



U.S. Department
of Transportation

**Federal Railroad
Administration**

Draft Section 106 Assessment of Effects to Historic Properties Report - DEIS Appendix D1

WASHINGTON UNION STATION EXPANSION
PROJECT

JUNE 2020

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Executive Summary

This report presents the assessment of effects to historic properties that may result from the proposed Washington Union Station (WUS) Expansion Project (the Project). The Project's Proponents are the Union Station Redevelopment Corporation (USRC) and the National Railroad Passenger Corporation (Amtrak). The purpose of the Project is to expand and modernize WUS to meet current and future needs.

The Federal government, acting through the Federal Railroad Administration (FRA), owns WUS. The Project requires FRA approval, and FRA or the U.S. Department of Transportation may provide construction funding. These activities would constitute an undertaking with the potential to cause effects on historic properties. Therefore, FRA is the lead Federal agency for complying with Section 106 of the National Historic Preservation Act of 1966 (Section 106).¹ Section 106 requires Federal agencies consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation an opportunity to comment.² FRA is coordinating the Section 106 process with the preparation of an Environmental Impact Statement (EIS). An EIS for the Project is a requirement of the National Environmental Policy Act of 1969 (NEPA),³ the Council for Environmental Quality's NEPA implementing regulations,⁴ and FRA's *Procedures for Considering Environmental Impacts*.⁵

The Project has six Action Alternatives. The Action Alternatives are assessed in the NEPA and Section 106 processes to inform the conceptual design for the Project. Design will be further developed after the NEPA and Section 106 processes, which include input from the public and Consulting Parties, are complete. All Alternatives preserve the historic WUS building. The six Action Alternatives include the following program elements: historic station; tracks and platforms; bus facility; train hall; parking facility; concourse and retail; for-hire vehicles; and bicycle and pedestrian access. The Action Alternatives vary by the location of each of the program elements within the Project Area.

The EIS also evaluates a No-Action Alternative. The No-Action Alternative is the baseline condition of what may occur in the Project Area by 2040, even if the Project is not constructed. The No-Action Alternative recognizes there are other ongoing and planned WUS improvement and transportation projects within the Project Area that would occur. In addition to these projects, the No-Action Alternative includes a planned private air-rights development above the

¹ 54 USC § 306108

² 36 CFR Part 800 (*Protection of Historic Properties*)

³ 42 USC § 4321 *et seq.*

⁴ 40 CFR Part 1500-1508

⁵ 64 Federal Register [FR] 28545 [May 26, 1999] as updated by 78 FR 2713 [January 14, 2013]

rail terminal, which would be undertaken by a private developer. Therefore, the Project Area is anticipated to experience dynamic change by 2040.

The No-Action Alternative is a required component of an EIS and is not typically addressed in the Section 106 process. However, the projects considered in the No-Action Alternative would potentially affect the context and environment in which the Project's Action Alternatives would occur. Therefore, a discussion of the No-Action Alternative is included in this AOE Report to better inform the understanding of effects the Action Alternatives may have on historic properties under Section 106. In the No-Action Alternative, the Project would not occur, and FRA would not have an undertaking subject to Section 106. Therefore, in the No-Action Alternative there would be no effects to historic properties as a result of an FRA action.

FRA assessed the effects of the six Action Alternatives on 49 historic properties in the Project's Area of Potential Effects (APE). Additionally, FRA assessed visual effects of the Project from six culturally significant viewsheds representing topographic high points, which, though discontinuous, were also considered as part of the APE. FRA prepared this report to describe the assessment and explain agency conclusions. A summary of FRA's determinations is located in Section 6.2 *Summary of Effects*.

Based on the assessment of effects, **FRA determined all Action Alternatives would result in adverse effects to the REA Building, WUS, and WUS Historic Site, and have the potential to adversely affect the Capitol Hill Historic District.** Therefore, as required by Section 106, FRA will continue to consult with the Project Consulting Parties and relevant agencies to avoid, minimize, or mitigate the adverse effects to these historic properties.⁶

There is currently no Project construction funding, however, the Section 106 and NEPA processes are being utilized to inform the conceptual level of design for the Project. Since the design of the project is in its early stages, FRA will prepare a Programmatic Agreement (PA) to govern continued Section 106 consultation as the implementation of the Project advances and to establish a process to resolve unavoidable adverse effects of the Project to historic properties in accordance with 36 C.F.R. § 800.14(b)(1)(ii). The PA will establish a process for on-going consultation and review as the level of design progresses following the Final EIS and a Record of Decision (and subject to funding) to ensure that form, materials, architectural features, and connections (visual and physical) to surrounding development are considered. This includes the exploration of avoidance and minimization measures to historic properties.

⁶ A list of all Section 106 Consulting Parties is included in Appendix D1a.

FRA anticipates the PA will outline coordinated design review in the context of Federal and District of Columbia regulations and guidelines.

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1 Introduction

The Federal Railroad Administration (FRA) prepared this Assessment of Effects Report (AOE Report) for the Washington Union Station (WUS) Expansion Project (the Project) in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended and its implementing regulations 36 CFR Part 800 (Protection of Historic Properties).

The historic station and monumental forecourt, Columbus Plaza, were designed by renowned architect Daniel Burnham. Located to the northeast of the U.S. Capitol building, WUS has welcomed rail passengers to Washington, D.C. since 1907. The station is located north of Massachusetts Avenue at the convergence of Louisiana Avenue, Delaware Avenue, and First Street NE. Today, the station is the second-busiest railroad station in the nation, supporting more than 100,000 rail, transit, and bus passenger trips daily via intercity rail (National Railroad Passenger Corporation [Amtrak]); commuter rail (Virginia Railway Express [VRE] and Maryland Area Regional Commuter [MARC]); Washington Metropolitan Area Transit Authority (WMATA) Metrorail; and intercity buses.

1.1 Project Purpose and Need

The purpose of the Project is to support the current and future long-term growth in railroad service and operational needs; achieve compliance with the Americans with Disabilities Act of 1990 (ADA) and emergency egress requirements; facilitate intermodal travel; provide a positive customer experience; enhance integration with the adjacent neighborhoods, businesses, and planned land uses; sustain the station's economic viability; and support continued preservation and use of the historic station building.

The Project is needed to improve rail capacity, reliability, safety, efficiency, accessibility, and security, for both current and future long-term railroad operations at WUS.

1.2 Project Description

The Union Station Redevelopment Corporation (USRC) and the National Railroad Passenger Corporation (Amtrak) (collectively, the Proponents) jointly proposed the WUS Expansion Project. Under a long-term lease with the Federal Railroad Administration (FRA), USRC is responsible for the rehabilitation, redevelopment, and ongoing management and operations of WUS. Amtrak owns and operates the Northeast Corridor (NEC), including tracks and platforms at WUS. The Project includes expanding and modernizing the multimodal transportation facilities at WUS to meet current and future needs, while preserving the historic station building.

Project activities include reconstructing and realigning tracks, developing a train hall and new concourse facilities, enhancing WUS accessibility, improving multimodal transportation services

and connectivity, and improving and expanding infrastructure and other supporting facilities. The Proponents are engaged in ongoing conceptual design and formal planning for the Project. USRC has principally been developing station concept plans while Amtrak has principally been developing plans for improvements to the tracks and platforms.

1.2.1 Project Area and Elements

The Project Area covers approximately 72 acres and includes the existing WUS, the existing WUS parking garage and bus facility, the rail terminal, and the railroad infrastructure that extends north from WUS to the lead tracks of Eckington Rail Yard and the Ivy City Rail Yard, located north of New York Avenue NE (**Figure 1**). Neither the Eckington Rail Yard nor the Ivy City Rail Yard is included in the Project Area. However, the Project Area does include the Railway Express Agency (REA) Building, owned by Amtrak, and the H Street Bridge, which is the property of the District Department of Transportation (DDOT). Additionally, the Project Area includes portions of Columbus Plaza (which is owned and managed by the National Park Service) and portions of the Washington Metropolitan Area Transit Authority (WMATA) easement.

The Project Area is distinguished by several important features, which influence the Action Alternatives considered for the Project. The Project Area is unique in that:

- FRA owns, and USRC manages, WUS and the WUS parking garage. The air-rights above the WUS parking garage are owned by the Federal government and are referred to as the Federal air-rights. The existing parking garage occupies the footprint of the Federal property.
- Amtrak owns and manages the rail terminal, which includes all tracks and platforms to the north of the station. FRA owns the ground below the rail terminal.
- A private developer owns development air-rights above the east side of the rail terminal (above Amtrak/FRA property) between WUS and K Street NE and a smaller area between the H Street Bridge and the existing parking garage.⁷ These air rights are referred to as the private air-rights and encompass properties more specifically known as Square 717, Lots 7001 and 7002; and Square 720, Lots 7000 and 7001. The total size of the private air-rights is 622,941 square feet, or 14.30 acres.⁸
- There are FRA/USRC easements within the Project Area. On the west side, there is an easement with WMATA for the WMATA Red Line. On the east, there is an easement with the private air-rights developer to enable access to the East Loading Dock. A third

⁷ The current owner of the private air-rights is Akridge.

⁸ DC Office of Planning Setdown Report, "Proposed Text and Map Amendments for the Union Station Air Rights," December 4, 2009. Available at <https://app.dcoz.dc.gov/Content/Search/ViewExhibits.aspx>

easement, also with the private air-rights developer, is located to the north of the parking garage to provide access from the H Street Bridge.

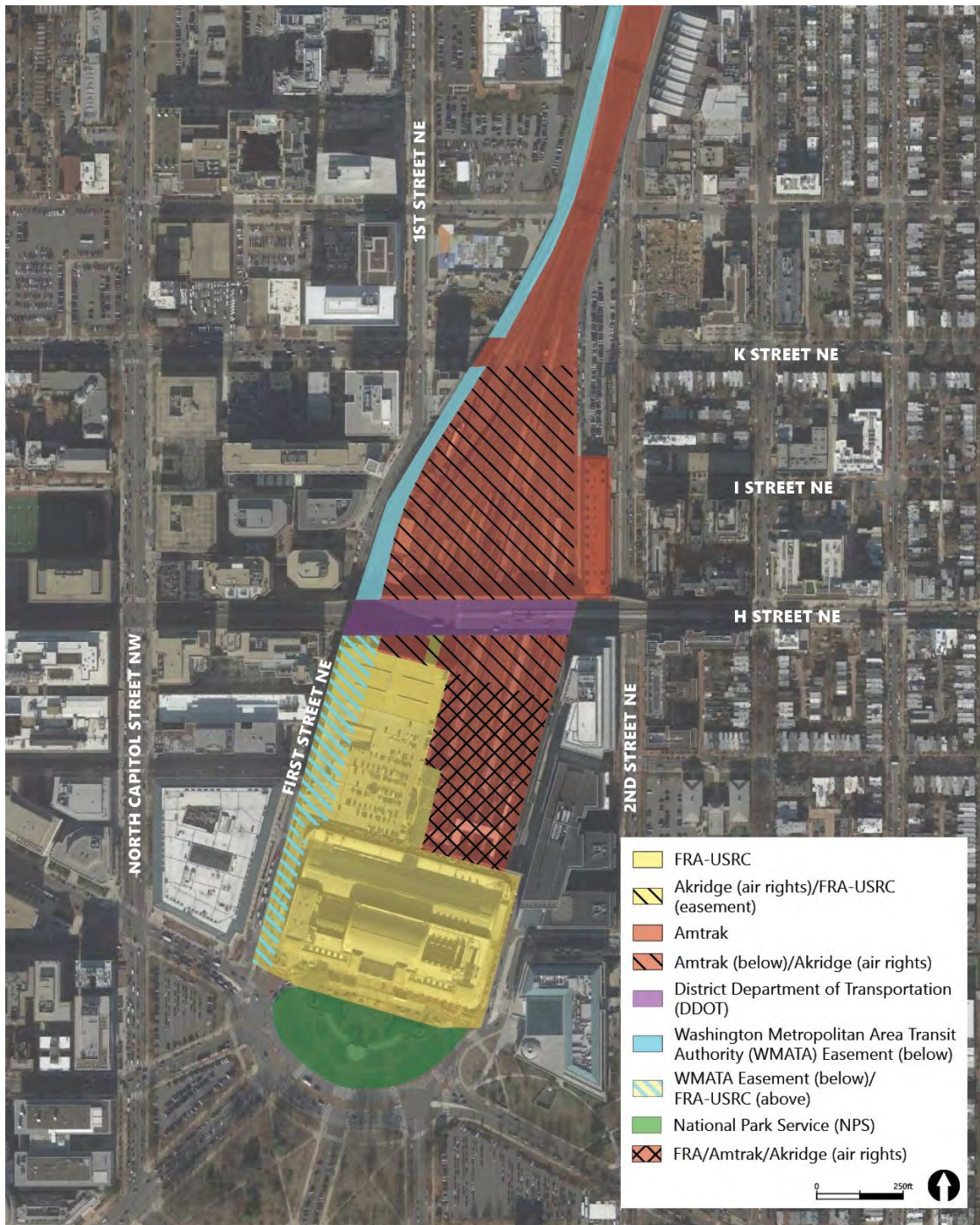
Figure 2 illustrates the various entities and controlling interests within the Project Area. It is important to note that the development of the private air-rights is not part of the Project. It has a separate, private proponent, is not subject to FRA approvals, and can proceed independently of the Project.

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Figure 1. Washington Union Station Expansion Project Area



Figure 2. Presently Controlling Interests at WUS



Six Action Alternatives were developed to meet the Project's Purpose and Need and meet the needs of the following program elements: historic station, tracks and platforms, bus facility, train hall, parking, concourse and retail, for-hire vehicles, and bicycle and pedestrian access. Each Action Alternative incorporates all program elements. The Action Alternatives are distinguished mainly by the location and/or treatment of several key features, including the train hall, bus facility, parking, and the inclusion (or exclusion) of the Federal air-rights for future transfer or lease by FRA for potential subsequent development. Each of the Action Alternatives would require acquisition of portions of the private air-rights from the private developer, depending on the placement of the train hall, bus facility, and parking facility. The quantity and location of private air-rights that would need to be acquired differs among the Action Alternatives.

The sections below further describe and differentiate the Federal air-rights and the private air-rights. Together, the positioning and treatment of the program elements and Federal air-rights figure into the descriptions of the Action Alternatives included in Section 5. *Description of Alternatives*.

Federal Air-Rights

In each Action Alternative, FRA may transfer or lease the Federal air-rights that are not required for program elements – especially the new bus and parking facilities or the train hall – for potential commercial development. In planning for commercial use, FRA proposes a development envelope for the Federal air-rights that would be consistent with the USN zoning applied to the adjacent private air-rights. The potential development of remaining Federal air-rights is part of the Project and the effects associated with the future transfer or lease and the development of the Federal air-rights are accounted for and evaluated as part of FRA's undertaking in this AOE Report and FRA's current Section 106 process.

Private Air-Rights

In 2006, at the direction of the United States Congress, the U.S. General Services Administration (GSA) sold approximately 14 acres of air-rights above the WUS rail yard to a private developer for future development. In June 2011, the private air-rights property was rezoned and designated as Union Station North (USN) by the D.C. Zoning Commission.⁹ This zoning designation allows for a maximum height ranging from 90 feet to 130 feet above the elevation of H Street NE at the center of the H Street Bridge.¹⁰ The private developer

⁹ Prior to the USN zoning, it was zoned PDR-3. The PDR-3 zone is intended to permit high-density commercial and production, distribution, and repair (PDR) activities employing a large workforce and requiring some heavy machinery under controls that minimize any adverse impacts on adjacent, more restrictive zones.

¹⁰ Beyond this limit, an extra 20 feet of height for an inhabitable penthouse is permitted.

envisions constructing a mixed-use development of 3 million square feet or more on a new concrete deck over the rail terminal.¹¹ The private air-rights development project, including the underlying deck, is a separate project from the WUS Expansion Project. It has a separate, private sector proponent, is not subject to FRA approvals, and is independent of the Project. Therefore, any potential effects associated with the private air-rights development are not evaluated as part of FRA's Section 106 undertaking. More information about how the private air-rights development is considered within this AOE Report as part of the No-Action Alternative is discussed below.

1.2.2 Washington Union Station History and Management

WUS was designed by renowned American architect Daniel Burnham of D.H. Burnham & Company and was constructed between 1903 and 1908 to serve as the central train terminal for the nation's capital. WUS and the related railroad infrastructure, including the rail terminal (also called the Terminal Rail Yard) and First Street Tunnel, are historically and architecturally significant for their contribution to the early twentieth-century development of Washington, DC, in addition to their representation of Beaux-Arts architecture, work of a master architect, and advancements in transportation technology and engineering.

While the station remained a busy transportation hub through World War II, passenger rail service began declining in the late 1950s and early 1960s as automobiles and the interstate highway system became the preferred mode of travel. The station was converted to the National Visitor Center by an Act of Congress in 1968¹²; however, the visitor center failed to attract large crowds and by the late 1970s, the benefits of rail transportation were realized once more. As rail ridership nationwide began to rebound, the condition of the station continued to decline. Congress passed the Union Station Redevelopment Act of 1981 (USRA) to address the deteriorating station.¹³ The USRA authorized the Secretary of Transportation to rehabilitate and redevelop WUS as a multi-use transportation facility and commercial complex. The Secretary of Transportation delegated responsibility for the station to FRA. The USRA articulates the following four goals for the station:

- (1) Preserve the historic station building;

¹¹ The envisioned private project is known as "Burnham Place." Akridge has not submitted a formal proposal to the District for the Burnham Place development. Citation: "Burnham Place at Union Station," Akridge. Accessible April 15, 2020. <http://www.burnhamplace.com/index.html>

¹² National Visitor Center Facilities Act of 1968, Pub. L. 90-264, 82 Stat. 43 (1968).

¹³ Union Station Redevelopment Act of 1981, Pub. L. 97-125, 95 Stat. 1667 (1981).

- (2) Restore and operate the historic station building as a passenger railroad station with facilities for charter, transit, and intercity buses;
- (3) Financially support the continued maintenance and operations of the station through commercial development; and
- (4) Allow for the Federal government to withdraw from active operation and management of the station as soon as practical and with the least possible expense to the Federal government.

The USRA limited the role of the FRA in managing WUS. USRC was established in 1983 to oversee WUS's restoration and redevelopment into a modern transportation hub, as well as a shopping and tourist destination. In 1985, FRA sub-leased WUS to USRC under a long-term (99-year) lease.¹⁴ Under the lease, USRC is responsible for the rehabilitation, redevelopment, and ongoing management and operations of WUS. As part of redeveloping and managing WUS, USRC subleased most of the station to a real estate investment company.

1.2.3 Project Background

Following the rehabilitation of WUS in the 1980s, rail service improvements led to increased use of the station. Amtrak made a series of improvements in the NEC, including the introduction of the Acela Express service in 2000. In 2000, 37 percent of rail or airline passengers between New York and Washington took the train. By 2012, that number had jumped to 75 percent.¹⁵ VRE commuter rail service was introduced in 1992. MARC train service substantially increased as well; between 1988 and 1993, the number of daily MARC trains rose from 36 to 70. In the past two decades, ridership for both services has grown considerably. VRE ridership grew 84 percent between 2001 and 2013, while MARC ridership grew 60 percent.¹⁶

In 2012, Amtrak released the Washington Union Terminal Master Plan (Master Plan), the culmination of collaboration with the private air-rights owner and USRC.¹⁷ The Master Plan presented a high-level vision for addressing existing deficiencies, supporting future rail service growth at WUS, accommodating the planning for the private air-rights development, and providing for future rail service growth at Washington Union Station. The Master Plan was a

¹⁴ In 1988, the Federal government, acting through the FRA, became the owner of the WUS building, existing parking garage, and underlying real property. Before 1988, FRA leased WUS from Terminal Realty Baltimore Co. and Terminal Realty Penn Co.

¹⁵ Kamga, Camille. "Emerging travel trends, high-speed rail, and the public reinvention of U.S. transportation." *Transport Policy* 37 (2015): 111-120. Accessed at <https://www.sciencedirect.com/science/article/pii/S0967070X14002133>. Accessed on May 10, 2018.

¹⁶ Ridership numbers provided by MARC and VRE.

¹⁷ Amtrak. 2012. *Union Station Master Plan*. Accessed at <https://nec.amtrak.com/wp-content/uploads/2017/08/Washington-Union-Station-Master-Plan-201207.pdf>. Accessed on May 1, 2018.

conceptual vision for WUS and the private air-rights development but did not fully address issues of feasibility and implementation. Therefore, the elements of the Master Plan relevant to the Project focus on improving WUS's primary functions, core needs, and customer experience by:

- Increasing capacity: Tripling passengers at WUS, doubling train service, and moving towards more sustainable transportation;
- Providing quality: Improving the passenger and visitor experience and offering efficient, multimodal transportation options; and
- Enhancing vitality: Providing transportation and economic growth to support Washington, DC, as the touchstone of cultural, political, and business opportunity in the region and nation.

Developed by USRC in 2015, the *Historic Preservation Plan* (HPP) is complementary to the Master Plan and provides preservation guidance for future rehabilitation, restoration, and development projects to WUS.¹⁸ The HPP establishes the extent and condition of the remaining historic features of WUS and emphasizes that any future changes and development must be designed to protect the historic character of WUS's original design.

Informed by these previous planning efforts, Amtrak and USRC initiated work to plan and design the WUS Expansion Project.

2 Section 106 Legal and Regulatory Context

FRA is the agency official obligated to fulfill the requirements of Section 106 for the WUS Expansion Project as set forth in 36 CFR Part 800 (the Protection of Historic Properties) for the undertaking described below. FRA is coordinating the Section 106 process with the preparation of an EIS in accordance with the National Environmental Policy Act of 1969 (NEPA) (40 CFR Part 1500-1508), FRA's *Procedures for Considering Environmental Impacts* (64 Federal Register [FR] 28545 [May 26, 1999]), and FRA's *Update to NEPA Implementing Procedures* (78 FR 2713 [January 14, 2013]).

2.1 Federal Undertaking Subject to Section 106

FRA's actions relating to the Project may include issuing approvals or providing funding in the future for design and/or construction of the Project. These activities would constitute an undertaking with the potential to cause effects on historic properties. As discussed above, some Project Action Alternatives include the potential development of the Federal air-rights. While

¹⁸ Union Station Redevelopment Corporation. 2015. *Historic Preservation Plan*. Accessed at <https://www.usrcdc.com/projects/historic-preservation-plan/>. Accessed on May 1, 2018.

the nature of the potential Federal air-rights development is currently undetermined, in the future they may be transferred or leased by FRA for potential subsequent development. As such, effects associated with their potential development are accounted for in this AOE Report and evaluated in this Section 106 process.

Unlike the potential development of the Federal air-rights, the development of the private air-rights is not part of FRA's undertaking subject to Section 106. Therefore, any potential effects associated with the private air-rights development are not evaluated in this AOE Report. Independent of the Project, the private air-rights development is subject to the reviews set forth in the USN zoning regulations and any other binding legal agreements that may be associated with the deed of sale. The USN zoning designation is subject to Zoning Commission review, community review, and agency review from the DCOP, DDOT, Fire and Emergency Services, District Department of the Environment (DDOE), and any other relevant District agencies.¹⁹

Due to the separate and independent nature of the private air-rights development, which could occur without the Project, the private air-rights development was considered within the No-Action Alternative.²⁰ In addition to the private air-rights development, the No-Action Alternative also recognizes ongoing and planned WUS improvement and transportation projects within the Project Area, as described in Section 5.1 *No-Action Alternative*. In the No-Action Alternative, the Project would not occur and FRA would not have an undertaking subject to Section 106. Therefore, in the No-Action Alternative there would be no effects to historic properties as a result of an FRA action.

The potential effects of projects considered in the No-Action Alternative to historic properties are discussed in this AOE Report, but no Section 106 determination of effect is made for such projects pursuant to 36 CFR 800.3(a).²¹ These potential effects are discussed to provide a greater understanding of the context and environment in which the Project would occur. Should any of the other projects considered in the No-Action Alternative be subject to a separate federal license, approval, permit, or financial assistance, a separate Section 106

¹⁹ District of Columbia Zoning Commission, *Notice of Final Rulemaking and Zoning Commission Order No. 09-21 Z.C. Case No. 09-21*, 2011

²⁰ In the No-Action Alternative, it is assumed that the deck supporting the private air-rights development would be entirely constructed by the private air-rights developer. The feasibility of constructing stand-alone elements, including a deck to realize the private air-rights development, is evidenced by the existing parking garage and access roads. These existing elements are supported by columns between the tracks and platforms. Conversely, all Station Expansion program elements can be constructed to effectively meet future station, railroad, and passenger needs regardless of the concurrent presence or absence of the private air-rights development.

²¹ Section 106 regulations define adverse effects as those effects that are caused by an undertaking. 36 CFR § 800.5(a)(1). Without an undertaking, there would be no effects subject to Section 106.

process would be conducted by the federal agency issuing that license, approval, permit or funding and responsible for that separate undertaking.

In summation, the Section 106 process for the Project **does** assess the effects to historic properties from the following:

- Project elements incorporated into the Action Alternatives, including the historic station, tracks and platforms, bus facility, train hall, parking, concourse and retail, for-hire vehicles, and bicycle and pedestrian access.
- Potential transfer or lease of remaining Federal air-rights for commercial development.

The Section 106 process for the Project **does not** assess effects to historic properties from the following:

- All projects included in the No-Action Alternative, including the development of the private air-rights.

2.2 Section 106 Process

Per Section 106 regulations (36 CFR Part 800), the agency official (FRA), in consultation with the District of Columbia State Historic Preservation Office (DC SHPO), was tasked with developing the Area of Potential Effects (APE). The APE is defined in 36 CFR Part 800 as:

...the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.²²

Once the APE was defined, FRA then identified historic properties within it. Historic properties are defined as cultural resources included in or eligible for inclusion in the National Register of Historic Places (NRHP) and are classified as buildings, structures, sites, objects and historic districts.²³ As discussed below, this was done in consultation with the SHPO and Consulting Parties.

²² 36 CFR § 800.16.

²³ 36 CFR § 800.16

FRA then conducted an assessment of effects to evaluate the various Project Action Alternatives' potential to cause adverse effects to historic properties within the APE. Effects of the Project Action Alternatives were assessed in comparison to existing conditions by applying the criteria of adverse effect to historic properties.²⁴ According to the regulations, "an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register."²⁵

An assessment of effect results in either a "no historic properties affected", "no adverse effect", or "adverse effect" finding for each historic property. Any finding of adverse effect requires continued consultation with the DC SHPO and other Consulting Parties to discuss ways to avoid, minimize, or mitigate the effects to historic properties focusing on those effects that would alter the characteristics that qualify the property for inclusion in the NRHP.²⁶ Since FRA has determined that all Action Alternatives would result in adverse effects to the REA Building, WUS, and WUS Historic Site, and have the potential to adversely affect the Capitol Hill Historic District, such consultation will result in the development of a Programmatic Agreement (PA), which will capture the outcomes of and processes on how to resolve adverse effects, including the consideration of avoidance and minimization measures. Consistent with 36 C.F.R. § 800.14(b)(1)(ii), a PA is appropriate because it is not possible to fully determine how the undertaking may affect historic properties prior to approval given the current level of design for the Project, and the PA will govern continued Section 106 consultation as the implementation of the Project advances.

Following the Final EIS and a Record of Decision (and subject to funding), the Proponents would further develop the Project design, considering the form, materials, architectural features, and connections (visual and physical) to surrounding development. FRA anticipates the PA will outline coordinated design review in consultation with the Consulting Parties in the context of Federal and District of Columbia regulations and guidelines.

2.3 Summary of Section 106 Consultation

FRA initiated the Section 106 process for the Project on November 23, 2015 in a letter to the DC SHPO and held the first Consulting Parties Meeting to introduce the Project on March 28, 2016. At the second Consulting Parties meeting on May 9, 2016, FRA identified a Proposed Section 106 Study Area, which provided a basis for establishing the APE through consultation while the Project's preliminary concepts were developed, screened, and refined into Preliminary Alternatives. FRA prepared a detailed report that described the methodology and consultation process to identify the

²⁴ 36 CFR § 800.5.

²⁵ 36 CFR § 800.5.

²⁶ A list of all Consulting Parties is included in Appendix D1a.

APE and historic properties for the Project (see *Area of Potential Effects and Identification of Historic Properties* final report included in Appendix D1a). This section summarizes that report. Of particular importance was a visual survey conducted to identify and describe views to and from the Project Area, axial views along the streets of the L'Enfant and McMillan Plans, and views to and from historic properties and public spaces. This survey identified the limits from which the Project area may be visible and provided a basis for determining the APE.

FRA presented the preliminary Project concepts at the third Consulting Parties meeting on October 6, 2016. At this meeting, FRA again presented the proposed APE along with information about the known historic properties within the area. FRA requested feedback from the Consulting Parties on the proposed APE and identification of historic properties. In February and March 2017, five Consulting Parties, including the DC SHPO, provided comments (see comments from the Consulting Parties in Appendix D1a). Notably, several Consulting Parties expressed concern that the proposed APE did not extend far enough to adequately take into account the potential indirect effects from the Project's proposed new facilities or potential increases in traffic. Additional comments from the DC SHPO addressed the identification of historic properties and noted additional properties that were potentially eligible for the NRHP and DC Inventory of Historic Sites (DC Inventory). FRA considered all comments received while developing the APE once the preliminary alternatives were identified in the *Concept Screening Report* published July 31, 2017.²⁸

A draft *Area of Potential Effects and Identification of Historic Properties Report* was prepared for Consulting Parties on August 8, 2017, and the findings were discussed at the fourth Consulting Parties meeting on September 7, 2017. FRA requested final comments on the draft APE and identification of historic properties by September 27, 2017. No revisions to the APE or additional historic properties were identified by DC SHPO or the Consulting Parties during the September 7th meeting or during the comment period. The DC SHPO concurred with FRA's APE and identification of historic properties in a letter dated September 29, 2017 (see Appendix D1a). With DC SHPO concurrence, FRA provided the final *Area of Potential Effects and Identification of Historic Properties Report* to Consulting Parties on December 18, 2017. **Table 1** summarizes the Section 106 process to determine the APE and identify historic properties.

²⁸ "Washington Union Station Expansion Project Concept Screening Report." https://www.usrcdc.com/wp-content/uploads/2017/02/fra_wus_concept_screening_report_july2017.pdf (accessed September 18, 2018).

Table 1. Section 106 Consultation Summary of Initiation, Definition of APE and Identification of Historic Properties

Section 106 Process Stage	Date	Action
Initiate the Process	November 23, 2015	FRA initiated the Section 106 process with DC SHPO
	March 1, 2016	FRA sent invitations to Consulting Parties
	March 28, 2106	1 st Consulting Parties Meeting: Introduced the Project
Define the APE and Identify Historic Properties	May 9, 2016	2 nd Consulting Parties Meeting: Discussed Proposed Section 106 Study Area
	October 6, 2016	3 rd Consulting Parties Meeting: Presented preliminary concepts, the proposed APE, and initial identification of historic properties
	February – March 2017	FRA requested final comments on the proposed APE and identification of historic properties
	August 2017	FRA provided draft <i>APE and Identification of Historic Properties Report</i> for Consulting Party review; FRA made Concept Screening Report available for public review
	September 7, 2017	4 th Consulting Parties Meeting: Presented Preliminary Alternatives; discussed draft <i>APE and Identification of Historic Properties Report</i>
	September 29, 2017	FRA received DC SHPO concurrence on APE and identification of historic properties
	November 6, 2017	FRA issued Final APE and Identification of Historic Properties Report to the Consulting Parties

2.3.1 Area of Potential Effects

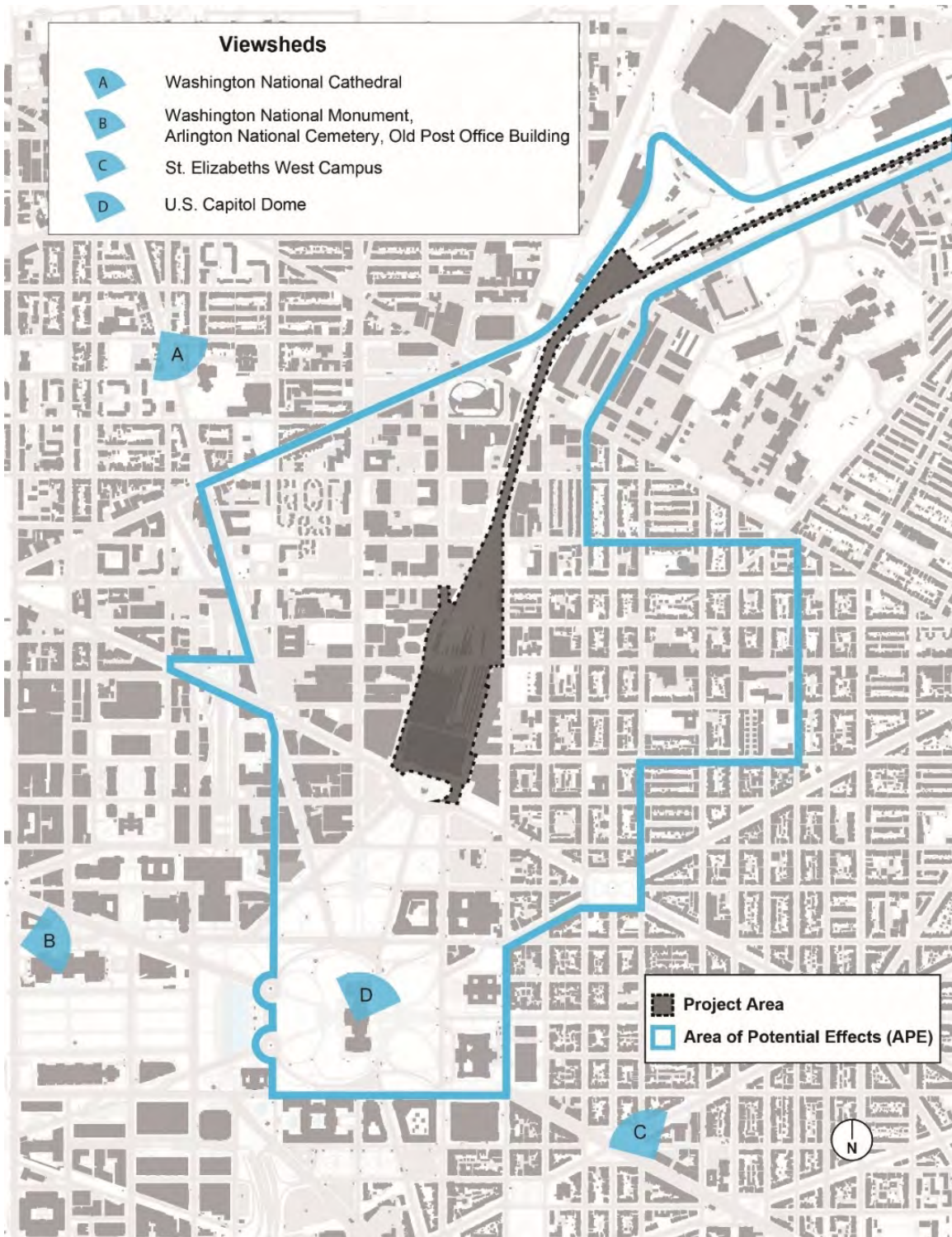
The APE encompasses and extends beyond the immediate Project Area (or the geographical area of the physical project). The APE is bounded by Independence Avenue to the south; First Street and New Jersey Avenue to the west; and New York Avenue, the Eckington Rail Yard, and Ivy City Rail Yard tracks to the north. The eastern boundary is less regular due to the varying degree to which the Project may result in visual, noise and vibration, and traffic-related effects along the east-west running streets. Beginning southwest of its intersection with Fenwick Street NE, the boundary follows New York Avenue to the southwest, turning south onto Fourth Street NE until L Street NE, where it veers east. The boundary runs east along L Street NE to Tenth Street NE where it turns south. From Tenth Street, the boundary turns west onto F Street NE, and turns south again at Sixth Street NE to the southern edge of Stanton Park at C Street NE.

The boundary follows Maryland Avenue NE to Second Street NE until it reaches Independence Avenue SE. (See Figure 3.)

At the request of the Consulting Parties, six culturally significant viewsheds, including views from the Washington National Cathedral, Washington Monument, Old Post Office Building, Arlington National Cemetery, U.S. Capitol Dome, and St. Elizabeths West Campus, are also considered part of the APE. The viewsheds, though discontinuous with the rest of the APE, represent culturally significant topographic high points and/or are noted in the Federal Urban Design Element of the *Comprehensive Plan for the District of Columbia*.²⁹ Visual effects of the Project from these viewsheds were assessed as part of the Section 106 process, and a visual assessment and a determination of effect for each viewshed is included in this report.

²⁹ National Capital Planning Commission. 2016. *The Comprehensive Plan for the National Capital: Federal Elements*. Accessed at <https://www.ncpc.gov/plans/compplan/>. Accessed on July 12, 2018.

Figure 3. WUS Expansion Project Area of Potential Effects



2.3.2 Identification of Historic Properties

Historic properties within the Project APE include historic districts, buildings, sites, structures, and objects listed in or eligible for listing in the NRHP.³⁰ Eligible properties include those formally determined as such in accordance with the regulations of the Secretary of the Interior, as well as all other properties that meet the NRHP criteria. For sites to be listed or considered eligible for listing in the NRHP, they must meet one or more of the four Criteria for Evaluation:

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

In consultation with the DC SHPO and other Consulting Parties, FRA determined that all properties listed in or potentially eligible for listing in the DC Inventory of Historic Sites (DC Inventory); monuments and memorials under the purview of the National Park Service (NPS) National Mall and Memorial Parks; and the Architect of the Capitol's (AOC) List of Heritage Assets are also considered historic properties subject to Section 106 and, therefore, are assessed in the Section 106 process for this Project.

Properties listed in the DC Inventory may be submitted to and are considered eligible for listing in the NRHP. Certain properties were recommended by the DC SHPO as being potentially eligible for the DC Inventory and the NRHP. Additionally, areas administered by the NPS may be determined to be of historic significance, as stated in regulations pertaining to the NRHP (36 CFR 60).³¹ Therefore, the properties that are administered by the NPS as part of National Mall and Memorial Parks, even those that may lack an individual NRHP designation, are considered historic properties. Finally, although regulations set forth in the NHPA do not apply to the United States Capitol and its related buildings and grounds, the AOC maintains a List of Heritage

³⁰ 36 CFR § 800.16.

³¹ 36 CFR § 60.1

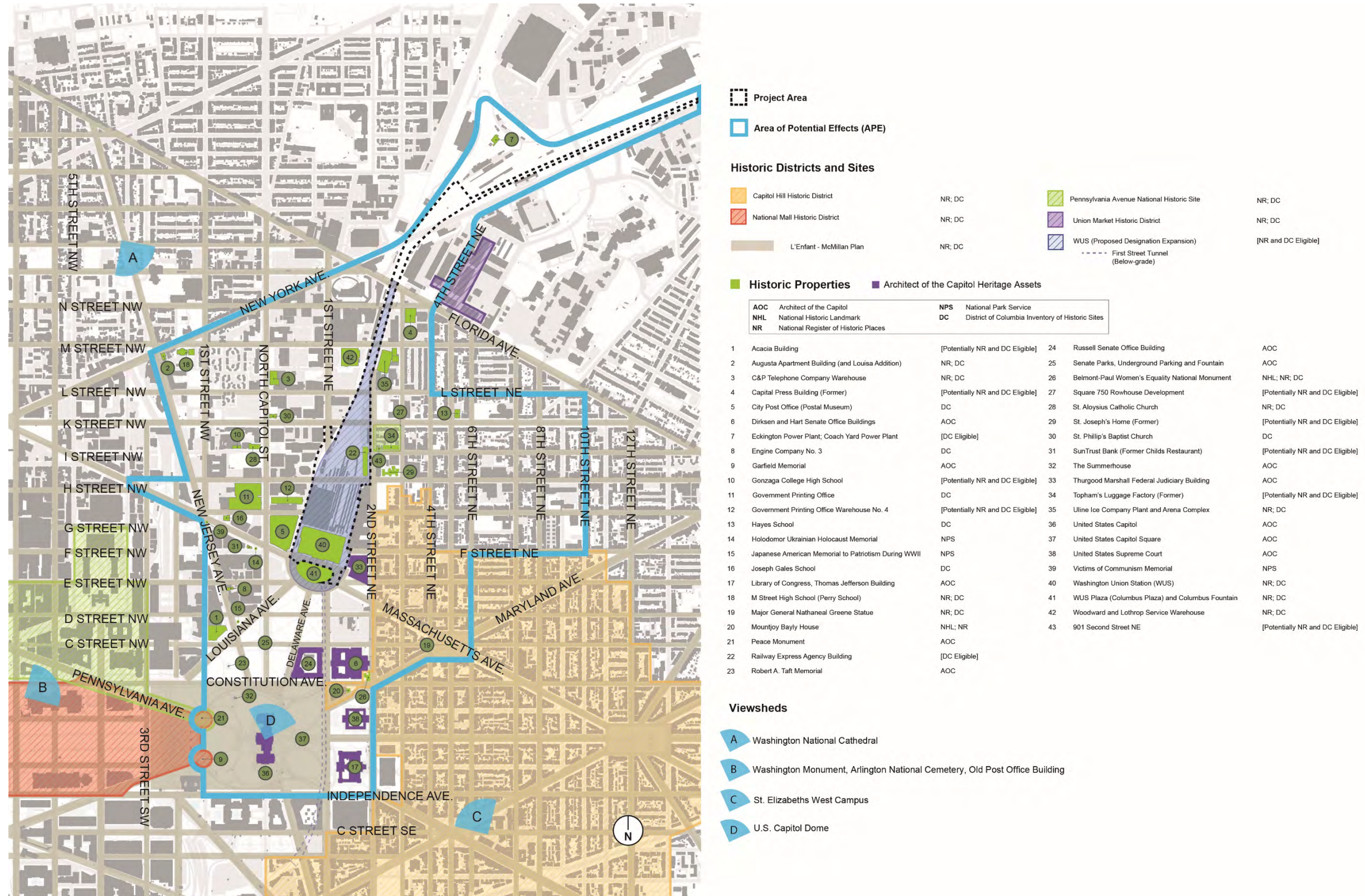
Assets and there is precedent set by the National Park Service for considering effects to AOC properties when completing the Section 106 process.³²

In total, 49 historic properties were identified and are included in the determination of effect analysis, comprising 43 individual properties and six historic districts or historic sites (**Figure 4**).

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³² Such was the case for the Environmental Impact Statement and Section 106 process for the National Mall Plan.

Figure 4. Area of Potential Effects and Identified Historic Properties



The potential for significant archaeological resources that would qualify as historic properties subject to Section 106 was also identified within the APE. The WUS Expansion Project has the potential to affect archaeological resources within the Project Area where all ground disturbing activities would occur. Such activity would mostly occur within the Terminal Rail Yard, a contributing element to the WUS Historic Site. An Archaeological Assessment was completed in 2015 as a part of the HPP.³³ The Archaeological Assessment concluded that the Project Area and Terminal Rail Yard is likely to contain a range of prehistoric and historic archaeological materials, from isolated artifacts to significant cultural features. Archaeological resources (including artifacts and archaeological features) likely include remnants of the Swampoodle neighborhood, a residential and commercial area that developed in the mid-to-late 19th century that was made up of mainly Irish and Italian immigrants and African Americans.

According to the 2015 Archaeological Assessment, the area with the greatest potential for the presence of significant archaeological resources is in the rail terminal south of L Street, NE and beneath Columbus Plaza (area “B” in **Figure 5**). Fill deposited on top of these areas to raise the grade has buried pre-1903 cultural resources, suggesting an increased likelihood of preservation. The ground below the WUS headhouse, original passenger concourse (existing retail and ticketing concourse), and garage (area “A” in **Figure 5**) is unlikely to contain significant archaeological remains since such features would have been removed in the subsurface excavations for the buildings’ foundations. An exception to this understanding was the discovery of a brick masonry sewer catch basin and two terracotta pipes during a 2015 project to stabilize the WUS subbasement.³⁴ Near term Amtrak and USRC projects requiring ground disturbance within the rail right-of-way, including the Sub-basement Track-bed Replacement Project (listed as part of the No-Action Alternative), will help inform the extent of existing archaeological resources in area “A.”

Areas that have been regraded and leveled, such as the rail terminal between L Street NE and New York Avenue NE, are unlikely to contain significant archaeological remains. Areas “C” and “E” in **Figure 5**, between L Street NE and New York Avenue NE, have low archaeological potential. Area “D” also has low archaeological potential except for the remains of the 18th century Casanovia farmhouse. Artifacts, likely associated with the Casanovia farmhouse, were discovered during the NoMa-Gallaudet Metrorail Station’s construction. All areas north of New York Avenue NE were not surveyed for archaeological potential.

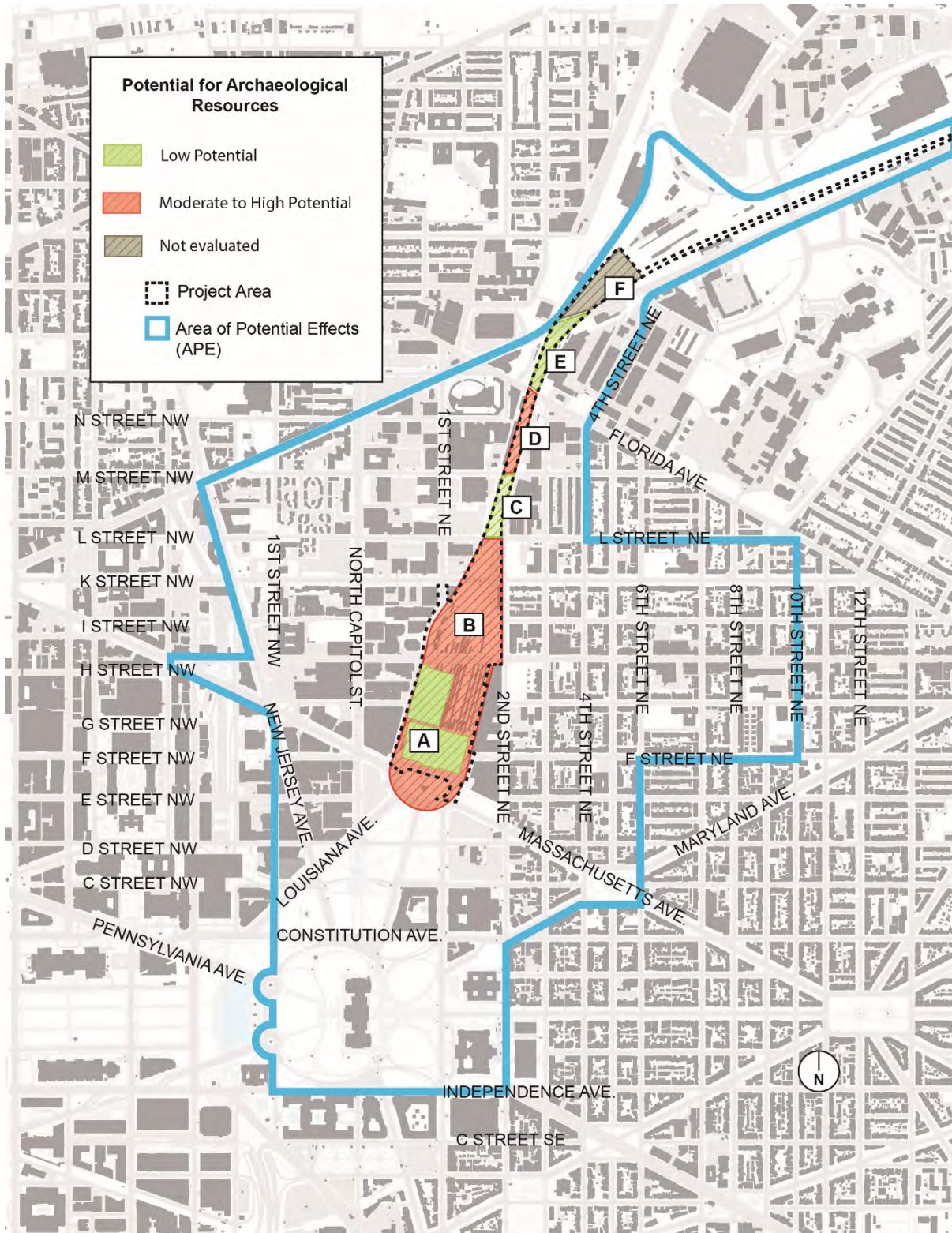
³³ Karell Archaeological Services, “Archaeological Assessment for the Washington Union Station” (2015) in Washington Union Station Historic Preservation Plan, Archaeological Assessment of Washington Union Station, E-125.

³⁴ Karell Archaeological Services, “Union Station Archaeological Feature 1,” *DC Preservation Office Determination of Eligibility Form* (2015).

FRA anticipates that, through further consultation with the Consulting Parties, the development of the PA will address the identification and evaluation of archaeological resources as well as strategies for avoiding, minimizing, and mitigating potential effects. Archaeological monitoring and treatment plans may be considered to establish procedures for the discovery of archaeological resources and standards for their documentation and treatment.

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Figure 5. Potential for Archaeological Resources within the Project Area



2.3.3 Assessment and Resolution of Effects

Now that the Section 106 process was initiated, the APE was determined, and historic properties were identified, the last two steps of the Section 106 process are to assess effects and resolve effects. This AOE Report serves as the culmination of the assessment step, formally documenting the findings of effect so that consultation can continue to resolve any adverse effects. As described in Section 2.2 *Section 106 Process*, resolution of adverse effects will continue through the development of a PA. **Table 2** summarizes the assessment and resolution steps and the anticipated timeframes of future Section 106 actions.

Table 2. *Section 106 Consultation Summary for the Assessment and Resolution of Effects*

Section 106 Process Stage	Date	Action
Assess Effects	April 24, 2018	FRA held the 5 th Consulting Parties Meeting: Shared Project Alternatives; reviewed the methodology for assessing effects
	Summer 2018	FRA assessed effects of the Project Alternatives to the historic properties within the APE
	March and April 2019	March 29, 2019: FRA shared draft AOE Report with Consulting Parties
		April 30, 2019: FRA held the 6 th Consulting Parties Meeting: Answered questions regarding findings of effect in AOE Report; solicited input on Section 106 Programmatic Agreement (PA) content and structure
	November 19, 2019	FRA held the 7 th Consulting Parties Meeting to share a new Project Alternative (Alternative A-C) with the Consulting Parties and discuss an additional project scope element – the removal of columns within the First Street Tunnel
	Fall/Winter 2019	FRA continued to assess the effects of the Project Alternatives (including Alternative A-C) to historic properties within the APE
	Spring 2020*	FRA will issue a revised draft AOE Report to the Consulting Parties and will hold a series of two meetings: the first to inform the review of the AOE Report, especially as concerns how the traffic analysis completed for the DEIS was used to assess effects to historic properties; and the second to discuss the revised draft AOE Report. The Consulting Parties will be able to comment on the Action Alternatives and discuss

	Spring 2020* continued	ways to avoid, minimize, and mitigate effects to historic properties
Resolve Adverse Effects through the Development of a PA	Summer 2020*	FRA will continue consultation on ways to avoid, minimize, or mitigate adverse effects to historic properties
	Fall 2020*	FRA will hold a Consulting Parties Meeting(s) to discuss resolution of adverse effects and draft a PA
	Fall 2020 through Project Construction*	Terms of the PA will be implemented, and FRA will resolve adverse effects

* Dates of future actions in **Table 2** are subject to change

FRA and the Project Proponents will release the DEIS concurrent with the draft AOE Report. After the notice of availability, a forty-five-day review and comment period will begin in which FRA and the Project Proponents will hold a Public Hearing for the public to provide comments on the DEIS and the draft AOE report, which is included as an appendix in the DEIS. Consulting Parties will have the ability to comment during the Public Hearing and during the Consulting Parties meetings on the Action Alternatives, the findings of this draft AOE report, and ways to avoid, minimize, and mitigate effects to historic properties. Comments will be addressed as the DEIS is revised to the Final Environmental Impact Statement (FEIS) and the draft AOE is revised to the Final AOE and included in the FEIS along with the PA and ROD.

3 Methodology

This AOE Report assesses the effects of all Action Alternatives in comparison to existing conditions (with a 2017 baseline) by applying the criteria of adverse effect, identified in 36 CFR 800.5, to each of the 49 historic properties identified within the APE.

The direct and indirect effects caused by each Action Alternative are considered pursuant to 36 CFR 800.5(a). Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.³⁵ For a determination of adverse effect to be made, the effect must be found to alter, directly or indirectly, any of the property’s characteristics that qualify it 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 The aspects of integrity are critical to defining a

³⁵ 36 CFR § 800.5(a)(1)

³⁶ Ibid.

property's significance under the NRHP Criteria for Evaluation. The criteria of adverse effect and descriptions of the aspects of integrity are provided below.

Criteria of Adverse Effect

Examples of adverse effects are identified in 36 CFR 800.5(a)(2) and include, but are not limited to:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (36 CFR Part 68) and applicable guidelines;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

Aspects of Integrity

The seven aspects of integrity, as defined by the National Register Bulletin *How to Apply the National Register Criteria for Evaluation*, are as follows.³⁷

1. **Location:** Place where the historic property was constructed or the place where the historic event occurred.
2. **Design:** Combination of elements that create the form, plan, space, structure, and style of a property.

³⁷ National Park Service. "National Register Bulletin: How to Apply the National Register Criteria for Evaluation." Accessed at <https://www.nps.gov/nr/publications/bulletins/nrb15/>. Accessed on June 1, 2018.

3. **Setting:** The physical environment of a historic property. Whereas location refers to the specific place where a property was built or an event occurred, setting refers to the character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its relationship to surrounding features and open space.
4. **Materials:** The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
5. **Workmanship:** The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. It is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site.
6. **Feeling:** A property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character.
7. **Association:** The direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer.

Determination of Effect

To determine Project effects, architectural historians meeting the Secretary of Interior's *Professional Qualification Standards* conducted site visits and reviewed existing documentation on the historic background and significance of each historic property.³⁸ With an understanding of each property's significance, characteristics, and aspects of integrity, the criteria of effect (as described above) are applied in the AOE Report. Understanding the NRHP criteria for which a historic property is significant is especially relevant when determining whether the integrity of a property would be affected by the undertaking. As stated by the National Park Service, each type of historic property depends on certain aspects of integrity, more than others, to express historic significance. For example, for properties significant under NRHP criteria C, the retention of design, workmanship, and materials may be more important than location, setting, feeling, and association. However, properties significant under NRHP criterion A and B ideally would retain some features of all seven aspects of integrity.³⁹ After understanding the significance and the aspects of integrity that express significance, the effects are evaluated and a finding of “no

³⁸ Department of the Interior. *Secretary of the Interior's Standards and Guidelines, Professional Qualifications Standards*. Accessed at https://www.nps.gov/history/local-law/arch_stnds_9.htm. Accessed on June 15, 2018.

³⁹ National Park Service. “National Register Bulletin: How to Apply the National Register Criteria for Evaluation.” Accessed at <https://www.nps.gov/nr/publications/bulletins/nrb15/>. Accessed on June 1, 2018.

effect,” “no adverse effect,” or “adverse effect” is found for each historic property in response to each Project Alternative:

- **No Historic Properties Affected/No Effect:** A finding of “no historic properties affected” per 36 CFR 800.4(d)(1), or “no effect” for purposes of this AOE Report, signifies that the Project would not affect the property, whether from direct, indirect, or cumulative effects.
- **No Adverse Effect:** A finding of “no adverse effect” per 36 CFR 800.5(b) signifies that any effect(s) would not alter a characteristic of a property that qualifies it for inclusion in the National Register in a manner that would diminish the integrity of the property.
- **Adverse Effect:** A finding of “adverse effect” per 36 CFR 800.5(a)(1) signifies that an effect(s) would alter any characteristic of a property that qualifies it for inclusion in the National Register in a manner that would diminish the integrity of the property.

Direct and indirect effects to each historic property are assessed and described for all Project Alternatives. When assessing direct effects, “direct” refers to the causality, not the physicality, of the effect. For example, if the effect comes from the undertaking at the same time and place with no intervening cause, it is considered to be a “direct” effect. “Indirect effects” are those caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable.⁴⁰ Each property is evaluated using project plans, site survey, visual analysis, noise and vibration analysis, and transportation analysis undertaken to inform the Project’s DEIS.

The effects to historic properties from traffic, which generates increases in noise and vibration, are of concern to all Consulting Parties. FRA considered effects from vehicular traffic predominantly through traffic characteristics of noise and vibration. However, FRA recognized that the physical and visual effects from increased traffic along with potential queuing, conflicts with pedestrians and bicyclists, and disturbances impacting access to properties may also affect the character and integrity of historic properties. FRA used the transportation analysis conducted for the DEIS to assess the potential for increased traffic to affect historic properties.

Effects resulting from physical changes, visual changes, and increases in noise and/or vibration and traffic may not cause adverse effects when considered individually but may cumulatively diminish a historic property’s character-defining features and/or aspects of integrity. The methodologies used to assess physical, visual, and noise and vibration effects, which were

⁴⁰ Clarification on the terms “direct” and “indirect” as relates to Section 106 and NEPA, was made in March 2019 by the D.C. circuit court when the court issued an opinion in *National Parks Conservation Association v. Semonite*: USCA Case #18-5179, D.C. Cir. Mar. 1, 2019.

presented at the Project's fifth Consulting Parties Meeting on April 24, 2018, are described below. Cumulative effects that may result from the Project are assessed and summarized for each Action Alternative in the report below.

