National Park Service
U.S. Department of the Interior

George Washington Memorial Parkway

June 2026

Triumphal Arch at Memorial Circle

Environmental Assessment **DOI-NPS-136973**

The National Park Service (NPS) has considered the factors mandated by the National Environmental Policy Act (NEPA). This environmental assessment represents the NPS's good-faith effort to fulfill NEPA's requirements by prioritizing documentation of the most important relevant considerations within the statutorily mandated page limits and timeline. This prioritization reflects the NPS's expert judgment; and any considerations addressed briefly or left unaddressed are, in NPS's judgment, comparatively non-substantive and would not meaningfully inform NPS's consideration of environmental effects and the decision to be made. The environmental assessment is substantially complete, considers the factors mandated by NEPA, and, in the decisionmaker's judgment, contains analysis adequate to inform NPS's decision regarding the proposed action.

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CHAPTER 1. INTRODUCTION

To comply with the National Environmental Policy Act, the National Park Service (NPS) prepared an Environmental Assessment (EA) analyzing the alternatives and evaluating the potential environmental effects associated with constructing the proposed Triumphal Arch on the George Washington Memorial Parkway. The EA is prepared in accordance with 516 DM 1, U.S. Department of the Interior, Handbook of National Environmental Policy Act Implementing Procedures, February 2026 (DOI NEPA Handbook) and its appendices, along with the National Environmental Policy Act Implementing Regulations at 43 Code of Federal Regulations (CFR) Part 46.

1.1. Background

The proposed United States Triumphal Arch (the Arch) would serve as a signature monumental structure honoring the nation's 250th anniversary and contributing to Washington, D.C.'s tradition of honoring national principles. Drawing on the historic Roman precedent of erecting freestanding arches to celebrate civic achievement, the Arch is envisioned as a prominent addition to the capital's architectural landscape in the monumental core.

1.2. Purpose and Need

The purpose of the proposed action is to celebrate 250 years of American independence by honoring America's founding principles through installation of a structure at the intersection of Arlington Memorial Bridge and Memorial Avenue within George Washington Memorial Parkway, in a manner consistent with the avenue's established role as a ceremonial gateway and "Avenue of Heroes" celebrating valor, sacrifice, and American heritage.

Arlington Memorial Bridge and Memorial Avenue serve as a ceremonial entrance to Washington, D.C. and the gateway to Arlington National Cemetery, physically and symbolically uniting the nation's history along a corridor already lined with monuments honoring diverse figures of American significance. Executive Order 14252, *Making the District of Columbia Safe and Beautiful*, directs the Secretary of the Interior to develop proposals to ensure Federal buildings and lands uplift and beautify public spaces and generate in the citizenry pride in and respect for our Nation, promoting beautification and the preservation of our history and heritage. Installation of an appropriate structure presents an opportunity to advance that directive within one of the most symbolically significant corridors in the Capital.

1.3. Project Area

The Arch would be located within Memorial Circle (the Circle), a formally designed feature of the George Washington Memorial Parkway at the western end of Arlington Memorial Bridge. The Parkway, administered by the National Park Service, is a 25-mile scenic and commemorative corridor along the Potomac River that integrates early 20th century landscape design with transportation, cultural resources, and recreational access. Developed to honor President George Washington and to connect significant historic and cultural sites, it blends naturalistic plantings with sculptural features.

Memorial Circle lies within Lady Bird Johnson Park, a manmade island constructed between 1915 and 1930 and renamed in 1968 in recognition of First Lady Claudia "Lady Bird" Johnson's

conservation and beautification efforts. The park's landscaped grounds, native trees, pedestrian and bicycle facilities, and cultural features, including the Lyndon Baines Johnson Memorial Grove and the Navy–Merchant Marine Memorial, provide the broader setting that frames and supports Memorial Circle within the Parkway corridor.

Figure 1. Map of the Project Area

CHAPTER 2. ALTERNATIVES

This chapter provides a description of the no action alternative and the proposed action. Alternatives and alternative elements that were considered but were eliminated from detailed analysis are described in Appendix A.

2.1. Alternative A: No Action Alternative

Under the no action alternative (alternative A), the park would not build a structure at Memorial Circle in support of EO 14252.

2.2. Alternative B: Proposed Action

The proposed action includes construction of an Arch within Memorial Circle, associated plaza and landscape improvements, supporting utility and stormwater infrastructure, traffic and pedestrian circulation modifications, security features, lighting, and temporary staging and laydown areas required for construction.

The proposed Arch would be an approximately 250-foot-tall reinforced concrete structure clad in granite veneer and ornamented by a central winged figure and two eagles, positioned above each arch leg. Dimensions will be finalized during future design efforts. The following dimensions are current approximations. The principal architectural component would rise approximately 166 feet above finish grade, with surmounting statuary extending the total height to approximately 250 feet. The main footprint of the structure would be approximately 91 feet by 166 feet, with a 15,197-square-foot footprint at ground level. The maximum lateral projection at the upper cornice would extend to 107 feet 4 inches by 183 feet 4 inches. The structure would contain 70,072 gross square feet distributed across five levels: a ground level, two service mezzanine levels not open to the public, a gallery level, and an observation deck level. The observation deck would provide 9,812 square feet of exterior deck area at 161 feet 6 inches above grade.

The structure would serve as an architectural feature aligned with the axis between Memorial Avenue and the Arlington Memorial Bridge.

The Arch would be 166 feet wide with a 55-foot-wide opening, providing views from the observation deck to area landmarks.

The structure would be built from concrete and finished with a granite veneer. The granite used for the Arch would be sourced from one of three quarries, located in Vermont, North Carolina, or California—depending on availability and desired color.

- Ground Floor Level: The ground level would contain security screening, back-of-house functions, and vertical circulation lobbies.
- Mezzanine Level: The mezzanine levels would contain mechanical and support spaces. The gallery level would contain exhibit space, back-of-house areas, restrooms, and vertical circulation lobbies, with the possibility of including a café and gift shop.
- Observation Deck: The observation deck level would include the vertical circulation lobby and exterior deck.

The structure would include six stairways and five elevators. Two pairs of elevators in the north and south legs would serve the lower public levels, and a fifth elevator would serve the observation deck. Two large circular spiral stairs would connect the ground level to the gallery level; two elliptical spiral stairs would connect the gallery level to the observation deck; and two egress stairs would connect all levels to dedicated exit-only doors at grade.

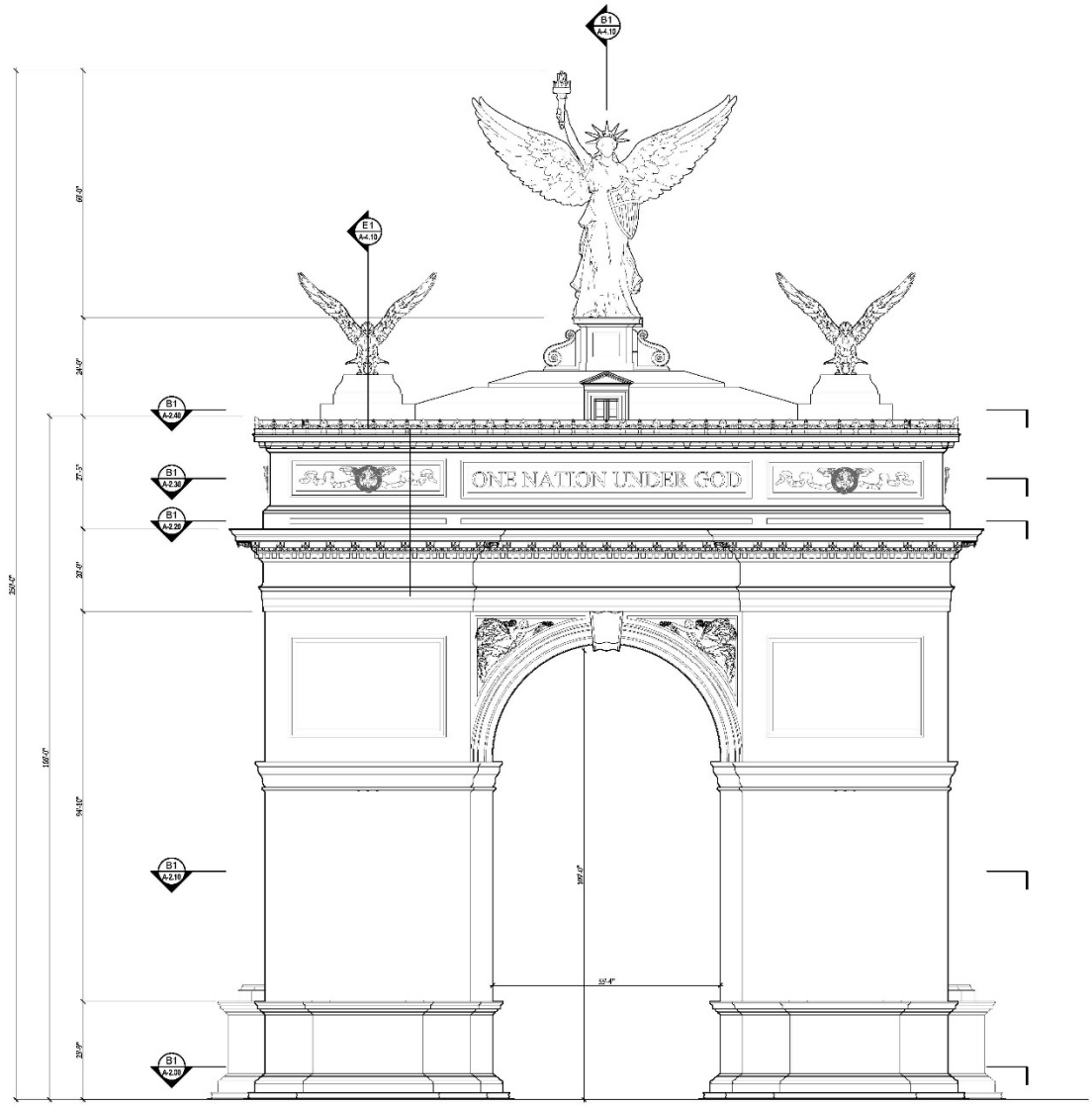

Image 1. Proposed Triumphal Arch ©Harrison Design

The proposed action would also include site development within and immediately around Memorial Circle. A paved public plaza would surround the Arch inside the traffic circle. The plaza would be protected by a barricade seat wall generally located at the existing inner curb and by removable or retractable bollards at authorized vehicle access points. Exterior lighting would be installed to illuminate the Arch and plaza, and the undertaking would include minimal exterior signage, perimeter and rooftop security cameras, access-control systems for major doors and nonpublic areas, interior and exterior video surveillance, and a security screening area with walk-through magnetometers, x-ray equipment, and explosive trace detection equipment. Vehicle access to the plaza would be restricted to authorized maintenance, contractor, law enforcement, and emergency vehicles.

The Arch would be illuminated using a low spill, fully shielded lighting system designed to highlight the Arch. Illumination of the Arch would be supplemented by eight light stanchions, ranging from 14 to 20 feet in height, strategically located around the intersection. In addition,

aviation required safety lighting would be incorporated into the design using the least intrusive technology available, ensuring compliance with aircraft visibility requirements while limiting unnecessary light emission.

Image 2. Proposed Triumphal Arch ©Harrison Design

2.2.1. Proposed Changes to Vehicle, Pedestrian and Bicycle Use

During construction, temporary closures would be implemented. Those include:

- Westbound traffic from Arlington Memorial Bridge will be reduced to two lanes.
- Eastbound traffic from Memorial Avenue will not be able to turn northbound on Arlington Boulevard, and will be directed onto Arlington Memorial Bridge.
- Northbound traffic from Washington Boulevard will not be permitted into the circle, but will need to turn right onto Arlington Memorial Bridge.
- The sidewalk on the south side of the Circle would be temporarily rerouted to the north side.

Additional short-term closures and detours will be required at the beginning of the project to establish the maintenance of traffic configuration, during construction to accommodate utility installations, and again near the end of construction to complete final transportation-related elements.

Under the proposed action, new traffic signals would be installed to control vehicle movements within and around Memorial Circle. The signalization plan would coordinate signal phases for all major vehicle approaches and activate pedestrian crossing phases through passive detection to ensure safe and efficient circulation for all users. These upgrades would replace existing yield and merge conditions with full signal control. Signalization-related changes include:

- Full signalization of Memorial Circle and all pedestrian crossings
- Three coordinated signal groups at Washington Boulevard, Arlington Boulevard, and Memorial Avenue
- Eight new fully signalized pedestrian crossings accessing the center of the Circle
- Elimination of all existing yield and merge movements
- Pedestrian actuation and detection for walk phases that activate only when needed
- Dedicated signal phases for high-volume turning movements to minimize conflicts

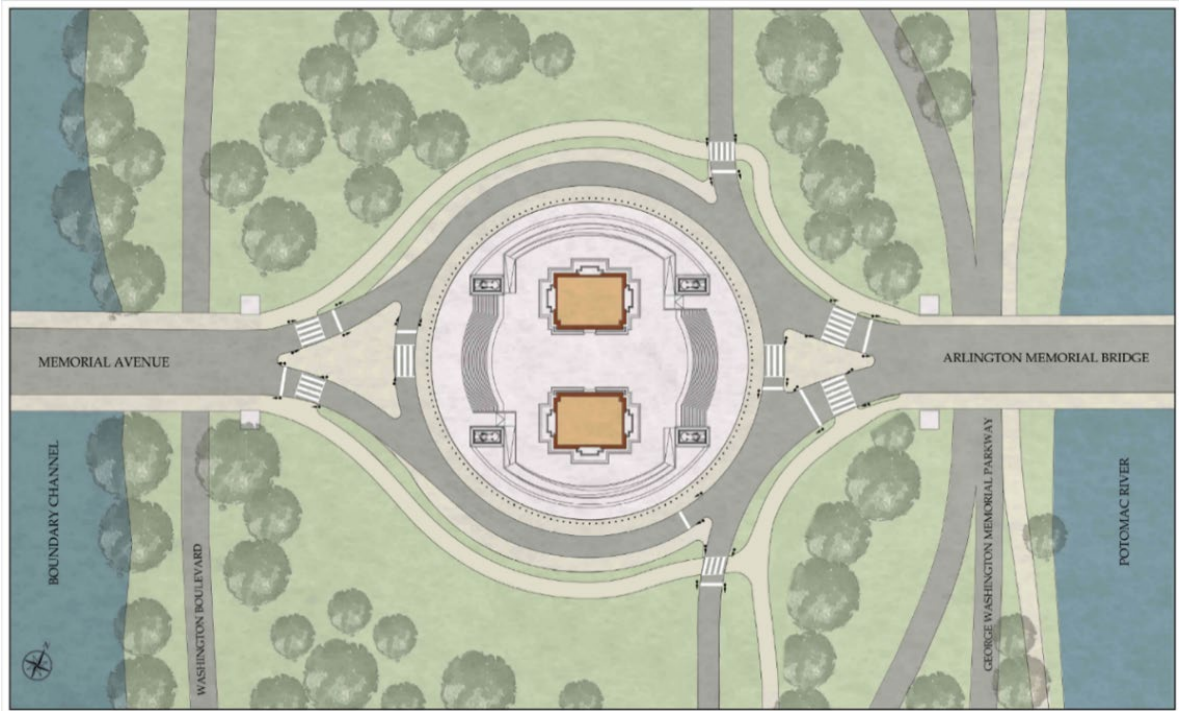

Figure 2. Final Signal Concept Plan (Appendix B, page 9)

The proposed action would also include implementation of a series of physical modifications within and around Memorial Circle. These improvements would reshape roadway geometry, expand pedestrian space, and incorporate new materials and features that calm traffic and create safer conditions for people walking. Construction activities would include enlarging key median islands, converting existing pavement treatments to more durable and pedestrian friendly materials, and adjusting the circulating roadway to reduce speeds and better accommodate all users. Physical construction–related changes include:

- Enlarged median islands on the east and west sides of Memorial Circle
- Circulating roadway narrowed to approximately 20 feet
- Conversion of the pavement marked truck apron to a mountable concrete truck apron
- Replacement of existing Belgian block along the outer edge of the Circle with grass
- Recommended safety design features such as raised crossings, curb extensions, median refuge islands, reduced curb radii, and rumble strips
- Construction phase changes including closure of the southern half of the Circle, detouring two-way traffic to the north side, elimination of certain left turn movements, and temporary pedestrian routing with a new temporary crosswalk designed in compliance with the

Americans with Disabilities Act (ADA) and the Architectural Barriers Act (ABA), and meets the Public Right-of-Way Accessibility Guidelines (PROWAG) incorporated into the Architectural Barriers Act Accessibility Standards (ABAAS).

The proposed action would include designating a dedicated pickup and drop off area along Memorial Avenue to accommodate short-term loading and unloading and enhanced wayfinding to direct visitors toward designated safe crossings. Tour bus and ridehailing services would also be encouraged to load and unload at the Arlington Memorial National Cemetery garage.

A detailed description of the proposed changes, including maps, figures, and alternative comparisons, is provided in Appendix B.

2.2.2. Construction Phasing

Construction of the Arch would occur in multiple phases over an approximately two-to-three-year period. Construction activities would generally proceed as described below.

Phase 1–Site Excavation (2–3 months) The initial phase would include site preparation, excavation within the construction footprint, and installation of temporary utilities. Temporary fencing, erosion and sediment control measures, stormwater management protocols, and staging areas would be established. Temporary pedestrian, bicycle and vehicle detours would be implemented.

Phase 2– Foundation and Support of Excavation (4–5 months) Following excavation, drill rigs would be mobilized to install the deep foundation system. Caissons would be installed to a depth of approximately 75 feet to reach bedrock. This phase would involve drilling and constructing reinforced concrete piles to support the future structure. Continuous heavy equipment operations would occur during this period.

Phase 3–Structural Concrete (10–11 months) After the foundation system is completed, crews would construct the primary structural components of the Arch. This phase would include use of tower cranes (up to 320 feet tall), forklifts, skid steers, and concrete pump systems to construct the vertical and horizontal elements of the Arch.

Phase 4–Precast Cladding (4–5 months) During this phase, the granite panels would be affixed to the Arch. Granite panels would be delivered from their source quarry and assembled onsite as the structure progresses. At the same time, work inside the structure would begin, including installing the stairs and elevators, starting the roofing system to make the building weather-tight, and beginning major mechanical, electrical, and plumbing (MEP) work.

Phase 5–Statue Placement and Ceiling Installation (5–6 months) Before the facade is fully completed, a scaffold system would be built to create a working platform to install the arch ceiling panels. To install the statue, a 300’ tall mobile crane would be required to set and assemble the statue components. As the statue is constructed, a scaffold tower would need to be installed around it to facilitate access for connections, welding, and finishing of the statue. During these events, interior fit-out would be concurrently running inside the arch.

Phase 6– Site Hardscapes / Landscaping / Project Completion (6-7 months) At this phase, the project would be near completion. All the stone pavers and site walls would be set during this time, as well as the completion of any other landscape, hardscape, and stormwater management

facilities. The interior features would be completed. The demobilization process would be underway and any construction related temporary traffic control would be removed. Permanent traffic changes, including changes to signalization, installation of crosswalks, etc. would be put in place.

Phase 7–Site Restoration and Demobilization (2 months) At the conclusion of construction, the contractor would remove temporary infrastructure, staging materials, and construction fencing. Disturbed turf and landscape areas within NPS jurisdiction would be restored to preconstruction conditions.

2.2.3. Staging Areas

The construction staging footprint would encompass approximately 45,000 square feet immediately south of the project site, with an additional 80,000 square feet designated for parking and to minimize vehicular traffic obstruction. The staging area would be surfaced with geotextile fabric and six inches of stone to protect underlying soils. These areas would support equipment storage, material laydown, and construction trailers. After construction is complete these areas would be restored to their current condition and replanted. Tree removal is not anticipated at this time.

2.2.4. Utility Installation

To support operation of the Arch and associated facilities, new potable water, sanitary sewer, electric and telecommunications utilities would be extended to the Memorial Circle area.

Utilities would be extended to the site using one or more of three anticipated utility corridors. Utilities would be routed through any single corridor or combination of corridors depending on engineering needs, construction feasibility, and coordination with existing infrastructure. Installation of utilities would occur over multiple construction phases identified above.

Utility corridors include:

- Connection from existing utilities near the Arlington National Cemetery Welcome Center, along Memorial Drive and across the Boundary Channel Bridge or under the Boundary Channel by horizontal directional drilling (HDD).
- Connection from existing utilities near the Columbia Island Marina and near the Pentagon, along or within Washington Boulevard and George Washington Memorial Parkway,
- Connection from existing utilities near the Lincoln Memorial, crossing underneath by HDD, within, or attached to the Arlington Memorial Bridge

Installation methods may include open trenching, HDD, embedding utilities within or beneath existing roadways and bridges, or affixing them to bridge structures, with final method selection occurring during subsequent design phases.

2.2.5. Stormwater Management Actions

2.2.5.1. *Stormwater Management Actions During Construction*

During construction, stormwater and erosion control practices would be implemented across the construction site to minimize sediment transport and protect adjacent drainage systems and waterways. Perimeter controls would include installing silt fence or mulch socks along all site fencing to prevent runoff from leaving the disturbed areas. Stormwater and any accumulated groundwater would be managed through a sediment treatment tank prior to discharge into the existing sewer system.

To protect inlets within and adjacent to the work zone, storm drains would be fitted with inlet protection devices. At primary site access points, a stabilized construction entrance would be established, consisting of a concrete apron paired with a 20-foot track of stone to remove sediment from vehicle tires before they enter public roadways. These measures are designed to provide effective sediment control, limit offsite impacts, and maintain compliance with applicable stormwater requirements.

2.2.5.2. *Long-term Stormwater Management*

Because the project would create approximately 62,875 square feet of new impervious surface, on-site stormwater retention is required under District of Columbia regulations. Preliminary estimates indicate a retention volume of about 6,300 cubic feet, with final calculations to be developed during detailed design and included in the Stormwater Management Plan.

To meet these requirements, the project would incorporate perimeter bioretention facilities within the landscaped zones around the monument and within the traffic circle. These features would capture and treat runoff stormwater, reduce reliance on underground structures, and be designed with appropriate pretreatment, overflow, and underdrain components to meet standards developed in compliance with District stormwater management regulations

2.2.6. Groundwater and Dewatering Approach

Geotechnical investigations indicate that groundwater is located roughly 15 feet below the existing surface. As a result, only minimal dewatering would be required during construction. Water management efforts would focus on collecting shallow stormwater and surface water that accumulates in excavations. Small sump pumps would direct this water to a sediment treatment tank before it is discharged into the existing storm sewer system. Construction wastewater, expected to be minimal, would be contained and transported offsite for proper disposal, rather than discharged on site.

2.2.7. Soil Excavation

The project would require the removal of approximately 1,400 truckloads of existing soils and the import of roughly 400 truckloads of engineered fill. All construction vehicles would be staged within the designated south project staging lot, with loading and unloading occurring inside the project fence to reduce congestion on adjacent roadways. Daily trucking activity is anticipated to involve between 20 and 30 trucks, transporting an estimated 80 to 100 loads per

day. Excavated soils would be transported to approved disposal facilities in Maryland or Virginia, contingent upon the results of in situ characterization and contamination testing.

2.2.8. Construction Equipment and Work Hours

Construction would require several tower cranes, forklifts, skid steers, drill rigs, and concrete pumping systems. Work would occur year-round, with work occurring in two 10-hour shifts per day (20 hours per day, year-round) for the duration of the construction period.

2.2.9. Road Closures and Transportation Routes

The south side of Memorial Circle is anticipated to remain closed for the majority of construction and will represent the primary transportation access impact during this time. To maintain traffic operations, eastbound traffic from Memorial Avenue will be shifted to the north side of the circle.

During this configuration, certain lower-volume movements will be temporarily restricted. Eastbound traffic from Memorial Avenue will not be permitted to turn northbound onto Arlington Boulevard and will instead be directed onto Arlington Memorial Bridge. Northbound traffic from Washington Boulevard will also be restricted from entering the circle and will be required to turn right onto Arlington Memorial Bridge. Westbound traffic from Arlington Memorial Bridge will also be reduced to two travel lanes.

During this time, pedestrian and bicycle access will be maintained through a short detour. This detour will include one additional crossing of two travel lanes, with a rectangular rapid flashing beacon (RRFB) installed to improve crossing visibility and support safer pedestrian and bicycle movements through the construction area.

Additional short-term closures and detours will also be required at the beginning of the construction to establish the maintenance of traffic configuration, and again near the end of construction to complete final transportation-related elements and utility installation.

Construction deliveries and haul-off activities would primarily access the project site via I395 using Route 27, which provides the most direct and operationally feasible connection to the south project staging area. As a secondary option, US 50 (Arlington Boulevard) may be used when needed, as it offers acceptable access for construction vehicles.

Daily construction trucking would involve approximately 20–30 trucks transporting an estimated 80–100 loads per day. To limit congestion and avoid impacts to public roadways, trucks would be staged within the south project staging lot and all loading and unloading activities would occur inside the project fence line. This approach would maintain safe traffic flow and reduce conflict points between construction vehicles and the surrounding transportation network.

2.2.10. Proposed Visitor Access and Visitor Facilities at the Triumphal Arch

Visitor use would be managed through a timed entry system, similar to the system used at the Washington Monument, which may be administered online, onsite, or through a combination of both. Visitors would arrive at their designated entry time, enter a queue, proceed to the screening

area on the first floor of the Arch, and undergo security screening before entering the public area of the Arch.

After screening, visitors would enter the public area of the Arch and proceed to the mezzanine level by either the stairs or the elevator. The internal circulation system would allow visitors to access the mezzanine, which houses all visitor service functions, including exhibit space, a café, a gift shop, and public restrooms. Visitors may experience guided time and free time within the public area of the Arch and would be expected to depart by the designated exit time to maintain capacity for entry of additional visitors.

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the current and expected future condition of historic views, cultural landscapes and historic districts, archeology, ground and surface water, traffic and circulation, visitor experience and noise in the project area. It also analyzes the short and long-term, beneficial and adverse effects that may result from implementing the proposed action.

3.1. Methods and Assumptions

For each environmental impact category, the analysis describes how conditions under the proposed action would differ from the affected environment, which includes the current and the expected future condition if no action is taken. The affected environment establishes the baseline for this analysis and includes the impacts of other reasonably foreseeable planned actions that may impact the resource in the future.

The environmental effects analysis then evaluates both the beneficial and adverse reasonably foreseeable environmental impacts of the proposed action. Unless otherwise specified for a particular resource, the study area for each environmental impact topic includes Memorial Circle and the immediately surrounding lands. See Figure 1, page 5.

3.2. Cultural Resources

3.2.1. Methods and Assumptions for Assessing Impacts to Cultural Resources

To evaluate potential impacts on historic resources and cultural landscapes, the NPS focused its analysis on impacts to historic properties that are included on, or eligible for inclusion on, the National Register of Historic Places, because these are the types of impacts that are most likely to rise to the level of significance. More specifically, the NPS evaluated, for NEPA purposes, the effects of changes to character-defining features of historic properties within the Area of Potential Effect (APE), which are the features of a historic property that qualify the property for inclusion in the National Register. An assessment of effect, in accordance with Section 106 of the NHPA, is being completed concurrently with, but separately from, this document.

To identify potentially affected historic properties for the NEPA analysis, the NPS used the APE developed in accordance with Section 106 of the NHPA. The APE is defined as the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties and is influenced by the scale and nature of an undertaking.

This approach is derived from the Secretary of the Interior's Standards for Treatment of Historic Properties, Director's Order 28: *Cultural Resource Management Guidelines*, as well as the regulations of the Advisory Council on Historic Preservation implementing the provisions of NHPA. The current conditions of cultural resources, as presented under the "Affected Environment" section, are compared with the conditions that would result from the proposed action to identify any short and long-term effects and adverse and beneficial effects to historic views, cultural landscapes and historic districts.

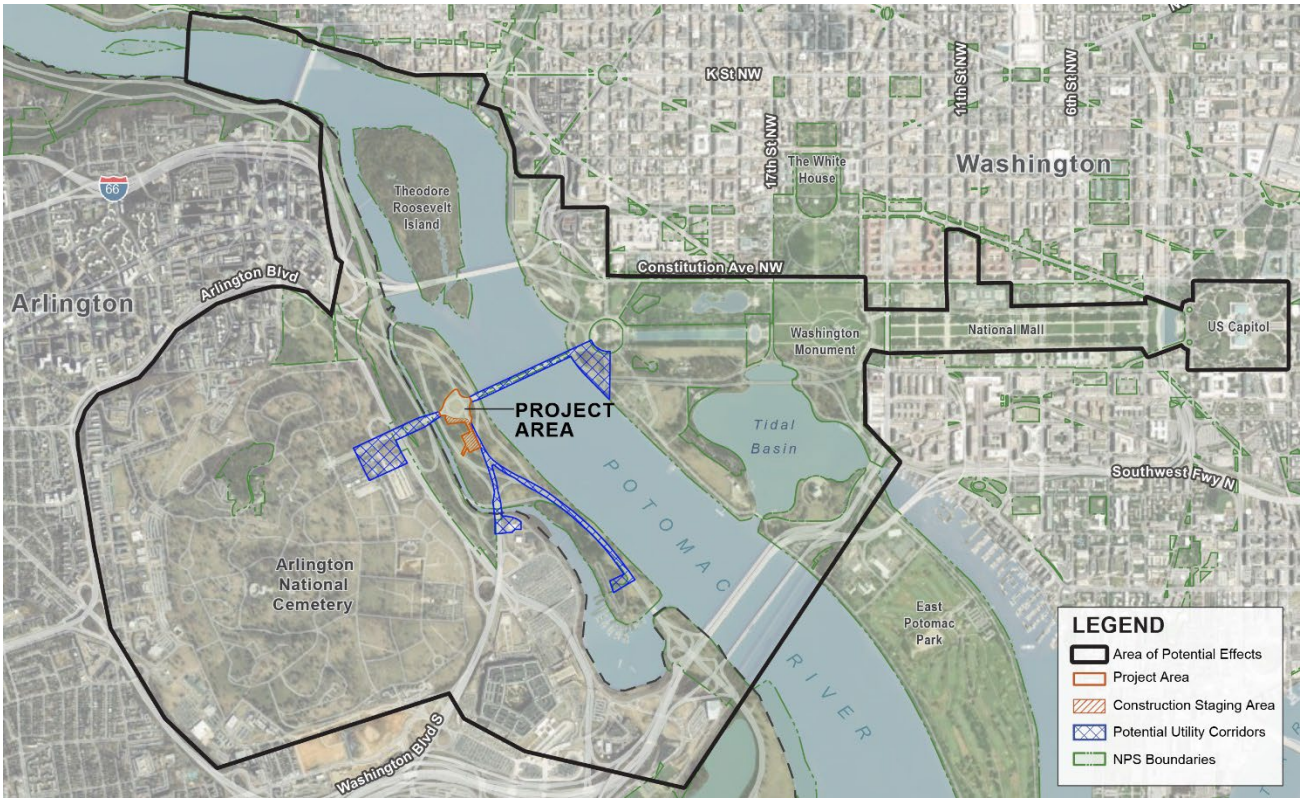

Figure 3. Cultural Resources Study Area (Area of Potential Effect)

Resource-specific context for assessing impacts on cultural resources includes the following:

- The Parkway contains cultural resources that have been determined to be contributing features in National Register of Historic Places nominations, including the resources described in the "Affected Environment" section.
- While there has been change to the historic character of the Parkway area through modernization and increased public usage and traffic congestion, the area maintains its historic integrity as a whole.
- Historic structures and small-scale features in the project area could be affected by design changes, introduction of new structures or circulation, and the use of historically incompatible materials and methods in repair and maintenance.

- Small-scale features contributing to the Memorial Avenue Corridor cultural landscape include the triangular islands of granite blocks at the east and west ends of Memorial Circle.

This section describes the important axial views which would be impacted by the proposed action, followed by a description of the cultural landscapes and historic districts that may be affected and concludes with a description of archeology. Numerous cultural landscapes, historic districts, memorials, historic structures, and small-scale features are located within and surrounding the project area, with additional resources visible across the broader viewshed. This area analyzed is intentionally broad to ensure that the assessment captures not only the potential changes to key historic axes but also the wider range of possible conditions that would influence how these cultural resources are understood and experienced within the landscape. Contributing features associated with these landscapes and districts are listed individually in Appendix C.

The initial concepts for the Columbia Island plaza, now Memorial Circle, evolved over many years and went through repeated review by the Commission of Fine Arts (CFA). Early plans envisioned a grand, highly symbolic landscape that integrated Arlington Memorial Bridge with a formal traffic ellipse on Columbia Island (NPS, 2024b). The earliest designs proposed that the bridge roadway would meet at a large elliptical plaza from which crossarms extended north and south. Westward, the bridge axis would continue toward Arlington National Cemetery as a formal, hedge-lined grand avenue culminating in pylons, gates, and a hemicycle, reinforcing the ceremonial approach. A dramatic focal point of the ellipse was to be two monumental 166-foot columns, each topped with a winged figure (representing the North and South) to symbolize national reunion after the Civil War (NPS, 2024b). The ellipse would be framed by a granite balustrade, joining the pylons located at the bridge ends. At the termini of the north and south crossarms, small circular Greek temples were planned, each positioned within a circular roadway that connected to major regional routes, Lee Highway to the north and Mount Vernon Memorial Highway to the south. The column concept was ultimately abandoned in December 1931. Design revisions ultimately eliminated the proposed cross-axis, reducing the scheme from three circles with temples to a single traffic circle. Kendall's 1932–33 submissions replaced the earlier monumental columns with two basin-framed pavilions housing 18-foot gilded bronze figures of Liberty and Unity, retaining an emphasis on axial formality and tree plantings but at a substantially reduced scale (NPS, 2024b). Ultimately, none of the planned monuments or statutes were placed within Memorial Circle.

