

National Park Service
U.S. Department of the Interior



George Washington Memorial Parkway

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Triumphal Arch at Memorial Circle

Assessment of Effects Report

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1 Introduction

The National Park Service (NPS) is developing a design for the construction of a monumental arch, the Triumphal Arch (the Arch), within the George Washington Memorial Parkway in Washington, D.C. As a federal undertaking, this project is subject to Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800) “Protection of Historic Properties” (Section 106). This Assessment of Effects Report describes the project (the proposed undertaking) and analyzes potential adverse effects on historic properties, including archeological resources, within the project area. It is being prepared as part of the continuing consultation process between the NPS, the District of Columbia Historic Preservation Office (DC HPO), Virginia Department of Historic Resources (VDHR), Federally Recognized Tribes, and other consulting parties.

Section 106 consultation for the proposed undertaking is being initiated with DC HPO, VDHR, and other entitled consulting parties per 36 CFR § 800.2(c)(1) and (3). These parties are marked with an asterisk in the list below. Other stakeholders and interested parties were invited to participate in consultation per 36 CFR §§ 800.2(c)(5) and 800.3(f)(2). The list below also includes parties from which NPS has received a request to consult, which NPS is still considering. All consulting parties and stakeholders were contacted via letters dated June 5, 2026.

Consulting Parties

- District of Columbia Historic Preservation Office*
- Virginia Department of Historic Resources*
- Advisory Council on Historic Preservation*
- Absentee Shawnee Tribe of Indians of Oklahoma Nation
- Catawba Indian Nation
- Chickahominy Indian Tribe
- Chickahominy Tribe Eastern Division
- Delaware Nation
- Monacan Indian Nation
- Nansemond Indian Nation
- Pamunkey Indian Tribe
- Rappahannock Tribe
- Shawnee Tribe
- Upper Mattaponi Indian Tribe
- National Capital Planning Commission
- Commission of Fine Arts
- Arlington County
- District of Columbia – Ward 2

- Arlington National Cemetery
- Department of War
- The Trump-Kennedy Center
- National Park Service - National Mall and Memorial Parks
- National Park Service - Rock Creek Park
- National Park Service – National Capital Region National Historic Landscape Program
- Federal Highway Administration
- Architect of the Capitol
- Georgetown 2E ANC Commission

Other parties that have requested consulting party status

- National Trust for Historic Preservation
- Committee of 100 on the Federal City
- DC Preservation League
- The Cultural Landscape Foundation
- National Parks Conservation Association\
- American Institute of Architects

1.1 Description of Undertaking

1.1.1 Purpose and Need

The purpose of the proposed undertaking is to celebrate 250 years of American independence by honoring America’s founding principles through installation of an arch 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 (EO) 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.

1.1.2 Proposed Undertaking

The proposed undertaking includes construction of the 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.

Appendix A contains plans, sections, and renderings of the proposed undertaking. These are for illustration purposes only and may not reflect the final design.

The Arch would be an approximately 250-foot-tall reinforced concrete structure clad in granite 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 Arch would serve as a monumental 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 Arch would be built from concrete and finished with granite. 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 Arch 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.

The proposed undertaking 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.

Proposed Changes to Vehicle, Pedestrian, and Bicycle Use

During construction, temporary closures would be implemented, as follows:

- 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 undertaking, 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

The proposed undertaking 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 and the Architectural Barriers Act, and meets the Public Right-of-Way Accessibility Guidelines incorporated into the Architectural Barriers Act Accessibility Standards.

The proposed undertaking 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.

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 on-site 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 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.

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.

Utility Installation

To support operation of the Arch and associated facilities, new potable water, sanitary sewer, electric, gas 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.

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 off-site impacts, and maintain compliance with applicable stormwater requirements.

Long-term Stormwater Management

Since 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 of Columbia stormwater management regulations.

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 off-site for proper disposal, rather than discharged on site.

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.

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.

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 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.

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, U.S. Route 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.

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, on-site, 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.

