

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.

Literature Cited

Frisbie, Meg, Molly Lester, Chen Mao, Ruth Penberthy, Haoyi Shang, Zhijie Wang, and Ryan Drake. 2024. *Memorial Avenue Corridor, George Washington Memorial Parkway, Cultural Landscape Report*. Philadelphia: University of Pennsylvania - Weitzman School of Design, Urban Heritage Project.

U.S. Congress, Senate Committee on the District of Columbia, and District of Columbia Park Commission. 1902. *The Improvement of the Park System of the District of Columbia*. Washington, D.C.: Government Printing Office.

Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site National Register Historic Properties

Sources

1. ESRI World Imagery Basemap
2. NCR Cultural Resources GIS

LEGEND

- Area of Potential Effects
- Direct Effects Boundary
- Project Area
- Construction Staging Area
- Potential Utility Corridors

Individual Structures

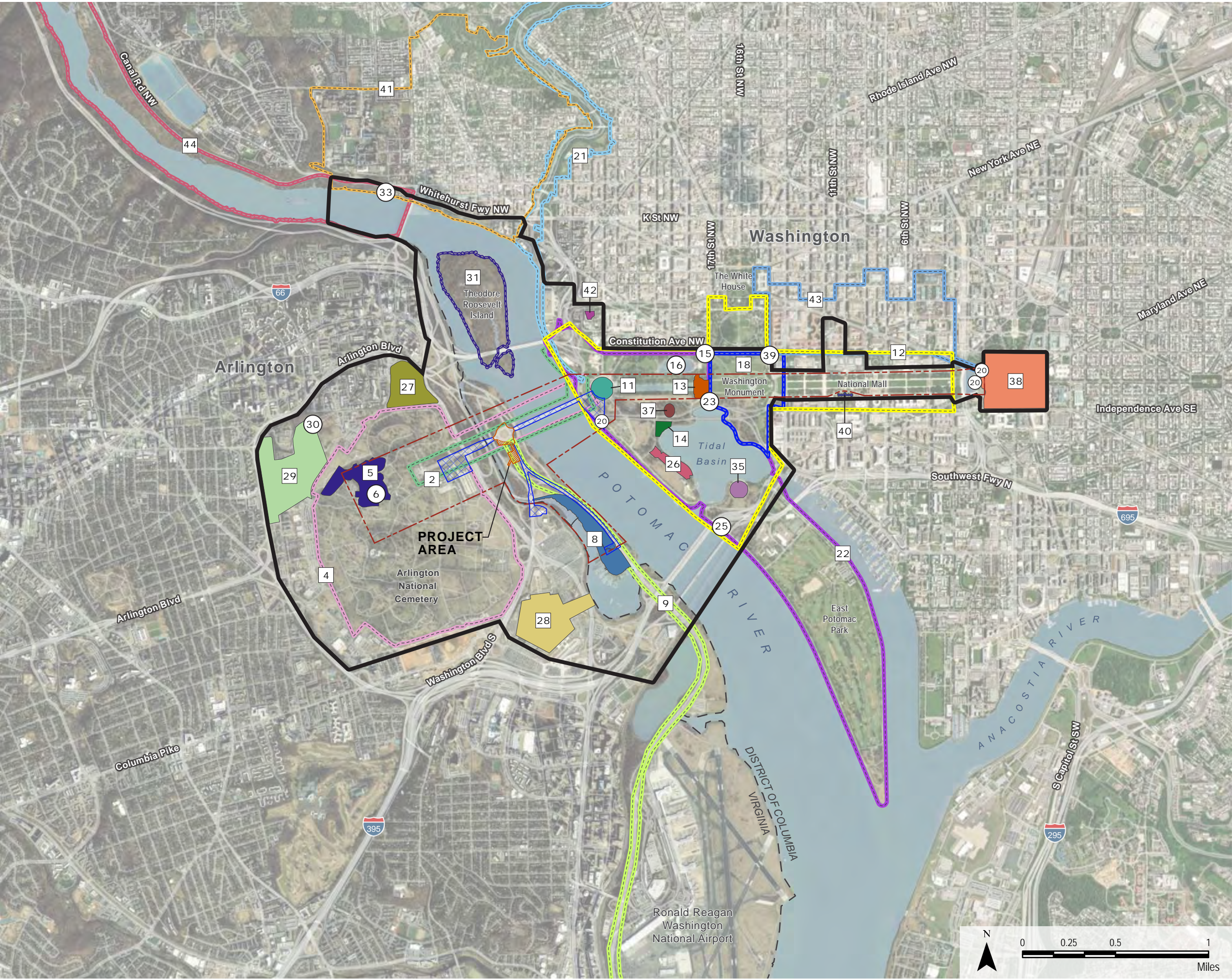
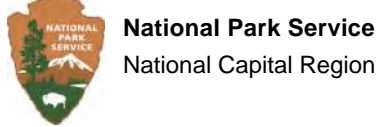
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- 15 Lockkeeper's House, C & O Canal Extension
- 16 56 Signers Memorial
- 20 Civil War Monuments in Washington, D.C. (Adjacent Lands)
- 23 American Revolutionary Statuary in the District of Columbia
- 25 Cuban Friendship Urn
- 30 Quarters 1 (NHL- Adjacent Lands)
- 33 Washington Canoe Club
- 39 U.S. Capitol Gatehouses and Gateposts

District Boundaries

- 2 Arlington Memorial Bridge and Related Features
- 4 Arlington National Cemetery Historic District
- 5 Arlington House Historic District (also known as Robert E. Lee Historic District)
- 8 Lyndon Baines Johnson Memorial Grove on the Potomac
- 9 Mount Vernon Memorial Highway
- 11 Lincoln Memorial
- 12 National Mall
- 13 World War II Memorial
- 14 Martin Luther King Jr. Memorial
- 18 Washington Monument and Grounds Historic District
- 21 Rock Creek Park and Potomac Parkway Historic District
- 22 East and West Potomac Parks Historic District
- 26 Franklin Delano Roosevelt Memorial
- 27 Arlington Ridge Park
- 28 Pentagon (NHL- Adjacent Lands)
- 29 Fort Myer Historic District (NHL- Adjacent Lands)
- 31 Theodore Roosevelt Island
- 35 Thomas Jefferson Memorial
- 37 DC War Memorial
- 38 United States Capitol (NHL- Adjacent Lands)
- 40 Smithsonian Building (NHL- Adjacent Lands)
- 41 Georgetown Historic District (NHL- NPS and Adjacent Lands)
- 42 Old Naval Observatory (NHL- Adjacent Lands)
- 43 Pennsylvania Avenue National Historic Site

Notes

1. Projection: NAD 1983
2. PRELIMINARY (2026)



Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site National Register Historic Properties

Sources

1. ESRI World Imagery Basemap
2. NCR Cultural Resources GIS

Legend

- Area of Potential Effects
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- Construction Staging Area
- Potential Utility Corridors

Individual Structures

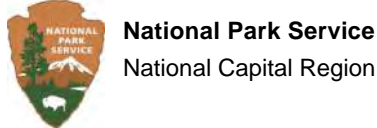
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District Boundaries

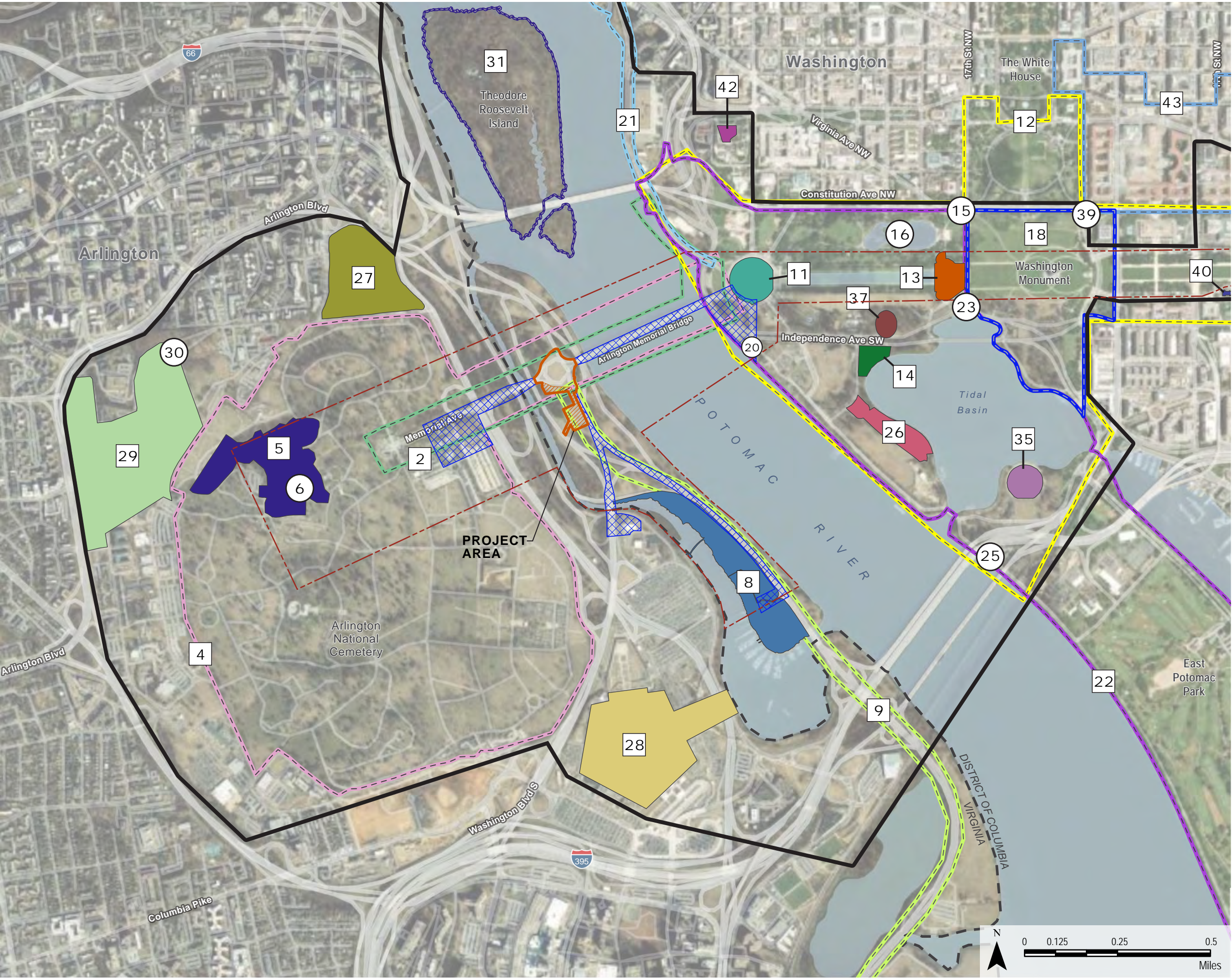
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Notes

1. Projection: NAD 1983
2. PRELIMINARY (2026)



Drawing #1A



Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site Cultural Landscapes

Sources

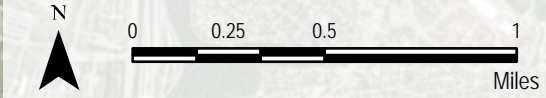
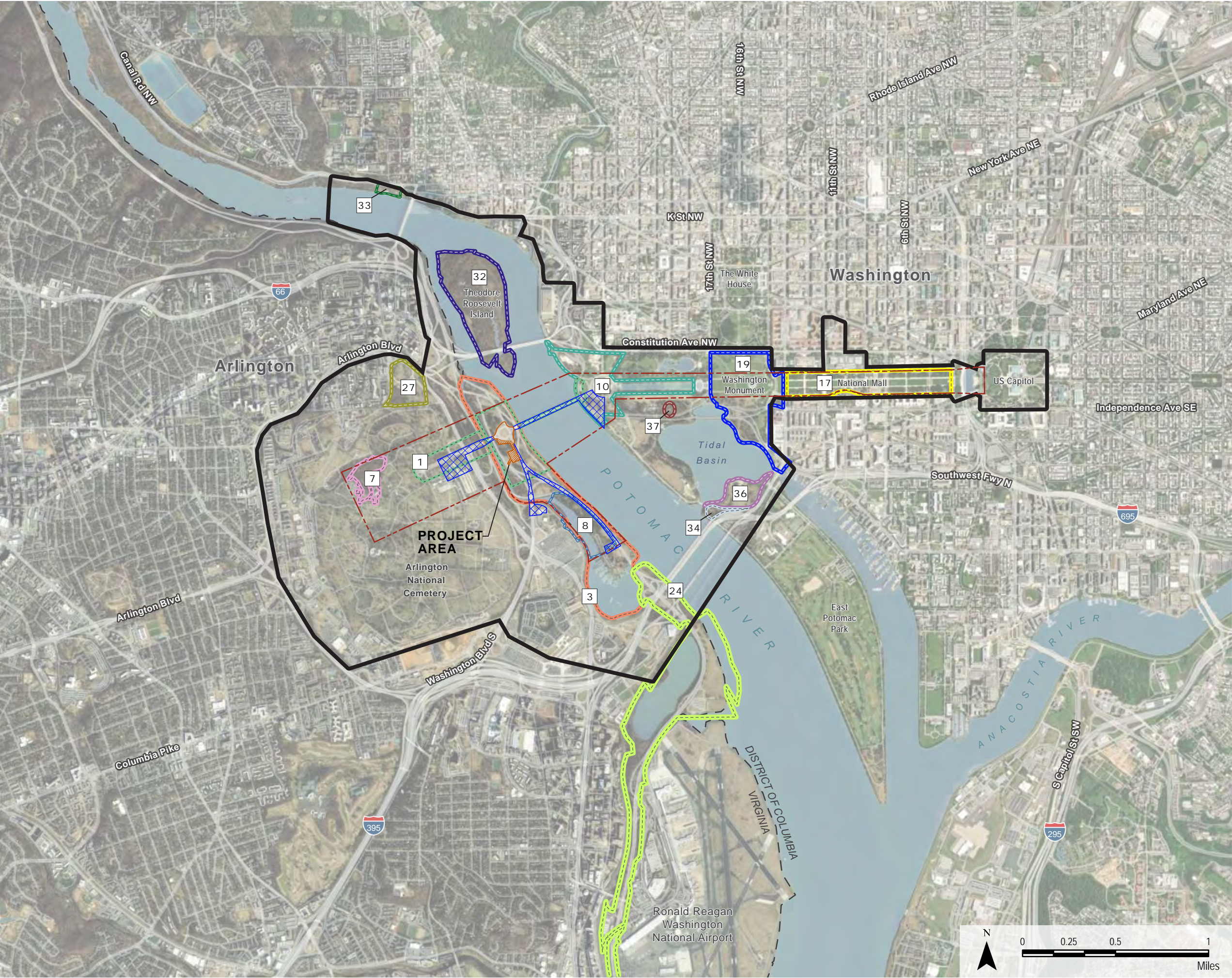
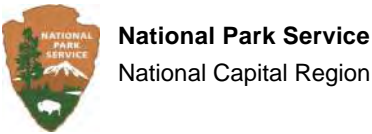
1. ESRI World Imagery Basemap
2. NCR Cultural Resources GIS

Legend

- Area of Potential Effects
 - Direct Effects Boundary
 - Project Area
 - Construction Staging Area
 - Potential Utility Corridors
-
- 1 Memorial Avenue Corridor
 - 3 Lady Bird Johnson Park
 - 7 Arlington House
 - 8 Lyndon Baines Johnson Memorial Grove on the Potomac
 - 10 Lincoln Memorial
 - 17 The Mall
 - 19 Washington Monument Grounds
 - 24 Mount Vernon Memorial Highway - North of Alexandria
 - 27 Arlington Ridge Park
 - 32 Theodore Roosevelt Island
 - 33 Washington Canoe Club
 - 34 George Mason Memorial
 - 36 Thomas Jefferson Memorial
 - 37 DC War Memorial

Notes

1. Projection: NAD 1983
2. PRELIMINARY (2026)



Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site Cultural Landscapes

Sources

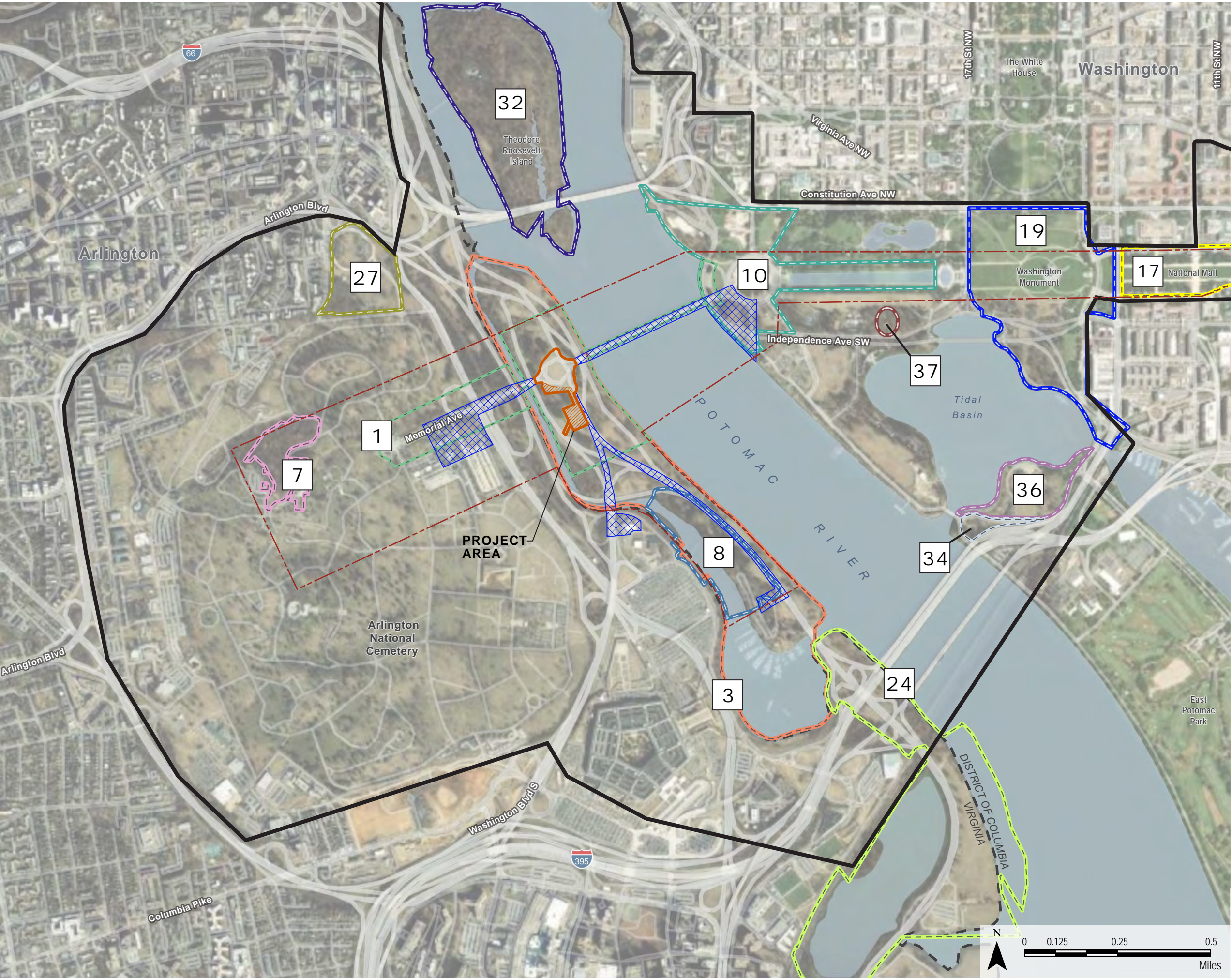
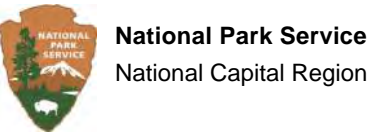
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 - 37 DC War Memorial

Notes

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2. PRELIMINARY (2026)

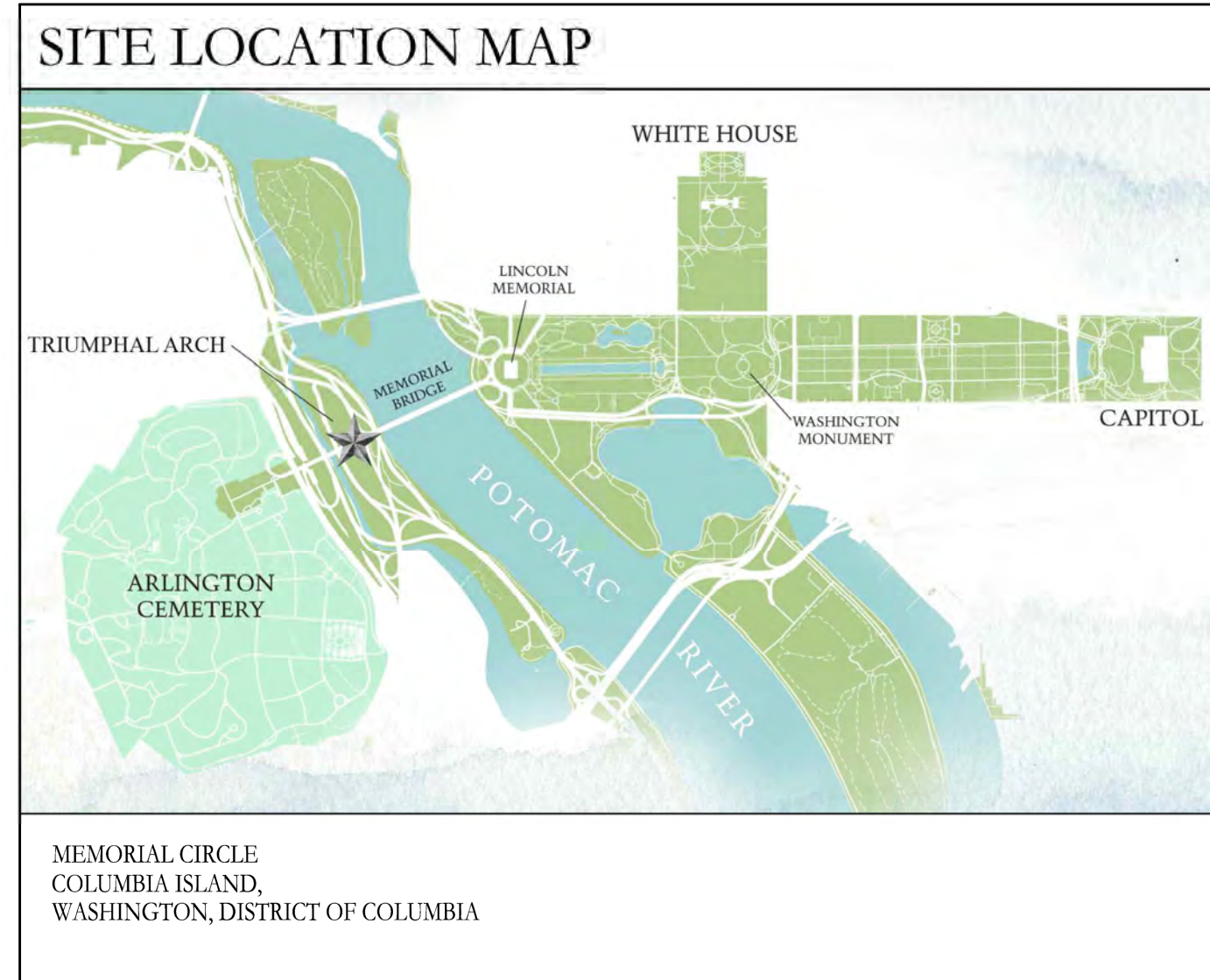


APPENDIX A. PLANS, SECTIONS, AND RENDERINGS OF PROPOSED UNDERTAKING

TRIUMPHAL ARCH WASHINGTON, DISTRICT OF COLUMBIA



DISCLAIMER: RENDERINGS ARE FOR ILLUSTRATION PURPOSES ONLY AND MAY NOT REFLECT THE FINAL DESIGN.



DRAWING INDEX

ARCHITECTURAL

A-1.00	COVER SHEET
A-2.00	GROUND LEVEL FLOOR PLAN
A-2.01	GROUND LEVEL MECHANICAL REFLECTED CEILING PLAN
A-2.10	LOWER MEZZANINE FLOOR PLAN
A-2.30	UPPER MEZZANINE FLOOR PLAN
A-2.40	OBSERVATION DECK LEVEL FLOOR PLAN
A-2.41	OBSERVATION DECK LEVEL REFLECTED CEILING PLAN
A-3.00	FRONT ELEVATION
A-3.10	SIDE ELEVATION
A-3.20	REAR ELEVATION
A-3.30	SIDE ELEVATION
A-4.00	BUILDING SECTION
A-4.10	BUILDING SECTIONS

CIVIL

CD101	DEMOLITION AND SITE PREPARATION PLAN
CG101	GRADING PLAN
CG102	DRAINAGE PLAN
CS101	SITE PLAN
CU101	UTILITY PLAN



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WASHINGTON, DC

stamps

issue

date 05-25-2026

scale NTS

drawn JG, KA checked NC

project no. 266206

title COVER SHEET

sheet number
A-1.00

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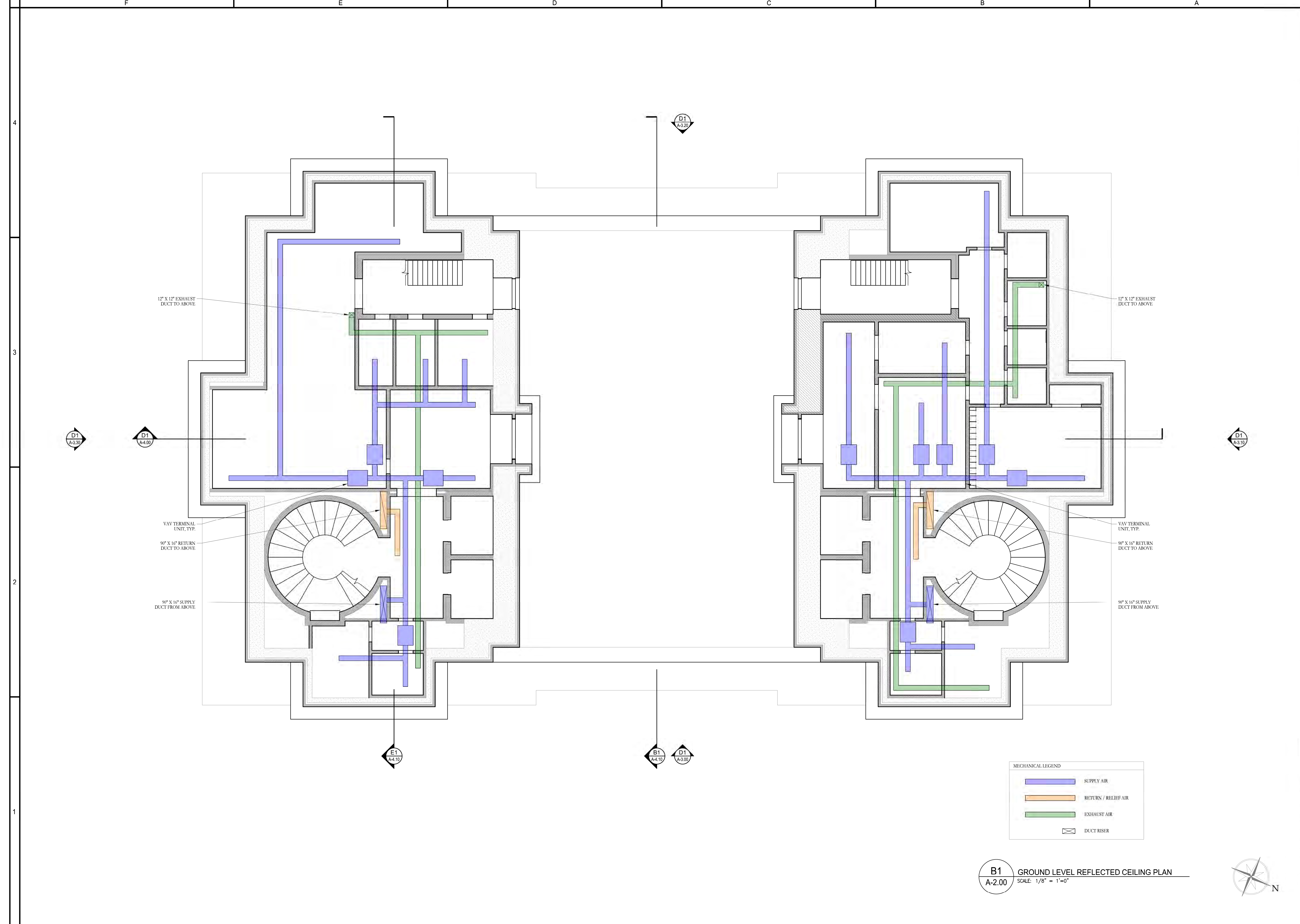
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WASHINGTON, DC

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project no.	266206
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sheet number	A-2.01

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MECHANICAL LEGEND

- SUPPLY AIR
- RETURN / RELIEF AIR
- EXHAUST AIR
- DUCT RISER

B1
A-2.00 GROUND LEVEL REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



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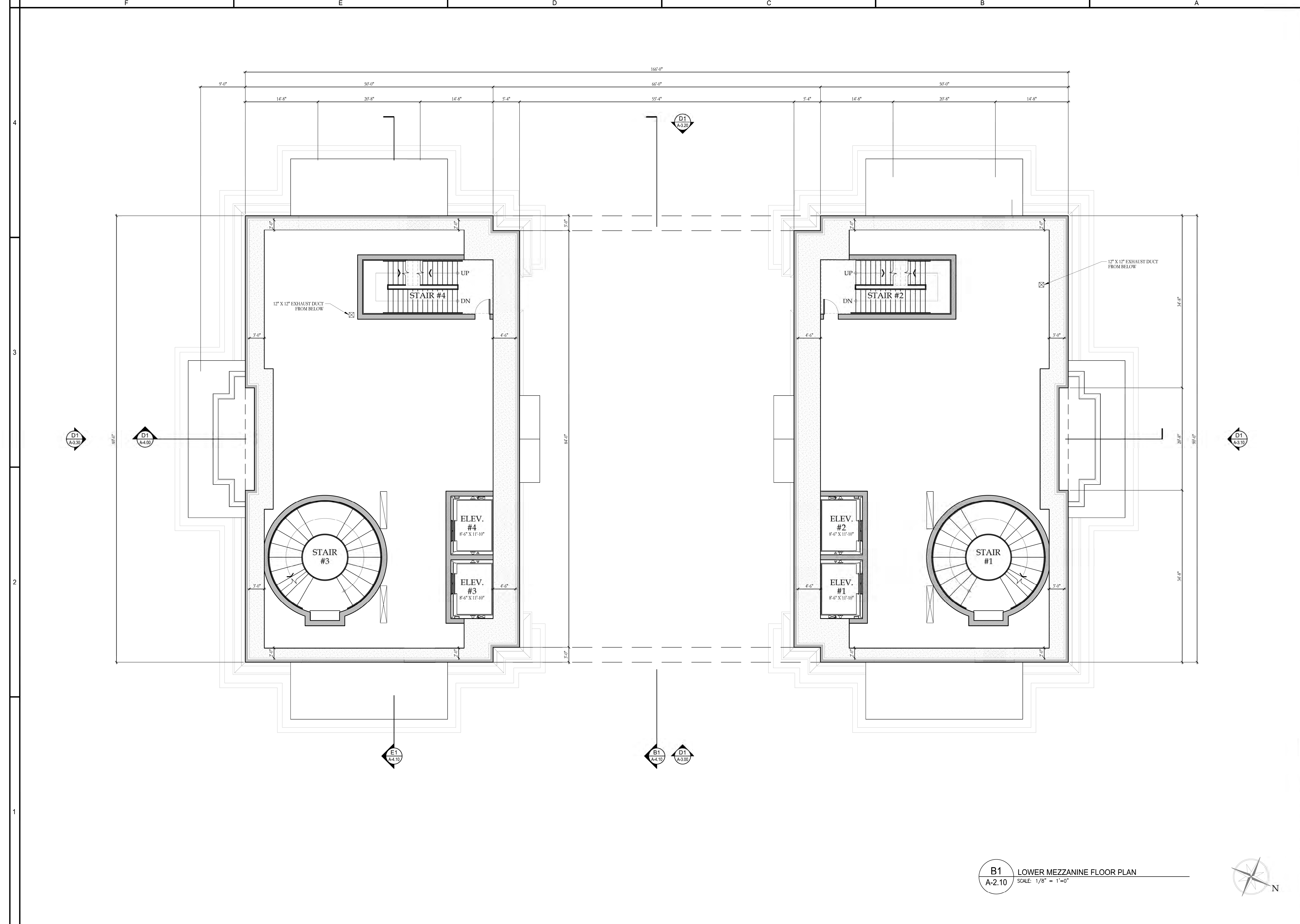
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sheet number	A-2.10

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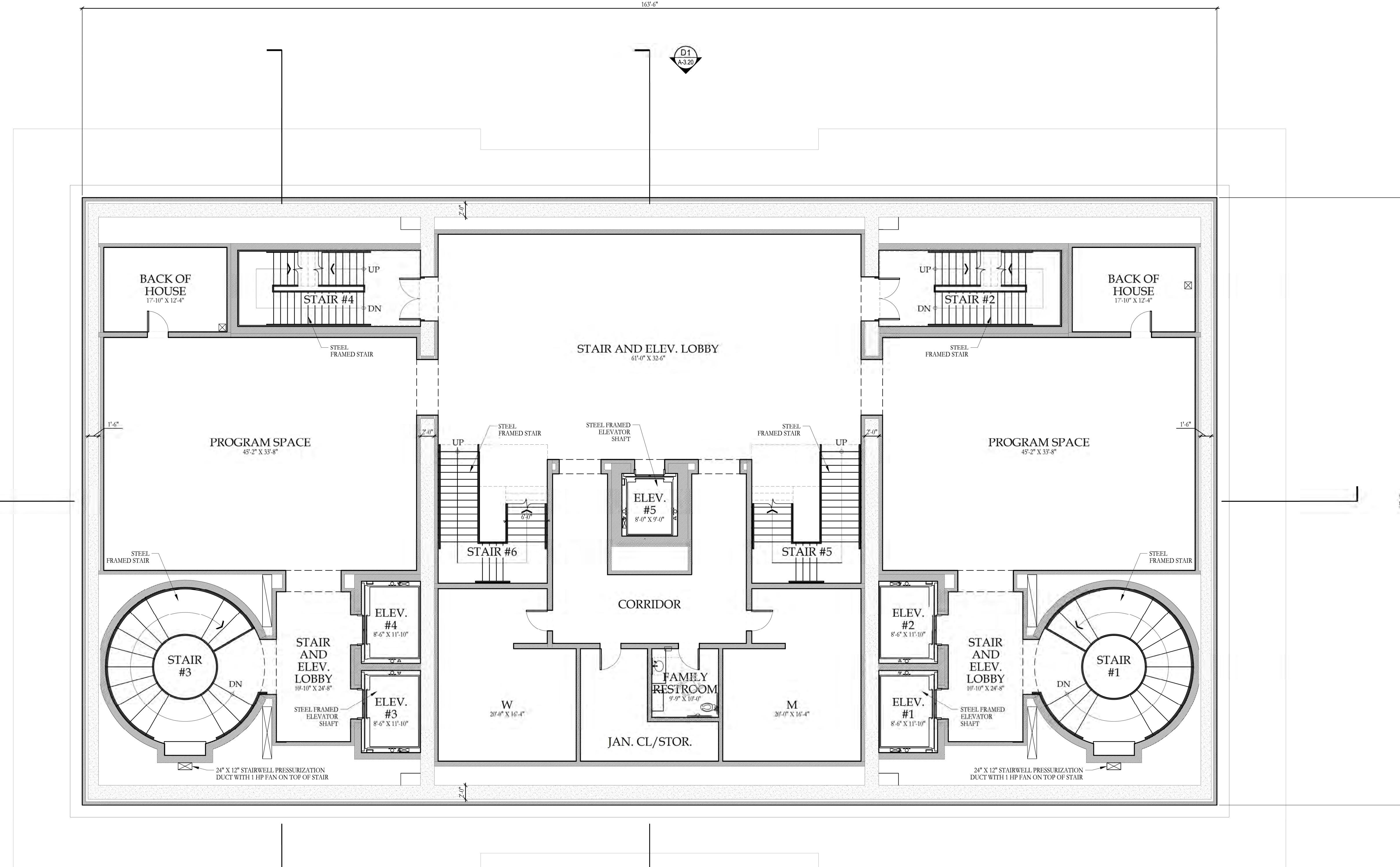
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 A-2.10 SCALE: 1/8" = 1'-0"



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WASHINGTON, DC

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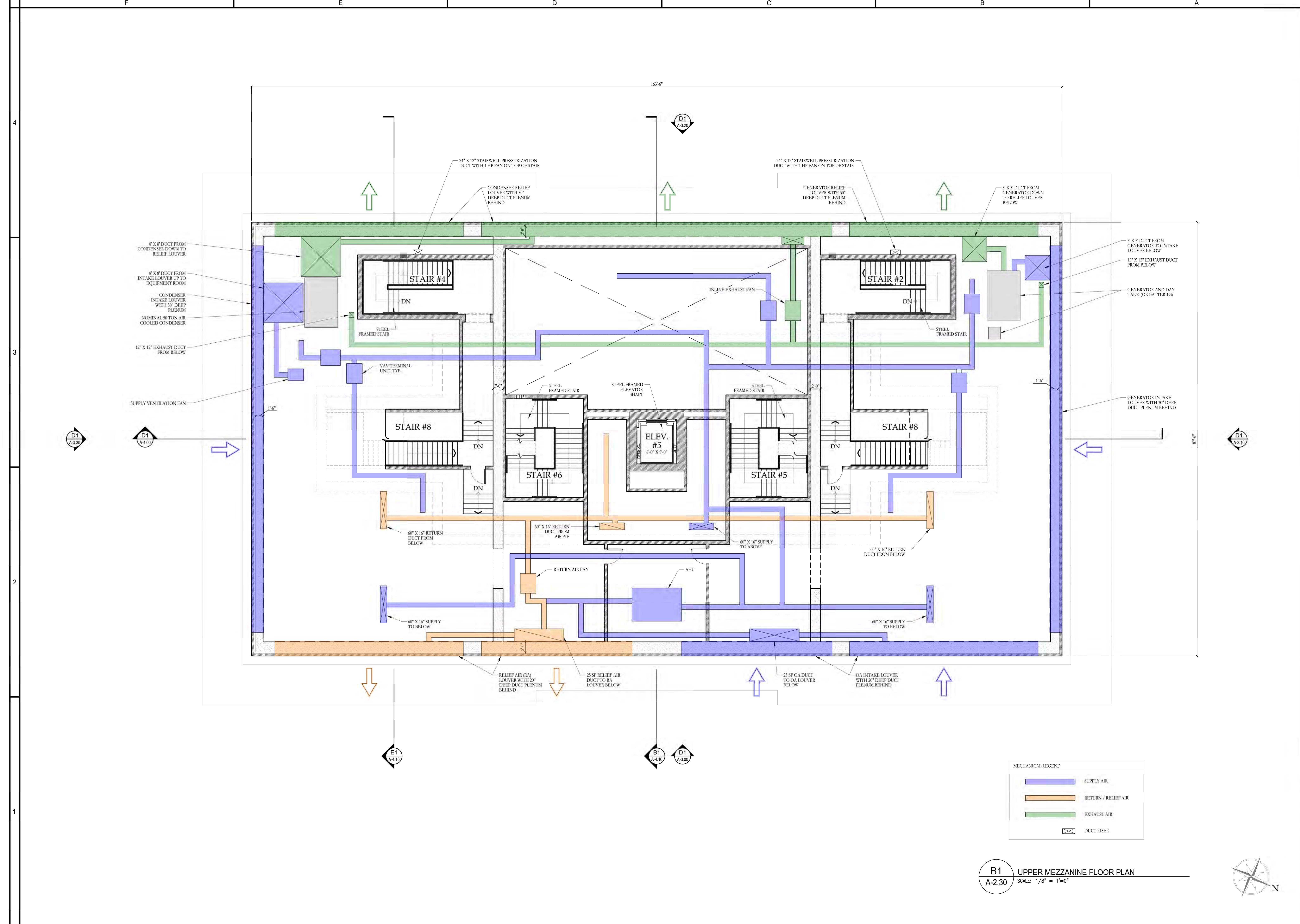
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RELEASED FOR CONSTRUCTION



MECHANICAL LEGEND

—	SUPPLY AIR
—	RETURN / RELIEF AIR
—	EXHAUST AIR
	DUCT RISER

B1 UPPER MEZZANINE FLOOR PLAN
A-2.30 SCALE: 1/8" = 1'-0"



stamps

issue

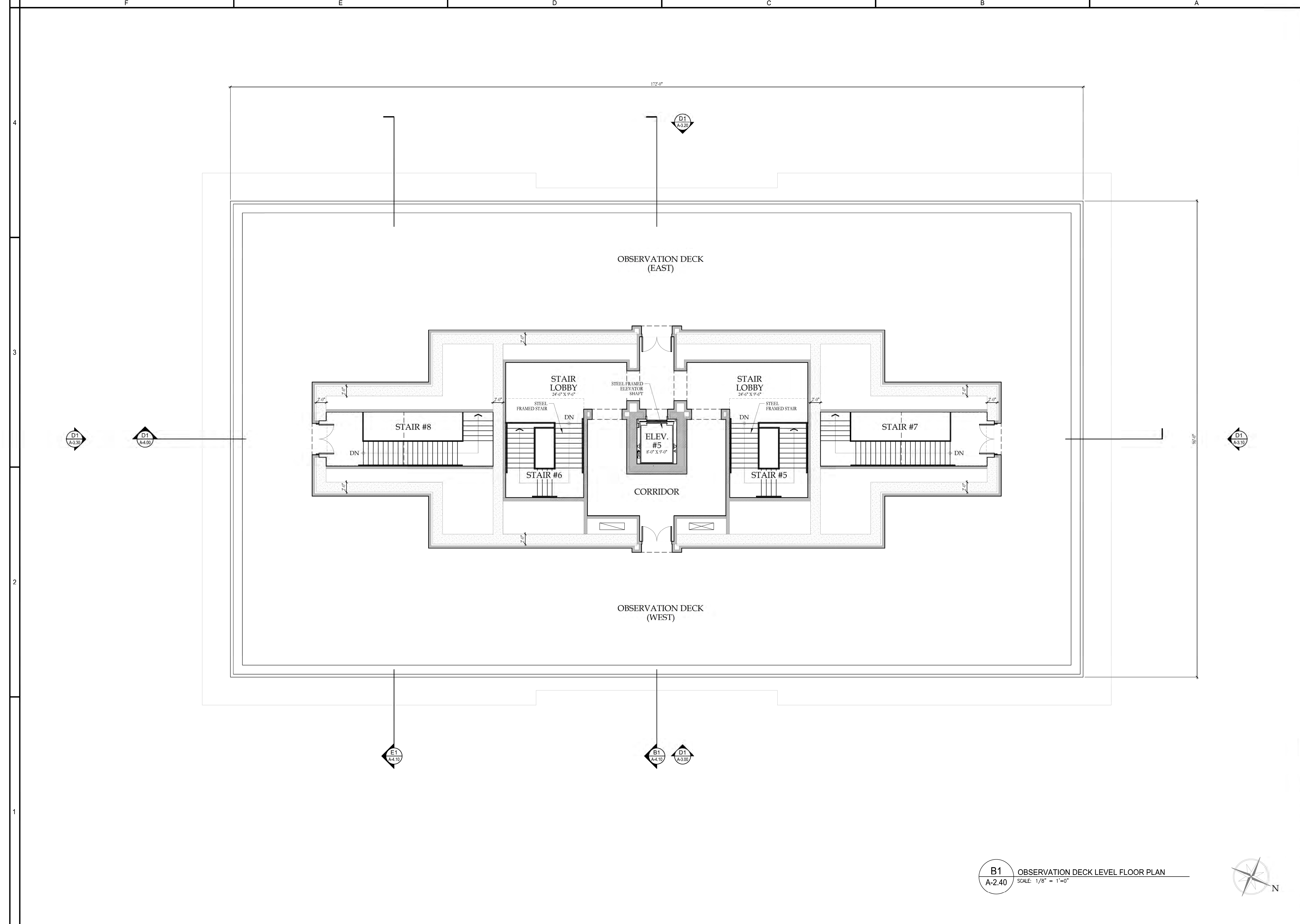
date 05-25-2026
scale 1/8" = 1'-0"
drawn JG, KA checked NC
project no. 266206
title UPPER MEZZANINE FLOOR PLAN
sheet number A-2.30

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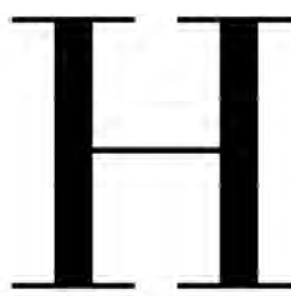
TRIUMPHAL ARCH - WASHINGTON, DC
WASHINGTON, DC

stamps	
issue	
date	05-25-2026
scale	1/8" = 1'-0"
drawn	JG, KA checked NC
project no.	266206
title	OBSERVATION DECK LEVEL FLOOR PLAN
sheet number	A-2.40



B1 OBSERVATION DECK LEVEL FLOOR PLAN
A-2.40 SCALE: 1/8" = 1'-0"





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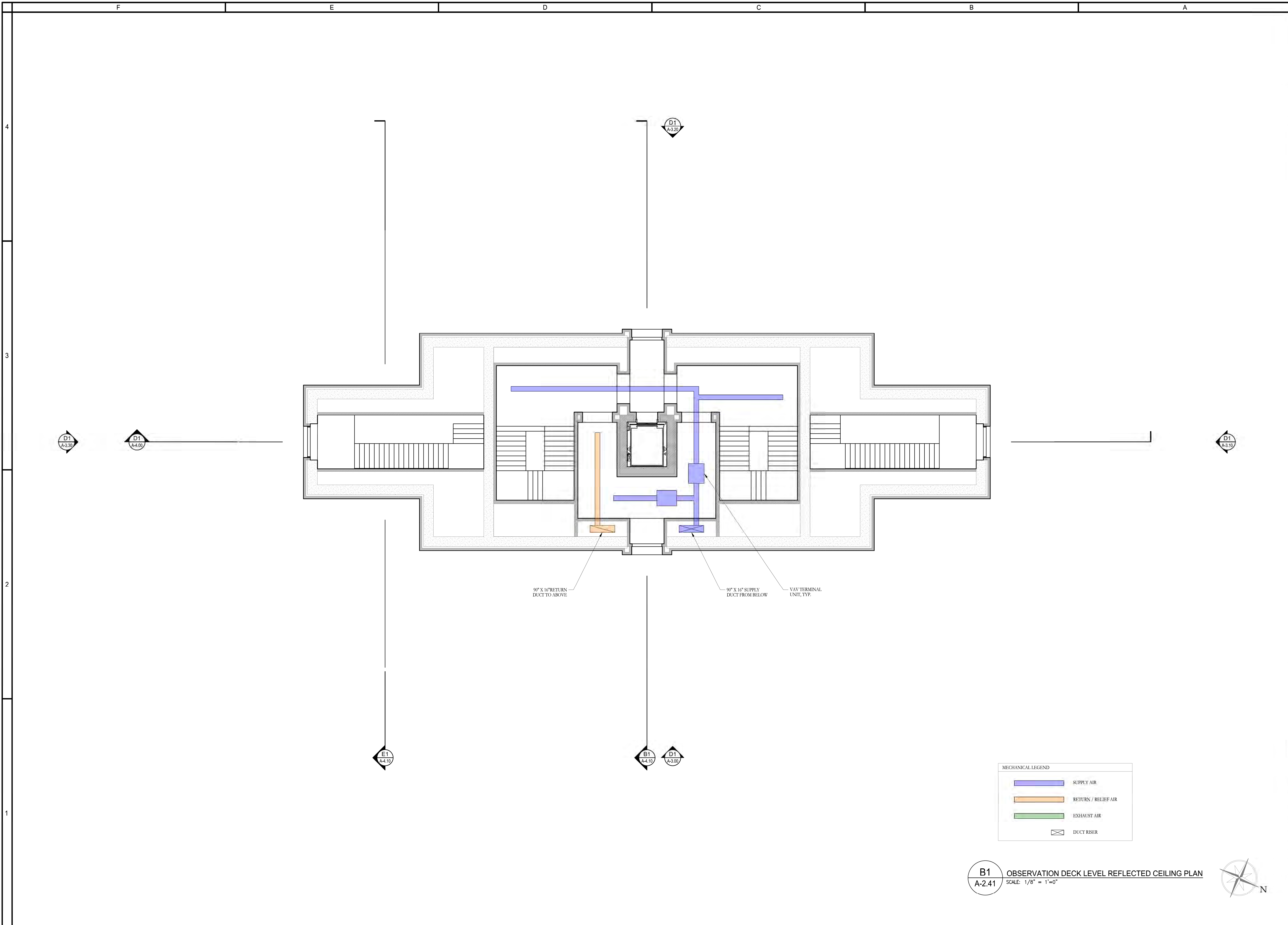
TRIUMPHAL ARCH - WASHINGTON, DC

WASHINGTON, DC

RELEASED FOR CONSTRUCTION

V:\Project\SI\Theresa Catholic Church\266206\A200 - Floor Plans.dwg May 26, 2026 - 10:05am

RELEASED FOR CONSTRUCTION



90° X 16" RETURN DUCT TO ABOVE

90° X 16" SUPPLY DUCT FROM BELOW

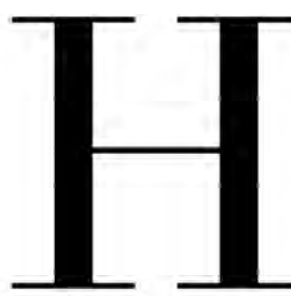
VAV TERMINAL UNIT, TYP.

MECHANICAL LEGEND	
	SUPPLY AIR
	RETURN / RELIEF AIR
	EXHAUST AIR
	DUCT RISER

B1 OBSERVATION DECK LEVEL REFLECTED CEILING PLAN
A-2.41 SCALE: 1/8" = 1'-0"



stamps	
issue	
date	05-25-2026
scale	1/8" = 1'-0"
drawn	JG, KA checked NC
project no.	266206
title	OBSERVATION DECK LEVEL MECHANICAL REFLECTED CEILING PLAN
sheet number	A-2.41



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TRIUMPHAL ARCH - WASHINGTON, DC

WASHINGTON, DC

stamps

issue

date 05-25-2026

scale 1/16" = 1'-0"

drawn JG, KA checked NC

project no. 266206

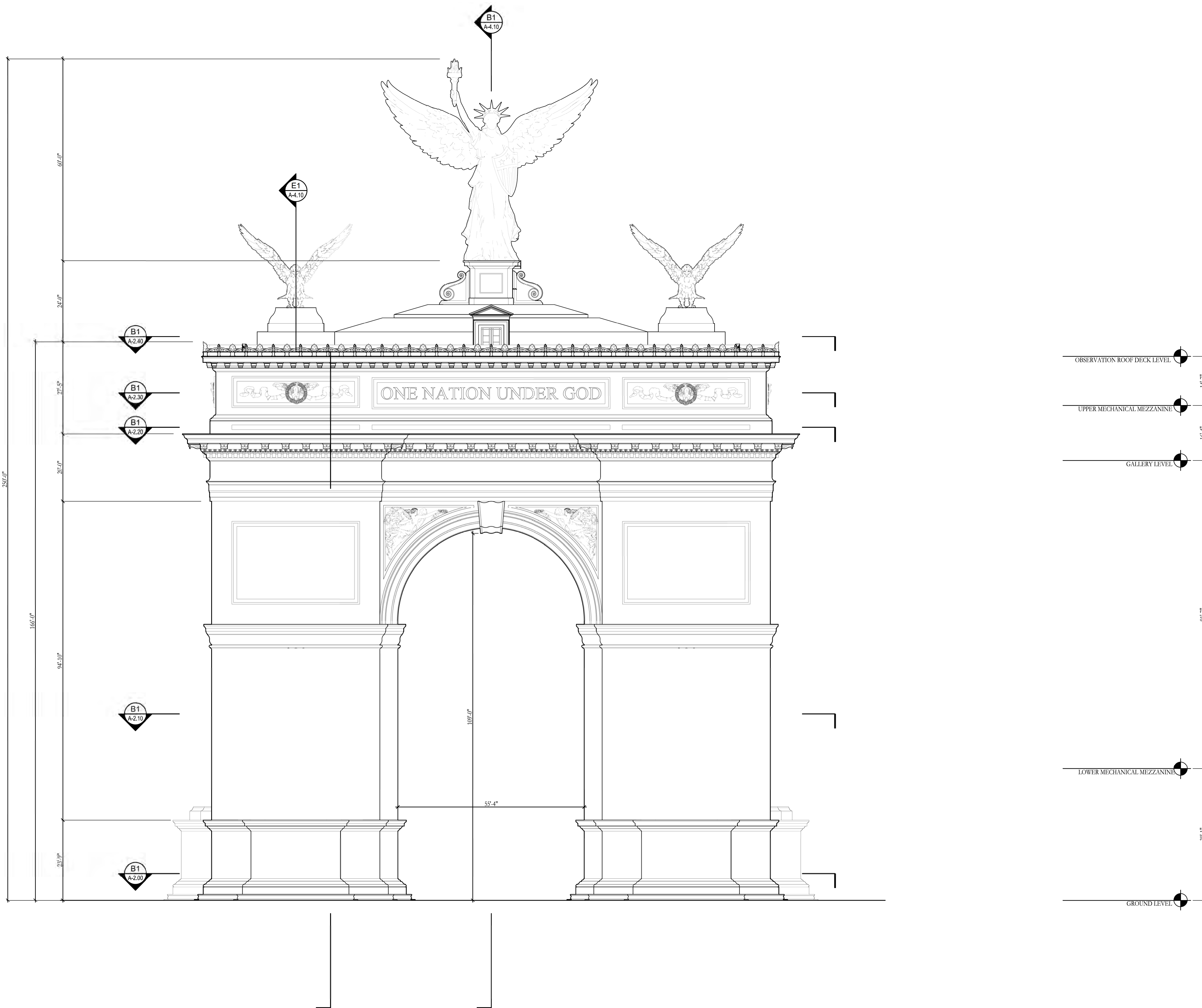
title FRONT ELEVATION

sheet number A-3.00

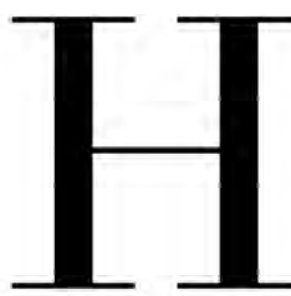
RELEASED FOR CONSTRUCTION

V:\Project\SI\Theresa Catholic Church\266206 A300 - Elevations.dwg May 26, 2025 - 10:08am

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D1 FRONT ELEVATION
A-3.00 SCALE: 1/16" = 1'-0"



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TRIUMPHAL ARCH - WASHINGTON, DC

WASHINGTON, DC

stamps

issue

date 05-25-2026

scale 1/16" = 1'-0"

drawn JG, KA checked NC

project no. 266206

title SIDE ELEVATION

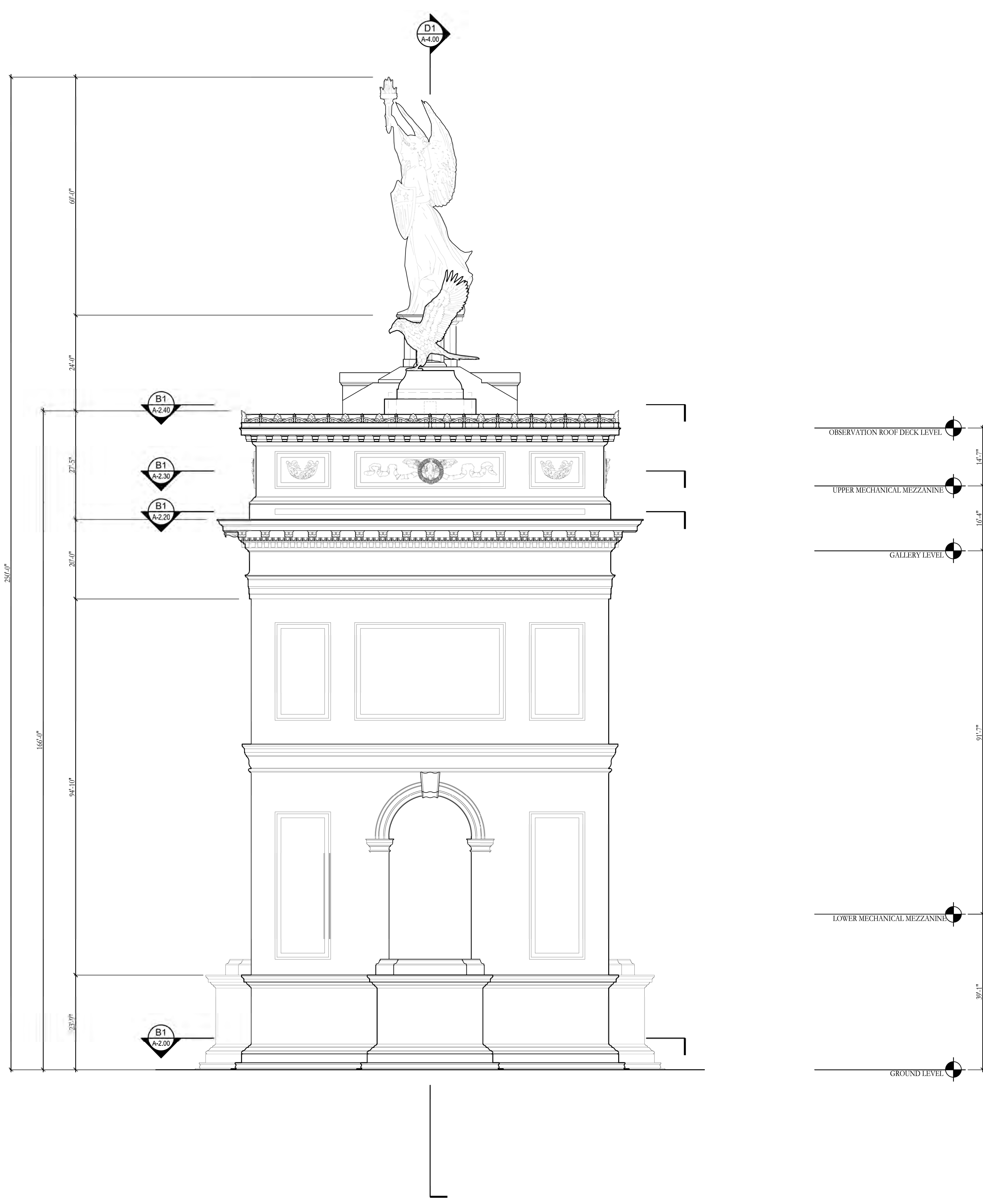
sheet number

A-3.10

RELEASED FOR CONSTRUCTION

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RELEASED FOR CONSTRUCTION



D1 SIDE ELEVATION
A-3.10 SCALE: 1/16" = 1'-0"

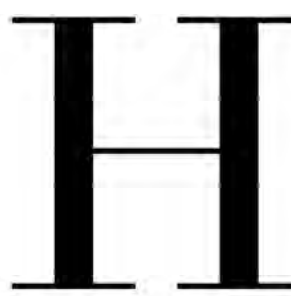
F E D C B A

4

3

2

1



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WASHINGTON, DC

stamps

issue

date 05-25-2026

scale 1/16" = 1'-0"

drawn JG, KA checked NC

project no. 266206

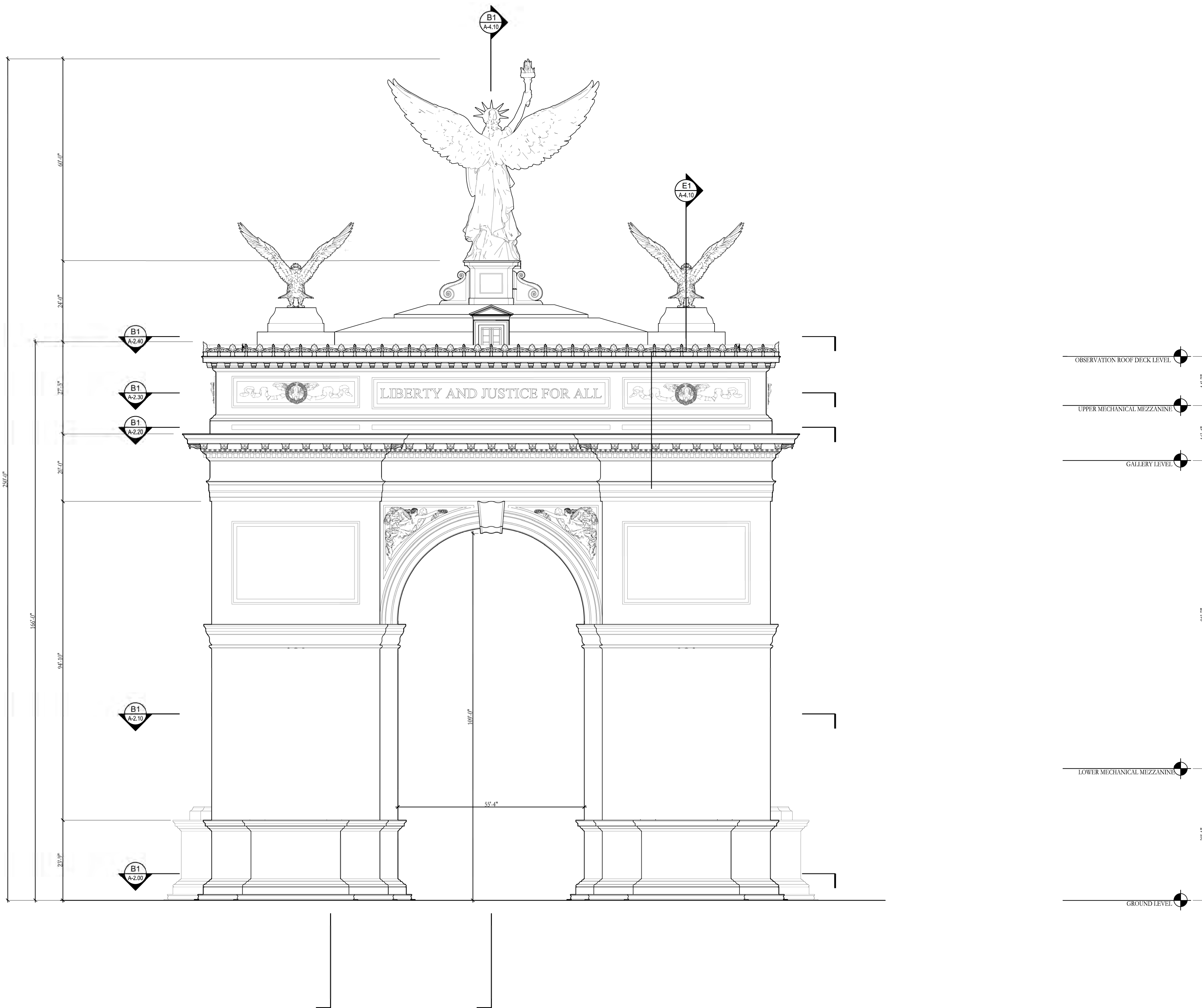
title REAR ELEVATION

sheet number A-3.20

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V:\Project\St. Theresa Catholic Church\266206 A300 - Elevations.dwg May 26, 2026 - 10:12am

RELEASED FOR CONSTRUCTION



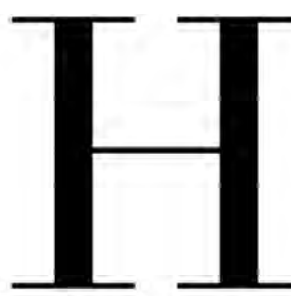
D1 REAR ELEVATION
A-3.20 SCALE: 1/16" = 1'-0"

4

3

2

1



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TRIUMPHAL ARCH - WASHINGTON, DC

WASHINGTON, DC

stamps

issue

date 05-25-2026

scale 1/16" = 1'-0"

drawn JG, KA checked NC

project no. 266206

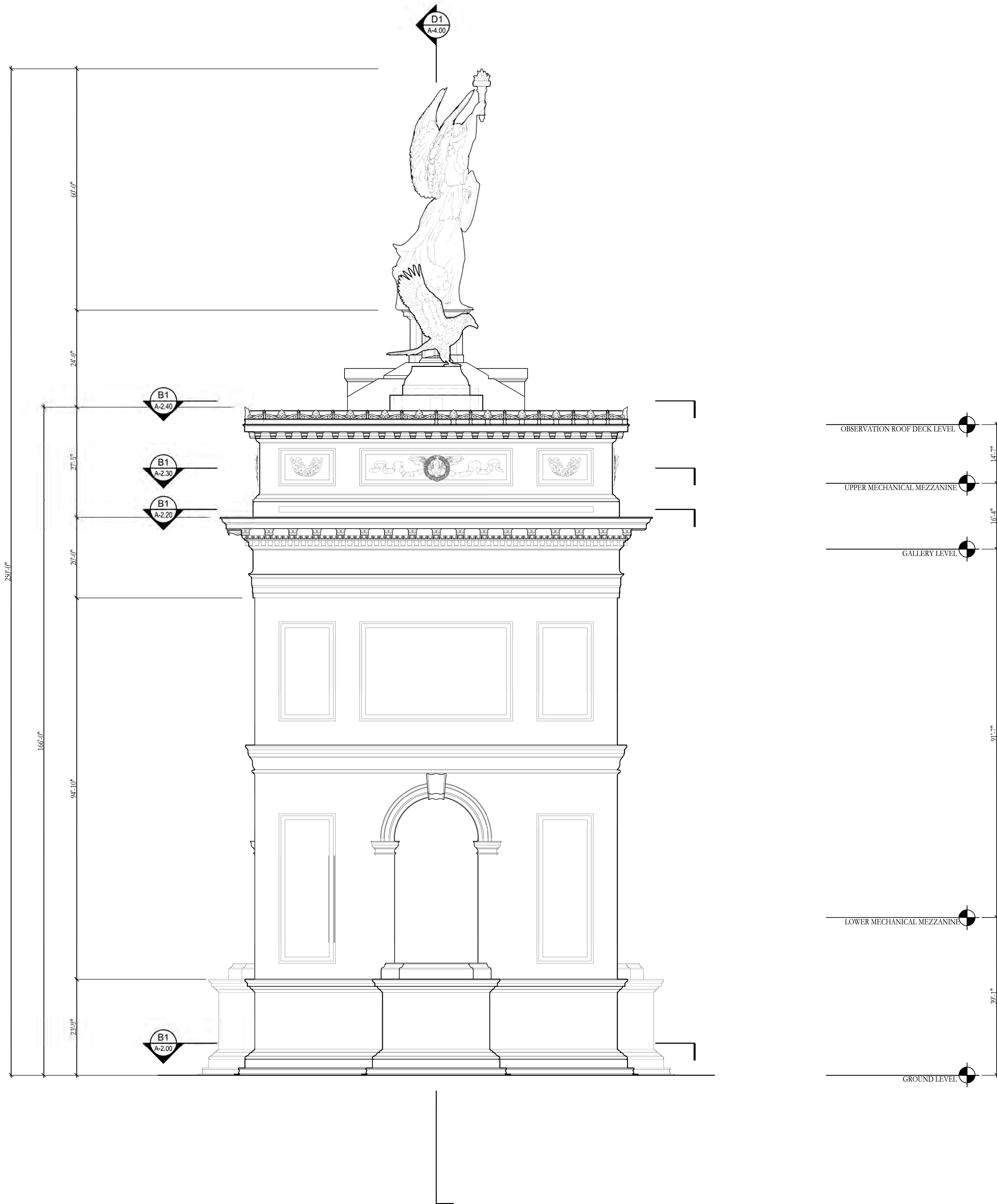
title SIDE ELEVATION

sheet number A-3.30

RELEASED FOR CONSTRUCTION

V:\Projects\St. Theresa Catholic Church\266206 A330 - Elevations.dwg May 26, 2025 - 10:10am

RELEASED FOR CONSTRUCTION



D1 SIDE ELEVATION
A-3.30 SCALE: 1/16" = 1'-0"

4

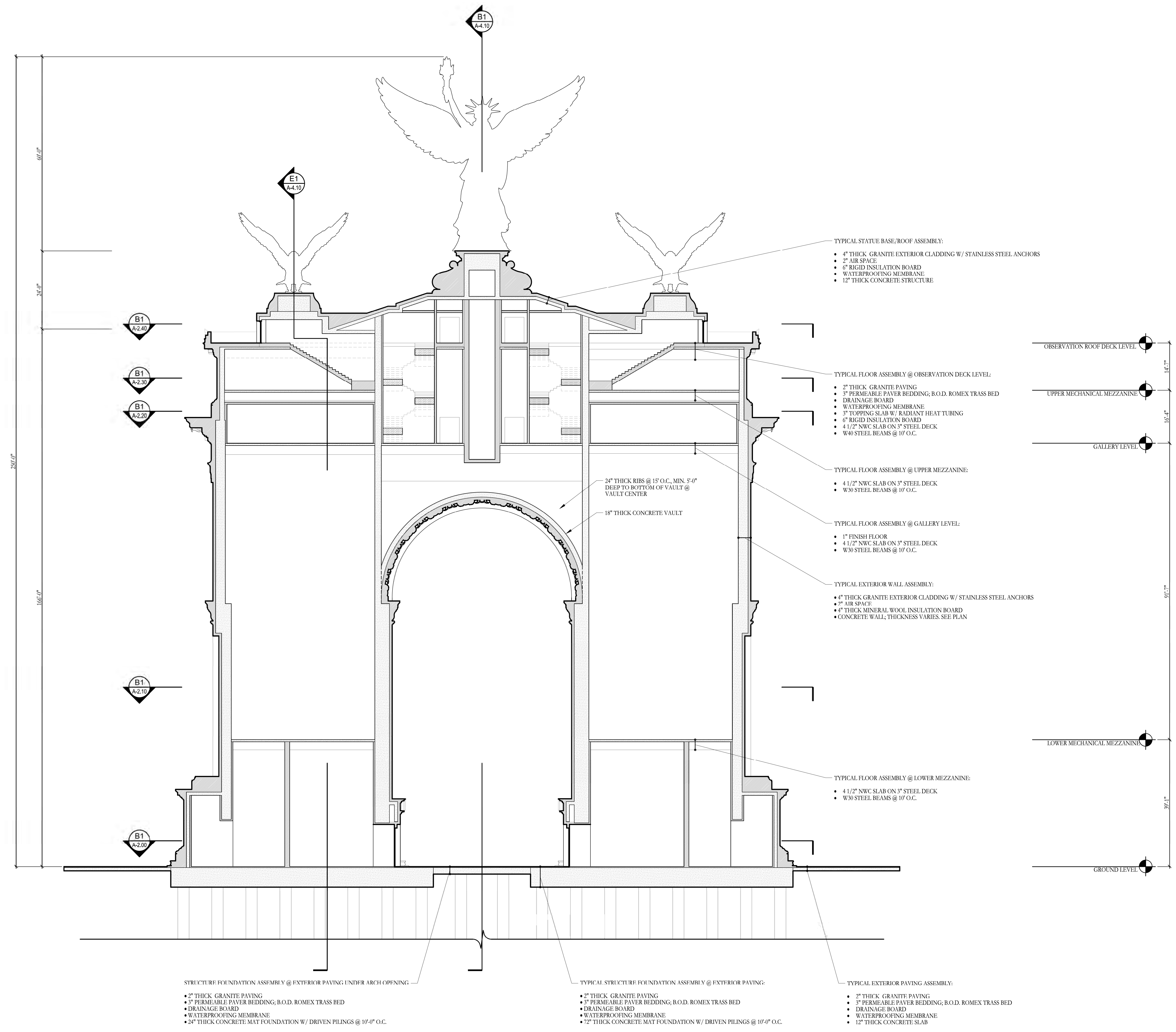
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2

1

TRIUMPHAL ARCH - WASHINGTON, DC
WASHINGTON, DC

stamps	
issue	
date	05-25-2026
scale	1/16" = 1'-0"
drawn	JG, KA checked NC
project no.	266206
title	BUILDING SECTION
sheet number	A-4.00

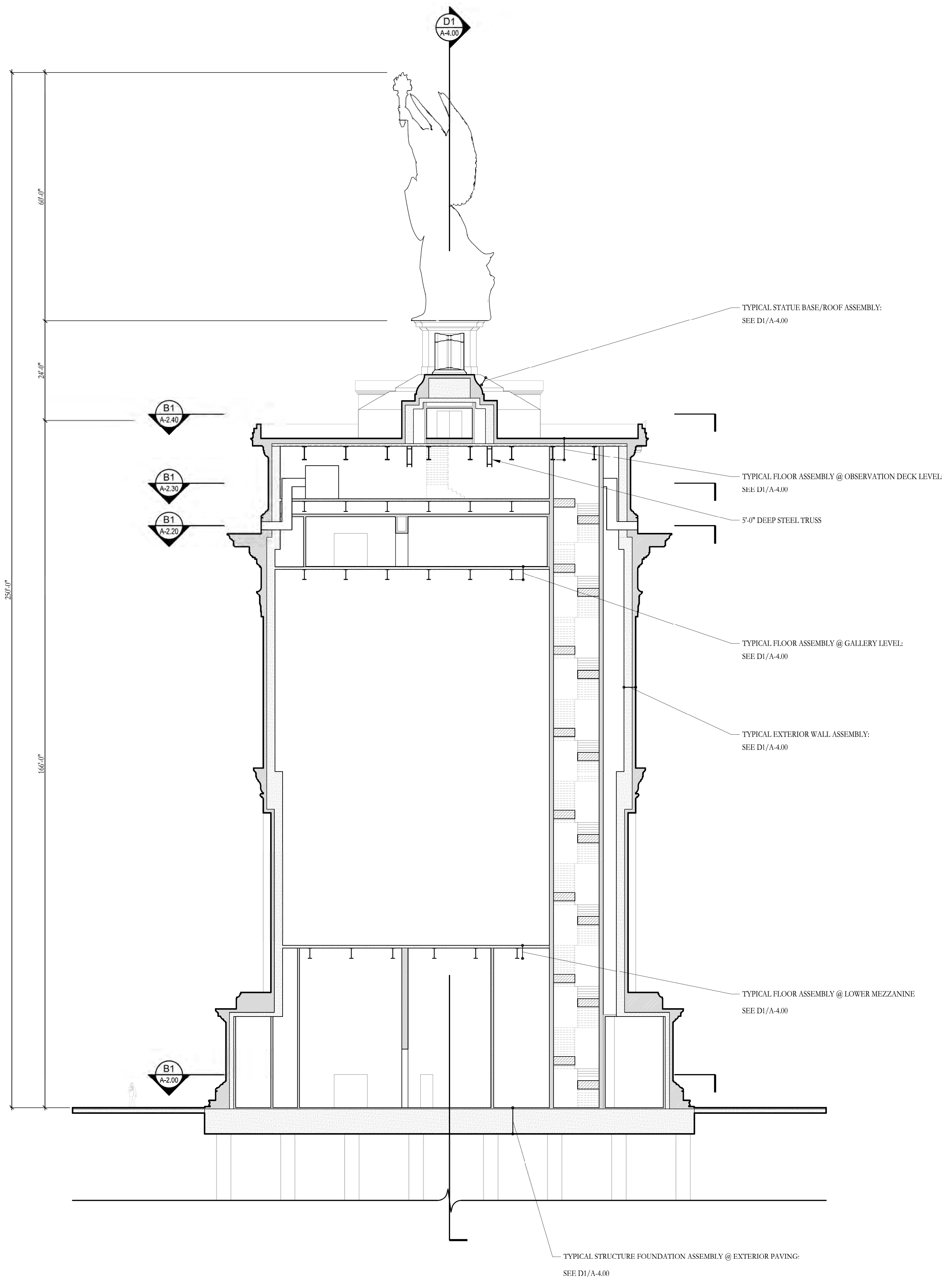


D1 BUILDING SECTION
A-4.00 SCALE: 1/16" = 1'-0"

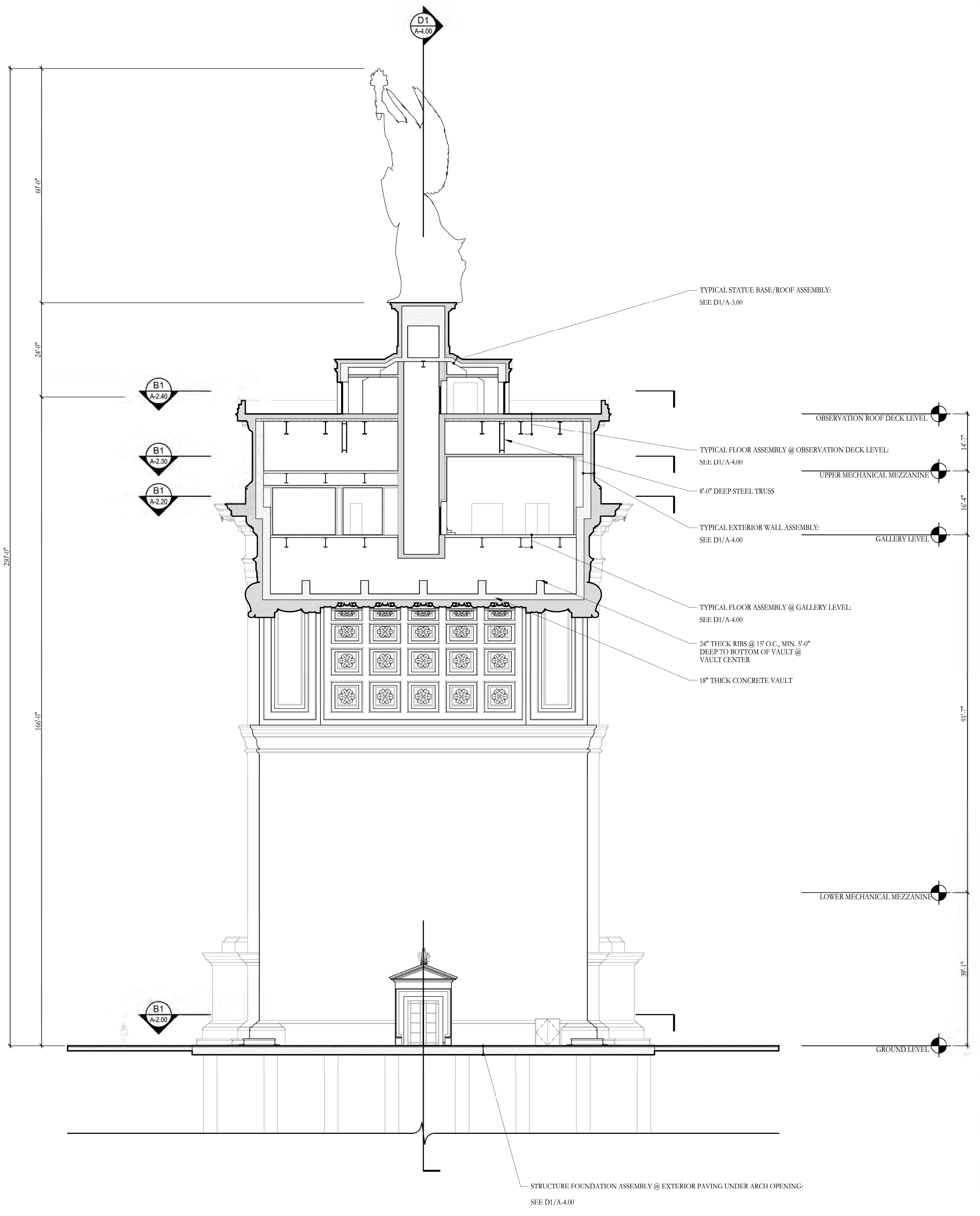
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E1 BUILDING SECTION
A-4.10 SCALE: 1/16" = 1'-0"



B1 BUILDING SECTION
A-4.10 SCALE: 1/16" = 1'-0"



TRIUMPHAL ARCH - WASHINGTON, DC
RENDERING

MAY 7, 2026

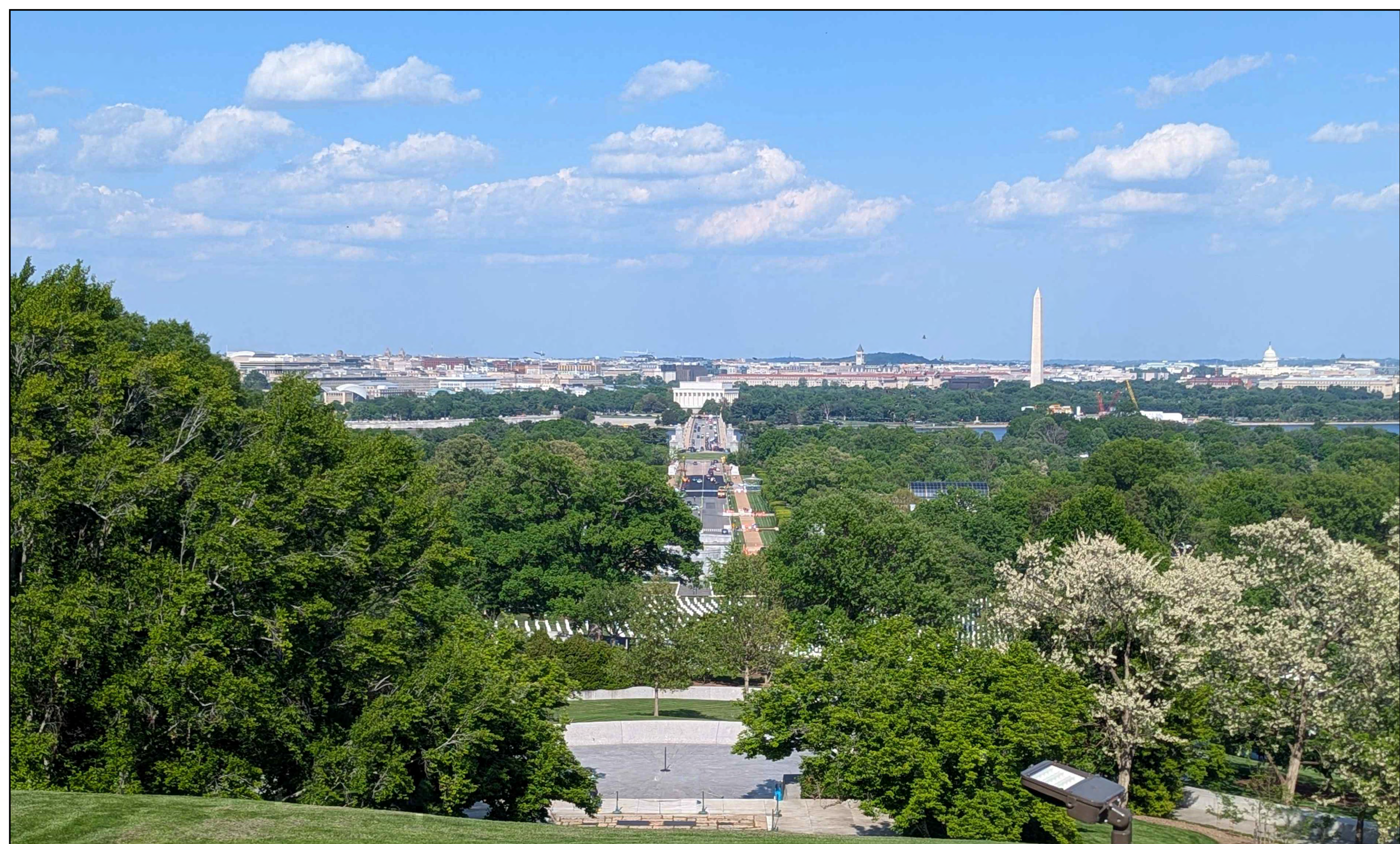
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DESIGN



TRIUMPHAL ARCH - WASHINGTON, DC
RENDERING

MAY 7, 2026

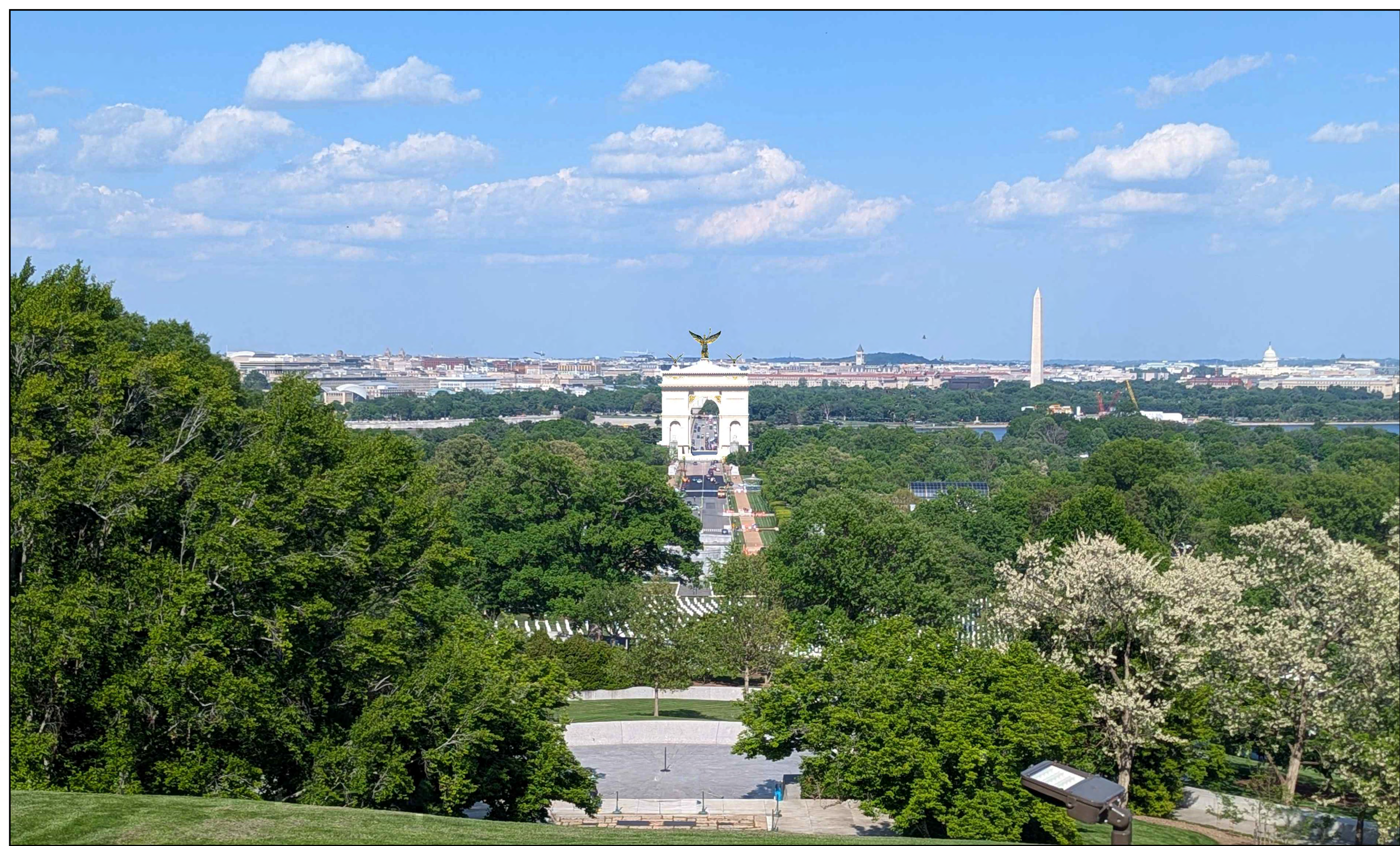
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MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM ARLINGTON HOUSE - BEFORE