3.1 Physical Effects

Physical effects may include alteration, damage, or removal of a historic property. Section 106 implementing regulations (36 CFR Part 800.5) specifically note such physical effects as destruction or damage to all or part of a property; alteration, including restoration, rehabilitation, repair, maintenance, stabilization, etc. not in keeping with the Secretary of the Interior's Standards; and the removal of the property from its historic location.

Physical effects primarily affect historic properties within or directly adjacent to the Project Area, and include ground disturbance, grading, demolition, removal, physical damage, alteration, preservation, restoration, rehabilitation, and reconstruction. The Project Alternatives were reviewed and evaluated to determine their physical implications, considering areas of construction and construction implementation such as staging and deliveries. Physical effects were assessed against the seven aspects of integrity, which convey a property's significance. If physical effects were determined to impact a historic property's physical structure and integrity from which the significance of the property is derived—especially its integrity of location, design, workmanship, and materials—a finding of adverse effect was made.

3.2 Visual Effects

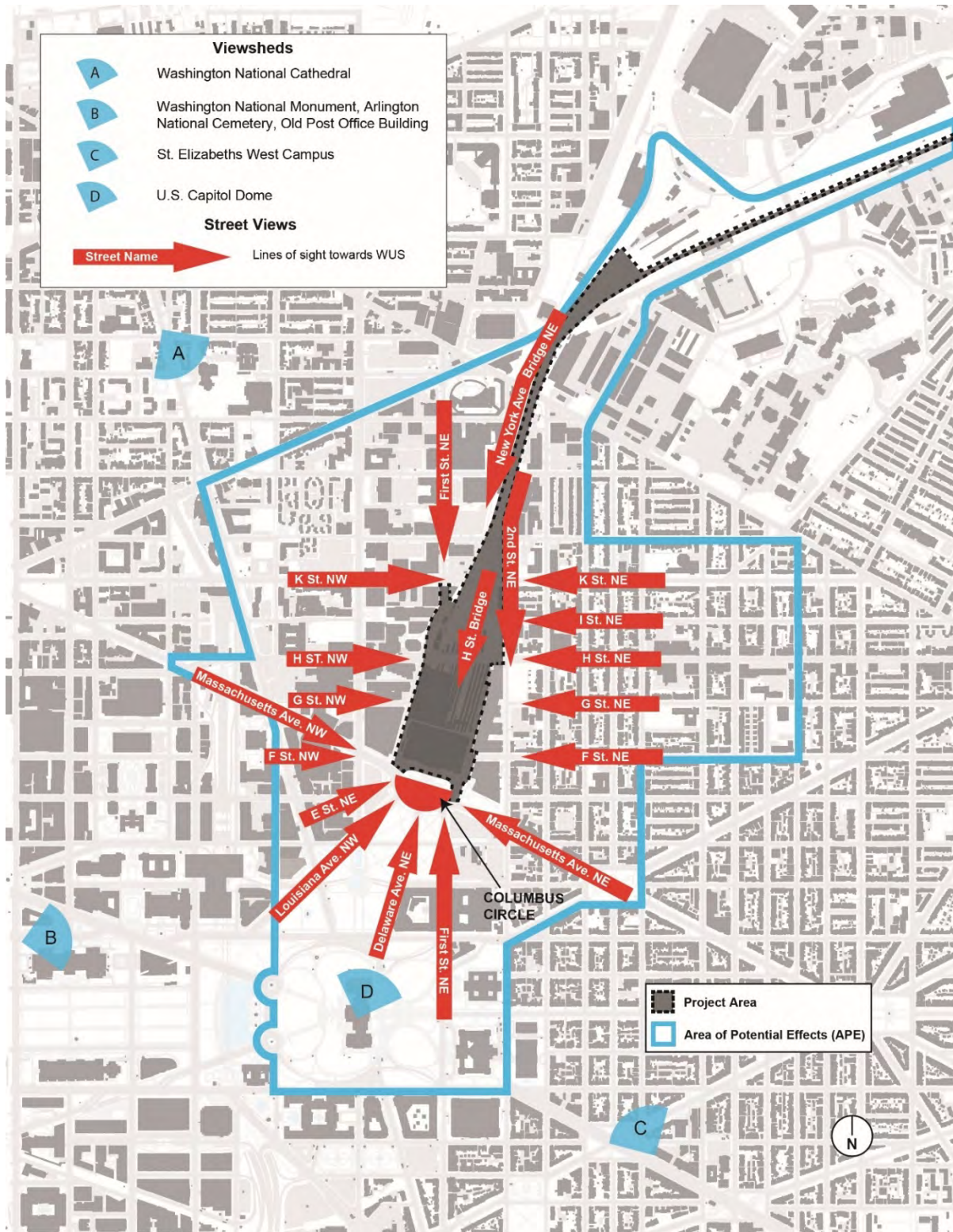
Visual effects may result from the introduction of visible elements that diminish a historic property's significance by affecting character-defining features and diminishing the property's integrity of setting, feeling, and/or association. Direct visual effects are defined as the result of the undertaking, and include visual changes resulting from the Project. Indirect visual effects are defined as those caused by the undertaking that are later in time or farther removed in distance but are still reasonably foreseeable. Indirect visual effects include effects of the potential Federal air-rights development. The indirect visual effects of the potential Federal air-rights development were assessed based on the maximum allowed buildable volume consistent with the USN zoning allowances.

To assess where the Project may cause visual effects, a visual survey was conducted throughout the APE to identify and describe views to and from the Project Area, axial views along the streets of the L'Enfant and McMillan Plans, and views to and from historic properties and public spaces. In addition to the significant viewsheds included in the APE from Arlington National Cemetery, the Old Post Office Building, the Washington Monument, the Capitol, the

Washington National Cathedral, and St. Elizabeths West Campus, the visual survey identified street views towards WUS from Columbus Plaza and the radial streets including Louisiana Avenue NW, Delaware Avenue NE, and First Street NE. Additional views towards the Project Area were identified along Massachusetts Avenue; E, F, G, H, and K Streets; New York Avenue NE; and Second Street NE (**see Figure 6**). The historic properties that have direct views of the Project Area were identified. In many cases the properties share the same or similar axial views with the viewsheds identified above.

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Figure 6. Street views and significant viewsheds identified during the visual survey of the APE



To assist in the assessment of visual effects to historic properties, visual simulations were developed by superimposing the Project Alternatives onto existing condition photographs using 3D modeling and post-production techniques. A 3D model of Union Station, rail terminal, Columbus Plaza, and the surrounding neighborhoods was created by compiling data from laser scans, topographic surveys, and Geographic Information System (GIS) information provided by the DC Office of the Chief Technology Officer. The visual simulations are included in Section 6 *Assessment of Effects* of this report. The Station Expansion Project components of each Alternative are modeled in blue while the potential Federal air-rights development (maximum allowed buildable volume) is modeled in green in each perspective view.

To determine whether visual effects would affect the significance and integrity of a historic property and result in a finding of adverse effect, FRA used and adapted similar methodologies from the assessment of visual impacts in the DEIS.⁴¹ Visual impacts in the DEIS (called aesthetic and visual quality impacts) are traditionally determined based on the **compatibility** and **sensitivity** of a project, which together define the **degree of impact**:

- **Compatibility** is defined as the ability of environment to visually absorb the proposed project and is influenced by both the visibility and design of the Project.
 - Visibility refers to how well the visual change would be seen (typically determined by the overall massing).
 - The design of the Project includes elements such as shape, materials, texture, and color.
- **Sensitivity** is defined as the ability of the viewer to see and care about a project's visual impacts and is dependent on the visual qualities of the existing surrounding environment.
- Together, compatibility and sensitivity yield the **degree of impact**.

Because the design of the Project and potential Federal air-rights development are not fully known at this time, compatibility could not be fully assessed. Therefore, to assess the visual effects of the Project only the “visibility” and “sensitivity” of the Project – as shown in the visual simulations – were considered. Therefore, without knowing the full design of the Project, the degree of impact of the visual effects are described as “potential” in this AOE Report.⁴² The

⁴¹ To refer to the assessment of visual impacts in the DEIS, refer to Chapter 5, Section 11 *Aesthetics and Visual Quality*.

⁴² Because the Section 106 process informs only a conceptual level of design, it is anticipated that the Project PA will outline a design review process to be followed as the project design advances to address the avoidance,

visibility and sensitivity of each Action Alternative in the visual simulations were evaluated and given a rating of low, moderate, or high impact to determine the potential intensity of the visual effect.

Table 3 shows how the visibility and sensitivity ratings were used to assess visual impacts for the DEIS and how the DEIS determination was used as a guide for making a Section 106 effects determination. In instances where the visibility and/or sensitivity of the Project would result in a potential moderate or major visual impact, it was determined that the visual effects of the Project could potentially affect a historic property’s integrity or significance and therefore result in a potential adverse effect. In these cases, an additional assessment was made to ascertain whether the visual change would affect the significance of the historic property and whether the property’s integrity of setting, feeling, or association would be diminished. In instances where a visual effect was determined to impact a historic property’s integrity from which the significance of the property is derived —especially its integrity of setting, feeling, and/or association—a finding of adverse effect was made.

Table 3. Intensity of Potential Visual Effects

Visibility	Sensitivity	Potential Intensity of Visual Impact (DEIS)	Section 106 Determination (Guide Only)
None	None	None	No Effect
Low	Low	Negligible	No Adverse Effect
Low	High	Minor	No Adverse Effect
Low	Moderate	Minor	No Adverse Effect
High	Low	Minor	No Adverse Effect
Moderate	Low	Minor	No Adverse Effect
High	Moderate	Moderate	No Adverse Effect/ Potential Adverse Effect
Moderate	Moderate	Moderate	No Adverse Effect/ Potential Adverse Effect
Moderate	High	Moderate	No Adverse Effect/ Potential Adverse Effect
High	High	Major	Potential Adverse Effect

3.3 Noise and Vibration Effects

Noise is defined as unwanted or undesirable sound and is evaluated based on its potential to cause human annoyance. Vibration is defined as the oscillatory motion of the ground, which

minimization, and/or mitigation of adverse visual effects to historic properties. This process will be established through continued consultation with the Consulting Parties and will be cognizant of and adhere to Federal and District of Columbia regulations and guidelines.

may be perceptible and disturb people or sensitive activities in nearby buildings. Noise and vibration may affect historic properties directly or indirectly. In some cases, Project-related vibrations may cause direct physical damage and result in structural problems or loss of material. More commonly, noise and vibration may indirectly affect the integrity of a property's setting or feeling. For example, Project construction and operation may cause or heighten noise and vibration. Project-related vehicular traffic and rail operations, both from Project construction and operation, may also result in indirect noise and vibration effects. Such impacts from noise and vibration to historic properties were assessed based on the findings of the noise and vibration analysis presented in Chapter 5, Section 10 *Noise and Vibration* of the DEIS report. A full explanation of the Noise and Vibration methodology and analysis is presented there.

In order to consider noise and vibration effects to historic properties, historic properties located within the operational and construction noise and vibration study areas were identified.⁴³ Operational and construction noise was predicted using methods consistent with those described in Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment*, the Federal Highway Administration's (FHWA) *Traffic Noise Model*, and the FHWA *Roadway Construction Noise Model*. Since the Study Area is dense, urban, and includes features affecting sound propagation, such as large intervening buildings, retained fill sections, and roadway underpasses, the Cadna-A sound prediction software was used to implement the FTA and FHWA noise methods. Noise effects within the study areas were categorized in the DEIS as no impact, moderate impact, or severe impact, based on prescribed FTA thresholds. A severe impact means that a significant percentage of people would likely be highly annoyed by a project's noise due to the noise exposure increase. A moderate impact would be noticeable to most people but may not be sufficient to generate strong, adverse reactions. Operational and construction vibration was predicted using methods described in the FTA's *Noise and Vibration Impact Assessment*. Vibration effects within the study areas were assessed for potential impact according to FTA criteria for potential human annoyance and/or increased risk of structural damage.

FRA identified historic properties that could experience noise and vibration levels above the FTA thresholds and evaluated the effects this would have on the integrity of those properties. If FRA determined moderate to severe noise and/or vibration effect would impact a historic

⁴³ Two noise and vibration study areas were identified: one to assess noise and vibration during Project operation, and the other to assess noise and vibration during Project construction. The study areas encompass the physical limits of the Project Area as well as locations where substantial noise and vibration effects from train and traffic sources may occur. The operational and construction noise and vibration study areas do not coincide with the APE boundaries.

property's integrity from which the significance of the property is derived —especially its integrity of setting, feeling, and/or association—a finding of adverse effect was made.

3.4 Other Effects Generated by Traffic

In addition to noise and vibration effects from vehicular traffic, increases in traffic volumes along nearby streets may cause visual effects, conflicts with pedestrians and bicyclists, and disturbances impacting access to properties. This can potentially affect a historic property's integrity of setting, feeling, and/or association. Such impacts from traffic were assessed based on the findings of the traffic impact analysis presented in Chapter 5, Section 5 *Transportation* of the DEIS. FRA identified historic properties located near thoroughfares that would be impacted by traffic according to the DEIS analysis. A qualitative assessment of the potential for changes in traffic volumes to impact the existing nature of a property's setting was made. If FRA determined that the change in setting from increased traffic volumes would diminish a historic property's integrity from which the significance of the property is derived —especially its integrity of setting, feeling, and/or association—a finding of adverse effect was made.

In general, urban resources and resources with periods of significance later than the generalization of motor vehicle travel may be assumed to be less sensitive to such impacts than rural resources or resources pre-dating the widespread use of the automobile. In urban settings, such as the District of Columbia, resources originally designed for institutional, commercial, and industrial uses, or those within long-established commercial, industrial, and high-density areas can be assumed to be less sensitive than resources originally intended for residential, cultural, or recreational uses, or resources located in residential or low-density neighborhoods.

4 Consulting Party Involvement in the Project Alternative Development Process

An integral aspect of Project Development has been avoiding or minimizing impacts to the historic station building and adjacent historic properties. Preserving the historic station building and maintaining it as the primary monumental entrance to WUS was identified as a key program element and component of the Project Purpose and Need and was heavily considered in the Concept Screening and Alternatives Development Process.

FRA developed the Project Alternatives in close coordination with the Project Proponents and Cooperating Agencies, and through consultation with the DC SHPO and Consulting Parties over a 19-month period. FRA conducted a thorough concept development, screening, and

refinement process—fully detailed in the Concept Screening Report.⁴⁴ That process allowed Consulting Parties, other interested agencies, and the public an opportunity to provide comments that FRA considered as the preliminary concepts were developed and refined to become preliminary alternatives and then the Project Alternatives. Additionally, through the Section 106 process, FRA sought and considered the views of the Consulting Parties and the public in the evaluation and review of the Project and the effects of the Project Alternatives on historic properties. The chronology and detail of past Consulting Party involvement through the Section 106 Process is provided in Tables 1 and 2 in Section 2.3 *Summary of Section 106 Consultation*. FRA will continue to involve Consulting Parties in Section 106 consultation with the review of this AOE report (especially Section 6 *Assessment of Effects*). Consultation will continue through the conclusion of the Section 106 process and implementation of the Section 106 agreement. The following paragraphs and tables summarize the Consulting Parties involvement to date to develop the Project Alternatives.

All preliminary concepts for the Project supported the continued preservation of the station, and the screening process for the preliminary concepts included preservation related criteria. FRA established 10 screening criteria, each with delineated sub-criteria, to assess the degree to which each concept met the Project Purpose and Need. Criteria related to the preservation of the station were distributed across several categories and are documented in **Table 4** below:

Table 4. *Preservation-related screening criteria used in concept screening*⁴⁵

<i>Preservation Related Screening Criteria</i>	<i>Sub-Criteria</i>	<i>Relevance to Section 106</i>
Support continued preservation and use of the historic station building	<ul style="list-style-type: none"> • Visual relationship between the expansion and the historic station building • Alteration of the historic station building • Impact on important viewsheds • Impact on L’Enfant and McMillan Plan Streets • Urban design context of overbuild (parking/bus facilities) • Impacts on nearby historic properties 	Potential effects to WUS and other identified historic properties

⁴⁴ The Concept Screening Report is available as Appendix A4 in the DEIS.

⁴⁵ *Screening criteria is fully explained in the Concept Screening Report “WUS Concept Screening Report,”* U.S. Department of Transportation Federal Railroad Administration, July 2017, https://www.usrcdc.com/wp-content/uploads/2017/02/fra_wus_concept_screening_report_july2017.pdf.

	<ul style="list-style-type: none"> Alterations or use of Columbus Plaza 	
Sustain the station's economic viability	<ul style="list-style-type: none"> Space available for retail to increase USRC revenue stream to support maintaining the historic building 	Potential effects to WUS
Enhance integration with the adjacent neighborhoods, businesses, and planned land uses	<ul style="list-style-type: none"> Integration with adjacent neighborhoods and businesses outside of the rail terminal footprint 	Potential effects to the Capitol Hill Historic District and other identified historic properties
Meet operational needs of multimodal facilities and minimize impact on roadways	<ul style="list-style-type: none"> Cumulative impacts of location of new vehicular access points for parking, buses, and taxi/ride-for-hire vehicles relative to the local street system 	Potential effects to WUS and other identified historic properties
Improve internal circulation	<ul style="list-style-type: none"> Improved passenger navigation Reduced or eliminated congestion points Provide ingress and egress for all modes or connections, including bicycle and pedestrian, to meet current and future demand 	Potential effects to WUS and other identified historic properties

FRA presented the preliminary concepts and results of the initial screening of the concepts to the Consulting Parties at the third Consulting Parties meeting on October 6, 2016, and to the public at a Public Meeting on October 19, 2016. As a result of the Consulting Parties meeting, where FRA also presented the proposed APE and the initial identification of historic properties, the Consulting Parties provided comments regarding passenger experience and circulation within the station and expressed concern over the size of the bus program, which was generally seen to be too large. Consulting Party comments, combined with those received from the Cooperating Agencies and the general public, raised several historic preservation-related program and design concerns including: the treatment of the historic station; consideration for the repurposing of the original passenger concourse; reinstating the ends of the original passenger concourse; enhancing passenger circulation through the historic station; and certain Project elements outside the rail terminal footprint. **Table 5** summarizes how historic preservation-related comments on the preliminary concepts were considered by FRA and the Project Proponents to further refine the concepts and develop the preliminary alternatives.

Refer to Chapter 3 *Alternatives* of the DEIS for a full explanation of comments and considerations.

Table 5. *Historic preservation-related comments regarding the preliminary concepts that led to the identification of the preliminary alternatives in August 2017*

Comment	FRA Response/Consideration	Result
<p>Request that the original passenger concourse be repurposed and that the concourse ends, which were demolished in the 1970s, be reinstated</p>	<p>FRA considered the request and determined that it was not feasible given the needs of the existing and future transport operations and services.</p> <p>Repurposing the original passenger concourse would affect the retail uses that fund the preservation, maintenance, and operation of WUS.</p> <p>The original passenger concourse was not designed to accommodate passenger flows for the range of multimodal activity prescribed and would not have sufficient space to meet the expected increase in passenger rail service at WUS.</p> <p>Reinstating the ends of the original passenger concourse would eliminate the east parking ramp which is critical to promote intermodal travel at the WUS, provide sufficient emergency egress, and minimize traffic impacts on surrounding neighborhoods, including the Capitol Hill Historic District.</p> <p>The east wing could not be reconstructed due to the proximity of the Securities and Exchange Commission Building. Since it is not feasible to fully restore the east wing and extend the ends, the full historical extent cannot be achieved.</p>	<p>Such design considerations were not carried through to the development and identification of the Preliminary Alternatives.</p>
<p>Concern over the passenger experience and that pedestrian circulation is not impacted and is enhanced throughout the station</p>	<p>The experience of all passengers is extremely important and goes hand in hand with the preserving the historic station building and maintaining the historic headhouse as the primary entrance to WUS.</p>	<p>Passenger experience and circulation were considered in the development and identification of the Preliminary Alternatives.</p>
<p>Concern over the size of the bus program</p>	<p>FRA and the Project Proponents further explored the size of the bus program, reviewing current and future bus demand at WUS using data from Amtrak and Union Station Parking Garage, LLC (USPG), which operates the existing parking garage on behalf of USRC. FRA and the Project Proponents determined that active management would allow a reduced program of approximately 25 slips, from what had been</p>	<p>FRA and the Project Proponents adjusted the retained concepts to reflect a reduced bus program.</p>

	between 34 and 48 slips, to adequately meet 2040 bus demand at WUS.	
Request to identify alternative parking locations and place project elements outside the rail terminal footprint, including below Columbus Plaza	FRA and the Project Proponents identified and considered nine potentially suitable off-site locations (based on their current functions or uses) for the bus and parking elements. The nine locations included two Architect of the Capitol (AOC) parking lots; Columbus Plaza and Circle (underground); Postal Square Building; U.S. Government Publishing Office (GPO) Warehouse #4; lot at First and L Streets NE, south side; lot at First and L Streets NE, north side; lot at North Capitol Street and K Street; and GPO parking lot. Review indicated that none of these locations was a reasonable option for siting bus and parking elements due to various reasons including, inability of the site to meet the Project's Purpose and Need, infeasible access to belowground locations, and the requirements of some sites to be transferred and receive Congressional approval. Refer to Chapter 3. <i>Alternatives</i> of the DEIS for a full explanation.	FRA and the Project Proponents retained concepts to reflect a bus and parking program located within the rail terminal footprint.
Request to consider bus facility access via New York Avenue to minimize traffic along H Street	FRA and the Project Proponents considered bus access by a viaduct connecting the Project to New York Avenue. It was determined that such a proposal would not be feasible from an engineering perspective because it would require placing columns to support the viaduct along the existing rail line. The construction of a viaduct would detract visually from and create impacts to adjacent properties, including historic properties which may be adversely affected as a result. Some buses serving WUS do not head north and therefore would not make use of this approach, so an alternative route would still be required for those buses.	Because this option is not be feasible, FRA did not investigate this option further.

Over the next ten months, FRA and the Project Proponents continued concept screening and refinement, retaining four preliminary concepts which were identified as the preliminary alternatives in August 2017. FRA presented these preliminary alternatives to Consulting Parties at the fourth Consulting Parties Meeting on September 7, 2017. At the meeting, FRA explained the program and design considerations that were made to the preliminary concepts to develop the preliminary alternatives and invited Consulting Party comments at the meeting and for a three-week comment period following the meeting.

FRA considered comments from Consulting Parties as FRA and the Project Proponents further refined the preliminary alternatives between September 2017 and February 2018. Comments from the fourth Consulting Parties Meeting, and those solicited earlier by email correspondence from the Consulting Parties between February and March of 2017 regarding the proposed APE

and identification of historic properties (refer to **Table 1** in this report), were noted and considered during the alternatives refinement process. They are summarized in **Table 6**.

Table 6. *Historic preservation-related comments that contributed to the alternative’s refinement process, which occurred from September 2017 to February 2018 and resulted in the identification of the Project Alternatives*

Comment	FRA Response/Consideration	Result
<p>Concern over the passenger experience and circulation throughout the expansion and historic station</p>	<p>FRA and the Project Proponents investigated three aspects of the Project related to passenger experience including: the air conditioning strategy in the concourses and train hall; pedestrian flow within the station; and passenger boarding and ticketing control strategies.</p> <p>FRA and the Project Proponents considered solutions that would improve the passenger experience and connection between the east-west train hall and H Street NE and provide light to the Central Concourse.</p> <p>Passenger experience and circulation within the historic station continued to be considered.</p> <p>Refer to Chapter 3. <i>Alternatives</i> of the DEIS for a full explanation.</p>	<p>Passenger experience and circulation was considered during the alternative’s refinement process.</p>
<p>Request that the H Street Tunnel be reopened to vehicular traffic</p>	<p>FRA and the Project Proponents determined that it would be impractical and infeasible to use the H Street underpass for vehicular traffic because pedestrian concourses must run below the tracks due to the air-rights development and H Street Bridge above. If the tunnel was used for vehicular traffic, it would not be possible to also provide the necessary pedestrian concourses in that space. Therefore, the tunnel would need to be repurposed and used as pedestrian concourse space to link First and Second Streets NE, allow access to the train platforms, and move people throughout the station.</p>	<p>FRA did not investigate this option further.</p>
<p>Concern over traffic and congestion surrounding the station, particularly in Columbus Circle, the surrounding residential streets, K Street, and H Street</p>	<p>FRA and the Project Proponents developed approaches to facilitate traffic operations on H Street and K Street and coordinated this effort with the District Department of Transportation (DDOT).</p> <p>FRA and the Project Proponents investigated different circulation options for multimodal circulation on H Street and parking facility access from the K Street underpass.</p> <p>FRA and the Project Proponents also developed proposed improvements to the six Columbus Circle lanes in front of</p>	<p>Traffic congestion and multimodal access to the Project from H Street, K Street, and Columbus Circle was considered during the alternative’s refinement process.</p>

	<p>WUS that would make pick-up and drop-off operations more efficient, including relocating hop-on/hop-off bus activity to G Street between North Capitol Street and First Street NE. Changes to the approach lanes on the east side and exit lanes on the west side would reduce congestion and queuing within Columbus Circle.</p> <p>Refer to Chapter 3. <i>Alternatives</i> of the DEIS for a full explanation.</p>	
<p>Concern over the duration of Project construction</p>	<p>Amtrak led the preparation of a detailed cost and constructability analysis in cooperation with USRC and FRA. Analysis of the construction process raised challenges about duration and cost of the preliminary alternatives. The extent of below-ground construction and the associated increases in cost and duration were identified and studied. To evaluate options that would limit below-ground parking and therefore reduce construction cost and duration, FRA and the Project Proponents refined several preliminary alternatives to move some of the below-ground parking to above-ground locations.</p> <p>Refer to Chapter 3. <i>Alternatives</i> of the DEIS for a full explanation.</p>	<p>Construction duration was considered during the alternative’s refinement process.</p>

As summarized in **Table 6**, FRA and the Project Proponents investigated several issues including cost and constructability; traffic operations and access points from H Street and K Street; roadway modifications to Columbus Circle; and passenger experience related to light, distance, air conditioning, pedestrian flow, and passenger boarding and ticketing control strategies. After FRA studied these considerations raised by the Consulting Parties and others, FRA refined the preliminary alternatives, and in February 2018 identified five Action Alternatives (Alternatives A through E) to be further evaluated through the NEPA and Section 106 processes.

FRA shared the Action Alternatives with the Cooperating Agencies and the public in March 2018, and later shared them with the Consulting Parties at the fifth Consulting Parties meeting on April 24, 2018. Following the Cooperating Agency and public meetings, FRA received a letter from the DC SHPO expressing concerns about potential adverse historic preservation and urban design effects from the provision of daylighting features above the off-centered Central Concourse, resulting in an asymmetrical development to the north of the station.⁴⁶ Additional comments from other Consulting Parties also raised concerns regarding the perceived height of Alternatives D and E and visual changes from all Alternatives that may impact the symmetry of the Beaux-Arts architecture of the station.

⁴⁶ Andrew Lewis, DC SHPO to Amanda Murphy, FRA, March 30, 2018.

FRA and the Project Proponents met with the DC SHPO and CFA on April 24, 2018 and August 21, 2018 to address the SHPOs concerns and avoid the impression of precluding appropriate design solutions to address symmetry behind the station. In response, FRA and the Project Proponents modified the way the Alternatives C, D, and E (those featuring an east-west train hall) were represented. Those Alternatives were revised to delineate “access zones” where daylighting features and visual connections to the station may be established. Daylighting features, which are required by the Project, would be established within the identified Daylight Access Zone, located above the Central Concourse. However, such features would only use a portion of that zone. The Alternatives were also revised to show a general location where the private air-rights developer could provide a visual connection from H Street to the new train hall and station within the Visual Access Zone, which may be centered on the historic station building.⁴⁷

Following these revisions, FRA continued to analyze the environmental impacts of the Project Alternatives under NEPA and conduct the constructability and cost analysis. In July 2019, after reviewing the major elements of each Action Alternative – and considering additional issues like the location of the intermodal uses relative to the historic station building and the quality of the urban setting at the deck level – the Project Proponents and FRA developed an additional Action Alternative, Alternative A-C. This alternative combines elements of Alternative A (bus facility and above-ground parking facility to the southwest of the H Street Bridge; no below-ground parking) and Alternative C (east-west train hall) to minimize the depth and complexity of construction, keep intermodal uses close to the main station, minimize operational traffic impacts on the H Street Bridge and public street network, make optimal use of the Federal air-rights, minimize impacts on the private air-rights, and enhance the urban setting at the deck level. FRA determined that Alternative A-C would address many comments provided by the Consulting Parties, Cooperating Agencies, and the public and meet the Project purpose and need. FRA retained Alternative A-C for analysis in the DEIS and Section 106 process along with Alternatives A through E.

5 Description of Alternatives

The six Action Alternatives and the No-Action Alternative that are assessed in this report are described below. All Alternatives, except the No-Action Alternative, were developed to provide the necessary infrastructure to meet the needs of future station operations, rail capacity, and

⁴⁷ The access zones are located within the private air-rights property. The access zones are not a part of the Federal Project, but the Project does not preclude them from being developed.

service demands. Descriptions of each alternative, describing each Project element in greater detail are provided in Chapter 3 *Alternatives* of the DEIS.

5.1 No-Action Alternative

The No-Action Alternative is the baseline condition of what may occur in the Project Area by 2040, even if the Project is not constructed. It recognizes increased passenger volumes and traffic on roadways adjacent to the Project Area due to anticipated growth in population and increased traffic based on forecasts from both the local Metropolitan Planning Organization and the Metropolitan Washington Council of Governments. The No-Action Alternative also recognizes there are other ongoing and planned WUS improvement and transportation projects within the Project Area that would occur. In addition to these projects, the No-Action Alternative includes a planned private air-rights development above the rail terminal, which would be undertaken by a private developer. Such projects have independent utility that could occur later in time without the Station Expansion Project. If these projects do not occur, it would not hinder the Station Expansion Project.

The No-Action Alternative includes consideration of the following projects:

- Near-term station projects conducted by USRC to enhance and preserve the station and bus/parking facility (Table 7);
- Near-term station and track improvements by Amtrak for maintaining a state of good repair condition, increasing passenger capacity, and improving circulation and safety (Table 7);
- A near-term planned project by VRE to expand their mid-day storage capacity in the Project Area near New York Avenue;
- Increased rail and bus ridership based on regional modeling performed for the NEC Future Final EIS (July 2017);
- Local transportation projects including the H Street Bridge replacement and the DC Streetcar extension by DDOT;
- The “Phase 0” improvements to the Union Station Metrorail station by the Washington Metropolitan Area Transit Authority (WMATA); and
- The private air-rights development project above WUS rail terminal.

**Table 7. Near-term Station and Track Improvements Included in the No-Action Alternative
(Based on 2017 Baseline for Existing Conditions)**

Station and Track Improvements	Description	Design Completion	Construction Completion Year(s)
General Garage Restoration	Ongoing structural repairs and maintenance to the mezzanine rental car level and levels 1-4 of the parking garage.	Ongoing	Ongoing
West End Mezzanine Patio	Creation of a new eatery patio seating area at mezzanine level above the Le Pain Quotidien space.	Complete	Complete
Relocate Heating Ventilation and Air Conditioning (HVAC) Unit	Decommission units in the train concourse mechanical rooms and install new units on the roof of the Claytor Concourse.	Complete	2018
Rehabilitate Track 22	Rehabilitate engine storage track to provide revenue service and improve operational flexibility.	Complete	2022
Original Concourse Ceiling Repair	Plaster repair to the original concourse ceiling damaged by the 2011 earthquake. Structurally reinforce the ceiling so it is seismically sound for the future.	Complete	Complete
Replace North Hangar Escalator	Replace six escalators connecting to the eastern run-through platforms.	Complete	2018
New Elevator Tracks 27-28	Install new ADA-compliant elevator.	Complete	2019
Electrify Tracks 8-9	Electrify tracks to enhance operational flexibility.	Complete	2019
Amtrak Police Relocation	Relocate personnel to REA Building and construct new one-story patrol facility.	Ongoing	2022
Relocate Satellite Commissary	Replace refrigerated storage area from under H Street Bridge.	Ongoing	2022
K Tower Improvements	Implement new train dispatch software and relocate Amtrak operational personnel to the REA Building.	Complete	2020

Concourse Modernization Project	Fully renovate the Claytor Concourse and North Hangar. Expand passenger areas and add a new Club Acela lounge.	Ongoing	To be Determined (TBD)
Sub-basement Track-bed Replacement	Repair track-bed support elements in the sub-basement.	2021	2025
Substation 25A Relocation	Relocate and replace substation; sectionalize overhead catenary to improve operational flexibility.	2021	TBD
Crew Base Renovation	Renovate and potentially expand the existing Transportation Building for operational functions.	2021	TBD
Retail Mezzanine Development	Reconfiguration of the Retail Concourse Mezzanine to create a more open layout and expose more historic fabric to the public than what currently exists.	TBD	TBD
Presidential Reception Room	Reconfiguration of the Presidential Reception Room's west wall to create a new entrance connection to the lobby area and East Hall. The new entrance would create a more direct connection to the lobby area and East Hall from the Presidential Reception Room.	TBD – DC SHPO approved	TBD

Private Air-Rights Development

As previously described in Section 1.2.1, Congress directed the General Services Administration (GSA) to sell, at auction, the Federally owned air-rights above the railroad infrastructure to the north of the historic station building for development purposes in 1997.⁴⁸ In 2002, a private developer won the public auction, completing the transaction in 2006. Through this transaction, the private developer acquired air rights for a 14-acre area starting 70 to 80 feet above a portion of the tracks and extending from north of the historic

⁴⁸ Public Law 105-33, such air-rights are now considered the private air-rights development

station to K Street NE, excluding the areas currently occupied by the Claytor Concourse, vehicular ramps, WUS's bus and parking facility, and the H Street Bridge.⁴⁹ A private mixed-use development project is predictable within the Project Area, in the immediate vicinity of WUS. The proposed private development would be constructed on decks that extend over the railroad terminal.

The District of Columbia Office of Planning subsequently developed the Union Station North (USN) Zoning District for the private air-rights.⁵⁰ This zone allows for mixed-use development and establishes maximum heights for buildings within the private air-rights development, which range from a maximum of 90 feet above the height of H Street Bridge toward WUS and a maximum of 130 feet in areas closer to H Street NE on the south side of the bridge, and all areas north of H Street NE.⁵¹ The USN Zoning also allows for 20-foot inhabitable penthouses with a minimum of a 20-foot setback on the primary elevations and a 10-foot setback on the secondary elevations. The private developer estimates that the private air-rights project would consist of over three million square feet of development that would include office space, residential units, hotel, and retail.⁵²

The private air-rights development project, including the underlying deck, is a separate project from the WUS Expansion Project. It has a separate, private sector proponent, is not subject to FRA approval, and is independent of the Project. Therefore, any potential effects associated with the private air-rights development are considered within the No-Action Alternative but are not evaluated in this Section 106 process.

5.1.1 No-Action Alternative Condition Summary

Pursuant to 36 CFR 800.3(a), Section 106 assesses effects caused by an undertaking. In the No-Action Alternative, the Project would not occur, and FRA would not have an undertaking subject to Section 106. Therefore, in the No-Action Alternative there would be no effects to historic properties as a result of an FRA action, or lack thereof. Should any of the projects considered in the No-Action Alternative be subject to a separate federal license, approval, permit, or financial assistance, a separate Section 106 process would be conducted by the federal agency issuing that license, approval, permit or funding.

⁴⁹ Referred to as "private air-rights" in this document. The owner is generally referred to as "the private developer." The private developer is currently Akridge.

⁵⁰ DC Office of Zoning, "Union Station North", available from <http://handbook.dcoz.dc.gov/zones/special-purpose-zones/union-station-north/usn/> (accessed December 7, 2017).

⁵¹ DC Municipal Regulations, Title 11 Zoning Regulations, Chapter 11-29 Union Station North, Section 11-2905 Height.

⁵² Burnham Place at Union Station. Accessed from www.burnhamplace.com. Accessed on May 18, 2016.

The No-Action Alternative is a required component of an EIS and is not typically addressed in the Section 106 process. However, the Project Area is anticipated to experience dynamic change by 2040 and the projects considered in the No-Action Alternative would potentially affect the context and environment in which the Project's Action Alternatives would occur. Therefore, a discussion of the No-Action Alternative is included in this AOE Report to better inform the understanding of effects the Action Alternatives may have on historic properties under Section 106.

The text below provides brief discussions of the potential physical, visual, noise and vibration, and traffic changes that would occur within the APE if the predicted increase in WUS passenger volumes and traffic on roadways, as well as the projects identified in Table 5, were to occur. For a full description and NEPA analysis of the No-Action Alternative and impacts to cultural resources please consult Chapter 5, Section 11 *Cultural Resources* of the DEIS.

Physical Changes

The No-Action Alternative would likely result in physical changes to WUS and the WUS Historic Site. Implementation of proposed station improvement projects that are part of the No-Action Alternative would likely result in physical changes to WUS, including:

- Replacement of the existing structural components of the sub-basement
- Renovation of the East Hall and the Retail and Ticketing Concourse (original passenger concourse)
- Columbus Club Renovation to create a two-story event space and eliminate existing retail space on the first floor of the East Hall
- Reconfiguration of the original passenger concourse's retail mezzanine to create a more open layout and expose more historic fabric to the public
- Lighting redesign of the original passenger concourse to create even lighting and highlight the historic character of the space
- Reconfiguration of the Presidential Reception Room to create a new entrance connection to the lobby area and the East Hall.

The No-Action Alternative would also likely cause physical changes to the WUS Historic Site. Near-term station and track improvement projects, including the relocation of Substation 25A, a contributing resource to the rail terminal dating to the electrification of the rail terminal in the 1930s; the replacement of the First Street Tunnel track bed located above the subbasement; and various smaller projects within the headhouse, would result in physical changes to the Terminal Rail Yard and the station headhouse. The private air-rights

development would cause the greatest physical changes to the Terminal Rail Yard compared with the other projects included in the No-Action Alternative. While the No-Action Alternative would not initiate the reconstruction of the rail terminal, physical changes would likely result from the construction of the footings and decking needed to build the private air-rights development. Areas that would experience ground disturbance within the Terminal Rail Yard may also potentially physically disturb archaeological resources, if present.

Visual Changes

The No-Action Alternative would result in visual changes to the Project Area. The development of the private air-rights above the WUS rail yard southeast and north of H Street NE, including the construction of a deck and several building blocks over the rail yard would likely change the visual character of WUS, the WUS Historic Site, and the REA Building.

The open nature of the rail yard north of the WUS headhouse, as well as the direct visual connection between the resources within the WUS Historic Site, would be affected by the No-Action Alternative. Additionally, the private air-rights development would change the visual environment of the REA building because the eastern portion of the private air-rights deck and development would rise behind the building, disrupting its visual connection to the rail terminal. The No-Action Alternative would also likely change the character of the views towards WUS, affecting the visual symmetry of the station's monumental Beaux Arts design due to the height of the private air-rights development. Such changes would be especially noticeable from Delaware Ave NE, First Street and C Street NE, and Louisiana Ave and D Street NW.

Visual changes resulting from the No-Action Alternative would also likely be visible from other historic properties as shown in the visual simulations included in Section 6.1 *Effects to Each Historic Property* (methodology described in Section 3.2 *Visual Effects*). Each simulation includes a visual representation of the No-Action Alternative, showing the private air-rights development (maximum allowed buildable volume) modeled in orange. Such simulations provide an understanding of the potential visual changes to historic properties that would result from the No-Action Alternative.

Changes in Noise and Vibration

Noise and vibration analysis conducted for the DEIS indicates that noise and vibration conditions from the operation of the No-Action Alternative would likely not affect historic properties. Noise and vibration effects from the construction of the No-Action Alternative cannot be adequately quantified because of the unknown construction timeframes, methods, and staging of the various projects considered in the No-Action Alternative. However, Chapter 5, Section 10 *Noise and Vibration* of the DEIS considers that the construction of projects under the No-Action Alternative would have similar, though lesser, effects than the Action

Alternatives. This is because there would be less excavation and less removal of excavation soils by truck, with very limited construction below the existing tracks and platforms. As such, noise and vibration effects from construction activities of the No-Action Alternative may cause changes (though likely to a lesser degree) to WUS, the WUS Historic Site, REA Building, and the Capitol Hill Historic District. Refer to the individual property determinations in Section 6.1 *Effects to Each Historic Property* for further information.

Changes in Traffic

The No-Action Alternative would likely experience increased traffic volumes from economic and demographic growth in the area, the development of the private air-rights above the rail terminal, and greater station activity. Chapter 5, Section 5 *Transportation* of the DEIS suggests that increases in operational traffic volumes would likely occur surrounding WUS, especially within Columbus Circle Drive, Massachusetts Avenue, North Capitol Street, and H Street NE (all principal or minor arterial streets intended to carry significant amounts of traffic). Such increases, however, would likely not substantively alter the busy, traffic-heavy urban setting of the Project area, with one potential exception: Capitol Hill Historic District.

The Capitol Hill Historic District is largely residential, with areas of commercial and light industrial activity. According to the transportation analysis provided in Chapter 5, Section 5 *Transportation* of the DEIS, two thoroughfares including Massachusetts Avenue, which runs through the historic district, and H Street, which runs close to the district's northern boundary, would see increased traffic in the No-Action Alternative. During peak hours, traffic on Second Street NE, between Massachusetts Avenue and H Street, would increase by approximately 12 percent (from approximately 1,400 trips to approximately 1,560 trips). Along F Street NE, east of Second Street, the number of peak hour trips would increase by approximately 13 percent (from around 550 trips to around 620 trips).

While increased traffic along these two thoroughfares may not necessarily alter the setting of the historic district, it is possible that increased congestion and delays at intersections on these main roadways may prompt drivers to seek alternative routes that would take them through the residential streets of the historic district, such as Third Street, Fifth Street, or G Street. It is not known whether this would happen and, if it did, how much the traffic volumes would increase along those residential streets because the modeling conducted for this DEIS, in coordination with the District Department of Transportation (DDOT), does not account for this type of reactive and discretionary behavior by drivers. As such, the changes in traffic associated with the No-Action Alternative, may result in visual changes, conflicts with pedestrians and bicyclists, and disturbances affecting access to properties within the Capitol Hill Historic District. However, such potential changes cannot be qualified or quantified at this time.

5.2 Action Alternatives

The following sections describe Action Alternatives A, B, C, D, E, and A-C. While each Action Alternative is unique, certain elements, namely the new tracks and platforms and rail support function, are common to all Alternatives and are collectively described below.

5.2.1 Elements Common to All Action Alternatives

New Tracks and Platforms /Rail Support Function

The new tracks and platforms are common to all Action Alternatives. The existing tracks would be replaced with 19 new tracks: 12 stub-end tracks on the west side and 7 run-through tracks on the east side. A Central Concourse would separate the stub-end tracks and platforms from the run-through tracks and platforms. The stub-end platforms would be at the same elevation as Concourse A, allowing direct access for passengers coming in through the southern end of the station. The run-through platforms would be at a lower elevation. Passengers would reach them via vertical circulation elements (such as stairs, escalators, or elevators). Vertical circulation elements in the middle of all the platforms would bring passengers down to the H Street Concourse. The track and platforms would be open on both the east and west sides of the rail terminal to let in light and air.

The run-through tracks pass through the First Street Tunnel underneath the east side of the historic station building as they converge toward the two-track portion of the tunnel via Interlocking A.⁵³ Construction of the proposed new tracks and platforms would require reconfiguring Interlocking A and realigning the tracks. To accomplish this, 18 of the 28 building-supporting columns that currently extend from the track bed to the floor of the historic Retail and Ticketing Concourse would have to be removed.

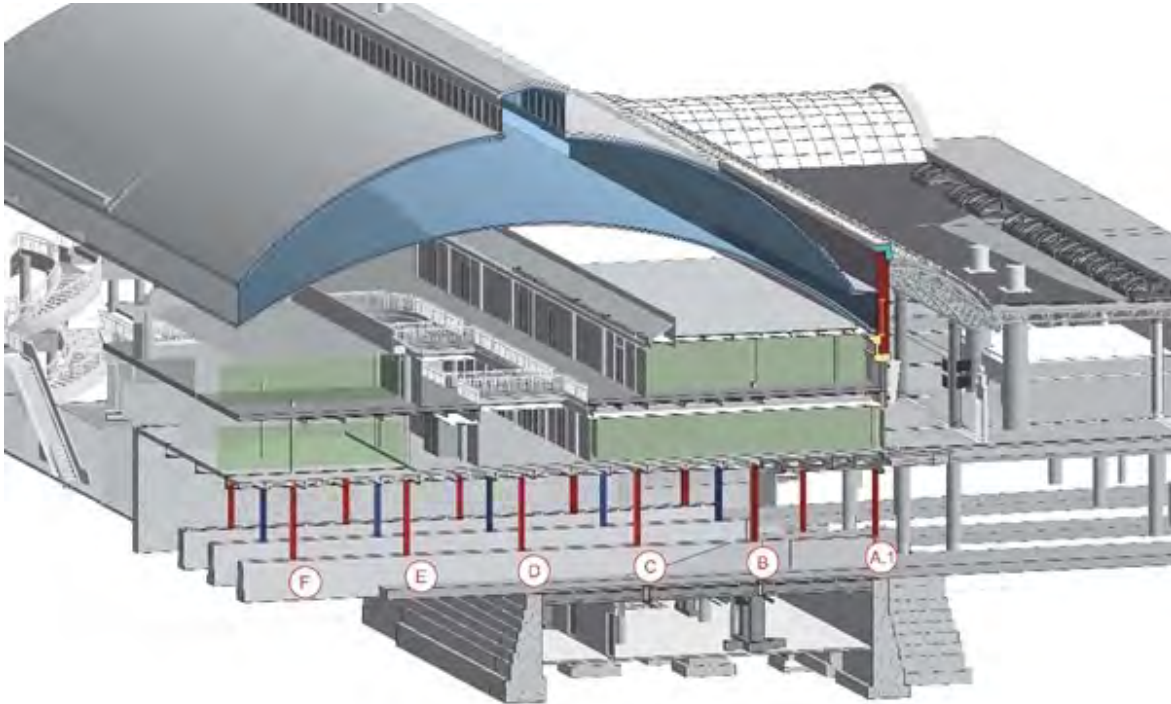
From north to south, the existing columns are arrayed in one east-west line of three columns (Column Line A.1) and five east-west lines of five columns (Column Lines B through F). The track bed in the portion of the tunnel between Columns Lines A.1 through D rests on a structure that spans a lower-level space – the Subbasement Area – presently housing electrical substations and utility conduits (see **Figure 7**).

Column removal would require installing temporary shoring towers and foundations; potentially demolishing and rebuilding the Retail and Ticketing Concourse floor; potentially demolishing the historic terracotta and concrete floor structure and installing new transfer girders; removing three of the five columns in Column Lines B through F; strengthening some of

⁵³ Interlocking systems consist of signals, switches, and sensors to safely merge or switch tracks. Interlocking A controls the switches at the point where the tracks serving the lower level WUS platforms feed into the First Street Tunnel.

the remaining ten columns; and replacing the three columns of Column Line A.1 with two new columns. Column Line A.1 supports the barrel vault roof of the Retail and Ticketing Concourse and the heaviest loads. Like the existing columns, the two new columns in Line A.1 would rest on the northern abutment of the Subbasement structure.

Figure 7. Model showing subbasement and columns lines A.1 through F. Columns to be removed are shown in red.



Source: Amtrak. May 10, 2019. Project Definition Report. Washington Union Station Subbasement Structural Replacement Project.

The construction of temporary shoring towers on Column Lines E and F, which are not above the Subbasement Area, would potentially require the installation of temporary foundations.⁵⁴ Column removal would also likely require replacing a portion of the First Street tunnel's existing east wall. In its current condition, this brick masonry wall may not be able to adequately support future transfer loads. In such case, the wall would be reconstructed as a concrete wall

⁵⁴ Some foundations may be permanent, which would be determined as the design for the column removal progresses.

(similar to the existing west tunnel wall) or steel support system with adequate load-bearing capacity.

All Action Alternatives would place most rail support spaces, primarily used by Amtrak to support rail operation, north of the H Street Concourse on the lower concourse level and just below the existing street grade. Rail support would have access to the tracks and platforms via dedicated service elevators without having to cross any tracks and with minimal disruption to passengers. This would also support more efficient train servicing and, therefore, shorter dwell times.⁵⁵ Amtrak would use these service elevators for train servicing, baggage movement to trains, and commissary support.

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⁵⁵ Dwell time is the time that trains sit at platforms during loading and unloading operations.

5.2.2 Alternative A

Alternative A (see Figure 8) includes the full reconstruction of tracks and platforms, column removal within the First Street Tunnel, and new concourses. Alternative A features a north-south oriented train hall between H Street NE and Concourse A, which runs east-west parallel to the historic station. The train hall would be approximately 180,000 square feet in size and cover portions of three centrally located platforms between H Street NE and the south ends of the tracks. New pedestrian entrances would be available at street level on First and Second Streets NE under the H Street Bridge, and at the train hall headhouse on the H Street Bridge.”. The bus facility would be beneath a new, above-ground parking facility in the southwest corner of the Project Area, approximately where the existing parking garage now stands. It would have two levels: a lower mezzanine level for passenger circulation and an upper level with a bus loop. The 26-slip bus facility would be approximately 105,400 square feet and the parking facility above it approximately 599,000 square feet. The parking facility would consist of six levels and accommodate approximately 1,750 cars. The portion of the Federally owned air-rights space not used for the new bus and parking facilities would be available for future transfer or lease by FRA and potential subsequent development.

Figure 8. Illustration of Alternative A

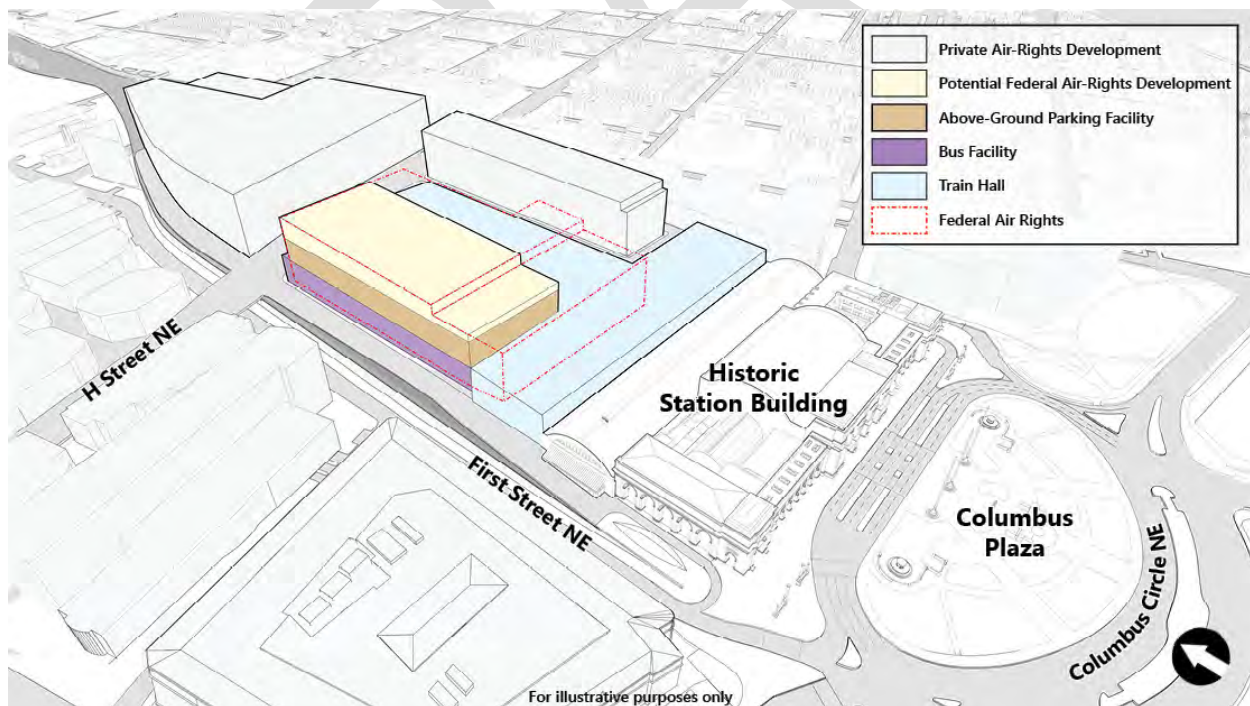


Figure 9. Section Illustration of Alternative A, looking north⁵⁶



5.2.3 Alternative B

Like Alternative A, Alternative B (see 10) includes the full reconstruction of tracks and platforms, column removal within the First Street Tunnel, and new concourses. Alternative B features a north-south oriented train hall between H Street NE and Concourse A, which runs east-west parallel to the historic station. The train hall would be approximately 180,000 square feet in size and cover portions of three centrally located platforms between H Street NE and the south ends of the tracks. New pedestrian entrances would be available at street level on First and Second Streets NE under the H Street Bridge, and at the train hall headhouse on the H Street Bridge. The bus facility would be in the southwest corner of the Project Area, approximately where the existing parking garage is located. The 26-slip bus facility would generally be the same as in Alternative A and would be approximately 105,400 square feet. Differing from Alternative A, parking in Alternative B would be on two below-ground levels between K Street NE and Concourse A and would accommodate approximately 2,000 cars. The portion of the Federally owned air-rights space not used for the bus facility would be available for future transfer or lease by FRA and potential subsequent development. The Federal air-rights not needed for the Project elements, including the train hall, bus facility and parking

⁵⁶ Color coding of the bus and parking facilities in the section illustrations matches color coding in the axonometric illustrations

facility, would be available for potential future transfer or lease by FRA and subsequent development

Figure 10. Illustration of Alternative B

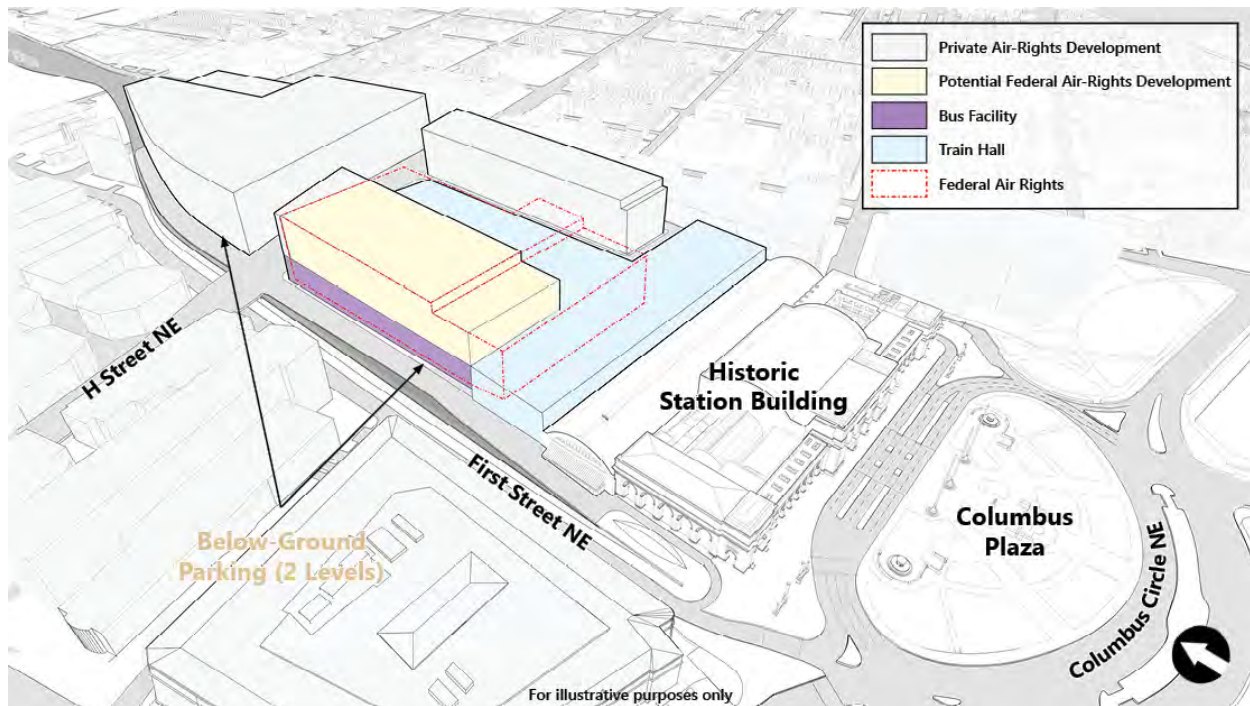


Figure 11. Section Illustration of Alternative B, looking north



5.2.4 Alternative C

Alternative C includes the full reconstruction of tracks and platforms, column removal within the First Street Tunnel, and new concourses. It features an east-west train hall encompassing Concourse A and a bus pick-up and drop-off area between the train hall and the historic station building. The train hall would be approximately 115,000 square feet and would cover the train engines and part of the first car on all tracks. The main bus facility would be north of H Street NE and vehicular parking would be both above the bus facility and below ground. Alternative C has two options—the East Option would place the bus facility and above-ground parking facility along the east side of the Project Area, while the West Option would place them along the west side of the Project Area. The Federal air-rights not needed for the Project elements, including the train hall, bus facility and parking facility, would be available for future transfer or lease by FRA and potential subsequent development. Alternative C would provide pedestrian access at street level on First and Second Streets NE, under the H Street Bridge, and via vertical circulation elements on both the north and south sides of the H Street Bridge. On the south side of the bridge, access would consist of an enclosed headhouse that could potentially be incorporated into the private air-rights development.