1.2 Historic Summary of the Project Area

The immediate project area is located within the Memorial Avenue Corridor cultural landscape, a nationally significant historic designed landscape extending between the Lincoln Memorial in Washington, D.C., and Arlington National Cemetery in Arlington, Virginia (see Figure 1 in Appendix B). The corridor consists of the Watergate Steps, the Rock Creek and Potomac Parkway Entrance, Arlington Memorial Bridge, Memorial Circle, Memorial Avenue Bridge over Boundary Channel, Memorial Avenue, and the ceremonial entrance sequence into Arlington National Cemetery at the Arlington Hemicycle. Memorial Circle serves as the link between the Arlington Memorial Bridge and Memorial Avenue, providing a hub to secondary destinations and routes within a compressed urban geography. The circular travel pattern provides a scenic route for commuters to experience the Memorial Avenue Corridor. The entirety of the corridor forms a major component of the monumental core of Washington, D.C. and was conceived as both a ceremonial gateway to the nation's Capital and a symbolic landscape commemorating national unity and reconciliation following the Civil War.

The conceptual origins of the corridor date to the report of the 1901–1902 Senate Park Commission, commonly known as the McMillan Plan (U.S. Congress 1902), which proposed a monumental bridge and axial landscape composition linking the planned Lincoln Memorial with Arlington House, the former home of Robert E. Lee

The bridge alignment and associated ceremonial landscape were intended to physically and symbolically unite North and South through a coordinated monumental composition extending across the Potomac River. The corridor was designed principally by the architectural firm McKim, Mead & White under project architect William Mitchell Kendall and reflects the formal planning principles of the City Beautiful movement and Beaux-Arts monumental design.

Construction of the corridor occurred in phases between the 1920s and 1940s. Arlington Memorial Bridge was constructed between 1926 and 1932, while Memorial Avenue and associated bridge and landscape features were developed concurrently. The corridor was designed as a processional sequence integrating architecture, engineering, sculpture, transportation systems, vegetation, and expansive reciprocal views. Arlington Memorial Bridge established a new monumental crossing of the Potomac River and extended the east-west monumental axis of Washington westward toward Arlington National Cemetery and Arlington House. The corridor was conceived as an “Avenue of Heroes,” with memorial niches and commemorative landscapes incorporated into the overall design framework.

Memorial Circle occupies a central and highly significant position within this composition. Located on Columbia Island, now Lady Bird Johnson Park, Memorial Circle forms the ceremonial hinge between Arlington Memorial Bridge, Memorial Avenue, the George Washington Memorial Parkway, and the Mount Vernon Memorial Highway. Early plans for the Columbia Island plaza envisioned a far more monumental treatment than the traffic rotary ultimately constructed. Designers centered a formal, cruciform plaza on the east-west axis of the avenue corridor and proposed two monumental columns offset in hemispherical transepts framing the corridor. The proposed column bases were 33.5 feet wide and tapered to fluted columns rising 166 feet in height topped with winged victory figures symbolizing the reunification of the North and South following the Civil War (see Figures 2 and 3 in Appendix B). Additional proposals included monumental pavilions, fountains, balustrades, Greek temples, and cross-axis roadway compositions before the design was gradually simplified through the 1930s into the existing traffic rotary configuration designed principally by landscape architect Gilmore D. Clarke.

Memorial Circle was ultimately constructed beginning in 1940 and was intended to function as a formal organizing landscape feature within the larger ceremonial composition extending between the Lincoln Memorial and Arlington National Cemetery. Four monumental pylons framing the entrances to Arlington Memorial Bridge and Memorial Avenue were among the principal architectural features implemented from the earlier McKim, Mead & White design concepts.

The landscape surrounding Memorial Circle evolved substantially during the mid-twentieth century. While early designs emphasized formal open spatial relationships around the rotary, the character of the surrounding landscape changed during implementation of the Beautification Program associated with First Lady Claudia “Lady Bird” Johnson during the 1960s. Landscape architect Edward Durell Stone, Jr. developed a planting plan for Columbia Island that introduced extensive plantings of flowering dogwoods, white pines, daffodils, and other vegetation around Memorial Circle and throughout Lady Bird Johnson Park. These plantings transformed the character of Memorial Circle from a largely open rotary into a more heavily framed and naturalistic landscape setting while maintaining the circle’s ceremonial and commemorative role within the larger corridor composition.

Today, the Memorial Avenue Corridor remains nationally significant for its architecture, landscape architecture, engineering, sculpture, and community planning associations, as well as for its symbolic role linking the Lincoln Memorial, Arlington National Cemetery, and Arlington House through a unified monumental landscape composition. Character-defining features include the axial organization of the corridor, ceremonial circulation systems, formal views and vistas, memorial landscapes, bridge and roadway structures, holly hedges and white oak plantings along Memorial Avenue, and the reciprocal visual relationships across the Potomac River between the monumental core of Washington and the Arlington landscape.