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM ARLINGTON HOUSE - AFTER

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM HEMICYCLE - BEFORE

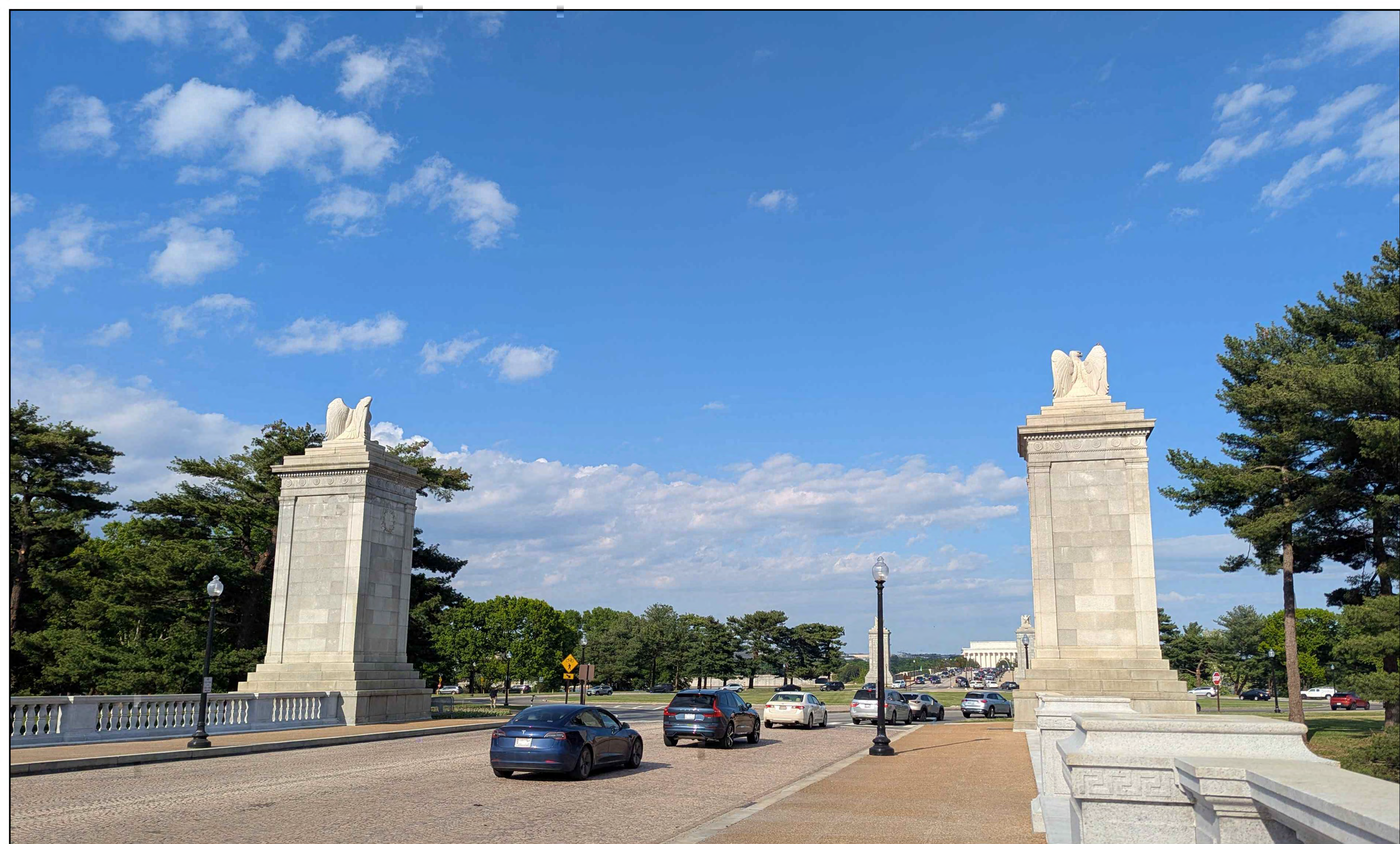
HARRISON
DESIGN



TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM HEMICYCLE - AFTER

MAY 7, 2026

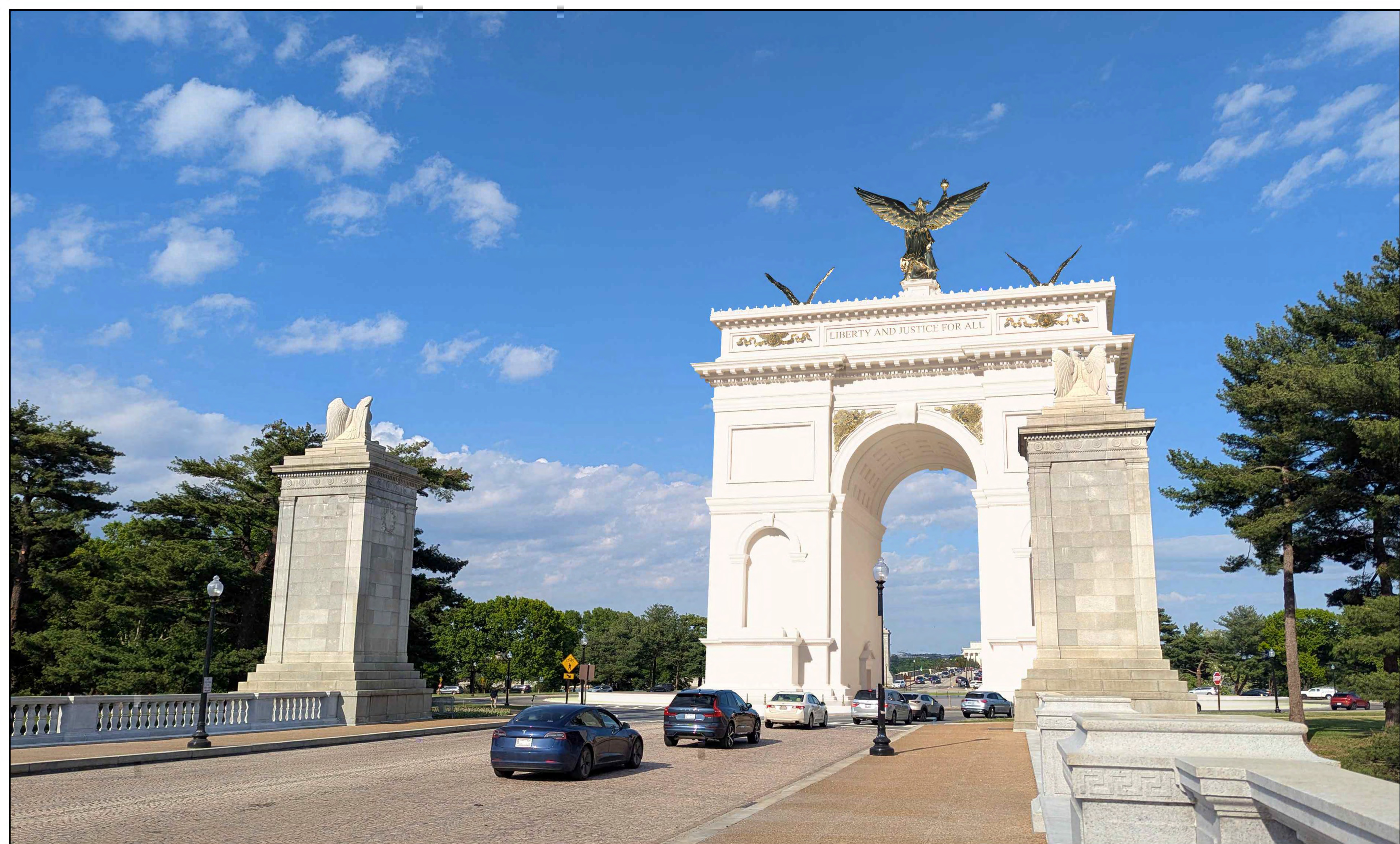
HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM ARLINGTON BRIDGE - BEFORE

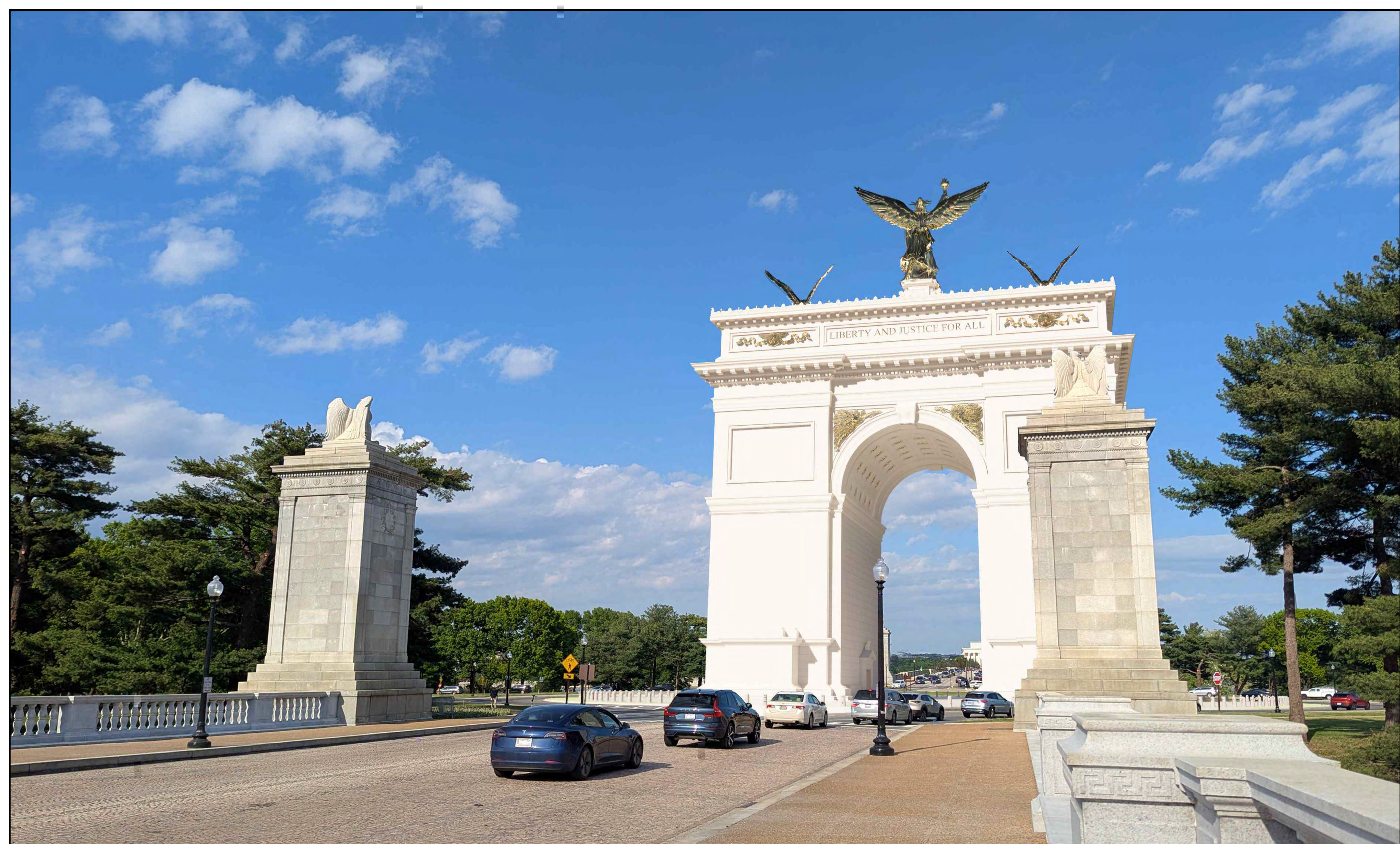
HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM ARLINGTON BRIDGE - AFTER

HARRISON
DESIGN



TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM ARLINGTON BRIDGE - AFTER

MAY 7, 2026

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM MEMORIAL BRIDGE - BEFORE

HARRISON
DESIGN



TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM MEMORIAL BRIDGE - AFTER

MAY 7, 2026

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM PARKWAY DR NW - BEFORE

HARRISON
DESIGN



TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM PARKWAY DR NW - AFTER

MAY 7, 2026

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM LINCOLN MEMORIAL CIRCLE - BEFORE

HARRISON
DESIGN



TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM LINCOLN MEMORIAL CIRCLE - AFTER

MAY 7, 2026

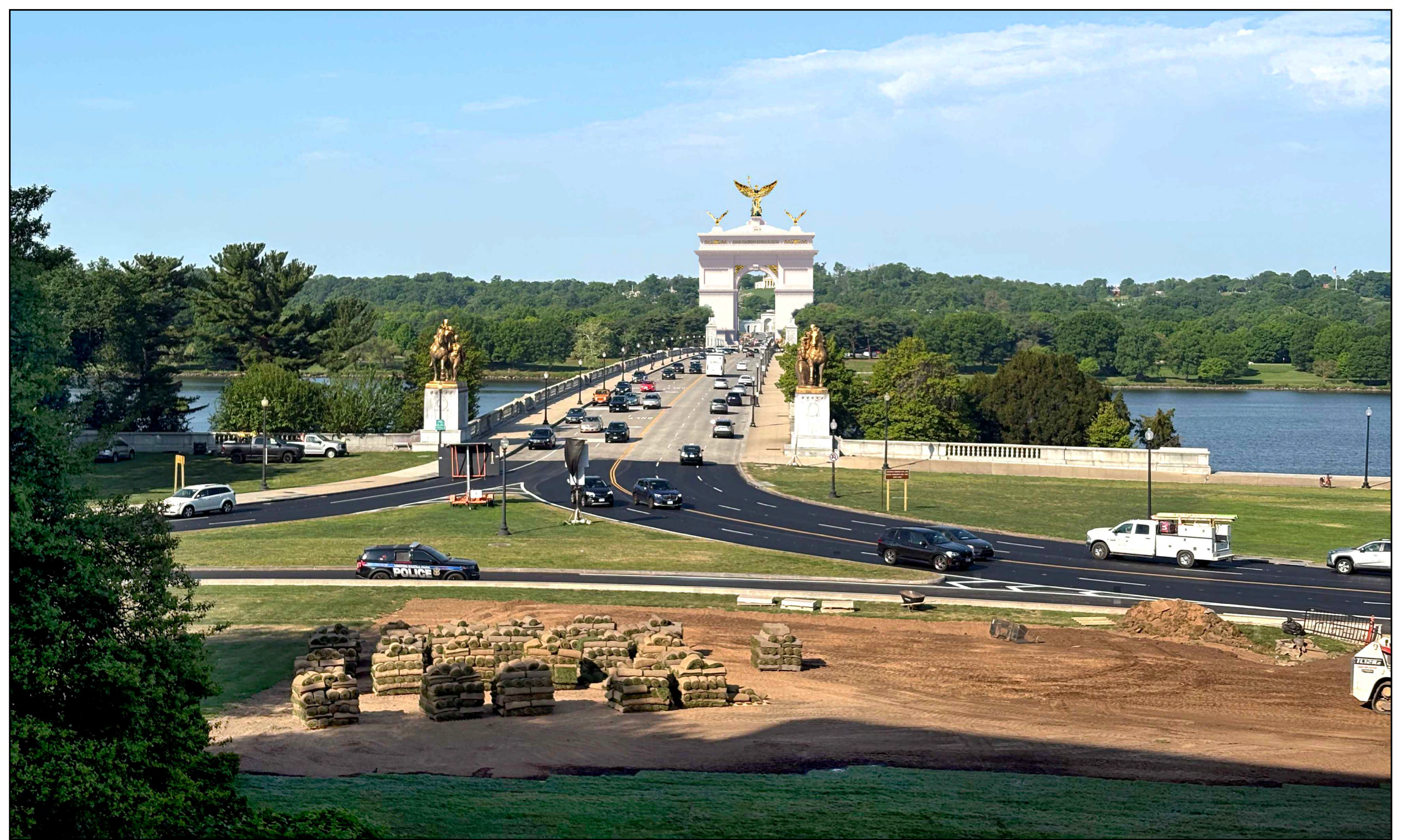
HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM LINCOLN MEMORIAL - BEFORE

HARRISON
DESIGN



TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM LINCOLN MEMORIAL - AFTER

MAY 7, 2026

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM WASHINGTON MONUMENT - BEFORE

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM WASHINGTON MONUMENT - AFTER

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM WASHINGTON MONUMENT - BEFORE

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM WASHINGTON MONUMENT - AFTER

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM CAPITOL HILL - BEFORE

HARRISON
DESIGN



MAY 7, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM CAPITOL HILL - AFTER

HARRISON
DESIGN



MAY 14, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM CAPITOL HILL - BEFORE

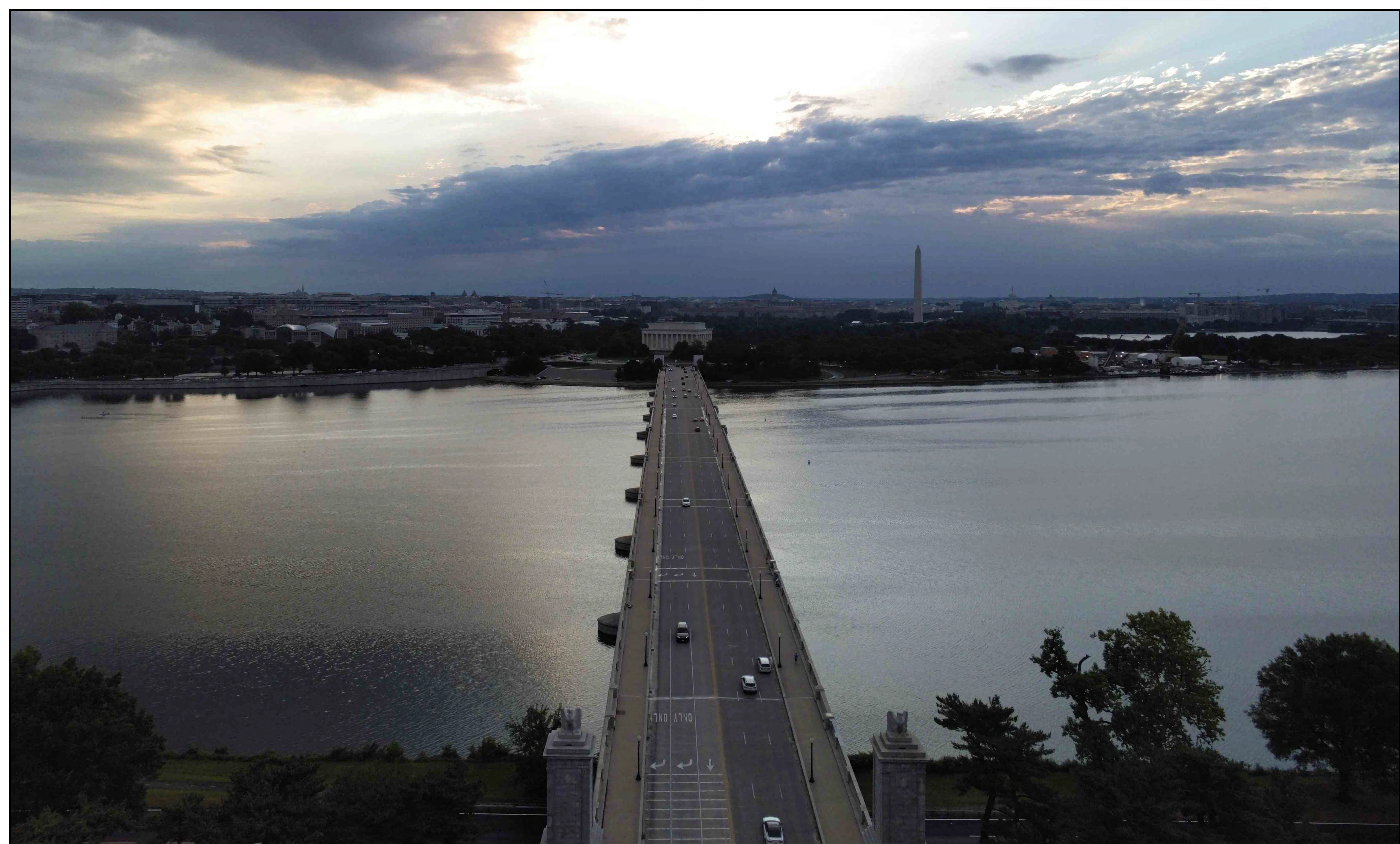
HARRISON
DESIGN



MAY 14, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM CAPITOL HILL - AFTER

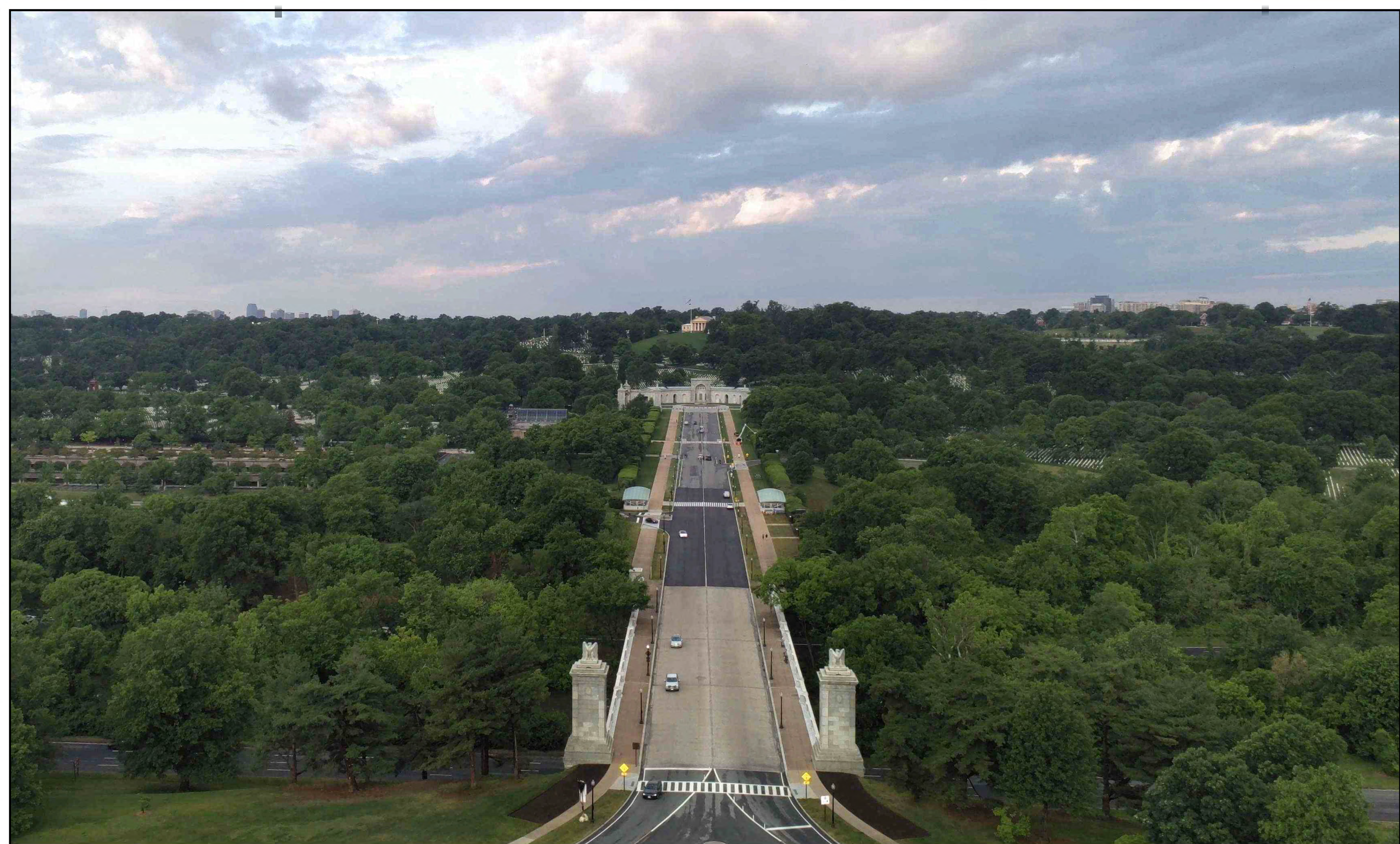
HARRISON
DESIGN



MAY 14, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM OBSERVATION DECK TOWARD EAST

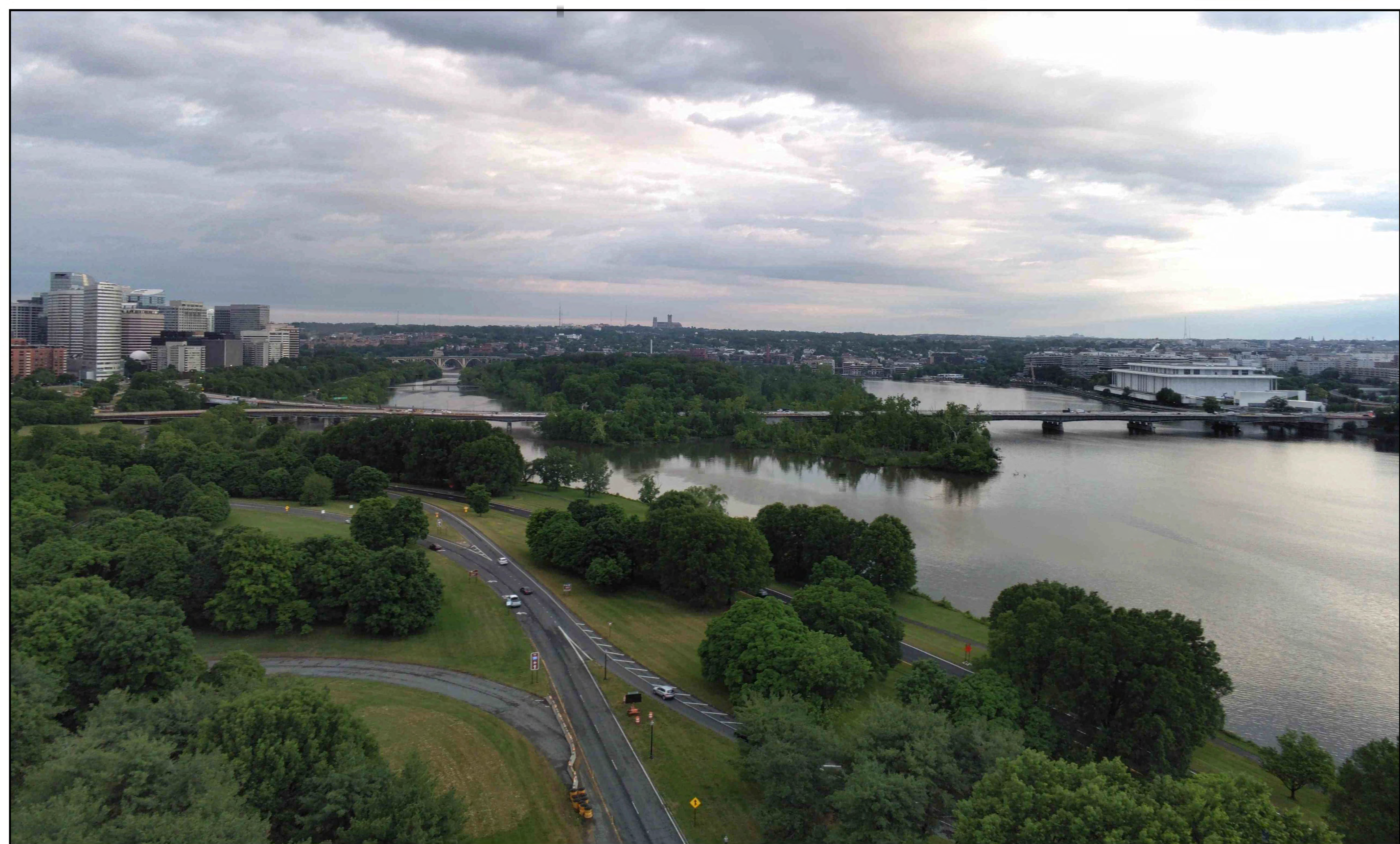
HARRISON
DESIGN



MAY 14, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM OBSERVATION DECK TOWARD WEST

HARRISON
DESIGN



MAY 14, 2026

TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM OBSERVATION DECK TOWARD NORTHEAST

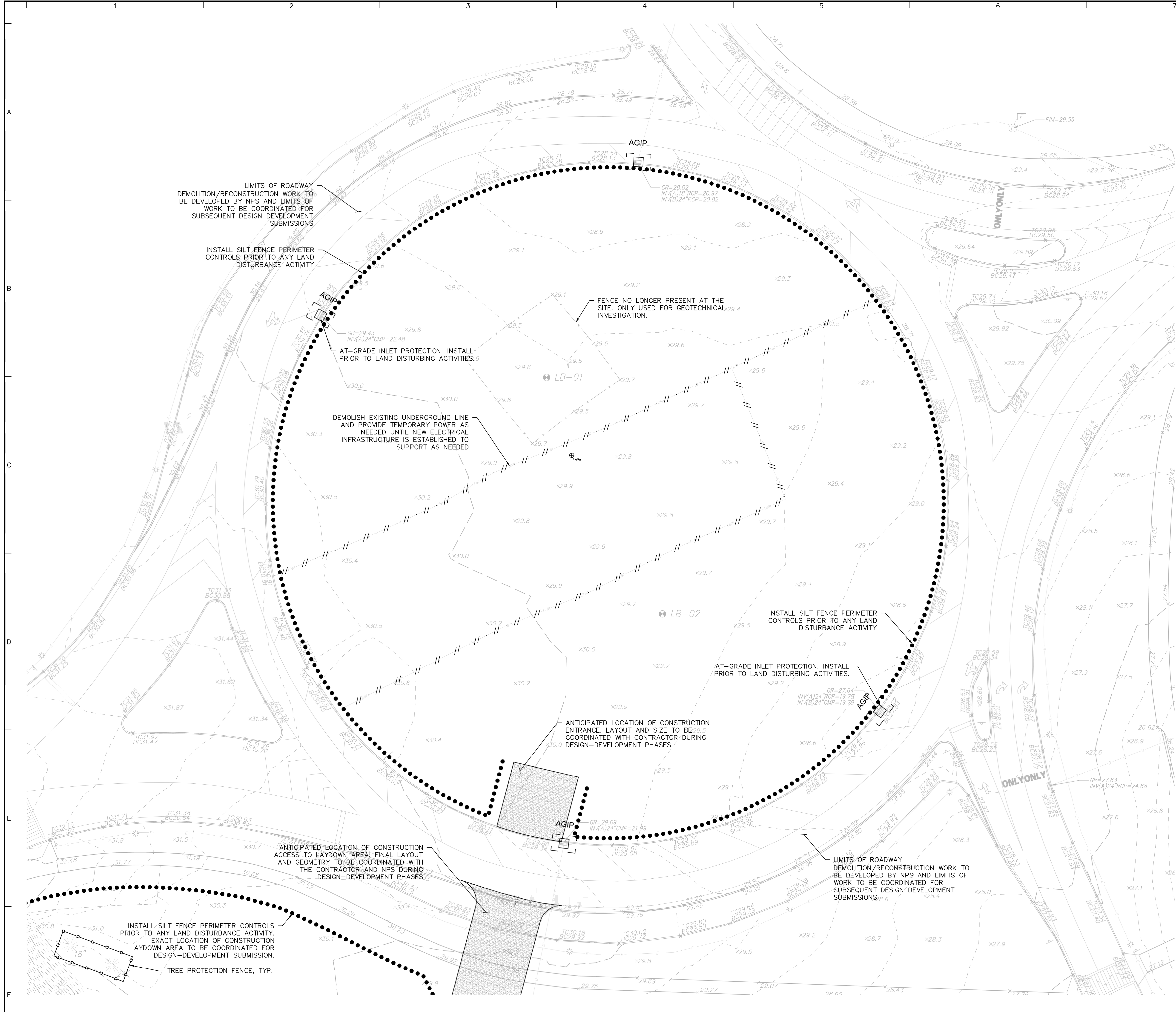
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MAY 14, 2026

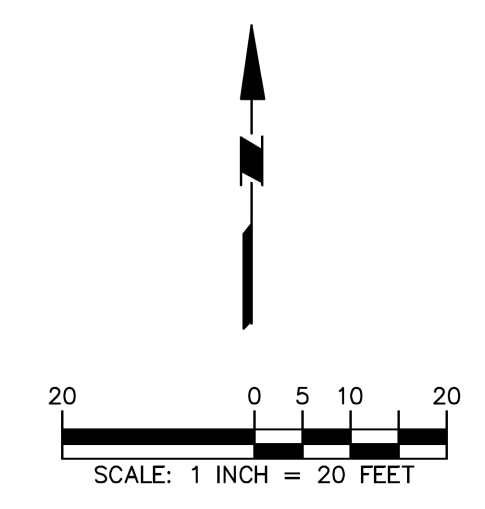
TRIUMPHAL ARCH - WASHINGTON, DC
VIEW FROM OBSERVATION DECK TOWARD SOUTH

HARRISON
DESIGN

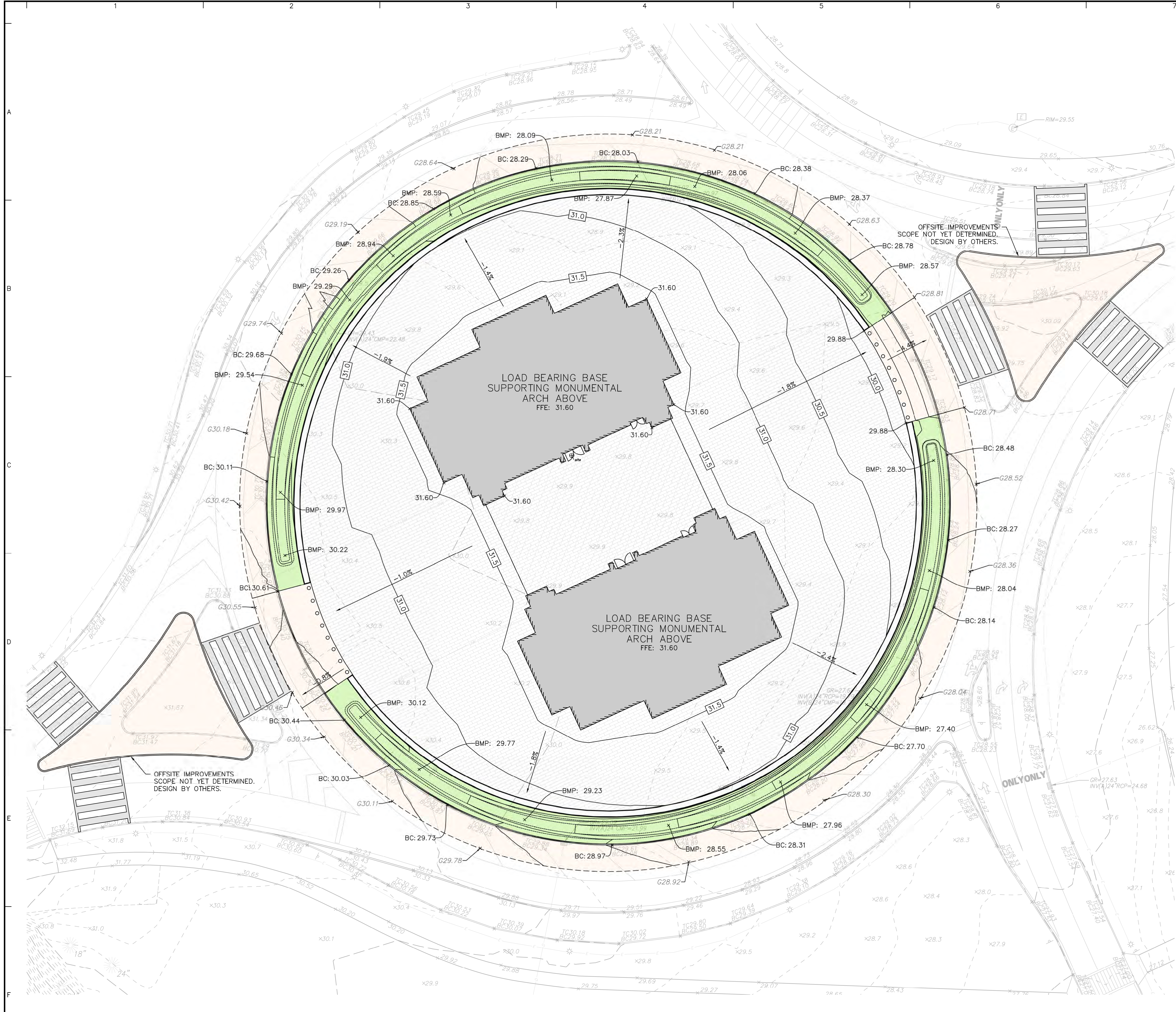


- SITE DEMOLITION AND SITE PREPARATION NOTES:**
1. THE CONTRACTOR SHALL INSPECT THE SITE THOROUGHLY AND FIELD-VERIFY THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES. CONTRACTORS USING THESE PLANS FOR DEMOLITION OR CONSTRUCTION SHALL CONFIRM ALL UTILITIES IN THE FIELD.
 2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY AND PROTECTIVE MEASURES, INCLUDING BUT NOT LIMITED TO SIGNS, LIGHTS, FENCES, BARRIERS, AND PEDESTRIAN AND TRAFFIC CONTROL MEASURES DURING DEMOLITION.
 3. RECYCLED ASPHALT OR CONCRETE MAY NOT BE USED FOR FILL.
- DOEE SOIL EROSION AND SEDIMENT CONTROL PLAN NOTES:**
1. FOLLOWING INITIAL LAND DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR INTERIM STABILIZATION MUST BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FOR THE SURFACES OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND SLOPES GREATER THAN 3H:1V; AND FOURTEEN (14) DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THESE REQUIREMENTS DO NOT APPLY TO AREAS SHOWN ON THE PLAN THAT ARE USED FOR MATERIAL STORAGE OTHER THAN STOCKPILING, OR FOR THOSE AREAS ON THE PLAN WHERE ACTUAL CONSTRUCTION ACTIVITIES ARE BEING PERFORMED. MAINTENANCE SHALL BE PERFORMED AS NECESSARY SO THAT STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE DISTRICT OF COLUMBIA STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 2. ESC MEASURES SHALL BE IN PLACE BEFORE AND DURING LAND DISTURBANCE.
 3. CONTACT DOEE INSPECTION (202 535-2977 TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST THREE (3) DAYS BEFORE THE COMMENCEMENT OF A LAND-DISTURBING ACTIVITY.
 4. A COPY OF THE APPROVED PLAN SET WILL BE MAINTAINED AT THE CONSTRUCTION SITE FROM THE DATE THAT CONSTRUCTION ACTIVITIES BEGIN TO THE DATE OF FINAL STABILIZATION AND WILL BE AVAILABLE FOR DOEE INSPECTORS.
 5. ESC MEASURES SHALL BE IN PLACE TO STABILIZE AN EXPOSED AREA AS SOON AS PRACTICABLE AFTER CONSTRUCTION ACTIVITY HAS BEEN OR PERMANENTLY CEASED BUT NO LATER THAN FOURTEEN (14) DAYS FOLLOWING CESSATION, EXCEPT THAT TEMPORARY OR PERMANENT STABILIZATION SHALL BE IN PLACE AT THE END OF EACH DAY OF UNDERGROUND UTILITY WORK THAT IS NOT CONTAINED WITHIN A LARGER DEVELOPMENT SITE.
 6. STOCKPILED MATERIAL BEING ACTIVELY USED DURING A PHASE OF CONSTRUCTION SHALL BE PROTECTED AGAINST EROSION BY ESTABLISHING AND MAINTAINING PERIMETER CONTROLS AROUND THE STOCKPILE.
 7. STOCKPILED MATERIAL NOT BEING ACTIVELY USED OR ADDED TO SHALL BE STABILIZED WITH MULCH, TEMPORARY VEGETATION, HYDRO-SEE OR PLASTIC WITHIN FIFTEEN CALENDAR DAYS AFTER ITS LAST USE OR ADDITION.
 8. PROTECT BEST MANAGEMENT PRACTICES FROM SEDIMENTATION AND OTHER DAMAGE DURING CONSTRUCTION FOR PROPER POST CONSTRUCTION OPERATION.
 9. REQUEST A DOEE INSPECTOR'S APPROVAL AFTER THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
 10. REQUEST A DOEE INSPECTOR'S APPROVAL AFTER FINAL STABILIZATION OF THE SITE AND BEFORE THE REMOVAL OF EROSION AND SEDIMENT CONTROLS.
 11. FINAL STABILIZATION MEANS THAT ALL LAND-DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND EITHER OF THE FOLLOWING TWO CRITERIA HAVE BEEN MET: (1) A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF SEVENTY PERCENT OF THE NATIVE BACKGROUND VEGETATIVE COVER FOR THE AREA HAS BEEN ESTABLISHED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES OR (2) EQUIVALENT PERMANENT STABILIZATION MEASURES HAVE BEEN EMPLOYED.
 12. FOLLOW THE REQUIREMENTS OF THE UNITED STATES EPS SWPPP AND MAINTAIN A LEGIBLE COPY OF THIS SWPPP ON SITE.
 13. POST A SIGN THAT NOTIFIES THE PUBLIC TO CONTACT DOEE IN THE EVENT OF EROSION OR OTHER POLLUTION. THE SIGN WILL BE PLACED AT EACH ENTRANCE TO THE SITE OR AS DIRECTED BY THE DOEE INSPECTOR. EACH SIGN WILL BE NO LESS THAN 18 x 24 INCHES IN SIZE AND MADE OF MATERIALS THAT WILL WITHSTAND WEATHER FOR THE DURATION OF THE PROJECT. LETTERING WILL BE AT LEAST 1 INCH IN HEIGHT AND EASILY READABLE BY THE PUBLIC FROM A DISTANCE OF TWELVE FEET (12 FT). THE SIGN MUST DIRECT THE PUBLIC, IN SUBSTANTIALLY THE FOLLOWING FORM: " TO REPORT EROSION, RUNOFF OR STORMWATER POLLUTION" AND WILL PROVIDE THE CONSTRUCTION SITE ADDRESS, DOEE'S TELEPHONE NUMBER, DOEE'S EMAIL ADDRESS AND THE 311 MOBILE APP HEADING.

Date	Description	No.
Revisions		
Signature		Date
 Langan Engineering and Environmental Services, LLC 1300 Wilson Blvd Arlington, VA 22209 www.langan.com		
Project		
CONFIDENTIAL PROJECT GEORGE WASHINGTON MEMORIAL PARKWAY PAR03170001 WASHINGTON DISTRICT OF COLUMBIA		
Drawing Title		
DEMOLITION AND SITE PREPARATION PLAN		
Project No.	Drawing No.	
270228201	CD101	
Date	05/22/2026	
Drawn By	AMF	
Checked By	RCL	
	0	

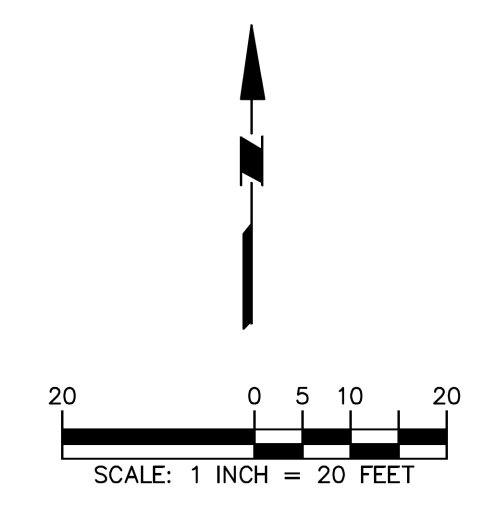


Project No. 00123450 LANGAN

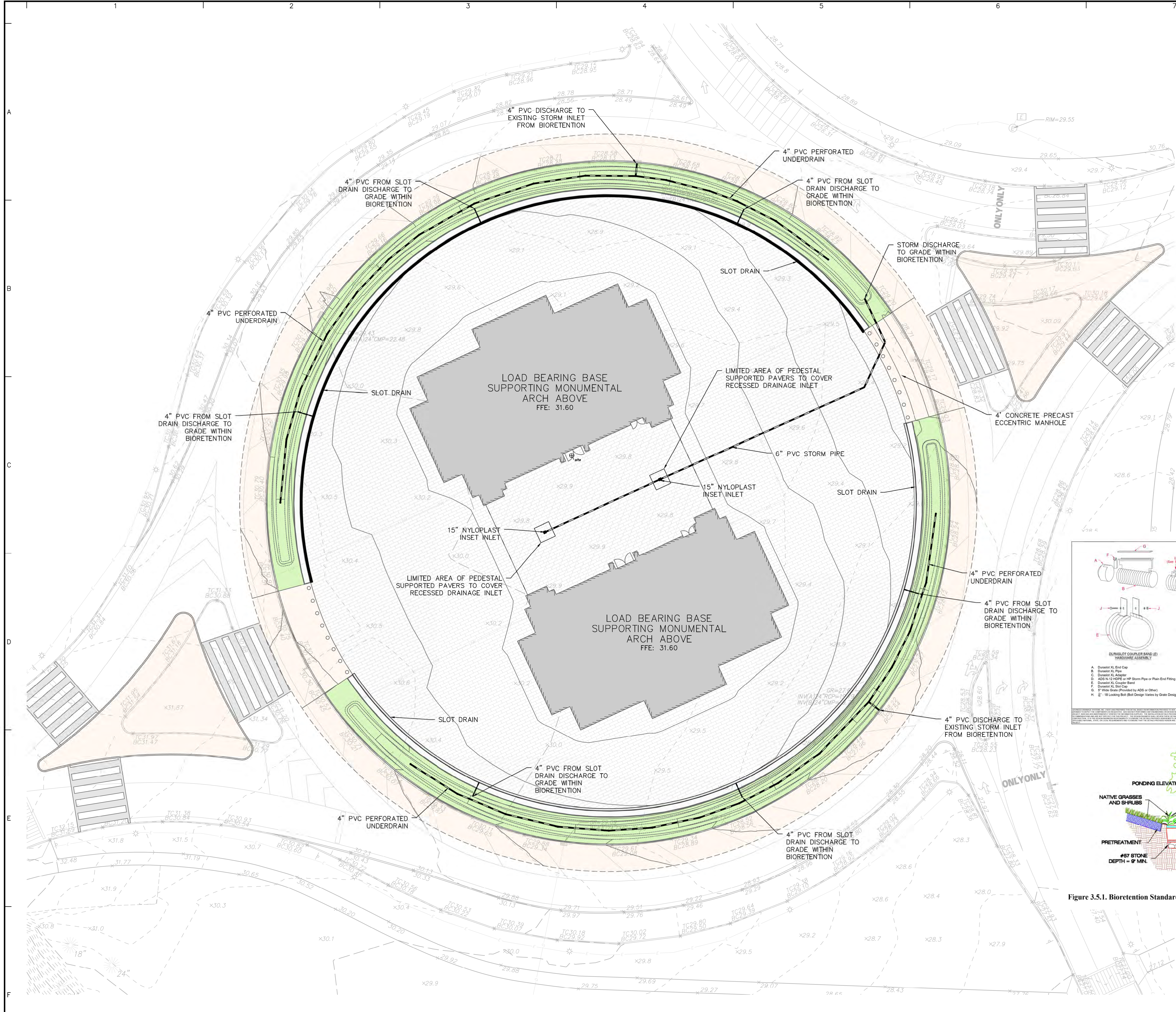


- GRADING PLAN NOTES:**
1. ALL GRADING, DRAINAGE AND UTILITY INSTALLATION AND/OR CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS OR LOCAL REQUIREMENTS. SHOULD A DIFFERENCE IN REQUIREMENTS OCCUR, THE STRICTER OF THE TWO REGULATIONS WILL APPLY.
 2. GRADE ALL AREAS OTHER THAN PAVED GRADED AREAS AND BUILDINGS, INCLUDING EXCAVATED AREAS, FILLED AND TRANSITION AREAS, AND LANDSCAPED AREAS TO FINISH GRADE ELEVATIONS OR CONTOURS AS INDICATED ON DRAWINGS. FINISHED SUBGRADE SURFACE SHALL BE UNIFORM AND SMOOTH, FREE FROM ROCK, DEBRIS, OR IRREGULAR SURFACE CHANGES. FINISHED SUBGRADE SHALL NOT BE MORE THAN 0.01 FEET ABOVE OR BELOW ESTABLISHED FINISHED SUBGRADE ELEVATION, AND ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS, AND ALL GROUND SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION POTENTIAL.
 3. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC LOADING AND BE INSTALLED ACCORDINGLY.
 4. SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
 5. CONTRACTOR SHALL REVIEW ALL DRAINAGE CONNECTIONS TO MANHOLES AND CATCH BASINS AND INCREASE THE INLET BOX SIZES AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
 6. ALL GRADING IS TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
 7. ALL PAVING THICKNESSES SHOWN ARE THE COMPACTED THICKNESS.
 8. CURB ELEVATIONS INDICATED "BC" ARE BOTTOM OF CURB ELEVATIONS. CURB ELEVATIONS INDICATED AS "TC" ARE TOP OF CURB ELEVATIONS.

Date	Description	No.
Revisions		
Signature		Date
 Langan Engineering and Environmental Services, LLC 1300 Wilson Blvd Arlington, VA 22209 www.langan.com		
Project		
CONFIDENTIAL PROJECT GEORGE WASHINGTON MEMORIAL PARKWAY PAR03170001 WASHINGTON DISTRICT OF COLUMBIA		
Drawing Title		
<h1>GRADING PLAN</h1>		
Project No.	Drawing No.	
270228201	CG101	
Date	05/22/2026	
Drawn By	AMF	
Checked By	RCL	



Project No. 00123450 LANGAN



DRAINAGE PLAN NOTES:

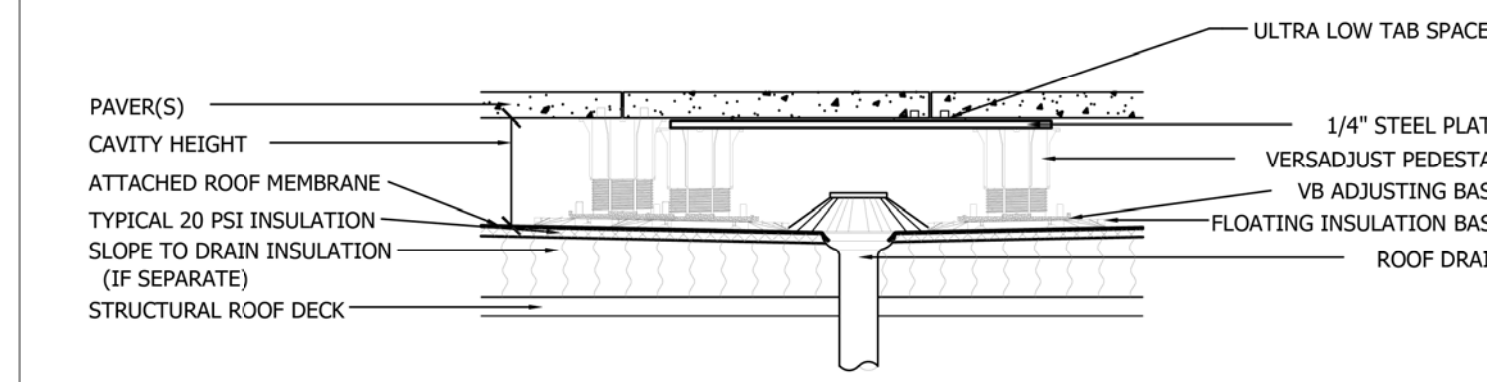
1. ALL GRADING, DRAINAGE AND UTILITY INSTALLATION AND/OR CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS OR LOCAL REQUIREMENTS. SHOULD A DIFFERENCE IN REQUIREMENTS OCCUR, THE STRICTER OF THE TWO REGULATIONS WILL APPLY.
2. GRADE ALL AREAS OTHER THAN PAVED GRADED AREAS AND BUILDINGS, INCLUDING EXCAVATED AREAS, FILLED AND TRANSITION AREAS, AND LANDSCAPED AREAS TO FINISH GRADE ELEVATIONS OR CONTOURS AS INDICATED ON DRAWINGS. FINISHED SUBGRADE SURFACE SHALL BE UNIFORM AND SMOOTH, FREE FROM ROCK, DEBRIS, OR IRREGULAR SURFACE CHANGES. FINISHED SUBGRADE SHALL NOT BE MORE THAN 0.01 FEET ABOVE OR BELOW ESTABLISHED FINISHED SUBGRADE ELEVATION, AND ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS. DITCHES SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION POTENTIAL.
3. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC LOADING AND BE INSTALLED ACCORDINGLY.
4. SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
5. CONTRACTOR SHALL REVIEW ALL DRAINAGE CONNECTIONS TO MANHOLES AND CATCH BASINS AND INCREASE THE INLET BOX SIZES AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
6. ALL GRADING IS TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
7. CURB ELEVATIONS INDICATED "BC" ARE BOTTOM OF CURB ELEVATIONS. CURB ELEVATIONS INDICATED AS "TC" ARE TOP OF CURB ELEVATIONS.

STORMWATER CONVEYANCE NARRATIVE

THE PROPOSED STORMWATER CONVEYANCE SYSTEM CONSISTS OF A SERIES OF INLETS AND SLOT DRAINS THAT WILL CAPTURE AND CONVEY STORMWATER RUNOFF FROM THE MONUMENTAL PLAZA TO SURROUNDING STORMWATER MANAGEMENT INFRASTRUCTURE (IE. BIORETENTION). OVERFLOW DRAINS FROM THE BIO-RETENTION AREA WILL CONNECT TO EXISTING STORM DRAINS LOCATED WITHIN MEMORIAL CIRCLE, BEFORE ULTIMATELY DISCHARGING TO THE POTOMAC RIVER AND BOUNDARY CHANNEL.

STORMWATER MANAGEMENT NARRATIVE

BASED ON DC WATER REGULATIONS AND THE ANTICIPATED LIMITS OF DISTURBANCE (76,000 SQUARE FEET), THE PROJECT IS CONSIDERED A MAJOR LAND DISTURBANCE ACTIVITY. AS SUCH, THE STORMWATER MANAGEMENT RETENTION VOLUME IS DEVELOPED BASED ON A 1.2 INCH STORM, PER DOE REGULATIONS.
 BASED ON A PRELIMINARY CALCULATION FROM THE SURFACE AND GROUNDWATER SYSTEM, THE ANTICIPATED SWRV IS 6,301 CUBIC FEET.
 THE PROJECT WILL BE REQUIRED TO RETAIN OR TREAT AT LEAST 50% OF THE SWRV.



PAVING AND DRAINAGE SECTION DETAIL

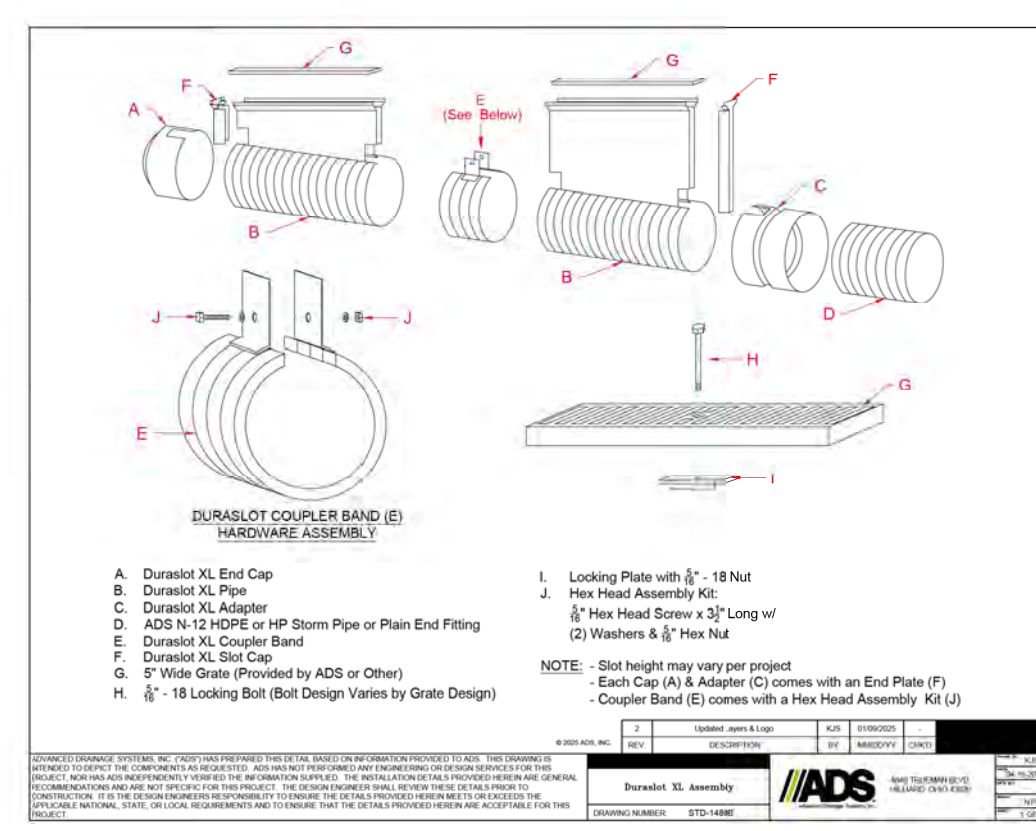


Figure 3.5.1. Bioretention Standard Design.

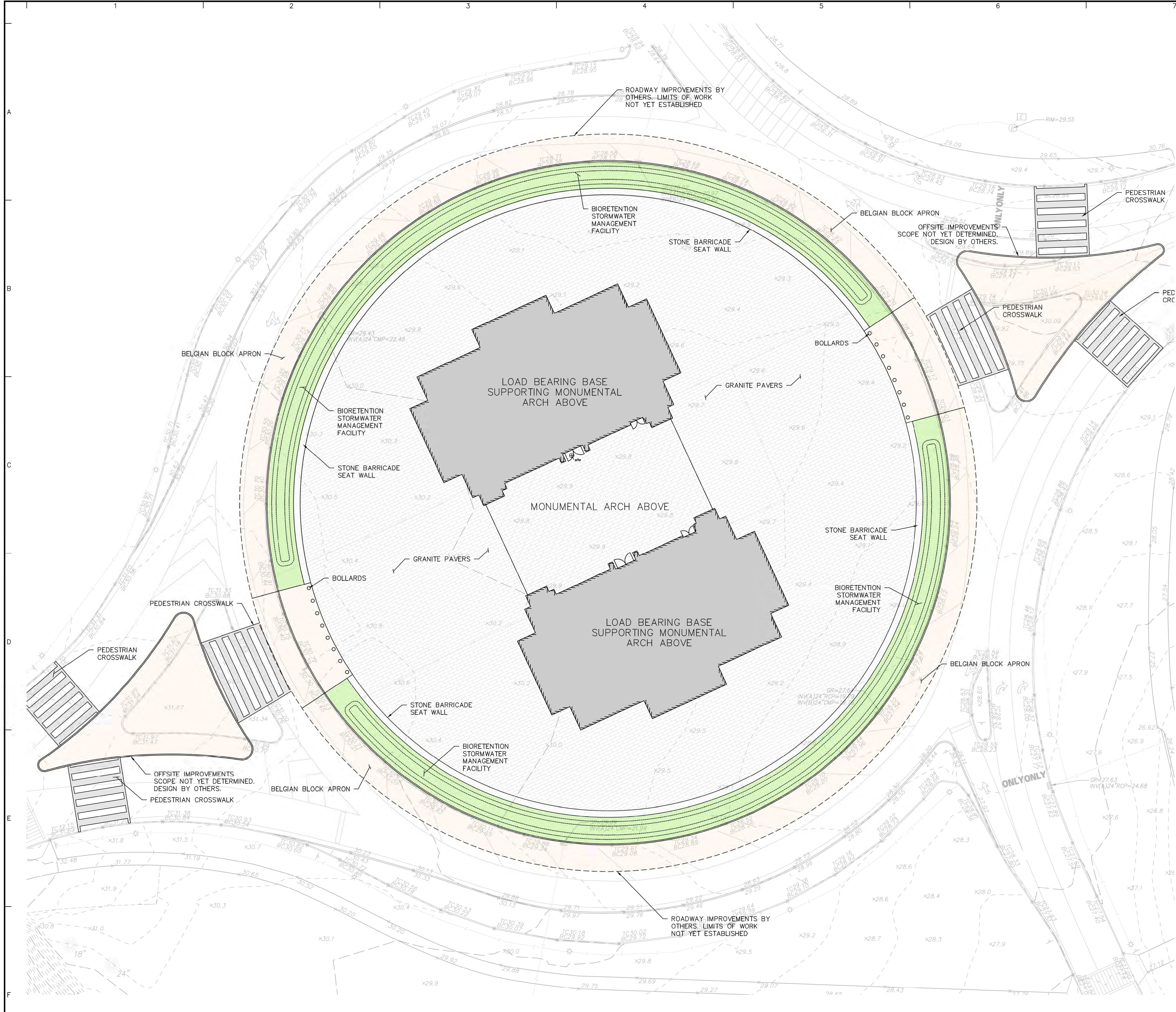
Date	Description	No.
Revisions		

Signature _____ Date _____

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Project
CONFIDENTIAL PROJECT
 GEORGE WASHINGTON MEMORIAL PARKWAY
 PAR03170001
 WASHINGTON DISTRICT OF COLUMBIA
 Drawing Title
DRAINAGE PLAN

Project No. 270228201	Drawing No. CG102
Date 05/22/2026	
Drawn By AMF	
Checked By RCL	

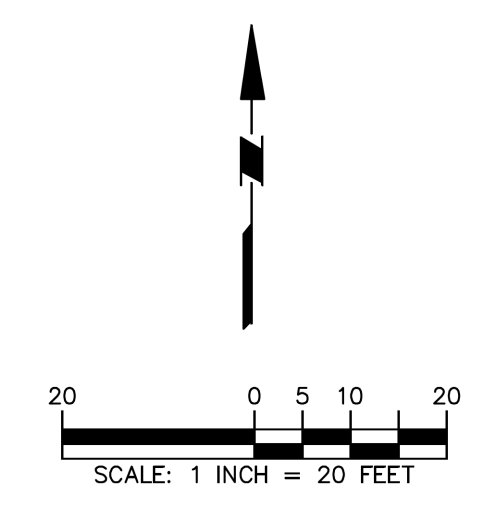


- SITE PLAN NOTES:**
1. ALL ELEVATIONS ARE SHOWN IN DATUM NAVD 88.
 2. CONSTRUCTION INFORMATION AND REQUIREMENTS ARE LOCATED IN NUMEROUS PROJECT DOCUMENTS SUCH AS DRAWINGS, SPECIFICATIONS, DETAILS, NOTES, ORDINANCES, CODES, PERMITS, STANDARDS, GUIDELINES AND MANUFACTURER DOCUMENTS. THE MOST STRINGENT CRITERIA SHALL APPLY.
 3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING COPIES, UNDERSTANDING AND IMPLEMENTING THE REFERENCED PROJECT STANDARDS (I.E. ASTM, AWWA, AASHTO, ETC.), PROJECT PERMIT REQUIREMENTS, REGULATORY CODES AND REGULATIONS, AND MANUFACTURER GUIDELINES AND REQUIREMENTS.
 4. UNDERGROUND UTILITIES AND INFRASTRUCTURE ARE LOCATED THROUGHOUT THE SITE AND MAY BE PRESENT IN AREAS OF PROPOSED WORK. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING AND LOCATING UNDERGROUND UTILITIES AND INFRASTRUCTURE PRIOR TO WORK. IF CONFLICTS WITH PROPOSED WORK ARE OBSERVED, CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY FOR REVIEW. CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING ADJACENT TO EXISTING UNDERGROUND UTILITIES AND INFRASTRUCTURE.
 5. THE ROADWAY IMPROVEMENTS SURROUNDING MEMORIAL CIRCLE AND THE PROPOSED MONUMENT ARE CURRENTLY BEING DEVELOPED BY NPS. THE LIMITS OF ROADWORK SHOWN HEREIN ARE PROVIDED FOR REFERENCE ONLY AND WILL BE COORDINATED WITH NPS DURING THE DESIGN DEVELOPMENT PHASE OF THE PROJECT.

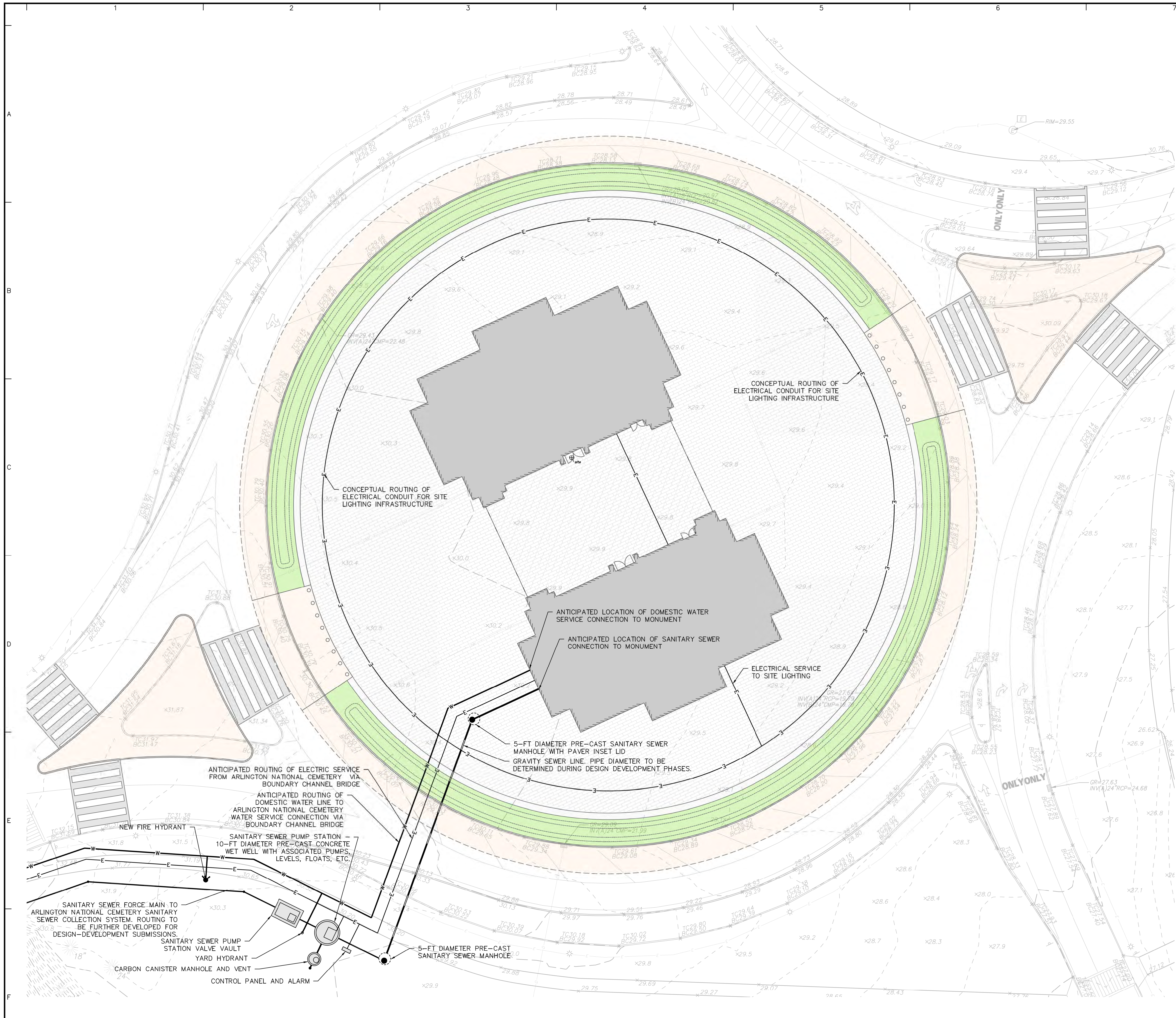
LEGEND:

- LOAD BEARING BASE SUPPORTING MONUMENTAL ARCH ABOVE
- ARCH OVERHEAD
- GRANITE PAVERS
- LANDSCAPE

Date	Description	No.
Revisions		
Signature		Date
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Drawing Title		
<h1>SITE PLAN</h1>		
Project No.	Drawing No.	
270228201	CS101	
Date	05/22/2026	
Drawn By	AMF	
Checked By	RCL	

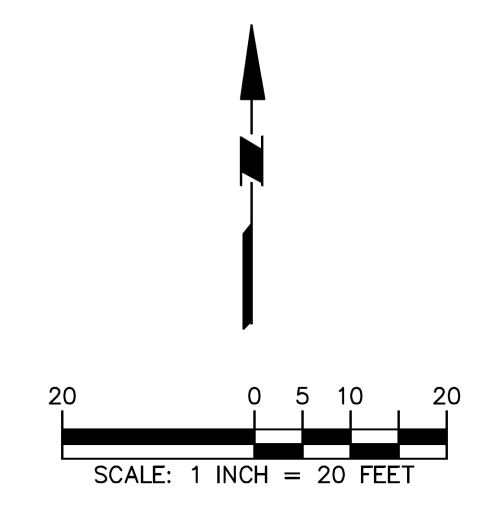


Project No. 00123450 LANGAN



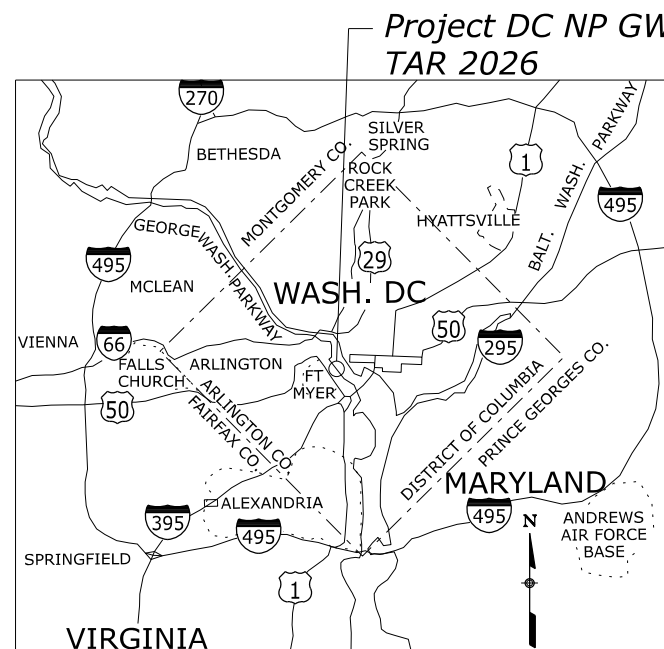
- UTILITY PLAN NOTES:**
1. CONTRACTOR SHALL REFER TO ARCHITECTURAL AND MEP PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO THE STRUCTURE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED.
 2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS, AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
 3. ALL SANITARY SEWER AND WATER LINE WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION (DC WATER, ARLINGTON NATIONAL CEMETERY, NATIONAL PARK SERVICE, AND/OR ARLINGTON COUNTY).
 4. ALL PLANS SHALL BE SUBMITTED TO ALL AHJs FOR REVIEW AND APPROVAL AS PART OF THE DESIGN DEVELOPMENT AND PERMITTING PROCESS.
 5. CONTRACTOR SHALL PERFORM TEST PITS AT THE LOCATIONS OF ALL PROPOSED UTILITY CROSSINGS.
 6. ALL UTILITY INFRASTRUCTURE THAT IS INSTALLED ABOVE GRADE (IE. SUSPENDED FROM BRIDGES) SHALL BE INSTALLED WITH INSULATION AND/OR HEAT TRACE TAPE TO ASSURE YEAR ROUND SYSTEM FUNCTIONALITY.
 7. DOMESTIC WATER DEMANDS AND SANITARY SEWER LOADS HAVE NOT YET BEEN DEVELOPED BY THE MEP ENGINEER AND THE PROPOSED INFRASTRUCTURE HAS NOT YET BEEN SIZED.

Date	Description	No.
Revisions		
Signature		Date
 Langan Engineering and Environmental Services, LLC 1300 Wilson Blvd Arlington, VA 22209 www.langan.com		
Project		
CONFIDENTIAL PROJECT GEORGE WASHINGTON MEMORIAL PARKWAY PAR03170001 WASHINGTON DISTRICT OF COLUMBIA		
Drawing Title		
UTILITY PLAN		
Project No.	Drawing No.	
270228201	CU101	
Date	Drawn By	
05/22/2026	AMF	
Checked By	RCL	



Project No. 00123450

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	A01



**KEYMAP
WASHINGTON DC
AND METROPOLITAN AREA**

U. S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE GEORGE WASHINGTON MEMORIAL PARKWAY NATIONAL PARK



PLANS FOR PROPOSED PROJECT

DC NP GWMP ARCH TAR 2026

SIGNAL INSTALLATION AROUND THE MEMORIAL CIRCLE
TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION OF THE ARCH

WASHINGTON, DISTRICT OF COLUMBIA

INDEX TO SHEETS

SHEET NO	DESCRIPTION
A01	Title Sheet
A02-A03	Symbols And Abbreviations
A04	Location Map
B01-B03	Typical Section
C01	Tabulation of Quantities
D01-D05	Plans
H01-H04	Traffic Signal Plan
M01	Erosion and Sediment Control Narrative
M02-M06	Erosion and Sediment Plans
N01	Temporary Traffic Control Narrative
N02-N09	Temporary Traffic Control for Signal and Sidewalk Improvement
N10-N12	Temporary Traffic Control for the Construction of the Arch
P01-P03	Pavement Marking and Signing Plan
S01-S22	Standards And Details

DESCRIPTION OF PROJECT

IMPROVEMENT: Work includes the signalization of memorial circle, construction of new sidewalk, pavement markings and signage, maintenance of traffic for the construction of the arch, and other miscellaneous work.

PROJECT LENGTH: 0.03 Miles

LANE MILES: 0.03 Miles

ROAD:	WIDTH	SURFACE	BASE	SUBGRADE
Memorial Circle	30'	4" ACP	6"	N/A

BRIDGE: N/A

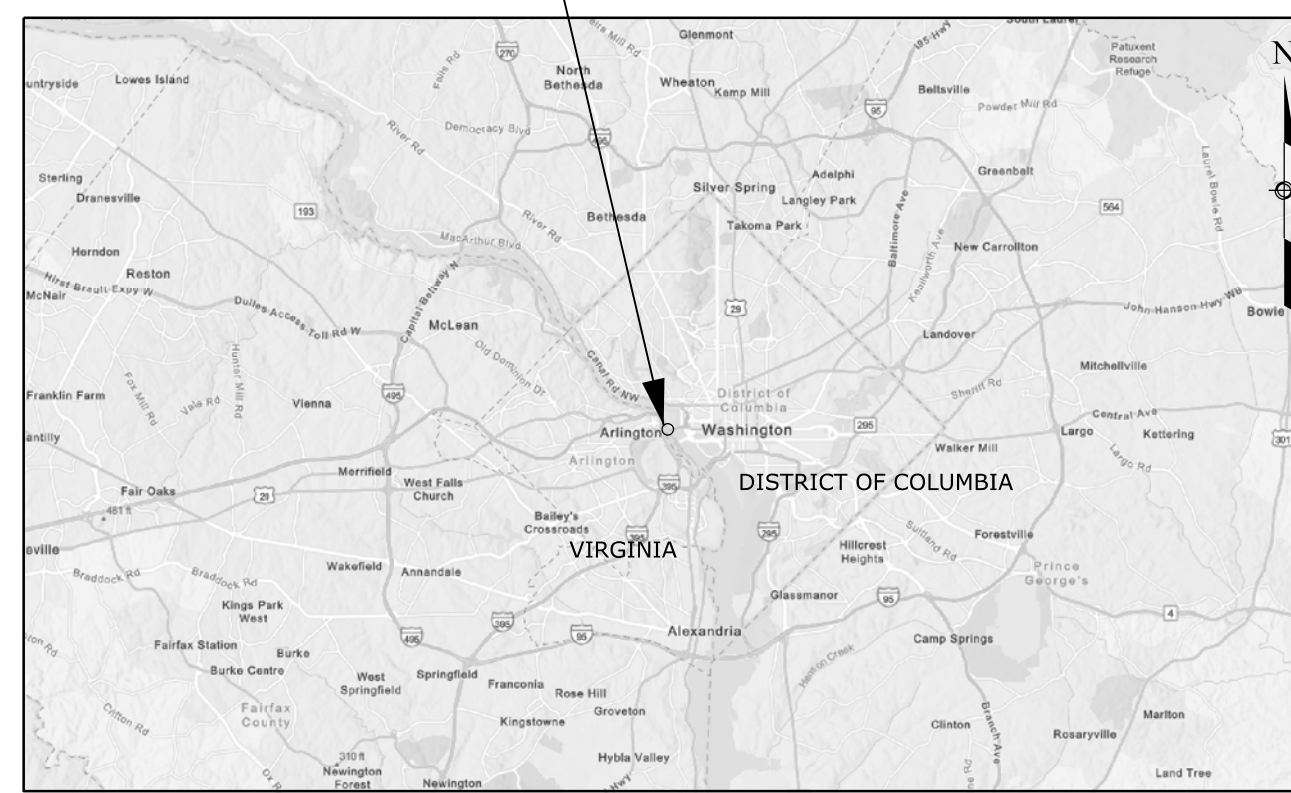
DESIGN DESIGNATION:

GWMP ADT (2026)	16716
GWMP ADT (2046)	22514
DHV	3
D	50/50
%Truck	0.10%
V (MPH)	30
C/A	None
e(max)	N/A

SPECIFICATIONS:

"Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects", FP-24.

DC NP GWMP ARCH TAR 2026



Know what's below.
Call before you dig.

30% PLANS



PLANS PREPARED BY
**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**
EASTERN FEDERAL LANDS HIGHWAY DIVISION
ASHBURN, VIRGINIA
MAY, 2026

M:\PROJECTS\gwmp\11(4)\Prof.Dev\CADD\AMC Arch\A01-Memorial Circle.ttl.dgn [Title Sheet NPS] 21 May 2026 6:11 PM

Project Manager	Highway Design Manager	Lead Designer
XXXXX XXXXXX	Chris Burnell	Team Forge

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	A02

Δ	total central angle
Δc	curve central angle
\emptyset	diameter
$\emptyset s$	spiral central angle
abut.	abutment
ACP	asphalt concrete pavement
ADT	average daily traffic
Agg	aggregate
AH	ahead
AMD	amendment
appr.	approach
ASC	aggregate surface course
Asph	asphalt
BK	back
BL	baseline
bldg.	building
BM	bench mark
BP	balance point
br.	bridge
brg.	bearing
BW	broken white
cc or c. to c.	center to center
CL	centerline
CMP	corrugated metal pipe
col.	column
conc.	concrete
conn.	connection
constr. jt.	construction joint
cont.	continuous
CS	curve to spiral
ctrs.	centers
D	directional distribution factor
DHV	design hourly volume
dia.	diameter
diag.	diagonal
diaph.	diaphragm
dist.	distance
drwg(s).	drawing(s)
DSY	double solid yellow
DW or DTW	dotted white
DY or DTY	dotted yellow
E	east
e	superelevation rate
elec.	electric
elev.	elevation
emb.	embankment
EOP	edge of pavement
EOS	edge of shoulder
EOT	edge of travel way
EQ or eq.	equation
ER	edge of road
ESAL	equivalent single axle load
EW	edge of water
ex. or exist.	existing
exc.	excavation
exp. jt.	expansion joint
fin.	finish
flg.	flange
ftg.	footing
ga.	gage (gauge)
GAB	graded aggregate base
galv.	galvanized
gnd or grnd	ground
hdwl.	headwall
hex.	hexagon

HLSD	headlight sight distance
HW	high water
ID	inside diameter
INF	infinite
inv.	invert
jt.	joint
K	K-Value
L	length of curve
lam.	lamination
lat.	latitude
LOD	Limits of Disturbance
long.	longitudinal
LPSM	lump sum
Ls	length of spiral
lt. or LT	left
LW	low water
ML	main line
MOD	modification
MP	mile post
max.	maximum
min.	minimum
mon.	monument
N	north
NC	normal crown
NMSA	nominal maximum size aggregate
No.	number
o. c.	on center
ohwm	ordinary high water mark
o. to o.	out to out
OD	outside diameter
OG	original ground
PC	point of curve
PCC	point of compound curve
PCS	point of curve to spiral
PGL	profile grade line
PI	point of intersection
pl.	plate
POB	point of beginning
POC	point on curve
POE	point of ending
POS	point on spiral
POT	point on tangent
prop.	proposed
PS	point of tangent to spiral
PSC	point of spiral to curve
PST	point of spiral to tangent
PT	point of tangent
pvtm.	pavement
R	radius
R.	range
R/W	right-of-way
rdwy.	roadway
RECP	rolled erosion control product
reinf.	reinforcement
reqd.	required
rt. or RT	right
rte.	route
S	south
SADT	seasonal average daily traffic
SC	point of spiral to curve
sec.	section
shldr.	shoulder
spa.	spacing, spaces or spaced
sqft	square foot
sqyd	square yard

SRS	point of spiral to reverse spiral
SS	point of spiral to spiral (no curve)
SSD	stopping sight distance
ST	point of spiral to tangent
Sta.	station
std.	standard
stgr.	stringer
stiff.	stiffener
struc.	structural
STS	point of spiral to tangent spiral
SW or SDW	solid white
sym.	symmetrical
S/W	sidewalk
T	tangent distance
T.	township
TBM	temporary bench mark
thd.	thread
traf.	traffic
TS	point of tangent to spiral
Ts	tangent distance (spiraled curve)
typ.	typical
V	design speed
VC	vertical curve
var.	varies
vph	vehicles per hour
VPI	vertical point of intersection
W	west

Control Point (Terrestrial and GPS); Jump Hub

National Boundary

State Boundary

County Boundary

City Boundary

Township or Range Line

Section Line

Section Corner (Found, Projected)

1/4 Section Line

1/4 Section Corner (Found, Projected)

1/16 Section Line

1/16 Section Corner (Found, Projected)

Property Line w/Found Property Corner

Parcel Number

National Park Boundary

National Forest Boundary

National Wildlife Refuge Boundary

BLM Lands Boundary

Indian Reservation Boundary

Existing Roadway (Road, Paved, Gravel)

Railroad

Trail

Intermittent Drainage or Small Creek

Large Creek or River

Lake, Pond or Reservoir

Spring or Seep

Treeline; Individual Trees

Material Source; Bore Hole; Test Pit

Spot Elevation; Coordinate Grid Tick

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NO.	DATE	BY	REVISIONS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY

SYMBOLS AND ABBREVIATIONS

Sheet 1 of 2

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	A03



	EXISTING	PROPOSED
Slope Stake Limits	Top of Cut: Dashed line with dots above Toe of Fill: Dashed line with dots below Transition: Dashed line with dots above and below	Top of Cut: Dotted line with dots above Toe of Fill: Dotted line with dots below Transition: Dotted line with dots above and below
Fence	Line with 'x' marks	Line with 'x' marks and a central gate symbol
Gate with Fence	Line with 'x' marks and a central gate symbol	Line with 'x' marks and a central gate symbol
Cattleguard	Line with a central gate symbol and radiating lines	Line with a central gate symbol and radiating lines
Guardrail	Line with small rectangular posts	Line with small rectangular posts
Concrete Barrier	Line with small rectangular posts	Line with small rectangular posts
Retaining Wall	Line with inverted 'v' marks	Line with inverted 'v' marks
Signs (single, double post; portable)	Circle with a vertical line	Circle with a vertical line and a dot
Delineators	Circle with a vertical line	Circle with a vertical line and a dot
Pipe Culvert (arrow shows flow)	Line with a wavy end and an arrow	Line with a wavy end and an arrow
Pipe Culvert with End Section	Line with a wavy end and a triangle	Line with a wavy end and a triangle
Pipe Culvert with Headwall	Line with a wavy end and a T-shape	Line with a wavy end and a T-shape
Pipe Culvert with Drop Inlet	Line with a wavy end and a circle with 'DI'	Line with a wavy end and a circle with 'DI'
Box Culvert	Line with a wavy end and a rectangle	Line with a wavy end and a rectangle
Underdrain	Line with a wavy end and a U-shape	Line with a wavy end and a U-shape
Overhead/Above Ground Utilities	Line with 'P' and a wavy end	Line with 'P' and a wavy end
Underground Utilities	Line with 'W' and a wavy end	Line with 'W' and a wavy end
FM = force main, FO = fiber optic, G = gas, IRR = irrigation, O = oil, P = power, SA = sanitary sewer, SD = storm drain, SS = storm sewer, STEAM = steam, T = telephone, TV = CATV, W = water		
Poles (Power, Telephone, Joint Use, Light, Support w/Anchor)	Line with a circle and a vertical line	Line with a circle and a vertical line
Miscellaneous Utility Features	Line with a circle and a vertical line	Line with a circle and a vertical line
EM = electric meter, T = telephone pedestal, TV = CATV pedestal, UP = transformer or junction box, WF = water fountain		
Building	Line with a rectangle	Line with a rectangle
Right-of-Way Line with Monument	Line with 'r/w' and a wavy end	Line with 'R/W' and a wavy end
Permanent Easement	Line with 'P/E' and a wavy end	Line with 'P/E' and a wavy end
Construction Easement	Line with 'TCE' and a wavy end	Line with 'TCE' and a wavy end
Riprap	Line with a wavy end and a stone pattern	Line with a wavy end and a stone pattern

	AREA PATTERN
Pavement Removal / Roadway Obliteration	Diagonal cross-hatch pattern
Sidewalk Asphalt/Concrete	Diagonal cross-hatch pattern
Mill and Overlay	Diagonal cross-hatch pattern
Overlay	Diagonal cross-hatch pattern
Silt Fence	Line with 'X' marks and a circle with 'SF'
Diversion Berm	Line with arrows pointing right and a circle with 'DB'
Drainage Divide	Line with arrows pointing right
Check Dam	Line with a triangle pointing right
Limits of Disturbance	Line with 'LOD' labels
Fiber Roll or Wattle	Line with a wavy end and a stone pattern

PROJECT SPECIFIC SYMBOLS AND ABBREVIATIONS:

Proposed Traffic Signal Pole

Proposed Pedestrian Pedestal

DW Dotted white
 SSW Single solid white
 SSY Single solid yellow
 RPM Raised Pavement Markers

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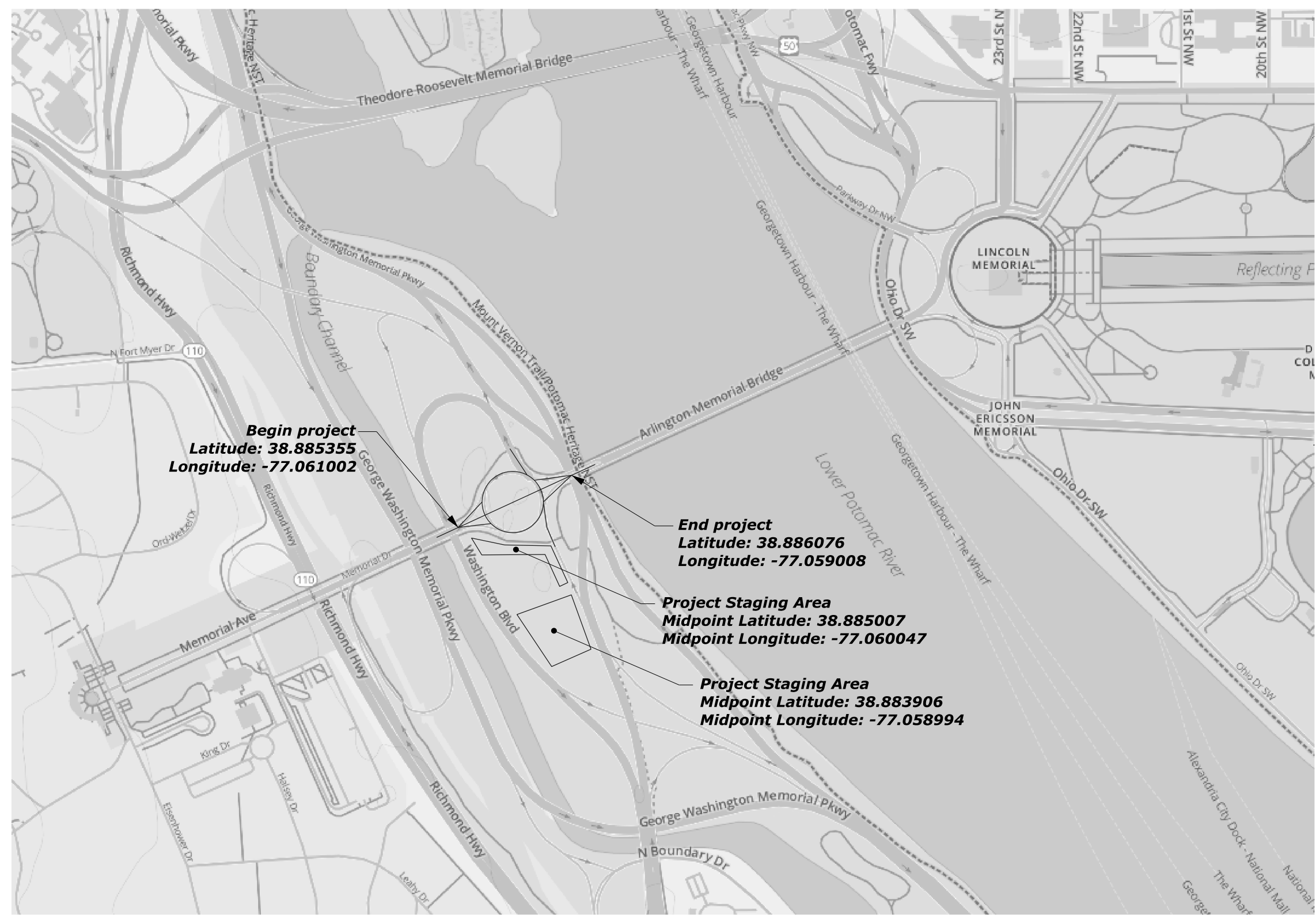
U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY

SYMBOLS AND ABBREVIATIONS

Sheet 2 of 2

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	A04



Begin project
Latitude: 38.885355
Longitude: -77.061002

End project
Latitude: 38.886076
Longitude: -77.059008

Project Staging Area
Midpoint Latitude: 38.885007
Midpoint Longitude: -77.060047

Project Staging Area
Midpoint Latitude: 38.883906
Midpoint Longitude: -77.058994

Note:
 Final staging area limits as directed.