3.3. Cultural Resources – Historic Views

3.3.1. Affected Environment (Current and Expected Future Condition of Historic Views if No Action is Taken)

<u>Reciprocal views between Arlington House and Lincoln Memorial – Main axial view</u>

The 1901 McMillan Plan established a westward axis extending from the future site of the Lincoln Memorial across the Potomac River toward Arlington House. Its designers, McKim, Mead & White, envisioned a ceremonial line that would visually and symbolically connect the monumental core of Washington, D.C., with the heights of Arlington. This design aligned the memorial site with the Arlington House, to be connected by the then-proposed Arlington Memorial Bridge. The bridge design, river crossing, and ascending topography created a vista

meant to inspire reverence for our nation's leaders, celebrate unity, and establish a connection to the river. The significance of this alignment is heightened by the importance of the two termini: the Lincoln Memorial, the foremost national memorial to the 16th president and the formal western anchor of the National Mall, and Arlington House, the symbolic heart of Arlington National Cemetery and the former home of Robert E. Lee, who resided there until the Civil War (NPS, 2024b).

Today, visitors standing on the West side of the Lincoln Memorial steps look over the Potomac and up to Arlington House, a grand and symmetrical axial view. Similarly, the long axis of Arlington House runs north–south, and the front façade faces Washington, D.C., to the east across the Potomac River. The principal vista of the site is from the front of the mansion eastward toward Washington, D.C., and the Lincoln Memorial, overlooking Memorial Circle (NPS, 2010).

Image 3. Current View from Lincoln Memorial to Arlington House and Arlington Hemicycle ©Harrison Design

Image 4. Current View from Arlington House of Lincoln Memorial. ©Harrison Design

Reciprocal views between Arlington Hemicycle and Lincoln Memorial

The 1901 McMillan Plan created an axial sightline linking the Lincoln Memorial and the Arlington Hemicycle as the formal entrance to Arlington National Cemetery.

Image 5. Current View from Arlington Hemicycle of Lincoln Memorial ©Harrison Design

Memorial Circle – views east to Lincoln Memorial, west to Arlington House and Arlington National Cemetery, north up island and south down island.

Memorial Circle is a traffic circle of approximately 300 feet in diameter at the intersection where Arlington Memorial Bridge meets two roads: the Mount Vernon Memorial Highway (mostly completed by 1932 and connecting the bridge to Mount Vernon) and George Washington Memorial Parkway (completed in 1965, stretching from the bridge to the Capital Beltway, I-495). The central circle is a component of the Memorial Avenue corridor, providing access to a number of secondary destinations that are tangents to the Parkway, with destinations and routes all in close proximity to one another. The designed vistas from Memorial Circle east to the Lincoln Memorial and west to the Arlington House and Arlington National Cemetery offer views bordered by pairs of classical pylons on the east and west, which frame entrances to Arlington Memorial Bridge with a sightline toward the Lincoln Memorial, and Memorial Avenue with a view toward the entrance to Arlington National Cemetery and Arlington House (NPS, 2010).

Panoramic views from the Lincoln Memorial structure toward Watergate Steps, Arlington Memorial Bridge, Arlington House— The Robert E. Lee Memorial, and Parkway Drive

The elevated and open design of the Lincoln Memorial's portico allows uninterrupted views to the west. The Watergate Steps area also remains broadly open due to limited vegetation preserving its open views to the Potomac River and Virginia. Two historic planting beds flanking the Watergate Steps frame the inner edges of the fan-shaped views. Mature foundation plantings for the Lincoln Memorial both frame and obscure the western views.

3.3.2. Environmental Effects Cultural Resources – Historic Views

3.3.2.1. *Effects of the No Action Alternative, Cultural Resources – Historic Views*

Under Alternative A, a Triumphal Arch would not be constructed in Memorial Circle. Consequently, the condition of the Parkway's historic views would remain unchanged from that described in the "Affected Environment: Current and Expected Future Condition of the Environment if No Action is Taken" section.

3.3.2.2. *Effects of the Proposed Action, Cultural Resources – Historic Views*

Although the Arch would introduce a new structure to Memorial Circle, it would offer new vantage points for understanding the existing spatial relationships among major landmarks and would help define Memorial Circle as a more intentional and identifiable point along the Memorial Avenue corridor.

Construction activities would introduce temporary visual intrusions, such as cranes, fencing, staging areas, and construction equipment, that would partially obstruct key historic views along Memorial Avenue, Memorial Circle, and the broader axial relationship between the Lincoln Memorial and Arlington National Cemetery. These elements would interrupt the clarity of long-established sightlines and the formal spatial organization of the corridor, resulting in short-term, adverse effects on the setting and feeling of these historic views.

All impacts disclosed below in this section are long-term.

Reciprocal views between Arlington House and Lincoln Memorial – Main axial view

The Arch would introduce a large form directly within the axial alignment between the Lincoln Memorial and Arlington House. The placement of the Arch would obstruct a portion of this reciprocal view. This obstruction would impact the alignment and alter a defining sightline.

Image 6. View from Arlington House toward the Lincoln Memorial without the proposed Triumphal Arch ©Harrison Design

Image 7. View from Arlington House toward the Lincoln Memorial with the proposed Triumphal Arch ©Harrison Design

Image 8. View from the Lincoln Memorial toward the Arlington House and Arlington Hemicycle without the proposed Triumphal Arch. ©Harrison Design

Image 9. View from the Lincoln Memorial toward the Arlington House and Arlington Hemicycle with the proposed Triumphal Arch. ©Harrison Design

Reciprocal views between Arlington Hemicycle and Lincoln Memorial

The Lincoln Memorial would remain visible from the Hemicycle, but the Arch would be visible in the foreground and would affect the broader visual setting. However, while the Arch would partially obstruct the view, the historic visual relationship would not be eliminated.

Image 10. View from the Arlington Hemicycle toward the Lincoln Memorial without the proposed Triumphal Arch. ©Harrison Design

Image 11. View from the Arlington Hemicycle toward the Lincoln Memorial with the proposed Triumphal Arch. ©Harrison Design

Memorial Circle – views east to Lincoln Memorial, west to Arlington House and Arlington National Cemetery, north up island and south down island

The westward view from Memorial Circle toward Arlington House and the entrance to Arlington National Cemetery would be potentially obstructed in some locations, reducing visibility of this historic vista. The eastward view toward the Lincoln Memorial would be visually altered. The north–south views across the Circle's central island would be changed due to the Arch's massing.

Panoramic views from the Lincoln Memorial structure toward Watergate Steps, Arlington Memorial Bridge, Arlington House— The Robert E. Lee Memorial, and Parkway Drive

The upper portions of the Arch, including the statuary, would appear prominently within the westward panoramic view from the Lincoln Memorial. This would impact the axial sightline toward Arlington House and introduce a new vertical focal element into the horizon. While the wider panorama toward the Watergate Steps, Parkway Drive, and Arlington Memorial Bridge would remain mostly open, the presence of the Arch's statuary within the central field of view could potentially impact the clarity and emphasis of the historic westward alignment. This could result in effects meeting the criteria of 36 CFR 800.5(a)(1).

3.4. Cultural Resources – Cultural Landscapes and Historic Districts

3.4.1. Affected Environment (Current and Expected Future Condition of Cultural Landscapes and Historic Districts if No Action is Taken)

Cultural landscapes previously identified and inventoried by the NPS within the Area of Potential Effect (APE) include the George Washington Memorial Parkway, the Memorial Avenue Corridor, Lady Bird Johnson Park, the Lincoln Memorial, Arlington National Cemetery, and Arlington House: the Robert E. Lee Memorial. Brief descriptions of the general boundaries, background, and significance of each cultural landscape are provided in the following sections. For complete description of these landscapes and historic districts, please refer to these References.

Cultural Landscape Inventories (CLIs)
Arlington House, Robert E. Lee Memorial (NPS, 2024a)
George Washington Memorial Parkway (NPS, 2009)
Lady Bird Johnson Park, George Washingon Memorial Parkway (NPS, 2010)
Lincoln Memorial, National Mall and Memorial Parks (NPS, 2022a)
Lyndon Bains Johnson Memorial Grove on the Potomac, George Washingon Memorial Parkway (NPS, 2022b)
Memorial Avenue Corridor, George Washingon Memorial Parkway (NPS, 2024b)
Mount Vernon Memorial Highway – North of Alexandria (NPS, 2022c)
The National Mall, National Mall and Memorial Parks (NPS, 2018b)

Cultural Landscape Reports (CLRs)
Arlington House (NPS, 2025)
Memorial Avenue Corridor, George Washington Memorial Parkway (NPS, 2024c)
Mount Vernon Memorial Highway, Volume 1: History (NPS, 1992)

National Register of Historic Places Nomination
Arlington National Cemetery (NPS, 2014)

George Washington Memorial Parkway Cultural Landscape and Historic District

The George Washington Memorial Parkway is a national parkway of over 7,000 acres traversed by a planned roadway system and associated plantings that extend 38.3 miles along the Potomac River through the District of Columbia, Virginia, and Maryland. Initially conceived as a memorial to George Washington, in 1930, through the Capper-Cramton Act, Congress legislated the George Washington Memorial Parkway to include the original Mount Vernon Memorial Highway as well as additional lands along both sides of the Potomac River. The Parkway serves as a grand entryway to the nation's capital and preserves the Potomac River and its watersheds. The Parkway comprises 27 sites replete with natural and cultural resources. These sites, while each possessing a distinct history and individual merits, are united by the Parkway and together represent broad themes in the nation's history. The Parkway is a major historic circulation structure with associated designed views and vistas of significant natural scenery and historical iconic features that traverses the project area northwest to southeast (NPS, 2009). It is also a major cultural resource and transportation feature of the project area. The Parkway is listed in the Virginia Landmarks Register and in the National Register of Historic Places (National Register) (DHR, 2024).

Memorial Avenue Corridor Cultural Landscape

The project area includes a portion of the Memorial Avenue Corridor, which is a mile-long axial landscape that includes Arlington Memorial Bridge, Memorial Circle, Memorial Avenue Bridge, Memorial Avenue, and the entrance to Arlington National Cemetery. Conceived as a grand entryway to Arlington National Cemetery, it is a major element of the system of public buildings, parks, memorials, bridges, and drives that constitutes the monumental core of Washington, D.C. Memorial Avenue was conceived as an "Avenue of Heroes," a theme reinforced by the addition of seven memorials since 1960. The avenue's formal character is defined by its holly hedge and mature white oaks, which frame views and emphasize the processional route. The Arlington National Cemetery visitor services building constructed in 1988, along with below-grade Highway 110 and Metro infrastructure, introduced modern elements into the historic corridor (NPS, 2024b). Contributing circulation features include Memorial Circle, the pedestrian system on the two bridges and avenue, and the pedestrian walks around Memorial Circle. Contributing small-scale features include the granite curbstones and the triangular "islands" of granite blocks at the east and west ends of Memorial Circle as well as the Washington standard globe light posts. Details regarding contributing views and vistas can be found in the "Historic Views" section of this document (NPS, 2016).

Lady Bird Johnson Park Cultural Landscape

Memorial Circle sits within Lady Bird Johnson Park, which is a 157-acre island located within the District of Columbia, along the Virginia shore of the Potomac River. The landscape's physical form was shaped by large-scale alterations to the Potomac River shoreline. Both termini of Arlington Memorial Bridge rest on land created from dredged river material, forming East and West Potomac Parks on the east side and Columbia Island (renamed Lady Bird Johnson Park in

1967) on the west side. It is a unique landscape within the wider, nationally significant areas of the Mount Vernon Memorial Highway and the George Washington Memorial Parkway. In the 1960s, as part of the Johnson Administration's Beautification Program, landscape architect Edward D. Stone, Jr. designed a planting plan for the island. At Memorial Circle, Stone's plan included stands of white pine trees to flank the Memorial Avenue pylons, drifts of daffodil beds and flowering dogwoods, and other native trees planted around the open grassy circle. Other groupings of native trees frame and define views for motorist and pedestrians, along the shoreline and mainline roadways. Contributing circulation features of the Lady Bird Johnson Park cultural landscape include Memorial Circle and the George Washington Memorial Parkway. Circulation patterns for vehicles and pedestrians in the park have changed over time. The Mount Vernon Trail, once planned as a bridle path, now serves walkers and bikers, which runs along a broad, grassy verge between the parkway and the river. Details regarding contributing views and vistas can be found in the "Historic Views" section of this document (NPS, 2010).

Lincoln Memorial Cultural Landscape

The Lincoln Memorial cultural landscape forms the western end of the National Mall and is one of the most recognizable public spaces in Washington, D.C. The area encompasses approximately 83 acres and includes the Lincoln Memorial, the Reflecting Pool, the John Ericsson Monument, the Watergate Steps, and the surrounding paths, plantings, and views that connect these features into a cohesive whole. These elements create the open, formal setting experienced by millions of visitors each year and reflect major planning efforts that shaped the nation's capital, beginning with the 1791 L'Enfant Plan and later the 1901 McMillan Plan. The landscape reached its defining form between 1914 and 1933, when the Memorial, Reflecting Pool, and tree-lined walks were constructed. It is also nationally important for its role in civil rights history, including Marian Anderson's 1939 concert and the 1963 March on Washington where Dr. Martin Luther King, Jr. delivered his "I Have a Dream" speech. Surrounding areas contribute to this broader setting and meaning. The long views between the Capitol, the Washington Monument, and the Lincoln Memorial are essential to the design of the National Mall, while nearby places such as Constitution Gardens, the Vietnam Veterans Memorial, and West and East Potomac Parks help maintain the contextual landscape, consisting of open parkland character and historic continuity of the landscape (NPS, 2022a).

Overall, the Lincoln Memorial cultural landscape retains essential integrity of setting and a high degree of integrity of location, design, workmanship, feeling, and association. Its major features, including the Memorial structure, Reflecting Pool, formal layout, and long-established views, remain intact and continue to reflect the historic design. Some changes have occurred over time, including the loss or aging of certain trees and the introduction of modern roads and other non-historic elements that slightly affect the setting. Despite these changes, the landscape continues to strongly convey its historic character and remains an important national space for reflection, recreation, commemoration, and civic expression (NPS, 2022a). The axial view between Arlington House and Lincoln Memorial is a significant contributing feature of this Cultural Landscape. Details regarding contributing views and vistas can be found in the "Historic Views" section of this document.

Arlington National Cemetery Historic District.

Arlington National Cemetery was established as a military cemetery during the Civil War in 1864 on 200 acres of the Arlington estate. Due to its strategic position overlooking Washington D.C., the US Army seized possession of the Arlington estate during the Civil War and established three forts on the property during this period. While burials on the cemetery grounds predate the establishment of Arlington National Cemetery, the first military burial was conducted in 1864. Today, it is listed in the National Register as a historic district due to its significance as the country's premier national cemetery, as the final resting place of military veterans from each of America's wars, from the Revolutionary War to modern conflicts, and as a testament to those who have played a role in United States history. The 1901 McMillan Plan called for simple, uniform gravestones, leading to the contemporary design of Arlington National Cemetery. Today, the cemetery serves as the final resting place of over 400,000 veterans and their eligible family members, comprises 639 acres, and includes a portion of the project area. The cemetery is administered by the Department of the Army and continues to evoke a sense of reverence and remembrance (NPS, 2014).

Arlington House Cultural Landscape

Arlington House, the Robert E. Lee Memorial and grounds, is the former home of Robert E. Lee, who resided there with his family for 30 years before resigning from the US Army in 1861 on the eve of the Civil War. The site became part of the National Park System in 1933 and was known as the Custis-Lee Mansion, named for both Lee and former resident and owner George Washington Parke Custis, the adopted grandson of George Washington. The house and grounds were formally designated by the federal government on June 29, 1955, to memorialize General Robert E. Lee. Today, situated within Arlington National Cemetery, the property consists of the prominently sited Greek Revival mansion, the north and south slave buildings, a museum dedicated to Robert E. Lee, the flower and kitchen gardens, and a 12-acre mature forest, known as Arlington Woods. The mansion structure is composed of a large two-story central section, flanked by two one-story wings, set upon its highest topographic point and designed and built between the years of 1803-1818 by George Hadfield. The front portico faces east, positioned for the panoramic views of Washington, D.C. The 1901 McMillian Plan purposely aligned the future Lincoln Memorial's western axis with Arlington House. A contributing feature of this Cultural Landscape is the axial view between Arlington House and Lincoln Memorial. Details regarding contributing views and vistas can be found in the "Historic Views" section of this document (NPS 2025).

Historic Bridges: Arlington Memorial Bridge, Boundary Channel Bridge (Memorial Avenue Bridge) and Washington Boulevard Bridge

Arlington Memorial Bridge and the Boundary Channel Bridge are contributing historic structures within the Memorial Avenue Corridor Cultural Landscape (NPS, 2024b), and Washington Boulevard Bridge is a contributing historic structure within the Lady Bird Johnson Park Cultural Landscape (NPS, 2010). All three bridges are contributing historic structures to the broader George Washington Memorial Parkway system. Arlington Memorial Bridge forms the ceremonial eastern anchor of the corridor, reinforcing the formal axial connection between the Lincoln Memorial and Arlington House through its neoclassical architectural features and expansive views that shape the monumental approach to Arlington National Cemetery.

The Boundary Channel Bridge is also a contributing historic resource within the Memorial Avenue Corridor and the George Washington Memorial Parkway (NPS, 20249). It carries Memorial Avenue across Boundary Channel between Columbia Island and the Virginia shoreline and serves as the first bridge encountered when traveling from Arlington Memorial Bridge into the parkway landscape. Built between 1929 and 1932, reflecting early parkway design principles, the bridge maintains its historic character and continues to function as an integral element of the corridor's circulation system and cultural landscape.

Together, these bridges help define the designed processional experience along Memorial Avenue and contribute to the area's historic setting.

Washington Boulevard Bridge, though more utilitarian in character, is likewise a contributing feature that supports the historic circulation network linking Washington Boulevard, Memorial Circle, and the parkway.

Other Contributing Historic Structures and Features to the Cultural Landscapes and Districts

There are other historic structures and features in the study area, many of which are contributing features within the cultural landscapes and districts described above. These features are included in the analysis because of their proximity to the Arch and would all experience similar impacts under the proposed action. Because of the number of features and overlapping nature of these features, the full list is included in Appendix C. The full description of these features, including their historic significance and how they contribute to the cultural landscape or district can be found in the documents listed in the section above.

Ongoing and Planned Actions in the Project Area

The planned and ongoing actions in the project vicinity, described in in Appendix F, have the potential to result in small, temporary impacts to these cultural landscapes through the presence of construction equipment, staging areas, temporary detours, noise, and visual impacts. These effects may influence qualities of setting, feeling, and association for contributing cultural landscapes identified in the administrative record, including the Lincoln Memorial cultural landscape, the Memorial Avenue corridor, and adjoining parkway-related historic districts, by interrupting spatial relationships or altering the visual character of views and vistas during construction. Such effects would be temporary and would not permanently alter character defining features as documented in existing cultural landscape descriptions. Overlapping construction periods across multiple infrastructure and memorial projects may also create short-term changes in how these landscapes are experienced, particularly where projects introduce cranes, barges, lane closures, temporary fencing, or adjustments to pedestrian and bicycle circulation.

3.4.2. Effects on Cultural Resources – Cultural Landscapes and Historic Districts

3.4.2.1. *Effects of the No Action Alternative, Cultural Resources – Cultural Landscapes and Historic Districts*

Under Alternative A, a Triumphal Arch would not be constructed in Memorial Circle. Consequently, the condition of the cultural landscapes and historic districts would remain unchanged from that described in the "Affected Environment: Current and Expected Future Condition of the Environment if No Action is Taken" section.

3.4.2.2. *Effects of the Proposed Action Cultural Resources – Cultural Landscapes and Historic Districts*

Short-term Effects on Cultural Landscapes and Historic Districts from Construction of the Arch and Utility Installation

Short-term construction impacts would occur across the cultural landscapes and historic districts surrounding Memorial Circle during installation of the Arch and associated utilities. Construction activities such as trenching, limited vegetation removal, equipment operation, and temporary staging would introduce noticeable but temporary changes to the appearance and continuity of these landscapes.

Construction fencing, equipment staging on or adjacent to roadway and bridge features, lane closures, and exposed work areas would introduce visible intrusions into otherwise open and formally organized views. If utilities are embedded within the roadway or sidewalks, the work would require cutting pavement or removing sections of sidewalk, resulting in short-term visual discontinuity and noticeable ground disturbance. These effects would persist only for the duration of construction activities, after which disturbed surfaces would be restored to maintain- the continuity of the cultural landscape.

During construction, the presence of cranes, fencing, lane closures, and construction equipment and vehicles would create short-term visual intrusions and localized noise and dust that could impact the clarity of views along Memorial Avenue, within Memorial Circle, and toward the Lincoln Memorial and Potomac River corridor. Installation of utilities near Arlington National Cemetery would introduce localized visual intrusions and noise to the historic district. These effects would be limited to the project's construction footprint and would not permanently alter the organization or defining characteristics of the surrounding cultural landscapes. The long-term impacts of the Arch are disclosed below.

Long-Term Effects on Cultural Landscapes and Historic Districts

George Washington Memorial Parkway Cultural Landscape

The George Washington Memorial Parkway emphasizes horizontally oriented views, natural scenery, and modestly scaled built features that support an experience focused on the Potomac River corridor (NPS, 2009). The Arch would become a dominant visual element along a route designed to highlight natural features and subtle architectural forms.

At the same time, installing an Arch at Memorial Circle would provide a beneficial effect by strengthening the Parkway's symbolic role as a principal gateway into the capital region. Although the early McMillan era planning did not include Memorial Circle, the later design of the Circle as a key rotational node within the Parkway system created a location where a distinctive architectural element would function as a point of orientation and arrival. In this sense, the Arch would reinforce the Parkway's gateway function by offering a clearly legible feature marking a major landscape transition.

Memorial Avenue Corridor Cultural Landscape

The Memorial Avenue Corridor is defined by its formal axial organization, symmetrical plantings, and a clear visual relationship between Arlington National Cemetery and the

monumental core (NPS, 2024b). The addition of the Arch at Memorial Circle would alter this organization by introducing a visually dominant vertical element into an area historically defined by open space and low structural forms. The Arch would reshape the axial view from Memorial Avenue toward the Lincoln Memorial and change how visitors experience the processional movement between the cemetery, Potomac River and Arlington Memorial Bridge.

Image 12. View from the Parkway Dr. NW toward Arlington Memorial Bridge and Memorial Circle without the proposed Triumphal Arch. ©Harrison Design

Image 13. View from the Parkway Dr. NW toward Arlington Memorial Bridge and Memorial Circle with the proposed Triumphal Arch. ©Harrison Design

Minor modifications to roadway edges and adjustments to circulation features around Memorial Circle would affect only limited portions of the historic circulation system. Because these elements help define the roadway and contribute to the spatial organization of the cultural landscape, even small changes would subtly alter how these features appear and function. However, the number of alterations would be minimal, and the proposed changes would be similar to existing materials and profiles, leaving the overall historic character of Memorial Circle's roadway network would remain largely unchanged.

Beneficial effects would also occur. Memorial Circle was not part of the McMillan Plan but instead developed later as an intentional landscape and transportation feature (NPS, 2024b). Within this later design framework, the Circle functions as a major organizational node, and the introduction of a contemporary architectural element would enhance the legibility of this transition point. By marking the threshold between the cemetery, the bridge, and the broader monumental area, the Arch and elevated viewpoint from the observation deck would strengthen visitor orientation and highlight the corridor's role as an important connective route.

Lady Bird Johnson Park Cultural Landscape

Lady Bird Johnson Park is defined by open lawns, tree groupings, and naturalistic plantings intended to create a soft-edged river landscape that contrasts with the more formally ordered monumental core (NPS, 2010). The Arch would introduce a strong vertical focal point at the northern end of the island and alter the visual balance between the Circle's circulation features and the surrounding parkland. The structure would impact views from the Mount Vernon Trail, the Parkway, and shoreline areas, possibly reducing the prominence of Edward D. Stone Jr.'s mid twentieth century planting design.

Positively, because Memorial Circle functions as the primary organizing feature at the park's northern tip, the presence of a new architectural element would enhance spatial definition and visitor orientation within the island landscape. A strong architectural expression could help articulate the transition between the natural park setting and the ordered monumental landscape across the river.

Lincoln Memorial Cultural Landscape

The installation of the Arch in Memorial Circle could impact cross-river views from the Lincoln Memorial toward Arlington House (NPS, 2022a), altering the clarity of significant axial relationship. The Arch would be visible as a large vertical form within the middle ground of these views, likely changing the existing visual between the Lincoln Memorial, the Reflecting Pool, and the distant ridge on which Arlington House is sited.

Beneficially, the addition of an architectural structure at Memorial Circle would reinforce the perception of the cross-river landscape as an interconnected system shaped by successive planning periods. Although the Circle itself was not part of the McMillan Plan, the later establishment of the Circle introduced a defined geometric node along the alignment. A new architectural feature would help mark this node and may strengthen the overall legibility of the east–west relationship across the Potomac River, providing a contemporary acknowledgment of this historic alignment without claiming origins in the earlier planning era.

Arlington National Cemetery Historic District

Views from Arlington National Cemetery toward the Potomac River and the monumental core are an important aspect of the cemetery's historic character (NPS, 2014). The Arch would create a middle-ground element that alters the view of the existing focal points such as the Lincoln Memorial and the river corridor. This change would alter the visual experience of the cemetery's entrance sequence.

The addition of an architectural structure at Memorial Circle would produce beneficial effects by emphasizing the visual and spatial connection between the cemetery and the broader cityscape. Because the Circle was designed after the McMillan Plan as a major landscape feature linking the bridge to the highway system, an architectural element would enhance the sense of arrival and reinforce the cemetery's relationship to the regional landscape framework established during the Circle's own planning period.

Arlington House Cultural Landscape

The installation of the Arch at Memorial Circle would modify one of the most important designed views associated with the Arlington House Cultural Landscape: the axial relationship intentionally established between the Arlington House portico and the Lincoln Memorial as part of the 1901 McMillan Plan. From the elevated terrace of Arlington House, the Arch would appear as a new, prominent vertical element within the middle ground of this eastward panorama.

At the same time, the introduction of an architectural structure at Memorial Circle would also reinforce the understanding of the cross-river ceremonial landscape as a continuum shaped by successive planning periods. While the Circle was added after the McMillan Plan, its geometric configuration contributes to the region's broader planning framework. In this sense, the Arch would subtly enhance the legibility of the east–west landscape relationship that has structured the setting of Arlington House for more than a century.

Historic Bridges: Arlington Memorial Bridge, Boundary Channel Bridge (Memorial Avenue Bridge) and Washington Boulevard Bridge

The proposed installation of utilities on the three contributing bridges within the Memorial Avenue Corridor and Lady Bird Johnson Park cultural landscapes, Arlington Memorial Bridge and Boundary Channel Bridge, and Washington Boulevard Bridge, would introduce contemporary infrastructure onto historic structures designed to maintain a cohesive parkway character. For all three bridges, impacts would depend on the installation method. Utilities embedded beneath the roadway or sidewalk and restored in kind would result in small, long-term impacts because the bridges' appearance and function would remain consistent with existing conditions. In contrast, externally mounted utilities would introduce visible modern features onto bridges defined by simple forms, restrained detailing, and a unified corridor setting. Even with measures such as color matching or conduit enclosures, these additions would remain noticeable and incrementally increase visual clutter.

Past utility installations on these bridges mean that adding new lines would not represent a new type of change; however, additional exterior features could impact the simplicity of their historic profiles. Despite this incremental visual effect, utility installations, whether on one or all of the bridges, would not alter the character-defining features that convey their historic significance.

Their integrity of design, materials, workmanship, and setting would remain intact, and the bridges would continue to contribute to the cultural landscapes. If utilities are installed via HDD under the bridges, impacts to the bridges would be avoided completely.

Other Contributing Historic Structures and Features to the Cultural Landscapes and Districts

While the proposed action would not physically affect the contributing features within the cultural landscape, its prominence could meaningfully impact the design, setting, feeling, and association that give these resources their cohesive significance. The contributing features within these cultural landscapes, though individually modest in stature and function, derive much of their interpretive and historical value from their relationship to one another and to the broader landscape in which they are situated.

For these reasons, the analysis appropriately considers contextual effects to the contributing features, even where no physical impact is anticipated. This approach reflects recognition that the integrity of a cultural landscape depends not only on the condition of its individual elements but also on the preservation of the spatial, visual, and experiential relationships among them.

3.5. Cultural Resources – Archeology

3.5.1. Methods and Assumptions Cultural Resources – Archeology

Potential impacts to archeological resources were assessed based on a review of the recent Phase IA archeological overview prepared by Langan Engineering and Environmental Services, LLC (2026a) and a search of archeological resources documented in the NPS Cultural Resources Inventory System and the Virginia Cultural Resource Information System databases. The conceptual plans for the Arch design and construction were reviewed to determine which areas within the Area of Potential Effect may be impacted by ground-disturbing activities. These areas were cross-referenced with archeological site documentation to assess the potential of the Proposed Action to affect archeological resources.

3.5.2. Affected Environment (Current and expected future condition of Archeology if no action is taken)

There are thirteen archeological resources within a one-mile radius of Memorial Circle. However, only one archeological site is within the projected limits of disturbance. Site 44FX0028 consists of the buried remains of the Alexandria Canal, which operated from 1843 to 1886. The site measures approximately 7 miles long and the majority of the canal is either destroyed or lying beneath modern development (Dovetail Cultural Resource Group 2016). There are no other documented archeological resources within the project area.

Ground disturbing activities would be primarily concentrated on Memorial Circle, which is located on approximately 14 feet of fill, according to historic mapping and preliminary geotechnical borings conducted in May 2026. Between 1915 and 1927, the U.S. Army Corps of Engineers dredged this fill from the Potomac River bottom and deposited it to create present-day Lady Bird Johnson Park. The fill sits atop an earlier landscape of alluvial deposits of sandy clay, likely laid down on sandbars or shallow tidal flats/floodplains during the late precolonial period or early historic period. The landscape was further altered in the 1920s and 1930s by the

construction of Arlington Memorial Bridge and Memorial Avenue, and in 1940 by the installation of Memorial Circle. Because the vast majority of Lady Bird Johnson Park has been altered by substantial amounts of fill and construction, it is unlikely that archeological resources exist within Memorial Circle above depths of 14 feet. However, the buried landscape has the potential to contain intact precolonial and/or historic archeological resources (Langan Engineering and Environmental 2026a).

3.5.3. Environmental Effects Cultural Resources – Cultural Resources – Archeology

3.5.3.1. *Effects of the No Action Alternative – Cultural Resources – Archeology*

Under Alternative A, a Triumphal Arch would not be constructed in Memorial Circle along the Parkway. Consequently, the condition of the Parkway's archeology would remain unchanged from that described in the "Affected Environment: Current and Expected Future Condition of the Environment if No Action is Taken" section.

3.5.3.2. *Effects of the Proposed Action – Cultural Resources – Archeology*

The Proposed Action entails construction of the Arch along with associated landscaping, site grading, stormwater management features and utility installation. Permanent ground disturbances are anticipated for the construction of footers, foundations, landscape elements, utilities, and stormwater management features while temporary ground disturbances are anticipated for the temporary staging / laydown area. New potable water, sanitary sewer, electric, and telecommunications utilities would be extended to the Memorial Circle area from various utility corridors. There is potential for unknown archeological resources to be disturbed during utility installation along all potential utility routes. The utility lines have the potential to intersect with Site 44AX0028 (Alexandria Canal), which crosses Memorial Avenue. A Phase IB survey south of Memorial Avenue noted that much of the canal has been destroyed by development, with only a small, preserved section remaining (Dovetail Cultural Resource Group 2016). However, the section of the canal within the APE has not been investigated so it is not known if there are intact portions of the site. Furthermore, construction within Memorial Circle could disturb archeological resources if they exist below the 14-ft fill cap. However, these impacts would be mitigated by the development of an archeological work plan in consultation with the relevant State Historic Preservation Officers and completion of a Phase IB subsurface archeological investigation inclusive of geoarchaeological analysis to determine the presence/absence of previously unrecorded significant archaeological resources within the project area of disturbance. Archeological monitoring during construction may be required in certain locations where utilities are installed.

3.6. Water Resources

3.6.1. Methods and Assumptions Water Resources

The study area for water resources includes all surface waters and groundwater potentially affected by construction of the arch within the project area where direct effects would be experienced, as well as adjacent areas within 500-feet to address the potential for indirect effects to water quality. The District of Columbia does not participate in the National Coastal Zone Management Program and does not have a coastal zone management plan (NOAA 2026).

3.6.2. Affected Environment (Current and expected future condition of Water Resources if no action is taken)

3.6.2.1. *Groundwater*

Groundwater beneath Memorial Circle is shallow, perched, and strongly influenced by the Potomac River, with generally low-yield, low-permeability soils and frequent seasonal saturation. The area is not known to contain significant aquifers; instead, groundwater occurs in thin, discontinuous layers within alluvial and fill materials. Based on geotechnical investigations conducted in 2026, the groundwater table beneath Memorial Circle is estimated to be approximately 15 feet below the ground surface (Langan Engineering and Environmental 2026b). During major storm events, groundwater levels are expected to rise to shallower depths. The area is prone to temporary groundwater mounding due to impermeable pavement, stormwater infiltration from adjacent slopes, and backwater effects from the Potomac River. These processes maintain natural infiltration, moderate soil moisture, and reduce stormwater runoff volumes. The groundwater connection with the Potomac River would continue to fluctuate in response to rainfall and river stage, with no new adverse impacts expected.