Consistent with these historical associations and design developments, the 2024 cultural landscape report (Frisbie et al. 2024) defines the period of significance for the Memorial Avenue Corridor as 1901–1979, and recognizes its significance at the national level under Criteria A (in the area of Politics/Government) and C (in the areas of Architecture, Engineering, Landscape Architecture, Art—Sculpture, and Community Planning and Development), and also Criteria Consideration F (Commemorative property) and G (property elements added within the last 50 years). This period of significance, and these areas of significance, encompass the initial conception and composition of the corridor as a commemorative and recreational landscape, the construction of the Arlington Memorial Bridge and other corridor features, and the fuller realization of the corridor’s design through the installation of memorials and the landscape designs associated with landscape architect Edward Durell Stone, Jr.

2 Regulatory Framework

The National Historic Preservation Act (NHPA), enacted in 1966, is America’s foundational historic preservation law. The overarching goal of this federal law is to preserve historic resources across the country by ensuring that federal agencies consider potential impacts to historic properties when planning, making decisions, funding, permitting, or conducting activities. While the NHPA does not mandate the preservation of historic properties, it acknowledges the importance of preserving our nation’s diverse heritage and directs federal agencies to act as responsible stewards of historic properties. Two sections of the NHPA, Section 106 and Section 110, establish requirements for federal agency programs. For the purposes of this assessment, they will be used to evaluate the project’s effects to historic properties.

Section 106 (discussed in Section 2.1) requires federal agencies to consider the effects of their actions, known as undertakings, on historic properties prior to the issuance of any license, permit, approval, or expenditure of federal funds. It also establishes that the Advisory Council on Historic Preservation (ACHP) must have a reasonable opportunity to comment on any federal agency undertaking. The goal of Section 106 is for federal agencies to integrate preservation values and public input into their planning and decision-making processes. Section 110 (discussed in Section 2.2) focuses on federal stewardship of historic properties. It sets out the broad federal historic preservation responsibilities and is intended to ensure that historic preservation is fully integrated into the ongoing federal agency programs. It also includes a specific provision for the protection of National Historic Landmarks (NHLs). Additionally, EO 14252 (discussed in Section 2.3) addresses the federal government’s responsibilities to beautify and make safe and prosperous the District of Columbia.

2.1 Section 106

Section 106 of the NHPA (54 U.S.C. § 306108) requires federal agencies to take into account the effects of their actions on historic properties. The NHPA also created the ACHP and authorized the agency to issue regulations governing the implementation of Section 106. These regulations

are set forth in 36 CFR Part 800. The Section 106 process seeks to incorporate historic preservation principles into project planning through consultation between a federal agency and other parties with an interest in the effects of the federal agency's action on historic properties. Section 106 consultation includes four main steps: initiating consultation; identifying historic properties that could be affected by the undertaking; assessing the undertaking's effects on historic properties; and seeking ways to avoid, minimize, or mitigate any adverse effects on those properties.

Section 106 also includes special requirements for considering NHLs in the Section 106 process (36 CFR § 800.10). The regulations require the ACHP and the Secretary of the Interior to be invited to participate in Section 106 consultation whenever a project has an effect meeting the criteria of 36 CFR § 800.5(a)(1) on an NHL. Portions of the area of potential effect (APE) are within an NHL historic district, and Section 110(f) applies to this assessment of effects for the project (see Appendix D.)

2.2 Section 110(f)

Section 110(a)(2) of the NHPA (54 U.S.C. § 306102) requires agencies to establish preservation programs for the identification, evaluation, nomination, and protection of historic properties to the National Register of Historic Places (NRHP). The NPS maintains inventories for historic structures, archeological sites, and cultural landscapes that are listed, or eligible for listing, on the NRHP in the Cultural Resources Inventory System.

Section 110(f) of the NHPA (54 U.S.C. § 306107) also requires that federal agencies exercise a higher standard of care when considering undertakings that may directly and adversely affect one or more NHLs. It requires that agencies "to the maximum extent possible undertake such planning and actions as may be necessary to minimize harm to the landmark."