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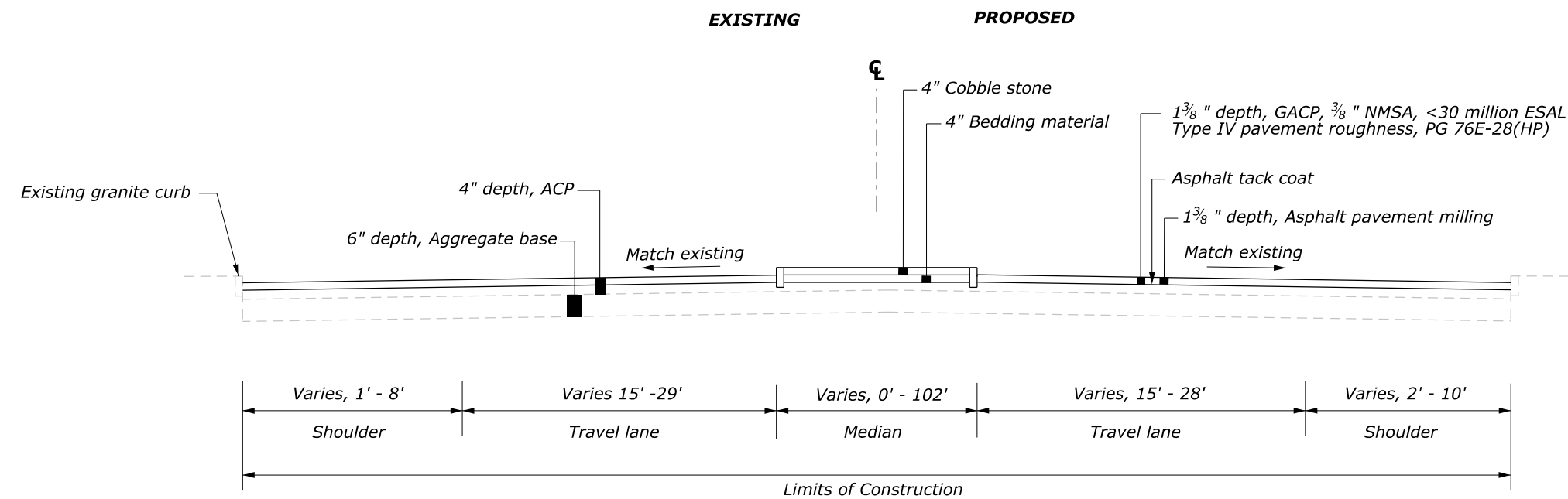
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 FEDERAL HIGHWAY ADMINISTRATION
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NO SCALE

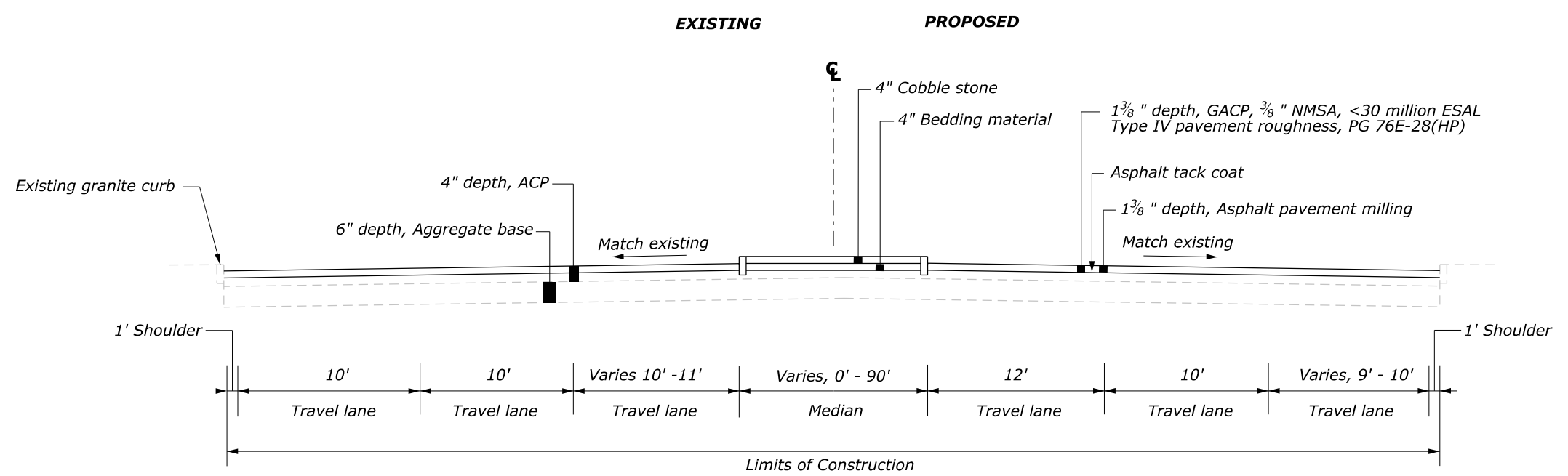
GEORGE WASHINGTON MEMORIAL PARKWAY

LOCATION MAP

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	B01



MEMORIAL AVENUE BRIDGE TO MEMORIAL CIRCLE



MEMORIAL CIRCLE TO ARLINGTON MEMORIAL BRIDGE

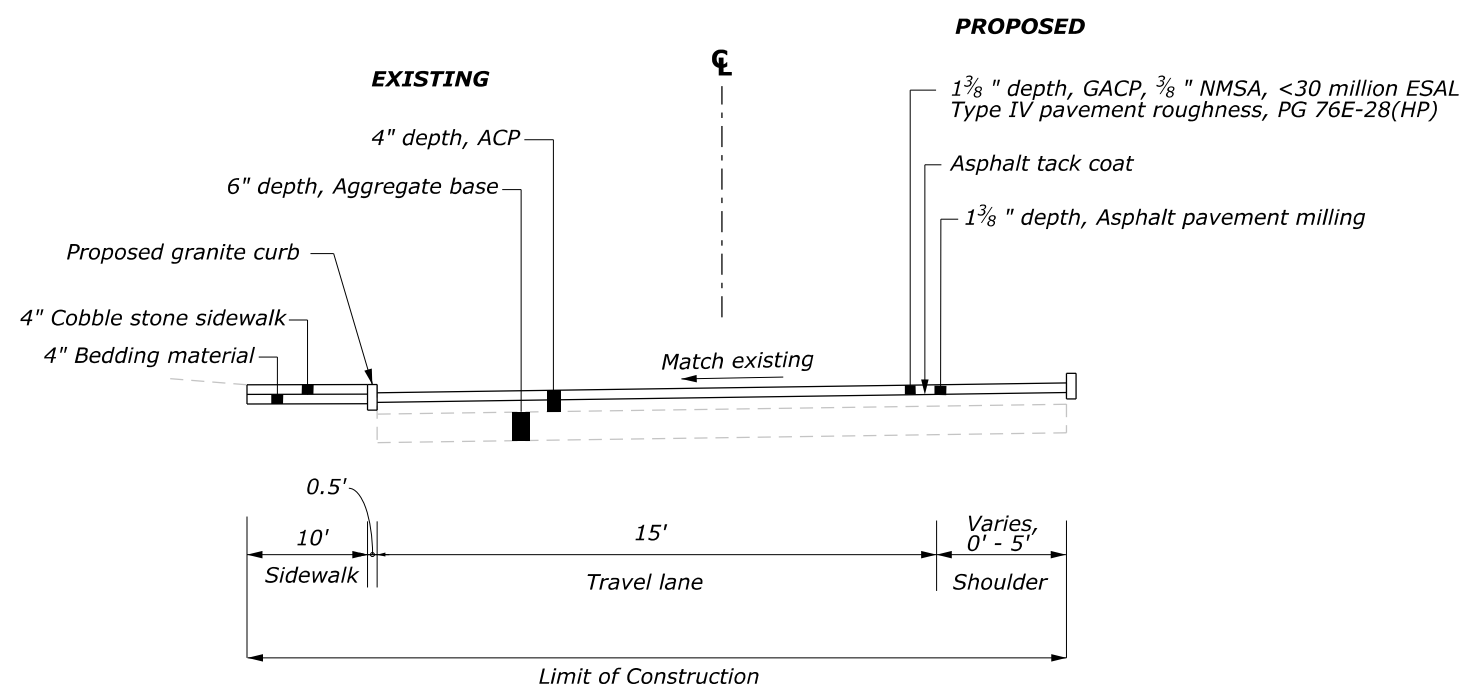
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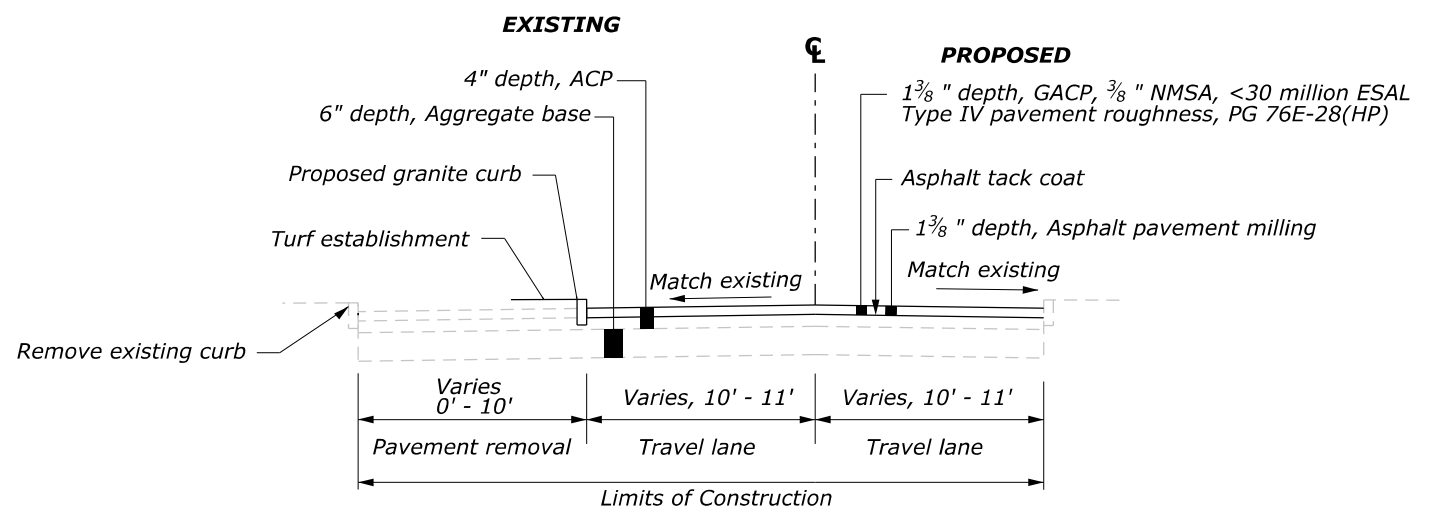
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FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY
TYPICAL SECTIONS
MEMORIAL CIRCLE, ARLINGTON MEMORIAL BRIDGE
SCHEDULE A

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	B02



MEMORIAL CIRCLE



WASHINGTON BLVD

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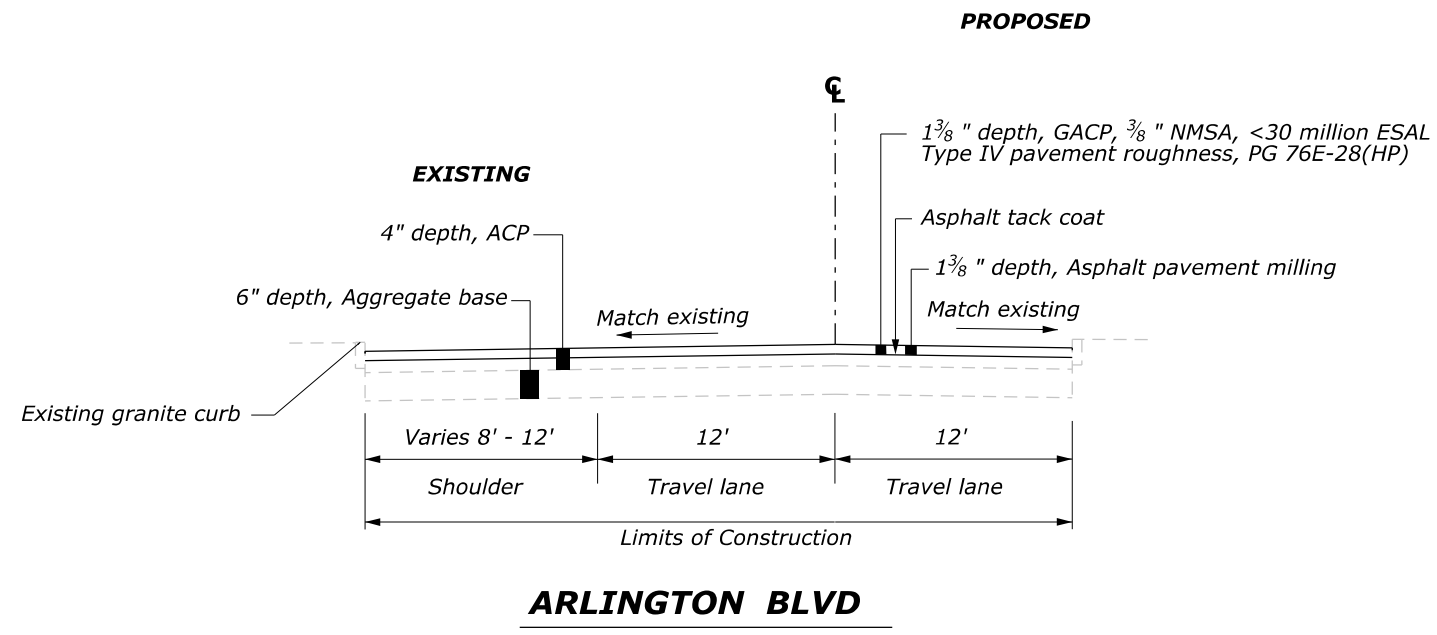
NO.	DATE	BY	REVISIONS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY

TYPICAL SECTIONS
MEMORIAL CIRCLE, WASHINGTON BLVD
SCHEDULE A

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	B03



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U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY

TYPICAL SECTIONS

ARLINGTON BLVD

SCHEDULE A

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	C01

SCHEDULE A

Line Item No.	Pay Item No.	Pay Item Description	Unit	Estimated Quantities
				Bid Schedule
A0100	15101-0000	MOBILIZATION	LPSM	ALL
A0150	15201-0000	CONSTRUCTION SURVEY AND STAKING	LPSM	ALL
A0200	15401-0000	CONTRACTOR TESTING	LPSM	ALL
A0250	15701-0000	SOIL EROSION CONTROL	LPSM	ALL
A0300	15720-0000	STORMWATER POLLUTION PREVENTION PLAN	LPSM	ALL
A0350	20301-2400	REMOVAL OF SIGN	EACH	32
A0400	20302-0600	REMOVAL OF CURB, STONE	LNFT	2,600
A0450	20303-0500	REMOVAL OF GRANITE COBBLES	SQYD	1,700
A0500	20303-1600	REMOVAL OF PAVEMENT, ASPHALT	SQYD	1,400
A0550	20303-3200	REMOVAL OF SIDEWALK, CONCRETE	SQYD	2,100
A0600	20303-3300	REMOVAL OF SIDEWALK, STONE	SQYD	60
A0650	31302-0000	AGGREGATE-TOPSOIL COURSE	SQYD	1,200
A0700	40101-0200	ASPHALT CONCRETE PAVEMENT, GYRATORY MIX, 3/8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 0.3 TO <3 MILLION ESAL	TON	510
A0750	41201-0000	TACK COAT	TON	4
A0800	41301-0000	ASPHALT PAVEMENT MILLING	SQYD	6,800
A0850	60901-4000	CURB, STONE, TYPE 1, 16-INCH DEPTH	LNFT	3,000
A0900	61001-0500	SIDEWALK, EXPOSED AGGREGATE CONCRETE	SQYD	2,300
A0950	61004-4000	ACCESSIBILITY RAMP, STONE	SQYD	370
A1000	61006-2000	PAVING, COBBLESTONE	SQYD	1,950
A1050	61008-0100	RESET COBBLESTONE PAVERS	SQYD	1,150
A1100	62502-0000	TURF ESTABLISHMENT	SQYD	1,050
A1150	63304-0900	SIGNS, ALUMINUM PANELS, TYPE 3 SHEETING	SQFT	16
A1200	63316-1000	REMOVE AND RESET SIGN SYSTEM	EACH	2
A1250	63401-1500	PAVEMENT MARKINGS, TYPE H, SOLID	LNFT	19,900
A1300	63401-1650	PAVEMENT MARKINGS, TYPE H, DOTTED	LNFT	24
A1350	63405-2900	PAVEMENT MARKINGS, TYPE H, TURN ARROW	EACH	4
A1400	63405-2950	PAVEMENT MARKINGS, TYPE H, STRAIGHT ARROW	EACH	1
A1450	63405-3000	PAVEMENT MARKINGS, TYPE H, STRAIGHT/TURN ARROW COMBINATION	EACH	3
A1500	63405-3050	PAVEMENT MARKINGS, TYPE H, "ONLY" WORD MESSAGE	EACH	4
A1550	63406-0300	RAISED PAVEMENT MARKER, NON-PLOWABLE, MONO-DIRECTIONAL REFLECTIVE	EACH	12
A1600	63501-0000	TEMPORARY TRAFFIC CONTROL	LPSM	ALL
A1650	63602-1000	SYSTEM INSTALLATION, TRAFFIC SIGNAL	EACH	48
A1700	63701-0000	FIELD OFFICE	EACH	1

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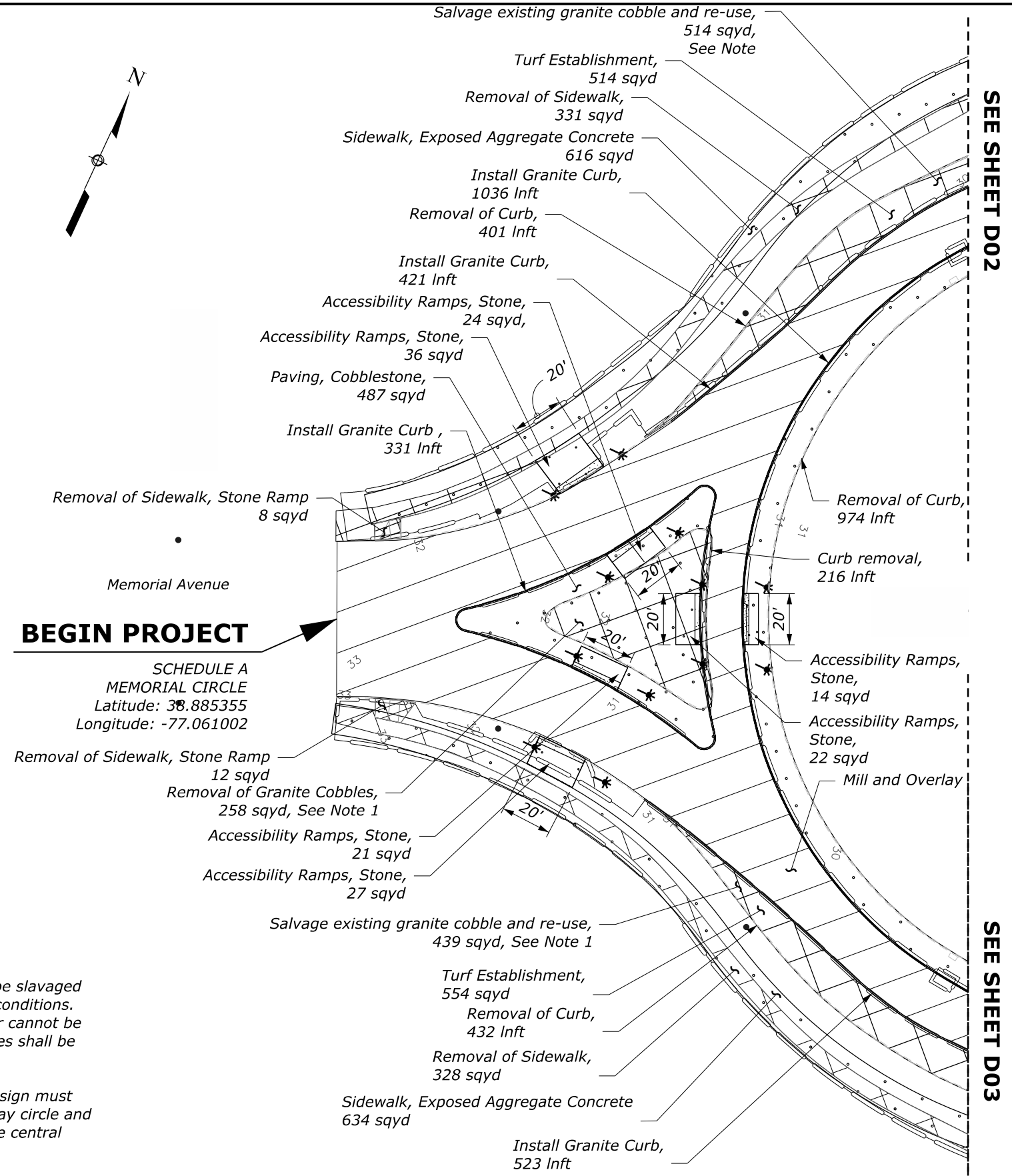
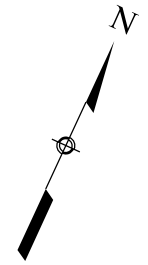
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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY
TABULATION OF QUANTITIES
SCHEDULE A

PROJECT	SHEET NUMBER
	D02



BEGIN PROJECT

SCHEDULE A
MEMORIAL CIRCLE
Latitude: 38.885355
Longitude: -77.061002

NOTES

1. All existing granite cobbles are to be salvaged and re-used as shown in proposed conditions. If the cobbles are not salvagable or cannot be used in proposed conditions, cobbles shall be returned to the NPS.
2. Utility and drainage layouts and design must be coordinated between the roadway circle and any planned construction within the central island.

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FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

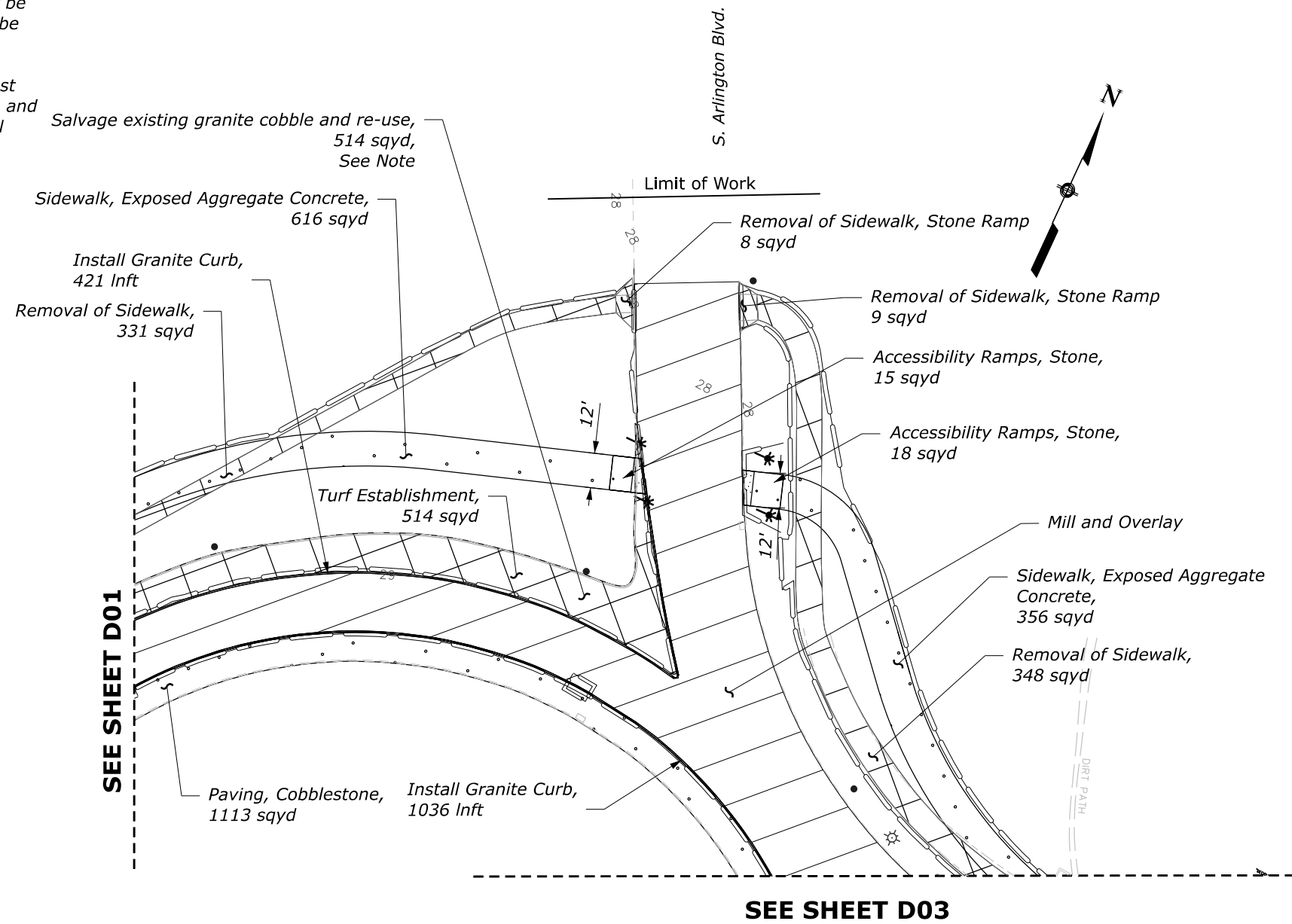


CONSTRUCTION PLAN

MEMORIAL CIRCLE

NOTES

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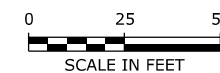


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FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

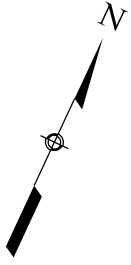
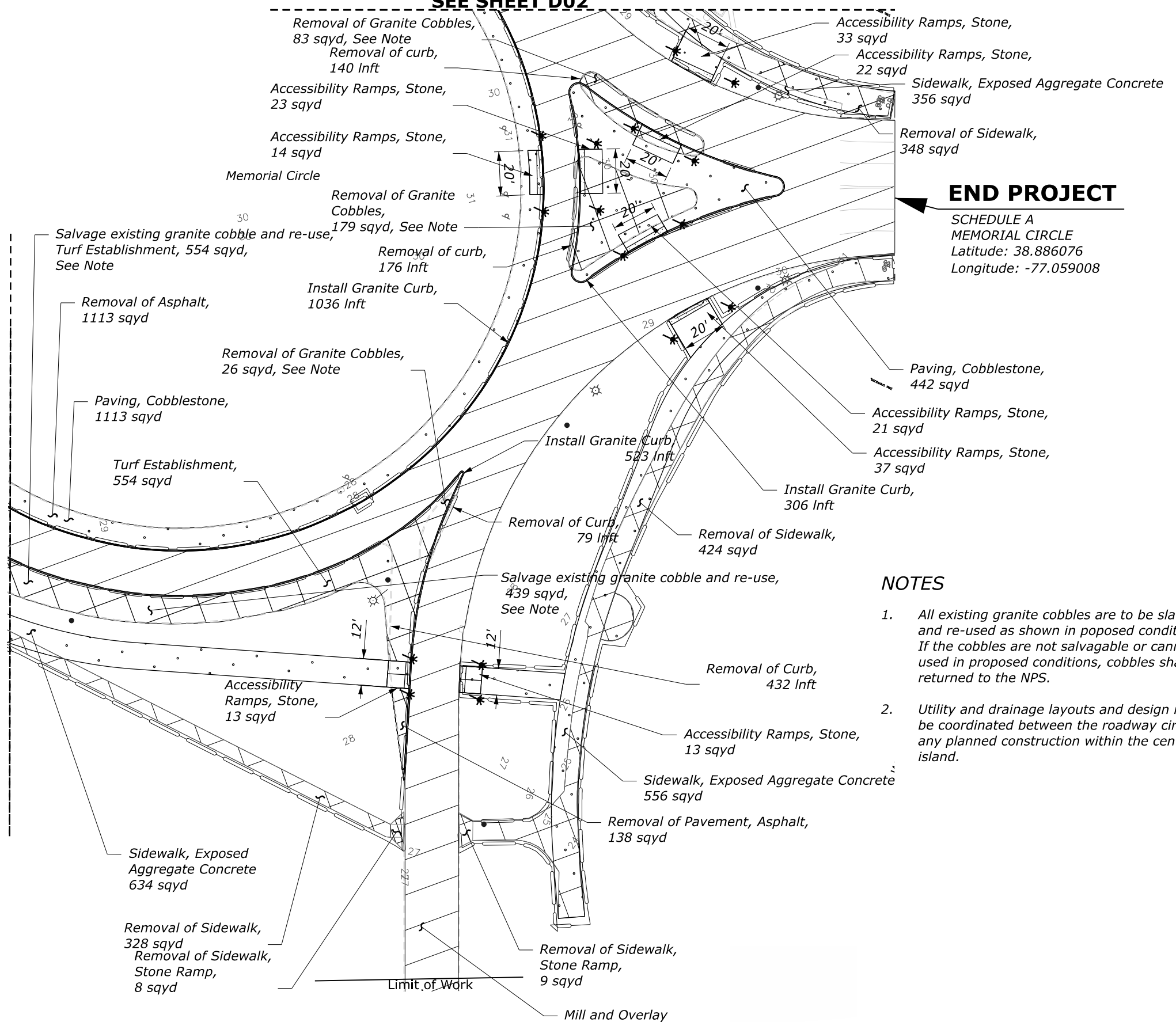


CONSTRUCTION PLAN

MEMORIAL CIRCLE
S. ARLINGTON BLVD

SEE SHEET D02

SEE SHEET D01



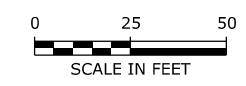
NOTES

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2. Utility and drainage layouts and design must be coordinated between the roadway circle and any planned construction within the central island.

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NO.	DATE	BY	REVISIONS

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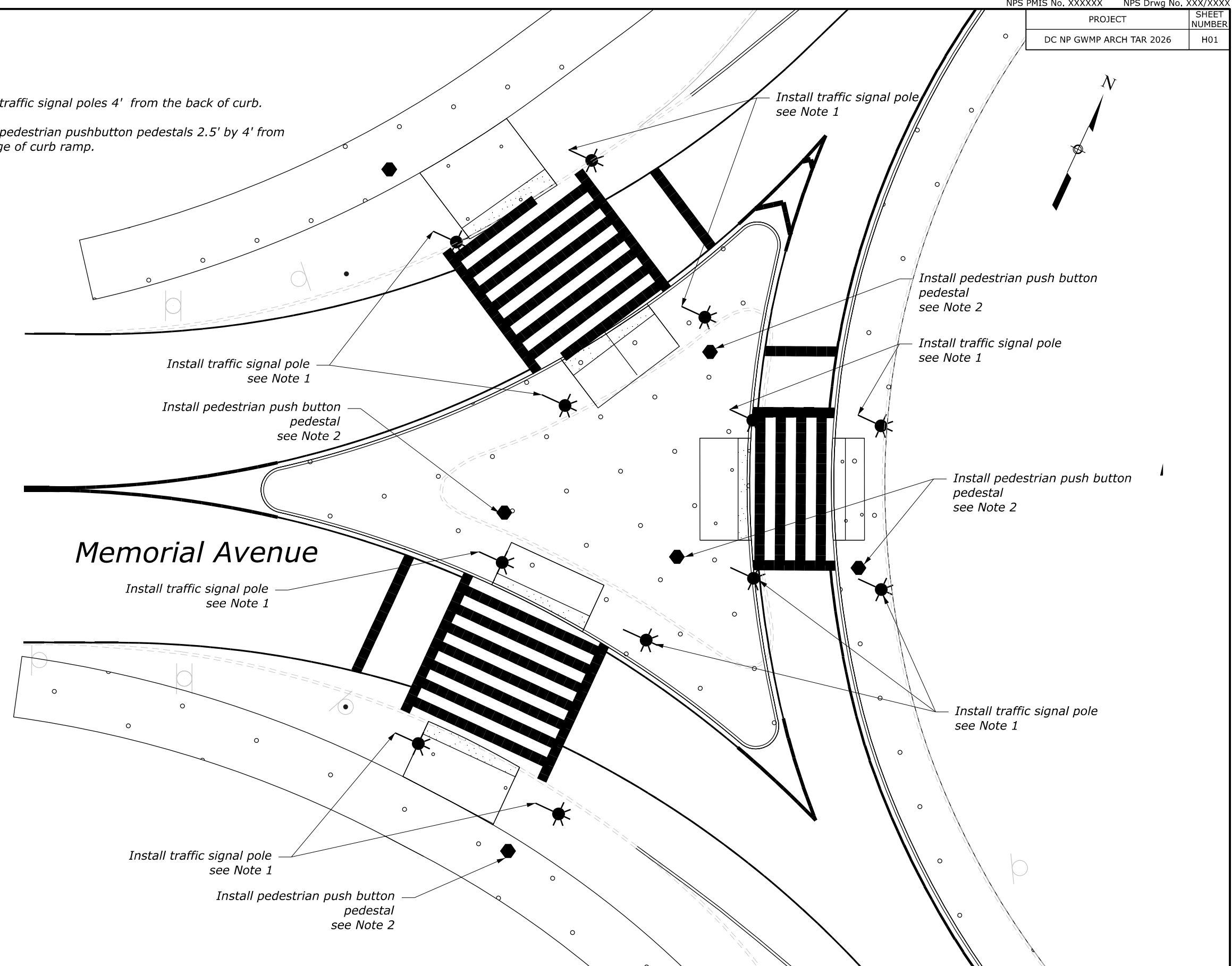


CONSTRUCTION PLAN
 MEMORIAL CIRCLE
 WASHINGTON BLVD

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	H01

NOTES

1. Install traffic signal poles 4' from the back of curb.
2. Install pedestrian pushbutton pedestals 2.5' by 4' from the edge of curb ramp.



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NO.	DATE	BY	REVISIONS

U.S. DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 OFFICE OF FEDERAL LANDS HIGHWAY

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 SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY

TRAFFIC SIGNAL PLAN
 MEMORIAL AVENUE
 MEMORIAL CIRCLE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	H02

Washington

NOTES

1. Install traffic signal poles 4' from the back of curb.
2. Install pedestrian pushbutton pedestals 2.5' by 4' from the edge of curb ramp.

Install pedestrian push button pedestal see Note 2

Install traffic signal pole see Note 1

Install pedestrian push button pedestal see Note 2

Install traffic signal pole see Note 1

Install pedestrian push button pedestal see Note 2

Install traffic signal pole see Note 1

Install pedestrian push button pedestal see Note 2

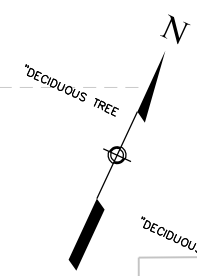
Install traffic signal pole see Note 1

Install traffic signal pole see Note 1

Install pedestrian push button pedestal see Note 2

Arlington Memorial Bridge

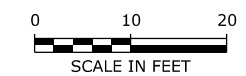
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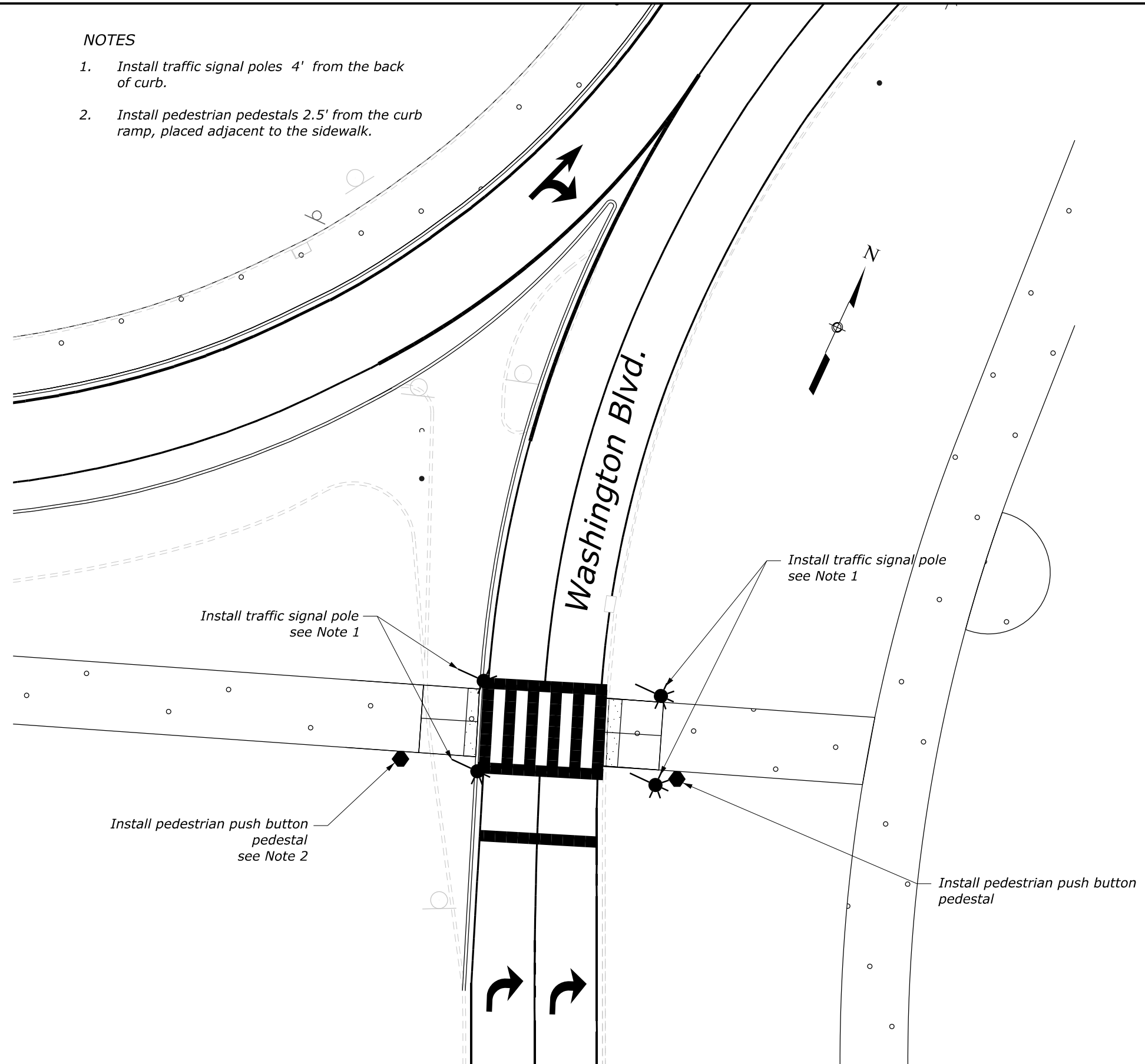


GEORGE WASHINGTON MEMORIAL PARKWAY
TRAFFIC SIGNAL PLAN
MEMORIAL CIRCLE
ARLINGTON MEMORIAL BRIDGE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	H03

NOTES

1. Install traffic signal poles 4' from the back of curb.
2. Install pedestrian pedestals 2.5' from the curb ramp, placed adjacent to the sidewalk.



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 OFFICE OF FEDERAL LANDS HIGHWAY

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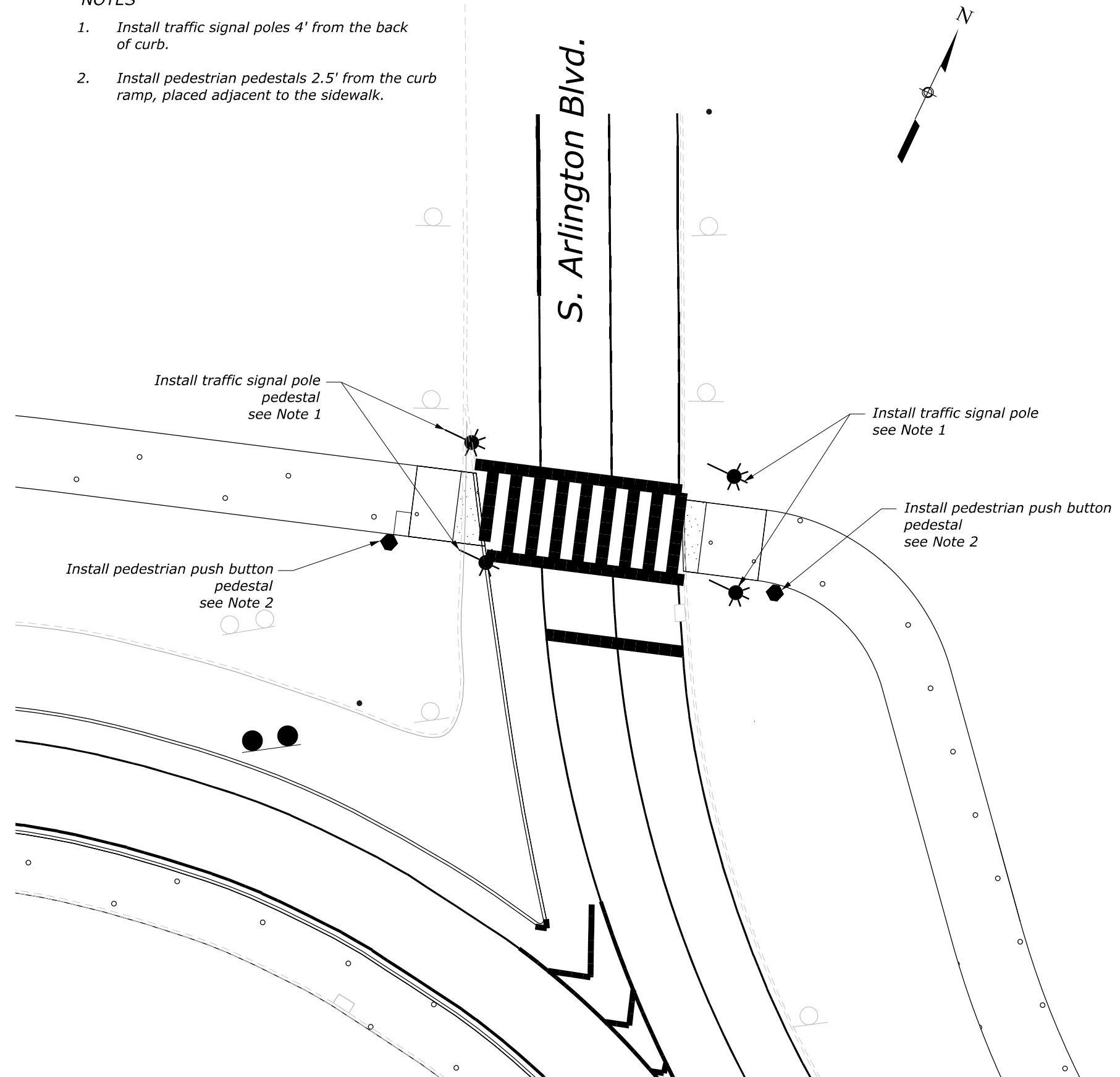
GEORGE WASHINGTON MEMORIAL PARKWAY

TRAFFIC SIGNAL PLAN
 WASHINGTON BLVD

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	H04

NOTES

1. Install traffic signal poles 4' from the back of curb.
2. Install pedestrian pedestals 2.5' from the curb ramp, placed adjacent to the sidewalk.



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NO.	DATE	BY	REVISIONS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
TRAFFIC SIGNAL PLAN
ARLINGTON BLVD

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	M01

PROJECT DESCRIPTION

This project consists of asphalt milling and overlay, safety improvements, signaling, pavement markings, and other miscellaneous work.

SOILS

Soil disturbing activities include: sidewalk demolition and construction, concrete island reconstruction and turf establishment.

Area of Disturbance:

Demolition and construction of sidewalk and ramps: 1.57 acres (68,449 sqft)

Construction of islands: 0.22 acres (9,733 sqft)

Construction of asphalt pavers: 0.24 acres (10,535 sqft)

Total: 2.03 acres (79,380 sqft)

The total area of soil disturbance for the project is approximately 2.03 acres. The receiving water is the Potomac River.

GENERAL NOTES AND GUIDELINES

Develop and implement a Spill Prevention Control and Countermeasures (SPCC) Plan following the requirements under 40 CFR 112. Report spills large enough to discharge surface waters to the National Response Center at 1-800-424-8802.

The Erosion and Sediment Control Narrative is intended to act as a guideline for preventing erosion and controlling sediment. The work consists of applying measures throughout the life of the project to control erosion and to minimize the sedimentation of rivers, creeks, and streams. Soil erosion control measures are also defined/outlined in the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP-24) and the Special Contract Requirements. Install all erosion and sediment control devices in accordance with state and county requirements; as well as, Subsection 107.10 and the DOEE 2017 ESC Manual.

No construction access will be permitted through a wetland or a waterway.

Do not place excavated soil material adjacent to creeks, streams, or bodies of water in a manner that will cause it to be washed away by high water or runoff. Stabilize excess borrow material removed from the construction at the site of placement.

Do not allow any construction equipment to operate or access the down-slope side of the perimeter control measures.

Direct storm water to vegetated buffer areas and do not discharge directly into surface waters.

Preserve existing vegetation, trees, and shrubs when possible, and as directed by the CO. Do not disturb or clear vegetated areas outside the limits of work.

Protect all trees meeting the definition for a Special or Heritage trees under the DC Urban Forest Preservation Act, which applies to land maintained by the District of Columbia. Replace impacted trees in accordance with the National Capital Planning Commission Trees Preservation and Replacement Policy.

EROSION & SEDIMENT CONTROL CONSTRUCTION SEQUENCE

Before removal, patching and milling operation, install erosion and sediment protection devices to ensure disturbed sediment does not leave the project site.

Employ temporary stabilization practices in incremental stages when necessary as construction proceeds. Upon completion of any ground disturbing activity, immediately stabilize the associated disturbed areas. Once installed, do not modify the type, size, or location of any control or practice without approval of the CO.

Prior to any clearing, grubbing, and excavation, install perimeter controls and temporary inlet protection at the locations specified in the plans or as directed by the CO. Install silt fence around the staging area prior to stockpiling and storing equipment.

Once finished grading is achieved and all construction operations in each work area have been completed and all upslope areas are stabilized and vegetation is established, remove all perimeter controls after obtaining approval from the CO.

The contractor must conduct operations and maintain the project site so as to minimize the creation and dispersion of dust. Use dust control throughout the work at the site.

The contractor must provide clean water, free from salt, oil, and other deleterious material to be used for on-site dust control.

EROSION & SEDIMENT CONTROL CONSTRUCTION SEQUENCE (CONTINUED)

The contractor shall supply water-spraying equipment capable of accessing all work areas.

The contractor shall implement strict dust control measures during the active construction periods on-site. These measures shall generally consist of water applications that shall be applied a minimum of once per day during dry weather or more often as required to prevent dust emissions.

For water application to undisturbed soil surfaces, the contractor shall:

Apply water with equipment consisting of tank, spray bar, and pump with discharge pressure gauge.

Arrange spray bar height, nozzle spacing and spray pattern to provide complete coverage of ground with water.

Disperse water through the nozzles on spray bar at 20 psi (137.8 kPa) minimum. Keep areas damp without creating nuisance conditions such as ponding.

For water application to soil surfaces during during demolition and/or excavation, the contractor shall:

Apply water with equipment consisting of a tank, pump with discharge gauge, hoses and mist nozzles.

Locate tank and spraying equipment so that the entire excavation area can be misted without interfering with the demolition and/or excavation equipment or operations. Keep areas damp without creating nuisance conditions such as ponding.

Apply water spray in a manner to prevent movment of spray beyond the site boundaries.

MAINTENANCE AND INSPECTION PROCEDURES

Unless stated otherwise, construct and maintain all vegetated and structural erosion control practices according to Section 157, the details shown in the plans, and the individual permitting requirements. Inspect and maintain erosion control facilities daily during construction activities and immediately following a rain event. Repair and replace any damaged measures by the end of the day.

Inlet protection - Inspect weekly to ensure that inlet protection remains firmly in place and is not damaged or clogged. Clean clogged inlet protection or replace clogged or damaged inlet protection as necessary.

Fiber roll - Inspect weekly and after each runoff event. Remove sediment deposits from the fiber when it reaches half the height of the device. Replace damaged fiber roll within 24 hours of inspection.

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NO.	DATE	BY	REVISIONS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY
EROSION AND SEDIMENT CONTROL NARRATIVE

Pollution Prevention Good Housekeeping Stamp Notes	
Fuels and Oils	On-site refueling will be conducted in a dedicated location away from access to surface waters. Install containment berms and, or secondary containments around refueling areas and storage tanks. Spills will be cleaned up immediately and contaminated soils disposed of in accordance with all federal and District of Columbia regulations. Petroleum products will be stored in clearly labeled tightly sealed containers. All vehicles on site will be monitored for leaks and receive regular preventive maintenance activities. Any asphalt substances used on site will be applied according to manufacturer's recommendations. Spill kits will be included with all fueling sources and maintenance activities.
Solid Waste	No solid materials shall be discharged to surface water. Solid materials including building materials, garbage and paint debris shall be cleaned up daily and deposited into dumpsters, which will be periodically removed and deposited into a landfill.
Abrasive Blasting	Water blasting, sandblasting, and other forms of abrasive blasting on painted surfaces built prior to 1978 may only be performed if an effective containment system prevents dispersal of paint debris.
Fertilizer	Fertilizers will be applied only in the minimum amounts recommended by the manufacturer, worked into the soil to limit exposure to stormwater, and stored in a covered shed. Partially used bags will be transferred to a sealable bin to avoid spills.
Paint and Other Chemicals	All paint containers and curing compounds will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewers, but will be properly disposed of according to manufacturer's recommendations. Spray guns will be cleaned on a removable tarp. Chemicals used on site are kept in small quantities and in closed containers undercover and kept out of direct contact with stormwater. As with fuels and oils, any inadvertent spills will be cleaned up immediately and disposed of according federal and District of Columbia regulations.
Concrete	Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash on site, except in a specially designated concrete disposal area. Form release oil for decorative stone work will be applied over a pallet covered with an absorbent material to collect excess fluid. The absorbent material will be replaced and disposed of properly when saturated.
Water Testing	When testing and, or cleaning water supply lines, the discharge from the tested pipe will be collected and conveyed to a completed stormwater conveyance system for ultimate discharge into a stormwater best management practice (BMP).
Sanitary Waste	Portable lavatories located on site will be serviced on a regular basis by a contractor. Portable lavatories will be located in an upland area away from direct contact with surface waters. Any spills occurring during servicing will be cleaned immediately and contaminated soils disposed of in accordance with all federal and District of Columbia regulations.

DOEE SOIL EROSION AND SEDIMENT CONTROL PLAN GENERAL NOTES	
1.	Following initial land disturbance or re-disturbance, permanent or interim stabilization must be completed within seven (7) calendar days for the surfaces of all perimeter controls, dikes, swales, ditches, perimeter slopes, and slopes greater than three (3) horizontal to one (1) vertical (3:1); and fourteen (14) days for all other disturbed or graded areas on the project site. These requirements do not apply to areas shown on the plan that are used for material storage other than stockpiling, or for those areas on the plan where actual construction activities are being performed. Maintenance shall be performed as necessary so that stabilized areas continuously meet the appropriate requirements of the District of Columbia Standards and Specifications for Soil Erosion and Sediment Control (ESC). [21 DCMR § 542.9 (o)]
2.	ESC measures shall be in place before and during land disturbance. [21 DCMR § 543.6]
3.	Contact DOEE Inspection (202) 535-2977 to schedule a preconstruction meeting at least three (3) business days before the commencement of a land-disturbing activity. [21 DCMR § 503.7 (a)]
4.	A copy of the approved plan set will be maintained at the construction site from the date that construction activities begin to the date of final stabilization and will be available for DOEE inspectors. [21 DCMR § 542.15]
5.	ESC measures shall be in place to stabilize an exposed area as soon as practicable after construction activity has temporarily or permanently ceased but no later than fourteen (14) days following cessation, except that temporary or permanent stabilization shall be in place at the end of each day of underground utility work that is not contained within a larger development site. [21 DCMR § 543.7]
6.	Stockpiled material being actively used during a phase of construction shall be protected against erosion by establishing and maintaining perimeter controls around the stockpile. [21 DCMR § 543.16 (a)]
7.	Stockpiled material not being actively used or added to shall be stabilized with mulch, temporary vegetation, hydro-seed or plastic within fifteen (15) calendar days after its last use or addition. [21 DCMR § 543.16 (b)]
8.	Fill material must be free of contamination levels of any pollutant that is, or may be considered to represent, a possible health hazard to the public or may be detrimental to surface or ground water quality, or which may cause damage to property or the drainage system. All fill material must be free of hazardous materials and comply with all applicable District and federal regulations.
9.	Protect best management practices from sedimentation and other damage during construction for proper post construction operation. [21 DCMR § 543.5]
10.	Request a DOEE inspector's approval after the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. [21 DCMR § 542.12 (a)]
11.	Request a DOEE inspector's approval after final stabilization of the site and before the removal of erosion and sediment controls. [21 DCMR § 542.12 (b)]
12.	Final stabilization means that all land-disturbing activities at the site have been completed and either of the following two criteria have been met: (1) a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of seventy percent (70%) of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or (2) equivalent permanent stabilization measures have been employed (such as the use of riprap, gabions, or geotextiles). [21 DCMR § 542.12 (b.1, b.2)]
13.	Follow the requirements of the United States Environmental Protection Agency approved Stormwater Pollution Prevention Plan (SWPPP) and maintain a legible copy of this SWPPP on site. [21 DCMR § 543.10 (b)]
14.	Post a sign that notifies the public to contact DOEE in the event of erosion or other pollution. The sign will be placed at each entrance to the site or as directed by the DOEE inspector. Each sign will be no less than 18 x 24 inches in size and made of materials that will withstand weather for the duration of the project. Lettering will be at least 1 inch in height and easily readable by the public from a distance of twelve feet (12 ft). The sign must direct the public, in substantially the following form: "To Report Erosion, Runoff, or Stormwater Pollution" and will provide the construction site address, DOEE's telephone number (202-535-2977), DOEE's e-mail address (IEB.scheduling@dc.gov), and the 311 mobile app heading ("Construction-Erosion Runoff"). [21 DCMR § 543.22]
If a site disturbs 5,000 square feet of land or greater, the ESC plan must contain the following statement:	
15.	A <i>Responsible Person</i> must be present or available while the site is in a land-disturbing phase. The <i>Responsible Person</i> is charged with being available to (a) inspect the site and its ESC measures at least once biweekly and after a rainfall event to identify and remedy each potential or actual erosion problem, (b) respond to each potential or actual erosion problem identified by construction personnel, and (c) speak on site with DOEE to remedy each potential or actual erosion problem. A <i>Responsible Person</i> shall be (a) licensed in the District of Columbia as a civil or geotechnical engineer, a land surveyor, or architect; or (b) certified through a training program that DOEE approves, including a course on erosion control provided by another jurisdiction or professional association. During construction, the <i>Responsible Person</i> shall keep on site proof of professional licensing or of successful completion of a DOEE-approved training program. [21 DCMR § 547]

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NO.	DATE	BY	REVISIONS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY
EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	M03

VEGETATIVE STABILIZATION

There will be X.X acres in need of stabilization as a result of this project. Areas of turf establishment will be prepared with fertilizer, topsoil and mulch.

In accordance with Subsection 625.06, apply limestone and fertilizer at the following rates for the roadside turf area mix only:

Permanent Seeding Summary								
No.	Seed Mixture				Fertilizer Rate (10-20-20)			Lime Rate
	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	
1	Barlexas Tall Fescue	75.0	February 15 to Novemeber 15		45 lb/ac	90 lb/ac	90 lb/ac	2 ton/ac
2	Redcoat Tall Fescue	62.5	February 15 to Novemeber 15					
3	Chewing Fescue	62.5	February 15 to Novemeber 15					
4	Impact Kentucky Bluegrass	25.0	February 15 to Novemeber 15		(1.0 lb/ 1,000 ft ²)	(2.0 lb/ 1,000 ft ²)	(2.0 lb/ 1,000 ft ²)	(90 lb/ 1,000 ft ²)
5	Catalina Perennial Ryegrass	25.0	February 15 to Novemeber 15					

Permanent Seeding Summary								
No.	Seed Mixture				Fertilizer Rate (10-20-20)			Lime Rate
	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	N	P205	K20	
1	Barlexas Tall Fescue	75.0	November 16 to February 14		45 lb/ac	90 lb/ac	90 lb/ac	2 ton/ac
2	Redcoat Tall Fescue	62.5	November 16 to February 14					
3	Chewing Fescue	62.5	November 16 to February 14					
4	Impact Kentucky Bluegrass	25.0	November 16 to February 14		(1.0 lb/ 1,000 ft ²)	(2.0 lb/ 1,000 ft ²)	(2.0 lb/ 1,000 ft ²)	(90 lb/ 1,000 ft ²)
5	Catalina Perennial Ryegrass	25.0	November 16 to February 14					

Temporary Seeding Summary								
No.	Seed Mixture				Fertilizer Rate (10-20-20)	Lime Rate		
	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths				
1	Barlexas Tall Fescue	75.0	February 15 to Novemeber 15		436 lb/ac	2 ton/ac		
2	Redcoat Tall Fescue	62.5	February 15 to Novemeber 15					
3	Chewing Fescue	62.5	February 15 to Novemeber 15					
4	Impact Kentucky Bluegrass	25.0	February 15 to Novemeber 15		(10 lb/ 1,000 ft ²)	(90 lb/ 1,000 ft ²)		
5	Catalina Perennial Ryegrass	25.0	February 15 to Novemeber 15					

Temporary Seeding Summary								
No.	Seed Mixture				Fertilizer Rate (10-20-20)	Lime Rate		
	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths				
1	Barlexas Tall Fescue	75.0	November 16 to February 14		436 lb/ac	2 ton/ac		
2	Redcoat Tall Fescue	62.5	November 16 to February 14					
3	Chewing Fescue	62.5	November 16 to February 14					
4	Impact Kentucky Bluegrass	25.0	November 16 to February 14		(10 lb/ 1,000 ft ²)	(90 lb/ 1,000 ft ²)		
5	Catalina Perennial Ryegrass	25.0	November 16 to February 14					

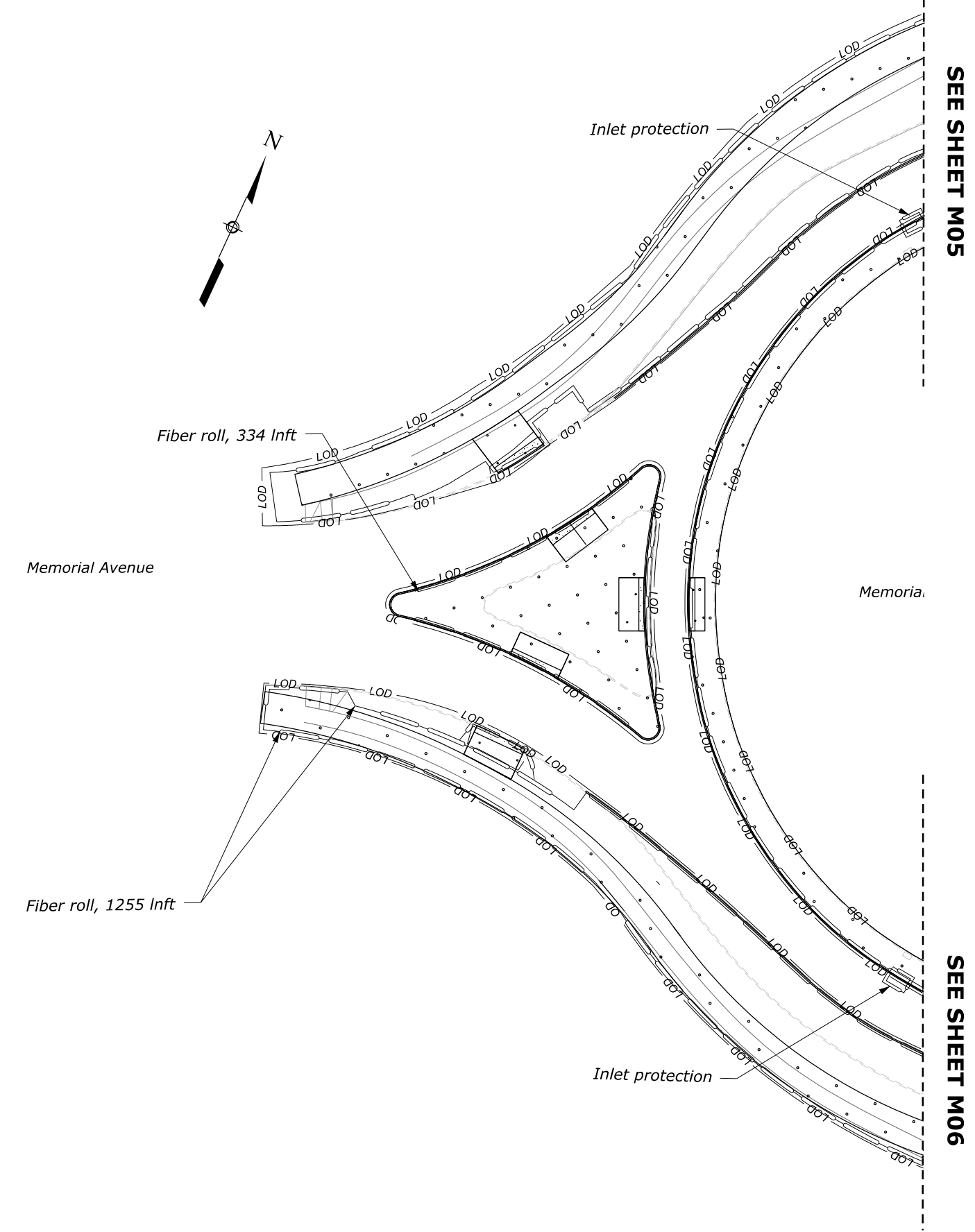
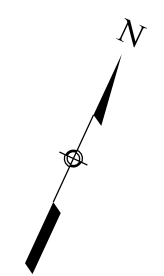
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FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

GEORGE WASHINGTON MEMORIAL PARKWAY
EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	M04



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 OFFICE OF FEDERAL LANDS HIGHWAY

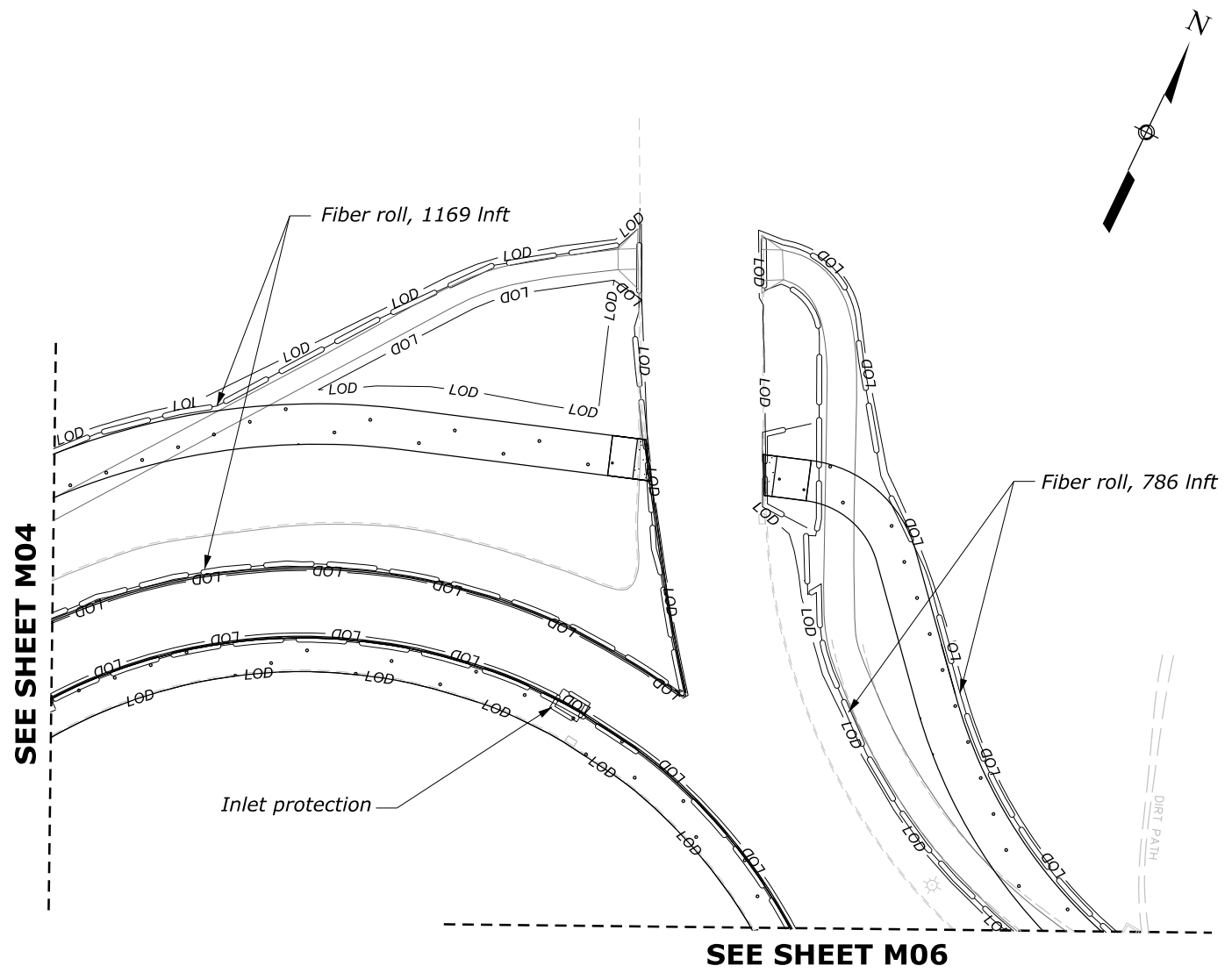
SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY

EROSION AND SEDIMENT CONTROL PLAN

MEMORIAL CIRCLE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	M05

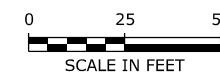


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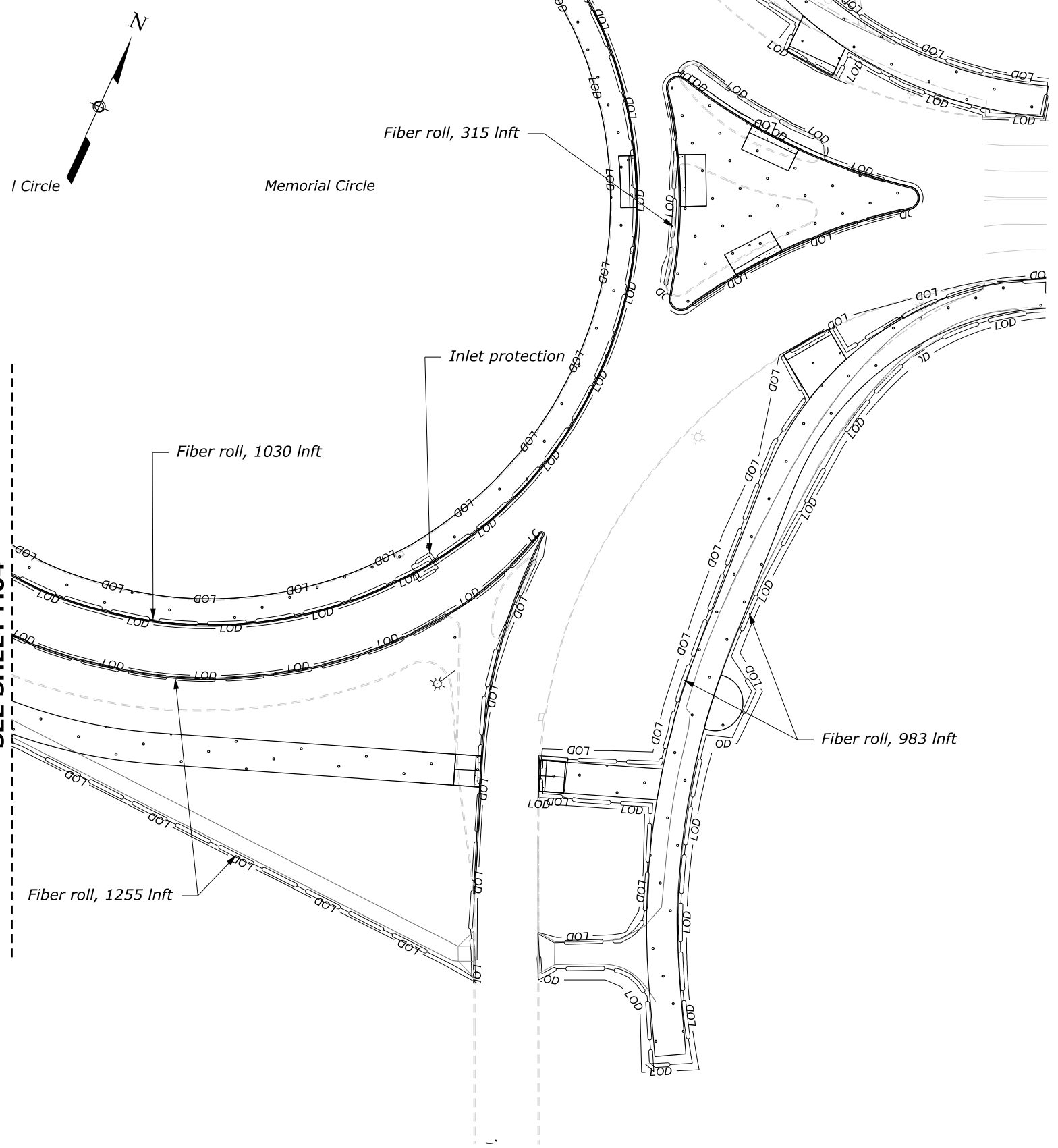
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OFFICE OF FEDERAL LANDS HIGHWAY



GEORGE WASHINGTON MEMORIAL PARKWAY
EROSION AND SEDIMENT CONTROL
PLAN
MEMORIAL CIRCLE
S. ARLINGTON BLVD

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	M06

SEE SHEET M05



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FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY

EROSION AND SEDIMENT CONTROL

PLAN

MEMORIAL CIRCLE
WASHINGTON BLVD

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N01

TRAFFIC CONTROL PLAN GENERAL NOTES:

1. The Traffic Control Plans have been designed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition, and Section 635 of the Eastern Federal Lands Highway Division (EFLHD) detail drawings.
2. Traffic control signing, devices, workzone and overall set up is located within National Park Service (NPS)-owned and maintained roadways. If applicable, coordinate with DDOT, VDOT, Arlington County or other local agencies for work taking place along roadways under their respective jurisdiction. If applicable, all lane closure hours on VDOT-maintained roadways shall be in accordance with the Lane Closures in NOVA District Memorandum, dated February, 2024. If applicable, all work along DDOT-maintained roadways shall be in accordance with the DDOT Design and Engineering Manual (2023) and the DDOT Work Zone Temporary Traffic Control Manual (2006).
3. The allowable lane closure hours apply to the Memorial Circle Safety Improvements.
 - (a) Maintain a minimum of one lane of traffic in each direction from 9:00 PM to 5:00 AM and during non-rush hours.
 - (b) During rush hours, maintain existing number of lanes of traffic.
 - (c) Lane closures must be scheduled to not conflict with local events.
 - (d) Definition of Rush Hours and Night Hours
 EB Morning Rush Hours: 5:00 AM to 9:30 AM
 WB Evening Rush Hours: 2:30 PM to 7:00 PM
 Night Hours: 9:00 PM to 5:00 AM
4. Take all appropriate measures to ensure that adequate sight distances are provided during construction operations. Traffic control devices, signs, construction equipment, material storage or any other obstacle should not interfere with sight distances.
5. Do not store equipment and/or materials within the established clear zone unless positive protection is provided.
6. Do not perform any work, park vehicles or equipment, or store materials in buffer areas of lane closures.
7. Place signs as shown in the Traffic Control Plans. Temporary sign locations can be adjusted in the field so that they do not conflict with permanent existing signs or other existing features, such as sidewalk ramps, railing or light poles. Maintain all existing permanent signs during construction, unless otherwise noted in each stage of the Traffic Control Plans.
8. The Temporary Traffic Control Plans depict the major traffic control devices and safety measures required for construction. The daily control of traffic including placement, maintenance, and removal of traffic control devices is the Contractor's responsibility.
9. Implement additional measures as needed to provide separation between pedestrians, bicycles, and the work zone.
10. Remove traffic control devices no longer needed at the end of each shift. Cover signs that conflict with the current traffic set-up.
11. Coordinate traffic control signing and devices as needed with all other work zones in the vicinity, and make adjustments as necessary.

TRANSPORTATION OPERATIONS PLAN:

The following is a list of local emergency contact agencies:
 Fire and Emergency Medical Services: 911
 US Park Police: 202-619-7500
 Virginia State Police: 703-803-0026
 Arlington County Police: 703-558-2222
 Arlington County Public Safety Communications and Emergency Management: 703-228-7935
 Arlington County Transportation: 703-228-5000
 Metropolitan Area Transportation Operations Coordination (MATOC): 301-405-7841
 DDOT Transportation Management Center: 202-673-6813
 VDOT Northern Region Operations Center: 703-877-3401
 MDOT Operations Center: 410-582-5605
 US Department of Homeland Security: 202-282-8000

For utility company contact information, call 811.

POSTED SPEED LIMITS TABLE

Road Name	Posted Speed Limit (mph)
Arlington Memorial Bridge	30
Memorial Avenue	20-30
Washington Boulevard	25-40
George Washington Memorial Parkway	50
GWMP Distributor Ramp at Memorial Circle	30
Washington Blvd to Memorial Circle	30-45
Washington Blvd from Memorial Circle to US Hwy 50	30-40
Washington Blvd Turnaround	30

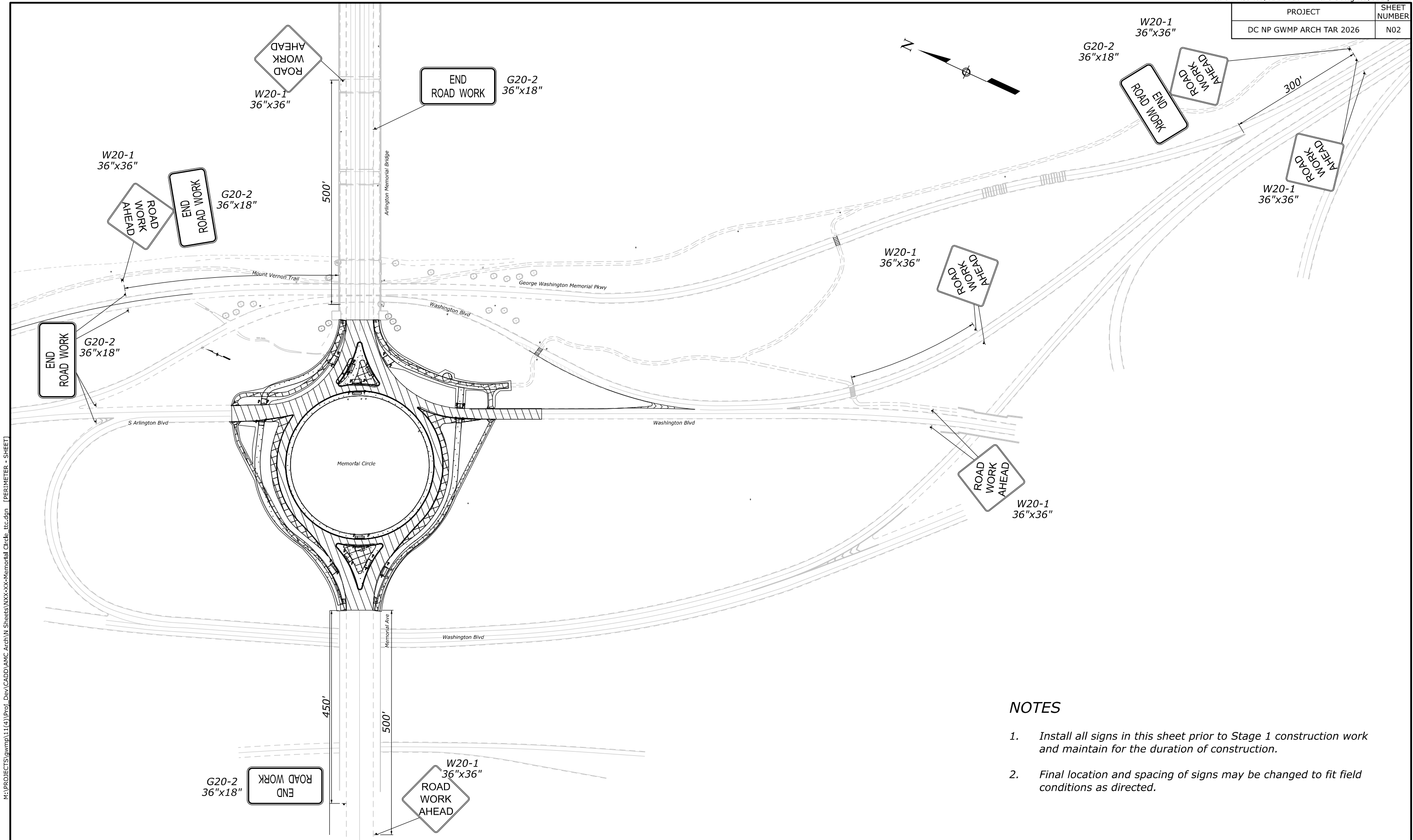
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GEORGE WASHINGTON MEMORIAL PARKWAY
TEMPORARY TRAFFIC CONTROL NARRATIVE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N02



NOTES

1. Install all signs in this sheet prior to Stage 1 construction work and maintain for the duration of construction.
2. Final location and spacing of signs may be changed to fit field conditions as directed.

