the critical root zone impacted by the Project and the amount of tree canopy removal required to provide sufficient horizontal and vertical clearance for the installation and operations of the new fourth track. Any trees removed would be replaced in accordance with the Comprehensive Plan for the National Capital's Federal Environment Element's Tree Replacement Policy (FE.G.1, FE.G.2, and FE.G.3). The remaining trees in the park would continue to provide shade and screening of the rail corridor. Over the long term, the replanted trees would also provide shade and screening. Therefore, the removal of these trees would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). Therefore, FTA has determined the use of Hancock Park to be *de minimis*. In addition, temporary construction

[4] Based on property research, no easements for the existing railroad bridge were identified, which is likely a legacy of the District's status prior to Home Rule in 1973. The bridge over 6th Street SW was constructed as part of an overall railroad improvement project mandated by an Act of Congress in 1901.

activities in the park would also result in *de minimis* impacts, as described below in **Section 4.2.2**. NPS, the Official with Jurisdiction over Hancock Park, concurred with FTA's determination on January 29, 2026.

- There are two small properties managed by NPS at the corner of 6th Street, D Street, and Virginia Avenue SW: **Reservations 115 and 116** (also known as Boxcar Willie Park and the Dean Wilhelm Memorial Park; see **Figure 9**) total less than 5,000 square feet and would not be affected by the Project. Therefore, there would be no Section 4(f) use of these properties.

Figure 9: Potential Section 4(f) Properties near VRE L'Enfant Station



- FTA has determined that the replacement of the 6th Street SW bridge, removal of catenary poles, and impacts to the rusticated stone retaining walls, which would result in an adverse effect to the historic **B&P Railroad,** a Section 4(f) resource, as determined through Section 106 consultation, would qualify for the historic transportation facilities exemption:

  "Improvement of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements." (23 CFR 774.13(a)(2))

- FTA determined impacts would be *de minimis* for the **Plan of the City of Washington** as it was determined through the Section 106 process that the Project would have no adverse effect on the resource. DC SHPO concurred with the finding on no adverse effect.

H. Parks and Recreation Areas: As previously mentioned, Hancock Park is within the study area but not within the permanent Project footprint, based on current design. Covering about 1.25 acres, Hancock Park is a passive recreation area with grass and trees, as well as landscaping

on the eastern side. The Southwest Business Improvement District (SWBID) provides seating, tables, and umbrellas from April to November in the portion of the park between 7th Street SW and the path to the VRE station. The SWBID owns and maintains the furniture on behalf of NPS. The SWBID also runs seasonal lunchtime events such as concerts in Hancock Park, which are attended by employees and visitors to the area. As noted above in **Section C. Aesthetics/ Visual Quality**, some trees within the park that are adjacent to the railroad, as well as trees and vegetation adjacent to the park within the railroad ROW, may need to be removed based on the percentage of the critical root zone impacted by the Project and the amount of tree canopy removal required to provide sufficient horizontal and vertical clearance for the installation and operations of the new fourth track (see **Figure 7**). This may reduce the amount of summertime shade, but overall use of the park would remain the same. In addition, as described in **Section C. Aesthetics/Visual Quality**, the removal of trees would have a minor effect on the visual or aesthetic quality of the park as the majority of the trees would remain, including the larger trees that provide the most shade and screening.

The western half of Hancock Park is not currently used for events, seating, or any other recreation. It is frequently used as a pedestrian shortcut between 7th and 9th Streets SW, with desire paths across the grass. The grass there has also been partially denuded by regular use for vehicle access to the railroad ROW and wayside equipment. VRE will restore portions of the park affected by construction of the Project after construction ends.

I. **Water Quality:** The study area is within the Potomac River watershed; it is not in a sole-source aquifer area (there are none within twenty miles). Specifically, most of the Project is located within the Municipal Separate Storm Sewer Systems portion of DC, where stormwater and sanitary sewer conveyance is separate (see **Appendix B**). Approximately 170 feet of track, located east of 2nd Street SW, falls in the Combined Sewer Overflows (CSO) catchment area. The Project would not rebuild or alter this section of track; work in this location would only involve tying into existing tracks/signal equipment. Therefore, the Project would not increase flows into the CSO system.

Within the VRE station itself, rainfall drainage would be captured by a center platform trench drain and by canopy gutters and column downspouts, then connected to the storm sewer. Design of storm sewer systems would follow the applicable DC codes and standards for project areas that fall outside the railroad ROW. For these areas, VRE would develop a Stormwater Management Plan in compliance with District Department of Energy and Environment (DOEE) regulations. Areas within the railroad ROW would be designed to meet CSXT drainage requirements. Due to these measures, adverse water quality impacts compared to existing conditions are expected to be minimal.

4.2.2 Construction Impacts

This section describes impacts due to activities required to construct the Project. Construction work at L'Enfant Station is expected to last about two years and would take place in stages as described above in **Section 3.2**, mainly to minimize rail service disruptions.

A. **Traffic and Transportation:** As described above in **Section 3.2.1** and shown in **Figure 4**, construction would take place in stages to maintain at least two active tracks (one for freight and one for passenger rail) throughout the Project's duration. Still, the reduction from three to

two tracks and work to replace and add tracks, crossovers, and other equipment would likely have temporary impacts on freight and passenger traffic through this corridor. No flagging is anticipated during construction, but there would likely be speed restrictions as trains move past the temporary platforms and construction activities.

Construction would require periodic road closures on 6th and 7th Streets SW for bridge and track work and intermittent closure or detouring of sidewalks under the bridges, as portions of those sidewalks would be replaced. It would also require use of a portion of Virginia Avenue SW between 6th and 7th Streets SW for construction staging and access. Road closures may temporarily affect the four nearby Metrobus routes, OmniRide and MTA commuter bus routes, as well as staging of emergency bus shuttles that WMATA may need to provide occasionally for L'Enfant Metrorail Station riders.

VRE and the construction contractor would need to coordinate with the respective transit agencies and DDOT about these impacts to foot and bike traffic, public transportation, auto traffic, and maintenance of ADA accessibility throughout phased construction (see **Figure 4**). Virginia Avenue SW has low amounts of vehicular traffic but does include on-street parking that would be temporarily unavailable. Closures would be coordinated with DDOT and scheduled to minimize impacts as much as possible.

B. Air Quality: Minor air quality impacts resulting from temporary construction activities are possible, particularly on dry and windy days. Potential fugitive dust impacts during construction would be mitigated through "good housekeeping" practices, as required by DC regulations. Such practices may include water sprays during demolition; wetting, paving, or landscaping exposed earth areas; covering dust-producing materials during transport; limiting dust-producing construction activities during high wind conditions; and providing street sweeping and tire washes for trucks leaving the site.

C. Historic Resources: Temporary visual and physical impacts to historic properties within the APE would occur during construction due to the presence of construction equipment and activity within the viewsheds, streets, and reservations that contribute to the historic L'Enfant Plan of the City of Washington. This could detract from the historic viewsheds and settings of historic properties and may partially obscure historic views and vistas, such as the views down 6th and 7th Streets SW. However, these temporary visual and physical impacts would only last the duration of construction, and views would return to their existing conditions after the Project is complete.

Hancock Park (Reservation 113) is a contributing resource to the Plan of the City of Washington, which was listed in the NRHP in 1997, as part of the diagonal corridors of Maryland and Virginia Avenues SW. As previously mentioned, parts of Hancock Park would be used for construction access and staging. This would result in a loss of public access and use of this property, and its open character would be changed temporarily due to the presence of construction fencing, materials, and equipment. After construction is complete, however, Hancock Park would be restored to its current conditions, with no permanent loss of function or physical changes to the reservation. Therefore, construction activities would have no adverse effect on the Plan of the City of Washington.

D. Aesthetics/Visual Quality: As described for the historic resources near the Project in the previous section, construction would involve activities that cause visual impacts on the surrounding area. These would be temporary and largely limited to the extent and phasing of construction work and staging.

E. Noise: Construction activities would include track, bridge, and platform demolition as well as construction of the new infrastructure associated with the Project. To minimize noise impacts during construction, the contractor would be required to develop a Construction Noise and Vibration Management Plan (CNVMP) that details the measures taken to reduce noise and provide an approach for notifying sensitive land uses about upcoming construction work. Construction activities would typically occur during the daytime period; however, certain activities may occur at night when it is necessary to close tracks to minimize potential impacts on train operations.

Noise-sensitive receptors within 50 feet of construction activities include the Capital Gallery building, the Holiday Inn, and the Federal Emergency Management Agency. The Capital Gallery building includes at least one potential noise-sensitive receptor, the Center for Folklife and Cultural Heritage's Folkways Recordings, though its studio is currently not in use.

At 50 feet, construction noise generally ranges from 87 to 93 dBA (L_{eq}) prior to construction noise control measures. During the daytime period, construction noise would exceed the District daytime noise limit of 80 dBA L_{eq} for all land use categories within 50 feet of construction activities. In addition to this, the District's nighttime noise limit of 60 dBA L_{eq} would also be exceeded for residential land uses within 50 feet of any construction activities taking place at night.

Construction noise control measures would be implemented, as needed, to comply with daytime and nighttime noise limits. Control measures may include source controls such as using smaller and quieter equipment (e.g., smaller backhoes versus larger backhoes) or pathway controls such as a temporary perimeter noise wall or enclosures around smaller equipment such as generators or compressors. Other approaches to controlling construction noise include scheduling particularly noisy construction activities during the day when there is less potential for disruption. See **Appendix E Noise and Vibration Technical Report** for more details.

F. Vibration: Vibration from construction activities has the potential to cause annoyance to people inside nearby buildings and increase the risk of damage to nearby structures. Based on the types of construction equipment likely to be used for the Project, the primary sources of construction vibration would be jackhammers and hoe rams used during the demolition phase. Structure sensitivity to vibration depends on construction type, with most modern buildings having a peak particle velocity (PPV) vibration threshold of 0.5 inches per second. In addition to being sensitive to noise, the closest residential and institutional buildings are also sensitive to construction-related vibration. Vibration impacts are not evaluated in outdoor areas such as Hancock Park.

Construction equipment is expected to increase the risk of structural damage to buildings only within 15 feet of the activity. Activities may cause human annoyance in buildings up to 63 to 135 feet away depending on building construction. Potential structural damage during construction has been identified for the Capital Gallery building only, as construction works are likely to be

within five feet of the building's southern façade. In addition, multiple institutional and residential land uses are expected to experience vibration levels that exceed the FTA construction annoyance criteria.

In addition to structural damage and annoyance impacts from construction vibration, representatives of the Smithsonian Institution raised concerns regarding specific collections and archives that may be impacted during construction. Results from the assessment found that construction vibration levels during the demolition work had the potential to exceed the PPV vibration threshold of 0.1 inches per second for art collections when construction work is within 25 feet of the Capital Gallery building.

To minimize vibration impacts and ensure structural damage thresholds are not exceeded, the contractor would be required to develop a CNVMP detailing measures to reduce vibration and an approach for notifying sensitive land uses about upcoming construction activities. Additionally, for the Capital Gallery building, where impacts have been identified for potential structural damage and potential disruption to specific collections and archives, vibration levels would be monitored during the closest construction works to ensure they remain below the threshold for structural damage. See **Appendix E Noise and Vibration Technical Report** for more details.

G. Acquisitions and Relocations Required: For the duration of construction, VRE would need to establish two temporary construction easements with neighboring Capital Gallery property owner Boston Properties, one near each of the current station entrances (shown in **Appendix A**). These proposed temporary easements would allow access for the demolition of existing retaining walls and station structures, grading, and installation of new station infrastructure.

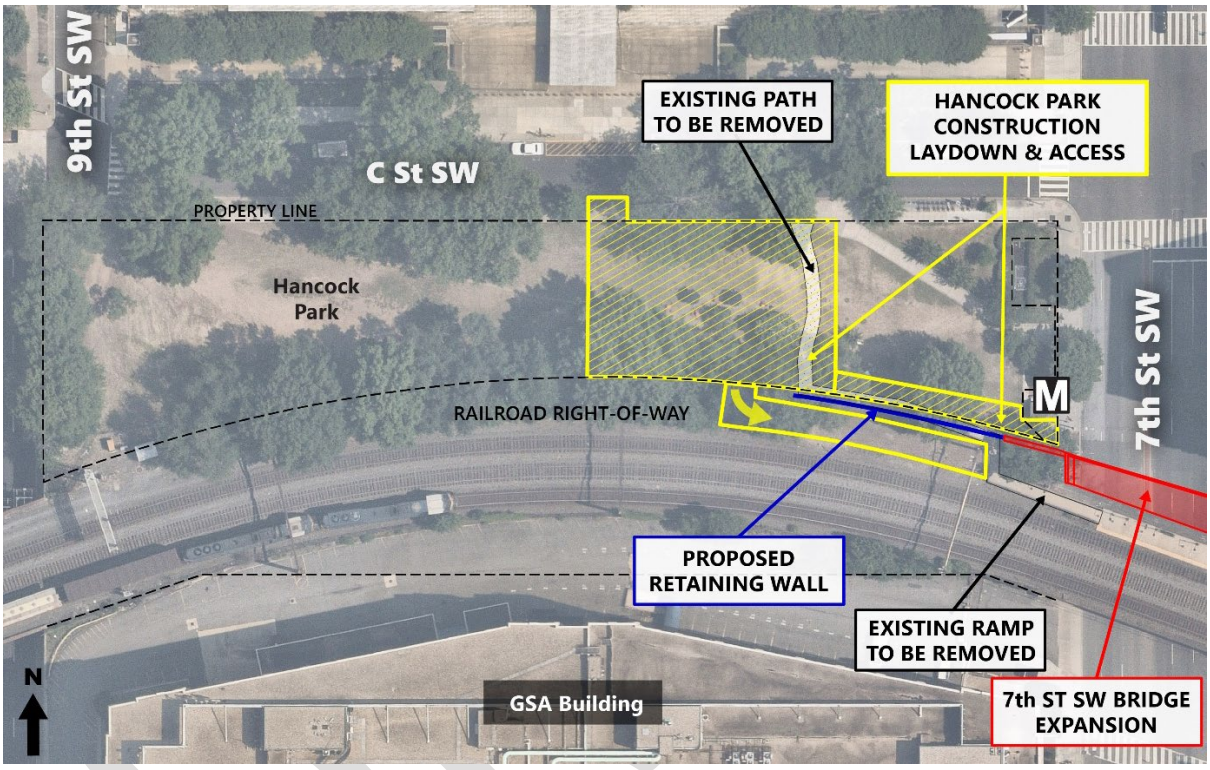
H. Hazardous Materials: Historical railroad ROWs are often impacted with residual oil and/or hazardous materials, which may include metals, pesticides, herbicides, creosote- or arsenic-laced railroad ties, lubricating oils, diesel fuel, and diesel exhaust. Asbestos-containing materials may be encountered if demolition disturbs unidentified conduits beneath the tracks, depending on their age. In addition, lead-based paint, mercury, PCBs, and other special wastes may be present in conduits, signal houses, etc. Fill of unknown origin used to bring tracks to grade may contain debris, coal, coal ash, coal slag, or other potential contaminants.

VRE would require the contractor to inventory potentially hazardous building materials prior to any demolition work. If such materials are found in the structures to be demolished, they would be properly handled in accordance with applicable regulations and transferred to licensed disposal facilities, to prevent adverse effects from disturbing or removing them. Soil or groundwater generated as part of construction would be managed in accordance with applicable regulations, and excavated fill requiring disposal would be sent to a licensed receiving facility.

I. Section 4(f): The Project would use a portion of Hancock Park for construction laydown and access as shown in **Figure 10**. The area occupied by construction activities would be to the west of the area of the park commonly used by the public. The proposed construction area is mostly used by VRE passengers as a cut-through between the VRE station and their destinations as evidenced by the desire lines worn into the grass. This section of the park would be fully restored after construction, with the exception of the removal of the pathway connecting C Street SW to the pedestrian/ADA ramp to the VRE station – the pathway would no longer be

needed, as there would no longer be a ramp connecting to the station at this location. The area between the walkway to the VRE station and 7th Street SW would continue to be available as it is today for eating lunch, reading, conversation, and participation in SWBID-sponsored activities as it is today. Therefore, construction activities would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f). FTA determined the impacts to Hancock Park would be *de minimis*. NPS, the Official with Jurisdiction, concurred on January 29, 2026.

Figure 10: Proposed Hancock Park Construction Laydown and Access Area



It was determined through the Section 106 process that the Project would have no adverse effect on the **Plan of the City of Washington** and therefore FTA determined any impacts would be *de minimis*. DC HPO, the Official with Jurisdiction for the resource, concurred.

There would be no Section 4(f) use of the other Section 4(f)-protected properties within the study area during construction (Reservations 115 and 116 and the historic properties identified in **Section 4.2.1** and **Figure 9**).

J. Parks and Recreation Areas: As described above in **Item O**, the Project would use a portion of Hancock Park for construction laydown and access. However, these encroachments would be temporary, and staging would mostly affect the western half of the park that is not currently used for recreation. Impacts to the eastern half where the SWBID offers seating most of the year and seasonal events would be minimized. Trees identified for preservation along the southern edge of the park, close to work areas, would be protected during construction, and grass would be restored after construction ends.

K. Water Quality: As the proposed disturbance area from the Project's construction is greater than 50 square feet, DOEE would require an Erosion and Sediment Control plan prior to construction. A Stormwater Pollution Prevention Plan, required by DOEE as the permitting authority of the National Pollutant Discharge Elimination System, would also be prepared during final design and implemented throughout construction.

5.0 Public Involvement

Stakeholder and public engagement have been incorporated into the planning and design of the L'Enfant Station improvements since 2017, and VRE continues to hold conversations with DC, federal agency stakeholders, other stakeholder groups, and the public to understand needs and potential concerns related to the Project.

5.1 Alternatives Analysis Phase

During the Alternatives Analysis and Conceptual Design phase, VRE convened quarterly meetings with two working groups. The Agency Working Group of local and federal entities included potential funding partners, railroad operators/owners, public agencies from which approvals may be needed, public agencies with nearby property interests, and public agencies that focus on planning and urban design issues in the study area. These included the Commission of Fine Arts (CFA), the District of Columbia Office of Planning (DCOP), DDOT, the General Services Administration (GSA), the National Capital Planning Commission (NCPC), WMATA, SWBID, as well as NPS and the DC HPO. Separately, VRE convened a Stakeholder Working Group of private property owners, developers, local business and advocacy groups, and neighborhood representatives.

There were three meetings with each working group over the course of the Alternatives Analysis and Conceptual Design phase, and a final meeting in September 2022 brought both working groups together. Topics and presented materials were generally the same for the two groups but sometimes highlighted different aspects based on known interests or feedback. These meetings are summarized in **Table 2**.

Table 2: Working Group Meetings during the Alternatives Analysis Phase

Date	Working Group(s)	Topics Discussed
August 3, 2021	• Agency Working Group • Stakeholder Working Group	• Project objectives, Basis of Design Report, and feedback on proposed Alternatives Analysis process
November 10, 2021	• Agency Working Group	• Fatal flaw analysis and feedback on draft schematic designs for the alternatives
November 18, 2021	• Stakeholder Working Group	
June 9, 2022	• Agency Working Group • Stakeholder Working Group	• Alternatives analysis and feedback on recommended Preferred Alternative
September 8, 2022	• Joint – both Agency & Stakeholder Working Groups	• Concept plans for Preferred Alternative and next steps for PE/NEPA phase

Stakeholders expressed interest in staying involved throughout project development and identified the following considerations, with some overarching themes, for the redesign of a new station.

Awareness of Surrounding Context

- VRE's station should be as subtle as possible and should integrate with its context.
- An elevator connection between VRE L'Enfant Station and WMATA L'Enfant Plaza Metrorail Station should be explored, in coordination with WMATA. Shared systems are not required, however, and there should be no conflicts with Metrorail facilities underground.
- Railroad encroachment on Reservation 113 (Hancock Park) should be avoided if possible and minimized if avoidance is not possible. Pedestrian access through the park should be maintained and enhanced.

Processes for Agency Coordination

- If the project impacts federal land at Hancock Park, NCPC design approval may be required.
- If the project impacts NPS-administered Hancock Park, a realty transaction and NPS action would be required. Therefore, the NEPA process should be structured to enable NPS to either adopt the lead agency's document or issue its own decision based on the process led by FTA.
- Coordination with the DC HPO on the 6th and 7th Street SW bridges, which may be eligible for listing in the National Register of Historic Places, would be important.[5]
- CFA is responsible for design review of government properties in the National Capital and has indicated that the Project will be treated as a government project for CFA review purposes.

Connectivity to Wider Neighborhood

- Transportation demands in Southwest DC are changing dramatically, and multimodal connectivity is increasingly important for daytime and nighttime populations.
- Station placemaking, bike facilities, and micro-mobility connections should be considered.

In addition to the agency and stakeholder engagement described above, VRE undertook public engagement activities in the Summer 2022 to raise awareness of the project and gather feedback on the Alternatives Analysis process and proposed Preferred Alternative. Public engagement activities during this phase included:

- Three pop-ups at local events (Southwest Duck Pond Concert Series and Southwest Farmer's Market);
- Presentations at the June ANC 6D Business Meeting and July Southwest BID Board Meeting;
- An online questionnaire with 208 responses; and

[5] It has since been determined through a Determination of Eligibility that the 6th Street SW bridge is contributing to B&P Railroad, which is eligible for listing in the NRHP, but that the 7th Street SW bridge is a non-contributing structure.

- Review of project information with VRE riders and other attendees at the VRE Meet the Management event at L'Enfant Station.

5.2 Preliminary Engineering and NEPA Phase

During the PE/NEPA phase, stakeholder coordination and public engagement have continued to inform (and be informed by) development of the 30% design plans, incorporating assessment processes in compliance with NEPA and Section 106. Starting in this phase, VRE combined the agency working group and the stakeholder working group established during the Alternatives Analysis phase into a single group. The same agencies and stakeholders were invited to give feedback about the Project, particularly regarding any elements under their jurisdiction, either at these meetings or in subsequent communications.

The Working Group convened potential funding partners, railroad operators/owners, review or permitting agencies, and agencies or stakeholders with nearby interests in property or planning, as well as property owners (federal and non-federal), business or advocacy groups, and neighborhood representatives. Members included:

- Amtrak
- ANC 6D
- CFA
- Committee of 100
- CSXT
- DC HPO
- DCOP
- DDOT
- DOEE
- Virginia Department of Rail and Public Transportation
- Federal City Council
- FRA
- FTA
- Greater Washington Partnership
- GSA
- NCPC
- NPS
- Northern Virginia Transportation Commission
- Potomac and Rappahannock Transportation Commission
- Smithsonian Institution
- SWBID
- SWNA
- VPRA
- WMATA

VRE held working group meetings aligned with project milestones during the PE/NEPA phase, while also meeting one-on-one with specific agencies requiring project approvals, permits, design reviews, and environmental or Section 106 consultation. (See **Appendix D** for details on Section 106 consultation.) Comments or questions received during the working group meetings were documented in the meeting minutes. VRE also used a comment matrix to track and respond to stakeholder feedback received outside of the working group and through review and approval processes.

The timing and purpose of each working group meeting in this phase are described below:

- **Working Group Meeting #1 (February 2024)**: VRE L'Enfant: The Next Phase **–** Kick off coordination for the PE/NEPA phase.

- **Working Group Meeting #2 (May 2024):** Designing for the Future **–** Provide updates on the draft 30% plans and solicit feedback; align with Section 106 consultation and start of NEPA.

- **Working Group Meeting #3 (November 2024):** Coordinating Design and the Environment **–** Provide further updates on the draft 30% design; solicit input before development of final 30% plans; and present relevant information from the draft NEPA and Section 106 analysis.

VRE also conducted public engagement activities to inform and seek feedback from the broader community, including residents, employees of area businesses and their employers, and VRE riders. During this phase of the Project, forms of public outreach included communications such as website content and an updated factsheet describing the project, pop-ups such as VRE rider-focused Meet the Management station events, tabling at community events such as Bike to Work Day and Hancock Park lunchtime concerts, social media posts, and a public open house on the draft 30% design and NEPA/Section 106 process held in February 2025.

In total, VRE engaged with approximately 450 community members at these events. Feedback from public events held in the 30% design phase largely echoed comment themes from the Alternatives Analysis phase. Community members were most interested in weekend and off-peak VRE service and greater train frequency, as well as the Project's construction timeline, and were supportive of the proposed elevators and platform capacity expansion.

VRE also presented a short presentation summarizing the project objectives, the PE/NEPA process, proposed design, and next steps at a VRE Operations Board meeting. This meeting took place on February 21, 2025 and was open to the public. The Board presentation also included a fly-through video showing 3D animations of the proposed station structure and its location context, which was later posted to VRE's public YouTube channel.

5.3 Section 106 Consultation

As the lead Federal agency, FTA initiated consultation under Section 106 on March 20, 2024, and a Consulting Parties meeting was held on April 11, 2024. FTA provided information to Consulting Parties on the purpose and need for the Project, the proposed Undertaking, the Area of Potential Effect (APE), and the potential historic properties within the APE. A list of the parties invited to participate in the consulting process is below in **Table 3**.

A second Consulting Parties meeting was held on March 20, 2025, during the 30-day review period for the Assessment of Effects Report. The meeting included an overview of the elements of the proposed undertaking, and discussion of the potential effects to historic properties. The meeting also included discussion of potential mitigation measures.

FTA notified the Advisory Council on Historic Preservation (ACHP) of the finding of adverse effect on historic properties on June 5, 2025. ACHP declined to participate on June 16, 2025.

A third Consulting Parties meeting was held on July 1, 2025. The purpose of the meeting was to review revisions made to the draft Memorandum of Agreement in response to comments received from the Consulting Parties.

The Memorandum of Agreement was executed on December 4, 2025 with FTA, DC SHPO, and NCPC as Signatories and VRE and NPS as Invited Signatories. FTA filed the MOA with ACHP on December 4, 2025.

Table 3: Agencies and Organizations Invited to Participate as Consulting Parties

DC Historic Preservation Office	General Services Administration
Advisory Neighborhood Commission 6D	National Capital Planning Commission
Amtrak	National Park Service
Cherokee Nation	Northern Virginia Transportation Commission
Commission of Fine Arts	Pamunkey Indian Tribe
Committee of 100	Potomac and Rappahannock Transportation Commission
CSX Transportation	Smithsonian Institution
DC Preservation League	Southwest Business Improvement District
District Department of Transportation	Virginia Passenger Rail Authority
Federal Railroad Administration	Washington Metropolitan Area Transit Authority*

*Declined to participate as a Consulting Party

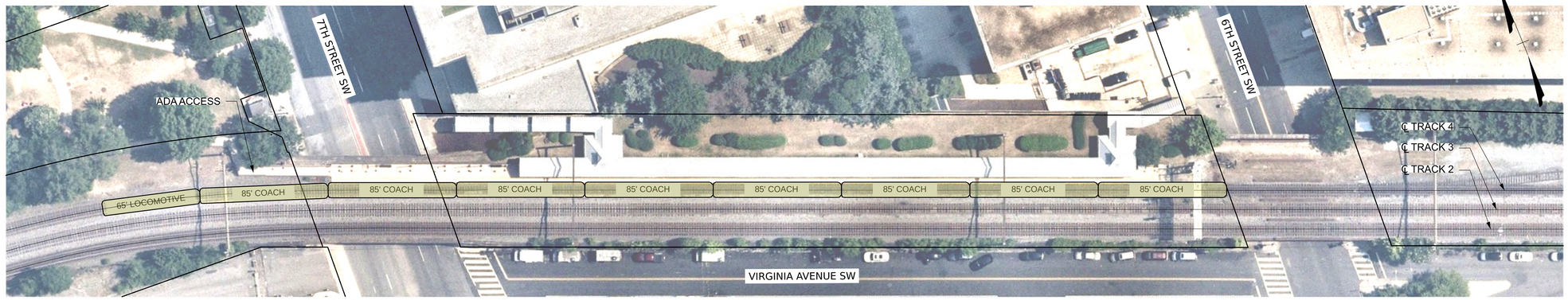
APPENDICES

Documented Categorical Exclusion

L'Enfant Station and Fourth Track Project

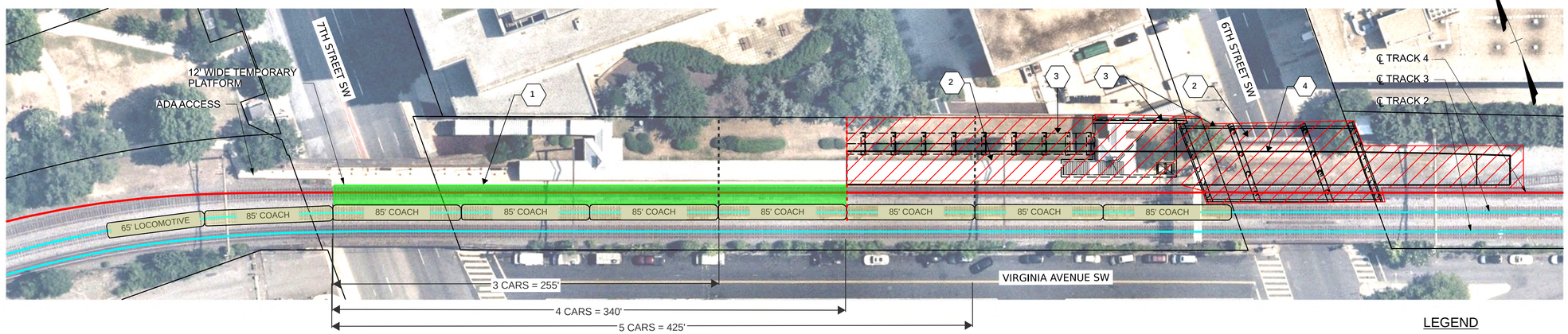
Preliminary Engineering/NEPA Phase

Appendix A – Figures from 30% Design Plans



EXISTING CONDITION

SCALE 1" = 40'-0"



STAGE 1

SCALE 1" = 40'-0"

	SUGGESTED CONSTRUCTION SEQUENCING
STAGE 1	1. CONSTRUCT TEMPORARY PLATFORM 2. DEMOLITION OF NORTH END OF EXISTING PLATFORM & THE WEST SECTION OF 6TH STREET BRIDGE 3. CONSTRUCT 6TH STREET ENTRANCE, 6TH STREET BRIDGE WESTERN PHASE, AND A PORTION OF THE 4TH TRACK LOAD TRANSFER PLATFORM 4. CONSTRUCT NORTH END OF PROPOSED PLATFORM

LEGEND

- BOARDABLE TEMPORARY PLATFORM
- CONSTRUCTION ZONE
- SERVICE TRACK
- TRACK REMOVED FROM SERVICE

0 20 40 80 FEET

REV.NO.	DATE	BY	APP BY	DESCRIPTION
A	07/25/25			30% PE PLANS

DESIGNED BY: A. MACPHERSON

DRAWN BY: A. ELLIS

CHECKED BY: J. BENDYK

DATE: 07/25/2025

RICH DALTON, CHIEF EXECUTIVE OFFICER — DATE

DALLAS RICHARDS, PE, CHIEF ENGINEER — DATE

VRE

vhb
1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

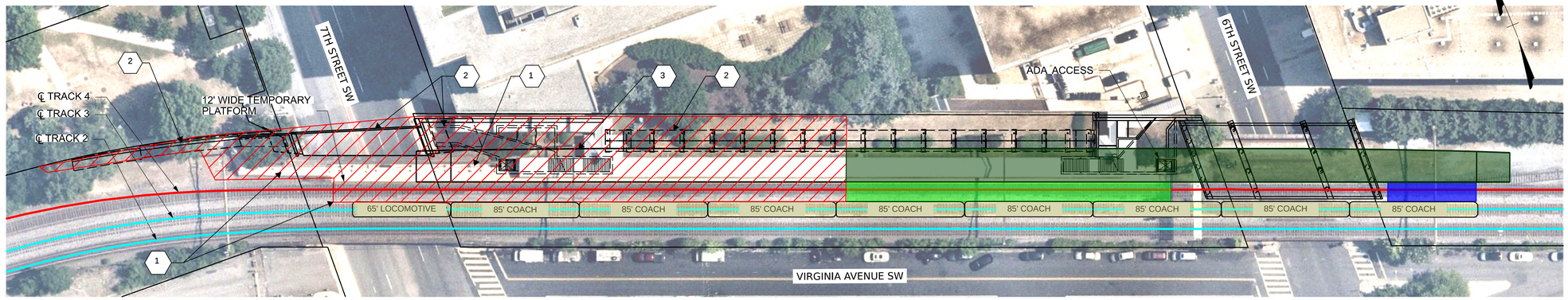
SUGGESTED CONSTRUCTION SEQUENCING PLATFORM BOARDING (1 OF 2)

IFB NO:

DRAWING NO: G-101

SCALE: AS NOTED

SHEET NO: 12 OF 254

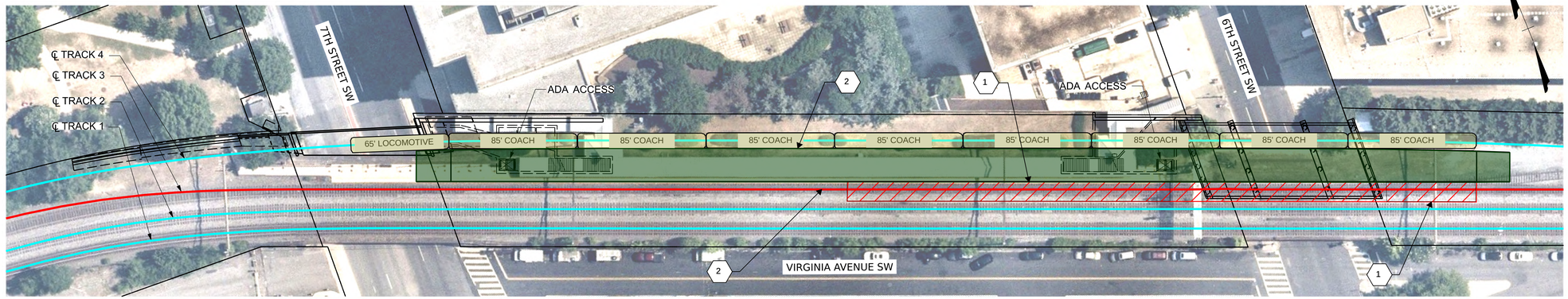


SUGGESTED CONSTRUCTION SEQUENCING	
STAGE 2	1. DEMOLITION OF SOUTH END OF EXISTING PLATFORM INCLUDING ADA RAMP AND PREVIOUSLY CONSTRUCTED TEMPORARY PLATFORM 2. CONSTRUCT 7TH STREET ENTRANCE, 7TH STREET BRIDGE WIDENING, RETAINING WALL 'A', AND A PORTION OF THE 4TH TRACK LOAD TRANSFER PLATFORM 3. CONSTRUCT SOUTH END OF PROPOSED PLATFORM

STAGE 2
SCALE 1" = 40'-0"

LEGEND

- BOARDABLE TEMPORARY PLATFORM
- POTENTIAL BOARDABLE TEMPORARY PLATFORM
- SERVICE TRACK
- CONSTRUCTION ZONE
- PROPOSED CENTER PLATFORM
- TRACK REMOVED FROM SERVICE



SUGGESTED CONSTRUCTION SEQUENCING	
STAGE 3	1. DEMOLITION OF TEMPORARY PLATFORM 2. COMPLETE CONSTRUCTION OF PROPOSED TRACK 3 AND USE THE PROPOSED PLATFORM FOR FULL-LENGTH BOARDING

STAGE 3
SCALE 1" = 40'-0"

LEGEND

- CONSTRUCTION ZONE
- PROPOSED CENTER PLATFORM
- SERVICE TRACK
- TRACK REMOVED FROM SERVICE

NOTE:
EXISTING THREE TRACKS ARE NUMBERED 2, 3, AND 4 FROM EAST TO WEST ACROSS TRACK SECTION AND WILL BE RENUMBERED TRACKS 1, 2, AND 3. THE NEW 4TH TRACK WILL BE NUMBERED TRACK 4.

0 20 40 80 FEET

REV.NO.	DATE	BY	APP BY	DESCRIPTION
A	07/25/25			30% PE PLANS

DESIGNED BY: A. MACPHERSON
DRAWN BY: A. ELLIS
CHECKED BY: J. BENDYK
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

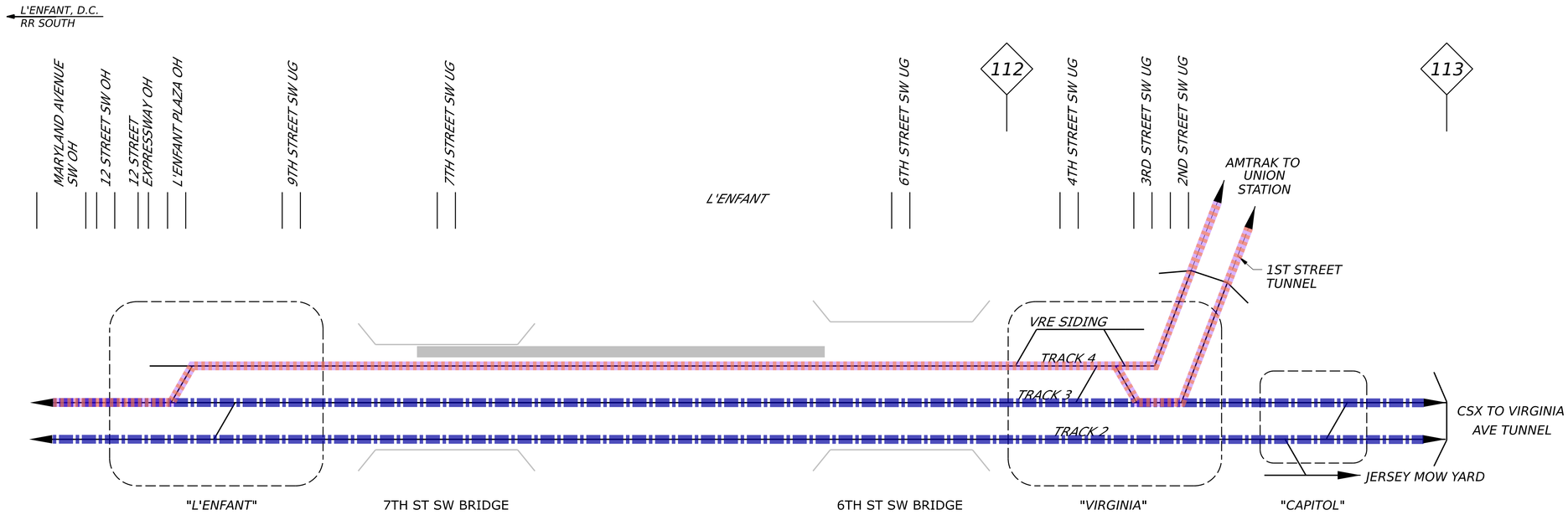
VRE

vhb
1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

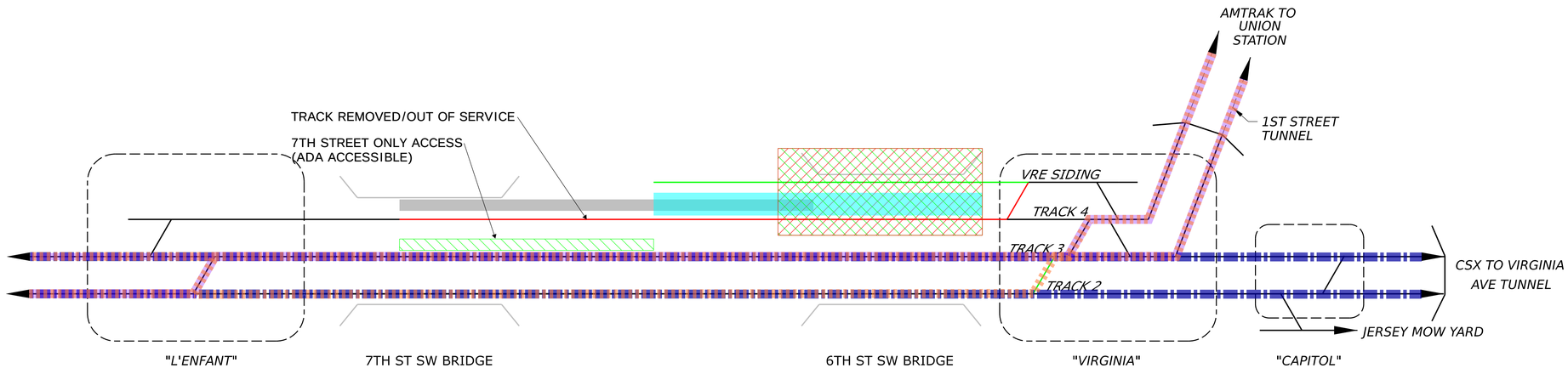
VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

SUGGESTED CONSTRUCTION SEQUENCING PLATFORM BOARDING (2 OF 2)

IFB NO:
DRAWING NO: G-102
SCALE: AS NOTED
SHEET NO: 13 OF 254



EXISTING CONDITION



STAGE 1

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE

STAGE 1

CONSTRUCTION

- DEMO NORTH PORTION OF PLATFORM AND PLATFORM ACCESS
- DEMO PORTIONS OF 6TH ST BRIDGE & TRACK 4
- DEMO VRE SIDING TURNOUT
- CONSTRUCT NEW CROSSOVER IN VIRGINIA INTERLOCKING
- CONSTRUCT TEMP PLATFORM ON TRACK 3
- CONSTRUCT TEMP ACCESS TO TEMP PLATFORM
- CONSTRUCT WALLS AND TUNNEL AT NORTH END OF PROPOSED PLATFORM
- CONSTRUCT NORTHERLY PORTION OF PROPOSED PLATFORM AND TRACK 5
- CONSTRUCT WEST PORTION OF 6TH ST BRIDGE

OPERATIONS

- OPERATIONS ADJUSTED BETWEEN VIRGINIA & L'ENFANT
  - TRACKS 2 AND 3 OPERATE NORMALLY
  - PASSENGER OPERATIONS ON TRACK 3 BETWEEN L'ENFANT AND VIRGINIA INTERLOCKINGS
  - TEMP PLATFORM ON TRACK 3 FOR PASSENGER OPERATIONS
- PASSENGER ACCESS TEMPORARILY REDUCED TO 7TH ST ONLY

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

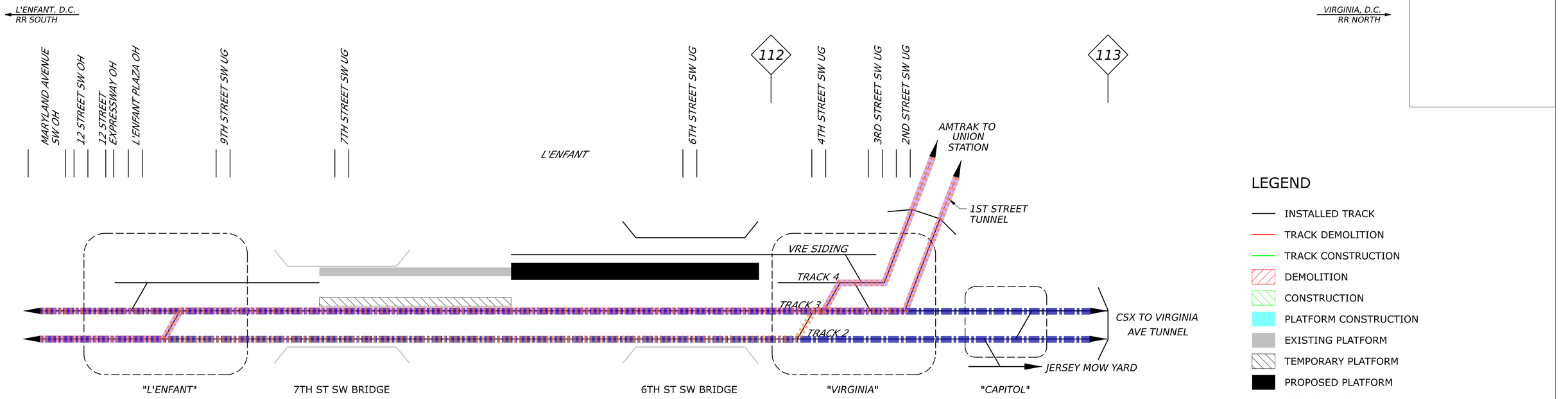
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 1

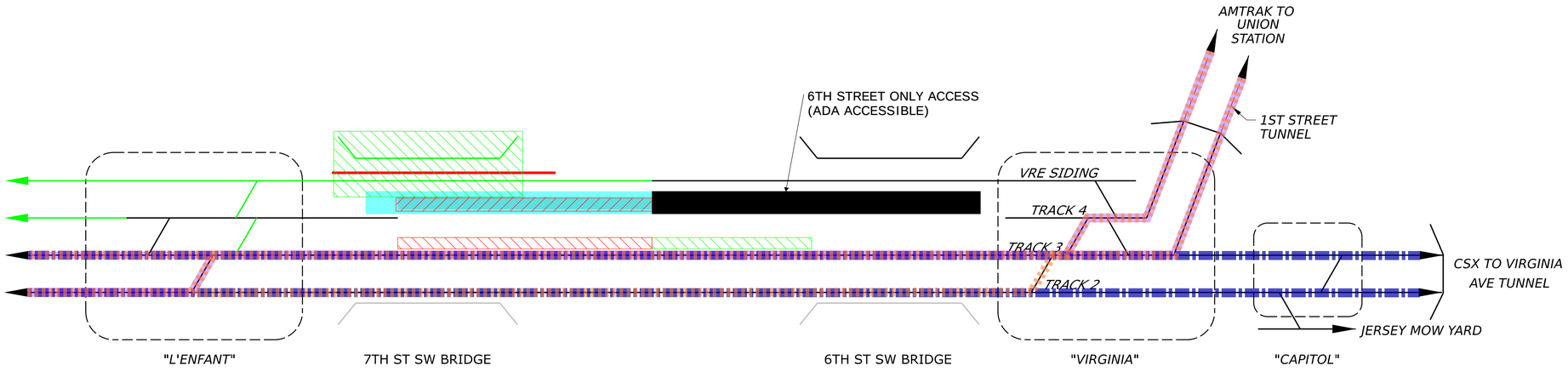
IFB NO:
DRAWING NO: G-201
SCALE: AS NOTED
SHEET NO: 15 OF 254



STAGE 1

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE



STAGE 2

STAGE 2

CONSTRUCTION

- DEMO SOUTHERN PLATFORM ACCESS WALKWAY FROM HANCOCK PARK AND STAIRS
- DEMO SOUTHERN END OF PLATFORM
- CONSTRUCT 7TH ST BRIDGE WIDENING
- CONSTRUCT SOUTHERNLY PORTION OF PROPOSED PLATFORM AND TRACK 5
- CONSTRUCT NEW CROSSOVERS IN L'ENFANT INTERLOCKING

OPERATIONS

- OPERATIONS ADJUSTED BETWEEN VIRGINIA & L'ENFANT
  - TRACKS 2 AND 3 OPERATE NORMALLY
  - PASSENGER OPERATIONS ON TRACK 3 BETWEEN L'ENFANT AND VIRGINIA INTERLOCKINGS
  - TEMP PLATFORM ON TRACK 3 FOR PASSENGER OPERATIONS
- PASSENGER ACCESS REDUCED TO 6TH ST ONLY

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

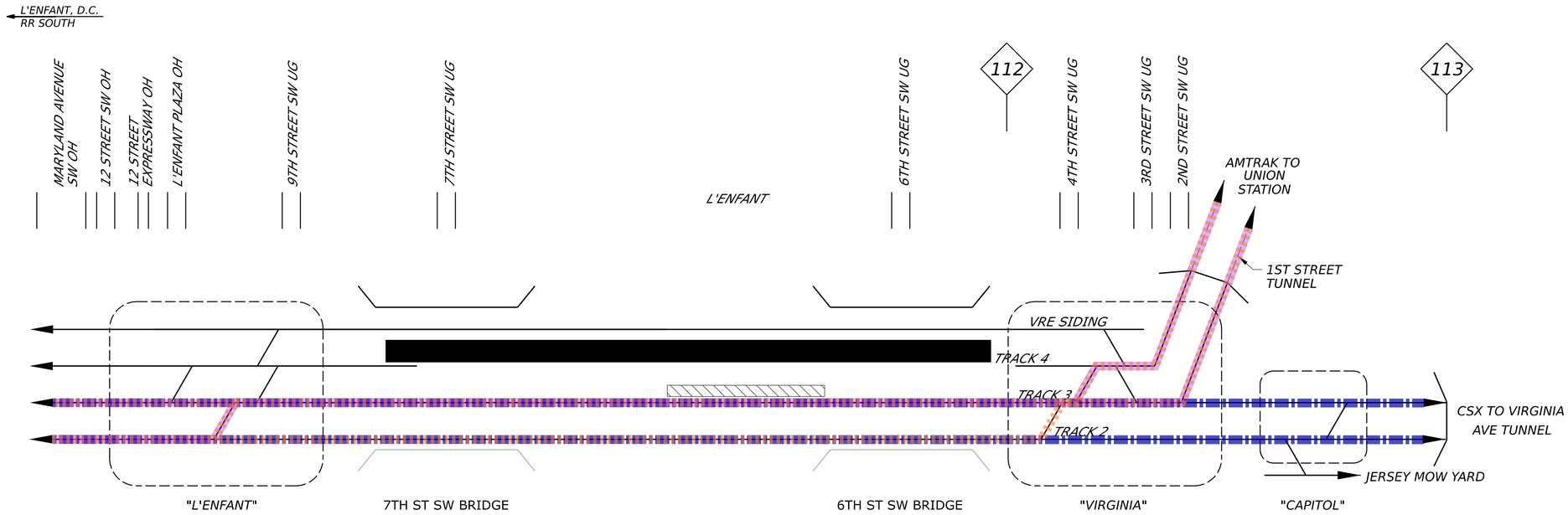
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 2

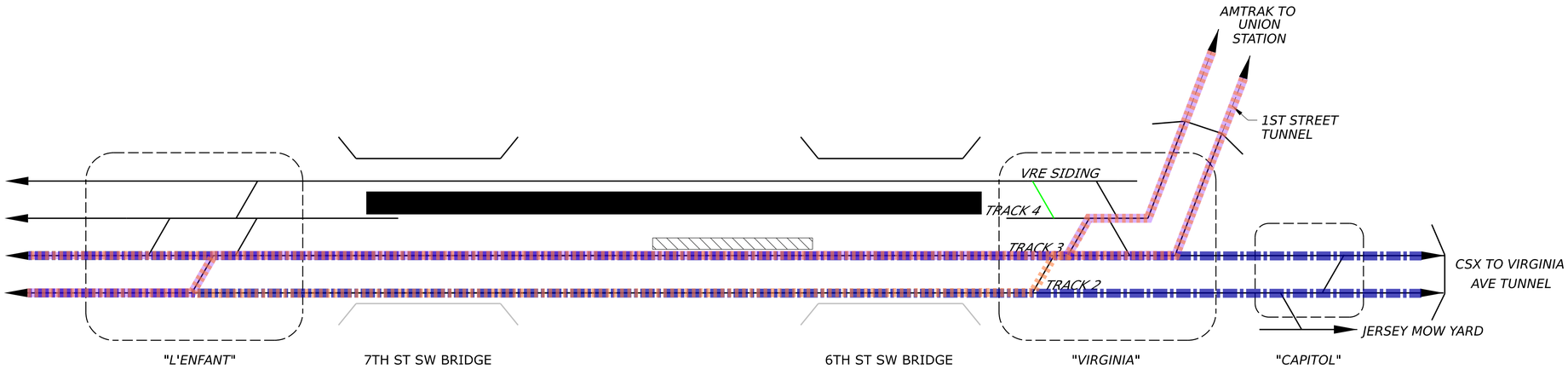
IFB NO:
DRAWING NO: G-202
SCALE: AS NOTED
SHEET NO: 16 OF 254



STAGE 2

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE



STAGE 3a

STAGE 3a

CONSTRUCTION

- CONSTRUCT NEW CROSSOVER IN VIRGINIA INTERLOCKING

OPERATIONS

- OPERATIONS ADJUSTED BETWEEN VIRGINIA & L'ENFANT
  - TRACKS 2 AND 3 OPERATE NORMALLY
  - TEMP PLATFORM ON TRACK 3 FOR PASSENGER OPERATIONS
- PASSENGER ACCESS VIA 6TH ST AND 7TH ST

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

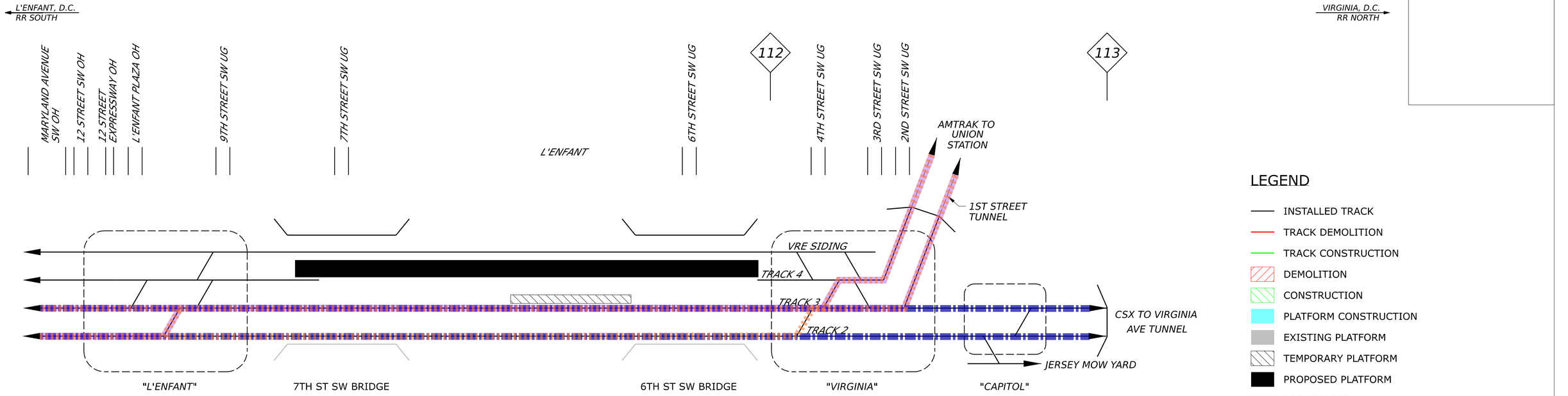
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

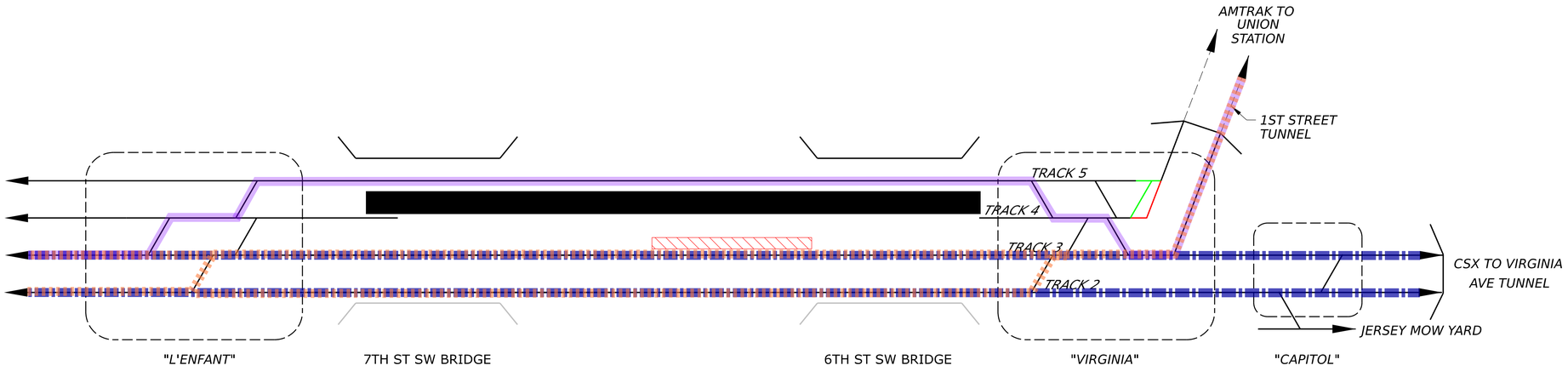
VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 3a

IFB NO:
DRAWING NO: G-203
SCALE: AS NOTED
SHEET NO: 17 OF 254



STAGE 3a



STAGE 3b

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE

STAGE 3b

CONSTRUCTION

- CUTOVER VRE SIDING IN VIRGINIA INTERLOCKING
- CONSTRUCT NEW CROSSOVER IN VIRGINIA INTERLOCKING
- DEMO TEMP PLATFORM

OPERATIONS

- OPERATIONS ADJUSTED BETWEEN VIRGINIA & L'ENFANT
  - TRACK 2 AND 3 OPERATE NORMALLY
  - PASSENGER OPS SWITCH TO NEW PLATFORM
- PASSENGER ACCESS VIA 6TH ST AND 7TH ST

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

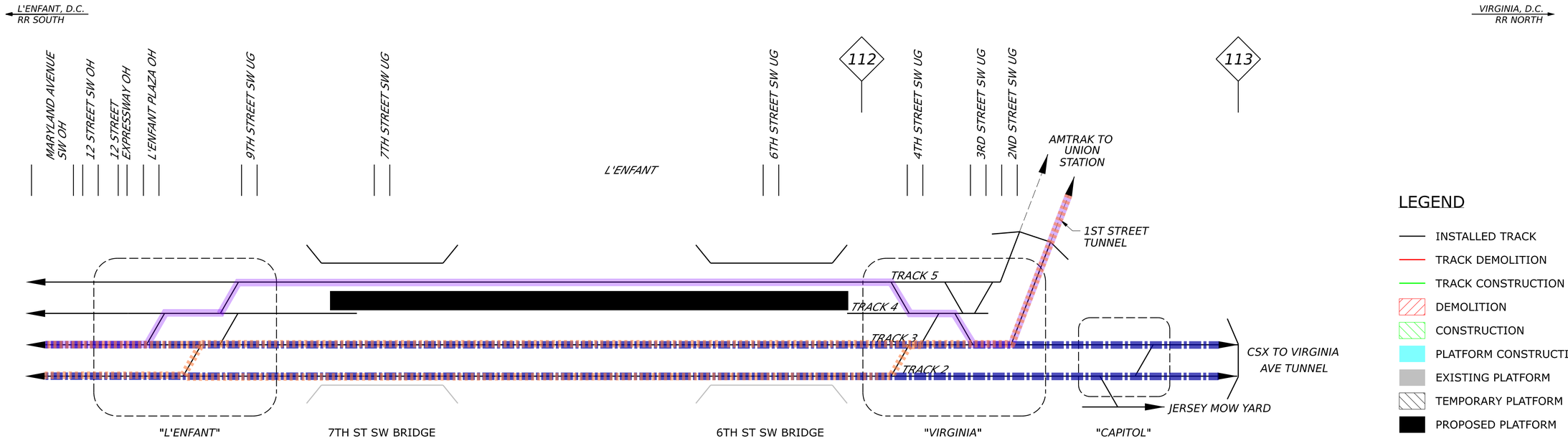
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 3b

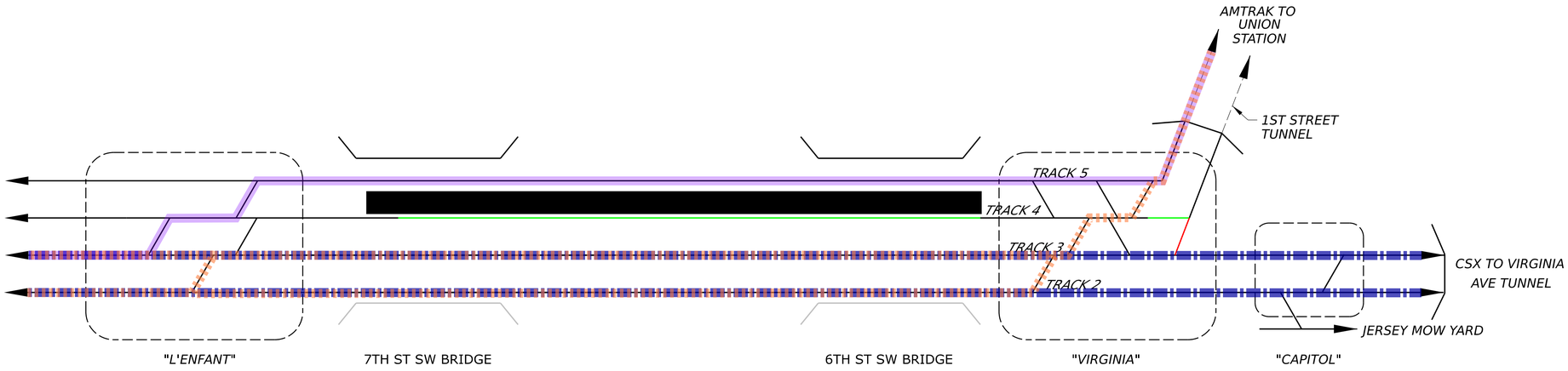
IFB NO:
DRAWING NO: G-204
SCALE: AS NOTED
SHEET NO: 18 OF 254



STAGE 3b

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE



STAGE 3c

STAGE 3c

CONSTRUCTION

- CUTOVER TRACK 4 IN VIRGINIA INTERLOCKING

OPERATIONS

- OPERATIONS ADJUSTED BETWEEN VIRGINIA & L'ENFANT
  - TRACK 2 AND 3 OPERATE NORMALLY
  - PASSENGER OPS SWITCH TO NEW PLATFORM
- PASSENGER ACCESS VIA 6TH ST AND 7TH ST

STAGE 3c

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

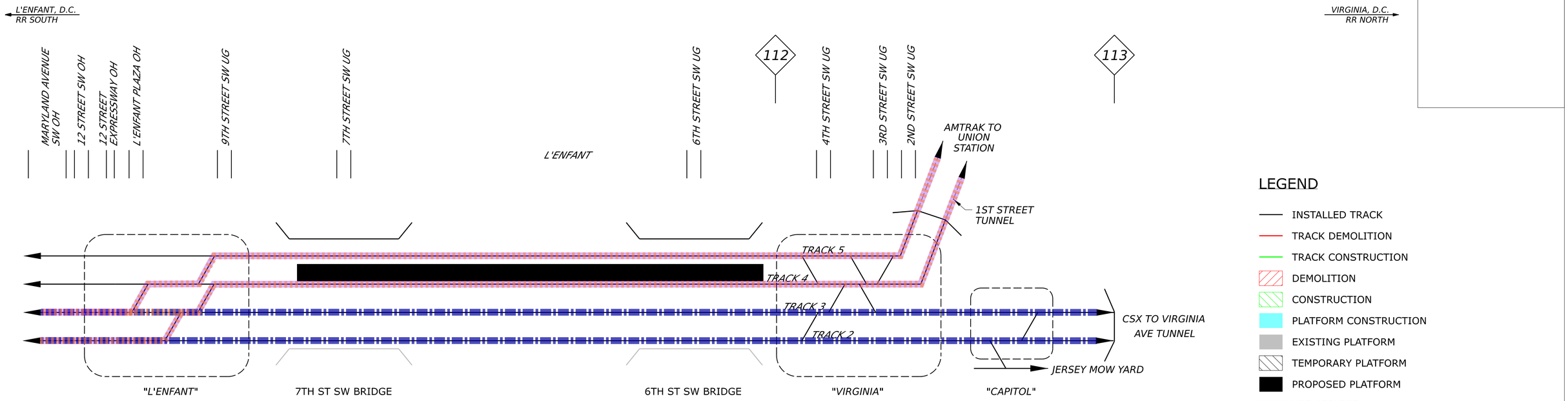
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 3c

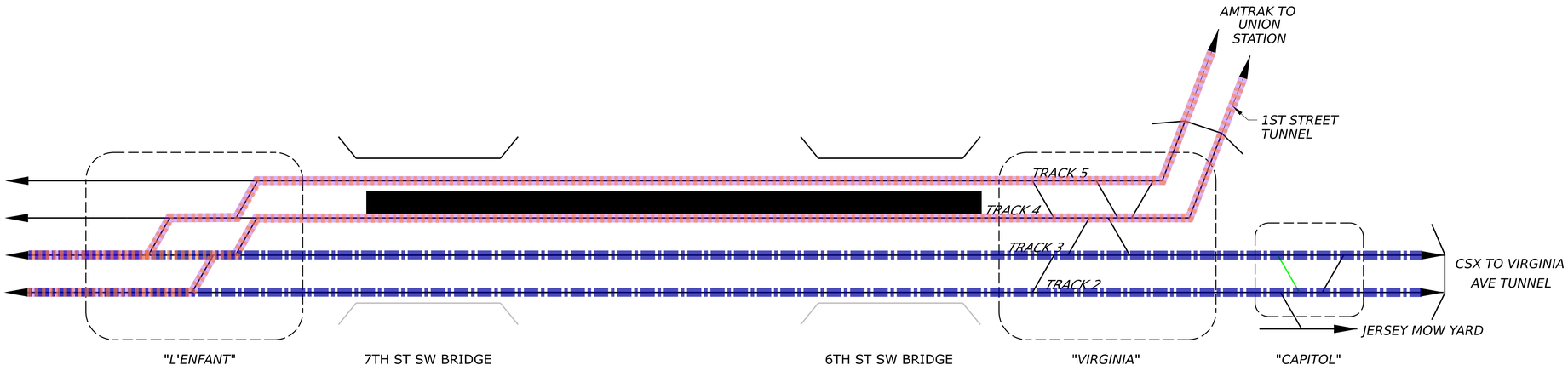
IFB NO:
DRAWING NO: G-205
SCALE: AS NOTED
SHEET NO: 19 OF 254



STAGE 3c

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE



STAGE 3d

STAGE 3d

CONSTRUCTION

- CONSTRUCT NEW CROSSOVER IN CAPITOL INTERLOCKING

OPERATIONS

- OPERATIONS ADJUSTED BETWEEN VIRGINIA & L'ENFANT
  - TRACK 2 AND 3 OPERATE NORMALLY
  - PASSENGER OPS SWITCH TO NEW PLATFORM
- PASSENGER ACCESS VIA 6TH ST AND 7TH ST

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

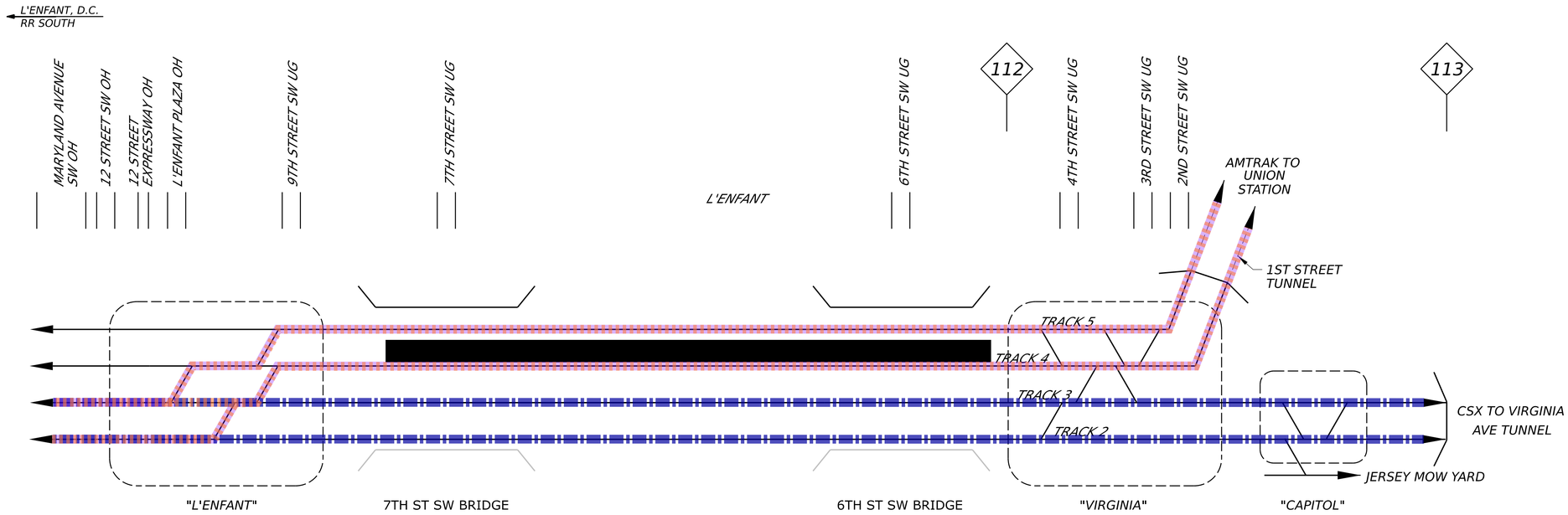
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