2.3 Executive Orders

EO 14252, titled "Making the District of Columbia Safe and Beautiful," is a presidential directive aimed at improving Washington, D.C.'s public safety, appearance, and overall civic image through coordinated federal action. The order directs the Department of the Interior "to ensure Federal buildings or lands adequately uplift and beautify public spaces and generate in the citizenry pride in and respect for our Nation." Elements of the NPS's implementation of the EO include development and construction of beautification efforts such as restoring monuments, redesigning and rehabilitating public spaces, removing graffiti, upgrading parks and infrastructure, and enhancing the visual character of the nation's Capital. The EO emphasizes transformative improvements to D.C.'s landscape including creation of safer, greener, and more visually impressive public environments and monumental landscapes. The broader goal of the

EO is to position Washington as a Capital city that actively reflects national pride, historical significance, and a renewed investment in high-quality public spaces.

3 Area of Potential Effects

3.1 Guidance for Area of Potential Effect Development

The Section 106 regulations define an APE as “the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking” (36 CFR § 800.16[d]). The APE is defined to allow for the evaluation of potential effects to historic properties resulting from an undertaking.

According to the steps prescribed by the Section 106 regulations, the APE must be defined before the identification of historic properties and evaluation of potential effects occurs. Types of effects on historic properties may include the following:

- Direct (comes from the undertaking at the same time and place with no intervening cause; can be visual, physical, auditory, etc.)
- Indirect (caused by the undertaking that are later in time or farther removed in distance but still reasonably foreseeable)
- Temporary
- Future
- Cumulative

Adverse effects occur when an undertaking may directly or indirectly alter characteristics of a historic property that qualify it for inclusion in the NRHP. Examples of adverse effects are stated in 36 CFR § 800.5(a)(2). Adverse effects have the potential to occur both during the construction and operational periods of a project.

For each undertaking, the Section 106 regulations (36 CFR Part 800) require the lead federal agency to determine an APE boundary that considers multiple types of effects on historic properties, rather than multiple APEs that address various effects. However, non-contiguous APEs may be developed to include multiple alternative project areas or multiple areas where possible effects may be reasonably anticipated. The regulations also require the lead federal agency to seek information from consulting parties and others likely to have knowledge of, or concerns with, historic properties in the area, to identify issues relating to the undertaking's potential effects on historic properties.

The VDHR provides guidance on APE development, requiring the APE to include all locations where the project will cause ground disturbance, all locations from which the project may be

visible or audible, and all locations where the project may result in changes to land use, public access, traffic patterns, etc. The DC HPO does not offer comparable guidance.

3.2 Area of Potential Effect Development

To begin developing the APE for this project, the NPS referenced the APEs developed for other recent federal undertakings that involved major construction and physical prominence in the Potomac River basin, including the rehabilitation of the Arlington Memorial Bridge, the Rehabilitation of the Lincoln Memorial, the rehabilitation of the Tidal Basin and West Potomac Park seawalls, and the Long Bridge Project. Reviewing the APE development and consultation process for these prior projects informed the drafting of the initial APE for this project by identifying considerations and analysis raised in prior efforts that are germane to the current proposed undertaking. Additionally, it allowed the NPS to consider consulting party input on those prior APEs that may also be relevant to the APE of this project.

To establish preliminary boundaries for the APE, aerial imagery basemaps in ArcGIS Pro and Google Earth were used to identify the general extents of potential construction and visual impacts. To inform the outer boundaries of the preliminary APE and identify critical study areas within it, the NPS analyzed photographs of important viewsheds, as well as architectural landscape renderings developed by the project's designers that overlay the proposed undertaking on those viewsheds. This analysis of APE outer extents considered areas of higher elevation (from which views would be more likely); major urban infrastructure (particularly elevated structures that would have a greater potential to block views); and other urban conditions like building density, street patterns, tree coverage, and potential viewsheds.

The NPS then used existing cultural resources GIS tools to identify, map, and list cultural resources within the APE. The NPS consulted data from the Cultural Resources Inventory System (CRIS), the Virginia Cultural Resources Inventory System (VCRIS), and the National Register Information System including nomination documentation held at the National Archives. Once the APE was drafted, the impacted resources were gathered using a selection-by-location tool in ArcGIS Pro. This geoprocessing tool allows a user to select resources from one set of layers (in this case the data layers containing data for the National Register, National Historic Landmark, CRIS-CL, and CRIS-HS programs) using a defined spatial limit (in this case the preliminary boundary for the APE).