The ongoing and planned actions in Appendix F may result in localized, temporary groundwater disturbance where excavation or foundation work requires dewatering, but these effects would remain tied to the individual project sites and would not influence groundwater conditions at Memorial Circle. Because groundwater in the area generally occurs at approximately 15 feet, construction activities beyond the immediate Memorial Circle footprint, such as bridge rehabilitations, trail work, or roadway improvements, are unlikely to interact with groundwater in a way that affects the Circle's subsurface conditions.

Any dewatering or subsurface construction conducted for those projects would follow standard geotechnical and water management practices and would occur in accordance with both District and federal regulations. No long-term changes to groundwater flow or availability at Memorial Circle are anticipated once construction is complete.

3.6.2.2. *Surface Water*

Surface water at Memorial Circle is dominated by Potomac River influence, tidal backwater, and engineered stormwater drainage, with no natural surface-water bodies present, and all movement controlled by rainfall runoff, roadway drainage, and tidal fluctuations of the adjacent Potomac River. The Memorial Circle is a fully engineered landscape including paved roadways, curbs, grassy medians, and drainage inlets. Rainfall does not form natural surface water bodies but instead runs off pavement into storm drains, moves toward the Potomac River via engineered conveyances, and collects temporarily in low spots during intense storms. Surface water would be absorbed by the central lawn and conveyed through the existing storm drainage system. Evaporation and transpiration would continue to reduce runoff and moderate localized temperatures.

The project site lies outside of the delineated 100- and 500-year floodplain, so no additional compliance would be needed for project activities, beyond employing additional consideration to stormwater management related to the increased area of impervious surface.

The ongoing and planned actions in Appendix F may create construction related increases in runoff and sediment in the broader area, especially where bridge, roadway, or trail work occurs near drainage pathways. Across all phases of this project, standard stormwater BMPs would limit these temporary effects, and no long-term changes to surface water behavior at Memorial Circle are anticipated once construction has concluded.

3.6.3. Environmental Effects – Water Resources

3.6.3.1. *Effects of the No Action Alternative – Water Resources*

Under Alternative A, the Arch would not be constructed in Memorial Circle. Consequently, the condition of the Parkway's water resources would remain unchanged from that described in the "Affected Environment: Current and Expected Future Condition of the Environment if No Action is Taken" section.

3.6.3.2. *Effects of the Proposed Action – Water Resources*

Groundwater

Under the Proposed Action, replacing the central lawn with an impermeable surface would sharply reduce groundwater recharge within Memorial Circle. This would create long-term adverse impacts by lowering the shallow water table in some areas due to loss of local infiltration. However, in other areas groundwater may rise if it becomes trapped beneath the new pavement. Because the soils contain clay lenses and discontinuous fill layers, perched groundwater could become pressurized, leading to short-term and long-term adverse impacts such as sub pavement mounding, pavement heave, soft subgrade conditions, and frost related damage. These effects are common in low lying Potomac terrace soils and would require ongoing monitoring and maintenance and potentially pressure-reducing drive points.

Although the reduction in infiltration decreases groundwater recharge, it may also reduce localized soil saturation and surface seepage, representing a long-term beneficial impact in areas currently prone to wetness. However, this benefit is outweighed by the broader adverse hydrologic changes associated with isolating groundwater beneath an impermeable surface.

Under predicted future hydroclimatic conditions, elevated river stage from high flows resulting from intense precipitation events upstream may result in elevated water levels and/or pore pressures which may cause stress on the structure or other impervious ground cover. Additionally, salinity changes in the river due to upstream encroachment of brackish water may increase the salinity of groundwater under the monument, potentially creating more unfavorable conditions to the integrity of the concrete piles.

Surface Water

Under the Proposed Action, surface water runoff would increase substantially because the new impermeable surface would prevent infiltration and evapotranspiration. This would create long-term increases of runoff volumes, velocities, and peak flows. Storm drains would need to handle all rainfall, not just roadway runoff, turning the circle into a system that quickly directs water to the Potomac River or stormwater inlets. These conditions increase the risk of flash flooding, erosion at outfalls, roadway ponding, and sediment transport into the Potomac River.

The proximity to the Potomac River also introduces possible long-term adverse impacts related to tidal backwater. High river stages, storm surges, and high tides could slow drainage or push water back into the circle's stormwater system, increasing the likelihood of backwater flooding. Loss of evapotranspiration and vegetated cover would contribute to higher surface temperatures and more intense runoff during storms. A bioretention system would offset the increased impervious surfaces and manage stormwater on-site instead of draining directly into the existing drainage inlets.

In the short term, construction activities would generate temporary adverse impacts such as soil disturbance, altered drainage patterns, and increased sediment potential. These impacts would be mitigated through erosion and sediment controls and would cease once construction is complete.

3.7. Traffic and Circulation

3.7.1. Methods and Assumptions Traffic and Circulation

The transportation analysis relies on multiple complementary datasets describing traffic demand, multimodal activity, and roadway operating conditions. Key data inputs include:

- 2018 traffic volumes proportionally adjusted using January 2024 counts and 2030 projections from the Lincoln Memorial Circle Traffic Study.
- Saturday midday traffic volumes derived from continuous counters along the George Washington Memorial Parkway (NPS GEOCOUNTS).
- Pedestrian and bicycle activity estimates developed using Strava Metro data corroborated with Arlington County EcoCounter stations on the Arlington Memorial Bridge.
- A stopping sight distance analysis at four locations around Memorial Circle identifying average circulating speeds of ~18–25 mph (recorded 2021-2022), establishing design controls necessary for ≥200 ft stopping sight distance (SSD).

These datasets were integrated to create a representative forecast of how vehicles, pedestrians, and bicyclists interact at Memorial Circle. The traffic volumes informed modeling of intersection delay, queuing, and Level of Service; pedestrian and bicycle estimates clarified expected demand at crosswalks; and speed data shaped assumptions about vehicle approach behavior, sight distance requirements, and pedestrian exposure risk. Collectively, this information formed the analytical basis for evaluating how new crosswalks and pedestrian signal phases would function under varying conditions. (Volpe, 2026) The full Volpe report is included in Appendix B.

3.7.2. Affected Environment (Current and expected future conditions of Traffic and Circulation if no action is taken)

Because of its location at the gateway to Washington, D.C., and its role as a connection between Virginia and the District, the project area serves as a key commuter corridor for both motorists and cyclists. Roadways in Memorial Circle's immediate vicinity experience consistently high traffic demand and serve as a major convergence of regional roadways and travel modes that interact through a complex series of merges, weaves, and intersections. The heavy use of the project area results in ongoing safety concerns, particularly at multiple bicyclist and pedestrian crosswalks and at locations where roadway movements require close interaction among different users.

Visitation to Memorial Circle

During the peak visitation months in spring, approximately 700 pedestrians and 700 bicyclists travel around Memorial Circle each day, totaling roughly 1,400 daily walk and bicycle trips. (Volpe, 2026) Most of these existing users are engaged in exercise, recreation, or commuting, and tend to travel during peak commuting periods, when temperatures are cooler and conditions are more favorable for outdoor activity.

Nearby visitation patterns also influence the area: Arlington National Cemetery receives an average of 4 million visitors per year, or about 16,000 daily visitors during peak season, many of whom visit in the late morning through early afternoon and on weekends or holidays. Transit use at the Arlington Cemetery Metrorail Station remains relatively low compared to regional stations, with about 1,000 daily riders in 2025 and occasional sharp increases on nationally significant days such as Inauguration Day, Memorial Day, and Independence Day. During the peak season, average daily station entries increase to approximately 1,500 riders. Together, these patterns indicate that the Memorial Circle currently supports steady levels of commuter walking and biking activity, overlaid with variable visitor peaks associated with Arlington National Cemetery and special event visitation. (Volpe, 2026).

Pedestrian and Bicycle Circulation

Memorial Circle is a key connection point for cyclists and pedestrians traveling both recreationally and for commuting. Many pedestrians walk around Memorial Circle from the Arlington National Cemetery parking lot and the Arlington Metrorail station. Additionally, the Mount Vernon Trail passes under and around the roadways near the Circle, bringing trail users directly into the area. Cyclists and pedestrians must navigate narrow, high-volume crossings near bridge approaches, which creates safety challenges. There are no pedestrian crosswalks to the central circle.

Ongoing and planned projects in the vicinity (see Appendix F) are expected to result in temporary changes to trail connections, bridge access points, and crossing locations in areas outside the immediate project area. Although none of these construction activities would fully restrict access to Memorial Circle, they may reduce ease of movement, require longer or less direct routes, and influence wayfinding until project phases are completed and standard circulation patterns are restored.

Daily use of Arlington Memorial Bridge by nonmotorized travelers is high, with approximately 1,100 bicyclists and 1,200 pedestrians crossing each day, mostly during peak travel periods (6–10 a.m. and 3–7 p.m.). (KLS Engineering 2022: Table 2). Pedestrian and bicycle activity show substantial variation by location. At the busiest street crossings, peak volumes reached 93 crossings per hour in the morning (7–8 a.m.), up to 136 per hour in the evening (5–6 p.m.), and up to 1,194 crossings per day. At lower volume locations, peak activity reached 62 crossings per hour in the morning (8–9 a.m.), up to 98 per hour in the evening (6–7 p.m.), and up to 729 crossings per day. (KLS Engineering 2022: Table 2).

Vehicle Circulation

Traffic operations at Memorial Circle currently experience periods of heavy demand, particularly during weekday morning and afternoon commuter peaks when inbound traffic toward

Washington, D.C. is at its highest. Existing vehicle circulation relies on a combination of yield and merge movements, which contribute to driver confusion, friction at pedestrian crossing points, and intermittent delays and queuing. Drivers experience constrained flow during busy periods, with some approaches—such as the high volume northbound right turn from Washington Boulevard onto Arlington Memorial Bridge—regularly exhibiting operational strain. Overall, present operations range from generally smooth flow on some movements to capacity approaching conditions on others during peak travel times.

Following a series of safety improvements completed in December 2020, the NPS conducted postconstruction traffic monitoring in May 2022. Data from the Washington Boulevard side, the busier segment of the Circle, showed more than 27,000 vehicles per day, with peak hourly volumes reaching 2,402 vehicles in the morning (8:30–9:30 a.m.) and 2,017 vehicles in the afternoon (3–4 p.m.). (KLS Engineering 2022: Table 1). Traffic on the west side of the Circle was lower but still significant, with 3,886 vehicles per day and peak hourly volumes of 263 vehicles in the morning (9:15–10:15 a.m.) and 371 vehicles in the afternoon (3:30–4:30 p.m.). (KLS Engineering 2022: Table 1).

Traffic in the Memorial Circle area is projected to remain high under future peak-hour conditions. According to the Volpe 2026 report, major approaches, including Washington Boulevard, Arlington Memorial Bridge (inbound and outbound), and Arlington Boulevard, are all expected to carry substantial traffic loads, with the Washington Boulevard approach continuing to serve as one of the highest volume entry points to the Circle. These 2030 projections confirm that Memorial Circle would continue to function as a heavily traveled multimodal gateway, with vehicle volumes expected to grow through the end of the decade. See Appendix B.

Ongoing and planned transportation, monument and infrastructure projects outlined in Appendix F would introduce temporary but noticeable changes to traffic circulation within Memorial Circle in the future. As multiple projects progress concurrently, including bridge rehabilitations, trail upgrades, seawall replacement, roadway work, and multimodal improvements, visitors approaching from both Arlington National Cemetery and the National Mall may encounter detours, temporary closures, lane shifts, and construction staging that alter familiar travel routes. Because the Circle already accommodates complex merges, weaves, and high levels of multimodal activity, these overlapping construction efforts could intensify congestion, redirect vehicles into fewer available approach routes, and reduce the predictability of travel for all road users. Such conditions may result in increased queuing, intermittent delays, and less consistent traffic flow, particularly along key approaches such as Arlington Memorial Bridge and Boundary Channel Drive.

There are currently designated parking areas for personal vehicles at Arlington National Cemetery, along with established drop-off locations for motorcoaches and buses. While personal vehicle parking is generally not at capacity, bus and motorcoach parking often operates at or near capacity.

3.7.3. Environmental Effects – Traffic and Circulation

3.7.3.1. *Effects of the No Action Alternative – Traffic and Circulation*

Under Alternative A, a Triumphal Arch would not be constructed in Memorial Circle. Consequently, the traffic and circulation conditions would remain unchanged from that described in the "Affected Environment: Current and Expected Future Condition of the Environment if No Action is Taken" section.

3.7.3.2. *Effects of the Proposed Action – Traffic and Circulation*

Effects of the Proposed Action on Visitation to Memorial Circle

Visitation to Memorial Circle would increase substantially above current conditions. Visitation projections, based on comparable National Mall and Memorial Parks sites and the proximity of Arlington National Cemetery, indicate that peak season daily visitation could range from approximately 2,000 visitors per day under a low scenario to more than 22,000 visitors per day under a high scenario (Volpe, 2026). This represents a 40 to 1,500 percent increase over existing conditions, depending on the season. Consistent with trends observed at newly opened memorials, visitation is expected to be highest in the initial years following opening before stabilizing at lower long-term levels. Regardless of arrival mode, most visitors would walk into the center of the Circle to experience the Arch (Volpe, 2026). The Arch itself can accommodate approximately 450 people, although the number of people admitted each hour would be determined by operational considerations.

Bicycle and Pedestrian Circulation

Short-Term Construction Effects on Bicycle and Pedestrian Circulation

During the two to three years of construction of the Arch, cyclists and pedestrians would encounter detours that could require longer travel distances. For roughly 80 percent of this period, users coming from the south side of the Circle would be rerouted to the north side of the Circle, resulting in increased travel time and less direct access to the Mount Vernon Trail and other destinations such as the Metrorail station or Arlington National Cemetery. In addition, utility installation from the various potential utility corridors would also disrupt cyclists and pedestrians, especially if utilities are routed under roadways or sidewalks. Although the detours would be ADA accessible, they may still result in navigational challenges, which would be partially mitigated with clear signage and wayfinding during construction.

Visitors walking through the area would also experience closer proximity to construction activity, including equipment, noise, and temporary barriers. In addition, overlapping construction zones associated with regional infrastructure projects could extend walking distances or compress foot traffic into fewer open corridors, intensifying crowding and increasing variability in travel times. Concurrent trail and bridge improvement projects in the region could further constrain cyclist movement and increase congestion in key approach areas, leading to more frequent interruptions to travel flow than the Arch project would create on its own.

At the conclusion of construction, all temporary closures would be removed, and pedestrian, bicycle, and overall circulation patterns would return to the conditions described in the section above. In addition, any effects associated with other ongoing regional projects would diminish as those projects conclude, restoring more predictable movement and fewer disruptions over time.

Long-Term Effects of the Proposed Action on Bicycle and Pedestrian Circulation

Once the proposed traffic and circulation changes have been implemented, the proposed action would produce substantial long-term safety and circulation benefits for pedestrians and bicyclists by installing eight fully signalized crosswalks with pedestrian actuation/detection, removing inconsistent yield and merge controls, and enlarging median islands to create refuge and reduce total exposure distance. These improvements would substantially reduce pedestrian–vehicle conflict potential, provide intuitive and clear routing to the center of Memorial Circle, and accommodate the large groups expected to visit the Triumphal Arch.

For bicyclists, more predictable pedestrian movements and fully signalized crossings would clarify right-of-way expectations and reduce erratic crossing behavior. Together, these elements would create a lasting and measurable improvement in safety for people walking and biking.

By maintaining a minimum of 200 feet of stopping sight distance, the design would improve drivers' ability to detect pedestrians and bicyclists, which would help reduce sudden braking, increase yield compliance, and enhance overall safety for nonmotorized users.

Design features such as raised crossings, curb extensions, advanced stop bars, and clear wayfinding would further increase the likelihood that drivers would stop for pedestrians and cyclists at designated crossings, reducing conflicts and supporting more orderly movement.

Additional information is included in Appendix B.

Vehicle Circulation

Short-Term Construction Effects on Vehicle Circulation

During Arch construction, lane closures and reconfigurations would temporarily impact several roadways in and around Memorial Circle, including segments of the Memorial Avenue, Arlington Memorial Bridge, the Boundary Channel Bridge, Arlington Boulevard, and Washington Boulevard. This includes, for the majority of construction, reducing westbound traffic from Arlington Memorial Bridge to two lanes, restricting eastbound traffic from Memorial Avenue from turning northbound onto Arlington Boulevard and directing vehicles onto Arlington Memorial Bridge, prohibiting northbound traffic from Washington Boulevard from entering the circle and requiring vehicles to turn right onto Arlington Memorial Bridge, and temporarily rerouting the sidewalk on the south side of the circle to the north side.

During construction, Maintenance of Traffic (MOT) measures would temporarily reconfigure traffic patterns using a suite of lane detours, lane closures, and controlled pedestrian routes used to safely maintain travel conditions during construction. The temporary traffic circulation pattern changes are anticipated to maintain access for the most high-volume traffic movements with limited disruption throughout construction.

In addition to the primary maintenance of traffic plan anticipated to be in place for most of the construction period, shorter-duration traffic impacts are expected during the Maintenance of Traffic (MOT) setup, utility installations, and implementation of the permanent traffic configuration. Overall, these short-term conditions are typical of major civil work and would be mitigated by avoiding peak- hour closures where feasible, signal timing adjustments, and continuous ABBAS compliant pedestrian pathways. Impacts on vehicle circulation would remain localized to the area around Memorial Circle and would be acceptable given the substantial multimodal safety benefits of the final transportation plan.

In addition to the impacts related to construction of the Arch, several other major regional projects (Appendix F), including bridge rehabilitations, trail improvements, roadway preservation efforts, and bridge projects, would contribute additional construction activity, detours, and travel delays. These overlapping activities would create broader disruptions to visitor approach routes, increasing uncertainty and reducing predictability for travelers. The proposed action has been planned with the timing of these projects in mind.

Additional information is included in Appendix B.

Long-Term Effects of the Proposed Action on Vehicle Circulation

Once the proposed traffic and circulation changes have been implemented, approaches to Memorial Circle would be expected to operate under stable flow conditions, generally without signs of congestion or operational instability. Drivers would encounter low to moderate delay during the busiest commuting times, but overall experience predictable movement through the area.

The only notably constrained movement would be the Washington Boulevard northbound right turn onto Arlington Memorial Bridge during the weekday morning peak. Under assumptions of maximum pedestrian signal activation, conditions could approach the upper limit of roadway capacity, resulting in significant delay, reduced maneuverability, and limited ability to recover from disruptions. Vehicles would continue to move, but at slower speeds and under constrained conditions. However, these effects would be offset by the removal of the Arlington Boulevard northbound merge lane, which would reduce confusion and improve driver expectancy, likely limiting the severity of the delays.

Sight distance measures in the proposed action, including maintaining at least 200 feet of stopping sight distance and reducing visual clutter from signal hardware, would help ensure that drivers can clearly see crosswalks, approaching pedestrians, and bicyclists as they enter and navigate Memorial Circle. Maintaining this level of approach visibility means drivers have enough time and space to recognize people in or near the crossing and respond safely, supporting more predictable and secure interactions between vehicles and nonmotorized users.

Together with the planned safety and traffic improvements at the Memorial Bridge and Lincoln Memorial Circle area, and the traffic calming measures described above, the proposed action would create a safer and more connected system for people walking, biking, and driving along the Potomac riverfront. Because the busiest visiting times at the memorials usually do not occur during rush hour, the project is not expected to cause major slowdowns for commuters. After construction, NPS would collect new traffic and speed data and would work with DDOT and other partners to adjust signal timing as needed to keep traffic moving smoothly.

Increased visitation associated with the project is expected to result in higher traffic at the Arlington National Cemetery parking area. While visitor numbers may rise, the existing parking facilities for personal vehicles at Arlington National Cemetery currently operate well below capacity. Based on this existing condition, the additional demand generated by increased visitation is anticipated to be accommodated within the current parking supply for personal vehicles. Therefore, no adverse impacts on personal vehicle parking availability would be expected, and the existing lot is considered sufficient to meet foreseeable visitation needs. At present, overflow parking for these larger vehicles occurs along Memorial Avenue, and this practice would continue under the proposed action. Should visitation patterns shift substantially in the future, additional designated bus or motorcoach parking may be considered to improve circulation and reduce reliance on overflow parking areas.

3.8. Visitor Experience

3.8.1. Affected Environment (Current and Expected Future Condition of Visitor Experience if No Action is Taken)

Memorial Circle functions as a major traffic rotary connecting the Arlington Memorial Bridge, the north–south George Washington Memorial Parkway, Route 50/Arlington Boulevard, and access roads to Arlington National Cemetery.

Most pedestrians and cyclists passing Memorial Circle do so while traveling through the area rather than visiting it as a destination. Visitors do not use the inside turf area of the Circle itself. There are no parking areas or pull-offs directly adjacent to the Circle. Visitors typically reach the Circle in one of three ways: from the Mount Vernon Trail; by parking at Arlington National Cemetery or exiting the adjacent Metrorail station and walking approximately 0.4 miles (a 7–8 minute walk); or by taking the footpath from the Lincoln Memorial across Memorial Bridge, about 0.6 miles (a 10–12 minute walk). The Mount Vernon Trail is the primary way nondrivers experience the area. Information on traffic and more details about access is provided in the Traffic and Circulation section.

Visitor Experience

The current visitor experience at Memorial Circle is primarily that of a transportation corridor, not a destination. People encounter it while traveling to the National Mall, Arlington National Cemetery, or along the George Washington Memorial Parkway. Visitors experience the Circle from a vehicle, often at speed, while navigating complex roadway geometry with attention focused on lane changes, exits, and traffic flow. There is no internal destination, monument, or interpretive feature within the Circle that would draw visitors to this site. The experience is generally brief.

Pedestrians and cyclists using the area experience high traffic noise from the Parkway. The Mount Vernon Trail provides excellent views of the Potomac River and the National Mall. From Memorial Circle in Washington, D.C., you can enjoy a sweeping view eastward across the Arlington Memorial Bridge toward the Lincoln Memorial and parts of the National Mall, including glimpses of the Washington Monument. The Circle also offers views of the ceremonial approach to Arlington National Cemetery along Memorial Avenue and the Arlington hemicycle, as well as nearby parkland, the Potomac River, and the wooded landscape of the George

Washington Memorial Parkway. Depending on your position, you may also see the Netherlands Carillon and the surrounding ridge near the U.S. Marine Corps War Memorial.

The area is difficult to navigate for both pedestrians and cyclists, who must navigate complex crossings where the trail intersects access roads and bridges. There is limited wayfinding for navigating toward the Lincoln Memorial or Arlington National Cemetery, and many visitors report that the area feels confusing to navigate. The area is known for conflict points between cyclists, pedestrians, and vehicles, as the trail alignment near the Circle is narrow and constrained, with limited buffers from traffic.

Other regional planned actions, see Appendix F, may also influence the broader visitor experience at Memorial Circle in the future by increasing exposure to construction related noise, equipment, movement, and visual disruptions. Cyclists would experience irregular travel flow where trail routes are rerouted or temporarily constrained, and drivers may encounter slower speeds and variable traffic patterns associated with construction activity. While such conditions would be temporary and tied to phased project schedules, their overlapping timelines could result in recurring periods where there is new conflict between park users and construction equipment moving through the area and the overall visitor environment feels more congested and less serene than usual. Over the long-term, once construction activities are complete, visitor experience is expected to return to existing conditions, as none of the referenced projects would create permanent changes within Memorial Circle itself.

3.8.2. Environmental Effects – Visitor Experience

3.8.2.1. *Effects of the No Action Alternative – Visitor Experience*

Under Alternative A, the Arch would not be constructed in Memorial Circle. Consequently, the condition of visitor experience and access to Memorial Circle would remain unchanged from that described in the "Affected Environment: Current and Expected Future Condition of the Environment if No Action is Taken" section.

3.8.2.2. *Effects of the Proposed Action – Visitor Experience*

Under the proposed action, the movement-oriented traffic hub would become a hybrid environment where high-volume pedestrian activity intersects with fast-moving vehicle circulation. Consistent with current conditions, most visitors would continue to access Memorial Circle on foot or by bicycle. Visitors would continue to access from the footpath connecting to Arlington National Cemetery and the parking lot and Metrorail station there; from the footpath across the Arlington Memorial Bridge from the Lincoln Memorial; or from Mount Vernon Trail. However, Memorial Circle would be more accessible under the proposed action with the addition of pullouts for vehicles to drop off visitors. Impacts associated with traffic are analyzed under Traffic and Circulation.

<u>Approaching the Destination</u>

Visitors approaching from Arlington National Cemetery or Metrorail station would experience an outstanding and immediate view of the Arch as they begin their walk. Consistent with current conditions, the walk from this direction would involve a long, exposed walk (roughly a half mile) toward the Arlington Memorial Bridge, with heavy traffic noise and limited shade. To reach the Arch, visitors would activate a pedestrian signal and wait for traffic to stop before

crossing multiple lanes of traffic. Improvements in signaling and raised crosswalks would substantially improve safety conditions for pedestrians walking to Memorial Circle compared to current conditions.

Visitors approaching from the National Mall would experience iconic views of the Arch as they cross the Arlington Memorial Bridge. Consistent with current conditions, the walk would cross multiple busy crosswalks from the Lincoln Memorial and a long, exposed walk (roughly over a half mile) over the Arlington Memorial Bridge, with heavy traffic noise and no shade. At the bridge's connection to Memorial Circle, narrow and crowded sidewalk conditions would persist, particularly during busy periods. New directional signage would clarify crossing points and reduce confusion over how to access the site. To reach the center island, visitors would still need to wait for a pedestrian signal and cross several lanes of traffic, similar to the experience of those arriving from Arlington National Cemetery. During peak visitation, increased pedestrian volumes from both directions would contribute to longer waits and greater congestion at crossings. Planned improvements in signaling and installation of raised crosswalks would meaningfully improve pedestrian safety compared to existing conditions.

Because of the potential increase in pedestrians walking to Memorial Circle to visit the Arch, cyclists on the Mount Vernon Trail would experience increased congestion as pedestrian activity increases in the vicinity of the trail. With more pedestrians sharing space with cyclists, conflicts and close encounters could become more frequent. However, planned improvements in signaling and installation of raised crosswalks would substantially improve pedestrian and cyclist safety, compared to existing conditions. Also, with the installation of bicycle racks, the Circle would become more accessible for bicyclists and would provide a safe way for them to leave the Mount Vernon Trail and access Memorial Circle and the Arch.

During peak driving hours, drivers would encounter repeated pedestrian activated stops and thus slower circulation. However, the planned signal changes and roadway modifications to address circulation (see Appendix B), would improve traffic congestion compared to current and expected future conditions. Also, the introduction of the Arch would also create a new visual experience for drivers as they travel through Memorial Circle. The impacts of the proposed action on traffic are discussed under traffic and circulation.

Arriving at the Arch

Once visitors reach the Circle, their experience shifts from moving through traffic to entering a dedicated monument space. It would be part of Washington, D.C.'s long-standing tradition of using structures to convey national themes and values. The Arch would establish a new focal point within the monumental setting, giving visitors a defined place to pause and reflect with clear sightlines toward nearby national landmarks and memorials. By celebrating 250 years of American independence, the Arch would introduce a new interpretive opportunity within an existing corridor of national remembrance. It would offer elevated and framed views of the surrounding landscape and provide interior exhibit space that supports visitor engagement. Together, these elements would create a distinct new experience embedded within the broader tradition of Washington's monumental landscape.

As described in the description of the proposed action, once visitors enter the Arch, full amenities would be available, including restroom facilities, a store and bistro or similar food establishment. The Arch would be fully ADA compliant.

From both the ground level and the elevated viewing platform, the Arch would offer visitors new opportunities to see major landmarks from perspectives not currently available within Memorial Circle. Visitors ascending the Arch would experience broad, outward views toward Arlington House, the Potomac River, the Lincoln Memorial grounds, and the surrounding Parkway landscape, while those at ground level would encounter framed views through the Arch's central opening and a more clearly defined focal point at the center of the Circle. These viewing experiences would provide additional ways for visitors to understand the spatial relationships among the corridor's major features and would provide a new interpretive opportunity not currently available. The Arch would provide sweeping, outward views similar to the panoramic experience offered from the Washington Monument, extending that type of elevated perspective onto the broader axis that links the region's major monuments.

Image 14. View from the proposed Triumphal Arch toward Lincoln Memorial. ©Harrison Design

Image 15. View from the proposed Triumphal Arch toward Arlington National Cemetery. ©Harrison Design

At the same time, introduction of the Arch would alter long familiar views from key public areas. The structure would interrupt or partially obscure segments of the historic axial sightline between the Lincoln Memorial and Arlington House, changing visitors' perception of the current landmark-to-landmark connection from traditional viewing points.

Image 16. View from the Washington Monument looking at Lincoln. ©Harrison Design

All visitors would be required to obtain a timed ticket and complete security screening before entering. Managing this flow would require coordinated oversight of queuing, gathering, interpretation, circulation, and accessibility within a confined area. Similar to other high-use destinations such as the Washington Monument, access to the Arch would involve obtaining a timed ticket, completing security screening, and using an elevator or stairs to reach public spaces. Timed entry would regulate the number of visitors entering the Arch at any one time, helping maintain steady movement through the check-in, security, and interior circulation points. With visitors moving continuously both into and out of the Arch and across the center island, prolonged crowding would be limited. Because no additional visitor facilities would be located on the island outside the Arch, most visitors would be unlikely to remain for extended periods after completing their tour or viewing experience. Given the absence of facilities outside the Arch, visitors should plan ahead to ensure they are adequately prepared.

Overall, within Memorial Circle visitors would experience sustained periods of high activity and concentrated visitor movement, representing a substantial increase in overall use compared to current conditions.

Some visitors would come to Memorial Circle without entering the Arch. As described above, these visitors would need to plan accordingly, as no visitor amenities would be available outside the building and entry would require a ticket. Visitors who come only to view the exterior of the Arch are unlikely to remain for long, which would limit their contribution to crowding or congestion except during the busiest periods.

Finally, while the outward views would change, traffic noise would remain a characteristic of the setting, similar to current conditions. From the Arch, visitors could experience a reflective or contemplative moment based on the visual setting alone. However, the acoustic environment would continue to be influenced by surrounding roadway activity and periodic aircraft overflights, and these sound sources would limit the extent to which the space could function as a quiet or tranquil area. As a result, the visitor experience would be shaped by a combination of expansive views and ongoing ambient noise typical of the Memorial Circle environment.

Leaving the Destination

Visitors departing the monument would encounter similar circulation conditions as during arrival, including required pedestrian crossings and exposure to traffic. Cyclists and drivers would continue to experience periods of concentrated activity as visitor activity increases near the trail, bridge, and roadway interfaces. Overall, the departure experience would involve continued interaction with traffic in a busy and exposed environment.

3.9. Noise

3.9.1. Methodology

Sound pressure level measures the intensity of sound as perceived by the human ear, expressed in decibels[1](dB) on a logarithmic scale, meaning a 10 dB increase represents a sound roughly twice as loud to a listener.

Table 1. Sound Level Examples.

Common Sound Sources	**Sound Level dB***
Human breathing at 3m	10
Whispering	20
Residential area at night	40
Car at 15 m, 30 mph	60
Curbside of busy street	80
Jackhammer at 2 m	100
Train horn at 1 m	120
Jet engine at 100 feet	140

*dB re 20 µPa A-weighted broadband (12.5 Hz – 20 kHz), sound level measured over varied measurement durations and at the distances indicated.
Buxton et al. 2019 and Yale Environmental Health and Safety 2026

3.9.2. Affected Environment (Current and Expected Future Condition of Noise if No Action is Taken)

The NPS defines acoustic resources as the physical sound sources present within a park landscape, including natural sounds (e.g., wind, water, wildlife) and cultural or historic sounds (e.g., ceremonies, commemorative events, quiet reverence). Memorial Circle lies within an urban parkway dominated by persistent roadway noise from the Parkway and nearby regional transportation corridors.

Across Memorial Circle, Arlington National Cemetery's perimeter, Arlington Memorial Bridge, and the Mount Vernon Trail, the dominant noise source is vehicular traffic, including cars, buses, and motorcycles, moving through one of the region's busiest transportation nodes. Event-related traffic surges further elevate noise levels, particularly near Washington Boulevard and Memorial

[1] Sound pressure levels are often defined in terms of frequency-weighted scales (A, B, C, or D). The A-weighted decibel scale is used most commonly; it reflects the varying frequency sensitivity of the human ear to low level sounds (low level meaning 40 dBA above the human threshold of hearing at 1 kilohertz [kHz]). Unless otherwise stated, the sound level measurements used to describe sound as perceived by the human ear in this document represent 1-second A-weighted average level measurements, or $LA_{eq,1s}$ in the standard terminology of the American National Standards Institute (1994). However, for simplicity and conformance with many other public documents, all sound level values specific to humans will be denoted by "dB" or "dBA," a more common term for the same measurement (NPS 2026).

Avenue. Frequent aircraft overflights from Ronald Reagan Washington National Airport further contribute to the elevated noise levels. Reflective surfaces, including the Potomac River and surrounding paved areas, facilitate sound propagation and reduce natural attenuation. As a result, ambient noise levels in the vicinity of Memorial Circle, the Mount Vernon Trail, and the approaches to the Lincoln Memorial are consistently high during daytime hours. Modeled data from the Federal Highway Administration's National Transportation Noise Map indicate typical 24-hour A-weighted average sound levels (LAeq) of approximately 60–69.9 dBA. Although ambient sound levels typically decrease at night, the George Washington Memorial Parkway experiences persistent background noise due to continuous vehicular traffic and its location within a major metropolitan soundscape.