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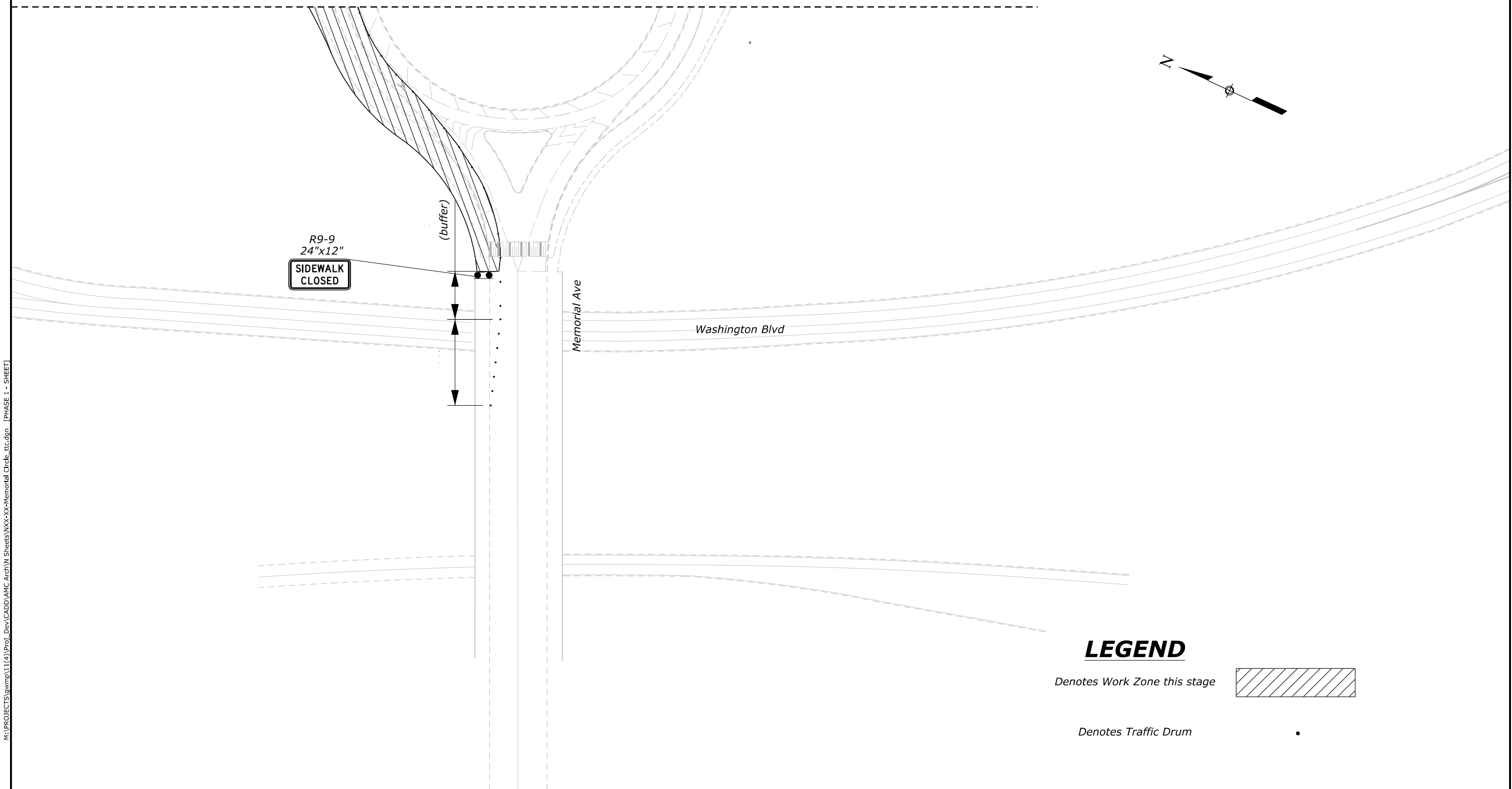
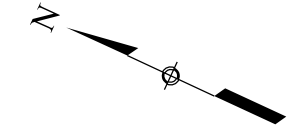
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SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
 PLAN FOR THE SIGNAL AND
 SIDEWALK IMPROVEMENT**
 PERIMETER PLAN

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N03

SEE SHEET N05



R9-9
24"x12"
SIDEWALK
CLOSED

(buffer)

Memorial Ave

Washington Blvd

LEGEND

- Denotes Work Zone this stage
- Denotes Traffic Drum

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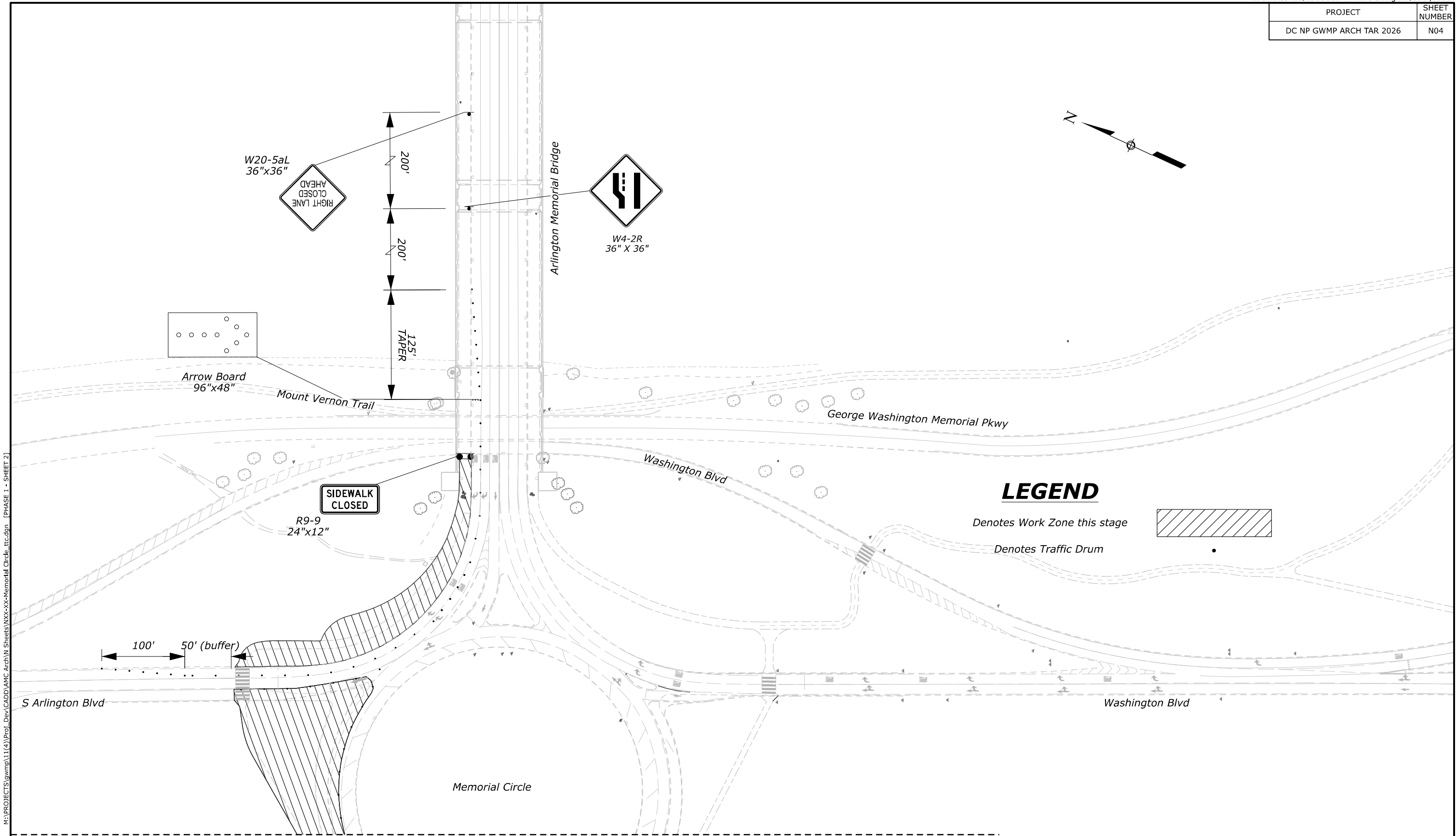
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SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
PLAN FOR THE SIGNAL AND
SIDEWALK IMPROVEMENT**
STAGE 1

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N04



SEE SHEET N04

NO.	DATE	BY	REVISIONS

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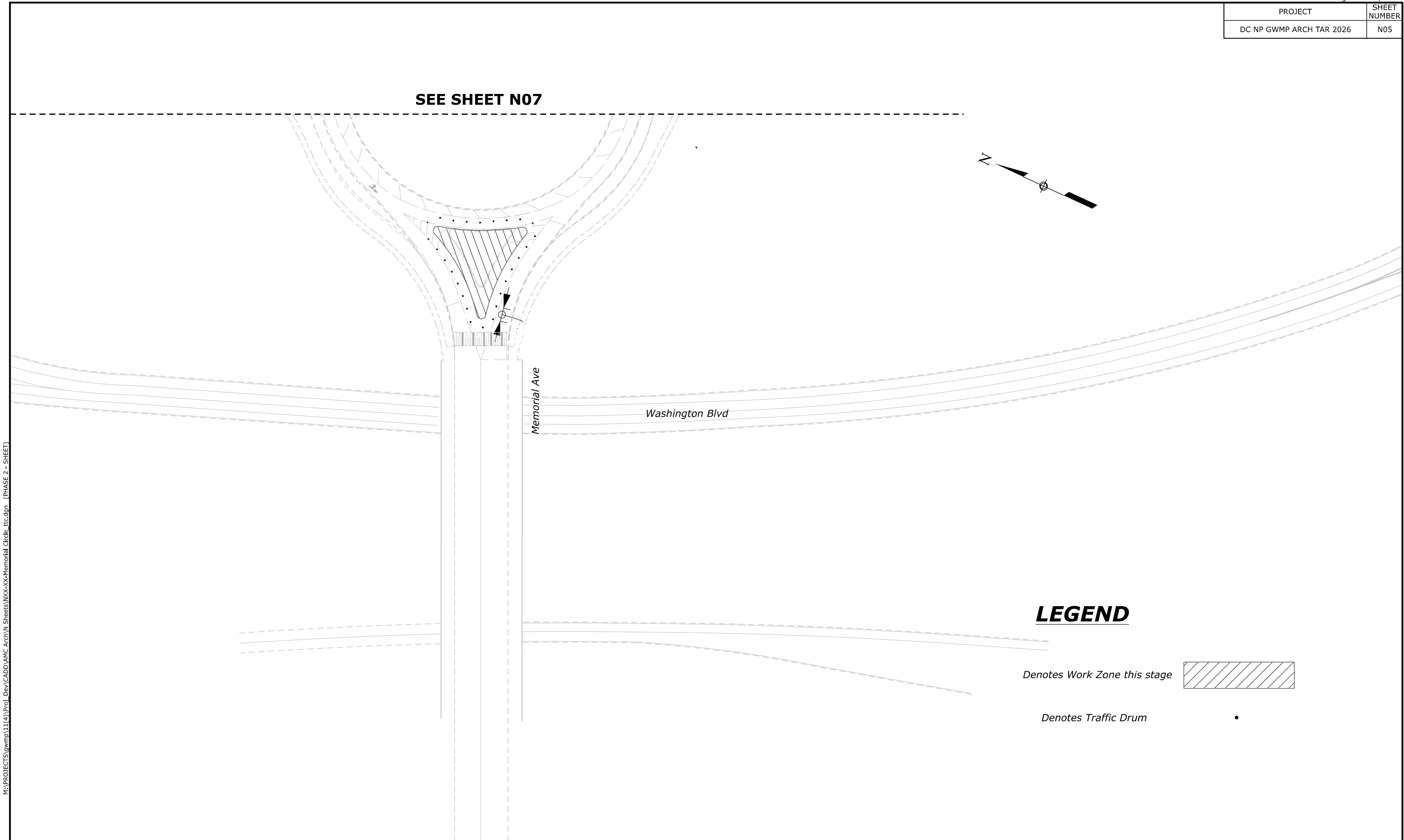
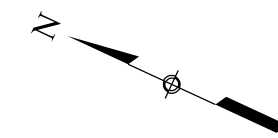
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GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
 PLAN FOR THE SIGNAL AND
 SIDEWALK IMPROVEMENT**
 STAGE 1

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PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N05

SEE SHEET N07



LEGEND

- Denotes Work Zone this stage
- Denotes Traffic Drum

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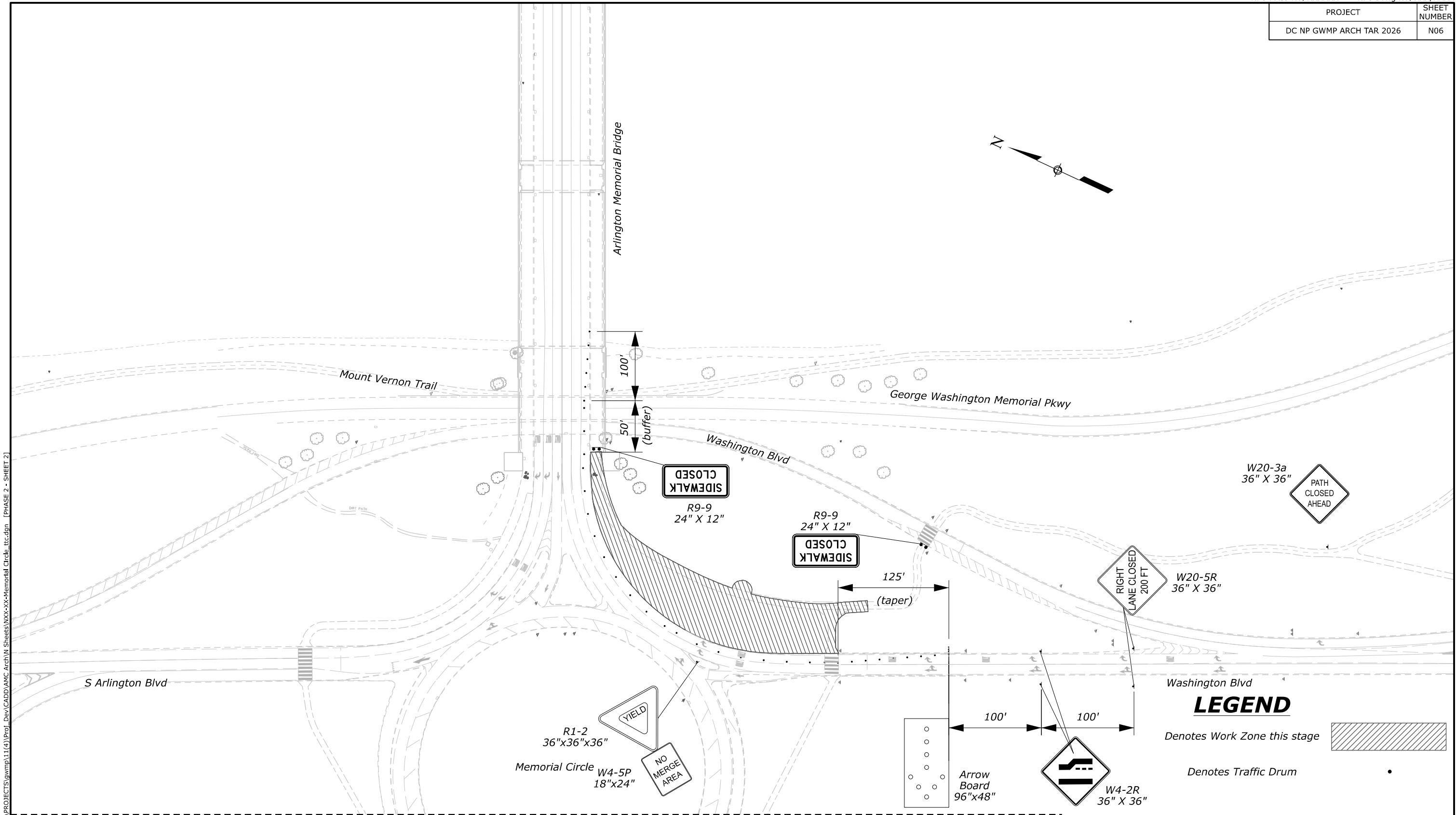
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SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
PLAN FOR THE SIGNAL AND
SIDEWALK IMPROVEMENT**
STAGE 2

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N06



SEE SHEET N06

NO.	DATE	BY	REVISIONS

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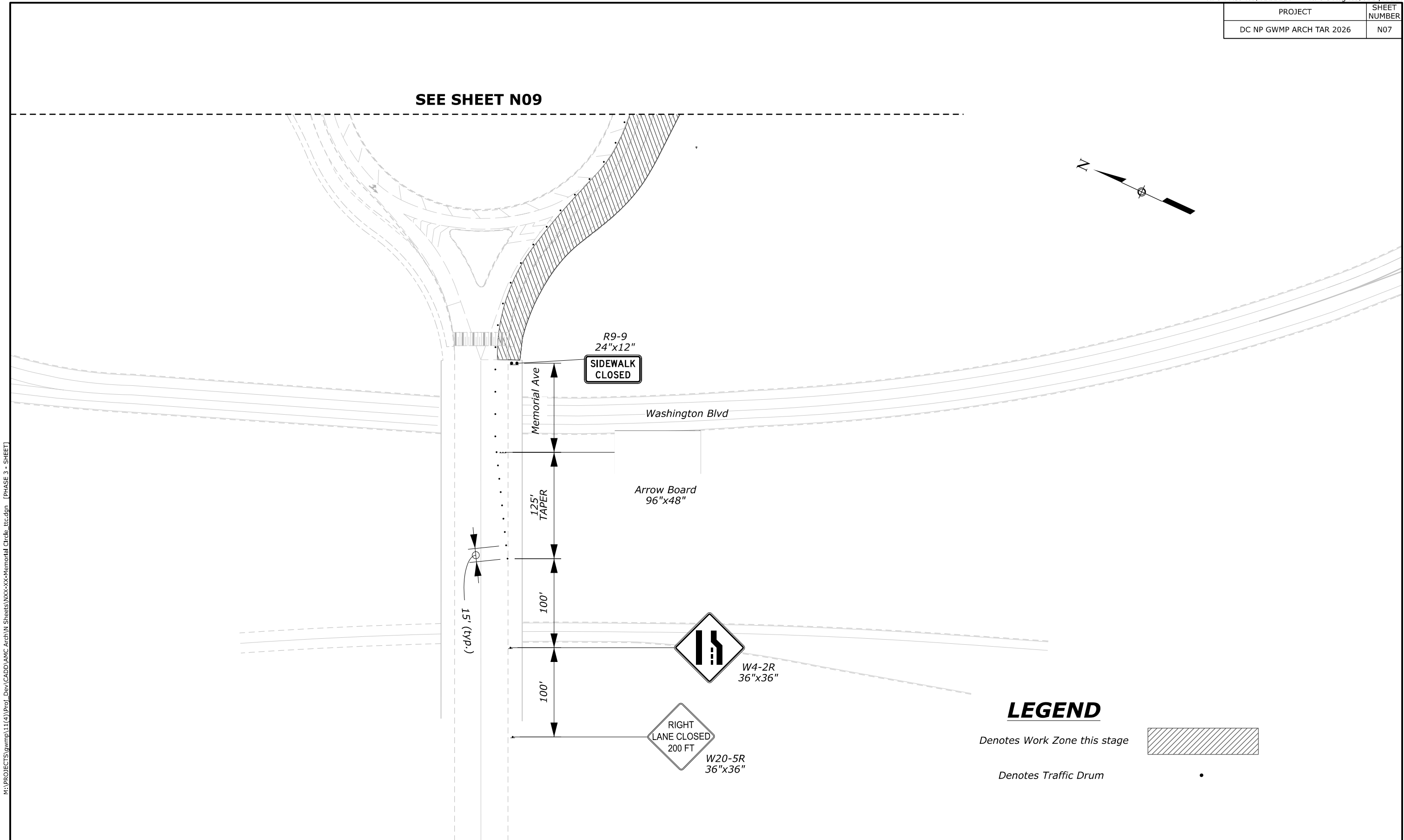
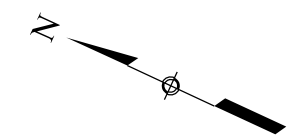
SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
PLAN FOR THE SIGNAL AND
SIDEWALK IMPROVEMENT**
STAGE 2

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PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N07

SEE SHEET N09



LEGEND

- Denotes Work Zone this stage
- Denotes Traffic Drum

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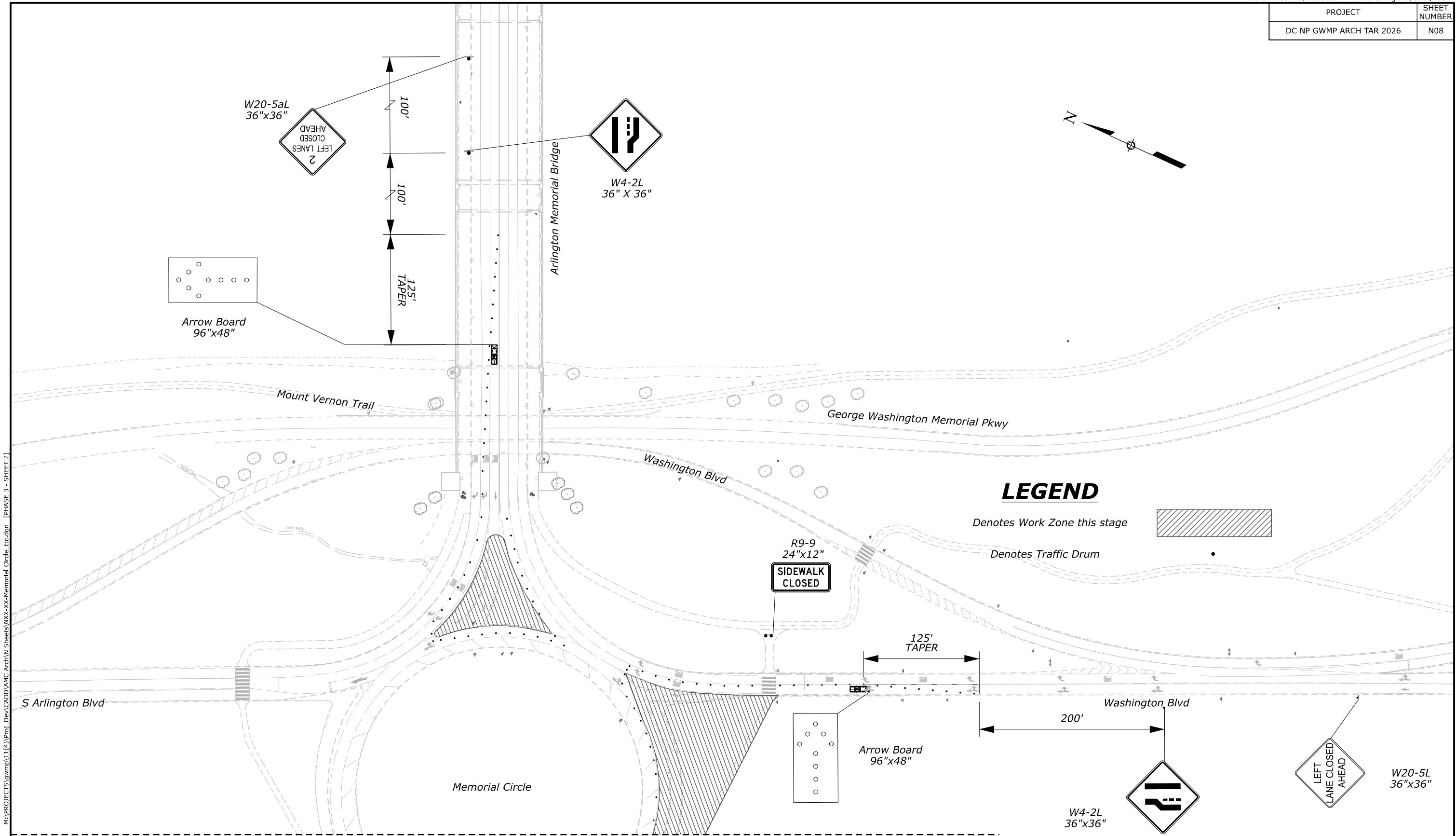
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OFFICE OF FEDERAL LANDS HIGHWAY

SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
PLAN FOR THE SIGNAL AND
SIDEWALK IMPROVEMENT**
STAGE 3

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N08



SEE SHEET N08

NO.	DATE	BY	REVISIONS

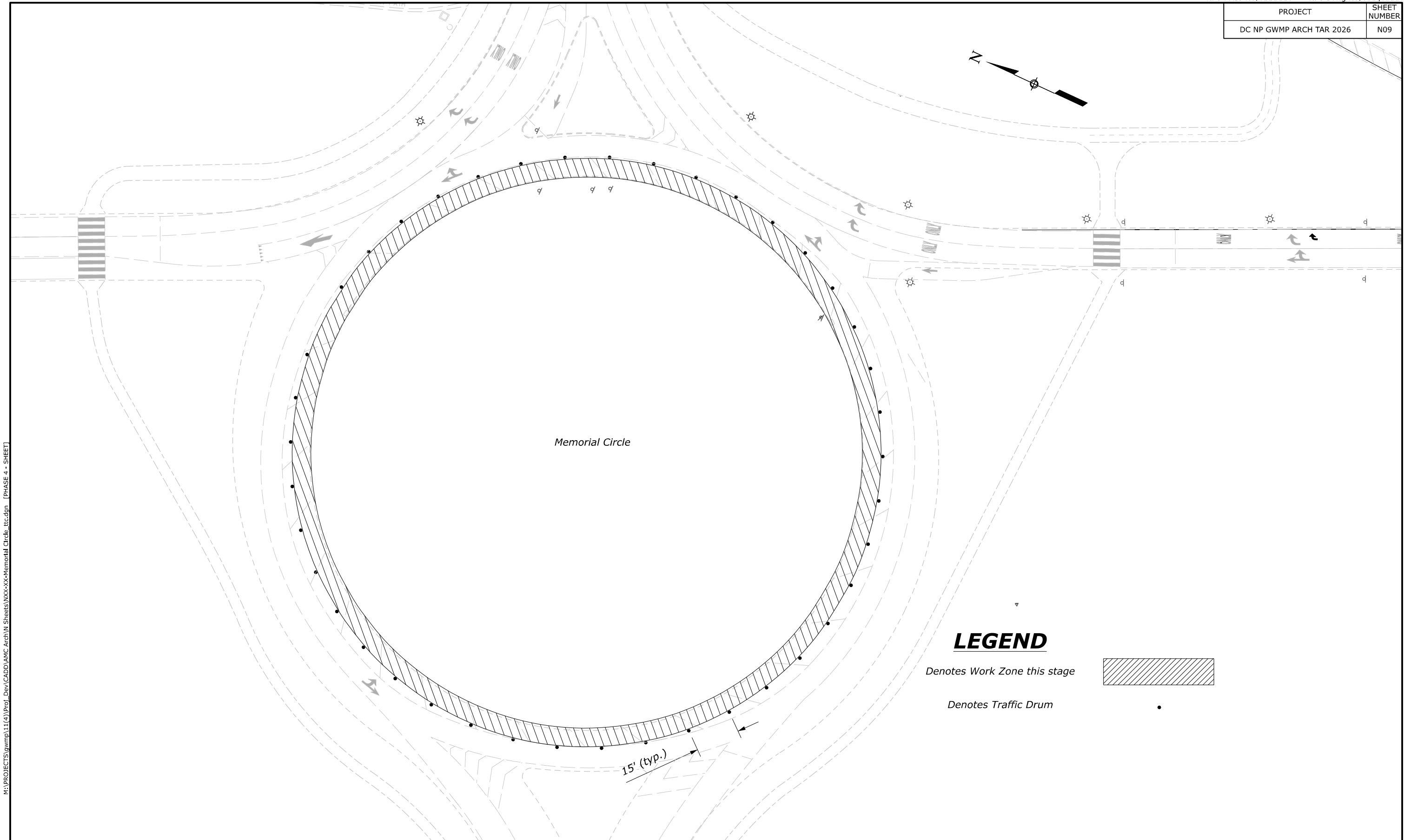
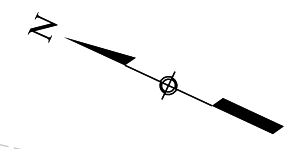
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SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
 PLAN FOR THE SIGNAL AND
 SIDEWALK IMPROVEMENT**
 STAGE 3

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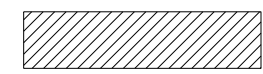


Memorial Circle

15' (typ.)

LEGEND

Denotes Work Zone this stage



Denotes Traffic Drum



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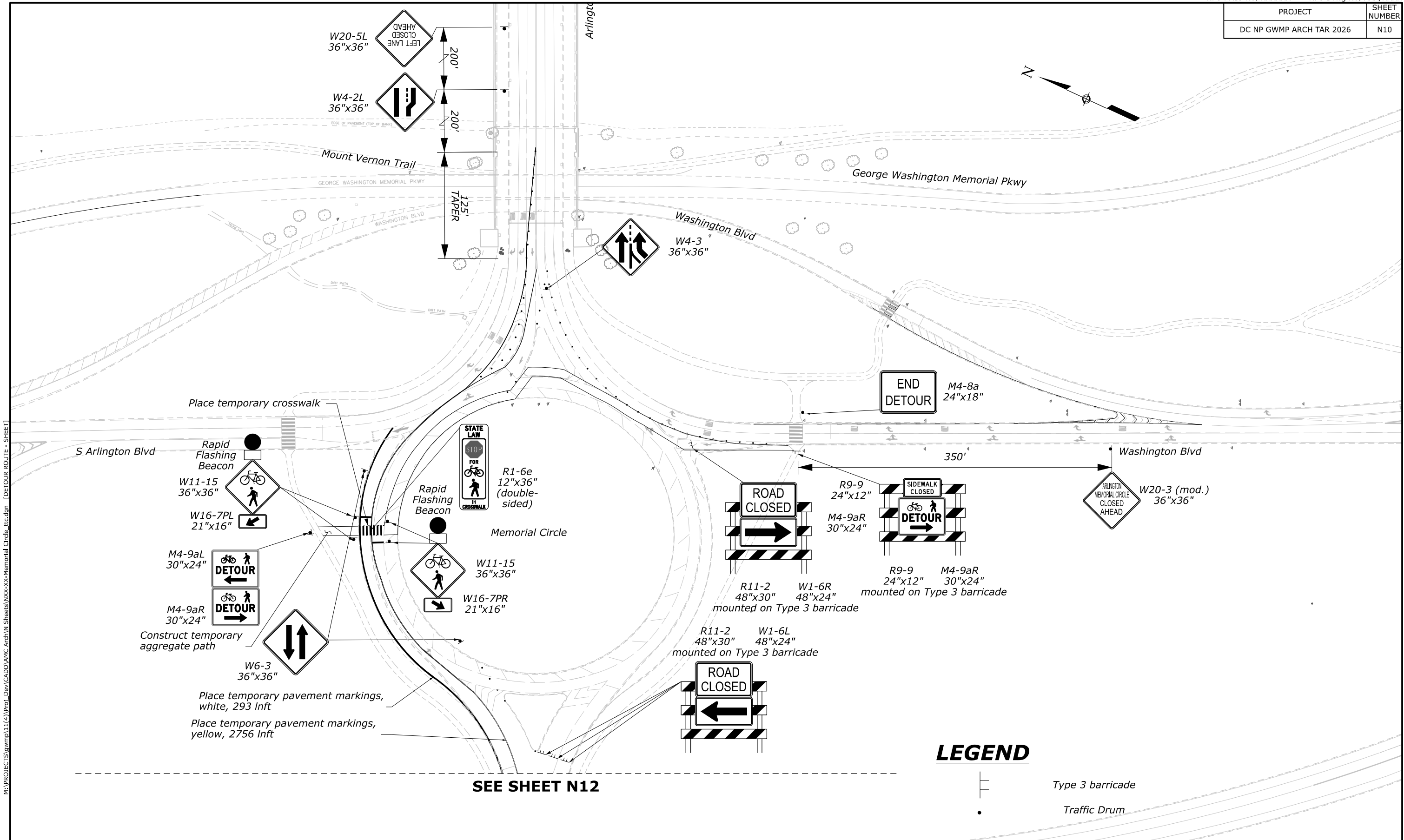
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GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
PLAN FOR THE SIGNAL AND
SIDEWALK IMPROVEMENT**
STAGE 4

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N10



SEE SHEET N12

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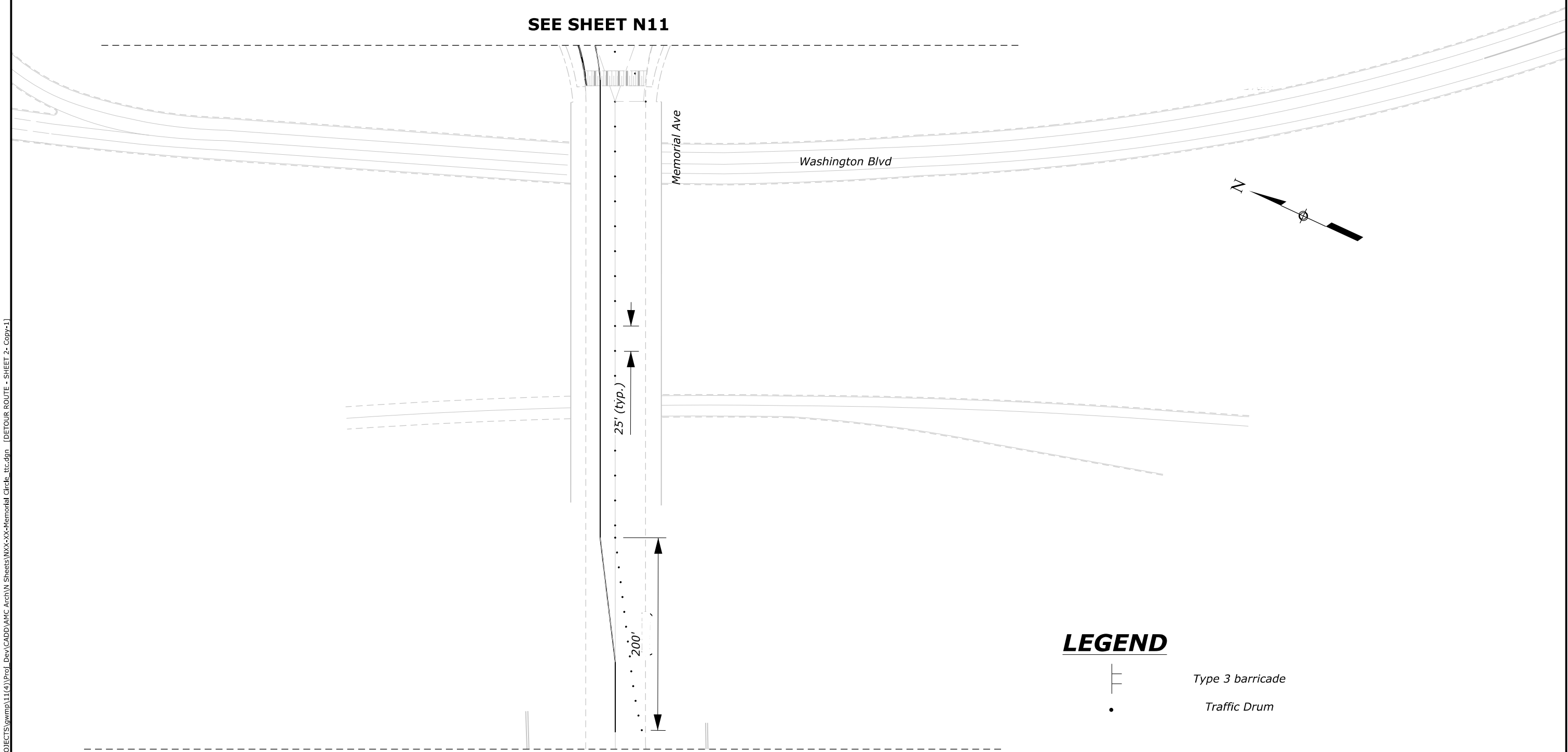
SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
PLAN FOR THE CONSTRUCTION OF
THE ARCH**
DETOUR ROUTE



PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N11

SEE SHEET N11

SEE SHEET N13




LEGEND

-  Type 3 barricade
-  Traffic Drum

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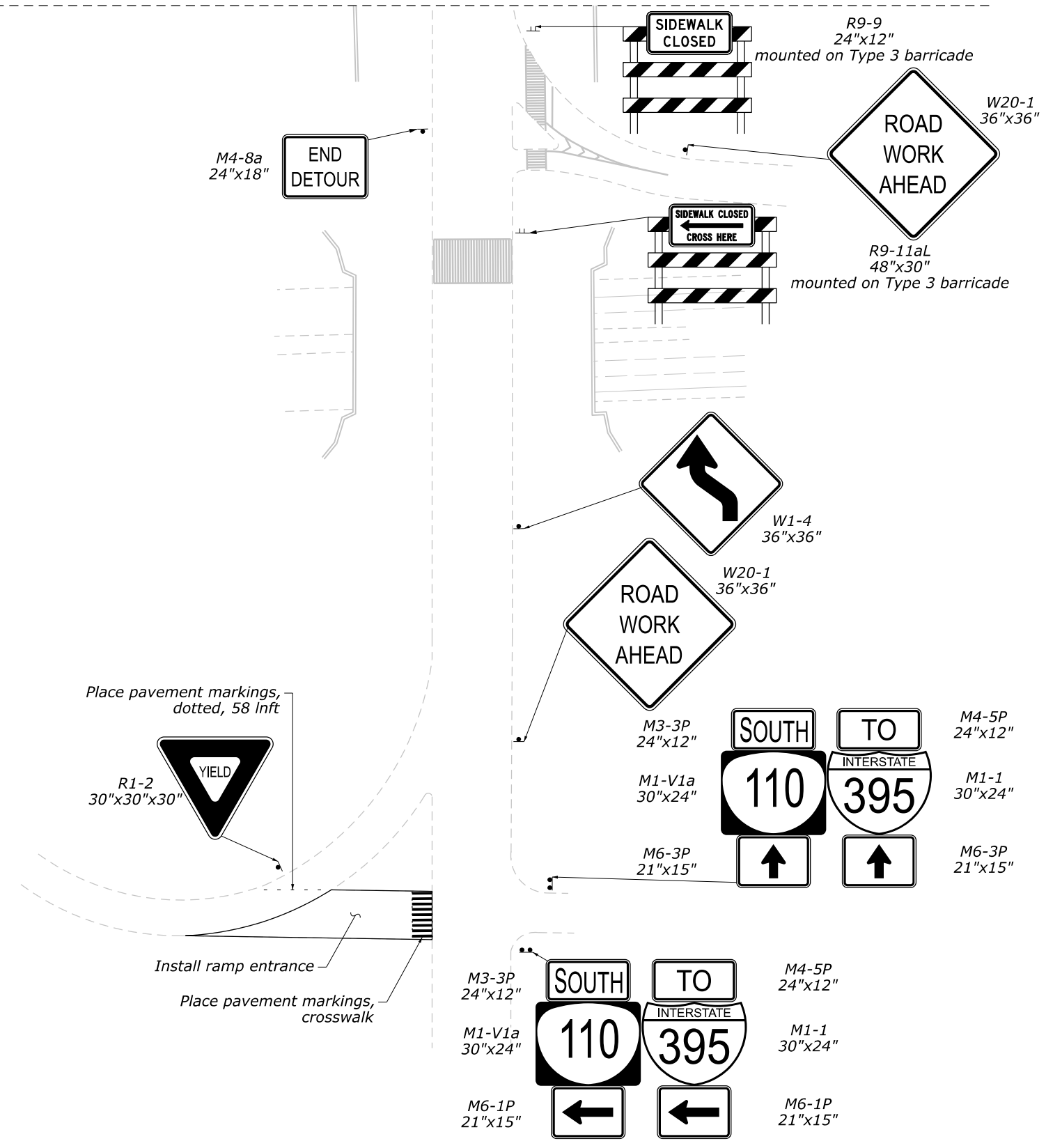
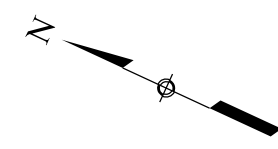


SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
TEMPORARY TRAFFIC CONTROL
PLAN FOR THE CONSTRUCTION OF
THE ARCH
DETOUR ROUTE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	N12

SEE SHEET N12



LEGEND

- Type 3 barricade
- Traffic Drum

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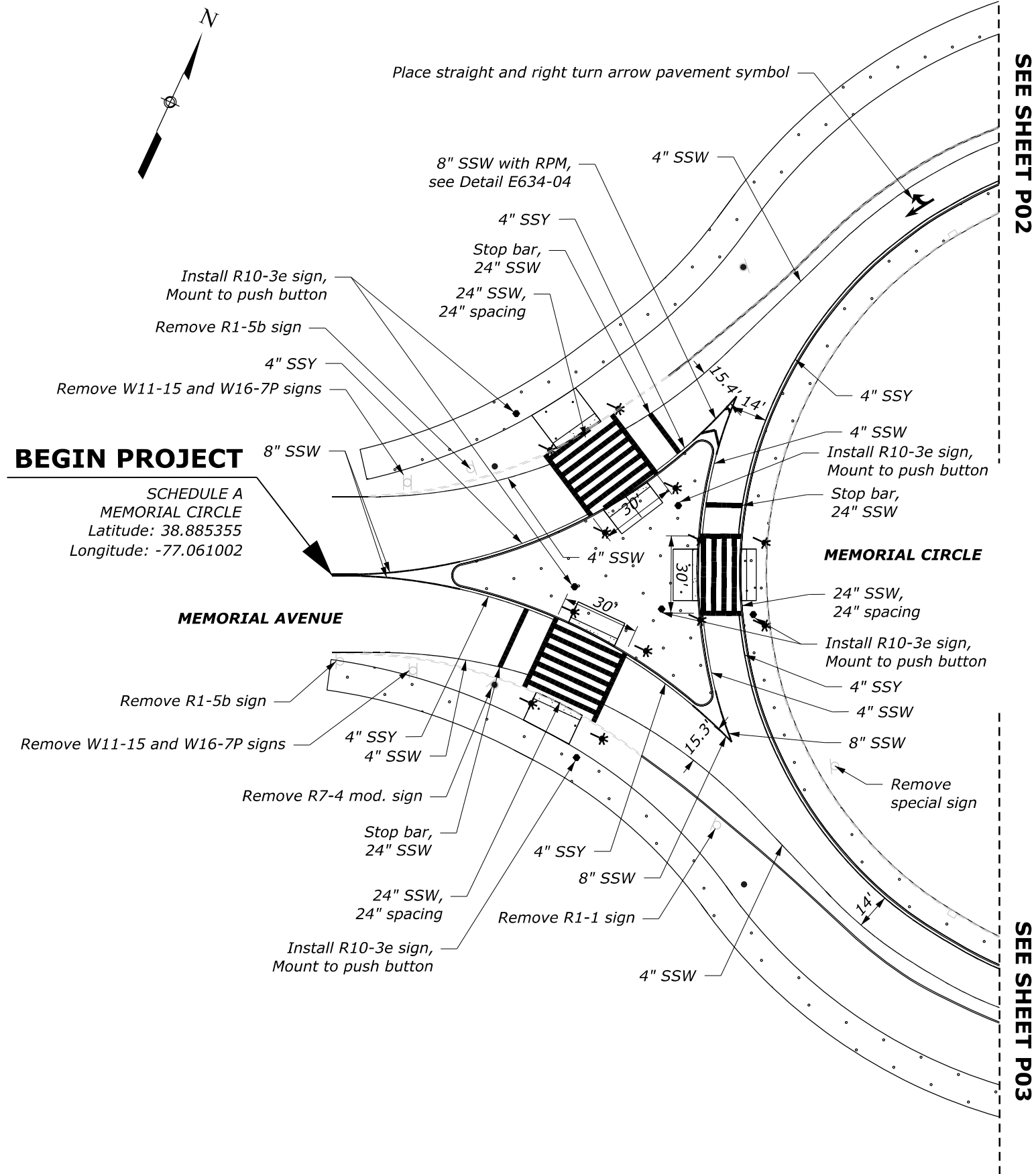
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U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARKWAY
**TEMPORARY TRAFFIC CONTROL
PLAN FOR THE CONSTRUCTION OF
THE ARCH**
DETOUR ROUTE

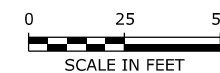
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DC NP GWMP ARCH TAR 2026	P01



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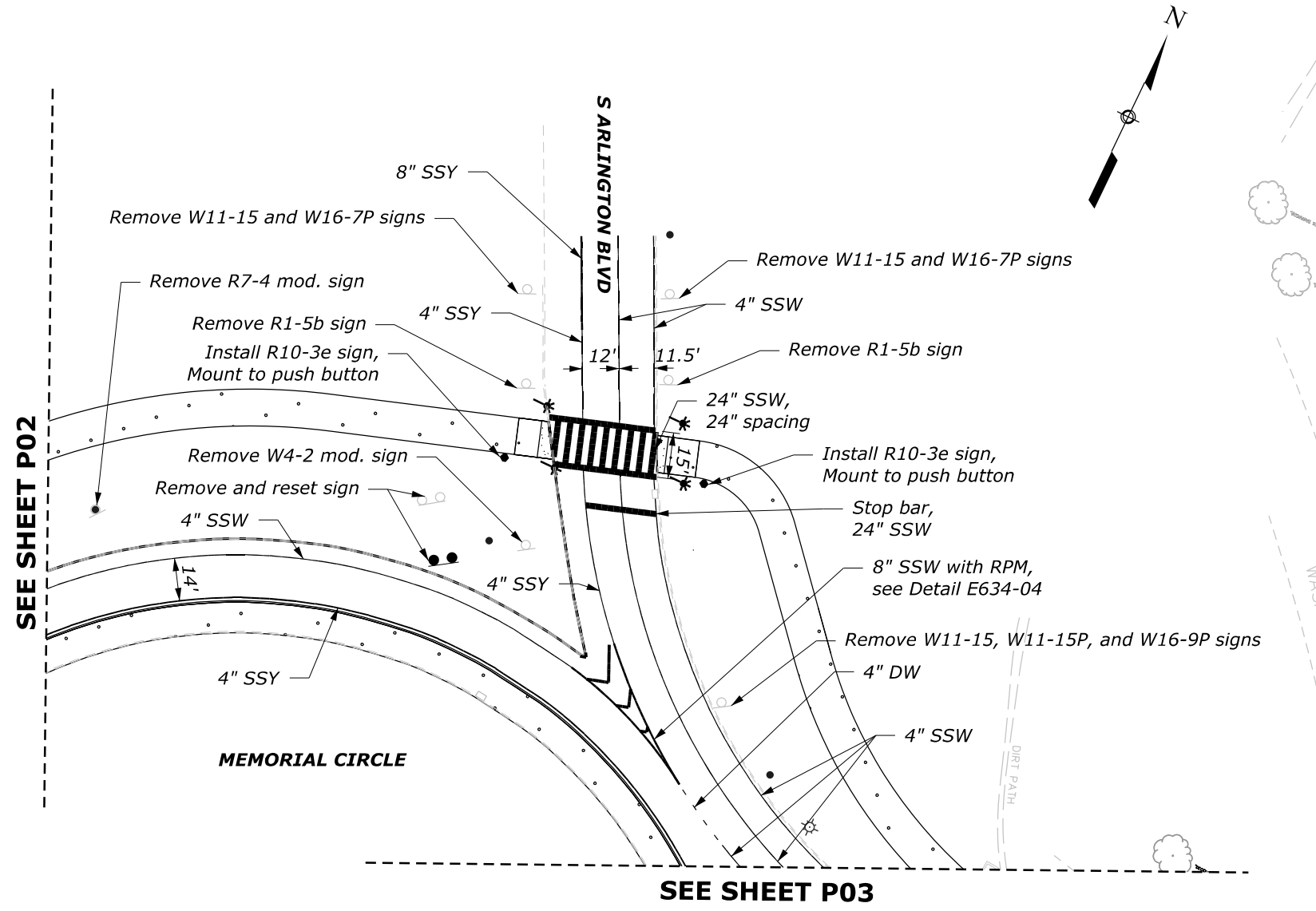
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GEORGE WASHINGTON MEMORIAL PARK
**PAVEMENT MARKING AND
SIGNING PLAN**

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	P02



SEE SHEET P02

SEE SHEET P03

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SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARK
**PAVEMENT MARKING AND
 SIGNING PLAN**

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	P03

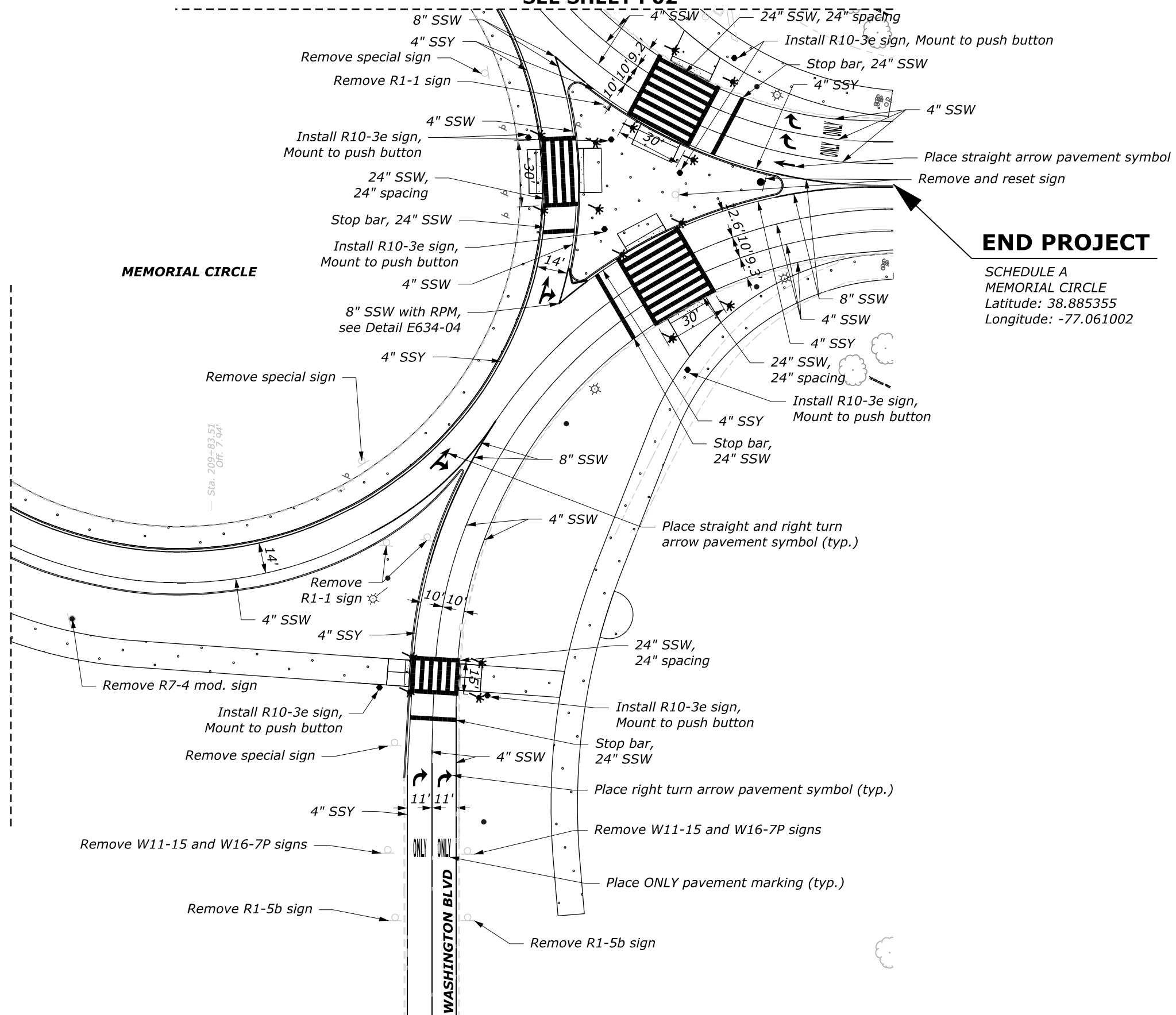
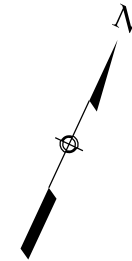
SEE SHEET P02

SEE SHEET P01

MEMORIAL CIRCLE

END PROJECT

SCHEDULE A
MEMORIAL CIRCLE
Latitude: 38.885355
Longitude: -77.061002



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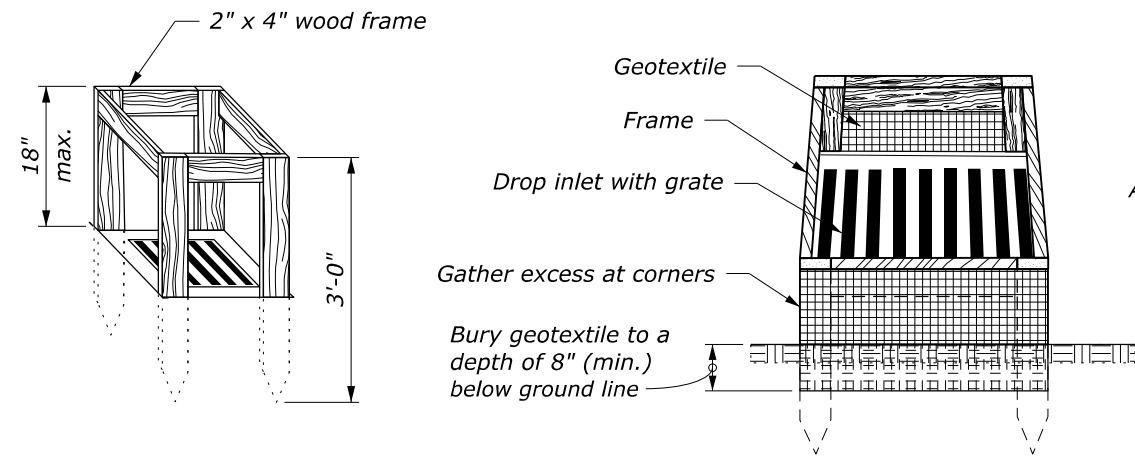
NO.	DATE	BY	REVISIONS

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FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

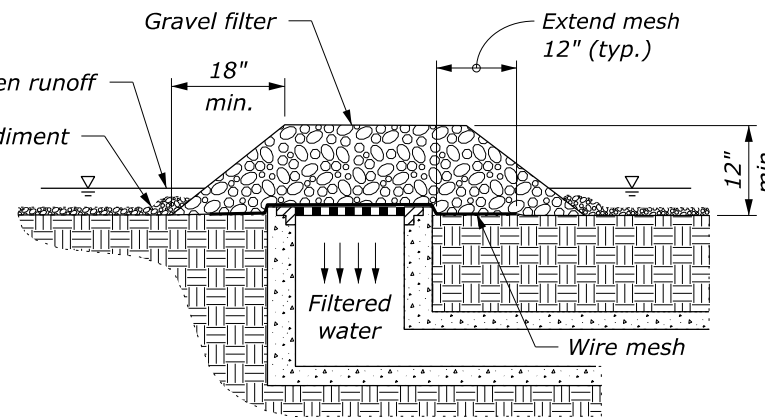
SCALE IN FEET

GEORGE WASHINGTON MEMORIAL PARK
**PAVEMENT MARKING AND
SIGNING PLAN**

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S01



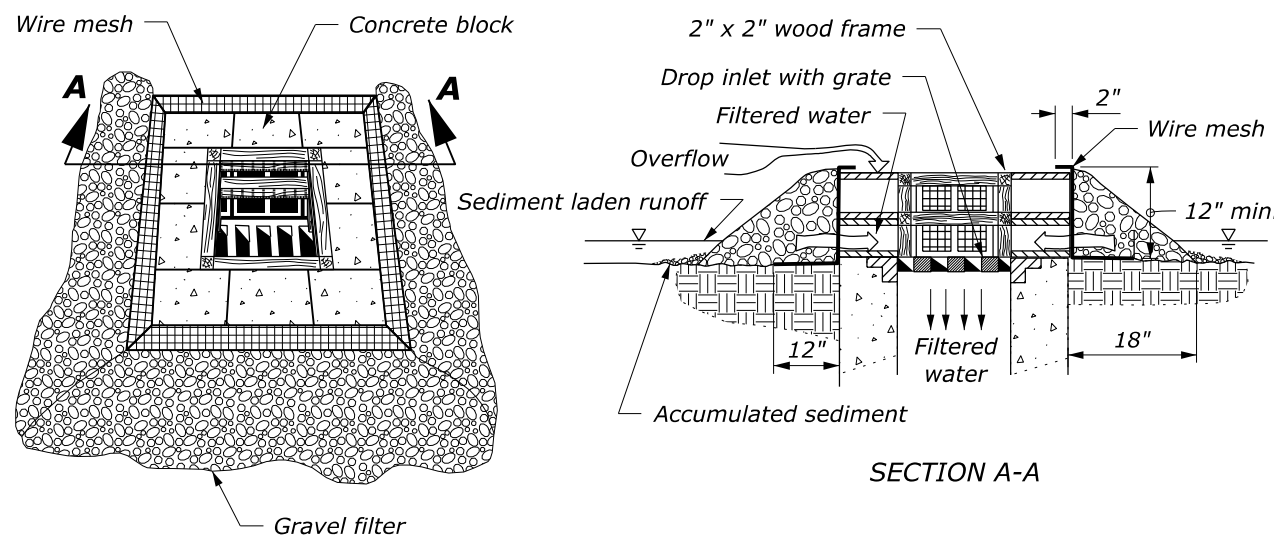
SILT FENCE DROP INLET PROTECTION (TYPE A)



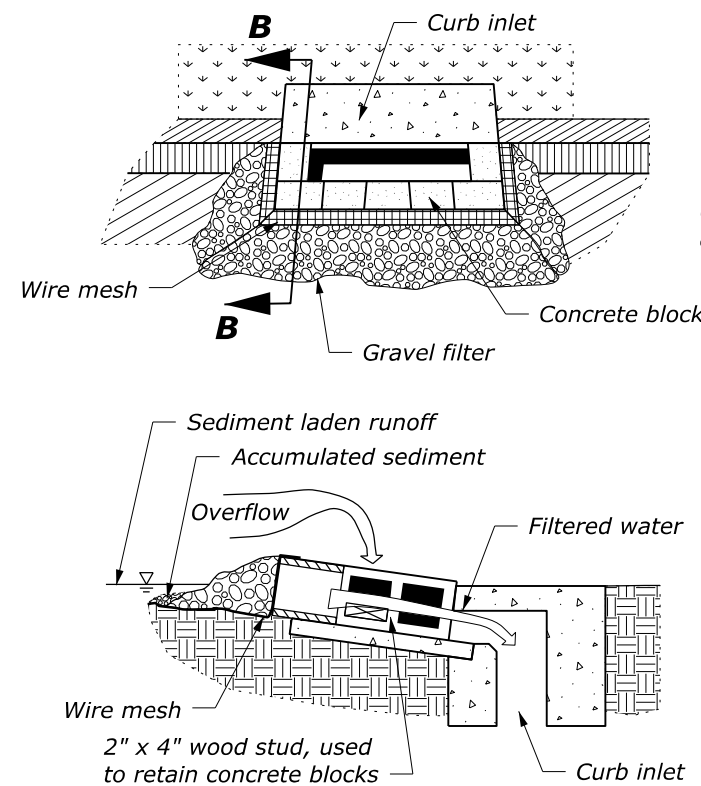
GRAVEL AND WIRE MESH DROP INLET PROTECTION (TYPE B)

NOTE:

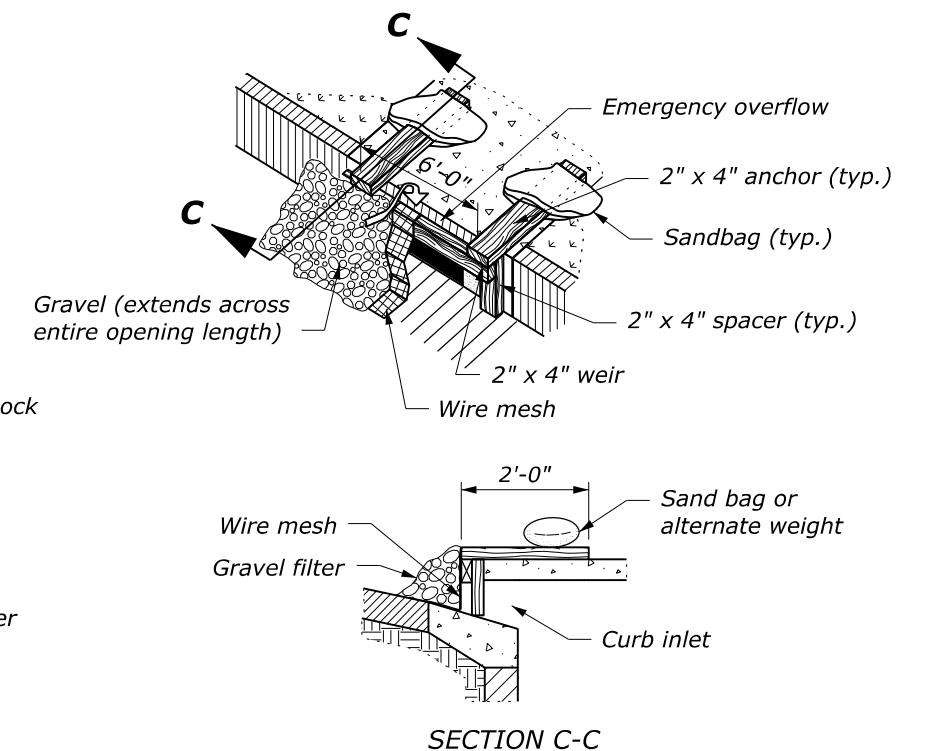
1. For gravel filters use 2" to 3" diameter coarse aggregate.
2. Use wire mesh with 1/2" x 1/2" openings.
3. Use type A inlet protection in sump locations only.
4. Use type B inlet protection only in sump locations where heavy concentrated flows are not expected. Do not use where ponding around the structure might cause inconvenience or damage.
5. Provide silt fence drop inlet protection geotextile conforming to subsection 713.16(a).



BLOCK AND GRAVEL DROP INLET PROTECTION (TYPE C)



CURB INLET PROTECTION, BLOCK AND GRAVEL (TYPE D)



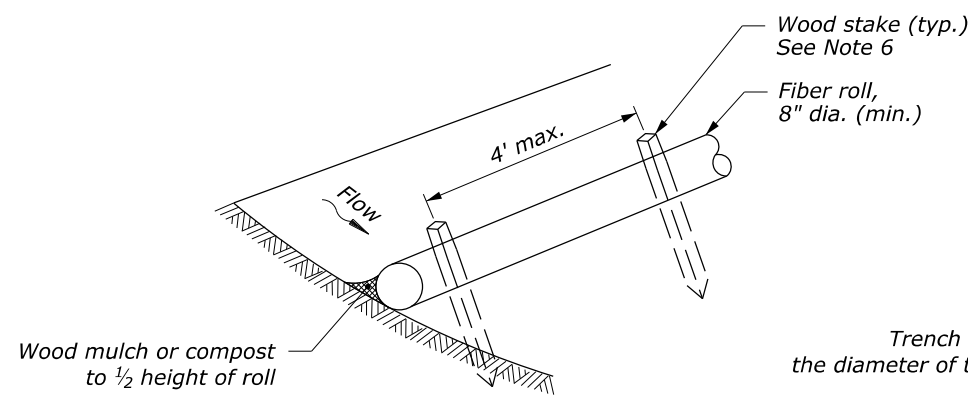
CURB INLET PROTECTION, WOODEN WEIR (TYPE E)

M:\PROJECTS\gwmp\1.1(4)\Prof_Dev\CADD\AMC Arch\Std\Std157-2.dgn [Std:157-2] 21 May 2026 1:49 PM

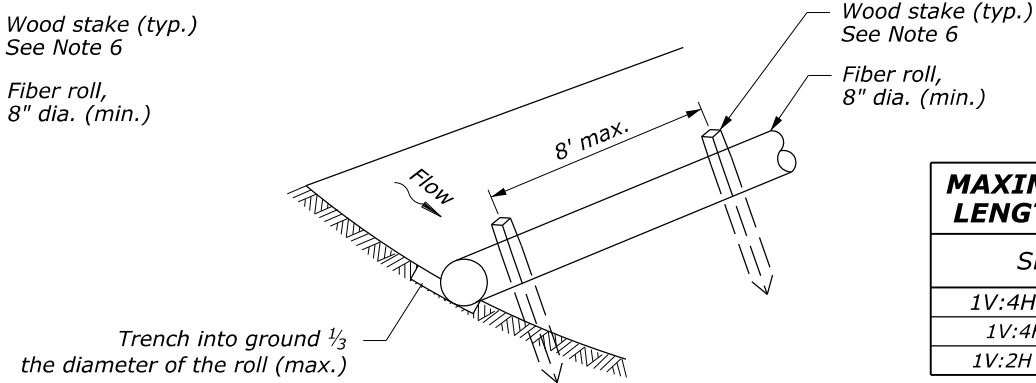
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	FLH STANDARD 157-2
TEMPORARY INLET PROTECTION	SPECIFICATION FP-24, FP-14 APPROVED FOR USE 1/2024

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S02



UNTRENCHED INSTALLATION

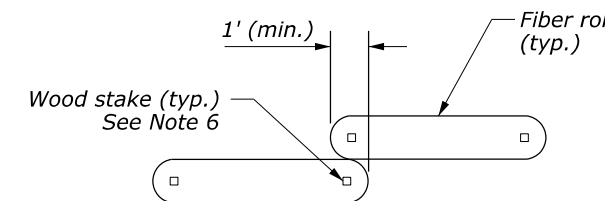


ENTRENCHED INSTALLATION

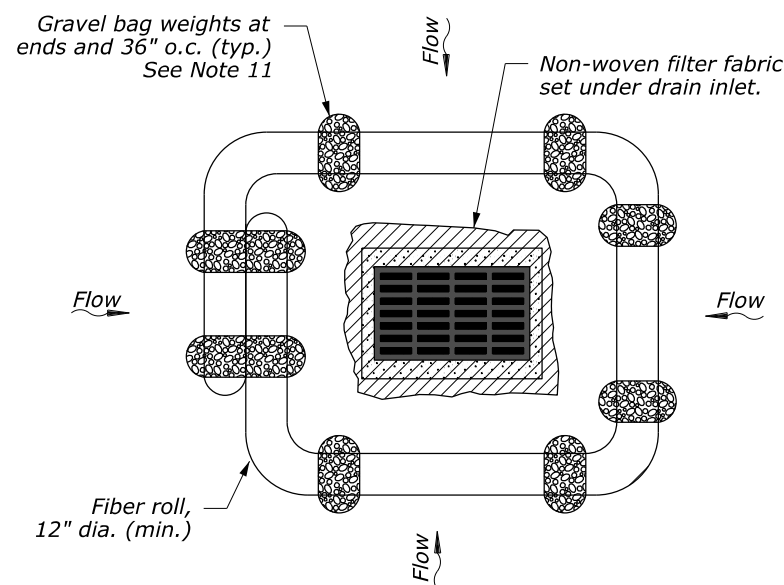
MAXIMUM ALLOWABLE SLOPE LENGTH ABOVE FIBER ROLLS

SLOPE	MAX INTERVAL
1V:4H or Flatter	20 ft
1V:4H - 1V:2H	15 ft
1V:2H or Steeper	10 ft

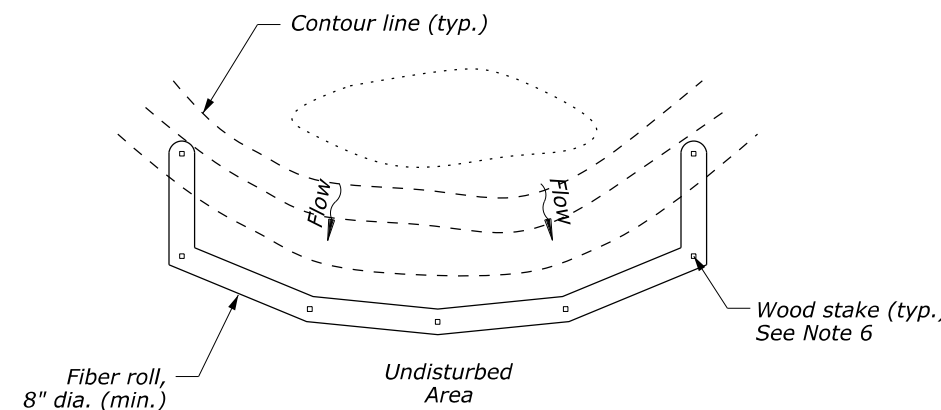
FIBER ROLL ISOMETRIC VIEW



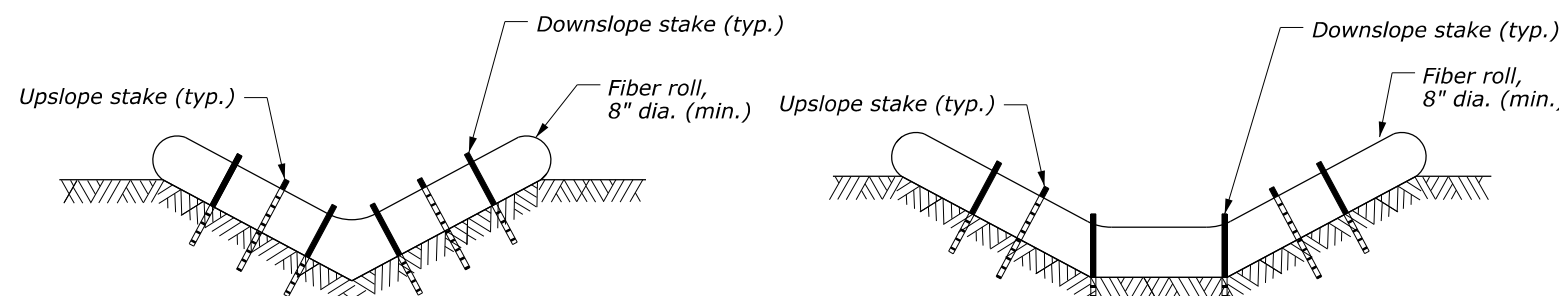
FIBER ROLL OVERLAP



INLET PROTECTION



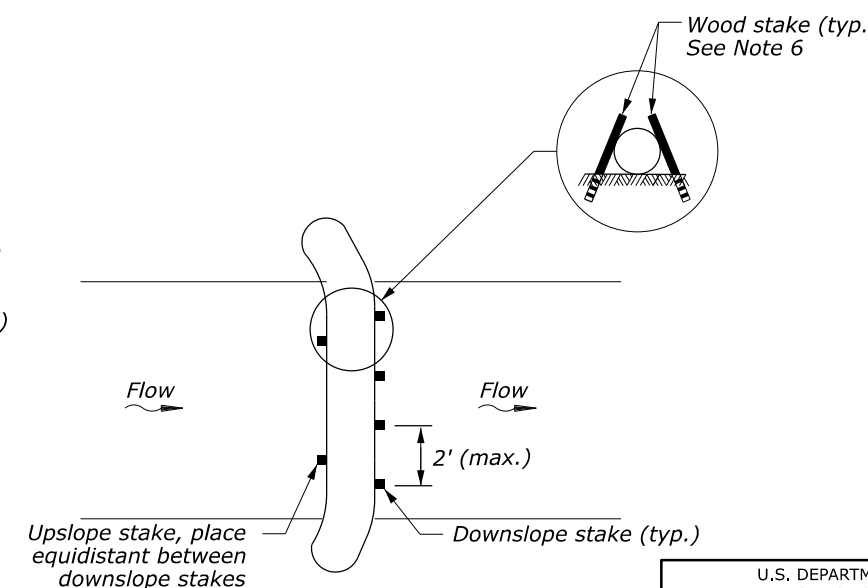
PLAN VIEW



V-DITCH

TRAPEZOIDAL DITCH

FIBER ROLL CHECK DAM CROSS-SECTIONS



FIBER ROLL CHECK DAM PLAN VIEW

NO SCALE

NOTES:

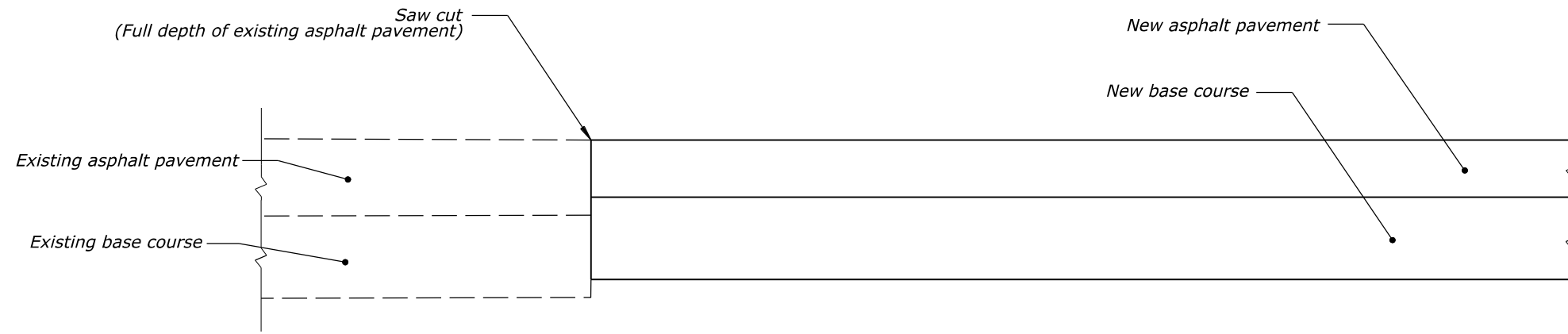
1. Provide fiber rolls meeting the requirements of Subsection 713.12.
2. Use fiber rolls with a minimum 8-inch diameter. For drain inlet protection, use fiber rolls with a minimum 12-inch diameter.
3. Prior to installation, clear all obstructions including rocks, clods, and debris greater than 1-inch that may interfere with proper function of the fiber roll.
4. For untrenched installation, blow or hand place mulch or compost on uphill side of the slope along the fiber roll.
5. Place fiber rolls on level grade and parallel to contours. Extend both ends of the fiber roll at least 8 feet upslope at 45 degrees to the main alignment.
6. Use wood stakes with a minimum nominal cross section of 2- by 2-inch and of sufficient length to attain a minimum of 12 inches into the ground and 3 inches protruding above the roll. Provide wood stakes meeting the requirements of Subsection 713.08(a).
7. When more than one fiber roll is needed, overlap ends 12 inches minimum and stake.
8. Remove sediment deposits when accumulation is one-half the height of the exposed fiber roll.
9. Replace biodegradable fiber rolls 6 months after installation and photodegradable fiber rolls 12 months after installation.
10. When fiber rolls are required on paved surfaces, use gravel bags to support them as shown on the inlet protection view.
11. Provide gravel bag weights meeting the requirements of Subsection 713.13.

FIBER ROLL CHECK DAM SPACING TABLE

DITCH GRADE *	CHECK DAM SPACING (S)**	
	8" HIGH	12" HIGH
2%	33'	50'
3%	22'	33'
4%	16'	25'
5%	13'	20'

* Do not install check dams on grades below 2%
** Adjust spacing as approved based on site conditions

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S03



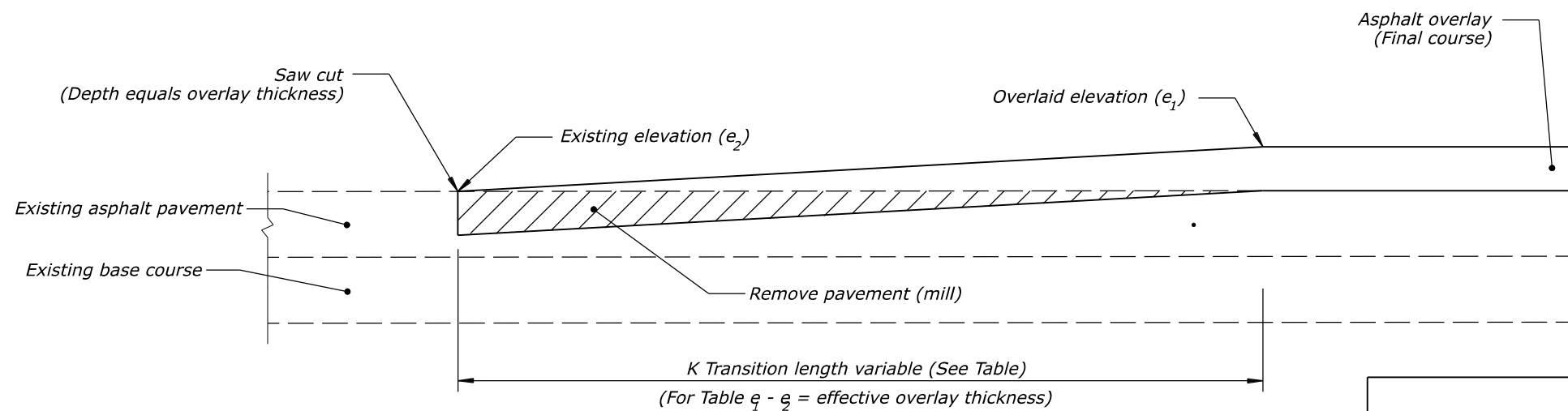
NEW PAVEMENT

NOTE:

Provide a transition length in feet that is not less than the value obtained by multiplying the effective overlay thickness in inches (difference between the existing and overlaid elevations) by the K value from the Table for the posted speed of the roadway.

Use $K*[e_1 - e_2] = T$, or $K*[d_1 - d_2] = T$ (whichever applies), to obtain the transition length. (Minimum transition length=30 feet)

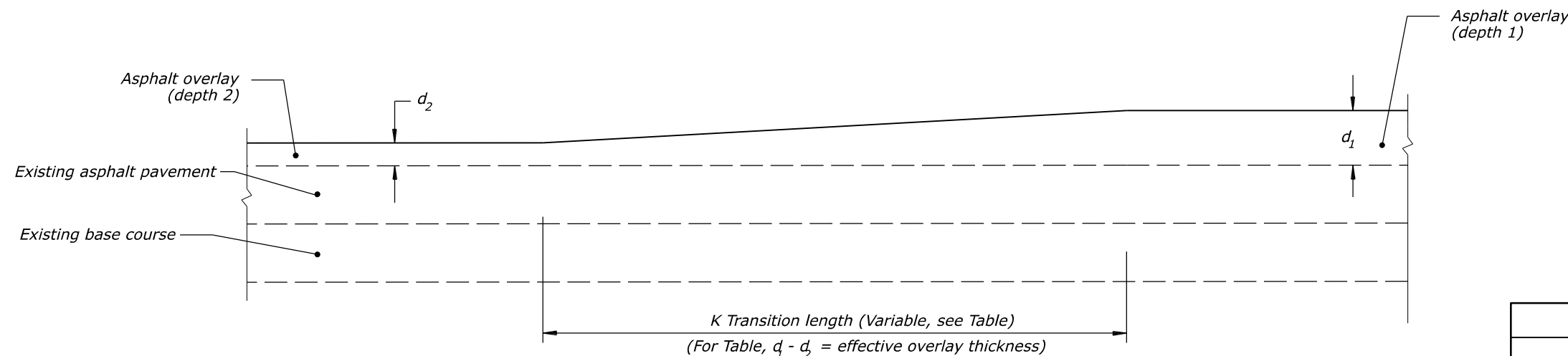
Example :
If the posted speed is 55 MPH
Effective overlay thickness = 2 inches
Then the minimum transition length = 2 inches x 42.5 ft./in. = 85 feet.



OVERLAY

K VALUE TABLE (ft/in)										
POSTED SPEED (MPH) *	30	35	40	45	50	55	60	65	70	75
K	30	32.5	35	37.5	40	42.5	45	47.5	50	52.5

* Use a K Value of 30 for speeds less than 30 MPH.



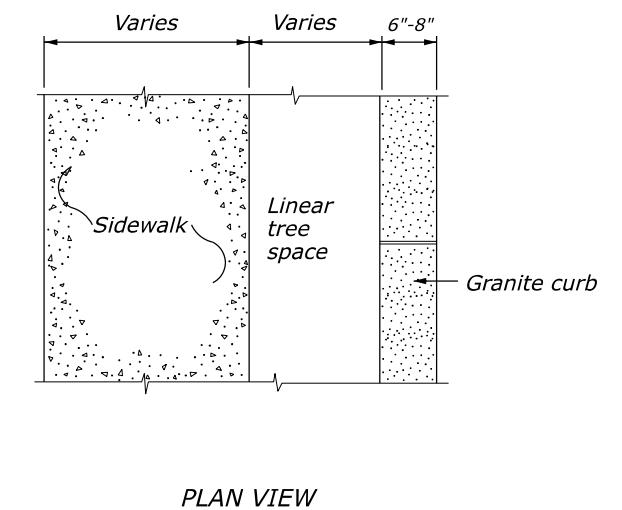
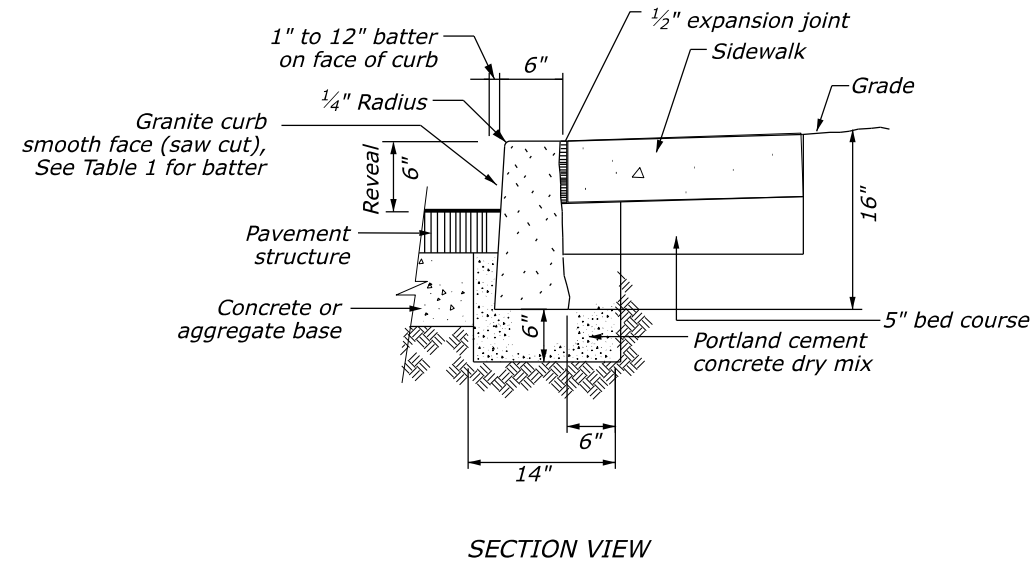
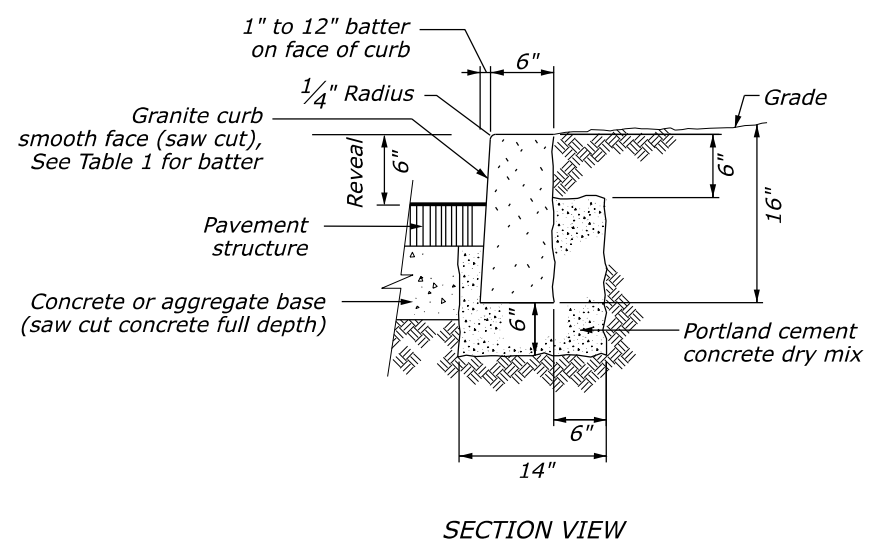
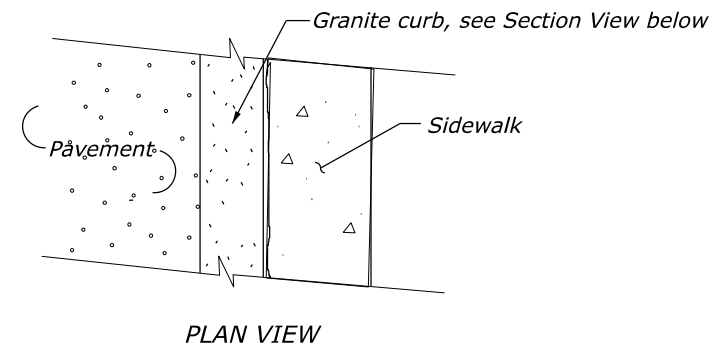
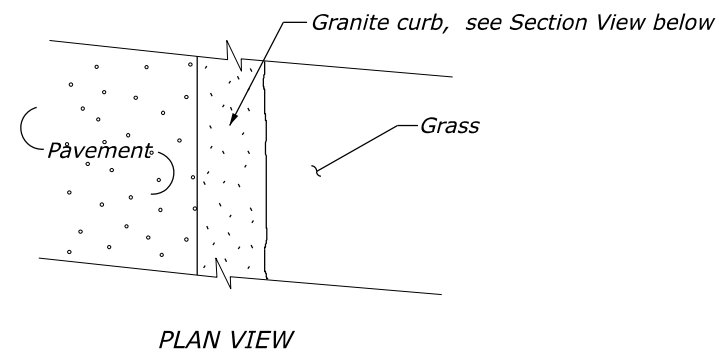
OVERLAY - DEPTH TRANSITIONS

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E401-01
PAVEMENT TRANSITIONS	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 05/2024

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S04

NOTE:
Place transverse expansion joints at intervals of not more than 60 feet for curbs and sidewalks.