3.3 Description of Preliminary Area of Potential Effects

The APE for this project encompasses the area in which the NPS anticipates that direct and/or indirect effects to historic properties are possible. Within the overall APE, the NPS has identified an "area of direct effects." This area includes the immediate proposed construction footprint, directly adjacent areas, and the primary ceremonial axis linking the Washington D.C. monumental core with Arlington National Cemetery.

The area of direct effects extends from Arlington National Cemetery in the west, across the Memorial Avenue Corridor to the Lincoln Memorial, and then along the length of the National Mall to the United States Capitol. In addition to those axial landscapes, it also includes adjacent and cultural landscapes including, generally from west to east: Arlington House, the Robert E. Lee Memorial, the entirety of the Memorial Avenue Corridor, Lady Bird Johnson Park, portions of Mount Vernon Memorial Highway, portions of the George Washington Memorial Parkway, the southern entrance of Rock Creek and Potomac Parkway, the Washington Monument and grounds, and the United States Capitol and grounds.

Beyond the area of direct effects, the APE extends farther to include places that are not expected to be directly affected by the undertaking but are potentially subject to indirect effects (the area of indirect effects). The outer bounds of the APE encompass Joint Base Myer–Henderson Hall to the west and from there, the boundary extends to the east to surround Arlington National Cemetery and Arlington Ridge Park. The boundary turns north before it reaches the bank of the Potomac River and parallels the riverbank upriver to a point north of Rosslyn. The boundary then crosses the river and encompasses the Georgetown Waterfront, continuing to the east to include the southern entrance of the Rock Creek and Potomac Parkway and the Lincoln Memorial and grounds. From the Lincoln Memorial, the boundary generally follows the northern side of the National Mall—with a jog northward to include the Old Post Office Tower—to the U.S. Capitol and Grounds, which mark the eastern end of the APE. From this eastern terminus, the APE boundary generally follows the southern side of the National Mall, extending in a line to the west until 15th Street SW, where it turns to the south to include the bridges from the waterfront to Hains Point. The boundary then extends southwest across the Potomac to a point north of Ronald Reagan Washington National Airport and there turns westward to encompass the Pentagon and curve north to surround Arlington National Cemetery, up to Joint Base Myer–Henderson Hall.

Appendix C contains the maps showing the APE and the historic properties within the APE.

4 Historic Properties within the Area of Potential Effects

The APE contains numerous overlapping historic properties; many resources contribute to multiple properties and districts. Historic properties include cultural landscapes, architectural resources, and archeological resources.

The historic properties within the portion of the APE designated as the area of direct effects are those that have the highest potential to be most significantly affected by the proposed undertaking. They consist of the main axial and compositional resources whose significance is fundamentally tied to the Memorial Avenue Corridor and the ceremonial landscape relationship between Arlington National Cemetery, the Lincoln Memorial, and rest of the monumental core of Washington, D.C. These resources collectively form an intentionally designed monumental landscape developed primarily during implementation of the McMillan Plan and associated early twentieth-century City Beautiful planning efforts. The significance of these properties derives

not only from their individual architectural or commemorative importance, but also from their spatial, visual, symbolic, and ceremonial interrelationships. Contributing characteristics shared among these resources include axial alignment, reciprocal views, coordinated transportation systems, monumental scale, formal landscape organization, and carefully framed transitions between the civic landscapes of Washington and the commemorative landscapes of Arlington National Cemetery. The proposed undertaking would occur directly within this designed ceremonial framework at Memorial Circle, along the primary axes that serve as the principal organizing features of the cultural landscape layout.

Additional resources that may be affected are those from which this proposed undertaking would be visible. The potential effects relate to possible changes to setting, viewsheds, and the broader spatial organization of the Potomac basin landscape. In particular, the Arch would introduce a new vertical feature into a landscape system historically characterized by carefully managed horizontal monumental compositions, open river-oriented views, and coordinated scenic parkway experiences. As a result, these resources should be evaluated for indirect effects related to visual prominence, altered landscape relationships, and changes to the historic character of the monumental river corridor.

4.1 Preliminary Identification of Historic Properties

Table 1 in Appendix D details the historic properties within the area of direct effects and Table 2 in Appendix D details the historic properties within the area of indirect effects. These tables include a listing of historic districts, cultural landscapes, and archeological sites within the APE, as well as contributing features and elements within them. These tables also detail the designation of the properties.