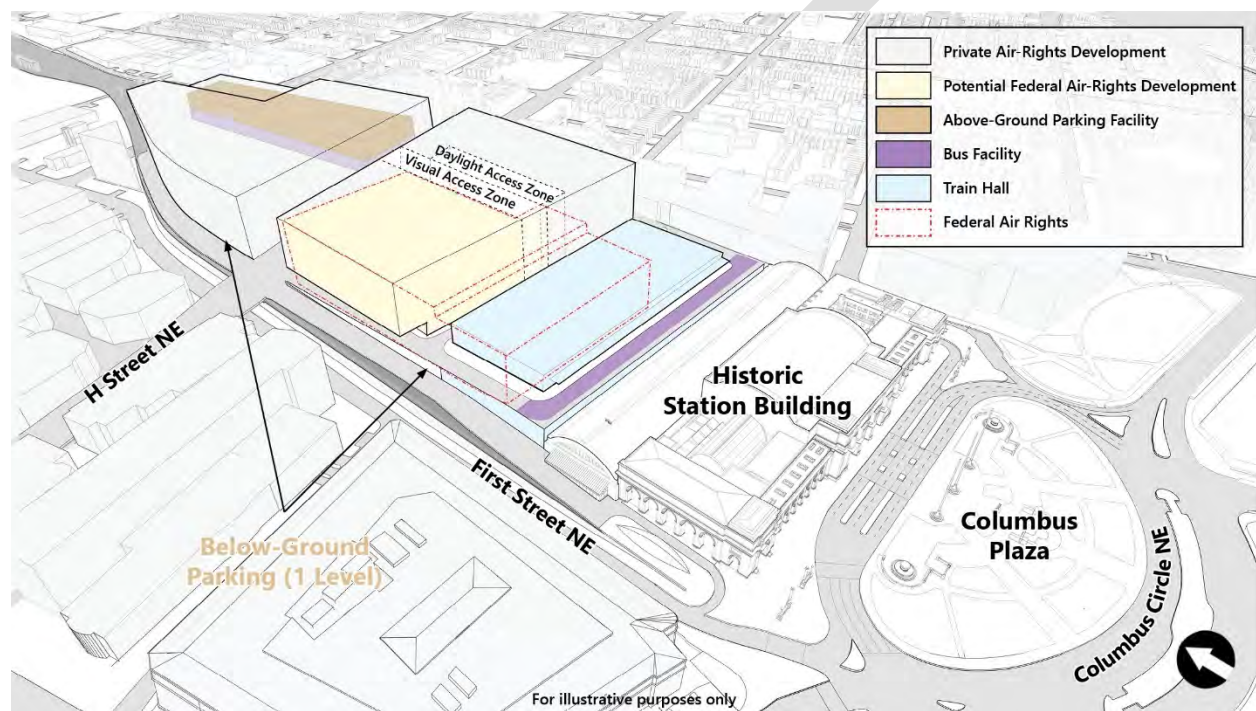
The Project requires that daylighting features, such as skylights, be provided for the central concourse for those alternatives with an east-west train hall. In a letter to FRA, DC SHPO expressed concerns about potential adverse historic preservation and urban design effects from the provision of daylighting features above the off-centered Central Concourse, resulting in an asymmetrical development to the north of the station.⁵⁷ To address this concern and avoid the impression of precluding appropriate design solutions that would respect the symmetry of the station, FRA and the Proponents delineated “access zones” for those alternatives. Daylighting features would be established within the identified Daylight Access Zone, located above the Central Concourse. However, such features would only use a portion of that zone. The Alternative also shows a general location where the private air-rights developer could provide a visual connection from H Street to the new train hall and station within the Visual Access Zone, which may be centered on the historic station building. The access zones in Alternative C are fully located within the private air-rights development and are not a part of the station Project, but the Project does not preclude them from being developed as part of the private air-rights development.

⁵⁷ Andrew Lewis, DC SHPO to Amanda Murphy, FRA, March 30, 2018.

Alternative C – East

In Alternative C – East (see **Figure 12**), a bus facility and parking facility would be located to the northeast of H Street NE. The bus facility would accommodate 17 slips below a parking facility accommodating approximately 750 parking spaces. A separate pick-up/drop-off area located between the train hall and Concourse A would accommodate additional buses. One level of additional parking would be provided below-ground, offering approximately 900 parking spaces for a total of 1,650 spaces.

Figure 12. Illustration of Alternative C – East



Alternative C – West

Alternative C – West (see Figure 13) is almost identical to the Alternative C – East; it differs only in the location of the bus facility and above-ground parking facility, which are located to the northwest of H Street NE and would accommodate 19 bus slips. The aboveground parking facility would accommodate approximately 710 vehicles and the belowground parking facility would accommodate approximately 900 vehicles for a total of 1,610 spaces.

Figure 13. Illustration of Alternative C – West

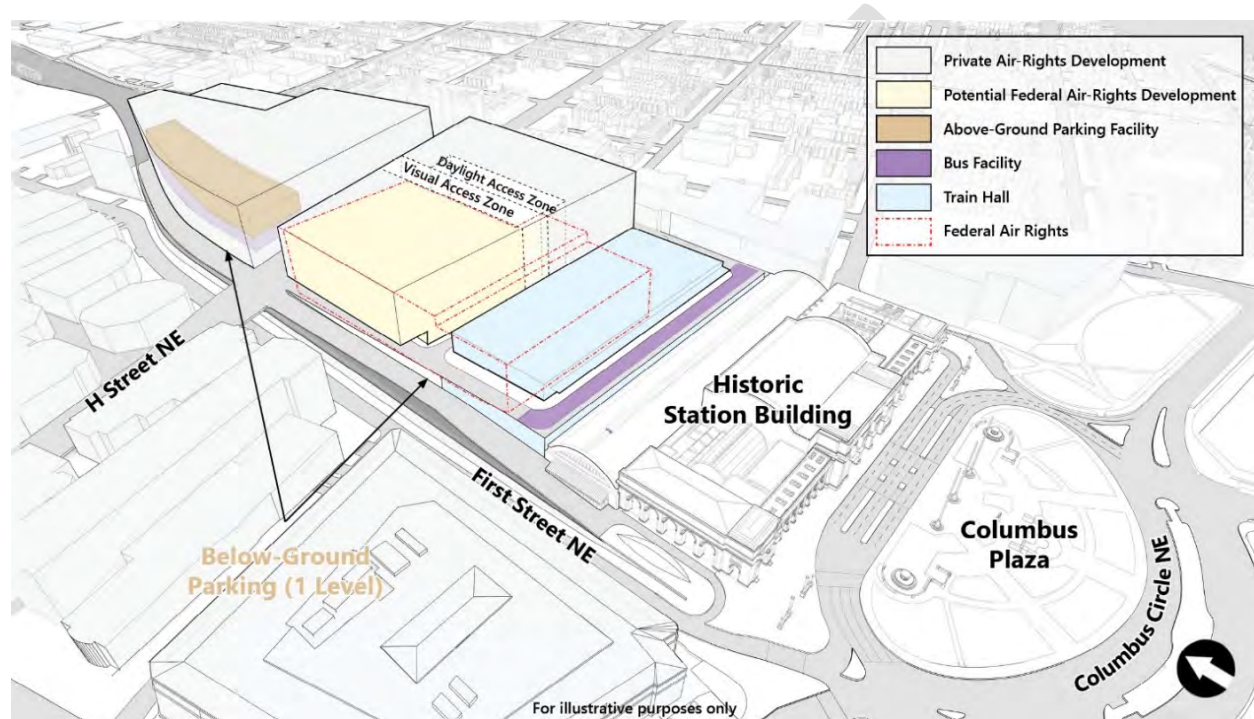
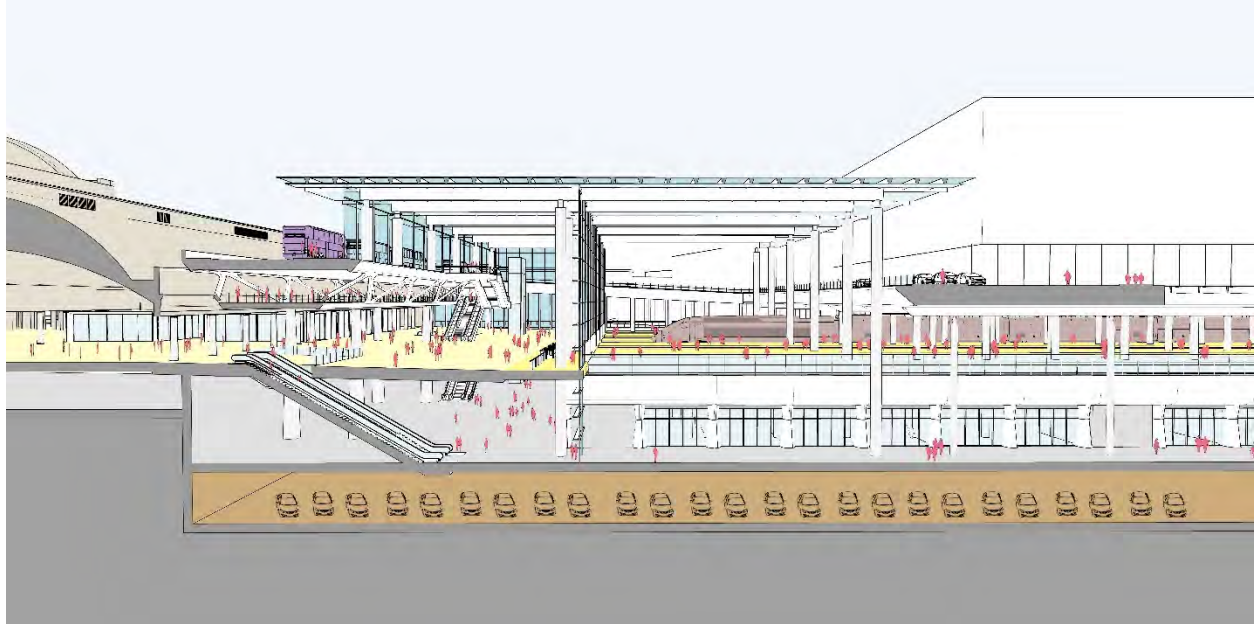


Figure 14. Section Illustration of Alternative C, looking west



5.2.5 Alternative D

Like all other alternatives, Alternative D (see **Figure 15**) includes the full reconstruction of tracks and platforms, column removal within the First Street Tunnel, and new concourses. The existing parking garage would be removed. This Alternative differs from Alternatives A, B, and C because it features an east-west oriented train hall with an integrated bus facility attached to Concourse A and the historic station. The bus facility would accommodate twenty-seven bus slips and is located south of H Street integrated with the train hall. An above-ground parking facility north of H Street, as well as one level of below-ground parking, provide a total of approximately 1,650 parking spaces. The remaining air-rights currently occupied by the existing bus and parking facility is Federally owned property and would be available for future transfer or lease by FRA and potential subsequent development. Alternative D would provide pedestrian access at street level on First and Second Streets NE, under the H Street Bridge, and via vertical circulation elements on both the north and south sides of the H Street Bridge. On the south side of the bridge, access would consist of an enclosed headhouse that could potentially be incorporated into the private air-rights development.

Like Alternative C, the Project requires that daylighting features, such as skylights, be provided for the central concourse. In a letter to FRA, DC SHPO expressed concerns about potential adverse historic preservation and urban design effects from the provision of daylighting features above the off-centered Central Concourse, resulting in an asymmetrical development to the north of the station.⁵⁸ To address this concern and avoid the impression of precluding appropriate design solutions that would respect the symmetry of the station, FRA and the Proponents delineated “access zones” for the alternatives with an east-west train hall. Daylighting features would be established within the identified Daylight Access Zone, located above the Central Concourse. However, such features would only use a portion of that zone. The Alternative also shows a general location where the private air-rights developer could provide a visual connection from H Street to the new train hall and station within the Visual Access Zone, which may be centered on the historic station building. The access zones in Alternative D are fully located within the private air-rights development and are not a part of the station Project, but the Project does not preclude them from being developed as part of the private air-rights development.

⁵⁸ Andrew Lewis, DC SHPO to Amanda Murphy, FRA, March 30, 2018.

Figure 15. Illustration of Alternative D

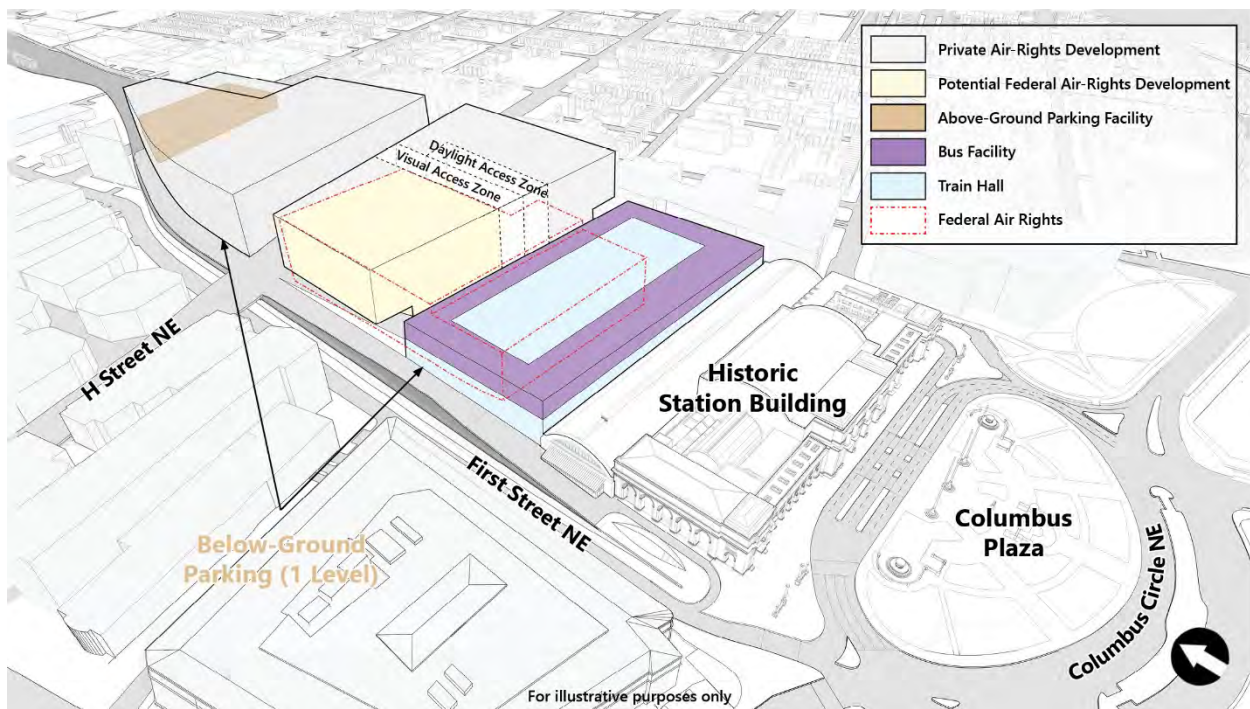
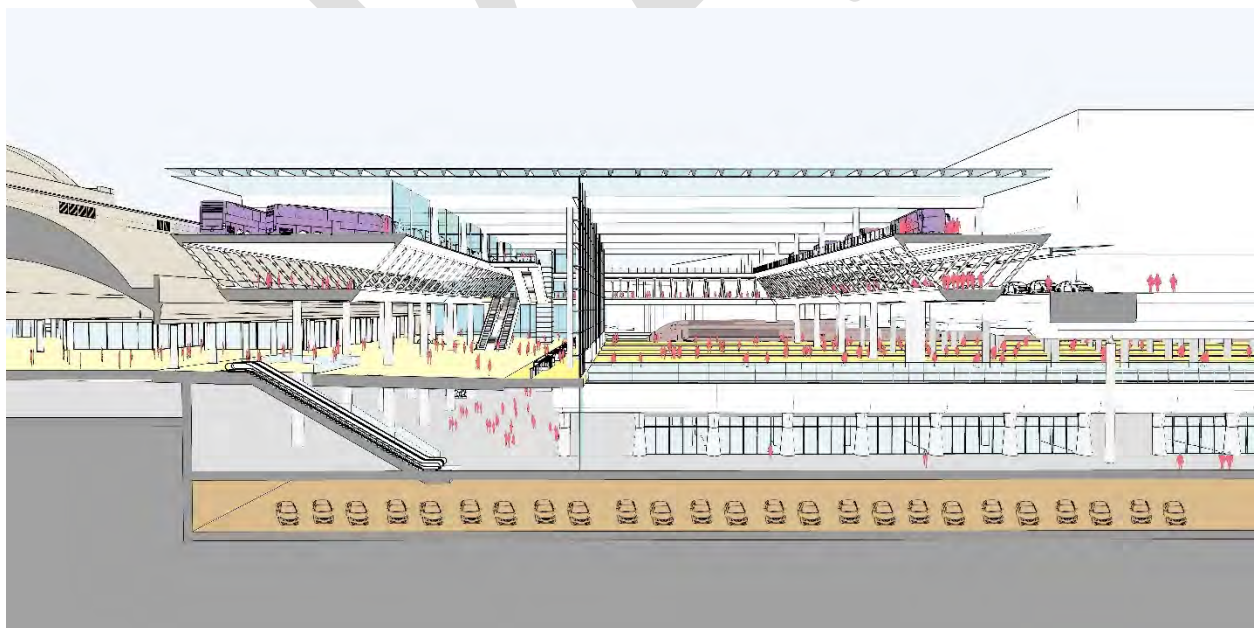


Figure 16. Section Illustration of Alternative D, looking west



5.2.6 Alternative E

Alternative E (see Figure 17) is identical to Alternative D; however, Alternative E provides only below-ground parking.

Figure 17. Illustration of Alternative E

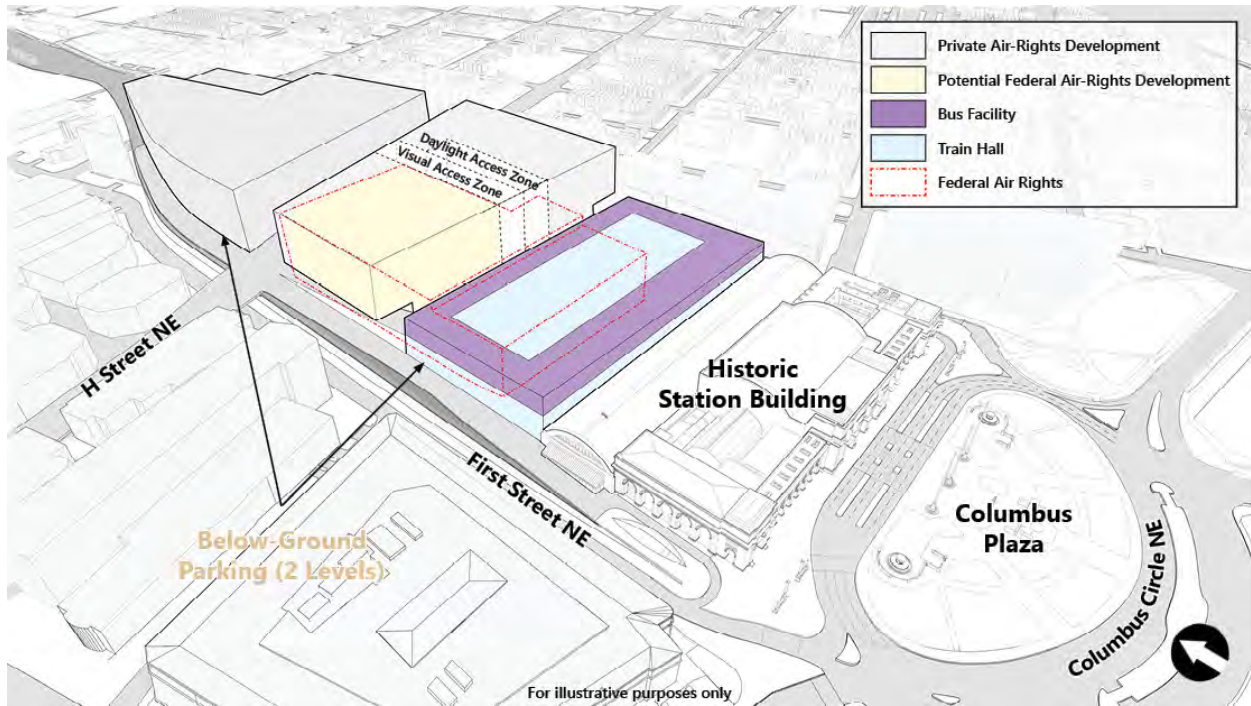
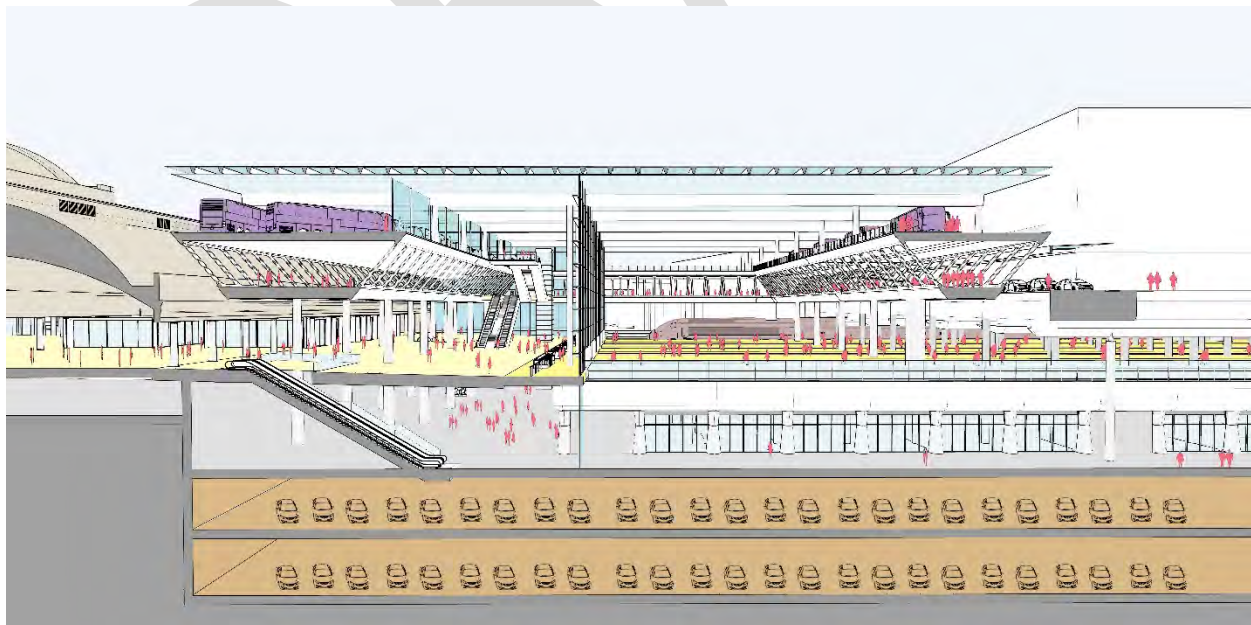


Figure 18. Section Illustration of Alternative E, looking west



5.2.7 Alternative A-C

Like all other Action Alternatives, Alternative A-C includes the full reconstruction of tracks and platforms, column removal within the First Street Tunnel, and new concourses. Alternative A-C combines elements of Alternative A and Alternative C (**Figure 19**). The bus and parking facilities would be above ground at the southwest corner of the site, like in Alternative A, and the station would feature an east-west train hall, like in Alternative C. A two-level bus facility capable of accommodating between 20 to 40 bus slips would be provided. The second level would be operationally flexible. If not needed for buses, it could be used for pick-up and drop-off activities. The parking facility would provide space for approximately 1,600 cars. Alternative A-C would provide pedestrian access at street level on First and Second Streets NE, under the H Street Bridge, and via vertical circulation elements on both the north and south sides of the H Street Bridge. On the south side of the bridge, access would consist of an enclosed headhouse that could potentially be incorporated into the private air-rights development.

The Project requires that daylighting features, such as skylights, be provided for the central concourse for those alternatives with an east-west train hall. In a letter to FRA, the District of Columbia State Historic Preservation Office (DC SHPO) expressed concerns about potential adverse historic preservation and urban design effects from the provision of daylighting features above the off-centered Central Concourse, resulting in an asymmetrical development to the north of the station.⁵⁹ To address this concern and avoid the impression of precluding appropriate design solutions that would respect the symmetry of the station, FRA and the Proponents delineated “access zones” for those alternatives. Daylighting features would be established within the identified Daylight Access Zone, located above the Central Concourse. However, such features would only use a portion of that zone. The Alternative also shows a general location where the private air-rights developer could provide a visual connection from H Street to the new train hall and station within the Visual Access Zone, which may be centered on the historic station building. In Alternative A-C, the southern end of the Visual Access Zone would be within the Federally owned air rights. Neither the Project nor the potential Federal air-rights development would create an obstruction in that part of the Visual Access Zone that might preclude the private air-rights developer from providing a visual connection from H Street to the new train hall and station.

⁵⁹ Andrew Lewis, DC SHPO to Amanda Murphy, FRA, March 30, 2018.

Figure 19. Illustration of Alternative A-C

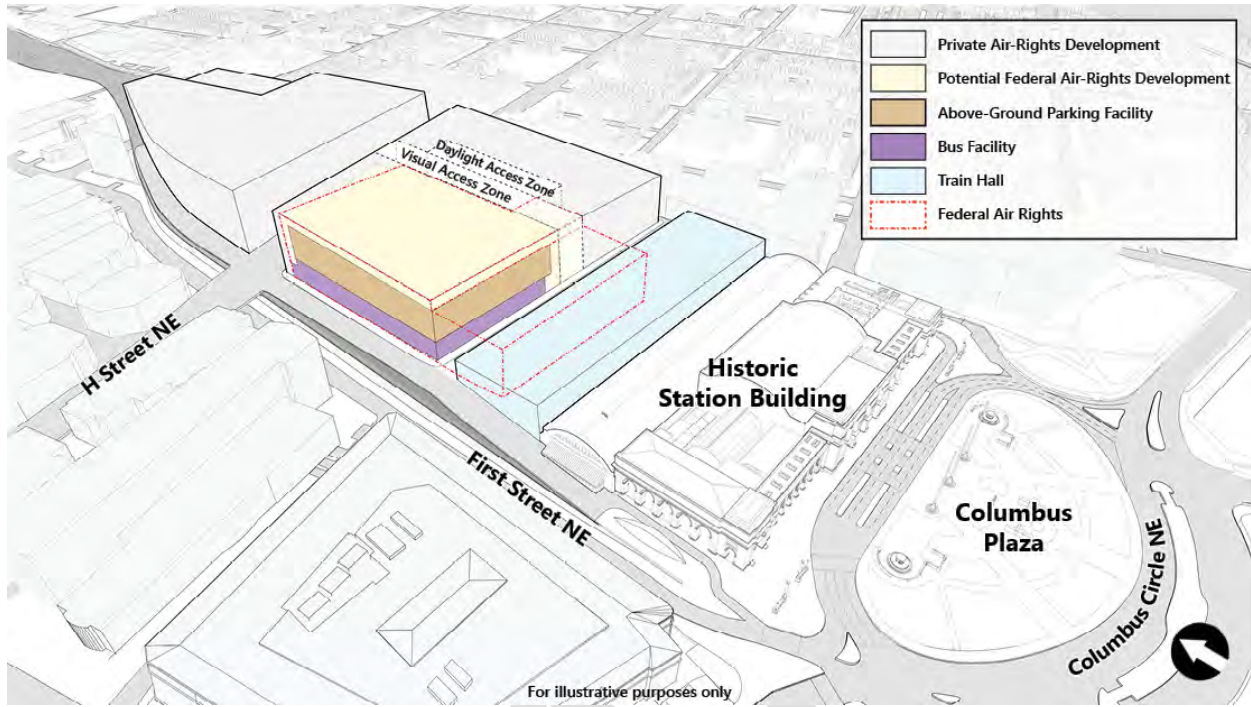
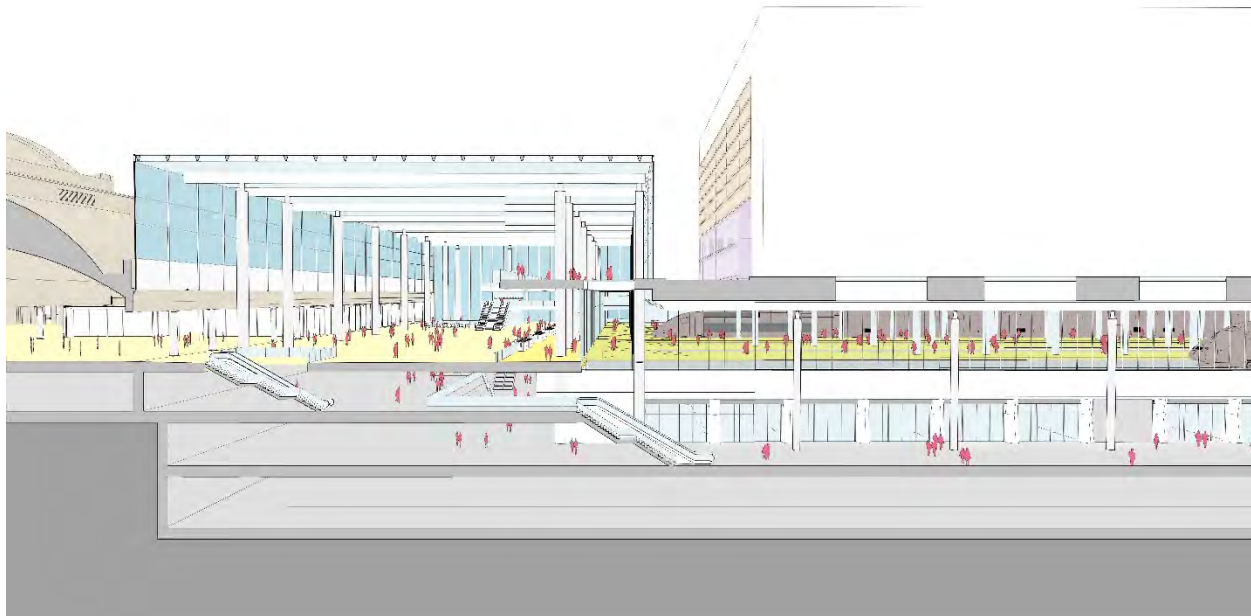


Figure 20. Section Illustration of Alternative A-C, looking west



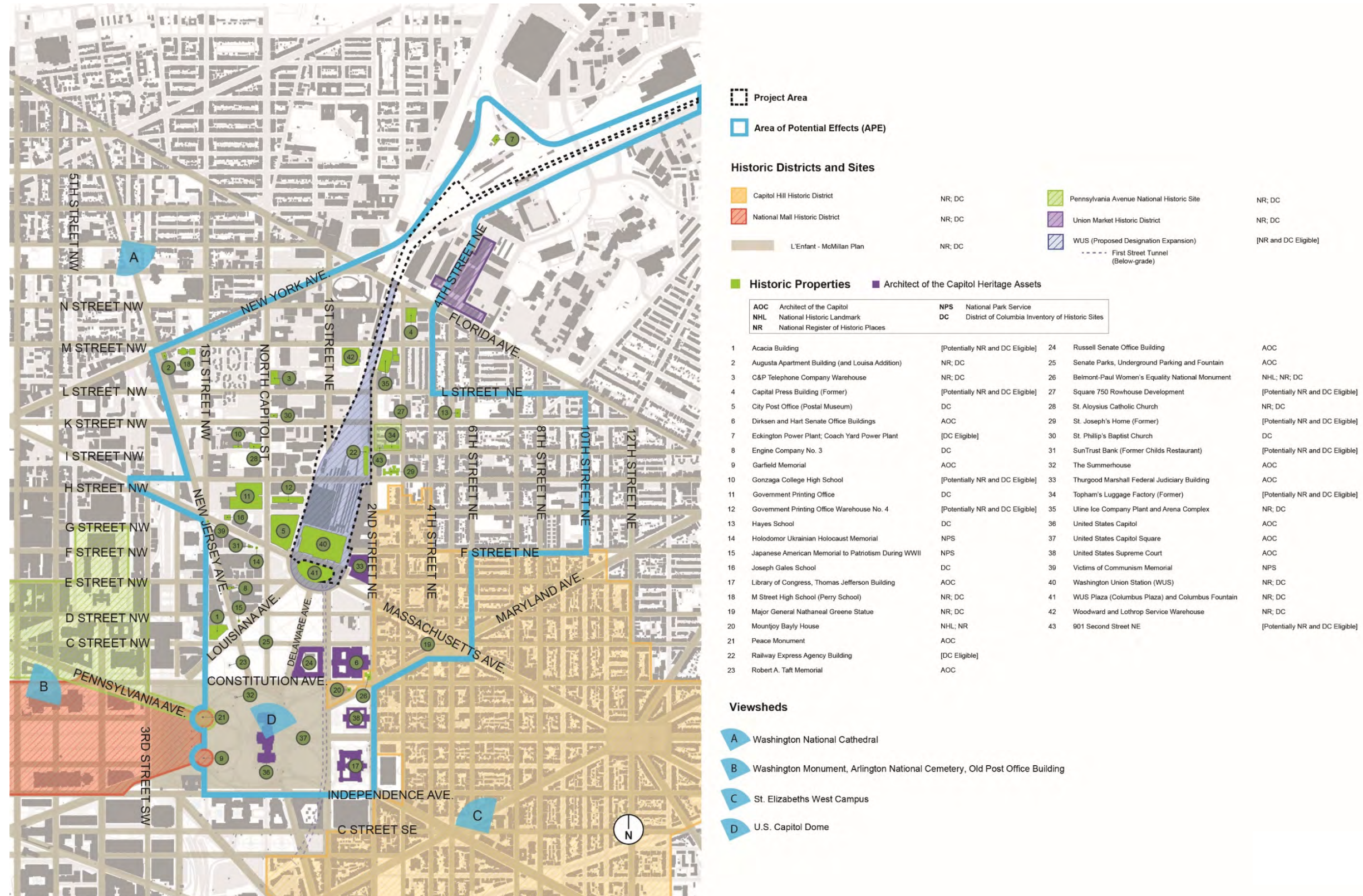
6 Assessment of Effects

6.1 Effects to Each Historic Property

The following narratives provide a brief history, describe the significance, and assess the effects of the Action Alternatives to each individual historic property. Please note that the number of each historic property assessed in the AOE Report corresponds to the property's map number in **Figure 4**, presented again for convenience on the following page as **Figure 21**. For discussion on visual effects, refer to Section 3.2 *Visual Effects Methodology* for an explanation on the use of terms. A summary matrix of all effects is provided in Section 6.3.

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Figure 21. Area of Potential Effects and Identified Historic Properties (Repeated from Figure 4)



INDIVIDUAL PROPERTIES

1. Acacia Building



Acacia Building, view looking northwest



View from the Acacia Building towards the Project Area, looking northeast

The Acacia Building is located at 311 First Street NW, approximately 1500 feet southwest of the Project Area. The building's forecourt and main entrance face Louisiana Avenue, an important axial street of the L'Enfant and McMillan plans, leading directly to Washington Union Station and Columbus Plaza. The building was designed by the prominent New York architectural firm of Shreve, Lamb and Harmon and was constructed in 1936 to serve the offices of the Acacia Mutual Life Insurance Company (now the Acacia Group). The building was sited to face the U.S.

Capitol, and its design is an example of the Stripped Classical style, featuring many Art Deco motifs.

The Acacia Building is eligible for NRHP listing under Criterion A for its association with the Acacia Mutual Life Insurance Company (Historic Preservation Certification Application ca. 2008). The company was originally chartered by Congress in 1869 as the Masonic Mutual Relief Association of the District of Columbia to offer life insurance to members of the fraternal organization of Freemasons. They later expanded their services to offer coverage outside the Masonic community. The building is also eligible under Criterion C for its association with architectural firm Shreve, Lamb and Harmon. The firm is known for its use of simplified Classical and Art Deco style elements; most famously, it is known for the design of the Empire State Building in New York City.

Effects Evaluation: No physical effects to the Acacia Building would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would also be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property as there are no direct lines of sight to the Project Area. The south façade of WUS and Union Station Plaza (also known as Columbus Plaza) can only be seen from Louisiana Avenue. Similarly, the building's integrity of setting would not be affected by noise and vibration or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Acacia Building.

2. Augusta Building



Augusta Building, view looking east



*View from the corner of New York Ave and New Jersey Ave NW, looking southeast.
This property does not have a view towards the Project Area.*

The Augusta Building is located at 1151 New Jersey Avenue NW, at the southeast corner of the street's intersection with New York Avenue NW, approximately 2700 feet west of the Project Area. The four-story brick building reflects the Jacobean Revival style and was constructed in 1900 to the design of prominent local architect Arthur B. Heaton. It was unique for an early purpose-built multi-family residence. The following year, a major addition, known as the Louisa, was constructed on the southeast side of the building.

The property is listed in the NRHP and DC Inventory under Criteria A and C (DC listing January 17, 1990; NR listing September 9, 1994). In addition to its historic significance as one of the few remaining purpose-built multi-family dwellings constructed in the District from 1880-1900, the building is architecturally significant for its use of character-defining elements from the Jacobean Revival style and its connection to local architect Arthur B. Heaton.

Effects Evaluation: No physical effects to the Augusta Building would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would also be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property, as there are no direct lines of sight to the Project Area. Similarly, the building's integrity of setting would not be affected by noise and vibration or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Augusta Building.

3. C&P Telephone Company Warehouse



C&P Telephone Company Warehouse, view looking northeast from North Capitol and L Streets NW. The original building is on the left with an addition to the right.



View from the property's south elevation fronting L Street NE, looking east towards the Project Area.

The C&P Telephone Company Warehouse is located approximately 1200 feet west of the Project Area at 1111 North Capitol Street NE, northeast of the street's intersection with L Street NE. The Art Deco building was designed by New York architects McKenzie, Voorhees and Gmelin and constructed in 1927 to serve as a storage and maintenance facility for the

Chesapeake and Potomac Telephone Company. A modern addition was completed in 2013 for new owner National Public Radio, who now occupies the building.

The property is listed in the NRHP and DC Inventory under Criteria A and C (DC listing June 19, 1985; NR listing August 5, 1988). In addition to its historic significance as a functional warehouse in Washington, DC, the building is architecturally significant for its industrial use of Art Deco architecture, reflecting the modernity of the communications industry.

Effects Evaluation: No physical effects to the C&P Telephone Company Warehouse would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and also would be unaffected. There would be no visual effect to the property because all Action Alternatives' development over the rail terminal terminates south of K Street NE.

Similarly, the building's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is located within the Operational and Construction Noise and Vibration Study Areas, and noise and vibration analysis conducted for the DEIS indicates that the construction of the Action Alternatives would likely result in temporary vibration effects that would cause human annoyance from the number of construction trucks passing the property on North Capitol Street. However, no operational noise or vibration effects would likely occur. Temporary "annoyance" causing vibration effects from construction do not result in a finding of adverse effect because the significance of the property is not derived from a quiet and vibration-free setting. Such vibrations would not diminish the historic and architectural characteristics that qualify the building for inclusion in the NRHP and DC Inventory and would likely not result in physical damage. The incremental increase in operational traffic volumes along North Capitol Street NE (a principal arterial street intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on the C&P Telephone Company Warehouse.

4. Capital Press Building (Former)



Capitol Press Building from N and Third Street NE, view looking southeast.



View from the west side of the building, looking west towards the Project Area. A signal bridge from the Terminal Rail Yard is visible on the right.

The former Capital Press Building is located at 301 N Street NE, approximately 200 feet east of the Project Area. The building was constructed in 1931 to house the printing presses and operations for the National Capital Press Company. The three-story, reinforced concrete frame building is faced with brick and features Art Deco detailing. Five large saw-tooth monitor skylights capped the structure. The building was expanded on its south side with slightly shorter

three-story additions in 1947 and 1949. To the east, a two-story addition was constructed in 1963. Most recently, the building served as a storage facility.

The Capital Press Building is potentially eligible for NRHP listing under Criteria A and C, as identified in the 1992 warehouse survey sponsored by DC SHPO. In addition to the architecturally significant Art Deco detailing employed to ornament this industrial building and the use of saw-tooth skylights, the building is closely associated with the printing industry in Washington, DC. The building stands as a remnant of one of the district's largest industries in the early 20th century, which was centered in the surrounding vicinity.

Effects Evaluation: In 2015, Foulger-Pratt Development presented plans to rehabilitate the Capital Press Building for commercial use and construct two residential and mixed-use towers adjacent to the property. Construction for the proposed development is currently underway, which includes the removal of the roof and the south and east exterior walls resulting in a loss of integrity of design, materials, and workmanship.

No physical effects to the former Capital Press Building would occur due to Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur because of the Project. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property. The integrity of setting is not tied to the building's visual relationship to WUS, and the Project would not be visible from the building as the development over the rail terminal would terminate south of K Street NE.

Similarly, the building's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction or operation. The building is located within the Operational and Construction Noise and Vibration Study Areas, however, noise and vibration analysis conducted for the DEIS indicates that the Capital Press Building would likely not experience operational or temporary construction noise and vibration effects. Furthermore, any potential noise and vibration effects would not affect the architectural and historic significance or integrity of the property, which has already been diminished by the planned development currently underway. The building is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no adverse effect on the former Capital Press Building.

5. City Post Office (Postal Museum)



City Post Office (Postal Museum), view looking north from Massachusetts Ave NE.



View along First Street NE, looking north. City Post Office on left, Project Area and WUS on right.

The former City Post Office, now the Smithsonian National Postal Museum, is located at 2 Massachusetts Avenue NE, approximately 100 feet directly west of the Project Area. The building's façade (south elevation) fronts onto Massachusetts Avenue and Columbus Plaza. Like WUS, the City Post Office building was designed by Daniel Burnham & Company and was constructed in 1914. A bridge to transport mail between the post office and Union Station was

also a part of the original design. The design, closely aligned with the neighboring station headhouse, is an excellent example of Beaux Arts architecture. In 1931-1935 the building was extended to the north to G Street and was connected to Union Station by a second bridge at the northeast corner. In the 1970s both bridges were demolished to accommodate the construction of the Metro and the reconstruction of various sections of the Burnham Walls and were rebuilt in the same locations. A modern steel truss bridge enclosed in dark plastic panels was constructed in the location of the ca. 1935 bridge in 1976. Since 1993, the City Post Office building has housed the Smithsonian's National Postal Museum.

The City Post Office is listed in the DC Inventory and is eligible for NRHP listing under Criteria A and C (DC listing November 8, 1964; determined eligible for NR listing June 16, 1983). The building is eligible under Criterion A for its association with Washington Union Station and the surrounding area, as well as the history of the U.S. Postal Service. The building is also eligible under Criterion C for its design by Daniel Burnham.

Effects Evaluation: No physical effects to the City Post Office would occur as a result of Project implementation, and the bridge connection would remain. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected.

All Action Alternatives have an effect on the visual setting of the property, as the Project Area is visible from the east elevation of the City Post Office. Alternatives A, B, and A-C would have potential minor visual effects, as they would have moderate visibility and low sensitivity. Alternatives C, D, and E would have potential negligible visual effects, as they would have low visibility and low sensitivity. Such visual effects would not diminish the historic or architectural characteristics that distinguish the property. Furthermore, primary sightlines to Columbus Plaza, the Senate Parks, and down Massachusetts Avenue, which help define the setting of the property, would not be impacted by the Action Alternatives, and the relationship between the City Post Office and WUS would not be disturbed.

The City Post Office is located directly across First Street NE from the Project Area and is within the Operational and Construction Noise and Vibration Study Areas. Noise and vibration analysis conducted for the DEIS indicates that the City Post Office would likely not experience operational noise and vibration effects nor temporary construction vibration effects. The property would, however, experience temporary severe construction noise effects at the northeast corner. Such effects would not affect the significance or integrity of the property, which is directly related to its architectural design and history of the postal service. The

incremental increase in operational traffic volumes along Massachusetts Ave and North Capitol Street NE (principal arterial streets intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on the City Post Office.

Visual Assessment from the east elevation of the City Post Office (Postal Museum) along First Street NE, looking northeast



Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative A



Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative C (East and West Options)

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





No-Action Alternative – Provided for Visual Comparison

Note: The No-Action Alternative is not visible because it would be obscured by the existing parking garage.

6. Dirksen and Hart Senate Office Buildings



Dirksen Senate Office Building, view looking northeast



Hart Senate Office Building, view looking north



View from the north elevation of the Dirksen Senate Office Building along C Street, looking north towards the Project Area



View from the north elevation of the Hart Senate Office Building along C Street, looking north towards the Project Area

The Dirksen and Hart Senate Office Buildings occupy the majority of Square 725, approximately 1200 feet south of the Project Area, to the northeast of the Capitol, bounded by Constitution Avenue, Second Street, First Street, and C Street NE. The Dirksen and Hart Senate Office Buildings are under the jurisdiction of the AOC and are thus exempt from NRHP designation;

however, they are listed as AOC Heritage Assets, and are therefore treated as historic properties subject to Section 106.⁶⁰

The Dirksen Senate Office Building, designed by Eggars & Higgins in 1949 and constructed from 1954-1958, is a six-story building clad in white marble and reflects the Stripped Classical style favored for government buildings of the mid-20th century. The Hart Senate Office Building was constructed from 1975-1982 as an extension to the rear (east) elevation of the Dirksen Building. It was designed in the International Style by architect John Carl Warnecke and was intended to be permanent and durable, economical in the long term, and flexible in its capacity for future change.

Effects Evaluation: No physical effects to Dirksen and Hart Senate Office Buildings would occur as a result of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and also would be unaffected. Although the view is largely obscured by trees surrounding the parking lot directly to the north of the Dirksen and Hart Senate Office Buildings, all Action Alternatives would have low visibility and low sensitivity from the north building elevations, resulting in potential negligible visual effects. There would be no effect to the property's integrity of setting because visual effects would not diminish the historic or architectural characteristics that distinguish the property, and the significant visual relationships between the Senate Office Buildings and the Capitol and other AOC properties would be unaffected. Similarly, the integrity of setting, feeling, and association would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Dirksen and Hart Senate Office Buildings.

⁶⁰ "Architect's Virtual Capitol," *Architect of the Capitol*, <https://www.capitol.gov>.

Visual Assessment from the Dirksen and Hart Senate Office Building along C Street NE



Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative C

Proposed Alternative



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative D and Alternative E

Proposed Alternative



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative A-C

Proposed Alternative



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights Development (maximum buildable volume including penthouse)



7. Eckington Power Plant (Coach Yard Power Plant)



Eckington Power Plant, view looking west from New York Ave NE



View from vicinity of Eckington Power Plant (on right) looking southwest towards the Project Area. (Source: Google, image capture 2009)

The Eckington Power Plant, also known as the Coach Yard Power Plant, is located within the Ivy City Engine Terminal and Yard, approximately 550 feet north of the Project Area and northeast of the intersection of New York Avenue NE and Florida Avenue NE. The two-story brick building was constructed between 1907 and 1908 to provide steam for the joint rail operations at the coach and engine yard north of New York Avenue, which was jointly owned by the Baltimore &

Ohio (B&O) and Pennsylvania (PRR) Railroads. The design is an example of industrial architecture from the early 20th century and bears little ornamentation.

A Determination of Eligibility (DOE) was prepared in 2010. The DOE concluded that the Eckington Power Plant is eligible for listing in the NRHP and DC Inventory under Criterion A for its association with the consolidation of the B&O and PRR Railroads in DC, the construction of the Ivy City Engine Terminal and Yard and the completion of rail terminal improvements to support WUS. The Ivy City Engine Terminal and Yard, and the WUS Terminal Rail Yard, and were constructed as a result of the McMillan Plan of 1901, which specified the removal of all railroad stations and rail lines from the Mall and Capitol. Of the three power plants built to power the WUS railroad facilities, only Eckington Power Plant, the steam powered source for the joint coach yard, remains.

Effects Evaluation: No direct physical effects to Eckington Power Plant would occur as a result of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. Visual effects from the Action Alternatives would not affect the property's integrity of setting, feeling, or association because the portion of the Project requiring the construction of a deck over the Terminal Rail Yard would not be visible. Construction within the portion of the Project Area visible from the power plant is limited to track work, which would not have a visual effect.

Similarly, the property's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Eckington Power Plant.

8. Engine Company No. 3



Engine Company No. 3 west elevation, view looking east from New Jersey Avenue. This property does not have a view towards the Project Area.

Engine Company No. 3 is located approximately 1100 feet southwest of the Project Area at 439 New Jersey Avenue NW and is listed in the DC Inventory (listing date December 8, 1994). It is a contributing property to the Firehouses in Washington, D.C. multiple property document and meets NRHP criteria A and C for its association with the development of the city and its expression of Italian Renaissance Revival architecture in civic design. This three-story building was constructed in 1916 under the direction of the Office of the Municipal Architect. The design is an example of Italian Renaissance Revival. Engine Company No. 3 The building is home to the prestigious firefighting unit that protects the Capitol building. The building was designed by either Donn & Deming or Leon Dessez and is recognized for its grand civic design. Currently, the building also houses the DC Fire and EMS Museum on its third floor. The building was originally freestanding, but the square has developed around the station over the decades.

Effects Evaluation: No physical effects to Engine Company No. 3 would occur as a result of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and relationship to the Capitol, which also would be unaffected. All Action Alternatives would have no effect to the visual setting of the property, as there are no direct sightlines to the Project Area. Similarly, the building's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on Engine Company No. 3.

9. Garfield Memorial



Garfield Memorial, view looking northeast



View from the Garfield Memorial, looking northeast towards the Project Area

The memorial to President James A. Garfield is located approximately 3300 feet to the southwest of the Project Area and stands in the circle at First Street and Maryland Avenue SW on land that was incorporated into the Capitol Grounds in 1975. The Garfield Memorial is under

the jurisdiction of the AOC and is thus exempt from NRHP designation; however, it is listed as an AOC Heritage Asset and is therefore treated as a historic property subject to Section 106. It is a bronze monument designed by John Quincy Adams Ward (1830-1910) and cast by The Henry-Bonnard Co. of New York with a pedestal designed by Richard Morris Hunt.

Unveiled in 1887, the memorial is significant as an outstanding example of American sculpture whose creator, John Quincy Adams Ward was known for his portraits and for working directly from nature rather than from classical art. The reclining figures were influenced by Michelangelo's Medici Tomb, while the overall composition shows awareness of the French Beaux-Arts style.⁶¹

Effects Evaluation: No physical effects to the Garfield Memorial would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected directly to the design and association with historic events, and also would be unaffected by the Project. All Action Alternatives would have no effect to the visual setting of the property, as there are no direct sightlines to the Project Area. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Garfield Memorial.

⁶¹ Architect of the Capitol, "The Garfield Monument," <https://www.aoc.gov/capitol-grounds/garfield-monument>.

10. Gonzaga College High School



Gonzaga College High School, Dooley Hall, view looking northeast



View from the south elevation of Gonzaga College High School Dooley Hall, view looking east towards the Project Area

Gonzaga College High School is located approximately 1300 feet west of the Project Area at 19 Eye St NW and has occupied at least a portion of the block since 1871. The campus is comprised of several complexes made up of buildings constructed between 1859 (St. Aloysius Church; individually designated and discussed later) and 1985. Besides the church, rectory, and former Kohlmann Hall at 45 Eye Street, all other buildings were purpose-built for education. Dooley Hall, constructed in 1911-1912, is noted as potentially eligible for listing in the NRHP and DC

Inventory by the DC SHPO, and appears to be eligible under criteria A and C. In addition to its historic significance as a Jesuit educational institution, the buildings are representative of the Classical Revival style employed by educational and civic institutions of the time.

Effects Evaluation: No physical effects to Gonzaga College High School would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. Furthermore, all Action Alternatives would have no effect to the visual setting of the property. Views to the Project Area are obscured and any visibility of the Action Alternatives would not alter the character of the view nor impact the building's integrity. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on Gonzaga College High School.

11. Government Printing Office



Government Printing Office, view looking west



View from the intersection of G Street and North Capitol Street, looking east towards the Project Area and existing parking garage

The Government Printing Office (now the Government Publishing Office [GPO]) is located approximately 650 feet west of the Project Area at 732 North Capitol Street NW, between G and H Streets. The original building was designed by prominent DC architect James G. Hill in the Italian Renaissance Revival style and was completed in 1903. The building is of steel and masonry construction faced with brick and brownstone and features an ornamental terracotta trim and arcaded façade. Two additional building campaigns occurred in 1926 and 1938.

This property is listed in the DC Inventory (listing date November 8, 1964) and is eligible for listing in the NRHP, meeting criteria A and C. Since 1860, the GPO has been responsible for printing and distributing official documents for the Federal Government. In 2014, the office was renamed the Government Publishing Office to reflect the increase in digital communications being produced. The building is architecturally significant for its Italian Renaissance Revival style and ornamentation. Its construction also contributed to the development of the area.

Effects Evaluation: No physical effects to the GPO would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. The GPO has obscured views towards the Project Area due to an eight-story building located across North Capitol Street. Only a small portion of the Project Area would be visible from the building's east elevation where the existing parking garage currently stands. In Alternatives A, B, and A-C indirect visual effects from the Federal air-rights development would have low visibility and low sensitivity resulting in potential negligible visual effects. Alternatives C, D, and E would have a potential beneficial effect because the visual elements of the Project would be less than the existing parking garage. Potential negligible and beneficial visual effects would not impact the building's integrity or change the character for which its significance of the Government Printing Office is derived.

Similarly, the building's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. While the easternmost portion of the building is located within the Operational and Construction Noise and Vibration Study Areas, noise and vibration analysis conducted for the DEIS indicates that the GPO would likely not experience noise and vibration effects during construction or operation of the Action Alternatives. Furthermore, any potential noise and vibration effects would not affect the significance or integrity of the property, which is directly related to its architectural design and history as the Government Printing Office. The incremental increase in operational traffic volumes along North Capitol Street NE (a principal arterial street intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Government Printing Office.

Visual Assessment from the Government Printing Office at the corner of G Street NW and North Capitol Street NW



Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Visual Assessment for Alternative C

Station Expansion



Outline of Existing
Parking Garage to be
Removed



Visual Assessment for Alternative D and Alternative E

Station Expansion



Outline of Existing
Parking Garage to be
Removed





Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Outline of Existing
Parking Garage to be
Removed



Visual Assessment for Alternative A-C



No-Action Alternative – Provided for Visual Comparison

Note: The No-Action Alternative is not visible because it would be obscured by the existing parking garage.

12. Government Printing Office Warehouse No. 4



View from GPO Building looking towards Government Printing Office Warehouse No. 4. Project Area in the background.



View looking southeast from the east side of the property along First Street NE towards the existing WUS parking garage.

GPO Warehouse No. 4 is located approximately 70 feet west of the Project Area south of G Place NE, directly across from the main GPO building (historic property No. 11). The limestone-clad warehouse building was constructed in 1938 and reflects the style of Stripped Classicism with Art Deco detailing. Building 4 runs the depth of the block between North Capitol Street and First Street NE. A dedicated railway siding was built (date unknown) over First Street,

connecting the warehouse to Union Station for the delivery of materials, particularly paper, and the shipment of stock.⁶² This property is potentially eligible for listing in the DC Inventory and NRHP under criteria A and C. Architecturally, the building is significant for its Art Deco styling and represents the historic ties between the GPO, WUS, and the City Post Office. The building is also associated with the development of warehouses clustered around WUS, illustrating significant patterns of development in the city.

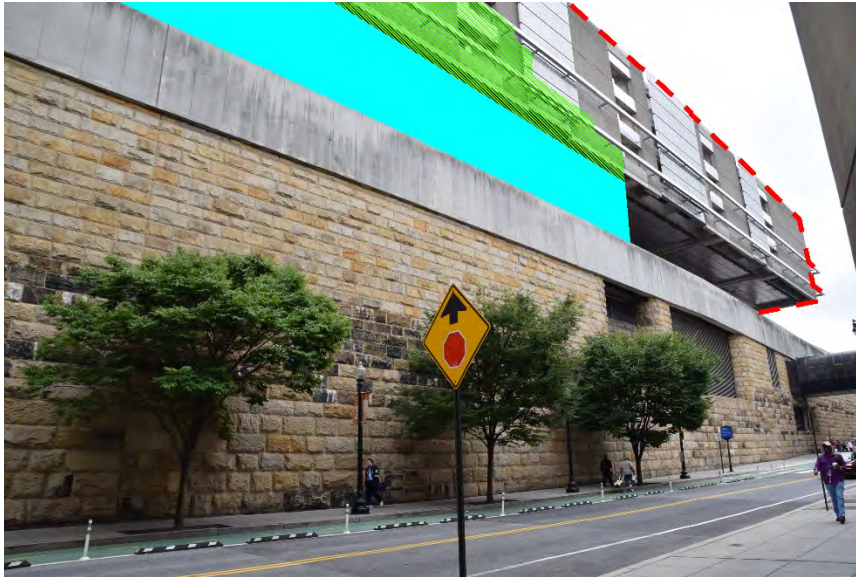
Effects Evaluation: No physical effects to the Government Printing Office Warehouse No. 4 would occur as a result of Project implementation. The bridge connecting the warehouse and the station would remain. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. All Action Alternatives would have a potential beneficial visual effect on the view of the Project Area from the property because the Project elements and the potential Federal air-rights would be less visually prominent than the existing parking garage. Sightlines to the main GPO building would not be impacted and the physical relationship between the Warehouse building and WUS would not be altered. Furthermore, the Burnham Wall would continue to be visible and the Action Alternatives would be compatible with the existing mass of the existing parking garage.