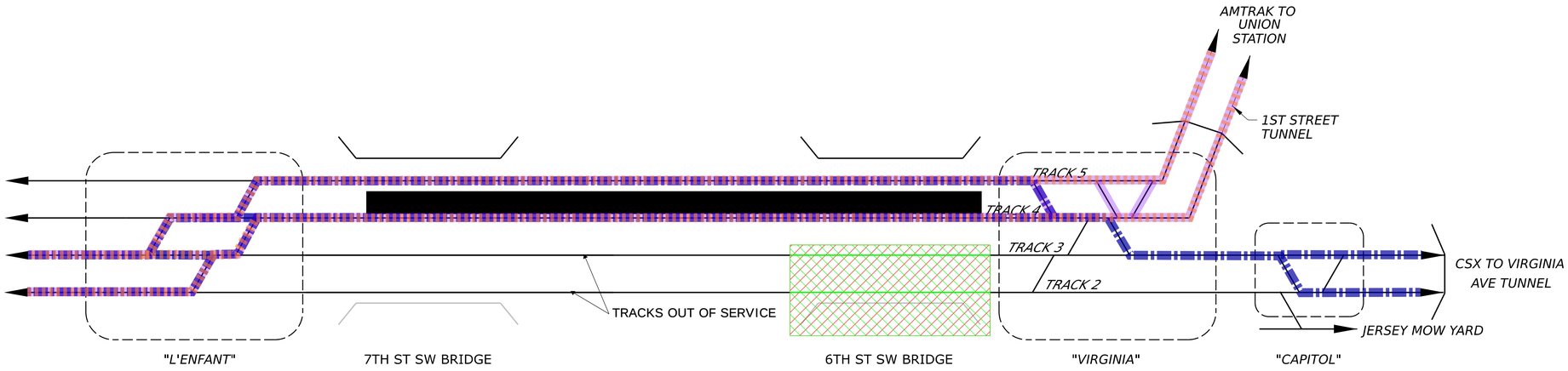
VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 3d

IFB NO:
DRAWING NO: G-206
SCALE: AS NOTED
SHEET NO: 20 OF 254



STAGE 3



STAGE 4

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE

STAGE 4

CONSTRUCTION

- DEMO REMAINING PORTION OF 6TH ST BRIDGE
- CONSTRUCT REMAINING PORTION OF 6TH ST BRIDGE
- MODIFY VIRGINIA AVENUE WALL AND BACKFILL AS REQUIRED
- REGRADE TRACKS 1 AND 2 AS NEEDED

OPERATIONS

- OPERATIONS ADJUSTED BETWEEN VIRGINIA & L'ENFANT
  - PASSENGER OPERATIONS ON TRACKS 4 & 5
  - FREIGHT OPERATIONS ON TRACK 4 & 5 OVER 6TH ST BRIDGE
- UTILIZE CROSSOVERS IN VIRGINIA AND L'ENFANT INTERLOCKINGS TO MOVE FREIGHT TRAFFIC ON/OFF TRACK 4

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

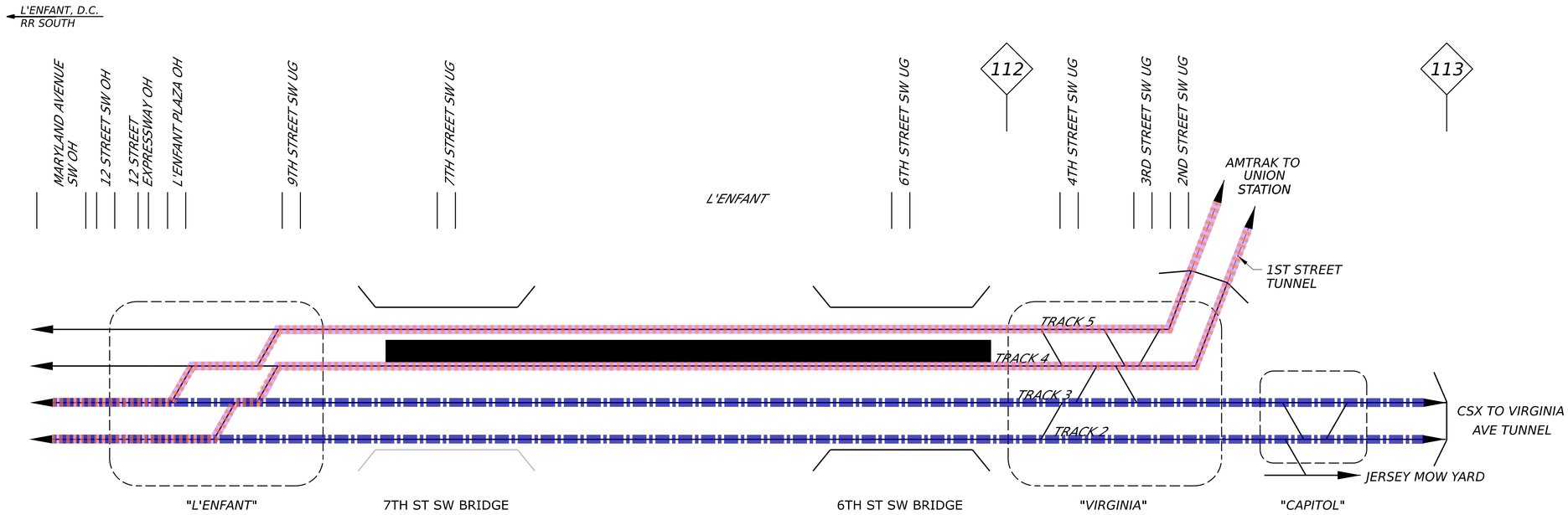
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 4

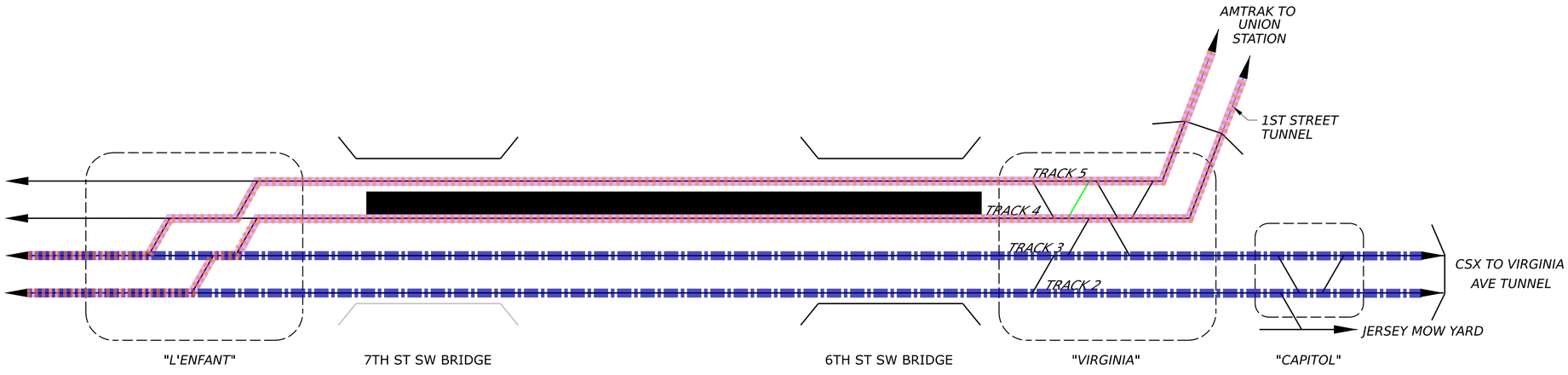
IFB NO:
DRAWING NO: G-207
SCALE: AS NOTED
SHEET NO: 21 OF 254



STAGE 4

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE



STAGE 5

STAGE 5

CONSTRUCTION

- CONSTRUCT NEW CROSSOVER IN VIRGINIA INTERLOCKING
- FINAL SURFACE AND LINE FOR ALL TRACKS

OPERATIONS

- PASSENGER OPERATIONS ON TRACK 4 AND 5
- FREIGHT OPERATIONS ON TRACK 2 AND 3

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

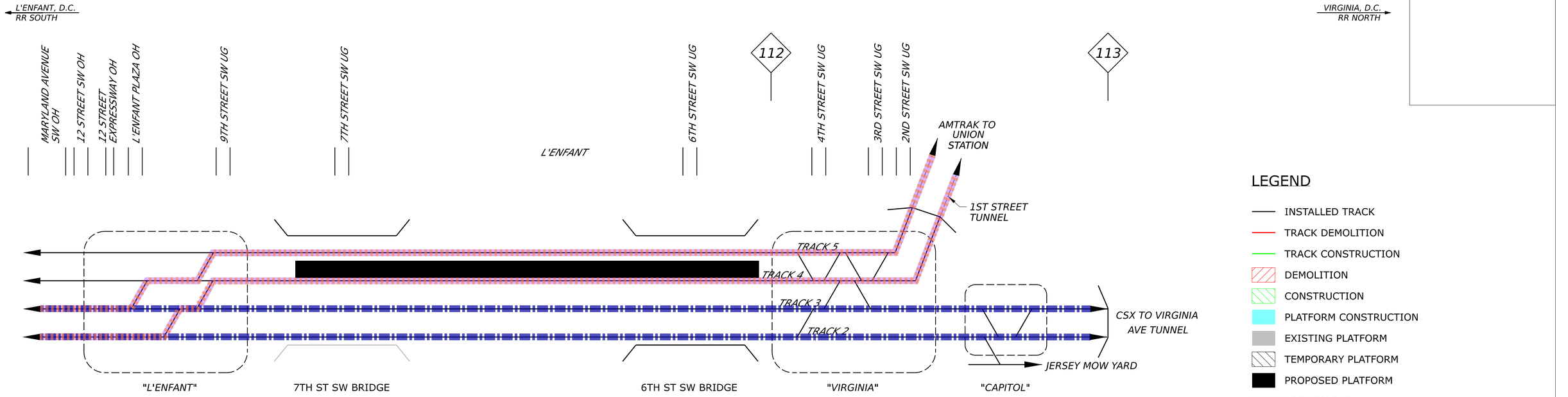
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC STAGE 5

IFB NO:
DRAWING NO: G-208
SCALE: AS NOTED
SHEET NO: 22 OF 254



FINAL CONDITION

LEGEND

- INSTALLED TRACK
- TRACK DEMOLITION
- TRACK CONSTRUCTION
- DEMOLITION
- CONSTRUCTION
- PLATFORM CONSTRUCTION
- EXISTING PLATFORM
- TEMPORARY PLATFORM
- PROPOSED PLATFORM
- VRE SERVICE
- AMTRAK SERVICE
- CSX FREIGHT SERVICE

OPERATIONS

- PASSENGER OPERATIONS ON TRACK 4 AND 5
- FREIGHT OPERATIONS ON TRACK 2 AND 3

- PASSENGER OPERATIONS UTILIZE L'ENFANT TO ACCESS EXISTING LONG BRIDGE UNTIL COMPLETION OF PROPOSED LONG BRIDGE PROJECT

NOTE:
- EXISTING VRE SIDING TO BE RENUMBERED TRACK 5
- TRACKS 2 & 3 MAS 30P/25F
- TRACKS 4 & 5 MAS 25P/20F

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: G. BOLES
DRAWN BY: G. BOLES
CHECKED BY: S. KULLEN
DATE: 07/25/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

TRACK STAGING SCHEMATIC FINAL CONDITION

IFB NO:
DRAWING NO: G-209
SCALE: AS NOTED
SHEET NO: 23 OF 254

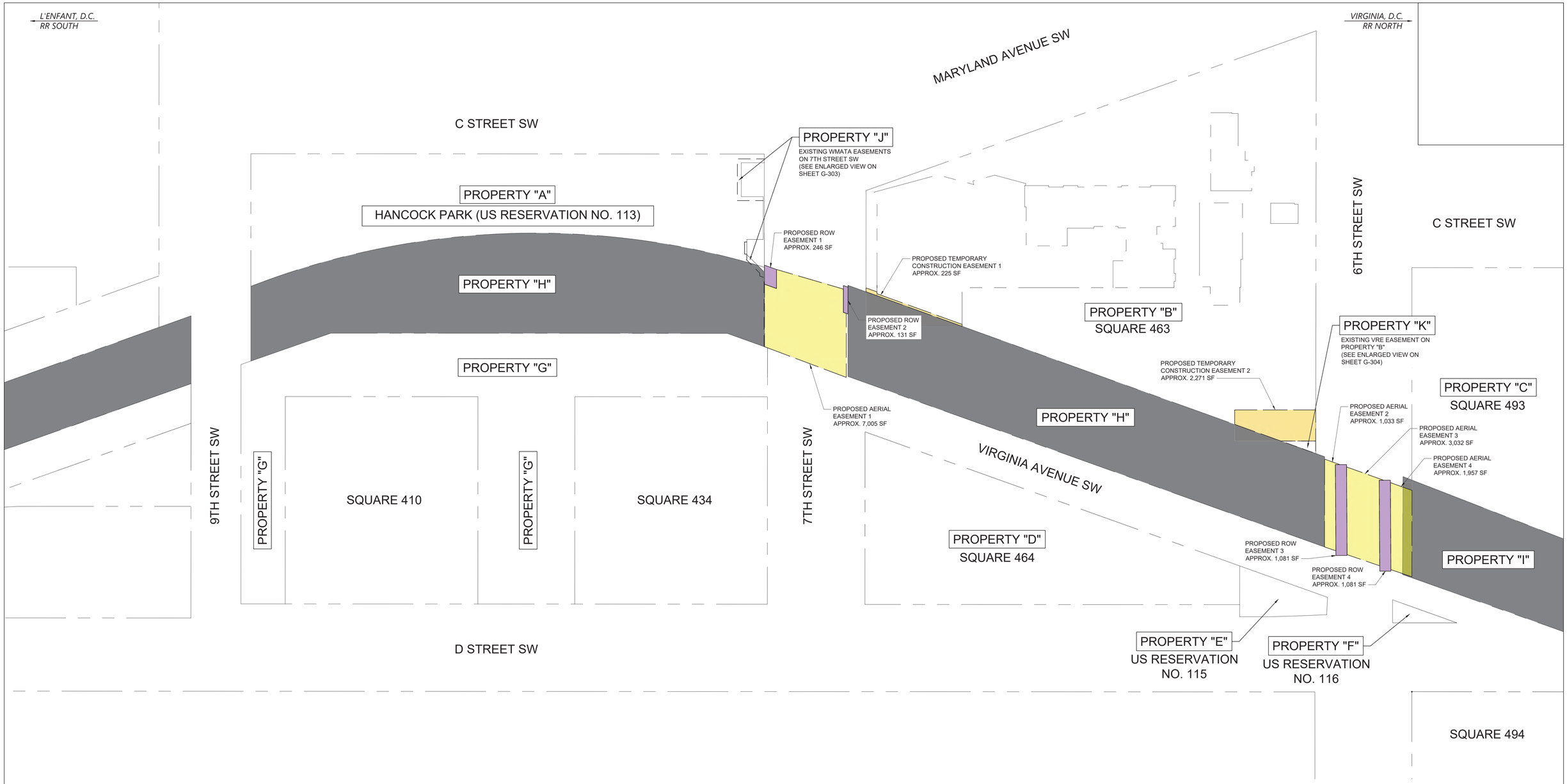

VRE
VRE


6th STREE


VRE L'ENFANT STATION
6th STREET ENTRANCE


VRE
L'ENFANT STATION


VRE
L'ENFANT STATION



0 50 100 150
SCALE FEET
1" = 50'

N

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: M. BRUNO
DRAWN BY: R. BLAZAUSKAS
CHECKED BY: J. LONG
DATE: 05/23/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

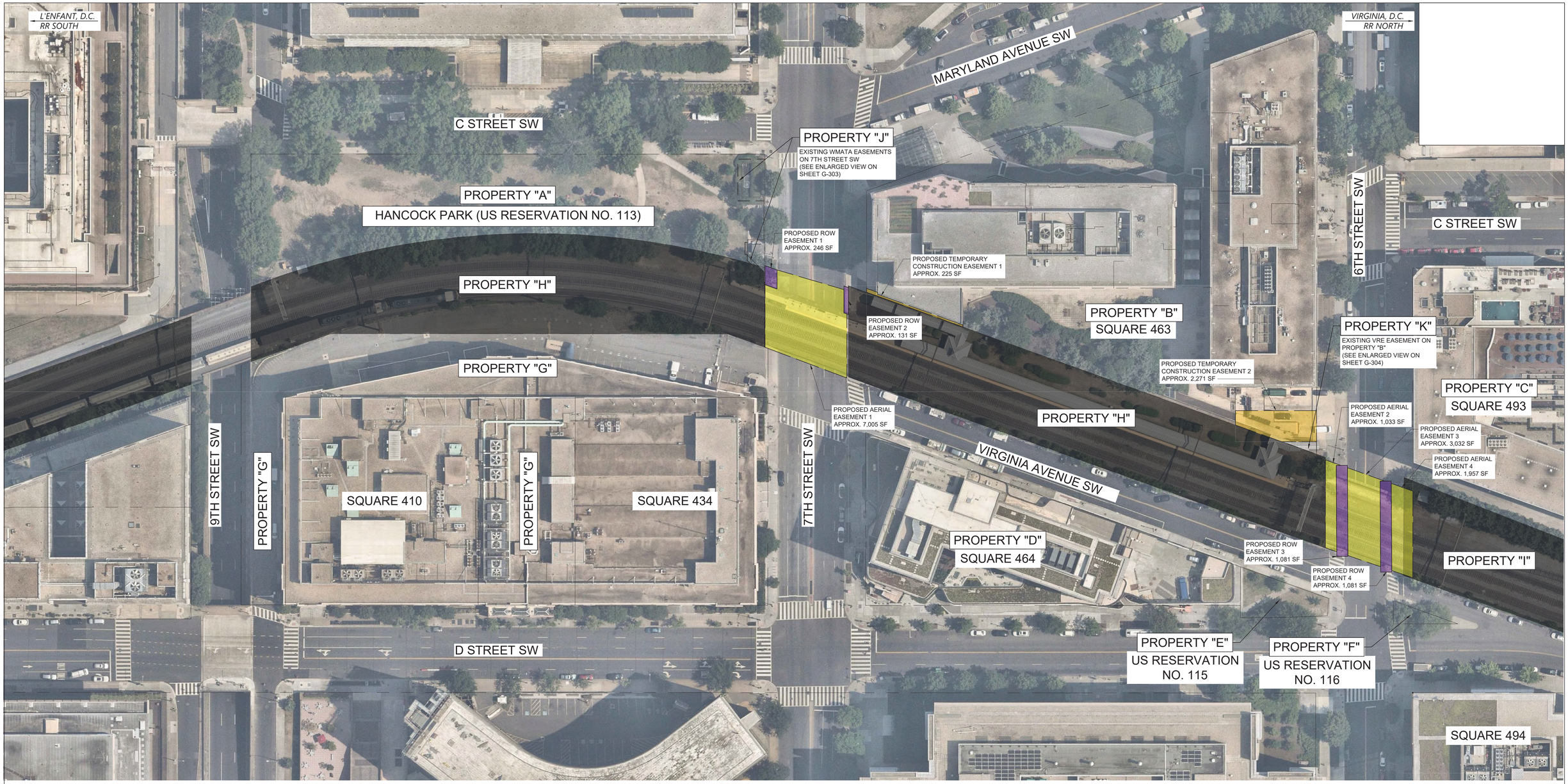
VRE

vhb
1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

EXISTING AND PROPOSED PROPERTY LINE AND EASEMENT PLAN

IFB NO:
DRAWING NO: G-401
SCALE: AS NOTED
SHEET NO: 25 OF 254



0 50 100 150
SCALE FEET
1" = 50'

N

Notes

1. AERIAL IMAGE FROM NEARMAP, DATED 06/21/2024, WAS USED.

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: M. BRUNO
DRAWN BY: R. BLAZAUSKAS
CHECKED BY: J. LONG
DATE: 05/23/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

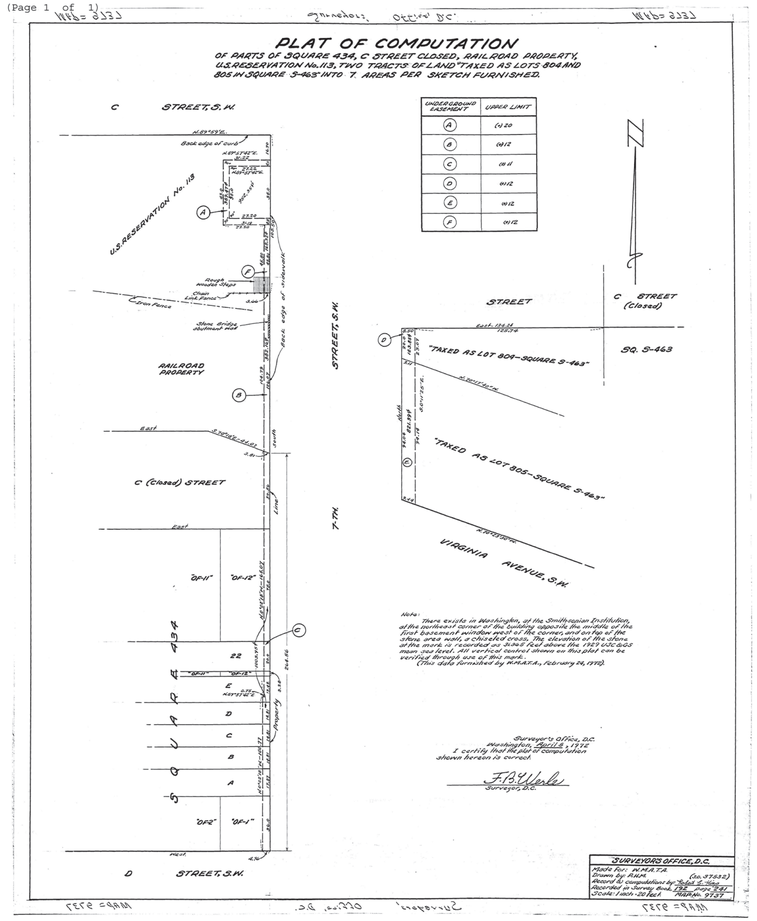
DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

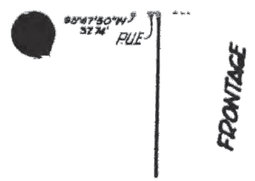
1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

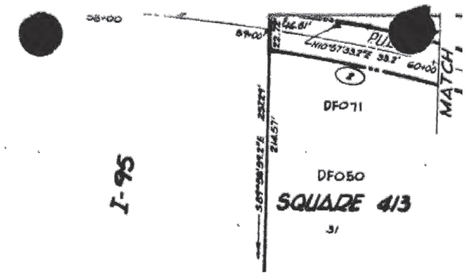
VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

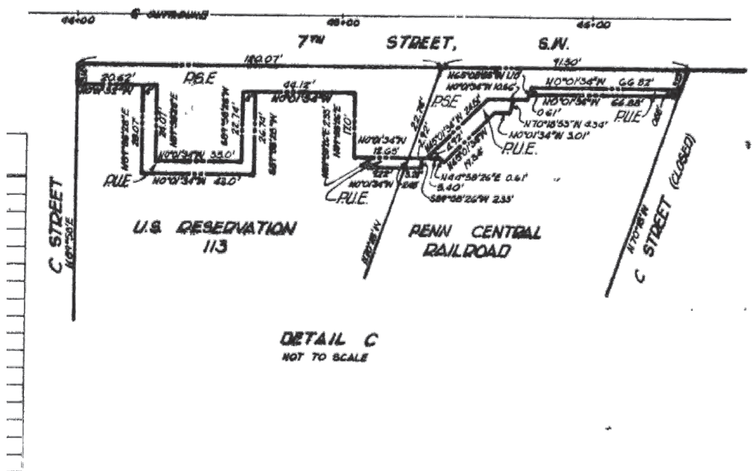
EXISTING AND PROPOSED PROPERTY LINE AND EASEMENT PLAN - AERIAL

IFB NO:
DRAWING NO: G-402
SCALE: AS NOTED
SHEET NO: 26 OF 254









NOTES

1. BEARINGS OF SQUARES STATED (a) ARE TAKEN FROM DISTRICT SURVEYORS RECORDS. DISTANCES WITHOUT BEARINGS ARE CONSIDERED TO BE NORTH/SOUTH OR EAST/WEST
2. ELEVATIONS SHOWN ARE BASED ON N.G.S. MEAN SEA LEVEL DATUM 1929 GENERAL ADJUSTMENT.
3. COORDINATES ARE BASED ON THE PROJECT COORDINATE SYSTEM REFERENCED TO NAD 83 ADJUSTED N.G.S. POSITIONS.

LEGEND

- W.M.A.T.A. PROPERTY LINE
- PROPERTY LINE
- (1) CURVE NUMBER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
OWNERSHIP MAP

WMATA Easements

NTS

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: M. BRUNO
DRAWN BY: R. BLAZAUSKAS
CHECKED BY: J. LONG
DATE: 05/23/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

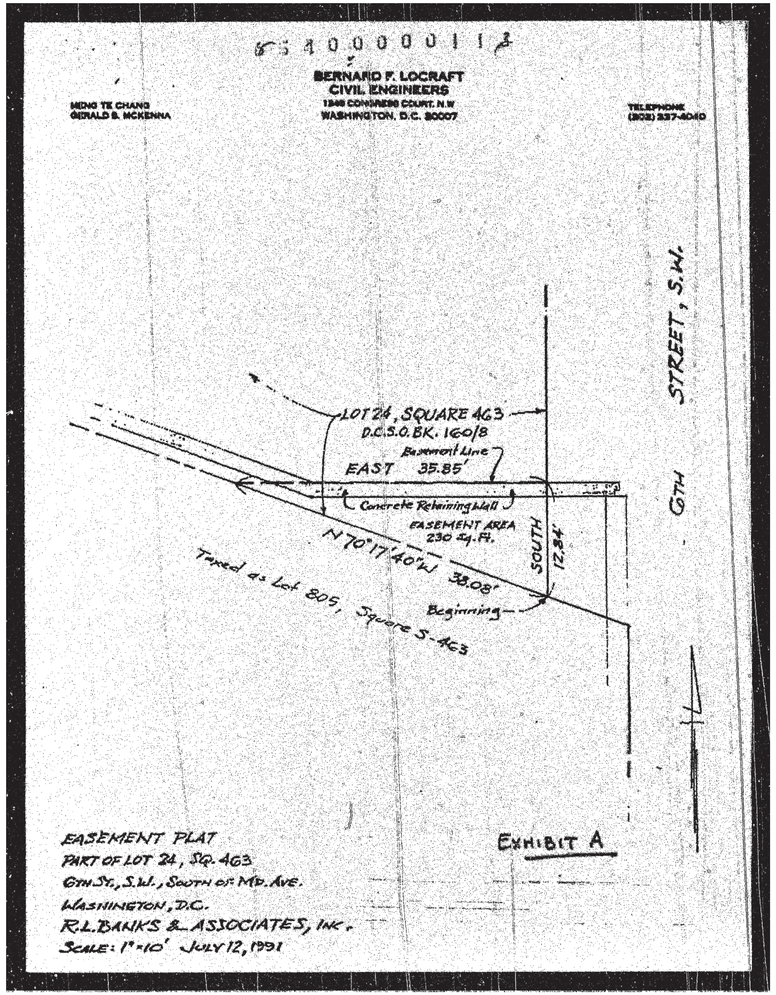
VRE

vhb
1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

EXISTING PROPERTY LINE AND EASEMENT INFORMATION (1 OF 3)

IFB NO:
DRAWING NO: G-403
SCALE: AS NOTED
SHEET NO: 27 OF 254



VRE Easement

NTS

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: M. BRUNO
DRAWN BY: R. BLAZAUSKAS
CHECKED BY: J. LONG
DATE: 05/23/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

EXISTING PROPERTY LINE AND EASEMENT INFORMATION (2 OF 3)

IFB NO:
DRAWING NO: G-404
SCALE: AS NOTED
SHEET NO: 28 OF 254

EXISTING PROPERTY STATUS TABLE

PROPERTY DESIGNATION	PROPERTY NAME/OWNER	RESERVATION NUMBER	SQUARE NUMBER	LOT	PROPERTY BOUNDARY/EASEMENT LEGAL STATUS	REMARKS
A	Hancock Park/NPS	113	NA	NA	Survey-to-Mark approved by the DCSO on 12/14/2021 and recorded in Survey Book 1004, Page 265, Map No. RS-1002	Property boundary has been legally set by a DC Registered Surveyor in accordance with DCMR Chapter 28, Title 10
B	Ocean View Development Company Limited Partnership (Tenant - Smithsonian Institution)	NA	463	Lots 820 through 824 (formerly Lot 24)	A Wall Check survey was prepared by the DSCO on 7/24/1980 and recorded in Book 168, Page 8	The Wall Check survey did not formally establish the property line for the land occupied by the railroad. A Survey-to-Mark needs to be conducted for this property if impacted by any construction activity
C	United States Government (Tenant - Federal Emergency Management Agency)	NA	493	805, 806, 807, and 808 (formerly Lot 17)	A Subdivision plat was prepared by the DCSO on November 2, 1978 and recorded in Book 169, Page 112. Additionally, a Wall Check survey was also prepared by the DCSO on April 11, 1980 and recorded in Book 169, Page 112.	Both the Subdivision plat and the Wall Check survey did not formally establish the property line for the lands occupied by the railroad. A Survey-to-Mark needs to be conducted for this property if impacted by any construction activity
D	Washington Metropolitan Transit Authority	NA	464	26	Survey-to-Mark approved by the DCSO on 12/5/2019 and recorded in Survey Book 1005, Page 29	Property boundary has been legally set by a DC Registered Surveyor in accordance with DCMR Chapter 28, Title 10
E	Boxcar Willie Park/NPS	115	NA	NA	A Plat of Computation was prepared by the DCSO on July 31, 1972 and recorded in Survey Book 193, Page 246 documenting a WMATA underground easement that exists on a portion of the reservation	The Plat of Computation did not formally establish the property line for the lands occupied by the railroad. A Survey-to-Mark needs to be conducted for this property if impacted by any construction activity
F	Dean Wilhelm Memorial Park/NPS	116	NA	NA	A Topographic Survey was prepared by the DCSO on September 24, 1946 and recorded in Survey Book 151, Page 210, Map No. 3248, however, no formal delineation of the reservation boundary was determined	No formal property work was done as part the Topographic Survey. A Survey-to-Mark needs to be conducted for this property if impacted by any construction activity
G	Former Right-of-Way for C Street SW, 8th Street SW, and a portion of 9th Street SW now closed	NA	434	NA	Survey-to-Mark approved by the DCSO on 12/14/2021 and recorded in Survey Book 1004, Page 265, Map No. RS-1002	Property boundary has been legally set by a DC Registered Surveyor in accordance with DCMR Chapter 28, Title 10
H	Railroad Land	NA	463	805	A Wall Check survey was prepared by the DSCO on 7/24/1980 and recorded in Book 168, Page 8	The Wall Check survey did not formally establish the property line for the land occupied by the railroad. A Survey-to-Mark needs to be conducted for this property if impacted by any construction activity
I	Railroad Land	NA	493	804	A Plat of Survey prepared by the DCSO on September 3, 1969 and recorded in Survey Book 188, Page 91, Map No. 9300 establishes a general northern boundary line for the railroad property which was formally part of the 6th Street Rail Yard. A Plat of Computation prepared by the DCSO on June 23, 1972 (revised January 22, 1975) and recorded in Survey Book 194, Page 83, Map No. 9771 establishes the railroad property as Lot 804. Map No. 9771 also shows WMATA underground easements on a portion of the property	Both the Plat of Survey and Plat of Computation did not formally establish the property line for the lands occupied by the railroad. A Survey-to-Mark needs to be conducted for this property if impacted by any construction activity
J	WMATA Easement on 7th Street	113	NA	NA	A Plat of Computation was prepared by the DCSO on April 5, 1972 and recorded in Survey Book 192, Page 241, Map No. 9737 documenting the WMATA easements along 7th Street, SW. Additionally, a WMATA Ownership Map (undated) shows different easement areas not shown on the DCSO Plat of Computation	A Survey-to-Mark needs to be conducted to establish the formal limits of the existing easements
K	VRE Easement on Ocean View Development Company Limited Partnership (Tenant - Smithsonian Institution)	NA	463	24	Easement agreement between VRE and Ocean View Development Limited Partnership was signed on September 17, 1991 and filed with the DC Recorder of Deeds	None

REV.NO.	DATE	BY	APP BY	DESCRIPTION
0	07/25/25			30% PE PLANS

DESIGNED BY: M. BRUNO
DRAWN BY: R. BLAZAUSKAS
CHECKED BY: J. LONG
DATE: 05/23/2025

RICH DALTON
CHIEF EXECUTIVE OFFICER — DATE

DALLAS RICHARDS, PE
CHIEF ENGINEER — DATE

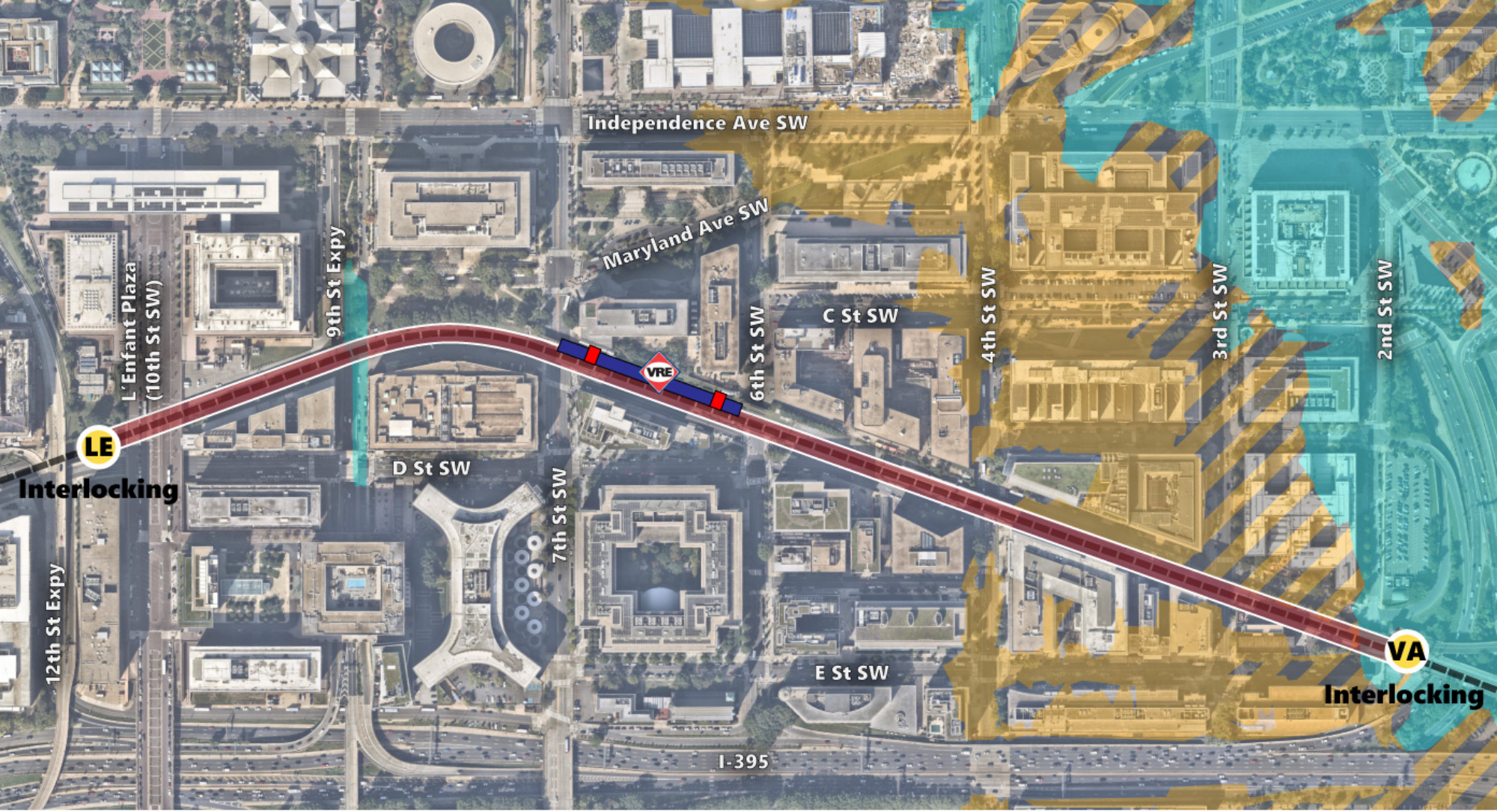
1001 G STREET
SUITE 1125
WASHINGTON, DC 20001

VRE L'ENFANT STATION AND FOURTH TRACK PROJECT 30% PLANS

EXISTING PROPERTY LINE AND EASEMENT INFORMATION (3 OF 3)

IFB NO:
DRAWING NO: G-405
SCALE: AS NOTED
SHEET NO: 29 OF 254

Appendix B – Supplemental Maps



VRE L'Enfant Station and Fourth Track Project

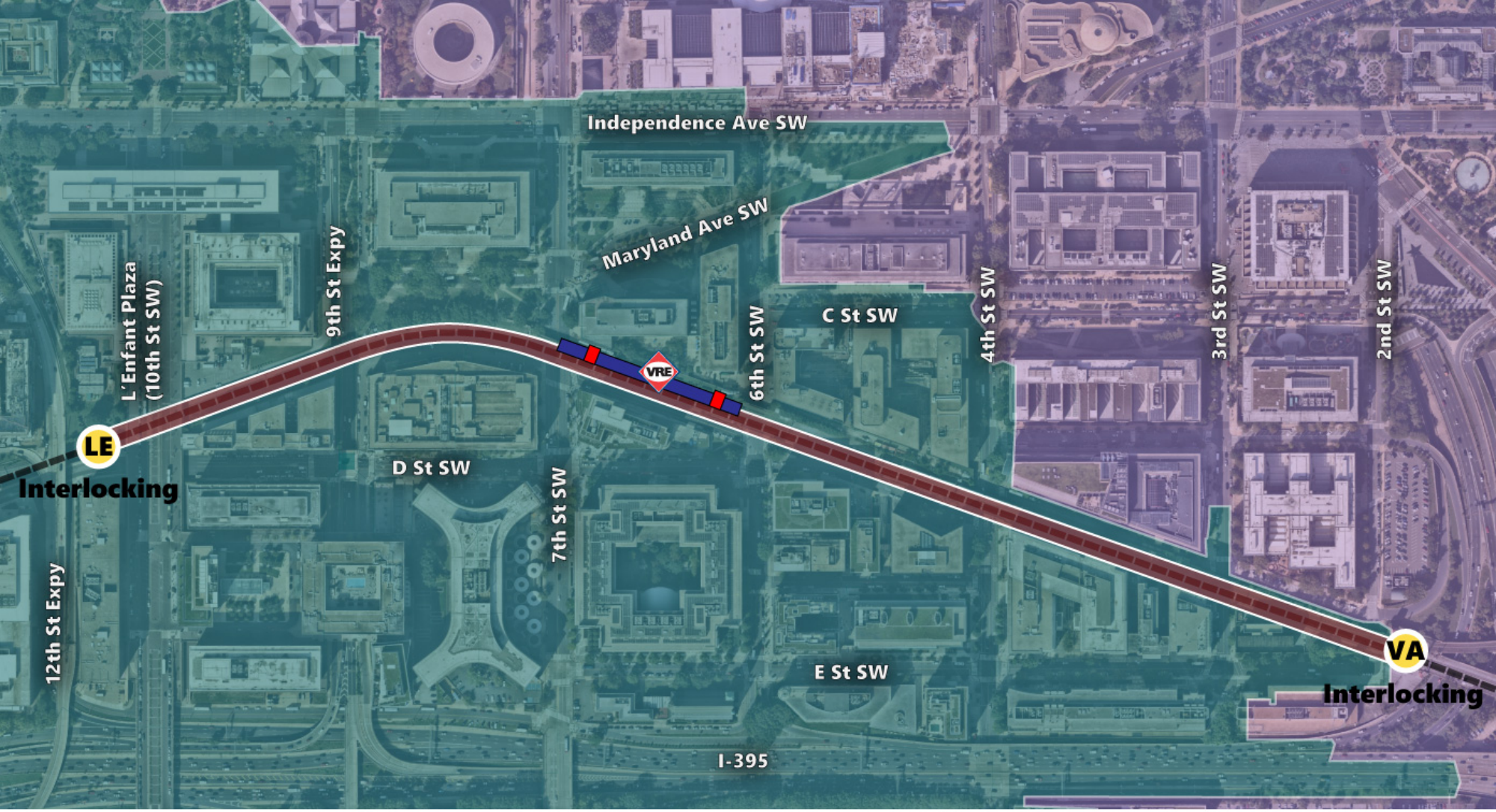
Floodplains

- Project Limits
- Railroad Corridor
- 100-Year Floodplain (1% Annual Risk)
- 500-Year Floodplain (0.2% Annual Risk)
- Reduced Risk due to Levee

0 250 500 1,000 Feet

N

Sources: DOEE, DC GIS, FEMA, Esri, Nearmap.



VRE L'Enfant Station and Fourth Track Project

Sewersheds

- Project Limits
- Railroad Corridor
- Municipal Separate Storm Sewer System (MS4)
- Combined Sewer Outfall (CSO) Sewershed

N

0 250 500 1,000 Feet

Sources: DOEE, DC GIS, FEMA, Esri, Nearmap.

Appendix C – Endangered Species Act Review

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To: 12/16/2025 19:24:13 UTC
Project code: 2026-0027628
Project Name: L'Enfant Track and Station Improvements

Subject: Not Likely to Adversely Affect Technical assistance letter for the 'L'Enfant Track and Station Improvements' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the L'Enfant Track and Station Improvements (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above. **This letter does not satisfy compliance requirement under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended**. Those requirements will be met upon taking the actions described below.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are <u>NOT</u> yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the

adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Northern Long-eared Bat (*Myotis septentrionalis*)	Endangered	NLAA
Tricolored Bat (*Perimyotis subflavus*)	Proposed Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if and when the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

This "may affect - not likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO/PCO to satisfy the agency's consultation requirements for this project. **To fulfill the next steps in the consultation process, add the lead Federal action agency or designated non-federal representative as a Project Member in the IPaC system and provide this letter to the lead Federal action agency or its designated non-federal representative with a request for review, and as the agency deems appropriate, submit for concurrence verification through the IPaC system. ESA section 7 compliance for this Proposed Action is NOT yet complete until the Federal action agency or its designated non-federal representative receives a not likely to adversely affect verification letter from the Service IPaC system.**

If the Project is modified, or new information reveals that it may affect the Indiana bat, northern long-eared bat, or tricolored bat in a manner or to an extent not considered in the PBO/PCO, further review to conclude the requirements of ESA section 7(a)(2) may be required.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the User's Guide). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to

the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project may affect any other federally listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Field Office is required for those species/designated critical habitat. If the Project has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency to contact this Service Field Office

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Proposed Threatened

PROJECT DESCRIPTION

The following project name and description was collected in IPaC as part of the endangered species review process.

NAME

L'Enfant Track and Station Improvements

DESCRIPTION

This project includes the planning, design, permitting, and construction for an expanded VRE L'Enfant Station and an additional mainline track between the Virginia (VA) and L'Enfant (LE) Interlockings in Washington, DC. The project will evaluate alternatives, design and construct the preferred alternative. The expanded station will support simultaneous boarding of two full-length trains. The project will aim to improve station access and customer convenience while improving service reliability. The project must be coordinated with the L'Enfant Train Storage Track -South (MS-5) and Long Bridge Capacity Improvements projects.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.885001700000004,-77.02002050616724,14z

DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 et seq.) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

   C) Federal Transit Administration (FTA)

2. Does the Action Area intersect the species list area of the Northern long-eared bat?

   Automatically answered
   Yes

3. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

   Automatically answered
   Yes

4. [Semantic] Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact the Field Office listed in the letterhead of this letter.

   Automatically answered
   No

5. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

   Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

   No

6. Is your project located within a karst area?

   No

7. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

   Note: For definitions of bridge, culvert, and structure, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat.

   Yes

8. Do your project's activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

   Yes

9. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

   Note: See the Service's summer survey guidance for current definitions of suitable habitat [https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html].

   No

10. Will the project include **bridge** removal, replacement, and/or alteration activities?

    Yes

11. Has a Bridge Bat Assessment been conducted **within the last 24 months** to determine if the bridge is being used by the Indiana bat, NLEB, or TCB? If yes, upload assessment.

    Note: Refer to the Service's current survey guidance for acceptable assessment practices and validity timeframe of bridge/culvert and structure bat assessments: https://www.fws.gov/library/collections/range-wide-indiana-bat-and-northern-long-eared-bat-survey-guidelines.

    No

12. Has the local Service Field Office confirmed that Indiana bats, NLEB, and TCBs are not using bridges within the action area?

    No

13. Will bridge removal, replacement, and/or alteration activities occur during the winter hibernation period (inactive season)?

    Yes

14. Have hibernating bats been observed using the bridge?

    Note: If a hibernating colony of bats other than Indiana bat, NLEB, or TCB is observed, please coordinate with the local Service Field Office and appropriate State agency.

    No

15. Will suitable roosting habitat still be available within the bridge once construction/replacement is complete?

    Note: Suitable roosting sites may be incorporated into the design of a new bridge.

    Yes

16. Will bridge removal, replacement, and/or alteration activities conducted during the active season (excluding Dec. 15 - Feb 15 in Zones 1 of the NLEB and/or TCB YR active areas) **avoid** disturbing roosting bats using the bridge?

    Note: The following types of bridge or culvert work can generally be conducted with the presence of bats:

    • Above bridge deck or culvert work where construction equipment or materials do not extend to the underside of deck or within the culvert where bats may be located (e.g., materials won't drip down to underside of deck or within the culvert) and does not include vibration or noise above existing background levels, including general traffic (e.g., road line painting, wing-wall work).

    • Below bridge deck or culvert work that is conducted away from roosting bats and does not involve vibration or noise above existing background levels, including general traffic (e.g., wing-wall work, some abutment, beam end, scour, or pier repair).

    Yes
17. Does the project include **culvert** removal, replacement, and/or alteration activities?

    No
18. Does the project include **structure** removal, replacement, and/or alteration activities?

    No
19. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

    Automatically answered
    Yes
20. Does the Action Area intersect the species list area of the northern long-eared bat (NLEB)?

    Automatically answered
    Yes

PROJECT QUESTIONNAIRE

1. Have you made a No Effect determinations for all other species included on the FWS IPaC generated species list?

   Yes
2. Have you made a May Affect determination for any other species on the FWS IPaC generated list?

   No

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GAMM1

Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

BCSAMM1A
Perform bridge, culvert or structure removal, replacement, and/or alteration activities during the winter hibernation period (inactive season) unless a hibernating colony of bats is present. If hibernating bats are observed using the bridge, culvert, or structure, Transportation Agencies and State DOTs will coordinate with the local Service Field Office for project-specific consultation guidance.

BCSAMM1B
Coordinate with the local Service field office to ensure suitable roosting habitat is still available within the bridge, culvert, or structure once construction/replacement is complete (when assessment documents use by a large number of covered bat species, >5). Suitable roosting sites may be incorporated into the design of a new bridge, culvert, or structure.

BCSAMM3A
Ensure bridge, culvert, or structure removal, replacement, and/or alteration activities conducted during the active season will not disturb roosting Indiana bats, NLEBs, or TCBs using the bridge, culvert, or structure.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING IBAT, NLEB, OR TCB

This key was last updated in IPaC on September 11, 2025. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) and may affect the federally listed endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), and/or federally proposed endangered tricolored bat (*Perimyotis subflavus*).

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Lee Dwyer
Address: 1001 G Street
Address Line 2: Suite 1125
City: Washington
State: DC
Zip: 20001
Email ldwyer@vhb.com
Phone: 2027399579

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Transit Administration

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
Phone: (410) 573-4599 Fax: (410) 266-9127

In Reply Refer To: 12/16/2025 17:47:15 UTC
Project Code: 2026-0027628
Project Name: L'Enfant Track and Station Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
(410) 573-4599

PROJECT SUMMARY

Project Code: 2026-0027628
Project Name: L'Enfant Track and Station Improvements
Project Type: Bridge - Replacement
Project Description: This project includes the planning, design, permitting, and construction for an expanded VRE L'Enfant Station and an additional mainline track between the Virginia (VA) and L'Enfant (LE) Interlockings in Washington, DC. The project will evaluate alternatives, design and construct the preferred alternative. The expanded station will support simultaneous boarding of two full-length trains. The project will aim to improve station access and customer convenience while improving service reliability. The project must be coordinated with the L'Enfant Train Storage Track -South (MS-5) and Long Bridge Capacity Improvements projects.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@38.885001700000004,-77.02002050616724,14z

Counties: District of Columbia County, District of Columbia

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

WETLAND INFORMATION WAS NOT AVAILABLE WHEN THIS SPECIES LIST WAS GENERATED. PLEASE VISIT HTTPS://WWW.FWS.GOV/WETLANDS/DATA/MAPPER.HTML OR CONTACT THE FIELD OFFICE FOR FURTHER INFORMATION.

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Lee Dwyer
Address: 1001 G Street
Address Line 2: Suite 1125
City: Washington
State: DC
Zip: 20001
Email ldwyer@vhb.com
Phone: 2027399579

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

District of Columbia County, District of Columbia

Local office

Chesapeake Bay Ecological Services Field Office

(410) 573-4599
(410) 266-9127

177 Admiral Cochrane Drive
Annapolis, MD 21401-7307

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered
Tricolored Bat Perimyotis subflavus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

Review the FAQs
The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

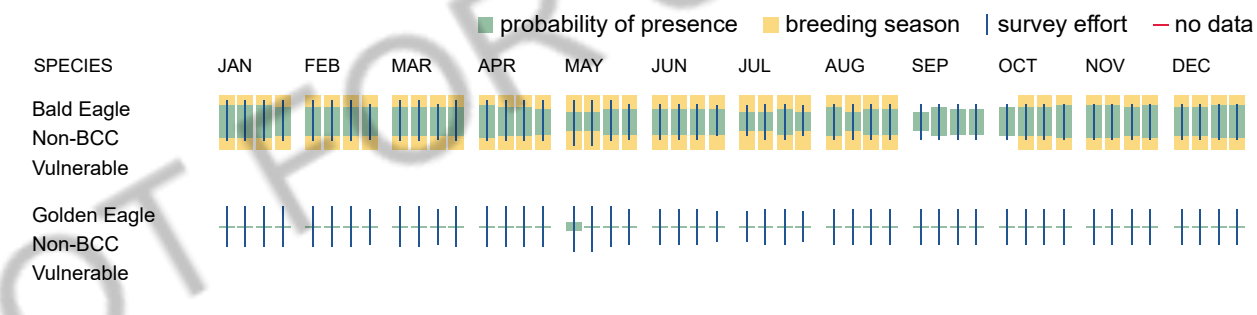
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?
The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report
On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps

during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts
Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

Review the FAQs
The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON

Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Blue-winged Warbler Vermivora cyanoptera This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler Setophaga cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 29 to Jul 20
Chimney Swift Chaetura pelagica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Whip-poor-will Antrostomus vociferus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds elsewhere
Grasshopper Sparrow Ammodramus savannarum perpallidus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8329	Breeds Jun 1 to Aug 20
Kentucky Warbler Geothlypis formosa This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
King Rail Rallus elegans This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8936	Breeds May 1 to Sep 5
Least Tern Sternula antillarum antillarum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 25 to Sep 5
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper Calidris melanotos This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Prairie Warbler Setophaga discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31

Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Ruddy Turnstone Arenaria interpres morinella This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Scarlet Tanager Piranga olivacea This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 10
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Whimbrel Numenius phaeopus hudsonicus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

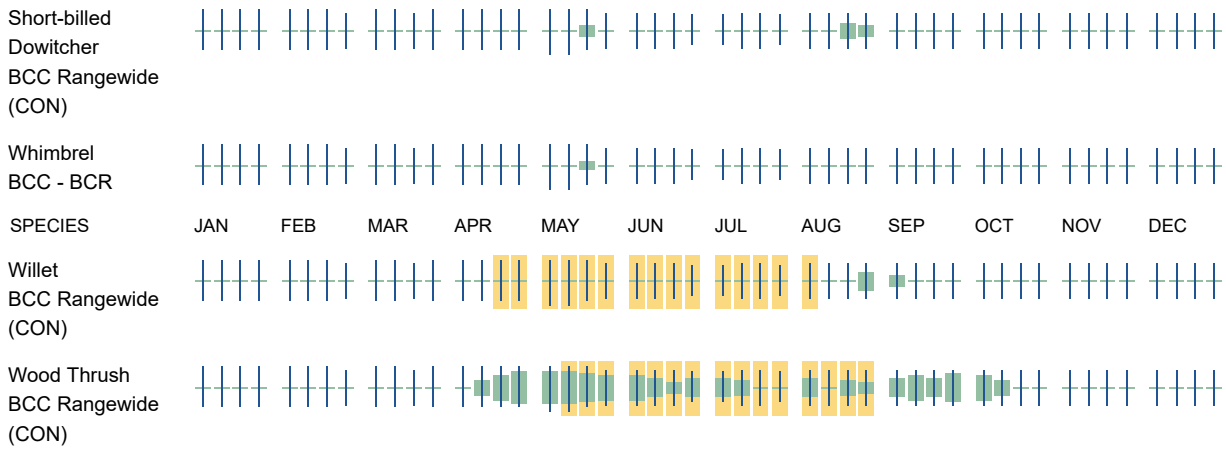
Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the levels of concern for migratory birds?” for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to

migratory birds”.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory

(NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix D – Section 106 Consultation

MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICE,
AND
THE NATIONAL CAPITAL PLANNING COMMISSION
REGARDING
THE VRE L'ENFANT STATION AND FOURTH TRACK PROJECT
IN
WASHINGTON, D.C.

WHEREAS, the Virginia Railway Express, a transportation partnership of the Potomac and Rappahannock Transportation Commission (PRTC) and the Northern Virginia Transportation Commission (NVTC), herein after referred to as VRE, is proposing to reconstruct the VRE L'Enfant Station and add a continuous fourth track between the L'Enfant (LE) and Virginia (VA) Interlockings (between roughly 10th and 2nd Streets SW)[1] to expand the capacity of the station, provide an enhanced passenger experience, provide additional long-term railroad capacity, and improve the reliability of rail service in this critical segment of the regional and national rail network; and

WHEREAS, the L'Enfant Station and Fourth Track Project (Project) consists of 1.) construction of a new fourth track between the LE and VA Interlockings on the north side of the existing tracks within the existing railroad right-of-way; 2.) construction of a new, 680' long and 22' wide center platform for the VRE L'Enfant Station to the north of existing Track 3 and in the same general location as the existing platform; 3.) replacement of the historic 6th Street SW Bridge; 4.) widening of the 7th Street SW Bridge; 5.) removal of 10 historic catenary portals; 6.) addition of a concrete cap on top of the historic rusticated stone retaining wall along Virginia Avenue from approximately 7th Street SW to 4th Street SW; and 7.) removal of the top two courses of stone from both of the 6th Street SW bridge abutments and replacement with concrete caps in order to accommodate the new bridge structure (Appendix A); and

WHEREAS, the Federal Transit Administration (FTA) anticipates providing funding to the VRE for the construction of the Project, therefore the Project will qualify as an "Undertaking" pursuant to Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C.§ 306108) (NHPA), as amended, and its implementing regulations at 36 C.F.R. Part 800 (hereinafter collectively referred to as Section 106); and

WHEREAS, VRE is the Project Sponsor who will be responsible for implementing the Project, including fulfillment of the mitigation measures specified herein; and

WHEREAS, in a letter dated March 20, 2024, FTA initiated Section 106 consultation with the DC State Historic Preservation Officer (DC SHPO) and subsequently established the Project's Area of Potential Effects (APE), as defined under 36 CFR §800.16(d) and DC SHPO concurred with the APE on April 18, 2024. The APE is illustrated in Appendix B; and

WHEREAS, in accordance with 36 CFR § 800.2(a)(4), FTA invited individuals and organizations with a demonstrated interest in the Project to participate as Consulting Parties in the Section 106 process. The full list of Consulting Parties is provided in Appendix C; and

[1] An interlocking is a segment of railroad infrastructure comprised of track, turnouts, and signals linked (interlocked) in a way that allows trains to safely move from one track to another, or across tracks, preventing conflicting train movements.

WHEREAS, FTA, in consultation with DC SHPO and Consulting Parties identified eight (8) historic properties within the APE: the Plan of the City of Washington (listed in the National Register of Historic Places [NRHP] on April 24, 1997), the Baltimore and Potomac (B&P) Railroad (eligible for listing in the NRHP on December 5, 2024), L'Enfant Promenade (eligible for listing the in NRHP), the US Housing and Urban Development Building (listed in the NRHP on August 26, 2008), Federal Office Building 10A (eligible for listing the in NRHP in 2010), Federal Office Building 10B (eligible for listing the in NRHP in 2010), Federal Office Building 6 (listed in the NRHP on March 24, 2017), and St. Dominic's Catholic Church (listed in DC Inventory of Historic Sites on July 24, 1986); and

WHEREAS, FTA, in consultation with DC SHPO and Consulting Parties determined the Project will have an adverse effect on the B&P Railroad due to the removal and replacement of the 6th Street SW Bridge, the removal of up to 10 historic catenary portals, and the removal of portions of the rusticated stone retaining wall, all of which are contributing features to the B&P Railroad; and their direct alteration and removal would diminish the integrity of the property's design, materials, workmanship, feeling, and association; and

WHEREAS, this Memorandum of Agreement (MOA) was developed pursuant to Section 106 of the NHPA and its implementing regulations, 36 CFR Part 800; and

WHEREAS, FTA and VRE considered and adopted several measures to avoid and minimize adverse effects during the Section 106 consultation process including, 1.) dismissing any alternatives that involved constructing new retaining walls or associated railroad infrastructure outside of the railroad right-of-way, thus avoiding potential physical effects on historic properties adjacent to the railroad corridor; 2.) limiting the length of the new platform canopy so that it would not extend over the 6th or 7th Street SW Bridges, thus avoiding potential adverse visual effects caused by additional obstruction of the vistas within the Plan of the City of Washington; and 3.) designing the new 6th Street SW bridge and the widened bridge over 7th Street SW so their vertical clearance, visual appearance and alignment closely reference the existing bridges, thus minimizing potential adverse visual effects caused by less compatible new bridges; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), FTA notified the Advisory Council on Historic Preservation (ACHP) of the adverse effects determination and provided the documentation specified in 36 CFR § 800.11(e) on June 4, 2025. ACHP declined the invitation to participate in consultation pursuant to 36 CFR § 800.6(a)(1)(iv) in a letter dated June 16, 2025, which can be found in Appendix D; and

WHEREAS, if the Federal Railroad Administration (FRA) provides funding to the VRE for the Project, the Project will qualify as an "Undertaking" pursuant to Section 106, and FRA has designated FTA as the lead Federal agency pursuant to 36 CFR § 800.2(a)(2); and

WHEREAS, the National Capital Planning Commission (NCPC) has approval authority over projects on Federal land located within the District of Columbia, and has approval authority over all physical alterations to Federal property pursuant to the National Capital Planning Act (40 U.S.C. § 8722(b)(1) and (d)), NCPC has elected to fulfill its Section 106 responsibilities by participating in this consultation and is a Signatory on this agreement document; and

WHEREAS, NPS manages the Federal park property adjacent to the railroad on the north side between 7th and 9th Streets SW within the Project's APE known as Hancock Park (see Appendix B). As part of the Project, the NPS would issue a permit for temporary use of land under its administration for construction staging activities. NPS has elected to fulfill its Section 106 responsibilities by participating in this consultation and is an Invited Signatory of this MOA); and

WHEREAS, VRE is a Consulting Party in the Section 106 process pursuant to 36 CFR § 800.3(f)(1), as the Project Sponsor, and will have roles and responsibilities in the implementation of this MOA and is an Invited Signatory pursuant to 36 CFR § 800.6(c)(2); and

WHEREAS, in letters dated March 20, 2024, FTA contacted the Cherokee Nation and the Pamunkey Indian Tribe (collectively referred to as "Native American tribes" in this MOA), Federally recognized sovereign Indian Nations that have a government-to-government relationship with the United States and an interest in the area affected by the Project pursuant to 36 CFR § 800.2(c)(2). FTA invited each of these Native American tribes to be a Consulting Party and neither the Cherokee Nation nor the Pamunkey Indian Tribe responded to FTA's invitation to consult in the Section 106 process; and

WHEREAS, FTA conducted two Section 106 Consulting Party meetings to provide opportunities for the Consulting Parties to comment on the development of the Action Alternatives, delineation of the APE, identification of historic properties, methodology for assessing effects on historic properties, assessment of effects on historic properties, and potential resolution strategies; and

NOW, THEREFORE, FTA, DC SHPO, and NCPC (collectively referred to as the Signatories) agree that if the Project moves forward, it will be implemented in accordance with the following stipulations in order to take into account the effects of the Project on historic properties and that these stipulations will govern compliance with Section 106 of the NHPA.

STIPULATIONS

FTA shall ensure that the following measures are carried out by VRE:

I GENERAL

A. APPLICABILITY

1. FTA, VRE, DC SHPO, NPS, and NCPC will use the terms and conditions of this MOA to fulfill their Section 106 responsibilities, as well as any other Federal agencies that designate FTA as the lead Federal agency, pursuant to 36 CFR § 800.2(a)(2). Federal agencies that do not designate FTA as the lead Federal agency remain individually responsible for their compliance with Section 106.

2. In the event that a Federal agency or other entity issues Federal funding, permits, licenses, or approvals for the Project and the Project remains unchanged, such Federal agency may become an Invited Signatory to this MOA as a means of satisfying its Section 106 compliance responsibilities, as outlined in Stipulation IX. Any necessary amendments will be considered in accordance with Stipulation X of this MOA.

3. This MOA only binds FTA if it provides financial assistance, permits, licenses, or approvals for construction of the Project and, therefore, meets the definition of Undertaking found at 36 CFR § 800.16(y).

4. In the event that the Project does not become an FTA Undertaking and FTA withdraws its participation in the MOA under Stipulation XI.B, and another Federal agency continues to have an Undertaking and desires to continue to use this MOA to satisfy its responsibilities under Section 106, this MOA will be amended in accordance with the terms of Stipulation X and that Federal agency will assume lead agency responsibilities for Section 106.

B. TIMEFRAMES AND NOTIFICATIONS

1. All time designations are in calendar days unless otherwise stipulated. If a review period ends on a Saturday, Sunday, or Federal holiday, the review period will be extended until the next business day.

2. All communication and notifications required by this MOA will be sent by email or other electronic means.

C. ROLES AND RESPONSIBLITIES

1. FTA

   a. Pursuant to 36 CFR §800.2(a)(2), FTA has the primary responsibility to ensure the provisions of this MOA are carried out.

   b. FTA is responsible for all government-to-government consultation with federally-recognized Native American tribes except as hereafter specified.

   c. FTA is legally responsible for all findings and determinations, including determinations of eligibility, findings of effect as well as resolution of objections or disputes.

2. VRE

   a. VRE will prepare any necessary analyses, documentation, and recommendations for FTA to make determinations.

   b. VRE will conduct investigations and produce analyses, documentation and recommendations in a timely manner to address archaeological resources within the APE not recorded in the field prior to the conclusion of the Section 106 process.

   c. VRE will successfully complete any mitigation measures to minimize and resolve adverse effects on historic properties pursuant to Stipulation III.

   d. VRE is responsible for funding the completion of all investigations, associated documentation, and other mitigation necessitated as a result of adverse effects on historic properties in accordance with the terms prescribed in this MOA.

   e. VRE is responsible for costs incurred during any work stoppages in the event of a Post-Review Discovery.

3. DC SHPO

   a. DC SHPO will review Project submittals according to the timeframes defined within this MOA, and participate in consultation, as requested by FTA.

4. NCPC

   a. NCPC will review Project submittals according to the timeframes defined within this MOA, and participate in consultation, as requested by FTA.

b. These reviews do not supersede the statutory or regulatory obligations of this body, and NCPC will review and approve the project components as required.

5. NPS

a. NPS will review Project submittals according to the timeframes defined within this MOA, and participate in consultation, as requested by FTA.

II PERSONNEL QUALIFICATIONS STANDARDS

FTA and VRE will ensure that all historic preservation work performed pursuant to Stipulation III will be accomplished by or under the direct supervision of a person or persons who meet(s) or exceed(s) the pertinent qualifications in the *Secretary of the Interior's Professional Standards* (48 Federal Register [F.R.] 44716) in the appropriate discipline.

III RESOLUTION OF ADVERSE EFFECTS

A. DOCUMENT REVIEW PROCEDURES

1. The Signatories and Invited Signatories will follow these Document Review procedures, when specified, in Stipulation III.B for Minimization and Mitigation Measures below.

2. VRE and FTA will provide complete draft documentation regarding the Minimization and Mitigation Measures described in Stipulation III.B to the Signatories and Invited Signatories for review and comment. The Signatories and Invited Signatories will review the documentation and provide written comments to FTA and VRE within thirty (30) calendar days of receipt. Any Signatory or Invited Signatory may request a meeting within that review period.

3. VRE, in consultation with FTA, will ensure that written comments received are considered and incorporated, as appropriate, to the fullest reasonable extent into the documentation and that the Signatories and Invited Signatories are notified of the manner in which the comments have been incorporated.

4. If a Signatory or Invited Signatory provides no written comments on the revised documentation prepared under Stipulation III.A.3 within the thirty (30)-day review period, VRE and FTA may proceed with the next step in the process without taking additional steps to seek comments from the non-responding party(ies).

5. If FTA or VRE receives an objection or extensive revision recommendations to the document prepared under Stipulation III.A.3, FTA and VRE will work expeditiously with the objecting Signatories and/or Invited Signatories to respond to the objection and/or resolve the dispute. If no agreement is reached within thirty (30) calendar days, or another timeframe agreed upon by the objecting Signatories and Invited Signatories, FTA may request the ACHP to review the dispute in accordance with Stipulation VIII. FTA will notify the Signatories and Invited Signatories of FTA's decision.

6. Should any substantive changes be made to the Project design at any time within the duration of this MOA after the Signatories' and Invited Signatories' review under Stipulations III.A.3-5, including but not limited to the separate review processes required as part of the statutory or regulatory obligations of the NCPC and CFA, VRE, in

consultation with FTA, will submit changes to the Signatories and Invited Signatories and provide additional opportunities for review following the same timeline and process as outlined above. A substantive change means a change to the design or plan that meaningfully alters the agreed-upon approach, such as changes to structure type or materials (design) or changes to the location or number of interpretive panels (plan).

B. MINIMIZATION AND MITIGATION MEASURES

1. *Design Review:* VRE will design every aspect of the Project that will be visible from the public right-of-way to be compatible with the character of the historic B&P Railroad and appropriate for the context of Washington DC's Monumental Core, particularly as expressed through the Plan of the City of Washington. Design Review will minimize potential adverse effects of replacing or altering elements of the historic properties affected by the Project by ensuring the design appearance and materials used are compatible with the relevant historic character.

    a. VRE, in consultation with FTA, will consult with the Signatories and Invited Signatories pursuant to Stipulation III.A of this MOA as designs are advanced for the Project. VRE shall provide the proposed design documentation to the Signatories and Invited Signatories for review and comment when 30% and 60% design plans are available. Design Review by the Signatories and Invited Signatories shall include review of the following design elements pursuant to Stipulation III.A above: a) visual appearance of the new railroad bridge across 6th Street SW, including bridge exterior girder type, material and color; b) aesthetic treatment of the retaining walls and proposed concrete cap, historic stone abutments, structural bridge piers, and station entrances; c) landscape design; and d) any signage or lighting necessitated by the Project. Review of interpretative signage shall be reviewed in accordance with Stipulation III.B.3 below.

    b. The Signatories and Invited Signatories agree that "through plate girders" of weathering steel or, at a minimum, a weathering steel color shall be used as exterior girders for the new bridge over 6th Street SW. "Through plate girders" of weathering steel, or a weathering steel color, are proposed for the new bridges within the Long Bridge corridor located west of project area and this will minimize adverse effects by establishing a common structural vocabulary and a visual connection between the historic and new bridges. In addition, the B&P Railroad is a linear resource that should be treated as consistently as possible.

    c. The Signatories and Invited Signatories concur that the majority of the existing 6th Street SW Bridge stone masonry abutments shall be preserved and that only the top 1-2 courses of stone shall be removed to facilitate construction of the new bridge seats that will be located behind the existing abutments.

    d. The Signatories and Invited Signatories agree that the new concrete wingwall on the north side of the 6th Street Bridge shall not project beyond the historic bridge abutments any more than necessary and/or that the design of the new concrete wingwall shall be refined in other ways that will allow the historic abutments to remain as visually prominent as possible. Such design refinements may include setting the new wingwall back as far as possible, chamfering the edges of the new wingwall, wrapping any available salvaged stone or matching new stone around the corners of the wingwall or similar treatments.

e. The Signatories and Invited Signatories agree that if the historic steel piers cannot be retained or replaced in-kind, the design of the new bridge piers at the 6th Street SW Bridge shall not consist of plain concrete surfaces as often used with highway bridges, as it would be incompatible with the historic character of the B&P Railroad Corridor. The final design of the piers shall be determined through the Design Review process that shall follow the Document Review Procedures outlined in Stipulation III.A above. VRE shall provide to the Signatories and Invited Signatories recommendations from project architects for designs that are compatible with the remaining historic material while considering the aesthetic treatments of the proposed improvements for the Long Bridge corridor west of the project area, such as 1) concrete members clad with new stone veneer of a compatible appearance to the remaining historic stonework or 2) a combination of new steel support columns supported on stone-clad concrete knee walls or pedestals. Signatories and Invited Signatories agree that new stone cladding similar to the proposed improvements for the Long Bridge corridor west of the project area would be an appropriate aesthetic treatment that would further minimize adverse effects by establishing a common structural vocabulary and a visual connection between the historic and new bridges and ensuring a consistent treatment for the linear B&P Railroad.

f. The final aesthetic treatment of the proposed concrete caps on the Virginia Avenue retaining wall shall be determined through the Design Review process that shall follow the Document Review Procedures outlined in Stipulation III.A above. During the Design Review process, VRE shall provide to the Signatories and Invited Signatories recommendations from project architects for aesthetic treatments that are compatible with the remaining historic stonework while considering the aesthetic treatments of the proposed improvements for the Long Bridge corridor west of the project area. As the amount of salvageable stone will be minimal due to the retention of the majority of the existing 6th Street SW Bridge abutments, use of salvaged stone cladding may be limited on the proposed concrete caps on the Virginia Avenue retaining walls (as will be determined per Stipulation III.B.4 below), but the Signatories and Invited Signatories agree that new stone cladding similar to the proposed improvements for the Long Bridge corridor west of the project area would be an appropriate option for the same reasons as in Stipulation III.B.1.e above.

g. If aesthetic treatments different from those specified in the above stipulations are ultimately used for the new 6th Street SW Bridge, the Signatories shall consult further pursuant to Stipulation IV to identify additional measures that will be used to mitigate any adverse effects that these treatments will cause, and this MOA will be amended pursuant to Stipulation X.