STONE CURB TYPE 1, 16" DEPTH (GRANITE TYPE A OR B) (WITHOUT SIDEWALK)

STONE CURB TYPE 1, 16" DEPTH (GRANITE TYPE A OR B) (WITH SIDEWALK)

STONE CURB TYPE 1, 16" DEPTH (GRANITE TYPE A OR B) (WITH SIDEWALK AND LINEAR TREE SPACE)

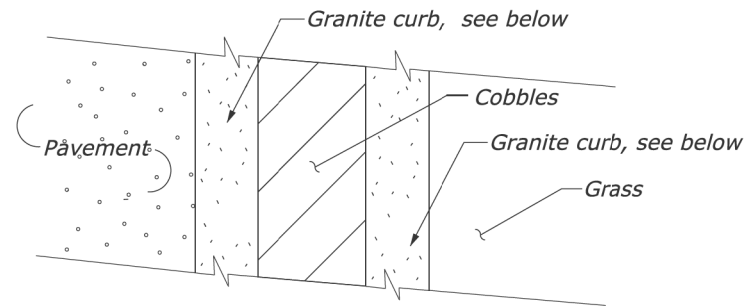
TABLE 1

BATTER FOR GRANITE CURB	
TYPE	BATTER (H:V)
A	1:12
B	3/4:10

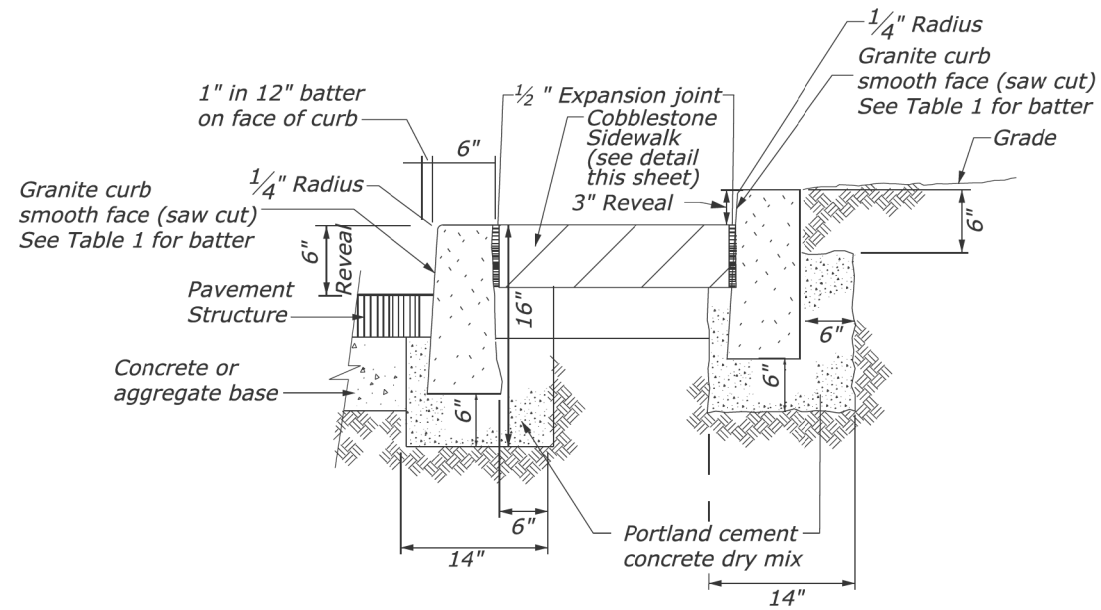
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E609-02
GRANITE CURBS	SPECIFICATION FP-24. FP-14
	APPROVED FOR USE 05/2024

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S05

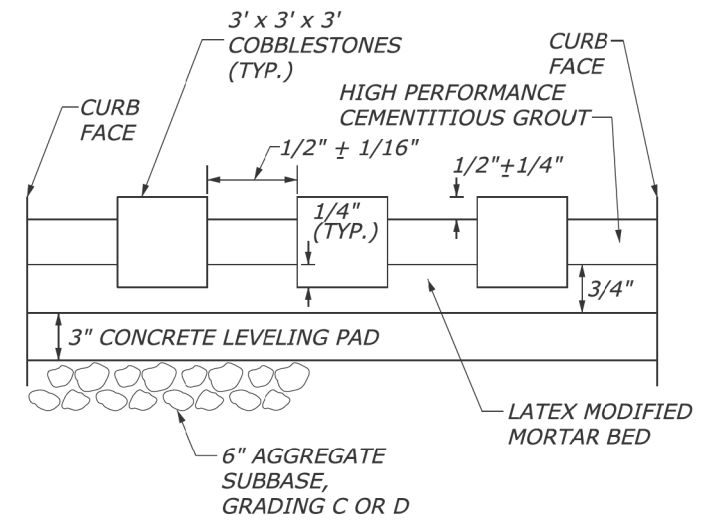


PLAN



SECTION
(WITH COBBLES)

STONE CURB TYPE 1, 16" DEPTH (GRANITE TYPE A OR B)



COBBLESTONE SIDEWALK DETAIL
(NTS)

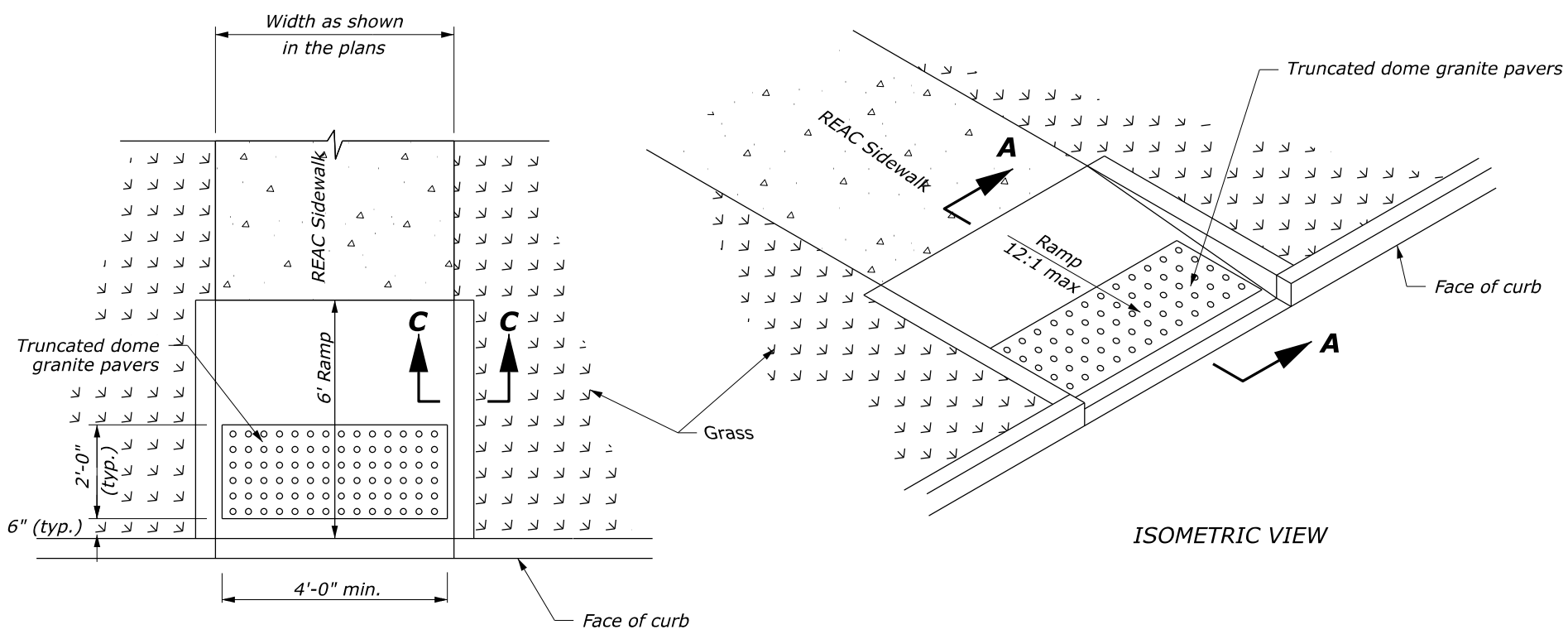
NOTE:

Place transverse expansion joints at intervals of not more than 60 feet for curbs and sidewalks.

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E609-02A
EXPOSED AGGREGATE CONCRETE SIDEWALK	

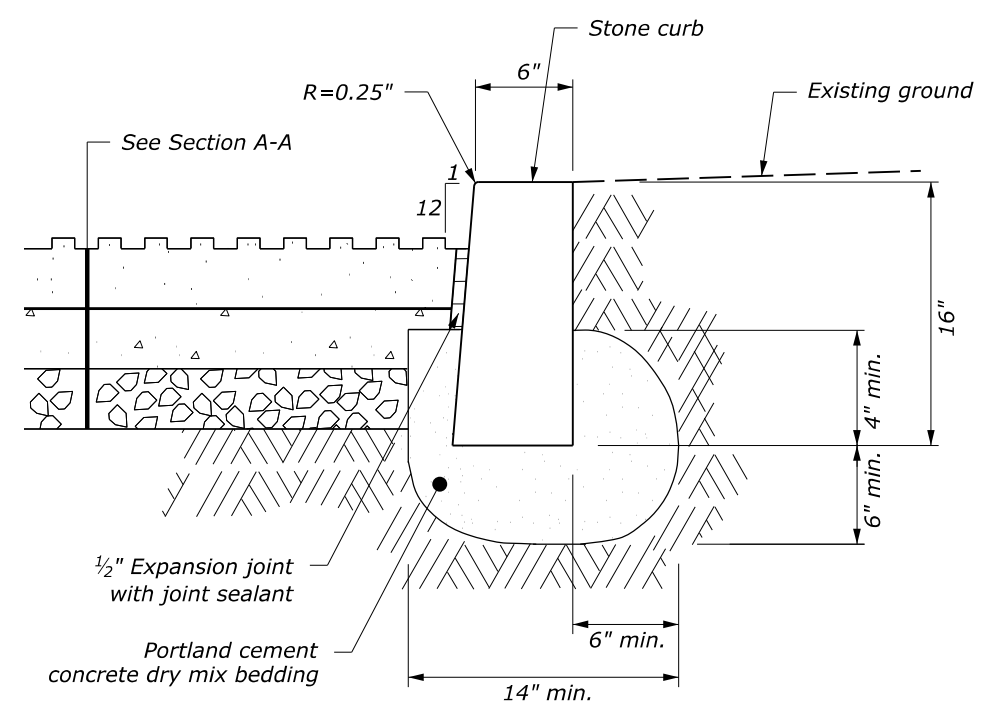
PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S06



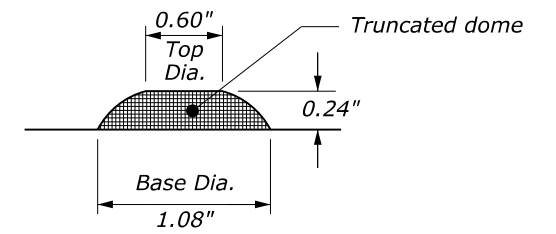
PLAN VIEW

TYPE C RAMP

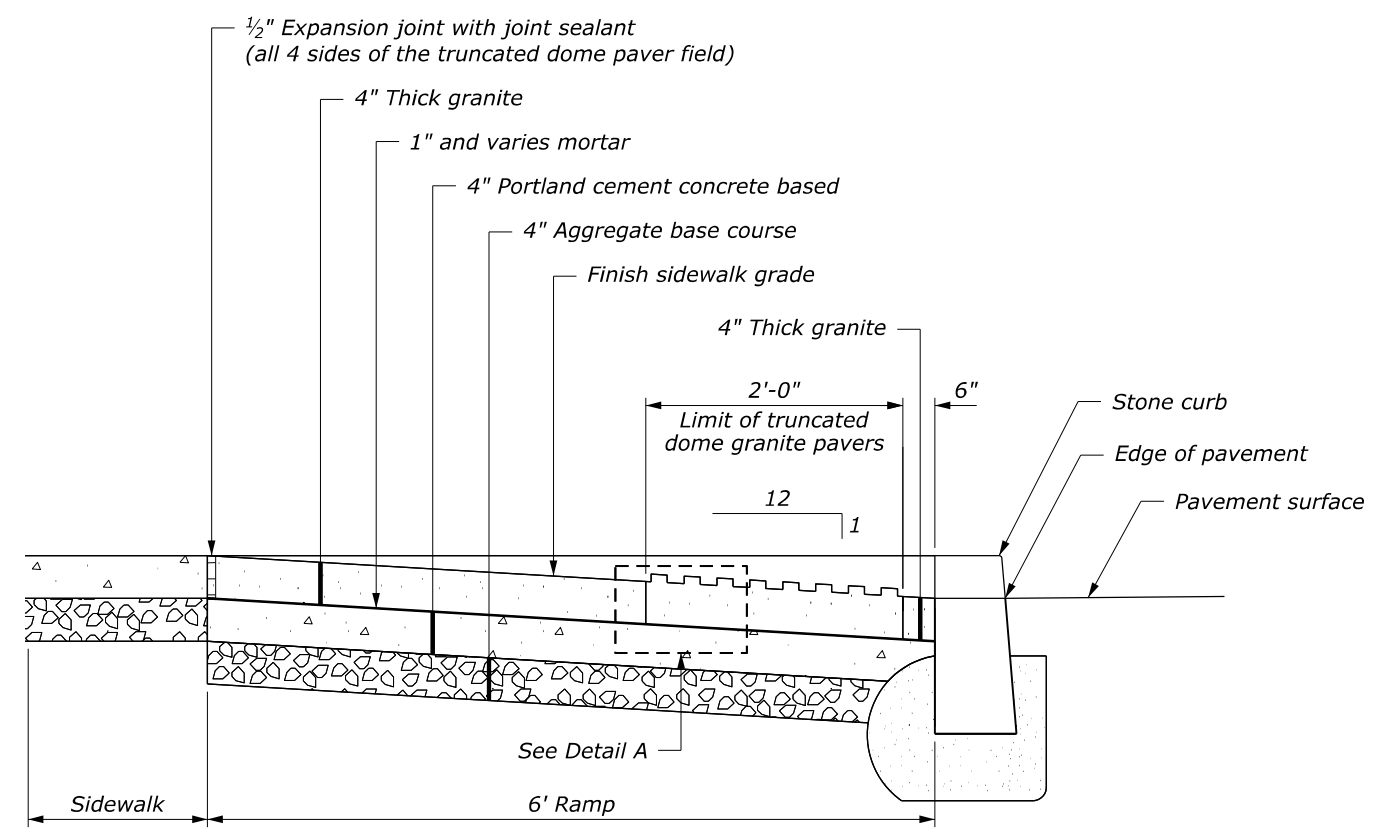
ISOMETRIC VIEW



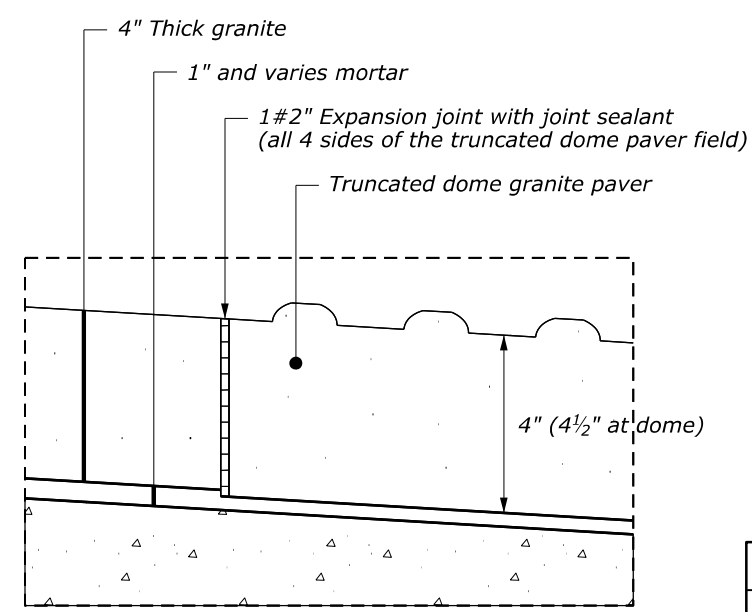
SECTION C-C



ELEVATION VIEW

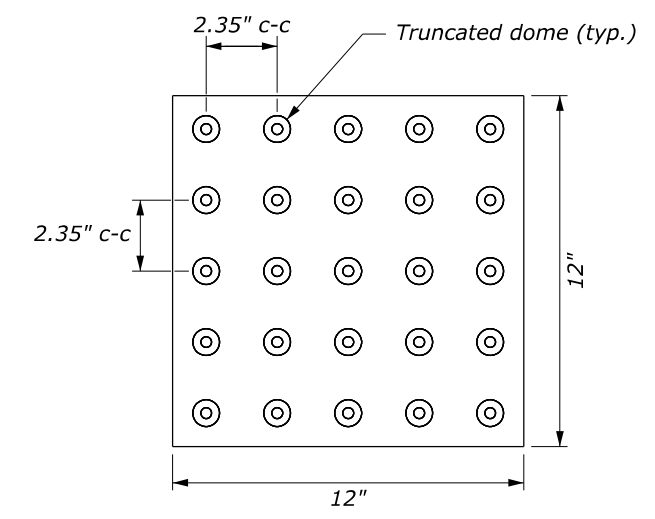


SECTION A-A



DETAIL A

NO SCALE



PLAN VIEW

TRUNCATED DOMES PAVERS

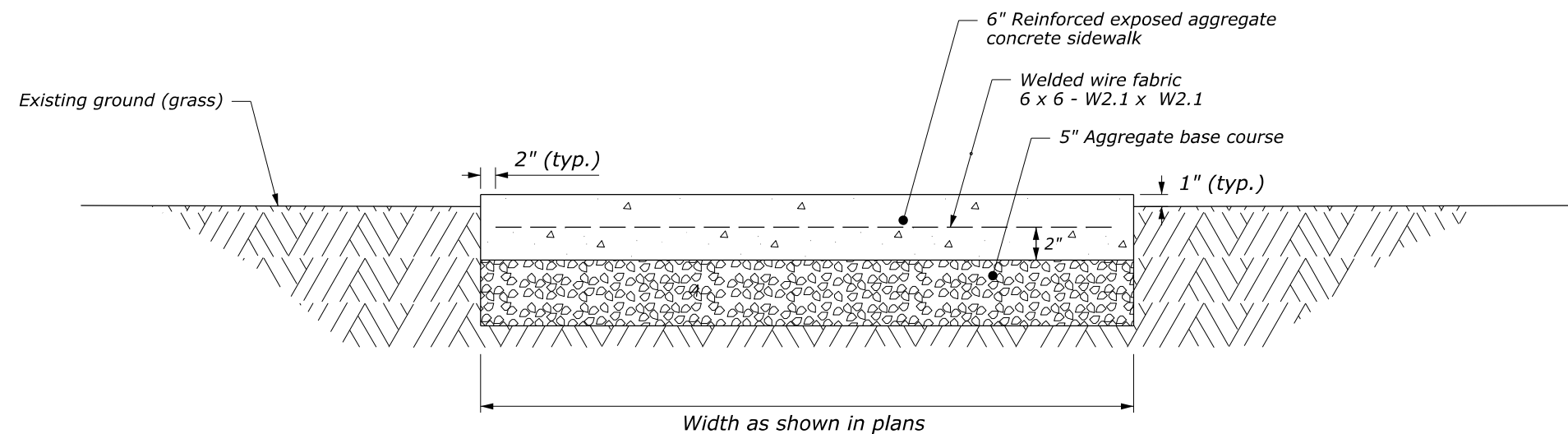
U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E610-A
STONE ACCESSIBILITY RAMP CURB RETURN	

M:\PROJECTS\gwmp\11(4)\Prof_Dev\CADD\AMC Arch\Stg-Det\1610A_Accessibility-Ramp.dgn [615-A] 21 May 2026 2:40 PM

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S07

NOTES:

1. Place 1/2-inch transverse expansion joints as directed.
2. Place 1/4-inch wide dummy joints to match the adjacent curb or at intervals equal to the width as directed. Place dummy joints to 1/3-inch depth of the sidewalk.
3. Finish sidewalks according to Subsection 615.04(b).
4. Place construction joints around all structures in the sidewalk.
5. Place welded wire fabric on chairs.



SIDEWALK WITHOUT CURB

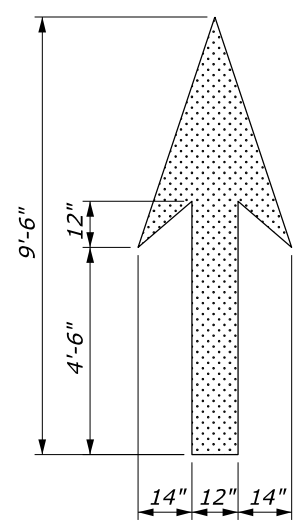
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E610-B
EXPOSED AGGREGATE CONCRETE SIDEWALK	

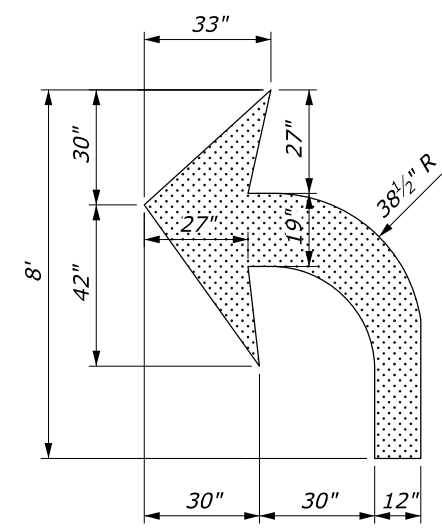
PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S08

NOTES:

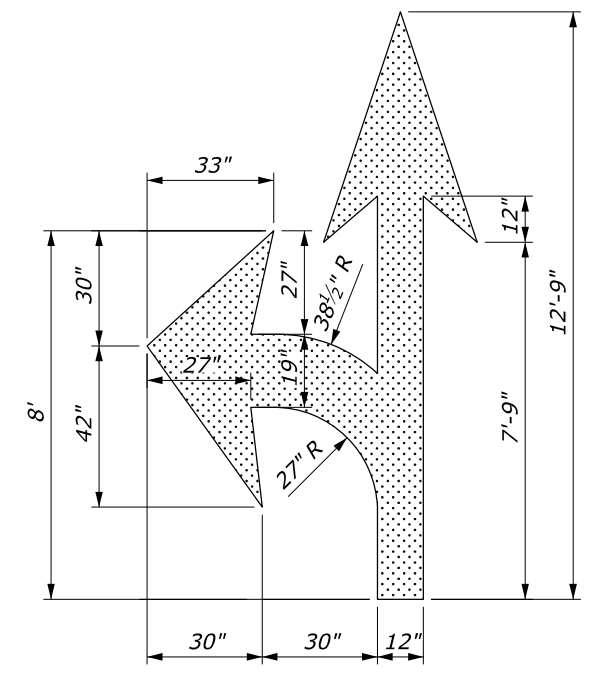
- Place pavement word and symbol markings in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), latest edition.
- Place all letters, numerals, and symbols in accordance with the "Standard Highway Signs", latest edition.
- Provide Accessibility Symbol marking as indicated in the plans or directed otherwise by the CO in one of the following configurations:
 - (a) w/ Symbol only; or
 - (b) w/ Symbol, blue background, and white border



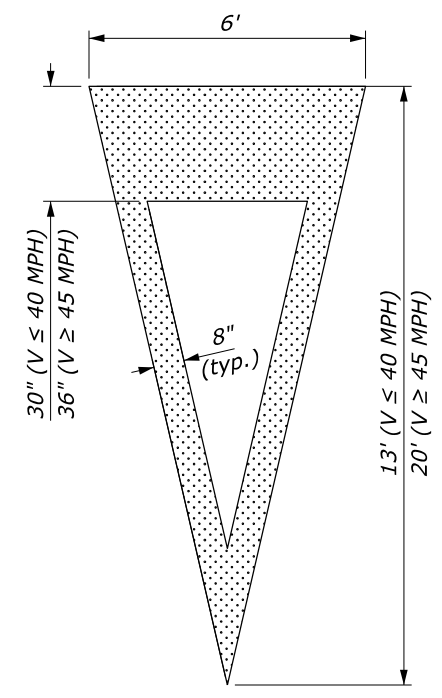
STRAIGHT ARROW SYMBOL



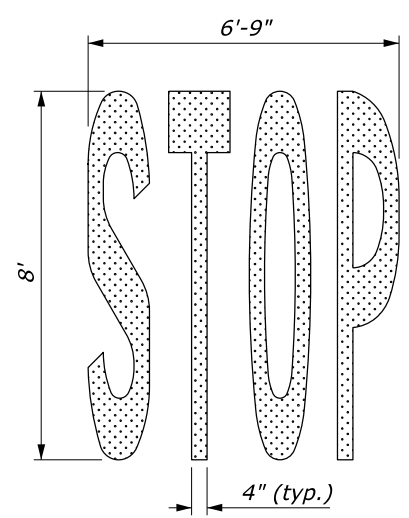
TURN ARROW SYMBOL



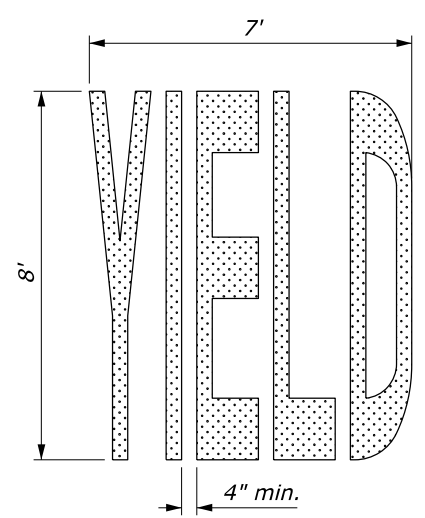
STRAIGHT/TURN ARROW COMBINATION SYMBOL



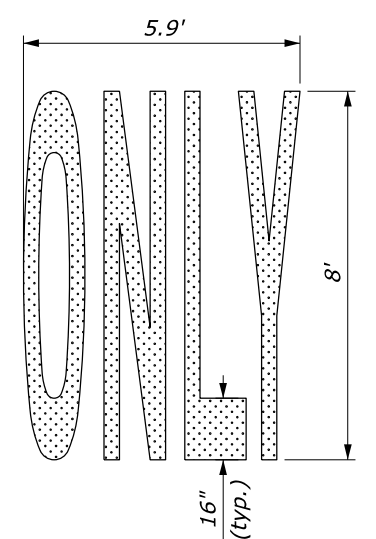
YIELD AHEAD TRIANGLE SYMBOL



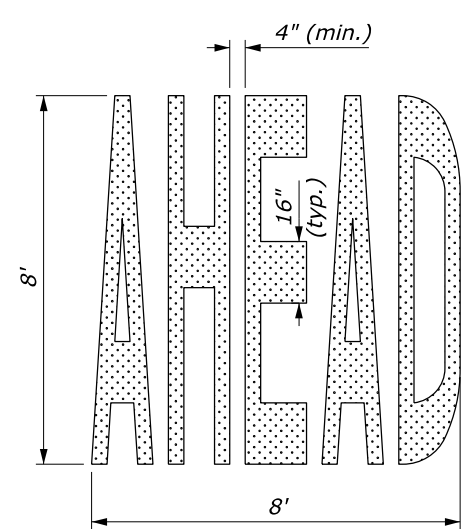
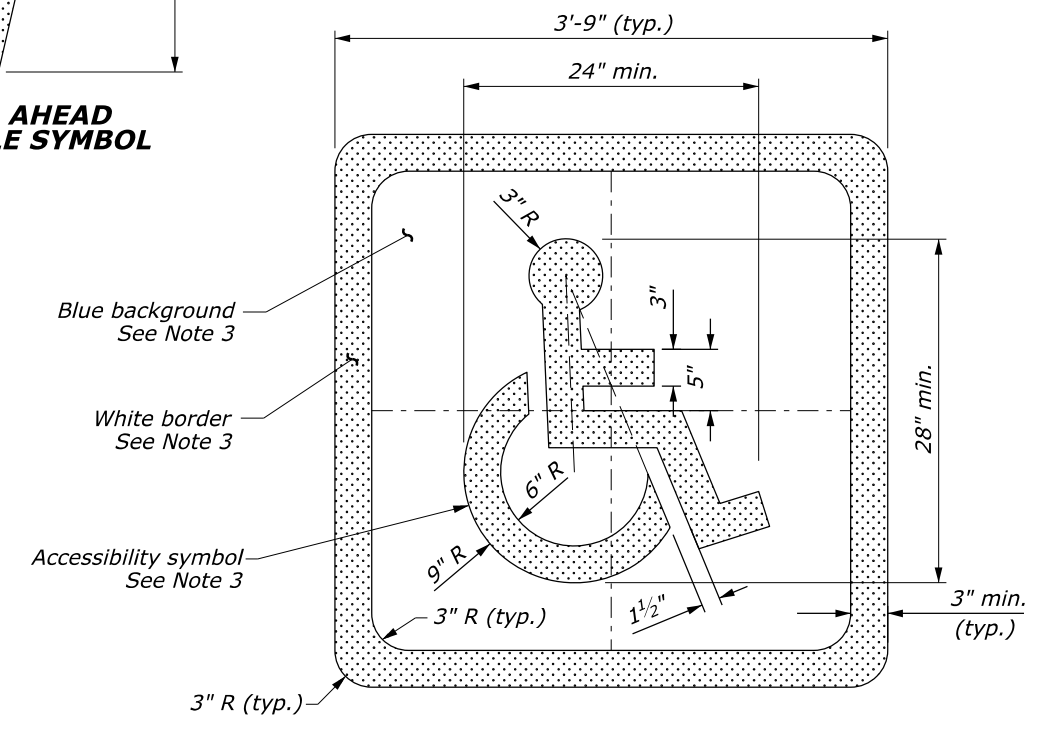
"STOP" WORD MESSAGE



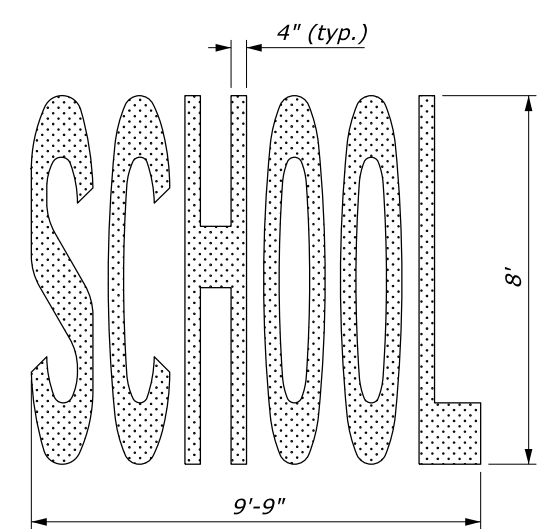
"YIELD" WORD MESSAGE



"ONLY" WORD MESSAGE



"AHEAD" WORD MESSAGE



"SCHOOL" WORD MESSAGE

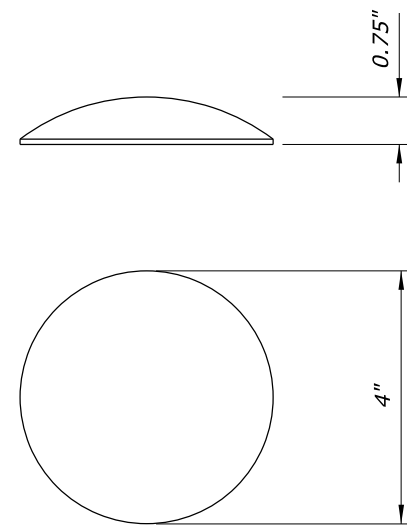
PAVEMENT MARKING AREAS	
TYPE	SQFT
Accessibility Symbol:	--
w/ Symbol only	2
w/ Symbol, blue background, and white border	16
Straight Arrow Symbol	12
Straight/Turn Arrow Combination Symbol	26
Turn Arrow Symbol	16
Yield Ahead Triangle Symbol (V<45 mph)	26
Yield Ahead Triangle Symbol (V≥45 mph)	37
"AHEAD" Word Message Marking	30
"ONLY" Word Message Marking	21
"SCHOOL" Word Message Marking	33
"STOP" Word Message Marking	22
"YIELD" Word Message Marking	24

NO SCALE

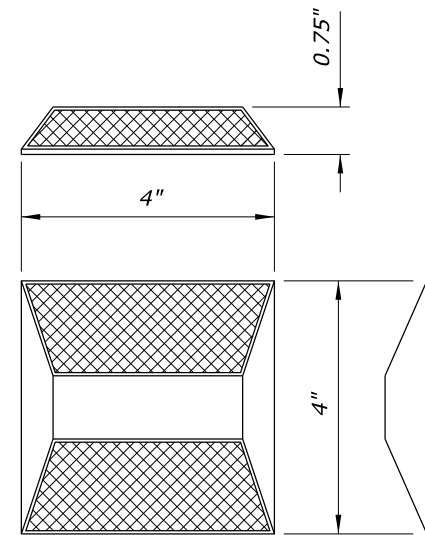
U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E634-01
PAVEMENT MARKINGS SYMBOLS AND WORDS	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 06/2024

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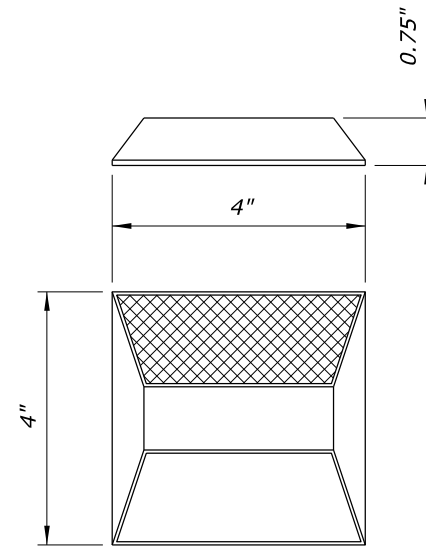
PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S09



NON-REFLECTIVE

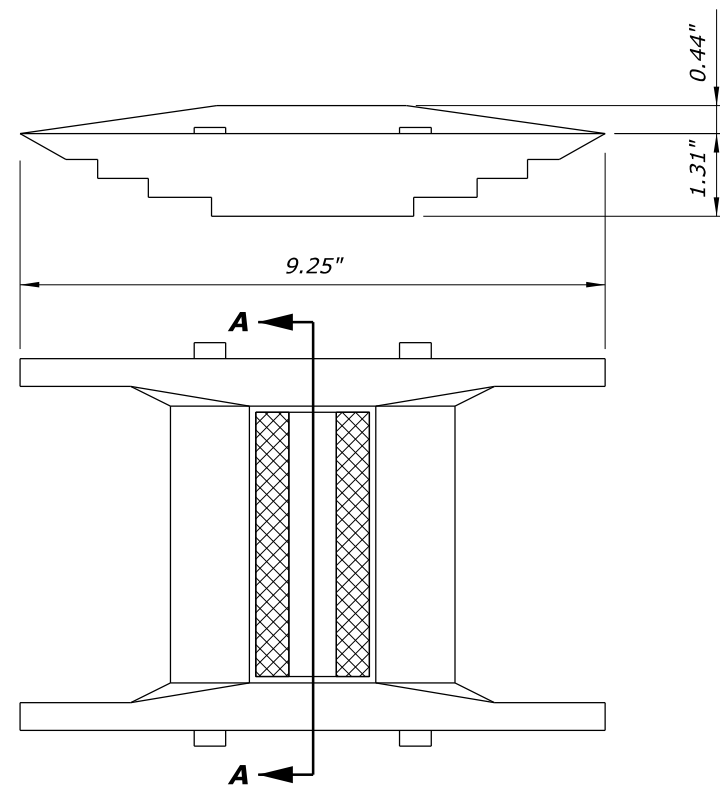


BI-DIRECTIONAL

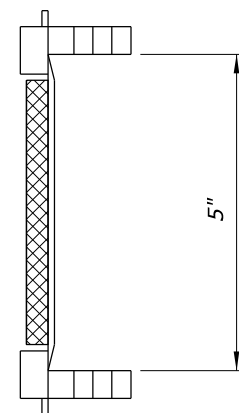


MONO-DIRECTIONAL

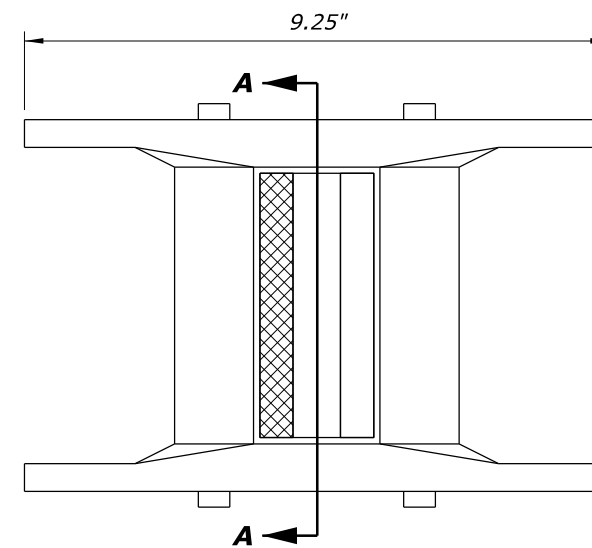
NON-PLOWABLE PAVEMENT MARKERS



BI-DIRECTIONAL



SECTION A-A



MONO-DIRECTIONAL

PLOWABLE PAVEMENT MARKERS

NOTES:

1. Provide reflective markers with either clear (white), yellow or red colors as specified.
2. Ensure the shell of the marker is made of one color or a combination of colors the same as the reflector.

LEGEND:

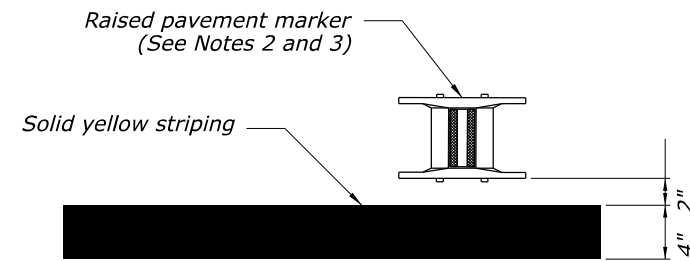
Reflective material



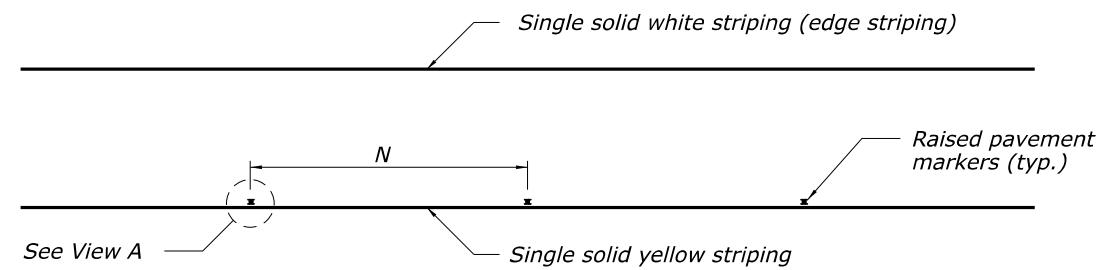
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E634-02
RAISED PAVEMENT MARKERS	SPECIFICATION FP-24, FP-14 APPROVED FOR USE 06/2024

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S10



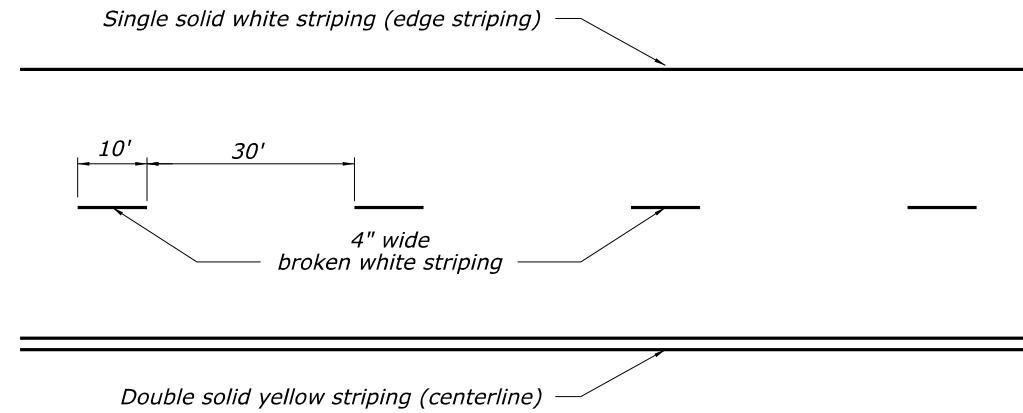
VIEW A



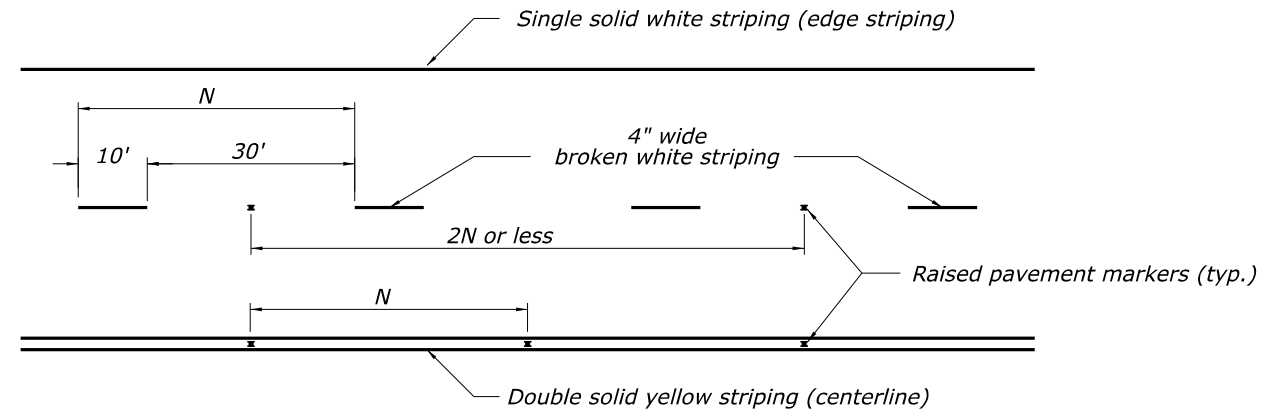
SINGLE SOLID YELLOW STRIPING WITH RAISED PAVEMENT MARKERS

NOTES:

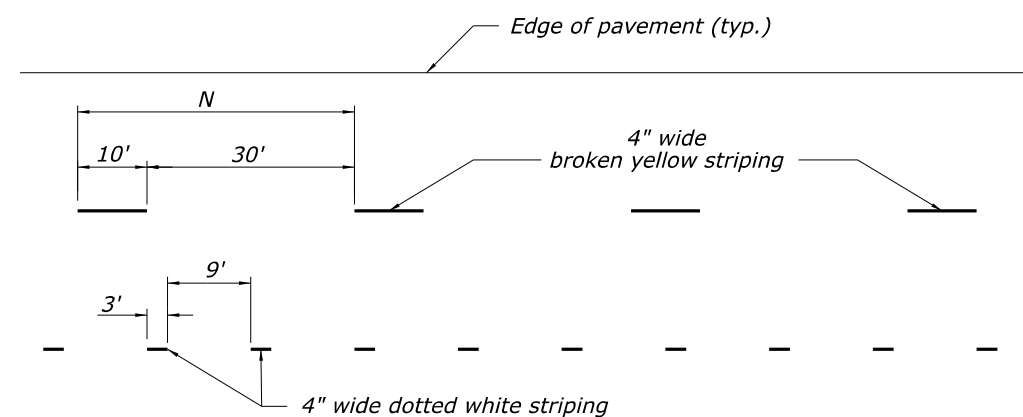
1. Install striping in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), latest edition.
2. When raised pavement markers are required, space and install in accordance with the MUTCD and as shown in this Detail or as directed.
3. When raised pavement markers are required, see Detail E634-02.



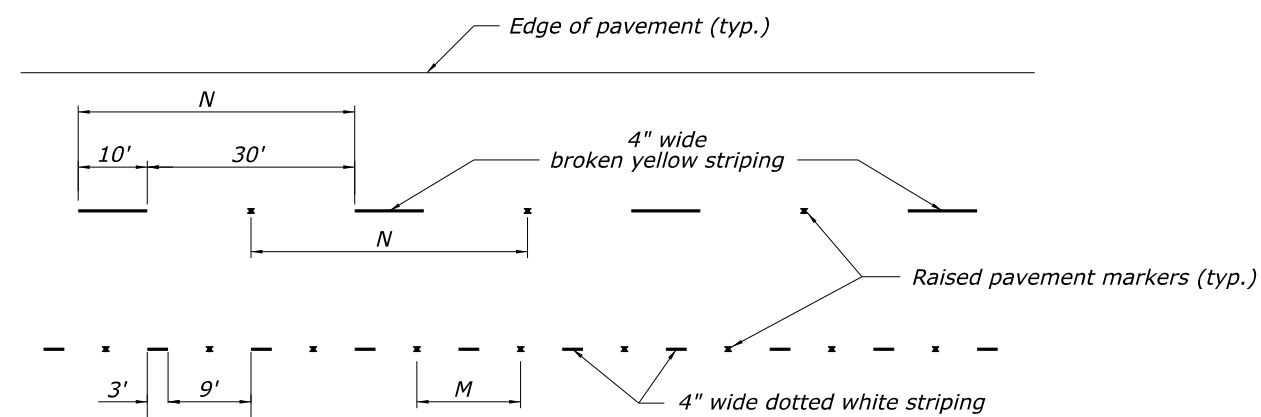
BROKEN SINGLE WHITE AND DOUBLE SOLID YELLOW STRIPING



BROKEN SINGLE WHITE AND DOUBLE SOLID YELLOW STRIPING WITH RAISED PAVEMENT MARKERS



BROKEN SINGLE YELLOW AND DOTTED WHITE STRIPING

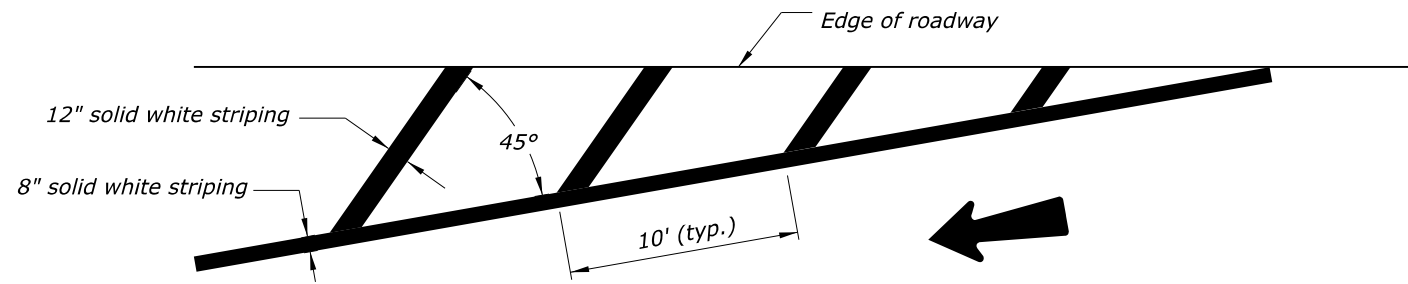


BROKEN SINGLE YELLOW AND DOTTED WHITE STRIPING WITH RAISED PAVEMENT MARKERS

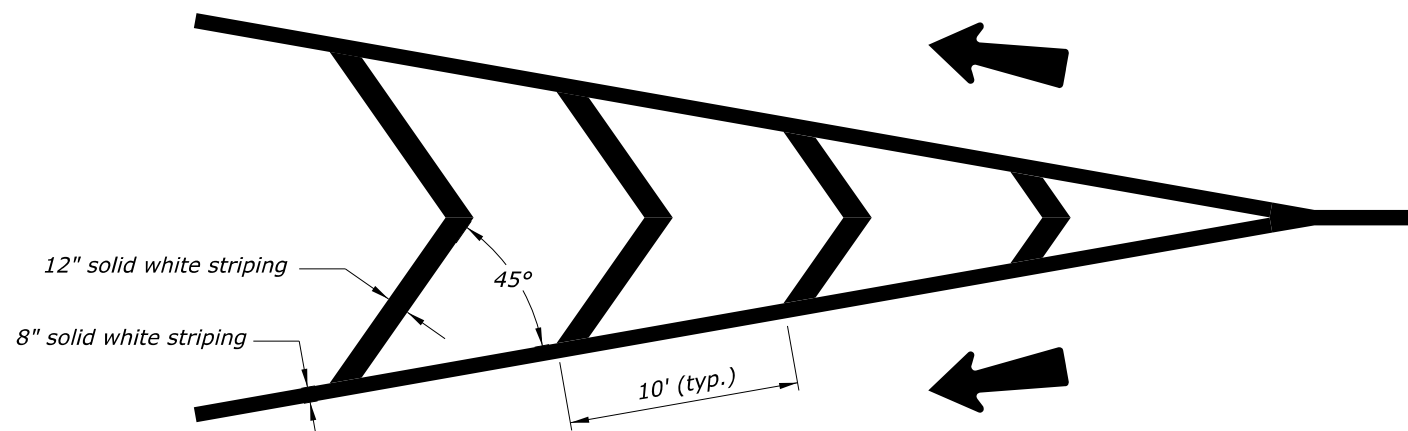
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E634-03
PAVEMENT MARKINGS WITH AND WITHOUT RAISED PAVEMENT MARKERS	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 06/2024

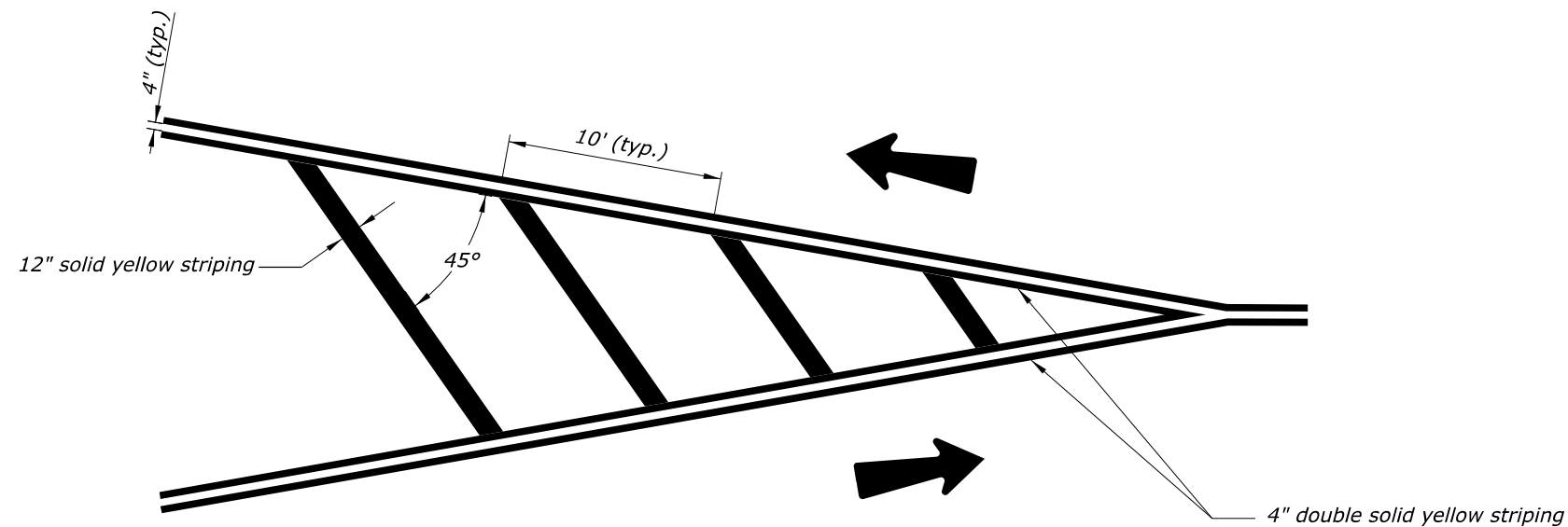
PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S11



ONE-WAY TRAFFIC, LANE SHIFT



ONE-WAY TWO-LANE TRAFFIC, LANES SEPARATE



TWO-WAY TWO-LANE TRAFFIC, LANES SEPARATE

NOTES:

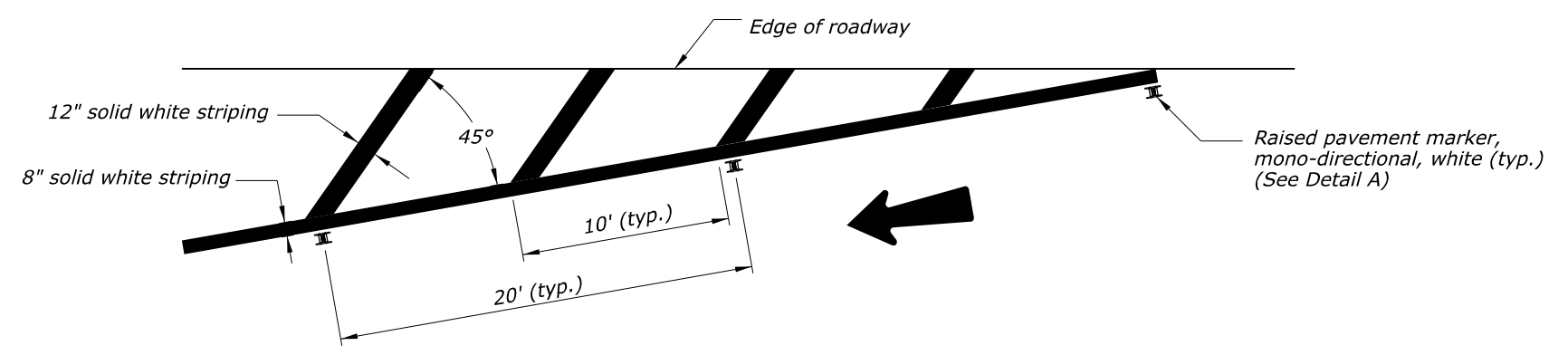
1. Install striping in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), latest edition.
2. Typical pavement marking widths are shown. Use wider pavement markings when specified in the plans or as directed.

M:\PROJECTS\gwmp\11(4)\Prof_Dev\CADD\AMC Arch\Str-Det\E634-04.dgn [Sheet1 - without_RPM] 21 May 2026 2:34 PM

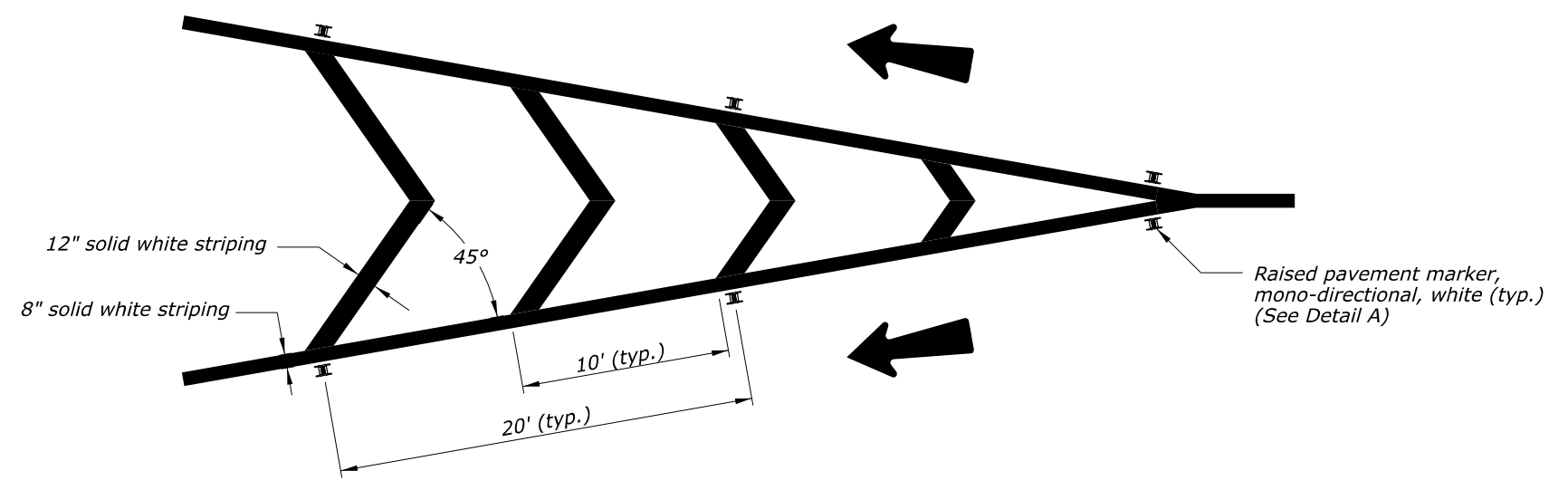
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E634-04
PAVEMENT MARKINGS IN NEUTRAL AREAS	SPECIFICATION FP-24, FP-14 APPROVED FOR USE 06/2024

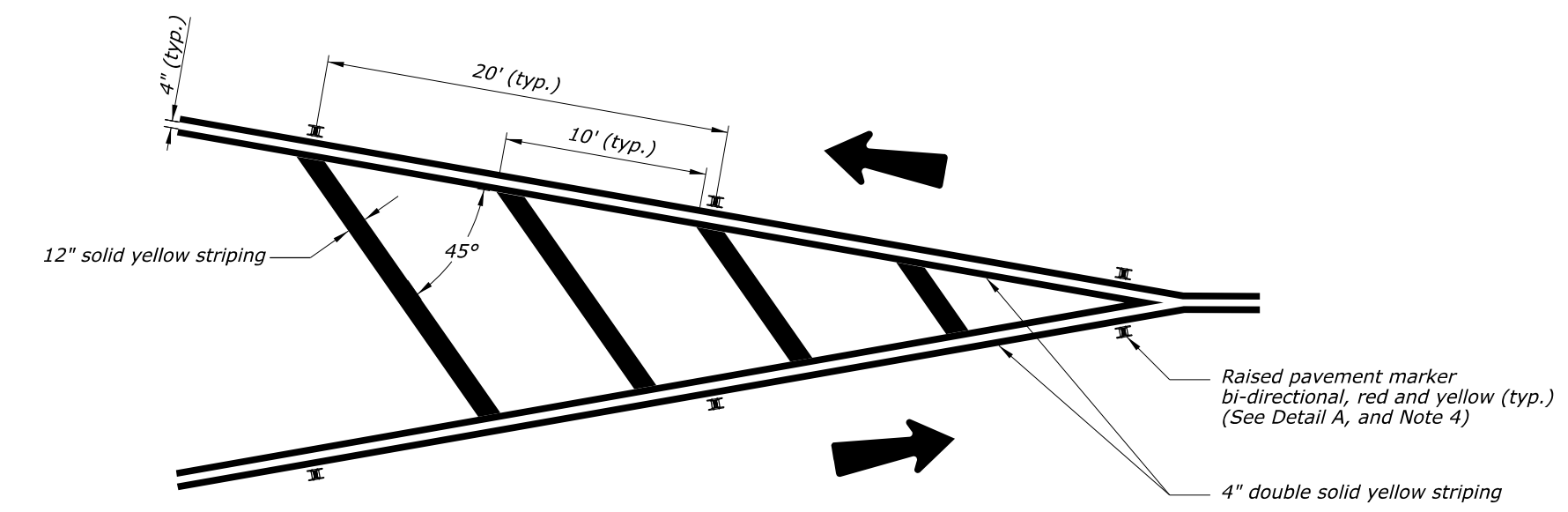
PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S12



ONE-WAY TRAFFIC, LANE SHIFT



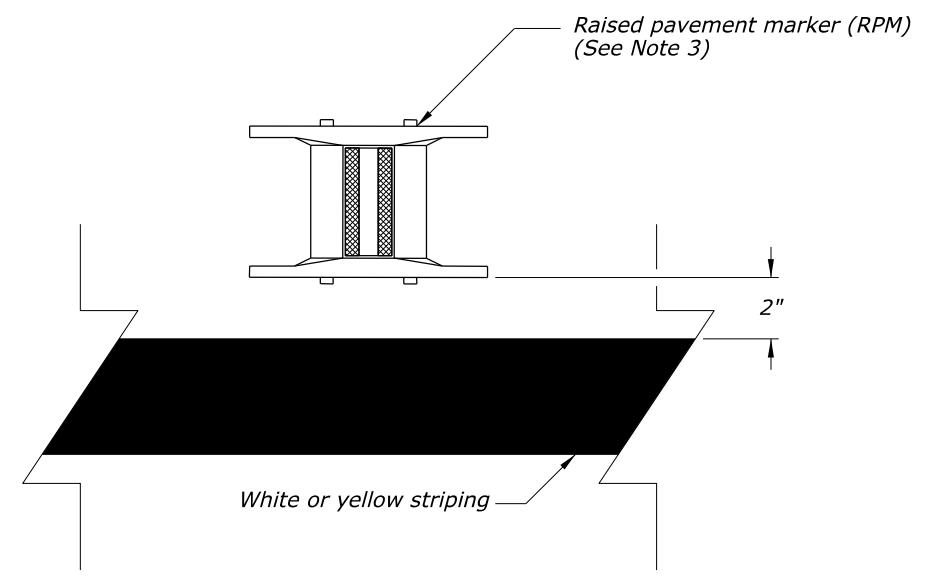
ONE-WAY TWO-LANE TRAFFIC, LANES SEPARATE



TWO-WAY TWO-LANE TRAFFIC, LANES SEPARATE

NOTES:

1. Install striping in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), latest edition.
2. Typical pavement marking widths are shown. Use wider pavement markings when specified in the plans or as directed.
3. Space and install raised pavement markers (RPMs) in accordance with the MUTCD, latest edition, and as shown or as directed.
4. Detail A shows plowable RPM only; the same positioning applies to non-plowable RPMs. See Detail E634-02 for RPM details.
5. Install bi-directional RPMs so that the yellow reflective side is facing the traffic flow and the red reflective side is facing the opposing traffic.



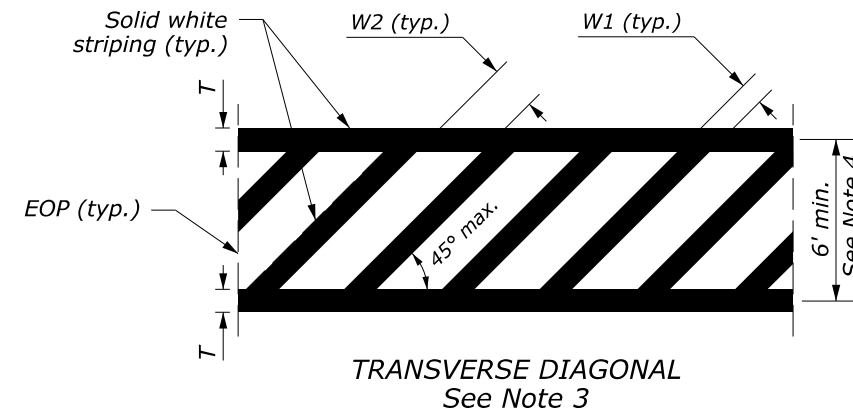
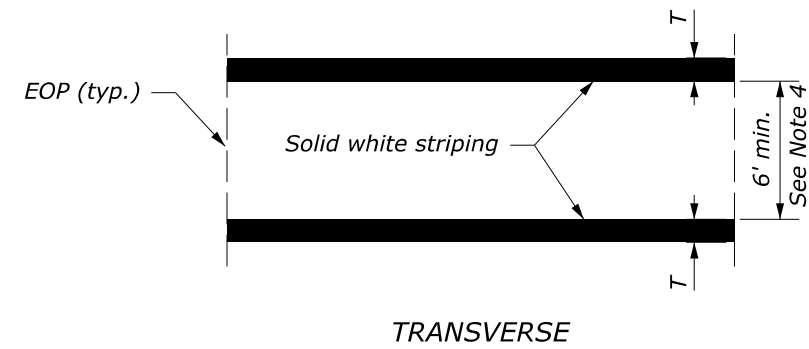
DETAIL A

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E634-04
PAVEMENT MARKINGS IN NEUTRAL AREAS WITH RAISED PAVEMENT MARKERS	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 06/2024

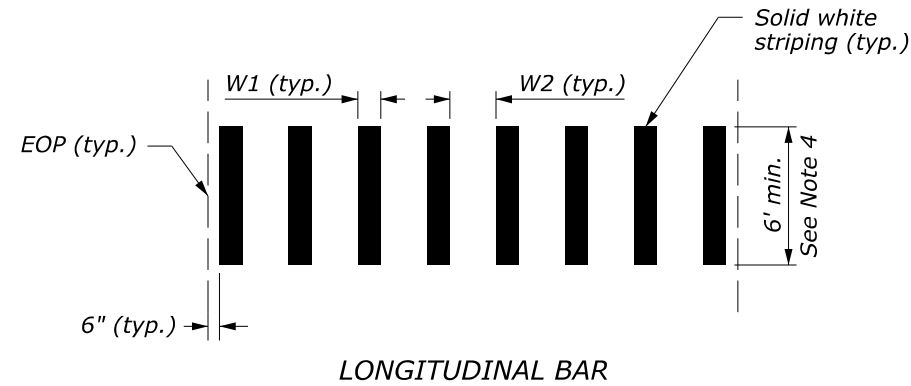
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PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S13



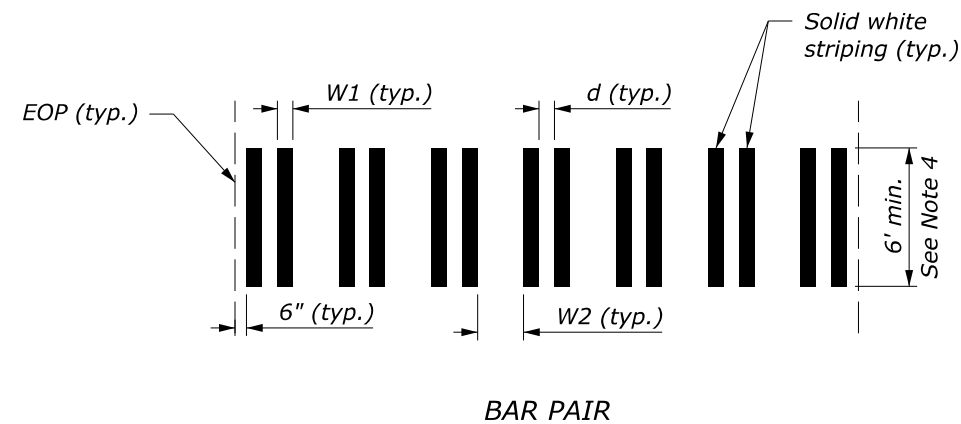
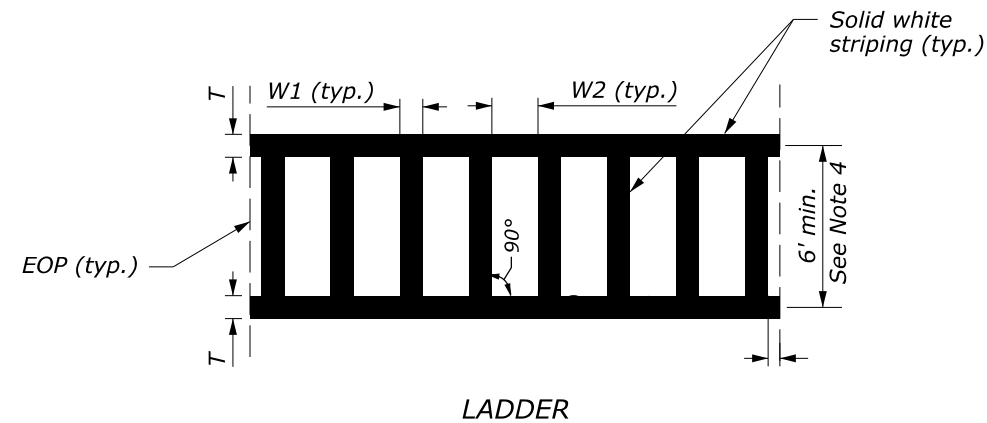
NOTES:

1. Install striping and signing in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), latest edition.
2. For longitudinal bar, bar pair, and ladder crosswalk layouts, space line bars to avoid wheel path as shown in the plans or as approved.
3. Use transverse diagonal crosswalk layout only at locations with complex roadway geometry where rotated interior longitudinal bars are needed to remain parallel to approaching traffic.
4. At non-intersection crosswalk where the posted speed limit is 40 MPH or greater, provide a minimum crosswalk width of 8 feet unless otherwise specified in the plans.



CROSSWALK STRIPING DIMENSIONS TABLE

CROSSWALK TYPE	W1		W2*		T		d	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Transverse					6"	24"		
Longitudinal Bar	12"	24"	12"	60"				
Longitudinal Bar Pair	8"	12"	24"	60"			8"	12"
Ladder		24"		24"	6"	24"		
Transverse Diagonal	12"	24"	12"	60"	6"	24"		

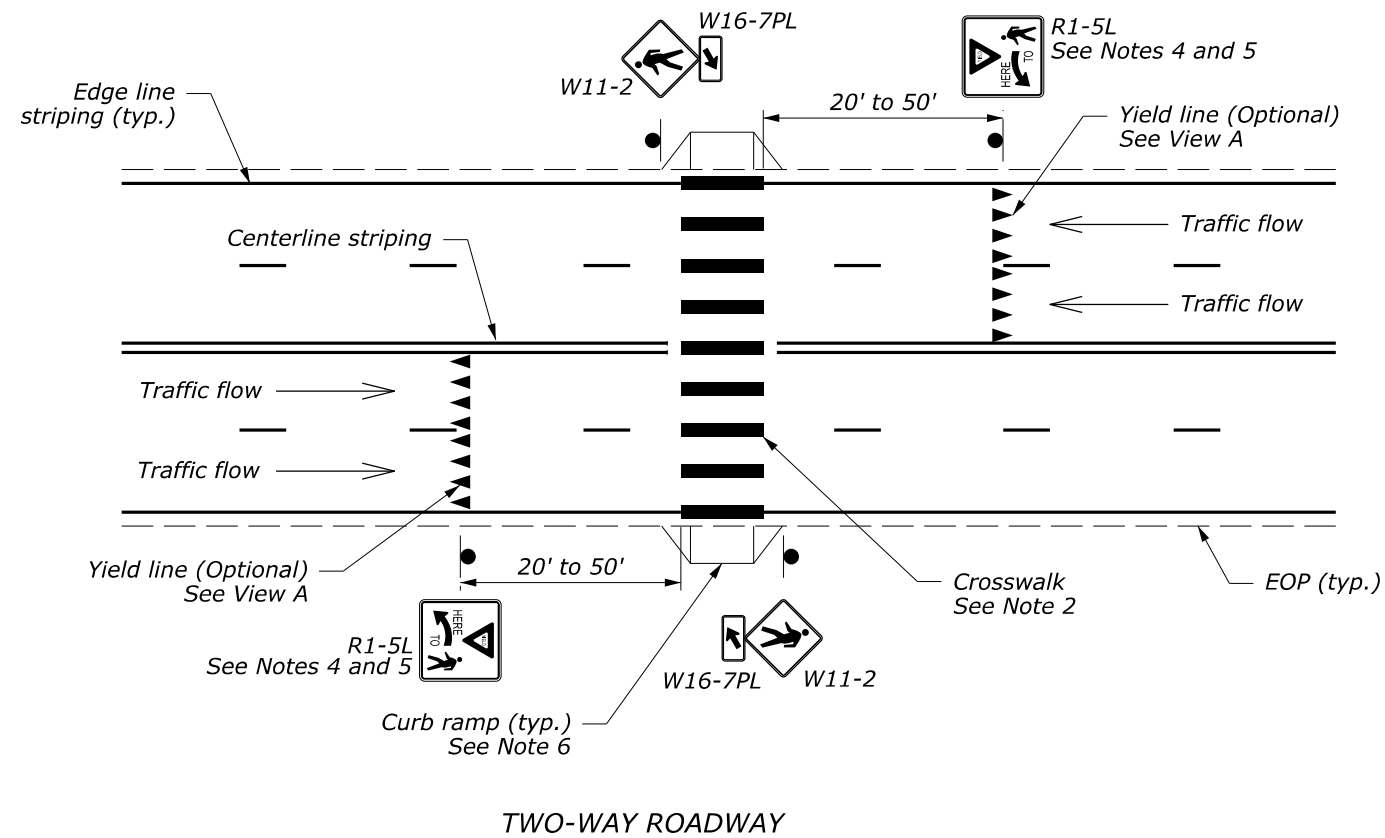


TYPICAL CROSSWALK LAYOUTS

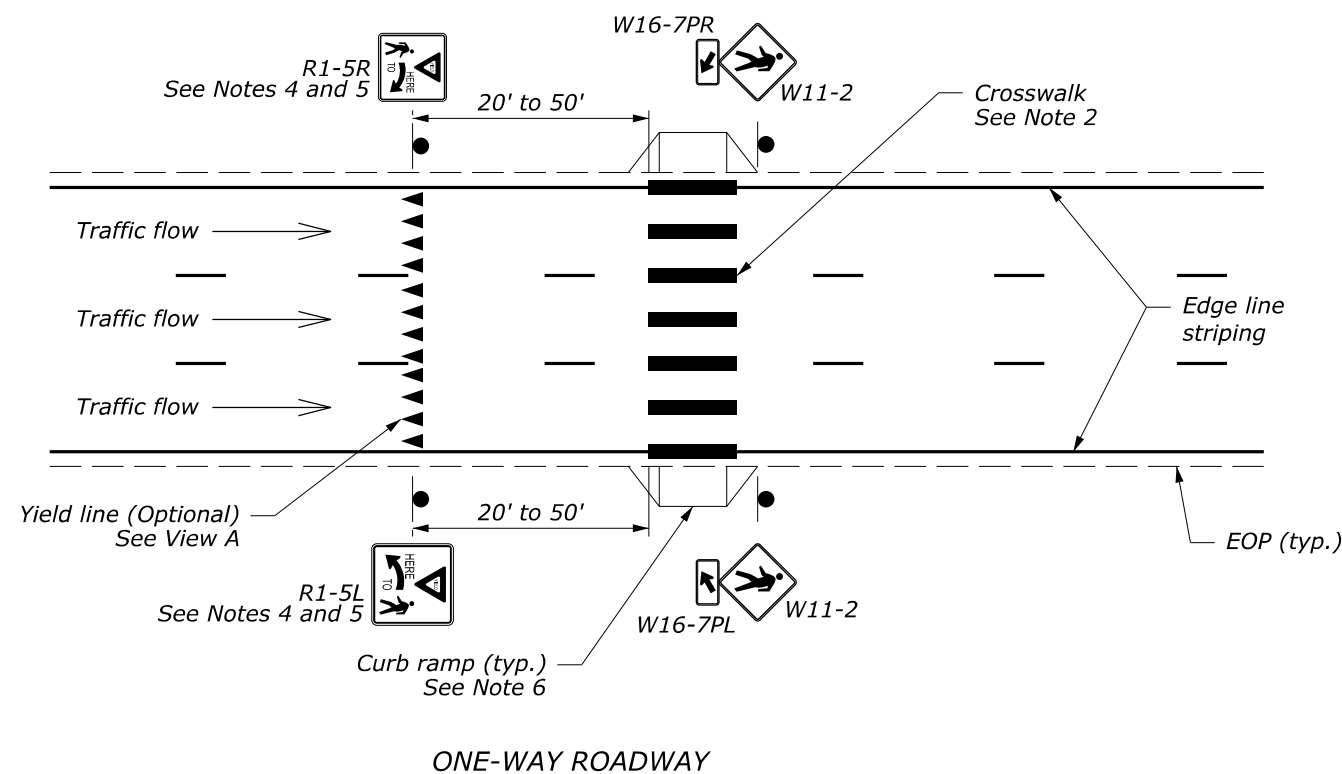
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E634-06A
PAVEMENT MARKINGS PEDESTRIAN CROSSWALK	SPECIFICATION FP-24, FP-14
SHEET 1 of 2	APPROVED FOR USE 06/2024

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S14

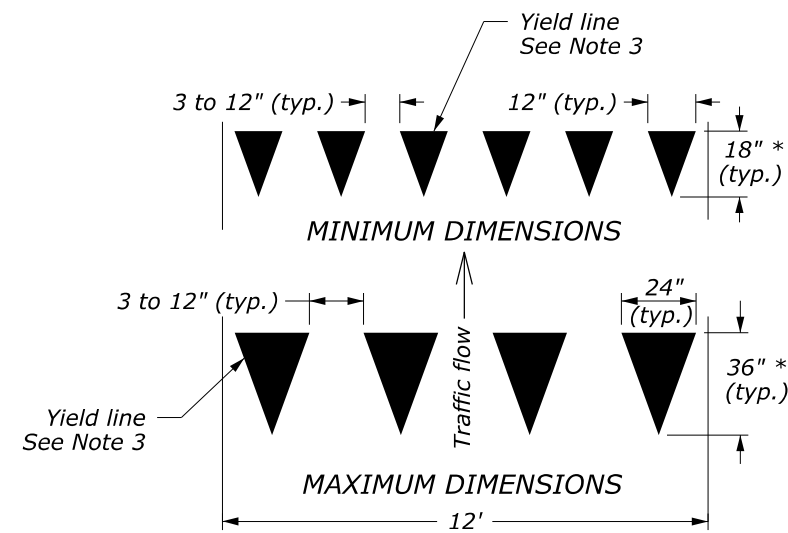


TWO-WAY ROADWAY



ONE-WAY ROADWAY

HIGH-VISIBILITY CROSSWALK AT UNSIGNALIZED MIDBLOCK

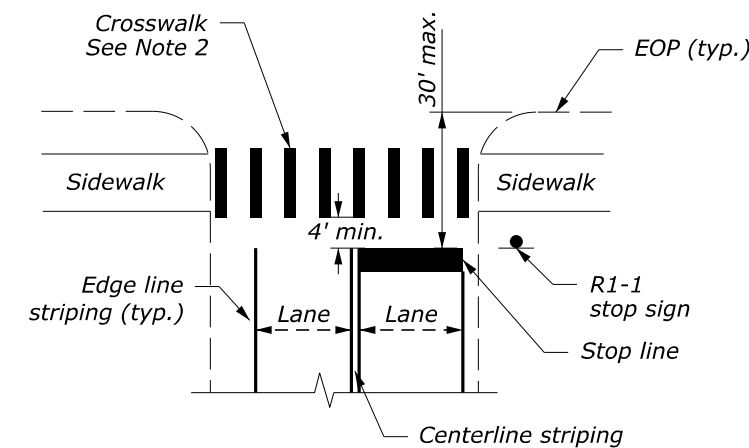


VIEW A - YIELD LINE LAYOUTS

* Ensure triangle height for yield lines is equal to 1.5 times the base dimension.

NOTES:

1. Install striping and signing in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), latest edition.
2. Longitudinal bar crosswalk layout is used for illustration purposes only. Refer to the plans for project crosswalk layout and actual striping dimensions. See Sheet 1 of 2 for typical crosswalk layouts.
3. Smaller than shown yield lines may be used when installed on narrower, slow-speed facilities as approved.
4. If Stop Here for Pedestrians signs (R1-5b or R1-5c) are used instead of Yield Here to Pedestrians signs (R1-5 or R1-5a), use stop lines instead of yield lines.
5. The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign may be used to remind road users of laws regulating right-of-way at an unsignalized pedestrian crosswalk according to the latest edition of the MUTCD as approved.
6. When curb ramps are present, ensure that crosswalk markings are located so that the curb ramps are within the extension of the crosswalk markings.

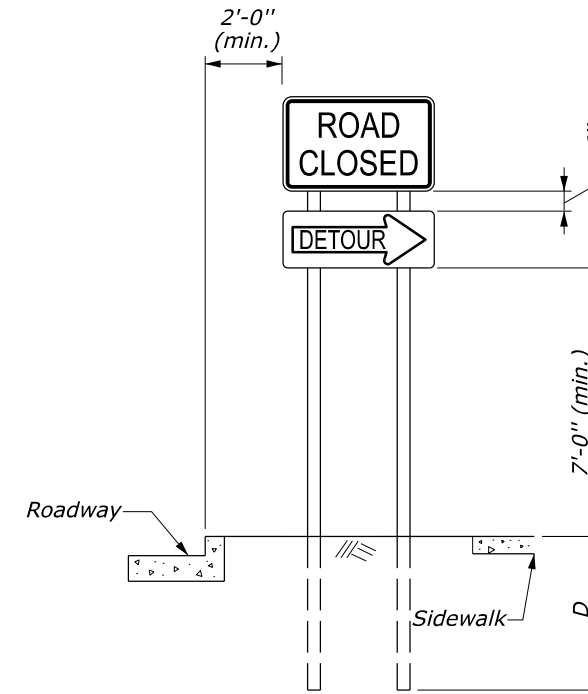
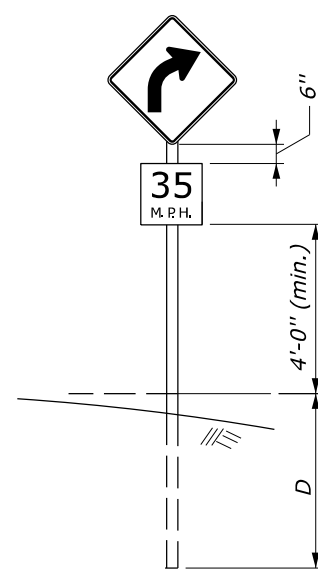
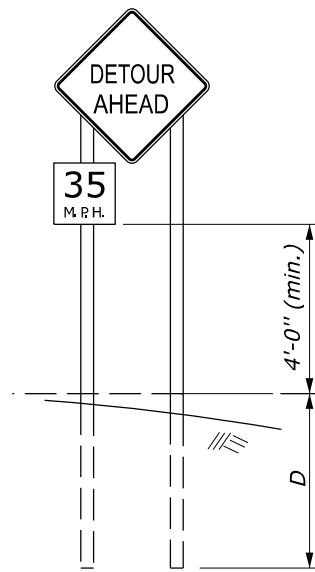
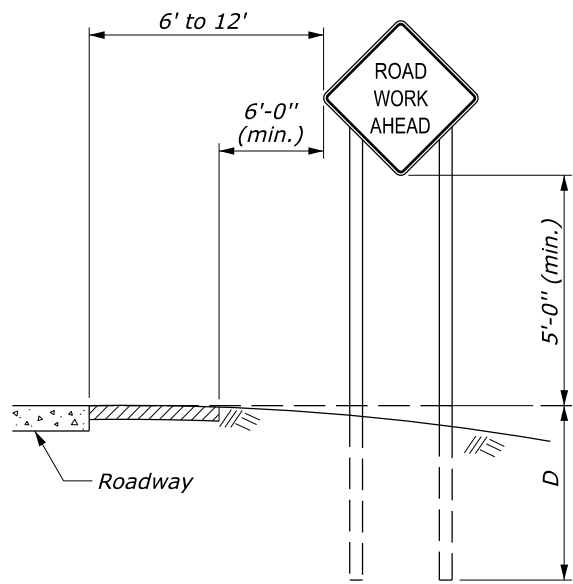


STANDARD CROSSWALK AT INTERSECTION

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E634-06A
PAVEMENT MARKINGS PEDESTRIAN CROSSWALK	SPECIFICATION FP-24, FP-14
SHEET 2 of 2	APPROVED FOR USE 06/2024

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S15



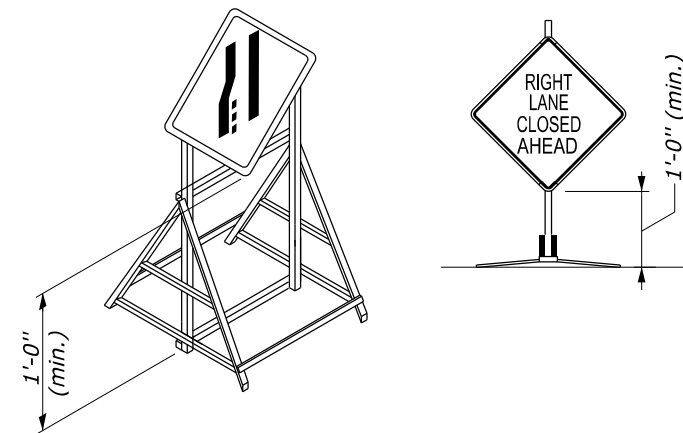
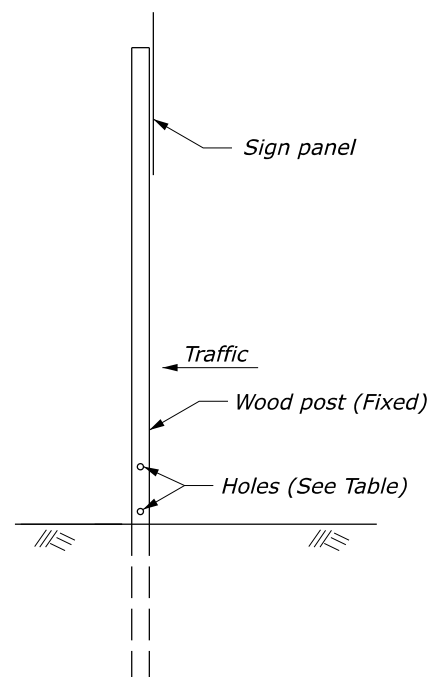
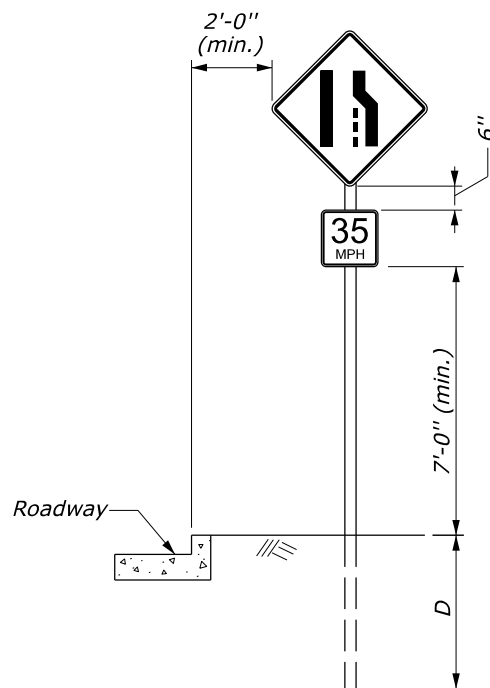
RURAL AREA

URBAN AREA

FIXED ROADWAY SIGNS

NOTES:

1. Mount signs that are wider than 3 feet or larger than 10 square feet on double posts.
2. All lumber dimensions are nominal.
3. Submit alternate details for portable signs. Ensure sign mounts hold the sign face in a vertical plane. Portable signs may be mounted lower than fixed signs when approved. Ensure all portable sign supports are crashworthy.
4. When parking is permitted within 200 feet of the sign, mount the sign a minimum of 7 feet above the pavement surface.
5. When approved by the CO and the Utility Company, utility poles may be used for sign mounting.
6. For 4- by 6-inch and greater posts, see the Breakaway Sign Support View. If breakaway design cannot be used due to post spacing, place the sign outside the clearzone or shield with a barrier. Do not place holes in posts of non-breakaway signs.
7. Signs requiring 6- by 6-inch and greater posts are considered non-breakaway if multiple posts are required and the posts cannot be spaced a minimum of 7 feet apart.



PORTABLE SIGNS

See Notes 3 and 4

POST SIZE TABLE						
POST SIZE	D	HOLE DIAMETER	MAXIMUM SIGN AREA (SQFT)			
			1 Post	2 Post	3 Post	4 Post
4" x 4"	4'	None Required	10	20		
4" x 6"	4'	1.5"		35	50	70
6" x 6"	5'	2"		50	75	100
6" x 8"	5'	3"		85	125	165

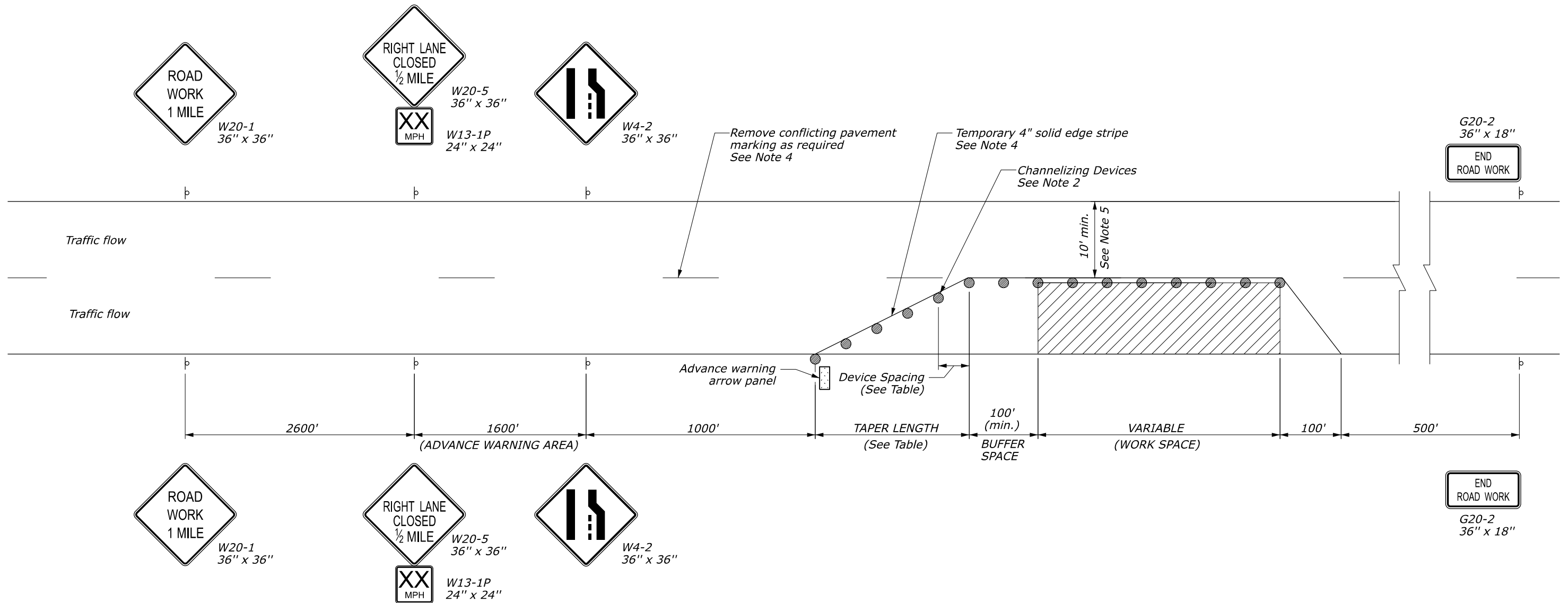
BREAKAWAY SIGN SUPPORT
(FIXED SIGNS 4" X 6" AND GREATER POSTS)
See Notes 6 and 7

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E635-01
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING	SPECIFICATION FP-24, FP-14
	APPROVED FOR USE 06/2024

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S16

TYPICAL APPLICATION: ONE WAY, TWO LANE ROADWAY, CLOSING ONE LANE



NOTES:

- Final location and spacing of temporary traffic control devices may be changed to fit field conditions as approved.
- For operations that require a lane closure for a day or less, drums may be substituted with cones, type A in the work area as approved.
- Right lane closure is shown. For left lane closure, substitute W20-5 and W4-2 left lane closure signs.
- For long-term operations (operations where the lane is continuously closed for more than three days) remove conflicting pavement markings and place edge stripe as shown.
- Use minimum width shown unless otherwise specified in Section 156.