A number of ongoing and planned infrastructure, memorial, transportation, and utility projects are expected to occur within the broader project area in the coming years (Appendix F). Collectively, these actions involve typical heavy construction activities such as bridge deck and pavement rehabilitation, structural repairs, seawall upgrades, trail reconstruction, and installation of new transportation and utility infrastructure. Work would generally require the use of cranes, excavators, haul trucks, concrete equipment, and other standard machinery. Because many of these projects are located within the Potomac riverfront transportation corridor, and several occur on bridges or along major regional routes, construction activity would be audible at times from areas around Memorial Circle.

These projects would generate intermittent construction noise during their respective work periods. These sounds would occur primarily during daytime hours and would vary depending on project scale, equipment type, and distance from Memorial Circle. Given the already high ambient noise environment of the Parkway and surrounding transportation network, the noise associated with these concurrent actions would represent temporary, localized fluctuations rather than long-term or continuous increases to noise in the project area.

3.9.3. Environmental Effects – Noise

3.9.3.1. *Effects of the No Action Alternative – Noise*

Under Alternative A, the Arch would not be constructed in Memorial Circle. Consequently, the condition of noise at Memorial Circle would remain unchanged from that described in the "Affected Environment: Current and Expected Future Condition of the Environment if No Action is Taken" section.

3.9.3.2. *Effects of the Proposed Action – Noise*

Short – Term Noise Impacts

Under the proposed action, construction of the Arch and proposed changes to roadways, sidewalks, etc. would involve standard heavy equipment such as cranes, excavators, drilling rigs, concrete mixers, and construction vehicles. The U.S. DOT Construction Noise Handbook, Section 9.0, Construction Equipment Noise Levels and Ranges (9.0 Construction Equipment Noise Levels and Ranges - Handbook - Construction Noise - Noise - Environment - FHWA) list equipment and operation noise levels associated with common construction equipment. Equipment such as impact or vibratory pile drivers have actual measured L_{max} values at 50 feet of 101 dBA (FHWA Road Construction Noise Handbook (2006). Per the inverse

square law, noise generally decreases by about 6 dB with each doubling of distance, meaning an 101 dBA source at 50 feet would attenuate to around 95 dBA at 100 feet and 89 dBA at 200 feet. Hard and reflective surfaces nearby can reduce the spreading loss (less than 6 dB with each doubling of distance).

Utility installation along the proposed utility corridors would also generate increases in noise from equipment such as excavators, drilling rigs, cranes, concrete trucks, and support vehicles. Most utility installation would occur along existing roadways and transportation corridors where ambient noise levels are already elevated due to continuous vehicle traffic, aircraft overflights, and other urban sound sources. As a result, construction noise from utility installation would be noticeable but would blend into an environment with comparatively high baseline sound levels. Noise would be temporary and confined to the immediate work area, diminishing rapidly with distance consistent with standard attenuation rates for construction equipment. Because utility installation typically advances in short segments, noise at any individual location would occur for limited durations, days to weeks, before activity would shift farther along the corridor. Overall, noise impacts from utility installation would be short, localized, and characteristic of routine utility roadway-adjacent construction. Construction noise impacts on Arlington National Cemetery, including potential noise impacts from utility installation, are discussed below.

Because the project area is characterized by consistently high ambient noise, additional sound from construction would be partially attenuated by distance and the natural topographic variation of the surrounding landscape. To minimize temporary effects during construction, noise control measures, such as using quieter equipment when feasible, scheduling the loudest work during daytime hours, using noise-reducing materials, and installing temporary noise curtains or barriers, may be implemented.

Long – Term Noise Impacts

Once construction is complete, loud construction-related noise would cease, and sound levels would return to conditions similar to the current ambient environment dominated by traffic and aircraft. There could also be a slight increase in noise in the immediate area around the Circle associated with a drop-off area. While a pullover lane on Memorial Drive would allow brief vehicle drop offs, idling would be short-term and would not result in any sustained increase in noise. Because no new parking is proposed and most visitors are expected to arrive on foot or by bicycle, long-term operational noise levels would remain minimal.

Because the site's background noise levels would remain high even after project completion, speech intelligibility for interpretive programs and group discussions outside the Arch would continue to be reduced. Speech interference occurs when noise interferes with human speech. If sound levels exceed 52 dBA, and if a speaker and audience are far apart, as they often are during interpretive programs (approx. 10 meters), speech interference begins to occur. If the speaker and listener are just 1 meter apart, speech interference starts to occur when sound levels reach 60 dBA. The modeled background sound level at Memorial Circle is high enough that group discussions, such as interpretative programs, would not be fully audible to an audience around 5 meters apart (United States Environmental Protection Agency, Office of Noise Abatement and Control, 1974).

Noise Impacts at Arlington National Cemetery

Under 23 CFR 772, certain areas of Arlington National Cemetery qualify as Category A lands, where serenity and quiet are essential to their intended purpose. Category A thresholds are 57 dBA Leq (1hour) and 60 dBA L_{10}. These conditions exceed thresholds at which speech interference occurs, as noted in the preceding discussion. During the loudest construction phases, particularly pile driving, sound levels at some cemetery locations may exceed these thresholds despite the substantial distance from the construction site.

Impacts to cemetery ceremonies may occur with construction noise above 60 dBA. The Arlington National Cemetery holds funerals, active internments, and other ceremonies regularly, with some events closing roads, which may be impacted by construction activities at Memorial Circle. The loudest construction activities, driving piles, are expected to last approximately six months, so the loudest and most prolonged activities likely would not last the full duration of construction. However, construction noise for two to three years could impact the solemn and ceremonial atmosphere of the cemetery.

Noise Impacts Across the Potomac River and on Mount Vernon Trail

Noise generated at Memorial Circle would also propagate across the Potomac River toward the Lincoln Memorial and adjacent recreational areas. While the river surface enhances sound transmission, which may provide short-term adverse impacts to the soundscape, the distance and urban ambient noise levels near the Lincoln Memorial mean that construction noise would be audible and slightly increase compared to current conditions, but not disruptive and would not alter the overall acoustic character of the area.

Pedestrians and cyclists on the Mount Vernon Trail may hear construction noise as they move through the area, with sound levels increasing as they approach the work zone. In some locations, the noise would temporarily interfere with normal conversation between trail users.

Nighttime Considerations

Construction is anticipated to occur in two 10hour shifts per day, resulting in 20 hours of activity**.** Because nighttime ambient sound levels are lower, noise during evening and early morning hours would be more perceptible even if absolute levels remain unchanged. This may increase the potential for temporary disturbance at nearby residential and ceremonial areas, providing short-term adverse impacts to the soundscape of the surrounding areas during construction.

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APPENDIX A: ALTERNATIVES AND ISSUES AND IMPACT TOPICS CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

A.1 Alternatives Considered but Eliminated from Detailed Analysis

The range of alternatives includes alternatives, or alternative elements, considered during the NEPA process but eliminated from detailed analysis. Below is a description of alternatives, or alternative elements, considered but eliminated and an explanation of why the alternative or element was eliminated.

Construction of the Triumphal Arch at smaller heights

During and prior to the design process, various smaller arch heights were evaluated. The smaller arches were ultimately dismissed because they would have had greater impacts on the cultural landscapes, specifically the views between the Lincoln Memorial and Arlington National Cemetery (see Cultural Landscapes section above). The smaller designs fully obstructed this view and did not create any new viewing opportunities – by contrast to the proposed Arch, which would allow a less obstructed view through its central opening. In addition, because the Arch is intended to celebrate 250 years of American independence, the smaller heights were not considered representative of this milestone.

Construction of tunnels and elevated pathways for pedestrians and cyclists

During the planning process, the NPS evaluated tunnels and elevated structures as potential ways to improve pedestrian and bicycle access at Memorial Circle in response to identified safety concerns. These options were dismissed after analysis showed that safety would be addressed through modifications to traffic signaling and other small-scale improvements. Elevated structures would have introduced substantially greater impacts on the surrounding cultural landscapes, while tunnel construction would have posed more extensive disturbances to water and soil resources. As noted in the Volpe (2026) study, NPS would continue to monitor safety and circulation conditions to determine whether additional measures may be needed in the future. If warranted, those options would be evaluated under a separate NEPA review. At this stage, however, the tunnel and elevated alternatives were eliminated from detailed analysis because they would result in greater resource impacts, could not be constructed within the project schedule, and a less costly and feasible option is available.

A.2 Issues and Impact Topic Considered but Eliminated from Detailed Analysis

The impact topics described below represent resources within the project area that may be affected by the proposed action. Impact topics that were considered but not carried forward for detailed analysis are also identified, along with an explanation of why they were excluded.

Public Safety – Helicopter Access to Memorial Circle

Although Memorial Circle is used intermittently (approximately five times per year) for U.S. Park Police medical evacuation (medevac) operations, the Park Police have identified other nearby areas that can safely accommodate helicopter landings when operational needs require. While Memorial Circle offers a convenient location, the availability of these alternative sites ensures that emergency response functions would continue without meaningful disruption. As a

result, removing the Circle from medevac use would not result in significant changes to public safety or diminish overall emergency response capability.

Aviation Safety

Because of Memorial Circle's proximity to Ronald Regan Washington National Airport, NPS has considered whether the proposed project would adversely affect aviation safety. NPS does not possess specialized expertise in aviation safety and therefore relies on the expertise of the Federal Aviation Administration (FAA). The FAA completed a feasibility study and concluded that the proposed project would have no significant adverse effect on airspace or on visual or instrument procedures at Ronald Reagan Washington National Airport and would not have any effect on airport facilities or radio/visual navigational and landing aids. The FAA feasibility study determined that the project would require obstruction lights, which have been incorporated into the project description. The National Park Service will implement any required mitigation measures and will address additional FAA compliance steps as the project progresses through subsequent design phases.

Cultural Resources—Ethnographic Resources

The 2020 *Ethnographic Resource Study: Subsistence Fishing on the Potomac and Anacostia Rivers* provides an overview of communities that engage in subsistence fishing along both rivers and documents the cultural and social importance of these practices across multiple NPS-managed shorelines. The study identifies where subsistence fishing occurs, the communities involved, and general management considerations.

Subsistence fishing does not occur along the Mount Vernon Trail near the Arlington Memorial Bridge, and therefore is dismissed from detailed analysis in this EA.

Soils

Soils within Memorial Circle are predominantly disturbed urban soils composed of historic fill, placed during construction of Arlington Memorial Bridge, the circle, and associated parkway infrastructure. Native floodplain soils such as Hatboro and Codorus remain only in limited low-lying areas, but most of the site consists of Urban Land and Udorthents, reflecting extensive grading, reworking, and imported material. (Soil Survey Staff, n.d.) These soils exhibit high variability in texture, compaction, and drainage, typical of intensively modified landscapes. Overall, Memorial Circle is characterized by a highly altered soil environment shaped primarily by long-standing transportation and memorial construction activities.

Construction of the Arch and installation of utilities would result in ground disturbance and localized, temporary impacts on soils, including excavation, compaction, and minor erosion where landscaping is removed. The soils in the project area not considered sensitive, unique, or otherwise notable, and the areas affected have been previously disturbed by infrastructure and routine maintenance. Impacts would be generally limited to the construction window and not anticipated to exceed three years. Standard erosion and sediment control measures and postconstruction stabilization would further minimize the duration and extent of effects, and no long-term adverse impacts on soil resources are expected. See Appendix D, Mitigations.

In the first two to three months of the project, approximately 1,400 truckloads of existing soils would be removed from the Circle. Excavated soils would be transported to approved disposal

facilities in Maryland or Virginia, contingent upon the results of in situ characterization and contamination testing.

Because impacts to soils are small in scale, temporary, and would not influence the selection among alternatives or meaningfully affect the environmental outcome of the project, these impacts are not central to the decision. For this reason, soils were dismissed from detailed analysis in the EA.

Vegetation

Vegetation within Memorial Circle consists exclusively of intensively maintained turf grass and ornamental groundcover that form part of the Circle's designed historic landscape. No natural plant communities, native vegetation assemblages, or sensitive species occur within the project area, and there are no existing trees within Memorial Circle.

Implementation of the project would require the removal of the entire lawn area within Memorial Circle to allow for construction of the Triumphal Arch. Although this represents a complete change to the existing vegetation within the construction footprint, the lawn itself is a highly managed, regularly replaced landscape feature that does not constitute a natural resource.

The potential utility corridors consist of manicured lawn, pedestrian and bike paths, and road intersections that would be replaced in-kind if disturbed by utility installation. Utility installation along the proposed corridors would result in direct, ground disturbing impacts to vegetation, primarily through trenching, equipment access, and temporary staging areas. These activities can disturb turf, compact soils, and affect trees or shrubs located near work zones, even when removal is not anticipated. Where possible, utilities would use the same general routing corridors as other utilities, consolidating disturbance and minimizing new ground impacts.

The NPS would restore disturbed vegetation impacted by construction and, though no trees are planned to be removed at this time, if any trees outside the Circle are removed to support construction staging or access or utility installation, the NPS would replace those trees consistent with NPS landscape practices and generally aligned with National Capital Planning Commission (NCPC) tree replacement requirements. During the later phases of construction, any trees removed from the cultural landscapes would be replaced in kind, or with a more acceptable/suitable species for the location as determined appropriate by an interdisciplinary team led by a historical landscape architect, to mitigate the adverse effects from the loss of contributing vegetation. Trees would be replaced based on diameter at breast height (DBH) with an overall increase in total DBH at the site, as per NCPC policy. Trees and vegetation within the construction area that are to remain would be protected throughout construction to avoid adverse effects.

Because the affected vegetation is limited to fully managed turf with no trees identified currently for removal, and the removal and restoration of lawn do not represent meaningful ecological impacts, vegetation does not warrant detailed analysis in this EA. Instead, any changes in vegetation that affect the historic character, spatial organization, or integrity of the designed landscape are addressed in the Cultural Landscapes section, where those impacts are most appropriately evaluated.

Wildlife

The Memorial Circle area supports a subset of the broader wildlife community associated with the Parkway. Due to its highly maintained landscape and proximity to major transportation corridors and the Potomac River, wildlife present in the immediate project area is primarily composed of species adapted to sustained human activity, traffic noise, and fragmented habitat. Commonly occurring species include urban tolerant birds such as Canada goose, mallard, rock pigeon, house sparrow, northern cardinal, and mourning dove, along with small mammals such as eastern gray squirrel, eastern cottontail, raccoon, and opossum. Amphibians and reptiles may occur only intermittently within adjacent planted and riparian vegetation, including regionally common frogs and skinks. (National Park Service, n.d.)

Because the proposed action would occur within an already developed traffic circle and would not remove or substantially alter natural habitat, impacts to wildlife would be negligible. Construction activities would be temporary and highly localized. Longterm presence of the Arch would not meaningfully change habitat conditions, movement patterns, or species composition relative to existing conditions. For these reasons, there would be no measurable or adverse effects from the proposed action, and therefore this topic was dismissed from further detailed analysis in the environmental assessment.

Wildlife —Threatened and Endangered Species

On May 8, 2026, a threatened and endangered species list was generated from the US Fish and Wildlife Service (FWS) Three listed threatened and endangered species have the potential to occur within the project area: the endangered Northern long-eared bat (*Myotis septentrionalis*), the proposed endangered Tricolored bat (*Perimyotis subflavus*), and the proposed threatened monarch butterfly (*Danaus plexippus*).

Northern Long-Eared Bat: Potential summer habitat for the northern long-eared bat is present within the deciduous trees with a diameter at breast height (dbh) of three inches or greater located in the project area. Mist-netting efforts between 2016-2018 did not capture NLE bats. Passive acoustic monitoring conducted between 2016- 2018 of NLE bats in the area resulted in mean nightly activity of 0.0- 0.01 which indicates a low presence of NLE bats (NPS 2021).

Tri-colored Bat: The tri-colored bat utilizes similar habitat as the northern long-eared bat. During the winter, tricolored bats are found in caves and mines, although in the southern United States, where caves are sparse, tricolored bats are often found roosting in road-associated culverts. During the spring, summer and fall, tricolored bats are found in forested habitats where they roost in trees, primarily among leaves. Mist-netting efforts between 2016-2018 did not capture tricolored bats. Passive acoustic monitoring of tricolored bats during 2016-2018 resulted in a mean nightly activity of 0.01 – 0.08 which indicates a low presence of tricolored bats (NPS 2021).

Given that no trees would be removed, the National Park Service has determined a *no effect* for the Northern long-eared bat and tri-colored bat. The Boundary Channel Bridge may be used for utility routing. In 2025 the bridge was surveyed for presence of bats in 2025 with no evidence of bat roosting or guano observed (Stantec, 2025).

Monarch Butterfly: The monarch butterfly utilizes a variety of habitat types; however, the dependence on milkweeds (*Asclepias spp.)* for the egg-laying and the primary food source for

the larval stages of the species is a crucial component of their life cycle. Adult monarch butterflies can utilize nectar from a variety of plant species as a food source. The terrestrial vegetation within the study area is regularly maintained. The project area consists of manicured fields and does not provide suitable habitat for the egg-laying and larval stages of this species. Therefore, the determination of effect for the monarch butterfly is *no effect*.

Air Quality

To protect air quality, the Clean Air Act (CAA) requires the EPA to set National Ambient Air Quality Standards (NAAQS) for six pollutants that can be harmful to public health and the environment1 (called "criteria" air pollutants) (EPA, 2025b). The primary NAAQs are established at levels considered protective of public health, including "sensitive" populations such as children, the elderly and people with heart and lung conditions. Areas where monitored air quality does not meet the NAAQS are designated as nonattainment and the appropriate air regulatory agency must develop an implementation plan to address air pollutants contributing to the NAAQS violations. (In this case, the District of Columbia Department of Energy and Environment, or DOEE, is the air regulatory agency responsible for the Washington D.C. area.)

Recent monitoring in the region shows that air quality at Memorial Circle is generally meeting the federal health-based national ambient air quality standards (NAAQS) (DOEE, 2025). However, the Washington, DC area (DC-MD-VA) is currently a designated nonattainment area for the 2015 ozone (O3) NAAQS (moderate status, (EPA 2026), despite recent monitoring data reflecting ozone values below the NAAQS. This is because the official redesignation process takes time; DOEE is seeking formal redesignation to attainment for ozone as of April 2025 (DOEE, n.d.), and the area would become a maintenance area for O3 if redesignated. The area is also a designated maintenance area for particulate matter less than 2.5 microns, called PM2.5 (EPA 2026).

Section 176(c) of the Clean Air Act requires federal agencies to ensure that air emissions from federal actions located in nonattainment or maintenance areas would not cause or contribute to new violations of the NAAQS or increase the frequency or severity of existing NAAQS violations (called a “general conformity” determination). To assist federal agencies in making conformity determinations, the associated regulations provide “de minimis thresholds,” which are emission thresholds (in tons per year) below which federal actions are assumed to conform, and a conformity determination is not required (EPA, 2025a). As explained below, emission generating activities associated with the construction of the Triumphal Arch are estimated to be below the de minimis thresholds identified in the regulations.

Construction activities associated with the proposed project would result in temporary air emissions, mainly from the following construction-related emission sources:

- Emission from on-site generators to power construction activities/equipment.
- Tailpipe emissions from construction equipment (e.g., excavators) and heavy-duty trucks hauling materials to and from the site.
- Vehicle emissions from construction workers commuting to and from the site.
- Emissions from drill rigs to drill deep foundation pile caissons.

These activities may cause localized, short-duration increases in particulate matter, nitrogen oxides and volatile organic compounds immediately adjacent to the work zone. Occasional nuisance conditions (e g, minor dust or diesel exhaust odors) could occur in areas closest to

construction. All effects would be temporary and would end upon completion of construction, which is anticipated to occur over approximately three years.

Construction emissions would dissipate rapidly and would not cause or contribute to NAAQS exceedances because emission estimates are below de minimis thresholds established for O3 and PM2.5 in the General Conformity regulations (see 40 C.F.R. § 93.153(b)(1)–(2) (2026). Ozone is secondary air pollutant, formed through atmospheric reactions of NOx and. For this reason, ozone de minimis thresholds are established for NOx and VOC emissions. $PM_{2.5}$ is both a primary pollutant (e.g., emitted directly from a tailpipe), and a secondary pollutant formed through atmospheric reactions of particle-forming pollutants such as SO_2, NO_x, VOC and ammonia. For this reason, de minimis thresholds for $PM_{2.5}$ are established for primary $PM_{2.5}$ as well as SO_2, NO_x, VOC and ammonia.

Emission estimates for the conformity analysis were based on (1) the project size, (2) the types of construction equipment used, (3) the relatively small emissions generated by individual pieces of equipment, and (4) the numbers of equipment used in a project of this scope. Standard construction best management practices, including dust suppression, and use of properly maintained machinery, would be implemented to further minimize temporary construction emissions. It is expected that all construction activities would conform with Washington DC on road and \onroad diesel engine idling requirements, which would further reduce construction-related emissions (District of Columbia Municipal Regulations, n.d., Chapter 20-9).

Following construction, the Triumphal Arch would remain primarily accessible by bicycle and on foot, limiting ongoing transportation-related emissions. Air quality conditions would return to baseline, and no lasting degradation of ambient air quality would occur. Therefore, air quality was not carried forward for detailed analysis.

Floodplains

Executive Order 11988, “Floodplain Management” (1977b), and NPS DO #77-2: Floodplain Management require an examination of impacts on floodplains and potential risk involved in placing facilities within floodplains (NPS, 2003). Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map panel 1100010018C (revised September 27, 2010) details that the entire project area is outside of the regulated five percent annual chance floodplain of the Potomac River and Boundary Channel. Based on the project location, the proposed project would not result in negative impact to human health, capital investment, or natural and beneficial floodplain values. Therefore, this project is anticipated to conform to the requirements of Executive Order 11988 and NPS DO #77-2, and the issue has been dismissed from detailed analysis in this EA and a Floodplain Statement of Findings is not necessary.

Socioeconomics

The socioeconomic environment of the project area consists of local, regional, and national businesses, government agencies, residences, and tourist attractions. Currently there is no internal destination, no monument, plaza, or interpretive feature within Memorial Circle, that would draw visitors to this site. The experience is brief, directional, and utilitarian as visitors pass by while traveling to the National Mall, Arlington National Cemetery, or along the George Washington Memorial Parkway.

Construction of the proposed Arch would introduce temporary changes to travel and access conditions for pedestrians, motorists, and cyclists throughout the three-year construction period. A temporary change in travel patterns represents a limited inconvenience to some visitors but is not expected to meaningfully affect the regional economy, tourism sector, or local employment. Following construction, all temporary closures would be removed and pedestrian, bicycle, and vehicle travel routes would return to their pre-construction configurations, with no lasting socioeconomic effects.

The proposed Arch would create a new visitor experience along the corridor of national remembrance that includes an exhibit space, café, gift shop, and an elevated viewing platform. Visitation projections indicate that peak season daily visitation could range from approximately 2,000 visitors under a low scenario to more than 22,000 visitors under a high scenario (Volpe, 2026). Visitors to Washington, DC, typically visit numerous museums, monuments, and cultural institutions during their trip. Therefore, it is anticipated that a new visitor opportunity would contribute to the collective positive economic benefits generated by visitor attractions in Washington, DC, but would not constitute a major economic driver for the region.

Construction of the proposed Arch would result in a short-term need for construction workers, but the number of workers would be minimal and most of them would already be employed, and there would be no effect on the population, income, or employment base of the surrounding community. The need for construction workers would provide minimal increases in employment opportunities and revenues for local businesses, but any increases would be below the level of detection due to the scale of the local economy. For these reasons, impacts related to socioeconomics were dismissed from detailed analysis.

Night Skies

NPS manages night sky quality as an element of the natural and cultural environment that contributes to visitor experience, ecological integrity, and the broader scenic values of national parks. The proposed action includes exterior lighting of the Arch that is consistent with how other monumental features along the National Mall and Memorial Avenue are illuminated, reflecting their ceremonial nature and the established lighting character of this designed monumental landscape. Some additional illumination would be required due to the project's proximity to Ronald Reagan Washington National Airport and associated aviation safety requirements.

Lighting design features incorporated into the project, including fully shielded fixtures, warm temperature lighting, and controls to limit intensity and duration, would substantially reduce the potential for light trespass and skyglow. Coordination between NPS and the FAA would ensure lighting meets the necessary illumination for safety compliance.

The project area is in an urbanized setting with substantial existing ambient lighting. Given the context and incorporated design measures that minimize light emissions to the extent practicable, and the fact that some amount of lighting contributes to the character of the monument, the potential for the project to contribute meaningfully to night sky degradation is low. For these reasons, night skies were considered but dismissed from detailed analysis.

Water Quality

If utilities are installed via horizontal directional drilling (HDD) across the Boundary Channel, impacts to water quality is not expected. HDD is a trenchless construction method that installs utilities well below the bed of the waterway, so no open excavation or direct disturbance of the water column is required. The drill path is designed with sufficient depth of cover and appropriate geotechnical controls to prevent disturbance to the bed of the waterbody and water column. Because construction activities, staging, and fluid handling occur outside the ordinary high-water mark, there is no direct discharge of sediment or drilling fluid to surface waters, and therefore no mechanism for sustained increases in turbidity. In addition, best management practices, such as secondary containment, spill prevention, and rapid response procedures, are implemented under applicable District of Columbia and federal permits, ensuring that water quality and turbidity in the Boundary Channel remain protected throughout HDD operations. Therefore, water quality was considered but dismissed from detailed analysis.

APPENDIX B: PEDESTRIAN CIRCULATION IMPROVEMENTS AND SIGNALIZATION CONCEPT PLAN AT ARLINGTON MEMORIAL CIRCLE

Pedestrian Circulation Improvements and Signalization Concept Plan at Arlington Memorial Circle

Prepared for the National Park Service, National Capital Region by the U.S. Department of Transportation, Volpe Center (May 2026)

CHAPTER 1. KEY FINDINGS

- Full signalization of the Arlington Memorial Circle (AMC) and all pedestrian crossings provide the best combination strategies to improve pedestrian and vehicular safety while minimizing the impact to traffic operations throughout the circle, allowing people to safely access the Triumphal Arch.
- Modifications to the pedestrian infrastructure, specifically increasing the size of the median islands to the east and west of the AMC, allows for the area to accommodate the potentially large crowds of people to circulate, access the Triumphal Arch, and take photos in front of the site.
- While traffic volumes and pedestrian volumes fluctuate throughout the week, the highest traffic volumes are generally expected in the weekday morning and afternoon commuting periods, and the highest pedestrian visitation is expected on weekends, early afternoon and evenings on weekdays, and during special events.
- While it is difficult to project visitation trends at a new memorial, it is likely that peak visitation will not align with peak traffic volumes, which will limit the impact during the periods with the most congestion.
- The proposed crosswalks will primarily provide access to the Triumphal Arch, with a secondary benefit of improving safety and circulation for pedestrians traveling between the Arlington Memorial Bridge (AMB) and the Mount Vernon Trail (MVT).

CHAPTER 2. PURPOSE

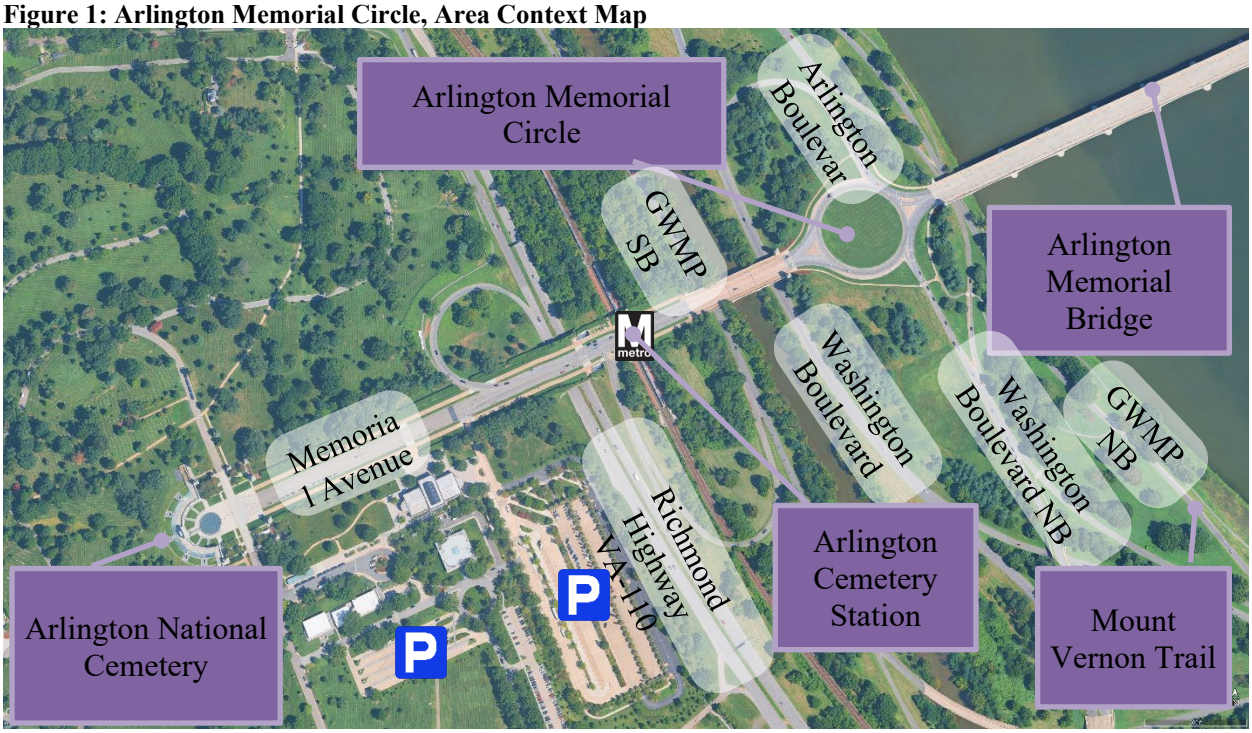
2.1. Overview

This technical report provides an evaluation of pedestrian access and circulation improvements at AMC, which has been identified as the site for a new memorial, the Triumphal Arch. The proposed Triumphal Arch will be constructed in the center of the AMC and therefore visitor demand to access the center of the circle will increase. This report includes an overview of existing transportation data throughout the area, an evaluation of the existing pedestrian and bicycle circulation, a presentation of preliminary traffic analysis of signalizing the at-grade pedestrian crossings, an analysis of the construction related impacts to traffic through the Maintenance of Traffic (MOT), and additional safety strategies to improve circulation and access.

2.2. Site Context

For situational context, the closest parking lot is at the Arlington National Cemetery (ANC), about a 10-minute walk to the AMC, and the nearest Metro station, Arlington Cemetery, is located along Memorial Avenue, less than a 5-minute walk to the AMC. Visitors walking and biking to the AMC will likely access the site via the AMB or MVT. A map showing the AMC, AMB, ANC, MVT, and nearby parking facilities and roadway names is provided in Figure 1.

Figure 1: Arlington Memorial Circle, Area Context Map



2.3. Secondary Pedestrian Circulation Benefits

A secondary benefit of improving the pedestrian circulation is to identify opportunities to improve the multimodal connection between AMB and the MVT, particularly the north side of the AMB. NPS has been evaluating improvements to better connect the north and south sides of the AMB through the regional trails plan, the cultural resources report for Memorial Avenue, and as reflected in the ongoing pedestrian circulation improvements evaluation at Lincoln Memorial Circle (LMC), which proposes to install a pedestrian actuated signal across the AMB at LMC and other safety and circulation improvements on the east side of the AMB.

The existing route between the northern side of the AMB and the MVT requires people to walk about 1,450 feet, cross six travel lanes, in three crossing movements, and be exposed for a total of 120 feet in the roadway.

- Arlington Boulevard, north of AMC, two-lane crossing (approximately 35 feet);
- Memorial Avenue, west of AMC, two-lane crossing (approximately 60 feet);
- Washington Boulevard, south of AMC, two-lane crossing (approximately 25 feet);

During the average weekend day, almost 2,000 people walk over the AMB and more than 1,000 people bike over the AMB. About 60% of the pedestrians and cyclists traveling over the AMB

use the south side and 40% use the north side. Similarly, thousands of people walk and bike along the MVT which makes the connection between the AMB and the MVT a critical connection.

CHAPTER 3. EXISTING TRANSPORTATION DATA

3.1. Traffic Volumes

The most recent traffic volumes available for the AMC were collected in 2018, prior to the AMB rehabilitation project. As part of the ongoing LMC Traffic Study (draft dated November 17, 2025), traffic volume data was collected on Thursday, January 25, 2024, after the AMB rehabilitation project. The 2018 AMC traffic volumes were proportionally adjusted to align with the traffic volumes collected in 2024 to reflect changes in traffic volume that resulted from the AMB rehabilitation project.

The ongoing LMC Traffic Study projected future traffic volumes to 2030, typical of a traffic impact report. The traffic volume at AMC was adjusted and balanced to align with the new traffic volumes projections. The projected traffic volumes for 2030 during the weekday a.m. and p.m. peak hours are shown in Figure 2 and Figure 3. Due to the roundabout design, the traffic volumes are shown both as turning movement volumes, showing the volume of vehicles making each turning maneuver, as well as the segment volume, showing the volume of vehicles circulating each segment of the roundabout. To access the center of AMC, where the Triumphal Arch will be located, pedestrian crossings will be placed across the circulating lane. Therefore, the segment volume provides the best representation of potential vehicle-pedestrian interactions at each crossing.