2. *Construction Management Control Plan:*

a. VRE shall develop and implement a *Construction Management Control Plan* in coordination with NPS that shall identify approaches and methods to avoid or minimize, to the extent feasible, impacts on Hancock Park from construction of the Project.

b. The *Construction Management Control Plan* shall identify approaches and methods to avoid or minimize, to the extent feasible, visual impacts from construction activities on historic properties within the APE, including, but not limited to, providing appropriate screening between construction staging

areas and historic properties, limiting the size of construction staging areas, and/or locating them away from sensitive views and viewsheds.

c. Within 6 months of the award of a construction contract, VRE shall submit the draft *Construction Management Control Plan* to the Signatories and Invited Signatories for review and comment in accordance with the procedures described in Stipulation III.A above. VRE shall revise and finalize the *Construction Management Control Plan* according to Signatory and Invited Signatory comment, as appropriate, prior to the start of construction.

d. VRE shall implement the *Construction Management Control Plan* through the completion of the construction of the Project.

3. *Interpretation Plan:* VRE, in consultation with the DC SHPO, will prepare and implement an interpretation plan to inform the public about the history and significance of the B&P Railroad, the original 6th Street SW Bridge, and related topics through interpretive panels. As part of the interpretation plan, VRE will design, fabricate, and install at least three (3) physical interpretive panels in locations accessible to the general public and VRE riders. Specific locations for each of the panels shall be determined through coordination with the Signatories and Invited Signatories. VRE shall be responsible for maintenance of the panels. VRE may consider graphic-focused designs created by visual artists. The plan, design, and locations of the interpretive panels will be reviewed by the Signatories and Invited Signatories pursuant to Stipulation III.A.VRE shall install the agreed upon panels within 1 year of completion of construction.

4. *Evaluation of Re-Use of Existing Stonework:* VRE will make good faith and reasonable efforts to reuse as much original stone from the 6th Street SW bridge as possible in the replacement bridge. Specifically, VRE will evaluate the feasibility of reusing stone that must be removed from the abutments and the rusticated stone retaining wall. Any reused stone will be in the form of a stone veneer on the proposed wingwall as described under Stipulations III.B.1.d. VRE will prepare documentation summarizing the findings of the evaluation and feasibility of the reuse of the existing stone. If reuse of existing stone is determined to be feasible, the documentation will include a summary of the recommended construction process, order of magnitude construction cost, and assumed limits of coverage as a stone veneer. This documentation will be submitted to the Signatories and Invited Signatories for review and comment in accordance with Stipulation III.A.

5. *Documentation of the 6th Street SW Bridge:*

a. Within twelve (12) months of the last signature on this MOA, and as well in advance of any alteration or demolition of the 6th Street SW Bridge as possible, VRE shall hire a person or firm who meets or exceeds applicable *Secretary of the Interior's Professional Standards* to document the historic structure.

b. The photographic and narrative documentation shall be consistent with Historic American Engineering Record (HAER) Level II standards. Prior to undertaking the documentation effort, VRE shall coordinate with HAER staff to determine whether the final documentation package shall be formally submitted to the

HAER collections and if large-format photographs are required. If formal submission to HAER is not required, VRE shall submit the final documentation to the DC SHPO and standard size digital photographs shall be prepared in lieu of large-format photographs. At a minimum, the narrative documentation shall include a description of the bridge, its historic context, and its overall dimensions.

c. No later than six (6) months prior to the start of demolition activities, and as well in advance as possible, VRE shall prepare and submit the draft photographic and narrative documentation package to the Signatories and Invited Signatories for review and comment in accordance with Stipulation III.A above. As-built drawings of the existing 6th Street SW Bridge will be submitted separately when made available per Stipulation III.B.5.e below. VRE shall revise and finalize the photographic and narrative documentation according to Signatory and Invited Signatory comment within thirty (30) days of receipt of comments and in accordance with Stipulation III.A above.

d. To accommodate the demolition schedule, the final photographic documentation and narrative documentation may be prepared as separate submittals to Signatories and Invited Signatories. VRE shall not begin any alteration or demolition of the 6th Street SW Bridge until the photographic documentation has been approved by the Signatories and Invited Signatories. Narrative documentation may be finalized after demolition has begun provided no additional information from the existing structure is required.

e. Existing as-built drawings of the 6th Street Bridge SW may be used to document the dimensions and design of the bridge per HAER Level II standards. The as-built drawings of the 6th Street SW Bridge are currently held by CSX Transportation (CSXT), and it is CSXT practice not to publicly disclose critical infrastructure drawings prior to demolition of the structure. As such, the as-built drawings are not anticipated to be available as part of the draft documentation package outlined in Stipulation III.B.5.c above. After demolition activities are completed and the as-built drawings are made available, VRE shall amend the documentation package to include these as-built drawings and submit the completed package to the Signatories and Invited Signatories for approval within sixty (60) days of receipt of the as-built drawings from CSXT.

IV POST-REVIEW CHANGES

If VRE proposes changes to the Project that may result in additional or new effects on historic properties, VRE will notify the Signatories and Invited Signatories of such changes. Before VRE takes any action that may result in additional or new effects on historic properties, the Signatories, Invited Signatories, and other Consulting Parties, as appropriate, must consult to determine the appropriate course of action. This may include revision to the APE, identification and evaluation of historic properties, assessment and/or reassessment of effects on historic properties, development and evaluation of alternatives or modifications to the Project that could avoid or minimize any adverse effects, or development of additional measures to mitigate any adverse effects. If required, the MOA may be amended, as necessary, pursuant to Stipulation X.

V POST-REVIEW DISCOVERIES

A. If newly identified historic properties are discovered during Project construction or unanticipated effects or damage to known historic properties are identified as a result of construction activities, FTA and VRE will comply with 36 CFR § 800.13 by consulting with Signatories and, if applicable, Native American tribes that may attach religious and/or cultural significance to the affected property; and by developing and implementing avoidance, minimization, or mitigation measures with the concurrence of Signatories and, if applicable, Native American tribes.

1. VRE will immediately cease all ground disturbing and/or construction activities within a 50-foot radius of the discovery. VRE will not resume ground disturbing and/or construction activities until the specified Section 106 process required by this MOA is complete.

2. FTA will notify Signatories and, if applicable, Native American tribes of any discovery within forty-eight (48) hours.

3. FTA will notify the Signatories and Native American tribes, as appropriate, of the projected path forward to comply with Section 106 by providing documentation related to the eligibility of the discovery or assumed eligibility, and if applicable, a proposal to resolve adverse effects, within fourteen (14) calendar days.

4. The Signatories and, if applicable, Native American tribes will review the documents and provide written comments to FTA and VRE within seven (7) calendar days or another agreed upon timeframe.

5. FTA will consider the written comments to the fullest reasonable extent.

6. If VRE receives an objection from a Signatory or Native American tribe regarding a post-review discovery, VRE will notify FTA and then work in consultation with FTA to take the appropriate action in accordance with Stipulation VIII.

7. If no Signatory or Native American tribe provides written comments on the notification specified in Stipulation V.A.3 within the agreed upon timeframe noted above, VRE may proceed with the submitted plan.

B. *Treatment of Human Remains*.

6. In the event that human remains, burials, or funerary objects are discovered during construction of the Project or any action taken pursuant to this MOA within the District of Columbia, VRE will immediately halt subsurface construction disturbance in the area of the discovery and in the surrounding area where additional remains can reasonably be expected to occur and will immediately notify FTA, DC SHPO and the District Chief Medical Examiner ("CME") of the discovery under DC Code Section 5-1406 and other applicable laws and regulations.

a. If the CME determines that the human remains are not subject to a criminal investigation by Federal or local authorities, FTA will ensure VRE complies with the applicable Federal or local laws and regulations governing the discovery and disposition of human remains and consider the ACHP's Policy Statement on Burial Sites, Human Remains, and Funerary Objects (March 1, 2023).

b. For actions involving Native American human remains or burials, VRE shall make every effort to immediately notify FTA, which shall immediately contact the appropriate federally recognized Native American tribes. VRE shall propose a treatment plan for the avoidance, recovery, or reburial of the remains in consultation with the Signatories and federally recognized Native American tribes if participating.

c. VRE shall make all reasonable efforts to ensure that the general public is excluded from viewing any Native American gravesites and associated funerary objects discovered during the Project.

7. In the event that human remains, burials, or funerary objects are discovered on lands under the authority of NPS during construction of the Project or any action taken pursuant to this MOA, NPS shall ensure compliance with applicable laws in accordance with provisions of the Native American Graves Protection and Repatriation Act, as amended (Public Law 101-601, 25 U.S.C. 3001 et seq) and regulations of the Secretary of the Interior at 43 CFR § 10.

VI CONFIDENTIALITY

A. If disclosure of location information could result in the disturbance of a cultural resource, all Signatories and Invited Signatories to this MOA will ensure shared data, including data concerning the precise location and nature of historic properties, archaeological sites, and properties of religious and cultural significance to Native American tribes, are protected from public disclosure to the greatest extent permitted by law, in accordance with 36 CFR § 800.11(c), Section 304 of the NHPA, Section 9 of the Archeological Resource Protection Act of 1979 (ARPA), and Executive Order 13007 Indian Sacred Sites (61 F.R. 26771-26772) dated May 24, 1996.

B. For work executed on NPS land, NPS standard policies, Director's Orders #28 and 28A, along with NPS management policies will be followed. Per ARPA, the Superintendent of each park is the arbiter for what information can and cannot be released publicly.

C. Consulting Parties and members of the public are not entitled to receive information protected from public disclosure.

VII MONITORING AND REPORTING

A. VRE will provide the Signatories with a summary report detailing work undertaken pursuant to the MOA's terms each year on or before October 1 until the MOA expires or is terminated. This report will include any scheduling changes proposed, any problems encountered, and any disputes or objections received in VRE's efforts to carry out the terms of this MOA.

VIII DISPUTE RESOLUTION

A. Should any Signatory or Invited Signatory to this MOA object at any time to any actions proposed or the manner in which the terms of the MOA are implemented, FTA will consult with such Signatory or Invited Signatory to resolve the objection. If FTA determines that such objection cannot be resolved within thirty (30) calendar days, or another timeframe agreed upon by all Signatories or Invited Signatories, FTA will:

1. Forward all documentation relevant to the dispute, including FTA's proposed resolution, to the ACHP with a copy to the other Signatories and Invited Signatories to this MOA and request that ACHP provide FTA with its comments on the resolution of the objection within thirty (30) calendar days of receiving the documentation.

2. If the ACHP does not provide comment regarding the dispute within the thirty (30) calendar- day time period, FTA will make a final decision on the dispute and proceed accordingly.

3. FTA will document this decision in a written response to the objection that takes into account any timely comments regarding the dispute from the Signatories and Invited Signatories and provide the ACHP and Signatories and Invited Signatories with a copy of such written response.

4. FTA may then proceed according to its decision.

5. The Signatories and Invited Signatories remain responsible for carrying out all other actions subject to the terms of the MOA that are not the subject of the dispute.

B. Should a Consulting Party or member of the public object to any proposed action(s) or the manner in which the terms of the MOA are implemented by submitting its objection to VRE and/or FTA in writing, VRE or FTA will notify the other Signatories and Invited Signatories and FTA will take the objection into consideration. FTA will notify the other Signatories and Invited Signatories of the objection, consult with the objecting party, and if FTA determines it appropriate, also consult with the other Signatories and Invited Signatories for not more than thirty (30) calendar days. Within fourteen (14) calendar days after closure of the consultation period, FTA will provide the objecting party and the Signatories and Invited Signatories with its final decision in writing.

IX ADOPTABILITY

In the event that a Federal agency other than FTA is considering providing financial assistance, permits, licenses, or approvals for the Project, such Federal agency may become an Invited Signatory to this MOA as a means of satisfying its Section 106 compliance responsibilities. To become an Invited Signatory to this MOA, the agency official must provide written notice to the Signatories that the agency agrees to the terms of the MOA, specifying the extent of the agency's intent to participate in the MOA, and identifying the lead Federal agency for the Undertaking. The participation of the agency is subject to approval by the Signatories, who must respond to the written notice within thirty (30) calendar days, or the approval will be considered implicit. Any other modifications to the MOA will be considered in accordance with Stipulation X.

X AMENDMENTS

Any Signatory or Invited Signatory to this MOA may request that it be amended. The Signatories and Invited Signatories will consult within thirty (30) calendar days, or another time period agreed upon by all Signatories and Invited Signatories, to consider such amendment. The amendment will be effective on the date it is signed by all of the Signatories and Invited Signatories. FTA will file the executed amendment with the ACHP.

XI TERMINATION AND WITHDRAWAL

A. If any Signatory or Invited Signatory to this MOA determines that the terms of the MOA will not or cannot be carried out, that Signatory or Invited Signatory will immediately notify the other Signatories and Invited Signatories in writing and consult with them to seek resolution or amendment pursuant to Stipulation X of the MOA. If within sixty (60) days, or another timeframe agreed upon by all Signatories and Invited Signatories, a resolution or amendment cannot be reached, any Signatory or Invited Signatory may terminate the MOA upon written notification to the other Signatories and Invited Signatories. Once the MOA is terminated, and prior to work continuing on the Undertaking, FTA, or other responsible Federal agency(ies) must either (a) execute a new MOA pursuant to 36 CFR § 800.6(c); (b) comply with 36 CFR Part 800 for all remaining aspects of the Project; or (c) request, take into account, and respond to the comments of the ACHP under 36 CFR§ 800.7. FTA will notify the Signatories and Invited Signatories as to the course of action it will pursue.

B. If FTA determines it does not have an Undertaking relating to this Project, FTA may withdraw from participation in this MOA entirely upon ninety (90)-days written notification to all Signatories and Invited Signatories. If another Federal agency or other agency acting as a Federal agency does not elect to continue utilizing the MOA per Stipulation I.A.4 then the MOA is terminated.

XII SIGNATURES AND EFFECTIVE DATE

A. *Effective Date.* This MOA will become effective immediately upon signature by the Signatories.

B. *Counterparts.* This MOA may be executed in counterparts, each of which constitutes an original and all of which constitute one and the same Agreement.

C. *Electronic Copies.* Within one (1) week of the last signature on this MOA, FTA shall provide each Signatory and Invited Signatory with one high quality, legible, full color, electronic copy of the fully-executed MOA and all of its attachments fully integrated into one, single document. If the electronic copy is too large to send by e-mail, FTA shall provide each Signatory and Invited Signatory with an electronic copy of the fully executed MOA as described above, on a compact disc or other suitable, electronic means.

XIII DURATION

A. This MOA will expire if its terms are not carried out within ten (10) years from the date of its execution.

B. At least six (6) months prior to expiration, FTA, or VRE with FTA's approval, may consult with the Signatories to re-evaluate this MOA and amend it in accordance with Stipulation X above.

C. If FTA does not amend this MOA prior to its expiration and the terms of the MOA have not been satisfied, FTA shall either (a) execute a new MOA pursuant to 36 CFR § 800.14(b) or (b) comply with 36 CFR Part 800 for all remaining aspects of the Project as applicable.

D. If FTA, in consultation with the Signatories, determines that the terms of this MOA have been satisfactorily fulfilled prior to the expiration date, the MOA shall terminate, and FTA shall provide all Consulting Parties with written notice of the termination.

Execution and filing of this MOA with the ACHP is evidence that FTA has considered the effects of this Undertaking on historic properties, afforded the ACHP a reasonable opportunity to comment, and satisfied its responsibilities under Section 106 of the NHPA and its implementing regulations.

[*Signature Pages Follow*]

SIGNATURE PAGE

MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICE,
AND
THE NATIONAL CAPITAL PLANNING COMMISSION
REGARDING
THE VRE L'ENFANT STATION AND FOURTH TRACK PROJECT
IN
WASHINGTON, D.C.

FEDERAL TRANSIT ADMINISTRATION

Digitally signed by
THERESA GARCIA CREWS
Date: 2025.12.04
12:24:28 -05'00'

BY: Terry Garcia Crews, Regional Administrator Date

SIGNATURE PAGE

MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICE,
AND
THE NATIONAL CAPITAL PLANNING COMMISSION
REGARDING
THE VRE L'ENFANT STATION AND FOURTH TRACK PROJECT
IN
WASHINGTON, D.C.

DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER

for DBM 9-30-25

BY: David Maloney, State Historic Preservation Officer Date

SIGNATURE PAGE

MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICE,
AND
THE NATIONAL CAPITAL PLANNING COMMISSION
REGARDING
THE VRE L'ENFANT STATION AND FOURTH TRACK PROJECT
IN
WASHINGTON, D.C.

NATIONAL CAPITAL PLANNING COMMISSION

11/18/2025

BY: Marcel Acosta, Executive Director — Date

SIGNATURE PAGE

MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICE,
AND
THE NATIONAL CAPITAL PLANNING COMMISSION
REGARDING
THE VRE L'ENFANT STATION AND FOURTH TRACK PROJECT
IN
WASHINGTON, D.C.

INVITED SIGNATORY

VIRGINIA RAILWAY EXPRESS

By:  Date 9-30-2025

Rich Dalton, CEO

SIGNATURE PAGE

MEMORANDUM OF AGREEMENT
AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICE,
AND
THE NATIONAL CAPITAL PLANNING COMMISSION
REGARDING
THE VRE L'ENFANT STATION AND FOURTH TRACK PROJECT
IN
WASHINGTON, D.C.

INVITED SIGNATORY

NATIONAL PARK SERVICE

By: Kevin J. Griess Date: 2025.11.14 09:47:18 -05'00' Date_____

Kevin Griess, Superintendent, National Mall and Memorial Parks

APPENDIX A
VRE L'ENFANT STATION AND FOURTH TRACK PROJECT FIGURES

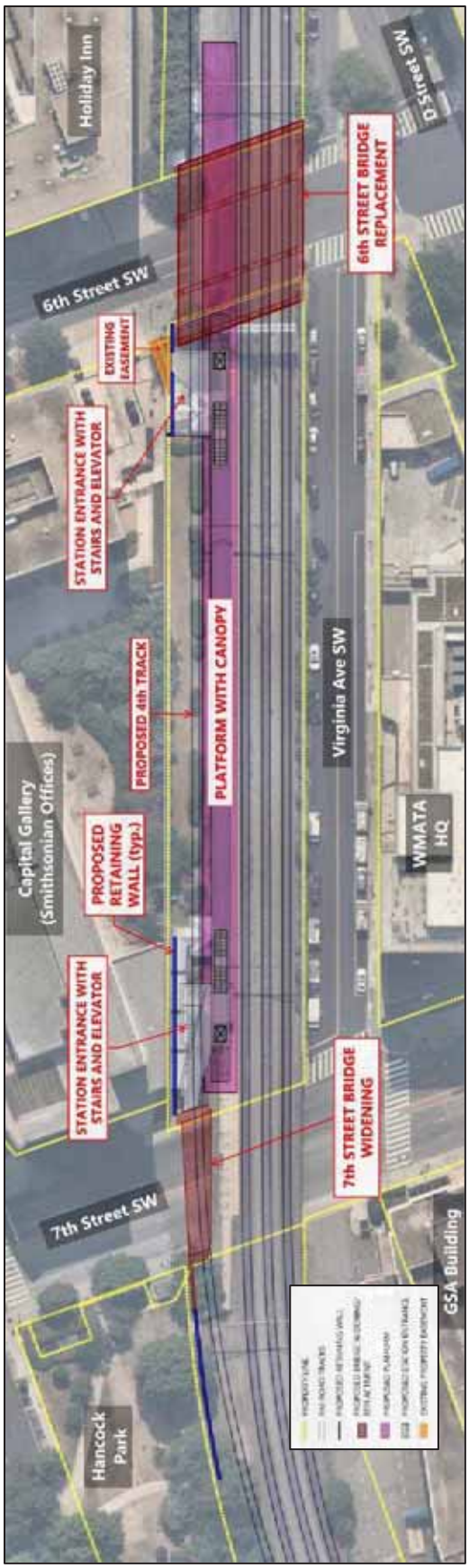


Figure A-1. Plan Overview of the Proposed Platform and Bridges

Figure A-2. Rendering of the Proposed L'Enfant Station Canopy (the appearance of this rendering is illustrative and is not intended to convey specific design, colors, or materials, which will continue to be refined through Design Review)

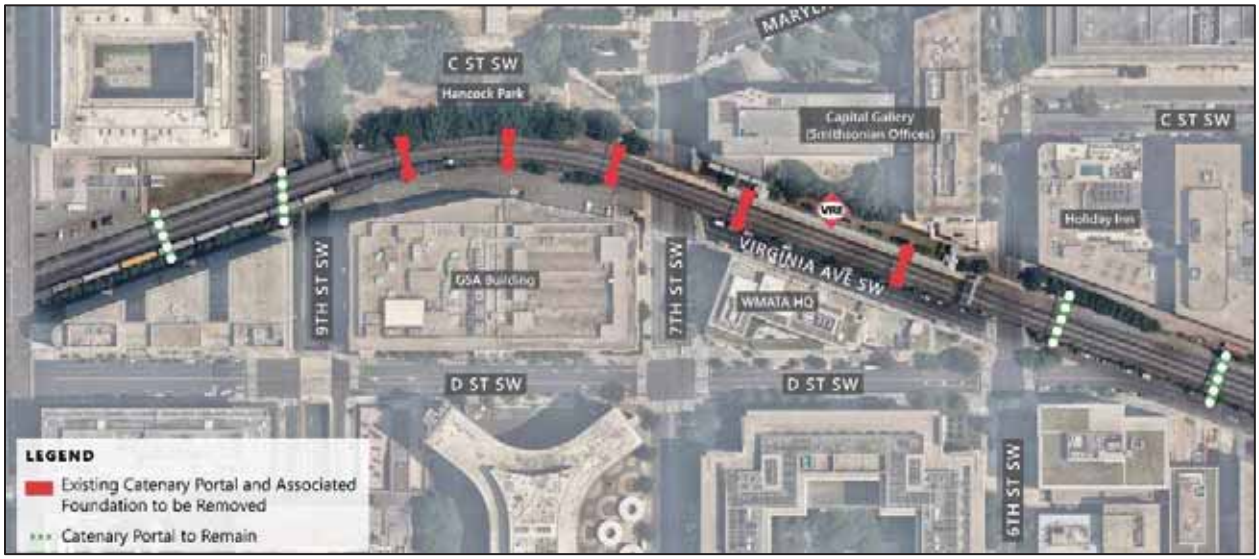


Figure A-3. Proposed Catenary Portals to be Removed

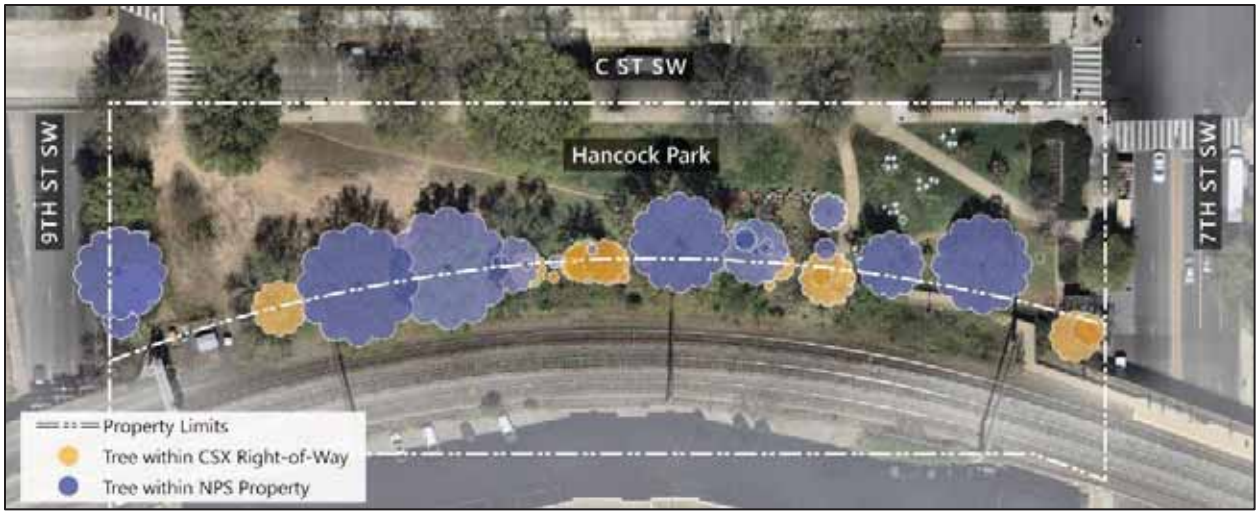


Figure A-4. Trees Within or Adjacent to Railroad

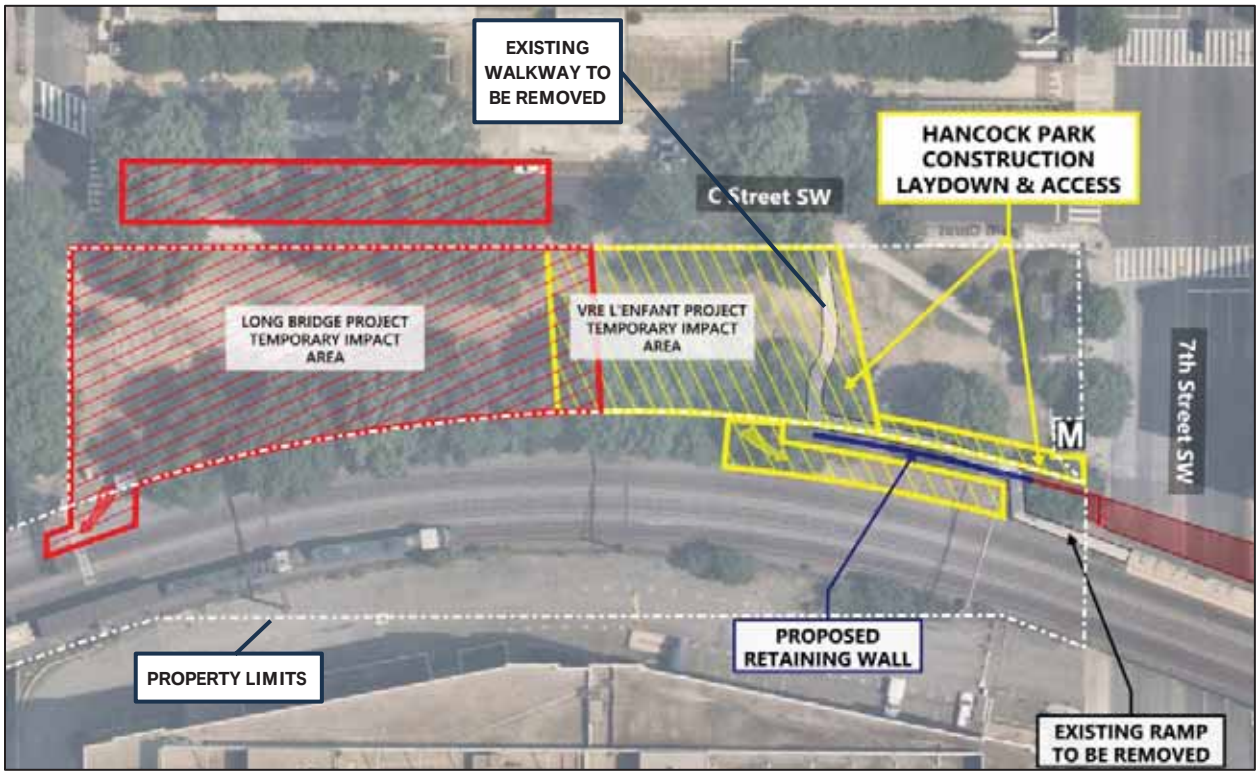


Figure A-5. Site Plan of the Undertaking at Hancock Park

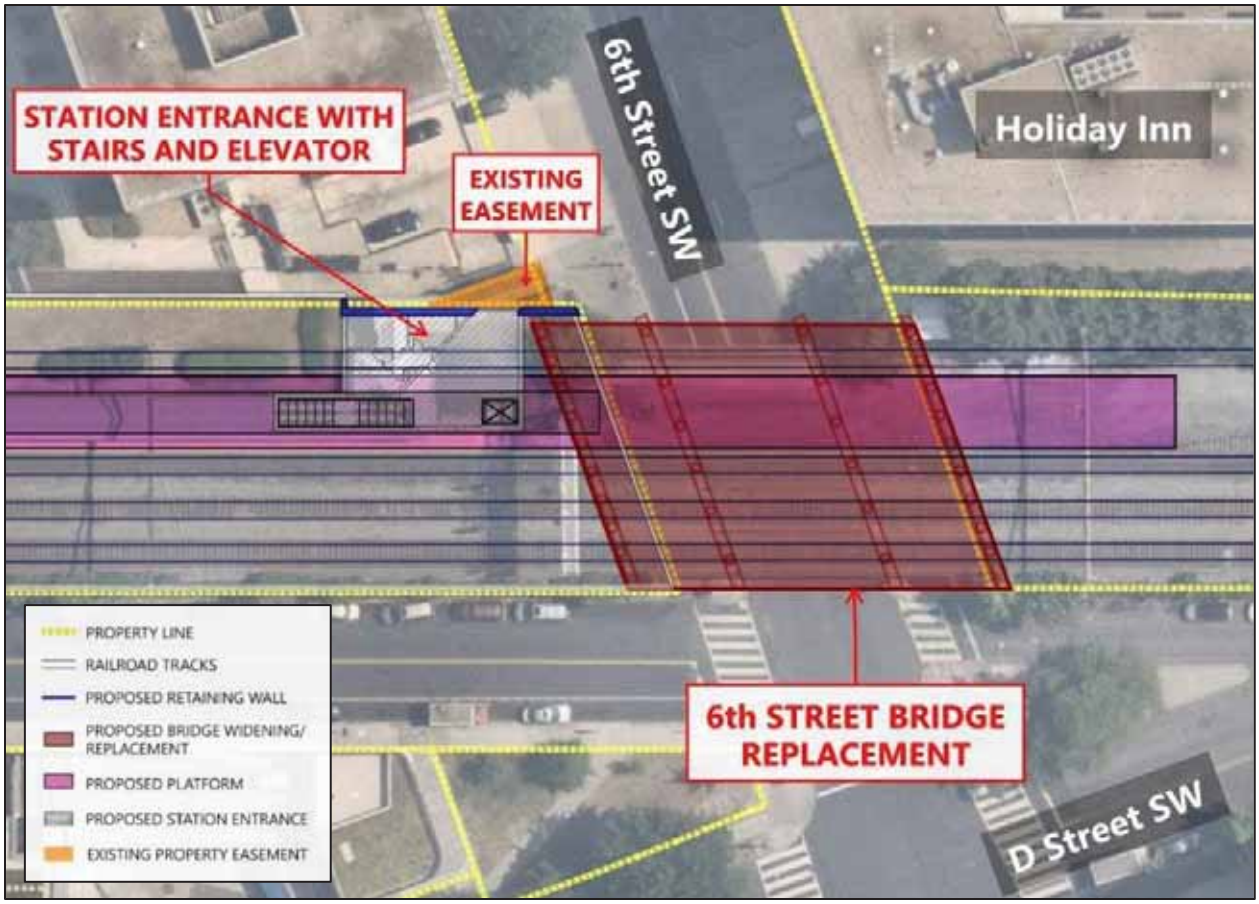


Figure A-6. Site Plan of the Undertaking at the 6th Street SW Bridge

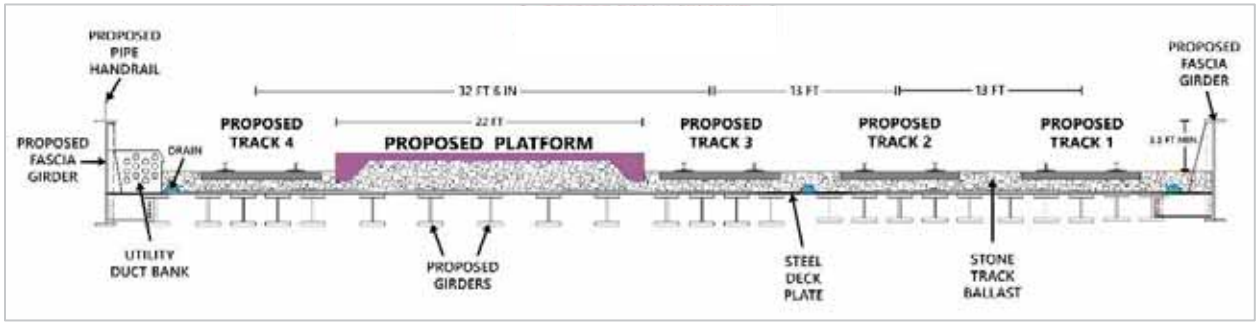


Figure A-7. Cross Section of the Proposed Replacement Bridge over 6th Street SW

Figure A-8. Rendering of the Proposed 6th Street SW Station Entrance (the appearance of this rendering is illustrative and is not intended to convey specific design, colors, or materials, which will continue to be refined through Design Review)

Figure A-9. Aerial Rendering of the Proposed 6th Street SW Bridge and Station Entrance (the appearance of this rendering is illustrative and is not intended to convey specific design, colors, or materials, which will continue to be refined through Design Review)

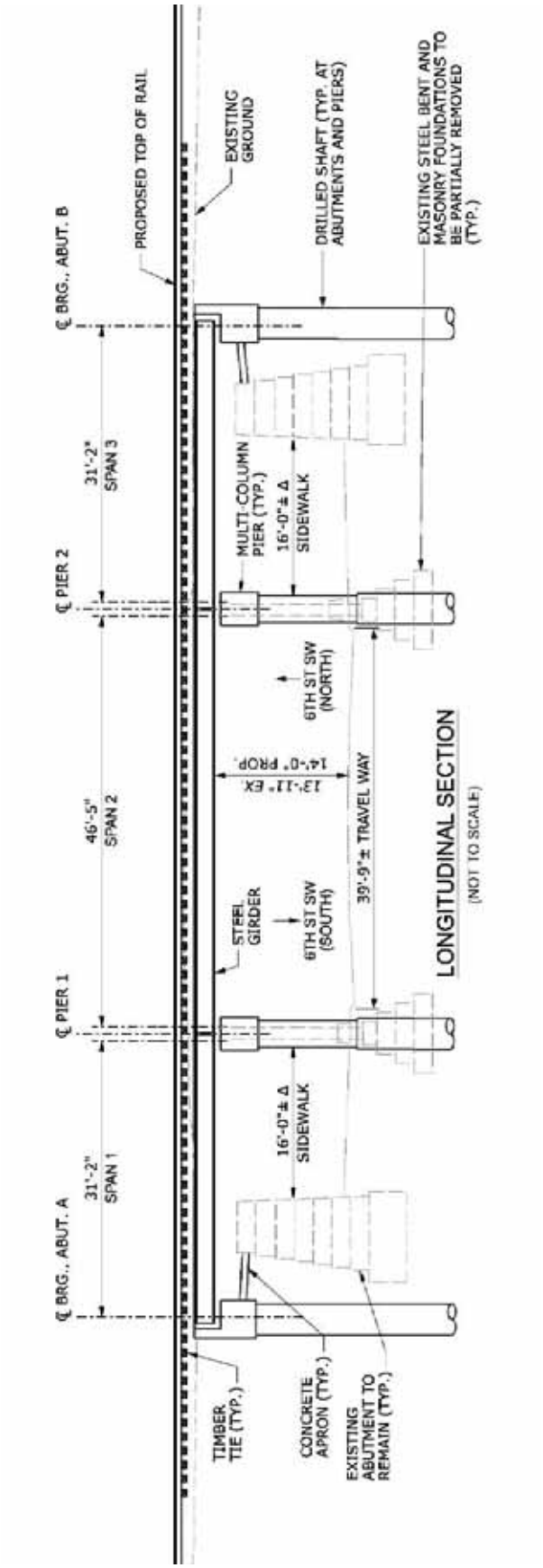


Figure A-10. Longitudinal Section of the Proposed 6th Street SW Bridge with New Bridge Seat Behind Existing Bridge Abutments

Figure A-11. Photo Simulation of the 6th Street Bridge (South Side) (the appearance of this photo simulation is illustrative and is not intended to convey specific design, colors, or materials, which will continue to be refined through Design Review)

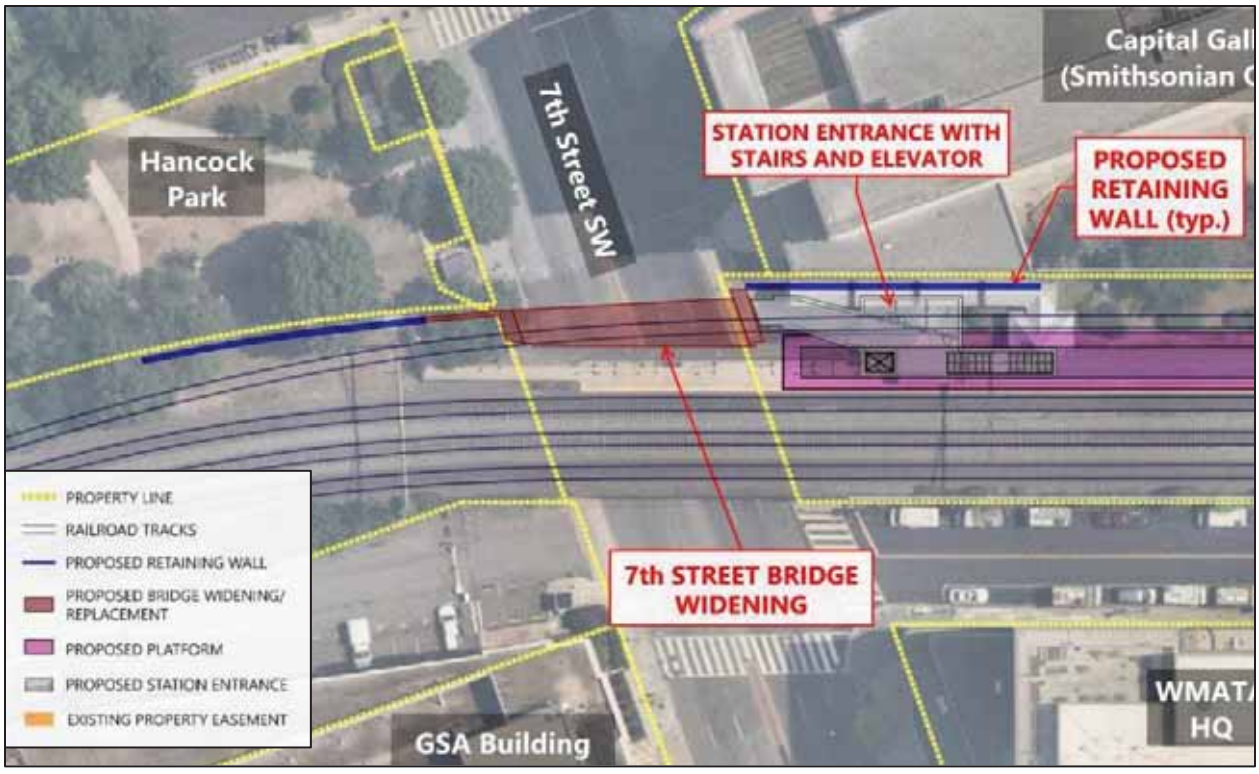


Figure A-12. Site Plan of the Undertaking at the 7th Street SW Bridge

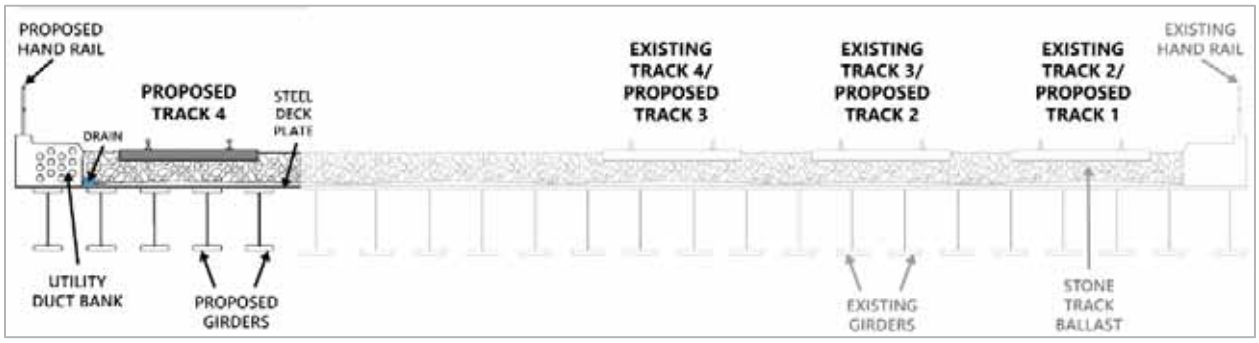
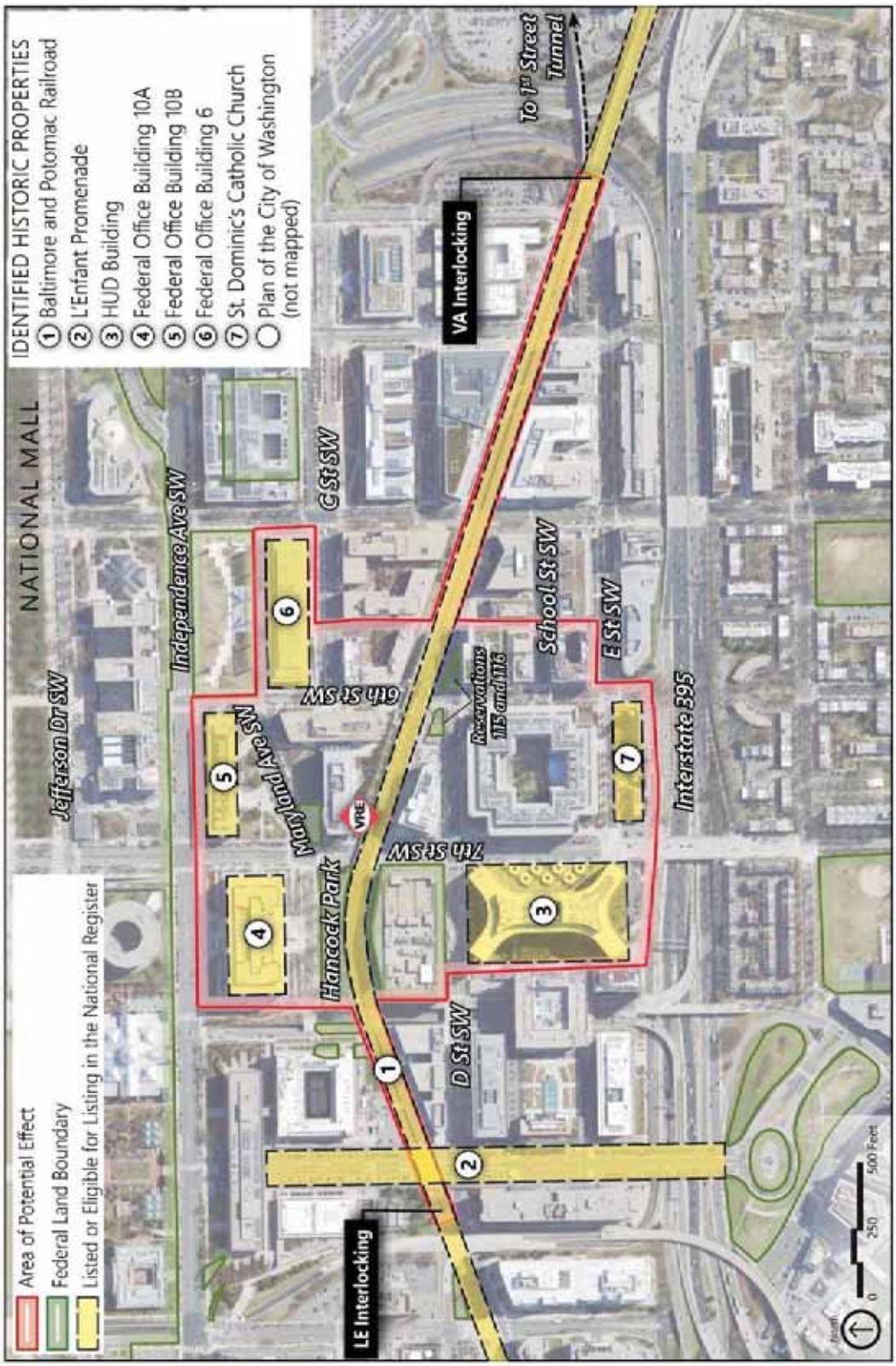


Figure A-13. Cross Section of the Proposed Widening of the 7th Street SW Bridge

Figure A-14. Rendering of the Proposed 7th Street SW Station Entrance (the appearance of this rendering is illustrative and is not intended to convey specific design, colors, or materials, which will continue to be refined through Design Review)

APPENDIX B
AREA OF POTENTIAL EFFECT



Area of Potential Effect for the L'Enfant Station and Fourth Track Project, Washington, DC

APPENDIX C
LIST OF CONSULTING PARTIES

Agencies and Organizations Invited to Participate as Consulting Parties

DC Historic Preservation Office	General Services Administration
Advisory Neighborhood Commission 6D	National Capital Planning Commission
Amtrak	National Park Service
Cherokee Nation	Northern Virginia Transportation Commission
Commission of Fine Arts	Pamunkey Indian Tribe
Committee of 100	Potomac and Rappahannock Transportation Commission
CSX Transportation	Smithsonian Institution
DC Preservation League	Southwest Business Improvement District
District Department of Transportation	Virginia Passenger Rail Authority
Federal Railroad Administration	Washington Metropolitan Area Transit Authority*

*Declined to participate as a Consulting Party

APPENDIX D
SECTION 106 CORRESPONDENCE

U.S. Department of Transportation
Federal Transit Administration

REGION III
Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia

1835 Market St
Suite 1910
Philadelphia, PA 19103-2968
215-656-7100

March 20, 2024

Mr. David Maloney
State Historic Preservation Officer
District of Columbia Office of Planning
1100 4th Street SW, Suite 650 East
Washington, DC 20024

RE: Section 106 Initiation – VRE L'Enfant Station and Fourth Track Project, Washington, DC

Dear Mr. Maloney:

The Virginia Railway Express (VRE) in coordination with the Federal Transit Administration (FTA) is proposing to improve the L'Enfant Station and add a continuous fourth track between the L'Enfant (LE) and Virginia (VA) Interlockings (roughly 4th and 12th streets SW) to provide a better passenger experience and reduce congestion on the platform and within the railroad corridor. The Project anticipates using funding from both the FTA and the Federal Railroad Administration (FRA). For purposes of consultation pursuant to Section 106 of the National Historic Preservation Act of 1966, FTA is initiating consultation with the District of Columbia State Historic Preservation Office (DC SHPO) as the lead Federal agency. FRA is an invited Section 106 Consulting Party.

Project Description
The purpose of the Project is to enhance the user experience for passengers boarding and alighting at L'Enfant Station and to relieve an existing bottleneck that hinders the efficient movement of passenger and freight trains in a critical segment of the national rail network. The existing VRE L'Enfant Station is located along Virginia Avenue between 6th and 7th Streets SW in the Southwest Federal Center section of Washington, DC. The station is located on the three track, shared-use rail corridor that also serves CSX Transportation, Inc. (CSXT) freight trains as part of its national freight network and Amtrak trains traveling between Washington, DC and Richmond, Virginia, and points beyond. The three tracks in this corridor are designated as Tracks 2, 3, and 4 from south to north (or railroad east to railroad west).

The Project will construct a fourth track between the LE and VA Interlockings on the north side of the existing tracks. To accommodate installation of the proposed track, the Project would require replacement of the railroad bridge over 6th Street SW (henceforth referred to as the 6th Street Bridge) and widening of the railroad bridge over 7th Street SW (henceforth referred to as the 7th Street Bridge).

The Project also proposes to improve and expand the VRE L'Enfant Station by constructing a new center platform 22 feet wide and 680 feet long, located in the same general location as the existing platform, which will be able to serve two trains simultaneously. The current 12.5-foot wide by 550 feet long platform is shorter than the longest VRE train operated, and therefore all cars on the train are not accessible for boarding or alighting. Some passengers must walk through one or more cars on the train to exit at the station, which increases station dwell times.

Station improvements will also include stairs at 7th and 6th Streets SW and ADA improvements including elevators at 7th and 6th Street SW. A retaining wall would be required along the north side of the railroad tracks along the Hancock Park boundary. This includes some encroachment and construction activities

within Hancock Park (Reservation 113) where a pedestrian walkway to the existing station is currently located. That existing walkway will be removed once the track and station improvements are complete.

For additional information and project documents, please see the Project website at:
https://projects.vre.org/project?Project=L%27Enfant%20Track%20and%20Station%20Improvements

Area of Potential Effects
The proposed Area of Potential Effects (APE) (see **Enclosure 1**) includes those geographic areas which may be directly or indirectly affected by the Project (36 CFR 800.16(d)). This includes the Project footprint, or limit of disturbance, as well as those areas which may experience other effects such as visual effects. The APE takes into consideration proposed modifications to the 7th Street Bridge and replacement of the 6th Street Bridge, which could be visible along the north-south axes of those streets.

Identification of Historic Properties
An initial desktop survey was conducted to identify historic properties within the APE using information from the DC SHPO Inventory of Historic Sites, the National Register of Historic Places (NRHP) database, and GIS mapping data via the DC Office of Planning. The properties identified in **Table 1** below are listed in the NRHP or have been recommended eligible for listing in the NRHP via a Determination of Eligibility (DOE). These properties are shown on the APE map (see **Enclosure 1**) as properties 1-7. Hancock Park is being considered as a part of the Plan of the City of Washington rather than an individual historic property.

Table 1. Historic Properties Previously Identified within the Proposed APE

Property No.	Property Name	Address	Designation / Eligibility
n/a	Plan of the City of Washington	Washington, DC	DC Historic Landmark NRHP Listed
1	U.S. Department of Housing and Urban Development (HUD) Building	451 7th Street SW	DC Historic Landmark NRHP listed
2	General Services Administration (GSA) Regional Office Building	801 D Street SW	DC Historic Landmark
3	Federal Office Building 10A (Orville Wright Building)	800 Independence Ave SW	DOE recommended eligible
4	Federal Office Building 10B (Wilbur Wright Building)	600 Independence Ave SW	DOE recommended eligible
5	Federal Office Building 6 (US Department of Education)	400 Maryland Ave SW	DC Historic Landmark NRHP listed
6	L'Enfant Promenade	10th Street SW	DOE recommended eligible
7	St. Dominic's Catholic Church	630 E Street SW	DC Historic Landmark

Four properties within the APE are 45 years of age or older and have not yet been evaluated for eligibility for listing in the NRHP, as shown on the APE map as properties 8-11 (see **Enclosure 1**). This age was selected to account for the 50-year threshold that is generally observed in the evaluation of historic significance, and to account for the implementation schedule of the Project. These resources were identified using a range of documentation sources including real property and building data, historic maps and photographs, and aerial photographs.

Three of these potentially historic properties would be modified or replaced by the Project: the railroad corridor, the 7th Street Bridge, and the 6th Street Bridge (properties 8-10 on **Enclosure 1**). One potentially historic property (property 11) has the potential to be affected as a result of visual changes to its setting and

viewshed. FTA will complete determinations of eligibility for these four properties to determine their historic significance and to assess the effects the Project would have on these properties (see **Table 2**).

Table 2. Properties Over 45 Years Old to Be Evaluated

Property No.	Property Name	Address
8	Railroad Corridor	Washington, DC
9	7th Street Bridge	7th Street SW
10	6th Street Bridge	6th Street SW
11	American Road Builders Association	525 School St SW

One additional property (400 7th Street SW) was identified within the APE as over 45 years of age but has been heavily modified. Available information indicates it was previously surveyed and determined to be ineligible for listing in the NRHP. Documentation related to that determination was not uncovered during the initial desktop search and FTA is conducting further research to confirm the previous evaluation.

The Project may include development in the southeast corner of Hancock Park for expansion of the rail corridor and construction of a retaining wall. Additionally, other areas of Hancock Park may be necessary for construction access or staging. FTA is conducting research for available information from previous surveys and underground utility mosaics to determine whether an archaeological survey of Hancock Park is warranted to determine the potential for the Project to affect intact archaeological resources.

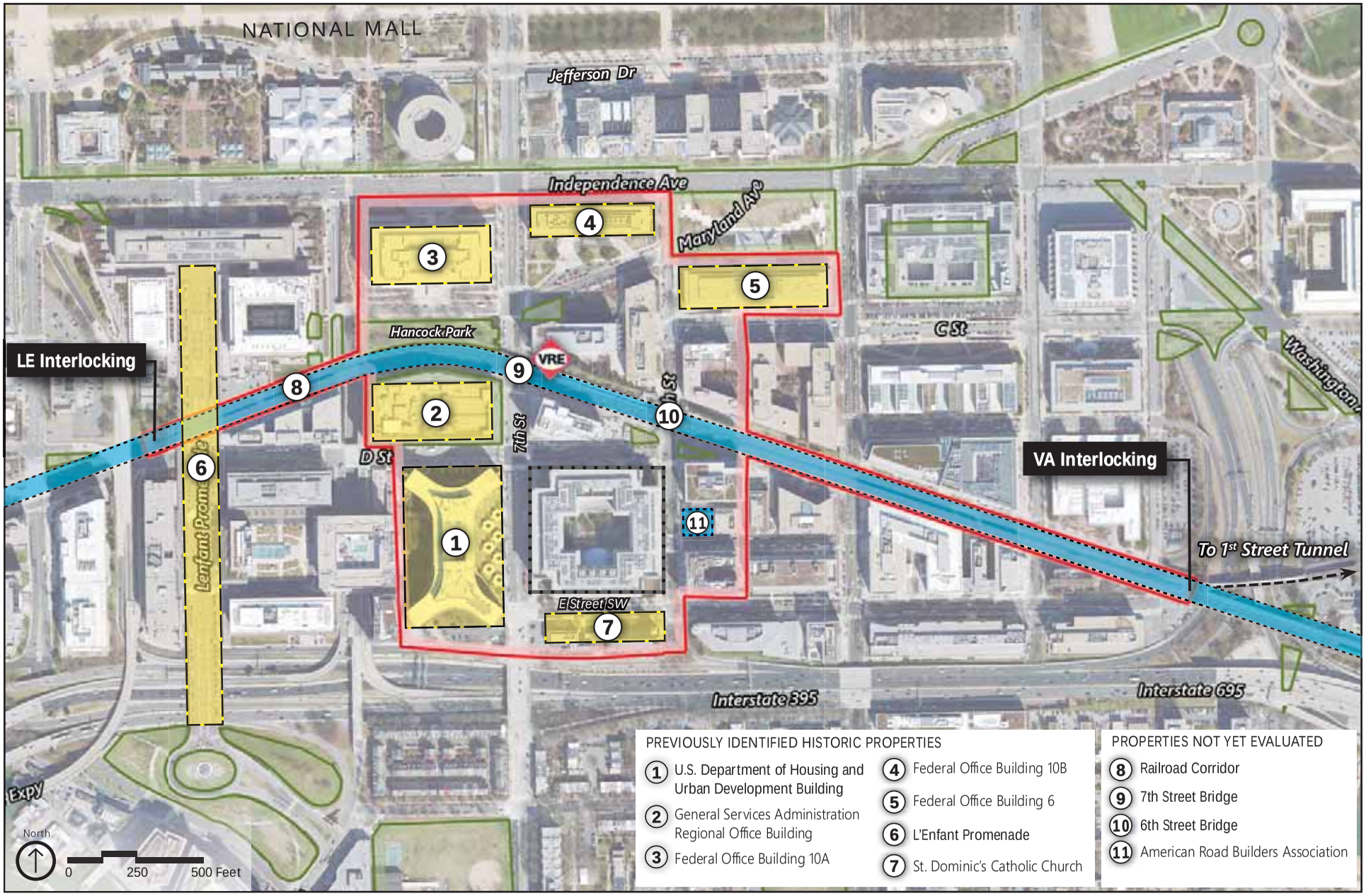
Consulting Parties
As part of the Section 106 process and pursuant to 36 CFR 800.3(f), FTA is identifying potential consulting parties that may have an interest in this Project. We invite those organizations included on this letter to participate in the Section 106 consultation process. A list of potential consulting parties invited is included in **Enclosure 2**. The consulting parties that accept the invitation will be invited to review cultural resource documentation and provide input on the identification of historic properties and the evaluation of the Project's effect. If your organization is interested in participating, please notify FTA within 30 days of receipt of this letter.

FTA is seeking concurrence on the proposed APE, previously identified historic properties within the APE, proposed survey strategy, and is also seeking input on other potential consulting parties. We appreciate your initial input on this Project and look forward to working with you as the Project continues. If you would like any additional information regarding this Project, please contact Dan Koenig, Community Planner at daniel.koenig@dot.gov.

Sincerely,

Heidi E. Krofft
Environmental Protection Specialist

Enclosures: 1: Area of Potential Effect Map
2: List of Potential Consulting Parties



LEGEND

- Area of Potential Effect
- Federal Land Boundary
- Listed or Eligible for Listing in the National Register
- Over 45 Years Old, Not Yet Evaluated
- Ineligible (to be confirmed)

L'Enfant Track and Station Improvements
Area of Potential Effect
Washington DC

Enclosure 2:

List of Potential Consulting Parties

Organization	Project Interest
DC State Historic Preservation Officer	Section 106 Review
CSX Transportation, Inc.	Rail operator through corridor
Amtrak	Rail operator through corridor
Federal Railroad Administration	Funding partner for Transforming Rail in Virginia; Lead Federal Agency for adjacent rail project
Virginia Passenger Rail Authority	Project partner through Transforming Rail in Virginia.
Washington Metropolitan Area Transit Authority	Metrorail operator with L'Enfant Metrorail Station within close proximity to project area.
District Department of Transportation	Manages transportation infrastructure in the District
National Park Service – National Mall and Memorial Parks	Administration of Hancock Park and National Mall
National Park Service – National Capital Area Regional Office	Administration of Hancock Park and National Mall
US Commission of Fine Arts	Project in jurisdiction for review
National Capital Planning Commission	Federal agency with approval authority for federal construction projects
Committee of 100 on the Federal City	Local preservation organization
DC Preservation League	Local preservation organization
General Services Administration – National Capital Region	Property owner – GSA Regional Office Building
Smithsonian Institution	Nearby property owner
Southwest Business Improvement District	Nonprofit organization for improvements to Southwest DC funded through a self-imposed assessment of commercial property owners
Advisory Neighborhood Commission 6D	Non-partisan, neighborhood body for Southwest DC made up of locally elected representatives
Northern Virginia Transportation Commission	Co-owner of VRE
Potomac and Rappahannock Transportation Commission	Co-owner of VRE
Cherokee Nation	Tribe with interests in DC
Pamunkey Indian Tribe	Tribe with interests in DC

District of Columbia Office of Planning

April 18, 2024

Ms. Heidi E. Kroft
Environmental Protection Specialist
U.S. Department of Transportation
Federal Transit Administration, Region III
1835 Market Street, Suite 1910
Philadelphia, PA 19103-2968

RE: Initiation of Section 106 Consultation for the VRE L'Enfant Station and Fourth Track Project

Dear Ms. Kroft:

Thank you for initiating consultation with the District of Columbia State Historic Preservation Officer (SHPO) regarding the above-referenced undertaking and for hosting a consulting parties' meeting on April 11, 2024. Based upon our review of the project submittal and our participation in the meeting, we are writing to provide our initial comments regarding effects on historic properties in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800.

We understand that the Federal Transit Administration (FTA) and the Federal Rail Administration (FRA) are providing funding to the Virgnia Railway Express (VRE) to make improvements at VRE's L'Enfant Railway Station in SW Washington, DC. FTA is serving as the Lead Federal Agency for purposes of Section 106. Proposed improvements include a new center platform and a fourth track to facilitate boarding and alleviate "bottlenecks" with other trains. Construction of the additional track will require replacing the existing bridge over 6th Street, SW and widening the existing bridge over 7th Street, SW.

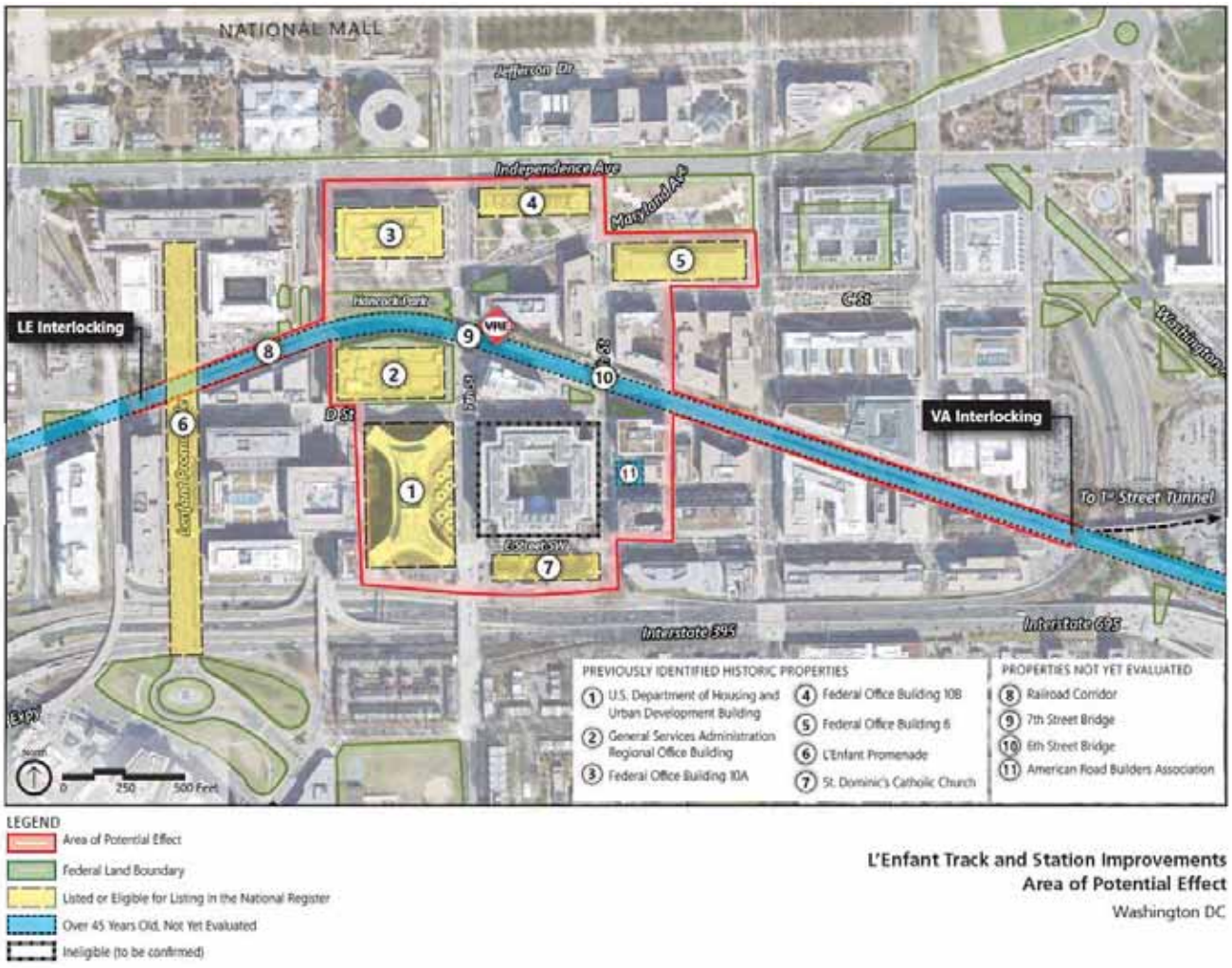
We have reviewed the proposed Area of Potential Effect (APE) and agree that it should be sufficient to take into account the effects of the project on historic properties. A copy of the APE is attached for reference. On a related note, we look forward to receiving the Determination of Eligibility (DOE) Forms we requested for the American Road Builder's Association Building at 525 School Street, SW and for the historic rail corridor that passes through the project site but, as a linear resource, should be evaluated for its full length within the District of Columbia and specifically include evaluations of related infrastructure such as the aforementioned bridges and those that cross over other streets within DC. A search of our records yielded the attached DOE Form that was prepared for the Baltimore & Potomac (B&P) Railroad in 2014. Although this DOE recommends the resource eligible and documents our concurrence with that finding for purposes of another project, it also notes that additional research would be needed to make a more definitive determination. The DOE we are requesting for this project should include that research. We are also providing a copy of the related DOE that was prepared for the nearby Baltimore & Ohio (B&O) Alexandria Branch Railroad for reference. Finally, as discussed in the consulting parties meeting, we would appreciate more information about how the bridge at 7th Street, SW was altered in association with the construction of the Metro system since information of this sort could be useful in evaluating the potential significance of that structure.

We look forward to consulting further with FTA, VRE and all other consulting parties to continue the Section 106 review of this project. In the meantime, if you should have any questions or comments regarding any of these matters, please contact me at andrew.lewis@dc.gov or 202-442-8841. Questions or comments related to archaeology should be directed to Ruth Trocolli at ruth.trocolli@dc.gov or 202-442-8836. Thank you for providing this initial opportunity to review and comment.

Sincerely,

C. Andrew Lewis
Senior Historic Preservation Officer
DC State Historic Preservation Office

Enclosures
24-0393



From:	Lee Farmer
To:	andrew. gov (andrew.lewis@dc.gov); David.maloney@dc.gov; 6d01@anc.dc.gov; 6d@anc.dc.gov; 6d02@anc.dc.gov; HillA; amy.wetterskog@amtrak.com; daniel.thomas.2@amtrak.com; Rhodes, John T; chart@cfa.gov; Daniel Fox; Sarah Batcheler; tluebke@cfa.gov; jasmailes@gmail.com; monte.edwards@verizon.net; Knapp, Brandon; Brett Sanders (Brett_Sanders@csx.com); Randy Marcus (randy_marcus@csx.com); will_roseborough@csx.com; Rebecca@dcpreservation.org; Chamberlin, Anna (DDOT); Emma Blondin (Emma.Blondin@dc.gov); Randall Brown - Federal Highway Administration/ FHWA (randall.brown@dot.gov); Courtney Benton (courtney.benton@gsa.gov); Eliza Voigt (eliza.voigt@gsa.gov); Kristi Tunstall Williams (kristi.tunstall@gsa.gov); mina.wright@gsa.gov; Sullivan, Diane (diane.sullivan@ncpc.gov); Flis, Matthew; Michael Weil; Laurel D Hammig - National Park Service (Laurel_Hammig@nps.gov); lee.webb@ncpc.gov; Tammy Stidham (tammy_stidham@nps.gov); Sophia Kelly (sophia_kelly@nps.gov); Allan Fye (allanfye@novatransit.org); Cynthia Porter-Johnson; carranchom@si.edu; lalbe@swbid.org; Sydney Moore; zbaldwin@swbid.org; Theuer, Jason
Cc:	Rachel Hearon (rachel.hearon@dot.gov); Koenig, Daniel (FTA); Christine Hoeffner, AICP, PLA; Dagmawie Shikurye; Christine Fix; Kurgan, Kate (DDOT); Mark Schnaufer; Mark Colgan; Josh Bendyk; Meghan Powell; Lee Dwyer; Erin Leatherbee
Subject:	FOR CONSULTING PARTY REVIEW - VRE L"Enfant Station and Fourth Track - Draft Determination of Eligibility (DOE) Forms
Date:	Monday, November 4, 2024 1:48:27 PM
Attachments:	2024-11-04_LEF_DC DOE FORM_BandPRailCorridor_DRAFT.pdf image001.png image002.png image003.png image004.png image005.png 2024-11-04_LEF_DC DOE FORM_AmericanRoadBuild_DRAFT.pdf

---

Dear VRE L'Enfant Station and Fourth Track Section 106 Consulting Parties,

On March 20, 2024, the Virginia Railway Express (VRE) in coordination with the Federal Transit Administration (FTA) initiated consultation pursuant to Section 106 of the National Historic Preservation Act of 1966. The invitation included the proposed Area of Potential Effect (APE), previously identified historic properties within the APE, proposed survey strategy, and list of potential consulting parties. VRE and FTA held a meeting with the invited consulting parties on April 11, 2024, to discuss these items. Thank you to all who were able to attend.