The building's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. While the property is located within the Operational and Construction Noise and Vibration Study Areas, noise and vibration analysis conducted for the DEIS indicates that the Government Printing Office Warehouse No. 4 would likely not experience operational noise and vibration effects nor construction vibration effects. The property would experience temporary moderate to severe construction noise effects. Such effects, however, would not diminish the significance and integrity of the property, which is directly related to its architectural design and association with the GPO, WUS, and City Post Office. The incremental increase in operational traffic volumes along North Capitol Street NE (a principal arterial street intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Government Printing Office Warehouse No. 4.

⁶² U.S. Government Publishing Office, *Picturing the Big Shop: Photos of the U.S. Government Publishing Office, 1900-1980*. (Washington, DC: U.S. Government Publishing Office, 2017), 28.

*Visual Assessment from the east elevation of the Government Printing Office Warehouse No. 4
along First Street NE looking southeast*



Visual Assessment for Alternative A

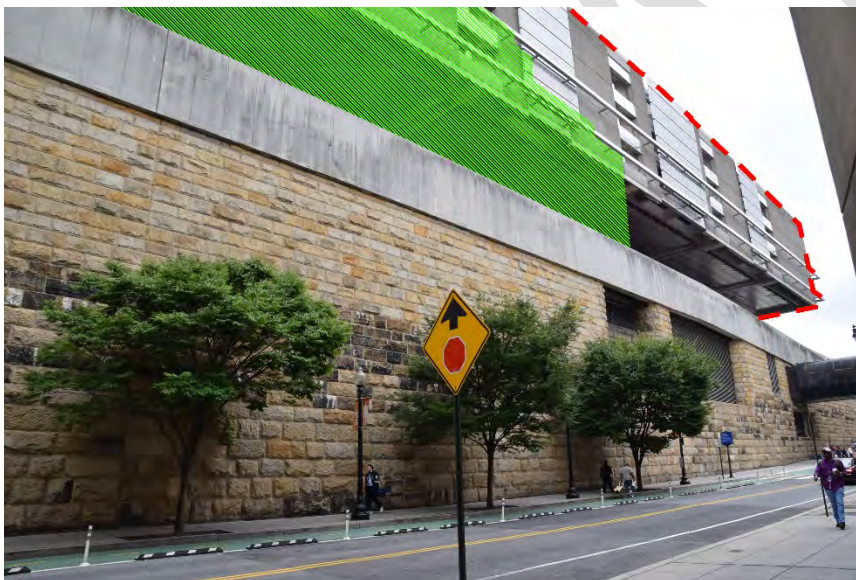
Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



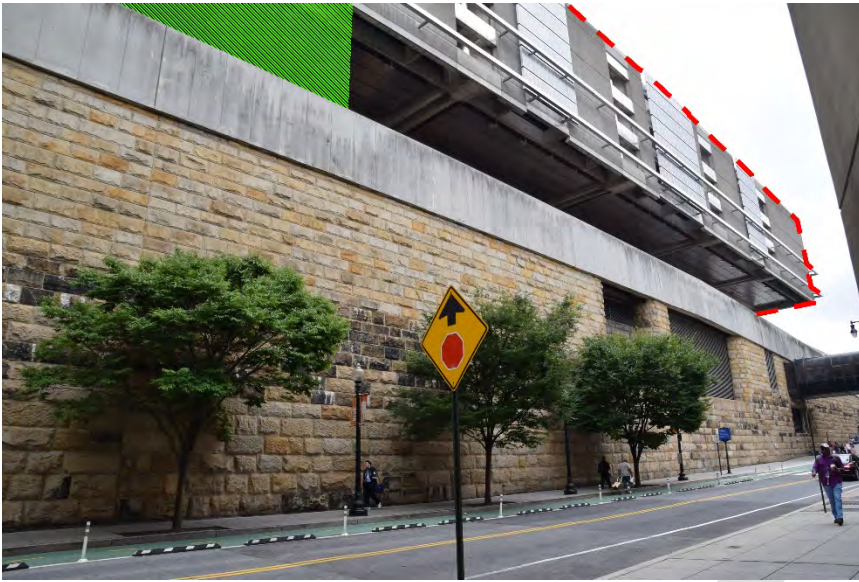
Visual Assessment for Alternative B

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Visual Assessment for Alternative C

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative D and Alternative E

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Outline of Existing
Parking Garage to be
Removed



No-Action Alternative – Provided for Visual Comparison

Note: The No-Action Alternative is not visible because it would be obscured by the existing parking garage.

13. Hayes School



Hayes School, view looking east



View looking southwest towards the Project Area from the west elevation of the building at the corner of K and Fifth Streets NE

Rutherford B. Hayes School is located approximately 1300 feet east of the Project Area at 500 K Street NE, northeast of the intersection of Fifth and K Streets NE. The building was designed by architect Charles E. Burden and was constructed in 1897 as a public school. The red-brick building is an example of the Italianate style and features twin entry towers and rounded arches. Hayes School is listed in the DC Inventory (listing date December 18, 2003) and contributes to the NRHP Public School Buildings of Washington, D.C. Multiple Property Document, meeting criteria A and C for its association with the city's public-school buildings.

The building, designed for the city by an architect in private practice, reflects an 1896-1897 policy initiative in DC aimed at improving educational architecture. In addition to the historic significance of its design process, the building is architecturally significant for its Italianate detailing.

Effects Evaluation: No physical effects to Hayes School would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. All Action Alternatives would have no effect to the visual setting of the property as there are no direct lines of sight towards the Project Area. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. Though located on K Street (a minor arterial street intended to interconnect and augment principal arterial streets), the property is outside the Operational and Construction Noise and Vibration Study Areas as well as the Transportation Study Area, which was developed in coordination with DDOT. Therefore, traffic effects would not be anticipated at this location and the significance and integrity of the building would not be affected.

Based on this evaluation, all Action Alternatives would have no effect on Hayes School.

14. Holodomor Ukrainian Holocaust Memorial



View of Holodomor Ukrainian Holocaust Memorial looking east towards the Project Area and WUS along Massachusetts Ave

The Holodomor Ukrainian Holocaust Memorial is located approximately 700 feet west of the Project Area on a triangular reservation bounded to the north by Massachusetts Avenue NW, the east by F Street NW, and North Capitol Street. The memorial was designed by DC architect Larysa Kurylas and completed in 2015. The memorial is dedicated to the millions of Ukrainians who died during the Holodomor, a famine-genocide implemented by the Soviet Union in 1932 and 1933. The property is located within a reservation of the L'Enfant and McMillan Plan and is managed and maintained by the NPS. In consultation with the DC SHPO and other Consulting Parties, it was determined that all monuments and memorials under the purview of NPS National Mall and Memorial Parks are considered to be historic properties and are assessed in the Section 106 process for this Project.

Effects Evaluation: No physical effects to the Holodomor Ukrainian Holocaust Memorial would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The memorial's integrity of feeling and association are connected directly to its design and would be unaffected. All Action Alternatives would not be visible and would have no effect on the visual setting of the property.

Similarly, the property's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. The memorial is located on the edge of the Operational and Construction Noise and Vibration Study Areas, however, noise and vibration analysis conducted for the DEIS indicates that the memorial would likely not

experience operational or temporary construction noise and vibration effects. Furthermore, any potential noise and vibration effects would not affect the significance or integrity of the property, which is related to the property's design and memorial value. The incremental increase in operational traffic volumes along Massachusetts Ave and North Capitol Street NE (principal arterial streets intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Holodomor Ukrainian Holocaust Memorial.

15. Japanese American Memorial to Patriotism During WWII



Japanese American Memorial, view looking southwest



View looking northeast towards the Project Area from the southern point of the memorial at the intersection of New Jersey Ave and Louisiana Ave

The Japanese American Memorial to Patriotism During WWII is located approximately 1200 feet southwest of the Project Area at the intersection of Louisiana Avenue NW and D Street NW. The memorial honors the 33,000 Japanese Americans who served during WWII, even as their families were displaced and confined within internment camps. The centerpiece of the memorial is a 14-foot bronze statue of two cranes, sculpted by artist Nina A. Alamu. This sculpture sits within a landscaped plaza, encircled by a low granite wall and alongside a shallow

pool. The property is located within a reservation of the L'Enfant and McMillan Plan and is managed and maintained by the NPS. In consultation with the DC SHPO and other Consulting Parties, it was determined that all monuments and memorials under the purview of NPS National Mall and Memorial Parks are considered to be historic properties and are assessed in the Section 106 process for this Project.

Effects Evaluation: No physical effects to the Japanese American Memorial to Patriotism During WWII would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The memorial's integrity of feeling and association are connected directly with its design and would be unaffected. All Action Alternatives would have no effect to the visual setting of the property as the Project Area is not visible. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The memorial is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Japanese American Memorial to Patriotism During WWII.

16. Joseph Gales School



View from Massachusetts Ave NW of Joseph Gales School, looking east towards the Project Area. The property does not have a direct view of the Project Area.

The Joseph Gales School is located approximately 1100 feet west of the Project Area at 65 Massachusetts Avenue NW. The building occupies a triangular lot between Massachusetts Avenue and G Street NW. The building was designed by Architect of the Capitol Edward Clark and was constructed in 1881. The design is an example of Romanesque Revival in pressed brick with a sandstone entryway surround. The building is currently occupied by Central Union Mission.

Gales School is listed in the DC Inventory (listing date May 23, 2002) and is significant as a prototype design for DC public schools. It is a contributing property to the NRHP Public School Buildings of Washington, D.C. Multiple Property Document, meeting criteria A and C for its association with the city's public-school buildings and expression of the Romanesque Revival style. It is also one of the few remaining structures from the Swampoodle neighborhood, a largely Irish and Italian working-class community that developed during the second half of the 19th century in the swampy areas surrounding Tiber Creek. The Swampoodle neighborhood was greatly diminished by the construction of Washington Union Station in 1907.

Effects Evaluation: Activity related to the WUS Expansion Project would occur to the east of the property. No physical effects to Gales School would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association also would be unaffected by project implementation. Furthermore, all Action Alternatives would have no effect to the visual

setting of the property as the Project Area is not visible to or from the Gales School. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas, and while it is located adjacent to Massachusetts Ave (a principal arterial street intended to carry significant amounts of traffic), the incremental increase in operational traffic volumes would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no effect on the Joseph Gales School.

17. Library of Congress, Thomas Jefferson Building



Library of Congress Thomas Jefferson Building, view looking east



View looking north from the property's grand staircase, fronting First Street SE, towards the WUS headhouse and Project Area

The Thomas Jefferson Building of the Library of Congress is located approximately 2700 feet south of the Project Area at 10 First Street SE. It was constructed from 1886 to 1897 to the design of Smithmeyer and Pelz and Edward P. Casey in the Beaux Arts style. The Library is under the jurisdiction of the AOC and is thus exempt from NRHP designation; however, it is listed as an AOC Heritage Asset and is therefore treated as a historic property subject to Section 106. As the nation's "main" library, the Library of Congress serves not only Congress but also acts as a

central source for resource collection and copyright. The grand design is based on the Paris Opera House and represents America's faith in learning and knowledge as vital strengths in upholding the republic.

Effects Evaluation: No physical effects to the Library of Congress would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association also would be unaffected by project implementation. All Alternatives would have potentially negligible visual effects. The potential Federal air-rights development would have low visibility and low sensitivity in the Action Alternatives. The lines of sight to the Capitol and other AOC properties would also be unaffected. Therefore, the integrity of setting would not be affected by visual effects. Similarly, the building's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The property is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Library of Congress.

Visual Assessment from the west elevation of the Library of Congress Jefferson Building looking north



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A, Alternative B, and Alternative A-C



Visual Assessment for Alternative C

Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative D and Alternative E

Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

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18. M Street High School (Perry School)



M Street High School, view looking south



View from the north elevation looking east towards the Project Area along New York Ave and M Street NW. The Project Area is not visible.

M Street High School (now Perry School Community Services Center) is located approximately 2500 feet west of the Project Area at 128 M Street NW. The school was constructed in 1891 to the design of Thomas Entwistle in the Office of the Building Inspector. The building is three stories tall with a basement and is designed in the Romanesque Revival style with Colonial Revival accents.

M Street High School is listed in the NRHP and the DC Inventory (NR listing October 23, 1986; DC listing November 21, 1978) meeting criteria A and C for its association with the city's public-school buildings and expression of the Colonia Revival style. The building is significant as one of the first schools in the nation constructed with public funds for the education of black students. The school remains a symbol of the policy of racial segregation in the DC school system, which ended in 1954. Currently, the building is used as the Perry School Community Services Center.

Effects Evaluation: No physical effects to M Street High School (Perry School) would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's historical associations and would be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property as there are no direct lines of sight towards WUS. Similarly, the building's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on M Street High School (Perry School).

19. Major General Nathanael Greene Statue



Major General Nathanael Greene Statue, view looking northeast



View from the statue looking northwest towards the Project Area

The Major General Nathanael Greene Statue is located approximately 2000 feet southeast of the Project Area at the center of Stanton Park, at the intersection of Massachusetts Avenue NE and Maryland Avenue NE. Stanton Park is bounded by Fourth Street to the east, Sixth Street to

the west, and the westbound and eastbound branches of C Street as the north and south boundaries, respectively. Stanton Park was included on the original L'Enfant Plan for Washington, DC and from the park, Massachusetts Avenue leads directly to Washington Union Station and Columbus Plaza. The statue was designed by sculptor Henry Kirke Brown in 1877 in honor of the Revolutionary War general Major General Nathanael Greene.

The Major General Nathanael Greene Statue is listed in the NRHP and the DC Inventory as part of the American Revolutionary Statuary nomination (NR listing July 14, 1978; DC listing March 3, 1979) under Criterion C. The statue is part of a larger thematic collection of 14 statues throughout District parks representing a 19th and 20th century interest in honoring the heroes of the Revolutionary War.

Effects Evaluation: No physical effects to the Major General Nathanael Greene Statue would occur because of Project implementation. Therefore, no effects to the statue's integrity of location, design, materials, and workmanship would occur. The statue's integrity of feeling and association also would be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property. Views towards the south façade of WUS are largely obscured from the park and would remain unaffected by project implementation. Similarly, the statue's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The statue is outside both the Operational and Construction Noise and Vibration Study Areas and is buffered by Stanton Park. The setting, feeling, and association of the statue would not be impacted.

Based on this evaluation, all Action Alternatives would have no effect on the Major General Nathanael Greene Statue.

20. Mountjoy Bayly House



View from Maryland Avenue NE looking northwest towards Mountjoy Bayly House and WUS/Project Area. This property has no view of the Project Area.

The Mountjoy Bayly House (also known as the Hiram W. Johnson House, Chaplains Memorial Building, and Parkingson) is located approximately 1800 feet south of the Project Area at 122 Maryland Avenue NE. The design of the two and a half story brick house combines the Federal and Second Empire styles with a stucco exterior and mansard roof. Divided stairs lead up to the front entrance. The house was constructed from 1817-1822. The Mountjoy Bayly House was designated a National Historic Landmark for its association with Hiram Johnson. It is also listed in the NRHP and the DC Inventory (NHL listing December 8, 1976; NR listing July 20, 1973; DC listing November 8, 1964) meeting criteria A, B, and C. The property is significant for its association with Johnson, who was a leading voice of the Progressive Movement.

Effects Evaluation: No physical effects to the Mountjoy Bayly House would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's association with Hiram W. Johnson and would be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property as there are no direct lines of sight towards WUS and the Project Area. Similarly, the building's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Mountjoy Bayly House.

21. Peace Monument



Peace Monument, view looking west



View looking northeast towards Project Area from the Peace Monument

The Peace Monument is located approximately 2700 feet southwest of the Project Area within a circle west of the U.S. Capitol at the intersection of Constitution Avenue and First Street NW. It is a 44-foot-high white marble monument erected in 1877-1878 to commemorate the naval

deaths at sea during the Civil War.⁶³ The Peace Memorial is under the jurisdiction of the AOC and is thus exempt from NRHP designation; however, it is listed as an AOC Heritage Asset and is therefore treated as a historic property subject to Section 106.

The sculptor, Franklin Simmons (1839-1913) created a total of four statues and three busts for the U.S. Capitol. The Peace Monument represents an idealized neoclassical sculpture, depicting classically robed female allegorical figures. The monument pedestal was made by the Bonanni Brothers of Carrara, Italy under Simmons's direction. The monument became the responsibility of the Architect of the Capitol in 1973, when the circle on which it stands was made part of the Capitol Grounds.

Effects Evaluation: No physical effects to the Peace Monument would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected directly to the design and association with historic events and would be unaffected. All Action Alternatives would have no effect to the visual setting of the property, as there are no direct sightlines to the Project Area, which instead expand to Capitol Grounds and Senate Parks. Similarly, the property's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The monument is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Peace Monument.

⁶³ Architect of the Capitol, "The Peace Monument," <https://www.aoc.gov/capitol-grounds/peace-monument>.

22. Railway Express Agency Building



Railway Express Agency Building, view looking southwest



View looking southwest from the REA Building to the WUS Terminal Rail Yard and WUS. This view would be completely obscured by the No-Action Alternative and all Action Alternatives.

The Railway Express Agency (REA) Building is located at 900 Second Street NE, directly adjacent to the east side of the WUS Terminal Rail Yard and is within the Project Area. It was constructed in 1908 to the design of D.H. Burnham and Co. in conjunction with the development of Union Station. The REA Building is eligible for listing in the NRHP, is a contributing resource to the

NRHP eligible WUS Historic Site and is individually eligible for the DC Inventory. A DC Landmark application was submitted in October 2015 and its landmark status is pending.

The rectangular two-story plus attic and basement brick structure has an elongated footprint common to American industrial buildings. It is capped by a terracotta tile hipped roof. Prominent ground floor arches encircle the building and express its use as an operational warehouse. A train platform runs the full length along the west elevation of the building.

The REA Building is an example of early 20th century industrial architecture in Washington and the thoughtful design consideration given to even the utilitarian structures associated with Union Station. It is eligible for listing under Criterion A for its association with the development of Union Station, transportation, and the delivery of goods to Washington, DC. It is also eligible under Criterion C as a unique example of a highly decorative urban warehouse and its design by D.H. Burnham & Co.

Effects Evaluation: The REA Building is within the Project Area, and operational and construction activity would largely occur to the southwest and west, depending on each Alternative. All Action Alternatives would result in a physical effect to the REA Building due to the construction of the new H Street Concourse, which would be constructed along the alignment of the existing H Street Tunnel. The eastern portion of the H Street Concourse would overlap with the south portion of the REA historic property boundary. Direct access between the H Street Tunnel and the basement of the REA Building currently exists and may either be maintained or eliminated during the construction of the H Street Concourse. At this conceptual stage of Project design, and since the exact location and method of a potential connection to the REA Building is not yet determined, the nature of the physical effect to the property and whether it would constitute an adverse effect under Section 106 cannot be determined at this time. Any such effects would be identified and resolved as Project design continues and is guided by ongoing consultation and review as prescribed in the PA. No other operational physical or noise and vibration effects to the building would likely occur from the Action Alternatives because the rail yard would be covered by the new deck in the vicinity of the building, reducing noise and vibration from trains.

Due to the building's proximity to the Project Area and potential use as a staging and access area during construction, the DEIS noise and vibration analysis indicates that the REA building would experience noise and vibration effects during the construction of the Action Alternatives. Under the Action Alternatives, vibratory pile driving may occur within approximately 16 feet of the REA Building, resulting in vibration levels of approximately 0.33 in/s, which exceeds the criteria for potential structural damage. Therefore, there would be an increased risk of

structural damage and human annoyance during construction. Such effects would likely occur when construction is on the eastern side of the construction site, and there would be little to no potential construction vibration effects as construction activities shift farther west. Given the long duration of the construction activities and the relative proximity of the REA building, the effect of vibration on the building would need to be monitored to ensure structural damage does not occur.

The REA Building would likely experience severe temporary noise impacts from construction, regardless of the method employed to remove excavation spoils. Temporary noise effects, however, would not adversely affect the significance or integrity of the building, which is defined by its architectural design and association with WUS and the WUS Historic Site.

While noise and vibration are the main source of potential traffic-related impacts on historic properties, increases in traffic volumes also has the potential to cause effects. However, the transportation analysis provided in the DEIS found that the street network surrounding the REA building, including Second Street, which is classified as a collector road intended to connect local roads with arterial roads and carry higher volumes of traffic, would not experience traffic impacts. Therefore, traffic volumes would not have the potential to affect the integrity of setting, feeling, or association of the REA Building.

The building's integrity of setting, feeling, and association are tied directly to building's design and relationship with the WUS and the Terminal Rail Yard. In all Action Alternatives, the rail terminal would be fully reconstructed, requiring the demolition and/or removal of all existing tracks and platforms, umbrella sheds, K Tower, single catenaries, catenary with cross beam, pneumatic switch valves, and signal bridges. A deck would be constructed above the rail terminal, north of the WUS headhouse to K Street, to allow for the construction of all Alternatives. Such physical and visual changes, which would alter the connection between the WUS, the Terminal Rail Yard, and the REA Building, would adversely affect the property's integrity of setting, feeling, and association.

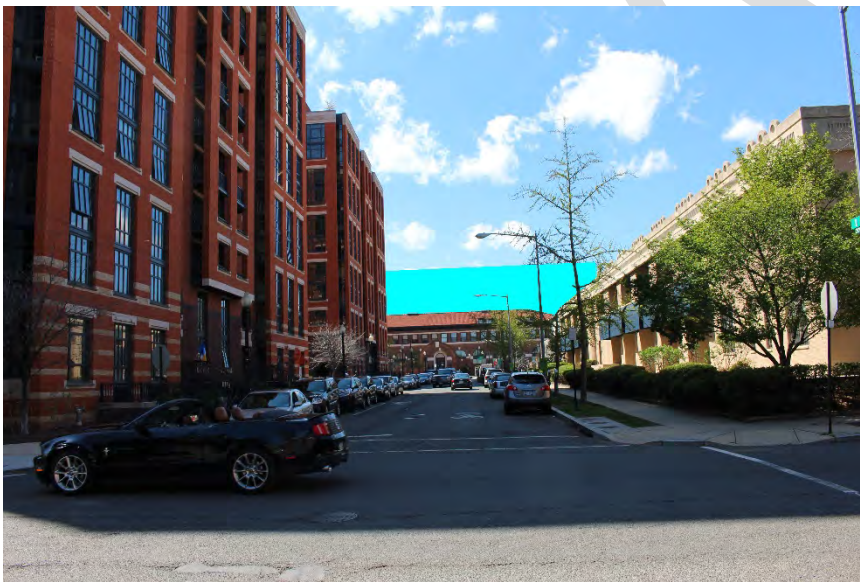
The view towards the REA building from Eye Street looking west would also experience visual effects from Alternative C-East. The Alternative would have high visibility and moderate sensitivity, resulting in potential moderate visual effects. However, such visual changes would not affect the integrity of setting, feeling, or association and would not result in an adverse effect. Alternatives A, B, C-West, D, E, and A-C would not be visible and would have no visual effects on the view towards the REA building from Eye Street NE.

Based on this evaluation, all Action Alternatives would have an adverse effect on the REA Building.

Visual Assessment from the intersection of Eye Street and Third Street NE, REA Building in background



The Project would not be visible from this location for Alternative A, Alternative B, Alternative C-West Parking Option, Alternative D, Alternative E, and Alternative A-C



Proposed Alternative



Visual Assessment for Alternative C-East Parking Option



Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

DRAFT

23. Robert A. Taft Memorial



Robert A. Taft Memorial, view looking east (Photo courtesy of AOC)



View from the north base of the statue looking northeast towards Louisiana Ave NE and the Project Area

The Robert A. Taft Memorial and Carillon is located approximately 1900 feet southwest of the Project Area and north of the Capitol, on Constitution Avenue between New Jersey Avenue and First Street NW. It honors Senator Taft from Ohio who served in the Senate from 1938 until his

death in 1953. Designed by architect Douglas W. Orr, the memorial consists of a Tennessee marble tower and a 10-foot bronze statue of Senator Taft sculpted by Wheeler Williams. The memorial is under the jurisdiction of the AOC and is thus exempt from NRHP designation; however, it is listed as an AOC Heritage Asset and is therefore treated as a historic property subject to Section 106.

Effects Evaluation: No physical effects to the memorial would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected directly to the memorial design and association with historic persons and also would be unaffected. All Action Alternatives would have no effect to the visual setting of the property, as there are no direct sightlines to WUS and the Project Area. Similarly, the property's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The structure is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Robert A. Taft Memorial.

24. Russell Senate Office Building



Russell Senate Office Building, view looking north



View from the northwest elevation of Russell Senate Office Building looking north along Delaware Ave NE towards Senate Parks, which obscures WUS and the Project Area.

The Russell Senate Office Building (constructed as the Senate Office Building) is located approximately 1200 feet south of the Project Area at the northeast corner of Delaware and Constitution Avenues NE and was designed by renowned architects Carrere and Hastings and constructed between 1906 and 1909. The White Vermont marble-clad building reflects the Beaux Arts style. A long repetitive range of arcades and colonnades is evident on Constitution

Avenue, while pilasters and a central pediment dominate the secondary elevation on Delaware Avenue. In keeping with the tenets of the Beaux Arts movement, the design of the building's elevations suggests the use and placement of the spaces within. The building was designed to complement the scale and ornamentation of the U.S. Capitol and the Cannon House Office Building to provide a visual and physical relationship between the three symmetrical compositional elements. The Russell Senate Office Building is under the jurisdiction of the AOC and is thus exempt from NRHP designation; however, it is listed as an AOC Heritage Asset and is therefore treated as a historic property subject to Section 106.

Effects Evaluation: No physical effects to the Senate Office Building would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's historic association with the U.S. Capitol and would not be affected. While all Action Alternatives may be partially visible from the northwest corner of the Russell Senate Office Building, any views are heavily obscured by the expanse of the Senate Parks between the Russell Building and the Project Area. Any visual effect would likely be negligible and would not affect the integrity of setting because the significance of the building is not derived from its visual connection beyond Union Station and the significant visual relationships between the Capitol and the Senate Office Buildings would be unaffected. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The property is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Russell Senate Office Building.

25. Senate Parks, Underground Garage, and Fountains



Senate Parks, view looking south



View from Lower Senate Park looking northeast towards the WUS headhouse

The Senate Parks, Underground Garage, and Fountains are located approximately 500 feet south of the Project Area and north of the Capitol on property bounded by Constitution Avenue, First Street, and Louisiana Avenue NW and NE. This property comprises Upper Senate Park, Lower Senate Park, Senate Fountain, and a parking garage beneath the plazas. The parks were authorized by Congress in 1929, and construction was completed in 1932. The Senate Parks are under the jurisdiction of the AOC and are thus exempt from NRHP designation;

however, they are listed as AOC Heritage Assets and are therefore treated as a historic property subject to Section 106.

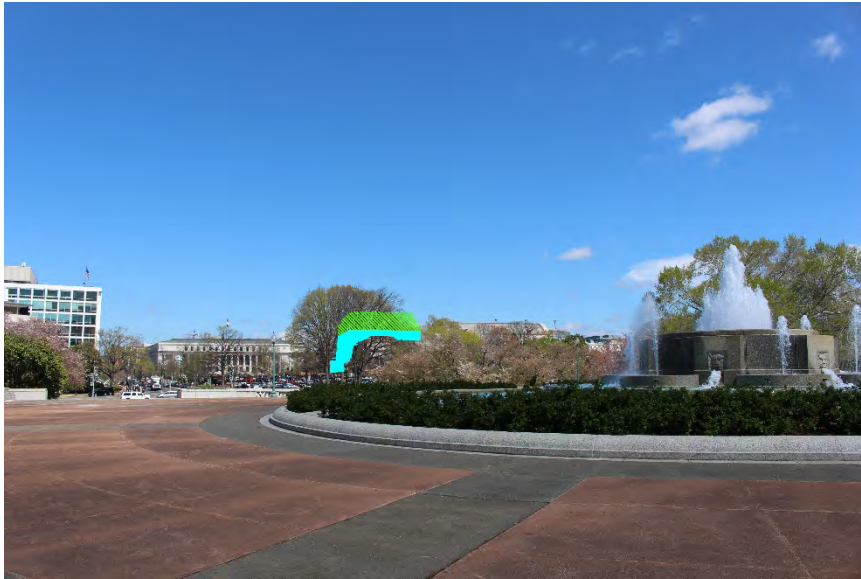
The land between the Capitol and Union Station upon which the parks were built was acquired by the U.S. government between 1910 and 1940. The park is divided into two distinct sections: the lower section contains a shallow rectangular reflecting pool flanked by wide pathways and fountains and is bounded by two sets of steps, while the upper section is centered on a large fountain and plaza and a tree-lined lawn panel connecting to the Senate and Capitol grounds.

Effects Evaluation: No physical effects to the Senate Parks would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's historic association with the U.S. Capitol also would be unaffected. From Lower Senate Park, between Louisiana Avenue and First Street NE, all Action Alternatives would have low visibility and moderate sensitivity resulting in potential minor visual effects to the view of the station from the property. However, the significant visual relationships between the Capitol and the Senate Office Buildings would be unaffected. There would not be an effect to the integrity of setting or association because the significance of the site is not derived from its visual connection beyond Union Station.

The site's integrity of setting would likely not be affected by noise or vibration related to the Project's construction and operation. Lower Senate Park is adjacent to Columbus Circle and is located within the Operational and Construction Noise and Vibration Study Areas. Noise and vibration analysis conducted for the DEIS indicates that the property would not experience operational or temporary construction noise and vibration effects. Furthermore, any potential noise and vibration effects would not affect the significance or integrity of the property, which is attributed to its design and relationship to the Senate Office Buildings and Capitol Grounds. Similarly, the property's integrity of setting would not be affected by Project-related traffic. The property is not located at or adjacent to thoroughfares that would be impacted by traffic and is outside the Transportation Study Area, which was developed in coordination with DDOT.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Senate Parks, Underground Garage, and Fountains.

Visual Assessment from the fountain within the Senate Parks between New Jersey Ave and Delaware Ave NE.



Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



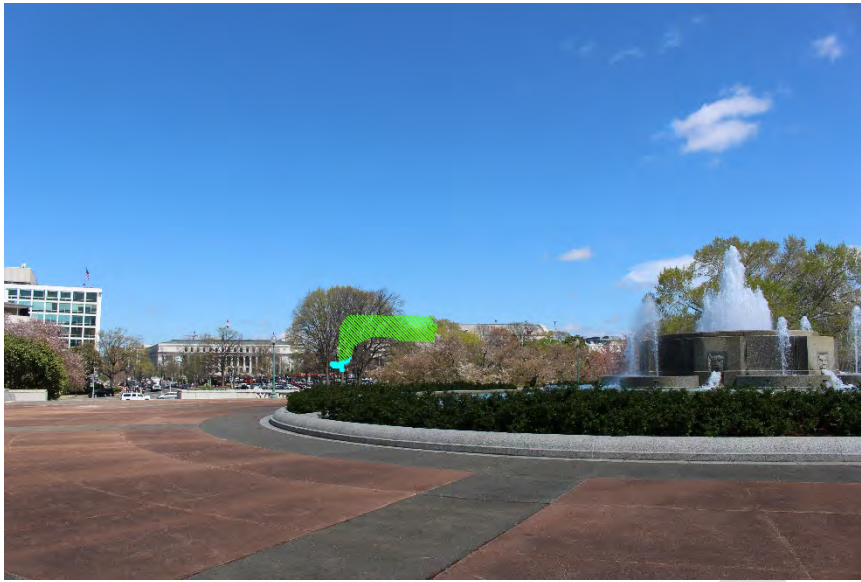
Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



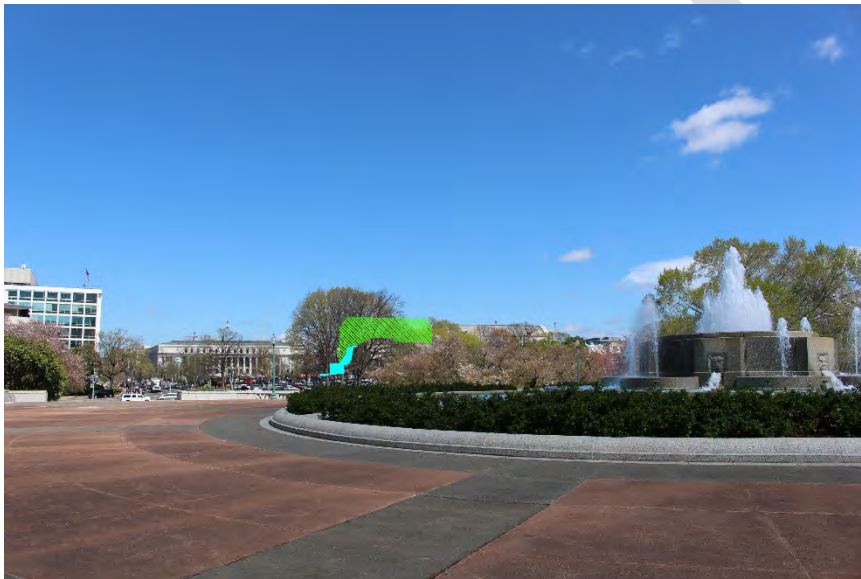


Visual Assessment for Alternative C (East and West Option)

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



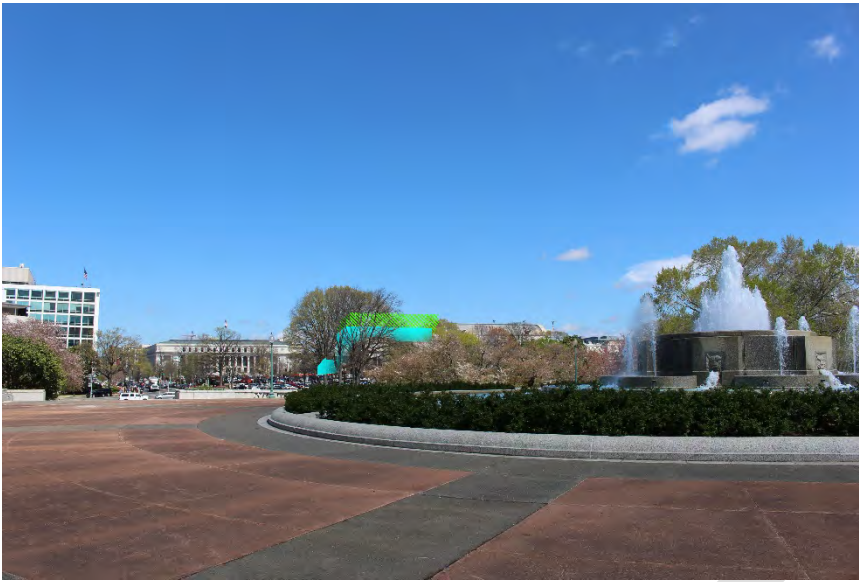
Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights Development
(maximum buildable volume including penthouse)



26. Belmont-Paul Women's Equality National Monument (Formerly the Sewall-Belmont House)



Belmont Paul Women's Equality National Monument, view looking north from Constitution Avenue NE. This property has no view of the Project Area.

The Belmont-Paul Women's Equality National Monument (formerly the Sewall-Belmont House) property is located approximately 1600 feet south of the Project Area at 144 Constitution Avenue NE, at the intersection of Constitution Avenue and Second Street NE. The original building dating to 1800 was destroyed in a fire; the existing building is a reconstruction from 1820. It has served as the headquarters of the National Women's Party since 1929. The building is two and a half stories tall with a raised basement and reflects a variety of architectural styles, as it was modified substantially over time.

The house is a National Historic Landmark and is listed in the NRHP and DC Inventory (NHL listing May 30, 1974; NR listing June 16, 1972; DC listing November 8, 1964), meeting criteria A, B, and C. The building is significant for its association with the National Women's Party and its founder, women's suffragist and human rights activist, Alice Paul. The strategic location of the house aided and supported their lobbying efforts for the ratification of the 19th Amendment and subsequent legislation supporting women's equality.

Effects Evaluation: No physical effects to the building would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's historic associations with the National Women's Party and would not be affected. Furthermore, all Alternatives would have no effect to the visual setting of the

property as there are no direct lines of sight towards WUS. The Hart Senate Office Building and other offices obstruct the views. Similarly, the building's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Belmont-Paul Women's Equality National Monument.

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27. Square 750 Rowhouse Development



Square 750 Rowhouse Development, view looking west along Parker Street NE



Square 750 Rowhouse Development, view looking southwest from K Street NE and Third Street NE



Square 750 Rowhouse Development, view looking east to the southwest corner of the block. Multi-story development has surrounded the one and two-story commercial and rowhouse architecture.



View from the west end of Parker Street within the Square 750 Rowhouse Development, view looking west towards Substation 25A the REA Building, both within the Project Area. Note that Substation 25A will be removed as part of another project, included in the No-Action Alternative.

Square 750 is located approximately 100 feet east of the Project Area. It is bounded by Second, K, Third, and Eye Streets NE. Parker Street NE bisects the Square from east to west. The square consists of mostly small-scale, two-story historic row houses with a few commercial and industrial buildings. A new multi-story residential building was constructed in 2017 on the west side of the square at 911 Second Street, adjacent to Parker Street. The area began to resemble

its present configuration in the late 19th and early 20th centuries. The rowhouses on the northern half of the square between Parker and K Streets NE were built prior to the construction of WUS and retain their historic relationship to the original grade of K Street NE, which was re-graded as part of the construction of the station and rail terminal.

The southern portion of the square was constructed between 1907 and 1915 and included several non-residential buildings: 911 Second Street (demolished in 2015) originally served as a milk depot due to its proximity to the milk platform within the rail terminal; 901 Second Street (extant, historic property No. 43) originally served as a lunch room catering to residents as well as workers from the Terminal Rail Yard; and 220 Eye Street NE constructed for Topham's, Inc., a local manufacturer of travel luggage and trunks (extant, historic property No. 34). The Historic Preservation Plan for WUS prepared by BCA states that Square 750 appears to be eligible for the NRHP under Criterion A for its association with the patterns of residential development related to the late 19th-century growth and development of the northeast quadrant of Washington, DC.⁶⁴

Effects Evaluation: No physical effects to the properties on Square 750 would occur because of the Project's implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur.

The square's integrity of setting, feeling, and association are connected to the relationship of the square with the surrounding streets, particularly the grade change, as well as the design of the buildings, which illustrate development patterns in the late 19th and early 20th centuries. Square 750 has lost much of its integrity of setting, feeling, and association due to the recent and planned developments within and surrounding the square to the north and south. The construction of the new multi-story condo building at 911 Second Street in 2017, which required the demolition of the 1922 milk depot building, in addition to new multi-story residential and mixed-use developments immediately to the north and south of the square, have significantly altered the character of the original neighborhood. Another planned-unit development (PUD) is underway at the northwest corner of the square.

All Alternatives would result in visual effects, especially to views from Parker Street NE and Second Street NE, as shown in the visual simulations below. From Parker Street, Alternative D would have moderate visibility and moderate sensitivity resulting in potential moderate visual effects. All other Action Alternatives would have low visibility and low sensitivity resulting in potential negligible visual effects. From the intersection of Second Street and Parker Street, Alternatives A, B, C-West, E, and A-C would also have low visibility and low sensitivity, resulting

⁶⁴ BCA, *Washington Union Station Historic Preservation Plan: Volume I* (2015), 159-160.

in potential negligible visual effects, while Alternatives C-East and D would have moderate visibility and low sensitivity resulting in potential minor visual effects. Such visual changes would be keeping with the height of the existing mass of Substation 25A adjacent to the REA Building and would not change the visual character of the site. Furthermore, visual effects would not affect the historic significance of the property, which is derived from the late 19th and early 20th century urban residential rowhouses and two-story commercial buildings and has been compromised by recent new developments. The recently constructed and planned multi-story residential and mixed-use developments have resulted in a loss of integrity to the setting of the property. The square retains its historic relationship to the original grade of K Street NE, which would not be affected by the Project.

Square 750 would experience effects from noise and vibration related to the Project's construction and operation. The square is located within the Operational and Construction Noise and Vibration Study Areas. Noise and vibration analysis conducted for the DEIS indicates that the buildings facing K Street NE (203-219 and 221-243 K Street NE) would likely experience moderate temporary noise effects during construction, and buildings facing Second Street NE (917-923 Second Street NE) and Parker Street NE (208-224, 226-242, and 219-231 Parker Street NE) would likely experience severe temporary noise effects during construction. Temporary construction vibration effects, would likely affect properties on the northwest corner of Square 750, resulting in an "annoyance impact" but would not cause structural or physical effects. Once operational, all Action Alternatives would likely cause moderate noise impacts to 203-219 and 221-243 K Street NE due to increased train operations and volumes in traffic.

Temporary moderate to severe construction noise effects, temporary construction vibration effects causing human annoyance, and moderate operational noise effects would not result in an adverse effect to the historic property as they would not diminish the late 19th and early 20th century architectural characteristics of the site or its association with the WUS rail terminal. Furthermore, the significance and integrity of the site has been diminished by current and planned developments that have/will result in the demolition and/or alteration of several existing buildings on the block.

Similarly, while the historic property is located along Second Street and is within the Transportation Study Area, the incremental increase in operational traffic along Second Street (classified as a collector road intended to connect local roads with arterial roads) from the Action Alternatives would not alter the busy, traffic-present, urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on Square 750.

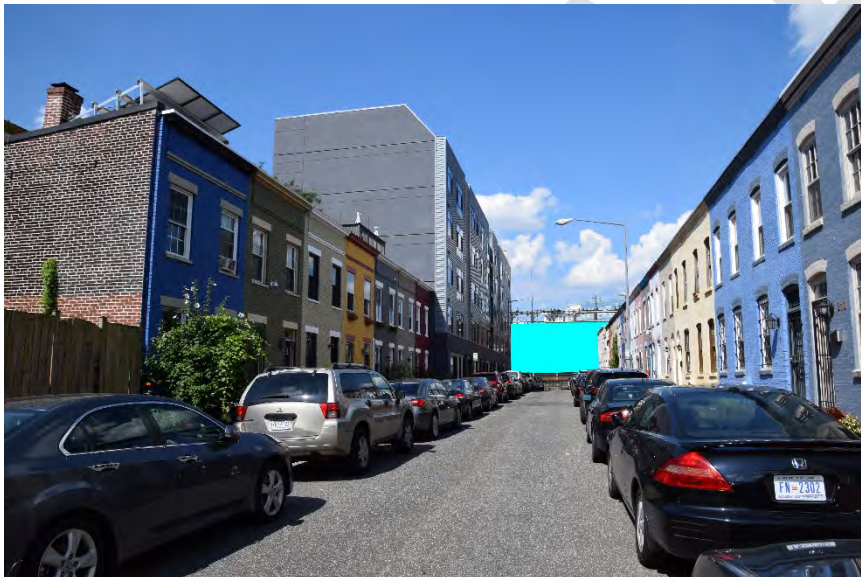
Visual Assessment from Parker Street, the central street dividing Square 750, looking west towards the Project Area



Station Expansion



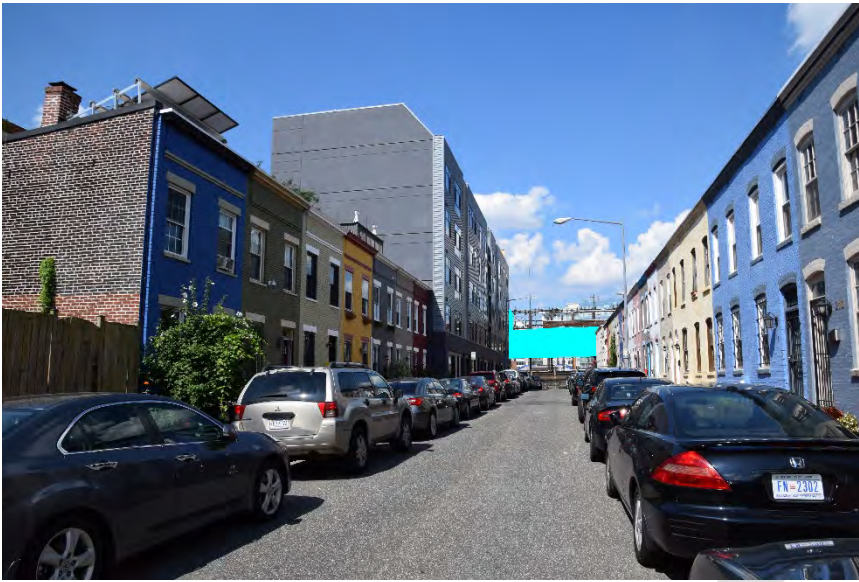
Visual Assessment for Alternative A and Alternative B



Station Expansion



Visual Assessment for Alternative C-East



Visual Assessment for Alternative C-West Parking Option

Station Expansion



Visual Assessment for Alternative D

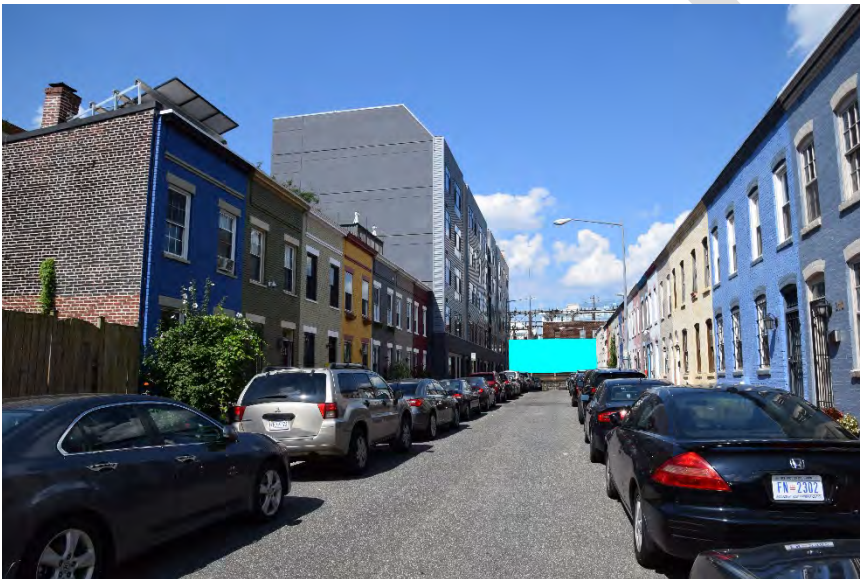
Station Expansion





Visual Assessment for Alternative E

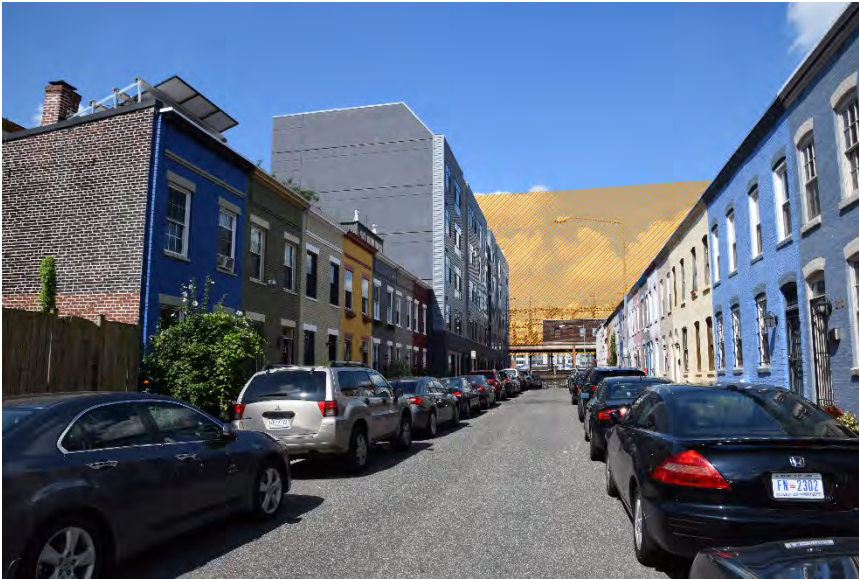
Station Expansion



Visual Assessment for Alternative A-C

Station Expansion





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

DRAFT

Visual Assessment from the west side of Parker Street, the central street dividing Square 750, looking west towards the REA Building and the Project Area



Visual Assessment for Alternative A, Alternative B, and Alternative E

Station Expansion



Outline of Existing
Substation 25A to be
Removed



Visual Assessment for Alternative C-East

Station Expansion



Outline of Existing
Substation 25A to be
Removed





Visual Assessment for Alternative C-West Parking Option

Station Expansion



Outline of Existing
Substation 25A to be
Removed



Visual Assessment for Alternative D

Station Expansion



Outline of Existing
Substation 25A to be
Removed





Visual Assessment for Alternative A-C

Station Expansion



Outline of Existing
Substation 25A to be
Removed



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



28. St. Aloysius Catholic Church



St. Aloysius Catholic Church, view looking west



View from the east elevation of the church looking east towards the Project Area

The St. Aloysius Catholic Church is located approximately 950 feet west of the Project Area at 19 Eye Street NW. The church was designed by Father Benedict Sestini and constructed

between 1857 and 1859. The church originally served the large Irish Catholic population of the Swampoodle neighborhood. The design is an example of the Renaissance Revival style, with a simple exterior and highly detailed interior. The congregation was administered by the Jesuits until 2012 and remains in use by the adjacent Gonzaga College High School.

St. Aloysius Catholic Church is listed in the NRHP and the DC Inventory (NR listing July 26, 1973; DC listing March 7, 1968) meeting criteria A and C. The church is significant as an excellent example of mid-19th century Renaissance Revival design. The church sanctuary contains artwork by the painter Constantine Brumidi, best known for his frescos in the U.S. Capitol Building. It is also significant for its association with the historic Swampoodle neighborhood and with development of the area.

Effects Evaluation: No physical effects to the St. Aloysius Catholic Church would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are also connected directly to the building's design and would be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property as there are no direct lines of sight towards the Project Area.

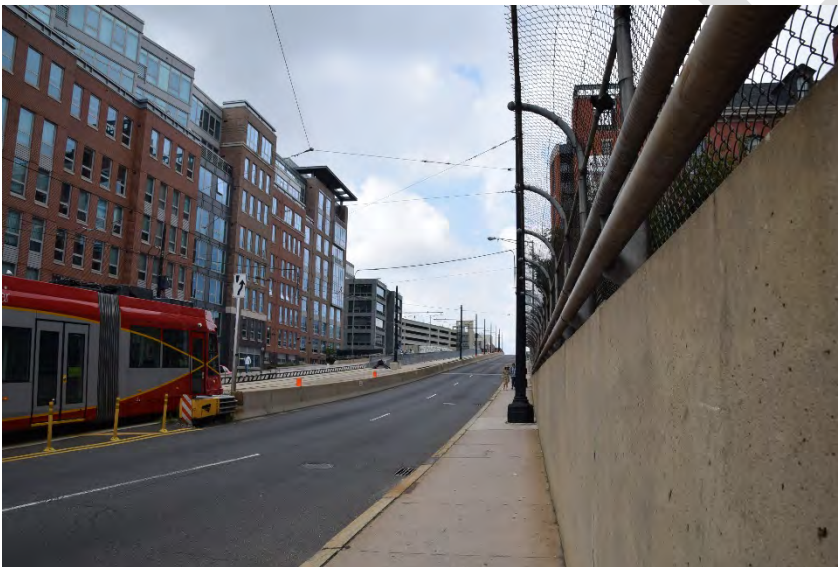
The building's integrity of setting would likely not be affected by noise or vibration related to the Project's construction and operation. While the building is located at the edge of the Operational and Construction Noise and Vibration Study Areas, noise and vibration analysis conducted for the DEIS indicates that the building would not likely experience operational or temporary construction noise and vibration effects. Furthermore, any potential noise and vibration effects would not affect the significance or integrity of the property, which is derived from its architectural design. Similarly, the building's integrity of setting would not be affected by traffic. The incremental increase in operational traffic volumes along North Capitol Street NE (a principal arterial street intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on St. Aloysius Catholic Church.

29. St. Joseph's Home (Former)



St. Joseph's Home (Former), view looking northwest



View from the south elevation of the building along H Street NE looking west towards the Project Area

The former St. Joseph's Little Sisters of the Poor Home for the Aged (St. Joseph's Home) is located approximately 220 feet east of the Project Area at 800 Third Street NE. The extant buildings consist of the main five-story nursing home at the southeast corner of the square and a small two-story brick building near the center of the square. These have been incorporated into a contemporary condominium development. The Little Sisters of the Poor property was initially constructed in 1872. The high concentration of Irish Catholic immigrants and

institutions in Swampoodle led to the founding of the Asylum for the Elderly, later St. Joseph's Home. The sisters expanded the facility over time and ceased operations in 1977.

The home itself was a four-story gabled brick institutional building with additions characterized by an open pastoral setting of lawn and garden, even well into the 20th century. Construction of the six-lane H Street Bridge and roadway in the 1970s compromised the integrity of the home's historic setting along H Street NE. The Capital Children's Museum acquired the former St. Joseph's Home and opened there in 1980. In 2004, the museum sold the property to Abdo Development, which constructed the Landmark Lofts at Senate Square. Although the Senate Square development retained some of the former St. Joseph's buildings, it also included large new apartment buildings, infilling the open space around the home and immediately surrounding the historic building. The St. Joseph's Home building is potentially eligible for the NRHP and DC Inventory under criterion A.

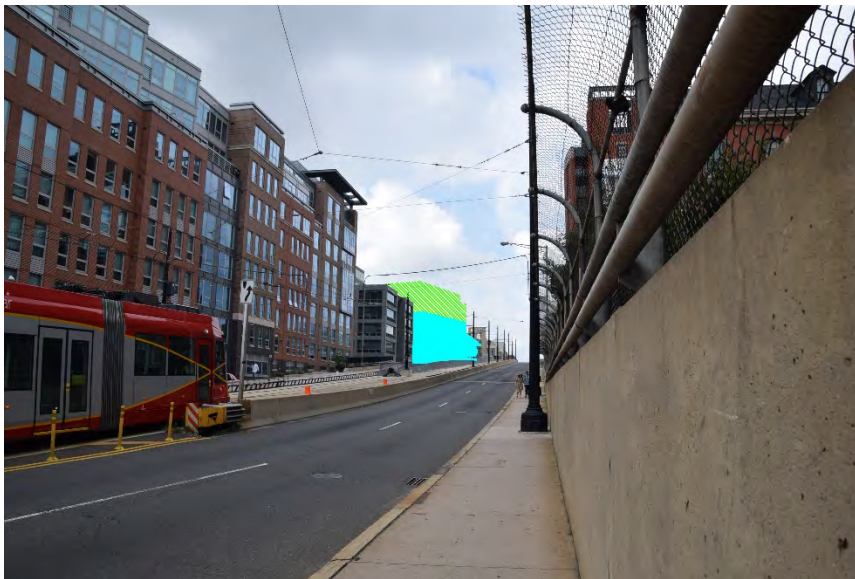
Effects Evaluation: No physical effects to St. Joseph's Home would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. All Action Alternatives would have low visibility and low sensitivity, resulting in potential negligible visual effects. The Action Alternatives do not alter the visual character of the view towards the station, which is defined by the multi-story commercial and mixed-use properties along H Street NE. Therefore, visual effects from the Action Alternatives would not affect the integrity of the property's setting.

Furthermore, the building's integrity of setting would likely not be affected by noise, vibration, or traffic related effects from Project's construction and operation. The building is within the Operational and Construction Noise and Vibration Study Areas, and noise and vibration analysis conducted for the DEIS indicates that the St. Joseph's Home property would experience moderate operational noise effects and moderate to severe temporary construction noise effects. Such noise effects will be determined by the method of removing spoils from excavation from the site. Analysis indicates that if spoils are removed by trucks a severe temporary noise effect would likely occur; however, if trains are used a moderate temporary noise effect would likely occur. Temporary construction vibration effects would result in an "annoyance impact" but would not cause structural or physical effects. Finally, no operational vibration effects would occur. Regardless, all operational and construction noise and vibration effects would not affect the significance or integrity of the building, which is directly related to its association with the development of the Swampoodle neighborhood and has been diminished by new development surrounding the site. The incremental increase in operational traffic volumes along H Street NE (a principal arterial street intended to carry significant

amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on St. Joseph's Home.