Figure 2: Vehicular Traffic Volumes, 2030 Projected, Weekday a.m. Peak Hour

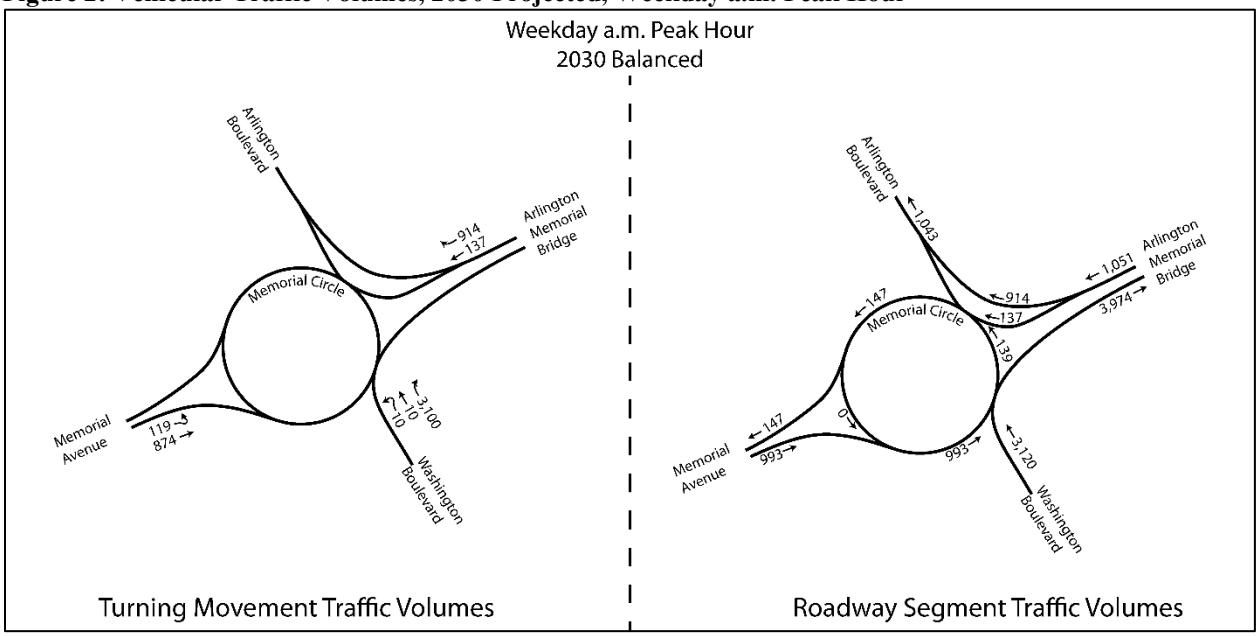
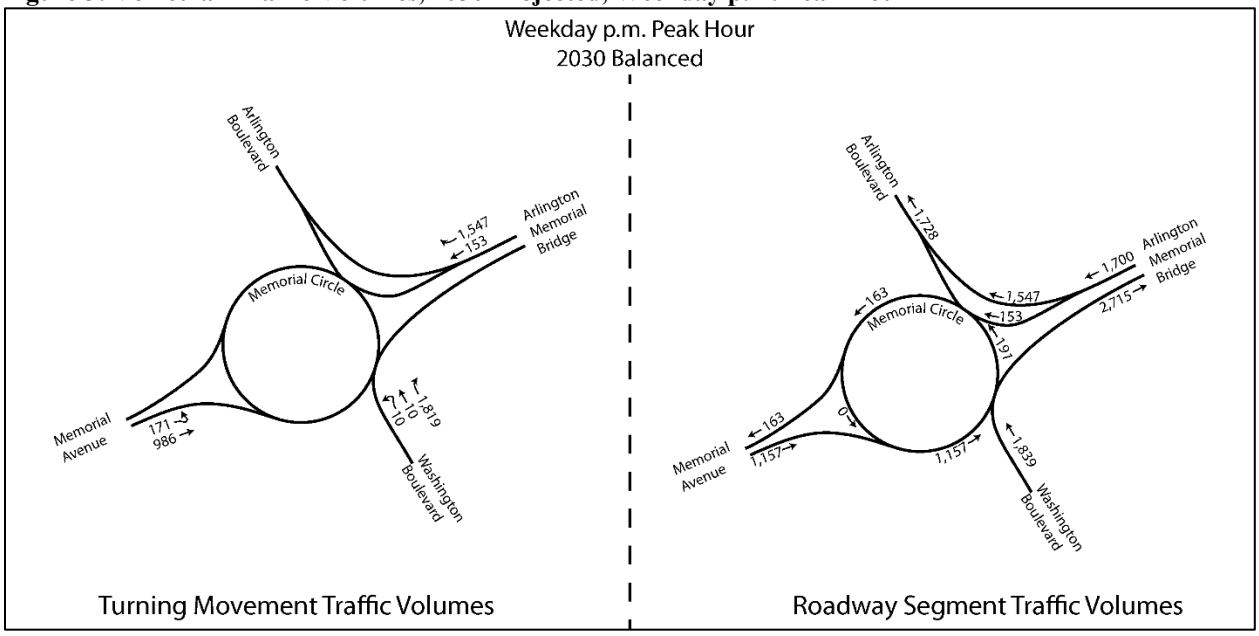
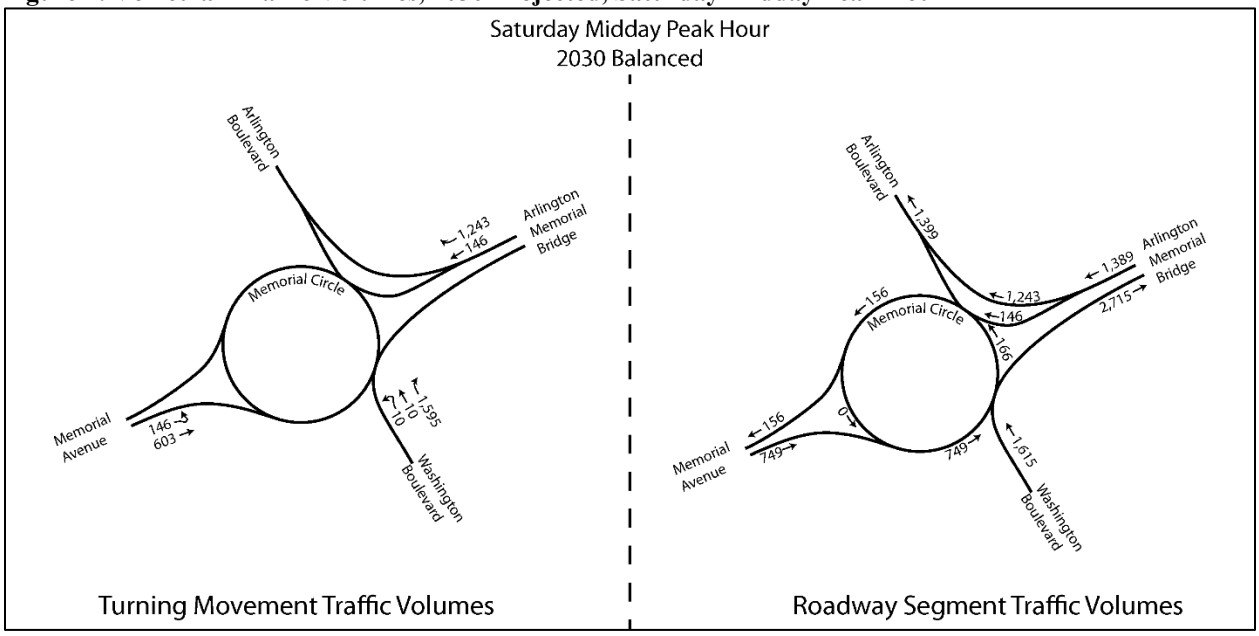


Figure 3: Vehicular Traffic Volumes, 2030 Projected, Weekday p.m. Peak Hour



A third Saturday midday traffic volume diagram, shown in Figure 4, was generated to inform the signalization concept plan. The Saturday Midday traffic volumes were developed by proportionally adjusting the weekday a.m. and p.m. traffic volumes based on nearby continuous traffic count station along George Washington Memorial Parkway near Turkey Run Park, to the north. The continuous traffic count station is part of the NPS GEOCOUNTS website for quality-controlled traffic data.

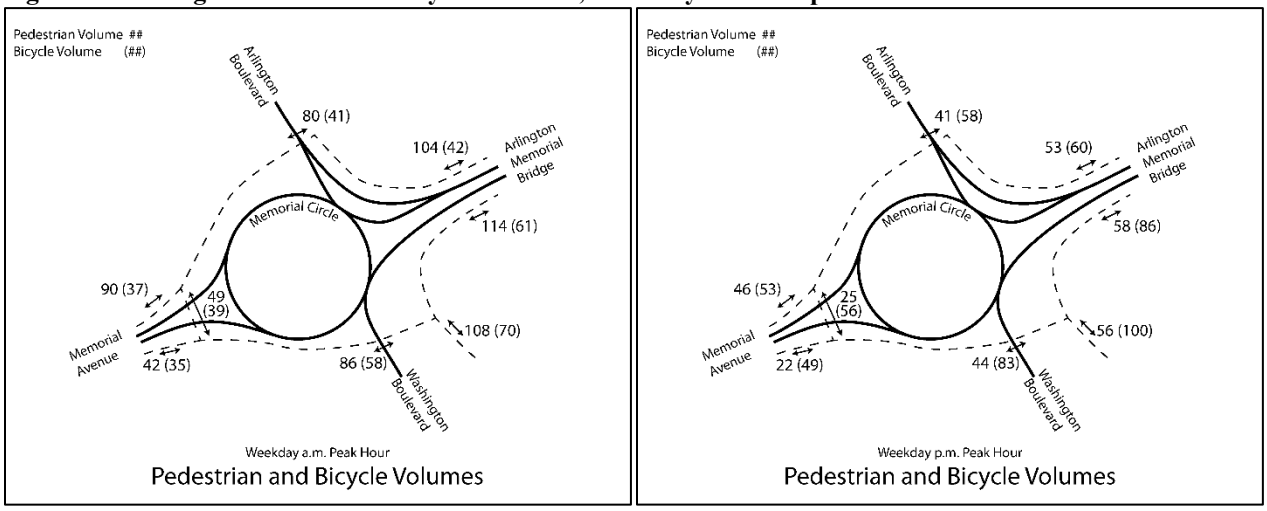
Figure 4: Vehicular Traffic Volumes, 2030 Projected, Saturday Midday Peak Hour



3.2. Pedestrian and Bicycle Volumes

Pedestrian and bicycle usage through the area is estimated using Strava Metro data and the correlation to the Arlington County DOT Bicycle and Pedestrian Counting Sites and Data Eco Counters along the Bridge. The volume of pedestrians and bicyclists typically aligns with peak hour commuting traffic during the weekday a.m. and p.m. peak hours. The existing pedestrian and bicycle volume during the weekday a.m. and p.m. peak hours are shown in Figure 5.

Figure 5: Existing Pedestrian and Bicycle Volumes, Weekday a.m. and p.m. Peak Hour



3.2.1. Projected Increase in Walking and Biking Usage due to Memorial

The Triumphal Arch is expected to generate substantial foot traffic. Projections for visitation can be estimated by analyzing nearby memorial sites throughout the National Mall and Memorial Parks (NAMA) and the ANC. The months with the highest visitation are generally in the spring and are used to form the basis of the projection. With the ANC located nearby, it is likely that the ANC visitation will impact the visitation projection at the Triumphal Arch, as visitors destined for the Triumphal Arch could combine their trip with the ANC visit. According to the Office of Army Cemeteries, "ANC receives, on average, 4 million visitors a year," which translates to about 16,000 daily visitors during the peak season. Table 1 shows a low, medium, and high daily visitation projection, during the peak month of comparable NCR park units.

Table 1 also shows percent increase in activity compared to the number of visitors that currently walk and/or bike around the AMC. Currently during the peak month, about 700 people walk and 700 people bike through the AMC daily, for a total of 1,400 daily walk and bike trips. Research of newer memorial sites show trends indicating that new memorials maintain a relatively higher visitation for the first few years after opening and then normalize down to lower visitation level.

Table 1: Existing and Projected Multimodal Usage at New Memorial: Low, Medium, High Projections

	Daily Memorial Visitation Scenarios		
	Low	Medium	High
Existing Multimodal Usage	1,400	1,400	1,400
Additional Demand due to new Memorial	600	4,400	21,000
Future Projected Daily Visitation during Peak Month	**2,000**	**5,800**	**22,400**
Percent Increase in Activity	**40%**	**315%**	**1,500%**

Whether a visitor drives, takes transit, uses ride share, walks, bikes, or takes a tour bus to visit the site, most of the visitors are expected to walk to the center of the AMC and back to experience the Triumphal Arch up close. Additionally, if a shorter route is provided through the AMC, the existing users may also choose to travel through the circle.

3.2.2. Time of Day Trends

Currently many of the people walking and biking around the AMC are using the facilities for exercise, which generally aligns with the peak commuting time period as people prefer to exercise before or after typical working hours and away from the midday heat. Memorial visitation tends to peak in the middle of the day between the late morning and early afternoon, and on weekends and holidays. A new memorial is expected to further distribute pedestrian and walking trips throughout the day and maintain consistent activity at the site.

3.3. Traffic Speeds

In addition to traffic volumes, speed is the most important factor when considering the placement of a pedestrian crosswalk. Speed data was collected through three traffic monitoring reports after completion of the AMB rehabilitation project. Speeds were collected in four locations throughout the AMC during three time periods May 2021, October/November 2022, and May 2022. The locations the data collected are shown in Figure 6. Table 2 shows the average speed through all three data collection periods during the weekday a.m. and p.m. peak periods.

Figure 6: Speed Data Collection Locations Throughout AMC

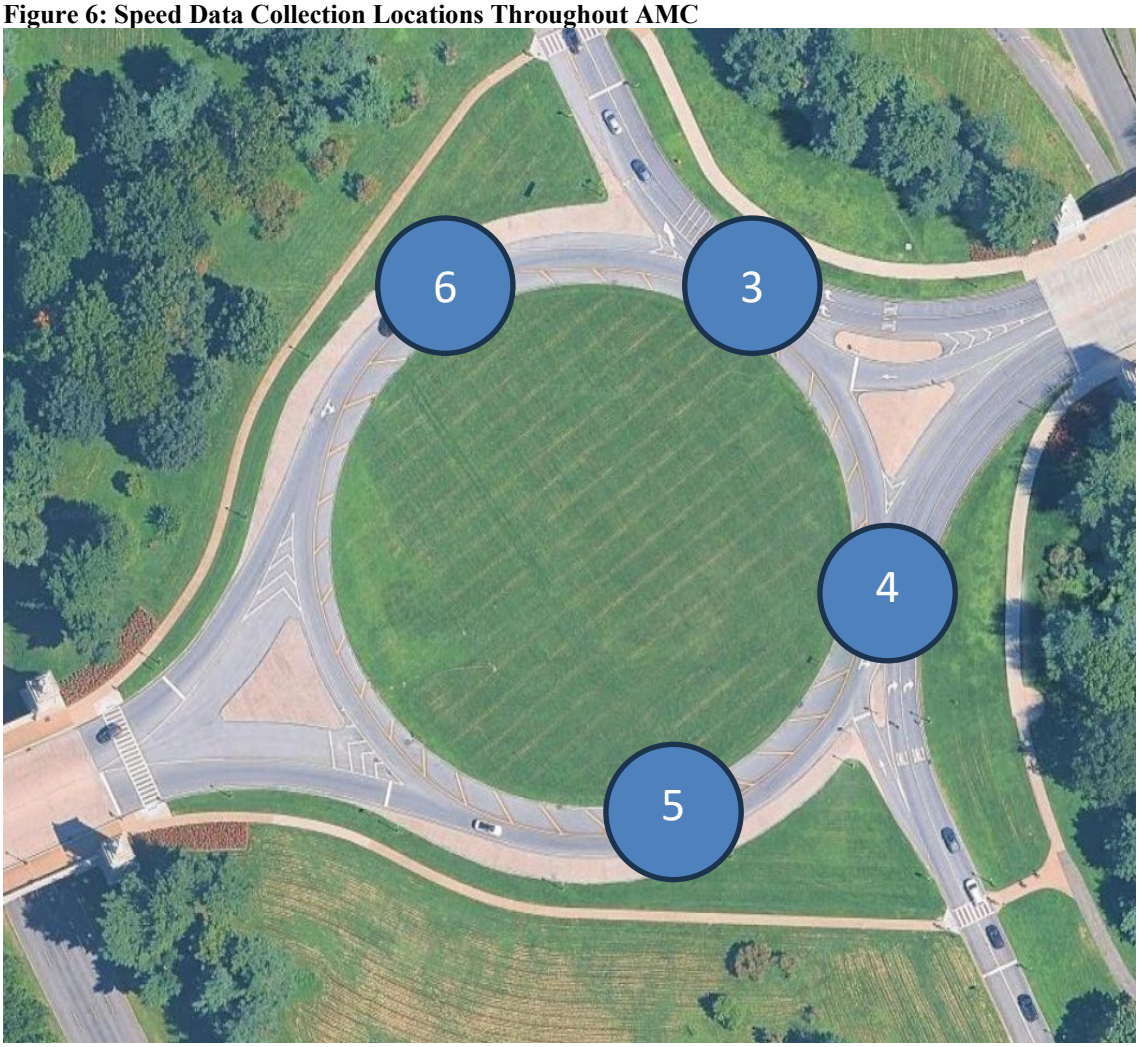


Table 2: Average Travel Speeds Throughout AMC, Miles per Hour

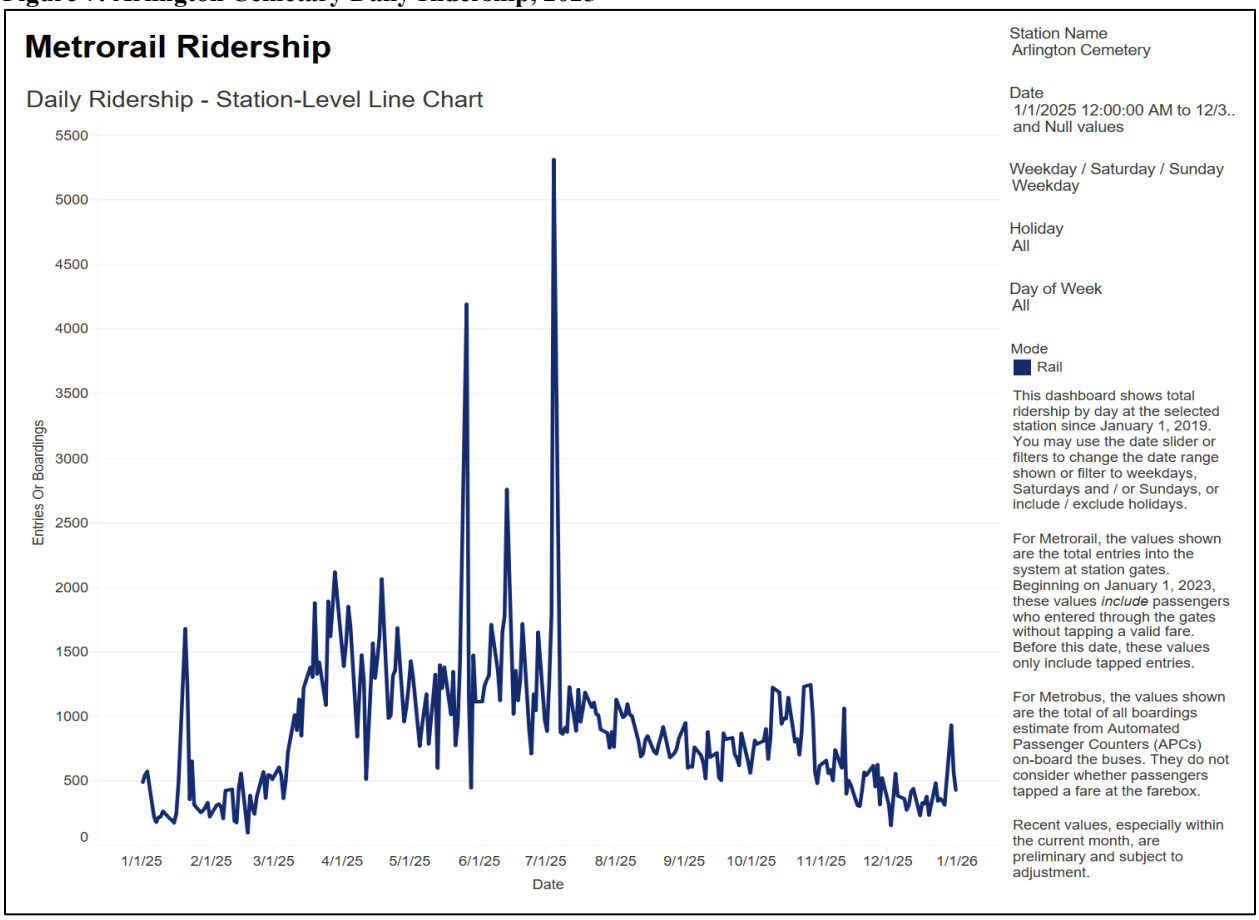
Location	Weekday a.m. Peak Period 6:00 – 10:00 a.m.	Weekday p.m. Peak Period 2:00 – 7:00 p.m.
Location #3: AMB westbound to Hotspot 3 (northeast corner of AMC).	21.7	19.6
Location #4: Washington Boulevard northbound to AMB (southeast corner of AMC).	20.3	18.1
Location #5: Memorial Circle eastbound (bottom of the AMC).	24.5	23.6
Location #6: Memorial Circle westbound (northwest corner of AMC).	21.4	20.8

3.4. Transit Ridership

Transit ridership at the Arlington Cemetery station is one of the lowest in the system, with an average daily ridership of 1,000 per day in 2025. The ridership data, shown in Figure 7, shows several spike days with unusually high visitation due to the day's significance with the ANC. The spike days include Inauguration Day (January 20, 2025), Memorial Day (May 26, 2025),

U.S. Army 250th Anniversary Parade (June 14, 2025), and Independence Day (July 4, 2025). During the peak season, about 1,500 daily riders enter Arlington Cemetery station.

Figure 7: Arlington Cemetary Daily Ridership, 2025



CHAPTER 4. Recommended Pedestrian Circulation and Access Improvements

Initially this study evaluated three options to improve pedestrian circulation and access into the center of the AMC with the Triumphal Arch. Each of the three options include pedestrian crosswalks into the center of the AMC. Based on that initial evaluation, signalization was chosen as it provides the best combination of improving pedestrian safety while minimizing the impact to vehicular operations.

Traffic volume for AMC and the surrounding roadways is high, as shown in Section 3.1, especially during the weekday commuter periods. Pedestrians are likely to encounter issues in crossing the high-volume roadway segments without signalization and may be approaching from many different directions while usually desiring to take the most direct route. Therefore, crossings into the circle from both the east and the west will provide the best opportunity for visitors to easily access the Triumphal Arch. Traffic patterns and visitors' demand vary significantly by time of day and day of the week, season, and during special events, or in response to traffic disruptions elsewhere in the local or regional roadway network.

The analysis explores whether signalized crosswalks can accommodate the anticipated high volume of visitors at the proposed Triumphal Arch and assesses whether signalization will

maintain safety with an acceptable level of impact to traffic operations in the immediate surrounding roadway network. Further data and analysis may be needed to determine the optimal lane configuration and signal phasing.

4.1. Signalized Conceptual Plan

The signalized concept plan, shown in Figure 8, includes eight crossings, all of which will be signalized. The traffic movements entering AMC will also be signalized, eliminating the existing yield and merge movements. The concept avoids mixing yield control and signal control, as maintaining both yield control and signal control would increase driver confusion and might increase rear-end and angle crashes. Therefore, removing the existing yield and merge movements will improve both the expectations of drivers traversing the circle and the experience of visitors to the Triumphal Arch.

In the proposed signalized concept, AMC will operate with three new signal groupings affecting Washington Boulevard, Arlington Boulevard, AMB, and Memorial Avenue.

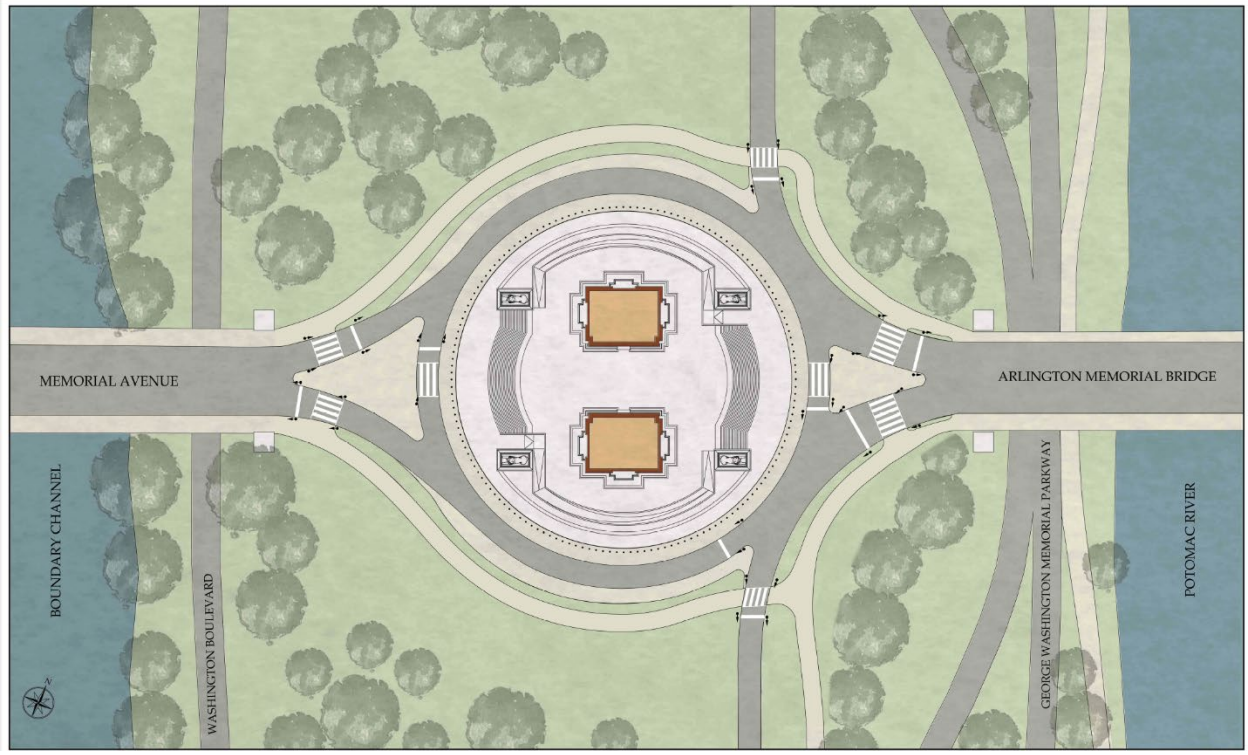
Washington Boulevard at AMC/AMB
This signal grouping primarily controls all inbound traffic traveling eastbound over the AMB. It includes the heaviest traffic volume movement, Washington Boulevard northbound right-turn, as well as the AMC eastbound through movement. Both of these movements also travel through the newly proposed crossing between the south AMB sidewalk and the Arch.

Arlington Boulevard at AMC/AMB
This signal group primarily controls all outbound traffic traveling westbound over the AMB. It includes the second heaviest traffic volume movement, AMB westbound right-turn movement to Arlington Boulevard, which travels through the newly proposed crossing between the north AMB sidewalk and the Arch. It also separates the AMB westbound through movement with the AMC northbound through movement. This separation allows for the removal of the left-most Arlington Boulevard northbound merge lane, which causes confusion, congestion, and traffic incidents.

Memorial Avenue at AMC
This signal group controls the west crosswalks and vehicle traffic movements entering and exiting Memorial Avenue.

The concept plan also shows enlarged median islands to the east, at the intersection with AMB, and to the west, at the intersection with Memorial Avenue. These enlarged medians provide visitors with an expanded area to walk and wait for the signal, and to take photos of the Triumphal Arch. The existing truck apron on the inside of the circle, currently designated with pavement markings only, is proposed to be converted into a concrete truck apron that will be mountable for larger vehicles. The existing Belgian block on the outside of the circle, is proposed to be converted into grass to provide additional separation from the circulating vehicles. The circulating width of the roadway is proposed to be about 20-feet wide.

Figure 8: Signalized Concept Plan



4.2. Preliminary Traffic Operations Analysis

Preliminary traffic operations, modeled in Synchro and SimTraffic, show the initial traffic impacts of signalizing the crosswalks around the proposed Triumphal Arch. As previously mentioned, further analysis and data are needed to refine the model and determine optimal lane configuration and signal phasing.

The vehicular traffic operations analysis is determined through calculations based on the Transportation Research Board's Highway Capacity Manual (HCM), most recently published 7th edition in 2022. The intersection geometry and traffic volumes play critical roles in determining the Level of Service (LOS) and delay. The vehicular traffic operations analysis is determined through model simulation and subsequent calculations. LOS and delay at the signalized and unsignalized intersections were calculated using Synchro and SimTraffic, both part of the Synchro Studio V12 developed by Cubic. Table 3 is an excerpt from the HCM LOS criteria and delay for signalized and unsignalized intersections.

Table 3. Vehicle Level of Service Criteria
Source: 2022 Highway Capacity Manual, Transportation Research Board

Level of Service	Average Stopped Delay (seconds/vehicle) at Signalized Intersection	Average Stopped Delay (seconds/vehicle) at Unsignalized Intersection
A	≤10	≤10
B	>10 – ≤20	>10 – ≤15
C	>20 – ≤35	>15 – ≤25
D	>35 – ≤55	>25 – ≤35
E	>55 – ≤80	>35 – ≤50
F	≥80	≥50

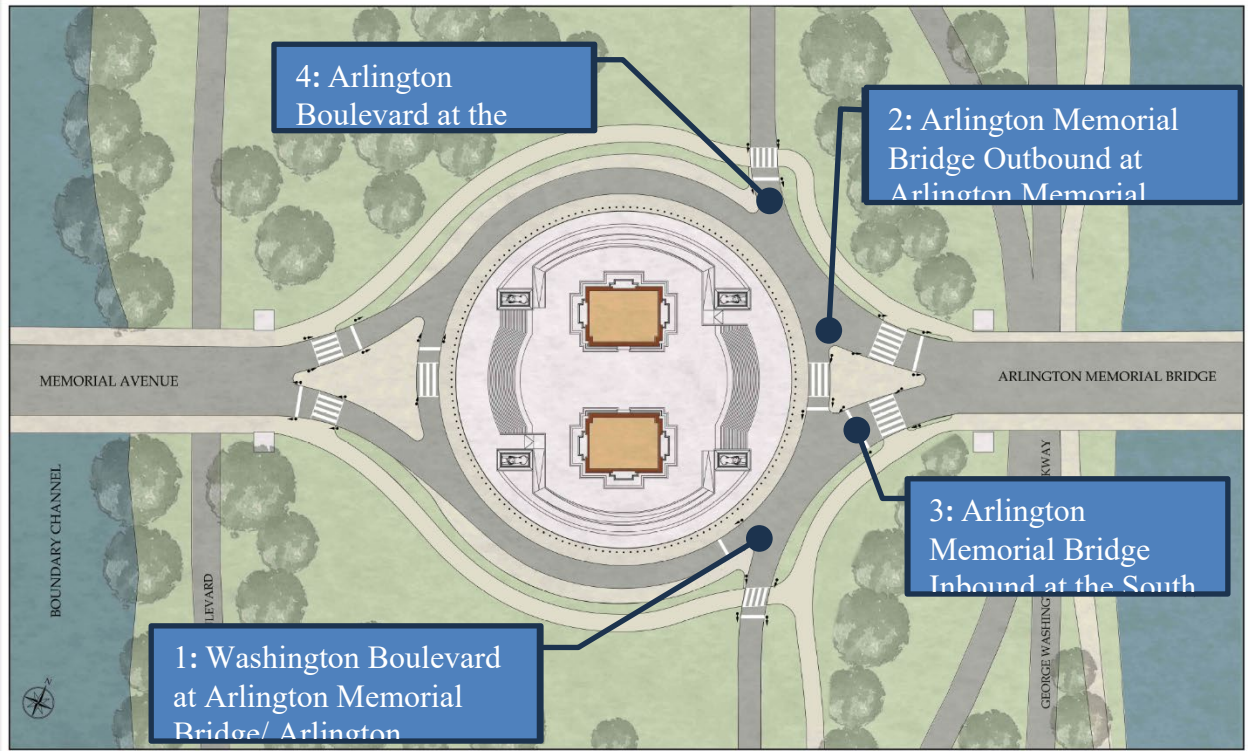
While a LOS F is a failing grade, transportation safety, especially for people walking, biking, or accessing transit, is a critical component of the transportation network. Safety is not a factor that is evaluated through the traffic operations analysis. As a result, at times a LOS F is acceptable to preserve the safety of people walking, biking, or accessing transit or in this case, accessing the Triumphal Arch.

Traffic volumes form the basis of the traffic operations analysis. The traffic volumes used in this study were collected in 2018 and adjusted based on nearby traffic volumes from 2024. These traffic volumes were the best readily available traffic volumes for use in this study, therefore the traffic operations reflect estimated traffic conditions based on these traffic volumes. The analysis presented in this study is preliminary in nature and only serves to represent one possible alternative to the signal operations and traffic impacts. As this formal design and analysis advances, the collection of new traffic volume data and an update to the traffic model to reflect current conditions are recommended.