The District of Columbia State Historic Preservation Office (DC SHPO) provided comments on April 18, 2024. DC SHPO agreed with the proposed APE and requested that VRE and FTA prepare Determination of Eligibility (DOE) Forms for the American Road Builder's Association Building at 525 School Street SW and for the full length of the rail corridor within the District of Columbia (DC), specifically including the rail bridges crossing over streets with the APE as well as those crossing over other streets in DC. No other comments were received on the APE, identified historic properties, or other items included in the initiation letter.

VRE and FTA have completed draft DOE Forms and propose that both the American Road Builder's Association Building and the Baltimore and Potomac (B&P) Railroad Corridor within DC be recommended eligible. In the draft form for the B&P Railroad Corridor, within the APE the bridge over 6th Street SW, as well as the alignment, trackage, rusticated stone retaining walls, and catenary poles, are recommended as contributing to the significance of the resource. The bridge over 7th Street SW is recommended as a non-contributing resource. VRE and FTA are providing the attached draft DOE Forms for your review and comment as a consulting party in the Section 106 process. **Please provide any comments by December 4, 2024.**

If you would like any additional information regarding this Project, please contact Dan Koenig, Community Planner at daniel.koenig@dot.gov.

Thank you,
Lee Farmer

Lee Farmer, AICP (She, Her, Hers)
Project Development Manager, T&R

P 202.739.9505
www.vhb.com

1001 G Street, NW
Suite 1125
Washington DC 20001

From:	Lee Farmer
To:	andrew. gov (andrew.lewis@dc.gov); David.maloney@dc.gov; 6d01@anc.dc.gov; 6d@anc.dc.gov; 6d02@anc.dc.gov; HillA; amy.wetterskog@amtrak.com; daniel.thomas.2@amtrak.com; Rhodes, John T; chart@cfa.gov; Daniel Fox; Sarah Batcheler; tluebke@cfa.gov; jasmailes@gmail.com; monte.edwards@verizon.net; Knapp, Brandon; Brett Sanders (Brett_Sanders@csx.com); Randy Marcus (randy_marcus@csx.com); will_roseborough@csx.com; Rebecca@dcpreservation.org; Emma Blondin (Emma.Blondin@dc.gov); Randall Brown - Federal Highway Administration/ FHWA (randall.brown@dot.gov); Courtney Benton (courtney.benton@gsa.gov); Kristi Tunstall Williams (kristi.tunstall@gsa.gov); mina.wright@gsa.gov; Sullivan, Diane (diane.sullivan@ncpc.gov); Flis, Matthew; Michael Weil; Laurel D Hammig - National Park Service (Laurel_Hammig@nps.gov); lee.webb@ncpc.gov; Cynthia Porter-Johnson; carranchom@si.edu; lalbe@swbid.org; zbaldwin@swbid.org; Theuer, Jason; Andrew D"huyvetter (andrewdhuyvetter@novatransit.org)
Cc:	Hearon, Rachel (FTA); Koenig, Daniel (FTA); Christine Hoeffner, AICP, PLA; Dagmawie Shikurye; Christine Fix; Kurgan, Kate (DDOT); Mark Schnaufer; Mark Colgan; Josh Bendyk; Meghan Powell; Lee Dwyer; Erin Leatherbee; Chloe Swann
Subject:	FOR CONSULTING PARTY REVIEW - VRE L"Enfant Station and Fourth Track - Draft Assessment of Effects
Date:	Monday, February 24, 2025 5:03:31 PM
Attachments:	image001.png image002.png image003.png image004.png image005.png image006.png 2025-02-24_LEF Draft Assessment of Effects_Comments.xlsx

---

Dear VRE L'Enfant Station and Fourth Track Section 106 Consulting Parties,

On March 20, 2024, the Virginia Railway Express (VRE) in coordination with the Federal Transit Administration (FTA) initiated consultation pursuant to Section 106 of the National Historic Preservation Act of 1966. VRE and FTA held a meeting with the invited consulting parties on April 11, 2024, to discuss the proposed Area of Potential Effect (APE), previously identified historic properties within the APE, proposed survey strategy, and list of potential consulting parties.

In response to a request from the District of Columbia State Historic Preservation Office (DC SHPO) via their comments provided on April 18, 2024, VRE and FTA prepared Determination of Eligibility (DOE) forms for the American Road Builders Association Building at 525 School Street SW and for the full length of the rail corridor within the District of Columbia (the District), specifically including the rail bridges crossing over streets with the APE as well as those crossing over other streets in the District. These draft DOE Forms were submitted to the consulting parties for review on November 4, 2024. VRE and FTA initially recommended that both the American Road Builders Association Building and the Baltimore and Potomac (B&P) Railroad Corridor within the District be eligible. Based on comments received from the DC SHPO on December 5, 2024, VRE and FTA revised their recommendation for the American Road Builders Association Building to be considered not eligible. VRE and FTA addressed all other comments received on the Draft DOE Forms and are providing the Final DOE Forms for your records. They can be downloaded at this link: LEF DOEs.

As the next step in the Section 106 process, VRE and FTA have now completed the draft Assessment of Effects (AOE) Report for the project. In the draft AOE Report, VRE and FTA recommend a finding of adverse effect on the B&P Railroad due to the replacement of the 6th Street SW Bridge, removal of portions of the rusticated stone retaining wall, and removal of some catenary poles, all of which are contributing elements to the B&P Railroad. VRE and FTA are providing the draft AOE Report for your review and comment as a consulting party in the Section 106 process. It can be downloaded at this link: LEF Assessment of Effects. See attached for a comment matrix for your use. **Please provide any comments by March 27, 2025.**

As a consulting party, you are also invited to attend the next consulting parties meeting scheduled for **March 20, 2025, at 2:00 pm ET** to discuss the adverse effects and potential mitigation strategies.

An invitation with additional information will be provided separately from this email. We look forward to your continued participation in this process.

If you would like any additional information regarding this project, please contact Dan Koenig, Community Planner at daniel.koenig@dot.gov.

Thank you,
Lee

Lee Farmer, AICP (She, Her, Hers)
Project Development Manager, T&R

P 202.739.9505
www.vhb.com

1001 G Street, NW
Suite 1125
Washington DC 20001

From: Lewis, Andrew (OP) <andrew.lewis@dc.gov>
Sent: Thursday, March 20, 2025 3:30 PM
To: Lee Farmer <lfarmer@VHB.com>; Koenig, Daniel (FTA) <daniel.koenig@dot.gov>; Mark Colgan <mcolgan@VHB.com>
Subject: [External] Summary of DC SHPO Comments from this afternoon's VRE L'Enfant Station 2nd CP Meeting

All:

Thank you for hosting the second consulting parties meeting for the VRE L'Enfant Station Project this afternoon. A brief summary of the primary comments/questions I offered in the meeting is pasted below for reference.

1. Is the height of the 6th Street Bridge going to change or are any elements of the replacement bridge going to be substantially different? If so, were these taken into account in terms of potential visual effects on L'Enfant view corridors?

2. We do not necessarily agree that there will be no adverse visual effect on the B&P because the replacement bridge will appear quite different from the rest of the bridges and diminish the appearance of the linear resource (e.g. along the south side of VA Ave where one can see a large portion of the railroad line) and because the removal of five catenary portals will alter the view corridor of the railroad line itself (not any L'Enfant views).

3. The effect tables on pages 26 and 30 of the Draft Assessment of Effects Report provide contradictory findings regarding adverse visual effects. We believe there will be both visual and physical adverse effects on the B&P.

4. What will the replacement bridge look like from the south side of 6th Street where the historically significant rusticated stone retaining wall is much more intact (see image below) vs. the north side where the wall has already been substantially altered?

5. As I have previously suggested, the design of the 6th St replacement bridge should be based upon the Long Bridge Project designs that reinforce the linear continuity of the B&P as a whole. We recognize that the design will have to be customized for the specific location, but it should incorporate the same types of materials and details, especially through plate girders (even if the latter are essentially a veneer). Some examples of Long Bridge Project designs are pasted below for reference. These design approaches were all supported DC SHPO, CFA, NPS & NCPC.

6. We agree with the suggested mitigation/minimization measures and stress the importance of design review (see reference to Long Bridge designs above); recommend that interpretive signage be designed for all passersby (not just limited to areas that will only be accessible to VRE commuters); request that salvage and reuse of bridge elements be included, especially on the replacement bridge; and point out that HABS/HAER recordation of the 6th St bridge should be carried out before the bridge is altered in any way. This is not necessarily an exhaustive list of mitigation/minimization measures. We may have others to offer once the draft PA is provided for review.

I do not recall the other individuals that you suggested we copy our comments on but feel free to forward these to anyone you believe could benefit from reviewing them. I will be happy to address any questions or comments you may have.

Hope all is well,

C. Andrew Lewis, Senior Historic Preservation Specialist
DC State Historic Preservation Office, DC Office of Planning
899 North Capitol Street, NE, Suite 7100, Washington, DC 20002
202-442-8841
andrew.lewis@dc.gov
http://planning.dc.gov/historicpreservation

From:	Theuer, Jason
To:	Lee Farmer
Cc:	Hammig, Laurel D
Subject:	RE: E TERNAL FOR CONSULTING PARTY REVIEW - VRE L"Enfant Station and Fourth Track - Draft Assessment of Effects
Date:	Friday, March 21, 2025 :04:2 AM
Attachments:	image006.png image00 .png image00 .png image00 .png image010.png image011.png

---

Lee,
Thank you for the opportunity to review the Assessment of Effect draft report and for the informative consulting parties meeting yesterday.
From the perspective of the NPS National Capital Region, Section 106 review, I have no comments and the report accurately reflects the potential effects to NPS managed historic properties, conditioned upon the results of the Phase I archeological survey results.

Please note that Phase I archeological survey results are critical to understanding not only the ground disturbance from the construction, but also from the construction staging area located on NPS managed lands at Hancock Park. Per our ongoing coordination with VRE and VPRA for the Long Bridgge project, that project's use of Hancock Park is also conditioned to the adequate completion of the Archeological Phase I report.

Thank you,
-jay

Jason G. Theuer, Ph.D. – NCR Regional Section 106 Coordinator
Acting Chief of Resource Management
National Mall and Memorial Parks
1100 Ohio Drive, SW
Washington, D.C. 20242
Jason_theuer@nps.gov
Office: 202-619-7273
Mobile: 202-993-3476 (preferred)

Forms and are providing the Final DOE Forms for your records. They can be downloaded at this link: LEF DOEs.

As the next step in the Section 106 process, VRE and FTA have now completed the draft Assessment of Effects (AOE) Report for the project. In the draft AOE Report, VRE and FTA recommend a finding of adverse effect on the B&P Railroad due to the replacement of the 6th Street SW Bridge, removal of portions of the rusticated stone retaining wall, and removal of some catenary poles, all of which are contributing elements to the B&P Railroad. VRE and FTA are providing the draft AOE Report for your review and comment as a consulting party in the Section 106 process. It can be downloaded at this link: LEF Assessment of Effects. See attached for a comment matrix for your use. Please provide any comments by March 27, 2025.

As a consulting party, you are also invited to attend the next consulting parties meeting scheduled for March 20, 2025, at 2:00 pm ET to discuss the adverse effects and potential mitigation strategies. An invitation with additional information will be provided separately from this email. We look forward to your continued participation in this process.

If you would like any additional information regarding this project, please contact Dan Koenig, Community Planner at daniel.koenig@dot.gov.

Thank you,
Lee

Lee Farmer, AICP (She, Her, Hers)
Project Development Manager, T&R

P 202.739.9505
www.vhb.com

1001 G Street, NW
Suite 1125
Washington DC 20001

From:	Lee Farmer
To:	Lewis, Andrew (OP); Maloney, David (OP); Washington, Marquell (SMD 6D01); ANC 6D Office (ANC 6D; Simon, Gottlieb (SMD 6D02; HillA; Amy Wetterskog (amy.wetterskog@amtrak.com); daniel.thomas.2@amtrak.com; Rhodes, John T; chart@cfa.gov; Daniel Fox; Sarah Batcheler; tluebke@cfa.gov; jasmailes@gmail.com; monte.edwards@verizon.net; Knapp, Brandon; Brett Sanders (Brett_Sanders@csx.com); Randy Marcus (randy_marcus@csx.com); will_roseborough@csx.com; Rebecca@dcpreservation.org; Blondin, Emma (DDOT; Randall Brown - Federal Highway Administration/ FHWA (randall.brown@dot.gov); Courtney Benton (courtney.benton@gsa.gov); Kristi Tunstall Williams (kristi.tunstall@gsa.gov); mina.wright@gsa.gov; Sullivan, Diane (diane.sullivan@ncpc.gov); Flis, Matthew; Weil, Michael; Hammig, Laurel D; lee.webb@ncpc.gov; Cynthia Porter-Johnson; carranchom@si.edu; lalbe@swbid.org; zbaldwin@swbid.org; Theuer, Jason; Andrew D"huyvetter (andrewdhuyvetter@novatransit.org); daniel_weldon; Murphy, Amanda (FRA)
Cc:	Koenig, Daniel (FTA); Dagmawie Shikurye; Christine Hoeffner, AICP, PLA; Mark Colgan; Josh Bendyk; Meghan Powell; Chloe Swann; Lee Dwyer; Mark Schnaufer; Naomi Klein; Erin Leatherbee
Subject:	VRE L"Enfant Station and Fourth Track Project - Draft Memorandum of Agreement for Consulting Party Review
Date:	Wednesday, April 30, 2025 7:25:23 PM
Attachments:	2025-04-30_LEF_Section106-MOA_DRAFT.docx image001.png image002.png image003.png image004.png image005.png 2025-04-30_LEF S106 Assessment of Effects_FINAL.pdf 2025-04-30_LEF Draft MOA Comment Matrix.xlsx

---

Consulting Parties,

FTA and VRE have prepared a Draft Memorandum of Agreement (MOA) to resolve adverse effects of the VRE L'Enfant Station and Fourth Track Project on historic properties as identified in the Assessment of Effects Report. Attached please find a draft version of the MOA for your review and comment (for this review, the appendices, which consist of existing, previously shared documents as referenced in the text, are not included). Please also find attached the Final Assessment of Effects Report, which has been revised based on comments received from DC SHPO.

Thank you for providing your comments by May 30, 2025 to me at lfarmer@vhb.com and Dan Koenig at daniel.koenig@dot.gov. Please find attached a blank comment matrix for your use, at your convenience. Comments may also be provided directly using tracked changes and comments within the attached Draft MOA Word document.

Thanks,
Lee

Lee Farmer, AICP (She, Her, Hers)
Project Development Manager, T&R

P 202.739.9505
www.vhb.com

1001 G Street, NW
Suite 1125
Washington DC 20001

June 16, 2025

Daniel Koenig
Federal Transit Administration
1990 K St Suite 510
Washington, DC 20006

Ref: *Virginia Railway Express (VRE) L'Enfant Station and Fourth Track Project*
Washington, DC
ACHP Project Number: 023076

Dear Mr. Koenig:

On June 4,2025, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act, does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

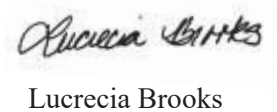
However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking's circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to Section 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the District of Columbia SHPO and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions or require our further assistance, please contact Max Sickler at (202) 517-0220 or by e-mail at msickler@achp.gov

and reference the ACHP Project Number above.

Sincerely,



Lucrecia Brooks
Historic Preservation Technician
Office of Federal Agency Programs

L'Enfant Station and Fourth Track Project

Section 106 – Assessment of Effects

April 24, 2025

Contents

Tables

Figures

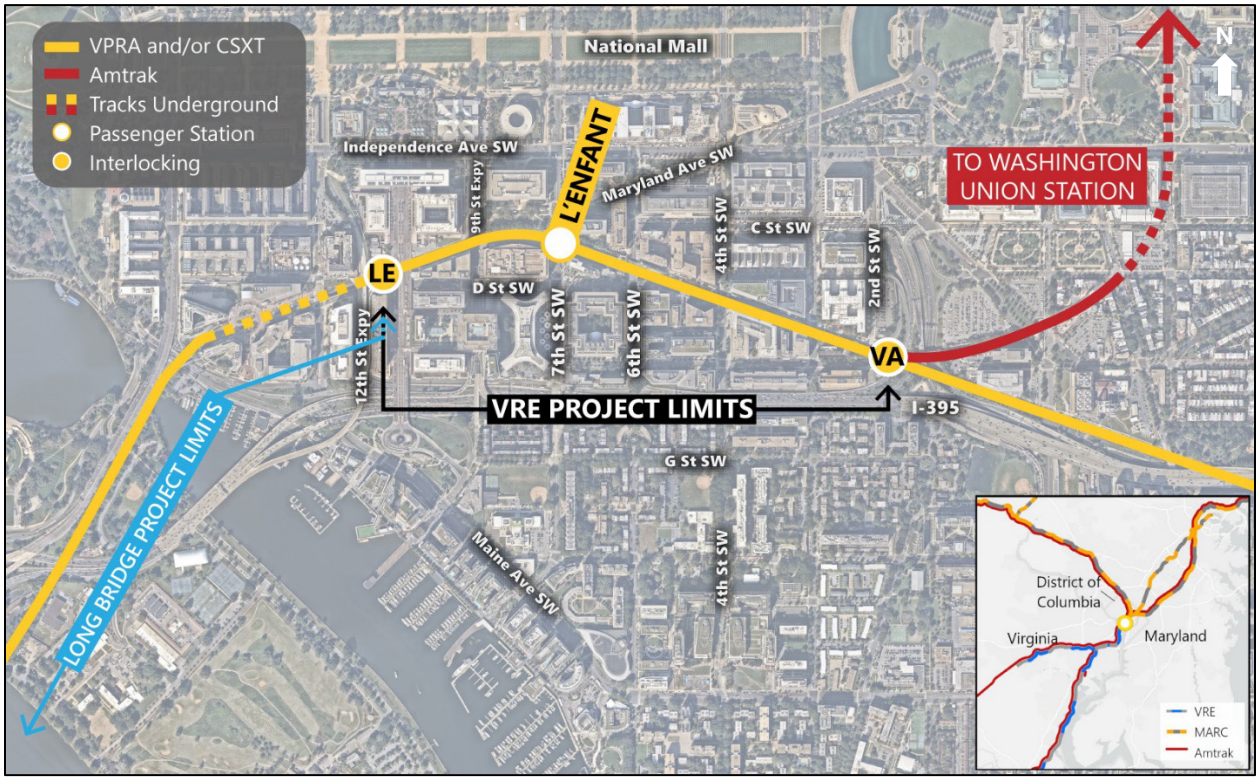
Appendix: Viewshed Photos

1.0 Introduction

The Virginia Railway Express (VRE) in coordination with the Federal Transit Administration (FTA) is proposing to reconstruct the VRE L'Enfant Station and add a continuous fourth track between the L'Enfant (LE) and Virginia (VA) Interlockings (between roughly 10th and 2nd Streets SW) to provide a better passenger experience and reduce congestion on the platform and within the railroad corridor. The Project anticipates using funding from both FTA and the Federal Railroad Administration (FRA). For purposes of consultation pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA) (36 CFR Part 800), FTA is serving as the lead federal agency; FRA is an invited Section 106 Consulting Party.

The existing VRE L'Enfant Station is located along Virginia Avenue SW between 6th and 7th Streets SW in the Southwest Federal Center section of Washington, DC (the District). The station is located on the three track, shared-use rail corridor that also serves CSX Transportation, Inc. (CSXT) freight trains as part of its national freight network and Amtrak trains traveling between the District and destinations in Virginia, and points beyond. See **Figure 1-1** below for a map of the project location.

Figure 1-1: Project Location and Vicinity



The purpose of the Project is to expand the capacity of the VRE L'Enfant Station, provide an enhanced passenger experience, provide additional long-term railroad capacity, and improve the reliability of rail service in this critical segment of the regional and national rail network. The Project is needed to address insufficient platform capacity; railroad capacity and fluidity; railroad resiliency and redundancy; and transportation network capacity to accommodate existing and future demand in railroad services.

The current 550-foot-long by 12.5-foot-wide passenger platform at the VRE L'Enfant Station is shorter than the longest VRE train operated; therefore, all cars on the train are not accessible for boarding or alighting. Some passengers must walk through one or more cars on the train to exit at the station, which increases station dwell times. Implementation of the Project would enable boarding of and alighting from full-length, 8-car VRE trains; a larger platform area to safely accommodate anticipated ridership; two VRE passenger trains to serve the station simultaneously on separate tracks; more efficient movement of passenger (VRE and Amtrak) and freight trains; and greater accessibility, including Americans with Disabilities Act (ADA) accessibility, from two ends of the station. See **Figure 1-2** below for a photograph of the existing station at the track level.

Figure 1-2: Existing Station Platform

The assessment of effects on historic properties presented in this report responds to the requirements of Section 106 of the NHPA. In accordance with the regulations implementing Section 106, effects on historic properties were identified and evaluated by (1) determining the area of potential effects; (2) identifying historic properties present in the area of potential effects that are either listed in or eligible to be listed in the National Register of Historic Places (NHRP); (3) applying the criteria of adverse effect to affected historic properties; and (4) considering ways to avoid, minimize, or mitigate adverse effects.

2.0 Description of the Undertaking

The following describes the actions that would comprise the federal Undertaking as part of the Project.

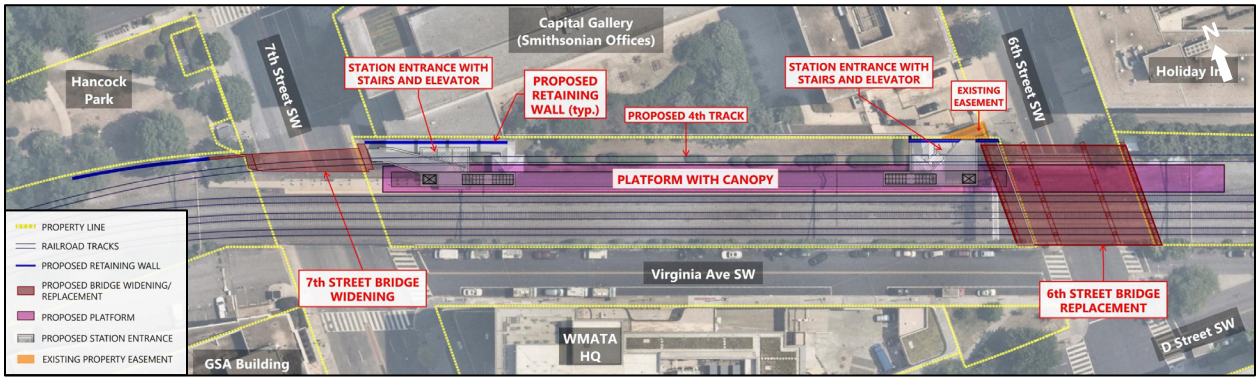
2.1 Description of the Undertaking

2.1.1 Overview

The Project would construct a new fourth track between the LE and VA Interlockings on the north side of the existing tracks; the three existing tracks would not change in location as part of this project. The fourth track would be located within the existing railroad right-of-way and would not encroach on adjacent properties. The Project includes construction of a new center platform for the VRE L'Enfant Station, 680 feet long and 22 feet wide, located to the north of existing Track 3 (in the same general location as the existing platform). The new Track 4 would be located on the north side of the expanded platform, which would allow the platform to serve two trains simultaneously. **Figure 2-1** below shows a plan view of the proposed Undertaking between 6th and 7th Streets SW where changes to the

platform, station, and bridges would take place. Construction of the Project would be implemented in phases to ensure that the station and at least two tracks remain open throughout the duration of construction in order to minimize disruptions to rail traffic through the corridor. Hancock Park (also known as Reservation 113) would be used for construction access and staging.

Figure 2-1: Plan Overview of the Proposed Platform and Bridges



To accommodate installation of the proposed fourth track, the Undertaking would require replacement of the railroad bridge over 6th Street SW (henceforth referred to as the 6th Street SW Bridge) and widening of the bridge over 7th Street SW (henceforth referred to as the 7th Street SW Bridge). Details of the changes to the bridges are provided in **Sections 2.1.5 and 2.1.6**, respectively.

2.1.2 Passenger Platform, Canopy, and Station

The new platform canopy would be designed as a VRE Type I standard gable-style canopy, following VRE guidelines and standards and in a similar style to the existing; the canopy would be modified as required over stairway openings to befit the lack of center columns. **Figure 2-2** below shows a rendering of the overall scale and style of the platform and canopy. This rendering is for illustrative purposes only; further detail of the design including appearance and materials will be determined during the future design review process for the project. The canopy would not extend over either the 6th or 7th Street SW Bridge to minimize viewshed impacts along those street corridors.

Figure 2-2: Rendering of the Proposed L'Enfant Station Canopy

The reconstructed station would include stairs and ADA accessibility improvements including elevators at 7th and 6th Streets SW (ADA access to the existing station is provided via a ramp from Hancock Park). A total of 5 historic catenary portals (consisting of 10 poles) within the project area would be removed to accommodate the reconstructed station and new fourth track (see **Figures 2-3 and 2-4**).

Figure 2-3: Proposed Catenary Portals to be Removed

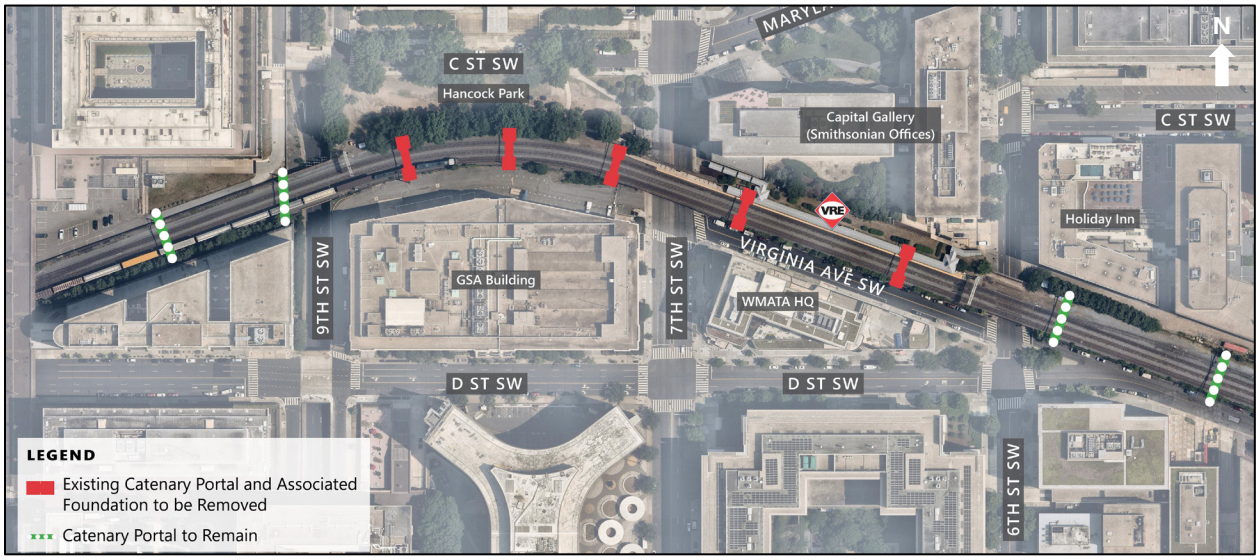


Figure 2-4: Catenary Portal Crossing the Corridor at the 7th Street SW Station Entrance

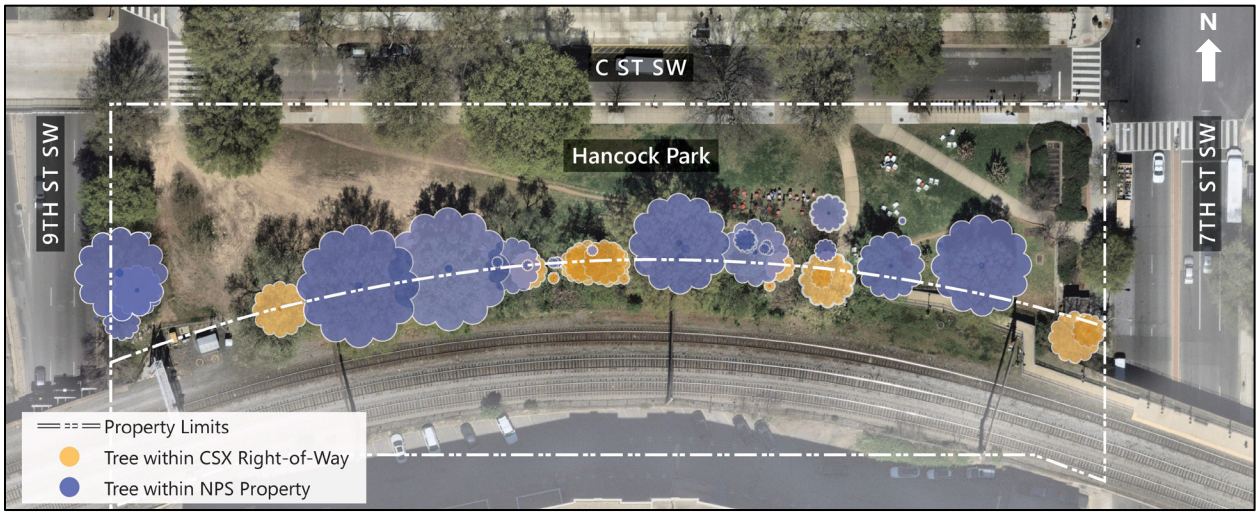
2.1.3 Rusticated Stone Retaining Wall

To support required track raises and to improve safety for vehicles and pedestrians below the rail corridor, a cap would be added to the top of the existing rusticated stone retaining wall along Virginia Avenue SW to increase the wall's height and ensure no track ballast overtops the wall. This cap may be constructed of concrete but would be faced with rusticated material that matches the existing stone to minimize the visual intrusion on the historic retaining wall. This wall cap would start between the 6th and 7th Streets SW Bridges and run eastward to about the halfway point to 4th Street SW.

2.1.4 Hancock Park

The addition of a fourth track and construction of the retaining wall would require removal of the majority of trees and vegetation adjacent to Hancock Park within the railroad ROW as well as some trees within the park adjacent to the railroad (see **Figure 2-5**). Trees designated for removal would be based on a consideration of the percentage of the critical root zone impacted by the project and the amount of canopy removal required to provide sufficient horizontal and vertical clearance for the installation and operations of the new fourth track. The specific number of trees to be removed would be determined during future project phases based on ongoing analysis, but most trees within the park would remain.

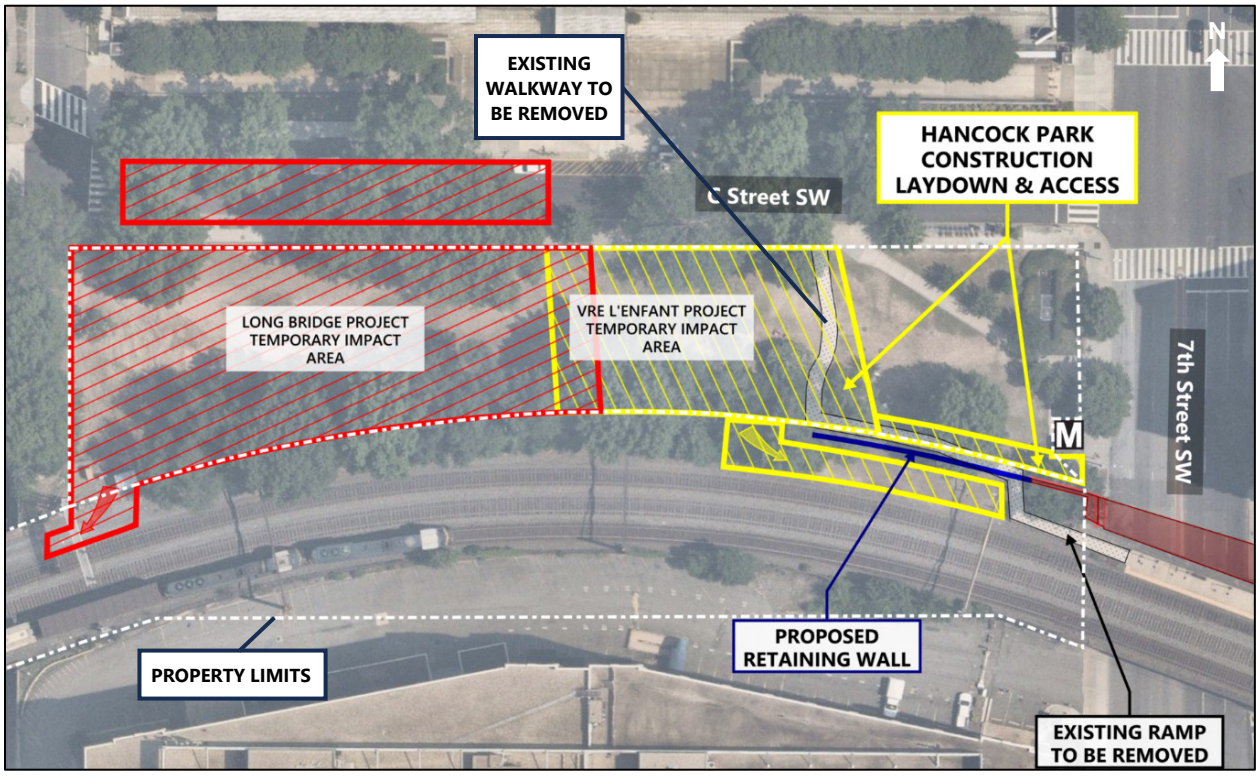
Figure 2-5: Proposed Trees to be Removed



A new retaining wall approximately 112 feet long, would be required along the north side of the railroad tracks along a portion of the boundary with Hancock Park, which would replace the existing pedestrian walkway to the existing station. The wall would start at the 7th Street SW Bridge abutment and extend in a westerly direction towards 9th Street SW. This includes some temporary encroachment and construction activities within Hancock Park to remove the existing walkway and install the retaining wall as part of the track and station improvements. **Figure 2-6** below shows a plan view of the Undertaking within the vicinity of Hancock Park.

Hancock Park would be used for construction laydown and access areas, and portions would be closed to the public during the duration of construction. See **Figure 2-6** below for the approximate location of the areas to be used during construction activities.

Figure 2-6: Site Plan of the Undertaking at Hancock Park



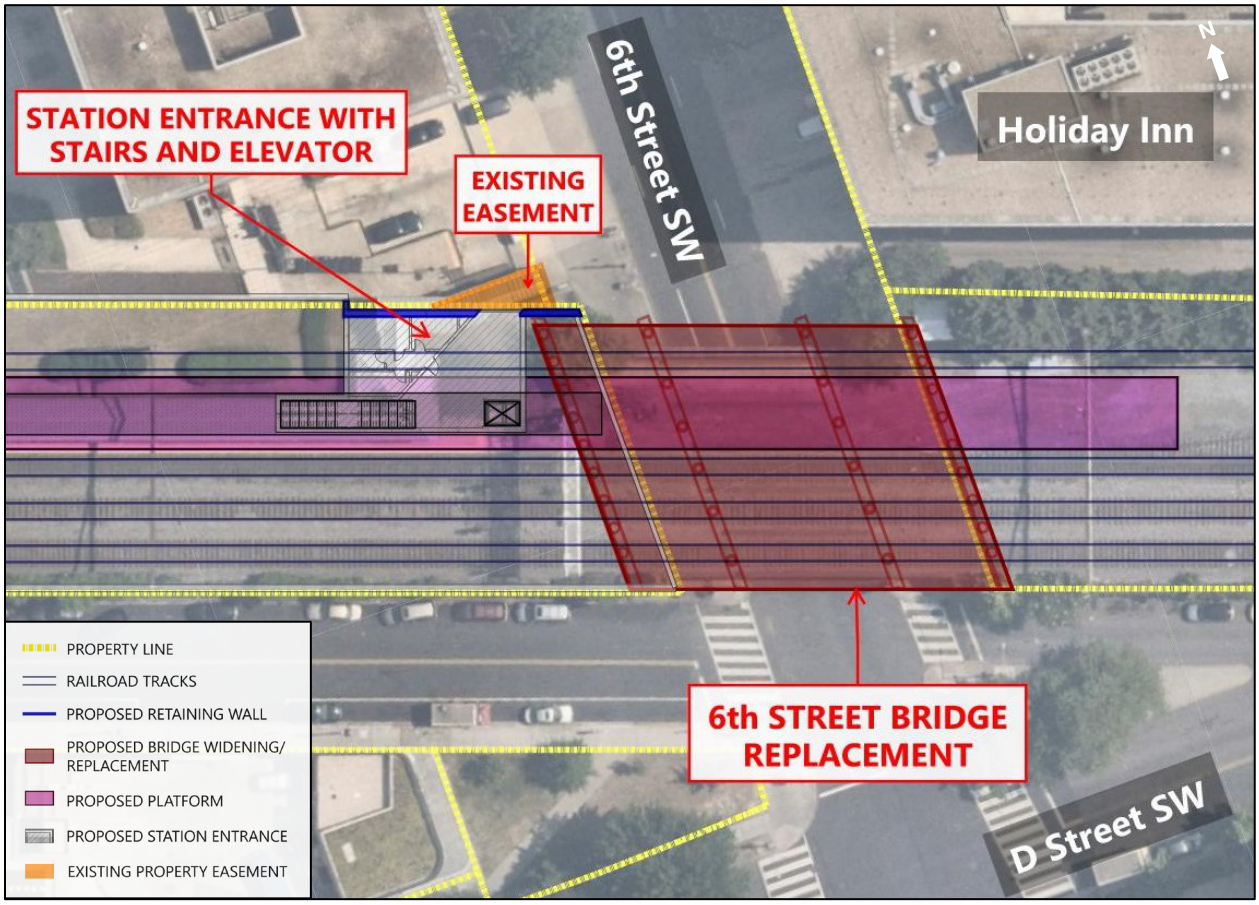
2.1.5 6th Street SW Bridge Replacement

The existing 6th Street SW Bridge would be removed and replaced with a wider bridge that maintains a vertical clearance of at least 14 feet over 6th Street SW (see **Figure 2-7**). The replacement bridge would have a deck plate girder structure that would be deeper than the existing structure in order to support modern railroad loading. Constrained below by the 6th Street SW vertical clearance limit, this structure would therefore require a track raise and additional fill material. Steel girders would make up the north and south facia of the bridge to approximate the historic appearance of the original bridge without replicating it. To support modern railroad loads while also providing code-required fall protection for workers and inspectors on the bridge, these girders would be up to 9 feet tall (roughly 4 feet taller than the existing, which is around 5 feet tall); the girders may be as low as 7.5 feet tall with an additional 1.5-foot pipe railing to meet the safety requirement while minimizing the visual obstruction. Specific design including materials and appearance would be determined through a future design review process for the project in an effort to balance the need to meet current safety code with minimizing alterations to the historic character.

Because the weight of the required additional fill material would exert additional pressures on the existing rusticated stone wall running along Virginia Avenue SW, a combination of normal and lightweight fill would be used to support the new track and minimize the pressure exerted on the wall. The existing steel columns on either side of the roadway would be replaced with concrete columns to better support the railroad loading requirements; the design details of these columns are under development, and they may be rounded columns instead of square.

The passenger platform would extend over the replacement bridge; however, the platform canopy would not extend over that section of platform and 6th Street SW to minimize any new visual intrusions along the 6th Street SW corridor. A tunnel entrance would provide access from 6th Street SW to the VRE station platform via stairs. **Figure 2-7** below shows a plan view of the Undertaking within the vicinity of the 6th Street SW Bridge. **Figure 2-8** shows a cross section of the deck plate girder structure of the proposed replacement bridge; a duct bank would cross the 6th Street SW Bridge and continue across the 7th Street SW Bridge. **Figure 2-9** shows a rendering of the proposed design and **Figure 2-10** shows a photo simulation of the general appearance of the bridge when viewed from the south side. Note that the rendering and photo simulation are for illustrative purposes only to show the approximate size and scale; further detail of the design including appearance and materials will be determined during the future design review process for the project.

Figure 2-7: Site Plan of the Undertaking at the 6th Street SW Bridge



Some modifications to the rusticated stone retaining wall would be required in the vicinity of the 6th Street SW Bridge. Where the rusticated stone wall serves as an abutment under the bridge on both sides, the top three stone courses would be removed to accommodate new beams required to support the proposed replacement bridge and allow for future maintenance and inspection. A new abutment would be constructed behind the rusticated stone abutment wall, which would remain in place but no longer serve a structural function. A few additional stones would be removed to accommodate a concrete abutment cap on the Virginia Avenue SW end of the new abutment wall. A rusticated facing could be added to the abutment cap to minimize the visual intrusion of the concrete within the stone

wall. A study would be conducted to determine if any stones from the rusticated stone wall could be salvaged and reused in any of the new bridge elements; historic materials may be salvaged and reused to the extent practicable.

To accommodate the new 6th Street SW station entrance on the north side of the corridor, an approximately five-foot-wide section of the rusticated stone retaining wall would be removed on the west side of 6th Street SW where it meets the existing station concrete wall. The proposed station entrance would require a new concrete wall, which would abut the rusticated stone retaining wall in a manner similar to the existing condition. **Figure 2-9** below shows a rendering of the overall layout of the 6th Street SW station entrance and bridge abutment wall. This rendering is for illustrative purposes only to show approximate size and scale; further detail of the design including appearance and materials will be determined during the future design review process for the project.

Figure 2-8: Cross Section of the Proposed Replacement Bridge over 6th Street SW

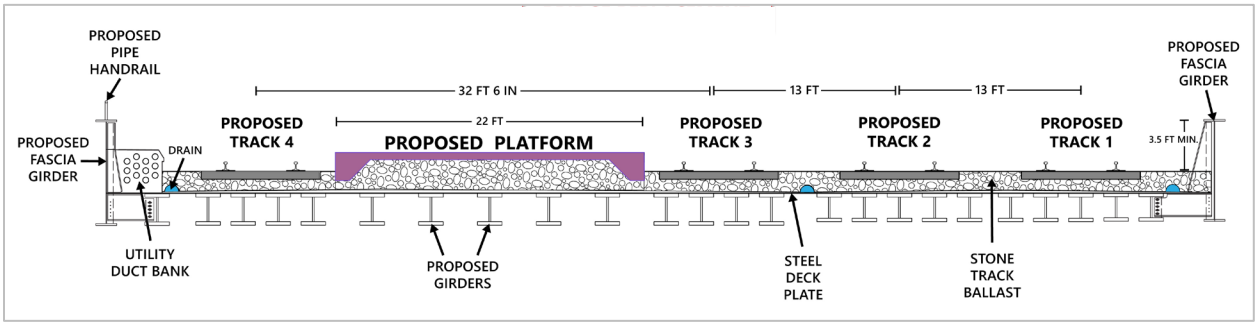


Figure 2-9: Rendering of the Proposed 6th Street SW Station Entrance

Figure 2-10: Photo Simulation of the 6th Street Bridge (South Side)

2.1.6 7th Street SW Bridge Modification

The Undertaking would include widening of the 7th Street SW Bridge using the same structure type as the existing bridge (steel deck plate girders with cantilever abutments) and would maintain a vertical clearance of at least 14-feet-1-inch over 7th Street SW. The width of the bridge would taper down from east to west in order to avoid impacts on Hancock Park, which is located immediately to the northwest of the 7th Street SW Bridge. A tunnel entrance would provide access from 7th Street SW to the VRE station platform via stairs and an elevator. **Figure 2-11** below shows a cross section of the proposed widened bridge. **Figure 2-12** shows a plan view of the Undertaking within the vicinity of the 7th Street SW Bridge. **Figure 2-13** shows a rendering of overall layout of the 7th Street SW station entrance and bridge abutment wall. This rendering is for illustrative purposes only; further detail of the design will be determined during the future design review process for the project.

Figure 2-11: Cross Section of the Proposed Widening of the 7th Street SW Bridge

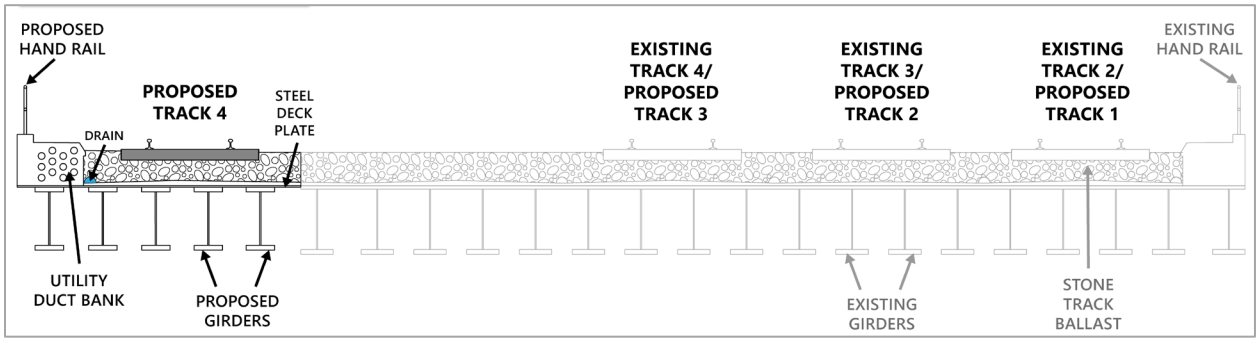


Figure 2-12: Site Plan of the Undertaking at the 7th Street SW Bridge

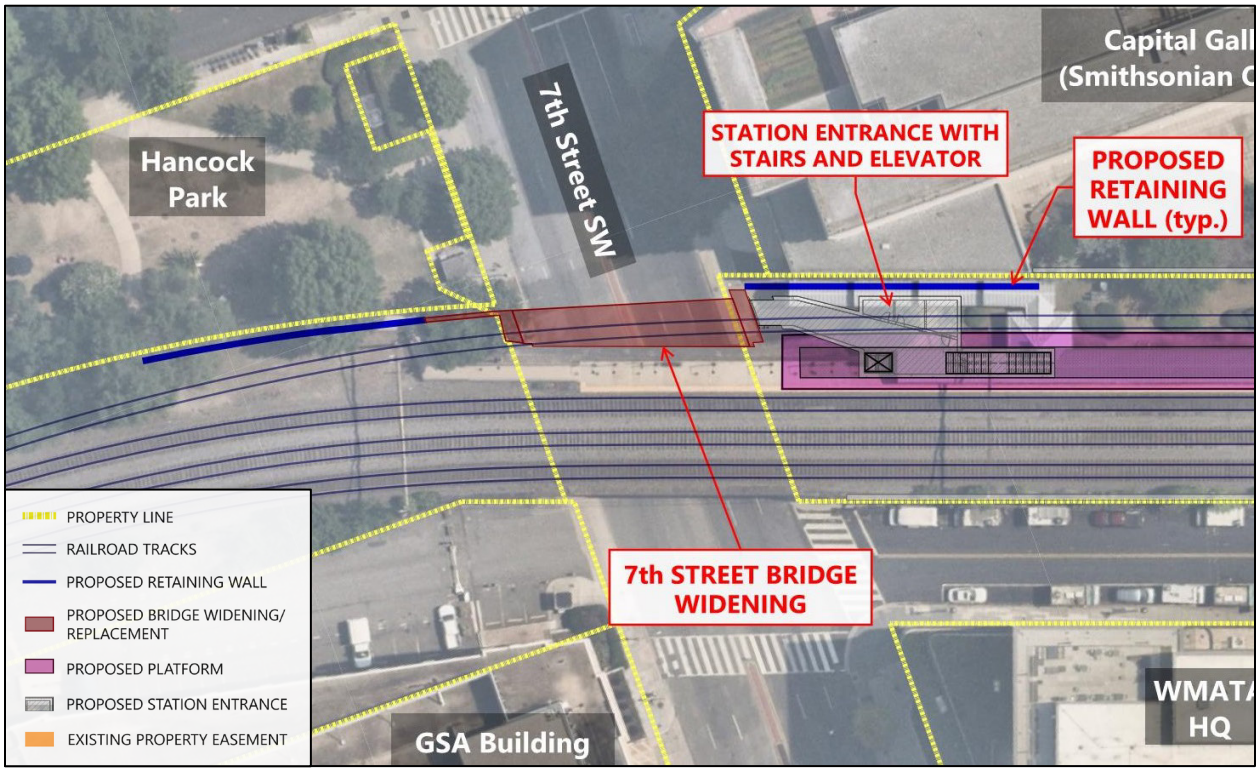


Figure 2-13: Rendering of the Proposed 7th Street SW Station Entrance

2.2 Other Alternatives Considered

The Undertaking was developed through an extensive alternatives analysis process that began in 2021. Throughout the alternatives analysis process, VRE engaged with agencies and stakeholders with regulatory, funding, design review, or other interests in the Project through a series of four working group meetings held in August 2021, November 2021, June 2022, and September 2022. VRE also engaged with the public over the summer of 2022 through a series of pop-up events, informational presentations to Advisory Neighborhood Commission (ANC) 6D and the Southwest Business Improvement District, and an online questionnaire.

The alternatives took into consideration potential impacts on adjacent properties, constructability challenges, and required stakeholder approvals. Five initial alternative concepts were identified during this process. Three of these were eliminated from further consideration because they did not meet the minimum platform length, would not allow boarding at the 6th Street SW Bridge, would encroach on the Virginia Avenue SW right-of-way, or did not allow for interoperability between all tracks. Two alternative concepts were carried forward and further developed to determine the locations for stairs and elevators to the platform and to define platform width and track alignment. The proposed Undertaking is the refinement of the alternative concept that best balanced operational needs, user experience, and impacts to adjacent properties.

The Undertaking was designed to minimize and avoid permanent impacts to Hancock Park which is administered by the National Park Service. The park is located immediately next to the rail corridor between 7th Street SW and the 9th Street Expressway. The proposed retaining wall on the north side of the tracks adjacent to Hancock Park is within the railroad right-of-way and was designed so not to encroach into the park boundaries. While temporary encroachment would be required for construction of the Project, there would be no permanent occupation of Hancock Park.

Design of the 6th Street SW Bridge is being further refined through coordination with CSXT, which will retain ownership of the bridge, and with DDOT. The design would ensure structural stability to handle modern rail traffic while minimizing impacts to the rusticated stone retaining wall. Specific details of the design, such as materials to be used for the bridge and supports, continue to be refined through consultation under Section 106 to minimize impacts on historic properties. A summary of that consultation process to date follows.

2.3 Section 106 Consultation

FTA initiated consultation under Section 106 on March 20, 2024, and a Consulting Parties Meeting was held on April 11, 2024. FTA provided information to Consulting Parties on the purpose and need for the Project, the proposed Undertaking, the Area of Potential Effects (APE), and the potential historic properties within the APE. A list of the parties FTA invited to participate in the consulting process is below in **Table 2-1**. The Section 106 consultation process is ongoing and will continue concurrent to the separate National Environmental Policy Act process.

Table 2-1: Agencies and Organizations Invited to Participate as Consulting Parties

DC Historic Preservation Office	General Services Administration
Advisory Neighborhood Commission 6D	National Capital Planning Commission
Amtrak	National Park Service
Cherokee Nation	Northern Virginia Transportation Commission
Commission of Fine Arts	Pamunkey Indian Tribe
Committee of 100	Potomac and Rappahannock Transportation Commission
CSX Transportation	Smithsonian Institution
DC Preservation League	Southwest Business Improvement District
District Department of Transportation	Virginia Passenger Rail Authority
Federal Railroad Administration	Washington Metropolitan Area Transit Authority*

*Declined to participate as a Consulting Party

3.0 Identification of Historic Properties

This section provides a summary of the methodology used by FTA and VRE to develop the project APE and identify historic properties, as well as the findings of those efforts. Development of the APE and the identification of historic properties was done in coordination with the DC SHPO and Consulting Parties.

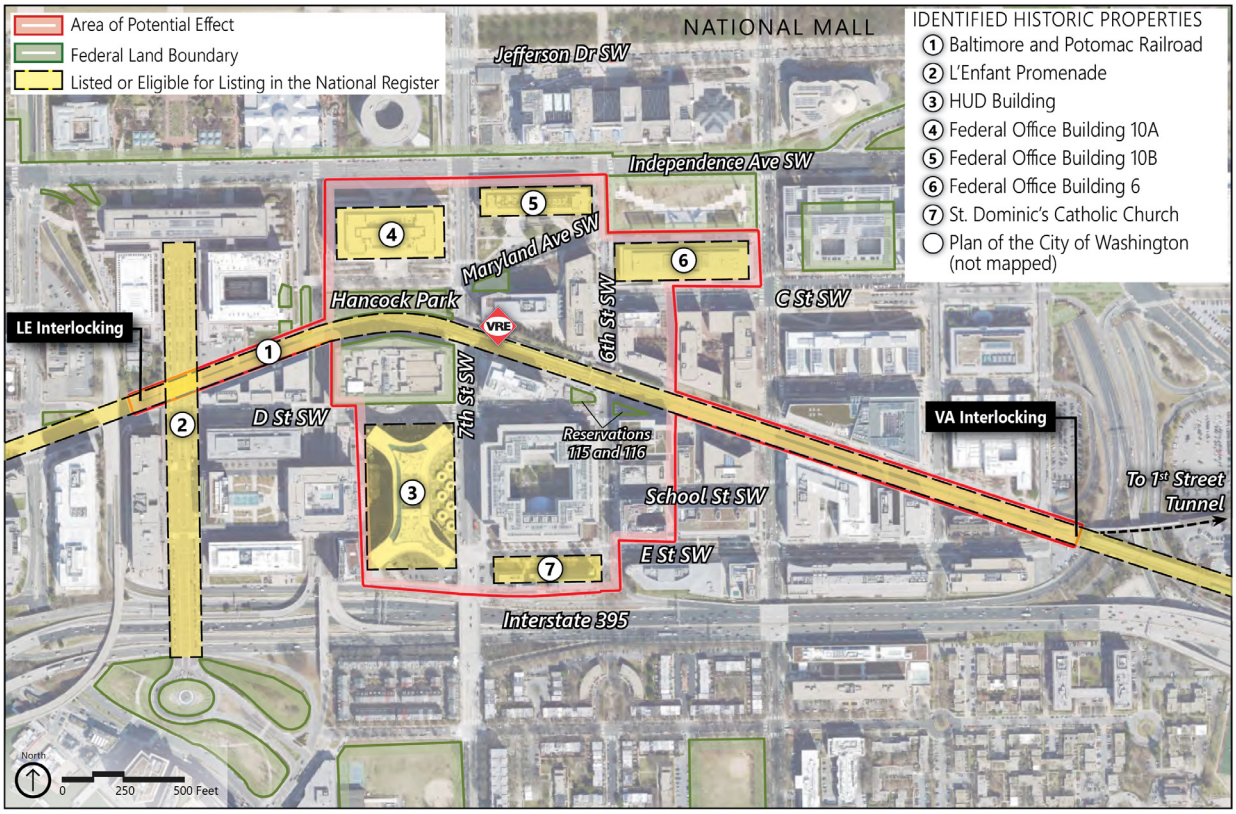
3.1 Area of Potential Effects

The proposed APE (see **Figure 3-1**) includes those geographic areas which may be affected by the Undertaking (36 CFR 800.16(d)). This includes the Project footprint, or limit of disturbance, as well as those areas which may experience other effects such as visual effects. The APE takes into consideration proposed modifications to the 7th Street SW Bridge and replacement of the 6th Street SW Bridge, which could be visible along the north-south axes of those streets.

3.2 Identification of Historic Properties

An initial desktop survey was conducted to identify historic properties within the APE using information from the DC SHPO Inventory of Historic Sites, the NRHP database, and GIS mapping data via the DC Office of Planning. FTA then identified properties within the APE that are 45 years of age or older that had not yet been fully evaluated for eligibility for listing in the NRHP. This age was selected to account for the 50-year threshold that is generally observed in the evaluation of historic significance, and to account for the implementation schedule of the Project. These resources were identified using a range of documentation sources including real property and building data, historic maps and photographs, aerial photographs, as well as information from the DC SHPO and other Consulting Parties during the Section 106 consultation process.

Figure 3-1: Historic Properties within the Area of Potential Effects



During the spring and summer of 2024, FTA conducted background research and field surveys of the properties identified in the APE to determine their eligibility for listing in the NRHP. A portion of the Baltimore and Potomac (B&P) Railroad east of the Anacostia River near Benning Road NE was previously documented in a DOE and was determined eligible with the condition that additional research be conducted in the future in order for the DC SHPO to make a full evaluation of the resource's eligibility. An evaluation of the full B&P Railroad was conducted during the identification efforts for this project, and the railroad was recommended as eligible. Through consultation with the DC SHPO and Consulting Parties, it was agreed that features of the railroad such as the railroad bridges (including the 6th Street SW Bridge and the 7th Street SW Bridge), the catenary poles, and the rusticated stone retaining wall would be evaluated as resources of the B&P Railroad rather than individual properties because their functions are inextricably tied to the railroad.

The historic properties identified within the APE are shown on the APE map (see **Figure 3-1**) and listed in **Table 3-1** below. Detailed descriptions of each of these resources are included in **Section 3.3: Historic Properties within the APE**.

Table 3-1: Identified Historic Properties within the APE

Property No.	Property Name	Address	Designation/Eligibility
N/A	Plan of the City of Washington	Washington, DC	DC Historic Landmark NRHP Listed
1	Baltimore & Potomac Railroad	Washington, DC	DOE recommended eligible
2	L'Enfant Promenade	10th Street SW	DOE recommended eligible
3	U.S. Department of Housing and Urban Development (HUD) Building	451 7th Street SW	DC Historic Landmark NRHP listed
4	Federal Office Building 10A (Orville Wright Building)	800 Independence Ave SW	DOE recommended eligible
5	Federal Office Building 10B (Wilbur Wright Building)	600 Independence Ave SW	DOE recommended eligible
6	Federal Office Building 6 (US Department of Education)	400 Maryland Ave SW	DC Historic Landmark NRHP listed
7	St. Dominic's Catholic Church	630 E Street SW	DC Historic Landmark

Three properties over 45 years of age within the APE were previously determined to be not eligible for listing in the NRHP: the General Services Administration (GSA) Regional Office Building at 801 D Street SW, the Constitution Center Building at 400 7th Street SW, and the American Road Builders Association Building at 525 School Street SW. The GSA building was determined by the Keeper of the NRHP to be not eligible in March 2014 due to a loss of integrity.[1] The Constitution Center Building was substantially altered circa 2007 and no longer retains historic integrity; in an email dated March 6, 2024, the DC SHPO agreed that the building is not eligible for listing in the NRHP due the loss of integrity. The American Roadbuilders Association Building was evaluated and determined to not meet the eligibility requirements for listing in the NRHP in January 2025. Therefore, these three properties were excluded from this assessment of effects.

A Phase I archaeological investigation of Hancock Park is currently underway, and the results will be considered as the Section 106 consultation process continues. If any significant archaeological resources are identified, an assessment of effect on those resources will be conducted as part of the Section 106 process.

3.3 Historic Properties within the APE

The following provides a brief summary of each of the identified historic properties located within the APE for this undertaking, which serves as a basis for understanding the effects that the undertaking would have on each property.

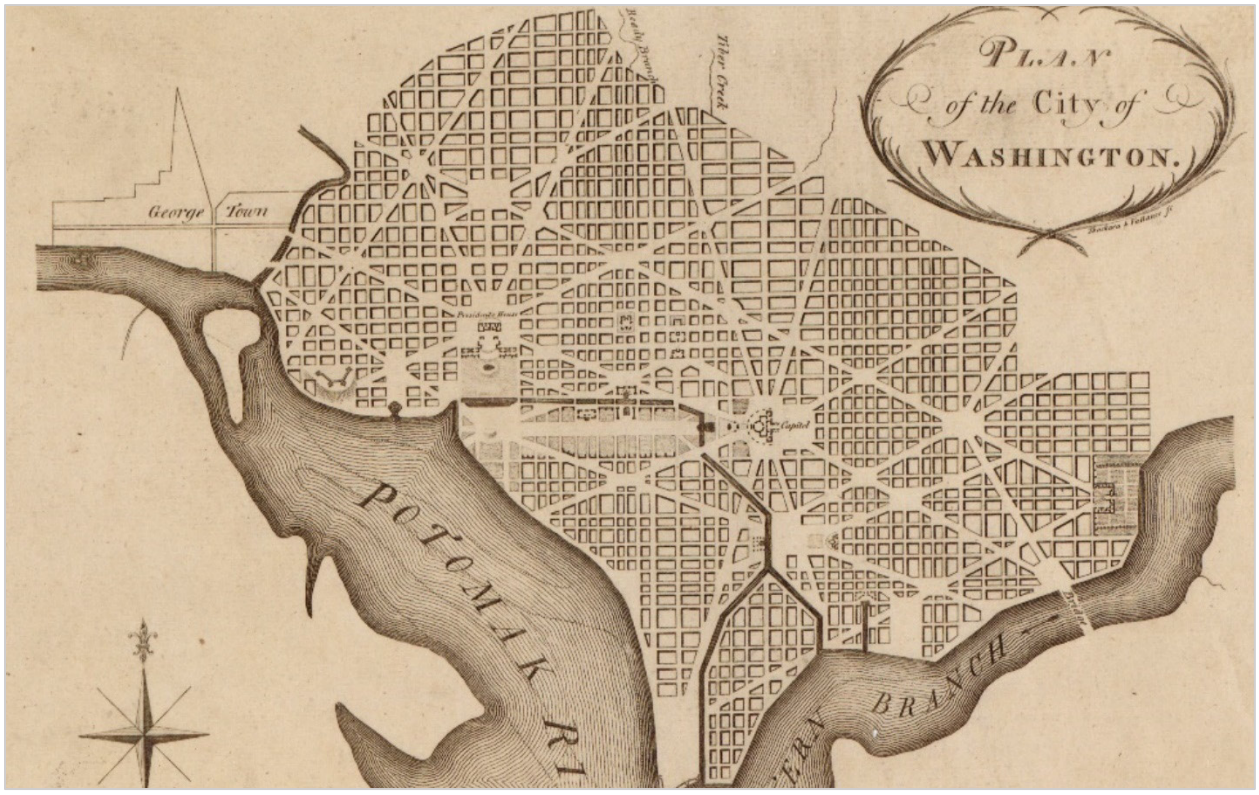
3.3.1 Plan of the City of Washington

The Plan of the City of Washington (the Plan) includes original elements of Pierre Charles L'Enfant's 1791 plan for the City of Washington ("L'Enfant Plan") as well as the 1901-02 McMillan Commission

[1] Charles LeeDecker, Patti Kuhn, Sara Groesbeck, and Gregory Katz. 2015. *Cultural Resource Survey, Cotton Annex Parcel and GSA Regional Office Building Parcel, Washington, DC*. Prepared for General Services Administration, 1.

recommendations. The L'Enfant Plan specified an orthogonal, or grid, pattern with streets organized in north-south and east-west directions, cut through by wider "grand avenues," and axial, or diagonal, avenues which provided vistas of important government buildings and sites (See **Figure 3-2** below). There were also public greenspaces, known as "Reservations," included among monuments and sites over federal land. "Congress House" (now known as the United States Capitol) and the "President's House," connected by The Mall, were central features from which the plan would radiate. The design, including the McMillan Commission expansion, is regarded as a landmark in urban design and has inspired plans for other capital cities throughout the United States and the world.

Figure 3-2: The L'Enfant Plan for the City of Washington



The Plan of the City of Washington was listed in the NRHP in 1997. It was evaluated as a historic urban landscape under Criteria A, B, and C in the areas of significance of Community Planning and Development, Landscape Architecture, Politics and Government, and Transportation. Its contributing resources include tangibles like Reservations (parks and "parklets", statuary and commemorative structures), and the axial and orthogonal street layouts. Other contributing resources include intangibles like vistas, which are typically part of the airspace above a streetscape, framed by the buildings on either side of the street.

Contributing resources to the L'Enfant Plan within the APE include three small reservations as well as sections of Maryland and Virginia Avenues SW; 6th, 7th, and 10th Streets SW; C, D, and E Streets SW; and their associated vistas. The NHRP Nomination Form for the Plan of the City of Washington documents the railroad along Maryland Avenue SW and Virginia Avenue SW as non-contributing

interruptions and obstructions of associated vistas along those avenues.[2] The contributing resources within the APE are described below.

Reservations

Photo 3-1: View of Hancock Park with L'Enfant Station and the 7th Street SW Bridge visible in background.

Hancock Park (Reservation 113). Hancock Park is an open public park space administered by the National Park Service located adjacent to the Project area (See **Photo 3-1**). It is bound by C Street SW and the railroad corridor to the north and south, respectively, and by 7th Street SW and the 9th Street Expressway to the east and west, respectively. The space was originally identified as Reservation 113 and planned as a public park space at the intersection of Maryland and Virginia Avenues SW as part of the Plan for the City of Washington. The area was instead occupied by the railroads in the mid-19th century, becoming the site of the Maryland Avenue freight depot and passenger station. By the mid-20th century, the park space was reduced in size by development during the urban renewal efforts in Southwest but was restored to a grassy public park space crisscrossed with concrete walkways. By the 1990s a lengthy concrete ramp was constructed on the southeast side to give access to the L'Enfant Station VRE platform. Hancock Park is considered a contributing resource to the Plan of the City of Washington as part of the diagonal corridors of Maryland and Virginia Avenues SW.

Reservations 115 and 116. Today known as Boxcar Willie Memorial Park and Dean Wilhelm Memorial Park, respectively, Reservations 115 and 116 are two are two tiny, triangular "parklets" named for local worthies, created by the intersection of 7th Street SW, Virginia Avenue SW, and D Street SW (See **Figure 3-1**). These parklets are each less than a quarter-acre in size and are landscaped with grass, trees, and shrubs. Benches and walking paths are available in the parklets, but recreational use is minimal. Reservations 115 and 116 are considered contributing resources to the Plan of the City of Washington as part of the diagonal corridor of Virginia Avenue SW.

Avenues

Maryland Avenue SW. Maryland Avenue SW was originally developed as a residential corridor and is one of the oldest avenues in the city. It runs on a northeast-southwest axis from the US Capitol Building towards the Tidal Basin. Much of the road right-of-way was occupied by the B&P Railroad in the 19th century and is now part of the railroad right-of-way. The road itself is now interrupted by the rail corridor, which is considered a non-contributing obstruction of the associated vista, as well as open greenspace; however, the axial alignment and associated vistas are generally maintained. The section within the APE (between 6th and 7th Streets SW) was redeveloped as part of the urban renewal efforts

[2] Sara Amy Leach and Elizabeth Barthold. 1994. *National Register of Historic Places Registration Form, L'Enfant Plan of the City of Washington, District of Columbia*. Historic American Building Survey/Historic American Engineering Record, National Park Service, Washington, DC, Section 7, Page 28.

for Southwest in the mid-20th century and now is lined by federal office buildings. Today, Maryland Avenue SW maintains its prominent vista northeast towards the US Capitol Building (See **Photo 3-2**).

Virginia Avenue SW. Like Maryland Avenue SW, much of the Virginia Avenue SW right-of-way has been occupied by the railroad since the 19th century. The railroad itself is considered a non-contributing obstruction of the associated vista along the avenue. Virginia Avenue SW parallels the railroad corridor and the rusticated stone retaining wall between 7th Street SW and 2nd Street SW within the APE and is generally lined by office buildings. Today, Virginia Avenue SW maintains its vista northwest towards the Washington Monument (See **Photo 3-3**).

Photo 3-2: View of the US Capitol Building along the former alignment of Maryland Avenue SW from 6th Street SW.

Photo 3-3: View of the Washington Monument in the distance along the rail corridor parallel to Virginia Avenue SW.

Streets

North-South Streets. Within the APE there are three small segments of north-south streets: 1) 6th Street SW between Interstate 395 and Independence Avenue, 2) 7th Street SW from Interstate 395 and Independence Avenue, and 3) the L'Enfant Promenade (formerly 10th Street SW). This area was extensively redeveloped as part of the mid-20th century urban renewal efforts for Southwest and the streets are lined by government buildings. The long views and vistas along these north-south streets as envisioned by L'Enfant have been interrupted by development over time. Views along 6th Street SW have been interrupted by the Smithsonian National Air and Space Museum building to the north and by Interstate 395 to the south. Views along 7th Street SW are generally maintained as planned, extending south towards the waterfront and north towards the National Mall. The view along the L'Enfant Promenade north towards the National Mall is interrupted by the James Forrestal Building that spans the north end of the Promenade.

East-West Streets. Within the APE there are three small segments of east-west streets: 1) C Street SW between 9th and 6th Streets SW, 2) D Street between 9th and 6th Streets SW, and 3) E Street SW between 7th and 6th Streets SW. Within the APE, the original continuous alignment of these east-west streets has been interrupted by large government buildings and the reconfigured superblocks as part of the mid-20th century urban renewal efforts for Southwest. These streets now consist of multiple discontinuous segments.