Visual Assessment from the south elevation of St. Joseph's Home (former) along H Street NE looking west



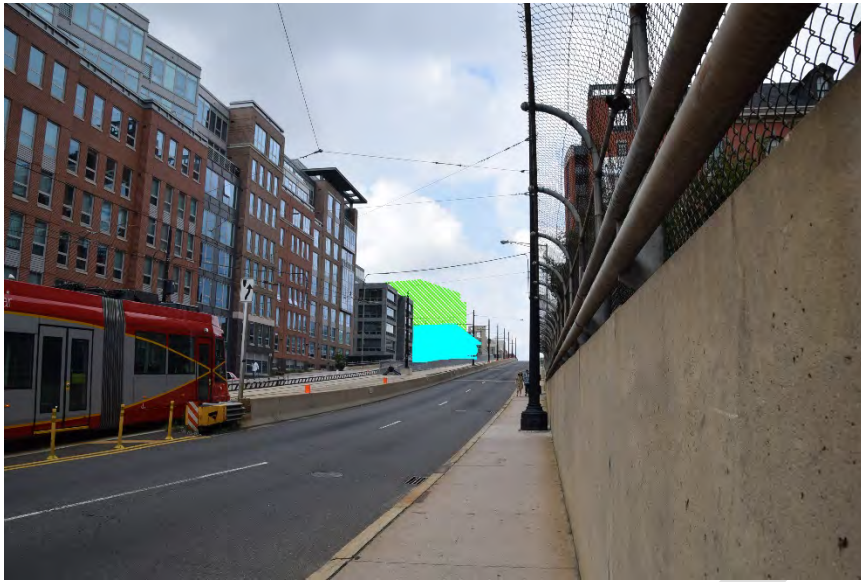
Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A

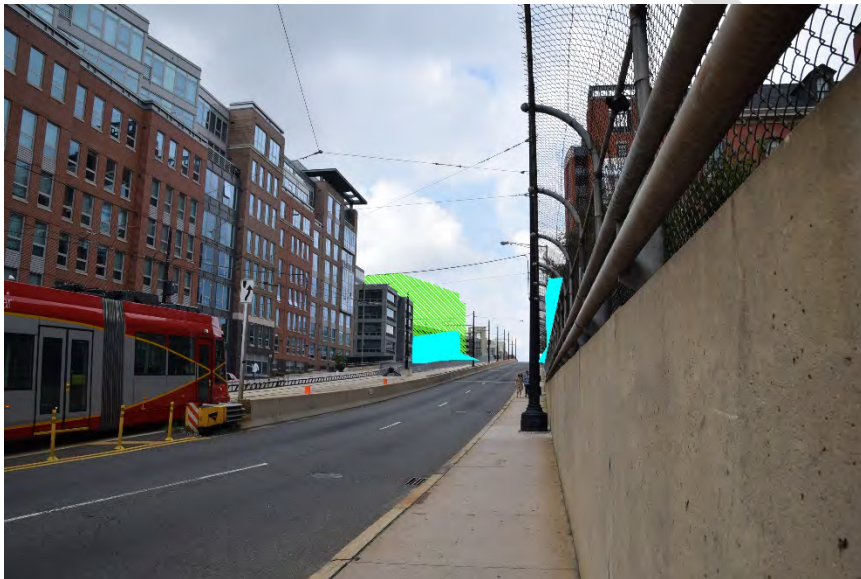


Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable
volume including
penthouse)



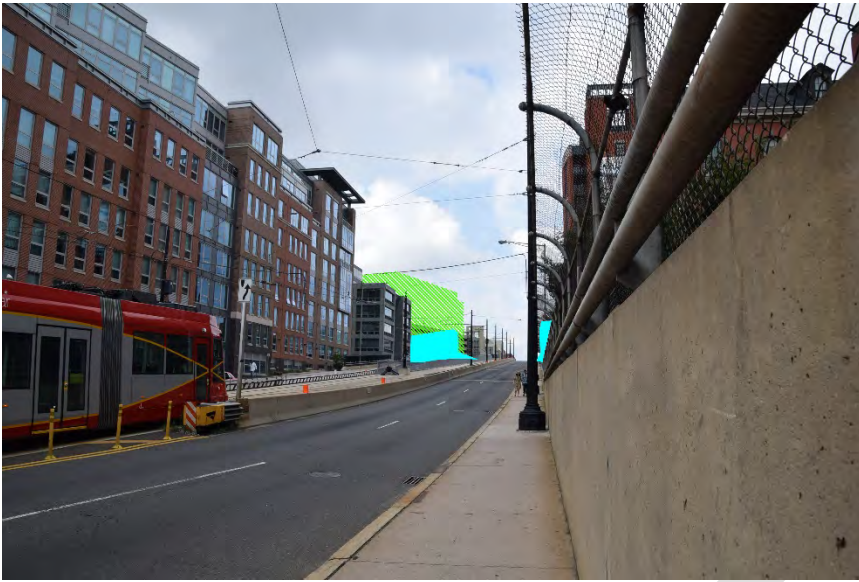
Visual Assessment for Alternative C-East

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable
volume including
penthouse)



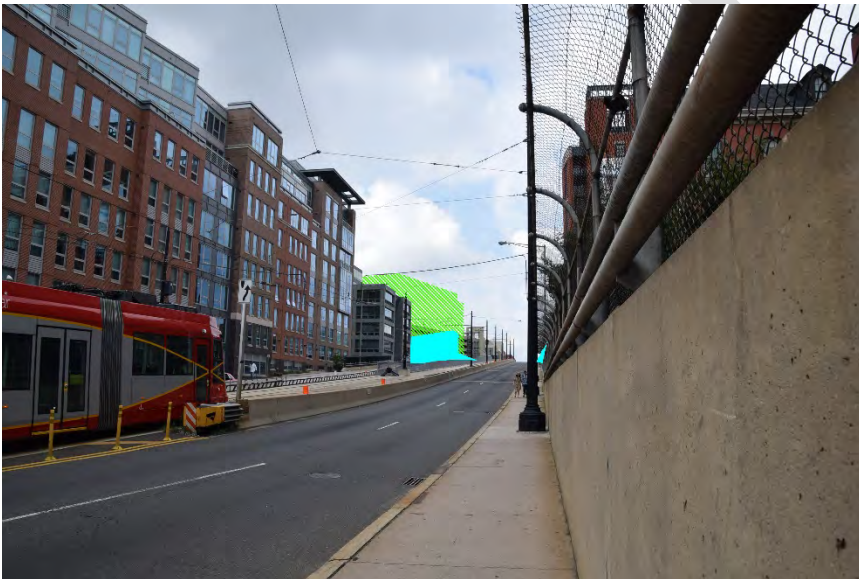


Visual Assessment for Alternative C-West Parking Option

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



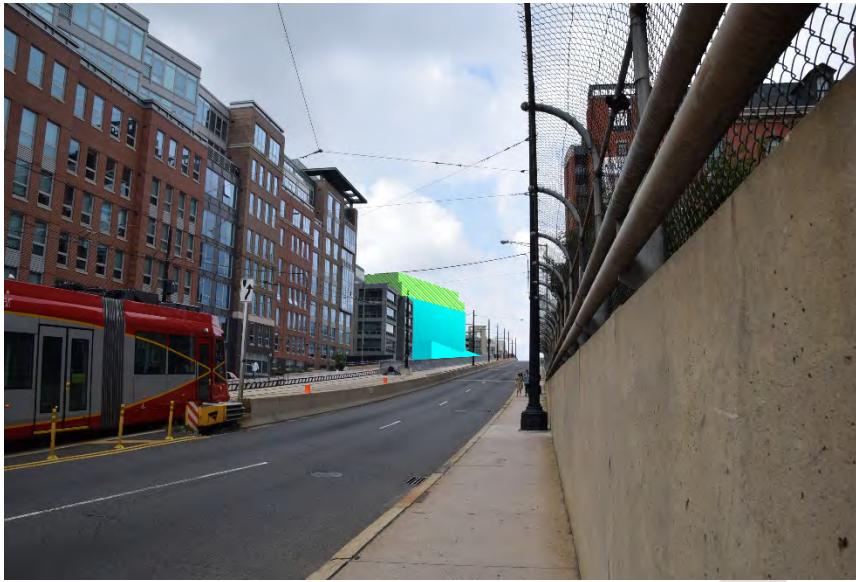
Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



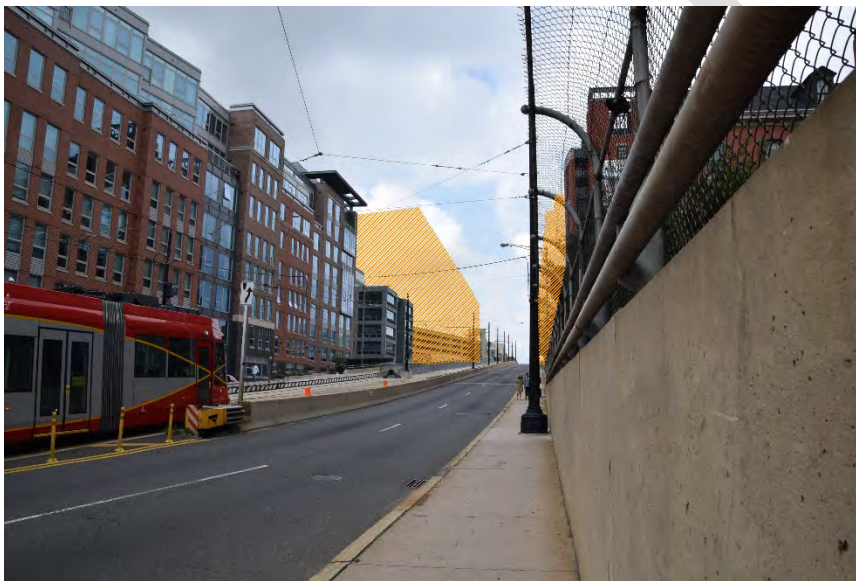


Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



30. St. Phillip's Baptist Church



St. Phillip's Baptist Church, view looking northeast



View from the southeast corner of the property looking east towards the Project Area along K Street NE

St. Phillip's Baptist Church is located approximately 800 feet west of the Project Area at 1001 North Capitol Street NE. The building was designed by prolific DC-area architect Appleton P. Clark, Jr., and constructed in 1892. The design is an example of the Renaissance Revival style, constructed of red brick with arched second-story windows and a detailed cornice. The St. Phillip's Baptist Church is listed in the DC Inventory (listing June 27, 1974) and eligible for listing

in the NRHP under Criterion A for its association with the development of the Swampoodle neighborhood and Criterion C for its association with architect Appleton P. Clark, Jr.

Effects Evaluation: No physical effects to St. Phillip's Baptist Church would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property as there are no direct lines of sight towards the Project Area and the integrity of setting has been previously affected by new construction surrounding the property.

The building's integrity of setting would likely not be affected by noise or vibration related to the Project's construction and operation. While the building is located within the Operational and Construction Noise and Vibration Study Areas, noise and vibration analysis conducted for the DEIS indicates that the St. Phillip's Baptist Church would likely not experience noise and vibration effects during Project construction or operation. Furthermore, any potential noise and vibration effects would not affect the significance or integrity of the property, which is defined by its architectural design, connection with architect Appleton P. Clark, Jr, and association with the development of the Swampoodle neighborhood. Similarly, the building's integrity of setting would not be affected by traffic. The incremental increase in operational traffic volumes along North Capitol Street NE (a principal arterial street intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on St. Phillip's Baptist Church.

31. SunTrust Bank (Former Childs Restaurant)



SunTrust Bank (Formerly Childs Restaurant), view looking west



View from the east elevation of the property looking east towards Columbus Plaza and the Project Area along Massachusetts Ave NW

The SunTrust Bank building is located approximately 800 feet southwest of the Project Area at 2 Massachusetts Avenue NW near the intersection with F Street NW. The building was designed by architect William Van Alen and constructed by the William P. Lipscomb Construction Company in 1926 as a location of the Childs Restaurant chain. A New York City-based chain, Childs Restaurants were known for the quality of their architecture.

The SunTrust Bank is potentially eligible for listing in the NRHP and the DC Inventory under Criterion C for its association with the noted New York architect William Van Alen. William Van Alen is best known for his Art Deco design of the Chrysler Building in New York City, which was completed in 1930. The location on Massachusetts Avenue was specifically chosen for its proximity to Washington Union Station. The building featured an Italian limestone exterior and travertine paneling on the interior. Since Childs Restaurant closed in the 1950s the building has served a variety of purposes. Currently, the building is used as a branch of SunTrust Bank.

Effects Evaluation: No physical effects to the SunTrust Building would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. Union Station Plaza is visible from Massachusetts Avenue but would be unchanged in all Action Alternatives. Therefore, no visual effect impacting the integrity of setting would occur. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The property is outside both the Operational and Construction Noise and Vibration Study Areas, and though the property is adjacent to Massachusetts Ave NW (a principal arterial street intended to carry significant amounts of traffic), incremental increases in traffic from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on the SunTrust Bank.

32. The Summerhouse



The Summerhouse located on the U.S. Capitol Grounds, view looking northeast



View from the northeast elevation of the property looking northeast towards the WUS headhouse and Project Area

The Summerhouse is a hexagonal brick structure set into the sloping hillside of the West Front lawn on the Senate side of the U.S. Capitol Building, approximately 2200 feet south of the Project Area. It was designed by the landscape architect Frederick Law Olmstead and was constructed from 1879 to early 1881. The Summerhouse is under the jurisdiction of the AOC and is thus exempt from NRHP designation; however, it is listed as an AOC Heritage Asset and is therefore treated as a historic property subject to Section 106.

Frederick Law Olmsted was appointed by Congress in 1874 to develop and improve the Capitol Grounds. He included the Summerhouse in response to complaints that visitors to the Capitol Building could not find water or a place to rest on their journey. In addition, he designed it as a setting for decorative vegetation.

Effects Evaluation: No physical effects to the Summerhouse would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected directly to the landscape design and association with historic events and would be unaffected. All Action Alternatives may be visible from the sidewalk surrounding the Summerhouse; however, views to the Project are minimal and screened by dense vegetation within the Senate Parks. The integrity of setting would not be affected by any minor visual changes due to the Project because the visual connection of the Summerhouse with the U.S. Capitol, U.S. Capitol Grounds, and Senate Parks would be unaffected. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The structure is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Summerhouse.

33. Thurgood Marshall Federal Judiciary Building



Thurgood Marshall Federal Judiciary Building, view looking east



View from the west elevation of the property looking northeast towards the WUS headhouse and Project Area

The Thurgood Marshall Federal Judiciary Building is located approximately 100 feet east and adjacent to the Project Area at 1 Columbus Circle NE between Massachusetts Ave NE and F Street NE. It was constructed in 1992 and occupies a trapezoidal site across from Union Station. It is faced in white granite to complement the Station and City Post Office on the west side of the circle and features a large glass atrium. It was designed and developed by a team of Edward Larraby Barns, John M.Y. Lee & Partners, and Boston Properties. The site has been

owned by the Federal Government since the 1920s and prior to its development was used as a parking lot.⁶⁵ The building is under the jurisdiction of the AOC and is thus exempt from NRHP designation; however, it is listed as an AOC Heritage Asset and is therefore treated as a historic property subject to Section 106.

Effects Evaluation: No physical effects to the Thurgood Marshall Building would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. All Alternatives would be visible. The Action Alternatives would have low visibility and moderate sensitivity resulting in potentially minor visual effects. However, visual effects would not affect the integrity of the building's setting, which is characterized by the existing institutional buildings to the north, open space to the west, and the visual connection to the WUS headhouse, Columbus Plaza, and the AOC campus to the south.

Similarly, the building's integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is within the Operational and Construction Noise and Vibration Study Areas, and noise and vibration analysis conducted for the DEIS indicates that the Thurgood Marshall Federal Judiciary Building would likely experience temporary moderate construction noise effects and temporary construction vibration effects, causing human annoyance. Analysis indicates that if spoils are removed by trucks moderate temporary noise effects would likely occur; however, if trains are used then no noise effects would likely occur. Finally, there would likely be no operational noise and vibration effects to the building. Regardless, moderate temporary construction noise and vibration effects would not diminish the architectural characteristics or association with the AOC that determine its listing as a heritage asset. The incremental increase in operational traffic volumes along Columbus Circle Drive (a minor arterial street intended to interconnect and augment principal arterial streets) from Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Thurgood Marshall Federal Judiciary Building.

⁶⁵ "Thurgood Marshall Federal Judiciary Building." Architect of the Capitol. <https://www.aoc.gov/capitol-buildings/thurgood-marshall-federal-judiciary-building> (accessed May 24, 2018).

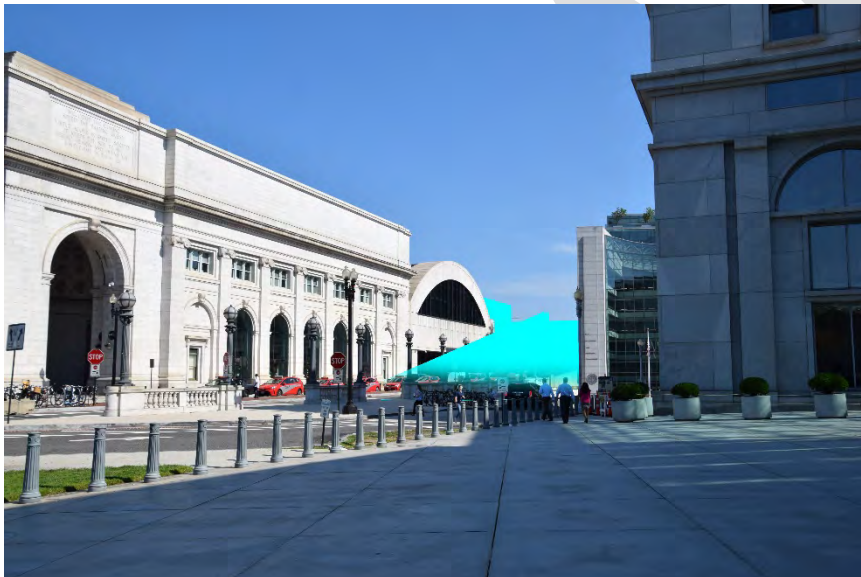
Visual Assessment from the front plaza of the Thurgood Marshall Building.



Station Expansion



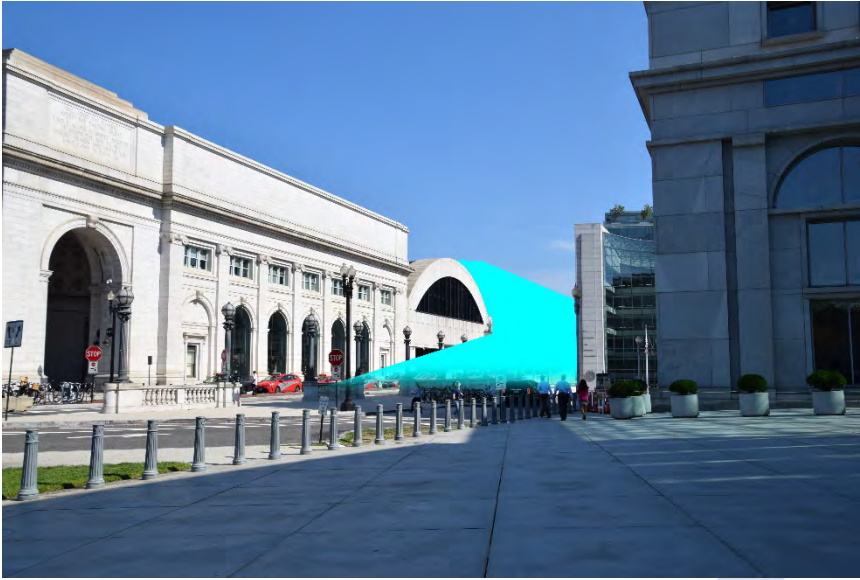
Visual Assessment for Alternative A and Alternative B



Station Expansion

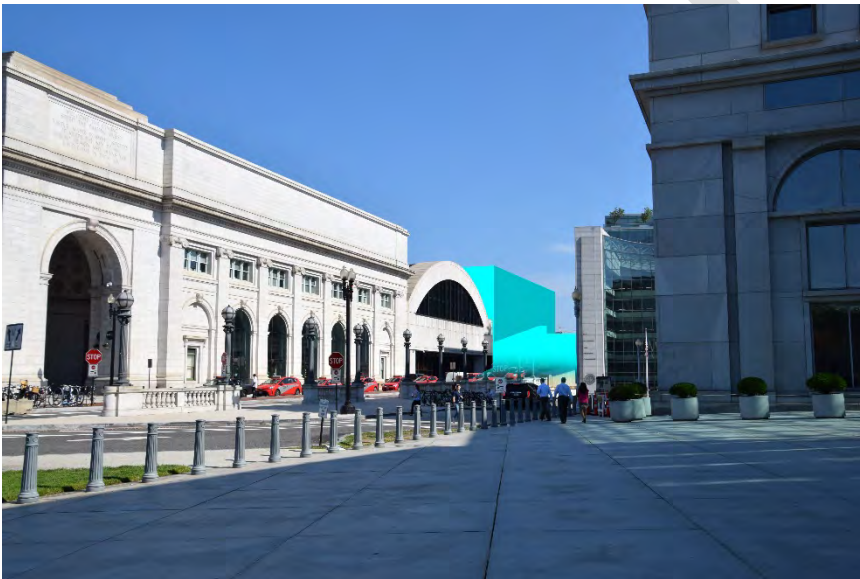


Visual Assessment for Alternative C (East and West Options)



Visual Assessment for Alternative D and Alternative E

Station Expansion



Visual Assessment for Alternative A-C

Station Expansion





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

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34. Topham's Luggage Factory (Former)



Topham's Luggage Factory (former), view looking northwest



View from the south elevation of the property looking west towards the REA Building and Project Area along Eye Street NE

The former Topham's Luggage Factory is located approximately 175 feet east of the Project Area at 220 Eye Street NE. The two-story brick building was originally constructed in 1928 as a luggage manufacturing facility and showroom for local trunk and leather goods company Topham's. It is an example of Art Deco design. The Topham's Luggage Factory is potentially eligible for NRHP listing and listing in the DC Inventory under Criterion A for its association with commercial development and industry in the District and with the trunk and leather goods

company Topham's. James S. Topham established the eponymous trunk and harness manufacturing business in Washington, DC, in 1855. The factory building was designed by esteemed local architect George T. Santmyers. The building has since been converted for use as office space.

Effects Evaluation: No physical effects to the former Topham's Luggage Factory would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. Only the Alternative C-East would be visible looking west along Eye Street, similar to the view looking towards the REA Building. Alternative C-East would have moderate visibility and sensitivity, resulting in a potential moderate visual effect. However, visual effects would not affect the integrity of setting or significance of the building, which is derived from its association with commercial development and the Topham's factory.

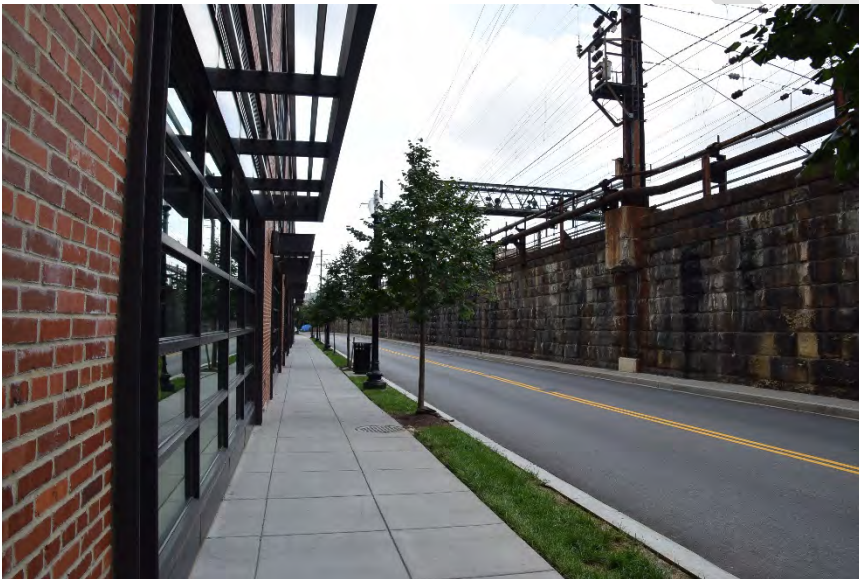
Similarly, the building's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is within the Operational and Construction Noise and Vibration Study Areas, and noise and vibration analysis conducted for the DEIS indicates that the building would likely experience temporary moderate to severe construction noise effects. No temporary construction vibration effects would likely occur. The building likely would not experience operational noise and vibration effects. Moderate to severe temporary construction noise effects would not affect the integrity of property or setting, which is determined by its historic association with commercial development and industry in Washington, DC and has already been impacted by the surrounding multi-story residential and mixed-use developments described in the effects evaluation for historic property No. 27 Square 750. Traffic studies support that the property, which is not located at or adjacent to thoroughfares, would not be affected by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no adverse effect on the former Topham's Luggage Factory.

35. Uline Ice Company Plant and Arena Complex



Uline Ice Company Plant and Arena Complex, view looking southwest



View from the west elevation looking south towards the Project Area along Second Street NE

The Uline Ice Company Plant and Arena Complex (Uline Arena), also known as the Washington Coliseum, is located approximately 40 feet east of the Project Area at 201 M Street NE (also 1140 Third Street NE), at the intersection of M Street NE and Second Street NE. The building was originally constructed in 1931 to serve as an ice plant for the Uline Ice Company. The adjacent arena was completed in 1940.

The Uline Arena is listed in the NRHP and the DC Inventory (NR listing May 17, 2007; DC listing November 16, 2006). The building is listed under NR Criterion A for its association with the early development of the area; Criterion B for its association with the Beatles, as the site of their first performance in the United States in 1964; and Criterion C as one of the first thin-shell concrete buildings in the nation. The arena complex uses the Zeiss-Dywidag system and reflects the experimental nature of such early developments in concrete following the steel shortage post-WWI. These innovations allowed the Uline to house one of the largest indoor hockey rinks in the country. The Uline Arena has been converted to retail and commercial space.

Effects Evaluation: No physical effects to the Uline Ice Company Plant and Arena Complex would occur because of project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected directly to the building's design and would be unaffected. All Alternatives would be visible from the southwest corner of the property, looking south along Second Street. The Action Alternatives have low visibility and low sensitivity resulting in potential negligible visual effects. However, the visual effects of the Alternatives would not undermine the property's integrity of setting because its significance is not defined by its view to the Project Area. The significance of the Uline Arena is retained as its association with the early development of the neighborhood and the physical integrity of its thin-shell concrete architecture would not be altered by the Project.

Similarly, the building's integrity of setting would likely not be diminished by noise or vibration effects related to the Project's construction and operation. The building is within the Operational and Construction Noise and Vibration Study Areas, however, noise and vibration analysis conducted for the DEIS indicates that the building would not experience temporary construction noise and vibration effects. Consistent with FRA and FTA guidance and with FHWA regulations, operational noise and vibration effects to the property were not assessed because the building, as a commercial property, does not have a sensitive use. Regardless, any potential noise and vibration effects would not affect the significance or integrity of the property, which is determined by its architectural and structural design, association with the development of the neighborhood, and association with the Beatles. The property is not located at or adjacent to thoroughfares that would be impacted by traffic and is outside the Transportation Study Area, which was developed in coordination with DDOT. Therefore, traffic effects would not be anticipated at this location and the significance and integrity of the building would not be affected.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Uline Ice Company Plant and Arena Complex.

Visual Assessment from the west elevation of the Uline Arena looking south along Second Street NE

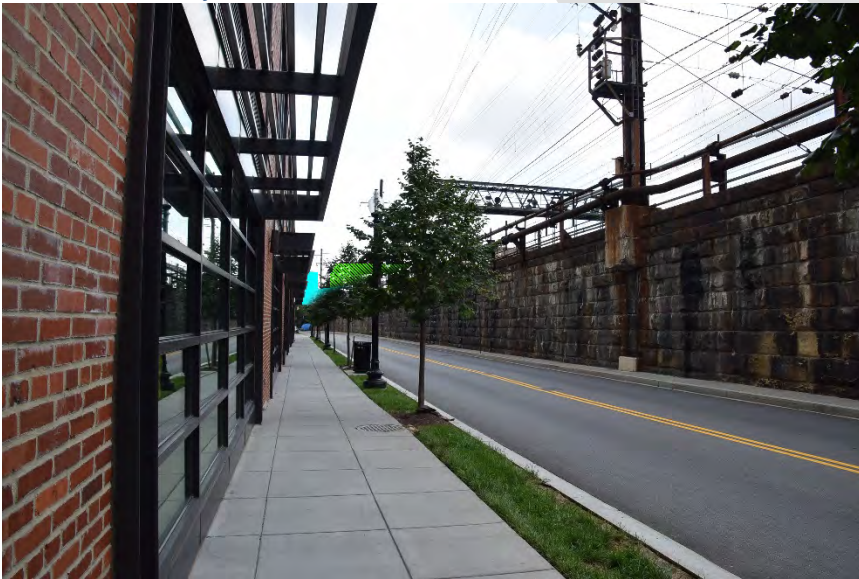


Visual Assessment for Alternative A and Alternative B

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



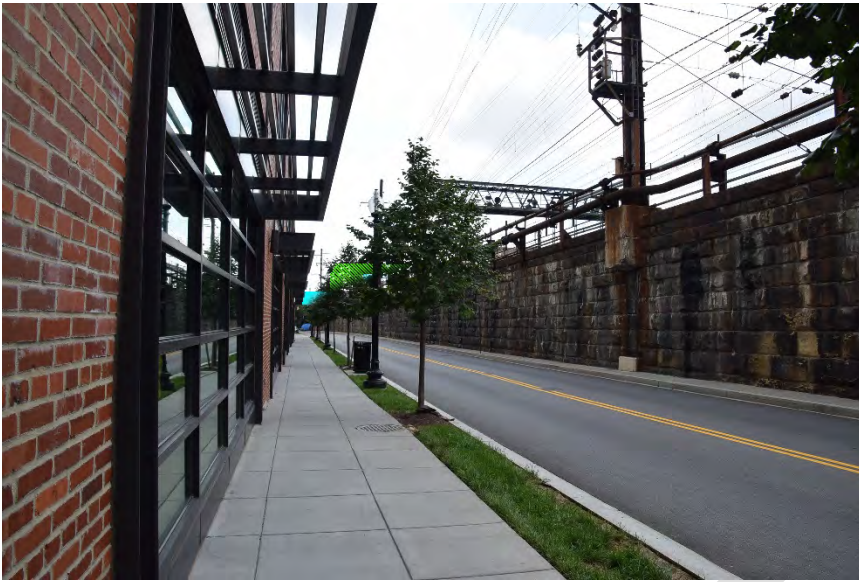
Visual Assessment for Alternative C-East Parking Option

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



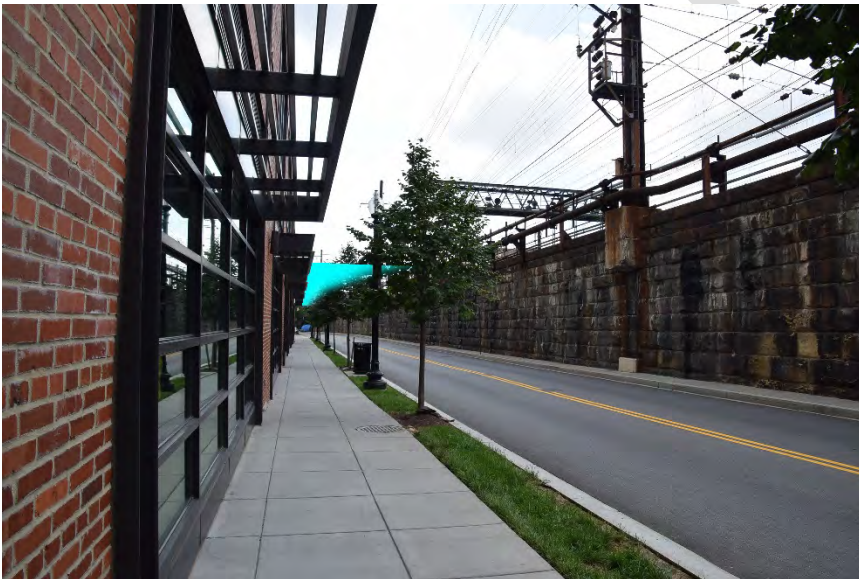


Visual Assessment for Alternative C-West Parking Option

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



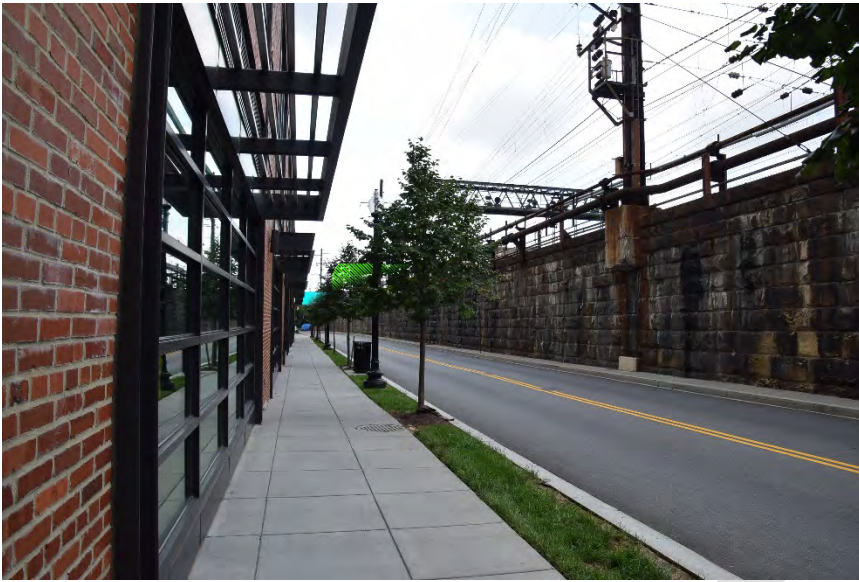
Visual Assessment for Alternative D

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



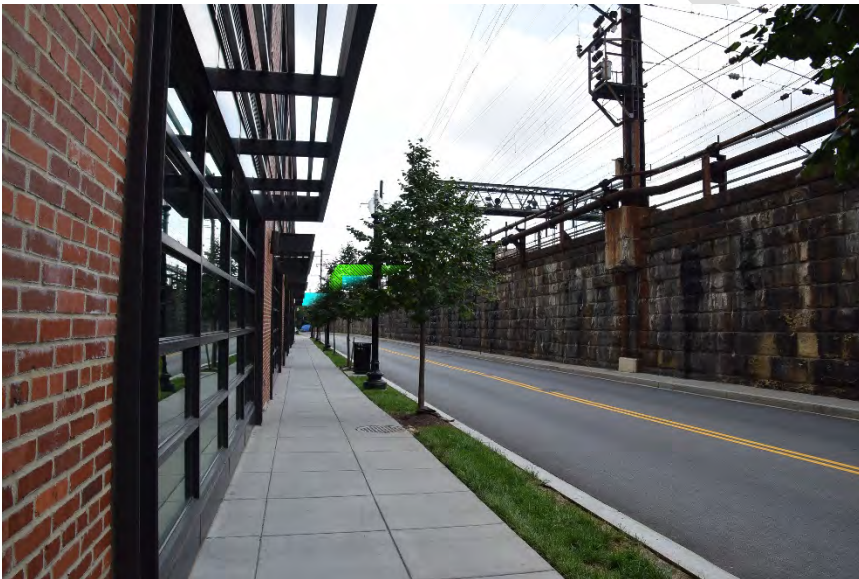


Visual Assessment for Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



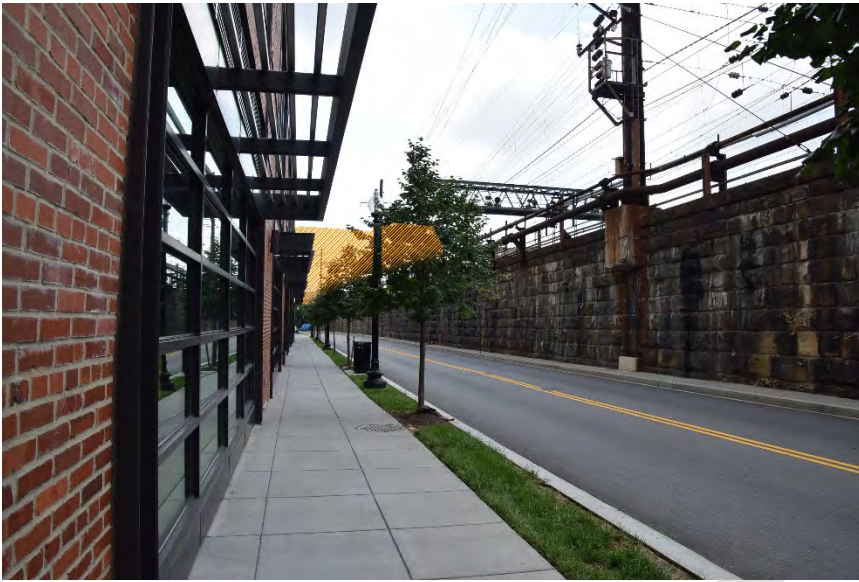
Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

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36. United States Capitol



United States Capitol, view looking west



View looking north towards the Project Area from the east side of the Capitol

The United States Capitol is located approximately 2300 feet south of the Project Area and is the primary focal point of the L'Enfant-McMillan Plan. The location of the Capitol building is the center around which the diagonal axes and urban grid of the Plan are centered. The Capitol was constructed primarily between the years 1793 and 1865 to the designs of an extraordinary series of leading 19th-century architects, including William Thornton, Benjamin Henry Latrobe, Charles Bulfinch, Robert Mills, and Thomas U. Walter. It is the symbol of the American people and their government as well as an international symbol of democracy. While exempt from

listing in the NRHP under the purview of the AOC, the U.S. Capitol was designated a National Historic Landmark (NHL) in 1960, meeting criteria A and C, and was listed in the DC Inventory in 1964.

Effects Evaluation: No physical effects to the Capitol would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected directly to the architectural design and association with historic events and would be unaffected. All Action Alternatives would not be visible as the development would be screened by the large expanse of the Senate Parks, and the integrity of setting would not be affected. (Visual effects to the culturally significant viewshed from the Capitol Dome are assessed separately in this report as historic property No. 53 U.S. Capitol Dome.) Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the U.S. Capitol.

37. United States Capitol Square



United States Capitol Square, view looking northeast from the grounds west of the Capitol



View looking northeast towards the Project Area from the west lawn of the Capitol grounds



View looking north towards the Project Area from the east side of the Capitol

The grounds immediately surrounding the U.S. Capitol are known as U.S. Capitol Square. This area, spanning approximately 68 acres is located approximately 2100 feet south of the Project Area and is bordered by a stone wall, is bounded by Independence Avenue on the south, Constitution Avenue on the north, First Street NE/SE on the east, and First Street NW/SW on the west. U.S. Capitol Square is located on Federal land under the jurisdiction of the Office of the Architect of the Capitol. Originally designated Reservation No. 3 by L'Enfant, these grounds encompass a rectangular area bounded by Constitution Ave NW/NE, First Street NE/SE, Independence Avenue, and First Street NW/SW. This area includes the landscape and elements designed by Frederick Law Olmsted and constructed between 1874 and ca. 1888. It is comprised of the West Terraces and Steps (1874-1875); landscape structures such as the Spring Grotto/Summerhouse (c. 1879), which is evaluated separately as historic property No. 32; Trolley Shelters/Herdic Stations (c. 1876); lamp standards, fountains, retaining, walls, and curbing (c. 1877); and ventilation towers (c. 1888).

The U.S. Capitol Square was listed in the DC Inventory in 1964. As a property under the purview of the AOC, it is exempt from listing in the NRHP and is considered a historic property subject to the Section 106 process as an AOC Heritage Asset.

Effects Evaluation: No physical effects would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected directly to the landscape design and association with historic events and would be unaffected. All Action Alternatives would not be visible as views to the Project Area are few and are screened by the

expanse of Senate Parks to the north. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The property is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the U.S. Capitol Square.

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38. United States Supreme Court



United States Supreme Court, view looking northeast



View from the Supreme Court forecourt looking northwest towards the Project Area. WUS and the Project Area are not visible.

The U.S. Supreme Court is located approximately 2000 feet south of the Project Area at One First Street NE. Its grounds are bordered by First Street NE, East Capitol Street NE, Second Street NE, and Maryland Ave NE. After six years of construction, the building was completed in 1935. The building was designed by prominent American architect Cass Gilbert, and he drew upon the form of a Roman temple, creating a building more reserved than the nearby Library of Congress. The marble and steel framed structure features a grand entrance stair and a

monumental portico with elaborate entablature and tympanum supported by 16 Corinthian columns. Four interior courtyards provide the building with sources of light and air. As a property under the purview of the AOC, it is exempt from listing in the NRHP but is considered a historic property for the Section 106 process as an AOC Heritage Asset.

Effects Evaluation: No physical effects would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected directly to its architectural design, association with historic events, and symbology of American justice and democratic government and would be unaffected. All Action Alternatives would not be visible from the property. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is outside both the Operational and Construction Noise and Vibration Study Areas and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the U.S. Supreme Court.

39. Victims of Communism Memorial



Victims of Communism Memorial, view looking southeast



View from the east side of the memorial, looking east towards the Project Area along Massachusetts Ave NW

The Victims of Communism Memorial is located approximately 1300 feet west of the Project Area at the intersection of Massachusetts Avenue NW, New Jersey Avenue NW and G Street NW. The monument occupies a triangular plot of land at the intersection. The Victims of Communism Memorial, completed in 2007, is dedicated to all those who have suffered under Communism. The memorial features a bronze replica of the "Goddess of Democracy" statue, erected by Chinese students in Tiananmen Square in 1989. The property is located within a reservation of the L'Enfant and McMillan Plan and is managed and maintained by the NPS. In consultation with the DC SHPO and other Consulting Parties, it was determined that all monuments and memorials under the purview of NPS National Mall and Memorial Parks are considered to be historic properties and are assessed in the Section 106 process for this Project.

Effects Evaluation: No physical effects to the Victims of Communism Memorial would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The memorial's integrity of feeling and association are connected directly to the memorial's design and would be unaffected. Furthermore, all Action Alternatives would have no effect to the visual setting of the property as there are no direct lines of sight towards the Project Area. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The property is outside both the Operational and Construction Noise and Vibration Study Areas, and the incremental increase in operational traffic volumes along Massachusetts Ave NW (a principal arterial street intended to carry significant amounts of traffic) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no effect on the Victims of Communism Memorial.

40. Washington Union Station (Station Building)



Aerial view of WUS with Columbus Plaza in foreground, view looking northeast

Union Station is an impressive example of Beaux Arts architecture designed by D.H. Burnham & Company. It is divided into three primary spaces: the historic headhouse (1908); the original passenger concourse (1908), currently used for retail and Amtrak ticketing; and the current passenger concourse, referred to as the Claytor Concourse, completed in 1988. The station is significant for its association with railroad transportation improvements facilitated by the Washington Terminal Company—a consolidation of the B&O and PRR railroad companies in Washington, DC – which established a monumental landscape befitting the capital city, allowed for increased safety and future rail growth, and initiated the twentieth-century development and urban design of Washington, DC. The location, design, setting, materials, workmanship, feeling, and association of the Beaux-Arts building contribute to the understanding of the station as a prominent transportation hub and monumental gateway to Washington DC.

Contributing and character-defining features of the station building include its monumental exterior façade, which is defined by the spatial arrangement, alignment with Delaware Ave NE, landscape, and architectural design; the historic headhouse, including the General Waiting Room/Main Hall, west and east wings serving the original ticket lobby and baggage room, the original dining room, serving room, lunch room, ladies waiting room, and smoking room; the State Reception Room/Presidential Suite; and the original passenger concourse, including its arched roof featuring plaster coffer panels and skylights, plaster cornice, and sections of original glazed brick and terracotta wall.

Union Station was listed in the NRHP on March 24, 1969 as a property of national significance meeting NRHP criteria A and C. Columbus Plaza and the Columbus Memorial Fountain were added to the station listing on April 9, 1980, which was further amended with additional documentation on October 12, 2007. Both Washington Union Station and Columbus Plaza were also listed in the DC Inventory on November 8, 1964. In 2012, an amendment was submitted, which includes more detailed descriptions of interior spaces and began to address the significance of the rail terminal and northern approach.

In 2019, FRA prepared a determination of eligibility (DOE) amendment to WUS, which includes the station building, Columbus Plaza, First Street Tunnel, and the Terminal Rail Yard. The effects evaluation directly below pertains only to the station building. See No. 41 of this report for the assessment of effects to Columbus Plaza, and No. 49 for the WUS Historic Site, which includes the Terminal Rail Yard and the First Street Tunnel.

Effects Evaluation: The physical effects of all Action Alternatives include the removal of the Claytor Concourse, construction of a new passenger concourse and train hall, and the removal of original columns in the portion of the First Street Tunnel below the Retail and Ticketing Concourse (historic passenger concourse). Work to remove the Claytor Concourse and construct the new passenger concourse and train hall would impact the north façade of the original passenger concourse. The Claytor Concourse was constructed in 1988 as an addition to the original passenger concourse, which was renovated to serve retail and ticketing functions. The extent of original fabric remaining at the north elevation of the original passenger concourse is unclear. The original construction featured an immense opening leading to the tracks and platforms that was punctuated by a colonnade of nine steel-plated Doric columns with cast-iron capitals spaced evenly along its length. The view from the original passenger concourse was therefore of the rail yard. Views looking south from the rail yard were not public and only rail workers would have experienced full views of the north elevation of WUS. Currently, a section of the entablature, supported by the Doric columns, is the only original fabric visible from within the Claytor Concourse. It is possible that the Doric columns remain in situ but are encapsulated by the Claytor Concourse construction. Until further design for the Project is conducted after the NEPA Record of Decision (ROD), the extent of physical effects to the north elevation of the original passenger concourse cannot be determined. However, should the removal of the Claytor Concourse and construction of the new train hall cause physical effects or fail to preserve the distinctive features, materials, and finishes of the original passenger concourse, then an adverse effect would occur. Regardless, the construction of the new train hall would affect the overall design of WUS, substantially increasing the mass of the station and adversely affecting the integrity of the building's design.

The work to remove the columns in the First Street Tunnel would involve accessing the tunnel from above and rebuilding approximately 15,000 square feet of the Retail and Ticketing

Concourse (original passenger concourse) floor. While the current marble finish of the floor was installed in the 1980s, the floor structure is original. Constructed of a steelwork frame and terracotta tile arches, the demolition of the original floor structure and removal of the original steel columns would affect the integrity of design, materials, and workmanship, although in a manner that would not be visible to the general public.

Other unknown physical effects related to the design of the Project, especially any physical interior changes that impact the historic materials, design, workmanship, or circulation flow have the potential to result in adverse effects to WUS if the Secretary of the Interior Standards are not followed. Such effects would be identified and resolved as Project design continues and is guided by ongoing consultation and review as prescribed in the PA.

Visual effects of the Action Alternatives would affect the integrity of setting, feeling, and association by altering the visual connection of the station building with the Terminal Rail Yard and the various contributing features within the WUS Historic Site. Similarly, views of the station from various vantage points of the L'Enfant-McMillan Plan, specifically those from the radial streets to the south of the station, including Delaware Ave and First Street NE, would be changed, affecting the setting and visual character of the station, which is defined by the uninterrupted silhouette of the station roofline and the visual symmetry of the station's monumental Beaux Arts design. Due to the height of the Project elements and/or the potential Federal air-rights development, such character-defining features would be altered.

As shown in the visual simulations below, the Action Alternatives would not change the character of the view towards the station from the west side of Columbus Circle. The Action Alternatives would have moderate visibility and low sensitivity, resulting in potential minor visual effects. Furthermore, the view looking north along First street NE would have beneficial effects because the Alternatives would reopen the view that is currently truncated by the projecting mass of the exiting parking garage. From the east side of Columbus Circle, Alternatives A, B and C would have low visibility and sensitivity, resulting in potential negligible visual effects, while Alternatives D, E, and A-C would have moderate visibility and low sensitivity, resulting in potential minor visual effects.

The Action Alternatives would have moderate to high visibility and sensitivity, resulting in potential moderate to major visual effects to the station building from views from Delaware Ave NE, Louisiana Ave NE, First Street NE, E Street NE, and the H Street Bridge. From Delaware Ave, looking north from both C and D Streets NE, all Action Alternatives would have high visibility and high sensitivity from the program elements and potential Federal air-rights development rising above the west wing of the station and interrupting the roofline of the barrel vault roof, resulting in potential major visual effects to WUS. The program elements would only be slightly visible in Alternatives A and A-C. Otherwise, the visual effect is largely the result of the potential Federal air-rights development.

From the intersections of Louisiana Ave and D Street NW and E Street and Columbus Circle NE, all Action Alternatives would have moderate visibility and moderate sensitivity, resulting in potential moderate visual effects. From the intersection of First Street and C Street NE, the potential Federal air-rights development in Alternatives C, D, E, and A-C would interrupt the silhouette of the barrel vault roof, causing greater visual effects than Alternatives A and B. As such, Alternatives A and B would have moderate visibility and sensitivity, resulting in potential moderate visual effects, while Alternatives C, D, E, and A-C would have high visibility and sensitivity, resulting in potential major visual effects from that view.

While not a historic view, the view from the center of the H Street Bridge looking south towards the north elevation of the station, for Alternatives A and B, would have high visibility and sensitivity, resulting in potential major visual effects. These Alternatives would significantly change the scale and character of development along the bridge with the north-south train hall dominating the view and obscuring the visual connection from the bridge to Concourse A and the historic station. Alternatives C, D, E, and A-C would have high visibility and moderate sensitivity, resulting in potential moderate visual effects. Unlike Alternatives A and B, in which the north-south train hall dominates the view, Alternatives C, D, E, and A-C would feature a smaller H Street headhouse, providing access from the bridge to the station via the new concourses constructed below. The diminishing scale of the H Street headhouse in these Alternatives as well as the visual connection to the new train hall and historic station, if provided by a visual access zone, would moderately change the scale and character of development along the bridge and the view to the new east-west train hall at the station.⁶⁶

Unlike the views from Delaware Ave NE, Louisiana Ave NE, and First Street NE, the view from the H Street Bridge was not established by the L'Enfant-McMillan Plan and did not exist prior to the construction of the H Street Bridge in 1976. This, and the fact that the view does not celebrate the monumental Beaux-Arts design of the station, signifies that the visual significance of WUS is not dependent on the view of the station from the H Street Bridge or the back of the station. This is reiterated in the use of brick instead of granite and simplified profiles that characterize the north elevation of the station. Instead, WUS was designed and constructed to have a monumental visual presence from the southern radial streets of the L'Enfant-McMillan Plan, including Delaware Ave NE, Louisiana Ave NE, and First Street NE. These streets provide a direct connection to the U.S. Capitol and the monumental core of Washington, D.C. The potential major visual effects of all Action Alternatives to the view of the station from Delaware Ave NE and the potential major visual effects of Alternatives C, D, E, and A-C to the view of the station from the intersection of First and C Streets NE would affect the visual character and integrity of design, setting, and feeling of WUS and would cause an adverse effect.

⁶⁶ The Alternative does not preclude the private developer from designing an area in which a visual connection from the H Street Bridge to the Station may be realized.

Visual effects of the Project to the interior of the historic station building may also occur depending on the design of the program elements – especially the train hall – and other related interior renovations that may or may not impede important interior views. Changes that would significantly alter the visual character of the interior of the station have the potential to affect the integrity of design, setting, and feeling and result in a potential adverse effect.

In terms of noise and vibration effects, the construction of all Action Alternatives would involve vibration-generating equipment. Vibratory pile driving and drill rigging may occur within approximately 10 feet of the north elevation of WUS, resulting in vibration levels of up to approximately 0.8 inches per second (in/s) in Alternatives B and E and up to 0.67 in/s in Alternatives A, C, D, and A-C. The Federal Transit Administration (FTA) thresholds for potential structural damage to buildings from vibration range from 0.5 to 0.12 in/s, depending on the type of building construction. Although the historic station building was designed to facilitate train operations and may be capable of withstanding vibration levels that exceed the thresholds, its sensitivity to vibration has not been specifically determined at this stage of Project planning. Given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure structural damage does not occur.

WUS would likely experience moderate to severe temporary noise impacts from construction, regardless of the method employed to remove excavation spoils. Such temporary noise effects, while above the FTA threshold for noise impacts, would not adversely affect the significance of the building, which is defined by its architectural design, association with transportation development, and contribution to the planning and development of Washington DC. WUS has always been a site of great activity and noise.

All Action Alternatives would result in the incremental increase in operational traffic volumes surrounding the station, especially within Columbus Circle Drive, and along Massachusetts Ave, North Capitol Street, and H Street NE (all principal or minor arterial streets intended to carry significant amounts of traffic). Such increases, however, would not alter the busy, traffic-heavy urban setting in which WUS is located and there would be no adverse effect to the integrity of the setting, feeling, or association.

Based on this evaluation, all Action Alternatives would have an adverse effect on Washington Union Station.

Visual Assessment from the west side of Columbus Circle Drive



Visual Assessment for Alternative A

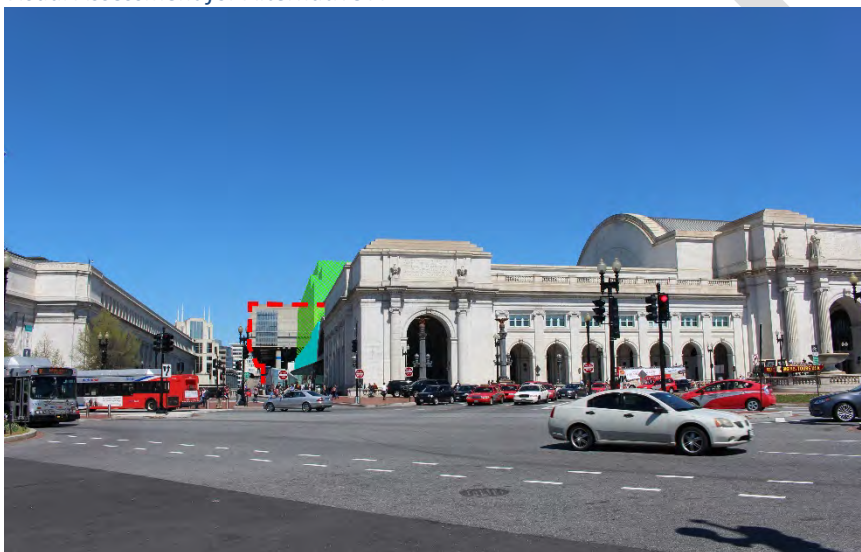
Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Visual Assessment for Alternative C

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative A-C



No-Action Alternative – Provided for Visual Comparison

Note in this view the private air-rights development is not visible as it would be obscured by the existing parking garage, which would remain in the No-Action Alternative.

Visual Assessment from the east side of Columbus Circle Drive



Station Expansion



Visual Assessment for Alternative A and Alternative B



Station Expansion



Visual Assessment for Alternative C



Visual Assessment for Alternative D and Alternative E

Station Expansion



Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





No-Action Alternative – Provided for Visual Comparison

Visual Assessment from Delaware Avenue and D Street NE



Visual Assessment for Alternative A

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative B

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative C

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative D and Alternative E

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Visual Assessment from Delaware Avenue and C Street NE



Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative A



Visual Assessment for Alternative B

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative C

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative D and Alternative E

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Private Air-Rights
Development (maximum
buildable volume
including penthouse)



No-Action Alternative – Provided for Visual Comparison

Visual Assessment from First Street and C Street NE



Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative A and Alternative B



Visual Assessment for Alternative C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



Visual Assessment from Louisiana Avenue and D Street NW



Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)





Visual Assessment for Alternative C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



Visual Assessment from E Street and Columbus Circle Drive



Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Visual Assessment for Alternative C

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Outline of Existing Parking Garage to be Removed



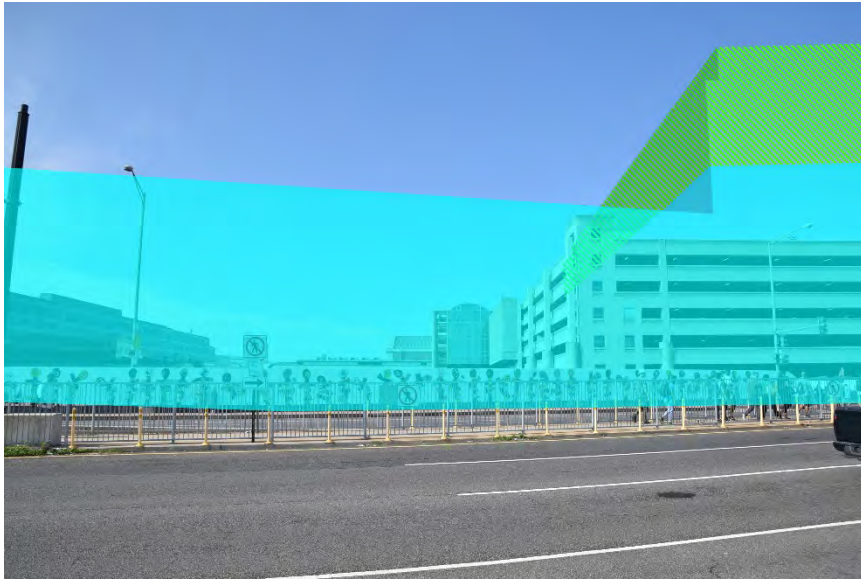
No-Action Alternative – Provided for Visual Comparison

In this view the private air-rights development is partially obscured by the existing parking garage, which would remain in the No-Action Alternative.