The pedestrian signal phase is expected to operate through pedestrian actuation and detection, meaning the pedestrian phase will only activate when a pedestrian is detected at the crosswalk. Therefore, the number of pedestrian calls per hour is expected to have a direct correlation to the overall traffic operations. For example, with high pedestrian demand, the traffic will stop to allow the pedestrian phase to operate, which will lead to increased delay and queuing. The Triumphal Arch, similar to many other memorials in the region, is expected to have the highest visitor demand on weekends and holidays, when traffic volumes are lower. On the other hand, the Triumphal Arch is expected to have a lower visitor demand during the weekday morning commuting period, when traffic demand is expected to be highest, especially for vehicles traveling inbound along the AMB to Washington D.C. To maintain a conservative preliminary analysis, the traffic scenarios are modeled at high pedestrian demand, to represent a worst-case scenario for traffic operations.

The analysis provided below shows one possible scenario that eliminates the Washington Boulevard northbound left-turn movements. Several additional scenarios were modeled but results are not provided that analyzed variations of lane configurations and signal phasing. This scenario included the best combination of improvements to pedestrian and vehicle safety while minimizing the overall impact to traffic operations.

Figure 9: Intersection Reference Key for Level of Service Tables



The preliminary traffic operations analysis results are shown in Table 4, Table 5, and Table 6 for the weekday a.m., weekday p.m., and Saturday midday peak hours, respectively.

Table 4: Preliminary Signalization Traffic Operations Analysis, Weekday a.m. Peak Hour

Intersection	LOS	Delay (seconds)	Average Queue (feet)	95th Percentile Queue (feet)
1: Washington Blvd at AMC/AMB	**E**	**62.6**	-	-
AMC EB L/T	B	14.4	253	406
Washington Blvd NB R*	E	79.8	1,781	1,928
Washington Blvd NB R*	F	80.0	1,763	1,958
2: AMB Outbound at AMC	**A**	**8.4**	-	-
AMB WB T	A	4.7	37	85
AMB WB R	A	4.6	86	164
AMB WB R	A	6.2	95	173
AMC NB L/T	D	29.1	83	141
3: AMB Inbound at South Crosswalk	**A**	**4.1**	-	-
AMB EB T	A	1.9	54	87
AMB EB T	A	5.2	57	74
AMB EB T	A	4.6	59	73
4: Arlington Blvd at North Crosswalk	**A**	**3.5**	-	-
Arlington Blvd NB T	A	3.6	69	113
Arlington Blvd NB T	A	3.4	69	136

* 410 Denied Vehicles, this metric indicates that the queue length was long and vehicles were unable to enter the network during the simulation. An additional 173.8 seconds of delay was unaccounted for due to denied entry to the network.

Table 5: Preliminary Signalization Traffic Operations Analysis, Weekday p.m. Peak Hour

Intersection	LOS	Delay (seconds)	Average Queue (feet)	95th Percentile Queue (feet)
1: Washington Blvd at AMC/AMB	**B**	**15.1**	**-**	**-**
AMC EB L/T	C	21.6	341	653
Washington Blvd NB R	B	12.1	128	272
Washington Blvd NB R	A	10.2	176	269
2: AMB Outbound at AMC	**A**	**13.2**	**-**	**-**
AMB WB T	A	6.7	40	86
AMB WB R	A	8.2	112	191
AMB WB R	A	9.0	133	216
AMC NB L/T	D	41.3	116	204
3: AMB Inbound at South Crosswalk	**A**	**3.6**	**-**	**-**
AMB EB T	A	2.7	68	123
AMB EB T	A	4.4	27	64
AMB EB T	A	3.8	40	73
4: Arlington Blvd at North Crosswalk	**A**	**5.1**	**-**	**-**
Arlington Blvd NB T	A	5.4	83	143
Arlington Blvd NB T	A	4.9	84	147

Table 6: Preliminary Signalization Traffic Operations Analysis, Saturday Midday Peak Hour

Intersection	LOS	Delay (seconds)	Average Queue (feet)	95th Percentile Queue (feet)
1: Washington Blvd at AMC/AMB	**B**	**10.3**	**-**	**-**
AMC EB L/T	B	12.3	181	322
Washington Blvd NB R	B	10.5	82	230
Washington Blvd NB R	A	8.4	137	239
2: AMB Outbound at AMC	**B**	**10.6**	**-**	**-**
AMB WB T	A	5.9	32	73
AMB WB R	A	7.5	145	240
AMB WB R	A	8.3	164	253
AMC NB L/T	D	36.3	94	169
3: AMB Inbound at South Crosswalk	**A**	**3.4**	**-**	**-**
AMB EB T	A	1.8	32	75
AMB EB T	A	4.4	23	58
AMB EB T	A	3.7	27	65
4: Arlington Blvd at North Crosswalk	**A**	**3.8**	**-**	**-**
Arlington Blvd NB T	A	4.1	84	136
Arlington Blvd NB T	A	3.5	84	132

The operations analysis shows that the introduction of traffic signals to accommodate pedestrian crossings is expected to result in negligible impacts to the overall traffic operations. Almost all intersections and approaches are expected to operate at LOS A with minimal delay and queuing.

The largest impact is expected to occur at the Washington Boulevard northbound right-turn movement onto the AMB during the weekday a.m. peak hour. This is a high-volume traffic movement that contains a free flow of traffic between the regional highway network into Washington D.C. The existing unsignalized crosswalk provides some friction for that movement and creates delays and queuing along the approach. The traffic signal is expected to maintain a similar operation and may even improve the operations by designating a dedicated phase to allow vehicles to proceed through the crosswalk. Additionally, the highest level of inbound traffic occurs during the weekday morning commuting period, when visitation to the Triumphal Arch is expected to be lowest. Therefore, the traffic operation results present a conservative worst-case scenario, and actual traffic operations may be better than what is presented.

4.3. Traffic Operations During Construction, Maintenance of Traffic

In addition to the traffic operations for the final design, this report includes a traffic operation analysis during construction. The same method to analyze the traffic operations are used. Figure 8 shows the MOT plan with the vehicle detour during construction and also shows the intersection reference key for the Level of Service tables. The recommended traffic detours for construction include the following elements:

- Closure of the southern side of the circle and conversion of the north side to accommodate two-way traffic and the eastbound through movement from Memorial Avenue to the AMB inbound. The eastbound movement will be accommodated along the north side of the circle and then merge into a designated lane at the east side of the AMC upon entering the AMB.
- Elimination of the Washington Boulevard northbound left-turn movement to Memorial Avenue
- Elimination of the Memorial Avenue eastbound left-turn movement to Arlington Boulevard.
- The AMB westbound through movement will merge with the AMB westbound right-turn movement into a shared through/right-turn lane.
- Pedestrian circulation will be modified to the east and northern side of the AMC adjacent to the construction zone and a new crosswalk will provide pedestrian crossing from the center of the circle to the outside of the circle.

The traffic operations analysis during construction are shown in Table 7, Table 8, and Table 9 for the weekday a.m., weekday p.m., and Saturday midday peak hours, respectively.

Figure 10: Maintenance of Traffic Plan and Intersection Reference Key for Level of Service Tables

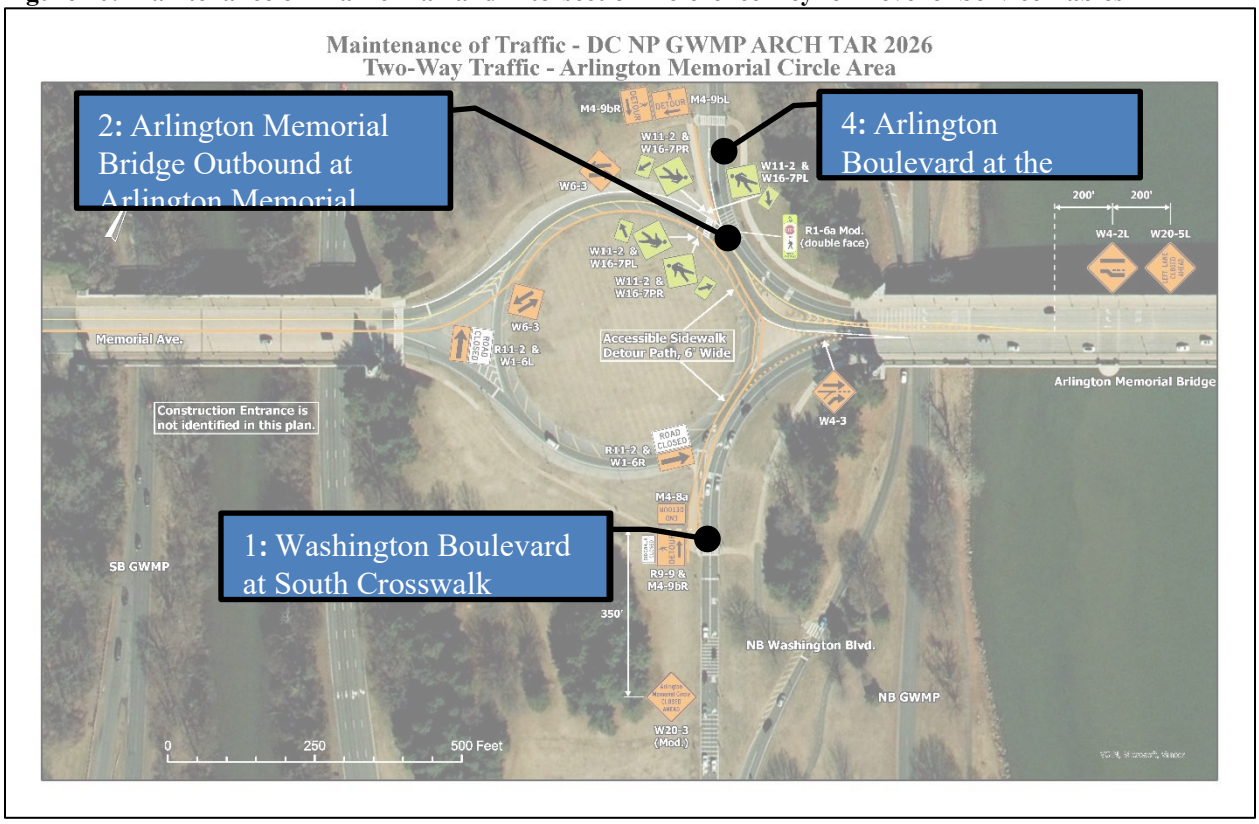


Table 7: Maintenance of Traffic, Traffic Operations Analysis, Weekday a.m. Peak Hour

Intersection	LOS	Delay (seconds)	Average Queue (feet)	95th Percentile Queue (feet)
1: Washington Blvd at South Crosswalk	**F**	**72.1**	-	-
Washington Blvd NB R	F	71.7	1,127	2,035
Washington Blvd NB R	F	72.5	1,267	2,187
2: AMB Outbound at AMC	**A**	**0.9**	-	-
AMC EB T	A	1.3	36	82
AMB WB T/R	A	0.9	7	32
AMB WB R	A	0.4	0	0
4: Arlington Blvd at North Crosswalk	**A**	**0.7**	-	-
Arlington Blvd NB T	A	0.7	21	75
Arlington Blvd NB T	A	0.8	35	85

Table 8: Maintenance of Traffic, Traffic Operations Analysis, Weekday p.m. Peak Hour

Intersection	LOS	Delay (seconds)	Average Queue (feet)	95th Percentile Queue (feet)
1: Washington Blvd at South Crosswalk	**A**	**5.7**	**-**	**-**
Washington Blvd NB R	A	6.8	89	202
Washington Blvd NB R	A	4.7	81	197
2: AMB Outbound at AMC	**A**	**1.3**	**-**	**-**
AMC EB T	A	2.1	70	92
AMB WB T/R	A	1.1	23	56
AMB WB R	A	0.9	0	0
4: Arlington Blvd at North Crosswalk	**A**	**0.8**	**-**	**-**
Arlington Blvd NB T	A	1.5	49	131
Arlington Blvd NB T	A	2.1	76	139

Table 9: Maintenance of Traffic, Traffic Operations Analysis, Saturday Midday Peak Hour

Intersection	LOS	Delay (seconds)	Average Queue (feet)	95th Percentile Queue (feet)
1: Washington Blvd at South Crosswalk	**A**	**7.2**	**-**	**-**
Washington Blvd NB R	A	8.3	91	184
Washington Blvd NB R	A	6.3	106	209
2: AMB Outbound at AMC	**A**	**1.0**	**-**	**-**
AMC EB T	A	1.4	40	115
AMB WB T/R	A	1.0	11	46
AMB WB R	A	0.7	0	0
4: Arlington Blvd at North Crosswalk	**A**	**0.9**	**-**	**-**
Arlington Blvd NB T	A	0.8	27	85
Arlington Blvd NB T	A	0.9	44	107

4.4. RECOMMENDED DATA AND ANALYSIS FOR SIGNALIZATION

As mentioned throughout this report, additional data collection and traffic analysis is recommended as part of the final design process. The analysis in this memorandum originated from data that was readily available, and additional data should be collected to further evaluate potential challenges that can improve the design, safety, traffic operations, and visitor experience as much as possible. Some of the recommended data include:

- Traffic volumes within proximity to the proposed Triumphal Arch site to include weekday and weekend volumes through the day;
- Vehicle travel speeds around AMC by time of day to clearly identify the 85th percentile speeds during free-flow conditions; and
- Projected Triumphal Arch visitation patterns to better predict the pedestrian calls at the signalized intersection by time of day.

CHAPTER 5. INITIAL PEDESTRIAN CIRCULATION IMPROVEMENTS

Prior to identifying the signalized option, three initial pedestrian circulation options were developed that did not include signalization. The three options are listed below and are described in more detail, with narratives on the projected benefits and drawbacks, in the subsequent sections:

- Option 1 – East Crossing with Pedestrian Hybrid Beacon;
- Option 2 – West Crossing from Memorial Avenue; and
- Option 3 – North-South Connection.

While it is unusual for crosswalk markings and pedestrian access into the central island of a roundabout, in this case, engineering justification has determined a clear need for pedestrian access into the center of AMC. AMC should be considered a traffic circle or rotary instead of a roundabout as the geometrical (traffic circles are larger than the roundabouts) and operational (traffic circles operate with higher speeds than a roundabout) characteristics clearly fall outside of the definition of a true roundabout.

5.1. Option 1 – East Crossing with Pedestrian Hybrid Beacon

Option 1 consists of the installation of a Pedestrian Hybrid Beacon (PHB) across the westbound (outbound) travel lanes including the two right-turn only lanes and the through lanes, to the central island. A third crossing will be provided across the circulating road into the center of the AMC. The signalization treatment can be made with a PHB or a more traditional traffic signal (green, yellow, red) with a dedicated walk phase. An additional fourth crossing will be located across the southern leg, west of the Washington Boulevard approach. The conceptual design is shown in Figure 11 and a summary of the vehicle-pedestrian crossing conflicts is shown in Table 3.

Figure 11: Conceptual Design, Option 1

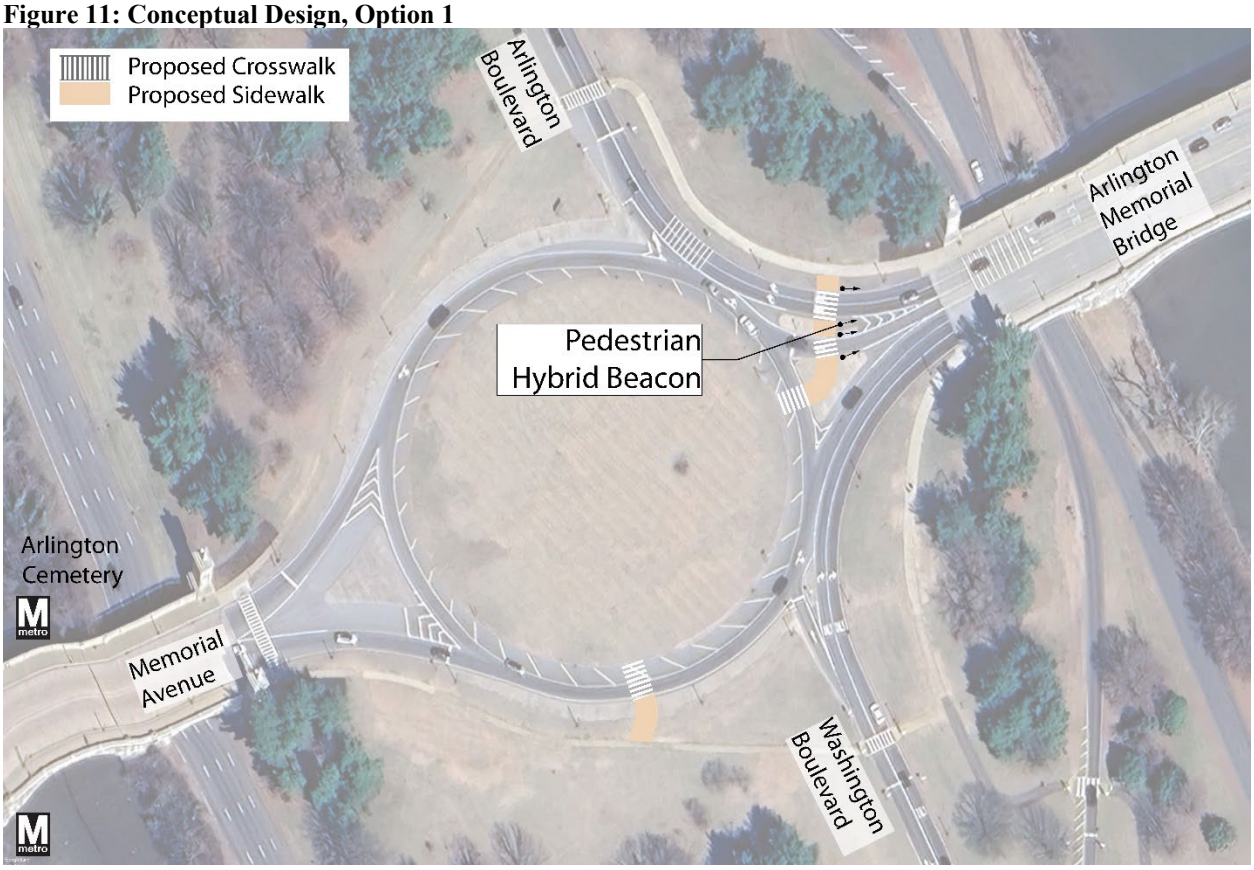


Table 10: Option 1 Crossing Summary

Crossing Description	Number of Lanes	Pedestrian Exposure (feet)	Weekday a.m. Peak Hour Traffic Volume	Weekday p.m. Peak Hour Traffic Volume
AMB WB right-turn only lanes (PHB)	2	25	914	1,547
AMB WB through lane (PHB)	1	15	137	153
AMC Circulating East	1	20	139	191
AMC Circulating South	1	30	993	1,067
Washington Boulevard NB (existing)	2	25	3,120	1,839
Total	**7**	**115**	**5,303**	**4,797**

Benefits

- Signalization provides the safest option for pedestrians and is the most effective at stopping traffic.
- Provides the most direct route between the Bridge and the Trail and reduces the existing route between the Bridge and the Trail by about 850 feet.
- The pedestrian exposure in the roadway is projected to decrease from 120 feet to 115 feet.
- People walking from Washington D.C. along the north side of the Bridge will have most direct access to the signalized crossing.

Drawbacks

- Signals can cause significant congestion, especially during the peak commuting periods and queue lengths may extend back over the entire Bridge.
- Signals are more expensive than most unsignalized, at-grade options.
- Signal equipment can negatively impact the viewshed.
- This option requires the furthest walk for people walking from the Metro station, Arlington Cemetery, the ANC Parking Lot, or the ANC.
- DDOT will likely manage the signal, which will require additional evaluation and coordination during design, implementation, and post implementation operation.

5.2. Option 2 – West Crossing

Option 2 consists of one series of crossings along the west side of the AMC that would connect to the existing center median island. The existing crosswalk is located about 150 feet from the AMC and doesn't connect with the existing center median island. In this option, the crosswalks will be relocated to connect to the median island, and a curb extension will tighten the curb radius for vehicles exiting and entering AMC. A tighter radius will encourage slower traffic speed and improve pedestrian safety. The median island may also frequently be used for more than just walking through, as visitors will be able to view the memorial in alignment with the road, the Bridge, and the Lincoln Memorial. Therefore, the center island may be redesigned as a place to experience the memorial in addition to transportation. The conceptual design is shown in Figure 12 and a summary of the vehicle-pedestrian crossing conflicts is shown in Table 4.

Figure 12: Conceptual Design, Option 2

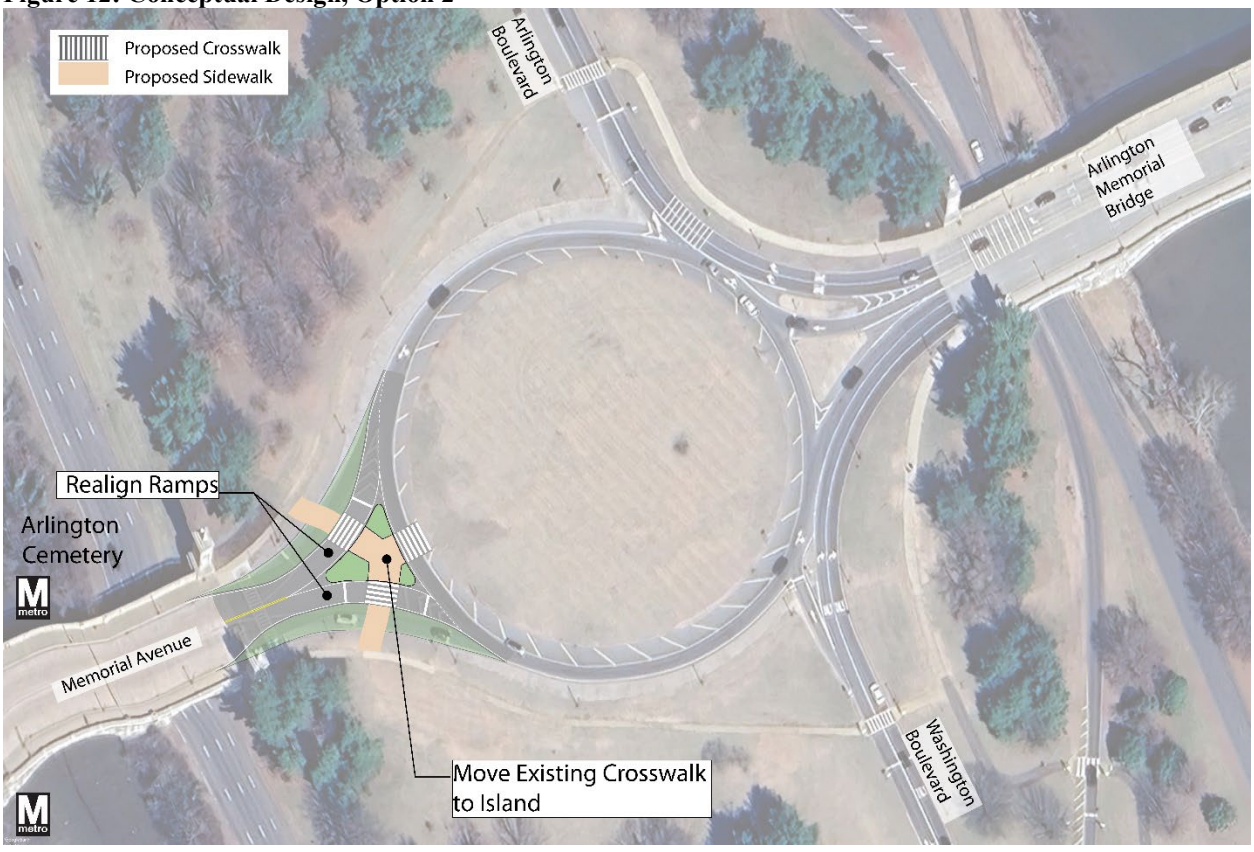


Table 11: Option 2 Crossing Summary

Crossing Description	Number of Lanes	Pedestrian Exposure (feet)	Weekday a.m. Peak Hour Traffic Volume	Weekday p.m. Peak Hour Traffic Volume
Arlington Boulevard (existing)	2	35	1,043	1,728
Memorial Avenue North	1	25	147	163
Memorial Avenue South	1	25	993	1,067
AMC Circulating West	1	20	0	0
Washington Boulevard (existing)	2	25	3,120	1,839
Total	**7**	**130**	**5,303**	**4,797**

Benefits

- This option best serves people walking from the Metro station, Arlington Cemetery, the ANC Parking Lot, or the ANC.
- The inside of the AMC can be accessed by crossing a roadway with little to no vehicle traffic.
- People walking from Washington D.C. along the north side of the Bridge will have most direct access to the signalized crossing.
- Does not require circulating vehicles to yield to pedestrians.
- Pedestrians connecting from the Bridge to the Trail will have a pedestrian refuge island across Memorial Avenue, making the existing route safer.
- It is likely to cost less than Option 1.

Drawbacks

- The distance between the Bridge and the Trail is not expected to be reduced by any distance.
- This option requires the furthest walk for people walking from Washington D.C. or the MVT.
- The total pedestrian exposure is expected to increase from 120 feet to 130 feet, but pedestrians are not expected to use all crosswalks.
- It is likely to cost more than Option 3.

5.3. Option 3 – North-South Connection

This option proposes two new crosswalks accessing the internal side of the AMC, one to the west of Arlington Boulevard and one to the west of Washington Boulevard. The conceptual design is shown in Figure 13 and a summary of the vehicle-pedestrian crossing conflicts is shown in Table 5.

Figure 13: Conceptual Design, Option 3

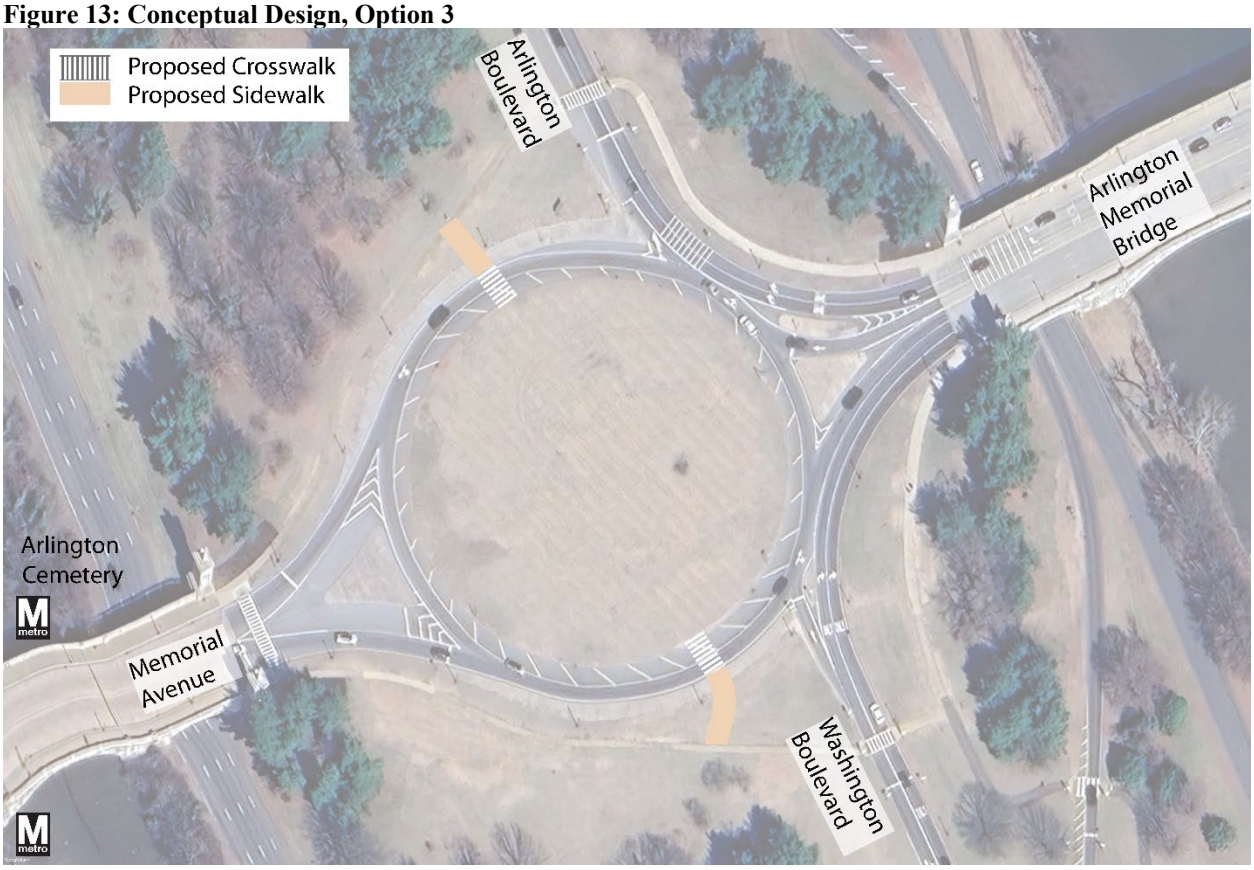


Table 12: Option 3 Crossing Summary

Crossing Description	Number of Lanes	Pedestrian Exposure (feet)	Weekday a.m. Peak Hour Traffic Volume	Weekday p.m. Peak Hour Traffic Volume
Arlington Boulevard (existing)	2	35	1,043	1,728
AMC Circulating North	1	30	147	163
AMC Circulating South	1	30	993	1,067
Washington Boulevard (existing)	2	25	3,120	1,839
Total	**6**	**120**	**5,303**	**4,797**

Benefits

- The distance between the Bridge and the Trail is expected to be reduced by about 360 feet.
- Equalizes the walking from east (Washington D.C./MVT) and the west (ANC/Metro/Parking).
- It is likely to be the cheapest option.

Drawbacks

- Requires drivers circulating to yield to pedestrians.

CHAPTER 6. OTHER SAFETY CONSIDERATIONS AND STRATEGIES

In addition to the crossing locations and pedestrian circulation, this project has also considered additional safety, circulation, and access improvements including sight distance, traffic calming, pick-up/drop-off locations, parking, and wayfinding.

6.1. Traffic Calming

To further improve the proposed or existing crossings, traffic calming measures, in addition to a high visibility marked crossing should be considered. Traffic calming can slow down traffic, increase the visibility of the crosswalk and pedestrians, and result in higher yielding rates for drivers when seeing someone waiting to cross. Table 13 shows the effective traffic calming measures that could be implemented at crosswalks.

Table 13. Summary of Traffic Calming Measures

Traffic Calming Measure	Description	Effectiveness
Raised Crossing	A crosswalk, elevated to sidewalk level.	Effective at slowing speeds, increasing driver yielding, and improving pedestrian visibility.
Median Refuge Islands	A safe protected waiting area in the center of the roadway, often between opposite direction travel flow.	Reduces crossing distance and allows pedestrians to cross one lane or one travel direction at a time.
Curb Extension	A sidewalk extension in the parking lane or shoulder area, reducing the crossing width.	Shortens the crossing distance, improves pedestrian visibility, and limits illegal parking or stopping at the crosswalk.
Rectangular Rapid Flashing Beacon (RRFB)	A pedestrian activated flashing warning light at a crosswalk.	Increases driver yielding, especially along multilane crossings.
Advanced Stop or Yield Markings	Pavement markings placed in advance of a crosswalk instructing drivers where to stop, often accompanied by a sign.	Reduces multi-threat crashes by preventing vehicles in one lane from blocking a pedestrian in the crosswalk.
Wide Crosswalks	A marked crosswalk wider than the standard 10’ feet width	Improves crosswalk visibility and provides more space for groups and faster pedestrians to pass slower pedestrians.
Transverse Rumble Strips	A series of grooves or raised pavement marking across the roadway that create a tactile vibration and noise indicating the driver is approaching a hazard.	Effective at increasing driver alertness and reducing approach speeds.
Retroreflective Signage	High reflectivity on signage compliant with the newest MUTCD.	Effective at providing important visual cues along the roadway at night and in low-light conditions.
Smaller Curb Radius	Decreasing the curb radius for entrance and exit locations at the AMC.	Smaller curb radius will decrease approaching travel speeds and improve driver yielding rates at the crosswalks.
Cobblestone Border	A cobblestone mountable surface treatment along the roadway edge on either the inside or outside edge of the circle.	Effective at discouraging high travel speeds by minimizing the roadway width while accommodating larger vehicles that need additional turning radius.
Security Perimeter	A physical barrier between travel lanes and pedestrian plazas to prevent vehicles from exiting the roadway into large crowds of people.	Physically prevents lane departure crashes from impacting large groups of pedestrians.

DDOT has recently proposed safety and operational improvements at Grant Circle through the Grant Circle Redesign Project. DDOT implemented temporary improvements with pavement markings, flexible delineator posts, and signage at Grant Circle around 2017 and 2018 and is now proposing to make many of those changes permanent. This project proposes raised crosswalks and lane diets to improve access around and into the center of the circle.

DDOT also recently completed transportation infrastructure project on both sides of the Fredrick Douglass Memorial Bridge (carrying South Capitol Street). The intersections on both sides of the bridge a large oval shaped intersections (that operate like traffic circles) and allow for signalized pedestrian movements around and through the center. This is also a good example of a signalization intersection with circular geometry.

6.2. STOPPING SIGHT DISTANCE

The design of the Triumphal Arch, the surrounding bollards, and any additional signal equipment or sight line obstructions should maintain adequate Stopping Sight Distance (SSD). SSD is the minimum distance required for a driver, traveling at a given speed, to see a stationary object in the roadway, such as another vehicle, and come to complete stop before colliding with the object.