3.3.2 Baltimore and Potomac Railroad

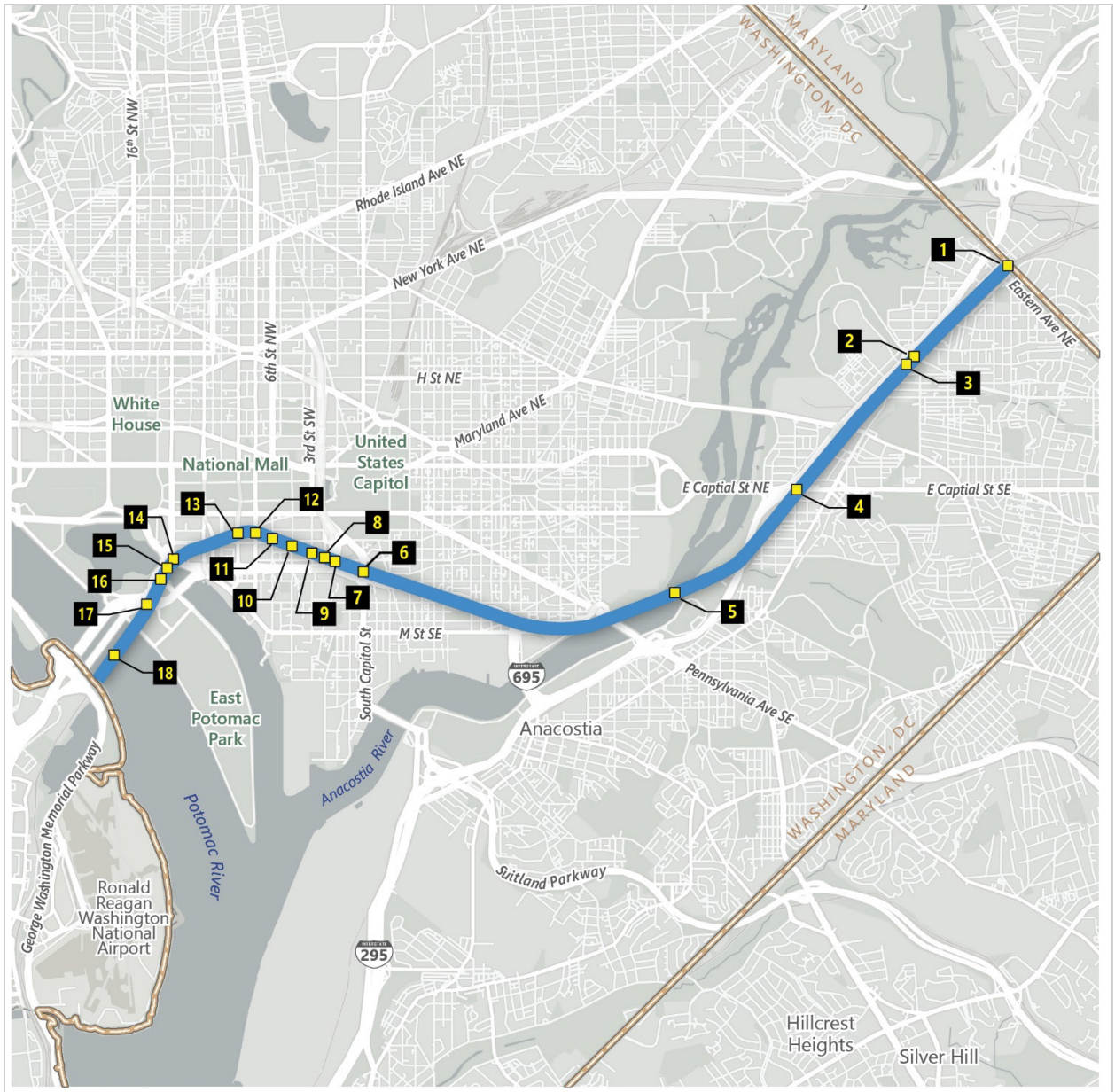
The Baltimore and Potomac Railroad within the District is an approximately 7.5-mile railroad corridor that travels through the Northeast, Southeast, and Southwest quadrants of the District of Columbia (see **Figure 3-3**). Starting at the Maryland state line at Eastern Avenue NE, the corridor travels southwest parallel to the Kenilworth and Anacostia Freeways into the Southeast quadrant and crosses the Anacostia River over the Anacostia River Railroad Bridge. From the bridge, the railroad corridor briefly runs parallel to the river before turning northwest and entering the Virginia Avenue Railroad Tunnel near 12th Street SE. The railroad exits the tunnel at 2nd Street SE and travels in a northwesterly direction into the Southwest quadrant and follows a curve to the southwest between 7th Street SW and the 9th Street Expressway. The corridor then follows a northeast-southwest alignment, traveling under the Maryland Avenue SW overbuild and crossing over Maine Avenue SW. The corridor then crosses and forms the boundary between the National Park Service-administered East and West Potomac Parks before crossing the Potomac River via Long Bridge to the Virginia state line on the opposite shore.

Development of the B&P Railroad within the District limits commenced by 1855 with the laying of railroad tracks from the foot of Long Bridge along Maryland Avenue SW to the foot of Capitol Hill and across the National Mall at 1st Street SW to the B&P Depot at New Jersey Avenue SE. Trackage continued southeast along Virginia Avenue to the Anacostia River and beyond. The railroad corridor in Southwest DC took advantage of L'Enfant's street plan and the level grades of Maryland and Virginia Avenues SW. The open space at Hancock Park evolved into a railroad interchange and depot area with a wye junction at 6th Street SW. The construction of the B&P Railroad significantly altered Southwest DC, which was soon crisscrossed by dangerous at-grade crossings. By 1888, the railroad had four tracks along portions of Maryland and Virginia Avenues in the area that is now the APE for this Undertaking, making at-grade crossings particularly dangerous. Southwest DC also hosted depots and railyards operated by the B&P Railroad.

By the late 19th century, concerned citizens and US Senators James McMillian of Michigan and Justin Morrill of Vermont began to advocate for safety improvements to the B&P Railroad corridor. As a result of this advocacy, circa 1903, the railroad was elevated above grade on a retaining wall composed of rusticated stone blocks (see **Photo 3-4**). The rusticated stone retaining wall is considered a contributing feature of the railroad. Where the railroad crossed existing roadways, the roads were either made to pass beneath the railroad or the road was elevated over the railroad tracks. By the time the project finished, the railroad passed over 2nd, 3rd, 4th, 6th, 7th, and 9th Streets SW. Today, there are a total of 12 railroad bridges in the District that are considered to be contributing resources to the B&P Railroad (See **Figure 3-3**).

Photo 3-4: Rusticated stone retaining wall that carries the railroad corridor through Southwest along Virginia Avenue SW.

Figure 3-3: Location of the B&P Railroad and Bridges within the District



Baltimore & Potomac Railroad

Bridge

1. Eastern Avenue NE Bridge*
2. Nannie Helen Burroughs Avenue NE Bridge*
3. Watts Branch Bridge
4. East Capitol Street NE/SE Bridge
5. Anacostia River Railroad Bridge*
6. South Capitol Street SW Bridge*
7. I-395 Bridge
8. 2nd Street SW Bridge*
9. 3rd Street SW Bridge*
10. 4th Street SW Bridge*
11. 6th Street SW Bridge*
12. 7th Street SW Bridge
13. 9th Street Expressway Bridge
14. Maine Avenue SW Bridge*
15. Washington Channel Bridge*
16. Ohio Drive SW Bridge*
17. I-395 Bridge (East Potomac Park)
18. Long Bridge*

*contributing resource to the Baltimore & Potomac Railroad

N

0 0.5 1 Mile

Within the APE, the 6th Street SW Bridge is an intact and representative example of the bridges built circa 1903. The bridge is a steel frame through-girder bridge with a crushed stone ballast track bed composed of riveted girders that rest on rusticated stone abutments and supported by bracketed steel columns set into concrete footers that support the bridge between spans (see **Photo 3-5**). The 6th Street SW Bridge is considered a contributing feature of the B&P Railroad.

The 7th Street SW Bridge, also within the APE, is an example of later bridge replacement. Circa 1970, the original 7th Street SW Bridge was demolished to permit the construction of the L'Enfant Plaza Metrorail Station beneath 7th Street SW. The bridge's design is in the style of the underground Brutalist style Metrorail station (See **Photo 3-6**). The 7th Street SW Bridge is a triple track, reinforced concrete bridge with a crushed stone ballast track bed that rests on steel I-beams. The bridge is approximately 80 feet long and 60 feet wide. Its structure is composed of a reinforced concrete slab supported by steel I-beams. The slab and I-beams rest on cantilevered concrete abutments that are connected to the earlier rusticated stone abutments. Along the underside of the bridge there are thin concrete slabs which partially mask the presence of the steel I-beams. Due to being built outside of the railroad's period of significance and in a contrasting style, the 7th Street SW Bridge is considered a non-contributing resource to the B&P Railroad.

Photo 3-5: View of the c. 1903 6th Street SW Bridge looking southeast.

Photo 3-6: View of the c. 1970 7th Street SW Bridge looking northwest.

Catenary portals were installed along the B&P Railroad between 1928 and 1935 as part of the electrification of the railroad. The catenary portals are paired metal poles that stand on opposite sides of the railroad corridor and are connected by a third horizontal beam with diagonal bracing. The poles were used to connect electrical wiring (referred to as catenary wires) strung above the moving trains. The catenary wires were removed during the 1990s, but support frames and poles are still present along the right-of-way in some areas. These catenary portals are considered contributing features of the B&P Railroad and convey its significance with the railroad electrification in the early 20th century. See **Figure 2-3** for the location of the catenary portals within the APE. Other contributing features of the B&P Railroad within the APE include the railroad alignment and the trackage.

3.3.3 L'Enfant Promenade

The L'Enfant Promenade, originally known as the Tenth Street Mall, was a key element of I.M. Pei and Harry Weese's plan for the Southwest Redevelopment Area and served as the major entryway into the Southwest Quadrant.[3] Constructed in stages between 1960 and 1973, the Promenade consists of a

[3] Federal Railroad Administration, *Long Bridge Project Section 106 Area of Potential Effects and Historic Properties Technical Report*, 2018, 46.

complex of buildings framing a pedestrian esplanade set on a north-south axis extending from just south of the National Mall to Benjamin Banneker Park near the wharf area of the Washington Channel. Several buildings lining the Promenade were designed in the mid-20th century Brutalist style. The Promenade is roughly 200 feet wide consisting of a divided roadway and pedestrian esplanade that crosses over the railroad corridor; a central wide concrete island runs the length of the Promenade.

Photo 3-7: View of L'Enfant Promenade looking north towards the James Forrestal Building, which cuts off the views to the National Mall.

The original plan included an uninterrupted vista north to the Smithsonian Castle on the south side of the National Mall. This plan was hindered when the Navy Department constructed the James Forrestal Building across the north end of the Promenade, blocking the view to the Smithsonian Castle and the National Mall (see **Photo 3-7**). Today, the Promenade is dominated by concrete with trees interspersed with decorative streetlights, each 22 feet tall topped with four glass globes. The promenade is significant for its association with the implementation of the mid-20th century plan for the Southwest Redevelopment Area.

3.3.4 US Department of Housing and Urban Development Building (Robert C. Weaver Federal Building)

The US Department of Housing and Urban Development (HUD) Building was the first government building constructed under the 1962 report, "Guiding Principles of Federal Architecture," written by Senator Patrick Moynihan (see **Photo 3-8**).[4] Completed in 1968 by the internationally known Modernist architect, Marcel Breuer, the building was designed as part of the mid-20th century urban renewal efforts for Southwest which replaced the former dense street grid with superblocks lined with Modernist-style multi-story buildings. The federal government adopted the Modernist style of architecture because it was believed to reflect the dignity, enterprise, and stability of the American national government through the use of materials such as concrete.

Photo 3-8: View of the southeast oblique of the HUD Building from intersection of 7th Street SW and E Street SW.

The HUD Building has a sweeping curvilinear X-shaped form and was built using precast and cast in place concrete. It rises off an angular concrete colonnade and has concrete panels with single light windows. It is the first modular federal building built in the United States. The HUD Building is significant for its association with the implementation of the mid-20th century plan for the Southwest Redevelopment Area as well as for being the first government building constructed under the "Guiding Principles of Federal Architecture," a document that shaped the construction of government buildings in the District starting in the late 1960s.

[4] Judith H. Robinson and Daria A. Gasparini, *National Register of Historic Places Registration Form, U.S. Department of Housing and Urban Development / Robert C. Weaver Federal Building*, 2008.

3.3.5 Federal Office Building 10A (Orville Wright Building)

Photo 3-9: View of the southeast oblique of FOB 10A from the L'Enfant Station platform over 7th Street SW.

Federal Office Building (FOB) 10A was originally constructed between 1961 and 1963 for the General Services Administration and was one of the earliest to be constructed as part of the urban renewal program for Southwest DC (see **Photo 3-9**).[5] The building was built amidst the Cold War when both the Federal Aviation Administration (FAA) and National Aeronautics and Space Administration (NASA) expanded their workforces to counter Soviet expansion into space. In order to house their growing workforce, the FAA and NASA built the Orville Wright Building and nearby Wilbur Wright Building (see **Section 3.3.6**). Presently the FAA occupies both buildings. The Orville Wright Building was designed in the International Style by the architectural firms of Holabird & Root & Burgee, and Carroll, Grisdale & Van Alen. The building is a steel frame construction faced with concrete and granite; its first floor is recessed behind a colonnade of rectangular columns. The upper stories are composed of regularly spaced windows organized in vertical and horizontal rows. The Orville Wright Building is significant for its association with the implementation of the mid-20th century plan for the Southwest Redevelopment Area and for its association with the Cold War era expansion of the FAA and NASA.

3.3.6 Federal Office Building 10B (Wilbur Wright Building)

Photo 3-10: View of the southwest oblique of FOB 10B from 7th Street SW.

FOB 10B was originally constructed between 1961 and 1963 for General Services Administration and was one of the earliest to be constructed as part of the urban renewal program for Southwest DC (see **Photo 3-10**).[6] The building was built amidst the Cold War when both the FAA and NASA expanded their workforces to counter Soviet expansion into space. In order to house their growing workforce, the FAA and NASA built the Wilbur Wright Building and nearby Orville Wright Building (see **Section 3.3.5**. Presently the FAA occupies both buildings. The building was designed in the International Style by the architectural firms of Holabird & Root & Burgee, and Carroll, Grisdale & Van Alen. The building is of a steel frame construction faced with concrete and granite. Each story is composed of regularly spaced windows organized in vertical and horizontal rows. Fenestration consists of a grid of rectangular fixed bronze windows that are set flush against each wall of the building. The Wilbur Wright Building is significant for its association with the implementation of the mid-20th century plan for the Southwest Redevelopment Area and for its association with the Cold War era expansion of the FAA and NASA.

[5] AECOM, *DC State Historic Preservation Office Determination of Eligibility Form, Federal Office Building 10A; Orville Wright Building*, 2010.
[6] AECOM, *DC State Historic Preservation Office Determination of Eligibility Form, Federal Office Building 10B; Wilbur Wright Building*, 2010.

3.3.7 Federal Office Building 6 (Lyndon Baines Johnson Department of Education Building)

Photo 3-11: View of the northwest oblique of FOB 6 from 6th Street SW.

FOB 6 was constructed between 1959 and 1961 as part of the early urban renewal program for Southwest DC (see **Photo 3-11**).[7] Considered by many to be the first truly modern federal office building constructed in the post-World War II era, it was initially used by NASA and then as the headquarters for the Department of Education. The building's Modernist design represented a dramatic stylistic change for federal government buildings and prompted a significant shift towards the expression of modern architecture in the District. The building was designed by architecture firms of Faulkner, Kingsbury and Stenhouse and Chatelain, Gauger and Nolan; as well as landscape architects of Collins, Simonds and Simonds and Lester Collins. The building is seven stories tall, constructed of reinforced concrete and predominantly faced with limestone veneer panels joined in a fillet molding detail at the corners of the building. Each elevation of the building is symmetrical. The building is surmounted by a flat roof framed by low parapet walls. The middle six stories (second to sixth) project over the first story and are supported by rectangular piloti columns. FOB 6 is significant for its association with the implementation of the mid-20th century plan for the Southwest Redevelopment Area. It is also significant as it is the first building in the District constructed under the 1956 *Construction Program Federal Buildings Plan for Washington, D.C. & Vicinity*. This plan represented the federal government effort to fund the design and construction of federal buildings without using direct appropriations from Congress.

3.3.8 St. Dominic's Catholic Church

Photo 3-12: View of the northeast oblique of the St. Dominic's Catholic Church from the corner of 6th Street SW and E Street SW.

Designed by architect Patrick Kelly and constructed in 1875, St. Dominic's Catholic Church is one of the oldest buildings in Southwest DC (see **Photo 3-12**).[8] The church was completed three years after the B&P Railroad was constructed through the District. It is one of the few buildings to escape demolition during the mid-20th century urban renewal era in Southwest DC; however, the church's former convent, school, and original priory were destroyed during that era. The Church is significant as a Gothic Revival style church exhibiting architectural details from its original construction and renovations that occurred after fires in 1885 and 1929. The stained-glass windows were designed by Edward Heimer and installed in 1965. The church continues to serve many who work in the surrounding federal buildings to this day. The church rises off a stone foundation and has ashlar stone construction with sandstone accents around its

[7] Kimberly DeMuro and Bill Marzella, *National Register of Historic Places Registration Form, Federal Office Building No. 6 (FOB 6)*, 2017.

[8] "Saint Dominic's Church," *DC Historic Sites*, accessed August 14, 2024, https://historicsites.dcpreservation.org/items/show/1261.

doorways and windows. The building has a pair of asymmetrical towers that are topped by copper clad spires. Slate covers the roof. The Church's façade has a prominent rose window, and its side elevations have towering lancet stained-glass windows.

4.0 Assessment of Effects

4.1 Methodology

Under ACHP regulations, an assessment of effect must be made for historic properties eligible for or listed in the NRHP within the APE. An undertaking is considered to have an adverse effect when it may "alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association" (36 CFR 800.5[1]). Potential adverse effects on historic properties from an undertaking could include the following: design changes, introduction of new structures or circulation patterns, removal of historic materials, or the use of historically incompatible materials and methods in repair and maintenance. Physical changes to the setting of historic properties may also result in visual changes that could diminish the integrity of setting, feeling, and association.

For this Undertaking, FTA identified two main categories of potential effects on historic properties:

- **Visual effects** that may change the character of a historic setting or alter significant views.
- **Physical effects** that may remove, damage, or alter a historic property within the APE.

These potential visual and physical effects on historic properties within the APE are described below.

4.2 Assessment of Effects

The analysis of effects on historic properties was based on a review of previous studies, consideration of the proposed design concepts, and other information provided by the Consulting Parties. The discussion begins with an analysis of the visual effects on historic properties within the APE in **Section 4.2.1** and follows with a discussion of the physical impacts on historic properties in **Section 4.2.2**.

4.2.1 Visual Effects

The Undertaking would implement changes within the viewshed of historic properties within the APE. The following actions would introduce visual changes within the viewshed of historic properties within the APE: the replacement bridge at 6th Street SW (including associated station entrance), the widened bridge at 7th Street SW (including associated station entrance), the modified station platform and canopy, and the removal of trees in Hancock Park. The new fourth track proposed in the Undertaking would be visible from properties along the rail corridor; however, because it would be within the existing railroad right-of-way, which is currently used as an active railroad corridor, and it would not result in notable changes to the viewsheds of these properties. These visual effects on historic properties are summarized in **Table 4-1** below, followed by additional discussion.

Table 4-1: Visual Effects on Historic Properties within the APE

Resource	Visual Effect	Distance to 7th Street SW Bridge	Distance to 6th Street SW Bridge
Plan of the City of Washington	*No Adverse Effect* Changes would be of similar scale to existing structures; no substantial new obstruction to contributing vistas.	NA	NA
B&P Railroad	***Adverse Effect*** Changes will alter view of and from the railroad corridor.	NA	NA
L'Enfant Promenade	*No Adverse Effect* VRE Station and bridges mostly obscured from view by vegetation and buildings.	Approx. 1,000 feet	NA
US Department of Housing and Urban Development Building	*No Adverse Effect* 7th Street SW Bridge visible from building's northeastern most corner. VRE L'Enfant Station shielded by vegetation and buildings.	Approx. 415 feet	NA
Federal Office Building 10A (Orville Wright Building)	*No Adverse Effect* 7th Street SW Bridge visible from building's southeastern most corner. VRE L'Enfant Station and tracks screened by vegetation.	Approx. 300 feet	NA
Federal Office Building 10B (Wilbur Wright Building)	*No Adverse Effect* 6th & 7th Street SW Bridges visible from building's southernmost corners. VRE L'Enfant Station shielded by buildings.	Approx. 475 feet	Approx. 675 feet
Federal Office Building 6 (US Department of Education)	*No Adverse Effect* 6th Street SW Bridge visible from building's southwestern most corner.	NA	Approx. 400 feet
St. Dominic's Catholic Church	*No Adverse Effect* 6th Street SW Bridge visible from building's northeastern most corner.	NA	Approx. 700 feet

To better understand and assess the visual effects of the Undertaking on historic properties within the APE, FTA prepared a series of photographs taken alongside the identified historic properties looking toward the Project area along 6th and 7th Streets SW. These photographs allowed FTA to visualize how prominent are the existing railroad bridges and the L'Enfant Station within the viewsheds to assess how and to what extent those viewsheds might change with implementation of the Undertaking. See **Appendix A** for these photographs documenting the viewshed analysis within the APE. A summary of the visual impacts the Undertaking would have on historic properties within the APE is in **Table 4-1** and is discussed in detail in the paragraphs following.

Visual Effects on the Plan of the City of Washington

The replacement of the 6th Street SW Bridge and the widening of the 7th Street SW Bridge would introduce visual changes along the contributing streets and their associated vistas of the Plan of the City of Washington; however, the new and modified bridges would be of a similar scale as the existing, which would minimize the visual effects. At 7th Street SW, the widened bridge would be very similar in height and appearance of the existing and thus would not introduce any new visual obstruction along the 7th Street SW vista. Along 6th Street SW, the facia girders on the north and south sides of the new 6th

Street SW Bridge would be up to 4 feet taller than the existing 5-foot-tall girders, which would result in a larger visual obstruction along the associated vista. This additional obstruction would be relatively small, however, when considered with the existing obstruction of the railroad corridor, which is considered to be a non-contributing interruption to the Plan of the City of Washington. The visual obstruction of the proposed new 6th Street SW Bridge is reduced in intensity when viewed from further away as it becomes less prominent in the urban viewshed. Additionally, the vista along 6th Street SW is not included in the list of contributing associated vistas in the NRHP documentation for the Plan of the City of Washington as it has been substantially interrupted due to development of Interstate 395 to the south and the Air and Space Museum building to the north; therefore, the bridge would not obstruct any prominent or primary contributing vistas to the Plan of the City of Washington. The visual effects of the new bridge would be further minimized through the future design review process, which will identify the specific materials and appearance of the bridge.

The Project proposes no changes to associated vistas of Hancock Park. The proposed new VRE station platform features and canopy would be visible from Hancock Park but would be of a similar appearance and scale as the existing. Removal of trees on the north side of Hancock Park along the railroad corridor boundary would result in a loss of some visual screening of the station and tracks from within Hancock Park; however, Hancock Park was substantially modified from its original size through urban development in the area in the 19th and 20th centuries, and views towards the railroad corridor are not part of its historic integrity as a contributing resource to the Plan of the City of Washington. The proposed new retaining wall supporting the new fourth track and replacing the existing pedestrian walkway structure would be in a similar appearance as the existing and would not alter views from the park. Removal of canopy trees along the railroad corridor in Hancock Park would somewhat reestablish the vista along the former Maryland Avenue SW corridor towards the US Capitol Building, in particular from L'Enfant Promenade looking northeast.

Although visual changes would occur as a result of the Undertaking, these changes would be similar in scale to the existing structures and would not result in any substantial new obstructions to prominent contributing vistas to the Plan of the City of Washington; therefore, there would be *no adverse effect* on the Plan of the City of Washington related to visual effects. Physical effects on the Plan of the City of Washington are discussed in **Section 4.2.2** below.

Visual Effects on the Baltimore and Potomac Railroad

The Project would result in visual changes to the B&P Railroad within the vicinity of 6th and 7th Streets SW. The proposed new 6th Street SW Bridge would introduce contemporary materials and design into the historic railroad corridor, which would result in a visual appearance that is different than the remaining historic bridges along the corridor. This effect would be most prominent in the viewshed from the south side of the railroad corridor where a substantial portion of the linear corridor is visible. Additionally, the removal of 5 catenary portals would alter the view of the rail corridor, particularly when viewed at the track level. The catenary portals are a prominent visual feature of the rail corridor that convey its integrity of feeling and association with electrification of the railroad in the early 20th century. A loss of these portals in the vicinity of the station would result in a loss of that historic integrity. These visual changes to the B&P Railroad would result in an *adverse visual effect* on the resource. Efforts to minimize the effects on the B&P Railroad would be implemented, including through the future design review process to ensure that the appearance of the proposed new 6th Street SW Bridge is compatible to the historic character of the rail corridor. Physical effects on the B&P Railroad are discussed in **Section 4.2.2** below.

Visual Effects on Historic Properties Outside the Project Footprint

The remaining historic properties listed in **Table 4-1** above are located outside of the Project footprint but within the APE. Although the existing railroad bridges and passenger station features are visible elements within the viewsheds of these historic properties (see photographs in **Appendix A**), these properties were designed during the mid-20th century urban renewal efforts for Southwest DC and viewsheds are not characteristics that contribute to their historic significance. Though the properties were designed along the axial corridors laid out in the L'Enfant Plan for the City of Washington, these viewsheds are dominated by multi-story buildings, vegetation, and the overall urban landscape of Southwest DC. As such, the bridges and VRE passenger station are not prominent elements of the viewshed along 6th or 7th Streets SW. Additionally, the farther away from the station a property is located, the less prominent the station and bridges are within the viewshed. Because the proposed modifications to the station, platform, and bridges would be similar in height, scale, location, and appearance as the existing structures, the Undertaking would not result in substantial changes to the existing viewsheds of these historic properties along 6th and 7th Streets SW. The proposed changes would be relatively small when compared with the overall viewshed of the resources and their settings that include large, multi-story buildings and other urban infrastructure. These changes would only be noticeable in areas along 6th and 7th Streets SW that are closest to the project area; they would likely not be noticeable outside the areas immediately adjacent to L'Enfant Station. Further, the properties are largely shielded from the proposed improvements by vegetation and/or multi-story buildings. The proposed changes would not result in any new obstruction of the views down the corridor of either the 6th or 7th Streets SW.

The historic vistas along Maryland and Virginia Avenues SW have been interrupted by the addition of the railroad along these corridors, and the sections of the former avenues where the rail corridor now sits are considered non-contributing obstructions to those vistas. Though the railroad corridor is visually prominent from the L'Enfant Promenade looking northeast along the former Maryland Avenue SW, the scale of the proposed changes would not result in any additional obstruction of the historic vista and would not diminish the historic integrity of the property. Removal of trees within the railroad right-of-way along Hancock Park may somewhat reopen the vista looking northeast from L'Enfant Promenade toward the US Capitol by removing some of the visual screening; however, the trees to be removed are generally small, and those with the largest canopies would remain in place and would continue to mostly obscure the historic vista.

Removal of trees on the north side of the railroad corridor along the boundary with Hancock Park would result in a loss of some visual screening of the station and tracks from Federal Office Building 10A to the north. The tracks and station would be more visible from this resource without the trees, particularly in the winter when leaves drop and from higher floors in the office building. However, the trees to be removed are relatively small when considered with the trees that would remain in Hancock Park. The trees providing the most canopy cover and visual screening from points north of the railroad would remain in place.

Implementation of the Undertaking would not result in the introduction of visual elements that diminish the integrity of the significant historic characteristics or features of the properties outside of the Project footprint. With the exception of St. Dominic's Catholic Church, the existing railroad corridor predates these resources and therefore, always has been and would continue to be an element of the visual character of these properties. For St. Dominic's Catholic Church, the historic setting and viewsheds have been irrevocably diminished by the changes made during the mid-20th century urban renewal

efforts in the Southwest Redevelopment Area. For these properties, the viewsheds are not integral to their historic integrity; therefore, the proposed changes implemented within the viewshed would have *no adverse effect* on these properties.

Visual Effects of Construction Activities

Temporary visual impacts would occur during construction due to the presence of construction equipment and activity within the viewsheds of historic properties within the APE. Construction equipment and activity would detract from the historic viewsheds of historic properties and may obscure existing views and vistas down 6th and 7th Streets SW. However, these temporary visual impacts would only last the duration of construction and views would return to their existing conditions after construction is complete. Therefore, construction activities would have *no adverse effect* on the historic properties.

4.2.2 Physical Effects

The Undertaking would result in physical changes to two historic properties within the APE: the Plan of the City of Washington and the Baltimore and Potomac Railroad. These impacts are discussed below. There would be no physical impacts on the other historic properties within the APE.

Physical Effects on the Plan of the City of Washington

The Undertaking is located within areas that are part of the Plan of the City of Washington; however, it would have *no adverse effect* on the resource. The Undertaking proposes no physical changes to the Plan's contributing avenues, streets, or reservations. The Project proposes changes immediately adjacent to Hancock Park (historically known as Reservation 113) and would remove some trees and the existing walkway to the VRE station through the park, but there would be no changes to the recreational space or footprint of the park. Hancock Park was substantially modified from its original size through urban development in the area in the 19th and 20th centuries, and the Undertaking would not result in any further substantial alterations of the park. The proposed new retaining wall supporting the new fourth track and replacing the existing pedestrian walkway structure would be in a similar appearance as the existing and would not encroach into the Hancock Park boundary. Removal of trees within and adjacent to Hancock Park would somewhat reestablish the vista along the former Maryland Avenue SW corridor towards the US Capitol Building, in particular from L'Enfant Promenade looking northeast. The Plan of the City of Washington's comprehensive baroque plan of radial avenues, parks, and vistas laid over a street grid would remain intact; therefore, the Undertaking would have *no adverse effect* on the Plan of the City of Washington.

Temporary physical impacts would occur during construction due to the presence of construction equipment and activity within the streets and reservations that contribute to the Plan of the City of Washington. Construction equipment and activity would detract from the historic setting of historic properties and may partially obscure historic views and vistas. During construction, Hancock Park would be used for construction access and staging. This would result in a loss of public access and use of Hancock Park, and its open character would be changed due to the presence of construction fencing, materials, and equipment. After construction is complete, Hancock Park would be restored to its current conditions, and there would be no permanent loss of function or physical changes to the reservation. All construction-related temporary impacts would only last the duration of construction and views would return to their existing conditions after construction is complete. Therefore, construction activities would have *no adverse effect* on the Plan of the City of Washington.

Physical Effects on the Baltimore and Potomac Railroad

The Undertaking would have an *adverse effect* on the B&P Railroad within the District due to the removal and replacement multiple contributing features of the property, including the 6th Street SW Bridge, portions of the rusticated stone retaining wall, and 5 catenary portals. Because the 6th Street SW Bridge is a contributing resource to the B&P Railroad, its removal and replacement would result in an adverse effect due to the loss of historic design, materials, workmanship, association, and feeling. The bridge's removal would result in the loss of one of the 12 remaining contributing railroad bridges. The replacement bridge over 6th Street SW would introduce modern materials and workmanship into the historic railroad corridor, and the facia girders would be up to 4 feet taller than the existing to meet current safety codes for railroads. The taller facia girders would alter the historic character of the railroad corridor at 6th Street SW and diminish its integrity of association and feeling in this area. This effect would be most prominent from the south side of the railroad corridor where a substantial portion of the historic linear corridor is visible; however, these effects would be minimized to the extent practicable through a future design review process for the project which would ensure the use of compatible design and materials. The location and setting of the railroad corridor would not be affected by the Undertaking.

In the foreseeable future, the separate and ongoing Long Bridge Project will result in the replacement of three additional contributing bridges along the B&P Railroad corridor, plus the augmentation of a fourth contributing bridge to support additional tracks. While those bridges are outside of the APE for this Undertaking, the Long Bridge Project would contribute to the adverse cumulative effect on the B&P Railroad through the loss of contributing resources. Although the Undertaking for the L'Enfant Station and Fourth Track Project would only result in the loss of one contributing bridge, it would contribute to the overall cumulative loss of original railroad bridges along the corridor.

Removal of portions of the rusticated stone retaining wall would result in a loss of materials, design, and workmanship of the contributing feature to the railroad corridor. The historic integrity of the retaining wall would be diminished in the vicinity of the 6th Street SW Bridge; however, the effect would be localized and relatively small when compared with the overall historic retaining wall that would remain. A study would be undertaken to determine if any of the historic stone to be removed could be salvaged and reused in other parts of the Project. The modified portions of the wall would be visually hidden from view by the proposed station and bridge, and the overall integrity of location, design, materials, workmanship, feeling, and association of the rusticated stone retaining wall would remain intact. The resource would continue to convey the B&P Railroad's association with the efforts to eliminate grade crossings in the 19th and 20th centuries.

The modification of the 7th Street SW Bridge would not contribute to the adverse effect of this undertaking on the B&P Railroad. The bridge is a non-contributing, contemporary bridge, therefore, modifications to it would not result in a loss of any historic character or materials of the B&P Railroad. Proposed modifications would use a similar design, materials, and scale of the existing bridge, which would minimize any new changes to the appearance of the B&P Railroad in this area; all existing historic integrity would remain intact.

Removal of several catenary poles within the APE would contribute to the *adverse effect* on the B&P Railroad as they are contributing features. The removal would result in a diminished integrity of materials and association for the property.; However, catenary poles would remain throughout the rest

of the rail corridor and would continue to convey the B&P Railroad's association with early 20th century railroad electrification.

The B&P Railroad's alignment would not be disturbed as a result of project implementation: the alignment would continue to reflect the historical significance of the B&P Railroad. The addition of a new fourth track along the historic railroad corridor within the APE would not diminish the historic integrity of the resource because there were historically four tracks along this alignment in the late 19th and early 20th century. The Undertaking would thus be consistent with the historic trackage through the APE, and a new fourth track would not adversely affect the historic property.

Overall, the Undertaking would have an *adverse effect* on the B&P Railroad, due to the removal and replacement of the 6th Street SW Bridge, removal of several catenary poles, and removal of portions of the rusticated stone retaining wall, which are all contributing resources constructed during the period of significance.

4.3 Conclusion

The Undertaking would result in an *adverse effect* on the B&P Railroad due to the loss of historic material of the 6th Street SW Bridge, catenary poles, and portions of the rusticated stone retaining wall, as well as due to the introduction of contemporary material and design into the B&P Railroad corridor. The Undertaking would result in a diminished integrity of design, materials, workmanship, feeling, and association of the historic B&P Railroad in the vicinity of the VRE L'Enfant Station. **Table 4-2** provides a summary of the effects determination for historic properties.

Table 4-2: Summary of Effects on Historic Properties within the APE

Resource	Type of Effect	Effect
Plan of the City of Washington	Visual and Physical	No Adverse Effect
Baltimore and Potomac Railroad	Visual and Physical	***Adverse Effect***
L'Enfant Promenade	Visual	No Adverse Effect
US Department of Housing and Urban Development Building	Visual	No Adverse Effect
Federal Office Building 10A	Visual	No Adverse Effect
Federal Office Building 10B	Visual	No Adverse Effect
Federal Office Building 6	Visual	No Adverse Effect
St. Dominic's Catholic Church	Visual	No Adverse Effect

5.0 Avoidance, Minimization, and Mitigation

Implementation of the Undertaking would result in an adverse effect on one historic property within the APE, as discussed above. An agreement document to resolve the adverse effects will be developed in consultation with the DC SHPO and other Consulting Parties through continued consultation under Section 106. Through the alternatives development and refinement process, possible avoidance, minimization, and mitigation measures were included in the design of the fourth track and station improvements. Additional mitigation measures will be developed through the Section 106 process and agreement document. Potential measures to avoid, minimize, and mitigation adverse effects identified to date include the following:

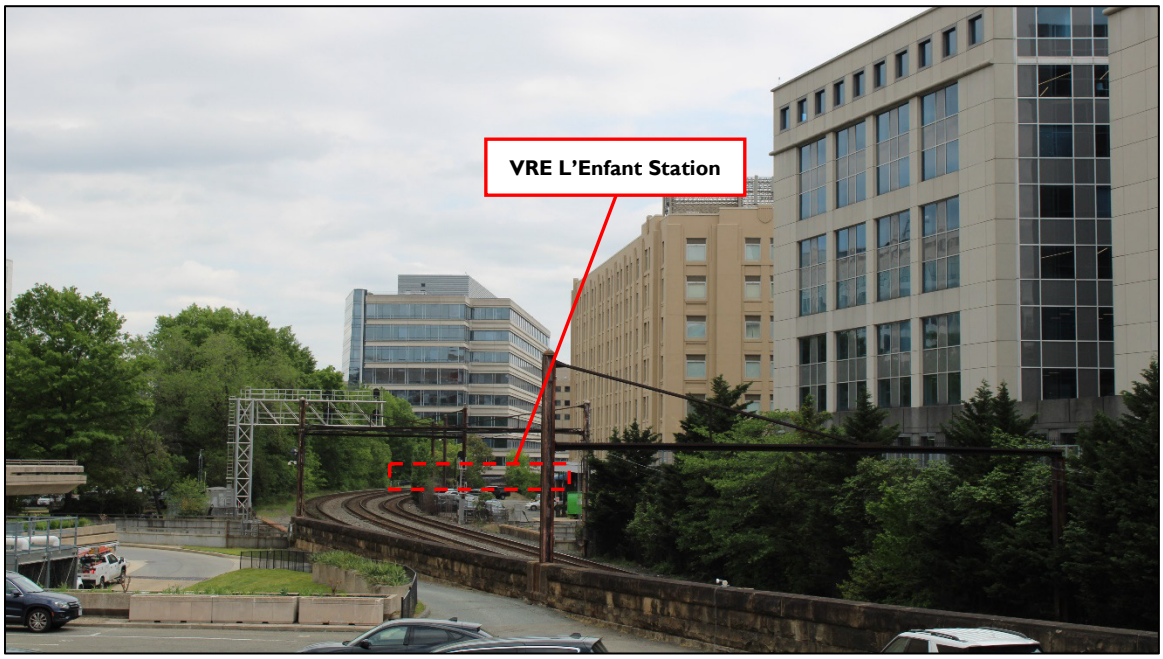
- Avoid permanent encroachment onto adjacent properties through restriction of the project footprint to remain within the existing railroad right-of-way.
- Design of the new station platform should be similar to the existing, including the appearance of the canopy.
- The platform canopy should not extend onto the bridges over 6th or 7th Street SW to minimize new obstruction of the vista along either street.
- Design of the new and modified bridges should be of similar scale as the existing and use compatible materials to the extent practicable to minimize visual alterations in the viewsheds of historic properties.
- A study would be conducted to determine if any historic materials could be salvaged and reused in any of the new bridge elements; historic materials may be salvaged and reused to the extent practicable.
- During construction, fence all construction, staging and access areas in order to keep related disturbances within a defined and minimal effect area required for construction. Clearly state all protection measures in the construction plans and specifications and instruct workers to avoid conducting activities beyond the fenced construction zone.
- Immediately implement NHPA Section 106 procedures if and when any unknown archeological resources are uncovered during ground-disturbing activities.

The Section 106 consultation process is ongoing. FTA will continue to consult with DC SHPO and the Consulting Parties to identify ways to minimize and mitigate adverse effects on these historic properties. FTA will also notify the Advisory Council of Historic Preservation of the adverse effect determination for the Project and provide the Council an opportunity to comment. A Section 106 agreement document (Programmatic Agreement or Memorandum of Agreement) will identify avoidance, minimization, and mitigation measures and describe any consultation that would continue through the design and construction processes.

Appendix
Viewshed Analysis Photos

Viewshed Analysis Photos

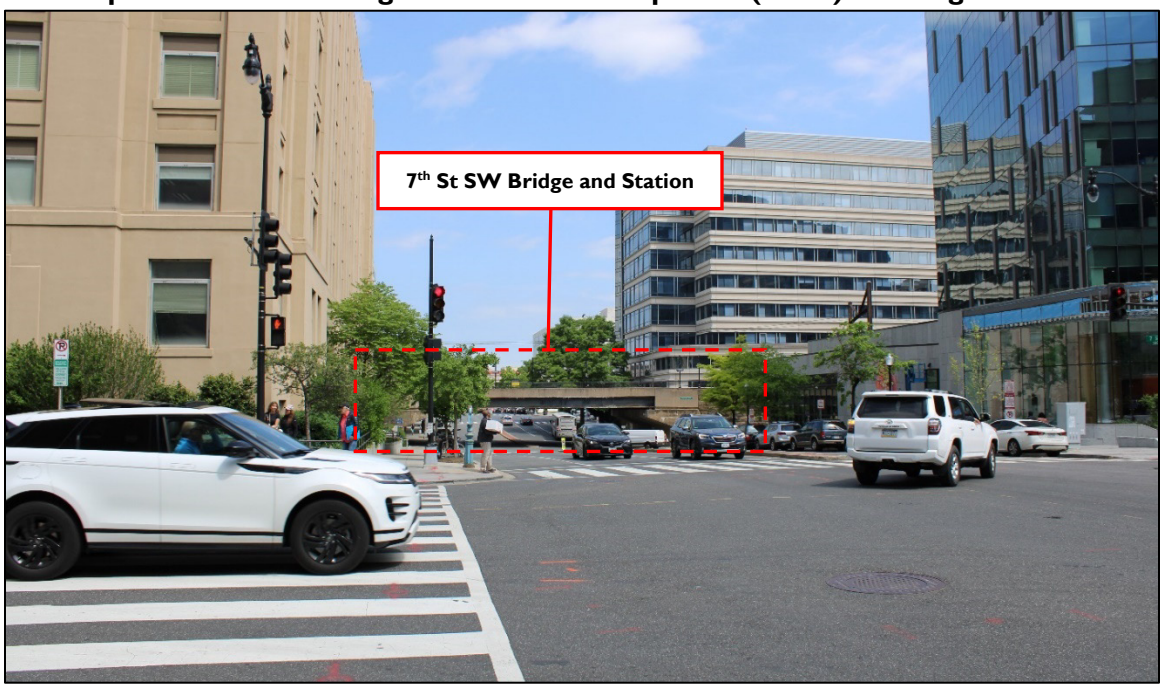
L'Enfant Promenade



Photograph 1: View towards the existing L'Enfant Station from L'Enfant Promenade. The existing station is mostly obscured from view; only a small portion of the canopy and railings are visible. Note that some small trees on the left side of the railroad tracks would be removed. Looking east from the Promenade.

Photograph 2: View of the railroad tracks from L'Enfant Promenade. While the railroad tracks are visible from this area of the Promenade, the existing L'Enfant Station is obscured from view by vegetation and multi-story buildings. The proposed new fourth track would be located to the left of the existing tracks, within the right-of-way. Looking northeast from the Promenade.

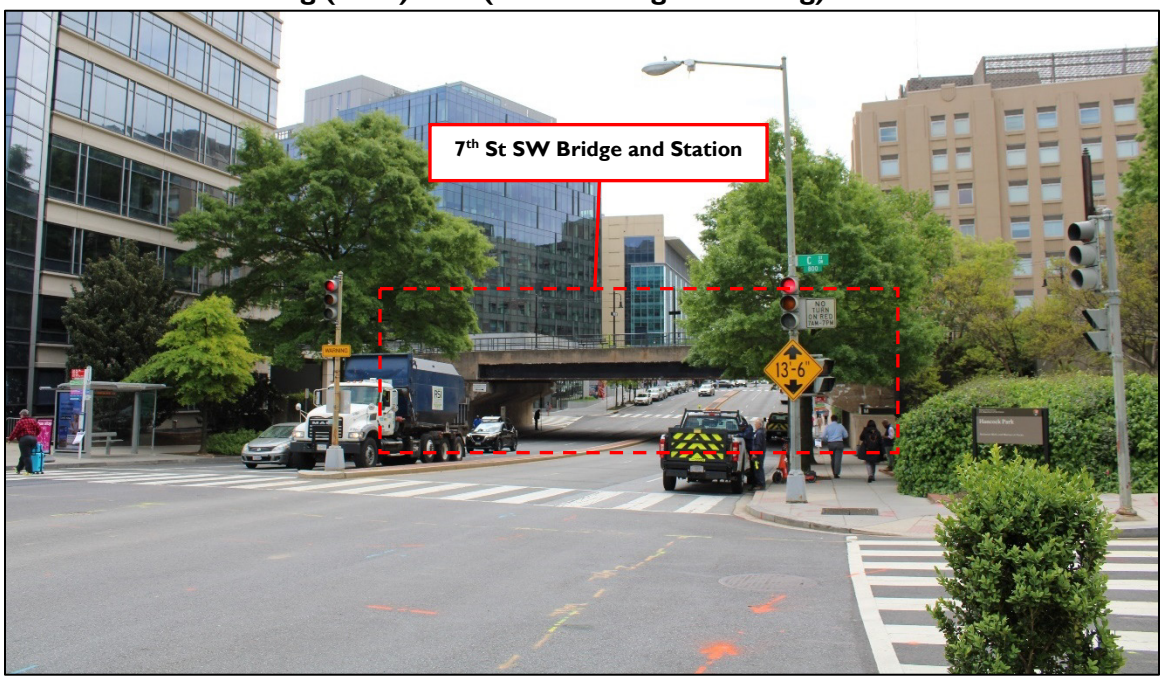
U.S. Department of Housing and Urban Development (HUD) Building



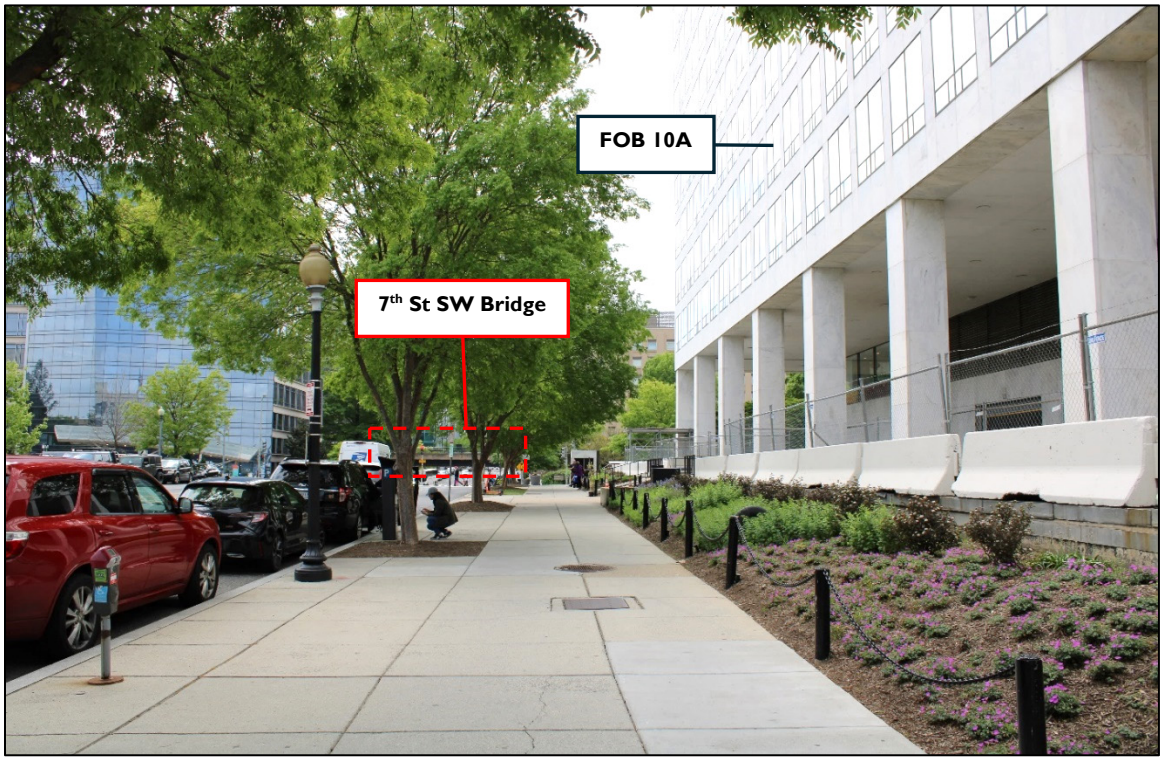
Photograph 3: View of L'Enfant Station and the 7th Street SW Bridge from the northeast corner of the HUD Building. Railings, light poles, and signage of the station are partially visible on the top of the bridge. Looking north along 7th Street SW at the intersection with D Street SW.

Photograph 4: View of L'Enfant Station and 7th Street SW Bridge from HUD Building between D and E Streets SW. The bridge and station elements are visible, but partially obscured. Looking north along 7th Street SW.

Federal Office Building (FOB) 10A (Orville Wright Building)

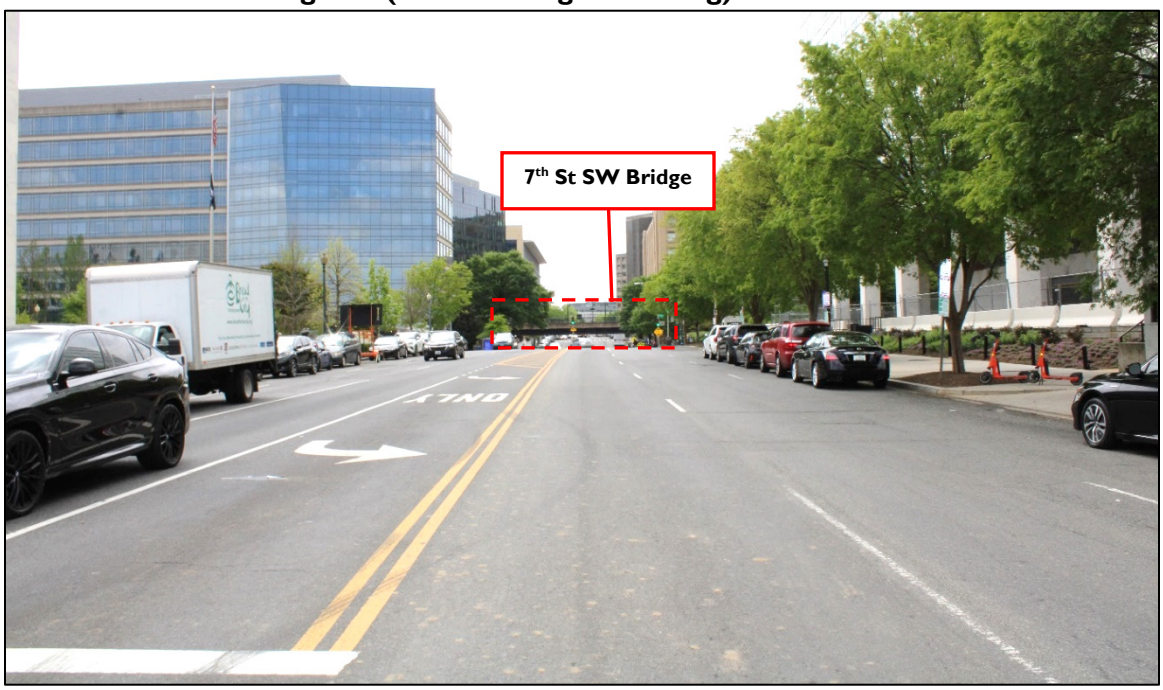


Photograph 5: View of the 7th Street SW Bridge and L'Enfant Station from the southeast corner of the FOB 10A. The bridge and station elements are highly visible from this resource. Looking south along 7th Street SW at the intersection of 7th Street SW and C Street SW.



Photograph 6: View of L'Enfant Station and 7th Street SW Bridge from the east side of FOB 10A. The bridge is still visible in the viewshed but diminishing in its prominence due to competing landscape elements such as vegetation. Looking south along 7th Street SW between C Street SW and Independence Avenue SW.

Federal Office Building 10B (Wilbur Wright Building)



Photograph 7: View of L'Enfant Station and 7th Street SW Bridge from the west side of FOB 10B. The bridge is a visible element of the viewshed, though station features are only partially visible. Looking south along 7th Street SW at the intersection with Independence Avenue SW.

Photograph 8: View of 6th Street SW Bridge from west side of FOB 10B. Though partially obscured by vegetation, the bridge is a visible element of the viewshed. Looking south along 6th Street SW near the intersection with Maryland Avenue SW.

Federal Office Building 6 (Lyndon Baines Johnson Department of Education Building)

Photograph 9: View of the 6th Street SW Bridge from FOB 6. Though partially obscured by vegetation, the bridge is a visible element of the viewshed. Looking south along 6th Street SW between Maryland Avenue SW and C Street SW.

Photograph 10: View of the 6th Street SW Bridge from the southwest corner of FOB 6. Looking south along 6th Street SW at the intersection with C Street SW.

St. Dominic's Catholic Church

Photograph 11: View of the 6th Street SW Bridge from the northeast corner of St. Dominic's Catholic Church. The bridge is visible but not a prominent part of the viewshed. Looking north along 6th Street SW from the intersection with E Street SW.

L'Enfant Station and Fourth Track Project
Phase 1a Archaeological Documentary Study

May 16, 2025
DC HPO#: HPO 24-0393

A BETTER WAY. A BETTER LIFE.

DOCUMENT RECORD

Version	Issuance Date	Description
1	05.16.2025	

Abstract

Survey Information
DC SHPO File Number: HPO 24-0393
Phase of Survey: Phase IA Archaeology Documentary Study

Survey Area (Imperial and Metric)
Number of Acres Surveyed: Phase IA – 13.7 acres (5.5 hectares)
USGS 7.5 Minute Quadrangle Map(s): *Washington West* (1983)

Results of Archaeology Study
Previously Recorded Sites within the Study Area: None

Recommendations: Based on the history and development of the area, portions of the Survey Area containing existing track either at grade or at separated grade have no potential to contain significant precontact or historic era archaeological deposits. As the current design intends to work within the existing rail Right-of-Way along this portion of the Survey Area. The improvements along the track alignment would involve replacing and widening the separated grade bridges at 6th and 7th Streets SW. Additionally, the project would include the installation of a new platform for the VRE L'Enfant Station, along with related access facilities and retaining walls north of Virginia Avenue SW, between 6th and 7th Streets SW. Constructing the footings for the bridge improvements and retaining walls would require deep foundations. The anticipated depths of these deep pile foundations are expected to be at least 100 ft below the ground surface. For portions of the Survey Area involving Hancock Park, background research and existing conditions analysis indicate that a cap of historic fill is likely present to a depth up of to 2 meters. Current design plans involving the area of Hancock Park call for the park perimeter to be grubbed with some tree removal adjacent to the existing rail. Current design plans also intend to utilize Hancock Park as a temporary staging area where overall light grubbing and vehicular parking will occur. The nature of the historic fill cap and the current design intention to use the area as staging with light grubbing activity would not impact deeply buried precontact deposits should they be present.

During its development as a public space during the early nineteenth century, the area of Hancock Park was infilled, leveled and graded. Since the nineteenth century, the park has seen little development besides track installation within the eastern section from a former rail line connected to the CSX line. These unused tracks may still exist just below the ground surface from when they were abandoned. In consultation with FTA, these in-situ track remnants are not considered significant, and therefore, no further work or archaeological management considerations are warranted for the current project.

As currently designed, the project undertaking has no potential to impact archaeological features or deposits that would be considered significant or eligible for listing on the NRHP.

Report Author(s): Raphael Franca, Matt Lyons, Erin Leatherbee, and Andrew Pappas
Date of Report: May 12, 2025

Public Summary

This public summary presents the findings of the archaeological assessment conducted in advance of proposed ground disturbing activities associated with the redevelopment of the VRE L'Enfant Station and the addition of a fourth rail track between the L'Enfant (LE) and Virginia (VA) Interlockings. VHB completed an archaeological assessment of the Study Area for this project for the purposes of compliance with the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). The Federal Transit Administration (FTA) is serving as the lead federal agency for the proposed action, working in cooperation with the Virginia Railway Express (VRE). The goal of the assessment was to determine whether any intact soils or soils potentially containing archaeological deposits are present within the Study Area. Another goal of this study was to demonstrate whether any buried archaeological sites or features exist within the Study Area and determine whether the lead federal agency should need to complete additional archaeological oversight in support of the undertaking.

Based on the area's history and development, the sections of the Study Area that contain existing tracks, whether at ground level or separated grade, are unlikely to contain significant archaeological artifacts, features or deposits from the precontact or historic periods. As currently designed, the undertaking intends to work within the current rail Right-of-Way in these areas. The improvements along the track alignment would involve replacing and widening the separated grade bridges at 6th and 7th Streets SW. Additionally, the project would include the installation of a new platform for the VRE L'Enfant Station, along with related access facilities and retaining walls north of Virginia Avenue SW, between 6th and 7th Streets SW. Constructing the footings for the bridge improvements and retaining walls would require deep foundations. The anticipated depths of these deep pile foundations are expected to be at least 100 ft below the ground surface. In Hancock Park, research suggests a layer of historic fill may be present to a depth of below 2 meters deep. The design plans for Hancock Park include clearing the park perimeter, removing some trees near and adjacent to the rail lines, and using Hancock Park as temporary staging where light clearing of vegetation and vehicle parking would occur. This approach should not disturb any deeply buried precontact deposits within buried natural soils should they exist.

During its development as a public space during the early nineteenth century, the area of Hancock Park was infilled, leveled and graded. Since the nineteenth century, the park has seen little development besides track installation within the eastern section from a former rail line connected to the CSX line. These unused tracks may still exist just below the ground surface from when they were abandoned. In consultation with FTA, these in-situ track remnants are not considered significant, and therefore, no further work or archaeological management considerations are warranted for the current project.

As currently designed, the project undertaking has no potential to impact archaeological features or deposits that would be considered significant or eligible for listing on the NRHP.

Contents

List of Figures

1.0 Introduction

1.1 Project Description

The Virginia Railway Express (VRE) in coordination with the Federal Transit Administration (FTA) is proposing to reconstruct the VRE L'Enfant Station and add a continuous fourth track between the L'Enfant (LE) and Virginia (VA) Interlockings (between roughly 10th and 2nd Streets SW) to provide a better passenger experience and reduce congestion on the platform and within the railroad corridor (Figure 1). The Project anticipates using funding from FTA. For purposes of consultation pursuant to Section 106 of the National Historic Preservation Act of 1966 (NHPA) (36 CFR Part 800), FTA is serving as the lead federal agency.

The existing VRE L'Enfant Station is located along Virginia Avenue SW between 6th and 7th Streets SW in the Southwest Federal Center section of Washington, DC (the District). The station is located on the three track, shared-use rail corridor that also serves CSX Transportation, Inc. (CSXT) freight trains as part of its national freight network and Amtrak trains traveling between the District and destinations in Virginia, and points beyond. See Figure 1 below for a map of the project location.

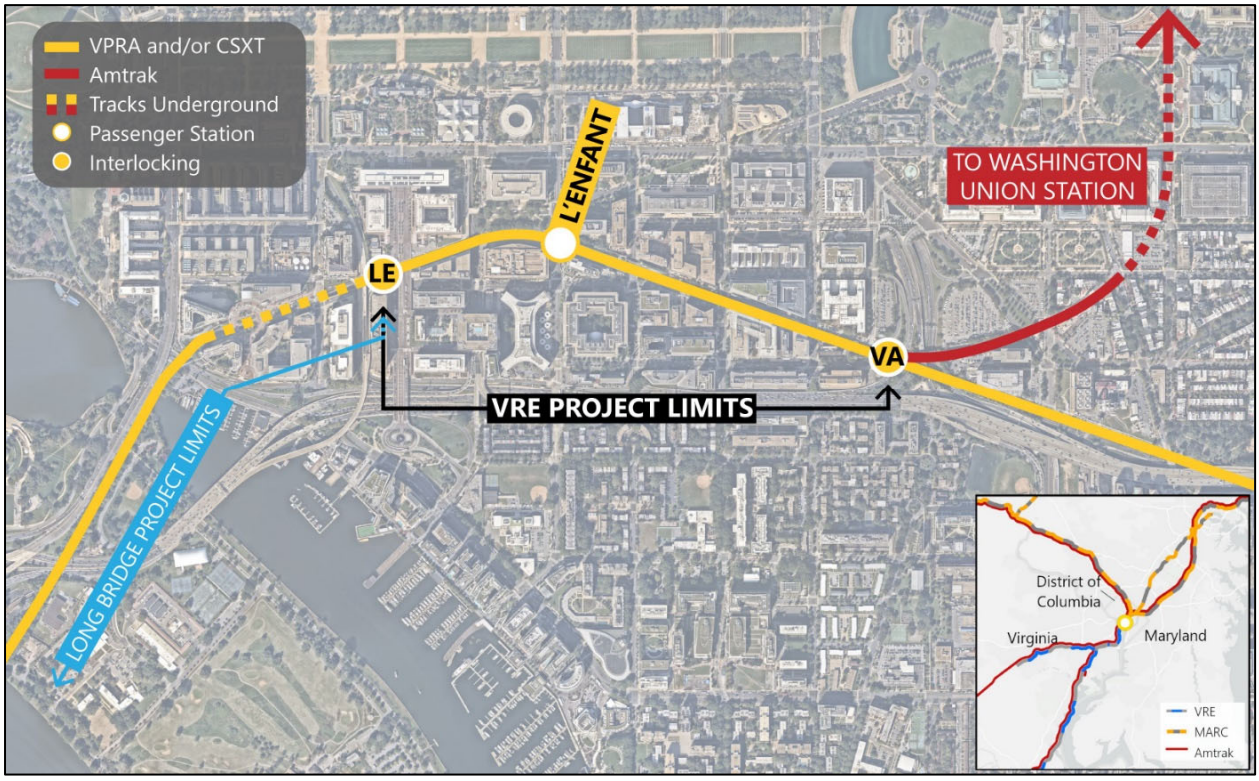


FIGURE 1. PROJECT LOCATION AND VICINITY.

The purpose of the Project is to expand the capacity of the VRE L'Enfant Station, provide an enhanced passenger experience, provide additional long-term railroad capacity, and improve the reliability of rail service in this critical segment of the regional and national rail network. The Project is needed to address insufficient platform capacity; railroad capacity and fluidity; railroad resiliency and redundancy; and transportation network capacity to accommodate existing and future demand in railroad services.

The current 550-foot-long by 12.5-foot-wide passenger platform at the VRE L'Enfant Station is shorter than the longest VRE train operated; therefore, all cars on the train are not accessible for boarding or alighting. Some passengers must walk through one or more cars on the train to exit at the station, which

increases station dwell times. Implementation of the Project would enable boarding of and alighting from full-length, 8-car VRE trains; a larger platform area to safely accommodate anticipated ridership; two VRE passenger trains to serve the station simultaneously on separate tracks; more efficient movement of passenger (VRE and Amtrak) and freight trains; and greater accessibility, including Americans with Disabilities Act (ADA) accessibility, from two ends of the station.

1.2 Project Study Area and Description of the Undertaking

The Area of Potential Effects (APE) as defined in 36 CFR 800.16(d), is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE for archaeological resources is usually confined to the footprint of ground disturbance activities related to the undertaking. Since design work for the project is currently ongoing, the Phase IA documentary study examined the current estimated limits of disturbance (LOD) plus an additional 10-foot buffer, which for the purposes of this report will be hereafter referred to as the "Study Area" (Figure 2 and Figure 3). The dimensions of the Study Area are intended to capture a large enough area within which variation in project design may occur and will be larger than the APE for archaeology resources.

The Project would construct a new fourth track between the LE and VA Interlockings on the north side (railroad west) of the existing tracks. Existing tracks 1, 2, and 3 are anticipated to generally stay in the same horizontal alignment but would be adjusted vertically at the new bridge over 6th Street SW. The new fourth track would be located within the existing railroad right-of-way and would not encroach on adjacent properties. The Project includes construction of a new center platform for the VRE L'Enfant Station, 680 feet long and 22 feet wide, located to the north of existing Track 3 (in the same general location as the existing platform). The new Track 4 would be located on the north side of the expanded platform, which would allow the platform to serve two trains simultaneously. Improvements along the track alignment would also include the replacement of the separated grade bridge over 6th Street SW and widening of the bridge over 7th Street SW, platform installation for the new VRE L'Enfant Station, associated access facilities, and retaining walls north of Virginia Ave SW between 6th and 7th Streets SW. The new installation of bridge footings and retaining walls would involve the deep drilling of micropiles to approximately 100 ft below mean sea level (amsl).

Construction of the Project would be implemented in phases to ensure that the station and at least two tracks remain open throughout the duration of construction in order to minimize disruptions to rail traffic through the corridor. Hancock Park would be used for construction access and staging. Hancock Park is also being optioned as a temporary staging area for the adjacent Long Bridge Project, which overlaps the western section of the current Study Area

The goals of this Archaeological Documentary Study are to research the archaeological potential, archaeological sensitivity, and extent of archaeological disturbance within the Study Area. The study was performed in accordance with the District of Columbia Preservation League's *Guidelines for Archaeological Investigations in the District of Columbia*, as adopted by the DC HPO, (DC HPO 2018), by personnel qualified under the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61 – *Standards and Guidelines for Archaeology and Historic Preservation*). The Phase IA Documentary Study included a combination of background historic research, pedestrian visit, and design plan review. Background research involved examining environmental data and existing archaeological site and survey information, along with reviewing pertinent local and regional histories relevant to the Study Area. Data obtained during the background research phase of the investigation formed the basis of the environmental and cultural settings chapters of this report. This information also provided the necessary framework for assessing archaeological probability and site potential within the Study Area.

FIGURE 2. USGS MAP OF THE ESTIMATED LOD AND CURRENT STUDY AREA. SOURCE: *USGS 7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE, WASHINGTON WEST (1983)*.

FIGURE 3. AERIAL DEPICTION OF THE ESTIMATED LOD AND CURRENT STUDY AREA

2.0 Environmental Context

2.1 Physiography

The Study Area is located within the Atlantic Coastal Plain province. During Mesozoic times, the Coastal Plain represented a portion of the Atlantic Ocean shoreline. Silts, sands, and gravel eroded through the transitional Fall Line from the Appalachians and were deposited as delta deposits in the Atlantic Ocean. During the Jurassic and Cretaceous eras, river sediments were exposed by uplifting pressures and declining sea levels, causing Piedmont deposits to shift gradually below the younger Coastal Plain deposits at the Fall Line (Fenneman 1938). The Coastal Plain province again experienced uplift from the Piedmont and sea level decline during the Quaternary era, overlaying Tertiary sands and carbonates with unconsolidated clay, silt, sands and gravels at the physiographic interface. As sea levels declined, escarpments were created along streams and rivers, including the Potomac River, draining southward to the Atlantic Ocean. Historically, the topography of the Study Area would have consisted of low terraces and alluvial deposits alongside artificial fill that modified the original low, swampy terrain. Topographic relief within the Study Area consists of a gently sloping floodplain measuring approximately 10 feet (ft) (~3 meters [m]) amsl closest to the water with uplands rising up to10 m amsl furthest from the water.

2.2 Soils and Hydrology

The entirety of the Study Area is underlain by Urban Land series as mapped by the USDA Web Soil Survey (USDA 2025). Urban Land is a soil classification used to define soil material that has been manipulated, transported, or otherwise disturbed by human development. Urban soils are created universally through the process of land urbanization which is the byproduct of human activity. Soils generally found within dense urban areas have undergone some degree of mixing and contamination where all or some of the strata typically associated with a normal soil profile has been partially or completely disturbed. As an example, a normal soil profile would typically have an O (organic, or humic) layer followed by an A horizon, which in turn would be underlain by a B horizon. In an Urban context, the same soil profile may have had all or some of its O, A, and B horizons mixed or destroyed. This can occur due to a number of different reasons or any number of different activities associated with development or construction.

2.3 Flora and Fauna

The survey area is located in the Chesapeake Rolling Coastal Plain Ecoregion and the Oak-Pine Forest ecotone (Woods et al. 1999). Floral profile maps show this region as featuring sweet gum, hickory, northern red oak, white oak, loblolly pine, shortleaf pine, silver maple, Carolina silverbell, and white ash. Shrubs common to the area include wild black cherry, mountain laurel, sassafras, passionflower, Catesby's trillium, and the maidenhair fern (Woods et al. 1999). Historically, aquatic species that have been documented in the Potomac River include several varieties of sturgeon, hickory shad, American shad, alewife, and others (Interstate Commission on the Potomac River Basin 2025). Terrestrial fauna common in the region includes white-tailed deer, beaver, muskrat, river otter, raccoon, gray squirrel, red fox, and gray fox (Chesapeake Bay Program 2010).

2.4 Regional Pleistocene and Holocene Environment

Paleoclimatological research provides data on the precontact environment of the region. During late glacial times in Washington, DC, vegetation consisted of hearty grasses and sedges in open upland areas that included boreal forest stands of spruce and fir on slopes and lower elevations (Gardner 1989). As the climate warmed, vegetation variation increased to include deciduous species such as alder, birch, and willow. This variety continued to increase and by the mid-Holocene, a mixed deciduous hardwood forest existed, and oak and hemlock had spread into a variety of upland and lowland settings (Gardner 1989). As American Indians, European American settlers, and enslaved Africans began to modify their environment, native species spread into new areas. Immigrant species, introduced by migrating populations, spread with

the development of agriculture. The climate of Washington, DC today is described as humid and subtropical. Climates like these typically lack a dry season and experience warm and muggy summers (Kottek et al. 2006). The average yearly high temperature is 60 degrees Fahrenheit (F) and Washington, DC receives an average of 41.8 inches (in) (~106.7 centimeters [cm]) of precipitation annually (NOAA 2025).