Private Air-Rights Development
(maximum buildable volume including penthouse)



Visual Assessment from the Center of the H Street Bridge Looking South

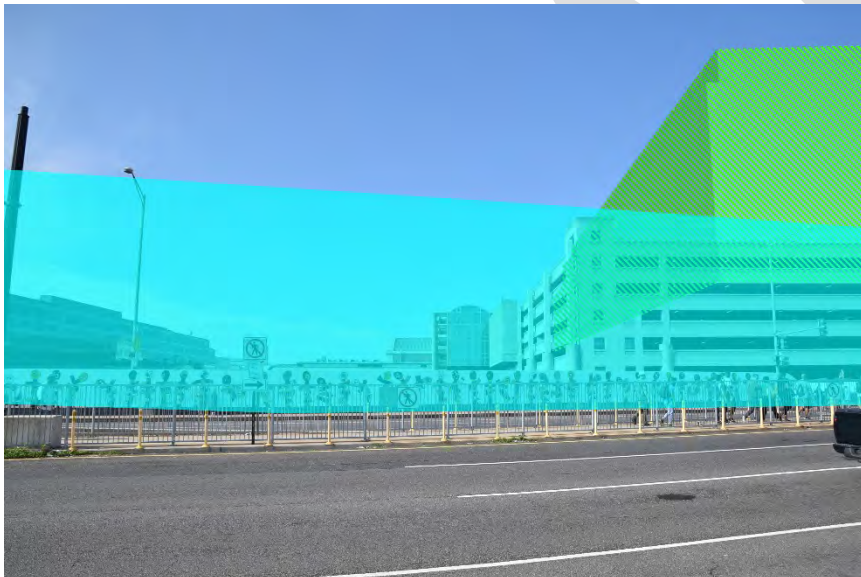


Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



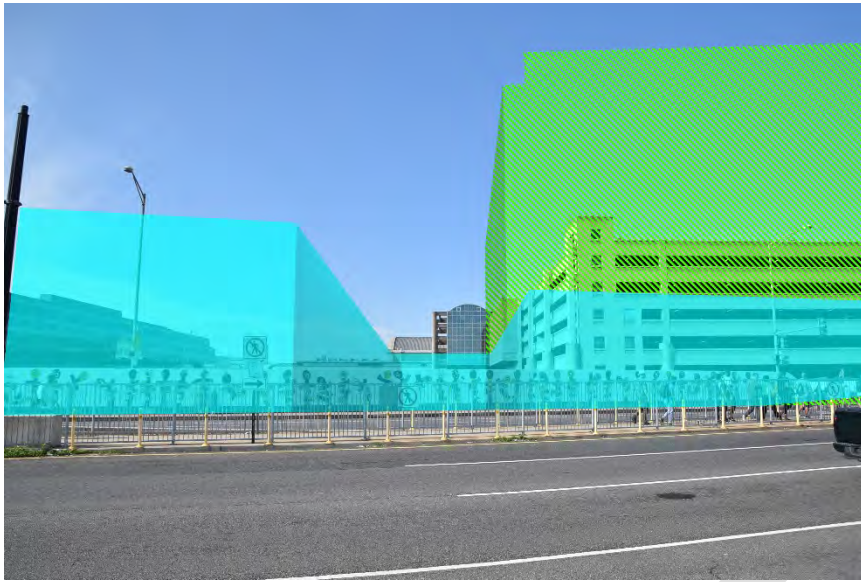
Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



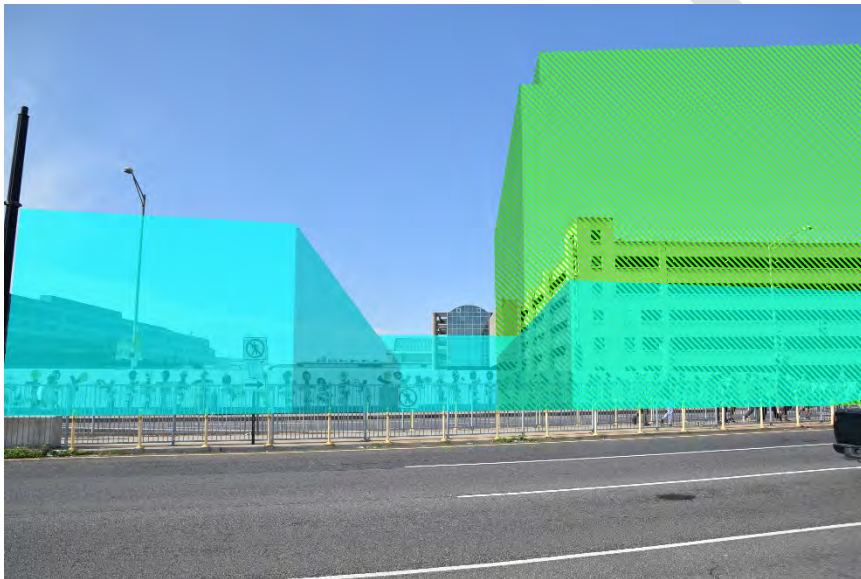


Visual Assessment for Alternative C

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



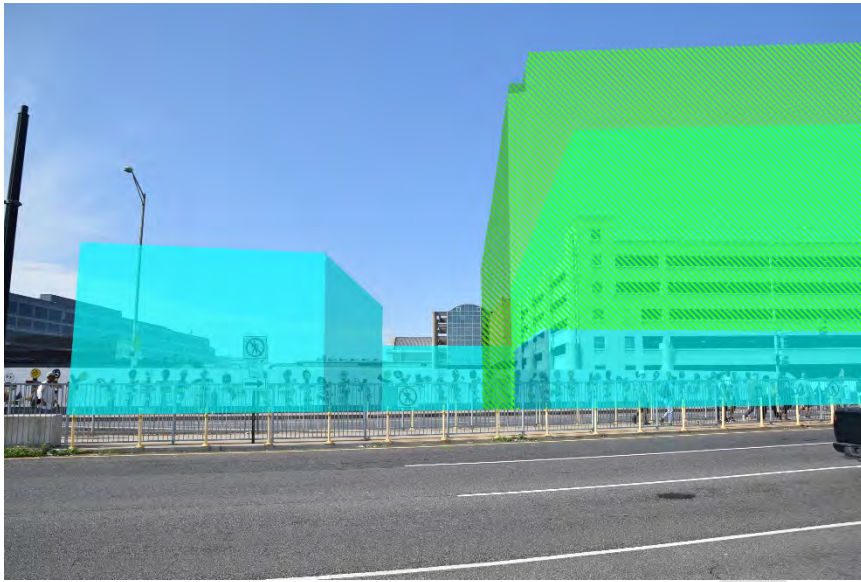
Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



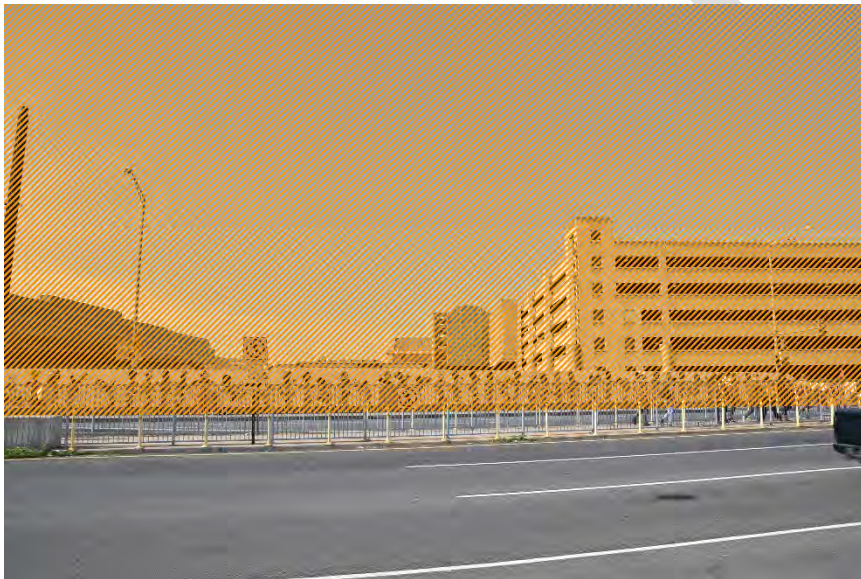


Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



41. Washington Union Station Plaza (Columbus Plaza and Columbus Fountain)



Columbus Fountain is the focal point of Columbus Plaza, view looking north

Washington Union Station Plaza, also called Columbus Plaza, is located within the Project Area and serves as a grand forecourt to WUS. It was designed by Daniel Burnham and Peirce Anderson of D.H. Burnham & Company and was built in conjunction with Union Station, although it was not completed until 1912. The semicircular plaza consists of brick pavement and lawn panels and is surrounded by a roadway for traffic. The focal point of the plaza is the Columbus Fountain, flanked on either side by curvilinear granite steps that transition to balustrades. The Columbus Fountain was sculpted by artist Lorado Z. Taft (1860-1936) and completed in May of 1912. The Columbus Plaza and Fountain were listed on the DC Inventory November 8, 1964 and were included in the amended WUS NRHP listing (April 9, 1980), meeting criterion C as an expression of Beau-Arts design associated with Daniel Burnham and Lorado Taft. The plaza is managed by and under the jurisdiction of the National Park Service.

Effects Evaluation: No physical effects to Columbus Plaza or Columbus Fountain would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The property's integrity of feeling and association are connected to its design and relationship to WUS, which would also be unaffected. The plaza would continue to be the forecourt for the main entrance to the station in all Alternatives.

The potential Federal air-rights in Alternatives A, B, and A-C would have low visibility and moderate sensitivity resulting in potential minor visual effects. Alternatives C, D, and E would not be visible from Columbus Plaza. However, the visual effects of Alternatives A, B, and A-C

would not affect the property's integrity of setting, which is derived from its design and spatial relationship as the forecourt to WUS, which would remain unchanged.

Additionally, the plaza's integrity of setting, feeling, or association would not be adversely affected by noise, vibration, or traffic related to the Project's construction and operation. The plaza is approximately 200 feet from the Project Area and is located within the Operational and Construction Noise and Vibration Study Areas; however, noise and vibration analysis conducted for the DEIS indicates that the site would not experience operational or temporary construction noise and vibration effects. Columbus Circle is sufficiently far away from construction that vibration levels would be well below the thresholds of structural damage for even the most sensitive structures. Any potential noise and vibration effects would not affect the significance or integrity of the property, which is characterized by its design as a monumental forecourt to WUS. Similarly, the incremental increase in operational traffic volumes along Columbus Circle Drive (a minor arterial street intended to interconnect and augment principal arterial streets) from the Action Alternatives would not alter the busy, traffic-heavy urban setting in which the property is located.

Based on this evaluation, all Action Alternatives would have no adverse effect on Columbus Plaza and Columbus Fountain.

Visual Assessment from Columbus Plaza



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A and Alternative B



Visual Assessment for Alternative C, Alternative D, and Alternative E. The Project would not be visible from this vantage point.



Visual Assessment for Alternative A-C

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

DRAFT

42. Woodward and Lothrop Service Warehouse



Woodward and Lothrop Service Warehouse, view looking north



Approximation of the view from the south elevation of the building, which is inaccessible. Image was taken from the Metropolitan Bike Trail, adjacent to the Woodward and Lothrop Service Warehouse looking south towards the Project Area

The Woodward and Lothrop Service Warehouse is located approximately 160 feet west of the Project Area and was constructed from 1937-1939 and designed by Abbott, Merkt & Company, an architectural and engineering firm noted for their commercial and industrial buildings and infrastructure. It is an excellent and rare local example of a department store warehouse

combining the functions of storage, service, and delivery in a large, purpose-built facility. According to the 2005 NRHP nomination, a rail spur connecting the WUS Terminal Rail Yard is evident adjacent to the south façade of the building and was utilized for unloading train shipments. The spur, however, was not visible during site survey. The architectural style is of New Deal era stripped classicism, illustrating the influence of streamlined modernism, or Streamline Moderne, on traditional forms. Its design is a unique example of architectural detail for a warehouse building. For this reason, the building received DC Inventory designation January 27, 1993 and was listed in the NRHP February 15, 2005, meeting criteria A and C. The building was owned by Woodward and Lothrop until 1995. In 2000-2003 the building was rehabilitated in accordance with the Secretary of the Interior's *Standards for Rehabilitation* to serve as commercial office space.

Effects Evaluation: No physical effects to the property would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The building's integrity of feeling and association are connected to its design and similarly would be unaffected.

The view from the property could not be determined as the south and east elevations, which face the Project Area, are inaccessible. However, the view from the Metropolitan Bike Trail, adjacent to the south elevation of the property indicates that the Action Alternatives would likely be visible and would likely result in potential minor visual effects. Potential visual effects from the Action Alternatives would not affect the property's integrity of setting because the significance of the building is not derived from its visual connection to Union Station. Additionally, the relationship of the building to the rail terminal would be retained as the development over the rail terminal would terminate south of K Street NE.

Additionally, the building's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. While the building is within the Operational and Construction Noise and Vibration Study Areas, noise and vibration analysis conducted for the DEIS indicates that the building would likely not experience operational or temporary construction noise and vibration effects. Furthermore, any potential noise and vibration effects would not affect the significance or integrity of the property, which is characterized by the building's architectural design. The property is not located at or adjacent to thoroughfares that would be impacted by traffic and is outside the Transportation Study Area, which was developed in coordination with DDOT. Therefore, traffic effects would not be anticipated at this location and the significance and integrity of the building would not be affected.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Woodward and Lothrop Service Warehouse.

43. 901 Second Street, NE



901 Second Street, view looking northeast



View from the corner of 901 Second Street, view looking west towards the REA Building and Project Area

901 Second Street, NE, is located approximately 100 feet east of the Project Area and was designed by Alfred B. Mullett & Company and built by R. Humphrey as a commercial lunchroom

in 1907.⁶⁷ Its construction appears to have been directly influenced by the construction of WUS, catering to local residents, WUS construction workers, and later employees working in the WUS Terminal Rail Yard.⁶⁸ Other masonry commercial buildings associated with the rail terminal were constructed adjacent to 901 Second Street, including the “milk depot” at 911 Second Street, which was demolished in 2015. According to a review of Sanborn maps, the building continued to function as a restaurant until at least 1959. It was later used as a house of worship and currently houses an office. The masonry structure is composed of brick foundations, walls, a parapet, and stringcourse. Sanborn maps indicate that the brick addition on the east side of the building was constructed between 1928 and 1959. Six historic openings along the south and west elevations were filled with brick at an unknown date. Modern openings, which are filled with fixed windows and paired modern glass and metal doors, were cut into both elevations at an unknown date. The extension features a modern steel utility door surmounted by a wide transom of glass block. The main entrance of the building is located at the corner and features a pair of metal exterior doors surrounded by a transom and sidelights of glass block.

The HPP for WUS prepared by BCA identifies 901 Second Street as a potentially eligible resource under Criterion A for its association with the patterns of residential development related to the late 19th-century growth and development of the northeast quadrant of Washington, DC.⁶⁹

Effects Evaluation: Activity related to all Action Alternatives would occur to the west of the property. No physical effects to 901 Second Street would occur because of Project implementation. Therefore, no effects to the property’s integrity of location, design, materials, and workmanship would occur. It should be noted that 901 Second Street has lost much of its integrity of design and materials due to prior interventions and alterations in addition to the recent and planned developments adjacent to the property. The building’s integrity of feeling, association, and setting are connected to its design and development as a commercial building intended to serve railroad workers and have similarly been impacted by physical alterations to the property and by the demolition of 911 Second Street, another early 20th century commercial building constructed in connection with the construction and operation of the Terminal Rail Yard. Overall, the property has lost its integrity.

Alternative C-East would be visible from the southwest corner of the property. Alternative D would also be visible (although it is not visible in the vantage point shown in the visual simulation below). Alternative C-East and Alternative D would have moderate visibility and

⁶⁷ BCA, *Washington Union Station Historic Preservation Plan: Volume III* (2015), 125.

⁶⁸ BCA, *Washington Union Station Historic Preservation Plan: Volume I* (2015), 161.

⁶⁹ *Ibid*, 159-160.

moderate sensitivity resulting in potential moderate visual effects. However, such visual effects would cause no additional loss of integrity of feeling, association, and setting as prior alterations and adjacent developments including the new multi-story condo building at 911 Second Street to the north and the multi-story Landmark Lofts at Senate Square residential complex to the south, have significantly altered the character of the original neighborhood and have impacted the integrity of the property.

The building's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. The building is within the Operational and Construction Noise and Vibration Study Areas, and noise and vibration analysis conducted for the DEIS indicates that the property would likely experience moderate to severe temporary construction noise effects. However, there would likely be no temporary construction vibration effects. Finally, there would likely be no operational noise and vibration effects. Temporary construction noise effects would not affect the significance or integrity of the building, which is defined by its association with the early 20th century development of the neighborhood and has already been impacted by recently constructed and planned multi-story residential and mixed-use developments. Transportation analysis found that the street network surrounding the property building would not be impacted. Therefore, traffic volumes would not have the potential to affect the integrity of setting, feeling, or association of the building.

Based on this evaluation, all Action Alternatives would have no adverse effect on 901 Second Street, NE.

Visual Assessment from the 901 Second Street looking southwest.



Station Expansion



Visual Assessment for C-East. Note: Though not visible from this vantage point, Alternative D would also be visible from the southwest corner of the property resulting in a similar visual effect. All other Action Alternatives would not be visible.



Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

HISTORIC DISTRICTS AND SITES

44. Capitol Hill Historic District



Capitol Hill Historic District, view looking northeast from the intersection of F Street and Third Street NE. The character of the district is defined by its mostly late 19th and early 20th century residential rowhouses and tree-lined streets



View from the intersection of Sixth Street NE and F Street NE looking west towards the WUS headhouse and Project Area

The Capitol Hill Historic District is roughly bounded by the Capitol precinct on the west, F Street, N.E., on the north, 13th and 14th Streets on the east, and the Southeast Freeway on the south, with an expansion area south of the Southeast Freeway bounded by Seventh, M, 10th, and 11th

Streets SE (see Figure 21). A 2015 NRHP expansion of the district (called Swampoodle) encompasses most of the lots from Second to Fourth Street NE and F Street to H Street NE. The APE includes only a section of the district, encompassing Maryland Ave and Stanton Park at the south and Sixth Street NE at the east. The district's closest point to the Project Area is along Second Street NE and is approximately 225 feet from the Project Area.

One of the oldest and most architecturally diverse communities in the District, Capitol Hill reflects the social diversity and economic growth of the early capital that spans the development of the city. The district is significant under NRHP Criteria A and C for its historical and architectural contributions to the development of the nation's capital. The district is also listed under Criterion D as a property that is likely to yield information important in prehistory and history. Its history includes early residential development clustered near the Capitol and Navy Yard, and late 19th and early 20th century housing for mostly middle-class workers. Its principal period of growth occurred between 1880 and 1893, and there is a great variety of housing types, with elaborate ornamental pressed-brick structures adjacent to simple, unadorned frame buildings and small apartment houses. Many row houses were built either in long uninterrupted blocks or in small groups, whose imaginative facades reflect the aspirations of the builders and residents. The predominant architectural styles include Federal, Italianate, Second Empire, Romanesque, Queen Anne, and Classical Revival. In addition to row houses there are many apartment, institutional, religious, and commercial buildings. There are approximately 8,000 primary contributing buildings dating from circa 1791 to 1945.

The historic district was listed on the DC Inventory on June 19, 1973, with a boundary expansion amendment on January 20, 1976. It was listed in the NRHP under criteria A, C, and D on August 27, 1976 with a boundary expansion submission on February 7, 2002 (effective April 21, 2002) and listing in the NRHP July 3, 2003, for which the period of significance was extended. A nomination to expand the Capitol Hill Historic District boundaries to include all of Squares 753 and 778 and portions of Squares 752 and 777 (most of the four-block area north of F Street NE and G Street NE between Second and Fourth Streets NE) was filed in December 2014 and was designated on May 28, 2015.

Effects Evaluation: The determination of effect assesses the physical, visual, noise, vibration, and traffic effects of all Action Alternatives to the Capitol Hill Historic District. Individually, such effects are found to be "not adverse" as evaluated in the following paragraphs. The assessment concludes that cumulatively, such effects may potentially result in an adverse effect to the historic district.

No physical effects to the Capitol Hill Historic District would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur.

All Action Alternatives would have limited visibility from select views within the historic district, including from the intersection of First Street NE and Constitution Avenue NE, from Massachusetts Ave and Second Street NE, from G Street and Third Street NE, and from F Street and Third Street NE (reference the visual simulations below). From First Street NE and Constitution Avenue NE, all Action Alternatives would have low visibility and moderate sensitivity, resulting in potential minor visual effects. From Massachusetts Ave and Second Street NE, Alternatives A, B, and A-C would have low visibility and low sensitivity, resulting in potential negligible visual effects, while Alternatives C, D, and E would not be visible and would have no visual effects. From G and Third Streets NE, all Action Alternatives would have low visibility and low sensitivity, resulting in potential negligible visual effects. Finally, from F and Third Streets NE, none of the Action Alternatives would be visible.

Overall, all Action Alternatives would have potential minor visual effects. However, the potential visual effects of the Action Alternatives would not adversely affect the integrity of the district. The character of the existing views, which are exemplified by the small scale residential and commercial buildings in the foreground surrounded by large institutional and commercial buildings along Second Street NE in the background, would not change because of the Project. Furthermore, the integrity of the historic district's setting, feeling, and association, which is characterized by the architectural design of the predominately 19th and early 20th century buildings and their relationship to the streets of the L'Enfant Plan, would remain intact despite the potential minor visual effects.

The northeast corner of the Capitol Hill Historic District, between Second and Third Streets NE and Massachusetts Ave and H Street NE, is located within the Operational and Construction Noise and Vibration Study Areas. Noise and vibration analysis conducted for the DEIS indicates that the buildings along Second Street NE, especially 701, 603-607, and 521-527 Second Street NE, would experience moderate temporary noise effects during the construction of the Action Alternatives if excavation spoils are removed by trucks. However, if trains are used to remove excavation spoils during construction, no temporary noise effects would likely occur. Vibration analysis shows that temporary vibration effects from construction would result in an "annoyance impact" to properties at 701 and 603-607 Second Street NE and 205 F Street NE but would not cause structural or physical effects.

Although construction of the Project would occur over a long period of time – ranging from 11 years and 5 months for Alternatives A and A-C, 12 years 3 months for Alternatives for C and D, and 14 years 4 months for Alternatives B and E – noise effects would not be continuous, and would cease after excavation operations are finished. The Project would be constructed in four phases, moving east to west across the rail yard. Therefore, Phase 1 of Project construction would most affect noise conditions along Second Street. Phase 1 has the shortest excavation period. In all Action Alternatives, it would last approximately 5 months (out of a total phase duration of 2 years and 5 months). The Phase 2 excavation period for all Alternatives is approximately 8 months (out of a total phase duration of approximately 2 years and 5 months), and the Phase 3 excavation period for all Alternatives is a little over a year (out of a total phase duration of approximately 2 years and 6 months). Phase 4 has the longest excavation period ranging from 1 year and 5 months to 2 years and 7 months, depending on the Alternative. However, as Phase 4 will occur on the west side of the rail yard, it is also the phase furthest from the Capitol Hill Historic District. The moderate temporary noise and vibration impacts from construction of the Action Alternatives would not adversely affect the significance and integrity of the historic district. Such effects would not diminish the late 19th and early 20th century architectural characteristics of the district or its association with the development of Washington DC in that period. The integrity of setting has constantly evolved as the city continues to grow and develop, and temporary noise and vibration in an already heavily trafficked and urban environment would not diminish the architectural and historic characteristics that qualify the district for inclusion in the NRHP.

According to the noise and vibration analysis, operational noise or vibration effects would likely not affect properties within the historic district. Receptors throughout the district were assessed to have no operational impact because operational train noise would be shielded by the deck and adjacent buildings and because the rail terminal is an established part of the setting. While there would be an increase in operational vehicular traffic to the east of the station, which would result in a small increase in noise, it is not enough to have a noise impact, and the integrity of setting and significance of the district would remain intact. It is unlikely that there would be noticeable noise impacts within the APE outside the Operational Noise and Vibration Study Area. The analysis shows that it would take a doubling of operational vehicular traffic volumes to increase noise more than three dB to be a noticeable impact. According to projections as recorded in Chapter 5, Section 5 *Transportation* of the DEIS, traffic would increase by 30% east on Massachusetts Ave NE east of Second Street NE. None of the traffic projections undertaken in the DEIS transportation analysis indicate that traffic volumes would double.

Potential increases in operational traffic volumes along nearby streets may cause traffic-related effects including visual changes, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties that may potentially affect the integrity of the district's setting, feeling, and association. All Action Alternatives would cause an increase in traffic volumes in the vicinity of WUS, caused by greater station activity. Traffic impact modeling conducted for the DEIS transportation analysis indicates that traffic impacts would largely be concentrated along a few major thoroughfares, including North Capitol Street and H Street as well as, to a lesser extent, K Street and Massachusetts Avenue.

The assessment of potential traffic impacts is informed by the traffic analysis conducted for the DEIS, the methodology of which was coordinated with DDOT. That analysis studied and modeled traffic within or at the edge of the historic district at various intersections along H Street NE, Massachusetts Ave NE, and Second Street NE. The six intersections within or immediately adjacent to the Capitol Hill Historic District include, H and Third Street NE, H and Fourth Street NE, Second and G Street NE, Second and F Street NE, Second and Massachusetts Ave NE, Second and D Street NE, and Fourth and Massachusetts Ave NE. These key intersections are part of the roadway network adjacent to the Project Area on which vehicles are known to travel to and from WUS. As described in Chapter 5, Section 5 *Transportation* of the DEIS, the traffic analysis modeled the projected intersection activity and estimated the level of service (LOS), queuing, and increases in average delay (seconds per vehicle), in the Project Area. The traffic analysis did not account for the reactive and discretionary behavior of drivers diverting their course from the known travel routes. Therefore, it is not known whether there would be potential traffic increases to the network of residential streets outside of the studied intersections. The following summaries discuss the studied and inferred traffic increases that may potentially affect the northwest section of the historic district.

In all Action Alternatives, the pick-up and drop-off area on Second Street NE would generate additional operational station-related traffic along this street, which forms the northwestern edge of the historic district south of H Street. During peak hours, traffic on Second Street NE between Massachusetts Avenue and H Street would increase by approximately 22 percent relative to existing conditions, from approximately 1,400 trips to approximately 1,700 trips. Of the 300 additional trips, approximately 135 would be due to the Project operation. It is important to note that the affected segment of Second Street is a designated collector road largely, though not exclusively, characterized by commercial and institutional uses.⁷⁰ As such,

⁷⁰ Collector roads serve both land access and traffic circulation in residential and commercial/industrial areas; penetrate residential neighborhoods; and distribute and channel trips between local roads and arterials (derived from: FHWA, *Highway Functional Classification Concepts, Criteria and Procedures, 2013 Edition*. Accessed from:

Second Street is accustomed to elevated levels of traffic, compared to the residential streets of the district, and therefore, may not experience the same levels of traffic-related effects.

In all Action Alternatives, the new east ramp, providing access from the deck to F Street NE, would also cause an increase in operational traffic traveling eastbound along F Street across the historic district except from 4 to 6:30 PM, when non-local traffic would continue to be required to turn left or right onto Second Street. During peak time, traffic on F Street NE east of Second Street would increase by approximately 37 percent relative to existing conditions, from approximately 550 trips to approximately 750 trips. Of the 200 additional trips, approximately 135 would be due to the Project operation. It is important to note that the part of F Street between WUS and Sixth Street NE is also a designated collector road. As such, F Street is accustomed to elevated levels of traffic, compared to the undesignated streets of the district, and therefore, may not experience the same levels of traffic-related effects.

Additionally, the increased traffic along H Street and Massachusetts Avenue east of WUS as modeled in all Action Alternatives, and the resulting congestion and delays, may potentially prompt drivers to seek alternative routes that would take them through residential streets of the historic district, such as Third Street, Fifth Street, or G Street. As described above, the modeling conducted for the DEIS transportation analysis does not account for this type of reactive and discretionary behavior by drivers. Therefore, it is not known whether these potential increases would occur and, if they did, by how much they would change traffic volumes along those affected streets.

The historic significance of the Capitol Hill Historic District (as characterized in the National Register of Historic Places nomination) is primarily derived from its architecture and contribution to the development of the District of Columbia. NPS guidelines state that historic districts or components of historic districts lose significance if they contain so many alternations or new intrusions that they no longer convey a sense of historic environment.⁷¹ Therefore, increased traffic alone would not likely affect the historic district in such a way as to diminish its architectural or historical significance and affect its ability to remain listed in the National Register.

However, considered cumulatively, moderate temporary noise effects to buildings along Second Street NE (especially 701, 603-607, and 521-527 Second Street NE) during construction if excavation spoils are removed by truck; temporary vibration effects during construction to

https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/. Accessed on January 2, 2020.

⁷¹ National Park Service. "National Register Bulletin: How to Apply the National Register Criteria for Evaluation." Accessed at <https://www.nps.gov/nr/publications/bulletins/nrb15/>. Accessed on June 1, 2018.

properties at 701 and 603-607 Second Street NE and 205 F Street NE; and the potential visual effects, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties from increased traffic volumes may detract from the residential character of the district and have the potential to adversely affect the integrity of setting and feeling of the historic district. To the extent that potential adverse effects may occur, it is anticipated that the PA, developed in consultation with the SHPO and the Section 106 Consulting Parties, would identify measures to avoid, minimize, or resolve them.⁷²

Based on this evaluation, all Action Alternatives may have a potential adverse effect on the Capitol Hill Historic District.

Visual Assessment from First Street NE and Constitution Avenue NE



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A and Alternative B

⁷² Mitigation measures that are being considered to avoid traffic and noise and vibration impacts are identified as part of the NEPA process. They include developing policies and infrastructure to control traffic access, ensuring best management practices, and developing and implementing a construction noise and vibration control plan. More information is provided in Chapter 5, Section 5 *Transportation* and Chapter 5, Section 10 *Noise and Vibration* of the DEIS.



Visual Assessment for Alternative C

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative D and Alternative E

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A-C



Private Air-Rights Development (maximum buildable volume including penthouse)



No-Action Alternative – Provided for Visual Comparison

Visual Assessment from Massachusetts Avenue and Second Street NE



Visual Assessment for Alternative A and Alternative B

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative C, a very small portion of the Federal air-rights development is slightly visible to the left of the Thurgood Marshall Federal Judiciary Building roof line

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative D and Alternative E. The Project would not be visible from this view.

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative A-C

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





No-Action Alternative – Provided for Visual Comparison

Visual Assessment from G Street and Third Street NE



Visual Assessment for Alternative A and Alternative B

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



Potential Federal Air-Rights
Development (maximum
buildable volume including
penthouse)





Potential Federal Air-Rights
Development (maximum
buildable volume including
penthouse)



Visual Assessment for Alternative C



Potential Federal Air-Rights
Development (maximum
buildable volume including
penthouse)



Visual Assessment for Alternative D and Alternative E



Potential Federal Air-Rights
Development (maximum
buildable volume including
penthouse)



Visual Assessment for Alternative A-C



Private Air-Rights
Development (maximum
buildable volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Visual Assessment from F Street and Third Street NE



Visual Assessment for all Action Alternatives. The Project would not be visible from this view.



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



45. L'Enfant-McMillan Plan



View looking north along Delaware Ave NE towards the Project Area is a significant viewshed established by the L'Enfant-McMillan Plan



View looking northeast along Louisiana Ave NE towards the Project Area is a significant viewshed established by the L'Enfant-McMillan Plan

The Plan of Washington was initially designed in 1791 by Pierre L'Enfant and mapped the following year. It is the sole American example of a comprehensive baroque city plan with a coordinated system of radiating avenues, parks, and vistas overlaid upon an orthogonal grid of streets, and it defines the physical character of the national capital through a symbolic and commemorative arrangement of buildings, structures, and views. The plan is intimately related

to the establishment of the United States and the creation of a symbolic and innovative capital city for the Federal republic. For nearly a century, the realization of physical changes to the plan were gradual, until the McMillan Commission expanded the plan in 1901, resulting in one of the most elegant realized examples of City Beautiful tenets in the nation. The plan is significant to the work of numerous other persons and groups important to the landscape architecture, urban design, civil engineering, and urban planning. It has served continuously as the setting for national political expression and nationally significant events and has influenced subsequent American city planning and other planned national capitals.

The plan is characterized by the series of diagonal avenues superimposed on a grid of regular orthogonal streets designated numerically and alphabetically within four quadrants with the U.S. Capitol occupying the center point. The junction of the diagonal and orthogonal thoroughfares creates a system of circles and squares that serve as parks, open space, and vistas amongst the design. Although many streets have been crossed by overpasses, elevated walkways, roadways, or railroad tracks and many blocks have been closed to conventional traffic because of the construction of buildings, conversion to pedestrian malls, or the installation of railroad tracks, in most instances, the historic spatial corridor remains intact. Contributing streets include those limited to pedestrian traffic if the open space is preserved.

Major elements of the plan were designated in the DC Inventory on January 19, 1971. The DC designation was expanded on January 23, 1997 to include virtually all extant components of the historic city plan, incorporating formerly separate listings of the Eight Street Vista (DC listing March 7, 1968), Franklin Square (DC listing March 7, 1968), Rawlins Park (DC listing November 8, 1964), and East Capitol Street (DC listing November 8, 1964, extended June 19, 1973), but excludes L'Enfant Reservations 10, 11, and 12 (intended as Bank and Exchange Squares). The L'Enfant-McMillan Plan was listed in the NRHP on April 24, 1997 under NRHP Criteria A, B, and C.

Effects Evaluation: No physical effects to the L'Enfant McMillan Plan would occur because of Project implementation. Therefore, no effects to the property's integrity of location, design, materials, and workmanship would occur. The site's integrity of feeling and association are connected to its design, which is characterized by the relationships between the diagonal and orthogonal streets, the open space geometries, and the views and vistas created by the streets and open space. Such relationships would not be affected by the Alternatives.

While many of the street views within the L'Enfant-McMillan Plan would experience visual changes from the Alternatives, the visibility and sensitivity of such changes would vary according to the street and distance from the Project Area. Overall, the following views

associated with the L'Enfant-McMillan Plan would experience visual effects to the south, west, and east of WUS.

South of WUS, all Alternatives would have moderate to high visibility and sensitivity, resulting in potential moderate to major visual effects, to views from First Street NE looking north, Delaware Ave NE looking north/northeast, and Louisiana Avenue NE looking northeast. As illustrated in the example visual simulations below, the Project elements (in blue) of Alternatives A and A-C would have moderate visibility from Delaware Ave NE, however the Project elements in the other Action Alternatives would not be visible. The Potential Federal air-rights (in green), however, would have high visibility and high sensitivity, resulting in potential major visual effects for all Action Alternatives.

From Louisiana Ave NE, all Action Alternatives would have high visibility and moderate sensitivity resulting in a potential moderate visual effect. As shown and described in the analysis for Washington Union Station property above, all Action Alternatives would have potential major visual effects to the view from First Street NE and C Street NE.

From the west side of Columbus Circle Drive looking north, all Action Alternatives would have low visibility and sensitivity. However, because the existing parking garage, which obstructs the view from Columbus Circle Drive along First Street NE, would be removed in the Action Alternatives, a potential beneficial visual effect would occur. From the east side of Columbus Circle Drive, all Action Alternatives would have low to moderate visibility and low sensitivity resulting in potential negligible to minor visual effects.

West of WUS, the Alternatives would cause visual changes to views from G, H, and K Streets NW, looking east, and First Street NE, looking south. Alternatives A, B, and A-C would have moderate visibility and low sensitivity, resulting in a potential minor visual effect. Alternatives C, D, and E would have low visibility and sensitivity. Because the visual presence of the Project Alternatives would be less noticeable than the existing parking garage, Alternatives C, D, and E would have a potential beneficial visual effect on the view from G Street NW. All Action Alternatives would have low to moderate visibility and low sensitivity, resulting in potential negligible or potential minor visual effects. Finally, from First Street NE looking south, all Action Alternatives would have high visibility and moderate sensitivity, resulting in potential moderate visual effects.

East of WUS, the Alternatives would cause visual changes to the views from Second Street NE looking south, K, I, H, G, and F Streets NE looking west, and Massachusetts Ave NE looking northwest. From Second Street NE, Alternative D would have high visibility and moderate sensitivity, resulting in potential moderate visual effects. However, Alternatives A, B, C, E, and

A-C would have low visibility and sensitivity, resulting in potential negligible visual effects. From K Street NE, all Action Alternatives, except for Alternative D, would have moderate visibility and low sensitivity, resulting in potential minor visual effects. Alternative D would have high visibility and moderate sensitivity, resulting in potential moderate visual effects. From I Street NE, all Action Alternatives would not be visible, except for Alternative C-East, which would have moderate visibility and sensitivity, resulting in a potential moderate visual effect.

From H Street NE, all Action Alternatives would have moderate visibility and low sensitivity, resulting in potential minor visual effects. All Action Alternatives would have low visibility and low sensitivity, resulting in potential negligible visual effects. From F Street NE, no Alternatives would be visible. Finally, from Massachusetts Ave NE, Alternatives A, B, and A-C would have low visibility and low sensitivity, resulting in potential negligible visual effects, while Alternatives C, D, and E, would not be visible.

Overall, such visual effects would not diminish the L'Enfant-McMillan Plan's significance or integrity. While various Alternatives would have potential major visual effects from several contributing streets, including Delaware Ave and First Street NE, the setting of the L'Enfant-McMillan Plan, which is connected to the site's architectural design and the resulting vistas, would not change from the existing conditions. No spatial corridors or vistas along the contributing streets and avenues would be obstructed. In fact, in the Action Alternatives, the existing parking garage, which obstructs the view along First Street NE looking north, would be removed, reestablishing the view.

Noise, vibration, and traffic effects related to the Project's construction and operation would be limited and would likely not affect the site's significance and integrity. While the Project Area is immediately adjacent to elements of the L'Enfant-McMillan Plan, especially First Street NE, Second Street NE, Columbus Circle, and Florida Ave, and the site is located within both the Operational and Construction Noise and Vibration Study Areas, the noise and vibration analysis conducted for the DEIS indicates that limited effects would occur. Operational noise effects from the Action Alternatives are limited to small sections mostly to the east of the Project Area along H Street NE, K Street NE, and Second Street NE. Severe temporary construction noise effects would occur along First Street NE, between G and K Streets NE; and Second Street between H and K Streets NE. Additionally, moderate temporary construction noise effects would likely occur along portions of Second Street NE, between E and H Streets NE, and along K Street NE, between Second and Fourth Streets NE. Temporary construction vibration effects would likely cause human annoyance but would not cause physical effects, predominately along Second Street NE between F Street and K Street NE.

Based on the noise and vibration analysis conducted for the DEIS, it is determined that noise and vibration effects would not affect the significance or integrity of site and would not result in an adverse effect. Similarly, the incremental increase in operational traffic volumes, especially along North Capitol Street, H Street, and Massachusetts Ave, from the Action Alternatives would not alter the property's setting. Noise, vibration, and traffic effects would not diminish the historic and architectural characteristics that qualify the L'Enfant-McMillan Plan for inclusion in the NRHP and DC Inventory. The integrity of setting has constantly evolved as the city continues to grow and develop. Increased noise, vibration, and traffic in an already heavily trafficked and urban environment would not diminish the L'Enfant-McMillan Plan's design of diagonal and orthogonal thoroughfares, vistas, parks, and open spaces.

Based on this evaluation, all Action Alternatives would have no adverse effect on the L'Enfant-McMillan Plan.

Visual Assessment from Delaware Avenue and C Street NE



Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative B

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative C

Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights Development
(maximum buildable volume including penthouse)



Visual Assessment from Delaware Avenue NE and Constitution Avenue NE



Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Visual Assessment for Alternative B

Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)





Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative C



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative D and Alternative E



Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



Visual Assessment from Louisiana Avenue and D Street NW



Visual Assessment for Alternative A



Visual Assessment for Alternative B



Visual Assessment for Alternative C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



46. National Mall Historic District



View of the National Mall Historic District looking west from the Capitol Reflecting Pool



View looking northeast towards the Project Area from the intersection of First Street NW and Pennsylvania Ave NW

The National Mall Historic District includes some of the oldest and most iconic public lands in the United States, reflecting the two seminal historic plans for the Federal city—the L’Enfant Plan of 1791 and the 1901-02 McMillan Commission Plan. It is the nation’s foremost commemorative landscape, designed with monuments and memorials that symbolize the country’s collective values and ideals. Its open space defines the setting of the executive and

legislative branches of government and provides essential civic space for historic events of national significance. The APE includes the Peace Monument and Garfield Memorial approximately 2700 feet southwest of the Project Area at the intersection of Pennsylvania Ave, Maryland Ave, and 1st Street NW/SW. These areas are crucial to the historic extent and design of the National Mall Historic District although they are exempt from inclusion in the NRHP as properties under the jurisdiction of the Architect of the Capitol. These areas are included on the historic district map, although the defined boundary of the district begins at Reservation No. 6 at Third Street NW/SW, between Constitution and Independence Avenues and continues west to the President's Park, Washington Monument Grounds, and the Tidal Basin.

The National Mall was planned in 1791 and 1901, and it was first listed on the DC Inventory November 8, 1964. The Mall was listed on the NRHP on October 15, 1966, which was expanded in 1981. On October 4, 2016, the DC Inventory listing was amended to revise, update, and expand the NRHP nomination to include museum and government buildings, recently constructed memorials and monuments, cultural landscapes, and archaeological sites. The National Mall Historic District is listed on the NRHP under criteria A, C, and D.

Effects Evaluation: No physical effects to the National Mall Historic District would occur because of Project implementation. Therefore, no effects to the district's integrity of location, design, materials, and workmanship would occur. All Action Alternatives would have no effect to the visual setting of the district as there are no direct lines of sight towards the Project Area. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The historic district (measured from the Peace Monument) is approximately 2500 feet from the Project Area and is located outside both the Operational and Construction Noise and Vibration Study Areas. Thoroughfares that would be impacted by Project-related traffic are also not located within the property's boundary.

Based on this evaluation, all Action Alternatives would have no effect on the National Mall Historic District.

47. Pennsylvania Avenue National Historic Site



View of the Pennsylvania Ave National Historic Site looking northwest from Pennsylvania Ave NW



View looking northeast towards the Project Area from the intersection of First Street NW and Pennsylvania Ave NW

The Pennsylvania Avenue National Historic Site is roughly bounded by G Street NW to the north, Constitution Avenue to the south, 15th Street NW to the west and Third Street NW to the east. Measured from the Peace Monument, its closest point to the Project Area, the site is approximately 2700 feet south. The site encompasses Pennsylvania Avenue between the White

House and Capitol. The APE includes only a small section of the site at the Peace Monument and surrounding circle at the intersection of Pennsylvania Avenue and First Street NW.

The Pennsylvania Avenue National Historic Site is listed in the NRHP and the DC Inventory, under NRHP Criteria A and C. The site is historically significant as one of Washington's most prominent and famous avenues. The site is also architecturally significant for its association with significant Washington landmarks within its boundaries, including the Old Post Office Building designed by Willoughby J. Edbrooke and completed in 1899, as well as the District Building by Cope and Stewardson, completed in 1909.

Effects Evaluation: Activity related to the WUS Expansion Project would occur to the northeast of the site. No physical effects to the Pennsylvania Avenue National Historic Site would occur because of Project implementation. Therefore, no effects to the site's integrity of location, design, materials, and workmanship would occur. All Action Alternatives would have no effect to the visual setting of the site as there are no direct lines of sight towards WUS. Similarly, the integrity of setting would not be affected by noise, vibration, or traffic related to the Project's construction and operation. The historic district is outside both the Operational and Construction Noise and Vibration Study Areas, and though the district is at the edge of the Transportation Study Area it is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no effect on the Pennsylvania Avenue National Historic Site.

48. Union Market Historic District



View of the Union Market Historic District looking northeast from the intersection of Morse Street NE and Fourth Street NE. The buildings are those within the APE.



View from the intersection of Morse Street NE and Fourth Street NE looking west towards the Project Area, which is not visible

The Union Market Historic District is located approximately 500 feet east of the Project Area and encompasses the core group of warehouse buildings, constructed between 1929-1939, that are associated with Union Market Terminal. The district includes 70 contributing properties and is comprised of predominantly concrete-frame, brick, two-story buildings with flat roofs

and loading docks. The Union Market Terminal was sited in proximity to Union Station for strategic access to railroad lines. Historically, rail spurs connected the warehouses to the station freight lines, which are no longer used or have been removed. The district is generally bounded by Penn Street NE to the north, Florida Avenue NE to the south, Fourth Street NE to the west and Fifth Street NE to the east. The several buildings to the west of Fourth Street north of Morse Street fall within the APE.

The district was listed on the DC Inventory under Criteria A and C in November 2016. In addition to its historic significance tied to the district's legacy of public markets, the district is architecturally significant as a collection of Classical Revival-style warehouses. Approximately eight million square feet of space have been approved for redevelopment surrounding the district, increasing density and providing mixed use residential, commercial, and institutional/cultural space.

Effects Evaluation: No physical effects to the Union Market Historic District would occur because of Project implementation. Therefore, no effects to the district's integrity of location, design, materials, and workmanship would occur. The district's integrity of feeling and association are connected directly to the building's design and would be unaffected. The Project would have no effect to the visual setting of the property as there are no direct lines of sight towards the Project Area.

Additionally, the site's integrity of setting would likely not be affected by noise, vibration, or traffic related to the Project's construction and operation. While the buildings of the district within the APE (at the corner of Morse Street NE and Fourth Street NE) are located within the Operational and Construction Noise and Vibration Study Areas, noise and vibration analysis conducted for the DEIS indicates that the Union Market Historic District would likely not experience operational or temporary construction noise and vibration effects. Furthermore, any potential noise and vibration effects would not affect the significance or integrity of the property, which is defined by its architectural design and association with the development of Washington, DC's public markets. The historic district is outside the Transportation Study Area and is not located at or adjacent to thoroughfares that would be impacted by Project-related traffic.

Based on this evaluation, all Action Alternatives would have no adverse effect on the Union Market Historic District.

49. Washington Union Station Historic Site (Expanded Boundary)





Photograph of Columbus Plaza, Union Station, and the Terminal Rail Yard behind, looking north. Source: "Aerial view of Union Station" 1980. Photograph. From the Library of Congress, <https://www.loc.gov/item/2011634160/>



Photograph of the Terminal Rail Yard showing existing conditions of "K" Tower and several original single catenaries, looking north

In 2019, FRA prepared a determination of eligibility (DOE) amendment to WUS, which includes the station building and Columbus Plaza in addition to the First Street Tunnel and the Terminal Rail Yard (referred to as the rail terminal). The DOE documents the history and development, provides a design narrative, identifies character-defining features, and establishes the national significance of the entire site that was owned and operated by the Washington Terminal Company. Like the NRHP nomination for WUS, the DOE determined that the WUS Historic Site is eligible for the DC Inventory and NRHP under criteria A and C due to its association with

railroad transportation improvements, the twentieth-century development and urban design of Washington, D.C., Beaux-Arts architecture, and notable architects and artists including Daniel Burnham.

WUS is delineated by the extent of the First Street Tunnel and Columbus Circle NE to the south, First Street NE and the Metropolitan Branch Trail to the west, and the northern edge of Florida Avenue NE to the north. The eastern boundary follows Union Station Drive NE and the rail terminal north to H Street, Second Street NE between H and L Streets NE, Delaware Avenue NE to M Street NE, and the rail terminal to Florida Avenue NE. Physically, the site is largely bordered on the east and west by masonry retaining walls, known as the Burnham Walls, which were constructed to hold the fill required to elevate the rail terminal above the existing east-west running streets.

WUS is one of the most significant examples of railroad infrastructure in the United States. It is historically and architecturally significant for its contribution to the urban development of Washington, DC, representing advancements in transportation and engineering, and is an excellent example of Beaux Arts design. It comprises approximately 60 acres and consists of four areas: Columbus Plaza, Union Station, the Terminal Rail Yard, and the First Street Tunnel. Daniel Burnham (1846-1912) and his assistant, Peirce Anderson (1879-1924), of the renowned architecture firm D.H. Burnham & Company, designed Union Station, Columbus Plaza, and the main structures and buildings within the Terminal Rail Yard. While WUS has been substantially altered over the past 110 years to accommodate changing operations and technologies, many historic elements remain, preserving the historic context and integrity of the historic property.

Because effects to the station building and Columbus Plaza are discussed individually as historic properties No. 40 and No. 41 of the AOE Report, respectively, the assessment below specifically addresses effects to the Terminal Rail Yard and First Street Tunnel.

The Terminal Rail Yard is 760 feet wide at its greatest extent, immediately north of Union Station, and narrows along its length to 135 feet wide at its narrowest point at Florida Avenue. The length of the rail terminal from the station to Florida Avenue is approximately 3,725 feet or 0.7 mile. Terminal Rail Yard was originally constructed to accommodate 33 tracks, several platforms for passengers and baggage, as well as other rail terminal buildings and structures. The rail terminal narrows beginning at H Street NE and is 450 feet wide at its intersection with K Street NE. There are many contributing buildings, structures, and objects that date to the rail terminal's original construction in 1903-1907 and to the electrification project of the 1930s. Such resources include the REA Building (assessed as individual property No. 22 in the AOE Report); K Tower; umbrella sheds and platforms dating from 1903-1935; retaining walls (known as the Burnham Walls); bridge underpasses and associated infrastructure; Signal Bridges H, J, and K; Single Catenaries dating from 1903-1935; a catenary with cross beam; P&W Ownership Marker; and pneumatic switch valves dating from 1903-1935. In addition to the visible

contributing buildings, structures, and objects in the Terminal Rail Yard, archaeological resources may exist below-ground (further explained in Section 3.3 of this report).

The First Street Tunnel extends 4,033 feet from the north face of Union Station to the intersection of New Jersey Avenue SE and D Street SE. The tunnel was completed in 1906 to serve the PRR rail lines south of Washington, DC and runs below the station along First Street NE and SE until C Street SE where it turns west towards its terminus. The tunnel features several components, including the eight-low-level run-through tracks below the station, a bellmouth, and a two-tube tunnel, which continues to the south portal at D Street SE.⁷³ The character-defining features of the First Street Tunnel include the north and south tunnel portals faced with rusticated Potomac stone, eight tunnel tracks below Union Station, the bellmouth, and the two-tube tunnel with masonry dividing wall.

Effects Evaluation: The Action Alternatives would cause extensive physical effects within the Terminal Rail Yard, including the reconstruction of all tracks, platforms, and associated railroad infrastructure to meet future intercity and commuter ridership requirements, operational criteria, and modern design standards (ADA and Life Safety requirements). The two options for the platform and track layout immediately north of the WUS headhouse provide for 19 tracks: 12 stub-end tracks and 7 run-through tracks divided by a concourse. The track layout for the Terminal Rail Yard would continue to be divided between the stub-end tracks and run-through tracks, maintaining the rail terminal's general layout. The reconstruction of the rail terminal would require the removal of K Tower, all existing platforms, umbrella sheds, the original retaining wall dividing the run-through tracks from the rest of the rail terminal, catenary poles, catenary with cross beam, signal bridges, and pneumatic switch valves throughout the historic site. In addition, the excavation and reconstruction of the Terminal Rail Yard may cause effects to potential significant archaeological resources if present.

Bridge underpasses at H Street NE and K Street NE would also experience physical effects. In all Action Alternatives, the H Street Underpass (which was closed and used to support WUS after the construction of the H Street Bridge in 1976) would be removed and converted to a concourse. In Alternatives B, C, D, and E, new vehicular access points would be added in the walls of the K Street Underpass. In addition, the ventilation intake required for the operation of all Action Alternatives may require the potential reconstruction and the insertion of vents at the southwest portion of the Burnham Wall. Due to the removal of the majority of character-defining features within the Terminal Rail Yard, all Action Alternatives would affect the WUS Historic Site's integrity of location, design, materials, setting, workmanship, feeling, and association.

⁷³ In rail terminology, a bellmouth is a widening of an underground rail tunnel in preparation for connection or expansion of service.

Physical effects to the First Street Tunnel would also occur in all Action Alternatives, as described above in the determination of effect for WUS (historic property No. 40). The work to remove columns in the First Street Tunnel in order to accomplish the proposed new tracks and platforms would affect the integrity of design, materials, and workmanship, although in a manner that would not be visible to the general public.

Visual effects of the Action Alternatives would adversely affect the integrity of setting, feeling, and association by altering and obstructing the visual connection of the various contributing features within the WUS Historic Site. Existing views from within the Terminal Rail Yard would be non-existent, and views from the REA Building to WUS would be obstructed.

Visual effects to views from Louisiana Ave, Delaware Ave, and First Street NE, Columbus Circle Drive, and H Street Bridge – as discussed in the determination of effect for WUS (historic property No. 40) – would have the same visual effects to the WUS Historic Site. Additional visual effects from the Action Alternatives to the WUS Historic Site, especially the Terminal Rail Yard, would affect views from Second Street NE, First Street NE (between H and K Streets NE), the New York Avenue Bridge.

As shown in the visual simulations below, from 888 First Street NE (between H and K Streets NE), all Action Alternatives would have high visibility and moderate sensitivity, resulting in potential moderate visual effects. The sensitivity of the visual change would be moderate because the development would be in keeping with the scale of the existing development of the surrounding buildings and the existing WUS parking garage. Such visual effects would not adversely affect the WUS historic site.

From New York Avenue Bridge, all Action Alternatives would have high visibility and moderate to high sensitivity. All would obstruct the view of the Terminal Rail Yard. All Action Alternatives would partially obstruct the view of WUS, although a portion of the WUS headhouse would be visible in all except Alternative D. All Alternatives, except Alternatives A and B, would also obstruct the view of the U.S. Capitol Dome. Such visual effects would not adversely affect the WUS historic site.

From the intersection of Second and K Streets NE, the Action Alternatives would have low visibility and sensitivity, resulting in potential negligible visual effects, except for Alternative D, which would have high visibility and moderate sensitivity, resulting in potential moderate visual effects. However, such visual effects would not adversely affect the WUS historic site.

Overall, the visual effects, obstructing the visual connections to the contributing features within the historic site, would affect the significance and integrity of setting of the WUS Historic Site. Furthermore, the potential major visual effects of all Action Alternatives to the view of the station from Delaware Ave NE, and the potential major visual effects from Alternatives C, D, E, and A-C to the view of the site from First and C Streets NE would affect the visual symmetry of

the station's monumental Beaux Arts design, a character-defining feature of WUS and the WUS historic site, and would cause an adverse effect.⁷⁴

The DEIS noise and vibration analysis indicates that noise and vibration from the operation of the Action Alternatives would not affect WUS Historic Site. However, analysis indicates that there would likely be temporary moderate to severe noise effects from construction as well as vibration effects that may result in structural and human annoyance impacts. Construction would involve vibration-generating equipment. Preliminary constructability analysis indicates vibratory pile driving and drill rigging may occur within approximately 10 feet of the north elevation of the station building, resulting in vibration levels of approximately 0.67 in/s and 0.35 in/s, for pile driving and drill rigging respectively, which are above the threshold to cause human annoyance and may cause structural effects. The sensitivity of the historic station to vibration levels cannot be specifically determined at this phase of the design. Although the station is historic, it was specifically designed to facilitate train operations and may be capable of withstanding vibration levels which exceed the lowest thresholds. However, given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure structural damage does not occur.

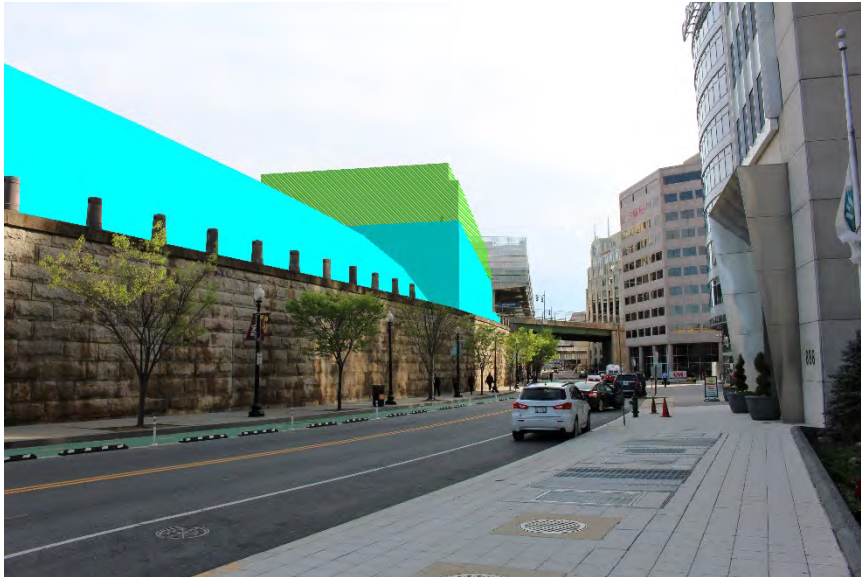
The WUS Historic Site would likely experience moderate to severe temporary noise effects from construction, regardless of the method employed to remove excavation spoils. Temporary noise effects, however, would not adversely affect the significance or integrity of the site, which is defined by its architectural design, association with transportation development, and contribution to the planning and development of Washington DC. Furthermore, the site has never been defined by its quiet setting and has always been a site of great activity and noise.

All Action Alternatives would result in the incremental increase in operational traffic volumes surrounding the historic site, especially within Columbus Circle Drive, and along Massachusetts Ave, North Capitol Street, and H Street NE (all principal or minor arterial streets intended to carry significant amounts of traffic). Such increases, however, would not alter the busy, traffic-heavy urban setting in which the WUS Historic Site is located and there would be no adverse effect to the integrity of the setting, feeling, or association.

Based on this evaluation, all Action Alternatives would have an adverse effect on Washington Union Station Historic Site.