LENGTH AND SPACING TABLE

APPROACH SPEED (MPH)	MINIMUM TAPER LENGTH (LNFT)			CHANNELIZING DEVICE SPACING (LNFT)	
	LANE WIDTH (LNFT)			TAPER AREA	WORK AREA
25	10	11	12	25	50
30	150	165	180	30	60
35	205	225	245	35	70
40	270	295	320	40	80
45	450	495	540	45	90
50	500	550	600	50	100
55	550	605	660	55	100

* Approach speed based on the regulatory posted speed, not the advisory speed.

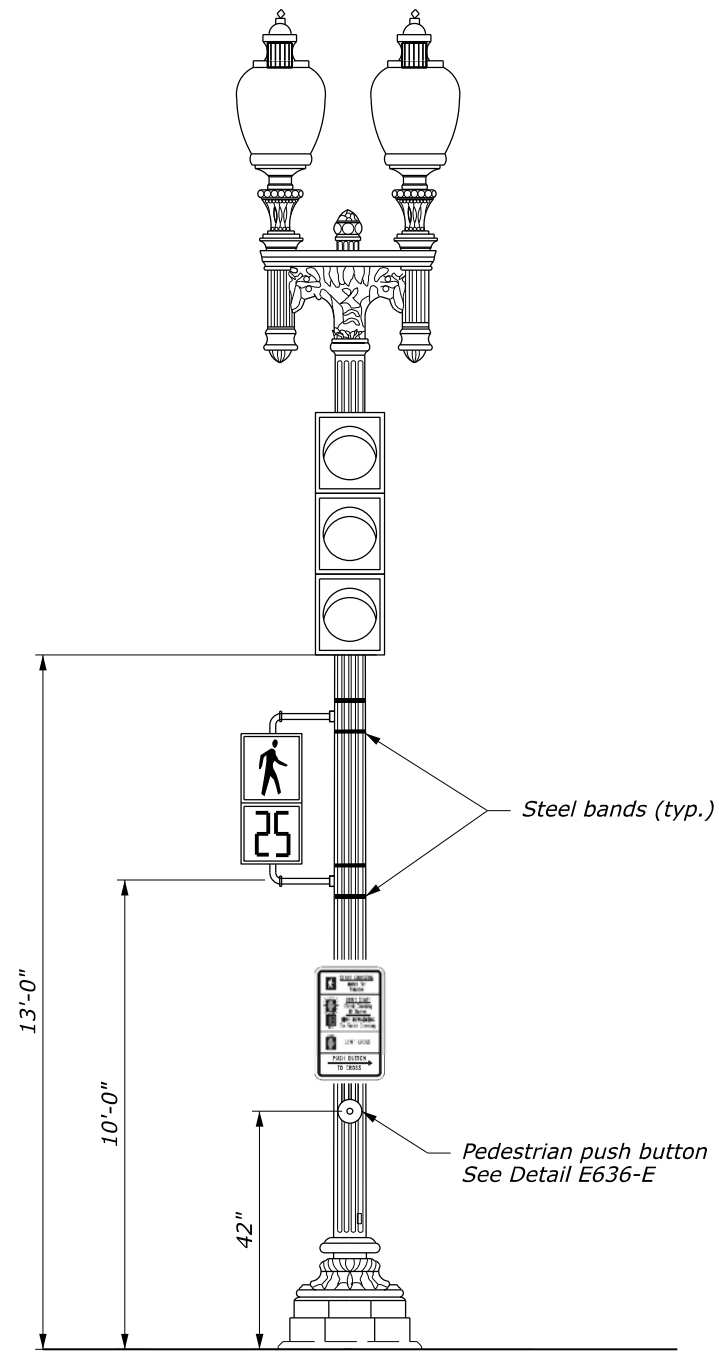
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E635-05
TEMPORARY TRAFFIC CONTROL SINGLE LANE CLOSURE LAYOUT	SPECIFICATION FP-24, FP-14 APPROVED FOR USE 06/2024

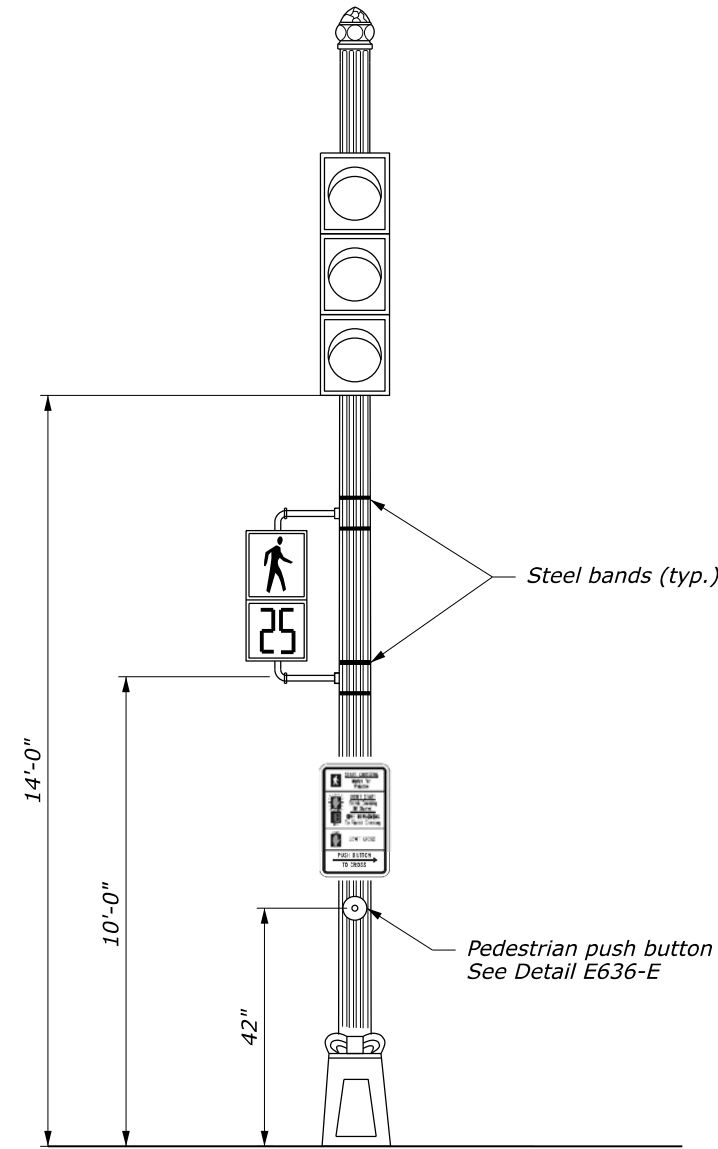
PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S17

NOTES:

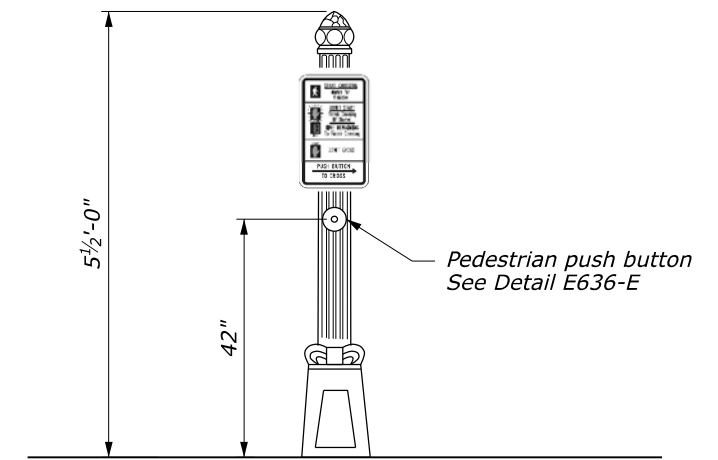
1. Mount all new steel traffic signal poles on a transformer. See Detail E636-D for transformer base details.
2. Use stainless steel strapping to affix hardware to poles, unless otherwise specified.



TWIN 20 STYLE LIGHTING STANDARD WITH LED RETROFIT UPGRADE



20 FOOT TALL STEEL TRAFFIC SIGNAL POLE



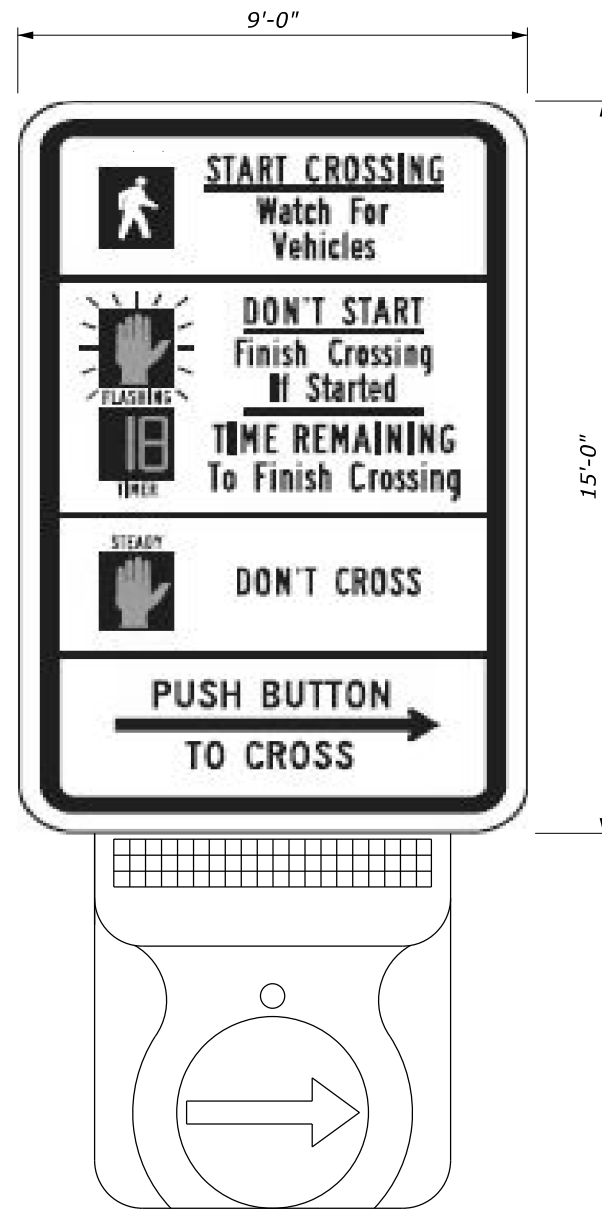
STEEL PEDESTAL POLE

M:\PROJECTS\gwmp\1.1(4)\Prof_Dev\CADD\AMC Arch\Site-Det\S28-34-det_E636_C.dgn [E636-A] 21 May 2026 2:38 PM

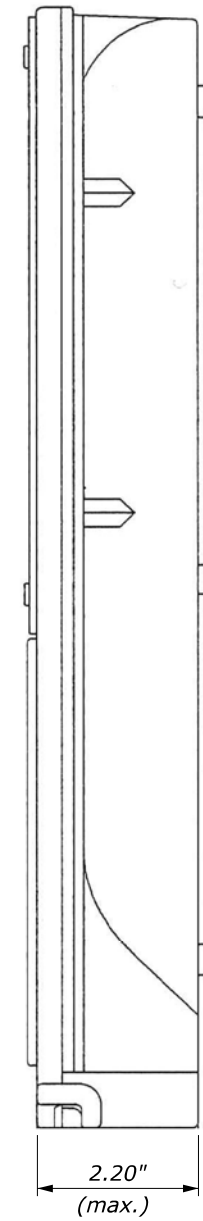
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U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E636-A
TRAFFIC SIGNAL HARDWARE ARRANGEMENT ON METAL POLES	SPECIFICATION FP-24
	APPROVED FOR USE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S18



FRONT VIEW

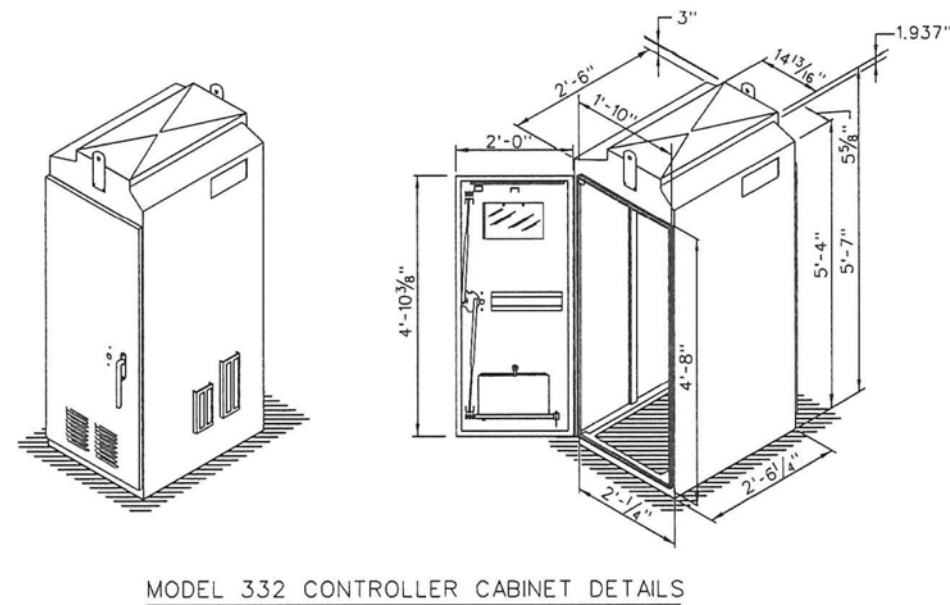
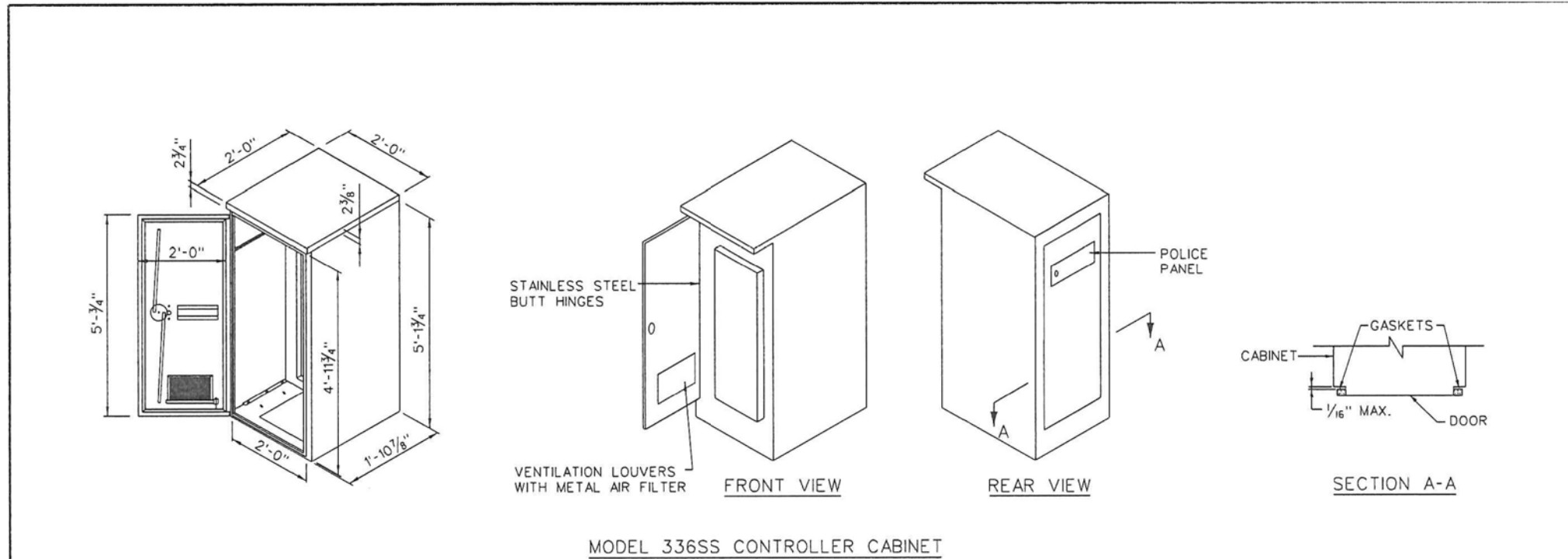


SIDE VIEW

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E636-B
PEDESTRIAN PUSH BUTTON	SPECIFICATION FP-24
	APPROVED FOR USE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S19



NOTE:
DO NOT PLACE CABINETS IN SIDEWALK.

Adopted from District of Columbia Department of Transportation Standard Drawings, August 2015, DWG. NO. 613.10

ISSUED: 8/2015	RECOMMENDED:
REVISION	APPROVAL
	<i>Adil Riaz</i> PROJECT MANAGER
	APPROVED:
	<i>Muhammed Khalid</i> CHIEF ENGINEER

TRAFFIC SIGNAL CONTROLLER CABINET DETAILS

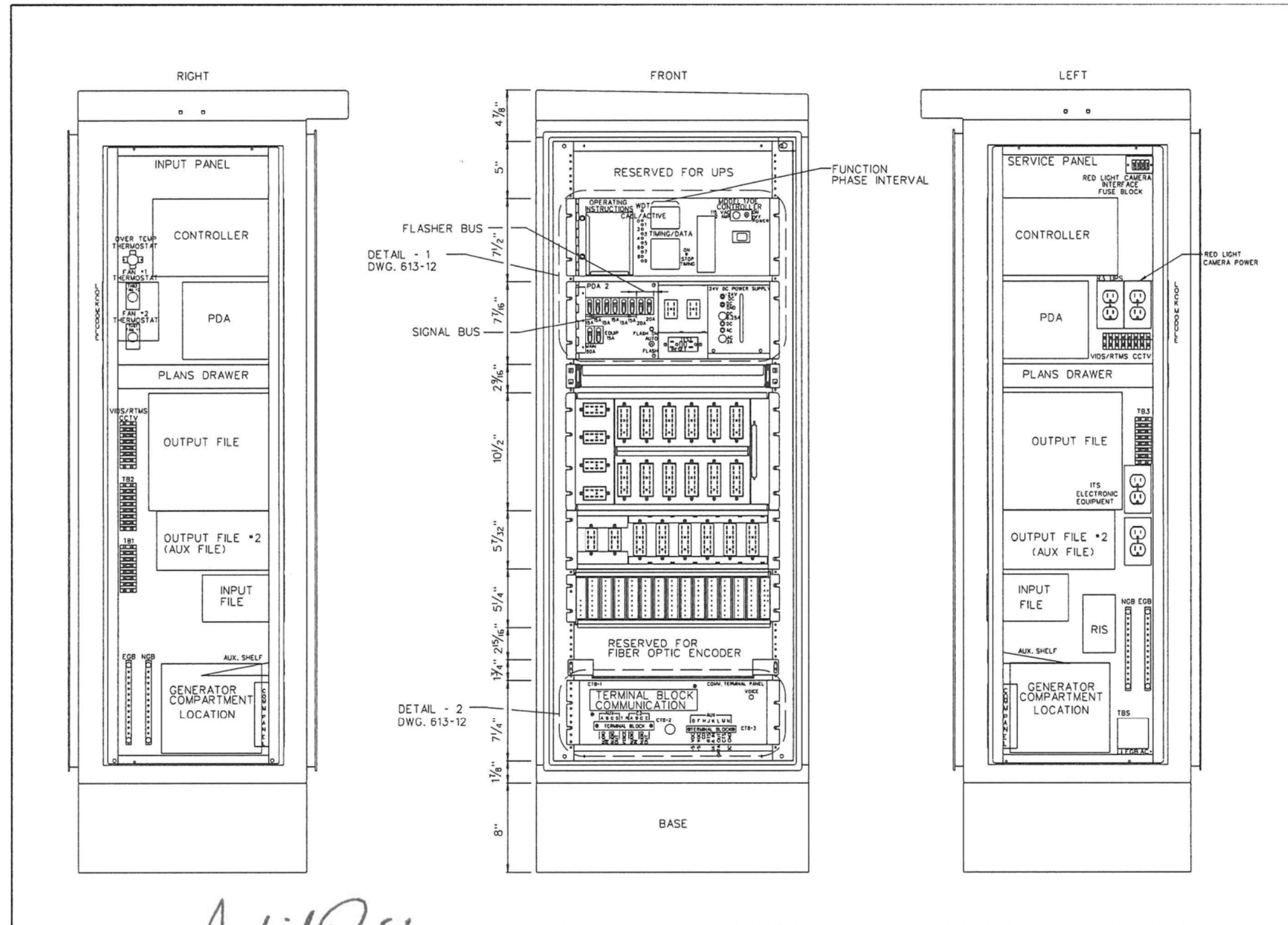
d. DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION

DWG. NO. 613.10

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E636-C
TRAFFIC SIGNAL CONTROLLER CABINET DETAILS	SPECIFICATION FP-24
	APPROVED FOR USE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S20



Adopted from District of Columbia Department of Transportation Standard Drawings, August 2015, DWG. NO. 613.11

ISSUED: 8/2015	RECOMMENDED:
REVISION	APPROVAL
	<i>Adil Raj</i>
	PROJECT MANAGER
	APPROVED:
	<i>Muhammed Khalid</i>
	CHIEF ENGINEER

336SS TRAFFIC SIGNAL CABINET
FRONT, LEFT, AND RIGHT VIEWS

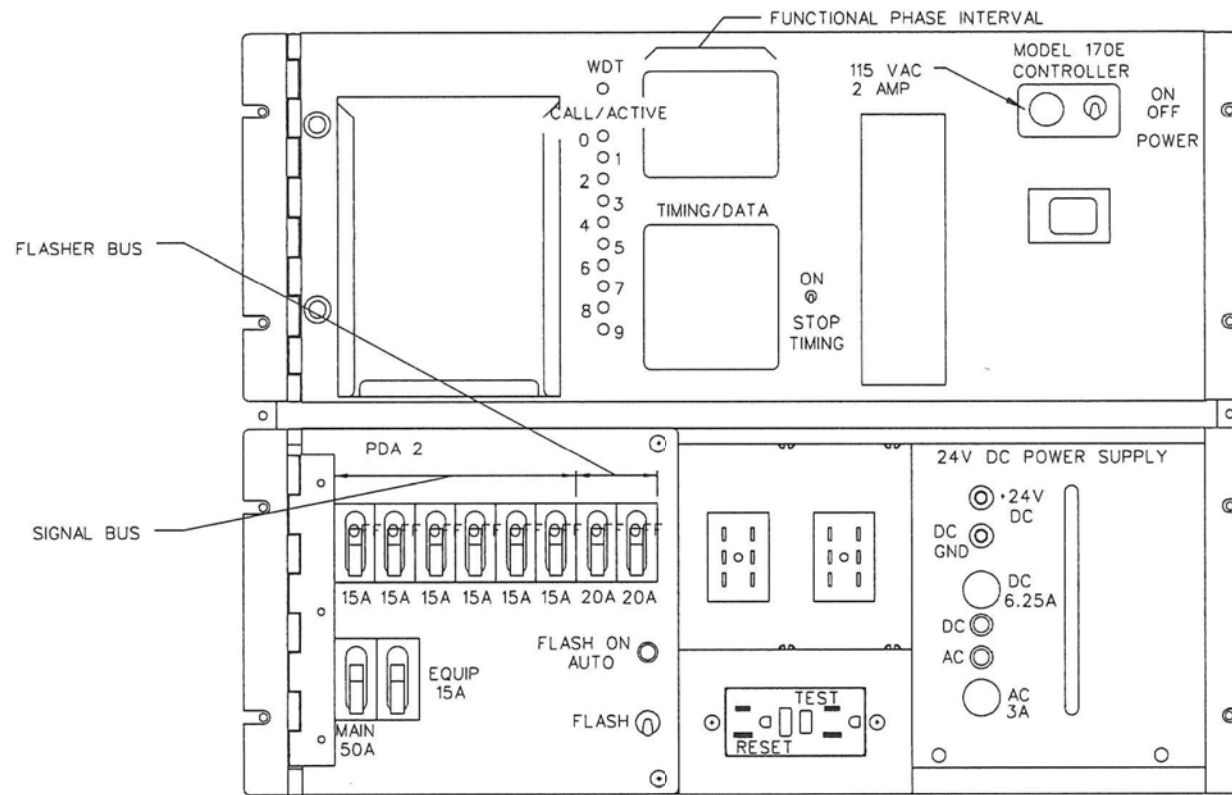
d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 613.11

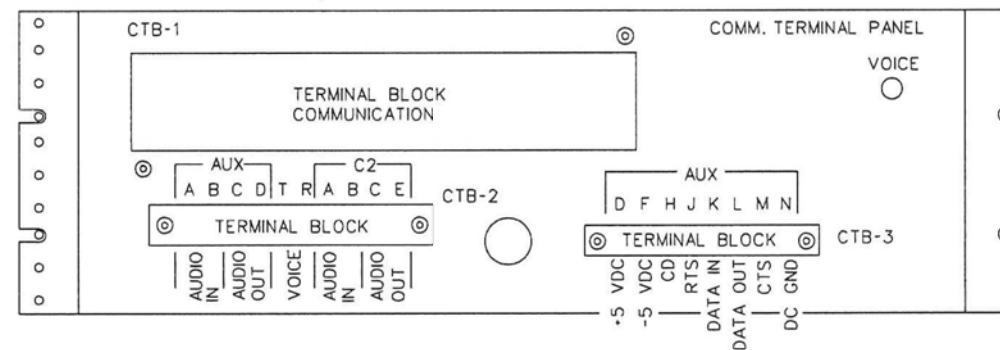
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E636-D
336SS TRAFFIC SIGNAL CABINET FRONT, LEFT, AND RIGHT VIEWS	SPECIFICATION FP-24
	APPROVED FOR USE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S21



DETAIL - 1
DWG. 613.11



DETAIL - 2
DWG. 613.11

Adopted from District of Columbia Department of Transportation Standard Drawings, August 2015, DWG. NO. 613.12

ISSUED: 8/2015	RECOMMENDED:
REVISION	APPROVAL
	<i>Adil Riaz</i> PROJECT MANAGER
	APPROVED: <i>Muhammed Khalid</i> CHIEF ENGINEER

336SS TRAFFIC SIGNAL CABINET
DETAILS

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 613.12

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA
OFFICE OF FEDERAL LANDS HIGHWAY

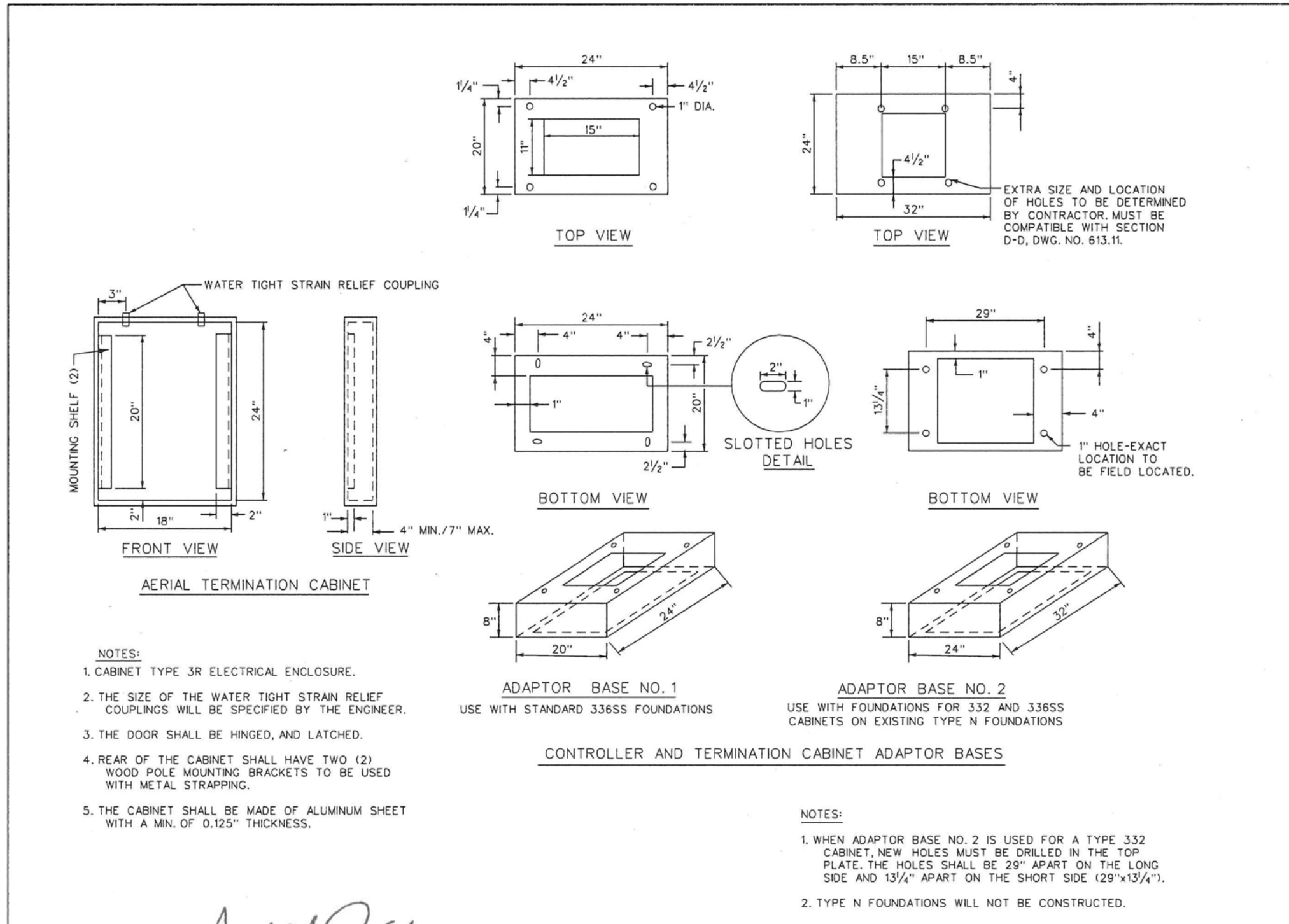
**336SS TRAFFIC SIGNAL
CABINET DETAILS**

EFLHD DETAIL
E636-E

SPECIFICATION
FP-24

APPROVED FOR USE

PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S22



Adopted from District of Columbia Department of Transportation Standard Drawings, August 2015, DWG. NO. 613.13

ISSUED: 8/2015	RECOMMENDED: <i>Adil Riaz</i>
REVISION	APPROVAL
	PROJECT MANAGER
	APPROVED: <i>Muhammed Khalid</i>
	CHIEF ENGINEER

**TRAFFIC SIGNAL AERIAL
TERMINATION CABINETS AND
CONTROLLER CABINET ADAPTER
BASES**

d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

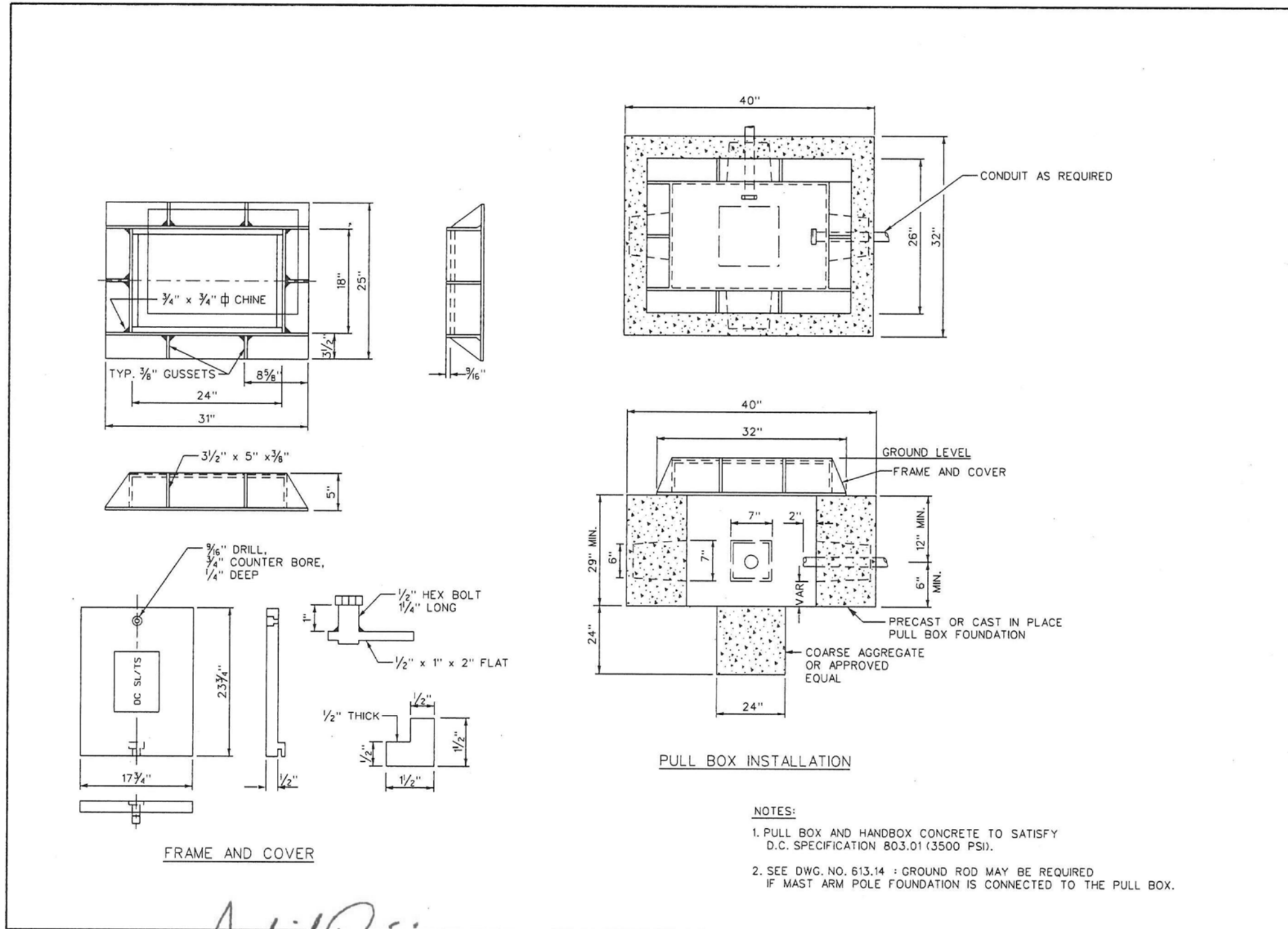
DWG. NO. 613.13

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E636-F
TRAFFIC SIGNAL AERIAL TERMINATION CABINETS AND CONTROLLER CABINET ADAPTER BASES	SPECIFICATION FP-24
	APPROVED FOR USE

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PROJECT	SHEET NUMBER
DC NP GWMP ARCH TAR 2026	S23



Adopted from District of Columbia Department of Transportation Standard Drawings, August 2015, DWG. NO. 613.20

ISSUED: 8/2015	RECOMMENDED
REVISION	APPROVAL

APPROVED: *Muhammed Khelid*
CHIEF ENGINEER

**TRAFFIC SIGNAL DISTRICT
PULL BOX DETAILS**

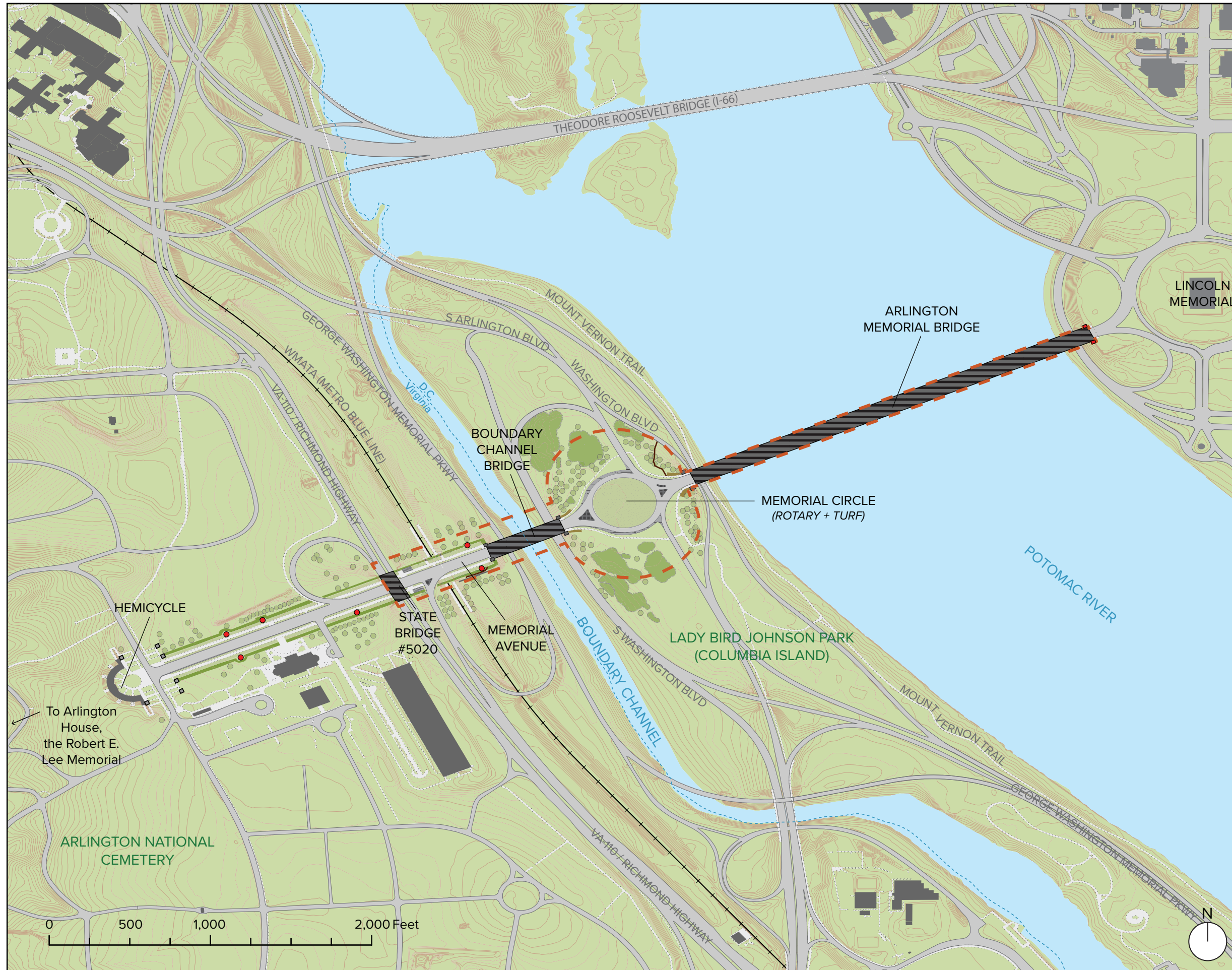
d. DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

DWG. NO. 613.20

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY	EFLHD DETAIL E636-G
TRAFFIC SIGNAL DISTRICT PULL BOX DETAILS	SPECIFICATION FP-24
	APPROVED FOR USE

APPENDIX B. FIGURES



Memorial Avenue Corridor Cultural Landscape Report

George Washington Memorial Parkway Locator Map

SOURCES

1. Open data DC, <https://opendata.dc.gov/>, accessed Sept. 2022
2. Field survey and data collection, 2022
3. Commonwealth of Virginia, DC GIS, Maxar, Microsoft (base imagery)
4. NPS Geospatial data

DRAWN BY

Ruth Penberthy / Chen Mao / Meg Frisbie / Molly Lester,
University of Pennsylvania
ArcGIS Pro, Adobe Illustrator, 2023

LEGEND

- Cultural Landscape Boundary
- Topography (2ft intervals)
- Water
- Metro (WMATA) Line
- Building / Structure (other than bridge)
- Bridge (Structure)
- Arts of War (Structure)
- Memorial (Structure)
- Circulation - Road
- Circulation - Sidewalk
- Vegetation

NOTES

1. All features shown in approximate scale and locations
2. Vegetation locations, scale, and quantities are approximated from fieldwork and aerial photography



Urban Heritage Project
Department of Historic Preservation | PennPraxis
www.cultural-landscapes.org

DRAWING #1

Figure 1

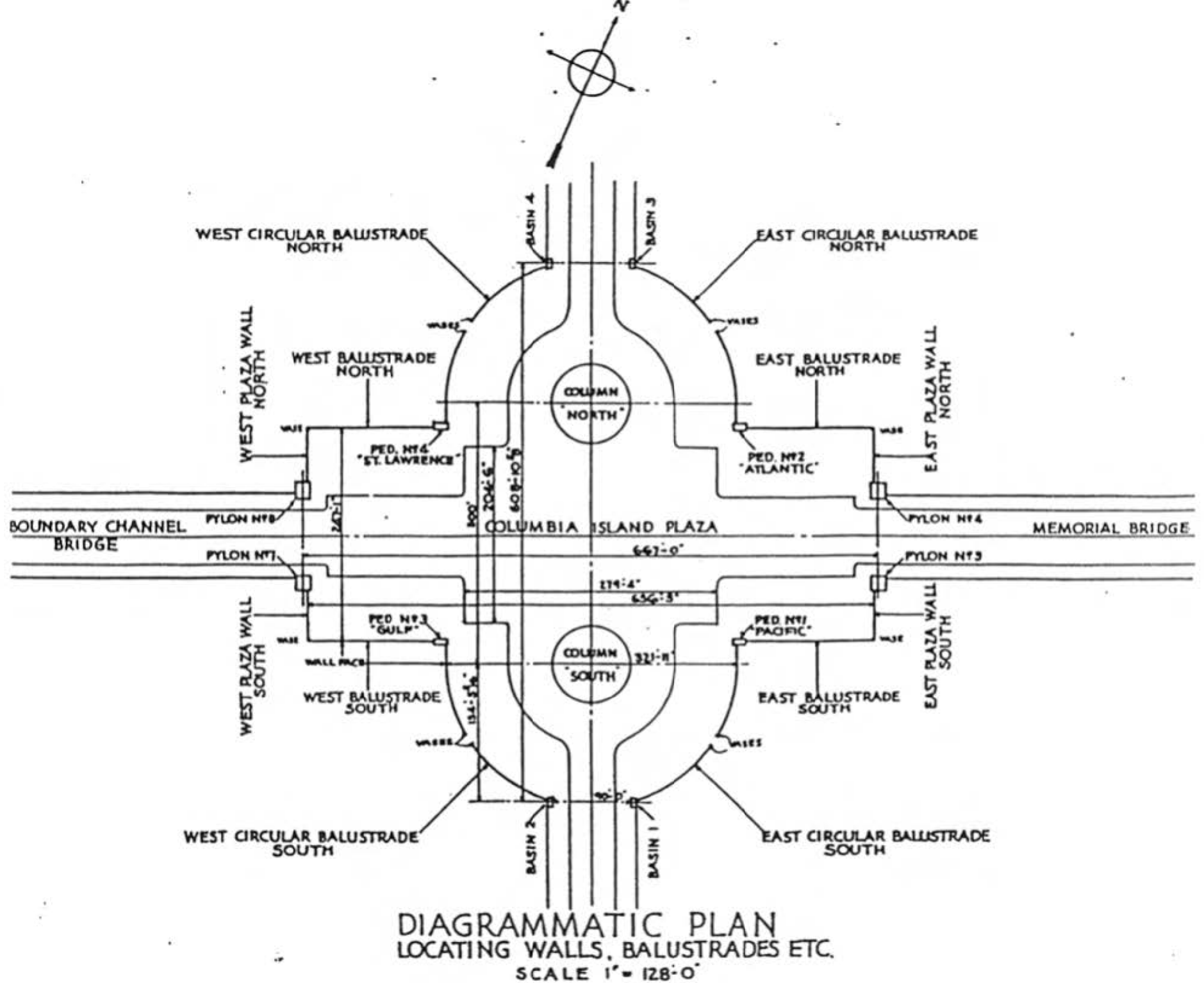


Figure 2

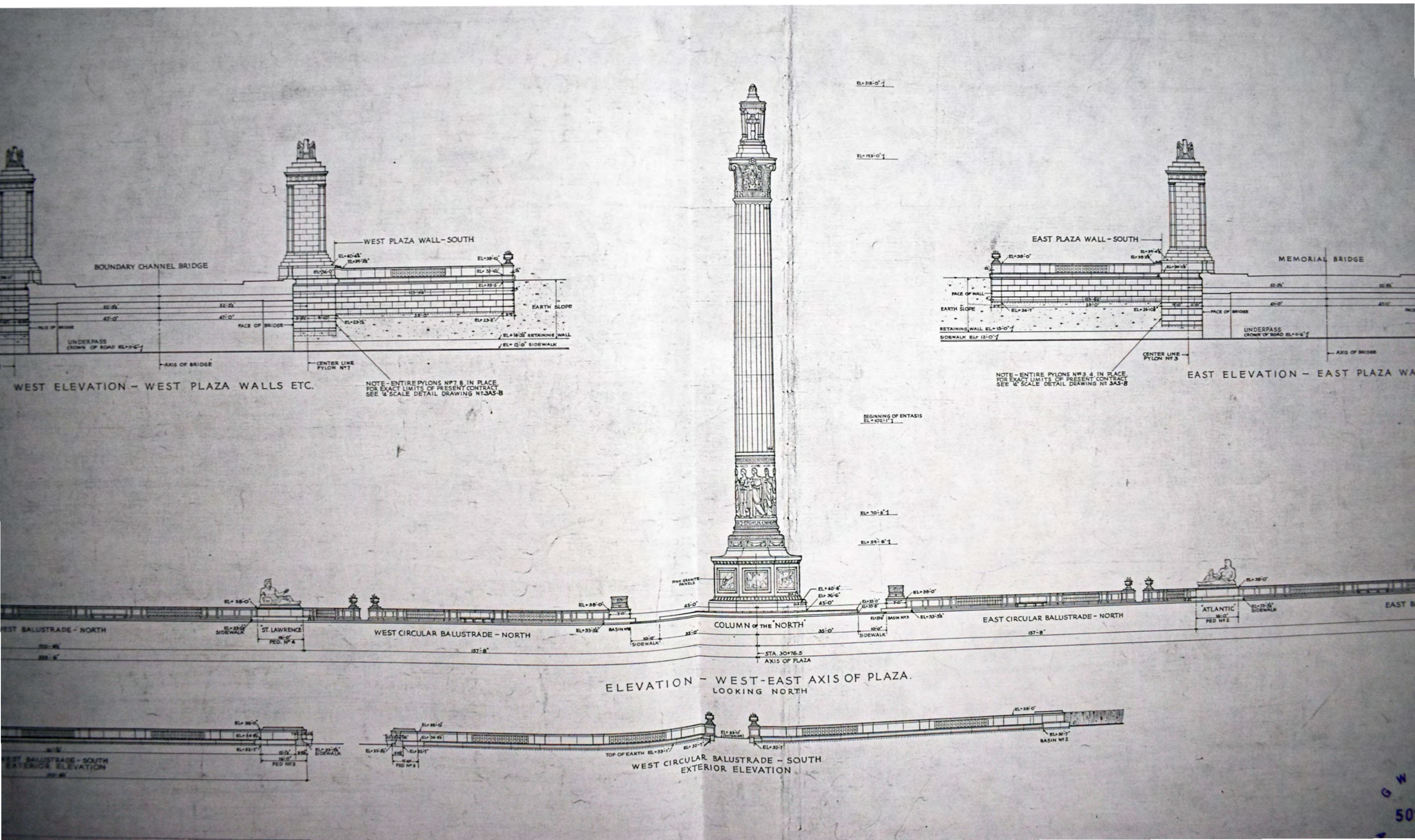


Figure 3

Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site National Register Historic Properties

Sources

1. ESRI World Imagery Basemap
2. NCR Cultural Resources GIS

LEGEND

- Area of Potential Effects
- Direct Effects Boundary
- Project Area
- Construction Staging Area
- Potential Utility Corridors

Individual Structures

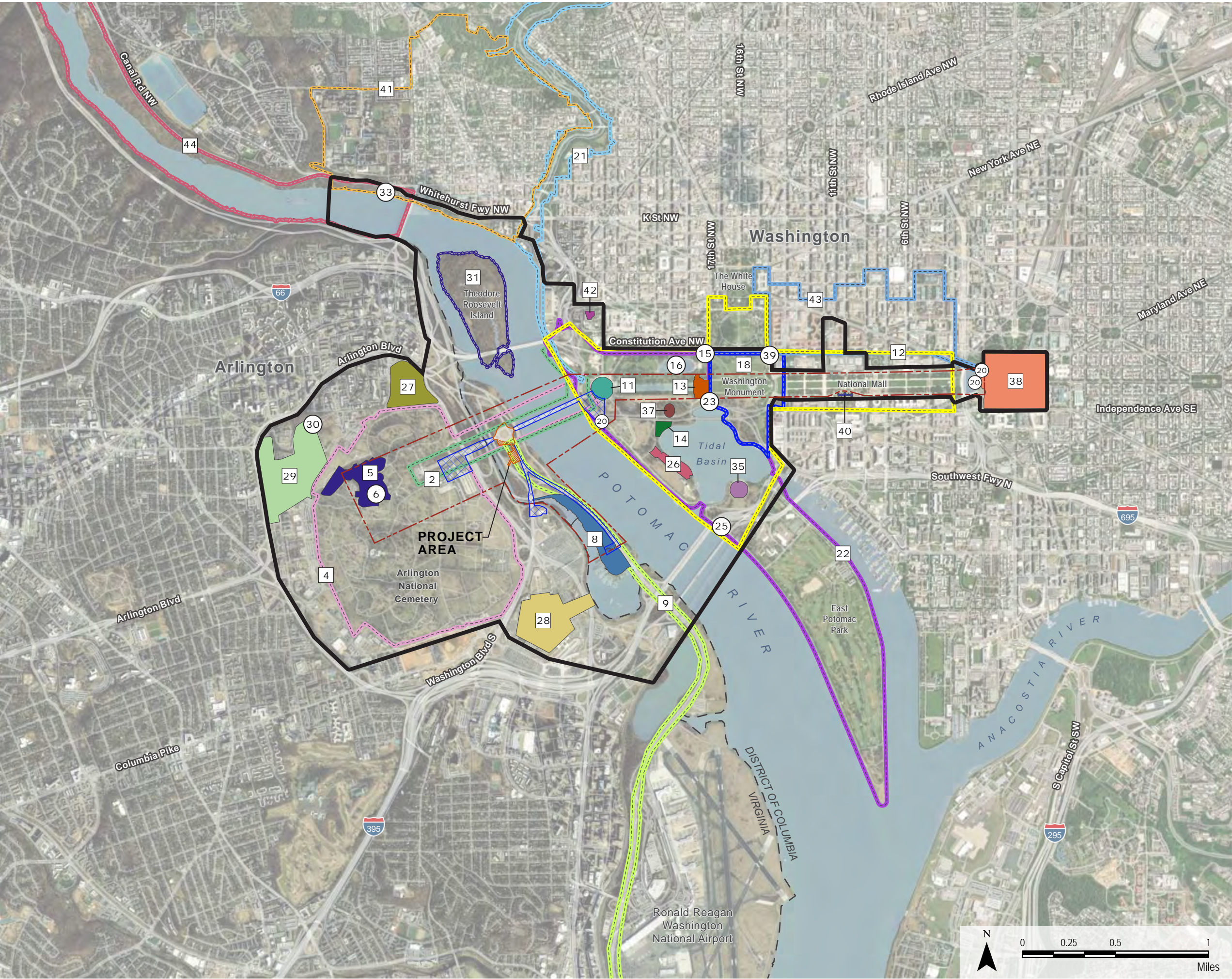
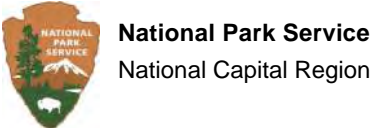
- 6 Arlington House (Robert E. Lee Memorial)
- 15 Lockkeeper's House, C & O Canal Extension
- 16 56 Signers Memorial
- 20 Civil War Monuments in Washington, D.C. (Adjacent Lands)
- 23 American Revolutionary Statuary in the District of Columbia
- 25 Cuban Friendship Urn
- 30 Quarters 1 (NHL- Adjacent Lands)
- 33 Washington Canoe Club
- 39 U.S. Capitol Gatehouses and Gateposts

District Boundaries

- 2 Arlington Memorial Bridge and Related Features
- 4 Arlington National Cemetery Historic District
- 5 Arlington House Historic District (also known as Robert E. Lee Historic District)
- 8 Lyndon Baines Johnson Memorial Grove on the Potomac
- 9 Mount Vernon Memorial Highway
- 11 Lincoln Memorial
- 12 National Mall
- 13 World War II Memorial
- 14 Martin Luther King Jr. Memorial
- 18 Washington Monument and Grounds Historic District
- 21 Rock Creek Park and Potomac Parkway Historic District
- 22 East and West Potomac Parks Historic District
- 26 Franklin Delano Roosevelt Memorial
- 27 Arlington Ridge Park
- 28 Pentagon (NHL- Adjacent Lands)
- 29 Fort Myer Historic District (NHL- Adjacent Lands)
- 31 Theodore Roosevelt Island
- 35 Thomas Jefferson Memorial
- 37 DC War Memorial
- 38 United States Capitol (NHL- Adjacent Lands)
- 40 Smithsonian Building (NHL- Adjacent Lands)
- 41 Georgetown Historic District (NHL- NPS and Adjacent Lands)
- 42 Old Naval Observatory (NHL- Adjacent Lands)
- 43 Pennsylvania Avenue National Historic Site

Notes

1. Projection: NAD 1983
2. PRELIMINARY (2026)



Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site National Register Historic Properties

Sources

1. ESRI World Imagery Basemap
2. NCR Cultural Resources GIS

Legend

- Area of Potential Effects
- Direct Effects Boundary
- Project Area
- Construction Staging Area
- Potential Utility Corridors

Individual Structures

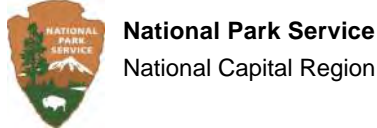
- 6 Arlington House
- 15 Lockkeeper's House, C & O Canal Extension
- 16 56 Signers Memorial
- 20 Civil War Monuments in Washington, D.C. (Adjacent Lands)
- 23 American Revolutionary Statuary in the District of Columbia
- 25 Cuban Friendship Urn
- 30 Quarters 1 (NHL- Adjacent Lands)
- 39 U.S. Capitol Gatehouses and Gateposts

District Boundaries

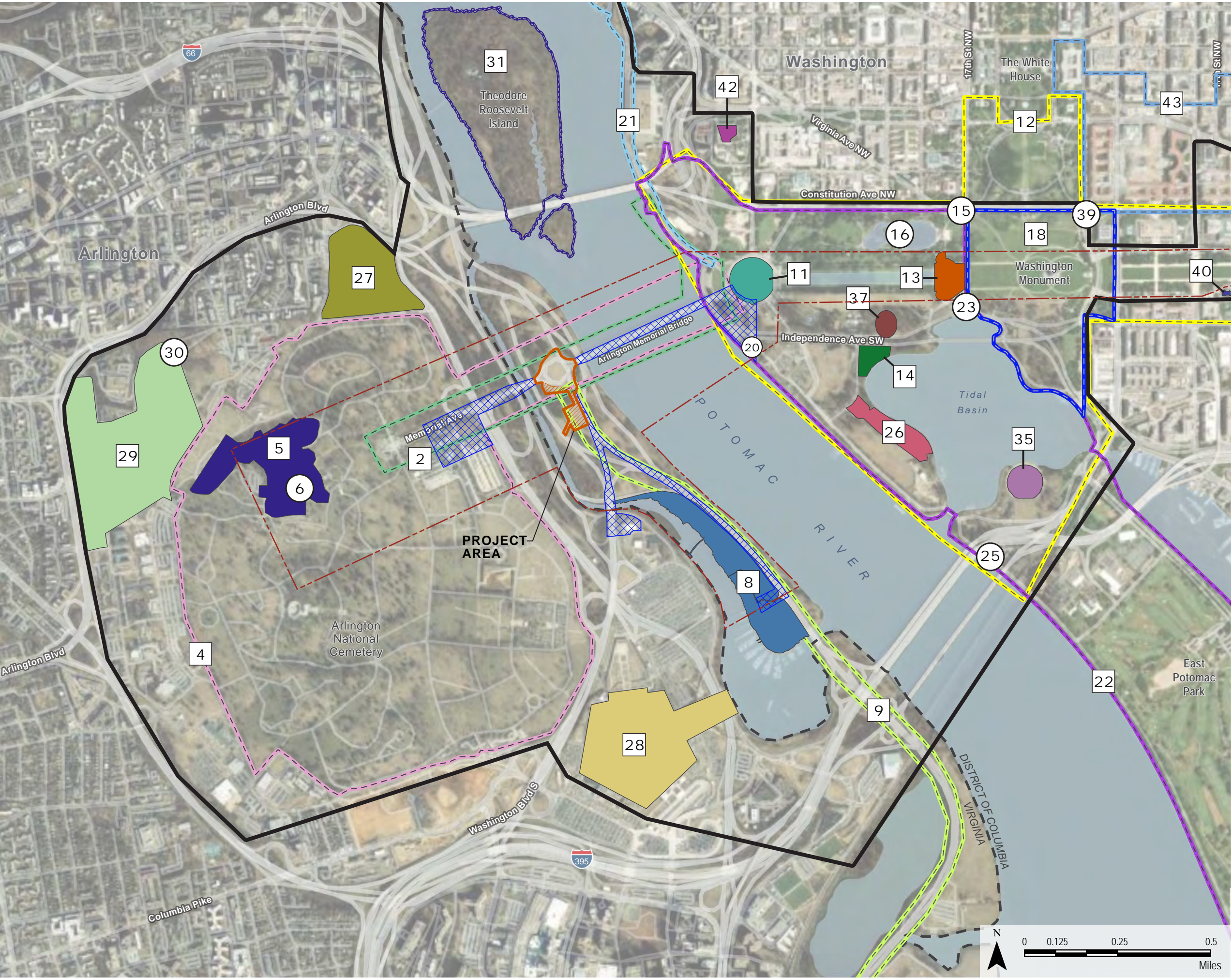
- 2 Arlington Memorial Bridge and Related Features
- 4 Arlington National Cemetery Historic District
- 5 Arlington House Historic District (also known as Robert E. Lee Historic District)
- 8 Lyndon Baines Johnson Memorial Grove on the Potomac
- 9 Mount Vernon Memorial Highway
- 11 Lincoln Memorial
- 12 National Mall
- 13 World War II Memorial
- 14 Martin Luther King Jr. Memorial
- 18 Washington Monument and Grounds Historic District
- 21 Rock Creek Park and Potomac Parkway Historic District
- 22 East and West Potomac Parks Historic District
- 26 Franklin Delano Roosevelt Memorial
- 27 Arlington Ridge Park
- 28 Pentagon (NHL- Adjacent Lands)
- 29 Fort Myer Historic District (NHL- Adjacent Lands)
- 31 Theodore Roosevelt Island
- 35 Thomas Jefferson Memorial
- 37 DC War Memorial
- 40 Smithsonian Building (NHL- Adjacent Lands)
- 42 Old Naval Observatory (NHL- Adjacent Lands)
- 43 Pennsylvania Avenue National Historic Site

Notes

1. Projection: NAD 1983
2. PRELIMINARY (2026)



Drawing #1A



Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site Cultural Landscapes

Sources

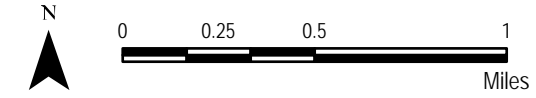
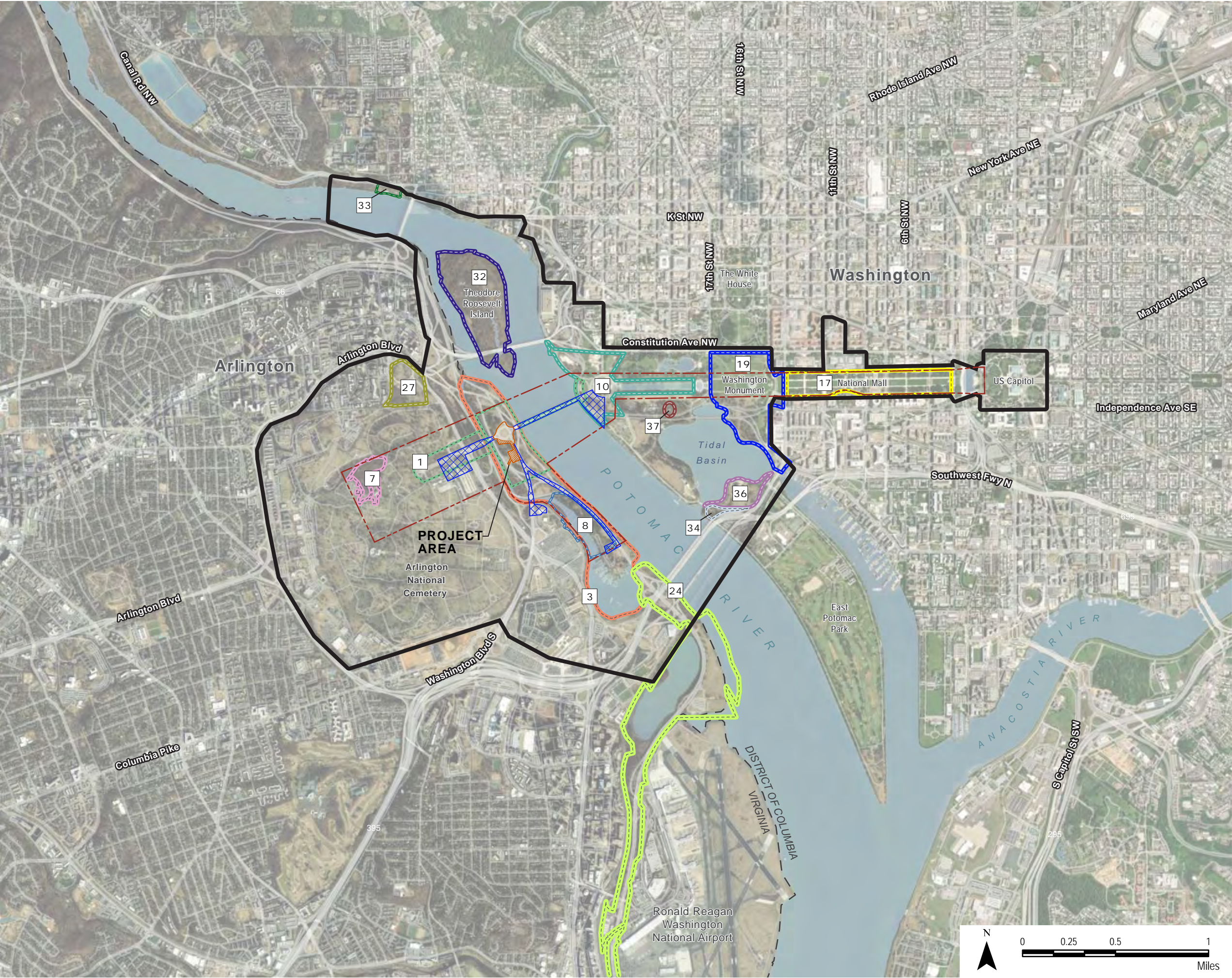
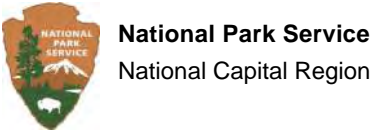
1. ESRI World Imagery Basemap
2. NCR Cultural Resources GIS

Legend

- Area of Potential Effects
 - Direct Effects Boundary
 - Project Area
 - Construction Staging Area
 - Potential Utility Corridors
-
- 1 Memorial Avenue Corridor
 - 3 Lady Bird Johnson Park
 - 7 Arlington House
 - 8 Lyndon Baines Johnson Memorial Grove on the Potomac
 - 10 Lincoln Memorial
 - 17 The Mall
 - 19 Washington Monument Grounds
 - 24 Mount Vernon Memorial Highway - North of Alexandria
 - 27 Arlington Ridge Park
 - 32 Theodore Roosevelt Island
 - 33 Washington Canoe Club
 - 34 George Mason Memorial
 - 36 Thomas Jefferson Memorial
 - 37 DC War Memorial

Notes

1. Projection: NAD 1983
2. PRELIMINARY (2026)



Area of Potential Effects on Historic Properties

George Washington Memorial Parkway
Washington, D.C.

Area of Potential Effects on Historic Properties | Triumphal Arch Site Cultural Landscapes

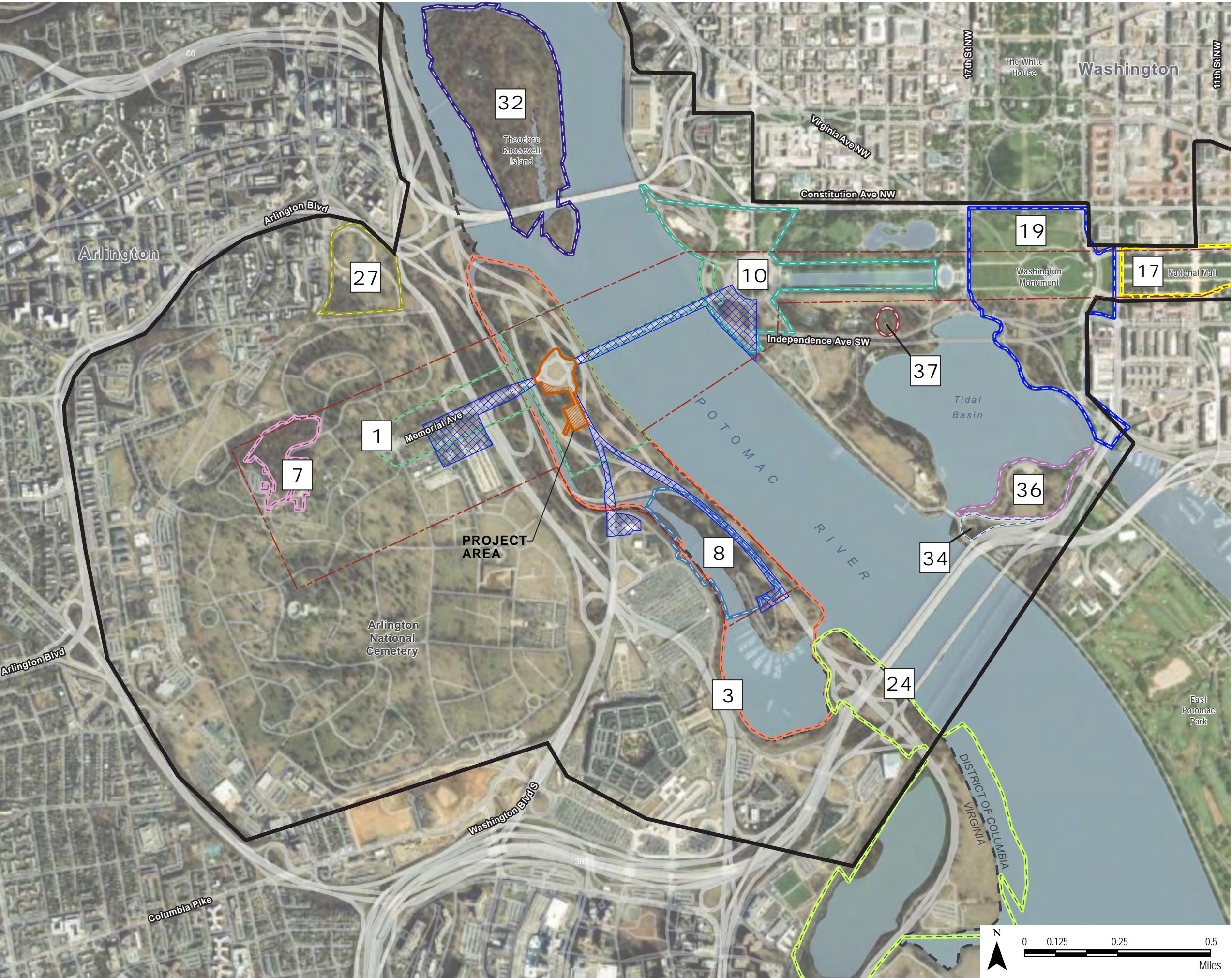
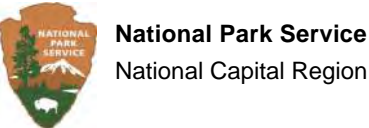
- Sources**
1. ESRI World Imagery Basemap
 2. NCR Cultural Resources GIS

Legend

- Area of Potential Effects
- Direct Effects Boundary
- Project Area
- Construction Staging Area
- Potential Utility Corridors

1	Memorial Avenue Corridor
3	Lady Bird Johnson Park
7	Arlington House
8	Lyndon Baines Johnson Memorial Grove on the Potomac
10	Lincoln Memorial
17	The Mall
19	Washington Monument Grounds
24	Mount Vernon Memorial Highway - North of Alexandria
27	Arlington Ridge Park
32	Theodore Roosevelt Island
34	George Mason Memorial
36	Thomas Jefferson Memorial
37	DC War Memorial

- Notes**
1. Projection: NAD 1983
 2. PRELIMINARY (2026)



**APPENDIX D. HISTORIC PROPERTIES AND ASSESSMENT OF ADVERSE EFFECTS
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	
	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

Map ID	Resource Name	NRHP Designation
	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
	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 Amphitheater; 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 14 th 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

Map ID	Resource Name	NRHP Designation
	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
	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

Map ID	Resource Name	NRHP Designation
	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
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

Map ID	Resource Name		NRHP Designation
		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
		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, axially 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 Pool, 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
	President's Park South	Contributing site

Map ID	Resource Name	NRHP Designation
	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
	National Air and Space Museum	Contributing building

Map ID	Resource Name	NRHP Designation
	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
	Madison Drive	Contributing structure

Map ID	Resource Name	NRHP Designation
	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
	John Saul Plaque	Contributing object

Map ID	Resource Name	NRHP Designation
	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
	<i>The Arts of Peace: Aspiration and Literature</i>	Contributing object
	<i>The Arts of Peace: Music and Harvest</i>	Contributing object
	<i>The Arts of War: Sacrifice</i>	Contributing object
	<i>The Arts of War: Valor</i>	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, <i>Ulmus americana</i> planted 1920s-1975, <i>Ulmus americana</i> 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
	Small-scale features: benches (1930s design for NCP) and streetlights (1930s design for Mall)	Contributing

Map ID	Resource Name		NRHP Designation
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
19	Washington Monument Grounds Cultural Landscape		NRHP cultural landscape

Map ID	Resource Name		NRHP Designation
		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
		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

Map ID	Resource Name	NRHP Designation
	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
	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

Map ID	Resource Name	NRHP Designation
	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
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 Tracerics, 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 Listed/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.
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 14 th 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.

Map ID	Resource Name	NRHP Designation	Contributing Views/Vistas
39	U.S. Capitol Gatehouses and Gateposts	NRHP	No contributing views. Gateposts flank 15 th Street and Constitution Avenue, NW in Washington Monument Grounds and President's Park. Gatehouse in SE corner of President's Park.
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 Tracerics, 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).

NRHP = Designated listed/eligible for the National Register of Historic Places; NHL = National Historic Landmark.

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	<p>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.</p>	<p>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.</p>	<p>The proposed undertaking would introduce adverse direct and indirect effects.</p>

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 Circle, 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.
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.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse 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.
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.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
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.
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.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
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.
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.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse 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.
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.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse 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.
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.

Resource Name	Criteria of Significance	Indirect Effects	Direct Effects	Summary of Adverse Effects
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.

LITERATURE CITED

- Army National Military Cemeteries and Virginia State Historic Preservation Officer. 2026. *Programmatic Agreement Among Army National Military Cemeteries and the Virginia State Historic Preservation Officer Regarding Entry Corridor Area Improvements Arlington National Cemetery, Arlington County, Virginia*. On file, Virginia Department of Historic Resources, Richmond.
- Arlington National Cemetery, Virginia State Historic Preservation Officer, and Advisory Council On Historic Preservation. n.d. [2026]. Attachments C and E in *Programmatic Agreement among Arlington National Cemetery, the Virginia State Historic Preservation Officer, and the Advisory Council on Historic Preservation for the Operation, Maintenance, And Repair Activities At Arlington National Cemetery, Arlington County, Virginia*. On file, Virginia Department of Historic Resources, Richmond.
- Bobeczko, Laura L. Judith H. Robinson. 1998. National Register of Historic Places Registration Form for East and West Potomac Parks Historic District. On file, Robinson & Associates, Washington, D.C.
- Dillon, Helen. 1972. National Register of Historic Places Inventory – Nomination Form for Lockkeeper’s House, C & O Canal Extension. On file, Robinson & Associates, Washington, D.C.
- EDAW, Inc. 1992a. *Cultural Landscape Report Mount Vernon Memorial Highway*. Volume One: History. Prepared for National Park Service, National Capital Region. Alexandria, Virginia: EDAW, Inc.
- EDAW, Inc. 1992b. *Cultural Landscape Report Mount Vernon Memorial Highway*. Appendix H: Monthly Construction Reports. Prepared for National Park Service, National Capital Region. Alexandria, Virginia: EDAW, Inc.
- EHT Tracerics, Inc. and Stantec. 2018. *Cultural Landscape Report Rock Creek and Potomac Parkway Potomac Waterfront Section*. Prepared for National Park Service, National Mall and Memorial Parks, Division of Resource Management Washington, D.C.
- Frisbie, Meg, Molly Lester, Chen Mao, Ruth Penberthy, Haoyi Shang, Zhijie Wang, and Ryan Drake. 2024. *Memorial Avenue Corridor, George Washington Memorial Parkway, Cultural Landscape Report*. Philadelphia: University of Pennsylvania - Weitzman School of Design, Urban Heritage Project.
- Krakow, Jere, L. 1993. National Register of Historic Places Inventory Registration Form for George Washington Memorial Parkway. On file, National Park Service, Denver Service Center, Colorado.
- Mckintosh, Barry. 1979. National Register of Historic Places Inventory – Nomination Form for Arlington Memorial Bridge. On file, National Park Service, National Capital Region, Washington, D.C.
- Mckintosh, Barry. 1980a. National Register of Historic Places Inventory – Nomination Form for Mount Vernon Memorial Highway, George Washington Memorial Parkway. On file, National Park Service, National Capital Region, Washington, D.C.
- Mckintosh, Barry. 1980b. National Register of Historic Places Inventory – Nomination Form for Mount Vernon Memorial Highway, George Washington Memorial Parkway (portion). On file, National Park Service, National Capital Region, Washington, D.C.

- National Park Service. 2004. *National Park Service Cultural Landscapes Inventory, Memorial Avenue Corridor George Washington Memorial Parkway – Memorial Avenue*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2005. *National Park Service Cultural Landscapes Inventory, Lady Bird Johnson Park George Washington Memorial Parkway - Lady Bird Johnson Park*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2006a. *National Park Service Cultural Landscapes Inventory, Union Square National Mall*. Washington, D.C.: National Park Service, National Capital Region.
- National Park Service. 2006b. *National Park Service Cultural Landscapes Inventory, The Mall National Mall*. Washington, D.C.: National Park Service, National Capital Region.
- National Park Service. 2009a. *National Park Service Cultural Landscapes Inventory, Arlington House, The Robert E. Lee Memorial*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2009b. *National Park Service Cultural Landscapes Inventory, Washington Monument Grounds Washington Monument*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2015. *National Park Service Cultural Landscapes Inventory, Thomas Jefferson Memorial*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2016. *National Park Service Cultural Landscapes Inventory, Memorial Avenue Corridor George Washington Memorial Parkway - Memorial Avenue*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2018a. *National Park Service Cultural Landscapes Inventory, The Mall National Mall*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2018b. *Evaluation of Visual Impact Analysis for Temporary Structures on the National Mall: Cultural Landscape Vista And View Preservation*. Washington, D.C.: National Park Service, National Capital Region, Resource Stewardship and Science, Cultural Resources Division.
- National Park Service. 2022a. *National Park Service Cultural Landscapes Inventory, Mount Vernon Memorial Highway – North of Alexandria George Washington Memorial Parkway [Final]*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2022b. *National Park Service Cultural Landscapes Inventory, Lincoln Memorial National Mall and Memorial Parks*. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- National Park Service. 2024. *National Park Service Cultural Landscapes Inventory, Memorial Avenue Corridor George Washington Memorial Parkway*. Revised 8/2024. Washington, D.C.: National Park Service, Park Cultural Landscapes Program.
- Pfanz, Donald, C. 1980. National Register of Historic Places Inventory – Nomination Form for Washington Monument. On file, National Park Service, National Capital Region, Washington, D.C.
- Pfanz, Donald, C. 1981. National Register of Historic Places Inventory – Nomination Form for Thomas Jefferson Memorial. On file, National Capital Parks, Washington, D.C.

- Robinson, Judith H., Daria Gasparini, and Tim Kerr. 2016. National Register of Historic Places Inventory Registration Form for National Mall Historic District – Boundary Increase/Additional Documentation. On file, Robinson & Associates, Inc., Washington, D.C.
- Seagraves, Anna, Ann Fuqua, and Nicholas Veloz. 1980. National Register of Historic Places Inventory – Nomination Form for Arlington House, Arlington National Cemetery. On file, National Park Service, National Capital Region, Washington, D.C.
- Scott, Gary. 1977. National Register of Historic Places Inventory – Nomination Form for American Revolution Statuary. On file, National Capitol Region, Washington, D.C.
- Smith, Adam, Megan Tooker, and Susan Enscaore. 2013. National Register of Historic Places Inventory Registration Form for Arlington National Cemetery Historic District. On file, U.S. Army Corps of Engineers Engineer Research & Development Center-Construction Engineering Research Laboratory, Champaign, Illinois.
- Virginia Polytechnic Institute and State University. 2009. *Cultural Landscape Report The Vegetation of the George Washington Memorial Parkway Central Section: Alexandria to Arlington Memorial Bridge. Volumes One and Two*. Prepared for the National Park Service.

**PHASE IA ARCHAEOLOGICAL ASSESSMENT
DC MONUMENTAL ARCH PROJECT
PARCEL SSL: 03170001
WASHINGTON, DC, U.S.**



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Submitted To:

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**May 2026
270228201**

EXECUTIVE SUMMARY

This report presents the results of a Phase IA Archaeological Assessment for the proposed construction of a 250-foot monumental arch at Lady Bird Johnson National Park, Washington, DC. The Area of Potential Effects (APE) encompasses Memorial Circle, which is located at located at 1450 George Washington Memorial Parkway, SW, Washington, DC, within parcel SSL: 03170001. The Archaeological Assessment was conducted by the Cultural Resource Staff of Langan Engineering and Environmental Services, LLC (Langan) on behalf of Harrison Design. The proposed project involves the construction of a 250-foot tall monumental arch along with associated landscaping, site grading, and stormwater management features along with an associated staging/laydown area. 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.

The Phase IA Archaeological Assessment was conducted to comport with Federal guidelines and meet the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. Pertinent legislation includes Sections 106 and 110 of the National Historic Preservation Act (NHPA), the American Antiquities Act (AAA), the Archaeological Resources Protection Act (ARPA), the National Environmental Policy Act (NEPA), and the Native American Graves Protection and Repatriation Act (NAGPRA), as applicable.

Virginia's V-CRIS database identified thirteen (13) archaeological resources, one hundred and eighteen (118) individually identified above-ground architecture resources, and six (6) somewhat overlapping historic districts within a one-mile radius of the APE on the Virginia side of the Potomac River. The APE is also within the study area of the War of 1812 and within one mile of the Core Area for that battle. Archaeological sites within a one-mile radius of the APE include the Arlington House Site (44-AR-0017), which contributes to the NRHP-listed Arlington House Historic District; two NHRP-eligible sites, the Arlington House Ravine (44-AR-0032) and Chaffee Place Site (44-AR-50); five (5) historic and precolonial sites, which have not been evaluated for eligibility; and six (6) sites that have been determined by Virginia's Division of Historic Resources to be ineligible for listing on the NRHP. Eighty-two (82) of the 118 individually identified above-ground resources are listed as associated with historic districts. These historic districts are the Arlington House Historic District (1 property), Fort Myer Historic District (28 properties), Arlington National Cemetery Historic District (34 properties), Pentagon Office Building Complex Historic Districts (4 properties), the Mount Vernon Memorial Highway Historic District (2 properties), and the George Washington Memorial Parkway Historic District (14 properties), all of which are listed in the National Register of Historic Places (NRHP).

Langan submitted a request to the District of Columbia's Planning Office, which serves as the D.C. State Historic Preservation Office (SHPO) for known archaeological and historic architectural resources within the APE for Direct Effects and vicinity on May 20, 2026. As of the date of this report, site files have not yet been provided and are expected to be added post facto.

Langan's Phase IA archaeological assessment utilized a predictive model to determine the potential for precolonial and/or historic archaeological resources within the APE. The predictive model synthesized information about known archaeological sites, past cultural resource surveys, environmental factors, known historic resources, and a pedestrian survey of the

property. The results of geotechnical borings conducted within the APE for Direct Effects are also considered as part of this predictive model.

Historic mapping and the preliminary geotechnical borings indicate that the APE is located on approximately 14-feet of fill. This fill, deposited between 1915 and 1927, caps 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. Investigations in areas of fill have provided important information about Washington, DC's buried landscapes, ranging in age from roughly 10,000 BC to the colonial. The APE is located in an area that would have provided attractive resources during precolonial and early colonial periods. The Arlington House waterfront was also an important aspect of its 19th century landscape. As a result, Langan's Phase IA sensitivity assessment has characterized the APE as having moderate to high sensitivity for intact precolonial and/or historic archaeological resources.

At present, the depth of subsurface disturbances is not known. Should disturbances extend more than 10-feet below ground surface, then a Phase IB subsurface archaeological investigation inclusive of geoarchaeological analysis would be appropriate to determine the presence/absence of previously unrecorded significant archaeological resources within portions of the APE which may be impacted by the proposed project.

PUBLIC REPORT SUMMARY

The Memorial Circle at Lady Bird Johnson Park, which is scheduled for the construction of a 250-foot monumental arch was investigated by Langan Engineering and Environmental to assess the Memorial Circle's potential to contain known or previously undocumented archaeological resources. Memorial Circle is located on top of approximately 14-feet of fill dredged from the Potomac River and redeposited to create a fast landform.

This site was previously located among the tidal marshes below today's Theodore Roosevelt Island. During the late 17th or early 18th century, a dam or causeway was constructed between the island and the Virginia shore. The construction of this feature accelerated the formation of sandbars and tidal flats downriver. Eel grass captured sediment creating a mosaic of wet meadows, sandbars, and tidal flats that extended downriver along the Virginia shoreline. This area was regularly inundated by tidewater. During the early 1890s, a dike of rip rap and other fill material was built to the south of Theodore Roosevelt Island, which further accelerated the formation of this landform. By 1915, the U.S. Army Corps of Engineers (USACE) had begun the work of creating a new island on top of this marshy landscape by installing dikes and levees. By 1917, this area of shallow river and tidal flats was partitioned off from the main channel by a wall and was being infilled to form an island. Fill dredged up from the Potomac River to improve navigation was deposited on this area, which, in 1920, was officially named Columbia Island. It was added to the park system in 1922. A small waterway called the Boundary Channel was made to separate the island from the Virginia mainland. By 1927 the land had been built up to an average level of 20-feet to form an island. This island provided terminus for the Arlington Memorial Bridge, where it drew a material connection between the Lincoln Memorial and Arlington House, where Robert E. Lee once lived, that was felt to symbolize how the United States had come back together after the American Civil War.

Langan assessed the area to determine the likelihood of finding precolonial and/or historic archaeological resources. This assessment used a predictive model that took various types of information into account. These included information about known archaeological sites, environmental factors that might have made the area attractive for human activity, known historic resources, and a pedestrian survey. Historic maps and preliminary results from deep geotechnical borings indicated that the area is located on approximately 10-14 feet of fill. This fill, deposited between 1915 and 1927, sits on top of an earlier landscape of sandy clay, likely laid down on sandbars or shallow tidal flats / floodplains during the late precolonial period or early historic period. Archaeologists have located archaeological resources in similar settings elsewhere in the region and in Washington, DC. This research has provided important information about Washington, DC's buried past. Sites have ranged in age from roughly 10,000 BC to the colonial period. As a result, Langan recommends additional research, including subsurface archaeological investigation, to ascertain whether known or previously undocumented archaeological resources significant to Washington, DC's past are located within areas that may be disturbed by the proposed project.