Speed data show average circulating vehicle speeds of 18 mph to 23 mph and therefore potential 85th percentile circulating vehicle speeds could be close to 25 mph and would require 200-feet of SSD. Therefore, the design should accommodate at least 200 feet of sight distance around the Triumphal Arch. Additionally, the Triumphal Arch could increase distracted driving with drivers looking at the views and the memorial, therefore traditional SSD calculations may need to be adjusted.

6.3. Tour Bus and Ridehailing Pick-up/Drop-Off Zones

Tour buses and ridehailing service will inevitably be another common method for visitors to access the site. Providing safe and dedicated locations for tour buses and ridehailing services to drop-off or pick-up passengers is critical to the success of the transportation operations. Tour bus and ridehailing services would be encouraged to load and unload the Arlington Memorial National Cemetery garage. Micromobility (scooters, electric bike share, etc.) is not anticipated to be a common means of site access due to the entirety of Lady Bird Johnson Park being a designated Shared Mobility No Parking Zone.

Memorial Avenue is a wide, approximately 60-foot roadway with ample space for curbside loading and unloading. NPS owns Memorial Avenue through the bridge over the Richmond Highway. Providing active loading along Memorial Avenue will allow visitors, especially those in larger groups, to more easily access the site and minimize unnecessary driving or walking circulation. Loading and unloading along Memorial Avenue is expected under particular circumstances.

6.4. Parking

The ANC has two large parking lots that could be used for visitors. As previously mentioned, visitors to the new memorial are likely to visit both the ANC and the new memorial site located in the AMC. NPS should coordinate with the U.S. Army to evaluate existing parking demand and capacity at the parking lots to determine if additional parking may be necessary at the new memorial site.

6.5. Wayfinding

Wayfinding is the system of information, typically through signage, to help orient people to where they are and where they are trying to go. By providing clear wayfinding signage, visitors will be directed to the nearest safe crossing to access the inside of AMC. Without clear wayfinding, visitors may try to run across multiple travel lanes of high-speed traffic outside of the designated crosswalks. If wayfinding is insufficient, fencing or other physical barriers should be considered to prevent people from crossing at unsafe locations. Wayfinding should be provided at all junctions in the multimodal network and at potential desire lines away from the formal multimodal network to encourage proper circulation patterns to and around the AMC. Wayfinding should extend through nearby points of interest such as Lincoln Memorial, the Arlington Cemetery Metro Station and the ANC. Figure 14 shows the view from the Lincoln Memorial along the AMB to the AMC and ANC on the west side of the Potomac River.

Figure 14: View of the Triumphal Arch site from the Lincoln Memorial

Source: American Society of Civil Engineers
https://asce-ncs.org/index.php/centennial-celebrations/coffee-table-book/41-arlington-memorial-bridge

APPENDIX C: HISTORIC PROPERTIES TABLES

Table 1. Historic Properties within the Area of Direct Effects

Map ID	Resource Name		NRHP Designation
1	Memorial Avenue Corridor Cultural Landscape		National Register of Historic Places (NRHP) cultural landscape
		Memorials: 101st Airborne Division Memorial, 4th Infantry Division Memorial, American Armored Force Memorial, Seabees Memorial, United Spanish War Veterans Memorial (The Hiker), Women in Military Service for America Memorial	Contributing
		Statues and Monuments: Arts of War-Sacrifice, Arts of War-Valor, Rear Admiral Richard Evelyn Byrd Monument	Contributing
		Arlington Hemicycle and Pylons	Contributing
		Arlington Hemicycle circular pool (including basin in central niche)	Contributing
		Arlington National Cemetery Gates and Gate Pylons (Gatehouses)	Contributing
2		Arlington Memorial Bridge and Related Features	Contributing/NRHP
		Memorial Avenue Bridge (Arlington Memorial Bridge Extension, also referenced as Boundary Channel Bridge)	Contributing
		Memorial Circle Pylons	Contributing
		Circulation: Memorial Avenue, Memorial Circle, and the pedestrian system on the two bridges (Memorial and Arlington) and avenues	Contributing
		Boundary Channel below Memorial Avenue Bridge (Arlington Memorial Bridge Extension)	Contributing
		Small-scale features: original cast-iron inlet grates along both bridges and Memorial Avenue; Washington standard lampposts, "Durax" centerline of Memorial Avenue and both bridges; granite block "Durax" surface of Memorial Avenue Bridge; granite curbstones; granite header stones at the ends of bridges; granite lamppost bases; paving of sidewalks on two bridges and avenue, and triangular "islands" of granite blocks at east and west ends of Memorial Circle	Contributing
		Vegetation: Grass panels and Holly hedge along Memorial Avenue, White oak border of Memorial Avenue, White pines at four pylons near Memorial Circle, White oaks near Arlington Cemetery gates and hemicycle stairways, Yews along hemicycle stairways and wrought iron fence	Contributing

Map ID	Resource Name		NRHP Designation
		Views and vistas: View of the Washington Monument from various locations along the corridor, view to hemicycle and Arlington House - the Robert E. Lee Memorial, view to Lincoln Memorial, views of green parkland along both sides of Potomac from Arlington Memorial Bridge, and views to river, the Capitol dome, and other monuments from Memorial Circle	Contributing
3	Lady Bird Johnson Park Cultural Landscape		NRHP cultural landscape
		Circulation: George Washington Memorial Parkway (GWMP) (see below under George Washington Memorial Parkway Cultural Landscape); Lyndon B. Johnson Memorial Grove; Memorial Circle; Mount Vernon Memorial Highway; Mount Vernon Trail (southern portion, to Humpback Bridge); Columbia Island Marina, parking lot and entrance to Lyndon Baines Johnson (LBJ) Memorial Grove	Contributing
		Vegetation: All of the stone plantings, Cottonwoods, crabapple, pear and elm trees remaining from 1932 planting, daffodils, dogwoods, large white pines near pylons, plantings of LBJ Memorial Grove, yews at Navy and Merchant Marine Memorial	Contributing
		Buildings and Structures: Arlington Memorial Bridge Boundary Channel Extension; Bridge over Boundary Channel; Boundary Channel Bridge (New); Columbia Island Marina snack bar; Memorial Circle, four pylons; rip rap, historic, south end of island; LBJ Memorial Grove, wooden entrance deck on Virginia shore including walks, stone walls, etc.; LBJ Memorial Grove, megalith; LBJ Memorial Grove, flagstone plaza; LBJ Memorial Grove, entire site; LBJ Memorial Grove, pedestrian bridge; Navy and Merchant Marine Memorial; flagstone plaza; U.S. Route 50 Overpass, westbound; Washington Boulevard Bridge; Washington Boulevard Overpass; Arlington Memorial Bridge; LBJ Memorial Grove, low stone-and-concrete wall along flagstone walk	Contributing
		Views and vistas: GWMP, northbound views north of Arlington Memorial Bridge to Theodore Roosevelt Island, D.C. shoreline, Kennedy Center; GWMP, northbound views to LBJ Memorial Grove, megalith, and Navy and Merchant Marine Memorial; GWMP, northbound views to Washington shoreline and National Mall; GWMP, northbound views up river to Arlington Memorial Bridge; LBJ Memorial Grove views and vistas along entry route, from plaza on VA shore, across bridge, along walks to meadow area and to Grove and flagstone plaza; LBJ Memorial Grove vistas from flagstone plaza to National Mall and East and West Potomac Parks; Memorial Circle views east to Lincoln Memorial, west to Arlington House and Arlington National Cemetery, north up island and south down island; Mount Vernon Trail views along trail near Potomac River shore, corresponding to views from northbound and southbound GWMP	Contributing
		Small-scale features: benches, granite panels, light posts, plaque, drinking fountains, guardrails	Contributing

Map ID	Resource Name		NRHP Designation
		Water features: Boundary Channel; Columbia Lagoon (also called Columbia Basin, Pentagon Lagoon)	Contributing
4	Arlington National Cemetery Historic District		NRHP historic district
		Vegetation and Landscapes: Argonne Cross Landscape; Arlington Hemicycle Landscape; Chaplains Hill; Civil War Unknowns Landscape; Columbarium Courts Landscape; Confederate Memorial Section; Custis Woods; James Tanner Amphithteater; Kennedy Family Gravesites; Memorial Amphitheater; Memorial Arboretum; Millenium Woods and Stream; Nurses Memorial Associated Features; Pershing Gravesite Landscape; Red Spring Landscape; Scatter Area; Trees, Medal of Honor; Trees, Memorial Tres; Trees, State Champions and Co-Champions; U.S. Coast Guard Memorial; picturesque plantings patterns, hedgerows, oak trees	Contributing
		Views and vistas: View of Air Force Memorial; View of Arlington House from Kennedy Memorial; View to Arlington House down Crook Walk from Memorial Amphitheater; View of Arlington National Cemetery (ANC) from Memorial Bridge Memorial Drive, and Lincoln Memorial; View of ANC from Washington D.C. Potomac Shoreline (between 14th Street Bridge and Memorial Bridge); View of Lincoln Memorial and Washington Monument from Arlington House, Kennedy Gravesite; View to Main Gates from Southern perspective and Northern perspective; Views to Memorial Amphitheater from various locations; View to Netherlands Carillon; View of Old Amphitheater from various locations; View of the Pentagon from Pentagon Memorial; View to Spanish-American War Memorial from U.S.S Maine Memorial; View to U.S.S Maine Memorial from Memorial Amphitheater; View toward Fort Myer Gate and Chapel from ANC; Views of Washington Monument from ANC	Contributing
		Boundary Gates, Demarcations and Walls: Welcome Center Gate; Welcome Center Parking Gate; Administration Building Gate; East /Jefferson Davis Highway Gate; Service Complex Gate; South/Clayton Gate; Hobson Gate; Memorial Chapel Gate; West Gate (Selfridge); Fort Meyer/Old Post Chapel Gate; Ord & Weitzel Gate (New); Memorial Avenue north gate; Memorial Avenue south gat	Contributing
		Circulation Systems: Crook Walk; Custis Walk; Custis Walk Extension; Footbridges, Crook Walk; Memorial Avenue ("Avenue of Heroes"); Memorial Avenue Fountain Plaza; Memorial Avenue West Terminus (Cobblestone Drive); Millenium Bridge (Gifford Drive Bridge); Pedestrian Bridge; Road System; Sidewalks; Stairs and stone steps	Contributing
		Drainage Features: Select Drainage Ditches and Culverts; Historic Concrete Channels; Red Spring	Contributing
		Monuments and Memorials: 2nd Connecticut (Volunteer) Heavy Artillery Regiment; Civil War Headstones; Confederate Headstones; 1903 Government Headstones; USCT and Freedman Village Residents; "Standard" Headstones; Flat Headstones; Victorian-Era Monuments; Group Headstones; 3rd Infantry Division Memorial; 4th Infantry (Ivy) Division Memorial; 101st Airborne Division Memorial; Air Force Memorial Complex; Apollo 1 Memorial Plaque; Argonne Cross (and associated features); Armored Forces Memorial; Chaplains Hill; Battle of the Bulge Memorial; Richard Evelyn Byrd Memorial; Canadian Cross Memorial; Civil War Unknown; Confederate Memorial; Iran Rescue Mission Memorial; John F. Kennedy Memorial Gravesite; Robert F. Kennedy Memorial Gravesite; Korean War Veterans Memorial; Nurses Memorial; Office of Strategic Services Memorial; Pan Am Flight 103 Memorial; Pentagon Group Burial Marker; Rough Riders Memorial; Space Shuttle Challenger Memorial; Space Shuttle Columbia Memorial; Spanish-American War Memorial; Third Infantry Division Memorial; Tomb of Remembrance; Tomb of the Unknowns and Associated Features; U.S. Coast Guard Monument; U.S.S. Maine Memorial; U.S.S. Serpens Memorial; U.S.S Thresher Memorial; Unknown Dead of 1812; Tree Memorial Markers & Living Memorials	Contributing

Map ID	Resource Name		NRHP Designation
		Memorial Graves: Custis Graves; George Crook; Sir John Dill Monument; Matthew Henson; Philip Kearny Monument; Edward M. Kennedy; Major Pierre L'Enfant; Robert Todd Lincoln; Audie Murphy; Gen. John Pershing; Robert Edwin Peary; Mary Randolph; Wallace Fitz Randolph; Revolutionary War Ground Tablets; Philip Henry Sheridan; William H. Taft; John Wingate Weeks; MG Horatio Wright	Contributing
		Small-scale features: Arlington House Flagpole, benches, bollards, drinking fountains, exterior lighting,	Contributing
		Arlington House	Contributing/NRHP
		Arlington Memorial Bridge	Contributing/NRHP
		Arlington House Cultural Landscape	Contributing/NRHP
		Arlington Hemicycle / Military Women's Memorial	Contributing
		Administration Building	Contributing
		Columbarium Pavilion 1	Contributing
		Columbarium Pavilion 2	Contributing
		Millenium Pavilion 11	Contributing
		Millenium Pavilion 12	Contributing
		Hemicycle ("The Court of Honor", "The Great Entrance", Military Women's Memorial)	Contributing
		Lodge 1 (Superintendent's Lodge)	Contributing
		Lodge 1 Gazebo	Contributing
		Lodge 2 (Assistant Superintendent's Lodge)	Contributing
		Lodge 2 Garage	Contributing
		Memorial Amphitheater	Contributing
		Old Amphitheater (James R. Tanner Amphitheater)	Contributing
		Parking: Chaffee Lot; Funereal Queuing; Wheaton Lot	Contributing
		Receiving Vault	Contributing
		Service Complex #1 (4 buildings)	Contributing
		Service Complex #2 (8 buildings)	Contributing
		Tourmobile (Tram) Bus Stop Structure (Tour Bus Shelter)	Contributing
		Welcome Center (Visitor's Center)	Contributing

Map ID	Resource Name		NRHP Designation
5	Arlington House Historic District (also known as Robert E. Lee Historic District)		NRHP historic district
		Site: Landscape and associated features	Contributing
6		Arlington House (also known as the Robert E. Lee Memorial)	Contributing/NRHP
		North Slave Quarter and Kitchen	Contributing
		South Slave Quarter, Storehouse, and Smokehouse	Contributing
		Potting Shed	Contributing
		National Park Service Administration Building, 1931	Contributing
		Mary Randolph's Tomb	Contributing
		Custis Burial Plot	Contributing
		Civil War-era Officers' Graves and Grave Markers Site along Lee Avenue and East of Mansion	Contributing
		Well, ca. 1805, superstructure	Contributing
		Civil War Unknown Soldiers Monument, 1866	Contributing
		Arlington National Cemetery Old Amphitheater	Contributing
		General Sheridan, Admiral Porter, and General Wright Monuments	Contributing
		Pierre Charles L'Enfant Grave and Monument	Contributing
		Arlington House Cultural Landscape	Contributing
7	Arlington House Cultural Landscape		NRHP cultural landscape
		Land Use: Arlington Woods; Flower and Vegetable Gardens	Contributing
		Spatial Organization: Building locations; yard; garden terraces; Arlington Woods	Contributing
		Buildings and Structures: Arlington House; North Slave Quarters; South Slave Quarters; Potting shed; Below-ground section of well	Contributing
		Circulation: Trace road at the north end of Arlington Woods; Flower garden central path; Kitchen garden central path; East/west oriented road connecting Lee Drive and Sherman Avenue between yard and flower garden; Potting shed access road; Portion north/south section of Custis Walk on National Park Service property	Contributing
		Vegetation: trees in mixed hardwood forest of Arlington Woods ravine	Contributing

Map ID	Resource Name		NRHP Designation
		Views and Vistas: View between Arlington House and Washington, D.C.; View between kitchen garden, through yard to flower garden; view north and south along Lee Drive	Contributing
		Small-scale features: rectangular cut bench or mounting stone	Contributing
8	LBJ Memorial Grove		NRHP
9	Mount Vernon Memorial Highway		NRHP historic district
		Richmond, Fredericksburg & Potomac Railroad (RF&P) Underpass	Contributing
		Route 1/I-395 Downstream Underpass	Contributing
		Route 1/I-395 Upstream Underpass	Contributing
		Mount Vernon Memorial Highway alignment	Contributing
		Mount Vernon Trail adjacent to the Mount Vernon Memorial Highway	Contributing
10	Lincoln Memorial Cultural Landscape		NRHP cultural landscape
		Spatial organization: axial relationship with the Mall, axial alignment of the Lincoln Memorial statue with the Approachway, Washington Monument, and U.S. Capitol, axiality of the Reflecting Pool, radial arrangement of central rond-point around Lincoln Memorial Circle, radial arrangement of secondary allées, descent of the Watergate plaza and steps to the Potomac River, location of monuments and memorials establishing the landscapes termini, layout of Ohio Drive SW and Parkway Drive NW along the western edge of the cultural landscape, parallel with the Potomac River shoreline, Open character of playing fields and turf panels between the radial roads and the parkway	Contributing
		Land Use: Commemorative land use as a memorial landscape, dedicated to President Abraham Lincoln, John Ericsson, and Martin Luther King, Jr., Commemorative use as a memorial tree grove, dedicated to the individuals and organizations represented, a space of protest associated with the Civil Rights Movement and First Amendment causes, passive and active recreational use	Contributing
		Topography: Generally flat topography consistent with the construction of East/West Potomac Parks via reclamation, Mounded (round point) topography within Lincoln Memorial Circle, Steeply sloped topography on the east and west sides of Lincoln Memorial Circle, descending to the Reflecting Pool and the Potomac River, Gently sloping topography from the Belvedere and Parkway Drive to 23rd Street NW, Steeply sloping abutments flanking the Parkway Drive and Arlington Memorial Bridge overpasses	Contributing
		Vegetation: plantings in Lincoln Memorial Circle, elm allées and trees, turf island at Constitution Avenue Belvedere, turf panels along Reflecting Poll, in Lincoln Memorial Circle, and between radial roads and parkway, plantings along Watergate Steps area and approach road, remnant naturalistic groves of memorial trees	Contributing

Map ID	Resource Name		NRHP Designation
		Circulation: Lincoln Memorial Circle and associated concrete sidewalks, Parkway Drive NW and associated concrete sidewalks, 23rd Street NW/SW and associated concrete sidewalks, Henry Bacon Drive NW and associated concrete sidewalks, Daniel French Drive SW and concrete sidewalk on northeast side, Ohio Drive SW and associated concrete sidewalks, traffic circle and concrete sidewalks at the Belvedere, gravel service road to underground storage area, remnant bridle paths west of Lincoln Memorial Circle, primary, east-west asphalt allée paths, Secondary, north-south concrete paths at east end of Reflecting Pool, Paths and stairs between Reflecting Pool plaza and Lincoln Memorial Circle, Approachway, raised terrace stairs, and stylobate, Gravel walk around outer edge of raised terrace, Lincoln Memorial Circle former parking area, including granite block edging, Watergate Steps area concrete sidewalks, Concrete sidewalks around Ericsson Monument, Concrete sidewalk along south side of Constitution Avenue	Contributing
		Potomac River seawall between Theodore Roosevelt Bridge and John Ericsson Monument	Contributing
11		Lincoln Memorial statue and structure, including raised terrace, marble stylobate steps, and granite walls	Contributing/NRHP
		John Ericsson Monument* and compass terrace	Contributing
		Parkway Drive overpass, including integrated balustrades and benches	Contributing
		Statuary on approach pedestals (Music and Harvest, and Aspiration and Literature)	Contributing
		Underground storage area and retaining walls on Parkway Drive NW	Contributing
		Watergate Steps including plaza wing walls, integrated balustrades and benches	Contributing
		Constitution Avenue Belvedere	Contributing
		Reflecting Pool	Contributing
		Views and vistas: reciprocal views along and between contributing features, panoramic views from the Lincoln Memorial structure toward Watergate Steps, Arlington Memorial Bridge, Arlington House—The Robert E. Lee Memorial, and Parkway Drive, and framed views long Lincoln Memorial porticoes	Contributing
		Small-scale features: granite benches at entrance to Approachway	Contributing
		Small-scale features: cast-iron frame wooden slat benches, Alaska and Hawaii plaque, Martin Luther King Jr “I have a Dream” plaque, memorial tree plaques, Washington Standard lampposts, and Twin-20 lampposts.	Managed as cultural resource
12	National Mall Historic District		NRHP historic district
		Vistas/Views: views from Mall to Union Square; views to building facades from Mall; views up cross streets; vista Capitol to Washington Monument	Contributing
		Circulation roads and walkways and small-scale features	Contributing
		The Mall (Reservation Nos. 3, 3A, 3B, 4, 5, 6, and 6A)	Contributing site/NRHP
		Reservation No. 553	Contributing site
		Reservation No. 201	Contributing site
		National Gallery of Art Sculpture Garden	Contributing site

Map ID	Resource Name		NRHP Designation
		President's Park South	Contributing site
		Ellipse	Contributing site
		Washington Monument Grounds (Reservation No. 2)	Contributing site
		Sylvan Theater	Contributing site
		German-American Friendship Garden	Contributing site
		West Potomac Park (Reservation No. 332)	Contributing site
		Constitution Gardens	Contributing site
		Vietnam Veterans Memorial	Contributing site
		Lincoln Memorial grounds	Contributing site
		District of Columbia War Memorial grounds	Contributing site
		Korean War Veterans Memorial	Contributing site
13		World War II Memorial	Contributing site
		Thomas Jefferson Memorial grounds	Contributing site
		Franklin Delano Roosevelt Memorial	Contributing site
		George Mason Memorial	Contributing site
14		Martin Luther King, Jr. Memorial	Contributing site/NRHP
		Lock B Archeological Site	Contributing site
		Lockkeeper's House Foundation Archeological Site	Contributing site
		White House Stable Archeological Site	Contributing site
		Tiber Creek Sewer Archeological Site	Contributing site
		Smithsonian Institution Building	Contributing building
		Arts and Industries Building	Contributing building
		U.S. Department of Agriculture Administration Building	Contributing building
		National Museum of Natural History	Contributing building
		Freer Gallery of Art	Contributing building
		National Gallery of Art West Building	Contributing building
		National Museum of American History	Contributing building
		Hirshhorn Museum and Sculpture Garden	Contributing building

Map ID	Resource Name		NRHP Designation
		National Air and Space Museum	Contributing building
		National Gallery of Art East Building	Contributing building
		Quadrangle	Contributing building
		National Museum of the American Indian	Contributing building
		Survey Lodge	Contributing building
		Monument Lodge	Contributing building
		National Museum of African American History and Culture	Contributing building
		Constitution Gardens Refreshment Kiosk	Contributing building
15		Lockkeeper's House	Contributing structure/NRHP
		Bulfinch Gatehouses (U.S. Capitol Gatehouse)	Contributing structure
		Bulfinch Gatepost (U.S. Capitol Gateposts)	Contributing structure
		Washington Monument	Contributing structure/NRHP
		Flood Control Levee	Contributing structure
		Lincoln Memorial*	Contributing structure/NRHP
		Reflecting Pool	Contributing structure
		Watergate steps	Contributing structure
		Constitution Avenue Belvedere	Contributing structure
		District of Columbia War Memorial	Contributing structure
		Stone Seawalls	Contributing structure
		Tidal Basin	Contributing structure
		Outlet Bridge	Contributing structure
		Inlet Bridge	Contributing structure
		Kutz Bridge	Contributing structure
		Independence Avenue Extension	Contributing structure
		Thomas Jefferson Memorial	Contributing structure/NRHP
		Constitution Avenue, NW	Contributing structure

Map ID	Resource Name		NRHP Designation
		Madison Drive	Contributing structure
		Jefferson Drive	Contributing structure
		Maryland Avenue, SW	Contributing structure
		Pennsylvania Avenue, NW	Contributing structure
		Henry Bacon Drive	Contributing structure
		Daniel French Drive	Contributing structure
		Lincoln Circle	Contributing structure
		Ohio Drive	Contributing structure
		Terminus of the Rock Creek and Potomac Parkway	Contributing structure
		3rd Street, SW	Contributing structure
		4th Street, SW	Contributing structure
		7th Street, NW-SW	Contributing structure
		14th Street, NW-SW	Contributing structure
		Raoul Wallenberg Place (15th Street south of Independence Avenue)	Contributing structure
		17th Street, NW	Contributing structure
		23rd Street, NW	Contributing structure
		E Street, NW	Contributing structure
		Downing Urn	Contributing object
		Joseph Henry Memorial	Contributing object
		National Grange Marker	Contributing object
		Ellipse Meridian Stone	Contributing object
		General William Tecumseh Sherman Memorial	Contributing object
		Butt-Millet Memorial Fountain	Contributing object
		Zero Milestone	Contributing object
		First Division Monument	Contributing object
		Original Patentees of the District of Columbia Memorial	Contributing object
		Second Division Memorial	Contributing object
		Boy Scout Commemorative Tribute	Contributing object

Map ID	Resource Name		NRHP Designation
		John Saul Plaque	Contributing object
		National Christmas Tree Plaque	Contributing object
		Jefferson Pier	Contributing object
		Elevation Obelisk	Contributing object
		100th Anniversary Plaques	Contributing object
		Washington City Canal Memorial Stone and Plaque	Contributing object
16		Memorial to the 56 Signers of the Declaration of Independence	Contributing object/NRHP
		John Ericsson Monument	Contributing object
		The Arts of Peace: Aspiration and Literature	Contributing object
		The Arts of Peace: Music and Harvest	Contributing object
		The Arts of War: Sacrifice	Contributing object
		The Arts of War: Valor	Contributing object
		First Airmail Flight Marker	Contributing object
		Number 4 Fountain	Contributing object
		Commodore John Paul Jones Statue	Contributing object
		First Cherry Tree Planting Plaque	Contributing object
		Japanese Lantern	Contributing object
		Japanese Pagoda	Contributing object
		Cuban Friendship Urn	Contributing object/NRHP
17	The Mall Cultural Landscape		NRHP cultural landscape
		Vegetation: grass panels, elm tree panels, Ulmus americana planted 1920s-1975, Ulmus americana cultivars replacement of the original elms	Contributing
		Circulation: Jefferson Drive, Madison Drive, 3rd Street, 4th Street, 7th Street, 14th Street, North Vista Walk (formerly Washington Drive), South Vista Walk (formerly Adams Drive), sidewalks along Madison and Jefferson Drives, walk along 5th Street axis, walk along 6th Street axis, walk along 8th Street axis, walk along 9th Street axis, walk along 10th Street axis, walk along 12th Street axis, walk along 13th Street axis	Contributing
		Views and vistas: vista from the Capitol to Washington Monument, views from Mall to Union Square, views to building facades from Mall, views to elms from walks and grass panels, views up cross streets	Contributing

Map ID	Resource Name		NRHP Designation
		Small-scale features: benches (1930s design for NCP) and streetlights (1930s design for Mall)	Contributing
18	Washington Monument and Grounds Historic District		NRHP historic district
		Views and vistas: Axial views through Jefferson Pier of the White House and Thomas Jefferson Memorial; Views from the site to the Lincoln Memorial, White House, Thomas Jefferson Memorial, and the U.S. Capitol; Views from top of Monument to the surrounding city and important sites	Contributing
		Circulation roads and walkways, vegetation, and small-scale features	Contributing
		Monument Lodge	Contributing building
		Survey Lodge/Boiler House	Contributing building
		Washington Monument Grounds cultural landscape	Contributing site
		German-American Friendship Garden	Contributing site
		Sylvan Theater	Contributing site
		Washington Monument	Contributing structure/NRHP
		Bulfinch Gateposts (2) (U.S. Capitol Gateposts)	Contributing structure
		Raoul Wallenberg Place (15th Street south of Independence Avenue)	Contributing structure
		Independence Avenue corridor (including Maine Avenue corridor)	Contributing structure
		Tidal Basin Parking Lot Corridor	Contributing structure
		Tidal Basin Walk with metal pipe handrail – near Tidal Basin Parking Lot	Contributing structure
		Survey Lodge service drive	Contributing structure
		100th Anniversary Plaques (2)	Contributing object
		Benches – cast-iron-and-wood slat at perimeter of site (1 group)	Contributing object
		Cobblestone gutters along Survey Lodge service drive (1 group)	Contributing object
		Washington Globe lights along the service drive behind the Survey Lodge (1 group)	Contributing object
		Twin-20 streetlights along Independence and Maine Avenues (1 group)	Contributing object
		Ring of 50 aluminum flagpoles (1 group)	Contributing object
		Jefferson Pier Marker	Contributing object
		Elevation Obelisk	Contributing object

Map ID	Resource Name		NRHP Designation
19	Washington Monument Grounds Cultural Landscape		NRHP cultural landscape
		Vegetation: Street Trees along Tidal Basin Parking; Lawn; Mulberry Tree; Street Trees along 17th Street, Constitution Avenue, 14th Street; Cherry Groves along Tidal Basin; Open Groves; Elm tree along Raoul Wallenberg Place; Elms along Tidal Basin Parking Lot; Elm in southwest grove near Survey Lodge; Catalpa tree behind Survey Lodge; and Large Elm along Tidal Basin near intersection of Raoul Wallenberg and Maine Avenue	Contributing
		Circulation: 17th Street corridor, including sidewalks; Constitution Avenue corridor, including sidewalks; 14th Street corridor, including sidewalks; Independence and Maine Avenue corridors; Tidal Basin Parking Lot corridor; Tidal Basin walk; Raoul Wallenberg Place corridor; Flagstone steps at the Sylvan Theater	Contributing
		Washington Monument	Contributing/NRHP
		Monument Lodge	Contributing
		Survey Lodge	Contributing
		Jefferson Pier survey marker	Contributing
		Bulfinch gateposts (U.S. Capitol Gateposts)	Contributing/NRHP
		Independence Avenue Overpass	Contributing
		Seawall	Contributing
		Views and vistas: Views from D.C. and surrounding region to Monument, Views from top of Monument to the surrounding city and important sites, Views from the site to the Lincoln Memorial, White House, Thomas Jefferson Memorial, and the U.S. Capitol, Vistas of the Monument from Lincoln Memorial, White House, Thomas Jefferson Memorial, and the U.S. Capitol, Axial views through Jefferson Pier of the White House and Thomas Jefferson Memorial, Screened views of the site features	Contributing
		Small-scale features: Elevation Obelisk, Twin-20 double lamp streetlights, Washington Globe single lamp streetlights, Cast-iron and wood slat benches, Ring of flagpoles, Dedication plaque at monument base, Stone-lined drainage ditch at Survey Lodge Service Drive, and Pipe Handrail - Tidal Basin	Contributing
20	Civil War Monuments in Washington, D.C.	Inclusive of Ulysses S. Grant Memorial	NRHP
21	Rock Creek Park and Potomac Parkway Historic District		NRHP historic district
		Spatial organization: the linear arrangement of the parkway including component roads, pedestrian circulation, open spaces, etc. from north to south; the linear arrangement of the seawall, shared use trail and lawn, parkway roadway proper, and lawn from west to east	Contributing

Map ID	Resource Name		NRHP Designation
		Land use as a link connecting Rock Creek Park to West Potomac Park, as a commuter roadway, and a recreational area	Contributing
		Circulation: Rock Creek Potomac Parkway roadway; Pedestrian path to the west of the parkway, between Virginia Avenue, N.W., and F Street, N.W.; Kennedy Center Promenade; granite block median and shoulder; and granite curbs	Contributing
		Topography: human-made site, with a gentle slope rolling downwards from the adjacent properties to the east toward the Potomac River seawall	Contributing
		Vegetation: Sycamore Allée, ca. 1936 vegetation, ca. 1966 vegetation, medium to large specimen trees, trees adjacent to the Roosevelt bridge	Contributing
		Stone seawall along the Potomac Waterfront Section of the Rock Creek Potomac Parkway	Contributing
		The Belvedere (Constitution Avenue, N.W.)	Contributing
		Retaining walls and rip rap along the banks of the Rock Creek	Contributing
		Kennedy Center Stone Retaining Wall	Contributing
		Aluminum handrail along the promenade and integrated bench seat to the east of the promenade	
		Views and vistas from the parkway to the surrounding environs, including the Potomac River, Theodore Roosevelt Island, Georgetown and Key Bridge, Arlington Memorial Bridge, Virginia, shoreline, and West Potomac Park.	Contributing
		Twin-20 Lampposts at the Belvedere	Contributing
22	East and West Potomac Park Historic District		
		Views and Vistas from locations: Tidal Basin; Tidal Basin Inlet Bridge; Tidal Basin Outlet Bridge; Potomac River Seawall; Commodore John Paul Jones Statue; Cuban Friendship Urn; Franklin Delano Roosevelt Memorial; Korean War Veterans Memorial; Martin Luther King, Jr. Memorial; World War II Memorial; Franklin Delano Roosevelt Memorial Visitor Center; Martin Luther King, Jr. Memorial Visitor Center; World War II Memorial Restrooms; World War II Memorial Visitor Center; East Basin Drive Bridge.	
		Lockkeeper's House	Contributing/NRHP
		Stone Seawalls	Contributing
		Tidal Basin	Contributing
		Tidal Reservoir Outlet Bridge	Contributing
		Commodore John Paul Jones Statue	Contributing
		Japanese Cherry Trees	Contributing
		Lincoln Memorial	Contributing/NRHP
		Dutch Elm Trees	Contributing

Map ID	Resource Name		NRHP Designation
		Reflecting Pool	Contributing
		Lincoln Memorial Grounds	Contributing
		John Ericsson Monument	Contributing
		Arlington Memorial Bridge	Contributing/NRHP
		District of Columbia World War I Memorial	Contributing
		Flood Control Levee	Contributing
		Jefferson Memorial	Contributing
		Independence Avenue Extension	Contributing
		Jefferson Memorial Grounds	Contributing
		Kutz Bridge	Contributing
		Guard House	Contributing
		Japanese Lantern	Contributing
		Japanese Pagoda	Contributing
		Constitution Gardens	Contributing
		56 Signers Memorial	Contributing/NRHP
		Vietnam Veterans Memorial	Contributing
		Vietnam Women’s Memorial	Contributing
		Franklin Delano Roosevelt Memorial	Contributing/NRHP
		Korean War Veterans Memorial	Contributing
		Stone Seawalls	Contributing
		Potomac Railroad Bridge	Contributing
		Ohio Drive, SW	Contributing
		U.S. Engineers' Storehouse	Contributing
		East Potomac Park Field House	Contributing
		East Potomac Park Golf Course	Contributing
		East Potomac Park Miniature Golf Course	Contributing
		East Potomac Park Swimming Pool	Contributing

Map ID	Resource Name		NRHP Designation
23	American Revolutionary Statuary in the District of Columbia	Inclusive of Commodore John Paul Jones Statue	NRHP

Sources: Army National Military Cemeteries and Virginia State Historic Preservation Officer (2026); Arlington National Cemetery et al. (n.d. [2026]); Bobeczko and Robinson (1998); Dillon (1972); EDAW, Inc. (1992a, 1992b); EHT Traceries, Inc. and Stantec (2018); Frisbie et al. (2024); Krakow (1993); McIntosh (1979, 1980a, 1980b); National Park Service (2004, 2005, 2006a, 2006b, 2009a, 2009b, 2015, 2016, 2018a, 2018b, 2022a, 2022b, 2024); Pfanz (1980, 1981); Robinson et al. (2016); Scott (1977); Seagraves et al. (1980); Smith et al. (2013); Virginia Polytechnic Institute and State University (2009).