⁷⁴ It should be noted that the private air-rights development may provide visual balance and symmetry behind the station, thus minimizing the potential major visual effects of the Action Alternatives.

Visual Assessment from 888 First Street between H and K Streets NE

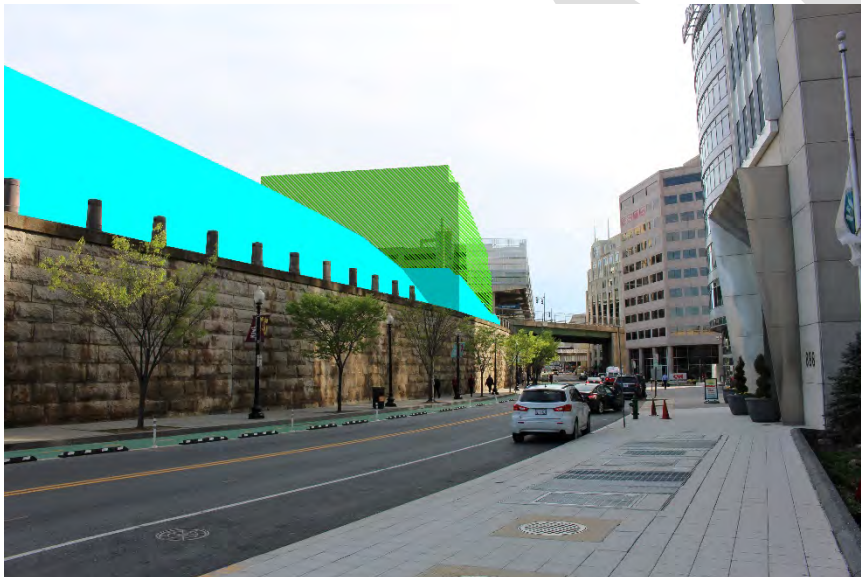


Visual Assessment for Alternative A

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



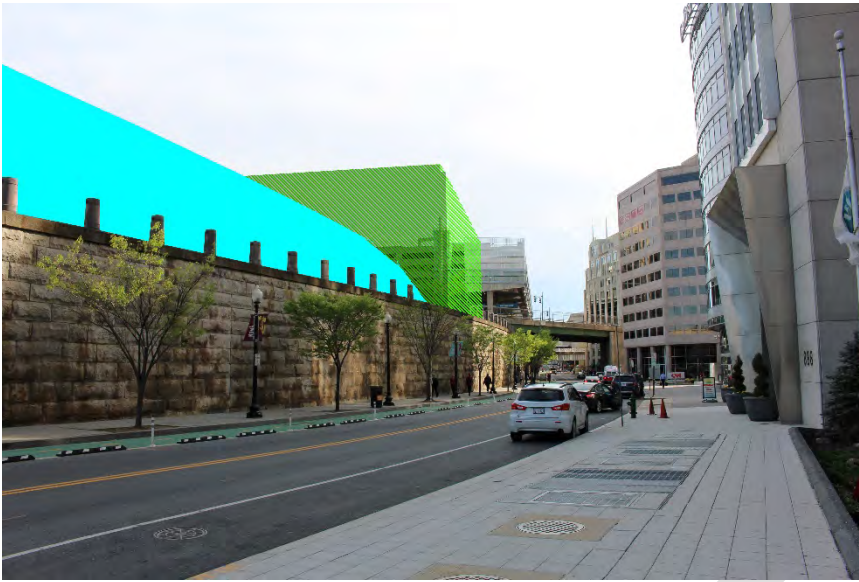
Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)





Visual Assessment for Alternative C-East

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



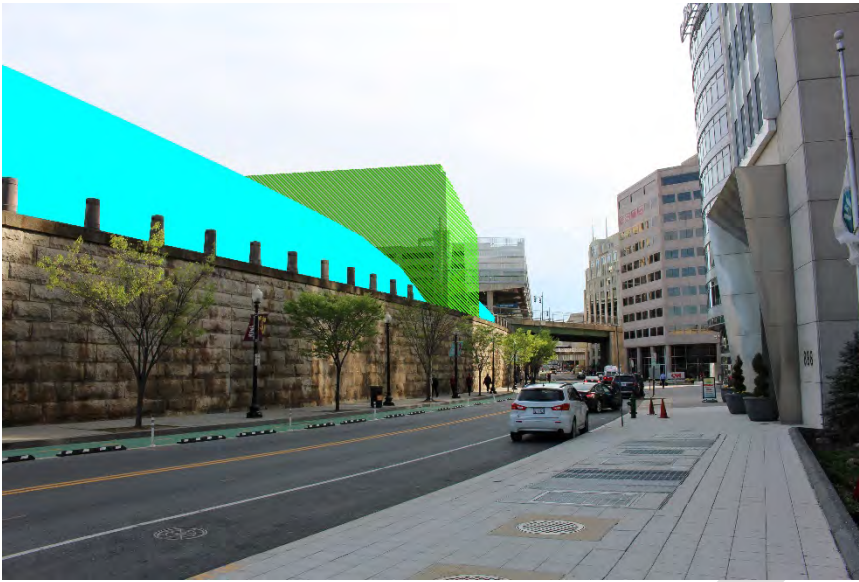
Visual Assessment for Alternative C-West Parking Option

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative D and Alternative E

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



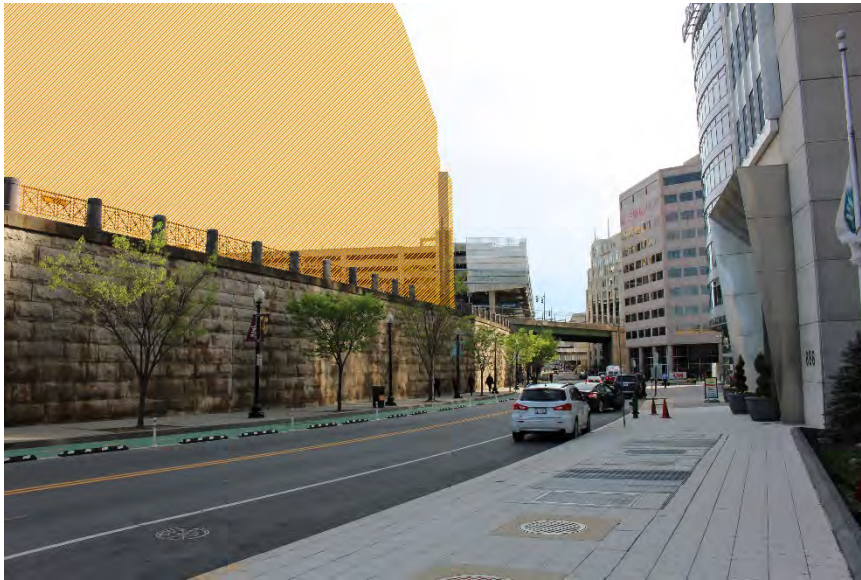
Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



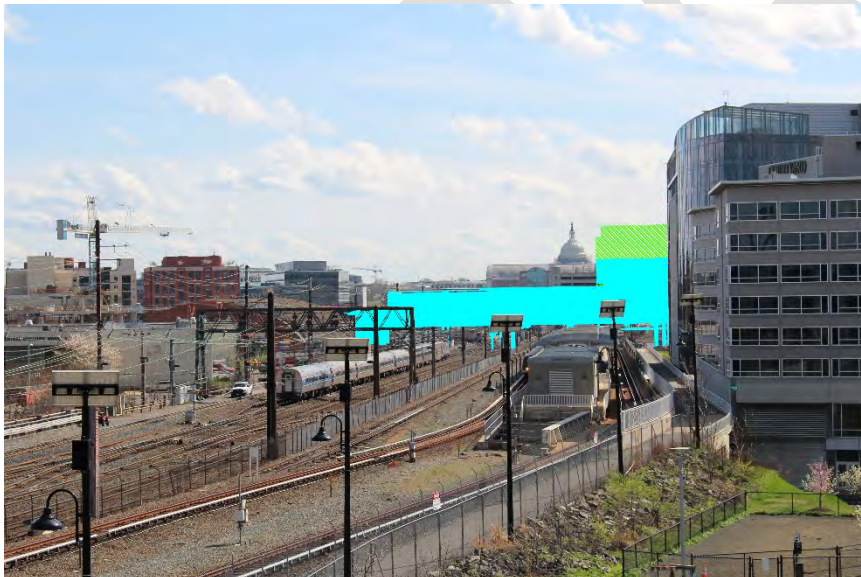


Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Visual Assessment from the New York Avenue Bridge



Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative A

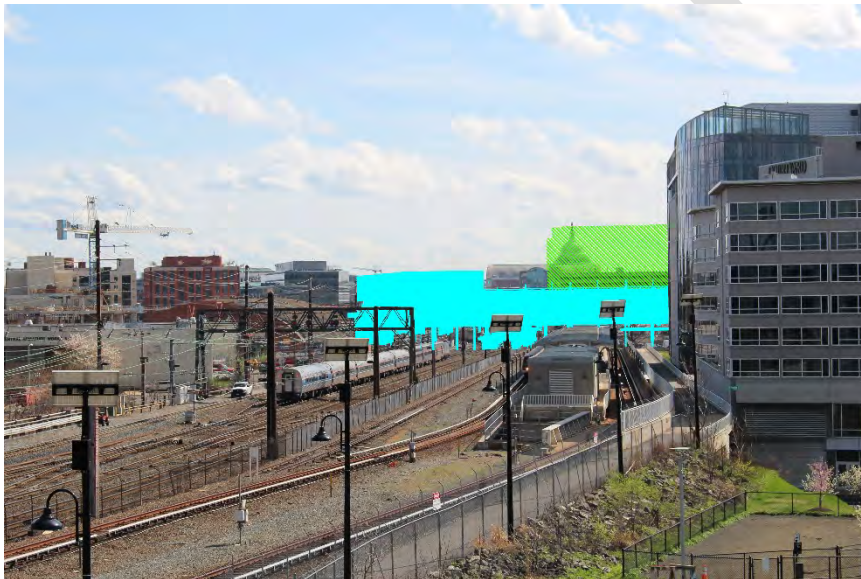


Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



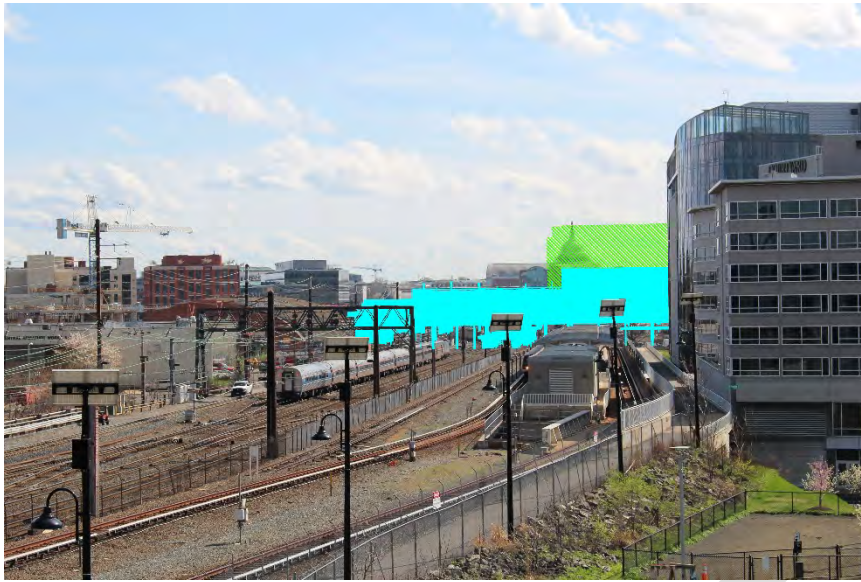
Visual Assessment for Alternative C-East

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative C-West Parking Option

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



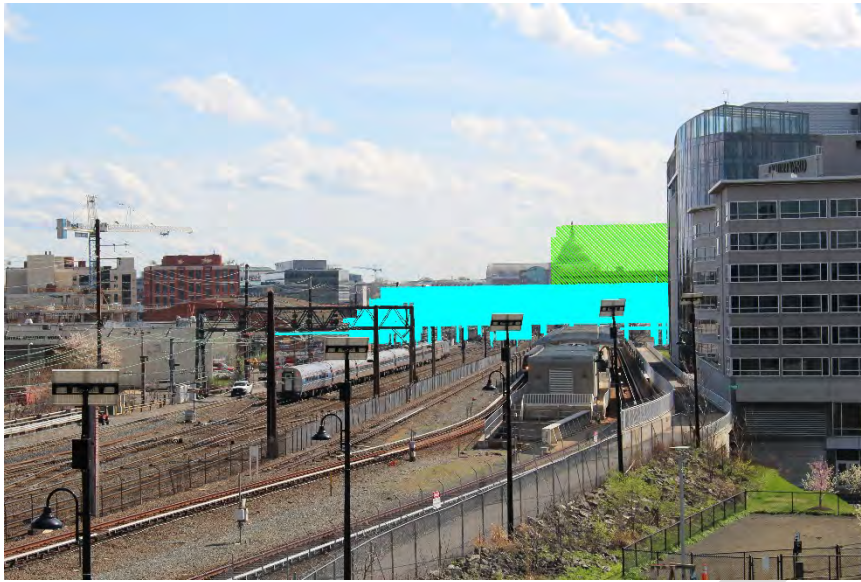
Visual Assessment for Alternative D

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



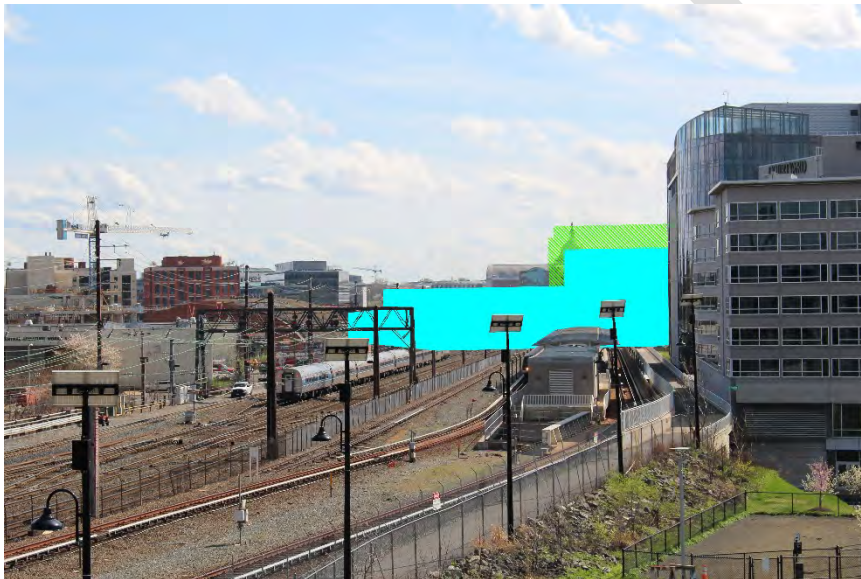


Visual Assessment for Alternative E

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



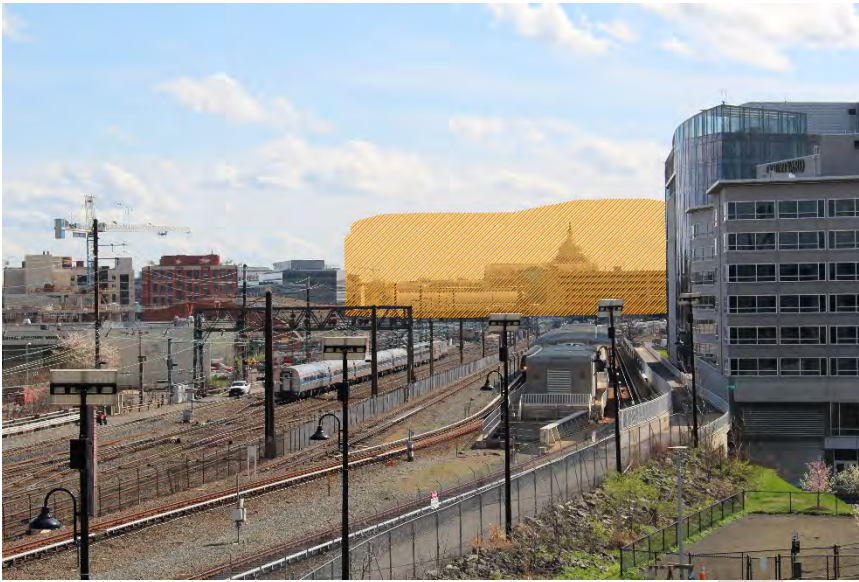
Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



No-Action Alternative – Provided for Visual Comparison

Visual Assessment from Second Street NE and K Street NE



Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative A and Alternative B



Visual Assessment for Alternative C-East

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative C-West Parking Option

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative D

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



Visual Assessment for Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



No-Action Alternative – Provided for Visual Comparison

As part of the No-Action Alternative, Substation 25A, located above the Burnham Wall in the center of the photograph and a contributing element to the WUS Historic Site, would be demolished and relocated.

Private Air-Rights Development (maximum buildable volume including penthouse)



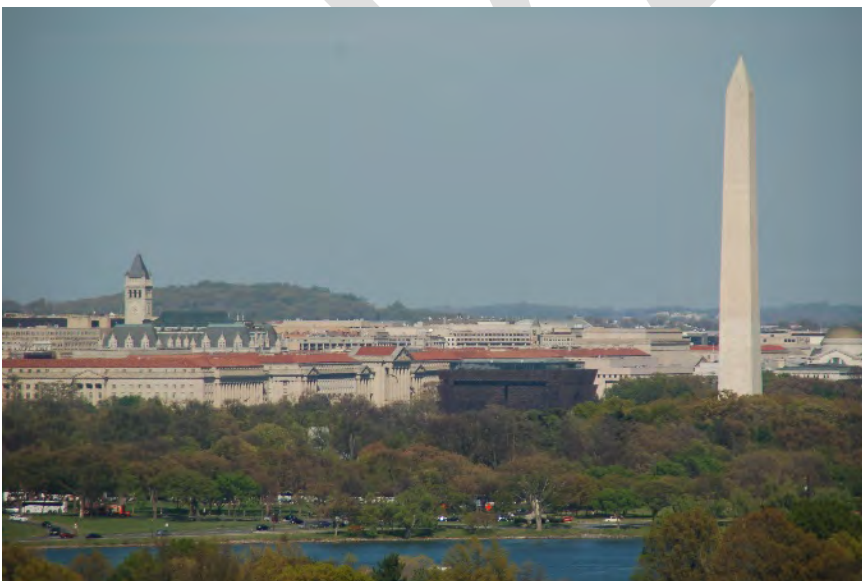
CULTURALLY SIGNIFICANT VIEWSHEDS

As described above, six culturally significant viewsheds, were also considered part of the APE, though discontinuous, and visual effects from the viewsheds were assessed and a determination of effect, based on visual effects was made.

50. Arlington National Cemetery



View from Arlington National Cemetery looking east towards WUS and the Project Area, which is not visible to the naked eye.



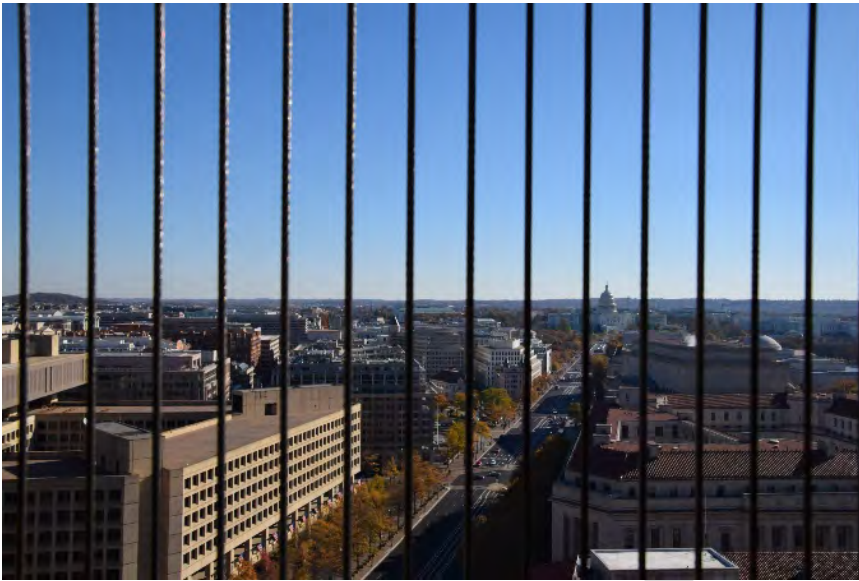
View from Arlington National Cemetery looking east towards WUS and the Project Area with a zoom lens camera

The view from the Arlington House lawn at Arlington National Cemetery is characterized by the expanse of the cemetery in the foreground and by the strong presence of Memorial Bridge, which visually connects the cemetery to the city skyline beyond. Height limitations have created a uniform skyline, which draws the eye to some of the most significant buildings in DC, including the Washington Monument, the U.S. Capitol, and the Old Post Office Building Tower. Public access to Arlington National Cemetery and Arlington House is not restricted.

Effects Evaluation: Based on visual survey and visual assessment simulations that superimpose the proposed built forms of the Action Alternatives on existing condition photographs, the Project Area is not visible in plain sight. It is only with the use of binoculars or a zoom lens camera that one can differentiate the barrel arch roof of WUS and the Project Area beyond. Therefore, there would be low visibility and low sensitivity, resulting in potential negligible visual effects from all Action Alternatives. The qualities characterizing the existing view would not be altered.

Based on this evaluation, all Action Alternatives would have no effect on the Arlington National Cemetery Viewshed.

51. Old Post Office Building



View from the Old Post Office Building looking east towards WUS and the Project Area, which is not easily visible to the naked eye.



View from the Old Post Office Building looking towards WUS and the Project Area with a zoom lens camera

The view from the tower at the Old Post Office Building towards the Project Area is characterized by the city skyline along Pennsylvania Ave and the strong visual presence of the U.S. Capitol to the southeast. Height limitations have created a uniform skyline, which draws the eye to the U.S. Capitol, and the natural topography of northeast and the National Arboretum. Public access to the Old Post Office Building Tower is not restricted.

Effects Evaluation: Based on visual survey and visual assessment simulations that superimpose the proposed built forms of the Action Alternatives on existing condition photographs, the

Project Area is not visible in plain sight and it is only with the use of binoculars or a zoom lens camera that one can differentiate the barrel arch roof of WUS and the Project Area beyond. Therefore, there would be low visibility and low sensitivity, resulting in potential negligible visual effects from all Action Alternatives. The qualities characterizing the existing view would not be altered.

Based on this evaluation, all Action Alternatives would have no effect on the Old Post Office Building Viewshed.

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52. St. Elizabeths West Campus



View from St. Elizabeths West Campus looking northwest towards WUS and the Project Area, which is not visible.

The view from the St. Elizabeths West Campus towards the Project Area is characterized by the city skyline and the strong visual presence of the U.S. Capitol with Navy Yard in the foreground. Height limitations have created a uniform skyline, which draws the eye to the U.S. Capitol, and the dome of the Library of Congress Thomas Jefferson Building. Public access to St. Elizabeths West Campus is limited due to the secure nature of the site, which serves as the campus for the U.S. Department of Homeland Security.

Effects Evaluation: Based on visual survey, WUS and the Project Area is not visible. Therefore, **all Action Alternatives would have no effect on St. Elizabeths West Campus Viewshed.**

53. U.S. Capitol Dome



View from the U.S. Capitol Dome looking north towards WUS and the Project Area.

The view from the U.S. Capitol Dome towards the Project Area is characterized by the city skyline and streetscape to the north. The axial views established by the L'Enfant-McMillan Plan along North Capitol Street NW and Delaware Ave NE are especially prominent, as are the views towards the WUS headhouse, Columbus Plaza, and the Russell Senate Office Building in the foreground. Height limitations have created a uniform skyline, and no one building is more visually prominent due to height. Public access to the U.S. Capitol Dome is limited to those with special access or escort.

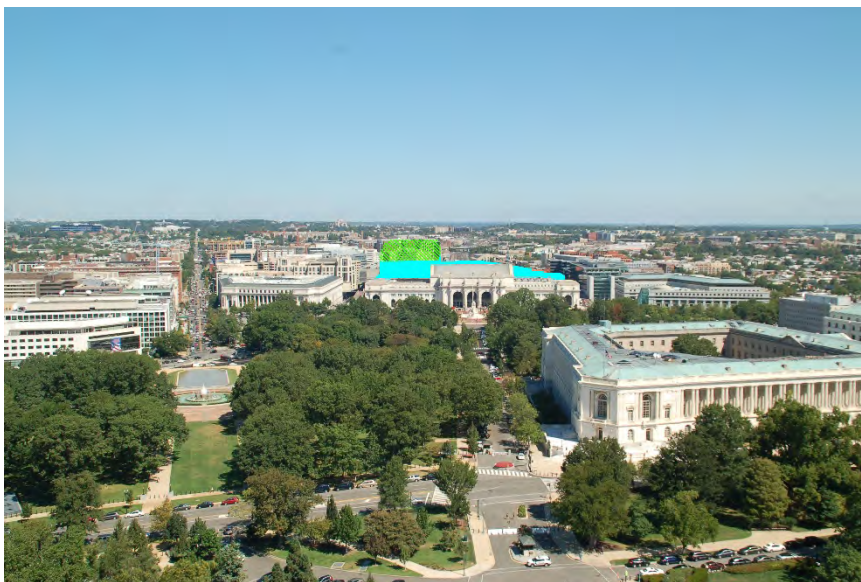
Effects Evaluation: Based on visual survey and visual assessment simulations that superimpose the proposed built forms of the Alternatives to existing condition photographs, all Action Alternatives would cause a visual effect compared to existing conditions. In Alternatives A, C-East, D, and A-C, the Project elements (in blue) would have moderate visibility while those in Alternatives B, C-West, and E would have low visibility due to the extent of the potential Federal air-rights (in green). However, when considering the visual effects of the Project elements and the potential Federal air-rights, all Action Alternatives would have high visibility and moderate sensitivity, resulting in potential moderate visual effects. Visual sensitivity to the Action Alternatives would be moderate because while the Project elements and potential Federal air-rights would be taller than adjacent buildings within the existing skyline, they would not rise above the horizon line.

Furthermore, the qualities characterizing the existing view from the U.S. Capitol Dome would not be altered. The Alternatives would not interrupt the views along North Capitol Street NW

and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan. Additionally, there would be no visual effects to the U.S. Capitol Grounds and associated buildings and sites, including the Russell Senate Office Building and the Senate Parks, Underground Garage, and Fountains.

Based on this evaluation, all Action Alternatives would have no adverse effect on the U.S. Capitol Dome Viewshed.

Visual Assessment from the U.S. Capitol Dome



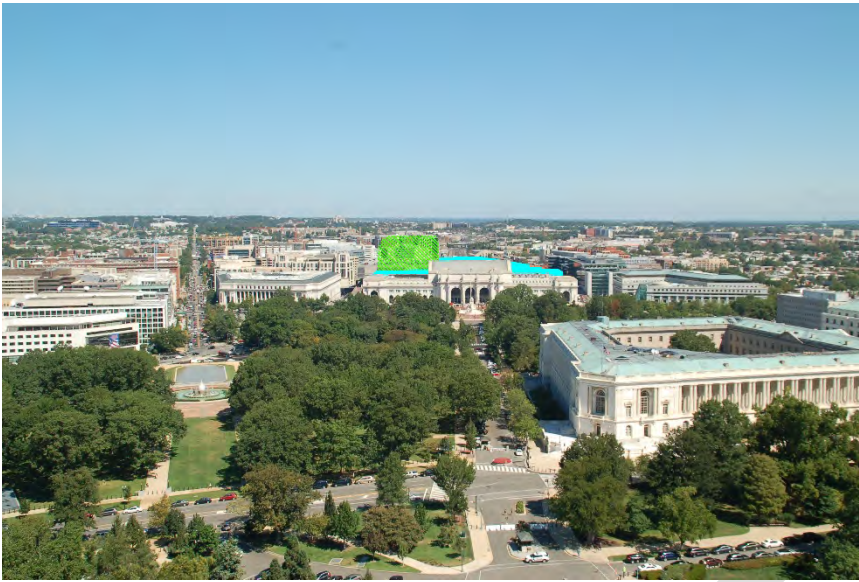
Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Visual Assessment for Alternative A



Visual Assessment for Alternative B

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Visual Assessment for Alternative C-East

Station Expansion



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



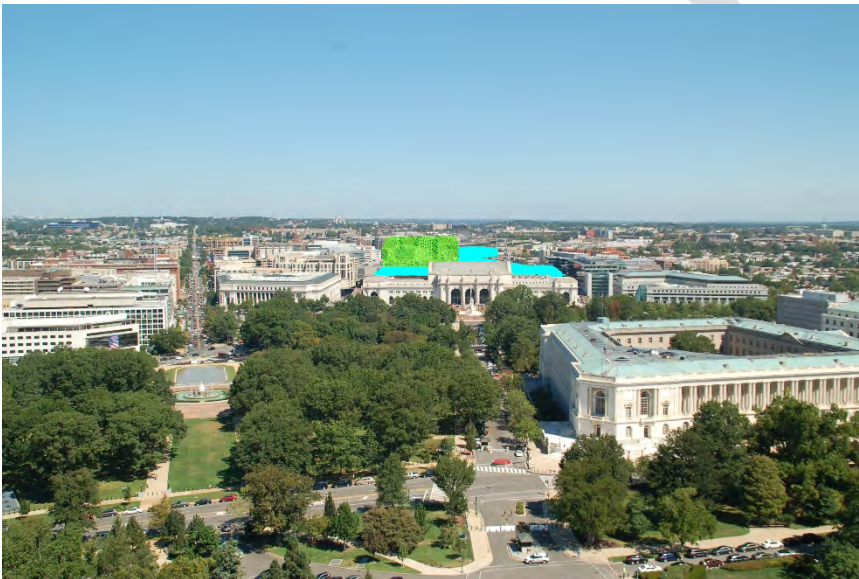


Visual Assessment for Alternative C-West Parking Option

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



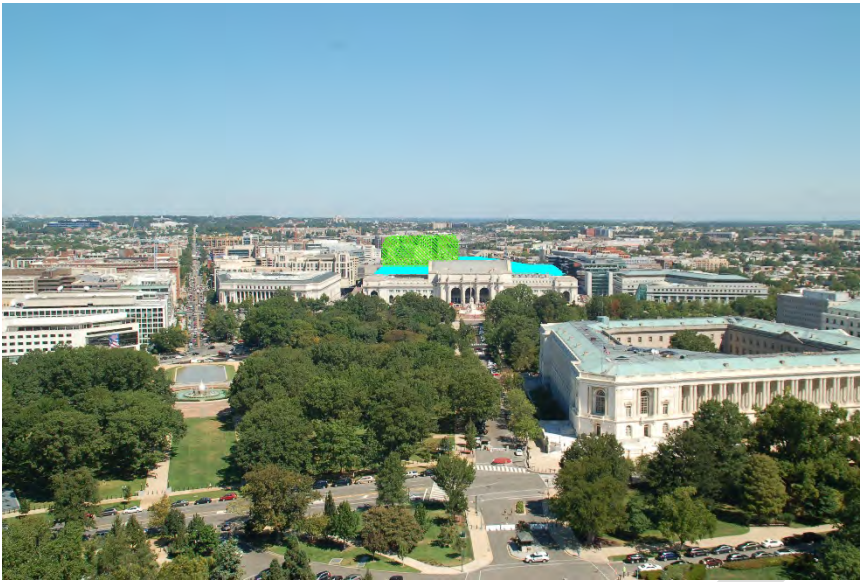
Visual Assessment for Alternative D

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Visual Assessment for Alternative E

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)



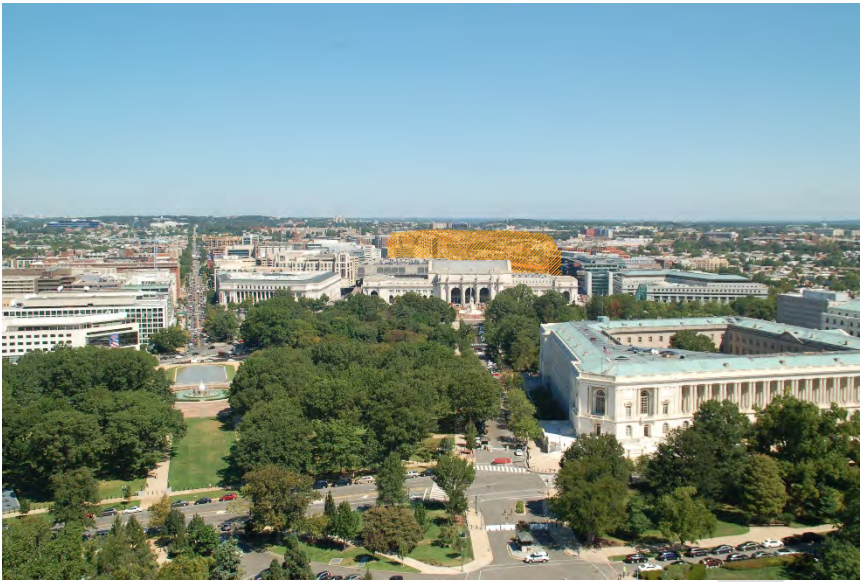
Visual Assessment for Alternative A-C

Station Expansion



Potential Federal Air-
Rights Development
(maximum buildable
volume including
penthouse)





Private Air-Rights
Development
(maximum buildable
volume including
penthouse)



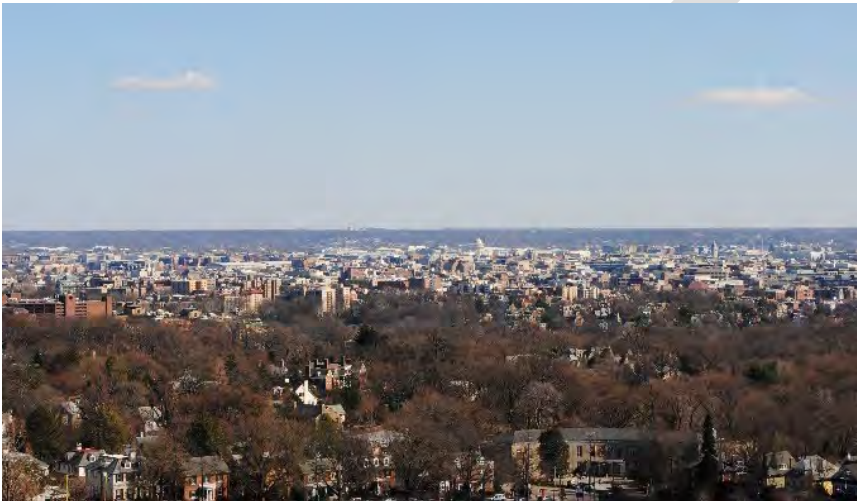
No-Action Alternative – Provided for Visual Comparison

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54. Washington National Cathedral



View from Washington National Cathedral looking southeast towards WUS and the Project Area, which is not easily visible to the naked eye



Slightly zoomed in view from Washington National Cathedral looking southeast towards WUS and the Project Area, which remains difficult to distinguish

The view from the tower of the Washington National Cathedral towards the Project Area is characterized by the playing fields in the foreground and the city skyline beyond. Height limitations have created a uniform skyline, which draws the eye to the Washington Monument and the U.S. Capitol. Public access to the Washington National Cathedral tower is limited to those with special access and permission.

Effects Evaluation: The Project Area is not visible in plain sight and it is only with the use of binoculars or a zoom lens camera that one can begin to differentiate the barrel arch roof of WUS and the Project Area beyond. There would be no visibility and no sensitivity from any visual change caused by the Action Alternatives. The qualities characterizing the existing view

would not be altered. **Based on this evaluation, all Action Alternatives would have no effect on the Washington National Cathedral Viewshed.**

55. Washington Monument



View from Washington Monument looking east towards WUS and the Project Area, which is not easily visible to the naked eye

The view from the Washington Monument towards the Project Area is characterized by the expanse of the National Mall, flanked on either side by civic and institutional buildings leading towards the U.S. Capitol. Height limitations have created a uniform skyline, which does not detract from or visually promote one area over another and creates visual symmetry to the north and south of the National Mall. Access to the Washington Monument is available by timed ticket entry when the monument is open to the public.

Effects Evaluation: Based on visual survey and visual assessment simulations that superimpose the proposed built forms of the Action Alternatives on existing condition photographs, the Project Area is difficult to distinguish in plain sight. It is only with the use of binoculars or a zoom lens camera that one can see the detail of the barrel arch roof of WUS and the Project Area beyond. Therefore, there would be low visibility and low sensitivity, resulting in potential negligible visual effects from all Alternatives. The visual distinctions between the Action Alternatives are difficult to distinguish at such a distance, and the qualities characterizing the existing view would not be altered.

Based on this evaluation, all Action Alternatives would have no effect on the Washington Monument Viewshed.

Visual Assessment from the Washington Monument



Visual Assessment for Alternative A

Proposed Alternative



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)



Visual Assessment for Alternative B

Proposed Alternative



Potential Federal Air-Rights Development
(maximum buildable volume including penthouse)





Visual Assessment for Alternative C

Proposed Alternative



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



Visual Assessment for Alternative D and Alternative E

Proposed Alternative



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)





Visual Assessment for Alternative A-C

Proposed Alternative



Potential Federal Air-Rights Development (maximum buildable volume including penthouse)



No-Action Alternative – Provided for Visual Comparison

Private Air-Rights Development (maximum buildable volume including penthouse)

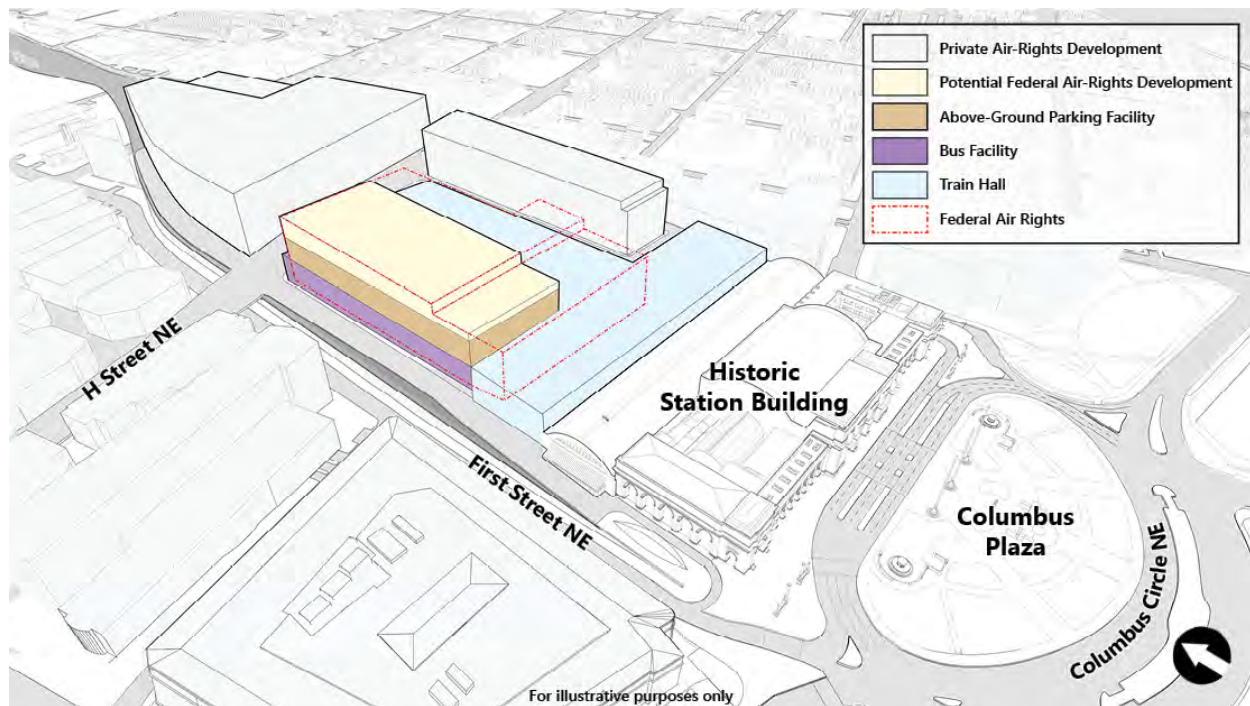


6.2 Summary of Effects

The following summaries describe the effects of each of the Project's Action Alternatives to historic properties, explaining physical, visual, noise and vibration, and traffic effects that would be experienced during construction and/or operation and result in a finding of adverse effect.

6.2.1 Alternative A

Figure 22. Illustration of Alternative A



Alternative A would result in adverse effects to three historic properties: the REA Building, WUS, and the WUS Historic Site. Alternative A may also result in a potential adverse effect to the Capitol Hill Historic District.

Physical Effects

Physical effects would adversely affect WUS and the WUS Historic Site and may adversely affect the REA building.

WUS

Physical effects to WUS would include the work to remove the non-historic Claytor Concourse, construct a new passenger concourse and train hall, and remove original columns in the portion of the First Street Tunnel below the Retail and Ticketing Concourse (historic passenger concourse). The demolition of the Claytor Concourse and the construction of the new train hall

would affect the north façade of the original passenger concourse and the overall design of WUS, substantially increasing the mass of the station and affecting the integrity of design. The work to remove the columns in the First Street Tunnel would involve accessing the tunnel from above, demolishing the original columns and the concourse floor structure and rebuilding approximately 15,000 square feet the Retail and Ticketing Concourse floor. While the current marble finish of the concourse floor was installed in the 1980s, the floor structure is original. The demolition of the original columns and concourse floor structure would affect the integrity of design, materials, and workmanship, although in a manner that would not be visible to the general public.

WUS Historic Site

The construction of Alternative A would require the demolition and reconstruction of the Terminal Rail Yard, an important resource within the WUS Historic Site. Many contributing elements and character-defining features, including K Tower, all existing platforms, umbrella sheds, the retaining wall dividing the run-through tracks from the stub-end tracks, the H Street underpass, catenary poles, the catenary with cross beam, signal bridges, and pneumatic switch valves throughout the historic site would be removed or demolished. In addition, openings for ventilation may be made in portions of the west Burnham Wall. The removal and alteration to these defining features of the WUS Historic Site would adversely affect its integrity of design, setting, materials, workmanship, feeling, and association. In addition, the construction of Alternative A, may potentially result in adverse effects to unidentified significant archaeological resources within the WUS Historic Site, particularly the Terminal Rail Yard, if present. Although the site contains no known archaeological resources, much of the terminal was identified as having moderate to high archaeological potential. It is possible that excavations and ground disturbance could inadvertently damage or destroy unknown significant archaeological deposits.

REA Building

Alternative A would potentially result in a physical effect to the REA Building due to the construction of the new H Street Concourse, which would be constructed along the alignment of the existing H Street Tunnel. Direct access between the H Street Tunnel and the basement of the REA Building currently exists and may either be maintained or eliminated during the construction of the H Street Concourse. At this early conceptual stage of Project design and since the exact location and method of a potential connection to the REA Building is not yet determined, the nature of the potential physical effect and whether it would constitute an adverse effect under Section 106 cannot be determined at this time. No other physical effects

to the REA Building are planned, however, noise and vibration analysis indicates that vibratory pile driving may occur within approximately 16 feet of the REA Building, resulting in vibration levels of approximately 0.33 in/s. There would be an increased risk of structural damage from indirect physical effects during construction. Given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure structural damage does not occur.

Visual Effects

Visual effects of Alternative A also result in a finding of adverse effect to the REA Building, WUS, and WUS Historic Site. With the reconstruction of the Terminal Rail Yard and the erection of the north-south train hall, bus and parking facility, and supporting deck structure, Alternative A would greatly change the appearance of the WUS Historic Site and alter existing visual connections between its components, including WUS and the REA Building. The disruption of the visual and physical connections between each of these historic properties would diminish their integrity of setting, feeling, and association. Additionally, the potential major visual effects from the bus and parking facility and potential Federal air-rights development to WUS and WUS Historic Site, as seen from Delaware Ave NE, would affect the integrity of design, setting, and feeling by interrupting the silhouette of the station roofline and the visual symmetry of the station's monumental Beaux Arts design.

Visual changes resulting from Alternative A would also cause potential moderate visual effects to the U.S. Capitol Dome viewshed and potential minor visual effects to seven properties: the City Post Office, Columbus Plaza, Senate Parks, Thurgood Marshall Federal Judiciary Building, Woodward and Lothrop Service Warehouse, Capitol Hill Historic District, and the L'Enfant-McMillan Plan. Seven properties: the Dirksen and Hart Senate Office Buildings, Government Printing Office, Library of Congress Thomas Jefferson Building, Russell Senate Office Building, Square 750 Rowhouse Development, St. Joseph's Home (former), and the Uline Arena, would experience potential negligible visual effects, and one property: the Government Printing Office Warehouse No. 4, would experience potential beneficial visual effects. However, such visual effects from Alternative A would not adversely affect these historic properties, as further explained in the individual historic property assessments.

Noise and Vibration Effects

Analysis shows that increases in noise and vibration resulting from traffic and the construction and operation of Alternative A would cause effects to various historic properties.

WUS would experience temporary noise levels above FTA thresholds for noise impacts and potentially damaging vibration effects during construction. Vibration levels at WUS from construction activities associated with pile driving and drill rigging would be 0.67in/s and 0.35 in/s, respectively. While the sensitivity of the historic station has not been specifically determined, such vibration levels may cause structural damage and should be monitored throughout construction. Furthermore, additional vibration analysis would have to be performed to ensure the column removal work to accommodate the tract and platform plan would not cause structural damage during construction. The REA Building would also experience noise and vibration effects, resulting in potential physical effects, which would need to be monitored to ensure structural damage does not occur.

Construction-related noise and vibration effects from Alternative A would also affect the following historic properties: C&P Telephone Company Warehouse, City Post Office/Postal Museum, GPO Warehouse No.4, St. Joseph's Home (Former), Square 750 Rowhouse Development (917-923 Second Street NE; 208-224, 226-242, and 219-231 Parker Street NE), 901 Second Street NE, and the Capitol Hill Historic District (northwestern edge). During Project construction and at the beginning of excavation activities, noise levels at or near these resources would exceed the FTA criteria for severe noise impacts. St. Joseph's Home and parts of Square 750 (203-219 K Street NE and 917-923 Second Street NE) would also experience levels of construction vibration above the annoyance threshold. However, such effects would not adversely affect the significance or integrity of these historic properties, as further explained in the individual historic property assessments.

During construction excavation activities, if trucks are used to haul away spoil, locations on the northwestern edge of the Capitol Hill Historic District would experience noise levels in excess of the FTA threshold for moderate impacts. These locations include 603-607 Second Street NE and 521-527 Second Street NE. The same locations, along with a third, 205 F Street NE, would experience vibrations above the FTA threshold for annoyance. However, the impacts would be localized and limited to locations on the edge of the Capitol Hill Historic District bordering Second Street NE, and most of the historic district would experience no noise or vibration impacts. Outside of Second Street NE, construction trucks would only use designated truck routes to travel to and from the Project Area. They would not circulate along the residential streets that are one of the historic district's character-defining features. All such construction noise and vibration effects would be noticeable, but they would not compromise the properties' integrity of setting, feeling, or association and would result in no adverse effects, as further explained in the individual property assessment for the Capitol Hill Historic District.

Increases in ambient noise from increased traffic and the operation of Alternative A would affect noise levels (relative to existing conditions) at or near 18 historic properties, including WUS, the C&P Telephone Company Warehouse, Capitol Press Building, the City Post Office/Postal Museum, GPO Warehouse No.4, Holodomor Ukrainian Holocaust Memorial, St. Aloysius Catholic Church, Square 750, St. Joseph's Home, St. Phillip's Baptist Church, Thurgood Marshall Federal Judiciary Building, Topham's Luggage Factory (Former), Uline Arena, Columbus Plaza, Woodward and Lothrop Service Warehouse, 901 Second Street NE, the Union Market Historic District, and the Capitol Hill Historic District (along Second Street NE). Noise analysis indicates that in all locations increases would be less than 3 dBA and the resulting levels would not exceed FTA criteria. Therefore, changes in operational noise would have no adverse effect to the properties' significance or integrity of setting, feeling, or association.

The operational vibration analysis for Alternative A showed that changes in vibration levels throughout the Study Area would be negligible, with no potential to adversely affect the integrity of any historic properties.

Other Effects Generated by Traffic

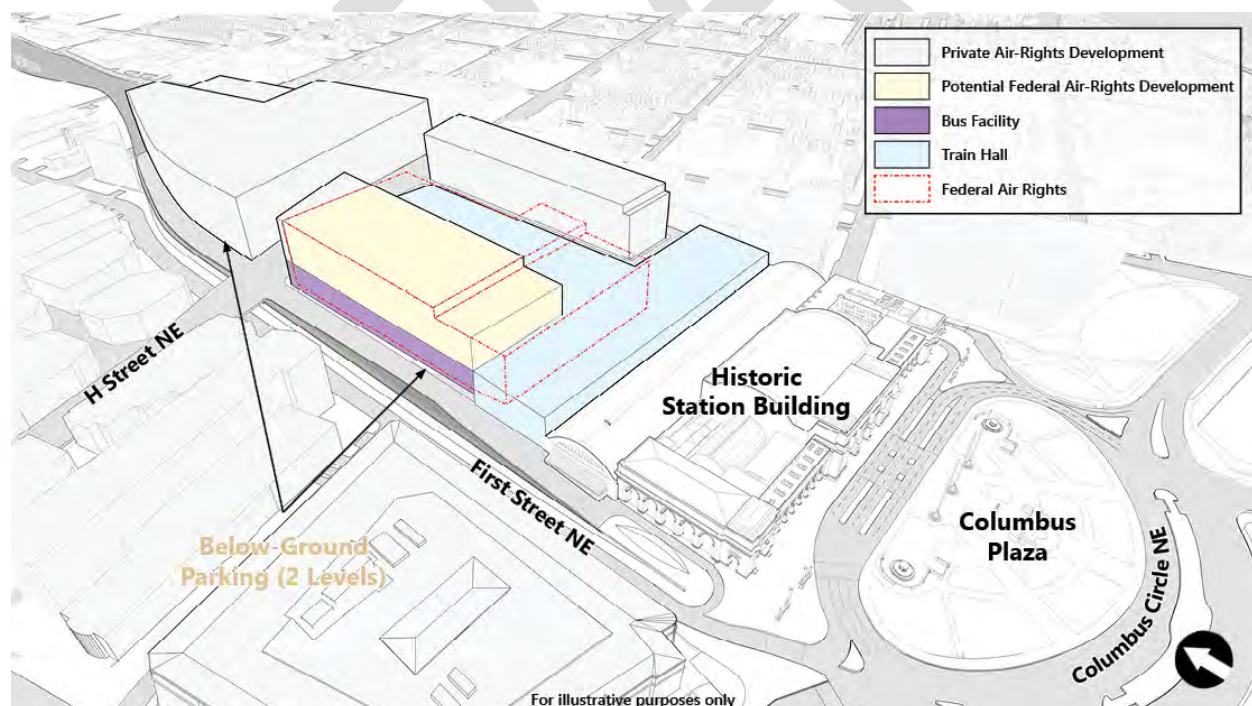
While noise and vibration are the main source of potential traffic-related impacts on historic properties, increases in traffic volumes along nearby streets may potentially affect the integrity of a property's setting, feeling, or association. Relative to existing conditions, Alternative A, like all Action Alternatives, is anticipated to see an increase in traffic volumes in the vicinity of WUS caused by greater station activity in combination with the development of the private air-rights above the rail terminal and general background economic and demographic growth. Traffic impact modeling indicates that effects would largely be concentrated along a few major thoroughfares, including North Capitol Street, H Street as well as, to a lesser extent, K Street and Massachusetts Avenue.

Eighteen historic properties are located along or close to these traffic thoroughfares and would experience potential effects from increases in traffic, including the C&P Telephone Company Warehouse, the City Post Office/Postal Museum, GPO, GPO Warehouse No.4, Hayes School, Holodomor Ukrainian Holocaust Memorial, Joseph Gales School, Square 750, St. Aloysius Catholic Church, St. Joseph's Home, St. Phillip's Baptist Church, SunTrust Bank (Former Childs Restaurant), Thurgood Marshall Federal Judiciary Building, Victims of Communism Memorial, WUS, Columbus Circle, and the Capitol Hill Historic District. However, such properties, with the exception of the Capitol Hill Historic District, would not experience adverse effects because the incremental traffic would not alter the busy, traffic-heavy urban setting in which the properties are located.

For the Capitol Hill Historic District, it is not known whether increases in traffic would occur, and if they did, by how much they would change traffic volumes along affected streets. The historic significance of the Capitol Hill Historic District (as characterized in the National Register of Historic Places nomination) is primarily derived from its architecture and contribution to the development of the District of Columbia. Increased traffic alone would not likely affect the historic district in such a way as to diminish its architectural or historical significance and affect its ability to remain listed in the National Register. However, considered cumulatively, moderate temporary construction noise effects to buildings along Second Street NE (especially 701, 603-607, and 521-527 Second Street NE) if excavation spoils are removed by truck; temporary vibration effects during construction to properties at 701 and 603-607 Second Street NE and 205 F Street NE; and the potential visual effects, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties from increased traffic volumes along Second Street NE, F Street NE, and potentially other residential streets, may detract from the residential character of the district and have the potential to adversely affect the integrity of setting and feeling of the historic district. Refer to the analysis for the Capitol Hill Historic District for a full explanation.

6.2.2 Alternative B

Figure 23. Illustration of Alternative B



Alternative B would result in adverse effects to three historic properties: the REA Building, WUS, and the WUS Historic Site. Alternative B may also result in a potential adverse effect to the Capitol Hill Historic District.

Physical Effects

The Physical effects of Alternative B are the same as those for Alternative A. Physical effects would adversely affect WUS and the WUS Historic Site, and would include the work to remove the non-historic Claytor Concourse, construct a new passenger concourse and train hall, remove original columns within the First Street Tunnel, and demolish and reconstruct the Terminal Rail Yard. Additionally, new vehicular access points would be added in the walls of the K Street Underpass.

There is a potential for physical effects to occur at the basement level of the REA Building depending on whether the existing direct connection to the H Street Tunnel will be eliminated or maintained with the construction of the H Street Concourse. At this early conceptual stage of Project design and since the exact location and method of a potential connection to the REA Building is not yet determined, the nature of the potential physical effect and whether it would constitute an adverse effect under Section 106 cannot be determined at this time. While no other physical effects to the REA Building are planned, vibratory pile driving during construction would result in an increased risk of structural damage. Given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure physical effects to the REA Building do not occur.

Visual Effects

Like Alternative A, visual effects of Alternative B also result in a finding of adverse effect to the REA Building, WUS, and WUS Historic Site. With the reconstruction of the Terminal Rail Yard, erection of the north-south train hall, bus facility, and supporting deck structure; and the potential Federal air-rights development, Alternative B would greatly change the appearance of the WUS Historic Site and alter existing visual connections between its components, including WUS and the REA Building. The disruption of the visual and physical connections between each of these historic properties would diminish their integrity of setting, feeling, and association. Additionally, the potentially major visual effects from the potential Federal air-rights development to WUS and the WUS Historic Site, as seen from Delaware Ave NE, would affect the integrity of design, setting, and feeling by interrupting the silhouette of the station roofline and the visual symmetry of the station's monumental Beaux Arts design.

Visual changes resulting from Alternative B would also cause potential moderate visual effects to the U.S. Capitol Dome viewshed and potential minor visual effects to seven properties: the City Post Office, Columbus Plaza, Senate Parks, Thurgood Marshall Federal Judiciary Building, Woodward and Lothrop Service Warehouse, Capitol Hill Historic District, and the L'Enfant-McMillan Plan. Seven properties: the Dirksen and Hart Senate Office Buildings, Government Printing Office, Library of Congress Thomas Jefferson Building, Russell Senate Office Building, Square 750 Rowhouse Development, St. Joseph's Home (former), and the Uline Arena would experience potential negligible visual effects, and one property: the Government Printing Office Warehouse No. 4, would experience potential beneficial visual effects. However, such visual effects from Alternative B would not adversely affect these historic properties, as further explained in the individual historic property assessments.

Noise and Vibration Effects

Noise and vibration effects resulting from traffic and the construction and operation of Alternative B would match the effects of Alternative A. WUS would experience temporary noise levels above FTA thresholds for noise impacts and potentially damaging vibration effects during construction. The REA Building would also experience noise and vibration effects, resulting in potential physical effects, which would need to be monitored to ensure structural damage does not occur.

Construction-related noise and vibration effects would also affect seven additional historic properties, as described in the summary of Alternative A. However, such effects would not compromise the properties' integrity of setting, feeling, or association and would not result in adverse effects to the historic properties.

Other Effects Generated by Traffic

Like Alternative A, eighteen historic properties are located along or close to traffic thoroughfares and would experience potential effects from increases in traffic. All such properties, except the Capitol Hill Historic District, would not experience adverse effects because the incremental traffic would not alter the busy, traffic-heavy urban setting in which the property is located. As in Alternative A, increased traffic within the Capitol Hill Historic District alone would not likely affect the historic district. However, considered cumulatively, moderate temporary construction noise effects to buildings along Second Street NE (especially 701, 603-607, and 521-527 Second Street NE) if excavation spoils are removed by truck; temporary vibration effects during construction to properties at 701 and 603-607 Second Street NE and 205 F Street NE; and the potential visual effects, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties from increased traffic volumes

along Second Street NE, F Street NE, and potentially other residential streets, may detract from the residential character of the district and have the potential to adversely affect the integrity of setting and feeling of the historic district. Refer to the analysis for the Capitol Hill Historic District for a full explanation. Refer to the analysis in that section for a full explanation.