2.5 Modern Land Use of the Archaeological Survey Area

Over the twentieth and twenty-first centuries, environmental conditions within the Study Area have changed significantly due to the development, construction, improvement, and expansion of Washington, DC. The track alignment throughout the extent of the current Study Area is at or above ground level. The Study Area is characterized by urban fill and heavy urbanization. Structure and infrastructure developments have penetrated deeply buried horizon layers, particularly at existing rail bridge locations. Additionally, the Study Area contains various developed utilities, such as modern and historical sewer, water, and other various communication lines, alongside modern paved surfaces. These paved surfaces are interspersed with manicured lawns and other landscaped areas.

3.0 Cultural Context

This section summarizes the precontact and historic cultural context of the Coastal Plain physiographic region and focuses on the Potomac River Basin where possible. This section is intended to provide a framework to assess archaeological resource significance within the Study Area. The prehistory of the Mid-Atlantic region has been subdivided into three periods: the Paleoindian period (>8000-8000 B.C.), the Archaic period (8000-1200 B.C.), and the Woodland period (1000 B.C.-1600 A.D.). The Archaic and Woodland periods are further sub-divided into early, middle, and late periods.

3.1 Paleoindian Period (Prior to 8000 B.C. – 8000 B.C.)

The first well-documented inhabitants of eastern North America are understood to have been relatively mobile, with a subsistence strategy based on migratory (and now-extinct) large animals such as mastodons, although they are also known to have relied on plant and smaller animal food resources as well (Clausen et al. 1979; McNett et al. 1977; Sassaman et al. 1990). Settlements are thought to have included small temporary camps and less common base camps, occupied by loosely organized bands. Paleoindians selected high quality lithic materials for tools and key diagnostics of this period are fluted and unfluted lanceolate projectile points/knives (PP/K). Formal flake tools such as endscrapers, gravers, retouched blades, and burins, as well as unifacial and bifacial knives, are also associated with the Paleoindian period (Gardner 1979). The later Paleoindian phase appears to include Dalton (Goodyear 1982) and perhaps Hardaway (Ward 1983) forms and their related cultures. It is also likely that sophisticated wood, bone, and antler technology was utilized during the Paleoindian period, as there have been several finds of worked materials (Goodyear 1999).

Over the course of the Paleoindian Period, fluted PP/K forms underwent a general reduction in size and true fluting gave way to basal thinning. The classic fluted Clovis projectile PP/K type marks early Paleoindian assemblages. Cumberland, Suwannee, Simpson, Beaver Lake, and Quad PP/K locally identify middle Paleoindian assemblages. Late Paleoindian types encompass Hardaway/Dalton PP/K forms, which are broad, thin, triangular bifaces with deeply concave bases and shallow side notches (Coe 1964).

Almost all previous Paleoindian point finds are from surface contexts. As a result, interpretation of fluted-point Paleoindian settlement patterns is a topic of much debate since no evidence of structures or long-term camps have been recorded in the Mid-Atlantic. Several models of Paleoindian settlement patterns exist, each with a different focus driving the pattern. Some researchers (e.g., Gardner 1983) think access to high-quality lithic raw materials was the basis of Paleoindian settlement. Other researchers (e.g.,

Anderson 1995) believe Paleoindians exploited specific areas. Some researchers (e.g., Kelly and Todd 1988) think Paleoindians were very nomadic, following the movements of large game species.

Overall population density during the Paleoindian period is often thought to have been relatively low, with groups consisting of 25 to 50 individuals belonging to a half-dozen or fewer extended families. In the Mid-Atlantic, the large number of late Paleoindian sites suggests relatively rapid population expansion (Gunn and Brown 1982). Ward (1983) has suggested that the generally spatially restricted site distribution and the low density of cultural materials implies a low level of sociopolitical information. However, relatively sophisticated information and partner exchange networks would have had to exist for such low-density populations to remain reproductively viable (Anderson and Hanson 1988; Wobst 1974), suggesting a greater complexity than is traditionally assumed.

While the hunting of late Pleistocene megafauna, specifically mammoth, mastodon, bison, and other now-extinct species is suspected, evidence for Paleoindian period exploitation of animals of any kind is rare in the Mid-Atlantic. Equivocal associations of artifacts with mammoth remains have been reported from Florida (Hoffman 1983), together with more secure associations with bison and giant land tortoise (Clausen et al. 1979; Webb et al. 1984). While megafauna may have been hunted, it is highly likely that a more diversified subsistence strategy was followed, particularly as the Pleistocene floral and faunal assemblages were replaced by more modern, Holocene assemblages. Paleoindian subsistence economy probably included the hunting of smaller mammals, fish, and reptiles and the collection of some plant foods, including leafy plants, seeds, nuts, and berries (Clausen et al. 1979; Cushman 1982).

3.2 Archaic Period (8000 – 1200 B.C.)

The Archaic Period exhibits an increase in the density and horizontal dispersal of archaeological remains. It was characterized by a reliance on both animals and wild plant resources, which became increasingly stabilized and broad-based over time. Archaic peoples are presumed to have still been highly mobile, making use of seasonally available resources in different areas of the Mid-Atlantic. Group size gradually increased during this period, culminating in a more complex society in the Late Archaic.

The technology of the Archaic peoples appears to have become progressively more diverse than that of Paleoindians. Over the course of the Archaic, for example, increasing numbers of artifact and tool types appear, such as groundstone woodworking and plant processing implements, carved and polished stone bowls, atlatl weights, and stone pipes and beads (Griffin 1967; Jennings 1975). Regional differentiation in PP/K and other artifact styles also occurs, suggesting the emergence and elaboration of local cultures or cultural traditions. This cultural variability is thought to be partially related to localized differences in environment and subsistence resources, and to an increasing population, with a concomitant circumscription of group territories and mobility (Ford 1974).

In its most common expression, the Archaic Period is viewed as one in which the predominantly big-game hunting of the Paleoindian period was replaced by a more generalized or diffuse hunting and gathering way of life (Griffin 1967; Cleland 1976). The Archaic period formally begins with the onset of Holocene, post-glacial, climatic conditions in the east. It has been subdivided into three periods, the Early (8000 B.C. – 6500 B.C.), Middle (6500 B.C. – 3000 B.C.), and Late Archaic (3000 B.C. – 1200 B.C.). The Archaic was a relatively long and successful period of foraging adaptation, with subsistence based on hunting, fishing, and the collection of wild plant resources.

During the Early Archaic Period, the vegetation matrix of mixed coniferous forest was replaced by mixed hardwood communities dominated by oak and hickory with an understory of shade-tolerant herbaceous plants. A modern faunal assemblage was in place, following the extinction of the Pleistocene megafauna. The Early Archaic is subdivided into earlier Corner Notched and Side-Notched traditions, named for the shapes of the PP/K used to recognize and date these occupations. In Virginia, these include the Palmer,

Kirk, Amos, and other corner-notched points. The Early Archaic also marks the beginning of groundstone technology, with tools such as the celt and the axe. New point styles and tools likely reflected a change in subsistence strategy from primary reliance on the hunting of big game to an increasing utilization of plants and smaller animals.

During the Middle Archaic, the cool, dryer conditions of the Early Holocene gave way to the warmer, moist climate of the mid-Holocene Hypsithermal interval. This pattern may have been reversed at higher altitudes. Extensive estuarine marshes and riverine swamps began to emerge as sea levels ceased their post-Pleistocene rise, perhaps as early as 6000 B.C. during a Middle Holocene sea level high stand, but certainly after 2500 B.C. The coniferous forest was replaced by the oak-hickory forests still occupying the region today (Egloff and McAvoy 1990).

The Middle Archaic likely saw a continuation of Early Archaic practices and utilization of a variety of terrestrial flora and faunal resources as well as aquatic resources, depending on seasonal availability. Likewise, settlement patterns during the Middle Archaic probably still followed a small, specialized camp/large base camp dichotomy (Egloff and McAvoy 1990).

Archaeologically, the transition from the Early Archaic to the Middle Archaic in the Coastal Plain is characterized by the appearance of stemmed, rather than notched, PP/K such as the Stanly Stemmed (ca. 6000-5000 B.C.), Morrow Mountain I and II (ca. 5000-4200 B.C.), and Guilford Lanceolate (ca. 4200-3500 B.C.) (Coe 1964). Groundstone tools, including atlatl weights, axes, and grinding implements increase in frequency, while flake tools become more expedient in nature.

The Late Archaic Period was a time of considerable population growth, regional adaptation, and an inter-regional exchange of raw materials (Griffin 1967). New technologies and cultural developments were introduced, including soapstone containers used for storing and preparing food; ground and polished stone tools; and the late introduction of ceramics, although the widespread usage of ceramics is more clearly seen during the subsequent Woodland period (Custer 1990). The period saw an increase in inter-regional trade. There was a greater reliance on riverine resources during this period, with shellfish exploitation and the hunting of large and small game, possibly pushing Late Archaic populations toward seasonal settlements within specific environmental zones (Griffin 1967; Dragoo 1975).

In the Coastal Plain, data seems to suggest that Late Archaic peoples intensively occupied short-term camps and seasonal households dedicated to a specific activity, such as lithic workshops. Late Archaic people traveled along major rivers and streams, occupying temporary base camps while exploiting available local resources before moving on (Stanyard 2003). These seasonal base camps were on average larger than those seen during the Middle Archaic period.

In terms of material culture, Late Archaic lithic technology is dominated by stemmed and notched knife and spear point forms, including various large, broad-bladed stemmed knives and spear forms. Early steatite bowls began to appear (Custer 1990). Along with steatite bowls, ceramic forms can be seen as early as the Late Archaic in the Tidewater region, but this technology did not fully develop until the Early Woodland period.

3.3 Woodland Period (1200 B.C. – A.D. 1600)

Across the Eastern United States, the Woodland Period was marked by the widespread adoption of pottery; a greatly increased role for horticulture in subsistence economies; and an elaboration of mortuary ceremonialism, including the appearance of burial mounds (Griffin 1967). In the Eastern United States, the Woodland Period began with a transition from the Late Archaic that was marked by increasing sedentism as well as changes in food storage and preparation technologies. Subsistence strategies were a continuation of earlier hunter-forager ways, albeit with an increasing reliance on the cultivation of native plants (Yarnell

and Black 1985). Religious life, as evidenced by increased ceremonialism and the development of burial mounds, became more sophisticated during the Woodland Period. Similarly, the intensification of long-distance trade networks centered on the exchange of exotic materials (e.g., copper, obsidian) is evident. Triangular PP/K are diagnostic of much of the Woodland Period, indicating the adoption and expanding use of the bow and arrow at the expense of earlier spear and atlatl technologies. Ceramics became more refined and a regional differentiation of wares, particularly with respect to temper, paste, and surface decoration, became manifest during the period. The Woodland Period has been subdivided into three periods, which are based primarily on stylistic changes and technological advancements in both lithic tools and ceramics: the Early (1200 B.C. – 300 B.C.), Middle (300 B.C. – 1000 A.D.), and Late Woodland (1000 A.D. – 1600 A.D.).

Early Woodland occupations exhibit a continuance of previous Archaic hunter-fisher-gatherer lifeways, but with an increased reliance on ceramic vessels. During the Early Woodland period, there is a notable absence of agriculture and a heavy reliance on resources gathered such as nuts. Horticultural activities focused on the domestication of local plants, such as chenopodium, sunflower, and amaranth.

In the nearby Virginia Coastal Plain, the first appearance of ceramics in the archaeological record are thought to be the steatite tempered Marcey Creek ware and its variants, which are similar in vessel type and size to steatite Late Archaic vessels. Vessels have coiled or hand-molded patterns on a flat base (Gardner 1986). Other types that are indicative of the Early Woodland period include the Selden Island type, and Elk Island ceramics (Egloff 1991).

The Middle Woodland Period represented a time of population growth and increased cultural complexity. Middle Woodland sites are greater in size and density than in preceding periods and are characterized by the emergence of agriculture and the development of ceremonialism and a complex interregional trade network (Dragoo 1975; Griffin 1967; Stoltman 1978). Increased sedentism is accompanied by more regional variation, with lifeways in the Coastal Plain regions becoming more distinct. Middle Woodland Period sites are focused on floodplains of major drainages, with small upland occupations possibly for hunting activities and seasonal homesteads.

Artifact assemblages associated with the Middle Woodland Period in the Mid-Atlantic Coastal Plain are characterized by the advent of sand-tempered, net-impressed, and pebble-tempered ceramics, which include Pope's Creek, Varina, and Prince George wares. Additional types include shell-tempered, and net and cord-marked Mockley ceramics. Mockley ceramics are characterized by poorly paddled paste, usually made from oyster shell (Opperman 1980). Medium- to large-stemmed PP/K are still present but are gradually replaced by triangular PP/K such as the Potts, Jack Reef, Fox Creek and Selby Bay point types.

The Late Woodland Period in the Mid-Atlantic Coastal Plain saw the expansion of agriculture (Turner 1992). Maize cultivation took place but hunting and gathering were still important subsistence strategies as evidenced by the sparse number of habitation sites recorded in the region for this period (Caldwell 1958). As cultivation played a more important role in subsistence, villages were increasingly located on fertile floodplains, higher terraces, or ridges adjacent to fertile floodplains. These more permanent living locations were typically surrounded by satellite temporary locations used for hunting, quarrying, butchering, or tool maintenance.

With increased sedentism came an increase in sociocultural interaction (Turner 1992). Algonquin groups to the south of the Potomac River developed societal practices that featured differentiation in terms of societal role, dress, and burial customs. Chieftain leadership was passed on matrilineally. Under the leadership of chief Powhatan, the Algonquins had encompassed most of the Coastal Plain of Virginia and had a population of around 13,000 people (Turner 1986). Algonquin material culture included imported marine shell beads, steatite, and copper (Turner 1992). Diagnostic lithic tools of the period include

triangular projectile points of decreasing size in comparison to Middle Woodland PP/K. Ceramics of the time were typically cord-pressed, such as the Potomac Creek type, and Townsend and Roanoke ceramics, which are sand-and-shell tempered, and fabric impressed (Hodges and Hodges 1994).

In the Mid-Atlantic Coastal Plain, the earliest contact between indigenous peoples and European settlers occurred during the period between 1500 and 1675 A.D. Indigenous settlements of Northern Virginia and Southwestern Maryland at this time are depicted on early European maps as being clustered near the Potomac and Anacostia Rivers. Early European descriptions of indigenous lifeways at this time indicate that groups were living in oval or circular houses that were created by lashing together sapling poles covered with thatch and bark mats.

3.4 Contact and Historic Periods (A.D. 1600 – Present)

The Study Area and its immediate surroundings have been the subject of numerous previous cultural investigations. As a result, specific and well researched cultural histories for the area have been thoroughly developed. As these surveys are discussed in a later chapter of this report, the discussion below provides only a brief synopsis of the historic period of the Mid-Atlantic region, specifically in regard to the upper Potomac River Basin and Washington, DC.

3.4.1 Early European Exploration and Settlement of the Region

The end of the precontact period came with the first documented interaction with Europeans, which was marked by the arrival of English explorer John Smith in 1608 (National Park Service 2021). European exploration of the region began with John Smith's journey up the Potomac River in 1608. At the time of Smith's journey, at least four established American Indian Tribes were settled within the geographic space of what is today Washington, DC (Humphrey and Chambers 1985). The largest and most prodigious of these American Indian settlements was known as Nacochtanke and was described by Smith as a palisaded agrarian village site located at the confluence of the Potomac and Anacostia Rivers. Smith estimated that Nacochtanke was home to around 80 individual American Indian families and were likely regionally connected to the Nanticoke of the Chesapeake Bay Eastern Shore based on similarities between their languages and cultural traditions (Feest 1978).

In 1635, King Charles I of England authorized the founding of the Maryland Colony which encompassed the limits of the Study Area. St. Mary's City, the area's first lasting settlement, was founded a year prior in 1634. As European settlers expanded, they displaced well-established Native American communities, and by 1650, only a quarter of the indigenous population from the period before European contact remained. This decline in native populations was due to a combination of land loss, disease, and open conflicts with European settlers. By the 1660s, European settlers started setting up tobacco plantations near the junction of the Anacostia and Potomac Rivers (Bromberg et al. 1993).

For the next 150 years, the area that would become Washington, DC predominantly stayed agricultural, with tobacco plantations taking center stage. Georgetown, established on the banks of the Potomac River, emerged as a crucial port for the tobacco industry. Landownership during this time was concentrated among a few wealthy families, yet the booming tobacco economy attracted many artisans, farmers, and tenant laborers. Enslaved people were also brought in to work the land (Koziarski and Wagner 2019).

Following the American Revolution, the new nation required a permanent federal capital. Proposals included existing cities like Philadelphia, New York City, and Trenton. Others argued for building a new city on the Potomac River, a view endorsed by George Washington, who chose a site at the confluence of the Potomac and Anacostia Rivers. The Residence Act of 1790, enacted by Congress, authorized the creation of "a district of territory not exceeding ten miles square, to be located as hereafter directed on the River Potowmack [sic] at some place between the mouths of the Eastern branch [Anacostia River]

and Connogochegue [a creek near Williamsport, Maryland]…[which] is hereby accepted for the permanent Seat of the Government of the United States" (quoted in Mount Vernon 2025: n.p.).

3.4.2 The L'Enfant Plan for the City of Washington

With the establishment of the District of Columbia (District) in 1790, land along both sides of the Potomac and Anacostia Rivers were ceded to the federal government for the creation of the new capital of the United States of America (National Capital). The Plan for the City of Washington, designed by Pierre Charles L'Enfant in 1791, was an urban plan for the National Capital that featured a broad network of diagonal avenues crisscrossing over a more traditional network of east-west and north-south streets. This network of avenues and streets provided unbroken lines of connection between key areas of the capital including the Capitol Building (Congress House) and the White House (President's House) as well as connections between public lands making up the city's Monumental Core (Figure 4). One of these avenues, Maryland Avenue, provided a direct line from the Capitol Building to the Potomac River to the south and west. Virginia Avenue provided a similarly direct line to the Anacostia River and points east. Several open squares and triangles of land were created between these intersecting streets and avenues in L'Enfant's plan. L'Enfant intended for them to be reserved for public use and they were known as Reservations.

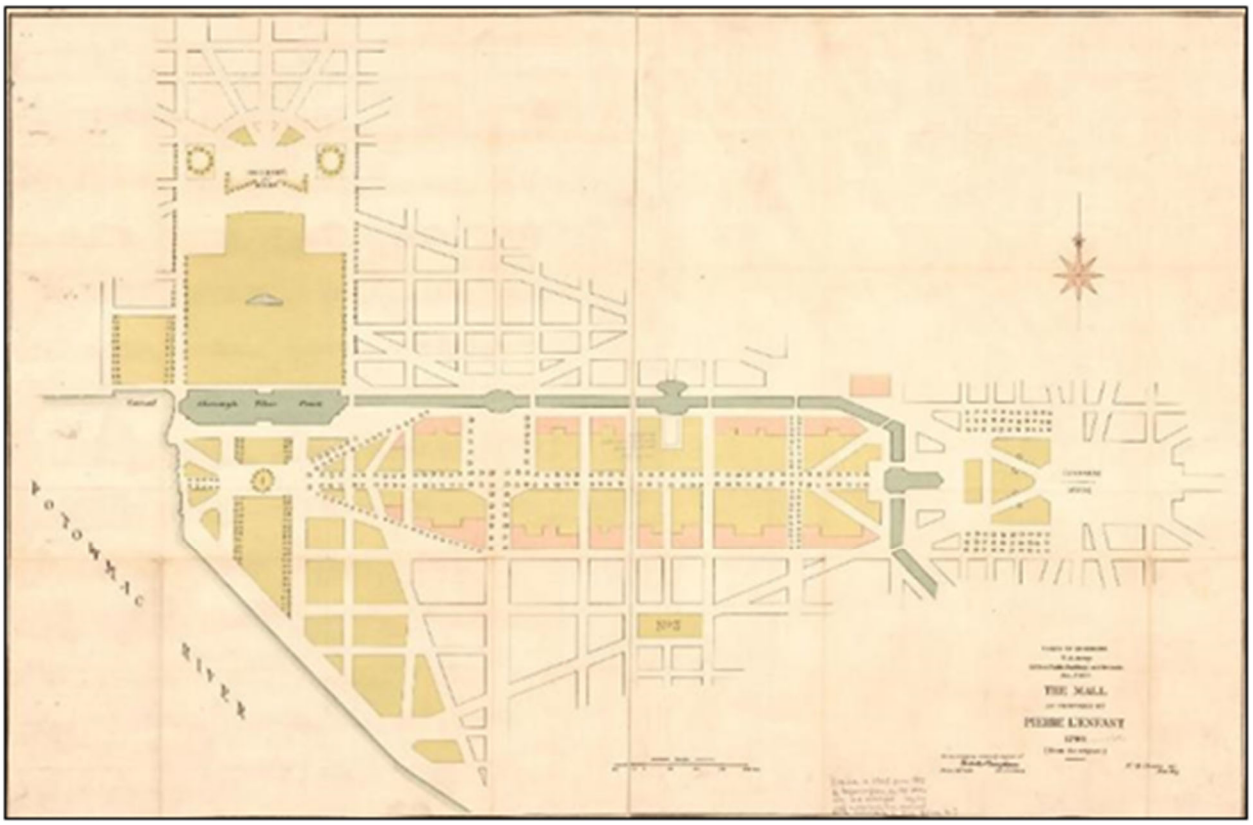


FIGURE 4. 1791 L'ENFANT PLAN OF THE MALL, WASHINGTON, DC WITH PARKLAND SHADED IN ORANGE. MARYLAND AVENUE CUTS A DIAGONAL FROM LOWER LEFT TO MIDDLE RIGHT THROUGH A PUBLIC SQUARE ("NO.3", THE FUTURE RESERVATION 113). VIRGINIA AVENUE IS NOT SHOWN. SOURCE: LIBRARY OF CONGRESS.

In the District's Northwest quadrant, several of these reservations were developed into parks in the first half of the nineteenth century. In the Southwest quadrant, however, many remained undeveloped (GSA 2015:42). What is known as Reservation 113 in the L'Enfant plan (known today as Hancock Park) was an open square of land created by the intersection of Maryland and Virginia Avenues SW and bounded on the north, east, south, and west by C Street SW, 7th Street SW, D Street SW, and 9th Street SW,

respectively. The L'Enfant plan only extended to the west bank of the Anacostia River. Portions of the Southeast and Northwest quadrants are located east of the river; as a result, those parts of the capitol's development were not governed by L'Enfant's plan.

3.4.3 Development of the Railroad Corridor

At the time of its early establishment, the District relied heavily on private and public ferry services to transport goods, services, and passengers across both the Potomac and Anacostia Rivers; however, these ferry services were infrequent and slow.

In 1808, President Thomas Jefferson signed into law an Act of Congress authorizing the Washington Bridge Company to construct a mile-long toll bridge between Maryland Avenue in the District and Alexander's Island, a small islet along the southwest shore of the Potomac River. Construction of the bridge was completed by 1809, and the bridge was used primarily by pedestrian traffic, carriages, and wagons, as no railroad tracks were present in the early 19th century. The bridge was replaced in 1816 after heavy damage during the War of 1812 and was eventually destroyed in a storm in 1831. By 1833, Congress had purchased the bridge from the Washington Bridge Company and saw to its replacement. The new bridge was opened in 1835 and was referred to as the 'Long Bridge Across the Potomac' or simply the 'Long Bridge.' Contemporaneously, another bridge known as the Upper Bridge or Anacostia Bridge was built across the Anacostia River in Northeast DC. Later renamed Benning Bridge, it became an important local toll road connecting the small rural settlements east of the Anacostia River with the more developed metropolis to the west.

Around the same time, the Baltimore and Ohio (B&O) Railroad Company held a monopoly over rail traffic in the District even though it did not have trackage within city limits. At the time, passengers and freight disembarked rail cars outside the city limits and were taken by horse-drawn carts into the city (AECOM 2015:3). Development of the B&O rail line within the District limits began in the early 1850s. With the rapid growth of the railroad industry in the mid-19th century, several railroad companies, including the B&O Railroad Company in the District as well as the Richmond, Fredericksburg, and Potomac Railroad Company in Virginia, anticipated that tracks would soon be laid on the Long Bridge across the Potomac River.

By 1855, to prepare for the eventual rail crossing of the Potomac River, the B&O Railroad Company laid railroad tracks from the foot of Long Bridge along Maryland Avenue to the foot of Capitol Hill and across the National Mall at 1st Street SW to the B&O Depot at New Jersey Avenue SE. The railroad corridor in Southwest DC utilized L'Enfant's street plan and the level grades of Maryland and Virginia Avenues SW. The open space at Reservation 113 evolved into a railroad interchange and depot area. The use of city streets for trackage and the potential use of the Long Bridge for a Potomac River rail crossing prompted a Congressional debate which stalled the line's further development until the Civil War.

The onset of the Civil War prompted the installation of railroad tracks across Long Bridge for the US Army to ship material and troops to northern Virginia (GSA 2015:42). Initial tracks spanned the length of the bridge; however, the bridge could not support the weight of the locomotives, resulting in goods having to be unloaded from rail cars and transferred across the bridge by horse-drawn carriages. As a result, a new single-track drawbridge, that could hold the weight of the locomotives, was constructed in 1863 parallel to the existing Long Bridge.

In 1862, the Maryland Avenue Depot (Figure 5), a one-story wood-framed freight building, was erected on the south side of Maryland Avenue SW between 9th and 10th Streets SW to support rail operations. There was also a wood-frame engine house fronting the south side of Reservation 113, and a turntable several blocks west on 12th Street and D Street (GSA 2015:42).

The B&O's monopoly on Washington rail commerce spurred competitors, including the short-lived Alexandria and Washington Railroad which laid their tracks along Maryland Avenue SW to Capitol Hill in 1855 without Congressional approval (GSA 2015: 34-35). Operation of this railroad in the District was prevented by irate Congressmen opposed to the location of the tracks, particularly at the crossing of Pennsylvania Avenue. Chief among the B&O's competitors, however, was the Pennsylvania Railroad (PRR), chartered in 1846 by the Pennsylvania Legislature. The PRR aggressively expanded northeast and southeast from Philadelphia with the goal of establishing a continuous, interstate rail corridor between New York City and Washington, DC. In September 1867, the PRR committed to funding the construction of the Baltimore & Potomac Railroad (B&P) which had been authorized to extend its line from Baltimore across the Anacostia River and enter the District. Acting through B&P, the PRR achieved its goal (AECOM 2015).

The B&P Railroad entered the District from Maryland, passing through undeveloped land in Northeast and Southeast DC along the eastern bank of the Anacostia River. Near Massachusetts Avenue SE, a trestle bridge was built in 1872 to cross the Anacostia River near East Washington Park. After crossing the river, the tracks ran along M Street SE before curving onto Virginia Avenue SE and passing through the Virginia Avenue Tunnel, which was authorized under a Congressional act dated March 18, 1869 (AECOM 2015).

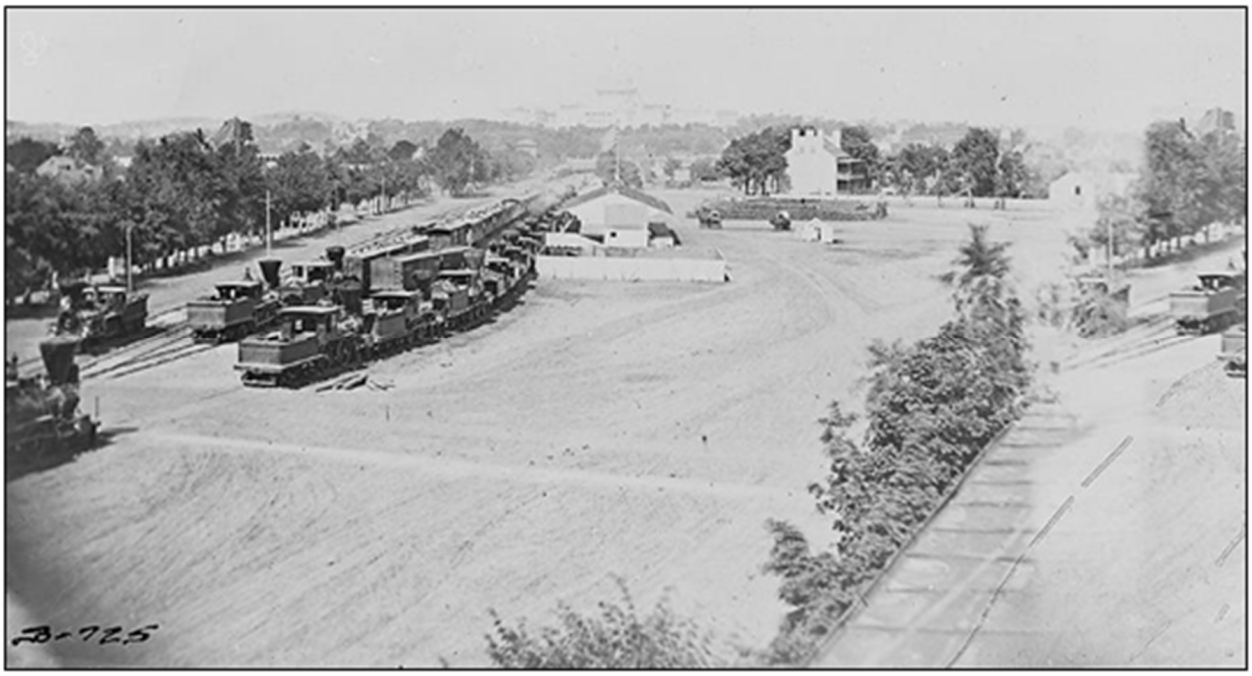


FIGURE 5. CA.1863-1865 MATTHEW BRADY PHOTO LOOKING NORTHWEST AT THE B&P RAILROAD DEPOT ON MARYLAND AVENUE.
SOURCE: HTTPS://COMMONS.WIKIMEDIA.ORG/WIKI/FILE:MARYLAND_AVENUE_DEPOT_AT_WASHINGTON,_D.C_-_NARA_-_525130.JPG ACCESSED MAY 11, 2024.

At 6th Street SW, a railroad spur turned northward and traveled up 6th Street SW, crossing the National Mall, until it reached the original B&P terminal at B Street NW near Pennsylvania Avenue. Under another Congressional act, approved June 21, 1870, the B&P line continued along Virginia Avenue SW until it reached Maryland Avenue SW to reach the Long Bridge over the Potomac River. In June 1870, Congress gave the B&P a monopoly of rail service over Long Bridge. The B&P opened its line into the District on July 2, 1872. Within eleven years, the PRR had double tracked the B&P line through the District (AECOM 2015).

In 1880, Currier & Ives produced a bird's-eye view map of Washington, DC (Figure 6). The map depicts the B&P railroad corridor in Southwest with steam trains running on grade down Maryland Avenue SW,

surrounded by a dense urban commercial, industrial, and residential district. At Reservation 113 (shown as open space with a steam train crossing it on Figure 6) the rail line split with one line turning sharply north to cross the National Mall at the foot of the Capitol Building and terminate at the B&P depot. The other line continued southeasterly on Virginia Avenue SW. This triangular junction was known as the 6th Street Wye. As shown on the bird's-eye map and on Sanborn Fire Insurance maps, the corridor included related railroad infrastructure such as a roundhouse at 6th Street SW, a freight yard, and numerous sidings serving adjacent manufactories. The corridor created a physical barrier between Southwest and the rest of the city as coal-fired steam trains were running on four tracks by 1888 (Figure 7 and Figure 8). It generated near-constant dirt, grit, noise, rumbling, and hazardous grade crossings along Maryland and Virginia Avenues. By 1894, the rail nexus where the 6th Street Wye met the B&P Railroad at the intersection of Maryland Avenue SW and Virginia Avenue SW had been graded, turfed, and fenced off from the public (Report of Secretary of War 1894).

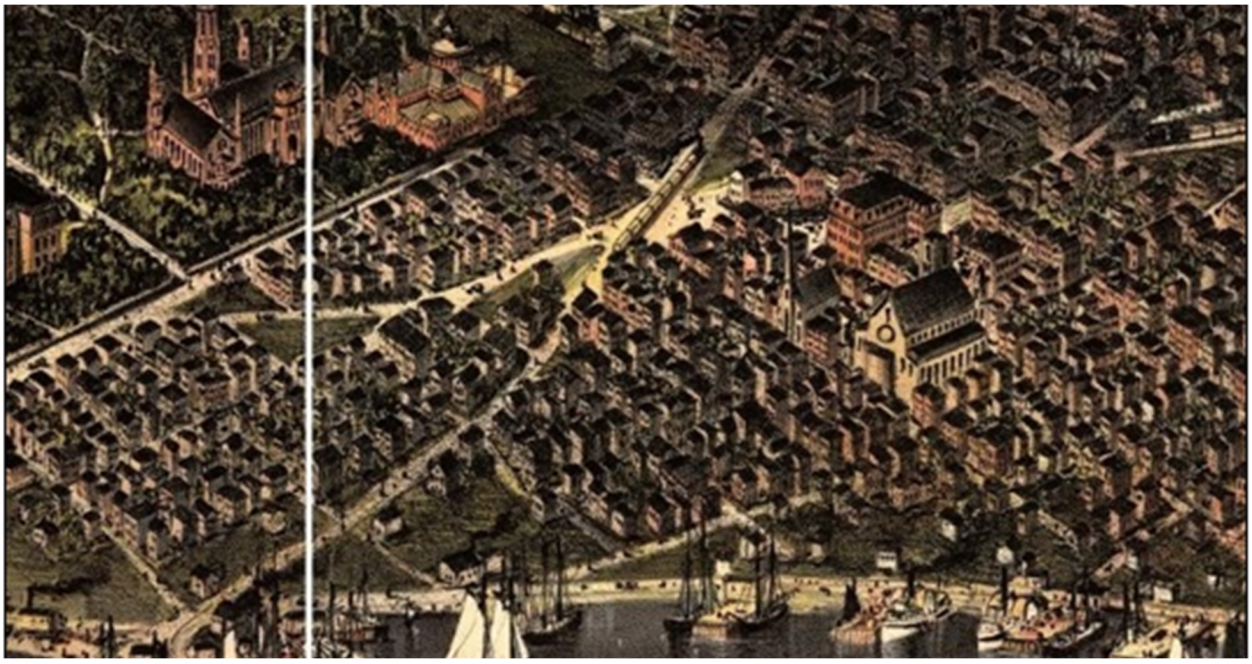


FIGURE 6. DETAIL OF AN 1880 CURRIER & IVES BIRDS EYE VIEW OF WASHINGTON, DC SHOWING THE B&P RR CORRIDOR IN SOUTHWEST DC. STEAM TRAINS CARRYING PASSENGERS AND FREIGHT CROSSED LONG BRIDGE (LOWER LEFT) TURNED NORTHWEST AND RAN UP MARYLAND AVENUE TO THE "Y" JUNCTION AT RESERVATION 113 (THE OPEN SPACE IN THE UPPER MIDDLE OF THE FIGURE). FROM HERE THEY PROCEEDED NORTH TO THE PASSENGER DEPOT AT THE NORTH END OF THE MALL, OR CONTINUED SOUTHWESTERLY ON VIRGINIA AVENUE. SOURCE: LIBRARY OF CONGRESS.

Figure 7. 1888 Sanborn Map showing the B&P RR corridor on Maryland Avenue between 12th and 7th Streets SW and the dense industrial/residential area that fed off the railroad. All the crossings were on grade and though it was labeled "Public Square," Reservation 113 was railroad territory. Source: Library of Congress.

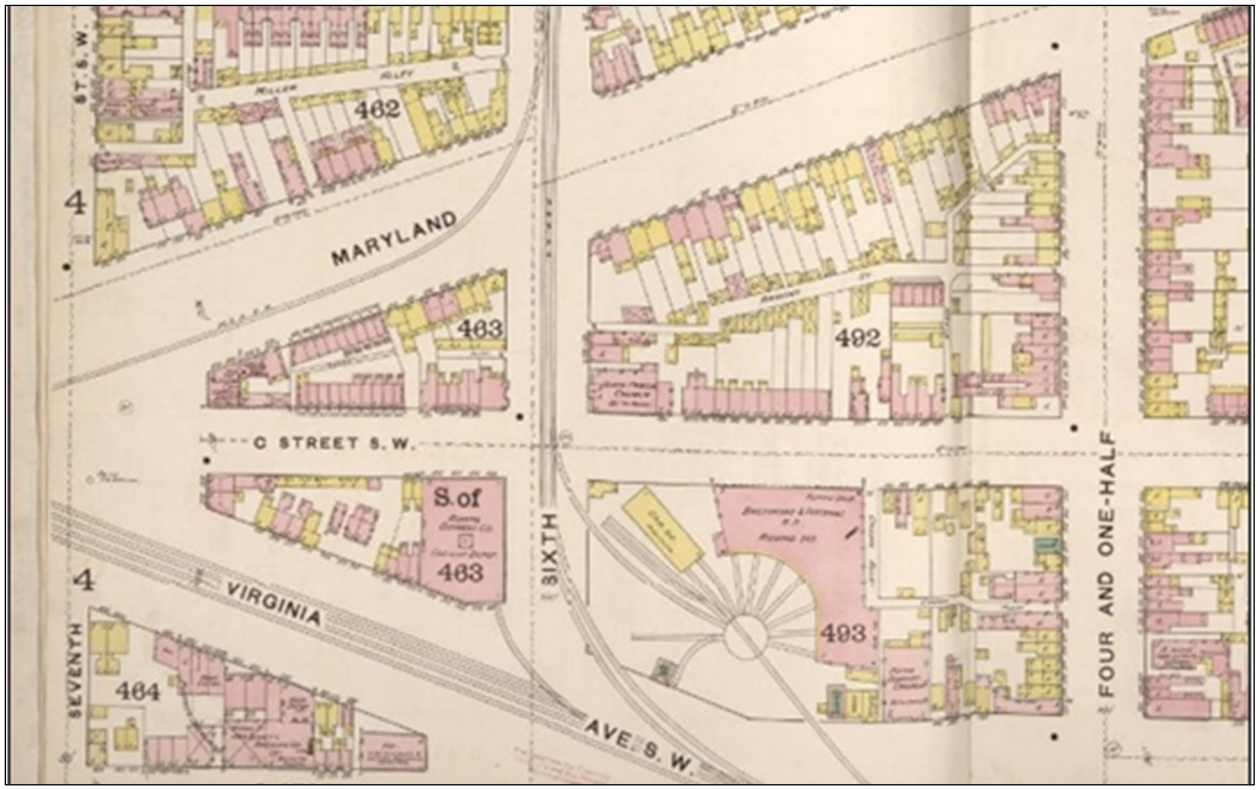


Figure 8. 1888 Sanborn Map showing the B&P RR corridor between 7th Street and 4 ½ Street SW on Virgina Avenue. The "Y" junction carried tracks north across the Mall. Block 493 contained a turntable and roundhouse. A freight yard was located to the southeast (out of frame). Source: Library of Congress.

3.4.4 The McMillan Plan

The 1890s marked the beginning of private and public planning efforts to improve central Washington, culminating in the 1901 formation of a Senate Park Commission, popularly known as the McMillan Commission, headed by Senator James McMillan of Michigan. The Commission's approach was informed by the City Beautiful movement which sought to introduce beautification and monumental grandeur into urban areas, and by a desire to honor the 1791 L'Enfant Plan for the National Mall (Figure 9). City Beautiful also exemplified Progressive Era thinking about the government's role in improving public health and safety. As public awareness grew of the dangerous and unhealthy conditions prevailing in America's urban areas at the turn of the twentieth century, progressives believed that by reinventing urban space through the introduction of monumentality, grandeur, and Classical symmetry and order, urban problems could be mitigated or solved. One of the targets of the Commission's efforts was the removal of the trackage from the National Mall and Pennsylvania Avenue NW (now belonging to the B&P) and the construction of a new Union Station on a site to the north, which would be shared by the B&P and the B&O (NPS 2006).

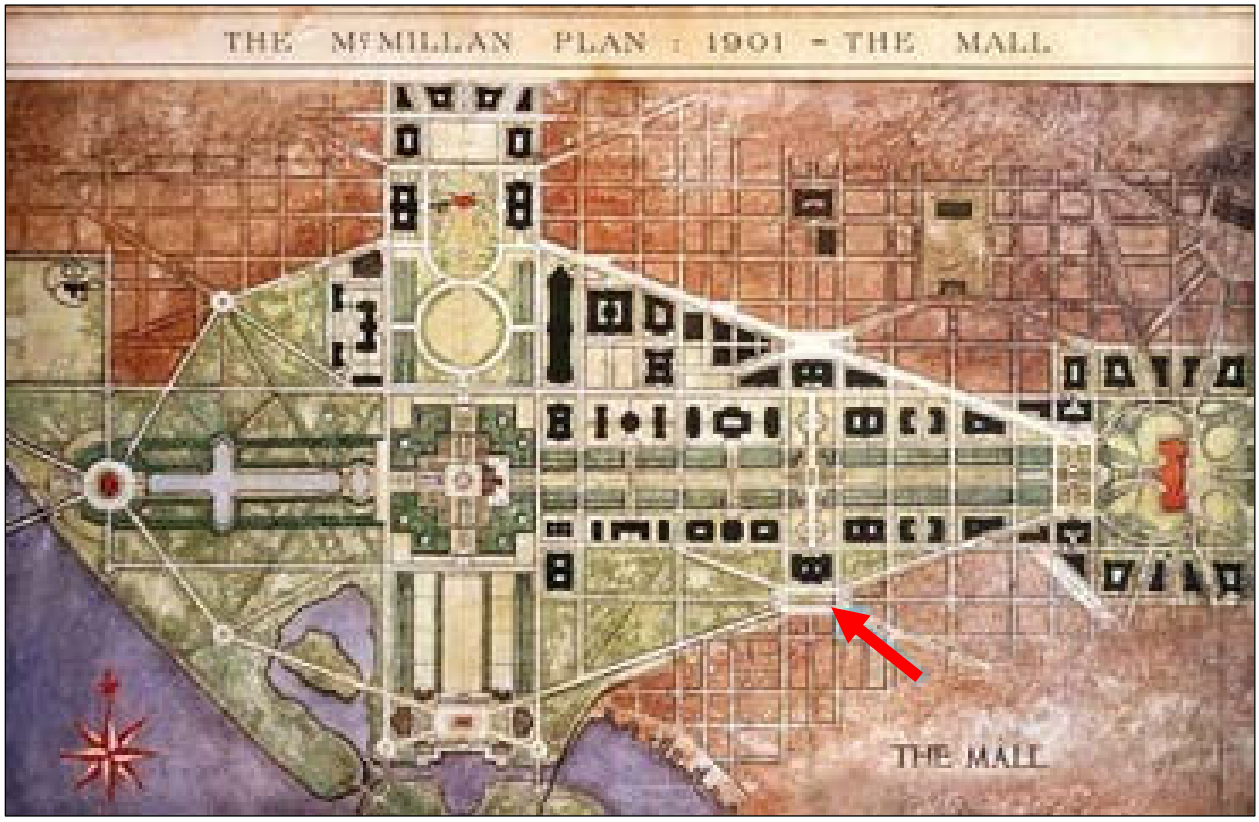


FIGURE 9. CA. 1890 MAP OF THE MCMILLAN PLAN'S CITY BEAUTIFUL VERSION OF THE WASHINGTON MALL. IN THIS VERSION ALL TRACKAGE WAS REMOVED, MARYLAND AVENUE MARKED A BREAK BETWEEN PARK AND CITY, RESERVATION 113 (RED ARROW) REVERTED TO A PUBLIC PARK, AND THE RAILROAD CORRIDOR WAS OUT OF SIGHT. SOURCE: LIBRARY OF CONGRESS.

3.4.5 The Campaign to Eliminate Grade Crossings

In the late nineteenth century throughout the United States, railroad grade crossings were regarded as deadly places. While engine speed limits were implemented within the District bounds, these speed limits were not always heeded. Where crossing gates were installed at grade crossings, these gates were not enough to deter all pedestrians, and children in particular. In addition, steam engines were surprisingly

quiet. These factors led to relatively frequent fatal collisions between trains and people. Grade crossings could also be fatal for horses and carriages if the gates happened to land between the two when lowered.

The situation acquired more urgency in the early twentieth century with the rising number of catastrophic collisions between steam engines and streetcars, with newspapers reporting the gory details of these collisions (The Evening Star 1913). The B&P Railroad through the District had many of these dangerous grade crossings. Figure 10 shows the grade crossings in 1901 at the Maryland Avenue SW depot.

FIGURE 10. 1901 PHOTO OF THE MARYLAND AVENUE SW DEPOT. BY THIS TIME SOME IN CONGRESS WERE ADVOCATING FOR THE ELIMINATION OF GRADE CROSSINGS. SOURCE: LIBRARY OF CONGRESS.

In 1903, after years of lobbying by the Washington newspaper *The Evening Star* and a group called the Southwest Citizens Association, and with the support of Senator McMillan and Senator Justin Morrill of Vermont, an Act of Congress was passed that directed the B&P Railroad to remove certain grade crossings, including those at 2nd, 3rd, 4th, 6th, 7th, 8th and 9th Streets SW in the Southwest quadrant as well as that at Nannie Helen Burroughs Avenue SE (then called Dean Avenue) east of the Anacostia River. The rail corridor through Southwest DC was by this time condemned as a deathtrap (The Evening Star 1913). Figure 11 shows the rail corridor in 1903, which consisted of four tracks with numerous grade crossings. The 6th Street Wye, Reservation 113 and the especially hazardous grade crossing at 7th Street SW (which by now was a major thoroughfare with a streetcar line) were held up by Senator Morrill as examples of railroad usurpation of public lands and Federal indifference to public health and safety (The Evening Star 1920). Furthermore, a formal protest by the Southwest Citizens Association alleged that "property values have decreased, home comforts and enjoyments have been greatly interfered with, street crossings are obstructed [by parked railroad cars] and life and limb daily placed in jeopardy." (The Evening Star 1905).

FIGURE 11. 1903 BAIST REAL ESTATE SURVEY MAP SHOWING THE B&P RR CORRIDOR BETWEEN 10TH AND 4 ½ STREETS SW INCLUDING THE JUNCTION IN RESERVATION 113. THE CORRIDOR IS NOW QUADRUPLE-TRACKED WITH SEVERAL SIDINGS SERVING INDUSTRIES ADJACENT TO THE RAILROAD TRACKS. SOURCE: LIBRARY OF CONGRESS.

3.4.6 Progressive Era Railroad Improvements

The grade crossing campaign was not formally part of the McMillan Plan. However, Congressional pushback on the railroads' use of avenues and undeveloped public lands within the District went beyond the beautification of the National Mall to include the trackage, yards, and depots on Maryland and Virginia Avenues SW and the junction at Reservation 113 (Figure 12). When the trackage on the Mall was removed in early years of the twentieth century, the 6th Street Wye was also eliminated along with the engine house and turntable (Figure 13). The trackage between South Capitol and 9th Streets SW was raised on the present rusticated stone walls with undergrade crossings (railroad bridges) consisting of steel girder bridges, all built to a similar functional design and without ornamentation. The freight yard was enclosed within a rusticated stone wall (Figure 14 and Figure 15).

In 1903, according to an article in *The Evening Star,* the $1,000,000 railroad improvement project was entering its last stages with completion expected by 1908. The Drake & Stratton Company of Philadelphia were beginning work on Maryland Avenue SW from 7th Street SW to 14th Street SW. Trains were now operating on "the elevated structure" to 6th Street SW. When completed, 6th, 7th, 9th, and Water Streets SW would pass under the railroad tracks, while 10th, 11th and 12th Streets SW would pass over on bridges (Water Street SW is now known as Maine Avenue SW). Eighth, 13th, and 13 ½ Streets SW would be closed. The newspaper did not describe methods or materials used in construction but noted approvingly that "local engineers" were reviewing the plans and that the public could therefore be assured their "rights and comfort will be well taken care of" during construction (The Evening Star 1906). The grade crossing project was part of an overall railroad improvement project, mandated by Act of Congress in 1901, which included construction of the new Washington Union Terminal (1907), commonly known as Union Station. The resulting rail corridor through Southwest in other respects followed its nineteenth century alignment on Maryland and Virginia Avenues SW.

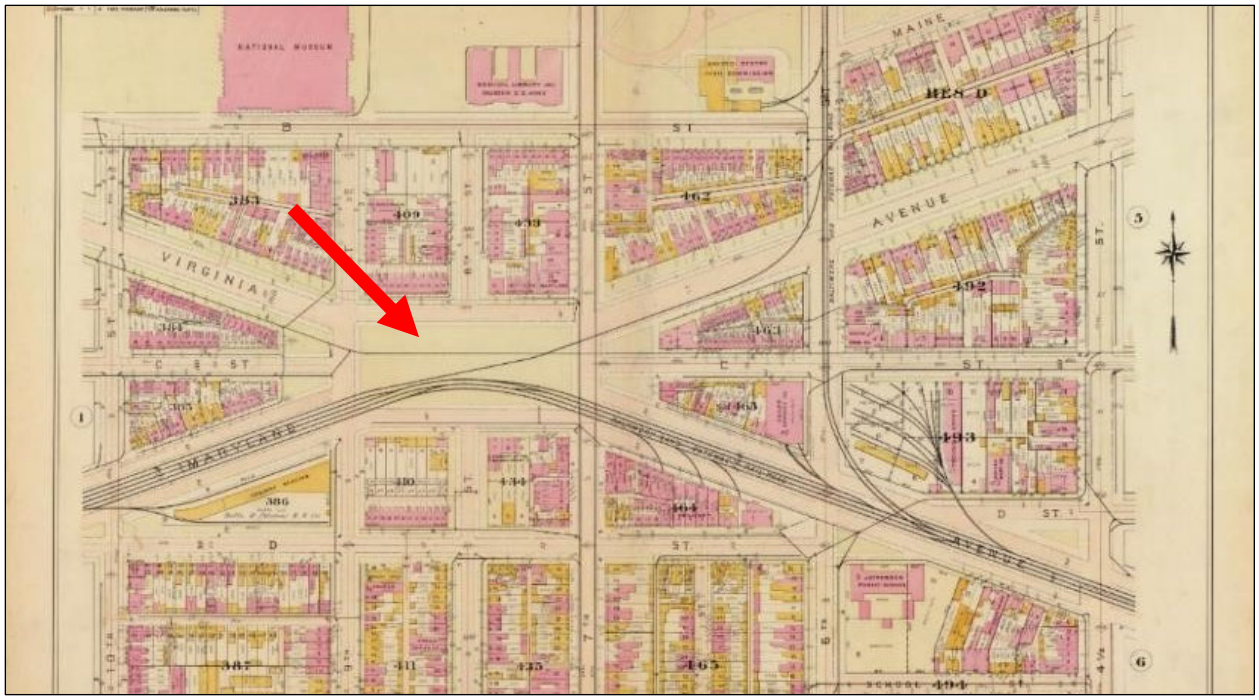


FIGURE 12. DETAIL OF 1901 MAP OF THE PUBLIC RESERVATIONS IN THE DISTRICT OF COLUMBIA, PREPARED BY THE COMMISSION ON THE PARK SYSTEM, SHOWING THE EXISTING PUBLIC GREEN SPACES IN SOUTHWEST DC, SHADED IN GREEN. RESERVATION 113, NOW LESS THAN HALF ITS ORIGINAL SIZE, IS SHOWN BY A RED ARROW. THE B&P RAIL CORRIDOR AND ITS YARD NEAR GARFIELD PARK ARE CLEARLY SHOWN. SOURCE: LIBRARY OF CONGRESS.

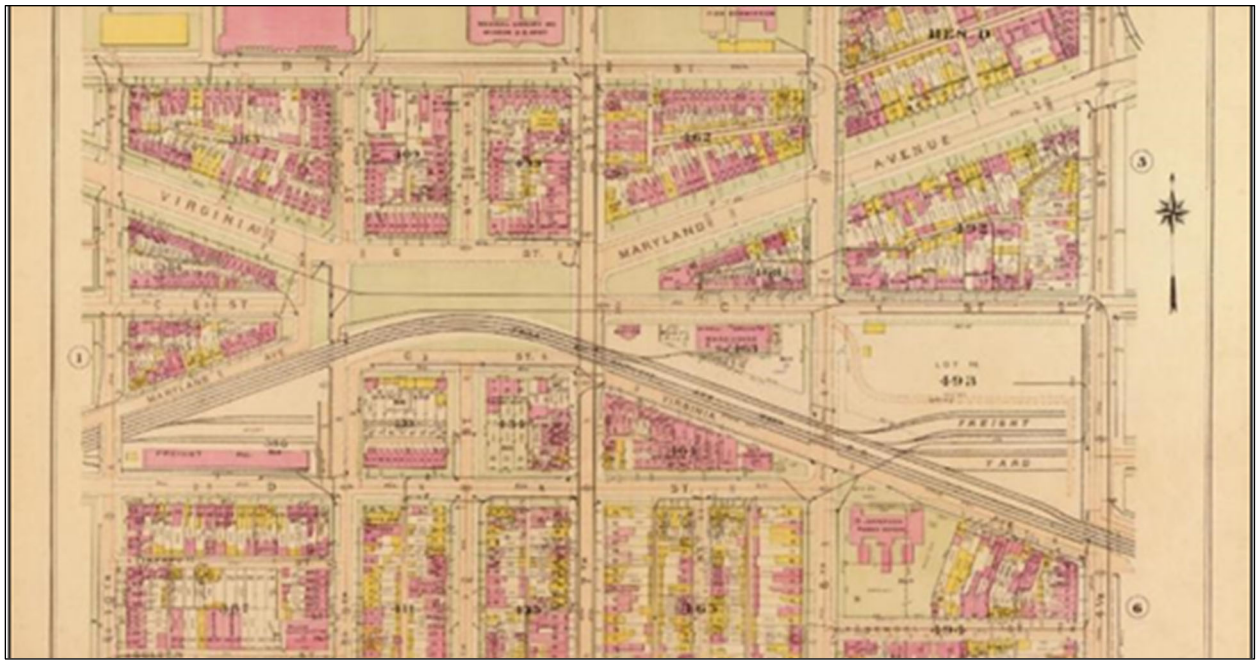


FIGURE 13. 1921 BAIST REAL ESATE SURVEY MAP. THE "Y" JUNCTION IS GONE, THE STREETS ARE BRIDGED EXCEPT FOR 10TH STREET SW WHICH IS AN OVERPASS. BLOCK 493 NO LONGER HAS A ROUNDHOUSE OR TURNTABLE. SOURCE: LIBRARY OF CONGRESS.

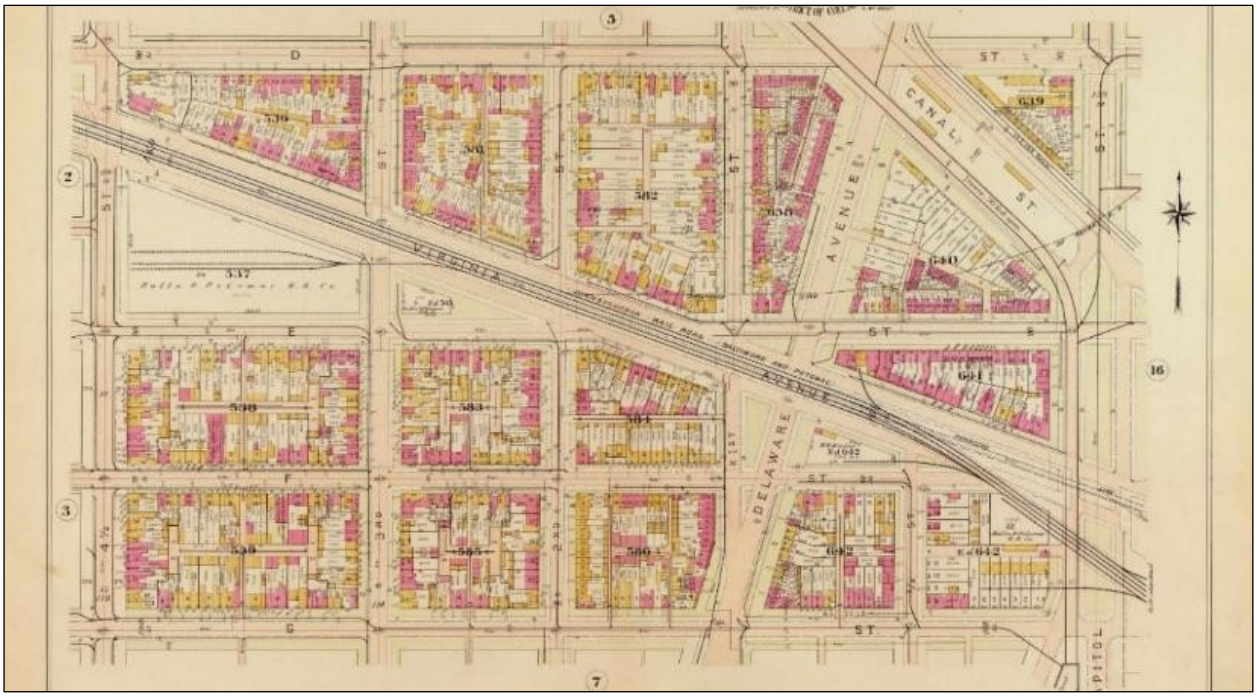


FIGURE 14. 1903 BAIST REAL ESTATE SURVEY MAP OF THE RAILROAD CORRIDOR ON VIRGINIA AVENUE BETWEEN 4 ½ STREET SW AND CANAL STREET. SOURCE: LIBRARY OF CONGRESS.

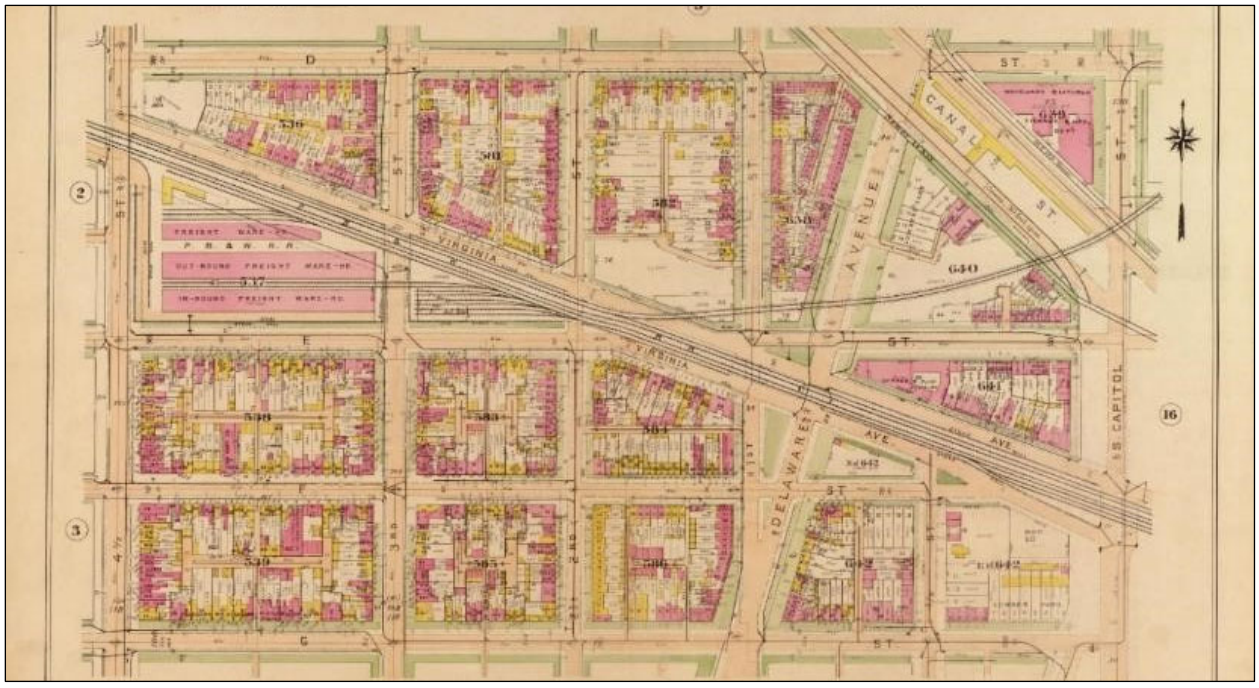


FIGURE 15. 1921 BAIST REAL ESTATE SURVEY MAP OF THE SAME AREA FOR COMPARISON. THE MAP NOTES PLACES WHERE STONE WALLS HAVE BEEN BUILT ON EITHER SIDE OF THE TRACKS AND ENCLOSING THE FREIGHT YARD. SOURCE: LIBRARY OF CONGRESS.

3.4.7 Early Twentieth Century Electrification

During the early twentieth century, the PRR began a program of electrifying its mainline between New York and Philadelphia. Workmen completed catenary installation between Philadelphia and Wilmington in 1928. The PRR shelved its plans to complete electrification to the District during the first two years of the Great Depression. Federal officials, unwilling to have the workforce engaged in this work become unemployed, negotiated a loan with the railroad to continue its work. Through electric passenger trains between New York and the District began operations in February 1935, and the railroad through the District to Potomac Yard in Alexandria, Virginia was electrified by June of the same year. While the catenary wires were removed during the 1990s, the support frames are still present along the right-of-way (AECOM 2015).

3.4.8 Mid-Twentieth Century Urban Renewal and Displacement (1940s-1970s)

By the middle of the twentieth century, the Southwest quadrant, known then as the Old Southwest, was home to thousands of working-class and low-income Black and Eastern European immigrant residents. Housing in some areas was substandard, lacking electricity or running water, the outcome of decades of urban disinvestment. The B&P tracks on their raised embankment resembled a stone fortification wall and effectively acted as a northern boundary between Southwest and the rest of the District. In the thinking of the time, the preferred option was to tear everything down and start over. In 1945, the Redevelopment Land Agency (RLA) was created by Congress to oversee the process of urban renewal throughout the District. The 1952 National Capital Planning Act gave the National Capital Planning Commission (NCPC) more control over comprehensive regional planning and new development and charged it with developing a comprehensive plan for the region that would embrace new construction, transportation, parks, and natural resources (Robinson and Associates 2009:20).

In 1953-54 the RLA began NCPC's approved urban renewal plan for Southwest with the acquisition by eminent domain and demolition of approximately 4,800 buildings in the neighborhood. The urban renewal project replaced much of Old Southwest's dense street grid with superblocks lined with Modernist style multi-story commercial, residential, and government buildings; major routes such as 7th Street SW remained. The 1957-1970 construction of the Southwest Freeway/Interstate 395 was another significant component of the project. By the time the urban renewal project was completed in the early 1970s, it had displaced approximately 1,500 businesses and 23,000 residents, many of whom were low-income and/or Black, and replaced them with approximately 13,000 middle and upper-class residents living in approximately 5,800 new housing units (HABS 2004:112).

The urban renewal plan also affected the Southeast quadrant where the RLA condemned large swaths of housing, particularly neighborhoods with high Black homeownership, and erected segregated public housing in place of these homes. The B&P Railroad through the Southeast quadrant remained largely unchanged by these efforts.

During the urban renewal era there was broad support for a bill to submerge the railroad trackage in a tunnel between Union Station and the Virginia state line, but according to the Historic American Building Survey report, "the plan died due to its high $75 million price tag" (HABS 2004:112). Thus, the urban renewal project developed around the raised railroad tracks and tried by means of overpasses and underpasses and to eliminate their influence as a barrier (HABS 2004:112). Throughout the urban renewal efforts of the mid-twentieth century, the features and alignment of the B&P Railroad corridor itself remained largely unchanged.

4.0 Previous Archaeological Sites and Surveys

In consultation with the DC HPO, previous cultural resources surveys and previously recorded archaeological sites were compiled to understand the extent of cultural resources investigations within a 0.25 mi radius of the Study Area. To date, eight cultural resources investigations and one archaeological site have been recorded within a 0.25 mi radius of the Study Area (Figure 16). These investigations comprise of detailed archival research, Phase IA reconnaissance and background studies research, Phase IB survey investigations, and Phase III mitigation efforts.

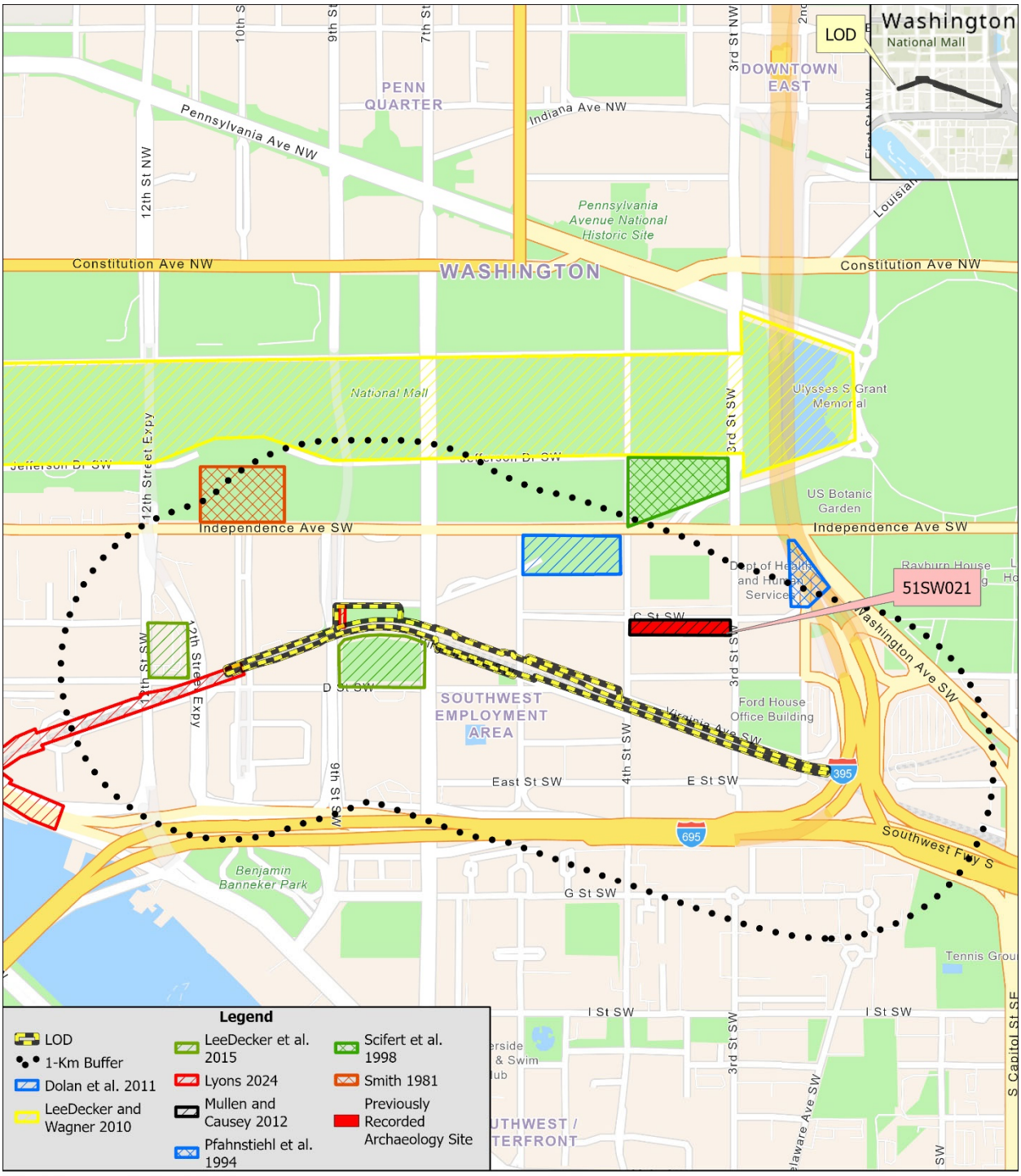
In 1981, a detailed review of personal letters and notes of Smithsonian Museum of Natural History staff were reviewed to understand the history of development of the South Quadrangle of the facility prior to the expansion of the facility (Smith 1981). Over 100 years of detailed notes were used to contextualize temporary buildings, permanent installations, construction disturbances, and historic use of the South Quadrangle. The effort indicated that only four subsurface historic features would be impacted by proposed construction, none of which would require archaeological investigations.

In 1994, a Phase IA study of a parcel of land between 2nd Street SW and Washington Avenue was conducted to assess the potential for intact cultural resources ahead of proposed land development for a Museum of Health and Medicine (Pfanstiehl et al. 1994). The study indicated that much of the parcel has likely not been impacted by twentieth-century developments that would have obliterated historic archaeological deposits and there was potential for significant historic resources within the parcel. A Phase IB archaeological survey was recommended.

In 1998, a Phase III mitigation was conducted ahead of the construction of the Museum of the American Indian between 3rd Street SW and 4th Street SW (Seifert et al. 1998). Previous Phase I and Phase II archaeological efforts recorded intact deposits related to working-class tenements and a brothel at the NRHP-eligible site 51SW014, which is located beyond the 0.25-mi buffer of the Study Area. The Phase III mitigation uncovered brick architectural features and midden deposits dating from between 1840 and 1870; refuse from these middens indicated a high socioeconomic status related to a brothel owned and operated by Mary Ann Hall. Adjacent excavations of the neighboring former buildings indicate lower socioeconomic refuse related to tenements for working-class residents of the city who lived in wooden rowhouses named "Louse Alley". The results of the mitigation provided valuable insight into the evolution of demographics and wealth within this portion of the city in the middle to late nineteenth century.

In 2010, a geoarchaeological investigation was conducted within the National Mall between the Capitol and Washington Monument in advance of a turf and soil replacement project (LeeDecker and Wagner 2010). Soil coring indicated widespread fill layers related to the leveling, grading, and development of the National Mall, with some intact natural soil horizons near 4th Street SW that were related to the banks of Tiber Creek. A management summary of the report recommends that any archaeological work in support of the project target these soils, as they may contain intact Pleistocene-era deposits.