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Appendix A Site Plans
Appendix B Qualifications of Preparer

1.0 INTRODUCTION

Langan Engineering and Environmental Services, LLC (Langan) was retained by Harrison Design to complete a Phase IA Archaeological Assessment of the Area of Potential Effects (APE) for the proposed 250-foot tall monumental arch on Memorial Circle within the Memorial Avenue Corridor, which crosses Lady Bird Johnson National Park (Columbia Island), located at 1450 George Washington Memorial Parkway, SW, Washington, DC (see Figures 1 through 3 and Appendix A). While part of the District of Columbia, Lady Bird Johnson National Park is located along the Virginia (west) shore of the Potomac River. The proposed project involves the construction of a 250-foot tall monumental arch along with associated landscaping, site grading, and stormwater management features along with an associated staging/laydown area for use during construction. 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. The APE is located on parcel SSL: 03170001 which is Federal land owned by the United States of America.

The Area Potential Effect (APE) for Direct Effects comprises the entirety of Memorial Circle, a traffic circle of approximately 2.65 acres (1 ha.) and a laydown/staging area of approximately 1.90 acres (0.77 ha.) located roughly 100 meters southeast of the circle. At this preliminary stage, an APE for Indirect Effects has not been formally established and further coordination and investigation will be necessary to evaluate effects on historic architectural resources. This additional investigation is anticipated under separate cover and is not included as part of this report.

The Archaeological Assessment was conducted by the Cultural Resource Staff of Langan Engineering and Environmental Services, LLC (Langan) on behalf of Harrison Design. The assessment included historic documentary research, review of previously recorded site files maintained by VDHR and the DCSHPO, a review of environmental data such as USDA mapped soil series, bedrock geology, surficial geology, site drainage and access to potable water, slope, and azimuth as factors influencing human settlement patterns combined with the results of a site visit carried out on May 19, 2026.

The proposed project is a Federal Undertaking being conducted under the oversight of the National Park Service (NPS) and the Department of the Interior (DOI). Based on a review of the conceptual design information, the proposed project may require compliance with Sections 106 and 110 of the National Historic Preservation Act (NHPA) of 1966, as amended, the National Environmental Policy Act (NEPA), the American Antiquities Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act (if applicable).

Cultural resources investigations generally follow the methods promulgated in the rules and regulations published by the DOI. Langan Cultural Resource Management (CRM) personnel who meet or exceed the *National Park Service's Professional Qualifications Standards* criteria outlined in 36 CFR 66.3(b) (2) and 36 CFR 61 conducted the assessment and prepared the report. Qualifications of the key personnel are presented in Appendix B.

1.1 Site and APE Description

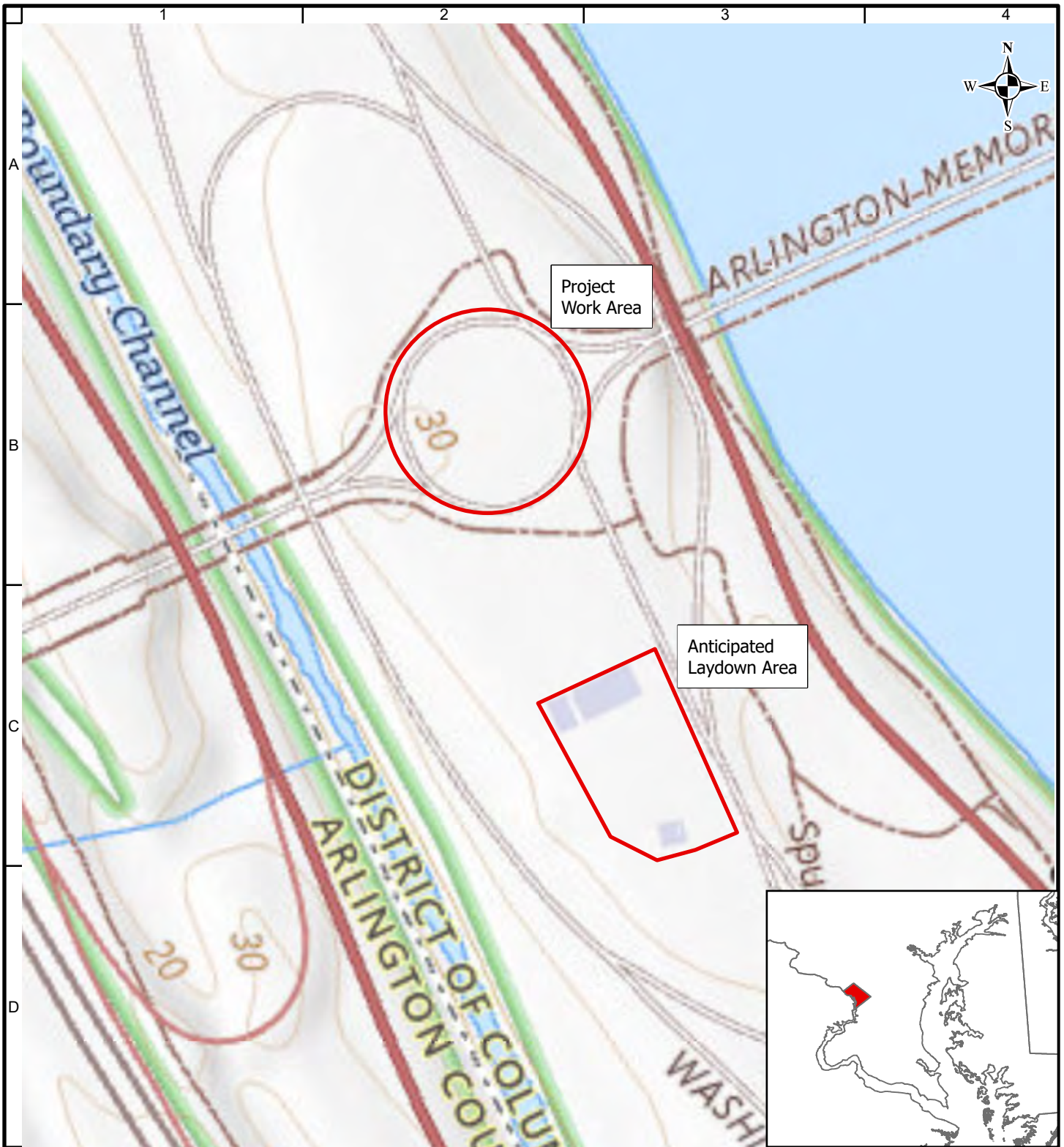
The site is Memorial Circle, a traffic circle located on a roughly oval-shaped artificial ridge on the northern portion of Lady Bird Johnson National Park (formerly, Columbia Island). This circle constitutes the extent of permanent direct physical effects. Memorial Circle was built c. 1940. It is formed by Memorial Avenue, which surrounds it on all sides, and marks the southwest terminus of the NRHP-listed Arlington Memorial Bridge. The circle links the bridge to Memorial Avenue—a ceremonial gateway to Arlington National Cemetery which is lined by seven memorials terminating at the Women in Service Memorial at its western extent. These elements make up the Memorial Avenue Corridor, a one-mile axial composition of bridges, circles, entrances, landscape features, and views that together form “a major element of the system of public buildings, parks, memorials, bridges, and drives that constitutes the monumental core of Washington, DC” (NPS 2021).

Standing in the center of the circle, turning clockwise from the north, South Arlington Boulevard exits the circle to the northeast; Arlington Memorial Bridge runs northeast from the circle across the Potomac River to the Lincoln Memorial; and South Arlington Boulevard joins the circle to the east. The circle consists of manicured grass with low street-facing curbs. The road around it has cobblestone elements (utility flags and surface evidence of recent test boring was visible at the time of the visit). The ridge that forms this portion of Lady Bird Johnson Park is meadows of mowed grass with stands of pine, maple, chestnut, and dogwood. Tulips have been planted at bridge entrances to the east and west, specifically at the Arlington Memorial Bridge and the Boundary Channel Bridge/Memorial Avenue overpass.


The Lincoln Memorial is visible to the northeast. Arlington House is visible above Arlington National Cemetery to the southwest. The Mount Vernon Trail and George Washington Memorial Parkway pass to the east of the Memorial Circle APE, running parallel to the Potomac River. Southbound Washington Boulevard runs to the west of the ridge. A back-channel of the Potomac separating Lady Bird Johnson Park from the mainland is located to the west, marking the boundary between the District of Columbia and Virginia. The George Washington Memorial Parkway, a metro rail line, and the Richmond Highway run between the channel and the Arlington National Cemetery.

1.2 Area of Potential Effect

The APE is defined in 36 CFR 800.16(d) as: “the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.” In defining the APE, both the Virginia Department of Historic Resources and DC SHPO consider potential direct, indirect, and cumulative effects to historic properties and all aspects of their integrity, including associated settings, during an undertaking and stemming from the permanent elements of an undertaking (such as built structures or land disturbance).



Legend

 Area of Potential Effect



NOTES:

1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, NEW YORK, QUADRANGLE, DATED 2016.

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Project

DC MONUMENT PROJECT

SSL: 03170001
WASHINGTON DC
DISTRICT OF COLUMBIA

Figure Title

USGS MAP

Project No.

270228201

Date

5/22/2026

Scale

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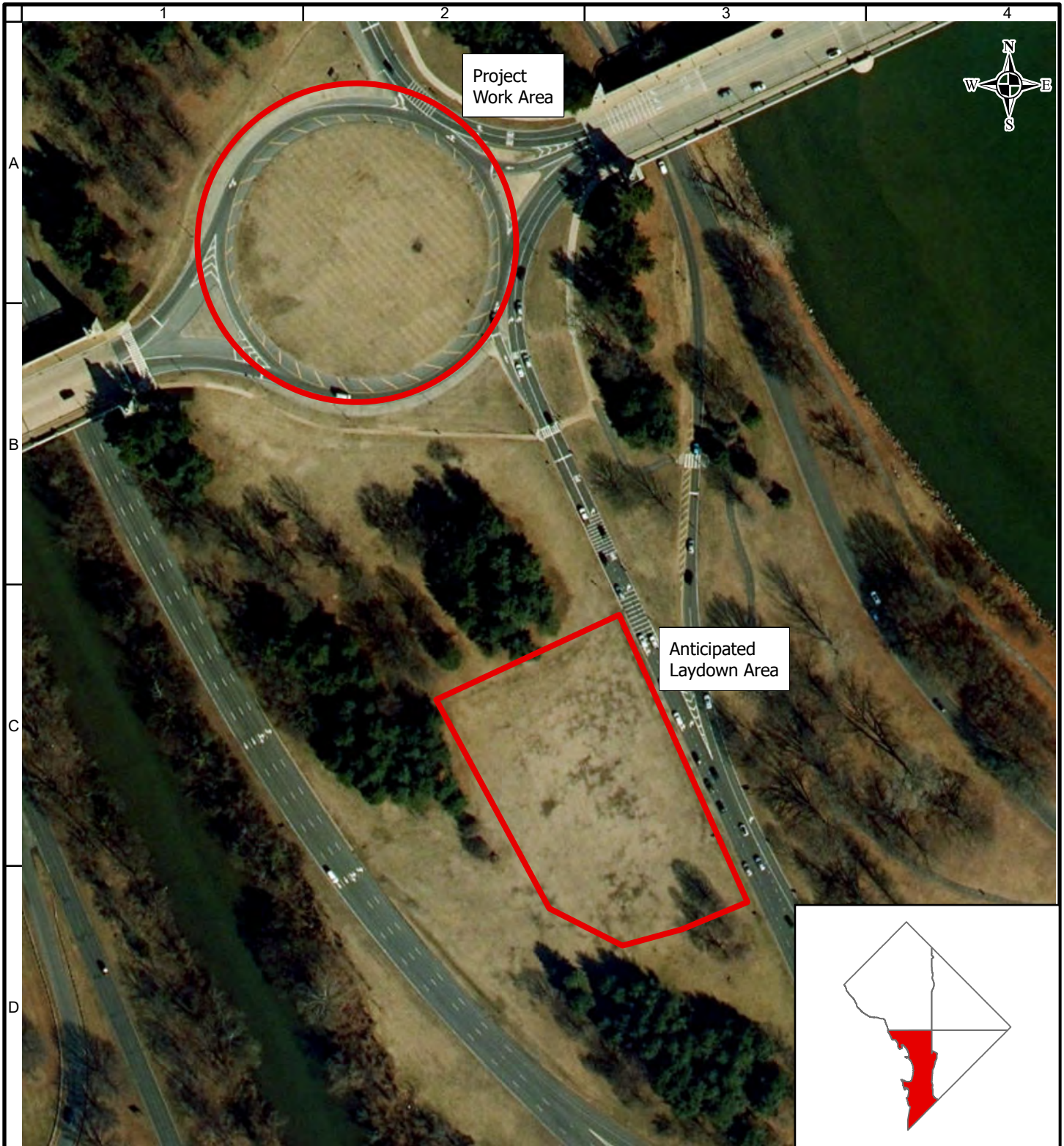
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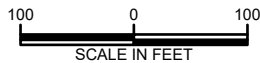
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Sheet 1 of 1



Legend

 Area of Potential Effect



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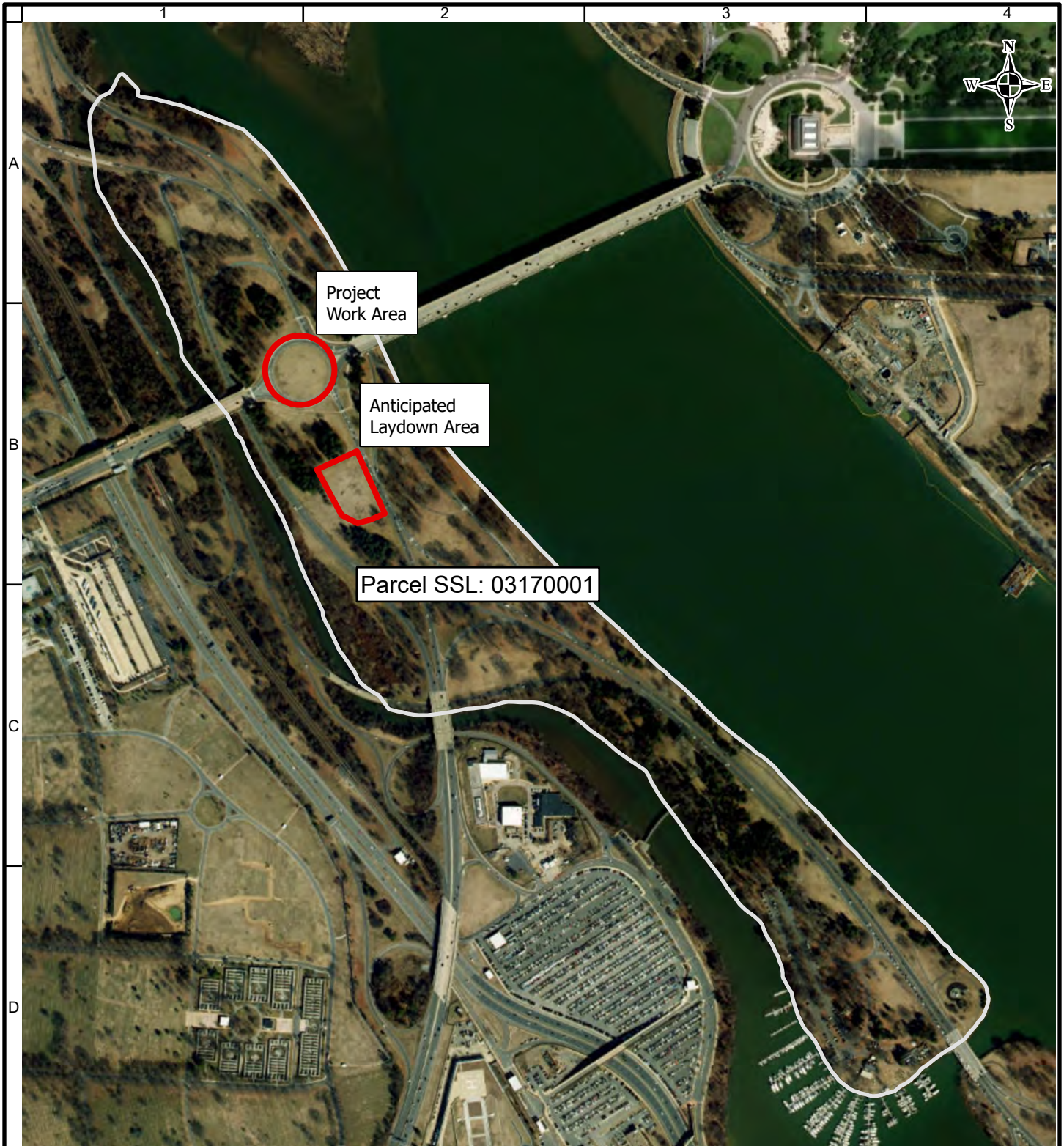
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Project
DC MONUMENT PROJECT
 SSL: 03170001
 WASHINGTON DC
 DISTRICT OF COLUMBIA

Figure Title
AERIAL IMAGE

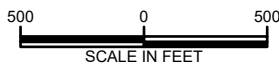
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Figure No.
2
 Sheet 1 of 1



Legend

- Area of Potential Effect
- parcel



NOTES:

1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, __, NEW YORK, QUADRANGLE, DATED 2016.

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Project
DC MONUMENT PROJECT
 SSL: 03170001
 WASHINGTON DC
 DISTRICT OF COLUMBIA

Figure Title
PARCEL MAP

Project No.
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Figure No.
3
 Sheet 1 of 1

Direct Effects

The APE for Direct Effects includes portions of the APE to be physically impacted by the current project. The proposed project includes the construction of a 250-foot arch, which will involve excavation, construction, and associated staging/laydown areas. As such, the APE for Direct Effects is defined as the entirety of the Memorial Circle (approximately 2.65 acres or 1 hectare). The primary LOD will encompass the existing grass area within Memorial Circle. A mowed field located approximately 100 meters south-southeast of the circle, which was previously used for the Memorial Bridge staging area, is anticipated to be reused as staging/laydown space for this project. The anticipated staging/laydown area comprises about 1.90 acres (0.77 hectare).

Indirect Effects

The APE for Indirect Effects generally includes locations that could be indirectly affected by the current project. These indirect effects could include, but are not limited to visual intrusion, auditory disturbance, vibration impacts, changes in traffic patterns, land use, public access, or changes in the general character of an area, whether temporary (such as construction-related obstructions to pedestrian access) or more permanent. At this preliminary stage, an APE for Indirect Effects has not been formally established for the proposed Undertaking. However, given the historic nature of Washington, DC and the quantity of National Register of Historic Places (NRHP) listed and eligible properties and districts, National Historic Landmarks (NHL), locally significant resources in both the D.C. and the Arlington, Virginia regions, and properties meeting the 50-year threshold for NRHP consideration within the immediate vicinity, a formal viewshed study and historic architectural investigation are anticipated under separate cover.

1.3 Criteria for Evaluation

The APE includes locations that may be potentially impacted by the construction or that may experience effects once construction is completed. Included in the APE are all locations where the project may result in ground disturbance, areas where project elements may be visible, and where the activity may result in changes to traffic patterns, land use and public access, etc. Project effects on historic resources can include both physical effects and contextual effects. Physical effects can include physical destruction, demolition, damage, or alteration of a historic resource. Contextual effects can include isolation of a property from its surrounding environment; the introduction of visual or audible elements that are out of character with the property or that alter its setting and context; or elimination of publicly accessible views to the resource.

1.4 Acknowledgements and Project Personnel

The cultural resources assessment was conducted under the direction of Mr. Scott Wieczorek, RPA, who served as the project manager and provided overall Quality Assurance / Quality Control. Dr. Brendan Tuttle, RPA, served as the Principal Investigator for archaeology. Langan's Cultural Resources Management (CRM) personnel meet or exceed the *National Park Service's Professional Qualifications Standards* criteria outlined in 36 CFR 66.3(b) (2) and 36 CFR 61. Qualifications for key personnel are presented in Appendix B.

2.0 RESEARCH GOALS AND DESIGN

This report presents the findings of a Phase IA archaeological assessment of the APE for Direct Effects. The assessment included a review of environmental data favorable to human settlement patterns, general research on the precontact settlement of the region, historic background research, a review of site files maintained by both the VDHR and the DC SHPO, and a review of historic maps and atlases portraying the APE.

2.1 Archaeology

A Phase IA archaeological assessment has two goals. First, the Phase IA develops an environmental and land use history of the APE up until present day. This history is derived through an analysis of 1) environmental factors such as physiography, topographic relief, soil drainage, access to potable water and/or exploitable resources, and azimuth; 2) a review of local histories, primary land records and other documentary sources, genealogical research, and oral histories; 3) a review of available historic maps, atlases, and aerial images depicting the area of potential effects; 4) a review of previously recorded archaeological resources, historic properties, and past cultural resources investigations; and 5) a pedestrian reconnaissance to identify evidence of past ground disturbance and/or potential archaeological resources and to document the conditions of the APE at the time of the reconnaissance. Together, these sources provide a comprehensive profile of the APE.

The second goal for the Phase IA is to assess the sensitivity of the APE for its potential to contain previously undocumented archaeological resources. This predictive model aligns with the standards of multiple regional SHPO agencies and characterizes archaeological sensitivity into three levels: high, moderate, and low. Adjunct to these levels is a fourth category comprised of areas excluded from consideration. The assessment of archaeological sensitivity is carried out for two temporal categories, precontact and historic periods. The precontact period covers the period of occupation prior to European settlement and is associated with Native American occupation. The historic period begins with European colonization (ca. 1600s) and extends to the present.

The classification of precontact archaeological sensitivity requires an examination of several contextual and environmental factors. These include the presence of documented precontact archaeological sites, access to potable water, soil drainage, degree of slope, and the level of past ground disturbances. Previous scholarly and cultural resource survey reports indicate that precontact site locations are most associated with relatively flat and level upland areas, with well-drained soils, situated within 500 feet of surface potable water. Additionally, the likelihood of encountering previously undocumented precontact sites increases when within 500 feet of previously documented sites. Recorded archaeological site information is available through the archaeological site files maintained by the VDHR and DC SHPO.

For the purposes of this project, areas characterized with high precontact archaeological sensitivity are situated on well-drained, relatively level (less than 15% slope) and undisturbed uplands, within 300 feet of surface potable water and/or previously identified precontact archaeological sites. Areas with moderate sensitivity are situated between 300 and 500 feet, while low sensitivity areas are located more than 500 feet from such resources. Areas of steep slopes with poor drainage, or that are subject to frequent flooding, are considered to have no

sensitivity to contain previously undocumented precontact archaeological resources as such environments would not have been conducive to settlement, habitation, or use. Areas previously subjected to deep ground disturbance, where archaeological deposits would have been destroyed, are also considered to have no sensitivity.

The classification of historic archaeological sensitivity requires a similar analysis of the presence/absence of nearby previously identified historic resources in addition to the examination of historical cartographic information, aerial images, documentary evidence, and past ground disturbances. These sources include published historic maps and atlases, records at historical societies, libraries, and newspapers archives, historic aerial images, and historic documents such as deeds, wills and probate inventories. County road books, public surveys or land divisions, and other public records and online sources are also utilized. Typically, historic archaeological sites tend to occur with 300 feet of mapped historic structures or roads, or within 300 feet of previously recorded historic archaeological sites. Additionally, historic site occupation has been found to follow settlement patterns associated with those of Native Peoples. As such, the environmental sensitivity factors considered favorable for precontact occupation are also applied to historic sensitivity.

For the purposes of this project, areas characterized with high historic sensitivity are located within 100 feet of those environmental factors considered favorable for precontact sites, mapped historic structures, previously identified historic archaeological sites, or historic properties. Areas between 100 and 300 feet are considered to have moderate sensitivity, and areas greater than 300 feet are considered to have low sensitivity.

2.2 National Register of Historic Places Criteria

Determinations of significance are based on the National Register of Historic Places (National Register) Criteria. It should be noted that properties listed on or determined eligible for listing on the National Register of Historic Places (NRHP, or NR) can be both architectural and archaeological resources. Significant historic properties include districts, structures, objects or sites that are at least 50 years in age and which meet at least one of the National Register criterion. Criteria used in the evaluation process are specified in 36 CFR Part 63. To be eligible for inclusion in the National Register of Historic Places, a historic property(s) must possess:

“the quality of significance in American History, architecture, archeology, engineering, and culture [that] is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- (A) that are associated with events that have made a significant contribution to the broad patterns of our history, or
- (B) that are associated with the lives of persons significant in our past, or
- (C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction, or
- (D) that have yielded, or may be likely to yield, information important in prehistory or history” (36 CFR 60.4).

There are several criteria considerations. Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that meet the criteria or if they fall within the following categories:

- (A) a religious property deriving primary significance from architectural or artistic distinction or historical importance, or
- (B) a building or structure, removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or
- (C) a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his/her productive life, or
- (D) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or
- (E) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or
- (F) a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historic significance, or
- (G) a property achieving significance within the past 50 years if it is of exceptional importance (36 CFR 60.4).

The physical characteristics and historic significance of the overall property are examined when conducting National Register evaluations. While a property in its entirety may be considered eligible based on Criteria A, B, C, and / or D, specific data is also required for individual components therein based on date, function, history, physical characteristics, and other information. Resources that do not relate in a significant way to the overall property may contribute if they independently meet the National Register criteria.

A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was present during the period of significance and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or b) it independently meets the National Register criteria. A noncontributing building, site, structure, or object does not add to the historic architectural qualities, historic associations, or archeological values for which a property is significant because: a) it was not present during the period of significance; b) it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period due to alterations, disturbances, additions, or other changes; or c) it does not independently meet the National Register criteria.

2.3 Criteria of Adverse Effect

In accordance with the National Historic Preservation Act of 1966 as amended, government agencies must consider the potential for adverse effects to known and unknown cultural resources for projects including their involvement. According to the Advisory Council on Historic Preservation, the criteria of adverse effect (36 CFR 800.5) is as follows:

- (1) An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that would qualify it 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 for 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 cumulative.
- (2) Adverse effects on historic properties include, but are not limited to (36 CFR 800.5(a)(2)):
 - (i) Physical destruction of or damage to all or part of the property;
 - (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
 - (iii) Removal of the property from its historic location;
 - (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
 - (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
 - (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
 - (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

A finding of adverse effect or no adverse effect can occur based on the extent of alteration to a historic property, and the proposed treatment measures to mitigate the effects of a proposed undertaking. In accordance with 36 CFR 800.5(3)(b):

The agency official, in consultation with the HPO and Tribal Historic Preservation Office (THPO), may propose a finding of no adverse effect when the

undertaking's effects do not meet the criteria of § 800.5(a)(1) or the undertaking is modified or conditions are imposed, such as the subsequent review of plans for rehabilitation by the HPO/THPO to ensure consistency with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines, to avoid adverse effects.

3.0 ENVIRONMENTAL CONTEXT

This chapter briefly describes the ecological and environmental characteristics of the property and surrounding region including physiography, geology, and soils. This information is important in characterizing the archaeological sensitivity of overall property in relation to the predictive modeling discussed in Chapter 2.

3.1 Topography

The average elevation within the District of Columbia is approximately 150 feet above mean sea level (amsl). The District's highest point is 409 feet amsl at Fort Reno Park, in the upper northwest quadrant. Its lowest point is along the Anacostia River, which is located at sea level. The APE is flat, with an elevation of approximately 30 feet. It is located on Lady Bird Johnson Park Island in the Potomac River.

3.2 Physiography and Geology

Washington, DC is located on the Atlantic Seaboard fall line, which marks the transition between two physiographic provinces: the Piedmont Plateau and the Atlantic Coastal Plain. These physiographic settings differ in underlying geology, landform, and climate. Each physiographic province is part of a larger region with similar geological structures. The Potomac River crosses the fall line at Little Falls, which spans the Washington, DC, Maryland, and Virginia tripoint, where the river flows out of the Piedmont through cataracts and onto the coastal plain.

The Piedmont Plateau lies to the northwest, extending north and south from Maine to Alabama. The northwestern third of the District of Columbia is part of this province. It is made up of metamorphic sericite schist and gneiss and intrusive igneous granites of late Precambrian and early Paleozoic age, which were mud, sand, and other sediments and volcanic rocks deposited along the continental margin before being baked and squeezed as the Appalachians formed. Today they are rolling ridges and valleys mantled by soils formed by their weathering.

The Atlantic Coastal Plain is made up of unconsolidated gravel, sand, silt, clay, and marl. This flat-lying province comprises the southeastern two-thirds of the District. It is characterized by fluvial and marine deposits overlying Piedmont Upland material. Its oldest deposits, the Potomac group, were laid down during the early Cretaceous and consist of gravel, sand, and clay. Subsequent deposits of sand and gravel were laid down by streams and rivers during periods of uplift. During the Pleistocene, when glacial meltwaters subjected the Potomac Basin to recurrent floods, meandering rivers carved terraces and deposited layers of gravel, sand, and clay. Much of Washington, DC, is built on these terraces.

The Potomac River flows to the east of the APE. To the west, Arlington National Cemetery occupies a hilly terrace, which has been deeply cut by the stream valley of the Wampakin Branch, which historically flowed into the Potomac just to the north of the APE, exposing rocky outcrops used for tool stone prior to the colonial era. Memorial Circle, the APE, is mantled by dredge and other fill deposited on an alluvial bar of cross-bedded sand, gravel, silt, and clay of the Tabb Formation, underlain by gneiss.

3.3 Soils

According to the United States Department of Agriculture’s (USDA) Web Soil Survey (2025), udorthents (U1) make up 100 percent of Memorial Circle, the APE, and the anticipated laydown/staging area. Udorthents are highly disturbed, anthropogenic soils, typically found in urban areas, sites which have been graded or reclaimed, and other places where humans have greatly modified the land surface. The northern portion of Lady Bird Johnson Park is made up of three (3) main soil types (see Table 1 and Figure 4). These are Bibb Sandy Loam (Bg), Lindside Loam (Ld), and Udorthents (U1, U3, UA). Bibb series (Bg) are very deep and poorly drained soils formed in sandy alluvium, with slopes of less than two percent, and typically found on flood plains of streams in the Coastal Plain. Lindside series (Ld) are moderately well drained soils with slopes of less than two percent, which are typically found on flood plains. The remainder of the northern portion of the island is made up of udorthents, which are described above. These soils overlay alluvial deposits laid down by the Potomac River.

Table 1:
Soil Types within the APE and surrounding the APE

Series	Stratum	Depth (in)	Munsell Color	Texture
Bibb	A	0-10 cm (0-4 in.)	10YR 4/3	Sandy Loam
	Ag	10-30 cm (4-12 in.)	N 4/ and 10YR 4/2	Sandy Loam
	Cg1	30-94 cm (12-37 in.)	5Y 5/1	Sandy Loam
	Cg2	94-152 cm (37-60 in.)	N 5/	Silt Loam
Lindside	Ap	0-20 cm (0-8 in.)	10YR 4/2	Silt Loam
	BA	20-43 cm (8-17 in.)	10YR 4/3	Silt Loam
	Bw	43-75 cm (17-30 in.)	10YR 4/3	Silty Clay Loam
	BC	75-112 cm (30-44 in.)	10YR 4/3	Silt Loam
	C	112-165 cm (44-65 in.)	10YR 4/3	Weakly Stratified Silt Loam and Silty Clay Loam
Udorthents	Variable			

3.4 Paleoenvironment

The APE is located beside the Potomac River near the fall line transition between the Piedmont Uplands and the High Coastal Plain. The Potomac River valley has existed for approximately two million years. As sea level fell after the Last Glacial Maximum, the river carved deeper in its channel and, beginning about 35,000 years ago, the Great Falls migrated upriver from a point near today’s Chain Bridge to their present location above Mather Gorge. The Potomac’s tributaries were similarly fast flowing, with deeply incised valleys that exposed deposits of quartzite and soapstone. This downcutting period ended around 13,000 years ago (Reusser et al. 2004). This period broadly coincides with the earliest human presence in the region. Late Pleistocene forests were mostly spruce-pine, with mixed deciduous trees in sheltered valleys. As the cold Pleistocene climate gradually warmed, spruce, shrubs, and wet meadows emerged. By 7,000 years ago the Holocene sea level rise had made the portion of the Potomac on the Coastal Plain an estuary subject to high and low tides. (Today’s tidal fluctuations are roughly 3 feet.) Marked seasonality was accompanied by the spread of oak and hickory forests. Contemporary forests of oak, hickory, and pine established themselves roughly 5,000 years



Legend

- Area of Potential Effect
- Soil Series



NOTES:
 1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, __, NEW YORK, QUADRANGLE, DATED 2016.

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Project
DC MONUMENT PROJECT
 SSL: 03170001
 WASHINGTON DC
 DISTRICT OF COLUMBIA

Figure Title
SOIL MAP

Project No.
 270228201
 Date
 5/22/2026
 Scale
 1"=409'
 Drawn By
 BT

Figure No.
4
 Sheet 1 of 1

ago. Sea level continued to rise pushing salinity upstream. Anadromous fish ran as far upstream as Great Falls by 4,000 years ago; and by about 3,000 years ago, oysters had reached their upriver limits near today's Cobb Island in Maryland.

3.5 Hydrology

The APE is located on an island in the Potomac River formerly known as Columbia Island and more commonly known as Lady Bird Johnson National Park and is within the Potomac River Watershed. The Potomac River Watershed spans parts of four states (Maryland, Pennsylvania, Virginia, and West Virginia) and the District of Columbia. With a drainage area of roughly 14,570 square miles, it is the second largest basin of the Chesapeake Bay watershed. The Potomac River flows from West Virginia, through Maryland, Washington, DC, and Virginia, before emptying into Chesapeake Bay. Chesapeake Bay is an estuary of the Atlantic Ocean.

4.0 BACKGROUND RESEARCH

4.1 Methodology

Background research intended to locate previously identified cultural resources and previously conducted cultural resource surveys. Primary and secondary research drew on materials held by the Library of Congress, the National Archives, the Office of Coast Survey within the National Oceanic and Atmospheric Administration, datasets made available by the National Park Service's American Battlefield Protection Program (NPS ABPP), the USGS within the U.S. Department of the Interior, and various other online repositories. Background research was also conducted on the Virginia Cultural Resource Information System (V-CRIS). A research request was also submitted to the DC SHPO for pertinent records and information. To date this information has not yet been provided and will be included when available.

4.2 Previously Recorded Historic Properties

The APE is located within the study area of the War of 1812 and within one (1) mile of the Core Area for that battle. A review of Virginia's V-CRIS database identified one hundred and eighteen (118) individually identified above-ground architecture resources documented by the DHR and six (6) somewhat overlapping historic districts within a one-mile radius of the APE on the Virginia side of the Potomac River. Eighty-two (82) of the individually identified above-ground resources are listed as associated with historic districts. These historic districts are the Arlington House Historic District (1 property), Fort Myer Historic District (28 properties), Arlington National Cemetery Historic District (34 properties), Pentagon Office Building Complex Historic Districts (4 properties), the Mount Vernon Memorial Highway Historic District (2 properties), and the George Washington Memorial Parkway Historic District (14 properties), all of which are listed in the National Register of Historic Places (NRHP). Ten (10) properties are individually listed. These are the Arlington House (DHR ID: 000-0001), Fort Myer (000-0004), Quarters 1, the Army Chief of Staff Residence at Fort Myer (DHR ID: 000-0005), the Arlington Memorial Bridge (DHR ID: 000-0014), Arlington National Cemetery (000-0042), The Pentagon (DHR ID: 000-0072), the Lyndon Baines Johnson Memorial Grove on the Potomac (000-1243), Arlington Ridge Park (000-9707), the Mount Vernon Memorial Highway (DHR ID: 029-0218), and the George Washington Memorial Parkway (DHR ID: 029-0228). A full list of identified above-ground historic architectural resources is provided in Table 2. These historic districts trace the evolution of the area surrounding the Memorial Circle from a country estate, through periods of use as a military encampment and settlement site, to a rural and, later, urban cemetery.

The Arlington House Historic District has been listed on the National Register of Historic Places since 1974, when it was recorded as "Arlington House (Custis-Lee Mansion)." It was later designated as the Arlington House, The Robert E. Lee Memorial. It is presently known as the Arlington House Historic District. Arlington House (also, 44-AR-17, on which, more below), was constructed in 1802 or 1803 on a high prospect affording a view over the Potomac River. The house was the center of a large estate of 1,100 acres owned by Martha Washinton's grandson, George Washington Parke Custis, whose father George Washington had adopted. G.W.P. Custis was an enslaver, antiquarian, advocate for the Alexandria Canal, and a local notable. G.W.P. Custis' daughter, Mary Anna Randolph Custis (1808 - 1873) grew up in the house and, in 1831, married Robert E. Lee (later Confederate General), who lived at the

Table 2:
Previously Recorded Historic Resources Within One Mile of the Project Area

DHR ID	Distance	Time Period	Resource Name	NR Listed Historic District
000-0004-0001	-		Building No. 322: Cafeteria	Fort Myer Historic District
000-0004-0002	-		Building No. 321: Quarantine Stables	Fort Myer Historic District
000-0004-0003	-		Building No. 318: Store House	Fort Myer Historic District
000-0004-0004	-		Quarters No. 317: Residential/Quarters	Fort Myer Historic District
000-0004-0005	-		Building No. 316: Garage	Fort Myer Historic District
000-0004-0006	-		Building No. 313: Environmental Offices	Fort Myer Historic District
000-0004-0007	-		Building No. 312: Service Depot Stable	Fort Myer Historic District
000-0004-0008	-		Building No. 311: Saddle Storage Room	Fort Myer Historic District
000-0004-0009	-		Building No. 309: Record Room and Store	Fort Myer Historic District
000-0004-0010	-		Quartermaster's Storehouse for Signal Corps	Fort Myer Historic District
000-0004-0011	-		Building No. 323: Furniture Storage and Crating Warehouse	Fort Myer Historic District
000-0004-0012	-		Building No. 326-329: Ordnance Magazines	Fort Myer Historic District
000-0004-0013	-		Building No. 331: Picnic House	Fort Myer Historic District
000-0004-0015	-		Building No. 338: Gateposts/Entry	Fort Myer Historic District
000-0004-0037	-		Playing Field, Grant Avenue	Fort Myer Historic District
000-0004-0038	-		Flagpole, Grant Avenue	Fort Myer Historic District
000-0004-0039	-		Monument to Brig. General Albert J. Myer	Fort Myer Historic District
000-0004-0042	-		Field Officer's Quarters: Residential/Quarters	Fort Myer Historic District
000-0004-0043	-		Commissioned Officers' Quarter: Residential/Quarters	Fort Myer Historic District
000-0004-0044	-		Field Officer's Quarters: Residential/Quarters	Fort Myer Historic District
000-0004-0045	-		Commanding Officer's and Cavalry Quarters: Residential/Quarters	Fort Myer Historic District
000-0004-0046	-		Cavalry Officer's Quarters: Residential/Quarters	Fort Myer Historic District
000-0004-0068	-		Building 53: Garage	Fort Myer Historic District
000-0004-0112	-		Building No. 306: Cavalry Stables	Fort Myer Historic District
000-0004-0113	-		Signal Corps Barracks: Residential/Quarters	Fort Myer Historic District
000-0004-0114	-		Building No. 307: Storehouse	Fort Myer Historic District
000-0004-0115	-		Pump House, Marshall Drive	Fort Myer Historic District
000-0042-0001	-		Superintendent's House, Arlington National Cemetery	Arlington National Cemetery Historic District
000-0042-0002	-		Lodge #2, Arlington National Cemetery	Arlington National Cemetery Historic District

000-0042-0003	-		Arlington Cemetery Marker Drain: Culvert	Arlington Cemetery	National
000-0042-0004	-		Arlington National Cemetery Section 29 Foot Bridge North	Arlington Cemetery	National
000-0042-0005	-		Arlington National Cemetery Section 29 Foot Bridge South	Arlington Cemetery	National
000-0042-0006	-		Memorial Amphitheater	Arlington Cemetery Historic District	National
000-0042-0007	-		Administration Building	Arlington Cemetery Historic District	National
000-0042-0008	-		Receiving Vault	Arlington Cemetery Historic District	National
000-0042-0009	-		Administration Building, 313 Humphreys Drive	Arlington Cemetery Historic District	National
000-0042-0011	-		123 (1300 series) South Buildings	Arlington Cemetery	National
000-0042-0014	-		Visitors Center	Arlington Cemetery Historic District	National
000-0042-0015	-		Old Amphitheater (Historic/Current)	Arlington Cemetery Historic District	National
000-0042-0016	-		Columbarium	Arlington Cemetery Historic District	National
000-0042-0018	-		Red Spring : Spring House	Arlington Cemetery Historic District	National
000-0042-0020	-		Shelter, 230 Roosevelt Drive: Tour Bus Shelter	Arlington Cemetery Historic District	National
000-0042-0022	-		Gateposts/Entry, McClellan Drive	Arlington Cemetery Historic District	National
000-0042-0023	-		3rd Infantry Division Memorial	Arlington Cemetery Historic District	National
000-0042-0026	-		Canadian Cross of Sacrifice Memorial	Arlington Cemetery Historic District	National
000-0042-0027	-		Chaplains Monument	Arlington Cemetery Historic District	National
000-0042-0028	-		Civil War Unknowns Monument	Arlington Cemetery Historic District	National
000-0042-0031	-		Iran Rescue Mission Memorial	Arlington Cemetery Historic District	National
000-0042-0033	-		Kennedy Gravesites	Arlington Cemetery Historic District	National
000-0042-0034	-		Korean War Veterans Bench Memorial	Arlington Cemetery Historic District	National

000-0042-0035	-		Robert Todd Lincoln and Mary Harlan Lincoln Monument	Arlington National Cemetery Historic District
000-0042-0037	-		Pan Am Flight 103 Memorial Cairn	Arlington National Cemetery Historic District
000-0042-0038	-		Pentagon Group Burial Marker	Arlington National Cemetery Historic District
000-0042-0041	-		Space Shuttle Challenger Memorial	Arlington National Cemetery Historic District
000-0042-0042	-		Space Shuttle Columbia Memorial	Arlington National Cemetery Historic District
000-0042-0045	-		Tomb of the Unknown Soldier	Arlington National Historic District
000-0042-0047	-		U.S.S. Maine Memorial	Arlington National Cemetery Historic District
000-0042-0048	-		U.S.S. Serpens Monument	Arlington National Cemetery Historic District
000-0042-0049	-		Unknown Dead of 1812 Monument	Arlington National Cemetery Historic District
000-0042-0050	-		John Wingate Weeks Monument	Arlington National Cemetery Historic District
000-0042-0051	-		President William Howard Taft and Helen Herron Taft : Monument	Arlington National Cemetery Historic District
000-0072-0001	-		The Pentagon Office Building	The Pentagon Historic District
000-0072-0004	-		Mall Terrace	The Pentagon Historic District
000-0072-0005	-		River Terrace	The Pentagon Historic District
000-0072-0006	-		Pentagon Athletic Center, Pentagon Library and Conference Center	The Pentagon Historic District
029-0228-0013	-		GWMP, Little River Inlet Bridge	George Washington Memorial Parkway
029-0228-0014	-		GWMP, Route 50 Westbound Underpass	George Washington Memorial Parkway
029-0228-0036	-		Stell-backed Timber Guardrails	George Washington Memorial Parkway
029-0228-0038	-		Humpback Bridge	George Washington Memorial Parkway, Mount Vernon Memorial Highway
029-0228-0039	-		Columbia Island Marina Snack Bar	George Washington Memorial Parkway
029-0228-0041	-		LBJ Memorial Grove Pedestrian Bridge	George Washington Memorial Parkway

029-0228-0043	-		LBJ Memorial Grove, West Parking Area	George Washington Memorial Parkway
029-0228-0044	-		LBJ Memorial Grove	George Washington Memorial Parkway
029-0228-0045	-		Columbia Island Comfort Station	George Washington Memorial Parkway
029-0228-0046	-		Columbia Island Marina Wooden Docks	George Washington Memorial Parkway
029-0228-0047	-		Mount Vernon Bike Trail Bridge	George Washington Memorial Parkway
029-0228-0051	-		Washington Boulevard Bridge	George Washington Memorial Parkway
029-0228-0055	-		Roosevelt Island Trail Bridge	George Washington Memorial Parkway
029-0228-0131	-		Mount Vernon Trail	Mount Vernon Memorial Highway and George Washington Memorial Parkway
029-0228-0132	-		Potomac Heritage National Scenic Trail	George Washington Memorial Parkway
029-0228-0209	-		Columbia Island Marina	George Washington Memorial Parkway

property on and off prior to the American Civil War. In 1925, Congress designated the house the Robert E. Lee Memorial. In 1932, the Arlington Memorial Bridge over the Potomac River was aligned to provide a visual linkage between Arlington House and the Lincoln Memorial to serve as a symbol of a formerly divided country being brought together and made whole.

In 1861, the United States government confiscated the Custis-Lee estate from Mary Custis Lee, partly to provide a site for the construction of defenses against Confederate forces. Fort Ramsay was built in 1861. Fort Whipple was then constructed on the site in 1863. In 1881, the post was renamed Fort Myer after Albert James Myer (1828-1880), who was the Signal Corps first chief signal officer, commanded the Signal School of Instruction for Army and Navy Officers there between 1869 and 1880, and directed the national weather service (1870-1880). Permanent brick buildings were begun on the site in the early 1870s. Fort Myer became a cavalry post in 1887. Quarters 1, the Army Chief of Staff Residence, is located near the entrance to the original post and was completed in 1899. The parade ground, today called Summerall Field, was the site of the first flight of a military aircraft.

The Arlington National Cemetery (ANC) was established in 1864, during the American Civil War, as a military cemetery on approximately 210-acres of the Custis-Lee estate in Arlington. After the Civil War, portions of the estate served as a military camp, a cemetery, and a settlement area for formerly enslaved persons. The Tomb of the Civil War Unknowns was erected as a memorial in 1866. This memorial was singled out as exemplary of the cemetery's restraint by the McMillan Plan of 1902, which recommended similar simplicity and restraint in the design of a bridge linking the (then proposed) Lincoln Memorial to Arlington (Moore 1958[1902]:58).

“There is nothing that needs proper supervision and planning more than the modern cemetery,” the Senate Committee on the District of Columbia wrote of the planned Memorial Bridge, “for there is certainly nothing that suffers more from vulgarity, ignorance, and pretentiousness [where] the eye and the feelings are constantly shocked by ... monstrosities” (Moore 1958:58). The oldest portions of the ANC lay to the west of Eisenhower Avenue, where Arlington House affords a panoramic view of Washington, DC. Though few elements of the site’s pre-Civil War landscape remain (but see discussion of 44-AR-17 below), the area’s spatial and visual connection to the city’s monumental core remains; the Mansion House at Arlington is the western terminus of an axis stretched from the Lincoln Memorial, across the Arlington Memorial Bridge and through the Memorial Circle, to the ANC. This connection was suggested by the McMillan Plan and crystalized by the construction of the Arlington Memorial Bridge in 1932, which “linked the cemetery to the Lincoln Memorial in a physical, symbolic, and visual manner” (Smith, Tooker, and Enscoe 2013:7-6).

The Mount Vernon Memorial Highway is a portion of the George Washington Memorial Parkway, which links the southwestern end of Arlington Memorial Bridge on Lady Bird Johnson Park (a portion of the George Washington Memorial Parkway) with Mount Vernon, to the south, in Fairfax County, Virginia. This route roughly parallels the Potomac River.

The Arlington Experimental Farm, formerly located on a roughly pentagon-shaped tract of land just to the west of the Memorial Circle APE (now part of ANC), was initially chosen as the site for the military headquarters that would come to be called the Pentagon Office Building Complex Historic District. The site was rejected for this use owing to serious concerns that the building would interfere with the Arlington Cemetery viewshed and break the linkage between Arlington Cemetery and Washington, DC’s Monumental Core. It was related to the old Hoover Airport, to the south, but its shape was retained (Roulo 2024; Koski-Karell 1992).

The National Park Service’s (NPS) American Battlefield Protection Program’s Battlefield Boundaries map locates the APE within the study area of the War of 1812 and within one (1) mile of the Core Area that battle. The APE is also located approximately four (4) miles south of the American Civil War Battle of Fort Stevens.

Tensions between the United States and Britain, (stemming partly from trade disruptions and impressment related to the Napoleonic Wars in Europe (1803–1815), partly from British-Canadian impediments to westward settler-colonial expansion), led the United States to invade Canada and to declare war on the United Kingdom of Great Britain and Ireland and the Dependencies. So began the War of 1812. The defeat of Napoleon Bonapart in Europe allowed the British to commit additional forces to the war in North America. By 1814, the British victory at the Battle of Bladensburg had left Washington, DC open to invasion. British troops burned the city.

By 1861, Washington, DC and the Union-occupied Custis estate in Alexandria had become the center of communications for operations against Confederate forces. By the following year, the city had 48 forts and batteries. The Battle of Fort Stevens refers to a short skirmish in 1864, when Confederate troops tested the fortifications there.

4.3 Previous Cultural Resource Surveys

Based on a review of Virginia's V-CRIS database, at least eleven (11) archaeological cultural resources surveys have been conducted within one mile of the APE. A brief discussion of each survey, its purpose, findings, and how it may impact the current project is provided below.

AR-004

Archaeological Excavations at Arlington House, The Robert E. Lee Memorial, Arlington County, Virginia.

John F. Pousson

1983

The NPS carried out excavation at Arlington House (44-Ar-17) in advance of a restoration project and to collect data for a historic structures report. Arlington House was built for George Washington Parke Custis, Martha Washington's grandson and Robert E. Lee's father-in-law. A member of the elite planter-gentry, in 1805, Custis put his inheritance (a fortune made from growing tobacco for export to England) into the construction of a Greek Revival mansion on a natural prominence overlooking the Potomac River. The house was designed by George Hadfield, formerly superintendent of the U.S. Capital's construction. Custis made the house a museum for a large collection of George Washington memorabilia. Lee stayed at the house on and off prior to the American Civil War. The estate was seized by the Union Army during the American Civil War and Arlington National Cemetery (ANC) was established there. The subsequent history of this property, and the excavations carried out there in 1983, are discussed below. The present project may impact this resource's setting.

AR-028

Fort Myer Cultural Resource Management Plan, Draft Report.

Jay F. Custer (Kise Franks & Straw, Inc)

1991

A cultural resource survey was carried out to develop a cultural resource management plan (CRMP) for Fort Myer, where several construction projects had been proposed. Preliminary survey identified areas that had not been previously disturbed and might contain archaeological resources. During general reconnaissance carried out in preparation for the development of the CRMP, a site was located in a picnic area south of the Motor Pool on a gentle slope near the boundary of Fort Myer and ANC, where debitage and hammerstones were identified on an eroded ground surface. This surface was interpreted as a Pleistocene epoch terrace of the Potomac River. Custer recommended Phase II excavation at this site to determine if the deposits were eligible for inclusion in the NRHP. The site, which was later designated 44-AR-43 (Katz 2010), was not recorded at the time. Phase I survey of two proposed building sites also identified potential dumping sites of debris from White House renovations carried out in 1950-1951. Phase II excavations were recommended for one area to determine the extent of potential White House debris and to clarify its source. No additional archaeological work was recommended. The present project is not anticipated to impact this resource.

AR-047

*Cultural Resource Investigations at Section 29 at Arlington House,
The Robert E. Lee Memorial, Arlington County, Virginia
Heather Mills, Jeff Holland, Todd Cleveland, and Bill Nethery
(Garrow & Associates, Inc.)*

1998

These cultural resource investigations were carried out within the 24-acre Section 29 in Arlington National Cemetery. It involved Phase I and II archaeological study, cultural landscape and viewshed analysis, and a forestry study. Much of the project area consisted of a multicomponent precontact and historic site, comprised of six areas of artifact concentration. The survey did not record multiple sites; rather, all undisturbed portions of the area were recorded as a single site, which has been designated the Arlington House Ravine (44-AR-32). Precolonial period components within the area include evidence of extensive quarrying for quartzite and quartz during the Late Archaic/Terminal Archaic period within the ravine system. Historic components span the early 19th century to the 20th, with intact features and deposits associated with the Custis-Lee occupation of the site. Archaeological investigations involved systematic and intuitive subsurface testing, with shovel test pits at 15-meter intervals. Evidence of precolonial and historic activities was encountered throughout the area. Several culturally significant viewsheds were analyzed, including vistas and views to and from the present location of the Lincoln Memorial, the Arlington Memorial Bridge, and the ANC to assess the impact of alterations to the project area. The study recommended the preservation of areas likely containing intact precolonial deposits within the ravine system. The area is highly sensitive for intact historic period archaeological deposits. The property's sightlines and intended views have retained integrity. The survey recommended the preservation of these cultural significant areas, which covered much of Section 29. The present project may impact this resource's setting.

AR-065

*Archaeological Investigations at Arlington House (44AR0017), The
Robert E. Lee Memorial Repair and Rehabilitation of the Mansion
and Slave Quarters, George Washington Memorial Parkway.
Patrick O'Neill and Charles LeeDecker*

2005

This survey was carried out for proposed work that included the rehabilitation of deteriorated brickwork, remediation of water infiltration, preventative maintenance, repairs, and construction that included an underground utility bunker, utility corridor, and comfort station, all within 44-AR-17. The study carried out archaeological investigation of the Main House and its slave quarters, vegetable garden, courtyard, and the footprints of the proposed work. Excavation identified a dry well in the dairy located within the south wing of the Main House. Excavations were also carried out in the room of Selina Gray, an enslaved person whose daughters later helped the War Department to restore the house. The room was likely dirt floored. A China doll hand and a toy tea set cup were recovered and may date to occupation of the site room by Selina Gray's family. The investigation recommended additional study prior to any future restoration in this room owing to the likely of significant deposits being located there. Other work was carried out within the North Dependency, the vegetable garden, courtyard, and the

footprints of the proposed comfort station, utility bunker, and utility corridor. No further work was recommended for the North Dependency. The boundaries of the vegetable garden were slightly extended. No intact historical landscape surfaces were identified within the courtyard area. Avoidance was recommended for a drain feature of uncertain historical association encountered within the footprint of the proposed comfort station. The footprint of the proposed utility bunker was found to be heavily disturbed and no further archaeological work was recommended for that location. A possible midden was located within the utility corridor and monitoring of the utility trench excavation was recommended. The present project may impact this resource's setting.

AR-073

Phase II Evaluation of Site 44AR0043 at the Former Mort Myer Picnic Area, Arlington National Cemetery, Virginia.

Gregory Katz (Louis Berger Group, Inc)

2010

Archaeological investigations were carried out at the former Fort Myer picnic area, an approximately four-acre tract that was part of the planned Millennium Project expansion of ANC. This investigation involved background research, walk-over surface reconnaissance, and systematic shovel testing at five-meter intervals on four knolls, where Custer (1991) had previously identified a precolonial quartzite procurement and reduction site. Twenty-six (26) precolonial-era artifacts were recovered. These comprised debitage, block shatter, cobbles and cores, and fire-cracked rock, which were recovered from shallow, unstratified deposits. No temporally diagnostic items were recovered. The present project is not anticipated to impact this resource.

AR-085

Additional Archaeological Survey and Evaluations for the Arlington National Cemetery Millennium Project, Arlington County, Virginia.

John Haynes

2012

This archaeological survey was carried out for a roughly 29-acre expansion of the ANC called the Millennium Project. The Millennium study area is located roughly 1,100 meters west of the present Memorial Circle APE. Archaeological study was also carried out to the southeast of the Millennium study area for proposed stormwater management for the Chaffee Place parking lot. The survey included systematic shovel testing and metal detection, which yielded fragments of iron, an iron rod, a railroad spike, wire fragments, and a hand grenade. Shovel testing led to the identification of site 44-AR-46, which yielded 20th century material, and a likely 19th century deposit, interpreted as a hearth dating to the occupation of the estate by Union Troops in 1861-1865. Haynes also reanalyzed the Arlington House Ravine Site (44-AR-32), splitting it into four sites: Site 44-AR-32, comprised of Loci 4, 5, and 6 and including overlapping precontact and historic components; Site 44-AR-47, a lithic scatter comprised of the former 44-AR-32 Locus 1; Site 44-AR-48 (formerly 44-AR-32 Locus 2), a precontact lithic scatter; and Site 44-AR-49 (formerly 44-AR-32 Locus 3) a lithic scatter. The survey recommended Phase II archaeological work to determine NRHP-eligibility for Site 44-AR-46, which included a hearth feature likely dating to the Civil War-era. Site 44-AR-46 is located more than one mile away from the

Memorial Circle APE. Metal detection and shovel testing were carried out for proposed stormwater management work at the Chaffee Place parking lot. Testing identified potentially significant archaeological remains, which were recorded as the Chaffee Place Site (44-AR-50). The project was redesigned to avoid impacts to this resource. No additional archaeological work was recommended. The present project is not anticipated to impact these resources.

Archaeological Background Review and Predictive Model for the Washington, DC to Richmond, Virginia, Southeast High Speed Rail Corridor. Prepared for the Virginia Department of Rail and Public Transportation

*Mike Klein, Emily Calhoun, Marco González, and Earl E. Proper
(DC2RVA Project Team, Dovetail)*

2015

This broad archaeological background review and predictive model was developed for the proposed Washington, DC, to Richmond (DC2RVA) segment of the Southeast High Speed Rail project. This project's corridor spanned 123 miles (198 km) along an existing rail corridor that roughly parallels the I-95 corridor between Northern Virginia and Richmond and crosses Arlington County and the City of Alexandria. This review examined 20 segments of the proposed corridor. It drew on previous studies of the region to develop a model of the relative probability of encountering terrestrial archaeological sites using Phase I survey techniques, taking into account variables that included distances to major drainages, soil classes, evidence of disturbance visible in aerial imagery, locations of historic roads and trails, previously identified architectural and archaeological resources, and the locations of Revolutionary War and Civil War battlefields and study areas. These data points were used to develop a predictive model that characterized areas as high, moderate, or low probability. Areas where previous disturbance or soil attributes indicated that no archaeological resources would be encountered were not given a probability ranking. The Memorial Circle APE falls within the Rosslyn to Alexandria segment of the DC2RVA corridor. This segment was assigned "no probability of locating archaeological resources" on the basis of extensive urban development, including paved areas, industrial works, and soils classified as Urban Land.

VA-125

Phase IB Archaeological Survey for the Washington, DC to Richmond, Virginia High Speed Rail Project Rosslyn to Alexandria (ROAF) through Buckingham Branch/Hospital Wye (BBHW) Segments.

Kevin McCloskey, Earl Proper, Curtis McCoy, Emily Calhoun, Morgan MacKenzie, and Joseph Blondino (DC2RVA)

2016

This Phase IB survey was carried out for the proposed Washington, DC, to Richmond (or, DC2RVA) segment of the Southeast High Speed Rail project. It was informed by the findings of the archaeological predictive model developed by Klein et al. (2015), which had assigned "no probability of locating archaeological resources" to the Rosslyn to Alexandria segment of the DC2RVA corridor on the basis of extensive urban development, including paved areas, industrial works, and soils classified as Urban Land. This segment of the corridor is located extends

approximately 6.5 miles (10.5 km) from roughly 2,100 meters southeast of the Memorial Circle APE at the CSX Railroad landing just south of the 14th Street Bridge, whence it turns south and runs roughly parallel to US. Route 1 before turning west above Alexandria. This segment encompasses 78.1 acres (31.6 ha) and intersects three previously identified sites: Jackson City (44-AR-37), a 19th century “red light” district that grew up around the ruins of Fort Jackson at the foot of Long Bridge; the former route of the Alexandria Canal (44-AX-28); and 44-AX-207, a possible Revolutionary War-era Franco-American wagon train camp. These sites were not anticipated to be impacted by the DC2RVA project, since those portions that overlapped rail segment had already been compromised by subsurface disturbance.

AR-090

Phase I Archaeological Survey for Irrigation Upgrades at Arlington National Cemetery, Arlington County, Virginia, U.S. Army Corps of Engineers Norfolk District, Norfolk, Virginia.

John H. Haynes

2016

This survey was carried out for proposed in-ground irrigation systems at 10 sites within ANC. The APE for the irrigation system comprised about 338 square meters, much of it already disturbed by existing utilities and plantings. Portions of three of the proposed sites were shovel tested. Two fragments of coal and a piece of clear vessel glass recovered at the Coast Guard Memorial (within a triangular traffic island between Jessup Drive and Dewey Drive), were interpreted as associated with the Freedmen’s Village (1863-1897) and recorded as archaeological Site 44-AR-58. Freedmen’s Village was a settlement of about 50 dwellings established by military authorities for formerly enslaved persons who had sought refuge in Washington, DC. Three glass fragments, coal, cinders, and an iron fragment recovered near the Old Administration Building were recorded as part of the Chaffee Place Site (44-AR-50). Three coal fragments and a piece of slate recovered from north of the Civil War Tomb of the Unknowns were interpreted as outlying scatter from the Arlington House Site (44-AR-17). These finds were used to expand the boundaries of the Arlington House (44-AR-17) and Chaffee Place (44-AR-50) sites. No additional archaeological investigations were recommended.

AR-127

Phase I Archaeological Survey Report, Arlington Woods, Arlington Cemetery, Arlington, VA.

Patrick L. Johnson, Tracy S. Causley, Joseph E. Clemens, John Bedell, Gregory Katz, and Noelle Thompson-Worthington (Marstel-Day)

2024

This Phase I survey was carried out for a proposed sidewalk on the west side of Sherman Drive in Arlington Woods and a utility line beside Sherman Drive near Arlington House. The project area intersected the NHRP-listed Arlington House Site (44-AR-17) and the NHRP-eligible Arlington House Ravine Site (44-AR-32). The survey included shovel test pits dug at 25-foot intervals and metal detection in 12-foot transects on the west side of Sherman Drive in Arlington Woods. Hand-auger tests were conducted beside Sherman Drive near Arlington

House to document disturbance where underground utility work had mixed soils. The boundaries of the Arlington House Ravine Site (44-AR-32) were expanded slightly to the north, east, and south based on the survey. The recovered assemblage included oyster shells, vessel and window glass, ceramic sherds, cartridge casings, charcoal, coal, a button, a brass plate, a lid, nails, a bullet, grave markers, pieces of a pipe, coins, a buckle, and other materials. No Phase II or further archaeological investigation was recommended. However, archaeological monitoring was recommended for the proposed work.

Two additional surveys, both carried out in areas beyond a one-mile radius of the Memorial Circle APE were consulted (Lyons 2024; Louis Berger 2005). Both surveys were carried out near the foot of Long Bridge on Alexander Island, which shares with Lady Bird Johnson Park (formerly Columbia Island), to the north, a history of shifting shorelines and extensive fill operations.

AR-119

Phase I Archaeological Investigation, Arlington County and Vicinity Rowing Facility, George Washington Memorial Parkway. Prepared for National Capital Region, National Park Service.

Louis Berger Group

2005

This terrestrial and underwater investigation was carried out for the proposed Arlington Boathouse in Arlington County, Virginia, a rowing facility on the Potomac River. Five alternative sites were considered, including one located downstream from the 14th Street Bridge near the foot of Long Bridge. Documentary research indicated that this area might contain deposits related to Fort Jackson (1860-1865), Jackson City (1870-1905), and possible precolonial material; Proudfit (1889: Plate V.) reported a nearby village and the Smithsonian holds materials collected from the island. Subsurface testing involved shovel test pits, auger probes, and mechanically excavated trenches. Excavation and land acquisition and planning maps led the team to reassess the location of Fort Jackson and the historic shoreline of Alexander Island. Stone and brick foundation remains were encountered roughly 2.5 meters below the ground surface and recorded as Site 44-AR-37. These were interpreted as associated with Jackson City. Underwater survey was also carried out beside the shoreline. This survey involved magnetic remote sensing and divers. If the area was selected for the construction of a boathouse, the survey recommended additional investigation in the vicinity of 44-AR-37 to determine NRHP eligibility and to define its boundaries or avoidance of the site.

AR-128

Phase IB Archaeological Resources Survey for the Long Bridge Project, Arlington, Virginia and Washington, DC. Prepared for the Virginia Passenger Rail Authority.

Matt Lyons

2024

This survey was carried out for railroad infrastructure improvements proposed by the Federal Railroad Administration (FRA) and the Virginia Passenger Rail Authority (VPRA). Subsurface testing involved shovel testing and hand auguring. Much of the survey's study area consisted of 20th century re-deposited fill layers. No earlier materials were encountered. Because the

survey was carried out for a proposed design that would not impact deposits located more than 2.5 meters below the ground surface, no additional archaeological work was recommended.

4.4 Previously Recorded Archaeological Resources

A review of Virginia's V-CRIS database indicated no previously identified archaeological sites within the APE. However, V-CRIS indicates thirteen (13) archaeological resources are located on the Virginia side of the Potomac River within a one-mile radius of the APE. These sites include the Arlington House Site (44-AR-17), which contributes to the NRHP-listed Arlington House Historic District; two NHRP-eligible sites, the Arlington House Ravine (44-AR-0032) and Chaffee Place Site (44-AR-50); an additional five (5) historic and precolonial sites have not been evaluated for eligibility; and six (6) have been determined by VDHR to be ineligible for listing on the NRHP.

Note that this draft report does not incorporate a resource identification from the DC SHPO. The following inventory of previously identified archaeological sites may need to be updated. Humphrey and Chambers (1977:ii, Fig. 1) indicate that a possible precolonial archaeological site is located on the northern portion of Lady Bird Johnson Park/Columbia Island, roughly 1,060 meters north-northwest of the APE.

Unnamed Site 44-Ar-8 was identified on the Virginia bank of the Potomac River "just opposite Columbia Id, north of Arlington Bridge," by a scatter of ceramic sherds, points, and debitage on the surface. The site was recorded by H.A. Macord, Sr., who noted that it had been "reported by Proudfit," presumably, Samuel Vincent Proudfit (1846-1934), a United States Department of Interior archeologist at the time who identified a great many sites in the District (see Proudfit 1889). The site is located on a low terrace along the Potomac River and had been largely destroyed by grading at the time of its recordation (MacCord 1968).

Arlington House (44-AR-17), formerly known as Custis-Lee Mansion, was constructed in 1802 or 1803. It is situated on a prospect hill affording a panoramic view of Washington, DC. The house was occupied by Martha Washinton's grandson, George Washington Parke Custis, whose father George Washington had adopted. G.W.P. Custis was an enslaver, antiquarian, and the author of several plays, including "Indian Prophecy; or Visions of Glory" (1827) and "Pocahontas; or, The Settlers of Virginia" (1830). G.W.P. Custis' daughter, Mary Anna Randolph Custis (1808 - 1873) grew up in the house and, in 1831, married Robert E. Lee, who lived at the property on and off prior to the American Civil War. It was afterwards occupied by the Union army and the estate served as a Union Army camp. In 1863, a Freeman's Village for formerly enslaved people was established to the southwest of the APE. Arlington House served as a center of military headquarters until 1864, when roughly 200-acres surrounding the house were set aside as a national cemetery. In 1925, Congress designated the house the Robert E. Lee Memorial. It is listed on the NRHP (Nelligan 1950). The site comprises several buildings whose uses and designations have changed over the past centuries. The Main House faces a central courtyard, which is bound to the north and south by two buildings, customarily described as slave quarters because they housed enslaved people, which are thought to have been originally built as a summer kitchen and storehouse. These are typically termed the North and South dependencies to the Main House to distinguish them from other structures on the estate that housed enslaved people. The site also includes other outbuildings, a vegetable garden, and a flower garden. An "icehouse" (or springhouse), demolished c. 1890, previously stood to the

west of the North Dependency/Slave Quarters. Excavations within the basement of the house and beside its walls were carried out between March and September 1980, by John Pousson, Sharon Johnson, and Keren McTingue, as part of restoration efforts. This excavation provided information about the initial plan of the earliest parts of the house and subsequent alterations. Fragments of ceramics consistent with the occupants' elite status, including some ceramic fragments likely bequeathed by Martha Washington to G.W.P. Custis, were recovered. Pousson recommended evaluation and mitigation prior to any action that might affect the resource. Several other excavations have also been carried out at the site (see Louis Berger 2005, Virta 2021).

In the 1860s, the Arlington House estate stretched to the Potomac River. The Chesapeake and Ohio Canal (44-AX-28) ran parallel to the river. An icehouse, stable, and outbuildings surrounded the mansion house on the hill. Below, near the river, a "slave cemetery" was located to the northeast. Houses occupied by enslaved people, a barn, and an overseer's house were located beside the canal. Deposits related to structures beside the river were likely located in areas since disturbed by construction associated with the cemetery parking area, the Richmond Highway, and Metro Railway. The proposed project is anticipated to impact several views, including those of Arlington House from Memorial Avenue Corridor, and the viewshed of the Arlington House, which retains a high degree of integrity, partly owing to this unobstructed view. The Arlington House is listed on the National Register of Historic Places.

The Arlington House Ravine (44AR0032) was initially defined as a multicomponent site with several loci located within a ravine system formed by Wampakin Creek in Section 29 within Arlington National Cemetery. Precolonial components included a Late Archaic Period (3000 - 1201 B.C.E) lithic quarry. Precolonial artifacts recovered there include quartz and quartzite cores, hammerstones, flakes, bifaces, a steatite bowl fragment, and fire cracked rock. Historic 18th to 20th century components included a trash midden and a roughly 25-by-25 foot ice- or spring-house used to store perishable food that existed during the Custis-Lee period and is associated with the Arlington House (44AR0017) site. The location of the building was identified by Mills et al. (1998) after several unsuccessful attempts to locate it (Smith 1995). The boundaries of this site, which contains several loci, were established by the limits of the namesake ravine, which contains several discrete outcrops of quartzite (for a discussion see Haynes 2012:33-35). Haynes (2012) divided the 44-AR-32 into four sites. The present site 44-AR-32 is comprised of Loci 4, 5, and 6, which includes elements associated with Arlington House (Locus 4), which overlap Locus 5, a precontact artifact scatter, and Locus 6, a concentration of precontact material and a feature. The Arlington House Ravine Site has been determined to be eligible for listing on the NRHP.

Site 44-AR-47 is a lithic scatter comprised of the former 44-AR-32 Locus 1. Site 44-AR-48, which was formerly 44-AR-32 Locus 2, is a precontact lithic scatter. Site 44-AR-49, formerly 44-AR-32 Locus 3, is a lithic scatter. This site has been determined to be ineligible for listing on the NRHP.

Site 44-AR-36 is a locus of artifacts including sherds of unglazed earthenware, whiteware, and porcelain and fragments of machine-made bottle glass, canning jar lid liners, iron, nail, and shell. This site has not been evaluated to determine eligibility for listing on the NRHP.

The Picnic Area Site (44-AR-43) was identified by Custer (1991) as a precolonial quartzite procurement and reduction site on the basis of quartz debitage, cobbles, and fire-cracked rock. It was not recorded at the time. Katz (2010) relocated the site and recovered about 35

precolonial artifacts, including quartz cores, flakes, tested cobbles, and two possible flake tools. It has been interpreted as a cobble reduction site. Fragments of redware and bottle glass were also recovered. This site has been determined to be ineligible for listing on the NRHP.

Campsite No. 1 of Lauzun's Legion Sept. 1781 (44-AR-44) is one of several sites mapped as part of a survey that began as part of a study of the Washington-Rochambeau Revolutionary Route. It is likely located in the vicinity of the foot of the Key Bridge. It has not been archaeologically verified and was supplied with an arbitrary dimension of 200 feet by 200 feet. This site has not been evaluated to determine eligibility for listing on the NRHP.

Chaffee Place (44-AR-50) is a 19th to 20th century artifact scatter identified in 2012 during testing for proposed stormwater management work at the Chaffee Place parking lot. During a subsequent survey in 2016, glass fragments, coal, cinders, and an iron fragment recovered near ANC's Old Administration Building were recorded as part of this site, which extended its boundaries somewhat. This site has been determined to be potentially eligibility for listing on the NRHP.

Site 44-AR-57 is located just to the north of 44-AR-8 and is comprised of precolonial debitage and early 20th century marbles, vessel glass fragments, ceramic, brick fragments, unidentified metal, and nails. This site has not been evaluated to determine eligibility for listing on the NRHP.

The Alexandria Canal (44-AX-28) opened in 1843. It linked the Chesapeake & Ohio Canal (C&O) to the Potomac River by a 1,600-foot-long aqueduct, which carried boat traffic from Georgetown across the Potomac River to the Alexandria Canal, connecting to the Potomac below Alexandria. President John Quincy Adams broke ground for the canal on July 4, 1828. His spade hit a large stump. Digging the Alexandria and the Chesapeake & Ohio canals was an enormous undertaking. The canal was clay-lined with a towpath beside it. Its locks were made of stone and timber. It was built with the forced labor of enslaved people, the poor, and indentured workers. These latter were recruited in Europe, required to pay their own way, secure their own loggings along the canal line, and sign obligations requiring three months of labor. Many deserted, some were imprisoned as runaways and debtors by the canal company; still others, who had found their way to Washington, DC, were cared for by the city poor house (Unrau 2007). The novelist Frances Milton Trollope described how, during a trip to the United States in the early 1830s, she had stayed near the Alexandria Canal, whose line ran "close to the romantic but unwholesome Potomac," where immigrant workers labored under appalling conditions in "broiling heat." When they fell, they were "thrown on the side" (Trollope 1832:233). The canal ceased operations in 1886. By the early 20th century, much for the dressed stone had been removed for building. The canal was gradually filled. The old canal ditch passes roughly 240 meters to the west of the Memorial Circle APE. This site has not been evaluated to determine eligibility for listing on the NRHP.

Table 3:
Previously Recorded Archaeological Resources Within One Mile of the Project Area

Smithsonian Trinomial	Distance (m) / Direction to Resource	Time period	Name: type	NRHP Eligibility Status
44-AR-0008	279 m. NW	Woodland (1200 B.C.E - 1606) and 20th Century	Unnamed: Artifact Scatter	Not Evaluated
44-AR-0017	1,059 m. W	18th to 19th Century	Arlington House: Cemetery, Dwelling, single, Farmstead, Military quarters	Not Evaluated Individually (Contributes to Arlington House Historic District)
44-AR-0032	1,000 m. W	Late Archaic Period (3000 - 1201 B.C.E) and 18th to 20th Century	Arlington House Ravine site: Ice house, Lithic quarry	DHR Evaluation Committee: Eligible
44-AR-0036	890 m. NW	Late 19th and Early 20th Century	Iwo 1: Trash pit	Not Evaluated
44-AR-0043	1358 m. W	Precontact (15000 B.C. - 1606 A.D.)	Picnic Area Site: Camp, Quarry	DHR Staff: Not Eligible
44-AR-0044	1,616 m. N-NW	18th Century	Campsite No. 1 of Lauzun's Legion Sept. 1781: Campe, temporary	Not Evaluated
44-AR-0046	1,611 m. W	Precontact (15000 B.C. - 1606 A.D.) and 20th Century	Camp, Military Camp	DHR Staff: Not Eligible
44-AR-0047	1,326 m. W	Precontact (15000 B.C. - 1606 A.D.) and 20th Century	Lithic scatter, Trash scatter (Previously part of 44-AR-32)	DHR Staff: Not Eligible
44-AR-0048	1,547 m. W	Precontact (15000 B.C. - 1606 A.D.)	Lithic scatter (Previously part of 44-AR-32)	DHR Staff: Not Eligible
44-AR-0049	1, 238 m. W	Precontact (15000 B.C. - 1606 A.D.)	Lithic scatter (Previously part of 44-AR-32)	DHR Staff: Not Eligible
44-AR-0050	1,353 m. SW	19th to 20th Century	Chaffee Place Site: Cemetery	DHR Staff: Potentially Eligible
44-AR-0057	350 m. NW	Pre-Contact, 18th to 20th Century	Artifact scatter, Camp, temporary	Not Determined
44-AX-0028	234 m. W	18th to 20th Century	Alexandria Canal: Canal	Not Evaluated

4.5 Precolonial Context (Native American Cultures (before 1730))

The Memorial Circle APE is in the Middle Atlantic region of the United States. The precolonial history of this region is typically divided into four primary periods defined by broad patterns of cultural behavior identified over thousands of years the colonization of the Americas—the Paleoindian, Archaic, Woodland, and Contact periods. The Archaic period is subdivided into Early, Middle, Late, and Transitional subperiods and the Woodland period is similarly divided into Early, Middle, and Late subperiods. Throughout these periods, water courses served a vital function, making them essential in understanding Native American settlement patterns prior to the European invasion. Waterways provided a means of navigation and transportation, access to plants and animals for use as food and clothing, cobbles and boulders for lithic source material, and clays for pottery. They also provided potable water.

The following overview presents Native American lifeways as understood through the lens of archaeological research, anthropological study, oral history, and historic documentation. It draws on evidence from archaeological work carried out in nearby Middle Atlantic states and the District of Columbia to provide an outline of Native American lifeways between the Paleoindian Period and the period of Contact and Abandonment. Table 4 presents a general timeline of each period.

Table 4:
Precontact/Precolonial Periods

Paleo-Indian	10,500 - 8,000 BC
Archaic	8,000 – 1,100 BC
Woodland	1,100 B.C. – 1,608 A.D.
Contact	1608 – 1730 A.D.

Paleoindian Period

People have occupied that portion of the Mid-Atlantic where Washington, DC is presently located since the Paleoindian period. This period is typically defined as extending from the earliest evidence of human occupation to the end of the Pleistocene and appearance of corner- and side-notched projectile points characteristic of the Archaic Period: Kirk, Palmer, Thebes, or Charleston types. It is conventionally divided into a Pre-Clovis phase and a Fluted Point Tradition, which is sometimes further subdivided into middle and late Paleoindian periods (Dent 1995; Carr and Moeller 2015). Broadly, while sub-periods are differently defined across the Mid-Atlantic, this period is characterized by patterns of cultural adaptation related to the shift from the Late Pleistocene to the Early Holocene epoch, during a period of glacial retreat.

During the early Paleoindian Period, glaciers covered the northwestern and northeastern parts of present-day Pennsylvania to the north, advancing, roughly, to the present route of I-80. The climate was cooler and people adapted to forests of spruce, pine, and fir. The landscape was inhabited by animals that included now-extinct megafauna. Sea level was lower than today and the fast-flowing Potomac cut correspondingly deeper into the Piedmont Plateau and the Coastal Plain, whence it flowed into the valley of the river that is today called the Susquehanna, which was then 2-4 kilometers wide (Colman et al. 1990). Glacial retreat accelerated roughly 16,000 years ago, as the cold Pleistocene climate gradually warmed and spruce, shrubs, and wet meadows emerged. Rivers slowed as sea level rose and coastal and riparian Paleoindian sites were likely inundated.

Approximately 18,000 years ago, the present Atlantic coastline was located much farther seaward. Sea-level rise was relatively rapid during the Paleoindian and Archaic Periods and significantly reduced the size of the Delmarva Peninsula. This sea level rise, the building up of flood plains, and the accumulation of aeolian sediments have likely buried much evidence of human occupation in the region (Edwards and Merrill 1977; Belknap and Kraft 1977). It is likely that many Paleoindian sites were once situated on what is now the ocean floor stretching as far east as the margins of the continental shelf (Marshall 1982).

The Clovis or Fluted Tradition sub-period is conventionally characterized by a distinctive knapping process, which differed from techniques associated with later periods, a preference for high-quality (micro-cryptocrystalline) lithic material, and diagnostic fluted points. The Fluted Tradition comprises Clovis type points and regional fluted point styles. While hunting likely

provided important sources of food, there is strong evidence that Paleoindian Period peoples subsisted on a variety of foods, including nuts, roots, seeds, berries, fish, poultry, and meat from animals of various sizes. Indigenous communities of this period manufactured tools from stone, bone, antler, hide, and wood and other plant materials, though most identified sites consist only of stone. The Paleoindian component of the Shawnee-Minisink site (36Mr43) in Pennsylvania, for example, from which carbonized seeds and fish remains were recovered and whose occupants appear to have been generalized foragers, for instance, helped to revise an earlier picture of Clovis people as exclusive big game hunters (Carr and Adovasio, 2020). This component provided evidence of acalypha, hackberry, blackberry, chenopod, hawthorne plum, and grape (Dent and Kauffman 1985). Further, Dent (1995) has pointed out that while large fluted-points of high-quality material typify the period, quartz, quartzite, and other raw lithic material types commonly predominate in Paleoindian assemblages recovered in the Chesapeake Bay region.

Most Paleoindian Period sites found in the region have been located in riverine settings, mostly along the Anacostia and eastern shore of the Potomac south of its confluence with the Anacostia. While spruce and pine predominated in the region, deciduous trees grew along streams and on sheltered floodplains. These areas likely provided diverse resources, making them attractive locations for fishing and gathering. Based on resource availability and artifact types and proportions, archaeologists have suggested several functional site types for this period. These are quarry and quarry-related sites, foraging and processing camps, and sites of aggregation, generally encompassing multiple activity components and likely bringing together multiple family groups. Still, Paleoindian Period materials are rarely encountered along the Potomac and Anacostia rivers in the vicinity of Washington, DC, partly, perhaps, owing to the city's urban development; Humphrey and Chambers (1985:8) discuss several fluted points collected as surface finds during the 1800s when the region was more agricultural.

Archaic Period

The climate warmed and became moister over the course of the Early (9000 – 6500 BC) and Middle (6500 – 3000 BC) Archaic periods and the coniferous spruce and pine forests of the Late Pleistocene were replaced by the mid-Holocene's deciduous forests of oak, hickory, chestnut, and maple. Melting ice sheets continued to raise sea level, which flooded the ancient Susquehanna River's valley, forming the Chesapeake Bay. Rivers slowed and began to stabilize into single channels, floodplains developed, and deciduous forests gradually spread north. This period is characterized by the appearance of corner- and side-notched projectile points, a distinctive change that is thought to reflect a response to a changing environment.

During this period, diets likely included walnut, hickory, butternut, acorn, tubers, grasses, fruits, seeds, and a variety of animal, fish, and avian sources. Reconstructed diets of this period, like earlier periods, are based on assumptions about what was available rather than direct evidence. A gradual increase across the Archaic period in the variety of flaked and ground stone tools, including adzes, grooved and ungrooved axes, grinding stones, and net sinkers, alongside increases in the number and diversity of pit features is thought to reflect changing adaptive and subsistence strategies. By the Middle Archaic Period, nut-bearing trees (walnut, butternut, hickory, and oak) had become common and provided food for humans. Bifurcate-based points and the proliferation of ground and polished tools, such as net sinkers for fishing and grooved axes, adze, and other woodworking tools, whose manufacture was likely prompted by changing

forests, typify the period (Carr and Moeller 2015). Base camps were likely located near inland swamps and along waterways, while shorter-term occupations were likely located near seasonal resources.

The Late Archaic (3000 – 1000 BC) was marked by changing weather patterns that led to regional flooding. These floods are encountered in thick layers of flood-deposited sand strata in archaeological sites. Broadly, sites increase in size, with more occurring in upland settings in association with small streams and springs. Earlier trends of increasing regionalization and tool variety continued. Overall, the Archaic period is marked by an increasing variety of lithic materials and diversity in regional cultural traditions, all with antecedents in earlier times.

Components of the Arlington House Ravine site (44-AR-32) have been identified as a Late Archaic Period (3000 - 1201 B.C.E) lithic quarry. This sub-period roughly corresponds to what is elsewhere sometimes referred to the Terminal Archaic or Transitional Period, during which time carved steatite (or soapstone) bowls appear. Precolonial artifacts recovered from the Arlington House Ravine site include quartz and quartzite cores, hammerstones, flakes, bifaces, a steatite bowl fragment, and fire cracked rock. This site's namesake ravine contains several discrete outcrops of quartzite. A series of quarries are also located in the Rock Creek valley to the west of Rock Creek.

Woodland Period

An earlier generation of archaeologists defined the Woodland Period (1,100 B.C. to the 17th century), roughly, as the interval between the first appearance of ceramics and the period of encounter between Europeans and Native Americans. Clay containers have been recovered from sites dated to earlier periods, often from contexts associated with soapstone bowls, suggesting that during that time ceramic containers may have played only a limited role alongside other container technologies involving basketry, wooden vessels, and leather bags (Rabin and Cowin 2003). This period is subdivided into Early (1,100-500 B.C.), Middle (500 B.C.-800 A.D.), and Late (800-1608 A.D.) subperiods.

Broadly, the Woodland Period is defined by evidence for the seasonal reuse of occupation sites and increased regionalization. It is marked by the increasing use of ceramic vessels and the development of more varied ceramic designs, reflecting technological changes, changing settlement patterns, and the interactions of these factors (Custer 1987). The greater use of pottery during this period also suggests associated dietary changes. The character of these changes has been challenging to interpret; different cooking containers may reflect changing methods of food preparation, shifting resource use (particularly related to vegetable and horticulture), changing gender roles, the attenuation of networks of exchange, or some combination of these factors (Sassaman 1992, 1998; Stewart 1992, 1998).