4.2 Archeological Resources

The NPS performed a Phase IA archeological assessment for Memorial Circle and the construction laydown area of the proposed undertaking (Appendix E). The assessment report concludes that these areas have moderate to high archeological sensitivity for intact precolonial and historic archeological resources beneath the existing twentieth-century fill. The assessment found that Memorial Circle and the anticipated laydown area are situated on an artificial landform created through dredge and fill deposition between approximately 1915 and 1927, with roughly 10 to 14 feet of fill overlying an earlier buried landscape of sandy clay, alluvial deposits, sandbars, shallow tidal flats, and floodplain settings associated with the Potomac River. The report explains that similar buried landscapes elsewhere in Washington, D.C. have yielded important archeological information dating from the precolonial period through the colonial era, and it concludes that the buried former land surface beneath the fill may retain intact archeological deposits.

Background research documented a substantial archeological context in the surrounding area. Within 1 mile on the Virginia side of the Potomac River, the archeological assessment identified 13 archeological resources, including the Arlington House Site (44AR0017), two NRHP-eligible sites, and several additional unevaluated or previously determined ineligible sites. The report also notes that the APE lies within the War of 1812 study area and near the core area associated with that conflict. Based on documentary research, environmental reconstruction, pedestrian reconnaissance, and review of preliminary geotechnical borings, the assessment concludes that the area around Memorial Circle would have offered attractive resources during the precolonial and early colonial periods and that the Arlington House waterfront was an important component of the nineteenth-century landscape. These factors support the conclusion that intact archeological deposits may be present beneath the fill despite the creation of the modern island landscape.

The archeological assessment was predictive in nature and did not include subsurface archeological excavation. It also notes an important limitation: at the time the assessment report was prepared, archeological and historic architectural site file information requested from the DC HPO had not yet been provided and was expected to be incorporated later. Accordingly, the report recommends additional archeological investigation if the proposed undertaking would disturb soils more than 10 feet below existing ground surface. Specifically, the report states that a Phase IB subsurface archeological investigation, including geoarcheological analysis, could be performed as necessary. In addition, an archeological assessment of the utility corridors under consideration is needed to identify the presence or absence of archeological resources in those locations. At this time, only one archeological site has been identified within a potential utility corridor—44AX0028 (Alexandria Canal)—but other known or unknown resources may exist.

5 Identification of Effects

Effects assessments are based on the criteria of adverse effect as defined in the ACHP regulations (36 CFR § 800.5), which are as follows:

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative (36 CFR § 800.5(a)(1)).

Examples of adverse effects can include physical destruction or damage to all or part of a property; alterations, including restoration, rehabilitation, and repair that are inconsistent with the Secretary's Standards for the Treatment of Historic Properties and applicable guidelines; and

change of the character of the property's use or of physical features within the property's setting that contribute to its significance (36 CFR § 800.5(a)(2)).

To assess project effects, the NPS reviewed existing documentation on the history and significance of each property. With an understanding of each property's significance, characteristics, and integrity, the proposed alternatives were analyzed, and the criteria of adverse effects were applied. A finding of "no effect," "no adverse effect," or "adverse effect" is recommended for each historic property:

- No Effect: A finding of "no effect" signifies that the project would not affect the characteristics of the property that qualify it for NRHP listing.
- No Adverse Effect: A finding of "no adverse effect" per 36 CFR § 800.5(b) signifies that effect(s) would not alter a characteristic of a property that qualifies it for inclusion in the NRHP in a manner that would diminish the integrity of the property; it does not meet the criteria for adverse effect.
- Adverse Effect: A finding of "adverse effect" per 36 CFR § 800.5(a)(1) signifies that an effect(s) would alter a characteristic of a property that qualifies it for inclusion in the NRHP in a manner that would diminish the integrity of the property, according to the criteria for adverse effect.

Table 3 in Appendix D contains an assessment of effects of the proposed undertaking on NRHP-eligible or listed historic properties and is based upon the criteria of significance. Consistency with Section 110(f) is addressed in Table 3. A brief summary of the preliminary assessment of effects is provided below in Section 5.1.