6.2.3 Alternative C (East and West)

Note: References to Alternative C include both East and West options except for those specified for visual effects.

Figure 24. Illustration of Alternative C-East

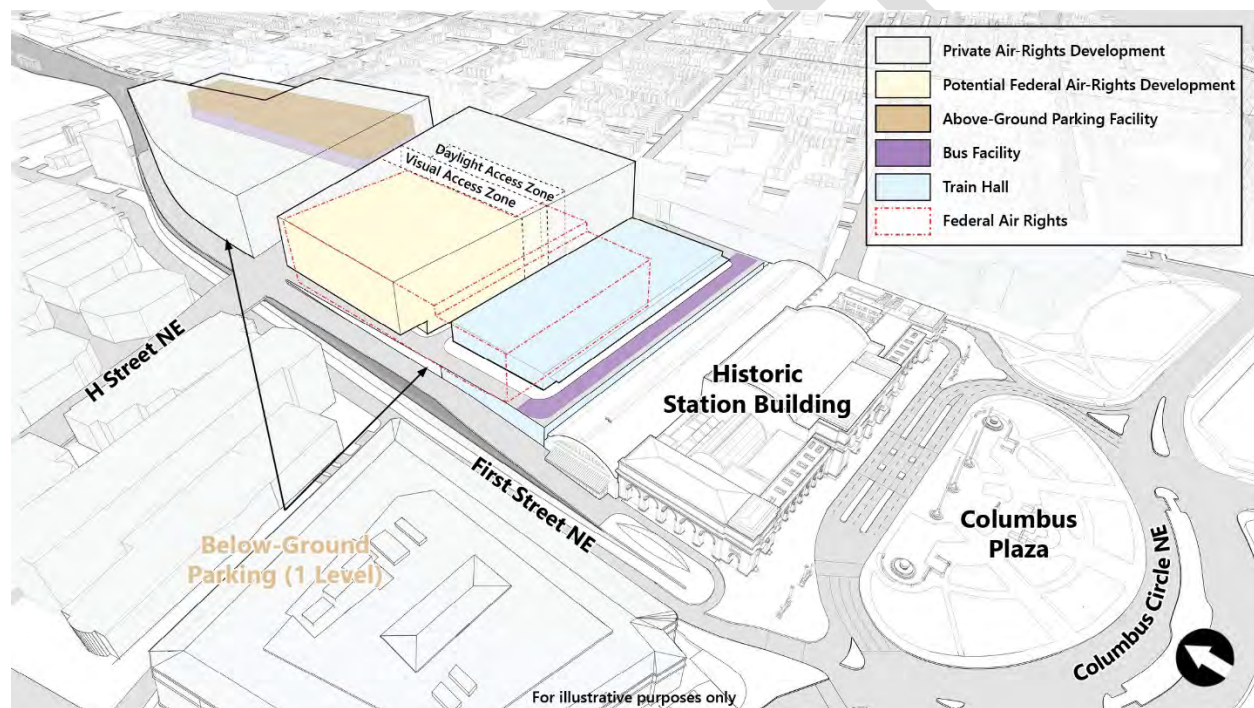
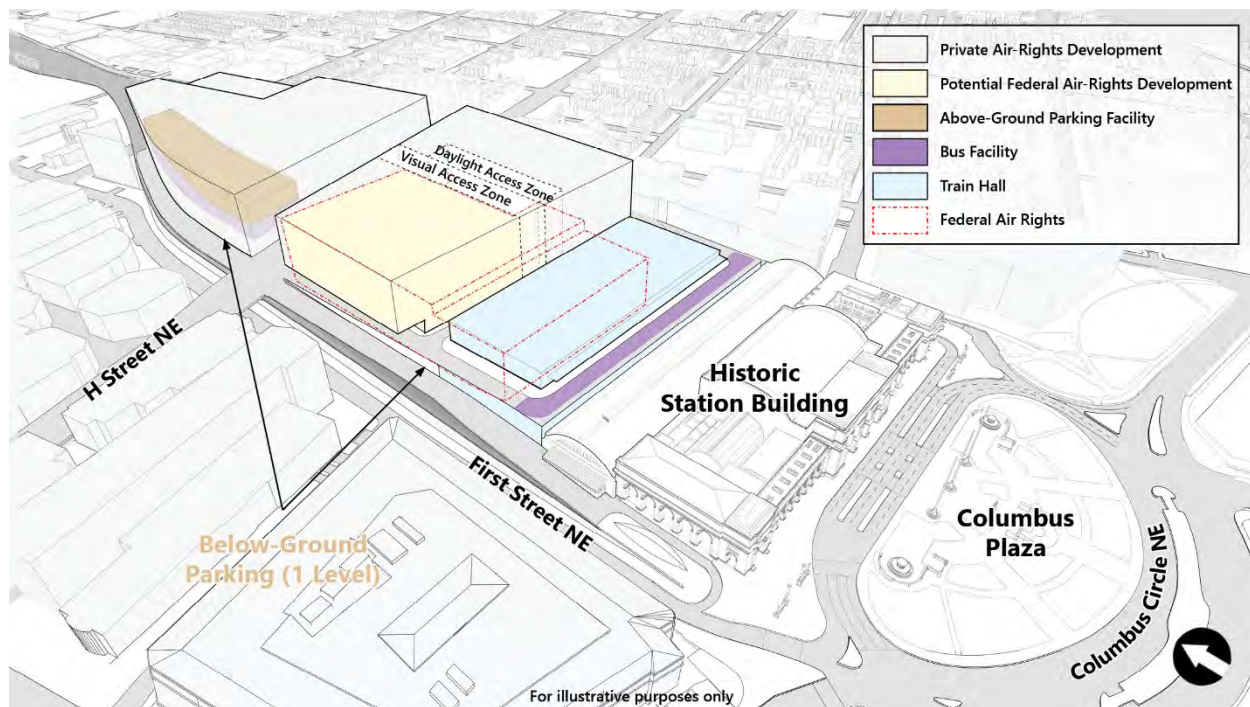


Figure 25. Illustration of Alternative C-West



Alternative C would result in adverse effects to three historic properties: the REA Building, WUS, and the WUS Historic Site. Alternative C may also result in a potential adverse effect to the Capitol Hill Historic District.

Physical Effects

The Physical effects of Alternative C are the same as those for Alternative B. Physical effects would adversely affect WUS and the WUS Historic Site, and would include the work to remove the non-historic Claytor Concourse, construct a new passenger concourse and train hall, remove original columns within the First Street Tunnel, and demolish and reconstruct the Terminal Rail Yard. Additionally, new vehicular access points would be added in the walls of the K Street Underpass.

There is a potential for physical effects to occur at the basement level of the REA Building depending on whether the existing direct connection to the H Street Tunnel will be eliminated or maintained with the construction of the H Street Concourse. At this early conceptual stage of Project design and since the exact location and method of a potential connection to the REA Building is not yet determined, the nature of the potential physical effect and whether it would constitute an adverse effect under Section 106 cannot be determined at this time. While no

other physical effects to the REA Building are planned, vibratory pile driving during construction would result in an increased risk of structural damage. Given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure physical effects to the REA Building do not occur.

Visual Effects

Like Alternatives A and B, visual effects of Alternative C result in a finding of adverse effect for the REA Building, WUS, and WUS Historic Site. With the reconstruction of the Terminal Rail Yard and the erection of the east-west train hall, bus and parking facility, and supporting deck structure, Alternative C would greatly change the appearance of the WUS Historic Site and alter existing visual connections between its components, including WUS and the REA Building. The disruption of the visual and physical connections between each of these historic properties would diminish their integrity of setting, feeling, and association. Additionally, the potentially major visual effects from the potential Federal air-rights development to WUS and WUS Historic Site, as seen from Delaware Ave NE and the intersection of First and C Streets NE, would affect the integrity of design, setting, and feeling by interrupting the silhouette of the station roofline and the visual symmetry of the station's monumental Beaux Arts design.

Visual changes from the construction of Alternative C-East would cause potential moderate visual effects to the U.S. Capitol Dome viewshed and potential minor visual effects to eight properties: Senate Parks, Square 750 Rowhouse Development, Thurgood Marshall Federal Judiciary Building, Topham's Luggage Factory (former), Woodward and Lothrop Service Warehouse, 901 Second Street NE, Capitol Hill Historic District, and the L'Enfant-McMillan Plan. Properties including Square 750, Topham's Luggage Factory, and 901 Second Street would experience visual effects due to the location of the Project bus and parking facility at the east side of the Project Area, behind the REA Building. Six properties: the City Post Office, Dirksen and Hart Senate Office Buildings, Library of Congress Thomas Jefferson Building, Russell Senate Office Building, St. Joseph's Home, and the Uline Arena would experience potential negligible visual effects; and two properties: the Government Printing Office and Government Printing Office Warehouse No. 4, would experience potential beneficial visual effects. Such visual effects from Alternative C-East to these properties would not affect their significance or integrity and result in no adverse effects, as further explained in the individual historic property assessments.

Visual changes from the construction of Alternative C-West would cause potential moderate visual effects to the U.S. Capitol Dome viewshed and potential minor visual effects to five properties: Senate Parks, Thurgood Marshall Federal Judiciary Building, Woodward and Lothrop Service Warehouse, Capitol Hill Historic District, and the L'Enfant-McMillan Plan. Seven

properties: the City Post Office, Dirksen and Hart Senate Office Buildings, Library of Congress Thomas Jefferson Building, Russell Senate Office Building, Square 750 Rowhouse Development, St. Joseph's Home, and the Uline Arena, would experience potential negligible visual effects, and two properties: the Government Printing Office and Government Printing Office Warehouse No. 4, would experience potential beneficial visual effects. Such visual effects from Alternative C-West to these properties would not affect their significance or integrity and result in no adverse effects, as further explained in the individual historic property assessments.

Noise and Vibration Effects

Noise and vibration effects resulting from traffic and the construction and operation of Alternative C would match the effects of Alternative A. WUS would experience temporary noise levels above FTA thresholds for noise impacts and potentially damaging vibration effects during construction. The REA Building would also experience noise and vibration effects, resulting in potential physical effects, which would need to be monitored to ensure structural damage does not occur.

Construction-related noise and vibration effects would also affect seven additional historic properties, as described in the summary of Alternative A. However, such effects would not compromise the properties' integrity of setting, feeling, or association and result in no adverse effects.

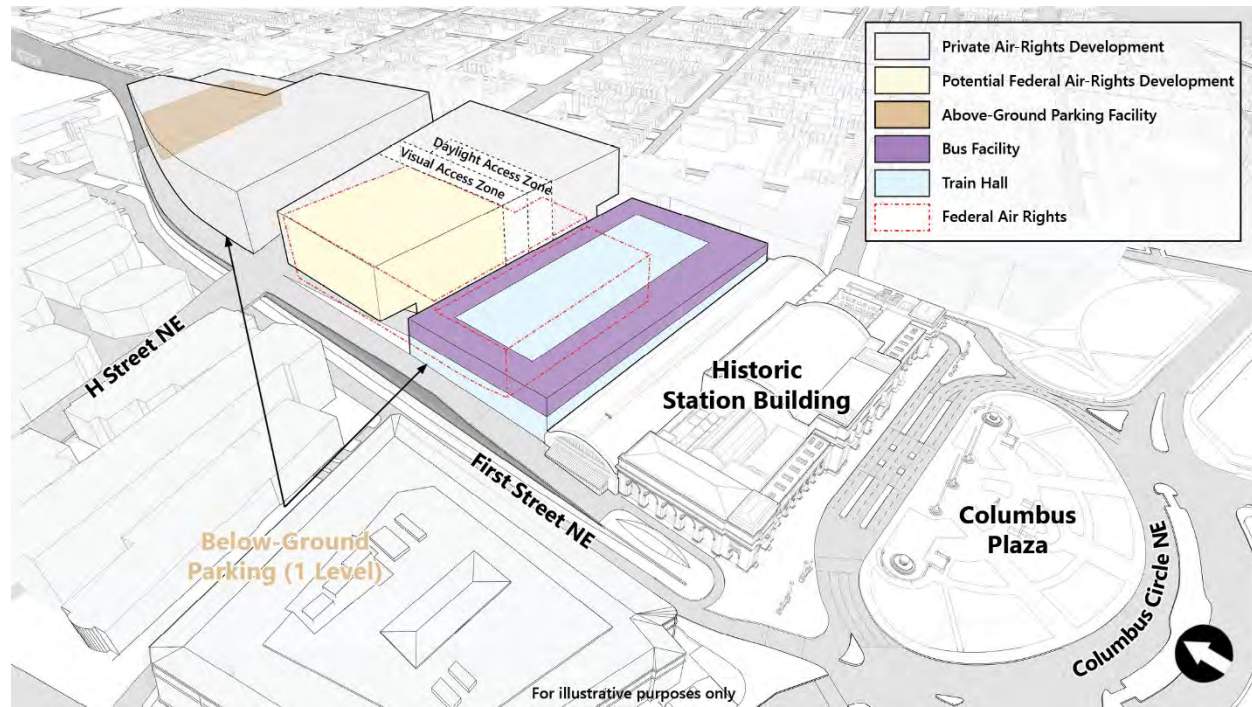
Other Effects Generated by Traffic

Like Alternatives A and B, eighteen historic properties are located along or close to traffic thoroughfares and would experience potential effects from increases in traffic. All such properties, except the Capitol Hill Historic District, would not experience adverse effects because the incremental traffic would not alter the busy, traffic-heavy urban setting in which the property is located. As in Alternatives A and B, increased traffic within the Capitol Hill Historic District alone would not likely affect the historic district. However, considered cumulatively, moderate temporary construction noise effects to buildings along Second Street NE (especially 701, 603-607, and 521-527 Second Street NE) if excavation spoils are removed by truck; temporary vibration effects during construction to properties at 701 and 603-607 Second Street NE and 205 F Street NE; and the potential visual effects, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties from increased traffic volumes along Second Street NE, F Street NE, and potentially other residential streets, may detract from the residential character of the district and have the potential to adversely affect the integrity of setting and feeling of the historic district. Refer to the analysis for the Capitol Hill Historic

District for a full explanation. Refer to the analysis for the Capitol Hill Historic District for a full explanation.

6.2.4 Alternative D

Figure 26. Illustration of Alternative D



Alternative D would result in adverse effects to three historic properties: the REA Building, WUS, and the WUS Historic Site. Alternative D may also result in a potential adverse effect to the Capitol Hill Historic District.

Physical Effects

The Physical effects of Alternative D are the same as those for Alternative B. Physical effects would adversely affect WUS and the WUS Historic Site, and would include the work to remove the non-historic Claytor Concourse, construct a new passenger concourse and train hall, remove original columns within the First Street Tunnel, and demolish and reconstruct the Terminal Rail Yard. Additionally, new vehicular access points would be added in the walls of the K Street Underpass.

There is a potential for physical effects to occur at the basement level of the REA Building depending on whether the existing direct connection to the H Street Tunnel will be eliminated

or maintained with the construction of the H Street Concourse. At this early conceptual stage of Project design and since the exact location and method of a potential connection to the REA Building is not yet determined, the nature of the potential physical effect and whether it would constitute an adverse effect under Section 106 cannot be determined at this time. While no other physical effects to the REA Building are planned, vibratory pile driving during construction would result in an increased risk of structural damage. Given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure physical effects to the REA Building do not occur.

Visual Effects

Like Alternatives A through C, visual effects of Alternative D result in a finding of adverse effect for the REA Building, WUS, and WUS Historic Site. With the reconstruction of the Terminal Rail Yard and the erection of the integrated bus facility and east-west train hall, parking facility, and supporting deck structure, Alternative D would greatly change the appearance of the WUS Historic Site and alter existing visual connections between its components, including WUS and the REA Building. The disruption of the visual and physical connections between each of these historic properties would diminish their integrity of setting, feeling, and association. Additionally, the potentially major visual effects from the potential Federal air-rights development to WUS and WUS Historic Site, as seen from Delaware Ave NE and the intersection of First and C Streets NE, would affect the integrity of design, setting, and feeling by interrupting the silhouette of the station roofline and the visual symmetry of the station's monumental Beaux Arts design.

Visual changes from the construction of Alternative D would cause potential moderate visual effects to three properties: Square 750 Rowhouse Development, the L'Enfant-McMillan Plan, and the U.S. Capitol Dome viewshed. Four properties: Senate Parks, Thurgood Marshall Federal Judiciary Building, Woodward and Lothrop Service Warehouse, and the Capitol Hill Historic District would experience potential minor visual effects. Six properties: the City Post Office, Dirksen and Hart Senate Office Buildings, Library of Congress Thomas Jefferson Building, Russell Senate Office Building, St. Joseph's Home, and the Uline Arena would experience potential negligible visual effects, and two properties: the Government Printing Office and Government Printing Office Warehouse No. 4, would experience potential beneficial visual effects. Such visual effects from Alternative D would not affect the significance or integrity of the properties and result in no adverse effects, as further explained in the individual historic property assessments.

Noise and Vibration Effects

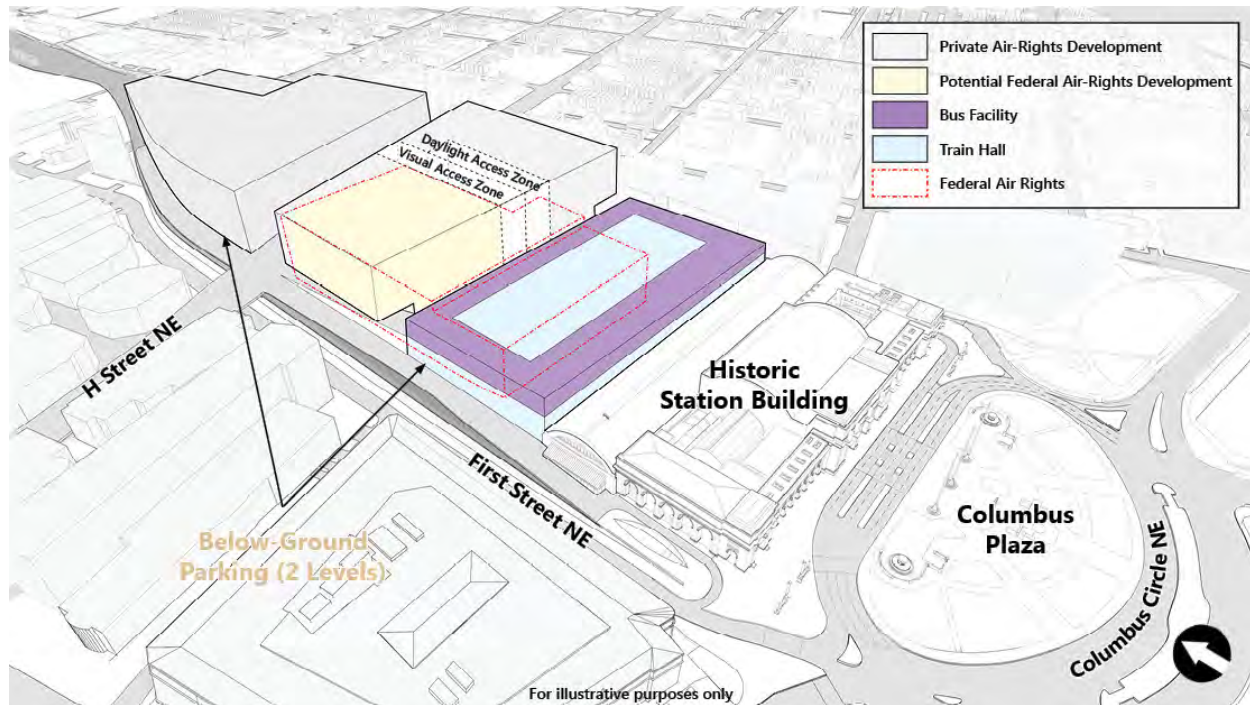
Noise and vibration effects resulting from traffic and the construction and operation of Alternative D would match the effects of Alternative A. WUS would experience temporary noise levels above FTA thresholds for noise impacts and potentially damaging vibration effects during construction. The REA Building would also experience noise and vibration effects, resulting in potential physical effects, which would need to be monitored to ensure structural damage does not occur.

Construction-related noise and vibration effects would also affect seven additional historic properties, as described in the summary of Alternative A. However, such effects would not compromise the properties' integrity of setting, feeling, or association and would result in no adverse effects.

Other Effects Generated by Traffic Like Alternative A, eighteen historic properties are located along or close to these traffic thoroughfares and would experience potential effects from increases in traffic. All such properties, except the Capitol Hill Historic District, would not experience adverse effects because the incremental traffic would not alter the busy, traffic-heavy urban setting in which the property is located. As in Alternatives A, B, and C, increased traffic within the Capitol Hill Historic District alone would not likely affect the historic district. However, considered cumulatively, moderate temporary construction noise effects to buildings along Second Street NE (especially 701, 603-607, and 521-527 Second Street NE) if excavation spoils are removed by truck; temporary vibration effects during construction to properties at 701 and 603-607 Second Street NE and 205 F Street NE; and the potential visual effects, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties from increased traffic volumes along Second Street NE, F Street NE, and potentially other residential streets, may detract from the residential character of the district and have the potential to adversely affect the integrity of setting and feeling of the historic district. Refer to the analysis for the Capitol Hill Historic District for a full explanation.

6.2.5 Alternative E

Figure 27. Illustration of Alternative E



Alternative E would result in adverse effects to three historic properties: the REA Building, WUS, and the WUS Historic Site. Alternative E may also result in a potential adverse effect to the Capitol Hill Historic District.

Physical Effects

The Physical effects of Alternative E are the same as those for Alternative B. Physical effects would adversely affect WUS and the WUS Historic Site, and would include the work to remove the non-historic Claytor Concourse, construct a new passenger concourse and train hall, remove original columns within the First Street Tunnel, and demolish and reconstruct the Terminal Rail Yard. Additionally, new vehicular access points would be added in the walls of the K Street Underpass.

There is a potential for physical effects to occur at the basement level of the REA Building depending on whether the existing direct connection to the H Street Tunnel will be eliminated or maintained with the construction of the H Street Concourse. At this early conceptual stage of Project design and since the exact location and method of a potential connection to the REA Building is not yet determined, the nature of the potential physical effect and whether it would constitute an adverse effect under Section 106 cannot be determined at this time. While no

other physical effects to the REA Building are planned, vibratory pile driving during construction would result in an increased risk of structural damage. Given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure physical effects to the REA Building do not occur.

Visual Effects

Like Alternatives A through D, visual effects of Alternative E result in a finding of adverse effect for the REA Building, WUS, and WUS Historic Site. With the reconstruction of the Terminal Rail Yard and the erection of the integrated bus facility, east-west train hall, and supporting deck structure, Alternative E would greatly change the appearance of the WUS Historic Site and alter existing visual connections between its components, including WUS and the REA Building. The disruption of the visual and physical connections between each of these historic properties would diminish their integrity of setting, feeling, and association. Additionally, the potentially major visual effects from the potential Federal air-rights to WUS and WUS Historic Site, as seen from Delaware Ave NE and the intersection of First and C Streets NE, would affect the integrity of design, setting, and feeling by interrupting the silhouette of the station roofline and the visual symmetry of the station's monumental Beaux Arts design.

Visual changes from the construction of Alternative E would cause potential moderate visual effects to the U.S. Capitol Dome viewshed. Five properties: Senate Parks, Thurgood Marshall Federal Judiciary Building, Woodward and Lothrop Service Warehouse, the L'Enfant-McMillan Plan, and the Capitol Hill Historic District would experience potential minor visual effects. Seven properties: the City Post Office, Dirksen and Hart Senate Office Buildings, Library of Congress Thomas Jefferson Building, Russell Senate Office Building, Square 750 Rowhouse Development, St. Joseph's Home, and the Uline Arena would experience potential negligible visual effects, and two properties: the Government Printing Office and Government Printing Office Warehouse No. 4, would experience potential beneficial visual effects. Such visual effects from Alternative E would not affect the significance or integrity of the properties and result in no adverse effects, as further explained in the individual historic property assessments.

Noise and Vibration Effects

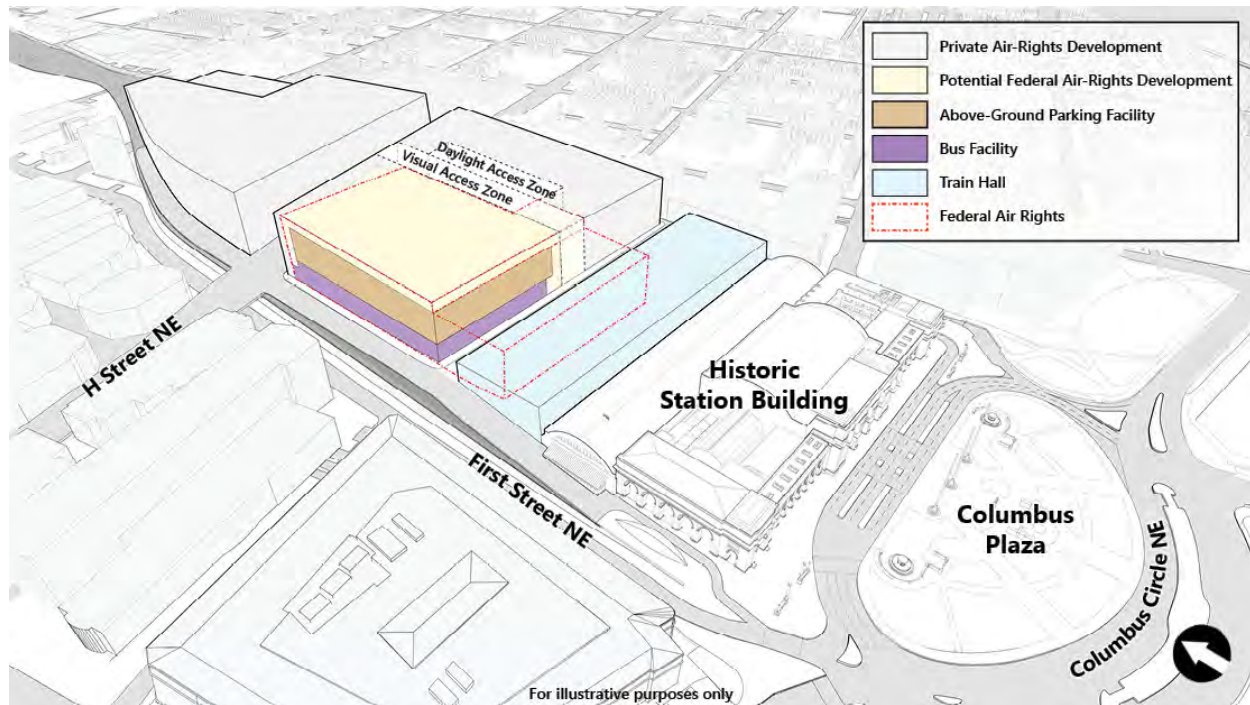
Noise and vibration effects resulting from traffic and the construction and operation of Alternative E would match the effects of Alternative A. WUS would experience temporary noise levels above FTA thresholds for noise impacts and potentially damaging vibration effects during construction. The REA Building would also experience noise and vibration effects, resulting in potential physical effects, which would need to be monitored to ensure structural damage does not occur.

Construction-related noise and vibration effects would also affect seven additional historic properties, as described in the summary of Alternative A. However, such effects would not compromise the properties' integrity of setting, feeling, or association and would result in no adverse effects.

Other Effects Generated by Traffic Like Alternative A, eighteen historic properties are located along or close to these traffic thoroughfares and would experience potential effects from increases in traffic. All such properties, except the Capitol Hill Historic District, would not experience adverse effects because the incremental traffic would not alter the busy, traffic-heavy urban setting in which the property is located. As in Alternatives A through D, increased traffic within the Capitol Hill Historic District alone would not likely affect the historic district. However, considered cumulatively, moderate temporary construction noise effects to buildings along Second Street NE (especially 701, 603-607, and 521-527 Second Street NE) if excavation spoils are removed by truck; temporary vibration effects during construction to properties at 701 and 603-607 Second Street NE and 205 F Street NE; and the potential visual effects, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties from increased traffic volumes along Second Street NE, F Street NE, and potentially other residential streets, may detract from the residential character of the district and have the potential to adversely affect the integrity of setting and feeling of the historic district. Refer to the analysis for the Capitol Hill Historic District for a full explanation.

6.2.6 Alternative A-C

Figure 28. Illustration of Alternative A-C



Alternative A-C would result in adverse effects to three historic properties: the REA Building, WUS, and the WUS Historic Site. Alternative A-C may also result in a potential adverse effect to the Capitol Hill Historic District.

Physical Effects

The Physical effects of Alternative A-C are the same as those for Alternative A. Physical effects would adversely affect WUS and the WUS Historic Site, and would include the work to remove the non-historic Claytor Concourse, construct a new passenger concourse and train hall, remove original columns within the First Street Tunnel, and demolish and reconstruct the Terminal Rail Yard.

There is a potential for physical effects to occur at the basement level of the REA Building depending on whether the existing direct connection to the H Street Tunnel will be eliminated or maintained with the construction of the H Street Concourse. At this early conceptual stage of Project design and since the exact location and method of a potential connection to the REA Building is not yet determined, the nature of the potential physical effect and whether it would constitute an adverse effect under Section 106 cannot be determined at this time. While no other physical effects to the REA Building are planned, vibratory pile driving during construction

would result in an increased risk of structural damage. Given the long duration and the proximity of construction activities to the station, the effect of vibration on the building would need to be monitored to ensure physical effects to the REA Building do not occur.

Visual Effects

Like Alternatives A through E, visual effects of Alternative A-C result in a finding of adverse effect for the REA Building, WUS, and WUS Historic Site. With the reconstruction of the Terminal Rail Yard and the erection of the east-west train hall, bus and parking facilities, and supporting deck structure, Alternative E would greatly change the appearance of the WUS Historic Site and alter existing visual connections between its components, including WUS and the REA Building. The disruption of the visual and physical connections between each of these historic properties would diminish their integrity of setting, feeling, and association. Additionally, the potential major visual effects from the bus and parking facility and potential Federal air-rights development to WUS and WUS Historic Site, as seen from Delaware Ave NE and the intersection of First and C Streets NE, would affect the integrity of design, setting, and feeling by interrupting the silhouette of the station roofline and the visual symmetry of the station's monumental Beaux Arts design.

Visual changes from the construction of Alternative A-C would cause a potential moderate visual effect to the U.S. Capitol Dome viewshed. Seven properties: City Post Office, Senate Parks, Thurgood Marshall Federal Judiciary Building, Columbus Plaza, Woodward and Lothrop Service Warehouse, the L'Enfant-McMillan Plan, and the Capitol Hill Historic District would experience potential minor visual effects. Seven properties: Dirksen and Hart Senate Office Buildings, Government Printing Office, Library of Congress Thomas Jefferson Building, Russell Senate Office Building, Square 750 Rowhouse Development, St. Joseph's Home, and the Uline Arena would experience potential negligible visual effects, and one property: the Government Printing Office Warehouse No. 4, would experience potential beneficial visual effects. Such visual effects from Alternative E would not affect the significance or integrity of the properties and result in no adverse effects, as further explained in the individual historic property assessments.

Noise and Vibration Effects

Noise and vibration effects resulting from traffic and the construction and operation of Alternative A-C would match the effects of Alternative A. WUS would experience temporary noise levels above FTA thresholds for noise impacts and potentially damaging vibration effects during construction. The REA Building would also experience noise and vibration effects,

resulting in potential physical effects, which would need to be monitored to ensure structural damage does not occur.

Construction-related noise and vibration effects would also affect seven additional historic properties, as described in the summary of Alternative A. However, such effects would not compromise the properties' integrity of setting, feeling, or association and would result in no adverse effects.

Other Effects Generated by Traffic

Like Alternative A, eighteen historic properties are located along or close to these traffic thoroughfares and would experience potential effects from increases in traffic. All such properties, except the Capitol Hill Historic District, would not experience adverse effects because the incremental traffic would not alter the busy, traffic-heavy urban setting in which the property is located. As in all other Action Alternatives, increased traffic within the Capitol Hill Historic District alone would not likely affect the historic district. However, considered cumulatively, moderate temporary construction noise effects to buildings along Second Street NE (especially 701, 603-607, and 521-527 Second Street NE) if excavation spoils are removed by truck; temporary vibration effects during construction to properties at 701 and 603-607 Second Street NE and 205 F Street NE; and the potential visual effects, conflicts with pedestrians and bicyclists, and other disturbances impacting access to properties from increased traffic volumes along 2nd Street NE, F Street NE, and potentially other residential streets, may detract from the residential character of the district and have the potential to adversely affect the integrity of setting and feeling of the historic district. Refer to the analysis for the Capitol Hill Historic District for a full explanation.

6.3 Assessment of Effects: Summary of Effects Matrix for the Washington Union Station Expansion Project

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
Individual Properties									
1	Acacia Building	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
2	Augusta Apartment Building (and Louisa Addition)	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
3	C&P Telephone Company Warehouse	No physical change No visual change Potential noise, vibration, and traffic changes	No physical effect No visual effect No operational noise/vibration effects; operational traffic effects would not affect significance and integrity; no construction noise effects; construction vibration effects would not affect significance or integrity	No physical effect No visual effect No operational noise/vibration effects; operational traffic effects would not affect significance and integrity; no construction noise effects; construction vibration effects would not affect significance or integrity	No physical effect No visual effect No operational noise/vibration effects; operational traffic effects would not affect significance and integrity; no construction noise effects; construction vibration effects would not affect significance or integrity	No physical effect No visual effect No operational noise/vibration effects; operational traffic effects would not affect significance and integrity; no construction noise effects; construction vibration effects would not affect significance or integrity	No physical effect No visual effect No operational noise/vibration effects; operational traffic effects would not affect significance and integrity; no construction noise effects; construction vibration effects would not affect significance or integrity	No physical effect No visual effect No operational noise/vibration effects; operational traffic effects would not affect significance and integrity; no construction noise effects; construction vibration effects would not affect significance or integrity	No Adverse Effect
4	Capital Press Building (Former)	No physical change No visual change Potential noise and vibration changes; no traffic change	No physical effect No visual effect Operational noise effects would not affect significance and integrity; no construction noise or vibration effects; no traffic effects	No physical effect No visual effect Operational noise effects would not affect significance and integrity; no construction noise or vibration effects; no traffic effects	No physical effect No visual effect Operational noise effects would not affect significance and integrity; no construction noise or vibration effects; no traffic effects	No physical effect No visual effect Operational noise effects would not affect significance and integrity; no construction noise or vibration effects; no traffic effects	No physical effect No visual effect Operational noise effects would not affect significance and integrity; no construction noise or vibration effects; no traffic effects	No physical effect No visual effect Operational noise effects would not affect significance and integrity; no construction noise or vibration effects; no traffic effects	No Adverse Effect
5	City Post Office (Postal Museum)	No physical change No visual change Potential noise, vibration, and traffic changes	No physical effect Potential minor visual effect would not affect significance or integrity.	No physical effect Potential minor visual effect would not affect significance or integrity.	No physical effect Potential negligible visual effect would not affect significance or integrity.	No physical effect Potential negligible visual effect would not affect significance or integrity.	No physical effect Potential negligible visual effect would not affect significance or integrity.	No physical effect Potential minor visual effect would not affect significance or integrity.	No Adverse Effect

⁷⁵ While no effects assessment was provided for the No-Action Alternative, a summary of the associated changes is presented in this table to aid in comparison with the Action Alternatives.

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
			operational traffic effects would not affect significance or integrity	operational traffic effects would not affect significance or integrity	operational traffic effects would not affect significance or integrity	operational traffic effects would not affect significance or integrity	operational traffic effects would not affect significance or integrity	operational traffic effects would not affect significance or integrity	
12	Government Printing Office Warehouse No. 4	No physical change Visual change based on visual simulation Potential noise, vibration, and traffic changes	No physical effect Potential beneficial visual effect would not affect significance or integrity. No operational noise/vibration effect; no construction vibration effects; moderate to severe construction noise effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential beneficial visual effect would not affect significance or integrity. No operational noise/vibration effect; no construction vibration effects; moderate to severe construction noise effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential beneficial visual effect would not affect significance or integrity. No operational noise/vibration effect; no construction vibration effects; moderate to severe construction noise effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential beneficial visual effect would not affect significance or integrity. No operational noise/vibration effect; no construction vibration effects; moderate to severe construction noise effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential beneficial visual effect would not affect significance or integrity. No operational noise/vibration effect; no construction vibration effects; moderate to severe construction noise effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential beneficial visual effect would not affect significance or integrity. No operational noise/vibration effect; no construction vibration effects; moderate to severe construction noise effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No Adverse Effect
13	Hayes School	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
14	Holodomor Ukrainian Holocaust Memorial	No physical change No visual change Potential noise, vibration, and traffic changes	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No Adverse Effect
15	Japanese American Memorial to Patriotism During WWII	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
16	Joseph Gales School	No physical change No visual change No noise or vibration changes; operational traffic changes	No physical effect No visual effect No noise or vibration effects; operational traffic effects would not affect significance or integrity	No physical effect No visual effect No noise or vibration effects; operational traffic effects would not affect significance or integrity	No physical effect No visual effect No noise or vibration effects; operational traffic effects would not affect significance or integrity	No physical effect No visual effect No noise or vibration effects; operational traffic effects would not affect significance or integrity	No physical effect No visual effect No noise or vibration effects; operational traffic effects would not affect significance or integrity	No physical effect No visual effect No noise or vibration effects; operational traffic effects would not affect significance or integrity	No Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
17	Library of Congress, Thomas Jefferson Building	No physical change Visual change based on visual simulation No noise, vibration, or traffic changes	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No Adverse Effect
18	M Street High School (Perry School)	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
19	Major General Nathanael Greene Statue	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
20	Mountjoy Bayly House	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
21	Peace Monument	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
22	Railway Express Agency (REA) Building	Potential physical changes from construction. Visual change caused by physical changes within the Terminal Rail Yard. Potential vibration during construction may cause physical changes; potential noise changes; no traffic changes	Potential physical effects from the construction of the H Street Concourse; physical effects from construction vibrations will require monitoring and may result in a loss of integrity. Visual effects caused by physical and visual changes within the Terminal Rail Yard would affect the property's significance and integrity. No operational noise/vibration effects; temporary severe construction noise effects would not affect significance or integrity;	Potential physical effects from the construction of the H Street Concourse; physical effects from construction vibrations will require monitoring and may result in a loss of integrity. Visual effects caused by physical and visual changes within the Terminal Rail Yard would affect the property's significance and integrity. No operational noise/vibration effects; temporary severe construction noise effects would not affect significance or integrity;	Potential physical effects from the construction of the H Street Concourse; physical effects from construction vibrations will require monitoring and may result in a loss of integrity. Visual effects caused by physical and visual changes within the Terminal Rail Yard would affect the property's significance and integrity. No operational noise/vibration effects; temporary severe construction noise effects would not affect significance or integrity;	Potential physical effects from the construction of the H Street Concourse; physical effects from construction vibrations will require monitoring and may result in a loss of integrity. Visual effects caused by physical and visual changes within the Terminal Rail Yard would affect the property's significance and integrity. No operational noise/vibration effects; temporary severe construction noise effects would not affect significance or integrity;	Potential physical effects from the construction of the H Street Concourse; physical effects from construction vibrations will require monitoring and may result in a loss of integrity. Visual effects caused by physical and visual changes within the Terminal Rail Yard would affect the property's significance and integrity. No operational noise/vibration effects; temporary severe construction noise effects would not affect significance or integrity;	Potential physical effects from the construction of the H Street Concourse; physical effects from construction vibrations will require monitoring and may result in a loss of integrity. Visual effects caused by physical and visual changes within the Terminal Rail Yard would affect the property's significance and integrity. No operational noise/vibration effects; temporary severe construction noise effects would not affect significance or integrity;	Adverse Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
			no operational traffic effects	no operational traffic effects	no operational traffic effects	no operational traffic effects	no operational traffic effects	no operational traffic effects	
23	Robert A. Taft Memorial	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
24	Russell Senate Office Building	No physical change Potential visual change No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No physical effect Potential negligible visual effect would not affect significance or integrity. No noise, vibration, or traffic effects	No Adverse Effect
25	Senate Parks, Underground Garage, and Fountains	No physical change Visual change based on visual simulation Potential noise/vibration changes; no traffic changes	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no operational traffic effects	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no operational traffic effects	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no operational traffic effects	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no operational traffic effects	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no operational traffic effects	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no operational traffic effects	No Adverse Effect
26	Sewall-Belmont House	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
27	Square 750 Rowhouse Development	No physical change Visual change based on visual simulation Potential noise, vibration, and traffic changes	No physical effect Potential negligible visual effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development Moderate operational noise effects and operational traffic effects would not affect significance or integrity;	No physical effect Potential negligible visual effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development Moderate operational noise effects and operational traffic effects would not affect significance or integrity;	No physical effect Potential negligible visual effects of Alternative C-West and potential minor visual effects of Alternative C-East would not affect significance or integrity, which has already been lost due to existing and planned changes and development Moderate operational	No physical effect Potential minor to moderate visual effect would not affect significance or integrity, which has already been lost due to existing and planned changes and development Moderate operational noise effects and operational traffic effects would not affect	No physical effect Potential negligible visual effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development Moderate operational noise effects and operational traffic effects would not affect significance or integrity;	No physical effect Potential negligible visual effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development Moderate operational noise effects and operational traffic effects would not affect significance or integrity;	No Adverse Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
			moderate to severe temporary construction noise/vibration effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development	moderate to severe temporary construction noise/vibration effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development	noise effects and operational traffic effects would not affect significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development	significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development	moderate to severe temporary construction noise/vibration effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development	moderate to severe temporary construction noise/vibration effects would not affect significance or integrity, which has already been lost due to existing and planned changes and development	
28	St. Aloysius Catholic Church	No physical change No visual change Potential noise, vibration, and traffic changes	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No Adverse Effect
29	St. Joseph's Home (Former)	No physical change Visual change based on visual simulation Potential noise, vibration, and traffic changes	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effects would not affect significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effects would not affect significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effects would not affect significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effects would not affect significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effects would not affect significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effects would not affect significance or integrity; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No Adverse Effect
30	St. Phillip's Baptist Church	No physical change No visual change	No physical effect No visual Effect	No physical effect No visual Effect	No physical effect No visual Effect	No physical effect No visual Effect	No physical effect No visual Effect	No physical effect No visual Effect	No Adverse Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
		Potential noise, vibration, and traffic changes	Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	
31	Suntrust Building (Former Childs Restaurant)	No physical change No visual change Potential noise, vibration, and traffic changes	No physical effect No visual effect No noise/vibration effects; operational traffic effects would not affect significance and integrity	No physical effect No visual effect No noise/vibration effects; operational traffic effects would not affect significance and integrity	No physical effect No visual effect No noise/vibration effects; operational traffic effects would not affect significance and integrity	No physical effect No visual effect No noise/vibration effects; operational traffic effects would not affect significance and integrity	No physical effect No visual effect No noise/vibration effects; operational traffic effects would not affect significance and integrity	No physical effect No visual effect No noise/vibration effects; operational traffic effects would not affect significance and integrity	No Adverse Effect
32	The Summerhouse	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
33	Thurgood Marshall Federal Judiciary Building	No physical change Visual change based on visual simulation Potential noise, vibration, and traffic changes	No physical effect Potential minor visual effect would not affect significance or integrity. No operational noise/vibration effects; temporary moderate construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	No physical effect Potential minor visual effect would not affect significance or integrity. No operational noise/vibration effects; temporary moderate construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	No physical effect Potential minor visual effect would not affect significance or integrity. No operational noise/vibration effects; temporary moderate construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	No physical effect Potential minor visual effect would not affect significance or integrity. No operational noise/vibration effects; temporary moderate construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	No physical effect Potential minor visual effect would not affect significance or integrity. No operational noise/vibration effects; temporary moderate construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	No physical effect Potential minor visual effect would not affect significance or integrity. No operational noise/vibration effects; temporary moderate construction noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance and integrity	No Adverse Effect
34	Topham's Luggage Factory (Former)	No physical change Potential visual change Potential noise/vibration changes; no traffic change	No physical effect No visual effect No operational noise/vibration effect; temporary moderate to severe construction noise/vibration effects would not affect significance or integrity or	No physical effect No visual effect No operational noise/vibration effect; temporary moderate to severe construction noise/vibration effects would not affect significance or integrity or	No physical effect Potential moderate visual effect of Alternative C-East would not affect significance or integrity. No visual effect from Alternative C-West No operational noise/vibration effect;	No physical effect No visual effect No operational noise/vibration effect; temporary moderate to severe construction noise/vibration effects would not affect significance or integrity or	No physical effect No visual effect No operational noise/vibration effect; temporary moderate to severe construction noise/vibration effects would not affect significance or integrity or	No physical effect No visual effect No operational noise/vibration effect; temporary moderate to severe construction noise/vibration effects would not affect significance or integrity or	No Adverse Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
			cause physical effects; no operational traffic effect	cause physical effects; no operational traffic effect	temporary moderate to severe construction noise/vibration effects would not affect significance or integrity or cause physical effects; no operational traffic effect	cause physical effects; no operational traffic effect	cause physical effects; no operational traffic effect	cause physical effects; no operational traffic effect	
35	Uline Ice Company Plant and Arena Complex	No physical change Visual change based on visual simulation Potential noise/vibration effects changes; no traffic change	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effect would not affect significance or integrity; no temporary construction noise/vibration effects; no traffic effect	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effect would not affect significance or integrity; no temporary construction noise/vibration effects; no traffic effect	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effect would not affect significance or integrity; no temporary construction noise/vibration effects; no traffic effect	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effect would not affect significance or integrity; no temporary construction noise/vibration effects; no traffic effect	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effect would not affect significance or integrity; no temporary construction noise/vibration effects; no traffic effect	No physical effect Potential negligible visual effect would not affect significance or integrity. Moderate operational noise effect would not affect significance or integrity; no temporary construction noise/vibration effects; no traffic effect	No Adverse Effect
36	United States Capitol	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
37	United States Capitol Square	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
38	United States Supreme Court	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
39	Victims of Communism Memorial	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
40	Washington Union Station	Physical changes from other projects at station Visual change based on visual simulation Potential vibration change from construction; potential construction noise and	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in a physical effect. Visual effects from the	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in a physical effect. Visual effects from the	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in a physical effect. Visual effects from the	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in a physical effect. Visual effects from the	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in a physical effect. Visual effects from the	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in a physical effect. Visual effects from the	Adverse Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
		operational traffic changes	reconstruction of the Terminal Rail Yard and the construction of the Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise effects would not affect significance and integrity.	reconstruction of the Terminal Rail Yard and the construction of the Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise effects would not affect significance and integrity.	reconstruction of the Terminal Rail Yard and the construction of the Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise effects would not affect significance and integrity.	reconstruction of the Terminal Rail Yard and the construction of the Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise effects would not affect significance and integrity.	reconstruction of the Terminal Rail Yard and the construction of the Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise effects would not affect significance and integrity.	reconstruction of the Terminal Rail Yard and the construction of the Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise effects would not affect significance and integrity.	
41	Washington Union Station Plaza (Columbus Plaza) and Columbus Fountain	No physical change Visual change based on visual simulation Potential noise, vibration, and traffic changes	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; operational traffic effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity	No Adverse Effect
42	Woodward and Lothrop Service Warehouse	No physical change Potential visual change Potential noise/vibration changes; no traffic change	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect Potential minor visual effect would not affect significance or integrity. Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No Adverse Effect
43	901 Second Street NE	No physical change Visual change based on visual simulation Potential noise, vibration, and traffic changes	No physical effect No visual effect No operational noise/vibration effect; moderate to severe	No physical effect No visual effect No operational noise/vibration effect; moderate to severe	No physical effect No visual effect for Alternative C-West; potential moderate visual effect of Alternative C-East would not affect	No physical effect Potential moderate visual effect would not affect significance or integrity. No operational	No physical effect No visual effect No operational noise/vibration effect; moderate to severe	No physical effect No visual effect No operational noise/vibration effect; moderate to severe	No Adverse Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
			temporary construction noise/vibration effects would not affect significance or integrity; no traffic effect	temporary construction noise/vibration effects would not affect significance or integrity; no traffic effect	significance or integrity. No operational noise/vibration effect; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; no traffic effect	noise/vibration effect; moderate to severe temporary construction noise/vibration effects would not affect significance or integrity; no traffic effect	temporary construction noise/vibration effects would not affect significance or integrity; no traffic effect	temporary construction noise/vibration effects would not affect significance or integrity; no traffic effect	
Historic Sites and Districts									
44	Capitol Hill Historic District	No physical change Visual change based on visual simulations Potential construction noise and vibration changes; operational traffic changes	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; moderate to severe temporary construction noise and vibration effects would not affect significance or integrity; traffic effects alone would likely not affect significance and integrity Considered cumulatively, effects from traffic and temporary construction noise and vibration effects may be potentially adverse	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; moderate to severe temporary construction noise and vibration effects would not affect significance or integrity; traffic effects alone would likely not affect significance and integrity Considered cumulatively, effects from traffic and temporary construction noise and vibration effects may be potentially adverse	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; moderate to severe temporary construction noise and vibration effects would not affect significance or integrity; traffic effects alone would likely not affect significance and integrity Considered cumulatively, effects from traffic and temporary construction noise and vibration effects may be potentially adverse	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; moderate to severe temporary construction noise and vibration effects would not affect significance or integrity; traffic effects alone would likely not affect significance and integrity Considered cumulatively, effects from traffic and temporary construction noise and vibration effects may be potentially adverse	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; moderate to severe temporary construction noise and vibration effects would not affect significance or integrity; traffic effects alone would likely not affect significance and integrity Considered cumulatively, effects from traffic and temporary construction noise and vibration effects may be potentially adverse	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; moderate to severe temporary construction noise and vibration effects would not affect significance or integrity; traffic effects alone would likely not affect significance and integrity Considered cumulatively, effects from traffic and temporary construction noise and vibration effects may be potentially adverse	Potential Adverse Effect
45	L'Enfant-McMillan Plan	No physical change Visual change based on visual simulations Potential noise and vibration changes; traffic changes	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; temporary construction noise/vibration effects would not affect significance or integrity;	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; temporary construction noise/vibration effects would not affect significance or integrity;	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; temporary construction noise/vibration effects would not affect significance or integrity;	No physical effect Potential moderate visual effects would not affect significance or integrity. No operational noise/vibration effects; temporary construction noise/vibration effects would not affect significance or integrity;	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; temporary construction noise/vibration effects would not affect significance or integrity;	No physical effect Potential minor visual effects would not affect significance or integrity. No operational noise/vibration effects; temporary construction noise/vibration effects would not affect significance or integrity;	No Adverse Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
			traffic effects would not affect significance or integrity.	traffic effects would not affect significance or integrity.	traffic effects would not affect significance or integrity.	traffic effects would not affect significance or integrity.	traffic effects would not affect significance or integrity.	traffic effects would not affect significance or integrity.	
46	National Mall District	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
47	Pennsylvania Avenue National Historic Site	No physical change No visual change No changes in noise, vibration, or traffic	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No physical effect No visual effect No noise, vibration, or traffic effects	No Effect
48	Union Market Historic District	No physical change No visual change Potential noise/vibration changes; no traffic changes	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No physical effect No visual effect Likely no operational or construction noise and vibration effects; any potential noise/vibration effects would not affect significance or integrity; no traffic effect	No Adverse Effect
49	Washington Union Station Historic Site (Expanded Boundary)	Physical change from the construction of the deck over the Terminal Rail Yard Visual changes from the construction of the deck over the Terminal Rail Yard Potential vibrations from construction may cause physical change; potential construction noise and operational traffic changes	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in physical effects Visual effects from the reconstruction of the Terminal Rail Yard and construction of Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise and traffic effects would not affect significance or integrity.	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in physical effects Visual effects from the reconstruction of the Terminal Rail Yard and construction of Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise and traffic effects would not affect significance or integrity.	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in physical effects Visual effects from the reconstruction of the Terminal Rail Yard and construction of Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise and traffic effects would not affect significance or integrity.	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in physical effects Visual effects from the reconstruction of the Terminal Rail Yard and construction of Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise and traffic effects would not affect significance or integrity.	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in physical effects Visual effects from the reconstruction of the Terminal Rail Yard and construction of Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise and traffic effects would not affect significance or integrity.	Physical effects would affect the property's significance and integrity; temporary construction vibration effects will require monitoring and may result in physical effects Visual effects from the reconstruction of the Terminal Rail Yard and construction of Project elements would affect the property's significance and integrity. No operational noise/vibration effect; construction noise and traffic effects would not affect significance or integrity.	Adverse Effect
Culturally Significant Viewsheds									

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
50	Arlington National Cemetery (Arlington House)	Visual change would have low visibility and low sensitivity based on visual simulations.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative A would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative B would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative C would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative D would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative E would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative A-C would not affect the character of the viewshed.	No Effect
51	Old Post Office Building	Visual change would have low visibility and low sensitivity based on visual simulations.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative A would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative B would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative C would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative D would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative E would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative A-C would not affect the character of the viewshed.	No Effect
52	St. Elizabeths West Campus	Visual change would have no visibility and no sensitivity based on visual simulations.	Visual effect would have no visibility and no sensitivity. Alternative A would not affect the character of the viewshed.	Visual effect would have no visibility and no sensitivity. Alternative B would not affect the character of the viewshed.	Visual effect would have no visibility and no sensitivity. Alternative C would not affect the character of the viewshed.	Visual effect would have no visibility and no sensitivity. Alternative D would not affect the character of the viewshed.	Visual effect would have no visibility and no sensitivity. Alternative E would not affect the character of the viewshed.	Visual effect would have no visibility and no sensitivity. Alternative A would not affect the character of the viewshed.	No Effect
53	U.S. Capitol Dome	Visual change would have moderate to high noticeability and sensitivity based on visual simulations due to the height of the private air-rights development. However, the No-Action Alternative would not interrupt the views along North Capitol Street NW and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan.	Potential moderate visual effect would have high visibility and moderate sensitivity due to the height of the Project elements and potential Federal air-rights development, which would result in visual asymmetry behind the station. However, Alternative A would not interrupt the views along North Capitol Street NW and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan. Alternative A would not significantly alter the character of the viewshed.	Potential moderate visual effect would have high visibility and moderate sensitivity due to the height of the potential Federal air-rights development, which would result in visual asymmetry behind the station. However, Alternative B would not interrupt the views along North Capitol Street NW and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan. Alternative B would not significantly alter the character of the viewshed.	Potential moderate visual effect would have high visibility and moderate sensitivity due to the height of the Project elements (in Alternative C-East) and potential Federal air-rights development, which would result in visual asymmetry behind the station. However, Alternative C would not interrupt the views along North Capitol Street NW and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan. Alternative C would not significantly alter the character of the viewshed.	Potential moderate visual effect would have high visibility and moderate sensitivity due to the height of the Project elements and potential Federal air-rights development, which would result in visual asymmetry behind the station. However, Alternative D would not interrupt the views along North Capitol Street NW and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan. Alternative D would not significantly alter the character of the viewshed.	Potential moderate visual effect would have high visibility and moderate sensitivity due to the height of the potential Federal air-rights development, which would result in visual asymmetry behind the station. However, Alternative E would not interrupt the views along North Capitol Street NW and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan. Alternative E would not significantly alter the character of the viewshed.	Potential moderate visual effect would have high visibility and moderate sensitivity due to the height of the Project elements and potential Federal air-rights development, which would result in visual asymmetry behind the station. However, Alternative A would not interrupt the views along North Capitol Street NW and Delaware Ave NE to Columbus Plaza and the WUS headhouse, as established by the L'Enfant-McMillan Plan. Alternative A would not significantly alter the character of the viewshed.	No Adverse Effect
54	Washington National Cathedral	Visual change would have no visibility and no	Visual effect would have no visibility and no sensitivity. Alternative A	Visual effect would have no visibility and no sensitivity. Alternative B	Visual effect would have no visibility and no sensitivity. Alternative C	Visual effect would have no visibility and no sensitivity. Alternative D	Visual effect would have no visibility and no sensitivity. Alternative E	Visual effect would have no visibility and no sensitivity. Alternative A	No Effect

#	Historic Property	No-Action ⁷⁵	Alternative A	Alternative B	Alternative C	Alternative D	Alternative E	Alternative A-C	Determination of Effect for Action Alternatives
		sensitivity based on visual simulations.	would not affect the character of the viewshed.	would not affect the character of the viewshed.	would not affect the character of the viewshed.	would not affect the character of the viewshed.	would not affect the character of the viewshed.	would not affect the character of the viewshed.	
55	Washington National Monument	Visual change would have low visibility and low sensitivity based on visual simulations.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative A would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative B would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative C would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative D would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative E would not affect the character of the viewshed.	Potential negligible visual effect would have low visibility and low sensitivity. Alternative A-C would not affect the character of the viewshed.	No Effect

7 Appendices

- 7.1 Appendix 1: List of Consulting Parties**
- 7.2 Appendix 2: Formal Communication and Comments from Consulting Parties**
- 7.3 Appendix 3: Area of Potential Effects and Identification of Historic Properties for the Washington Union Station Expansion Project - Final Report**

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