NHL: National Historic Landmark; NRHP: Designated Lised/Eligible for the National Register of Historic Places

Table 2. Historic Properties within the Area of Indirect Effects

Map ID	Resource Name	NRHP Designation	Contributing Views/Vistas
24	Mount Vernon Memorial Highway Cultural Landscape – North of Alexandria	NRHP	Views and Vistas: Northbound vista of the Washington Monument; Northbound views of the Potomac; Views of the U.S. Capitol Building Northbound vista of the Washington Monument; Southbound view of the Roaches Run lagoon.
25	Cuban Friendship Urn	NRHP	Located in West Potomac Park with views of the Potomac River.
26	FDR Memorial	NRHP	Views from memorial to the Tidal Basin. View from Eleanor Roosevelt statue to the White House.
27	Arlington Ridge Park	NRHP	Views and Vistas: view along Ridge Path to Netherlands Carillon; view from Marine Corps War Memorial to parade ground; view from Netherlands Carillon to flower beds below; view from Netherlands Carillon to Mall; view from reviewing stand to parade ground, and across parade ground to Marine Corps War Memorial; view from U.S. Marine Corps War Memorial to Lincoln Memorial, Watergate Steps, and National Mall; views along entrance drive into park; views along pedestrian walks to Marine Corps Memorial statue; views along Ridge Path and from Netherlands Carillon grounds to National Mall; views from park to Arlington National Cemetery.
28	Pentagon	NHL/NRHP	View/vista: view of Arlington National Cemetery, vistas of the Monumental Core of Washington D.C., across the Potomac, clear views of Washington from Arlington National Cemetery, and vice versa.
29	Fort Myer Historic District	NHL/NRHP	Views toward Washington D.C, Arlington Cemetery; the Pentagon; Potomac River.
30	Quarters 1	NHL/NRHP	Views toward Washington D.C, Arlington Cemetery; the Pentagon.
31	Theodore Roosevelt Island Historic District	NRHP	Views to and from the memorial plaza and statue.
32	Theodore Roosevelt Island Cultural Landscape	NRHP	Views and Vistas: Internal views within and across memorial plaza.

Map ID	Resource Name	NRHP Designation	Contributing Views/Vistas
33	Washington Canoe Club	NRHP	Views and Vistas: Views from north of the Washington Canoe Club (WCC) boathouse toward the Chesapeake & Ohio Canal (C&O Canal) and Georgetown; Views from the aqueduct's northern abutment toward the Potomac River, the WCC, the C&O Canal, Georgetown, the Potomac Boat Club, and Key Bridge; Views from the C&O Canal toward the Potomac River, the WCC boathouse, and the aqueduct's northern abutment; Views from the WCC boathouse's façade toward the Virginia shore, Key Bridge, and Three Sisters Islands; Vista along the C&O Canal.
34	George Mason Memorial	NRHP	Views and Vistas: Inward views of the George Mason Memorial; vista from the George Mason Memorial Sculpture to the Inlet Bridge.
35	Thomas Jefferson Memorial	NRHP	Views and Vista to and from to the Thomas Jefferson statue to the Tidal Basin and White House and Washington Monument.
36	Thomas Jefferson Memorial Cultural Landscape	NRHP	Views and vistas: View across Tidal Basin to Cherry Trees; view south to Interstate 395 and 14th Street Bridge; View West to Potomac River past Franklin Delano Roosevelt Memorial; Vista North to White House and Washington Monument; Vista to Lincoln Memorial; Vistas to East and West of Memorial.
37	DC War Memorial Cultural Landscape	NRHP	Views and Vistas: View looking north of the Reflecting Pool; View looking south of the Tidal Basin.
38	United States Capitol	NHL/NRHP	Views/vistas of the National Mall, the Tidal Pool, the Washington Monument; and other adjacent resources. Axial views up Pennsylvania Avenue NW and SE. Views to Union Station.
39	U.S. Capitol Gatehouses and Gateposts	NRHP	No contributing views. Gateposts flank 15th Street and Constitution Avenue, NW in Washington Monument Grounds and President's Park. Gatehouse in SE corner of President's P*ark.*
40	Smithsonian Building	NHL/NRHP	Views/vistas of the National Mall, within the National Mall. Views of the Potomac River from the waterfront.
41	Georgetown Historic District	NHL/NRHP	Views/vistas of Rock Creek and Potomac Parkway.
42	Old Navy Observatory	NHL/NRHP	View of the Potomac River below Theodore Roosevelt Island, including Memorial Bridge, Arlington Cemetery, and Arlington House; view over Theodore Roosevelt Island and the Georgetown waterfront, including Key Bridge; view over West Potomac Park and the Lincoln Memorial.
43	**Pennsylvania Avenue National Historic Site**	**NRHP**	**Contributing resources include Old Post Office and Clock Tower. Views and vistas of the Pennsylvania Avenue National Historic Site.**

Sources: Army National Military Cemeteries and Virginia State Historic Preservation Officer (2026); Arlington National Cemetery et al. (n.d. [2026]); Bobeczko and Robinson (1998); Dillon (1972); EDAW, Inc. (1992a, 1992b); EHT Traceries, Inc. and Stantec (2018); Frisbie et al. (2024); Krakow (1993); McIntosh (1979, 1980a, 1980b); National Park Service (2004, 2005, 2006a, 2006b, 2009a, 2009b, 2015, 2016, 2018a, 2018b, 2022a, 2022b, 2024); Pfanz (1980, 1981); Robinson et al. (2016); Seagraves et al. (1980); Scott (1977); Smith et al. (2013); Virginia Polytechnic Institute and State University (2009).

Table 3. Assessment of Adverse Effects

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
Memorial Avenue Corridor Cultural Landscape	A, B, C, D, F, G	The proposed undertaking may adversely affect the corridor's setting, context and viewshed, including the obstruction of distant views that characterize the historic resource, and which serve as a defining feature of the corridor, including: the view of the Washington Monument from various locations along the corridor; view to Hemicycle and Arlington House; view to Lincoln Memorial; and views to the Capitol dome and other resources of the D.C. monumental core from Memorial Circle.	Memorial Avenue corridor is architecturally significant as a mile-long axial composition. Memorial Circle is the one portion of the Memorial Avenue composition that was not designed by McKim Mead and White architectural firm; the circle is attributed to Gilmore Clarke, an early designer of the American Parkway. With the proposed undertaking, the corridor would be physically altered with an intrusion that changes the circulation patterns, and contributing viewsheds, and modifies the design continuity of the corridor. The corridor is identified as meeting moderate rather than high integrity, although its primary architectural features are identified as retaining high integrity. With the proposed undertaking, these architectural resources may be adversely affected. In addition, the proposed undertaking may result in the loss of contributing landscape elements The pines at the four pylons near Memorial Circle are identified as contributing to the cultural landscape and may be adversely affected. The granite block paving surfaces, along the bridges as well as appearing in triangular islands to the east and west of Memorial Circle, are also contributing elements and should be retained.	The proposed undertaking would introduce adverse direct and indirect effects.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
Arlington Memorial Bridge and Associated Features	C	Views from the resource and to the resource, as well as the bridge's immediate setting would be altered.	The Arlington Memorial Bridge historic resource encompasses architectural, landscape, and sculptural features to the east and west, including Memorial Circle. The bridge and associated features serve as a symbolic linkage of the North and South by connecting the Lincoln Memorial and Arlington House. With the proposed undertaking, this balanced architectural relationship would be altered and the visual continuity would be obstructed. The sculptural and landscape elements that define Memorial Circle, including two sets of 35-foot-tall granite pylons and the circulation pattern, circular lawn and annual floral plantings, would be removed or diminished. The design continuity of Memorial Drive is also a contributing element of the resource.	The proposed undertaking would result in adverse direct and indirect effects.
Lady Bird Johnson Park Cultural Landscape	A, C	The proposed undertaking would physically obstruct contributing views within the landscape and along Arlington Memorial Bridge, and it would alter views to resources such as Arlington House, Lincoln Memorial, the Potomac River, and Arlington Memorial Bridge.	The island's significance is tied to its central role in the axial composition linking the Lincoln Memorial with the entrance to Arlington National Cemetery. The main axis of Arlington Memorial Bridge, Memorial Cricle, and Boundary Channel Extension bridge are as originally built, with medium integrity, and are significant for their design as well as their association with the history of the American parkway. The proposed undertaking would directly affect the circulation of Memorial Circle, a contributing resource of the cultural landscape. Anticipated construction staging is planned for a portion of the Park, which may have a direct effect on contributing vegetation.	The proposed undertaking would result in adverse direct and indirect effects.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
Arlington National Cemetery Historic District	A, B, C, D, F, G	The proposed undertaking would alter and partially obstruct contributing views from Arlington House and Kennedy Gravesite to Lincoln Memorial and Washington Monument. The undertaking would also alter contributing views to and from Memorial Amphitheater from various locations. The proposed undertaking would alter contributing views of ANC from the Lincoln Memorial, Memorial Bridge, Memorial Drive.	The proposed undertaking would result in direct effects to contributing resources in the Arlington National Cemetery Historic District, including circulation system resources that are identified as contributing to the historic district and contributing monuments adjacent to the proposed site. Direct effects from the proposed undertaking would also result from the partial obstruction of the resource's visual relationship with Lincoln Memorial and the Memorial Avenue Corridor. The axial relationship of the historic property to other major monuments is integral to its historic significance.	The proposed undertaking would result in adverse direct and indirect effects.
Arlington House Historic District	A, B, C, D	The proposed undertaking would alter contributing views east from Arlington House. There is potential that the proposed undertaking would partially obstruct views of Lincoln Memorial and Arlington Memorial Bridge from Arlington House.	Arlington House is oriented with long views toward Washington D.C. This relationship to Washington D.C. and the Potomac is a character-defining feature of the resource. Contributing resources in the historic district also derive significance from their orientation and views toward the Potomac River and Washington D.C.	The proposed undertaking would result in adverse direct and indirect effects.
Arlington House (Robert E. Lee Memorial)	A, B, C, D	The proposed undertaking has the potential to alter contributing views. The proposed undertaking would alter contributing views east from Arlington House. There is potential that the proposed undertaking would alter views of Lincoln Memorial and Arlington Memorial Bridge from Arlington House.	Direct effects from the proposed undertaking would result from the property's partial obstruction from its relation to the Lincoln Memorial and the Memorial Avenue Corridor, a symbolic spatial relationship.	The proposed undertaking would result in adverse direct and indirect effects.
Arlington House Cultural Landscape	A, B, C, D, F	The proposed undertaking would alter contributing views from and to the resource, including the view between the house and Washington D.C.	Due to the changes to contributing views and vistas, the proposed undertaking would present a direct adverse effect to the cultural landscape.	The proposed undertaking would result in adverse direct and indirect effects.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
Lyndon B. Johnson Memorial Grove	A, C	Primary views from the resource are generally eastward across the Potomac River and views of the undertaking would therefore not be prominent or direct but may have indirect effects on the setting.	The proposed undertaking would be physically distinct from the historic resource and would not introduce a direct adverse effect.	The proposed undertaking may result in adverse indirect effects.
Mount Vernon Memorial Highway Historic District	A, C	The resource's setting would be changed with the proposed undertaking.	The proposed undertaking would occupy the northern terminus of the resource, altering circulation patterns in this designed landscape.	The proposed undertaking would result in adverse indirect and direct effects.
Lincoln Memorial Cultural Landscape	A, C	The setting and context of the cultural landscape may be adversely affected by the loss of contributing vistas as well as the altered character of the landscape and built environment in westward views from the Lincoln Memorial grounds.	The proposed undertaking may result in a direct adverse effect to the reciprocal views between the Lincoln Memorial and Arlington House, which are identified as a contributing resource in the cultural landscape.	The proposed undertaking would result in adverse indirect and direct effects.
Lincoln Memorial	A, B, C,	The Lincoln Memorial west façade is oriented toward the proposed undertaking. . Views across the river would therefore be altered by the proposed undertaking.	The resource is significant for its architectural design, as a major element of the McMillan Commission Plan to form the western terminus of the Mall composition and as the northeastern terminus of an axis that extends across the Arlington Memorial Bridge to Arlington House. The proposed undertaking may result in a direct adverse effect to the Lincoln Memorial as it would change the interrelationships of the existing monumental landscape, which forms an intentional balance between natural and built features, axial and picturesque landscape elements.	The proposed undertaking would result in adverse indirect and direct effects.
National Mall Site and National Mall Historic District	A, C, D, F	The character of views of the Potomac River would be altered with the proposed undertaking, as the proposed undertaking introduces a feature that is dissimilar to its surroundings on the west side of the river.	The resource includes grounds and memorials that derive significance from their distant views, with designs and orientations that rely on direct views of civic monuments.	The proposed undertaking would result in adverse indirect and direct effects.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
The Mall Cultural Landscape	A, B, C	The character of views of the Potomac River would be altered with the proposed undertaking, as the proposed undertaking introduces a feature that is dissimilar to its surroundings on the west side of the river.	The resource includes grounds and memorials that derive significance from their distant views, with designs and orientations that rely on direct views of civic monuments.	The proposed undertaking would result in adverse indirect and direct effects.
World War II Memorial	F, G	The proposed undertaking would not adversely affect the resource's contributing views, due to distance, and intervening vegetation and buildings.	No direct effects	No adverse effect is anticipated.
Martin Luther King Jr. Memorial	F, G	The proposed undertaking would not adversely affect the resource's contributing views, due to distance, and intervening vegetation and buildings. Primary views from the memorial are southeast to the Jefferson Memorial. The undertaking would therefore not be prominent or direct.	No direct effects	No adverse effect is anticipated.
Lockkeeper's House and C&O Extension	A, C	The resource is located on the south side of Constitution Avenue, situated with its primary elevation oriented north and away from the proposed undertaking.	No direct effects	No adverse effect is anticipated.
56 Signers Memorial	F, G	No indirect effects	No direct effects	No adverse effect is anticipated.
Washington Monument Structure and Washington Monument and Grounds Historic District	A, C, B, F, G	Views from the top of the monument are a contributing resource and would be altered with the proposed undertaking. The grounds and base of the monument would not include direct and prominent views of the proposed undertaking due to distance and intervening vegetation and topography.	No direct effects.	The proposed undertaking would result in adverse indirect effects.
Washington Monument and Grounds Cultural Landscape	A, C, F	The context and setting of the resource would not be adversely affected by the proposed undertaking, due to distance and intervening vegetation and buildings.	Views to the monument are identified as a contributing resource; these views would be altered and obstructed by the proposed undertaking, resulting in a direct adverse effect to the cultural landscape.	The proposed undertaking would result in adverse direct effects.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
Rock Creek and Potomac Parkway Historic District	A, C	Views southwest toward Memorial Bridge are a contributing resource in the Historic District and would be altered with the proposed undertaking.	No direct effects.	The proposed undertaking would result in adverse indirect effects.
Civil War Monuments in Washington, D.C.	A, C	Civil War Monuments include the Ulysses S, Grant Statue Views west along the primary mall axis from the front of the Grant Statue near the U.S. Capitol would encompass the proposed undertaking across the Potomac River. However, the proposed undertaking would not diminish the resource's immediate setting and primary views to the National Mall.	No direct effects	No adverse effect is anticipated.
East and West Potomac Park Historic District	A, B, C, F, G	Contributing views from the resource are generally oriented toward the Tidal Basin as well as vistas from built resources within the parks. The West Potomac Park riverfront would have direct views of the proposed undertaking. Views across the river would therefore be adversely changed by the proposed undertaking.	No direct effects	The proposed undertaking would result in adverse indirect effects.
American Revolutionary Statuary in the District of Columbia	A, C	One resource includes the John Paul Jones Memorial. Due to the distance of this resource from the proposed undertaking site, and the diminished visibility, this resource would not experience adverse indirect effects.	No direct effects	No adverse effect is anticipated.
Mount Vernon Memorial Highway Cultural Landscape - North of Alexandria	C	The resource's setting would not be changed with the proposed undertaking.	No direct effects	No adverse effect is anticipated.
Cuban Friendship Urn	B, C	The resource would not be adversely affected by changes to its distant viewshed.	No direct effects	No adverse effect is anticipated.
FDR Memorial	F, G	The resource is oriented primarily toward the Tidal Basin, away from the site of the proposed undertaking.	No direct effects	No adverse effect is anticipated.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
Arlington Ridge Park	A, C, F, G	Situated on a ridge with long views across the Potomac River, to the monumental core, the park's southeastern views may include the proposed undertaking.	No direct effects	The proposed undertaking would result in adverse indirect effects.
Pentagon	A, B, C	It is anticipated that contributing views, including the views to and from Washington D.C., may be adversely affected with the proposed undertaking. The proposed undertaking would not adversely affect the resource's setting and context, due to distance and the existence of intervening roadway infrastructure.	The northeastern and eastern facades of the Pentagon are designed to capture unobstructed vistas of Washington D.C.'s Monumental Core across the Potomac River, with large terraces including the River Entrance Terrace and Mall Entrance Terrace, the parade ground, and landscaping that are designed to interface with these views. The proposed undertaking would be constructed within this contributing viewshed and there is a potential the proposed undertaking would result in direct adverse effects to the architectural resource	It is anticipated that the proposed undertaking may result in adverse direct and indirect adverse effects, due to visibility.
Fort Myer Historic District and Quarters 1	A	The proposed undertaking would likely not be prominently visible from the resource, due to differentiation in elevation and intervening tree cover. However, the undertaking may be visible in some conditions.	No direct effects	The proposed undertaking would result in adverse indirect effects.
Theodore Roosevelt Island	A, C, D, F	The island is characterized by thick vegetation, and with the Theodore Roosevelt Memorial bridge intervening between the site and proposed undertaking.	No direct effects	No adverse effect is anticipated.
Washington Canoe Club	A, C	The resource is located at a substantial distance from the proposed undertaking; the resource's waterfront setting and views may include distant views of the proposed undertaking however it would not adversely affect the resource's setting, context, and relation to the waterfront.	No direct effects	No adverse effect is anticipated.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
George Mason Memorial	A, F	Contributing view from the George Mason Memorial Sculpture to the Inlet Bridge. In leaf off condition, the proposed undertaking would potentially be visible.	No direct effects	The proposed undertaking would result in adverse indirect effects.
Thomas Jefferson Memorial	A, C, F	The resource is oriented toward the Tidal Basin with primary views north, away from the proposed undertaking. It is anticipated that the vegetation bordering the Tidal Basin would obscure direct views to the proposed undertaking, and the distance across the Potomac River would diminish the undertaking's effect on the resource's context and setting.	No direct effects	No adverse effect is anticipated.
Thomas Jefferson Memorial Cultural Landscape	A, C	Contributing views from the cultural landscape include views to the east and west of the Lincoln Memorial. It is anticipated that the proposed undertaking would be situated within this vista.	No direct effects	The proposed undertaking would result in adverse indirect effects.
DC War Memorial Cultural Landscape	A, F	The resource is within a park setting of mature trees that largely block long views to the west.	No direct effects	No adverse effect is anticipated.
United States Capitol	A, C	The proposed undertaking would not adversely affect the resource's contributing views, due to distance, and intervening vegetation and buildings.	No direct effects	No adverse effect is anticipated.
U.S. Capitol Gatehouses and Gateposts	C	The proposed undertaking would not adversely affect the resource's contributing views, due to distance, and intervening vegetation and buildings.	No direct effects	No adverse effect is anticipated.
Smithsonian Building	A, C	The proposed undertaking would not adversely affect the resource's contributing views, due to distance, and intervening vegetation and buildings.	No direct effects	No adverse effect is anticipated.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
Georgetown Historic District	A, C, D	The proposed undertaking would not adversely affect the resource's contributing views, due to distance, and intervening vegetation and buildings.	No direct effects	No adverse effect is anticipated.
Old Navy Observatory	A, B, C	Views from the Old Navy Observatory may include the upper portion of the proposed undertaking. However, it is not anticipated that the proposed undertaking would substantially alter the resource's general setting or views.	No direct effects	No adverse effect is anticipated.
Pennsylvania Avenue National Historic Site (Old Post Office and Clock Tower)	A, C	The proposed undertaking would not adversely affect the resource's significance views, due to the property's orientation and primary views as well as its distance from the proposed undertaking. Distant views of the resource from the west would not be adversely affected.	No direct effects	No adverse effect is anticipated.

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APPENDIX D: MITIGATIONS

To minimize environmental impacts related to the action alternatives, the NPS would implement mitigation measures whenever feasible. Exact mitigation measures to be implemented would depend upon the final design and approval of plans by relevant agencies and would be determined during future design and construction phases. The following is a list of actions that could take place:

- Instruct all contractor employees on the sensitivity of the general environment and monitor their activities by NPS staff in order to mitigate and minimize potential impacts on natural and cultural resources during construction. Corridors for construction vehicle movement would be established and defined on the ground. Staging of construction equipment would be restricted to the road corridor, parking lots, and other identified previously disturbed areas to avoid impacts on natural resources.
- All permits would be acquired from the regulatory agencies before commencement of work, and all stipulations of those permits would be followed.
- Clearly state all protection measures in the construction specifications and instruct workers to avoid conducting activities beyond the fenced construction zone.
- Fence all areas in order to keep related disturbances within an NPS-defined and minimal impact area required for construction.
- Implement standard noise abatement measures during construction. Standard noise abatement measures could include the following elements: a schedule that minimizes impacts on adjacent noise-sensitive uses, the use of the best available noise control techniques wherever feasible, the use of hydraulically or electrically powered impact tools when feasible, and location of temporary noise sources as far from sensitive uses as possible.
- Minimize soil erosion by limiting the time that soil is left exposed and by applying other erosion control measures, such as erosion matting and silt fencing in construction areas to reduce erosion, surface scouring, and discharge to water bodies.
- Reseed all areas with native grasses or other NPS approved turf seed mix approved for the Mid-Atlantic Region.
- Remove invasive plants from construction areas using approaches prescribed in the NPS Integrated Pest Management Program.
- Implement measures to prevent invasive plants from returning to sites where they have been removed, such as ensuring that construction-related equipment arrives at the site free of mud or seed-bearing materials and certifying that all seeds and straw material are weed-free.
- Rehabilitate areas that are temporarily disturbed during construction with native grasses and other native species as per NPS standards and consistent with the cultural landscape report and applicable historic planting plans.
- During construction, the staging area limits should be fenced off and located outside the Critical Root Zone (CRZ) of any existing tree. The CRZ is calculated as 1.5 feet for every 1-inch DBH (Example: 20-inch DBH = 30-foot radius circle of protection around the tree). Any construction activity (staging, storage, parking, etc.) should be strictly prohibited outside the staging area fence limits to properly protect the existing trees and their root systems.

- Follow the *Secretary of the Interior's Standards for the Treatment of Historic Properties* for any restoration, rehabilitation, or renovation activities to historic structures.
- Subsurface archeological investigations would be conducted where ground disturbance is unavoidable within areas of archeological potential that have not been previously surveyed.
- Construction may be monitored in areas of low or no archeological potential to ensure archaeological deposits are not disturbed.
- If previously unknown archeological resources are discovered during construction, all work in the immediate vicinity (600 feet) of the discovery shall be halted until the resources are identified and documented and an appropriate mitigation strategy developed, if necessary, in accordance with pertinent laws and regulations, including the stipulations of the 2008 Programmatic Agreement Among the NPS (US Department of the Interior), the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.
- If needed, tree removal, clearing, and construction activities would not take place during the roosting and pupping season of the northern long-eared bat (June 1-July 31) to avoid disturbance to potential maternity roosts in the area. During future project phases, if it is determined that clearing or construction is needed during these seasons, the NPS would coordinate with the US Fish and Wildlife Service to ensure no impacts would occur.
- If tree removal or cutting is to be undertaken between April 1 and October 3, the NPS would conduct a nest survey for bald eagles and other migratory nesting birds. If nests are observed within the project area, measures to avoid disturbance would be determined through coordination between the NPS, the US Fish and Wildlife Service, and/or appropriate state agencies. If nests are present, a biological monitor may be employed to prevent potential impacts to birds during construction activities undertaken during this period.

APPENDIX E: AGENCY CONSULTATION AND COORDINATION

In developing this EA, the National Park Service (NPS) coordinated with the Executive Office of the President, the Federal Highway Administration, the Federal Aviation Administration, the U.S. Army Corps of Engineers, and Arlington National Cemetery.

Consistent with the requirements of the National Capital Planning Act of July 19, 1952 (which amended the original June 6, 1924 act to formally establish the NCPC) and the Act Establishing a Commission of Fine Arts (May 17, 1910), the Department of Interior (DOI) is providing project information and seeking concurrence for the proposed action with the National Capital Planning Commission and Commission of Fine Arts. DOI received final approval from the Commission of Fine Arts.

Section 7 Endangered Species Act

On May 8, 2026, the NPS requested an IPaC project review from the USFWS Chesapeake Bay Field Office. The IPaC review identified three species that may be present within the project area: the federally endangered northern long-eared bat (*Myotis septentrionalis*), the federally proposed endangered tricolored bat (*Perimyotis subflavus*) and the federally proposed threatened monarch butterfly (*Danaus plexippus*). There were no critical habitats identified within the project area that fall under USFWS jurisdiction. NPS determined that the proposed action would have no effect on species listed under Section 7 of the Endangered Species Act As a result, neither informal nor formal consultation was required. Additional information is provided in Appendix A, Issues and Impact Topics Considered but Eliminated from Detailed Analysis, Threatened and Endangered Species.

Section 106 of the National Historic Preservation Act

Pursuant to Section 106 of the NHPA and its implementing regulations (36 CFR Part 800) "Protection of Historic Properties," the NPS initiated Section 106 consultation with the District of Columbia and Virginia SHPOs, Federally Recognized Tribes, and consulting parties, as appropriate, Tribal Historic Preservation Officers to identify and assess potential effects on historic properties on June 5, 2026. Consultation is ongoing and will be completed before a decision is made.

APPENDIX F: REASONABLY FORSEEABLE PLANNED ACTIONS IN THE PROJECT AREA

Anticipated Major Construction in the Vicinity of Memorial Circle, 2026-2029

Projects are listed by date of anticipated construction completion.

I-395 HOV Rehabilitation (DDOT)

This project will rehabilitate the I-395 HOV Rochambeau Bridge, including physical improvements to both the bridge's superstructure (deck, travel surfaces, railings, and lighting) and substructure (structural steel, piers and fenders). Construction is currently underway and is anticipated to continue through Fall 2026 (DDOT, 2026).

The Desert Shield and Desert Storm Memorial Construction (NPS)

The National Desert Storm and Desert Shield War Memorial will establish a commemorative work on federal land in the District of Columbia to commemorate and honor those who, as members of the Armed Forces, served on active duty in support of Operation Desert Storm or Operation Desert Shield. Construction is currently underway, and the Dedication Ceremony is projected in 2026.

East Potomac Park Potomac River Seawall Replacement (NPS)

This project will rehabilitate the seawall in West Potomac Park between Inlet Bridge and Arlington Memorial Ave, while raising the seawall to account for wind and wave conditions along the Potomac River. Construction is currently underway and expected to be completed in Fall 2026.

Memorial Ave Irrigation Extension & Turf Replacement (NPS)

This project will rehabilitate turf panels and install irrigation systems along both sides of Memorial Avenue within the section under National Park Service jurisdiction. In addition, a drip irrigation system will be installed to support the existing holly hedges along the corridor. Construction is anticipated to occur from Summer 2026 through Fall 2026.

GWMP Bridge and Pavement Preservation

This project is implementing preservation-oriented treatments across multiple bridges, paved roadways, and parking areas managed by the George Washington Memorial Parkway. The work is focused on extending asset service life, improving safety, and addressing ongoing maintenance needs through targeted repairs. Construction is currently underway and is anticipated to continue through early 2027.

SeaBees Memorial Rehabilitation

The general rehabilitation of the SeaBees Memorial will include stone reattachment and repair, and flashing work to repair conditions and improve the long-term durability of the memorial. Construction is expected to occur in 2027.

Rehabilitation of I-395 Northbound Bridge over the Potomac River (DDOT)

The Arland D. Williams, Jr. Memorial Bridge Rehabilitation Project includes critical improvements to the four-lane bridge. Work will replace the deteriorated bascule span with a fixed span; rehabilitate and modify substructure elements to support the new configuration; upgrade barriers and marine protection systems to current standards; perform comprehensive bridge repairs and preservation; and utilize accelerated bridge construction to minimize traffic impacts during the anticipated two-year construction period. Construction is expected to begin in Summer 2026 and continue through Summer 2028 (DDOT, n.d.).

Rehabilitation and Widening of the Mount Vernon Trail - North (NPS/FHWA)

This project will rehabilitate and widen approximately 6.5 miles of the Mount Vernon Trail between Theodore Roosevelt Island and Tide Lock Park. The scope of work includes pavement rehabilitation and trail widening, replacement or rehabilitation of existing timber trail bridges, drainage improvements, and targeted safety enhancements at identified conflict and pinch points, along with other associated trail improvements. The project is currently in the design phase, with construction impacts anticipated to begin in late 2026 and continue through early 2029.

Rehabilitation of the Theodore Roosevelt Bridge (DDOT)

This project will rehabilitate the Theodore Roosevelt Bridge to extend its service life by approximately 20–30 years while enhancing access for pedestrians and bicyclists. Work includes deck replacement and overlay, widening the northern sidewalk, upgrading traffic barriers and pedestrian railings, and replacing signage and sign structures. The project is currently under construction and is anticipated to continue through Spring 2028 (DDOT, 2025).

Arlington National Cemetery Southern Expansion Project (Army)

The Southern Expansion will add an estimated 50 acres to Arlington National Cemetery, which will allow more than 80,000 additional interment opportunities. Other improvements include seamless access to the Air Force Memorial, realigning roadways in the area, replacing an office building and a warehouse and adding an Operations Complex. The project includes three distinct phases. Construction is currently underway and is anticipated to continue until late 2028 (ANC, 2026).

Long Bridge Project (VPRA)

The Virginia Passenger Rail Authority’s Long Bridge Project is a 1.8-mile rail improvement to create a continuous four-track corridor between the Long Bridge Aquatic Center in Arlington and L’Enfant Plaza in DC. It includes five new rail bridges and two new pedestrian/bicycle bridges. A new two-track rail bridge will be built over the Potomac River next to the existing two-track Long Bridge, along with a new bike and pedestrian bridge connecting Long Bridge Park and Mount Vernon Trail in Arlington to East Potomac Parks in DC. The project is currently under construction and is anticipated to continue through 2030 (VPRA, n.d.).

Potomac River Tunnel Project (DC Water)

The Potomac River Tunnel is the next major phase of the DC Clean Rivers Project. The project consists of a large-diameter deep sewer tunnel, diversion facilities, drop shafts, and support structures to capture flows from existing combined sewer overflows (CSOs) along the Potomac River and convey them to the Blue Plains Advanced Wastewater Treatment Plant. Construction is currently underway and is anticipated to continue through 2030 (DCWASA, n.d.).

Rehabilitation and Safety/Access Improvements at Lincoln Memorial Circle (NPS/FHWA)

This project will comprehensively rehabilitate Lincoln Memorial Circle, including improving pedestrian and bicycle connectivity, accessibility, and safety throughout the area. This includes the installation of traffic control devices (signalization), pedestrian infrastructure (accessible sidewalks, crosswalks, and curb ramps), and modifications to roadway geometry, including ramp closures, lane reconfigurations, and minor curb realignments. Construction is expected to begin in 2029 and span multiple construction seasons.

Rehabilitation of Rock Creek and Potomac Parkway (NPS/FHWA)

This project will rehabilitate Rock Creek and Potomac Parkway from Shoreham Drive to Virginia Ave, and Ohio Drive from Parkway Drive to Independence Ave. Proposed improvements include pavement rehabilitation, lighting, intersection reconfiguration, trail widening, and other safety improvements. Construction is anticipated to begin in 2028 and span multiple construction seasons.

Crystal City to Reagan National Airport Multimodal Connection (CC2DCA)

This project will provide a multimodal connection between Crystal City and Ronald Reagan Washington National Airport (DCA) for use by people walking, biking, and using micromobility devices. The Project Team is currently working towards the 30% design and is finalizing the concept plan based on the input they received on the base concept design from property owners, project partners and the community (ACDOE, n.d.).