5.1 Preliminary Assessment of Effect of Proposed Undertaking

The NPS has determined that the proposed construction of the Triumphal Arch at Memorial Circle would result in effects on historic properties meeting the criteria found in 36 CFR § 800.5(a)(1) within the Area of Potential Effects because it would alter, directly and indirectly, characteristics of those properties that qualify them for inclusion in the National Register of Historic Places. As reflected in the table, the undertaking would have effects meeting the criteria of 36 CFR § 800.5(a)(1) that change integrity of setting, design, feeling, association, and, in some instances, location by introducing visual, spatial, and physical changes that affect character-defining views, reciprocal vistas, circulation patterns, and designed landscape relationships.

The most substantial effects meeting the criteria of 36 CFR § 800.5(a)(1) would occur to the Memorial Avenue Corridor Cultural Landscape, Arlington Memorial Bridge, Lady Bird Johnson Park Cultural Landscape, Arlington National Cemetery Historic District, Arlington House Historic District, Arlington House (Robert E. Lee Memorial), Arlington House Cultural Landscape, Lincoln Memorial Cultural Landscape, the Lincoln Memorial, National Mall Site, National Mall Historic District, and The Mall Cultural Landscape, all of which derive

significance in part from their planned visual, commemorative, and spatial relationships across the Potomac River and through the monumental core.

Additional effects meeting the criteria of 36 CFR § 800.5(a)(1) would occur to the Washington Monument Structure, Washington Monument and Grounds Historic District, Washington Monument and Grounds Cultural Landscape, Rock Creek and Potomac Parkway Historic District, East and West Potomac Park Historic District, Arlington Ridge Park, Fort Myer Historic District and Quarters 1, George Mason Memorial, Thomas Jefferson Memorial Cultural Landscape, and potentially the Pentagon, where the undertaking would alter contributing views, settings, or designed relationships. In contrast, the table indicates that numerous other historic properties would not be adversely affected due to distance, topography, vegetation, orientation, or intervening development.

Accordingly, the undertaking meets the criteria of 36 CFR § 800.5(a)(1) because it would result in impacts to the integrity of historic properties through the alteration of character-defining visual and spatial relationships that contribute to their significance.

With regard to archeological resources, additional investigation may be needed to fully determine the effects of the undertaking. A subsurface investigation of Memorial Circle may be necessary to determine the presence or absence of deeply buried resources, and a survey of the potential utility corridor locations may be needed to identify resources within those areas. The results of these investigations, if necessary, will be used to determine whether the APE contains archeological resources that are eligible, or may be eligible, for listing in the NRHP, and whether the proposed undertaking will have adverse effects on these resources. A programmatic agreement will be developed for this project to define the continued consultation process for the identification and evaluation of resources, and the resolution of any adverse effects on NRHP-eligible archeological resources.

6 Avoidance, Minimization, and Mitigation Measures

During and prior to the design process, various smaller Arch heights were evaluated to avoid, minimize, or mitigate impacts on historic resources. The smaller Arch heights 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. The smaller designs fully obstructed this view, instead of framing it, 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 and provide new viewing opportunities. In addition, because the Arch is intended to celebrate 250 years of American independence, the smaller heights were not considered representative of this milestone, unlike the 250-foot Arch proposed in the undertaking.

To further avoid, minimize, and mitigate adverse effects on historic properties, several steps could be undertaken during the implementation of the project.

Once a consensus determination of adverse effect for the project has been reached, these steps would be agreed upon and negotiated during the development of a programmatic agreement (PA) with certain consulting parties.

Potential avoidance, minimization, and mitigation measures for the project's adverse effects under consideration in the draft PA include:

1. Viewshed and visual minimization: The NPS will continue to refine the design of the undertaking to minimize visual intrusion on historic properties within the APE.
2. Construction Management Control: The NPS will minimize temporary construction effects to historic properties from noise and vibration and visual effects using a variety of construction management techniques. Visual effects, noise, and vibration will be minimized to the extent practicable by providing appropriate screening between construction staging areas and cultural resources, limiting the size of construction staging areas, and/or locating them away from sensitive views and viewsheds.
3. Archeological Investigation: The NPS will continue identification and evaluation of archeological historic properties in accordance with 36 CFR § § 800.4 - 800.5 and following the findings and recommendations of the Phase IA Archeological Assessment Report.
 - a. Preconstruction Phase 1B Geoarcheological Investigations
 - b. Archeological Monitoring and Documentation
4. Other measures related to documentation, interpretation, or other elements, to be determined in conjunction with the consulting parties as part of developing and finalizing the PA.

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