In 2011, a Phase IA study of a parcel of land between 4th Street SW and 6th Street SW was conducted to assess the potential for intact cultural resources ahead of proposed land development for the Eisenhower Memorial (Dolan et al. 2011). The study indicated that portions of the parcel may contain intact soil horizons related to the banks of Tiber Creek and that Precontact archaeological contexts may be present. Subsequent geotechnical soil coring revealed that much of the area had been subjected to deep historic grading and fill episodes that would have obliterated Precontact cultural horizons, with disturbed fill contexts ranging between one to five feet below ground surface.



VHB Project #: 69641.00
Project Name: VRE L'Enfant Station and Fourth Track Improvements, Washington, DC

FIGURE 16. PREVIOUS SITES AND SURVEYS WITHIN 0.25-MILE RADIUS OF THE STUDY AREA.

In 2012, Phase I and Phase II investigations were conducted at site 51SW021 ahead of improvements to the Mary E. Switzer building between 3rd Street SW and 4th Street SW (Mullen and Causey 2012). Site 51SW021 is the remains of late nineteenth century rowhouses that housed the city's Black and Irish immigrant working-class communities before their demolition in the early twentieth century. The site was recommended not eligible for listing on the NRHP under Criterion D, as archaeological deposits at the site were heavily disturbed by the construction of the Mary E. Switzer building circa 1939 to 1940.

In 2015, a Phase IA study for the proposed expansion of the Cotton Annex building at 300 12th Street SW considered the potential for archaeological resources within that parcel (LeeDecker et al. 2015). Soil coring within the study area concluded that all historic or Precontact contexts at the site had been impacted by successive filling and grading activities in the area. The study concluded that the parcel had low probability for containing historic resources. The study also investigated the General Services Administration's Regional Office Building, situated immediately south of the Study Area for this project between 9th Street SW and 7th Street SW. Geotechnical soil coring at this location was prohibited by a thick layer of asphalt and concrete, but historic topographic map review indicated that the existing surface had been previously graded up to ten feet below historic surface grade.

In 2024, A Phase IB archaeological survey for the Long Bridge Project was conducted along the existing CSX railway within the city between Maine Avenue SW and L'Enfant Plaza SW and included a small staging area located within Hancock Park immediately south of C Street SW (Lyons 2024). The portion of the Lyons 2024 investigation located within Hancock Park is within the current Study Area for this project. Subsurface shovel tests excavations within Hancock Park were prevented due to observed utilities and visual reconnaissance did not record historic resources at the surface.

5.0 Research Design and Site Sensitivity

5.1 Cut and Fill Analysis

The cut and fill analysis was limited to the extent and immediate vicinity of the LOD and encompasses portions of the Southwest Waterfront District and the National Mall. The analysis is based on comparative differences between modern elevation and topographic boundaries depicted upon the US Army Corps of Engineers Statistical Maps of Washington, DC, No. 2 Street Grades map dating to 1880 (Greene 1880). The Greene 1880 map provides the earliest topographic depictions of Washington, DC at a resolution sufficient for the scope of this analysis. This data was compared to modern 2-ft contour interval data of Washington, DC that was derived from a 2022 Light Detection And Ranging (LiDAR) survey of the city, obtained from Open Data DC (OpenDataDC 2024).

The Greene 1880 map was accurately georeferenced to the World Topographic Map of Washington, DC (ArcGIS 2024). Contour intervals were then converted to a Triangulated Irregular Network (TIN) model to construct a 3-dimensional visualization of the topography. This TIN model was next converted to a raster digital image file to encode elevation data into a grid-like depiction of pixels. An identical process was performed with the 2022 Washington, DC 2-ft contour data to create an equivalent raster file for comparative analysis. As elevation integers in both datasets were represented in Imperial foot units, no z-score corrections were applied to account for differences in elevation measurements. Using ArcGIS Pro's Raster Calculator toolset, a comparative analysis was performed between the two raster datasets to depict the extent of elevation change between 1880 and 2022 within the Study Area and the immediate vicinity. A raster layer depicting this topographic change, presented in Figure 17, depicts the extent of changes; for clarity, a 5-foot contour interval has been applied to this elevation change raster to assist in interpreting the results of the raster analysis.

FIGURE 17. CUT AND FILL ANALYSIS RESULTS.

Between 1880 and 2022, the Study Area has been subjected to several instances of landscape modification. The portions of the study located in existing CSX ROW depict instances of depressing or lowering elevations up to 10 feet from the 1880 elevation baseline. These changes are likely related to modifications applied to the extant rail lines as part of the implementation of the McMillan Plan between 1903 and 1908 (Kohler and Scott 2006). A stipulation of the McMillan Plan, an effort to beautify the urban aesthetic of Washington, DC, resulted in changing the rail grade along Virginia Avenue SW to reduce the amount of at-grade rail crossings where they intersected district streets. This resulted in a decrease in elevation of up to 5 feet for the rail grade between 12th Street SW and 9th Street SW. Portions of roadways, including 9th Street SW, were also lowered to pass underneath the rail grade. In contrast, elevation increases of up to 10 feet occurred within the rail grade between 6th Street SW and 2nd Street SW. It is unlikely that undisturbed archaeological contexts along the extant railroad ROW within the Study Area are present.

The portion of the Study Area within Hancock Park, bordered by 9th Street SW, 7th Street SW, and Maryland Avenue SW, appears to have experienced relatively little change in elevation between the late-nineteenth century and present day. A review of historic aerial imagery indicates that Hancock Park remained relatively unchanged between 1921 and 2024, with the exception of small portions of paved walkway additions (Figure 18**Error! Reference source not found.**). In 1968, Hancock Park was utilized as a staging ground for construction materials and equipment related to the construction of the 9th Street Expressway (Figure 19). Materials appear to be shipping containers or shed structures around the perimeter of the park. Staging impacts appear to be limited to the surface and the park was reverted to turf by 1974. As the portion of the Study Area within Hancock Park has not experienced significant disturbance, reflected both in elevation change analysis and a review of historic aerial imagery, there is a potential for subsurface archaeological contexts within this portion of the Study Area related to the former 6th Street Wye rail spur. Although the line was removed between 1903 and 1921, the extent of grading or disturbance related to that removal is unknown.

5.2 Site Visit

A walkthrough of the Study Area indicated that the majority of locations would not be conducive to archaeological survey or testing. Within the western portion of the Study Area between the 12th Street Expressway and 9th Street SW, the rail line runs below an elevated street grade. Proposed work in this portion of the Study Area is restricted to the existing rail line. From 9th Street SW to the eastern terminus of the Study Area near 2nd Street Southwest, which includes the L'Enfant VRE Station, the Study Area is elevated above the street grade level, which is situated approximately 15 feet below the railway. These street crossings were depressed below the existing rail grade in the early twentieth century as part of progressive rail improvements within the city. The rail line in these areas is demarcated by a rusticated stone wall of varying height. Representational photos from within the central and eastern portions of the Study Area are depicted in Figure 20 through Figure 24. The portion of the Study Area situated within 0.87 acres of Hancock Park, bordered by C Street Southwest, 9th Street SW, and 7th Street SW is situated at historic grade and appears to have had minimal alterations throughout the twentieth century. Surficial alterations appear limited to the eastern portion of Hancock Park, which contains a paved pathway, and the portion of the park that borders the existing rail line. These areas appear to have multiple feet of fill added to elevate the rail grade, with pedestrian sidewalks extending across 7th Street Northwest to the L'Enfant VRE station.

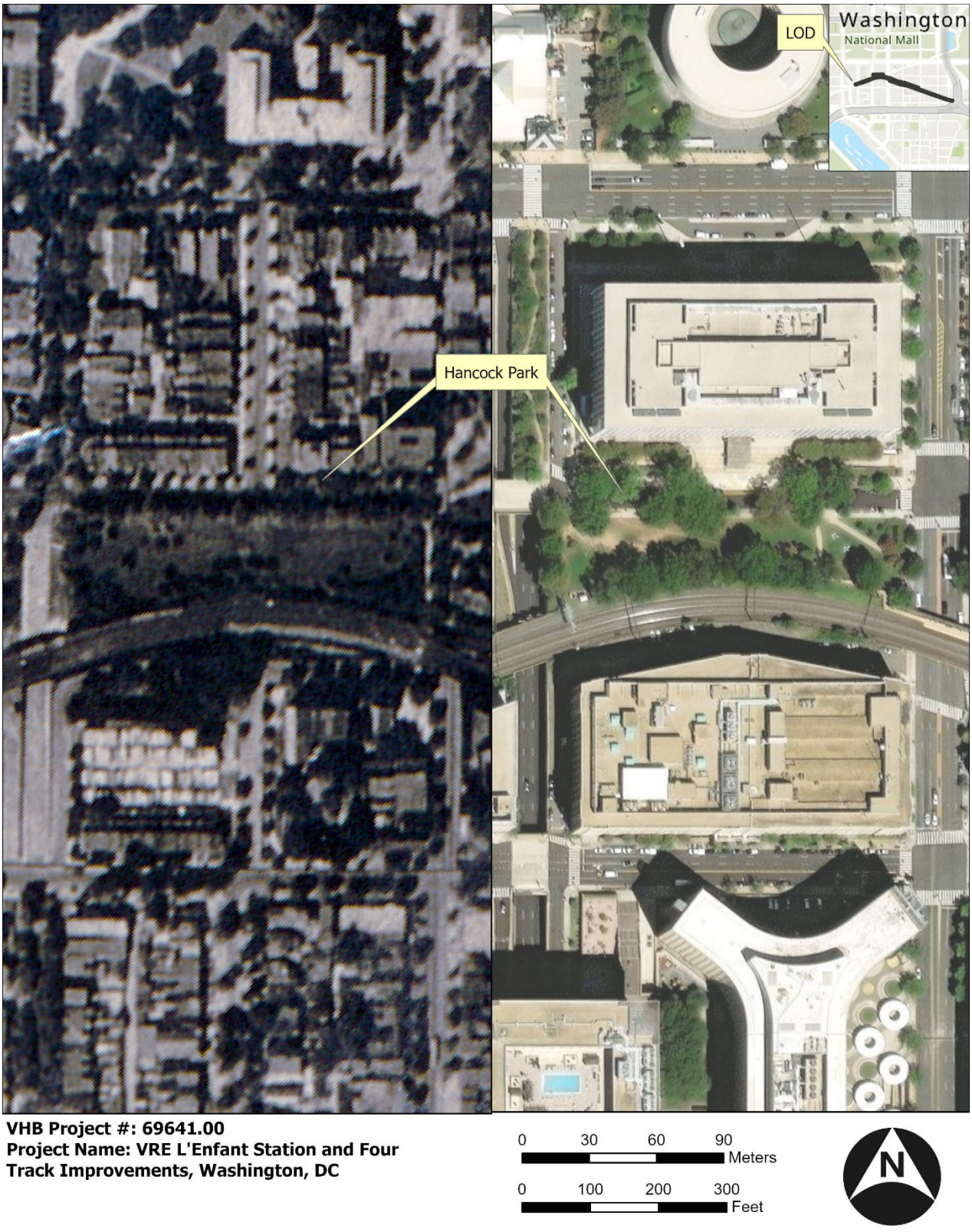


FIGURE 18. HANCOCK PARK, AS DEPICTED ON A 1921 AERIAL (LEFT) AND ON A CURRENT AERIAL (RIGHT).

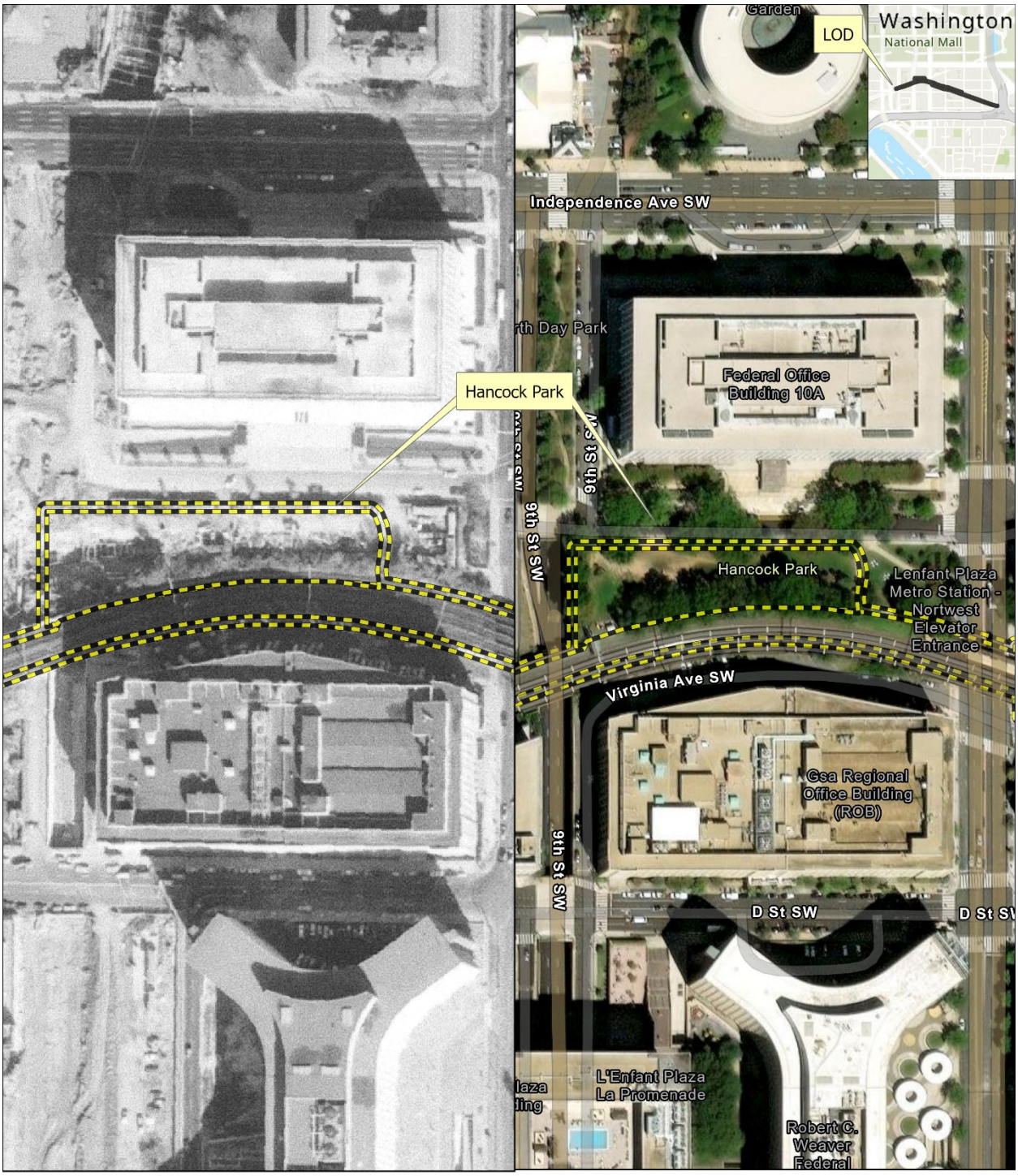


FIGURE 19. HANCOCK PARK DEPICTED ON A 1968 AERIAL (LEFT), AND A CURRENT AERIAL (RIGHT)

FIGURE 20. VIEW OF THE LOD FROM THE INTERSECTION OF 7TH STREET SW AND VIRGINIA AVENUE SW, FACING NORTHEAST.

FIGURE 21. VIEW OF ELEVATED RAIL LINE ALONG VIRGINIA AVENUE SW, FROM 6TH STREET SW, FACING WEST.

FIGURE 22. VIEW OF ELEVATED RAIL LINE ALONG VIRGINIA AVENUE SW, FROM 3RD STREET SW, FACING SOUTH.

FIGURE 23. VIEW OF AT-GRADE PORTION OF HANCOCK PARK, FACING EAST.

FIGURE 24. VIEW OF HANCOCK PARK WITHIN LOD, FACING WEST. NOTE ELEVATED GRADE OF RIGHT FOREGROUND.

6.0 Results and Recommendations

6.1 Results of the Phase IA Study

A review of historic documentation, maps and aerial photography, and previous work within nearby portions of the city indicates that the majority of the Study Area would not contain the potential for intact, significant historic resources. While the existing CSX rail line follows the original orientation of the B&O rail line, successive modifications to the urban landscape of Washington, DC have significantly altered the environment around the Study Area. Most of the proposed work for the L'Enfant Station and Fourth Track Project would be restricted to the existing rail bed and grade. Between L'Enfant Plaza SW and 9th Street SW and from 7th Street SW to 2nd Street SW, the Study Area is considered to have no potential for significant historic resources as the Study Area consists entirely of currently used rail line with gravel ballast in areas that were artificially raised or graded in the early twentieth century to separate the rail and surface street grades. Phase IB archaeological survey would not be a viable means for examining subsurface contexts given the current rail usage and gravel deposits within the Study Area.

The portion of the Study Area within Hancock Park is considered to have low potential for historic resources. Although this portion of the Study Area has not been subject to significant landscape alterations from rail grade changes or previous construction, no historic documentation indicates former structures or development were present within the Hancock Park portion of the Study Area. Historic documentation indicates that by the end of the nineteenth century, the current extent of the park had been graded and cordoned off from the rail line. Previous geotechnical coring at the nearby Eisenhower Memorial, approximately 300 m northeast of the Study Area, indicated that historic grading and fill disturbance extends between one and five feet below the current ground surface; these disturbances removed the potential for intact Precontact horizons. Additional geotechnical coring within the southeastern portions of Hancock Park, just west of 7th Street SW, were characterized by fill layers extending to 1.83 to 4 m

(~6 to 13 ft) below the ground surface. Underlying strata were consistent with probable fill layers extending to depths reaching ~5.5 m (18 ft) (Schnabel 2025: Appendix A)

Hancock Park appears to have historically been an intersection of Maryland Avenue and Virginia Avenue that was consistently clear of structures and was later used as a public greenspace. A known former rail spur related to the 6th Street Wye may have remnant portions underneath the current CSX railway grade in the southeastern portion of Hancock Park, but it is unclear where the exact location and historic tie-in to the current CSX railway is located. Given the amount of subsurface utilities potentially present within Hancock Park, as evidenced by recent investigations for the Long Bridge Project, it is unlikely that Phase IB shovel test investigations would be able to relocate the former 6th Street Wye rail spur, should it remain intact. VHB recommends the presence of an SOI-qualified archaeologist during construction activities, if any, within the southeastern portion of Hancock Park to identify and assess any former historic rail lines present within the Study Area.

6.2 Management Recommendations

Based on the history and development of the area, portions of the Survey Area containing existing track either at grade or at separated grade have no potential to contain significant precontact or historic era archaeological deposits. The current design intends to work within the existing rail Right-of-Way along this portion of the Survey Area. The improvements along the track alignment would involve replacing and widening the separated grade bridges at 6th and 7th Streets SW. Additionally, the project would include the installation of a new platform for the VRE L'Enfant Station, along with related access facilities and retaining walls north of Virginia Avenue SW, between 6th and 7th Streets SW. Constructing the footings for the bridge improvements and retaining walls would require deep foundations. The anticipated depths of these deep pile foundations are expected to be at least 100 ft below the ground surface.. For portions of the Survey Area involving Hancock Park, background research and existing conditions analysis indicate that a cap of historic fill is likely present to a depth up of to 2 meters. Current design plans involving the area of Hancock Park call for the park perimeter to be grubbed with some tree removal adjacent to the existing rail. Current design plans also intend to utilize Hancock Park as a temporary staging area where overall light grubbing and vehicular parking will occur. The nature of the historic fill cap and the current design intention to use the area as staging with light grubbing activity would not impact deeply buried precontact deposits should they be present.

During its development as a public space during the early nineteenth century, the area of Hancock Park was infilled, leveled and graded. Since the nineteenth century, the park has seen little development besides track installation within the eastern section from a former rail line connected to the CSX line. These unused tracks may still exist just below the ground surface from when they were abandoned. In consultation with FTA, these in-situ track remnants are not considered significant, and therefore, no further work or archaeological management considerations are warranted for the current project.

As currently designed, the project undertaking has no potential to impact archaeological features or deposits that would be considered significant or eligible for listing on the NRHP.

7.0 Works Cited

AECOM
2015. "Baltimore & Potomac (B&P) Railroad DOE Form." On file with District of Columbia Historic Preservation Office.

ArcGIS
2024. ArcGIS Web Map: World Topographic Map. Electronic Document, http://www.arcgis.com, accessed October 15, 2024.

Anderson, David G., and Glen T. Hanson
1988. Early Archaic Settlement in the Southeastern United States: A Case Study from the Savannah River Valley. *American Antiquity* 53:262-286.

Beauchamp, T. E.
n.d. *Anacostia Historic District. Historic Society of Washington, DC.* Retrieved May 8, 2025, from https://www.historicsites.dcpreservation.org/items/show/18

Bromberg, Francine W., Holly Heston, and Elizabeth A. Crowell
1993 *St. Elizabeths Hospital Archaeological Management Plan*. Prepared for the District of Columbia Office of Business and Economic Development by Engineering Science.

Chesapeake Bay Program
2010. Bay Field Guide. Electronic document, http://www.chesapeakebay.net/fieldguide.

Clausen, C.J., A.D. Cohen, C. Emilliani, J.A. Holman, and J.J. Stipp
1979. Little Salt Spring, Florida: A Unique Underwater Site. *Science* 203:609-614.

Cleland, Charles E.
1976. The Focal-Diffuse Model: An Evolutionary Perspective on the Prehistoric Cultural Adaptations of the Eastern United States. *Mid-Continental Journal of Archaeology* 1:59-76.

Coe, Joffre L.
1964. *The Formative Cultures of the Carolina Piedmont*. Transactions of the American Philosophical Society 54(5).

Cohen, Robert
2003. *History of the Long Bridge Crossing Across the Potomac River*. Washington, DC Chapter National Railway Historical Society, Washington, DC.

Cushman, Kathleen A.
1982. Floral Remains from Meadowcroft Rockshelter, Washington County, Southwestern Pennsylvania. In *Meadowcroft: Collected Papers on the Archaeology of Meadowcroft Rockshelter and the Cross Creek Drainage*, edited by Ronald C. Carlisle and James M. Adovasio, pp. 207-220. Department of Anthropology, University of Pittsburgh.

Custer, Jay F.
1990. Early and Middle Archaic Cultures of Virginia: Cultural Change and Continuity. In *Early and Middle Archaic Research in Virginia: A Synthesis.* Edited by T.R. Reinhart and M.E.N. Hodges. Pp 1-60. Special Publication No. 22 of the Archaeological Society of Virginia. The Dietz Press: Richmond, Virginia.

Dolan, Christy, Heather Gibson, Stephanie Dyer-Carroll, and Susan Bemis.
2011. *Phase IA Archaeological Assessment of the Dwight D. Eisenhower Memorial Design Concept, Washington, DC*. Submitted to the National Park Service. Report on file with the DC HPO, Washington, DC.

District of Columbia Historic Preservation Office (DC HPO)
2018. *Guidelines for Conducting Archaeological Work in the District of Columbia*. Electronic document, https://planning.dc.gov/sites/default/files/dc/sites/op/publication/attachments/DC%20Archaeology%20Guidelines%201998_1.pdf. Accessed May 03, 2025.

Egloff, K.T., and J.M. McAvoy
1990. Chronology of Virginia's Early and Middle Archaic Periods. In *Early and Middle Archaic Research in Virginia: A Synthesis*. Edited by Theodore R. Reinharet and Mary Ellen N. Hodges. Pp. 1-60. Council of Virginia Archaeologists, Special Publication No. 22 of the Archaeological Society of Virginia.

Evening Star
1900. "Grade Crossings." The Evening Star, January 20.
1913. "When Railroads Held Washington's Parks and Streets" (Part 1). The Evening Star, April 20.
1913. "When Railroads Held Washington's Parks and Streets" (Part 2). The Evening Star, April 20.
1905. "A Plea for Vigilance." The Evening Star, November 5.
1906. "Last Link Underway." The Evening Star, September 1.

Feest, C.F.
1978 Nanticoke and Neighboring Tribes. In *Handbook of North American Indians*, *Vol. 15: Northeast*, edited by B. Trigger, pp. 253-270.

Fletcher, Patsy M.
2013. *Ward 7 Heritage Guide*. Historic Preservation Office, Washington, DC.

Ford, Richard I.
1974. *Northeastern Archaeology: Past and Future Directions*. Annual Review of Anthropology 1:385-413.

Gardner, William M.
1989. An Examination of Cultural Change in the Late Pleistocene and Early Holocene (circa 9200 to 6800 B.C.). *Paleoindian Research in Virginia: A Synthesis*. Edited by J. Mark Wittkofski and Theodore R. Reinhart. Pp. 5-52. Special Publication No. 19 of the Archaeological Society of Virginia.

Goodyear, Albert C.
1982. The Chronological Position of the Dalton Horizon in the Southeastern United States. *American Antiquity* 47:382-395.
1999. The Early Holocene Occupation of the Southeastern United States: A Geoarchaeological Summary. In *Ice Age Peoples of North America*, edited by Robson Bonnichsen, G. Grison, and Karen Turnmire, pp. 432-481. Center for the Study of the First Americans, Orono, Maine.

Green, F. V.
1880. *City of Washington: Statistical Maps*. Commissioners of the District of Columbia, Washington, DC Electronic document, https://www.loc.gov/resource/g3851fm.gct00015/, accessed October 14, 2024.

Griffin, James B.
1967. Eastern North America Archaeology: A Summary. *Science* 156:175-191.

Historic American Buildings Survey (HABS)
2004. *HABS DC-856, Southwest Washington, Urban Renewal Area: Photographs and Written Historical and Descriptive Data*. Washington, DC.

Hodges, Mary Ellen N. and Charles T. Hodges (editors)
1994. *Paspahegh Archaeology: Data Recovery Investigations of Site 44JC308 at the Governor's Island at Two Rivers, James City County, Virginia*. James River Institute for Archaeology Inc.

Hoffman, Charles A.
1983. A Mammoth Kill Site in the Silver Springs Run. *Florida Anthropologist* 36:83-87.

Humphrey, R. L., and M.E. Chambers
1985 *Ancient Washington; American Indian Cultures of the Potomac Valley*. George Washington Studies No. 6. Second edition. George Washington University, Washington, DC.

Interstate Commission on the Potomac River Basin
2025. Aquatic Life. Electronic document, https://www.potomacriver.org/focus-areas/aquatic-life/. Accessed May 8, 2023.

Jennings, Jesse D.
1975. *Prehistory of North America*. McGraw Hill, New York.

Kelly, Robert L., and Lawrence C. Todd
1988. Coming into the Country: Early PaleoIndian Hunting and Mobility. *American Antiquity* 53:231-244.

Kohler, Sue, and Pamela Scott
2006. *Designing the Nation's Capitol: The 1901 Plan for Washington, DC* U.S. Commission of Fine Arts, Washington, DC.

Kottek, M., Jurgen Grieser, Christoph Beck, Bruno Rudolf and Franz Rubel
2006. World Map of the Koppen-Geiger climate classification updated. Meteorologische Zeitschrift. 15(3): 259.263. Gebruder Borntraeger. Electronic document, http://www.schweizerbart.de /resources/downloads/paper_free/55034.pdf, accessed May 8, 2025.

Koziarski, R. and D. Wagner
2019 *Archaeological Assessment of Soil Conditions and Archaeological Potential of the Lot 9, People's Garden, North Lawn, and West Court and Lawn Areas of the Jamie L. Whitten Building Washington DC* AECOM, Germantown, MD.

LeeDecker, Charles, and Paul D. Wagner
2010. *Geoarchaeological Investigations for the National Mall Turf and Soil Reconstruction Project, National Mall and Memorial Parks, District of Columbia*. Submitted to the National Park Service. Report on file with the DC HPO, Washington, DC.

LeeDecker, Charles, Patti Kuhn, Sarah Groesbeck, and Gregory Katz
n.d. *Cotton Annex Parcel and GSA Regional Office Building Parcel, Washington, DC.* Submitted to the General Services Administration. Report on file with the DC HPO, Washington, DC.

McNett, C. W., B. A. McMillan, and S. B. Marshall
1977. *The Shawnee Minisink Site*. Annals of the New York Academy of Sciences 288(1):282–296.

Mount Vernon
2025 Residence Act of 1790. Electronic document, https://www.mountvernon.org/education/primary-source-collections/primary-source-collections/article/residence-act-of-1790, accessed May 9, 2025.

Mullen, John P., and Evelyn D. Causey
2012. *Phase I and II Archaeological Investigations of Site 51SW021, Mary E. Switzer Building Improvement, Washington, DC.* Submitted to AECOM Technical Services, Inc. Report on file with the DC HPO, Washington, DC.

National Oceanic and Atmospheric Administration (NOAA)
2025. National Climate Report. Electronic document, https://www.ncei.noaa.gov/access/monitoring/monthly-report/national/200407. Accessed May 6, 2025.

National Park Service (NPS)
2006. *National Park Service Cultural Landscape Inventory: The Mall*. National Park Service Bulletin. U.S. Department of the Interior.

OpenData DC
2024. Topography Southwest DC. Electronic document, https://opendata.dc.gov/datasets/4d97cc86b6074c6a8e3ce2e5468eebc4_4. Accessed October 15, 2024.

Opperman, A. F.
1980. *An Analysis of Prehistoric Ceramics from Maycock's Point, Prince George County, Virginia*. Master's thesis, Department of Anthropology, College of William and Mary, Williamsburg.

Pfansteihl, Cynthia, Terry Harris, and Ed Otter
1994. *Preliminary Historic and Cultural Resources Review of the Proposed Museum of Health and Medicine, Washington, DC.* Submitted to EDAW, Inc. Report on file with the DC HPO, Washington, DC.

Report of the Secretary of War
1894. 53rd Congress, 3rd Session. Ex. Doc. 1, part 2. Government Printing Office, Washington, DC.

Robinson & Associates
2009. DC Modern: A Context for Modernism in the District of Columbia, 1945–1976. Washington, DC.

Sassaman, Kenneth E., Mark J. Brooks, Glen T. Hanson, and David G. Anderson
1990. *Native American Prehistory of the Middle Savannah River Valley: A Synthesis of Archaeological Investigations on the Savannah River Site, Aiken and Barnwell Counties, South Carolina*. Savannah River Archaeological Research Papers 1, Savannah River Archaeological Research Program, South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia.

Schnabel Engineering
2025. *Geotechnical Engineering Report: Virginia Railway Express :'Enfant Track and Station Improvements Preliminary Engineering (30%) Design, Washington, DC.* Rockville, MD.

Seifert, Donna J., Joseph Balicki, Elizabeth Barthold O'Brien, Dana B. Heck, Gary McGowan, and Aaron Smith
1998. *Archaeological Data Recovery: Smithsonian Institution National Museum of the American Indian Mall Museum Site*. Submitted to the Smithsonian Institution. Report on file with the DC HPO, Washington, DC.

Smith, Bruce T.
1981. *The History of the South Quadrangle*. Smithsonian Institution, Washington, DC. Report on file with the DC HPO, Washington, DC.

Stanyard, W. F.
2003. *Archaic Period Archaeology of North Georgia*. University of Georgia Press, Athens.

Stewart, William
1986. Tour of Capital's Forts Reveals Dramatic History. Richmond Times-Dispatch, February 16:172.

Stoltman, J. B.
1978. Temporal Models in Prehistory: An Example from Eastern North America. *Current Anthropology* 19(4):703–746.

Turner, E. Randolph III
1986. Difficulties in the Archaeological Identification of Chiefdoms as Seen in the Virginia Coastal Plain during the Late Woodland and Early Historic Periods. In *Late Woodland Cultures of the Middle Atlantic Region*. Edited by Jay F. Custer. Pp. 19-28. University of Delaware Press: Newark.
1992. The Virginia Coastal Plain During the Late Woodland Period. In *Middle and Late Woodland Research in Virginia: A Synthesis*. Edited by Theodore R. Reinhart and Mary N. Hodges. Pp. 97-136. Special Publication No. 29 of the Archaeological Society of Virginia. The Dietz Press: Richmond, Virginia.

Society of Virginia, Richmond.
1992. *The Virginia Coastal Plain During the Late Woodland Period. In Middle and Late Woodland Research*

in Virginia: A Synthesis, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 97–136. Special Publication No. 29. Archeological Society of Virginia, Richmond.

United States Department of Agriculture (USDA)
2025. Web Soil Survey. United States Department of Agriculture, Natural Resources Conservation Service. https:://websoilsurvey.sc.egov.usda.gov/. Accessed May 5, 2025.

Ward, T. H.
1983. A Review of Archaeology in the North Carolina Piedmont: A Study of Change. *In The Prehistory of North Carolina: An Archaeological Symposium*, edited by M. A. Mathis and Jeffrey J. Crow. North Carolina Division of Archives and History, Raleigh.

Washington, George
1791. Proclamation. January 24. The Avalon Project. Yale Law School. https://avalon.law.yale.edu/18th_century/gw004.asp.

Webb, S. D., J. T. Milanich, A. Roger, and J. S. Dunbar
1984. A Bison Antiquus Kill Site, Wacissa River, Jefferson County, Florida. *American Antiquity* 49:384–392.

Wobst, H. M.
1974. Boundary Conditions for Paleolithic Social Systems: A Simulation Approach. *American Antiquity* 39:147–178.

Woods, Alan J., James M. Omernik, and Douglas D. Brown
1999. Level III and IV Ecoregions of Delaware, Maryland, Pennsylvania, Virginia and West Virginia. United States Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Corvallis, Oregon.

Yarnell, R. A., and M. J. Black
1985. Temporal Trends Indicated by a Survey of Archaic and Woodland Plant Food Remains from Southeastern North America. *Southeastern Archaeology* 4(2):93–106. https://doi.org/10.2307/4096491.

Matt Lyons, RPA

Archaeologist

Education

MA, Anthropology, University of Florida, 2018

BA, Anthropology, University of Georgia, 2012

Registrations/Certifications

Register of Professional Archaeologists, 01/2023

First Aid, CPR, and AED Certified

Affiliations/Memberships

Register of Professional Archaeologists, 2020

Society for Georgia Archaeology (Vice President)

Georgia Council of Professional Archaeologists (Secretary)

VHB Office

Atlanta, GA

As an Archaeologist in VHB's Atlanta office, Matt is experienced in conducting Section 106 and Section 110 archaeological compliance, including: Phase I, II, and III archaeological survey and investigations, National Register of Historic Places eligibility assessments, and artifact analysis. His research specialties include lithic analysis, predictive modeling, and statistical analysis. He is responsible for proposal writing, archaeological fieldwork and analysis, and report writing. Matt has worked throughout the United States, including projects in Alabama, Arkansas, Florida, Georgia, Illinois, Iowa, Louisiana, Maryland, Missouri, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Washington, DC. Matt has provided cultural resource services to Georgia Department of Transportation, Florida Department of Transportation, the Tennessee Valley Authority (TVA), Duke Energy, U.S. Army Corps of Engineers (USACE), the National Forest Service (NFS), the National Park Service (NPS), the Argonne National Laboratory, and several military installations.

12 years of professional experience

GDOT, Phase I and II Report for Proposed Chevis Road Improvements, PI No. 00017975, Chatham County, GA

Principal Investigator

GDOT is proposing redevelopment along approximately 4.6 miles of County Road 76/Chevis Road in Chatham County, Georgia. Matt served as Principal Investigator for this redevelopment project. In this role, he was responsible for background research, site assessment for NRHP inclusion, and report writing. Seven newly identified archaeological resources were identified and assessed during this project.

Washington Metropolitan Area Transit Authority (WMATA), Bladensburg Bus Garage Reconstruction, Washington, DC

Principal Investigator

WMATA is proposing to rebuild and modernize their Bladensburg Bus Garage in Washington, DC to modernize repair and storage facilities. Matt served as Project Archaeologist for the monitoring and recording of unanticipated discoveries uncovered during the development. In this role, Matt monitored construction, provided NRHP documentation and assessments of the historic Fleischmann's Yeast Factory (51NE061) and other historic infrastructure features, and prepared a technical report regarding the discovery, history, and eligibility of the site.

US Army Corps of Engineers, Boat Basin Park, Decatur County, GA

Archaeologist

Matt served as Lead Archaeologist for Phase II archaeological investigations of two National Register of Historic Places eligible archaeological sites located with USACE-owned lands along the Flint River in South Georgia. He oversaw all fieldwork and reporting efforts, including background research, site revisit delineations and test unit investigations, artifact analysis, NRHP evaluation and assessment, and investigations

reporting. The project contained a intact pre-contact shell midden; fieldwork efforts indicated that the site post-dated shell midden habitations in the region and is a unique outlier in the known history of the lower Flint River, it was recommended for avoidance or mitigation.

Argonne National Laboratory, Phase I and II Survey of MacDill Air Force Base, Tampa, Florida

Archaeologist

Matt served as Lead Archaeologist for Phase I and II archaeological investigations of lands owned by MacDill Air Force Base. He oversaw all fieldwork and reporting efforts, including background research, site revisit delineations and test unit investigations, artifact analysis, NRHP evaluation and assessment, and investigations reporting. The project surveyed four previously recorded Archaic sites and shell middens and additional Phase I testing of 800 acres of previously unsurveyed portions of the base. Fieldwork efforts indicated that two of the Archaic sites subjected to Phase II testing represented expansive Middle and Late habitation sites that were unique in their preservation; they were recommended for avoidance or mitigation.

Tennessee Valley Authority, Phase I Survey of the Optimist Solar Farm, Starkville, Mississippi

Archaeologist

Matt served as Lead Archaeologist for Phase survey of over 2,000 acres for the proposed Optimist Solar Farm in Clay County, Mississippi. He oversaw all fieldwork and reporting efforts, including background research, site identification and recording, NRHP evaluation and assessment, and investigations reporting. The project identified 25 previously unrecorded archaeological sites, many of which were early-20th century tenant houses. Fieldwork was catered towards the location and identification of early-19th century Choctaw residences that preceded their expulsion under terms of the Indian Removal Act of 1830.

GDOT, Phase II Archaeological Testing for the CR 4/Story Road Bridge Over North Branch Swift Creek, PI No. 0016571, Crisp County, GA

Principal Investigator

Matt served as the Lead Archaeologist on this low impact bridge replacement survey. He led Phase II fieldwork to investigate a Middle to Late Archaic site that included GPR survey, Phase II unit excavations, and NHRP assessments. Additional tasks included background research, laboratory analysis, report writing and managerial coordination with agency specialists.

Phase III Archaeological Data Recovery at the Chief Vann House, Chatham County, GA

Archaeologist

Matt assisted with the Phase III data recovery of the Chief Vann House, an NRHP-listed structure and grounds of one of the leaders of the Cherokee Nation prior to their expulsion under terms of the Indian Removal Act of 1830. He led fieldwork in portions of the site subject to roadway expansion, recovering a variety of 19th-century cultural materials related to the agricultural industry of the estate; additionally, he assisted in final reporting and NRHP eligibility assessments.

Raphael Martinez Franca

Archaeologist

Education

BA, Ethnobotany, Hampshire College, 2011

MS, Maritime Archaeology and Conservation, Texas A&M University, 2017

Registrations/Certification

Register of Professional Archaeologists, 2017

VHB Office

Atlanta, GA

Raphael is an Archaeologist in VHB's Atlanta office. Raphael has experience conducting Section 106 compliance survey including Phase I, II, and III archaeological survey and site mitigation, artifact analysis, conservation, and curation, archival research, construction monitoring, geospatial analysis, and determinations of National Register of Historic Places (NRHP) eligibility for archaeological resources. Over the years he has been involved with numerous professional and academic organizations on terrestrial and underwater projects both domestically and abroad.

8 Years of professional experience

GDOT Cultural Resources Support Services, Atlanta, GA

Raphael serves as the Key Team Lead on a multi-year contract with the Georgia Department of Transportation providing Cultural Resource support for the Office of Environmental Services. Support includes hiring and training archaeologists and historians to serve as embed GDOT employees, creating guidance documents for on and off boarding employees, providing quality assurance reviews of technical documents, tracking project status and schedules, communication with consulting parties such as local historical societies, and acting as a coordinator for Programmatic Overflow projects such as maintenance work, surplus parcels, and projects requiring quick responses.

GDOT, SR 37 Roundabout, PI No. 0009855, Colquitt County, GA

Raphael served as Lead Archaeologist in support of construction of a roundabout at the intersection of SR 37 and Industrial Drive/Cool Springs Road within the city limits of Moultrie. Raphael was responsible for conducting historical research, reviewing past and present findings in the project area, evaluating identified cultural resources for NRHP eligibility, and authoring the final report. In the process he evaluated two cemeteries in the project area to determine the potential for their disturbance by the proposed developments.

GDOT, Salem Church Road at Little Stockinghead Creek, PI No. 0016651, Candler County, GA

Raphael served as Lead archaeologist in support of the replacement of the CR 61/Salem Church Road bridge over Little Stocking head Creek in Candler County, Georgia. Raphael was responsible for conducting historical research, reviewing past and present findings in the project area, evaluating identified cultural resources for NRHP eligibility, and authoring the final report. The project entailed the relocation and re-evaluation of a previously recorded precontact site.

GDOT, New Hope Road at Little Ichawaynochaway Creek, PI No. 0016826, Randolph County, GA

Raphael served as Lead archaeologist in support of the replacement of the CR 152/New Hope Road bridge over Little Ichawaynochaway Creek in Randolph County, Georgia. Raphael was responsible for conducting historical research, reviewing past and present findings in the project area, evaluating identified cultural resources for

NRHP eligibility, and authoring the final report. The survey resulted in the recording and evaluation of historic bridge abutments for the NRHP.

Birmingham SNG Pipeline, Jefferson County, AL
Raphael served as Lead Archaeologist in support of requirements under Section 2.55(b) Replacement Projects, subject to the Federal Energy Regulatory Commissions (FERC) Natural Gas Act (NGA) jurisdiction for the Bessemer-Calera Line Replacement project. Raphael was responsible for conducting historical research, reviewing past and present findings in the project area, evaluating identified cultural resources for NRHP eligibility, and authoring the final report. The project involves the replacement and relocation of the 8-inch (in) diameter Calera Branch and 8-in Calera Branch Loop natural gas pipelines within Jefferson County, Alabama. The proposed Project is being conducted in support of the Alabama Department of Transportation's County Road 52 (Morgan Road) Road Widening Project.

GDOT Surplus Parcel PM#3521 GEP-245-431, Richmond County, GA
Raphael served as Lead Archaeologist in support of the anticipated transfer of a surplus property totaling 12.74 acres in Augusta, Richmond County. Raphael was responsible for conducting historical research, reviewing past and present findings in the project area, evaluating identified cultural resources for NRHP eligibility, and authoring the final report. The survey resulted in the expansion of site boundaries for a multicomponent site originally recorded in 1976 as well as its reevaluation for NRHP eligibility.

GDOT Phase I Archaeological Resources Survey, Mitchell County, GA
Raphael served as Lead Archaeologist in support of the GDOT acquisition of two parcels totaling 8 acres in Mitchell County, Georgia. Raphael was responsible for conducting historical research, reviewing past and present findings in the project area, evaluating identified cultural resources for NRHP eligibility, and authoring the final report. The survey resulted in the recording of a newly identified lithic scatter and its evaluation for NRHP eligibility.

Andrew Pappas, RPA

Archaeology Practice Leader

Andrew Pappas leads VHB's Archaeology Program across the Mid-Atlantic and Southeastern Regions. He has over 20 years of professional experience conducting Section 106 and 110 compliance investigations including Phase I, II, and III archaeological survey and resource mitigation, artifact analysis, historical assessments in support of National Register of Historic Places nominations, and determinations of archaeological and historic resource eligibility. He has experience in NEPA, geospatial analysis, and Section 106 agreement documentation. As the Archaeology Practice Leader, Andrew oversees VHB's Archaeology program. Andrew has successfully managed over 500 cultural projects. Recently, Andrew led VHB's archaeology efforts to document resources across nine states in the United States in support of the Canadian Pacific/Kansas City Southern Railroad merger application.

20 years of professional experience

Education

MA, Classical Archaeology, Florida State University, 2004

BA, Anthropology, University of Florida, 2000

Registrations/Certifications

Register of Professional Archaeologists, 2005-present

Affiliations/Memberships

Society for Georgia Archaeology, 2023-present

Georgia Council of Professional Archaeologists, 2023-present

GDOT, I-16/I-75 Interchange Project, Bibb County, Georgia

The Georgia Department of Transportation (GDOT) planned to improve and reconstruct the interchange between I-16 and I-75 through Macon, Georgia. Andrew was tasked with leading the archaeological effort to identify and assess effects within the Ocmulgee River Floodplain and within the NRHP listed Ocmulgee Mounds National Historical Park. VHB partnered with the Muscogee Nation and GDOT to conduct a meaningful and systematic archaeological survey of the proposed interchange project. As a result of the survey, significant archaeological features and deposits associated with precontact village and mound site were identified, assessed for significance while potential adverse effects to the site were avoided and minimized.

Canadian Pacific/Kansas City Southern Railway Merger, Environmental Impact Statement, AR, IO, IL, LA, KS, MO, MN, OK, TX

Andrew served as the Archaeology and Cultural Resources Lead Principal Investigator for this project that spanned nine states. Canadian Pacific Railway Limited, et al. (CP) and Kansas City Southern et al. (KCS) filed a merger application with the Surface Transportation Board. VHB was tasked with leading the development of the Environmental Impact Statement. For compliance with the National Historic Preservation Act, Andrew led all aspects of the archaeological survey approach, working with consulting parties, agencies, and tribes developing specific methodologies to account for potential impacts to cultural resources. In addition to overseeing and managing field efforts, Andrew evaluated archaeological resource eligibility within the corridor and worked with designers to minimize and avoid adverse impacts to significant and eligible sites. Cultural resource efforts were completed within one year across all involved states, reaching concurrence with all involved agencies and tribes.

NYLPC, 280 Bergen Street Project, Brooklyn, NY

In April of 2021, Andrew completed an archaeological documentary study (Phase IA) of in support of a redevelopment block located in Brooklyn, New York. The study involved site reconnaissance, and background research to assess the archaeological sensitivity of potential deposits within the redevelopment block. As a result of the study, design was able to avoid significant historical deposits related to the early historic development of Brooklyn.

Washington Metropolitan Area Transit Authority (WMATA), Bladensburg Bus Parking Facility, Washington, DC

WMATA proposed to redevelop an existing parking facility in Washington, DC. Through coordination with the DC State Historic Preservation Office, Andrew drafted a research design and testing strategy to identify and evaluate archaeological features and deposits related to the Clark Mills Foundry, a nineteenth century foundry responsible for the bronze casting of statue "Freedom" which currently sits atop the US Capital Building.

NPS, Archaeological Testing of Rafinesque Hall, Mammoth Cave National Park, Edmonson County, Kentucky

As part of VHB's ongoing project to rehabilitate trail and National Park infrastructure within Mammoth Cave, Andrew oversaw efforts to investigate archaeological deposits within Rafinesque Hall. The archaeological testing revealed a number of intact features and artifacts associated with the occupation of the cave during prehistoric times. Through a careful analysis of the data, Andrew and his team were able to show that this area of Mammoth Cave retained significant archaeological data regarding the lives of early cave inhabitants and explorers. In collaboration with VHB designers and NPS staff, Andrew helped to minimize further impacts to the deposits and is currently developing ways to mitigate the resource.

COJ, Archaeological Investigation and Assessment of the Jacksonville Multi-Modal Transportation Center, Duval County, Florida

Andrew served as the Principal Investigator and Lead Archaeologist for this study which was required as part of the City's plan to develop a major transportation hub in downtown Jacksonville. During the course of the investigation, the structural remnants of a late nineteenth century livery stable, garage, and cistern were identified and recorded. During work at the site, numerous nineteenth and early twentieth century artifacts and features associated with everyday life in early Jacksonville were recovered. The site revealed a detailed look at how the roll-out of the automobile impacted and changed daily life for people in the city during the early twentieth century.

GDOT, Phase III Archaeological Data Recovery of 9HY321, State Route 20 Bridge Replacement at Walnut Creek, Henry County, GA.

GDOT planned to replace the bridge SR 20 near McDonough, GA. In support of this replacement, Andrew served as the lead archaeologist tasked with mitigating a Middle Archaic Period site located within the project's area of direct impact. The site produced numerous diagnostic artifacts and features associated with a late stage lithic workshop and seasonal camp. Since the site was deeply buried within a floodplain, it was undisturbed and offered a unique look into how the early inhabitants of the Georgia Piedmont lived and hunted nearly 5,000 years ago.

USACE, Phase II Investigations at Powder Magazine Park, Montgomery County, AL

As part of the Section 110 process, the USACE enlisted Andrew to investigate a Civil War powder magazine located within the City of Montgomery, Alabama. Excavations at the Civil War era powder magazine revealed new information about how the structure was built and reinforced. Test units also revealed artifacts that were consistent with the lifeways of enlisted soldiers stationed in Montgomery during the Civil War.

Appendix E – Noise and Vibration Technical Report

L'Enfant Station and Fourth Track Project

Noise and Vibration Technical Report

April 2, 2025

VRE

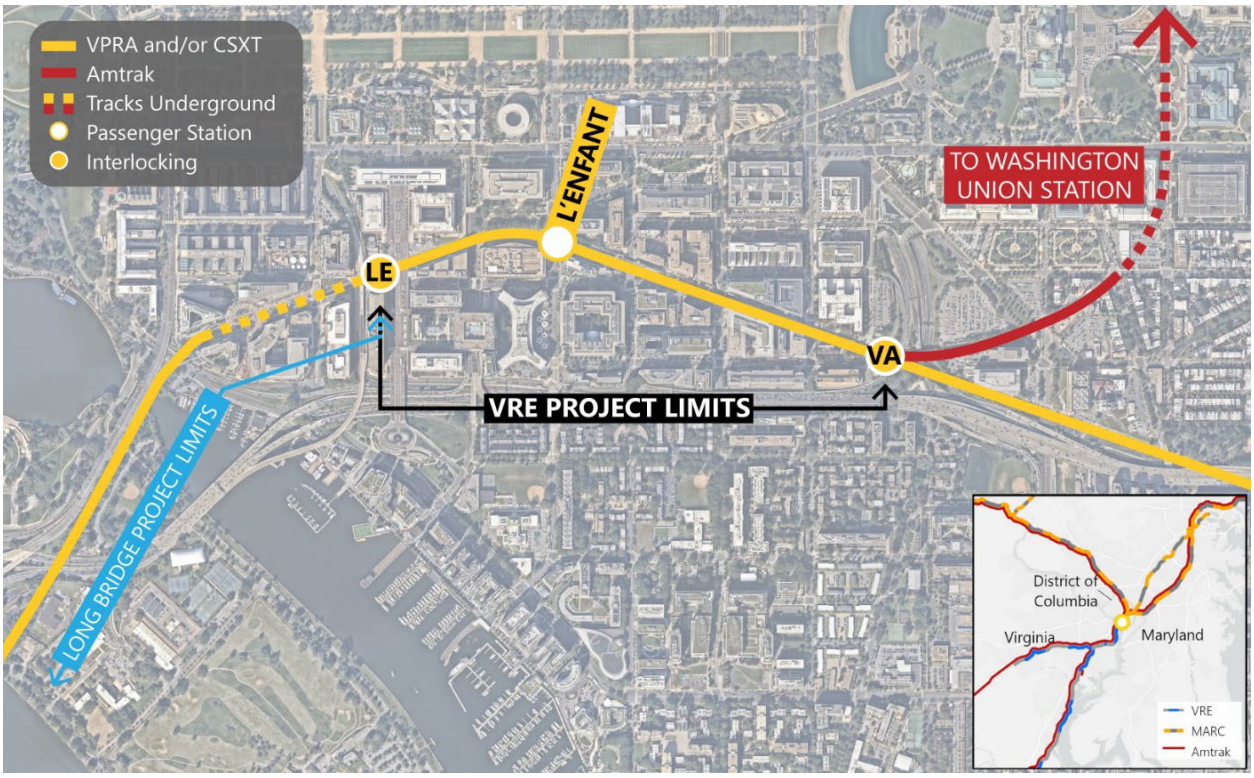
A BETTER WAY. A BETTER LIFE.

Contents

1.0 Introduction and Overview

This technical report evaluates potential impacts associated with noise and vibration from the L'Enfant Station and Fourth Track Improvements Project (the Project). The Project proposes to enhance rail operations and increase capacity at the Virginia Railway Express (VRE) L'Enfant Station by adding a fourth track between L'Enfant (LE) Interlocking and Virginia (VA) Interlocking as shown in **Figure 1-1** and replacing the existing side platform with a longer and wider center platform.

Figure 1-1: Project Location



Sources: NearMap, DC Open Data, Esri.

VRE anticipates using federal funds administered by the Federal Transit Administration (FTA). Therefore, the Project must comply with the National Environmental Policy Act (NEPA) and its implementing regulations at 40 CFR 1500 and 23 CFR 771. As the lead federal agency, FTA determined that the Project falls under FTA's "D-list" of categorical exclusions (CE), specifically "(8) Modernization or minor expansions of transit structures and facilities outside existing right-of-way, such as bridges, stations, or rail yards" (23 CFR 771.118(d))

This report has been developed in support of the CE document and the analysis is based on a 30% design scenario.

The assessment addresses the following:

- Noise and Vibration Overview: Outlines the approaches and fundamentals of both the noise and vibration assessments.

- Methodology: Provides details on terms and definitions used in the assessments as well as a summary of the noise and vibration criteria which have been considered in the assessments.
- Affected Environment: Provides details of the existing conditions, including a description of the noise and vibration sensitive land uses and the measurements conducted to determine the existing conditions.
- Environmental Consequences: Outlines methodology used for determining noise and vibration impacts and the results from the impact assessments, including temporary impacts due to construction of the Project.
- Mitigation: Outlines the proposed mitigation measures for the Project where moderate or severe impacts have been identified, or temporary impacts are identified.

2.0 Noise and Vibration Overview

The analysis described in this report assessed noise and vibration levels from transit operations against the impact criteria listed in the FTA Noise and Vibration Impact Assessment (FTA Manual).[1] Additionally temporary impacts from construction were assessed against the District of Columbia (the District) noise ordinance (Municipal Regulations Chapter 20-27).[2]

These analyses include the following:

- Background information on noise and vibration within the Study Area;
- The noise and vibration impact criteria that have been utilized for the impact assessments;
- Description of noise- and vibration-sensitive land use categories;
- Identification of noise- and vibration-sensitive locations within the Study Area;
- Noise measurement results of existing noise exposure within the Study Area;
- Noise and vibration prediction methodology;
- Impact assessment of the Project operations and construction phase; and,
- Proposed noise and vibration mitigation measures.

2.1 Noise Fundamentals

Noise is typically defined as unwanted or undesirable sound, where sound is characterized by small air pressure fluctuations above and below the atmospheric pressure. The basic parameters of environmental noise that affect human subjective response are (1) intensity or level, (2) frequency content and (3) variation with time. The first parameter is determined by how greatly the sound

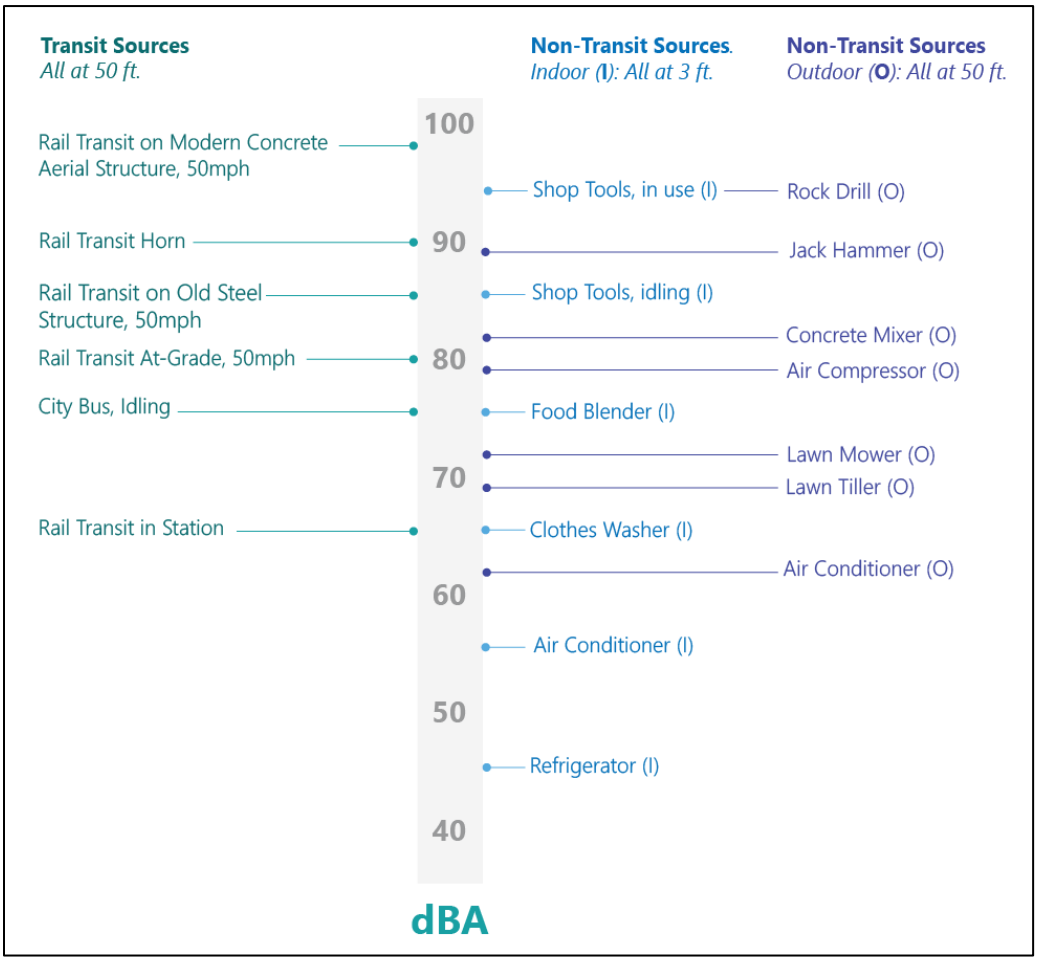
1 Federal Transit Authority, *Transit Noise and Vibration Impact Assessment*, September 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

2 District of Columbia Municipal Regulations, Title 20, Chapter 27. Assessed via: http://dcrules.elaws.us/dcmr/t20_ch20-27

pressure fluctuates above and below the atmospheric pressure and is expressed on a compressed scale in units of decibels. By using this scale, the range of normally encountered sound can be expressed by values between 0 and 120 decibels. On a relative basis, a three-decibel change in sound level generally represents a barely noticeable change outside the laboratory, whereas a 10-decibel change in sound level would typically be perceived as a doubling (or halving) in the loudness of a sound.

The frequency content of noise is related to the tone or pitch of the sound and is expressed based on the rate of the air pressure fluctuation in terms of cycles per second (called Hertz and abbreviated as Hz). The human ear can detect a wide range of frequencies from about 20 Hz to 17,000 Hz. However, because the sensitivity of human hearing varies with frequency, the A-weighting system is commonly used when measuring environmental noise to provide a single number descriptor that correlates with human subjective response. Sound levels measured using this weighting system are called "A-weighted" sound levels and are expressed in decibel notation as "dBA." The A-weighted sound level is widely accepted by acousticians as a proper unit for describing environmental noise. To indicate what various noise levels, represent, **Figure 1-2** shows some typical A-weighted sound levels for both transit and non-transit sources. As indicated in this figure, most commonly encountered outdoor noise sources generate sound levels within the range of 60 dBA to 90 dBA at a distance of 50 feet.

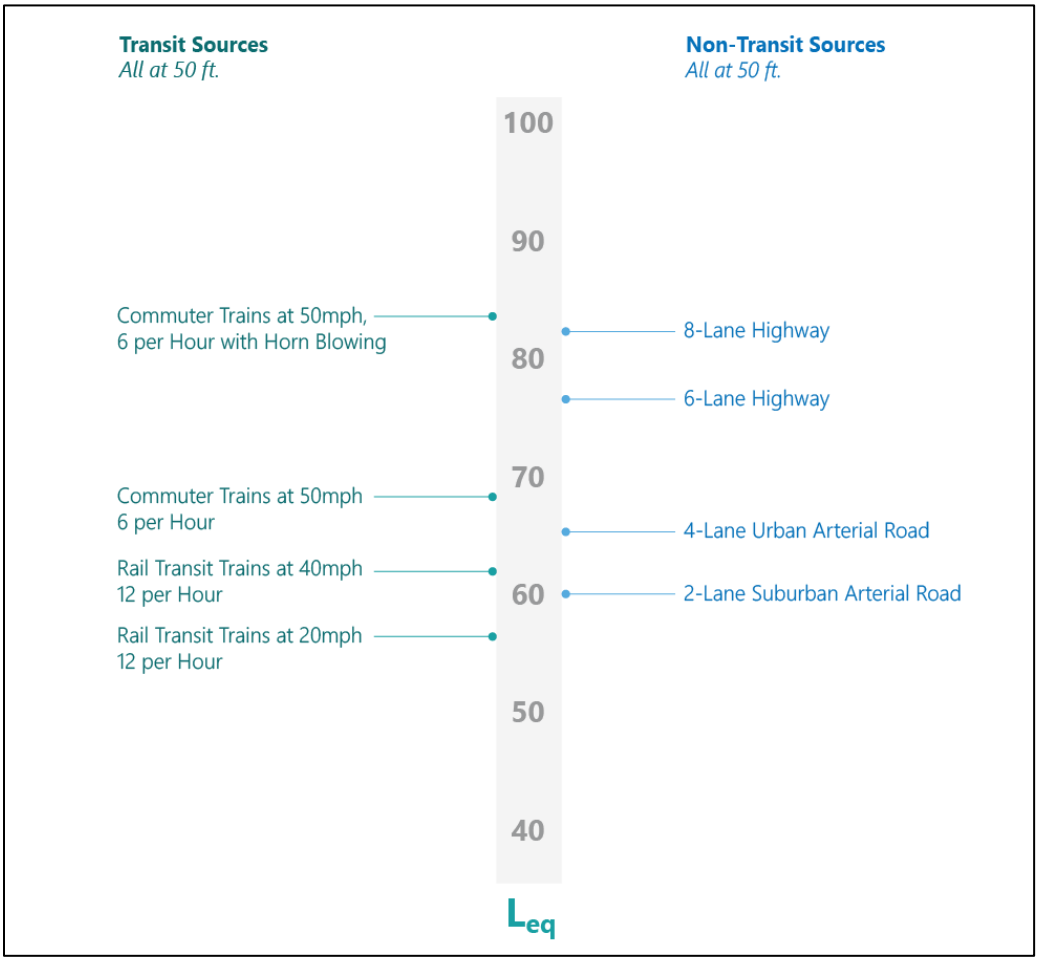
Figure 1-1: Typical A-Weighted Sound Levels



Source: FTA, 2018.

Because environmental noise fluctuates from moment to moment, it is common practice to condense all of this information into a single number, called the "equivalent" sound level (L_{eq}). L_{eq} can be thought of as the steady sound level that represents the same sound energy as the varying sound levels over a specified time period (typically one hour or 24 hours). Often the L_{eq} values over a 24-hour period are used to calculate cumulative noise exposure in terms of the Day-Night Sound Level (L_{dn}). L_{dn} is the A-weighed L_{eq} for a 24-hour period with an added 10-decibel penalty imposed on noise that occurs during the nighttime hours (between 10:00 PM and 7:00 AM). **Figure 1-3** provides examples of typical noise environments and criteria in terms of L_{dn}. L_{dn} is generally found to range between 55 dBA and 75 dBA in most communities but can reach 80 dBA in busy downtown areas of cities.

Figure 1-2: Examples of Typical Outdoor Noise Exposure



Source: FTA, 2018.

Other metrics to describe noise include statistical percentiles such as L_{10}, which is defined as the noise level which is exceeded 10 percent of the time over a specified measuring period. While the L_{10} is not the maximum noise level, it describes the higher noise levels that are present in the community.

Many surveys have shown that L_{dn} and L_{eq} are well correlated with human annoyance, and therefore these descriptors are widely used for environmental noise impact assessment from permanent noise sources such as transit operations. As described in further detail in the following section, L_{dn} is used to assess potential impact from transit operations at residential land uses and peak-transit hour L_{eq} (6:30

AM to 9:30 AM and 3:30 PM to 6:30 PM) is used to assess potential impact at institutional land uses from transit operations. For construction noise sources the L_{10} metric is used to assess potential impact.

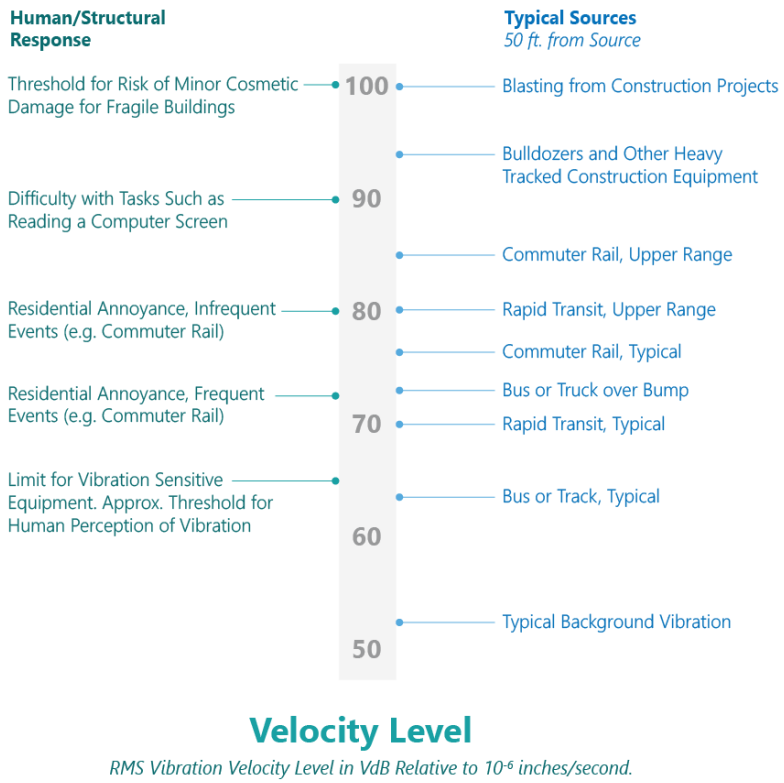
2.2 Vibration Fundamentals

Ground-borne vibration is the oscillatory motion of the ground about some equilibrium position that can be described in terms of displacement, velocity or acceleration. Because sensitivity to vibration typically corresponds to the vibration velocity amplitude in the low-frequency range of most concern for environmental vibration (roughly 4 to 80 Hz), velocity is the preferred measure for evaluating ground-borne vibration from transit projects.

Ground-borne vibration is typically characterized in terms of the "smoothed" root-mean-square (RMS) vibration velocity level, in decibels (VdB), with a reference quantity of one micro-inch per second. VdB is used in place of dB to avoid confusing vibration decibels with sound decibels. Vibration levels expressed in terms of RMS velocity have been found to correlate most suitably to human response to vibration in buildings and are the metric commonly used in American and International standards.

Figure 1-4 illustrates typical ground-borne vibration levels for common sources as well as criteria for human and structural response to vibration. As shown, the range of interest is from approximately 50 to 100 VdB, from imperceptible background vibration to the threshold of damage. Although the approximate threshold of human vibration perception is 65 VdB, annoyance is usually not significant unless the vibration exceeds 70 VdB.

Figure 1-3: Typical Levels of Ground-Borne Vibration



Source: FTA, 2018.

Ground-borne noise is produced when ground-borne vibrations propagate into a building and radiate noise from the motion of the room surfaces. The room surfaces essentially act like a giant loudspeaker from the vibrations. Ground-borne noise is perceived as a low frequency rumble and is generally considered only when airborne paths are not present (e.g. train inside a tunnel or a large masonry building with no windows or other openings to the outdoors). However, since the Project is entirely above-ground, operational ground-borne noise was only assessed at "Special Buildings" where it may interfere with interior uses.

3.0 Methodology

The methodology used to assess potential noise and vibration impact includes identifying noise and vibration-sensitive receptors, characterizing the existing noise and vibration conditions in the study area with measurements and modeling, predicting future noise and vibration conditions with the proposed project, assessing potential impact, and evaluating the need for mitigation.

3.1 Noise

3.1.1 Operational Noise

The FTA Manual's noise impact criteria are based on extensive research on community reactions to noise and use a sliding scale based on changes in noise exposure. In areas with lower existing noise levels, lower levels of transit noise are permitted, as new noise sources are more noticeable in quieter environments. Conversely, in areas with higher existing noise levels, greater levels of transit noise are allowed, as the ambient noise tends to mask new sounds. However, this sliding scale also limits the allowable increase in total future noise exposure (existing plus project noise) as existing noise levels rise, preventing substantial increases in already noisy environments.

The FTA Manual includes two levels of airborne noise impact, summarized below:

- Severe Impact: Project-generated noise in the severe impact range can be expected to cause a large percentage of people to be highly annoyed by the new noise and represents the most compelling need for mitigation. Noise mitigation will normally be specified for severe impact areas unless there are truly extenuating circumstances that prevent it.
- Moderate Impact: In this range of noise impact, the change in the cumulative noise level is noticeable to most people but may not be sufficient to cause strong, adverse reactions from the community. In this transitional area, other project-specific factors must be considered to determine the magnitude of the impact and the need for mitigation. These factors include the existing noise level, the predicted level of increase over existing noise levels, the types and numbers of noise-sensitive land uses affected, the noise sensitivity of the properties, the effectiveness of the mitigation measures, community views, and the cost of mitigating noise to more acceptable levels.

The FTA Manual separates the noise impact criteria into two options. Option A: Project Noise Impact Criteria Presentation is utilized in scenarios where the existing noise can be independently assessed against the Project noise. Option B: Cumulative Noise Impact Criteria Presentation considers cases which involve projects where changes are proposed to an existing transit system, therefore changing the existing noise exposure. For the Project, the impact criteria are based on Option B: Cumulative Noise Impact criteria.

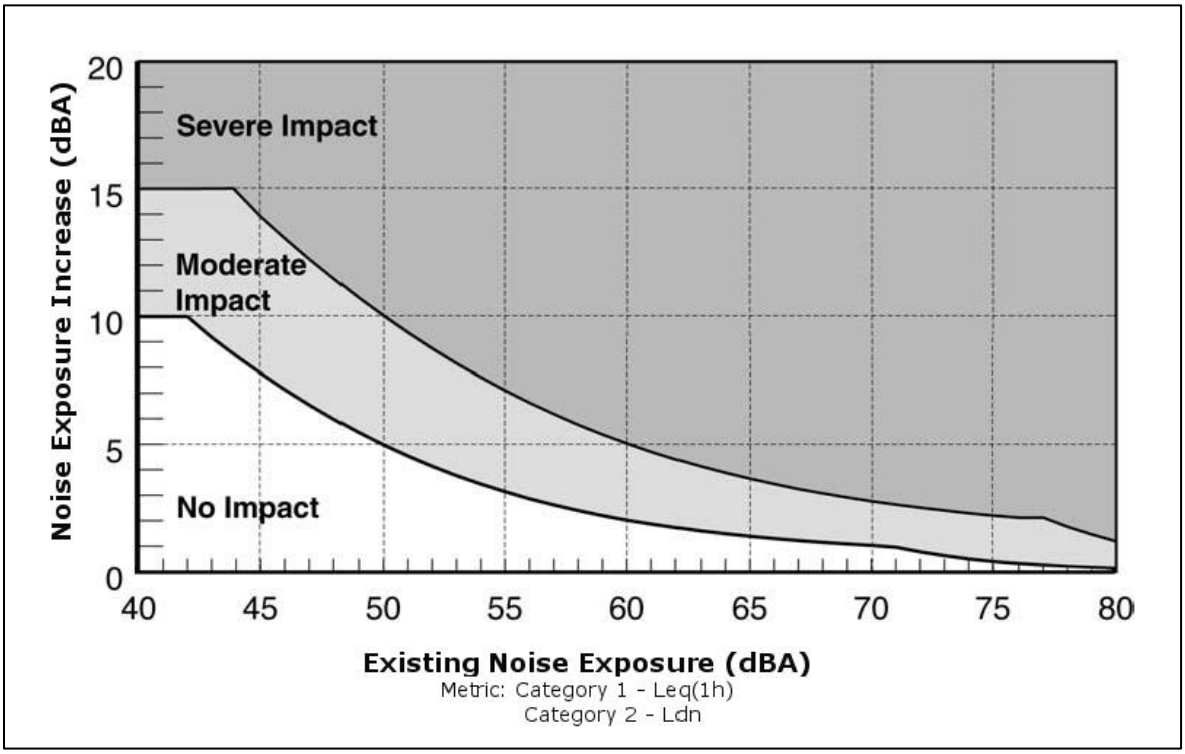
The FTA Manual identifies land uses sensitive to noise from transit operations according to the following three categories:

- Category 1 (High Sensitivity): Areas where quiet is a critical component of their intended use. Examples include conservation areas dedicated to serenity and quiet, outdoor amphitheaters and concert pavilions, and national historic landmarks that experience substantial outdoor activity. This classification also covers recording studios and concert halls.
- Category 2 (Residential): This category applies to all residential areas and structures typically used for sleeping, including hotels and hospitals.
- Category 3 (Institutional): This category relates to institutional properties operating primarily during the day and evening. It includes places like educational facilities, libraries, performing arts venues, and religious institutions, where it is essential to prevent disturbances to activities such as speaking, meditating, and concentrating on literature. Areas designated for contemplation or study, related to cemeteries, memorials, museums, campsites, and recreational areas, also fall within this category.

The FTA Manual noise criteria in terms of the allowable increase in the cumulative noise exposure are shown in **Figure 2-1** and **Figure 2-2**. Since the existing noise is dominated by a source that will be altered by the Project, the assessment considers the difference between current noise levels and future Project noise levels.

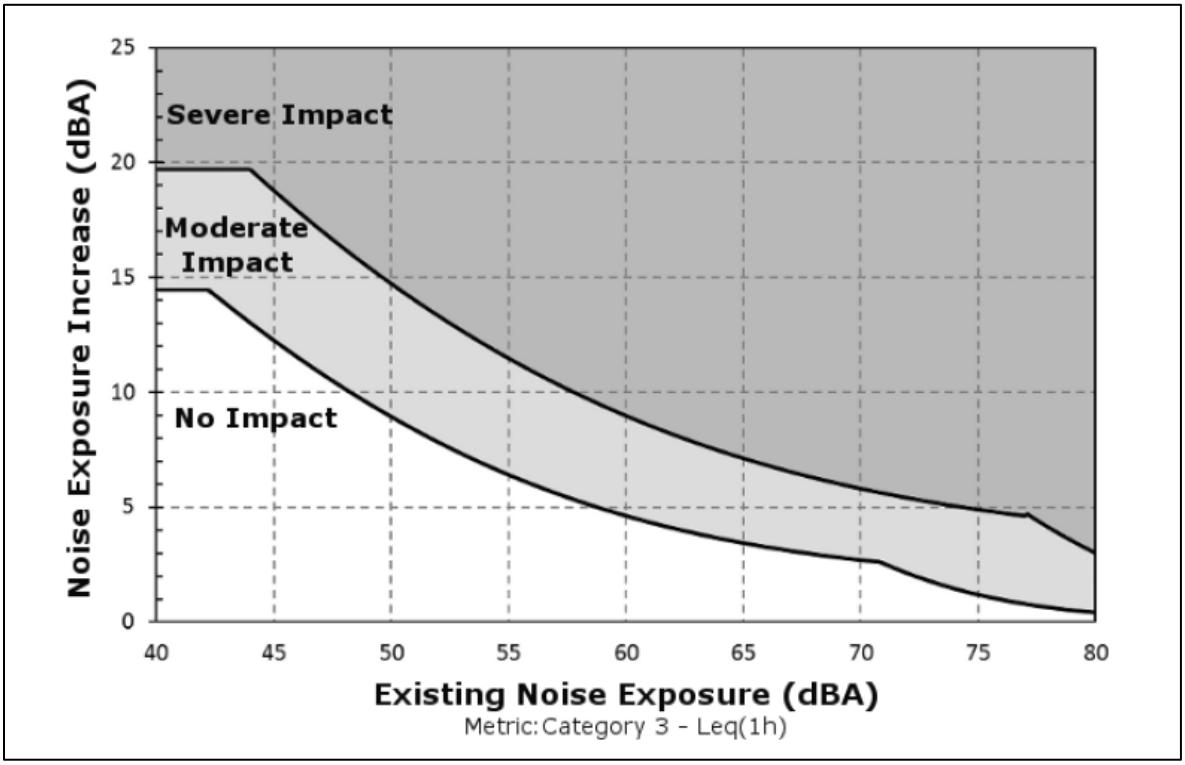
As noted above, the FTA noise impact threshold is a sliding scale based on existing noise exposure and land use of the sensitive receptors. The measure of noise exposure is L_{dn} for residential areas (Category 2) and L_{eq} for land uses that do not have nighttime noise sensitivity (Category 1 and 3). As the existing level of ambient noise increases, the allowable level of trains noise increases, but the total amount that community noise exposure is allowed to increase is reduced. The land use surrounding the Project area is primarily institutional, which falls into FTA Land Use Category 3, however, there are also Category 1 and 2 receptors present in the Study Area.

Figure 2-1: FTA Land Use Category 1 & 2 Impact Criteria



Source: FTA, 2018.

Figure 2-2: FTA Land Use Category 3 Impact Criteria



Source: FTA, 2018.

3.1.2 Construction Noise

The Federal Transit Administration (FTA) has construction noise impact guidelines, but does not provide standardized criteria for assessing impact. The FTA guidelines are typically applied only when there are not local construction noise ordinances or project-specific criteria with absolute noise limits that account for the duration of construction activities and the adjacent land use. The District noise ordinance (Municipal Regulations Chapter 20-27) is intended to promote public health, safety, welfare, and the peace and quiet of the inhabitants of the district, and to facilitate the enjoyment of the natural attraction of the district. Sound generated by trains, other than WMATA railcars, is exempt from this ordinance. The local noise ordinance prohibits construction sound levels above 80 dBA (L_{eq}) (except for pile driving) 25 feet from the outermost limits of the site between 7:00 AM and 7:00 PM unless a variance is granted. From 7:00 PM to 7:00 AM, construction activities are limited to a noise level of 60 dBA (L_{eq}) for Commercial or light-manufacturing zones. For projects, such as the Project, where construction can cause major traffic impacts, it is often necessary for some level of construction to occur during the night.

In addition to this assessment, the contractor will be required to develop a Construction Noise and Vibration Management Plan (CNVMP), which should include: a noise monitoring plan prior to construction, noise predictions of different construction phases and a clear strategy for minimizing noise impacts during the construction schedule.

3.2 Vibration

3.2.1 Operational Vibration

The FTA Manual generally classifies vibration-sensitive land uses into the same three categories as noise. Although commercial and industrial land uses are sensitive to daytime construction noise, they are not considered to be sensitive to potential annoyance from vibrations generated during construction or transit operations. All structures, including those specified by FTA Manual as vibration-sensitive, commercial, and industrial buildings are assessed for potential damage due to transit operations and construction activities.

There are some buildings, such as television studios, concert halls, recording studios, and theaters that can be very sensitive to vibration. Due to the sensitivity of these buildings, they usually warrant special attention during the vibration assessment for a transit project. Some buildings such as medical facilities or research institutions may contain vibration-sensitive equipment. Potential vibration impact of sensitive equipment such as electron microscopes and magnetic resonance imaging scanners is also considered.

- Vibration Category 1 - High Sensitivity: This category includes buildings where vibration would interfere with operations. Buildings in this category include vibration-sensitive research and manufacturing facilities, hospitals with sensitive equipment and university research operations, where equipment such as scanning electron microscopes, magnetic resonance imaging scanners, and lithographic equipment may be in use. Vibration sensitivity depends on the specific equipment present in a building, and vibration levels may be well below those associated with human annoyance.
- Vibration Category 2 - Residential: This category includes residences and buildings where people normally sleep, such as homes, hospitals, and hotels.

- Vibration Category 3 - Institutional: This category includes buildings with primarily daytime and evening use, such as schools, libraries, museums, and churches.
- Special-Use Buildings - Special-use buildings such as television studios, concert halls, recording studios, auditoriums, and theatres are more sensitive to vibration impacts, and therefore are assessed for both ground-borne vibration and ground-borne noise impacts.

The FTA Manual vibration impact criteria for the operational vibration analysis are based on land use and train frequency, as shown in **Table 1**. There are separate FTA criteria for ground-borne noise, the "rumble" that can be radiated from the motion of room surfaces in buildings due to ground-borne vibration. Such criteria are particularly important for underground transit operations or construction when airborne noise paths are not dominant. This Project, however, does not include any underground transit operations or construction. The only receptors assessed for ground-borne noise are "Special Buildings" to ensure interior operations are not disrupted due to the Project.

Table 1: Vibration Impact Criteria by Land Use

Land Use Category	GBV Impact Levels (VdB)			GBN Impact Levels (dBA)		
	Frequent Events	Occasional Events	Infrequent Events	Frequent Events	Occasional Events	Infrequent Events
Category 1: Buildings where vibration would interfere with interior operations.	65*	65*	65*	N/A**	N/A**	N/A**
Category 2: Residences and buildings where people normally sleep.	72	75	80	35	38	43
Category 3: Institutional land uses with primarily daytime use.	75	78	83	40	43	48

*This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a Detailed Vibration Analysis must be performed.

**Vibration-sensitive equipment is generally not sensitive to ground-borne noise; however, the manufacturer's specifications should be reviewed for acoustic and vibration sensitivity.

Source: FTA, 2018.

For the Voice of America television and radio studio at 330 Independence Avenue SW and Folkways Recordings at 600 Maryland Ave SW, the applicable criteria are a ground-borne vibration level of 65 VdB and a ground-borne noise level of 25 dBA. **Table 2** identifies the special criteria for these types of facilities.

Table 2: Indoor Ground-Borne Vibration (GBV) and Ground-Borne Noise (GBN) Impact Criteria for Special Buildings

Special Building Type	GBV Impact Levels (VdV re 1 micro-inch/sec)		GBN Impact Levels (dBA re 20 micro-pascals)	
	Frequent Events *	Occasional Events**	Frequent Events*	Occasional Events**
Concert Halls	65	65	25	25
TV Studios	65	65	25	25
Recording Studios	65	65	25	25
Auditorium	72	80	30	38
Theatres	72	80	35	43

*"Frequent Events" is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.

**"Occasional or Infrequent Events" is defined as fewer than 70 vibration events per day.

***If the building will rarely be occupied when the trains are operating, there is no need to consider impact. As an example, consider locating a commuter rail line next to a concert hall. If no commuter trains will operate after 7:00 PM, it should be rare that the trains interfere with the use of the hall.

Source: FTA, 2018.

3.2.2 Construction Vibration

In addition to ground-borne vibration criteria for humans in residential, institutional, and special buildings and vibration-sensitive equipment, there are ground-borne vibration criteria for potential damage to structures. Building damage is typically only a concern when construction activities with high vibration levels, such as blasting or pile-driving, are done in close proximity to buildings. The limits of vibration that structures can withstand are substantially higher than those for humans and for sensitive equipment. **Table 3** presents guidelines for assessing the potential for vibration damage to structures based on the type of building structure. The criteria for determining annoyance due to construction works utilizes the limits presented in **Table 1**.

Table 3: Building Structure Vibration Damage Criteria

Building/ Structural Category	PPV[3], in/sec	Approx. Lv[4]*, VdB
I. Reinforced-concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: FTA, 2018.

3 Peak Particle Velocity (PPV) is the greatest instantaneous particle velocity during a given time interval.

4 Root Mean Square (RMS) Velocity Level: Ten times the common logarithm of the ratio of the square of the amplitude of the RMS vibration velocity to the square of the amplitude of the reference RMS vibration velocity.

4.0 Affected Environment

4.1 Noise

4.1.1 Noise Study Area

The noise study area was defined based on the screening distances provided in the FTA Manual. For the Project, a screening distance of 1,200 feet was used for operational transit noise. This screening distance was based on a 'Commuter Railroad Crossing with Horns and Bells,' considering intervening buildings.

Sensitive properties within the 1,200 feet screening distance but separated by an Interstate Highway—as defined by the FTA as roadways with four or more lanes that permit truck traffic at 60 mph—have not been included in the assessment if there is not a direct line of sight to the Project. This applies to sensitive properties located north of Independence Avenue SW and south of the Dwight D. Eisenhower SW Freeway. The exclusion is due to multiple intervening buildings between the Project and these sensitive properties, as well as the already high ambient noise levels generated by the highways.

Noise-sensitive land uses within the noise study area were defined using satellite imagery, the FTA Manual definitions of noise-sensitive land uses, project drawings, and observations while visiting the Project site. Land use in the Study Area which is sensitive to noise from transit operations and construction activities includes multi-family residential, hotels, schools, parks, museums, a news network, a recording studio, and a church. In addition, there are commercial areas (businesses, offices, and stores) which are sensitive to daytime construction noise. Noise-sensitive land uses identified in the Study Area are presented in **Table 4** and shown in **Figure 3-1**.

Table 4: Study Area Receptors Noise Land Uses

Land Use Category	Number of Receptors in Study Area
High Sensitivity	1
Residential	8
Institutional	9
Commercial	33

Source: VHB, 2024.

4.1.2 Existing Noise Conditions

This section analyzes the existing noise environment for the identified noise-sensitive land uses within the Study Area, as well as the noise measurement methodology and presents the results from the measurements.

In accordance with the FTA Manual, eight measurement locations have been selected to represent the existing noise conditions within the Project Study Area. The FTA Manual states that measurements at one receiver can effectively characterize the noise environments at other sites, provided that the proximity to major noise sources is similar across these sites. Therefore, the chosen measurement locations are situated to represent receivers closest to the Project, where it is known that rail noise from existing conditions dominates the noise environment.

To determine the existing noise conditions for receivers beyond the immediate vicinity (i.e., second and third row receivers), calculations outlined in the FTA Manual Equation E-6 were used. These equations facilitate the adjustment for attenuation as receivers are positioned farther away from the primary noise source. Observations of the acoustic environment also indicated that receivers beyond the immediate vicinity had similar existing noise conditions as the measurement location but experienced lower levels of rail noise due to both distance and screening from buildings. For this reason, typical ambient noise levels (excluding rail noise) and noise measurements of rail operations were separated for the representative monitoring location. The ambient noise level was assumed to be the same at receivers set further back from the rail corridor, but the attenuation of noise from rail operations was considered based on Equation E-6 in the FTA Manual.

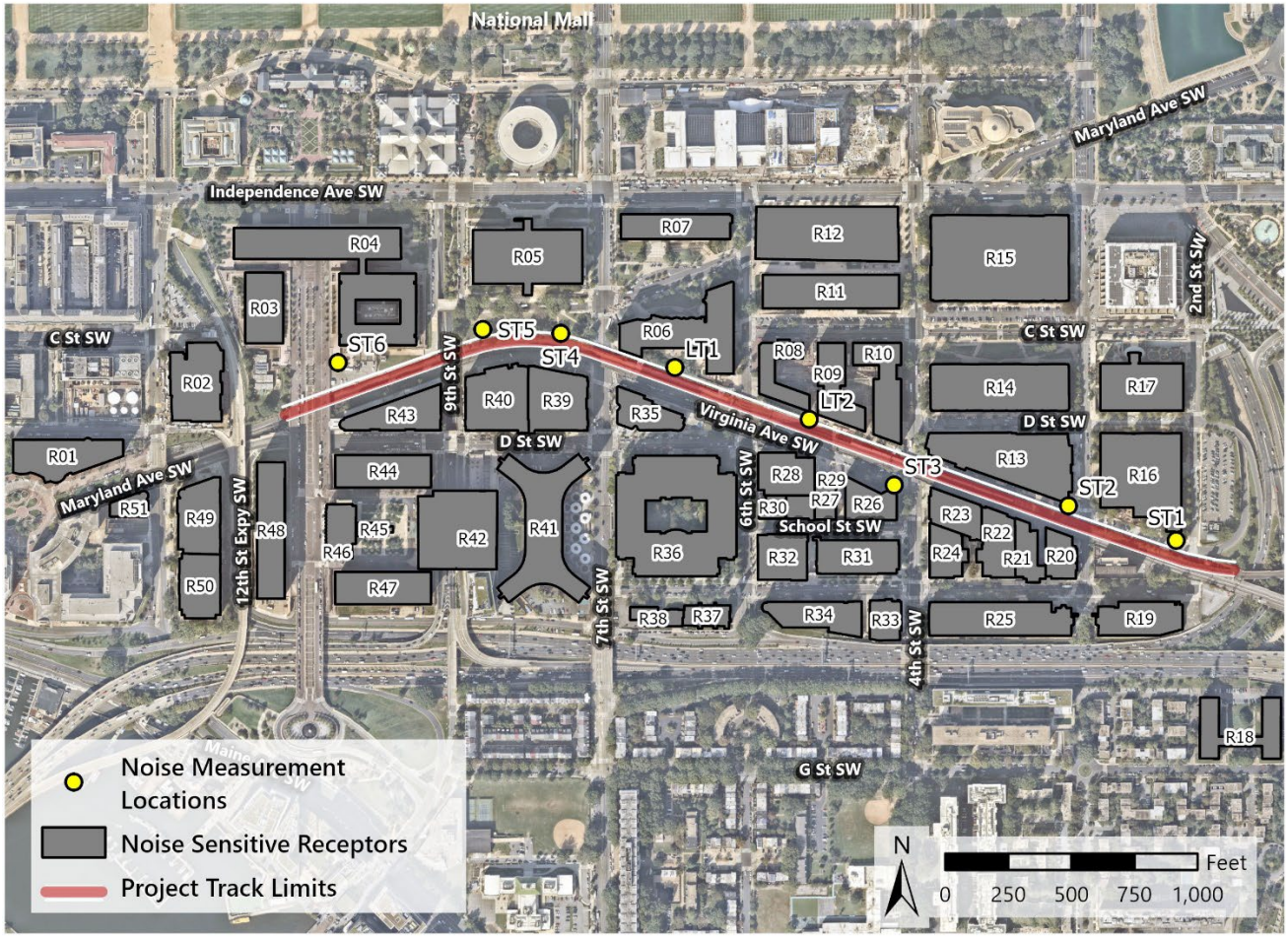
Noise measurements consisted of two 24-hour measurements and six 1-hour short term measurements. A summary of measurement locations is provided in **Table 5**. The locations of these measurement can be seen in **Figure 3-1**.

Table 5: Noise Measurement Locations

Measurement Site	Location	Representation	North or South of Rail Corridor
LT1	Smithsonian Institution Courtyard	Noise sensitive receivers between 6th Street SW and 7th Street SW. For all receivers are sensitive during the night-time	North
LT2	Directly outside the Holiday Inn Washington Capitol	Noise sensitive receivers between 6th Street SW and 4th Street SW. For all receivers are sensitive during the night-time	North
ST1	Virginia Avenue SW, outside the Ford Office Building	Noise sensitive receiver between 2nd and 3rd Street SW.	North
ST2	Virginia Avenue SW, outside the U.S. Small Business Administration – Washington Metropolitan District offices	Noise sensitive receiver between 3rd and 4th Street SW.	North
ST3	Virginia Avenue SW, outside the Social Security office	Noise sensitive receiver between 4th and 6th Street SW.	South
ST4	East area of Hancock Park	Hancock Park and noise sensitive receiver on D Street West	North
ST5	West area of Hancock Park	Hancock Park and noise sensitive receiver on D Street West	North
ST6	L'Enfant Plaza SW, outside the US Energy Info Administration Center	Noise sensitive receivers between 9th Street Expressway and L'Enfant Plaza southwest	North

Source: VHB, 2024.

Figure 3-1: Noise Measurement Locations



Path: \\vhb.com\gis\proj\MetroDC\39641.00 VRE LEF Station\Data\Environmental\Noise\NoiseMonitoringPlan\NoiseMonitoringPlan.aprx

Sources: NearMap, DC Open Data, Esri, VHB.

Measurements were made using Type 1 Larson Davis LxT and 831 sound analyzers, conforming to ANSI S1.4-2014 (R2024) standards.[5] Calibration of these meters was also performed in the field before and after each measurement, and annually in a lab accredited by the National Institute of Standards and Technology. Equipment details are listed in **Table 6**.

Table 6: Noise Measurement Equipment Details

Item	Make & Model	Serial Number	Calibration Date
Sound Level Meter	Larson Davis Model 831	4770	10/09/2023
Preamplifier	Larson Davis PRM831	019119	10/09/2023
Microphone	Larson Davis 377B02	122951	09/28/2023
Calibrator	Larson Davis CAL200	8541	09/28/2023
Sound Level Meter	Larson Davis LxT	5472	02/26/2024
Preamplifier	Larson Davis PRMLxT1L	042890	02/26/2024
Microphone	Larson Davis 377C20	172589	02/26/2024
Calibrator	Larson Davis CAL200	15174	02/29/2024
Sound Level Meter*	Larson Davis Model 831	4770	10/04/2024
Preamplifier	Larson Davis PRM831	019119	10/15/2024
Microphone	Larson Davis 377B02	122951	10/16/2024
Calibrator	Larson Davis CAL200	8541	10/10/2024

*Sound level meter used for the additional noise measurements taken in 2025.

Source: VHB, 2024.

All sound level meters recorded the equivalent continuous noise level ($L_{eq,T}$), statistical noise level indicators such as the background noise level ($L_{90,T}$), and the minimum (L_{min}) and maximum (L_{max}) noise levels. To minimize the influence of weather on measurements, procedures based on ANSI Standard S12.18-1994(R2023)[6] were followed. Data collected under conditions of wind speeds exceeding 5 m/s (11 mph) or precipitation were excluded.

To establish the existing noise exposure, both long-term (24-hours) and short-term (1-hour) measurements were completed. A direct calculation of the L_{dn} and peak transit-hour L_{eq} were determined through the long-term measurement. The guidance provided in Appendix E of the FTA Manual was used to derive L_{dn} levels from the short-term measurements. The peak transit-hour was determined directly through the short-term measurements. The results from both the long-term and short-term noise measurements are presented in **Table 7**.

5 ANSI/ASA S1.4 / IEC 61672. Electroacoustics – Sound Level Meters – Part 1: Specifications. American National Standards Institute (ANSI) and Acoustical Society of America (ASA). Available at: ANSI Webstore.

6 American National Standards Institute (ANSI). "ANSI S12.18-1994 (R2004): Procedures for Outdoor Measurement of Sound Pressure Level." American National Standards Institute, Revision Year: 2004.

Table 7: Noise Measurement Results

Measurement Site	Date and Start Time	Measurement Duration, hrs	Slant Distance to Railway Corridor Centerline, ft	Existing Day-Night Level, L_{dn}	Existing Noise Exposure, $L_{eq,1hr}$
LT1*	6/11/2024 12:09 PM	24	105	74	74
LT2	2/25/2025 3:58 PM	24	50	72	74
ST1	6/12/2024 11:40 AM	1	110	59	61
ST2	6/11/2024 3:41 PM	1	95	69	71
ST3	6/12/2024 10:24 AM	1	110	66	68
ST4	6/11/2024 4:55 PM	1	63	74	76
ST5	6/12/2024 7:46 AM	1	85	70	72
ST6	6/12/2024 9:05 AM	1	119	60	62

Source: VHB, 2024.

*A correction was applied to the data recorded at LT1 to account for the measurement location, specifically addressing the reduction in rail noise levels due to the screening effects of the Smithsonian boundary wall. This correction involved comparing the measured L_{eq} levels at LT1 with those at short-term measurement locations to determine the difference. The analysis revealed that the noise attenuation due to the monitoring location and the boundary wall's screening effects reduced rail noise levels by approximately 8 dBA.

**For short-term measurement locations, L_{dn} was calculated using the approach in the FTA Manual. As all short-term measurements were taken between 7 AM and 7 PM, equation E-2 has been utilized, which subtracts 2 dB from the L_{eq} to determine the approximate L_{dn}.

The measured and calculated existing noise levels for the identified noise-sensitive land uses within the Project noise study area, which were used for the assessment, are presented in **Table 8** for Category 1 and 3 receivers and **Table 9** for Category 2 receivers. For land use Categories 1 and 3, the 1-hour L_{eq} is used, while for land use Category 2, the L_{dn} is presented.

Table 8: Category 1 & 3 Land Use Existing Noise Levels

Receptor ID	Description	Representative Monitoring Location	Land Use Category	Existing Noise Exposure**, $L_{eq\ 1hr}$
R06	Smithsonian Institution*	ST4	3	72
R12	Dwight D. Eisenhower Memorial	ST4	3	64
R13	Museum of the Bible	ST2	3	75
R14	HHS/ED Children's Center	ST2	3	60
R15	Voice of America	ST2	1	64
R27	Richard Wright Public Charter School	ST2	3	68
R30	Washington Global Charter School	ST2	3	60
R37	St. Dominic Church	ST2	3	64
R41	The Children's House at HUD by Reggio's Treehouse	ST2	3	64
R46	International Spy Museum	ST6	3	64

Source: VHB, 2024.

*Consultation with the Smithsonian Institution confirmed that Folkways Recordings is currently not operational and is located in the middle of the building, not directly adjacent to a façade. For this reason, the receiver is considered Land Use Category 3.

**The existing noise measurements have been adjusted based on equation E-6 from the FTA Manual. This approach considers the receiver location from the rail tracks in comparison to the measurement location. A correction is also applied for intervening buildings screening noise from the railway line.

Hancock Park was initially identified as a potential noise-sensitive receptor due to its location within the noise screening distance. However, further evaluation revealed that the park is not considered noise-sensitive because of the high existing noise levels from operations at L'Enfant Station. Noise measurements within the park showed that existing noise exposure exceeds 70 dBA $L_{eq,1hr}$. According to the FTA Manual, some parks, especially those used for passive recreation like reading, conversation, or meditation, are considered noise-sensitive and categorized as land use Category 3. However, given that noise levels in Hancock Park exceed 70 dBA $L_{eq,1hr}$, the park is unsuitable for such passive activities. Consequently, Hancock Park is not classified as noise-sensitive.

Table 9: Category 2 Land Use Existing Noise Levels

Receptor ID	Description	Representative Monitoring Location	Land Use Category	Existing Noise Exposure**, L_{dn}
R02	Annex on 12th Apartments	LT1	2	69
R08	Holiday Inn Washington Capitol - Natl Mall, an IHG Hotel	LT2	2	72
R18	Capitol Park Plaza Twins	*	2	70
R21	Residence Inn Washington, DC National Mall	ST2	2	82
R32	CitizenM Washington DC Capitol Hotel	LT1	2	59
R33	Hyatt Place Washington DC/National Mall	*	2	70
R38	600 E St SW Apartments	*	2	70
R42	Hilton Hotel	LT1	2	64

Source: VHB, 2024.

*As highway noise is dominant in these locations, existing noise exposure has been based on the FTA Manuals Table 4-17 which provides estimated existing noise exposure where 'interstate roadways' or 'other roadways' are the dominant noise source.

**The existing noise measurements have been adjusted based on equation E-6 from the FTA Manual. This approach considers the receiver location from the rail tracks in comparison to the measurement location. A correction is also applied for intervening buildings screening noise from the railway line.

4.2 Vibration

4.2.1 Vibration Study Area

Vibration-sensitive land uses in the Project Study Area were identified primarily using aerial imagery and publicly available land use descriptions. Land use which is sensitive to vibration from transit operations and construction activities includes multi-family residential properties, hotels, museums, schools, a television studio, a recording studio, and a church. Humans within commercial and industrial land uses are not considered to be sensitive to vibration impact for potential annoyance. Structures such as fragile historic buildings in close proximity to the Project are sensitive to potential structural damage from transit operation vibration. Building damage is typically only a concern when construction activities with high vibration levels, such as blasting or pile-driving, are done in close proximity to buildings.

To determine the Study Area for the Project, the noise screening procedure in Section 4.3 of the FTA Manual were followed. The screening process identified an area of potential influence from the Project-related vibration and the set of vibration-sensitive receptors to evaluate. Vibration-sensitive land uses identified in the Study Area are presented in **Table 10**.

Table 10: Study Area Receptors Vibration Land Uses

Land Use Category	Number of Receptors in Study Area
Special Buildings	2
Residential	2
Institutional	2

Source: VHB, 2024.

4.2.2 Existing Vibration Conditions

The existing vibration prediction for the Project follows the vibration impact assessment methodology for a general vibration assessment as presented in the FTA Manual and incorporates assumptions including train speeds, track adjustments, and building characteristics. The maximum speed that trains are traveling in the corridor is 30 mph and all vibration-sensitive buildings were assumed to be large masonry on spread footings. A summary of predicted existing vibration levels is shown **Table 11** for sensitive receptors within the vibration screening distance.

Table 11: Existing Vibration Levels

Receptor ID	Description	Distance (ft) from Track Centerline	Approx. Lv, VdB
R06	Smithsonian Institution (Folkways Recordings)	53	74
R08	Holiday Inn Washington Capitol - Natl Mall, an IHG Hotel	74	76
R13	Museum of the Bible	63	69
R15	Voice of America	652	35
R21	Residence Inn Washington, DC National Mall	21	89
R27	Richard Wright Public Charter School	119	53

Source: VHB, 2024.

5.0 Environmental Consequences

5.1 Noise

5.1.1 Noise Impact Assessment Methodology

Transit Operations

A general noise assessment using FTA methodology was conducted to evaluate the proposed train noise. The noise impact assessment utilized the FTA methodology which evaluates project-generated $L_{eq1\text{-}hr}$ noise levels for land used Categories 1 and 3, and L_{dn} noise levels for land use Category 2. The general noise assessment methodology consists of determining the Project noise exposure at 50 feet from the track centerline and comparing the calculated levels with the criteria-based land use categories.

Construction

Construction noise has been predicted using the methods described in Chapter 12 of the FTA manual and impact assessed by comparing to the applicable noise impact criteria described in **Section 2.0**. The

FTA has guideline construction noise impact criteria; however, they are only used in locations where there are no local or state construction noise ordinances. Since the District has a noise ordinance that addresses construction noise, FTA guideline criteria have not been used.

5.1.2 Predicted Noise Levels

The noise prediction for the Project follows the noise impact assessment methodology for a general noise assessment, as presented in the FTA Manual and incorporates assumptions on operating conditions specific to the Project, including speeds, vehicle type and train headways. Operational condition assumptions can be seen in **Table 12**.

Table 12: Train Operation Assumptions

Train Assumptions	VRE	Amtrak Regional	Amtrak Long Distance	CSX
Train Type	Diesel	Diesel	Diesel	Diesel
Locomotive SEL at 50 ft (dBA)	92	92	92	92
Rail Car SEL at 50 ft (dBA)	82	82	82	82
Locomotive Horn SEL at 50 ft (dBA)	110	110	110	100
Maximum Train Speed (mph)	30	30	30	25
Average Train Length (ft)	684	752	994	5,781
Number of Locomotives per Train	2	1	2	3
Number of Railcars per Train	7	8	10	100
Throttle Settings	4	4	4	8
Locomotive Length (ft)	68	72	72	74
Length of Railcars (ft)	85	85	85	55

Source: VRE, VHB, 2024.

The existing conditions within the project boundary include rail movements across three existing tracks. Track 2 (southernmost) is currently used exclusively by CSX trains, Track 3 accommodates both CSX and Amtrak, and Track 4 (northernmost) primarily serves VRE and Amtrak trains. The proposed future condition will introduce a new 4th track (Track 1) and additional VRE and Amtrak regional train movements, with anticipated increases detailed in **Table 13**.

Table 13: The Project Future Condition Locomotive Service Assumptions

Service Assumptions	VRE	Amtrak Regional	Amtrak Long Distance	CSX
Existing Average Locomotives (Daytime)	26	16	11	20
Existing Average Locomotives (Nighttime)	6	0	0	12
Future Average Locomotives (Daytime)	32*	20	11	20
Future Average Locomotives (Nighttime)	6	1	0	12

*4 trains will be passing the LEF Station to return to the new VRE Seminary Yard midday storage location.

Future Amtrak Regional and Long Distance service assumptions are consistent with the TRV Ph1 service plan; future VRE service assumes 34 daily trains plus 4 passing trains to VRE Seminary Yard.

Source: VRE, VHB, 2024.

5.1.3 Noise Impact Assessment

Potential Noise Impact from Transit Operations

Airborne noise impact is assessed at outdoor locations frequently used, such as balconies or park areas where passive recreation occurs. For receptors without outdoor locations, the impact is assessed at the nearest building façade. At this stage of the Project, it is not possible to predict internal noise levels for sensitive land uses without outdoor space due to unknown information on the sound insulation performance of these structures. Potential noise impact from transit operations is assessed only at locations specified as sensitive by the FTA and therefore excludes commercial or industrial land uses. Projected operational transit noise levels for Land Use Category 1 and 3 can be found in **Table 14**. Operational noise levels for Land Use Category 2 can be found in **Table 15**.

Table 14 demonstrates that potential moderate impacts have been identified for two land use Category 3 receivers (institutional): R06 Smithsonian Institution and R13 Museum of the Bible. The projected increases in noise levels are due to the new fourth track, which will bring trains closer to both receivers, combined with the expected increase in VRE and Amtrak train volumes in the Future Condition.

The results in **Table 15** indicate that the Project could potentially result in a moderate impact for one land use Category 2 receiver (residential): R08 Holiday Inn Washington Capitol – Natl Mall, an IHG Hotel. This hotel is located north of the Project site, near the proposed fourth track. The projected increase in noise levels is due to the new fourth track, which will bring trains closer to the hotel, combined with the expected increase in VRE and Amtrak train volumes in the Future Condition.

Table 14: Operational Noise Levels for Land Use Category 1 and 3

Receptor ID	Description	Side of Track	Distance from Closest Track Centerline, ft	Existing Noise Exposure, L_{eq} dBA	Project Noise Levels, dBA				Impact?
					Project	FTA Criteria		Increase or Decrease Over Existing L_{eq} dBA	
						Moderate	Severe		
R06	Smithsonian Institution	N	22	72	75.3	2.1	5.4	3.3	Moderate
R12	Dwight D. Eisenhower Memorial	N	541	64	52	3.6	7.5	-12.1	No Impact
R13	Museum of the Bible	N	52	75	79.8	1.2	4.9	4.8	Moderate
R14	HHS/ED Children's Center	N	231	60	62	4.6	9.0	1.8	No Impact
R15	Voice of America	N	638	64	50	1.5	3.9	-14.1	No Impact
R27	Richard Wright Public Charter School	S	119	68	69	3.0	6.3	0.6	No Impact
R30	Washington Global Charter School	S	243	60	58	4.6	9.0	-2.0	No Impact
R37	St. Dominic Church	S	727	64	48	3.6	7.5	-15.6	No Impact
R41	The Children's House at HUD by Reggio's Treehouse	S	366	64	56	3.6	7.5	-8.1	No Impact
R46	International Spy Museum	S	356	64	55	3.6	7.5	-9.4	No Impact

*For receptors where the increase over existing Ldn dBA is negative, this confirms that the proposed project's rail noise is not the dominant source of sound, and these locations are primarily affected by other noise sources, typically road traffic.

Source: VHB, 2024.

Table 15: Operational Noise Levels for Land Use Category 2

Receptor ID	Description	Side of Track	Distance from Closest Track Centerline, ft	Existing Noise Exposure, L_{dn} dBA	Project Noise Levels, dBA			Increase Over Existing L_{dn} dBA	Impact?
					Project	FTA Criteria			
						Moderate	Severe		
R02	Annex on 12th Apartments	N	251	69	60.4	1.1	2.9	-8.6	No Impact
R08	Holiday Inn Washington Capitol - Natl Mall, an IHG Hotel	N	44	72	74.3	0.8	2.5	2.3	Moderate
R18	Capitol Park Plaza Twins	S	597	70	54.6	1.0	2.8	-15.4	No Impact
R21	Residence Inn Washington, DC National Mall	S	21	82	81.1	0.1	0.8	-0.9	No Impact
R32	citizenM Washington DC Capitol Hotel	S	359	59	57.7	2.2	5.4	-1.3	No Impact
R33	Hyatt Place Washington Dc/National Mall	S	481	70	55.6	1.0	2.8	-14.4	No Impact
R38	600 E St SW Apartments	S	806	70	51.4	1.0	2.8	-18.6	No Impact
R42	Hilton Hotel	S	445	64	57.5	1.5	3.9	-6.5	No Impact

*For receptors where the increase over existing Ldn dBA is negative, this confirms that the proposed project's rail noise is not the dominant source of sound, and these locations are primarily affected by other noise sources, typically road traffic.

Source: VHB, 2024.

Potential Temporary Noise Impacts from Construction Activities

This section identifies the potential temporary noise impacts that are intermittent, infrequent, or last only for the duration of the construction period.

Construction has the potential to increase noise in the study area and affect receptors at residential, commercial, and industrial land uses. Section 3.2 of the Documented Categorical Exclusion, Construction Overview, for details the construction methods and activities for the Project, including information on construction sequence, duration, equipment used, and staging. Construction activities primarily include platform and bridge demolition, and construction of the new platform, bridge and 4th track.

Unlike operational noise and vibration, which is evaluated at residential and institutional receptors based on FTA categories, construction noise is evaluated at all residential, commercial, and industrial receptors.

Table 16 below provides a list of potential equipment that could be utilized during the construction of the project, along with typical maximum noise levels at 50 feet. The noise levels provided in **Table 16** are referenced from the FTA Manual and the FHWA Construction Noise Model.

Table 16: Maximum Noise Levels of Typical Construction Equipment

Construction Equipment	L_{max} at 50 ft, dBA
Air Compressor	80
All Other Equipment	85
Auger Drill Rig	85
Backhoe	80
Bar Bender	80
Concrete Mixer Truck	85
Concrete Pump Truck	82
Concrete Saw	90
Crane	85
Drum Mixer	80
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Front End Loader	80
Generator	82
Generator (<25KVA)	70
Grapple (On Backhoe)	85
Ground Compactor	80
Hydra Break Ram	90

Construction Equipment	L_{max} at 50 ft, dBA
Jackhammer	85
Pickup Truck	55
Pneumatic Tools	85
Pumps	77
Mounted Impact Hammer (Hoe Ram)	90
Rivet Buster/Chipping Gun	85
Soil Mix Drill Rig	80
Warning Horn	85
Welder/Torch	73

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, 2006. FTA Manual.

Table 17 shows the energy-average noise level (L_{eq}) over a typical work period was computed at 50 feet based on all the equipment typically used during each construction activity and their respective utilization factors, this table shows that construction noise is generally 87 to 93 dBA (L_{eq}) at 50 feet depending on the activity. The sound energy does assume all equipment is concentrated in one location, whereas in reality, construction equipment will be dispersed across various locations throughout the Project site. Nevertheless, the total sound energy serves as a valuable metric for understanding the relative intensity of the construction activities, as it encompasses all equipment involved.

Table 17: Construction Activities Noise Emissions

Construction Activity	Construction Noise at 50 feet (dBA, L_{eq})
Platform Demolition	91
Track Demolition	87
Bridge Demolition	93
Platform Construction	88
Wall Construction	93
Track Construction	88
Bridge Construction	91

Source: FTA, 2018

The Project has the potential for temporary impacts as it would exceed the District daytime noise limits at 18 receptors and would exceed the District nighttime noise limits at 9 receptors. **Table 18** presents the results of the construction noise assessment, showing the construction activity with the highest predicted noise level for each impacted receptor. The table shows that construction noise levels would generally range from 60 to 111 dBA (L_{eq}) at all impacted receptors.

Therefore, prior to mitigation, daytime and nighttime construction noise levels would exceed the district noise ordinance and noise mitigation will need to be implemented to avoid impacts. Section 5.0 Mitigation provides recommendations on reducing noise emissions from construction works.

Additionally, the construction contractor will be required to develop a CNVMP which will detail more specific noise mitigation measures for construction works.

Table 18: Construction Noise Impact Assessment

Receptor	Location	Highest Noise Construction Activity	Construction Noise Level (L_{eq}, dBA)	Construction Noise Impact Criteria (dBA)		Impact
				Daytime	Nighttime	
R02	Annex on 12th Apartments	Track Construction	74	80	60	Nighttime only
R04	US Energy Info Administration Center	Track Construction	84	80	60	Daytime Only
R06	Smithsonian Institution (Folkways Recordings)	Platform Demolition	111	80	60	Daytime Only
R08	Holiday Inn Washington Capitol - Natl Mall, an IHG Hotel	Bridge Demolition	97	80	60	Daytime and Nighttime
R09	Federal Emergency Management Agency	Track Construction	89	80	60	Daytime Only
R10	SA-44	Track Construction	87	80	60	Daytime Only
R13	Museum of the Bible	Track Construction	88	80	60	Daytime Only
R15	Voice of America (News Network)	Wall Construction	64	80	60	Nighttime only
R16	Ford House Office Building	Track Construction	83	80	60	Daytime Only
R18	Residential	Track Construction	60	80	60	Nighttime only
R20	Universities Space Research Association	Track Construction	88	80	60	Daytime Only
R21	Residence Inn Washington, DC National Mall	Track Construction	87	80	60	Daytime and Nighttime
R22	USDA Economic	Track Construction	87	80	60	Daytime Only

Receptor	Location	Highest Noise Construction Activity	Construction Noise Level (L_{eq}, dBA)	Construction Noise Impact Criteria (dBA)		Impact
				Daytime	Nighttime	
	Research Service					
R23	Southwest Business Improvement District	Track Construction	87	80	60	Daytime Only
R26	Social Security Advisory Board	Track Construction	82	80	60	Daytime Only
R28	Offices	Bridge Demolition	85	80	60	Daytime Only
R32	citizenM Washington DC Capitol Hotel	Bridge Demolition	68	80	60	Nighttime only
R33	Hyatt Place Washington Dc/National Mall	Wall Construction	63	80	60	Nighttime only
R35	U.S. Department of Homeland Security	7th Street Bridge Construction	89	80	60	Daytime Only
R36	CDC	Bridge Demolition	82	80	60	Daytime Only
R38	Apartments	Bridge Demolition	63	80	60	Nighttime only
R39	Federal Protective Services	7th Street Bridge Construction	90	80	60	Daytime Only
R40	GSA National Capital Region	Track Construction	82	80	60	Daytime Only
R42	Hilton Hotel	Wall Construction	66	80	60	Nighttime only
R43	St John's Community Services	Track Construction	83	80	60	Daytime Only

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, 2006. FTA Manual. VHB, 2024.

5.2 Vibration

5.2.1 Vibration Impact Assessment Methodology

Transit Operations

The methodology for projecting ground-borne vibration and ground-borne noise included estimating existing vibration levels in the rail corridor, projecting future vibration levels from the Project, assessing potential impact and determining the need, feasibility and reasonableness of mitigation recommendations.

Future vibration levels at sensitive receptors depends primarily on the proximity to the Project alignment, the type of building foundation, the floor of the building where vibrations are projected, the speed of the trains, and the presence of any special trackwork or other gaps in the rail running surface (i.e. crossovers, turnouts or jointed rail).

Existing and future transit operational vibration levels were calculated using methods outlined in the FTA Manual.

Ground-borne noise projections are focused on noise generated by vibration from transit operations. It is primarily a concern for underground tunnel transit operations or at special sensitive buildings. Ground-borne noise for above-grade construction activities that generate vibration, such as jackhammers or hoe rams, is not considered since airborne noise paths would dominate in these situations. Ground-borne noise is calculated from the vibration results by applying the A-weighting to the vibration velocity levels and summing the overall levels.

Construction

Construction vibration was predicted using the methods described in Chapter 12 of the FTA Manual and impacts were assessed by comparing to the applicable impact criteria described in **Section 3.0, Methodology**. Since there are no local ordinances which provide construction vibration limits for building damage or annoyance, the FTA criteria has been used in the assessment.

5.2.2 Predicted Vibration Levels

The vibration prediction for the Project follows the vibration impact assessment methodology for a general vibration assessment as presented in the FTA Manual and summarized above in **Section 4.2.2, Existing Vibration Conditions**.

5.2.3 Vibration Impact Assessment

Potential Vibration Impact from Transit Operations

The results from the general vibration show that there is no potential ground-borne vibration impact from transit operations to sensitive land uses. **Table 19** shows the projected operational Project transit vibration levels at sensitive receptors.

Ground-borne noise, which is produced when ground-borne vibration propagates into a building and radiates noise from the motion of the room surfaces, has been assessed at the Voice of America news network and Folkways Recordings for transit operations. Ground-borne noise levels due to the Project are projected to be 0 dBA at Voice of America and 20.3 dBA at Folkways Recordings, which are both below the impact criteria of 25 dBA.

Table 19: Operational Vibration Levels

Receptor ID	Description	Side of Track	Distance from Closest Track Centerline, ft	Land Use Category	Existing Approx. Lv, VdB	Future Approx. Lv, VdB	Increase Over Existing, VdB*	FTA Criteria, VdB	Increase Over Criteria, VdB	Impact?
R06	Smithsonian Institution (Folkways Recordings)	North	22	Special	74	75	1.5	65	10.3	No Impact
R08	Holiday Inn Washington Capitol - Natl Mall	North	44	2	76	70	-5.4	72	0	No Impact
R13	Museum of the Bible	North	52	3	69	71	1.7	75	0	No Impact
R15	Voice of America	North	638	Special	35	35	0.2	65	0	No Impact
R21	Residence Inn Washington, DC National Mall	South	21	2	89	84	-5.0	72	12.4	No Impact
R27	Richard Wright Public Charter School	South	119	3	53	53	0.0	75	0	No Impact

Source: VHB, 2024.

**Some receivers are projected to experience a decrease in vibration due to the relocation of existing special track work such as crossovers.*

Potential Vibration Impact from Construction Activities

Only in very rare instances do vibrations generated by transit operations pose any risk of damage to nearby structures. Typically, the only potential risk of vibrations causing damage to nearby structures is from certain construction activities at very close distances. The most significant construction activities for which potential damage is assessed include hoe rams, jackhammers, and caisson drilling. Although construction vibrations are only temporary, it is still reasonable to assess the potential for human annoyance as well as building damage.

The criteria for determining whether construction vibration will result in damage considers the structural design of the building (see **Table 3** above). The thresholds are based on four structural types: reinforced-concrete, steel, or timber (no plaster), engineered concrete and masonry (no plaster), non-engineered timber and masonry buildings and buildings extremely susceptible to vibration damage. Review of the buildings within the Study Area determined that all structures are either reinforced-concrete, steel or timber (no plaster) or engineered concrete and masonry (no plaster).

Table 20 identifies source vibration levels at 25 feet for assessing potential annoyance (measured in VdB) and damage (measured in PPV) for equipment that will likely be utilized during the construction of the Project. The construction equipment will need to be confirmed by the construction contractor closer to the start of construction.

Table 20: Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 ft, in/sec	Approximate Lv at 25 ft, VdB
Hoe Ram	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79

Source: FTA, 2018.

The Project has the potential for moderate temporary direct adverse impact as it would exceed the building damage criteria at one receptor. **Table 21** presents the results of the construction vibration assessment for building damage, showing only receptors where an impact has been identified.

Table 21: Construction Vibration Damage Assessment

Receptor	Location	Activity	Equip	Dist (feet)	Construction Vibration Level at Receiver (PPV Inches/s)	Construction Vibration Building Damage Criteria	Impact
R06	Smithsonian Institution (Folkways Recordings)	Platform Demolition	Hoe Ram	5	0.95	0.5	Yes

Source: VHB 2024.

The results in **Table 21** show that there is potential for building damage impacts at R06 during the construction of the Project. Therefore, where possible, the use of this equipment should be avoided within 11 feet of the building. If construction work within these distances is unavoidable, the contractor should monitor vibration levels at the foundations of the affected buildings to ensure they do not exceed the vibration damage criteria provided in **Table 4**. Additionally, the contractor will be required to take all appropriate measures to minimize vibration levels and clearly outline a strategy in the CNVMP for reducing construction vibration levels as far as reasonably practicable.

Elevated levels of vibration can also disturb, startle, cause annoyance or interfere with activities. **Table 22** shows the assessment for human annoyance impacts during the project's construction for buildings considered high sensitivity, residential, and institutional. The assessment shows that it is likely that buildings considered high sensitivity, residential, and institutional will exceed the annoyance criteria, with exceedance at 6 receptor locations. For this reason, the contractor will be required to take all appropriate measures to minimize vibration levels and set out a clear strategy in the CNVMP on the approach for reducing construction vibration levels as far as reasonably practicable. Additional recommendations for reducing construction vibration are provided in **Section 6.2.2, Mitigation for Construction Vibration**.

Table 22: Construction Vibration Annoyance Assessment

Receptor	Location	Activity	Equip	Dist (feet)	Construction Vibration Level at Receiver (VdB)	Construction Vibration Annoyance Criteria (VdB)	Impact
R06	Smithsonian Institution (Folkways Recordings)	Platform Demolition	Hoe Ram	5	121	65	Yes
R08	Holiday Inn Washington Capitol - Natl Mall	Bridge Demolition	Hoe Ram	33	96	72	Yes

Source: VHB 2024.

Smithsonian Institution (R06) Archives

Within the Smithsonian Institution (R06), several archive collections may be sensitive to vibration during construction activities. Based on information provided by the Smithsonian Institution in June 2024, these collections include vibration-sensitive items such as instantaneous audio discs (metal and glass), wax cylinders, glass plates, and commercial 78-rpm discs. Additionally, the building houses a conservation lab equipped with vibration-sensitive instruments, including microscopes and Fourier Transform Infrared Spectroscopy (FTIR).

For the archive collections, a PPV threshold of 0.1 inches/second is recommended to prevent damage. This threshold is derived from research and aligns with the guidelines outlined in Vibration Limits for Historic Buildings and Art Collections, which are based on extensive studies on art collections.

For the conservation lab's sensitive equipment, a vibration threshold of 66 VdB, corresponding to the VC-A curve in the FTA Manual, is suggested as the maximum acceptable level to avoid potential impacts.

At this stage, accurately predicting vibration levels at the points affecting sensitive items in the archive collections or equipment in the conservation lab is not feasible. This is due to unknown internal construction details which would influence the way vibration propagates through the building. Therefore, to avoid potential impacts, during the demolition and construction phases the construction contractor will be required to monitor vibration levels within each space where sensitive items or equipment have been identified, with details specified within the CNVMP.

The thresholds outlined above should serve as guidelines to identify potential temporary construction vibration impacts. Additionally, observations by Smithsonian Institution specialists should inform real-time assessments. Findings should be reported to the construction contractor to ensure timely adjustments, preventing damage or disruption.

6.0 Mitigation

The sections below outline possible mitigation methods for both operational and construction noise and vibration.

6.1 Noise Mitigation

6.1.1 Mitigation for Transit Operation Noise

Noise mitigation is evaluated based on feasibility, reasonableness and effectiveness of proposed options. According to FTA guidelines, severe impacts should be mitigated whenever practical and effective. For moderate impacts, greater discretion is appropriate, incorporating additional project-specific factors into consideration.

These factors include the anticipated increase over existing noise levels, the types and number of noise-sensitive land uses affected, current outdoor-to-indoor noise reduction capabilities, and the effectiveness and cost-benefit ratio of potential mitigation strategies. The FTA guidance further indicates a stronger mitigation need in areas currently experiencing high noise levels (L_{dn} above 65 dBA) from surface transportation sources.

This situation applies to sensitive receptors along the existing L'Enfant corridor, where current L_{dn} measurements range from 65 to 82 dBA. Following the guidance outlined in the FTA Manual, the identified moderate noise impacts will be addressed where practical and in locations where existing noise levels exceed 65 dBA.

To mitigate noise impact from train operations, noise control can be considered at the source, along the transmission path, or at the receiver. As the dominant source of noise arising from the Project is horn noise, source control measures such as operational restrictions and use of locomotive horns at grade crossings and quiet zones have been considered for receptors where an impact has been identified. The introduction of noise barriers is the most common transmission path noise control measure and can be effective at reducing noise levels. Options for noise control at the receiver include upgrading the sound insulation performance of facades, particularly by sealing gaps and improving sound insulation of existing windows.

As described in the subsections below, FTA guidelines were applied to address moderate noise impacts identified at three receptors along the Project corridor (Smithsonian Institution, Museum of the Bible, and Holiday Inn Washington Capitol). The assessment evaluated source treatments (quiet zones, wayside horns), path treatments (noise barriers), and receiver treatments (sound insulation).

- **Source Treatments** were deemed not reasonable due to CSX safety regulations requiring locomotive horns near passenger stations and the balance of infrastructure costs to benefits.
- **Path and Receiver Treatments** evaluated were noise barriers and interior treatments:
    - Noise barriers were ruled out due to space constraints and structural limitations.
    - Interior treatments were evaluated based on noise assessments and it was determined that despite moderate exterior impacts, all interior spaces would remain within acceptable noise limits (below 52 Leq,1hr dBA for institutional receivers and below 45 Ldn dBA for residential spaces) due to existing building construction.

Consequently, no additional mitigation measures were recommended for any of the impacted receptors. While the analysis determined that all interior spaces would remain within acceptable noise measurements, the moderate impact at the Smithsonian Institution courtyard would remain.

Source Treatments

Use of Locomotive Horns at Stations and Quiet Zones

As noise from the Project is primarily attributed to locomotive horns sounding as trains approach the station, an assessment has been conducted to evaluate the feasibility of establishing a Quiet Zone to eliminate horn use. Currently, a partial quiet zone exists under existing conditions, prohibiting horn use between 11:30 PM and 5:00 AM. However, this operational restriction has been factored into both existing and future noise exposure analyses, and noise impacts are still identified for three receptors.

Establishing a permanent quiet zone along this corridor is not feasible from a safety perspective due to regulations specified in the CSX Rule Book which states that locomotive horns must be sounded when approaching and passing passenger stations. These safety requirements are in place specifically due to the proximity of the VRE passenger station to both existing and proposed tracks.

Wayside Horns

Due to the CSX Rule Book[7] requirement, horns from locomotives are used on the Project corridor. Therefore, the implementation of a wayside horn system at the station has been considered and ruled out as a means of mitigation as reasoned below.

According to the FTA Manual "Using wayside horns at these intersections instead of the locomotive horn can substantially reduce the noise footprint without compromising safety at the grade crossing." However, this mitigation option is not considered reasonable for the following reasons:

- Each wayside horn installation requires substantial supporting infrastructure, including reliable power supplies, communication systems with approaching trains, and backup systems. In urban

[7] CSX, 2014. Operating Rules. Section 203: Locomotive Bells and Horns. CSX Transportation

or space-constrained environments, finding suitable locations for this infrastructure presents additional challenges.

- Lack of automated train control system - The railway corridor lacks the necessary automated train control or communication systems required to interface with wayside horns. This would necessitate installing entirely new train detection and control infrastructure, substantially increasing costs and complexity.
- Maintenance considerations - Wayside horn systems require regular testing and maintenance to ensure reliability for safety-critical functions. With no on-site personnel, this would require dedicated maintenance visits, creating ongoing operational costs and potential service disruptions.
- Implementation cost – The high installation cost (typically $75,000-$150,000) combined with ongoing maintenance expenses and the required upgrades to implement new automated infrastructure makes this option not reasonable from a cost perspective. The FTA Manual suggests that costs should be assessed based on impacted receivers. In this instance, as only 3 receivers have been identified as experiencing moderate impact, and 2 of these 3 receivers are only sensitive during daytime hours, the cost to implement such a system is not considered reasonable when evaluating the number of benefited receivers.

For these reasons, implementation of a wayside horn system is not a reasonable mitigation option for this project.

Path and Receiver Treatments

The above section has determined that it is not feasible or reasonable to include source mitigation for the Project, the following assessment will consider path and receiver treatment for each receiver where a moderate impact has been identified.

Noise Barriers

The FTA Manual states that noise barriers near train tracks can reduce noise by 6-15 dB. How well these barriers work depends on their design and ability to block the line of sight between trains and receivers. The effectiveness is determined by the barrier's height and its distance from the noise source. In this case, a fully effective barrier would be difficult to construct because the impacted receivers are in multi-story buildings.

From an engineering perspective, the space between the proposed fourth track and the affected receivers is extremely limited. This presents several key challenges:

- Safety clearance requirements from the track centerline severely restrict available space.
- Effective noise barriers require substantial foundations to withstand wind loads and maintain structural stability which is not possible to accommodate within the available space.
- Parts of the track run on elevated structures, which cannot support the additional weight of a noise barrier tall enough to break the line of sight.

Based on the above, it is not considered reasonable to construct noise barrier in this area.

Interior Treatments

R06 Smithsonian Institution

A moderate impact has been identified for R06, Smithsonian Institution, due to the Project. An interior noise assessment was completed to determine whether receiver treatment should be considered. The FTA Manual does not provide specific interior noise limits for interior spaces within institutional receivers. For this reason, the interior noise level limit of 52 $L_{eq,1hr}$ dBA will be considered, based on guidance provided in the FHWA[8] for Category D receivers. Additionally, to determine the likely outdoor-to-indoor level reduction (OILR), reference was made to the FHWA, which states that masonry buildings with double-glazed windows can provide approximately 35 dB of attenuation.

Based on the above, **Table 23** presents the interior noise assessment for R06.

Table 23: Interior Noise Assessment R06

Receptor ID	Receptor Description	Side of Track	Distance from Track Centerline (ft)	Future Exterior Noise Level L_{eq} (dBA)	OILR* (dB)	Interior Noise Level Criteria L_{eq} (dB)**	Future Interior Noise Level L_{eq} (dBA)	Receiver Treatments Required?
R06	Smithsonian Institution	N	22	74.9	35	52	39.9	No

*OILR value based on the FHWA Table 6: Building Noise Reduction Factors for masonry building with double glazed windows.

**Interior noise level criteria are based on the FHWA Category D interior noise abatement criteria for nonresidential public and private facilities.

Source: VHB, 2025

The results in **Table 23** demonstrate that although a moderate noise impact is identified for R06 Smithsonian Institution when considering an exterior assessment, interior noise levels will remain within the FHWA interior noise level limits for nonresidential public and private facilities from the Project. Based on this conclusion, receiver treatments to the southern and western façades of R06 are not required and no additional mitigation is considered warranted.

R13 Museum of the Bible

A moderate impact has been identified for R13, Museum of the Bible, due to the Project. An interior noise assessment has been completed to determine whether a noise barrier or receiver treatments are required for the southern and western façades, which is directly adjacent to the Project's proposed fourth track.

The FTA Manual does not provide specific interior noise limits for interior spaces within institutional receivers. For this reason, the interior noise level limit of 52 $L_{eq,1hr}$ dBA was considered, based on guidance provided in the FHWA for Category D receivers. Additionally, to determine the likely OILR,

[8] Highway Traffic Noise: Analysis and Abatement Guidance. Federal Highway Administration, U.S. Department of Transportation, Washington, DC, 2011

reference was made to the FHWA, which states that masonry buildings with double-glazed windows can provide approximately 35 dB of attenuation.

Based on the above, **Table 24** presents the interior noise assessment for R13.

Table 24: Interior Noise Assessment R13

Receptor ID	Receptor Description	Side of Track	Distance from Track Centerline (ft)	Future Exterior Noise Level L_{eq} (dBA)	OILR* (dB)	Interior Noise Level Criteria L_{eq} (dB)**	Future Interior Noise Level L_{eq} (dBA)	Receiver Treatments Required?
R13	Museum of the Bible	N	52	79.4	35	52	44.4	No

*OILR value based on the FHWA Table 6: Building Noise Reduction Factors for masonry building with double glazed windows.

**Interior noise level criteria is based on the FHWA Category D interior noise abatement criteria for nonresidential public and private facilities.

Source: VHB, 2025

The results in **Table 24** demonstrate that although a moderate noise impact is identified for R13 Museum of the Bible when considering an exterior assessment, interior noise levels will remain within the FHWA interior noise level limits for nonresidential public and private facilities from the Project. Based on this conclusion, receiver treatments to the southern and western façades of R13 is not required and no additional mitigation is considered.

R08 Holiday Inn Washington Capitol National Mall

A moderate impact has been identified for R08, Holiday Inn Washington Capitol due to the Project. An interior noise assessment has been completed to determine whether receiver treatments are required for the southern and western façades, which are directly adjacent to the Project's proposed fourth track.

For interior noise limits, the FTA Manual recommends 45 L_{dn} dBA, which is based on the 'Eligibility and Justification Requirements for Noise Insulation Projects' published by the FAA.[9] Additionally, to determine OILR, reference was made to the FHWA, which states that masonry buildings with double-glazed windows can provide approximately 35 dB of attenuation. However, the southern and western façades of the Holiday Inn Washington Capitol also include openings for in-room ventilation systems which likely reduce the performance of OILR. For this reason, an additional 5 dB penalty has been applied to the OILR to account for the potential reduction in the acoustical performance of the façades in question due to the ventilation openings.

Based on the above, **Table 25** presents the interior noise assessment for R08.

[9] Eligibility and Justification Requirements for Noise Insulation Projects," Federal Aviation Administration, U.S. Department of Transportation, Washington, DC, 2005.

Table 25: Interior Noise Assessment R08

Receptor ID	Receptor Description	Side of Track	Distance from Track Centerline (ft)	Future Exterior Noise Level L_{dn} (dBA)	OILR* (dB)	Interior Noise Level Criteria L_{dn} (dB)**	Future Interior Noise Level L_{eq} (dBA)	Receiver Treatments Required?
R08	Holiday Inn Washington Capitol - Natl Mall	N	44	74.3	30	45	44.4	No

*OILR value based on the FHWA Table 6: Building Noise Reduction Factors for masonry building with double glazed windows. This also includes a 5 dB penalty for potential weakness due to ventilation openings.

**Interior noise level criteria are based on the FTA Manual for residential spaces.

Source: VHB, 2025

The results in **Table 25** demonstrate that although a moderate noise impact is identified for R08 Holiday Inn Washington Capitol when considering an exterior assessment, interior noise levels will remain within the FTA Manual's interior noise level limits for residential spaces from the Project. Based on this conclusion, receiver treatments to the southern and western façades of R08 are not required and no additional mitigation is considered warranted.

6.1.2 Mitigation for Construction Noise

An Acoustical Engineer will prepare a CNVMP in conjunction with the contractor's specific equipment and methods of construction. The CNVMP will be consistent with the FTA Manual specifications. Key elements to the CNVMP will include:

- Identification of specific sensitive sites where noise monitoring will occur;
- Background noise monitoring prior to and during construction;
- Construction equipment noise certification testing;
- Prohibition of impact pile-drivers during evening and nighttime hours (i.e. 6:00 PM to 10:00 PM and 10:00 PM to 7:00 AM);
- Prohibition of vibratory sheet pile driving and all impact devices including hoe rams, jackhammers, and pavement breakers during nighttime hours;
- Requirement for ambient-adjusting or manually adjusted backup alarms set to 5 dBA over background levels;
- Truck idling limited to five minutes;
- Acoustic shield requirement for jackhammers, chainsaws, and pavement breakers;
- Methods for projecting construction noise levels;

- Detailed engineering noise control measures;
- Methods for responding to community complaints; and
- Reporting of noise monitoring results, noise reduction measures used, and responses to the community.

Noise control measures will be used to reduce noise emissions and potential impact to sensitive receptors during construction . Many types of construction equipment include diesel engines which can be the most significant noise source. Therefore, reducing engine noise is often a key element to mitigating potential impact. Examples of such noise control measures include:

- Shields, shrouds, or intake and exhaust mufflers;
- Noise deadening materials adhered to chutes or storage bins;
- Temporary noise barriers;
- Acoustic enclosures;
- Specialized back-up alarms;
- Limitations on generator size and duration of use; and
- Routing trucks to minimize exposure to sensitive receptors.

While some receptors such as residences and hotels have increased sensitivity to noise during the nighttime, other receptors, such as libraries, schools, and commercial locations, are not sensitive to nighttime activities. A key element in mitigating potential noise impacts will be scheduling of construction activities based on location to minimize impacts.

6.2 Vibration Mitigation

6.2.1 Mitigation for Transit Operation Vibration

As no operational vibration impacts are expected to occur as a result of the Project, mitigation was not considered.

While changes to vibratory levels from the Project indicate that impacts are unlikely to occur, a lack of minimization measures, such as specially engineered trackwork at crossovers, would result in increases of vibration levels over existing that could otherwise be prevented.

Prior research has demonstrated that special trackwork, such as turnouts and crossovers, can generate ground-borne noise when wheels pass over the frog gap.[10] One potential mitigation measure includes the implementation of flange-bearing or spring-rail frogs in place of standard frogs. Based on the FTA Manual, spring frogs are approximately twice the cost of a standard frog.

[10] Transportation Research Board, National Research Council, "Wheel/Rail Noise Control Manual," Transit Cooperative Research Program Report 23, 1997.

FTA guidance suggests locating special trackwork away from sensitive land use; however, such a mitigation measure may not be considered feasible for this project given the narrow rail corridor with sensitive land uses on either side of the tracks.

6.2.2 Mitigation for Construction Vibration

To mitigate these potential impacts, the contractor will need to use specific construction methods and equipment to minimize the potential for damage, annoyance, or effects on sensitive equipment. Such methods may involve equipment selection, finding alternative construction methods and limiting locations where sources of construction-related vibration will occur.

Mitigation will also include the preparation of a CNVMP in conjunction with the contractor's specific equipment, schedule and methods of construction, maximum noise limits for each piece of equipment, prohibition on certain types of equipment during the nighttime hours and engineering noise control measures. It is recommended that construction vibration levels are monitored during construction in areas where impacts have been identified, to ensure the thresholds of potential building damage are not exceeded. Specific measures of the CNVMP should include:

- Identification of specific sensitive sites where vibration monitoring would occur;
- Background vibration monitoring prior to and during construction;
- Prohibition of vibratory sheet pile driving and all impact devices including hoe rams, jackhammers, and pavement breakers during nighttime hours;
- Methods for projecting construction vibration levels;
- Detailed engineering vibration control measures;
- Methods for responding to community complaints; and
- Reporting of vibration monitoring results, vibration reduction measures used, and responses to the community.

Vibration monitoring should be conducted within the Smithsonian Institution (R06) to track vibration levels in areas identified as sensitive, such as the archive collections and the conservation lab. Measured levels should be compared against the thresholds outlined in **Section 5.2.3, Vibration Impact Assessment**, alongside observations provided by staff during the demolition and construction phases. If vibration levels approach the thresholds or concerns are raised through staff observations, the construction contractor must be promptly notified. Alternative construction methods should then be evaluated and implemented as necessary to prevent potential impacts.