Site sizes and locations show great variety during the Woodland Period and appear to vary with season and function, which, considered alongside the absence of site hierarchy, suggests a landscape of autonomous communities, rather than segmentary societies or chiefdoms (Stewart 1993, 2014). Early Woodland (1,100-500 B.C.) settlement patterns suggest an intensification of strategies adopted during the Late Archaic period with larger sites being occupied for longer periods of time (Dent 1995). Food storage pits, which have been encountered more rarely within Archaic Period sites, become more common during the Early Woodland, suggesting an intensification of cyclical seasonal site use. Middle Woodland (500 B.C.-800 A.D) settlements continue to show continuities with patterns of seasonal aggregation

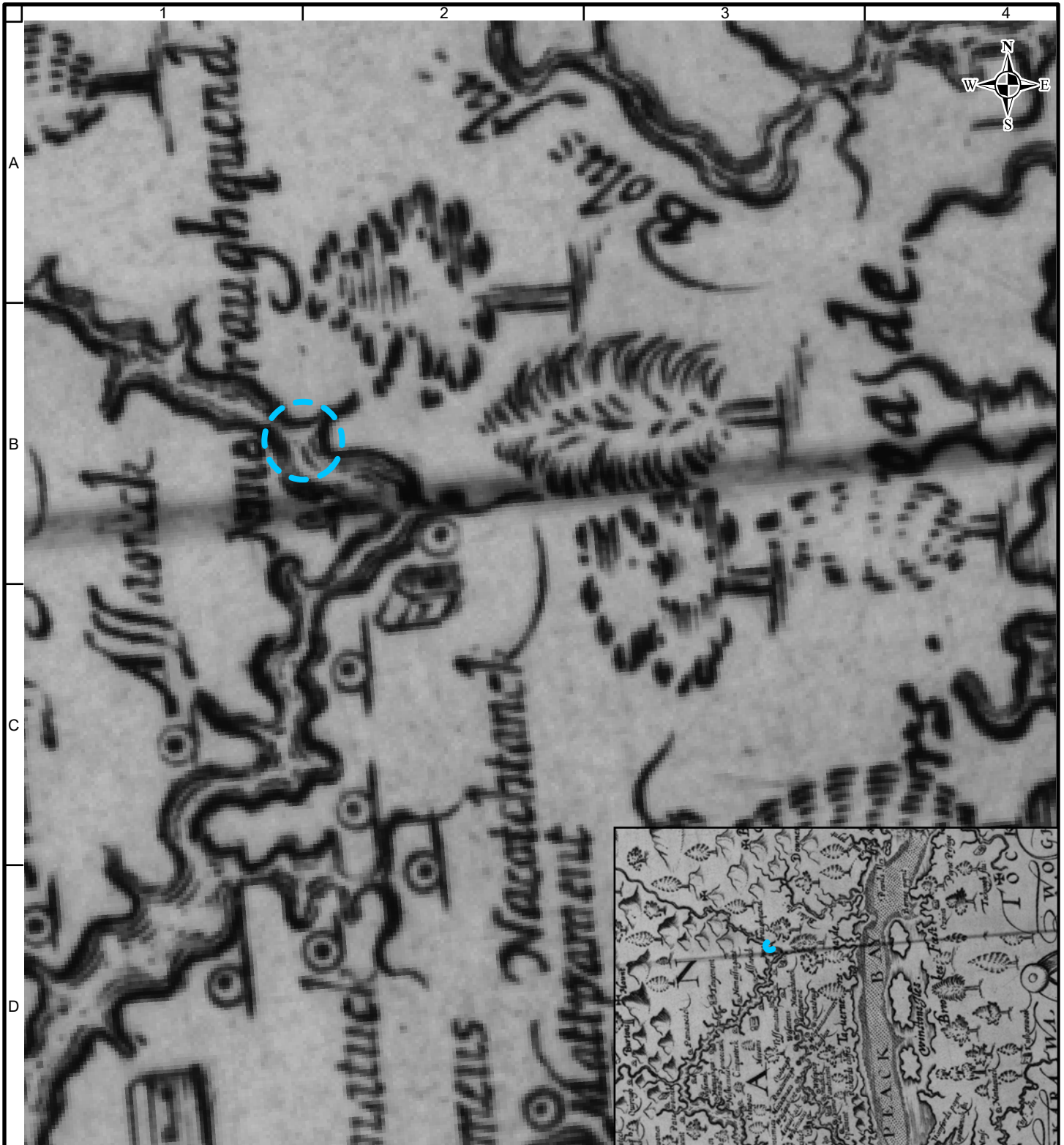
and dispersal that span the Archaic and intensify during the Woodland Period. Larger settlements tend to be located on floodplains. Across the Mid-Atlantic region, intensified agriculture typifies the Late Woodland (800–1608 A.D.) and is reflected by pestles, grinding stones or mullers and grinding slabs, and other grinding tools. By the end of the Late Woodland, corn, beans, and squash were widely grown across the Middle Atlantic. Bone and antler are more frequently preserved during this period than earlier ones, providing evidence of fishhooks, harpoons, awls, needles, and ornamental objects. Subsistence patterns continued to incorporate a broad range of resources, including oysters and other shellfish, turtle, a great variety of fish, various birds (including duck and turkey), and mammals of all sizes.

Contact Period to Abandonment

Archaeological evidence for the early part of the Contact Period in the Delaware River Basin is somewhat limited and its encounters and effects no doubt varied greatly across time and space (Stewart 2014). Objects of European manufacture, including cloth, iron, brass, and glass beads, circulated among Native American groups through long established networks of exchange and were incorporated into preexisting systems of material culture. These items had begun to circulate in the Chesapeake Bay region by AD 1550, coinciding, roughly, to the period during which Susquehannock established control over the fur trade and moved into the Lower Susquehanna valley (Kent 2020). Stewart (2014) cautions against generalizations related to the abandonment of established traditions of manufacture for European goods; stone and ceramic technologies with Late Woodland precursors continued into the 18th century (Kent 2020; Stewart 2014).

Records related to Captain John Smith's voyage up the Potomac River in 1608 are the earliest historical documents concerning the present project area (see Figure 5). Smith described the Potomac River ("Patawomeke") in the first volume of his *Generall historie of Virginia*, which was originally published in 1624 (Smith 1907[1624]:48-49). It was navigable for 140 miles from its mouth at the Chesapeake Bay, he wrote. The river above its confluence with the Anacostia River, he wrote, "maketh his passage downe a pleasant valley overshadowed in many places with high rocky mountains; from whence distill innumerable sweet and pleasant spring." It was full of fish. Smith's 1606 map of Virginia and its rivers locates the village of Nacotchtank (or Nacotchtanke) on the east bank of the Anacostia River near the future site of Washington, DC. It was a town of about 270 people. Smith's estimates are given in terms of "fighting men," using a ratio of 3:10 to arrive at total populations. He recorded "Nacotchtanke with 80 [men]" (Smith 1907[1624]:49). It was evidently a center of the pelt trade. The region was densely settled in 1608. Smith mapped a village on the river's western shore, which he recorded as "Namoraughquend." Based on archaeological deposits there, Proudfit (1889) and Mooney (1889) located this village at the foot of Long Bridge on the Virginia side of the Potomac River, which was located, roughly, where today's 14th Street Bridge stands. The Nacotchtank site has not been located, however similar sites with circular palisades enclosing many houses have been excavated nearby (Kreisa et al. 2013; Stephenson et al. 1963).

The pelt trade structured early relations between colonial settlers (mostly from Jamestown) and Native American there until the end of the 17th century, during the period of Contact to Abandonment (1650 – 1730). The earliest patents claimed by English settlers for land lying in the area were made in the mid-17th century, but it is unlikely that the area was thickly settled by



A


B

C

D



Legend

 Approximate Location



John Smith (1605) Map of Virginia.
William Hole, Engraver. <https://www.loc.gov/pictures/item/2001695744>

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SMITH 1601

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European colonists at that time. Augustine Herrman's 1673 map of *Virginia and Maryland as it is planted and inhabited this present year 1670*, pictures colonial settlements along the waterways of the Potomac's western shores about six miles downstream from "Turkey Buzzard Point," roughly the location of the future site of Washington, DC (see Figure 6). This pattern of colonial settlement was partly the result of an economic system centered around tobacco that was reliant on water transportation. As tobacco replaced the pelt trade and settlement and the seizure of indigenous lands accelerated. Colonial settlements reached the territory that is today the District of Columbia. By 1670, all the land in future Washington, DC had been claimed by colonists. By the 1680s, large numbers of settlers had begun to arrive. By the end of the 17th century, having been dispossessed of their traditional lands, many Native Americans moved (or were relocated) north or west. Many who remained in the Potomac valley entered the laboring classes of colonial society, married colonists, or settled among them. By the early 18th century, owing in no small part to the loss of indigenous sovereign lands, the colonial government was no longer obliged to deal with Native American people on anything like equal political terms and individuals largely disappeared from official records.


4.6 Historic Development Washington, DC in the vicinity of the APE

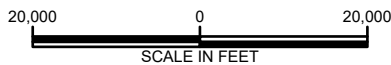
Washington, DC was established in the valley of the Potomac River on ground between Georgetown and the Anacostia River. Above the Little Falls the Potomac rushed through the hills of the Piedmont Plateau. Below Little Falls the river spread over the Coastal Plain. As the current slowed, sediments dropped, building up the bed, and it became a tidal river. Anacostians built longhouses and cleared trees and planted gardens along its banks. Tidal flats and wetlands supported varied plant and animal life, affording fishing, hunting, crabbing, and fowling. Springs rose from the hill and rocky outcrops just west of the Memorial Circle APE supplying fresh water and providing stone for toolmaking.

Lands previously settled and prepared by Native Americans were attractive to settlers who, by the 1660s, had laid claim to the area that is today Washington, DC. These settlers relied on enslaved labor to clear forests and plant tobacco and to build wharves to send it to market. Plantations were established beside waterways to enable the export of the crop. Tobacco's profitability reshaped colonial trade and attitudes toward Native Americans. When, earlier, colonial settlers had depended heavily on the trade in skins and furs, Native American trading partners were an asset and colonial powers competed for access to the products of the indigenous pelt industry. As tobacco became a primary crop, the colonial economy came to depend more heavily on unfree labor and the seizure of indigenous lands, accelerating the dispossession of Native American land (Jennings 1975). Tobacco quickly depletes soils, requiring the clearance of new fields. Soon the riverside was full of agriculture. Indigenous communities were displaced. Nearly two centuries lie between 1608, when John Smith made his first exploratory voyage up the Potomac, and 1791, when Pierre Charles L'Enfant presented his "Plan of the City Intended for the Permanent Seat of the Government of the United States." In *Chocolate City* (2017:16), Asch describes how the common claim made by tour guides that "Washington was 'built on a swamp'" has allowed visitors and residents there to imagine a *tabula rasa* prior to the 1790s that overlooks a complex settlement history and theft of Native American land and Black persons labor and freedom.



Legend

 Approximate Location



Augustine Herrman (1673) Virginia and Maryland as it is planted and inhabited this present year 1670.

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River dredging was carried out to facilitate waterborne trade and maintain the city's position as commercial center. Highways, canals (see above), and railways followed. By the 18th century, commercial forces, though undiminished, were overshadowed by Washington, DC's political, commemorative, and memorial landscape in the vicinity of the project area.

Today, the Washington, DC side of the Potomac in the vicinity of the APE is parkland making up the city's monumental core. This area, comprising the National Mall and West Potomac Park, were previously low-lying tidal flats at the mouth of the Tiber Creek, a tributary of the Potomac filled in during the 19th century. Much of this fill was dredged from the Potomac River; some was excavated from the basements of the city's buildings or obtained from grading streets; still other sources of fill included refuse (LeeDecker 2020). This material was deposited to create land, manage flooding, and to maintain the navigation channels that made Washington, DC a port of transit, commercial hub, and center for the seat of government. Geoaerchological investigations in areas of fill have allowed archaeologists to uncover buried landscapes, ranging in age from roughly 10,000 BC to the early colonial. Buried marshlands associated with the confluence of the Tiber Creek and the Potomac River have helped archaeologists to document and better understand Washington, DC's paleolandscape, which have been found under deep deposits of dredge fill (LeeDecker 2020). The city's monumental core extends across the Potomac River, from the Lincoln Memorial across the Arlington Memorial Bridge, through Memorial Circle and Memorial Avenue, to Arlington National Cemetery.

4.7 Historic Development of the Area of Potential Effects

Historic maps, atlases, and arials were reviewed to help develop a historic context for the previous use of the APE. This history is a story of a changing river. When the channel running between the Virginia shore and today's Theodore Roosevelt Island was diverted east by the construction of a dam or causeway during the late 17th or early 18th century, tidal flats expanded in this area (Hains 1893). Still, much of it remained submerged during high tide. Dredge spoils were likely deposited there periodically as early as the 18th century, but it was not until around 1915 that the flats were built up into an island. By 1930, the low-lying sandy island (then Columbia Island, today Lady Bird Johnson Park) had begun service as the western terminus of the Arlington Memorial Bridge.

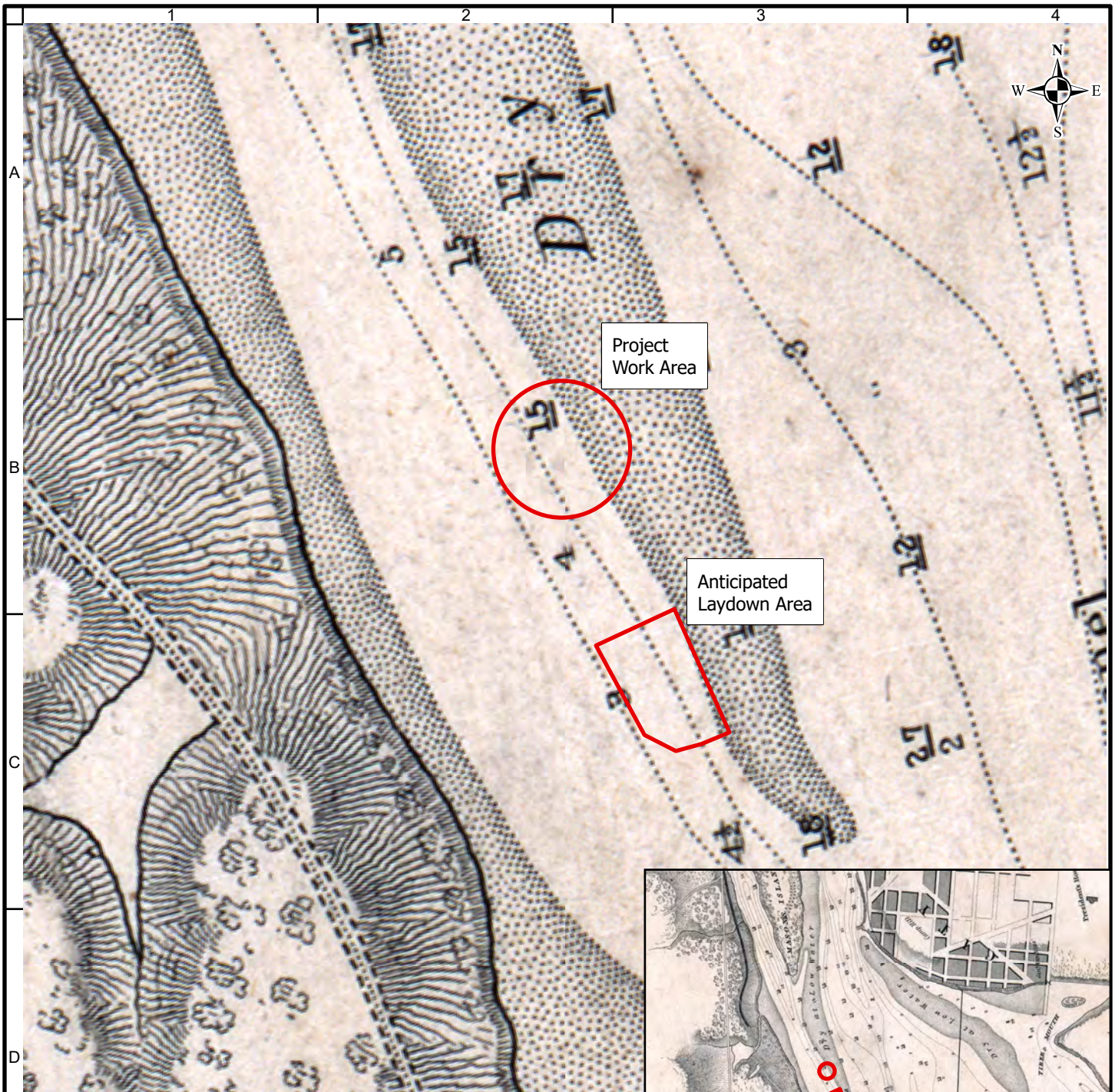
The Potomac River, like the Anacostia River and Rock Creek, is much narrower and shallower than it was during precolonial and colonial periods. Below the Little Falls, where the river left the Piedmont Plateau, it spread over the Coastal Plan. Slowing and widening here, the river became a patchwork of shifting channels, tidal flats, islands, and shoals, where eel grass created marsh meadows. By the 17th century, three navigable channels flowed through this landscape. The Virginia Channel followed the Virginia shore, passing between what was then Mason's Island (formerly Anacostine, later, Analostan, now Theodore Roosevelt Island). A dam or causeway was constructed between the island and the Virginia shore during the late 17th or early 18th century (Hains gives 1806), which caused the channel to shift to the Georgetown side of the island (Hains 1893). This came to be called the Georgetown Channel. The Washington Channel followed the Washington shore to Easby's Point (named for William Easby's tenant houses and shipyard between today's 26th and E Streets in the vicinity of the present Kennedy Center), before trending toward the Virginia shore. This channel had silted up by the early 1830s. A third, narrow channel ran between the Washington and Virginia channels and was referred to as the "swash" by contemporary observers because it was located between sandbanks. It had also filled up by the 1830s (Hains 1894).

By the time of its seizure by the Union Army in 1861, during the American Civil War, the Arlington House estate stretched to the Potomac River. The estate's hierarchy was clearly visible; below the mansion house on the hill, near the river, a "slave cemetery" and houses occupied by enslaved people, a barn, and an overseer's house were located beside the canal by the riverside. Deposits related to the lives of the people who occupied these areas were likely destroyed by 1900, when the land was acquired by the Department of Agriculture for use as an experimental farm. A *Handbook of Information for Visitors* (Avery 1929:5) to the farm noted that, when the department acquired the farm in 1900, "much of the top soil had been removed for lawn-making in the Arlington Cemetery." Remaining deposits were likely later disturbed by construction associated with the cemetery parking area, the Richmond Highway, and Metro Railway.

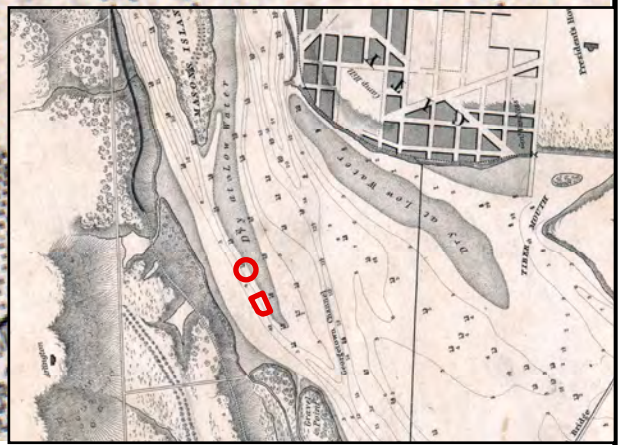
General reference, thematic, topographic, navigational, cadastral, and plan maps were produced for varied purposes and scale, supplying correspondingly different levels of detail of the APE. Maps made prior to the 19th century tend to indicate the APE was mostly underwater or located in shallows (Ellicott 1792). The closure of the Virginia Canal extended the shoal below Theodore Roosevelt Island and accelerated the formation of marshland immediately downriver (Hains 1894). Stone et al.'s (1838) map, *Chart of the head of navigation of the Potomac River shewing the route of the Alexandria Canal*, pictures the project area at the margin of a tidal flat labeled "Dry at Low Water" (see Figure 7). An 1862 U.S. Coastal Survey 1:40000-scale *Preliminary Chart of Potomac River From Indian Head to Georgetown* (Sheet No 4), which provides soundings in feet given at mean low water, appears consistent with Stone et al. (1838) (U.S. Coastal Survey 1862; see Figure 8). The position of channels, shoals, and tidal flats appears mostly unchanged in 1875 (see Figure 9; U.S. Coastal Survey 1875).

During the early 1890s, a dike of rip rap and other fill material was built to the south of Theodore Roosevelt Island, which further accelerated alluvial deposition below the island and creating a mosaic of sandbars and tidal flats. By 1892, the river to the east of Arlington National Cemetery was mostly tidal flats, stretching from Theodore Roosevelt Island to Sycamore Point (U.S. Coastal Survey 1882; Green 1884; see Figure 10). During the following decades, thematic and topographic maps of Washington, DC and the vicinity picture these flats as an extension of Annapolis Island, now Theodore Roosevelt Island (Averill 1892; see Figure 11). USGS topographic quadrangle maps for 1890 to 1897 were produced using the 30-minute format. The 1897 USGS Mt. Vernon, VA, 30-minute series quadrangle topographic map locates the APE, roughly, along the Potomac shoreline below Theodore Roosevelt Island (USGS 1897; see Figure 12). Howell and Taylor (1900) picture the APE as mostly underwater on the margin of tidal flats in an area of sandbars, tidal flats, and marsh meadow (see Figure 13). During this period and until the extensive filling operations of c.1915-1927, the APE was likely periodically inundated. This is consistent with the 1900 USGS Washington, DC 15-minute series quadrangle topographic mapping of the area (USGS 1900; see Figure 14).

By 1915, the U.S. Army Corps of Engineers (USACE) had begun the work of creating a new island on top of flats by installing dikes and levees. By 1917, this area of shallow river and tidal flats was partitioned off from the main channel by a wall and was being filled in to form an island (Casselman 1917). It was officially named Columbia Island in 1920 and added to the park system in 1922. A small waterway called the Boundary Channel was made to separate the island from the Virginia mainland. By 1927, the island is visible on thematic and planning maps (US Coastal Survey 1927, see Figure 15; National Capital Parks and Planning Commission 1927,




Note: Sounding are taken at low water. The flood of the tide is 3 1/2 feet. Underlined soundings show the depth in 1795. Soundings on dotted lines are from a survey made in 1816, reflecting the shifting channel. Soundings are in feet.



William James, Stone (1838) Chart of the head of navigation of the Potomac River shewing the route of the Alexandria Canal. <https://www.loc.gov/item/89696869/>.

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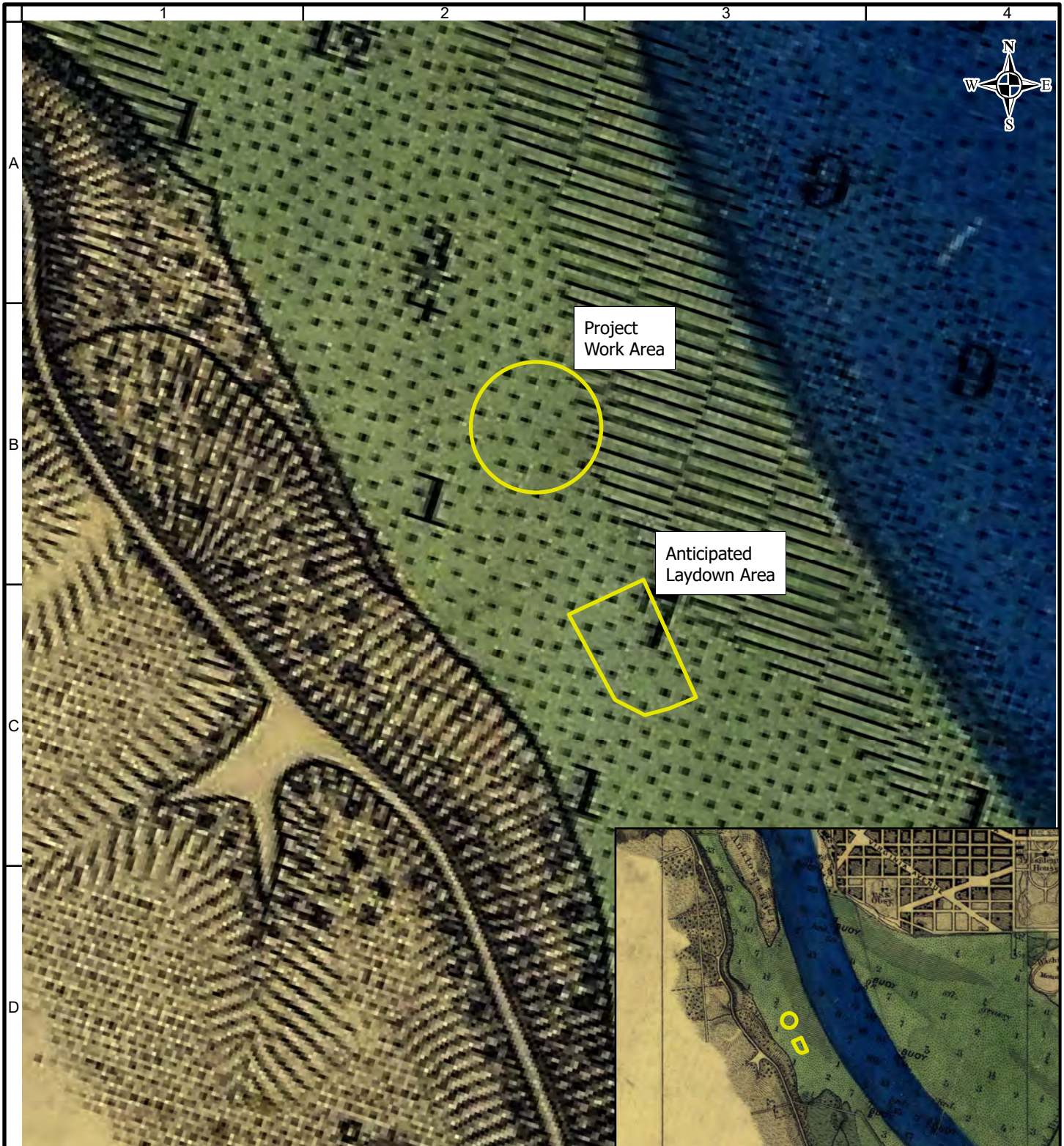
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Figure Title
STONE 1838

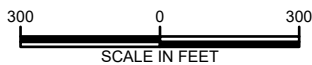
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 Area of Potential Effect



US Coastal Survey (1862) Preliminary Chart of Potomac River From Indian Head to Georgetown Sheet No 4.
www.historicalcharts.noaa.gov/image.php?filename=391-00-1862

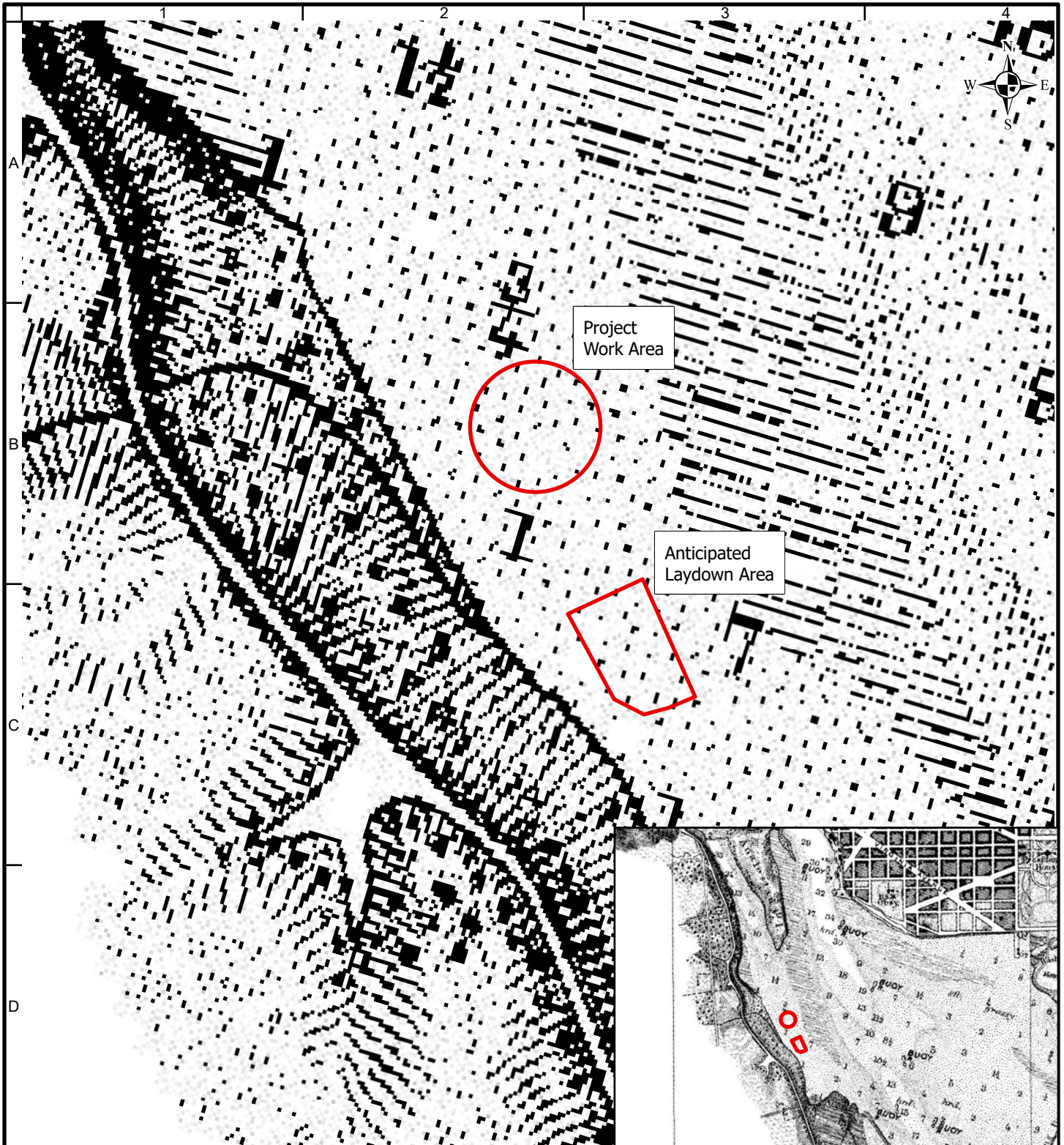
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Figure Title
1862 U.S. COASTAL SURVEY

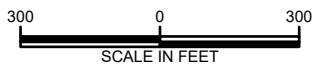
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US Coastal Survey (1875) Navigation Chart of Potomac River from Indian Head to Georgetown, 3rd Edition.
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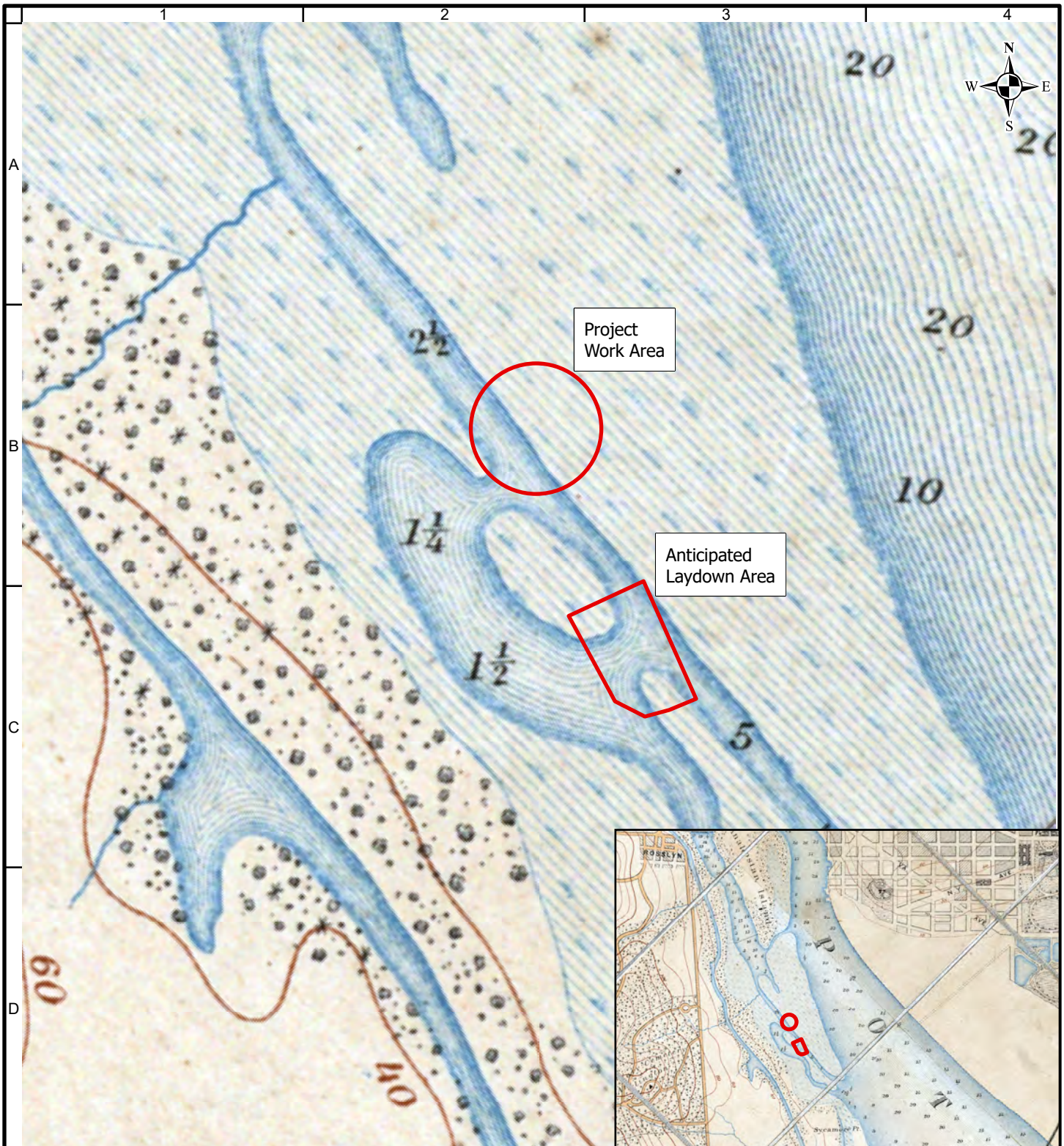
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Figure Title
1875 U.S. COASTAL SURVEY

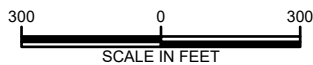
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Legend

 Area of Potential Effect



Green, F.V. (1884) Topographical map of the District of Columbia and a portion of Virginia. Corps of Engineers.
www.digitalcommonwealth.org/search/commonwealth:4m90f382n

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GREEN 1884

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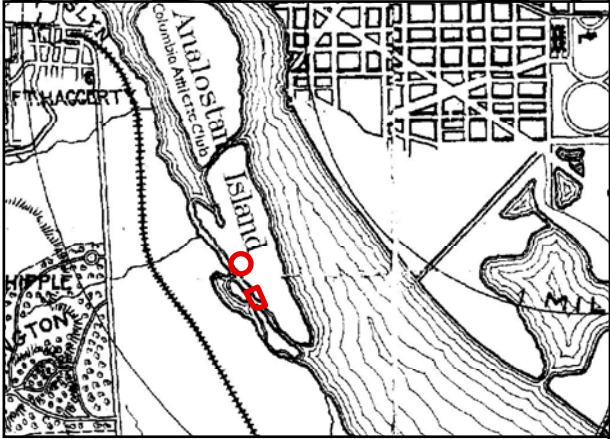
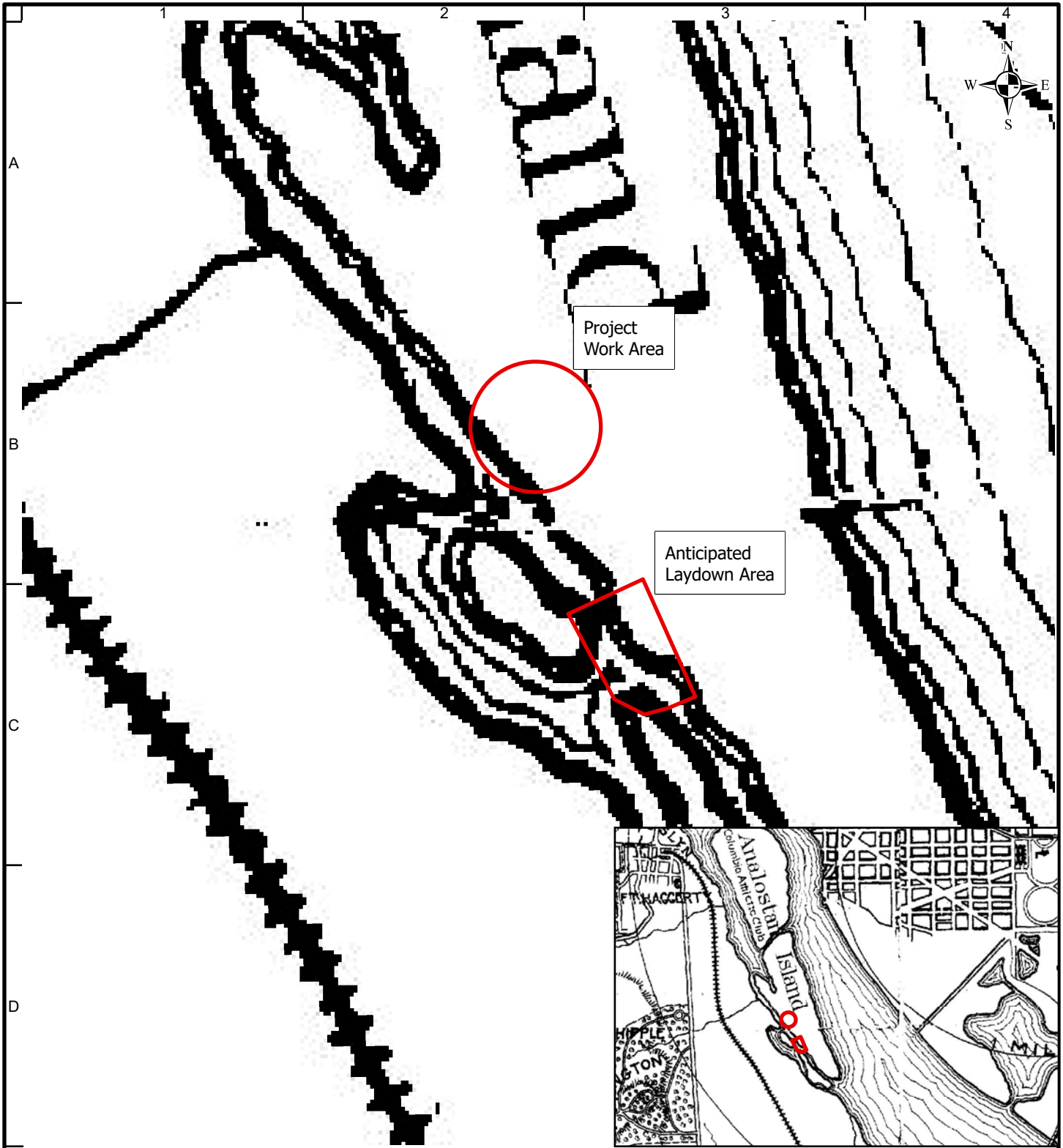
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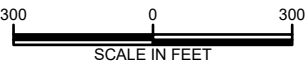
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Averill, F.L. (1892) 1892 Map of the District of Columbia and Vicinity. Engineer Corps D.C.N.G. www.historicalcharts.noaa.gov/image.php?filename=dc1892c

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AVERILL 1892


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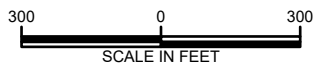
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 Area of Potential Effect



USGS (1897) Mt. Vernon, VA, 30-minute quadrangle.

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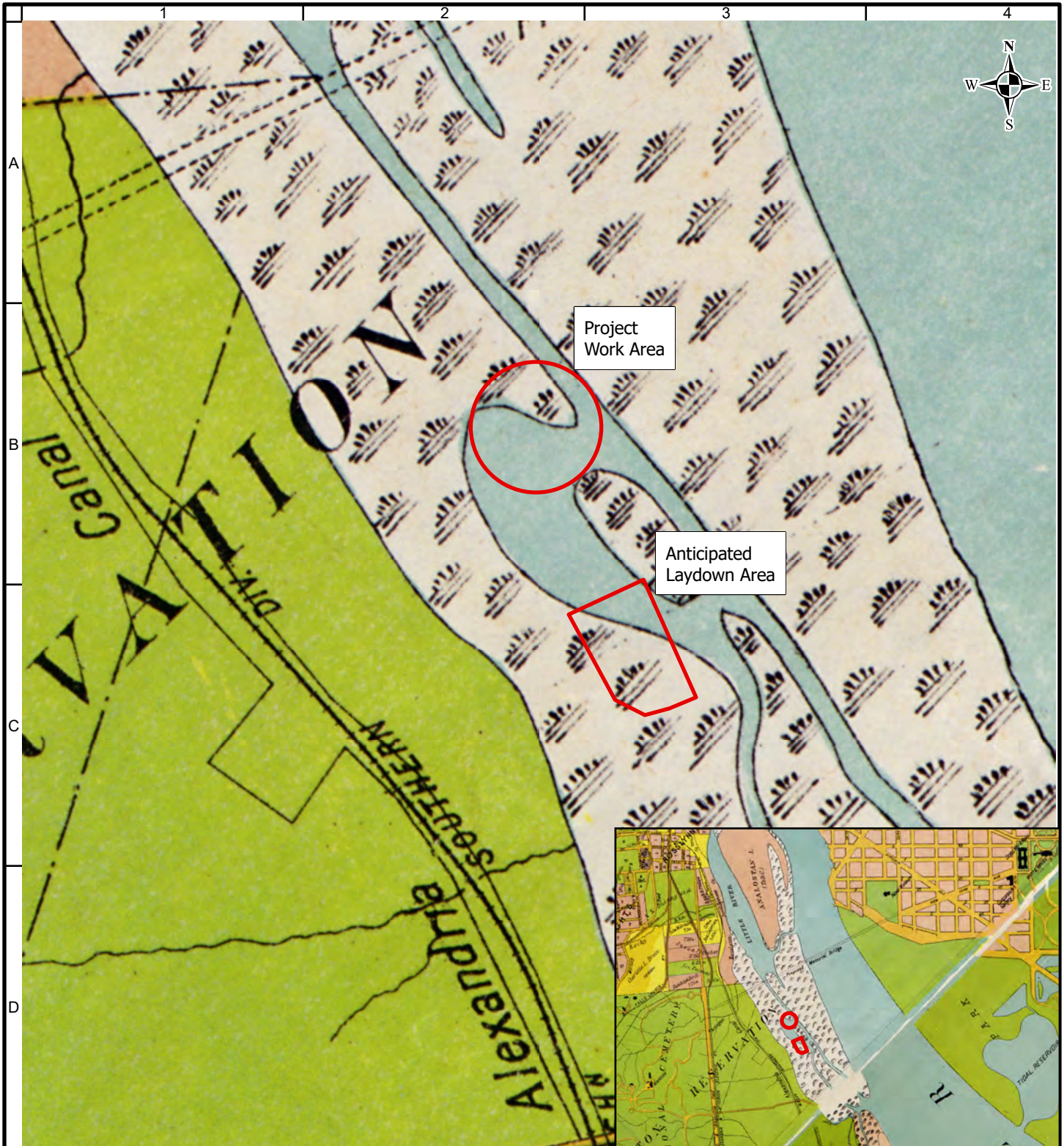
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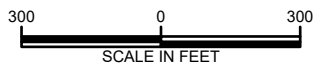
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Legend

Area of Potential Effect



Howell and Taylor (1900) Map of Alexandria County, Virginia for the Virginia Title Co. Alexandria: Howell & Taylor. www.loc.gov/item/89692758/

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Figure Title

HOWELL AND TAYLOR 1900

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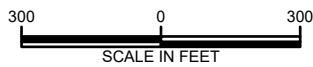
13

Sheet 1 of 1



Legend

 Area of Potential Effect



USGS (1900) Washington, DC 15-minute series quadrangle

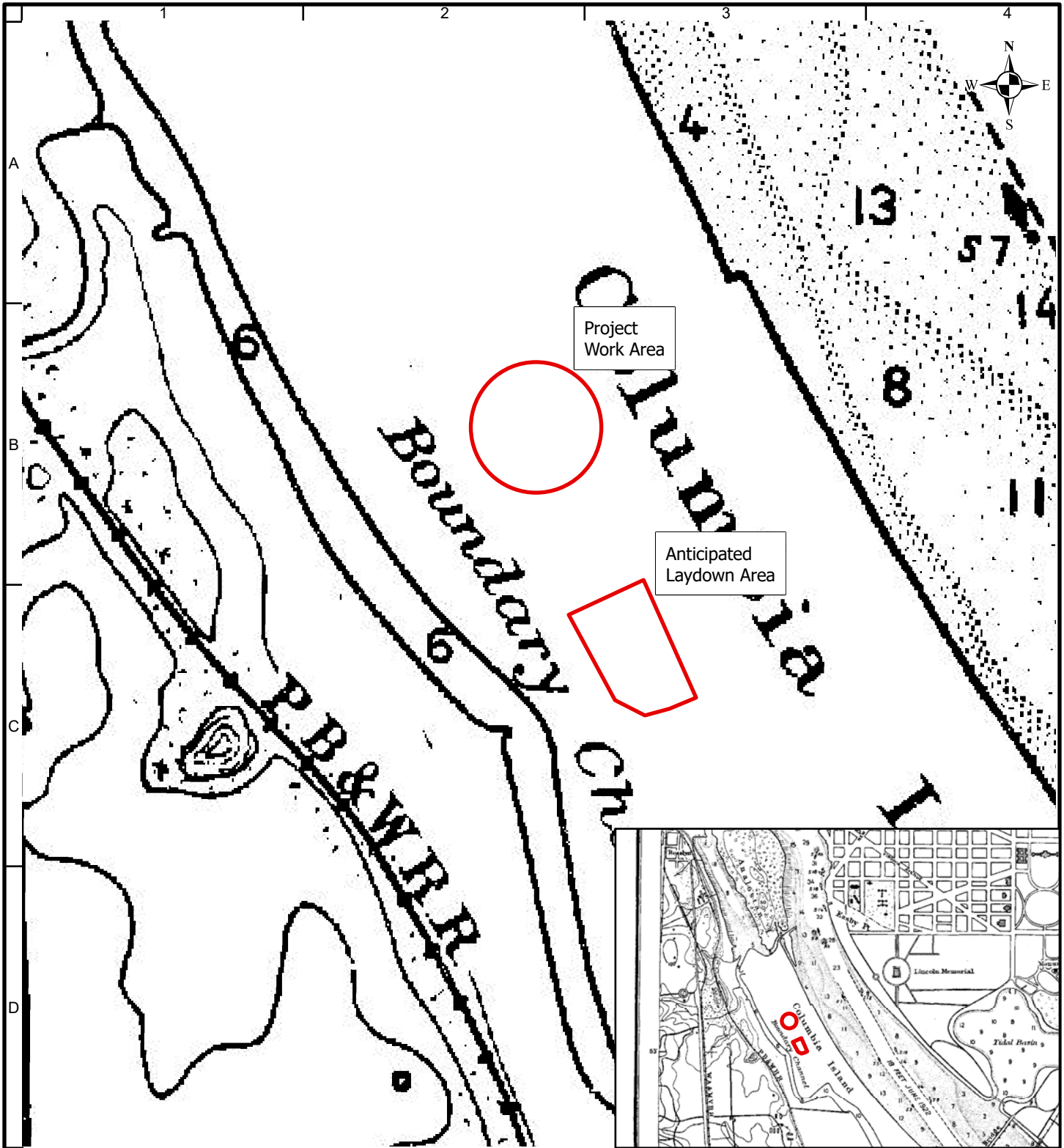
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Figure Title
USGS 1910

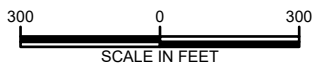
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14
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Area of Potential Effect



U.S. Coastal Survey (1927) Course Map for President Cup Regatta on Potomac.
www.historicalcharts.noaa.gov/image.php?filename=PC1927C

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Figure Title
US COASTAL SURVEY 1927

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Figure No.
 15
 Sheet 1 of 1

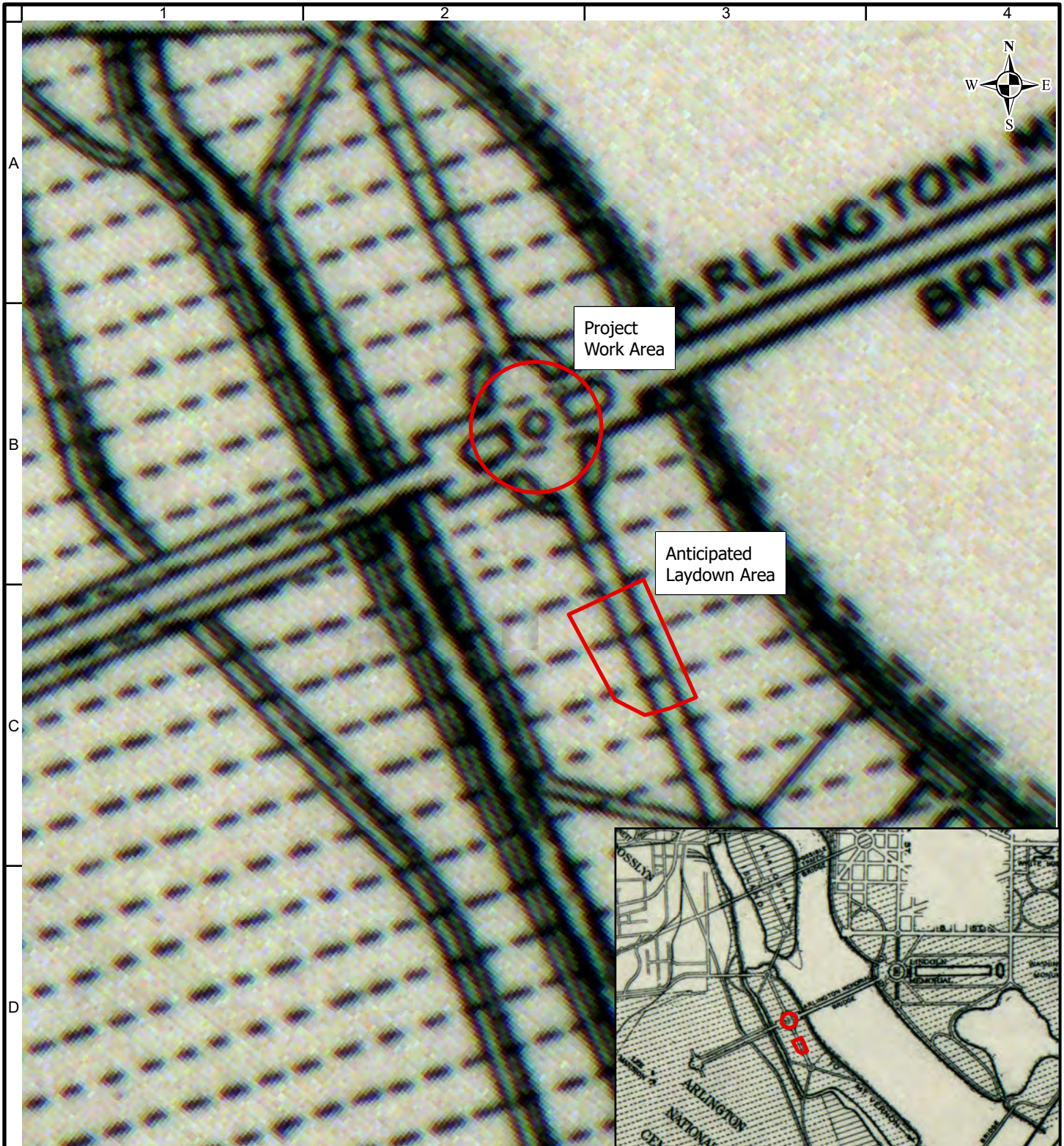
see Figure 16). A photograph taken during the construction of the Arlington Memorial Bridge (circa 1927-1930) shows the APE at a slightly oblique angle from the north. The land has been built up to an average level of 20-feet to form what was then Columbia Island (NPS 2005; Arlington Memorial Bridge Commission c.1930; see Figure 17).

The development of the northern portion of what is today Lady Bird Johnson Park reflects Washington, DC's overlapping landscapes of leisure, suburban development and transportation, ceremony, and memorialization. The APE was shaped by planning related to monuments and memorials, the McMillan Commission Plan, and the Park and Planning Movement. The island was raised to provide a terminus for the Arlington Memorial Bridge and to provide a connection between the Lincoln Memorial and Arlington House. In 1932, the southern portion of the George Washington Memorial Parkway (GWMP), which extends 15 miles south from the Arlington Memorial Bridge at Memorial Circle to the to President George Washington's Mount Vernon estate. Its purpose was to provide scenic views of the Potomac River, Washington, DC, and the District's historic sites. It was designed for scenic driving and automobile touring "rather than for directness" (DOI 1995).


Memorial Circle had been built by 1940 (see Figure 18; USGS 1945). Oak trees were planted to the south of the circle near the river. In 1941, the proposed development of the Pentagon to the west of the site led to changes in traffic patterns, prompting the reconstruction of roads on Columbia Island (Lady Bird Johnson Park). By the 1950s, the island was mostly mowed grass. The island's present configuration of meadows and stands of trees was established by Lady Bird Johnson's Beautification Program.

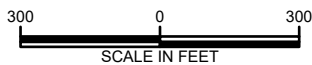
This period coincided with the use of the Arlington Farms housing complex for female service members and civil servants during the Second World War. The site was closed shortly after the war.

During the late-1960s, meadows of daffodils grew on Columbia Island and dogwood, other deciduous trees, and evergreens were planted around Memorial Circle as part of the Beautification program (see Figure 19; USGS 1965). The island was renamed Lady Bird Johnson Island in 1968. During the 1990s, elms were planted. Though the roadways on the island have changed, it retains a landscape organized around circulation, with rotary traffic channels and curving paths for pedestrians, runners, and bikers. These are laid out on gentle hills that provide views of the river, the city's monuments, and Arlington Cemetery.



Legend

 Area of Potential Effect



U.S. National Capital Park and Planning Commission (1927) Upper Potomac park project to preserve the Great Falls and Palisades of the Potomac.

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Figure Title
NATIONAL CAPITAL PARKS 1927

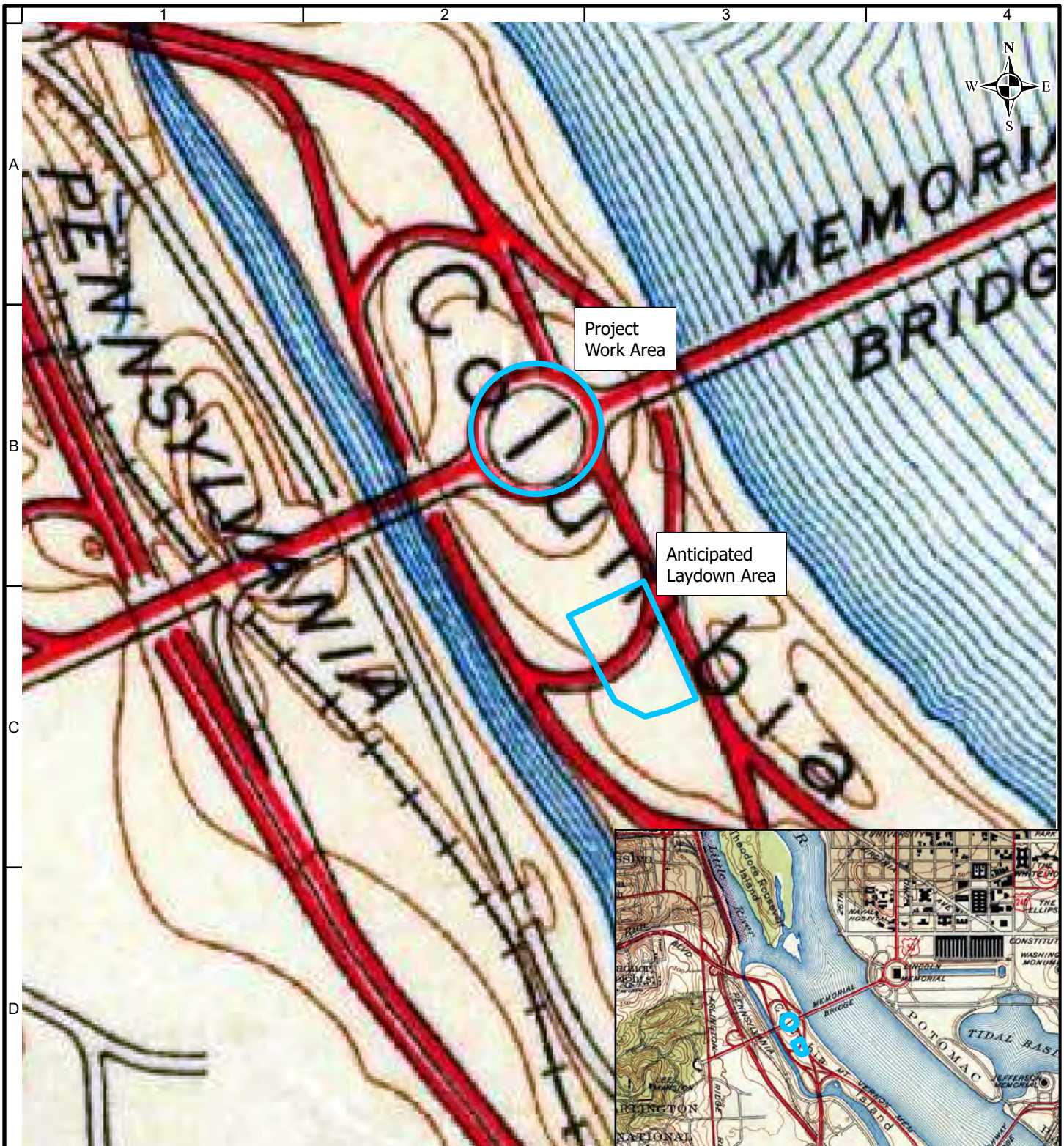
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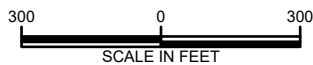
Figure 17:

Construction of Arlington Memorial Bridge [c. 1928-1930]. Arlington Memorial Bridge Commission, Washington, DC National Archives ID: 557759390 (42-MS-84)



Legend

 Area of Potential Effect



USGS (1945) Washington, DC 1:31680-scale quadrangle map.

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USGS 1945

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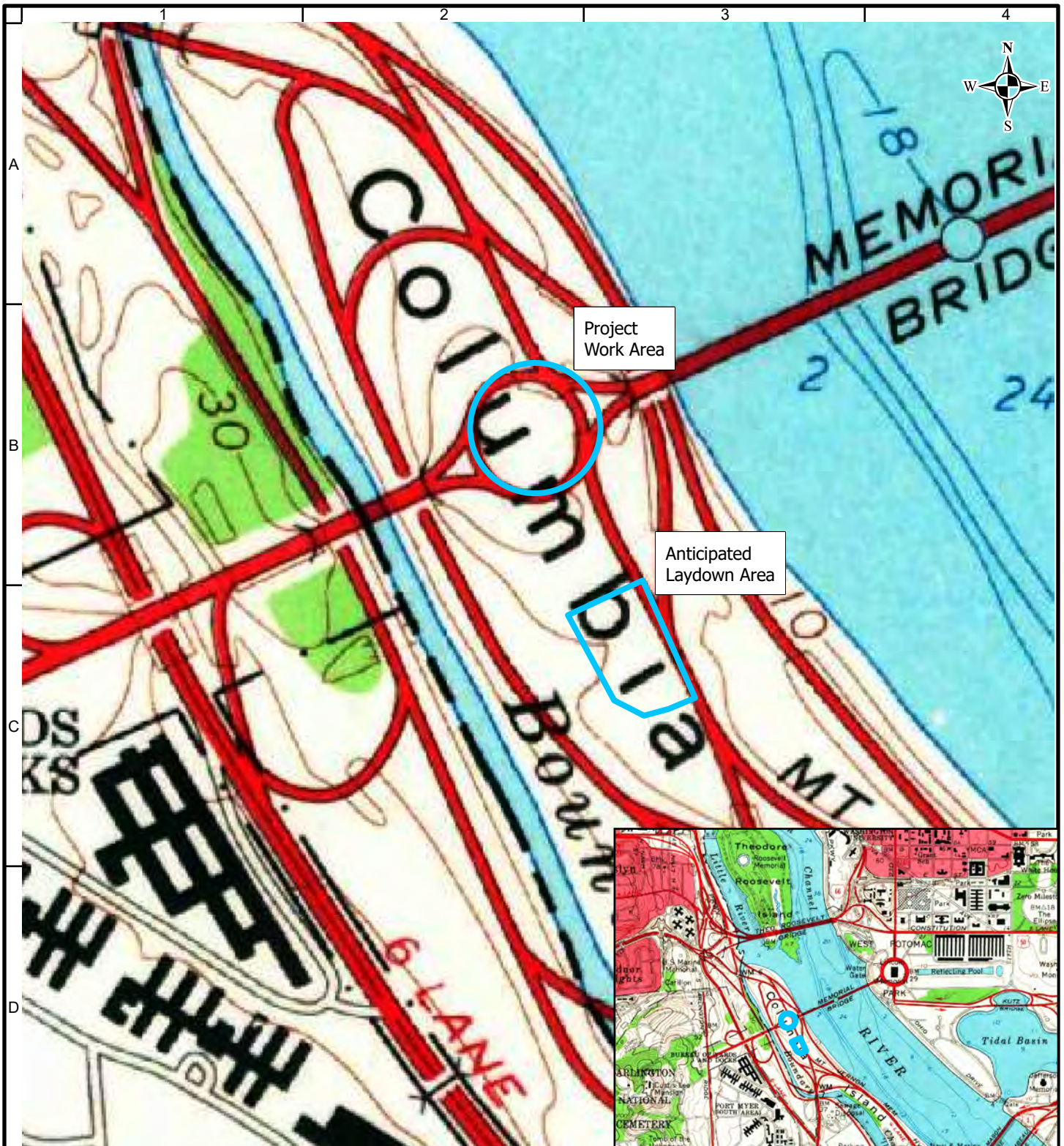
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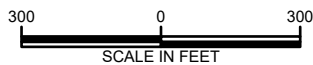
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Sheet 1 of 1



Legend

 Area of Potential Effect



USGS (1965) Washington, West DC 1:2400-scale quadrangle map.

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Figure Title

USGS 1965

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Figure No.

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Sheet 1 of 1

5.0 ARCHAEOLOGICAL SURVEY

This section discusses the archaeological research design and methodology, assessment of archaeological sensitivity, and the results of a pedestrian reconnaissance of the APE.

5.1 Research Design and Methodology

The research design for the project includes preliminary background research and a visual inspection of the current conditions within the APE. The background research was conducted before the site inspection to determine the presence of any documented cultural resources and to assess the potential to contain undocumented cultural resources in the APE. This assessment helps to determine if archaeological testing would be necessary.

The assessment of archaeological resource sensitivity is based on:

- The potential for archaeological sites to exist in a given area; and
- The sensitivity of that area to contain intact cultural resources.

In areas where no sites have been documented, the potential presence of precontact resources is based primarily on environmental setting, such as topography, proximity to water, food sources, lithic source material, and soil quality. The potential for historic resources is usually determined through the analysis of historic sources, especially cartographic materials. The presence of structures, roads, canals or railroads documented on historic maps usually increases the potential for historic sites.

5.2 Pedestrian Reconnaissance

A site reconnaissance was carried out on May 19, 2026. It included walking around the perimeter of the APE and several transverse walks across the immediate vicinity to document the area and to identify evidence of subsurface disturbance, other anthropogenic and natural landscape modifications, and any potential archaeological resources. Photographs of the APE were taken to document its current conditions (see Figure 20 and Photographs 1 through 18).

The APE for the proposed project is Memorial Circle, a traffic circle of approximately 2.65 acres (1 hectare) built c. 1940. The primary LOD will encompass the existing grass area within Memorial Circle. A mowed field located approximately 100 meters south-southeast of the circle, which was previously used for the Memorial Bridge staging area, is anticipated to be reused as staging/laydown space for this project. The anticipated staging/laydown area comprises about 1.90 acres (0.77 hectare). Memorial Circle is located on a roughly oval-shaped artificial ridge located on the northern portion of Lady Bird Johnson National Park. The ridge that forms this portion of Lady Bird Johnson Park is meadows of mowed grass with stands of pine, maple, chestnut, and dogwood. Tulips have been planted at bridge entrances to the east and west, at the Arlington Memorial Bridge and Boundary Channel Bridge/Memorial Avenue overpass. The Lincoln Memorial is visible to the northeast. Arlington House is visible above Arlington National Cemetery to the southwest. The Mount Vernon Trail and George Washington



Legend



NOTES:
 1. BASEMAP ADAPTED FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5-MINUTE SERIES TOPOGRAPHICAL MAPS, __, NEW YORK, QUADRANGLE, DATED 2016.

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Figure No.
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 Sheet 1 of 1



Photograph 1:
Site Overview. Facing Northwest. BT 04/19/2026



Photograph 2:
Site Overview. Facing Northeast. BT 04/19/2026



Photograph 3:
Site Overview. Facing Southeast. BT 04/19/2026



Photograph 4:
Site Overview. Facing South. BT 04/19/2026



Photograph 5:
Site Overview. Facing Southwest. BT 04/19/2026



Photograph 6:
Site Overview. Ground Disturbance. BT 04/19/2026



Photograph 7:
Site Overview. Facing South. BT 04/19/2026



Photograph 8:
Site Overview. Facing West. BT 04/19/2026



Photograph 9:
Site Overview. Facing East. BT 04/19/2026



Photograph 10:
Site Overview. Facing North. BT 04/19/2026



Photograph 11:
Site Overview. Facing Southwest. BT 04/19/2026



Photograph 12:
Site Overview (Laydown). Facing West. BT 04/19/2026



Photograph 13:
Site Overview. Facing South. BT 04/19/2026



Photograph 14:
Site Overview. Facing West. BT 04/19/2026



Photograph 15:
Site Overview. Facing East. BT 04/19/2026



Photograph 16:
Site Overview. Facing East. BT 04/19/2026



Photograph 17:
Site Overview. Facing West. BT 04/19/2026



Photograph 18:
Site Overview. Facing Southwest. BT 04/19/2026

Memorial Parkway pass to the east of the Memorial Circle APE, running parallel to the Potomac River. Southbound Washington Boulevard runs to the west of the ridge. A channel separating Lady Bird Johnson Park from the mainland runs to the west, marking the boundary between the District of Columbia and Virginia. The George Washington Memorial Parkway, a metro rail line, and the Richmond Highway run between the channel and the Arlington National Cemetery.

5.3 Precontact Archaeological Sensitivity

Historic mapping and preliminary boring data indicate that the APE is located on approximately 10-14 feet of dredged fill material. This fill, deposited between 1915 and 1927, caps an earlier landscape of alluvial deposits of sandy clay, likely laid down on sandbars or shallow tidal flats during the late precolonial period or early historic period. However, over the preceding 10,000 years of human history in the region prior to more recent sea-level rise and the backfilling and broadening of the Potomac River basin, this area likely consisted of an upland riverine terrace overlooking a much smaller Potomac River drainage.

Given the challenges of identifying buried landforms and paleolandscapes, geoarchaeological investigation would be appropriate to better evaluate the likelihood of intact deposits underlying these buried surfaces and understand the geophysical development of the existing landform should planned construction include ground disturbances below the historic fill (Louis Berger Group 2005; LeeDecker 2020).

During the precolonial period, the APE was situated near potable water resources and rocky outcrops. Both factors would have been attractive to Native American groups as evidenced through the presence of documented Late Archaic through Early Woodland archaeological sites along the Potomac River drainage. The presence of all three factors suggests a high likelihood that the former riverine terrace supported short-term subsistence and/or resource procurement campsites prior to inundation. By the time of European settlement in the 1600s, the location likely comprised shallow grassy marsh along the river margin and would not have supported long-term encampment during these more recent periods. As a result, the sensitivity assessment characterizes the APE as having high to moderate sensitivity for intact archaeological resources associated with precolonial Native American settlement and activities along the shores of the Potomac River prior to the 1600s. These resources would likely exist capped and preserved beneath the modern deposits of dredge-related fill emplaced starting ca. 1915.

5.4 Historic Archaeological Sensitivity

Like precontact cultural resources, the sensitivity for historic period cultural resources is derived by ascertaining the probable location of a potentially significant historic site and comparing that with documented ground disturbances. Overall sensitivity for historic archaeological resources is a measure of the potential for intact artifact deposits, features, or structural remains to be present within the APE.

As mentioned in Chapter 4, the project area has been tangential to several historic uses of the land. To the west is Arlington House—Robert E. Lee’s former plantation and estate. Agricultural use of tidal river margins produced salt hay for farms and plantations, and mud flats and shoals provided shellfish and tidal fishing grounds as well as beaching places for errant ships. As a

result, intact maritime and terrestrial historic archaeological resources may still be present in certain areas of the APE relating to the late 18th century and/or early 19th century waterfront activities associated with the Arlington estate and the landfilling of the site. Based on this information, the sensitivity assessment characterizes the APE as having high to moderate sensitivity for historic archaeological resources capped and preserved beneath modern dredge fill deposits.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This report presents the results of a Phase IA archaeological assessment for the Area of Potential Effects (APE) for the proposed arch on Memorial Circle within the Memorial Avenue Corridor, which crosses Lady Bird Johnson Park, located at 1450 George Washington Memorial Parkway, SW, Washington, DC. The Area Potential Effect (APE) for Direct Effects comprises the entirety of Memorial Circle, a traffic circle of approximately 2.65 acres (1 ha.) and a laydown/staging area of approximately 1.90 acres (0.77 ha.) located roughly 100 meters southeast of the circle. At this preliminary stage, an APE for Indirect Effects has not been formally established.

Virginia's V-CRIS database identified thirteen (13) archaeological resources, one hundred and eighteen (118) individually identified above-ground architecture resources, and six (6) somewhat overlapping historic districts within a one-mile radius of the APE on the Virginia side of the Potomac River. The APE is also within the study area of the War of 1812 and within one (1) mile of the Core Area of that battle. Archaeological sites within a one-mile radius of the APE include the Arlington House site (44-AR-0017), which contributes to the NRHP-listed Arlington House Historic District; two NHRP-eligible sites, the Arlington House Ravine (44-AR-0032) and Chaffee Place Site (44-AR-50); five (5) historic and precolonial sites, which have not been evaluated for eligibility; and six (6) sites that have been determined by DHR to be ineligible for listing on the NRHP. Eighty-two (82) of the 118 individually identified above-ground resources are listed as associated with historic districts. These historic districts are the Arlington House Historic District (1 property), Fort Myer Historic District (28 properties), Arlington National Cemetery Historic District (34 properties), Pentagon Office Building Complex Historic Districts (4 properties), the Mount Vernon Memorial Highway Historic District (2 properties), and the George Washington Memorial Parkway Historic District (14 properties), all of which are listed in the National Register of Historic Places (NRHP).

Langan's Phase IA archaeological assessment employed a predictive model to determine the potential for precolonial and/or historic archaeological resources within the APE. The predictive model synthesized information about known archaeological sites, past cultural resource surveys, environmental factors, known historic resources, and a pedestrian survey of the property. Historic mapping and preliminary boring indicate that the APE is located on approximately 14-feet of fill. This fill, deposited between 1915 and 1927, caps an earlier landscape of alluvial deposits of sandy clay, likely laid down on sandbars or shallow tidal flats during the late precolonial period or early historic period. Investigations in areas of fill have provided important information about Washington, DC's buried landscapes, ranging in age from roughly 10,000 BC to the colonial. The APE is located in an area that would have provided attractive resources during precolonial and early colonial periods. The Arlington House waterfront was also an important aspect of its 19th century landscape. As a result, Langan's Phase IA sensitivity assessment has characterized the APE as having high to moderate sensitivity for intact precolonial and/or historic archaeological resources beneath a cap of 20th century fill material.

At present, the depth of subsurface disturbances is not known. Should disturbances extend more than 10-feet below ground surface, then a Phase IB subsurface archaeological investigation inclusive of geoarchaeological analysis would be appropriate to determine the presence / absence of previously unrecorded significant archaeological resources within portions of the APE which may be impacted by the proposed project.

8.0 BIBLIOGRAPHY

Arlington Memorial Bridge Commission

- 1930 Construction of Arlington Memorial Bridge. Arlington Memorial Bridge Commission, Washington, DC National Archives ID: 557759390, 42-MS-84. <https://catalog.archives.gov/id/557759390>
- 1923 Arlington Memorial Bridge, B Street and 23rd Street in Relation to Bridge Entrance. Arlington Memorial Bridge Commission, Washington, DC National Archives ID: 557759390, 42-MS-054. <https://catalog.archives.gov/id/557759390>

Averill, F.L.

- 1892 *Map of the District of Columbia and Vicinity Showing the principle points of interest including the present condition of the Defenses of Washington. Compiled from the Latest Maps and From Original Surveys and Reconnaissance* by the Engineering Platoon of the Engineer Corps D.C.N.G. [www.historicalcharts.noaa.gov /image.php?filename=dc1892c](http://www.historicalcharts.noaa.gov/image.php?filename=dc1892c)

Avery, E.V.A.

- 1929 *The Arlington Experimental Farm of the United States Department of Agriculture: A Handbook of Information for Visitors.* United States. Bureau of Plant Industry.

Baist, G.W.

- 1904 *Baist's map of the vicinity of Washington, DC* Philadelphia: G. Wm. Baist. <https://www.loc.gov/item/87691445/>

Boschke, A.

- 1861 *Topographical map of the District of Columbia / surveyed in the years 1856 '57 '58 & '59* by A. Boschke, engraved by D. McClelland, Washington, DC

Carr, M.S.

- 1950 *The District of Columbia, Its Rocks and Their Geologic History. Geological Survey Bulletin 967.* United States Department of the Interior, Geological Survey. <https://pubs.usgs.gov/bul/0967/report.pdf>

Casselman, A.B.

- 1917 A national park on the Potomac River. Address by Amos B. Casselman, Delivered at the National Parks Conference at Washington, DC, January 5, 1917. Washington, Govt. Printing Office. <https://www.loc.gov/item/25005256/>

Chapell, G.

- 1973 Historic Resource Study, East and West Potomac Parks: A History. National Parks Service. <https://irma.nps.gov/DataStore/DownloadFile/482480>

Cram, G.F.

- 1889 Map of Washington. Chicago: Geo. F. Cram. <https://ark.digitalcommonwealth.org/ark:/50959/5q47zt322>

Custer, J.

- 1991 Fort Myer Cultural Resource Management Plan, Draft Report. Prepared for the U.S. Army Corps of Engineers, Baltimore District by Kise Franks & Straw, Inc.
- 1992 Phase I Archaeological Survey, BRAC Project Areas, Fort Myer, Arlington County Virginia. Prepared for the Military District of Washington by Kise, Franks & Straw, Inc., Philadelphia. VA CRM Report No. AR-031.

Darton, N.H. and Keith, A.

- 1901 Washington folio, District of Columbia-Maryland-Virginia. Folios of the Geologic Atlas, Folio 70. <https://www.usgs.gov/publications/washington-folio-district-columbia-maryland-virginia>.

Dent, R.J., Jr.

- 1995 Chesapeake Prehistory: Old Traditions, New Directions. New York: Plenum.

DOI (Department of the Interior)

- 1995 George Washington Memorial Parkway. National Register of Historic Places Registration Form. <https://npgallery.nps.gov/NRHP/GetAsset/8367e5e4-f7c8-4727-aeaa-273db303c390>

Dumont, Elizabeth M. and Louis A. Dumont

- 1979 "Of Paradigms and Projectile Points: Two Perspectives on the Early Archaic in the Northeast." *The Bulletin of the New York State Archaeological Association* 74:38-52. Rochester, NY.

Ellicott, A.

- 1794 Territory of Columbia. Philadelphia. <https://www.loc.gov/item/89690420/>

Funk, Robert

- 1977 Current Perspectives in Northeastern Archaeology: Essays in Honor of Williams A. Ritchie. *New York State Archaeological Association (1)17*. Albany New York

Green, F.V.

- 1884 Topographical map of the District of Columbia and a portion of Virginia: compiled under the direction of Major G.J. Lydecker, Corps of Engineers, Engineer Commissioner D.C., by Captain F.V. Greene, Corps of Engineers; drawn by W.T.O. Bruff. <https://www.digitalcommonwealth.org/search/commonwealth:4m90f382n>

Goddard, Ives

- 1978 Delaware. In *Northeast*, edited by Bruce G. Trigger, pp. 213-239. *Handbook of North American Indians*, vol. 15, William G. Sturtevant, editor. Smithsonian Institution, Washington, DC

Hains, P.C.

- 1894 Reclamation of the Potomac Flats at Washington, DC *Transactions of the American Society of Civil Engineers* 31, pp. 55-80. <https://catalog.hathitrust.org/Record/008894161>

Herrman, A

1673 Virginia and Maryland As it is Planted and Inhabited this present year 1670 Surveyed and Exactly Drawne by the Only Labor & Endeavour of Augustine Herrman.
<https://digital.libraries.psu.edu/digital/collection/maps1/id/30103/>

Hopkins, G.M., Jr.

1894 The vicinity of Washington, DC Philadelphia: Griffith M. Hopkins.
<https://www.loc.gov/item/88693364/>

Howell and Taylor

1900 Map of Alexandria County, Virginia for the Virginia Title Co. Alexandria: Howell & Taylor.
<https://www.loc.gov/item/89692758/>

Humphrey, R.L., and Chambers, M.E.

1977 Ancient Washington: American Indian Cultures of the Potomac Valley, GW Washington Studies No. 6. https://scholarspace.library.gwu.edu/concern/gw_works/dv13zt48m

Kinsey, W. Fred, Herbert C. Kraft, Patricia Marchiano and David J Werner

1972 Archaeology of the Upper Delaware Valley. Pennsylvania Historical and Museum Commission, Anthropological Series, 3.

Klein, M., Calhoun, E., González, M., and Proper, E.E.

2015 *Archaeological Background Review and Predictive Model for the Washington, DC to Richmond, Virginia, Southeast High Speed Rail Corridor*. Dovetail Cultural Resource Group, Fredericksburg, Virginia. Report on file, Virginia Division of Historic Resources.

Knox, A.S.

1969 Glacial Age Marsh, Lafayette Park, Washington, DC Science, N.S., 165, no. 3895, pp. 795-797. <https://www.jstor.org/stable/1727373>

Koski-Karell, D.

1992 The Pentagon Office Building Complex. National Historic Landmark Nomination Form.
<https://npgallery.nps.gov/NRHP/GetAsset/18c633e5-f062-498c-9ff2-6575ae433998>

LeeDecker, C.

2020 Archeology in the Monumental Core: Part 1. National Mall and Memorial Parks. National Park Service. <https://www.nps.gov/articles/history-archeology-of-dc-monumental-core-part-1.htm>

Lyttle, P.T., Aleinikoff, J.N., Burton, W.C., C. E.A, Jr., Drake, A.A., Jr., Froelich, A.J., Horton, J.W., Jr., Kasselas, G., Mixon, R.B. McCartan, L., Nelson, A.E., Newell, W.L., Pavlides, L., Powars, D.S., Southworth, C.S., and Weems, R.E.

- Mason, O.T., McGee, W.J., Wilson, T., Proudfit, S.V., Holmes, W.H., Reynolds, E.R., and Mooney, J.
1889 The Aborigines of the District of Columbia and the Lower Potomac - A Symposium, under the Direction of the Vice President of Section D. *American Anthropologist* 2, no. 3, pp. 225-268.
- MacCord, H.A., Sr.
1968 Archaeological Survey – Site Record (44 Ar 8), Commonwealth of Virginia.
- Moore, C., ed.
1942[1902] The improvement of the park system of the District of Columbia. I.–Report of the Senate Committee on the District of Columbia. II.–Report of the Park Commission. The United States Congress and Senate Committee on the District of Columbia. 1942 edition.
- Natural Resources Conservation Service (NRCS)
2026 NRCS Web Soil Survey, Somerset County. Available online at <http://websoilsurvey.nrcs.usda.gov>
- Nelligan, M.H.
1962[1950] Custis-Lee Mansion, the Robert E. Lee Memorial, Virginia. Washington, DC: U.S. Dept. of the Interior, National Park Service.
<https://catalog.hathitrust.org/Record/003800082>
- NPS (National Park Service)
2005 National Park Service Cultural Landscapes Inventory: Lady Bird Johnson Park, George Washington Memorial Parkway - Lady Bird Johnson Park.
<https://irma.nps.gov/DataStore/DownloadFile/450564>
- Proudfit, S.V.
1889 Ancient Village Sites and Aboriginal Workshops in the District of Columbia. In: "The Aborigines of the District of Columbia and the Lower Potomac - A Symposium, under the Direction of the Vice President of Section D.") *American Anthropologist* 2, no. 3, pp. 241-246.
- Reed, J.C., Jr. and Obermeier, S.F.
1982 The geology beneath Washington, DC—The foundations of a nation's capital. In *Geology Under Cities*. Robert F. Legget, ed. Geological Society of America.
<https://doi.org/10.1130/REG5-p1>.
- Reusser, L.J., Bierman, P.R., Pavich, M.J., Zen, E., Larsen, J., and Finkel, R.
2004 Rapid Late Pleistocene Incision of Atlantic Passive-Margin River Gorges. *Science* 305, no. 23, pp. 499-502.

- Roulo, C.
2024 10 Things You Probably Didn't Know About the Pentagon. U.S. Department of War. <https://www.war.gov/News/Feature-Stories/story/Article/1650913/10-things-you-probably-didnt-know-about-the-pentagon/>
- Smith, A., Tooker, M., and Enscoe, S.
2013 Arlington National Cemetery Historic District. National Register Historic Places Registration Form. <https://npgallery.nps.gov/NRHP/GetAsset/88009676-48dc-4e61-888a-bc1ffb608f8f>
- Smith, J.
1605 [Map of Virginia] / discovered and discribed [sic] by Captain John Smith 1606. William Hole, Engraver. <https://www.loc.gov/pictures/item/2001695744/>
- Stone, William James, James Kearney, Wm Turnbull, Wilson M. C Fairfax, Maskell C Ewing, and Alexandria Canal Company.
1838 *Chart of the head of navigation of the Potomac River shewing the route of the Alexandria Canal: made in pursuance of a resolution of the Alex'a Canal Company Oct.* [Washington: U.S. Senate, 1838] Map. <https://www.loc.gov/item/89696869/>.
- Thomas, L. K., Jr.
1963 Geomorphology and Vegetation of Theodore Roosevelt Island. United States Department of the Interior, National Park Service. Scientific Report No. 2. <https://npshistory.com/publications/this/geomorphology-vegetation.pdf>.
- Trollope, F.M.
1832 Domestic manners of the Americans. London: Whittaker, Treacher. <https://archive.org/details/domesticmannerso00troliala>
- U.S. Coastal Survey
1927 Course Map for President Cup Regatta on Potomac. www.historicalcharts.noaa.gov/image.php?filename=PC1927C
1882 Nautical Chart of the Harbors in Washington and Georgetown. www.historicalcharts.noaa.gov/image.php?filename=NCDC1882
1875 Navigation Chart of Potomac River from Indian Head to Georgetown, 3rd Edition. www.historicalcharts.noaa.gov/image.php?filename=NCDC1882
1862 Preliminary Chart of Potomac River From Indian Head to Georgetown Sheet No 4. www.historicalcharts.noaa.gov/image.php?filename=391-00-1862
- USGS (United States Geological Survey)
Var. USGS Historical Topographic Maps. <https://ngmdb.usgs.gov/>
2023 *Online Image Service*. Available online through ArcGIS.
2017 Geologic map of the Washington West 30' x 60' quadrangle, Maryland, Virginia, and Washington, DC Open-File Report 2017-1142. US Geological Survey. <https://pubs.usgs.gov/publication/ofr20171142>

U.S. National Capital Park and Planning Commission

1927 Upper Potomac park project to preserve the Great Falls and Palisades of the Potomac

Virta, Matt

2021 Rehabilitation of Arlington House, the Robert E. Lee Memorial South Dependency/Slave Quarters - Discovery of a Subfloor Storage Pit Shrine Supplementary Section 106 Archeological Investigations Related to the 2017-2020 Rehabilitation Program. National Park Service - George Washington Memorial Parkway. https://www.nps.gov/arho/learn/management/upload/ARHO-SSQ-Subfloor-Storage-Pit-Shrine_2021_04_Virta-508.pdf

APPENDIX A

SITE PLANS

APPENDIX B

QUALIFICATIONS OF PREPARERS

SCOTT WIECZOREK, RPA

ASSOCIATE NATURAL RESOURCES

Mr. Wieczorek began his career as a field archaeologist in 1996, obtained his BA in 2000, his MA in 2003, and is a Registered Professional Archaeologist (RPA) experienced in both archaeology and architectural history. He designs and implements cultural resources investigations for projects throughout the United States and is registered in the states of Delaware, Florida, Illinois, Maryland, New York, New Jersey, and Pennsylvania, among others. He specializes in the analysis of prehistoric, historic and industrial artifacts and sites, as well as in the analysis of historic structures. Mr. Wieczorek has directed cultural resources surveys in accordance with Section 106 of the National Historic Preservation Act, the National Environmental Policy Act, and other State and Local level legislative frameworks.



SELECTED PROJECTS

ARCHAEOLOGY

Princeton Nurseries Phase IA Archaeological Assessment, South Brunswick, NJ—Project Manager and Principal Investigator for archaeological investigation.

Princeton Nurseries Phase IB Subsurface Survey, South Brunswick, NJ—Project Manager and Principal Investigator for archaeological investigation.

Phase III Data Recovery Plan, Doremus House, Montville, NJ— Project Manager and Principal Investigator for archaeological data recovery plan.

Proposed First Energy Transmission Line Phase I Archaeological Investigation, Raritan Alignment, South Amboy, NJ—Project Manager and Principal Investigator for archaeological investigation.

Peddler's Village Due Diligence Study, Howell, NJ—Project Manager and Principal Investigator for due diligence study.

IMTT Bayonne Yard 8, Phase IA Archaeological Assessment, Bayonne, NJ— Project Manager and Principal Investigator for archaeological investigation.

IMTT Bayonne Yard 9, Phase IA Archaeological Assessment, Bayonne, NJ— Project Manager and Principal Investigator for archaeological investigation.

Proposed Ladysmith Data Center Phase IB Subsurface Survey, Ladysmith, VA— Project Manager and Principal Investigator for archaeological investigation.

Proposed Rebel Data Center Phase IA Archaeological Assessment, Ladysmith, VA— Project Manager and Principal Investigator for archaeological investigation.

Proposed Polaris Data Center Phase IA Archaeological Assessment, Ladysmith, VA—Project Manager and Principal Investigator for archaeological investigation.

Frick Estates Supplemental Phase IB Subsurface Survey, Alpine, NJ—Project Manager and Principal Investigator for archaeological investigation.

EDUCATION

M.A., History
Monmouth University

B.A., Anthropology
Monmouth University

PROFESSIONAL REGISTRATION

Register of Professional
Archaeologists (RPA)

**Work performed prior to joining Langan.*

LANGAN

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Proposed Warehouse Phase IA/IB Archaeological Investigation, Hillsborough, NJ

Proposed Warehouse Phase IB Subsurface Survey, Burlington, NJ— Project Manager and Principal Investigator for archaeological investigation.

Teterboro Airport Addendum Phase IA Archaeological Assessment, Teterboro, NJ— Project Manager and Principal Investigator for archaeological investigation.

Proposed Residential Subdivision Phase IA/IB Archaeological Investigation, Harrison, NY— Project Manager and Principal Investigator for archaeological investigation.

Plainfield YMCA Phase IA Archaeological Assessment, Plainfield, NJ— Project Manager and Principal Investigator for archaeological investigation.

Bradley Beach Library Improvements Phase IA Archaeological Assessment, Bradley Beach, NJ— Project Manager and Principal Investigator for archaeological investigation.

Cultivate Power Solar Sites Due Diligence Study and Phase IA Archaeological Assessment, Various, NJ— Project Manager and Principal Investigator for archaeological investigations and due diligence studies at 10 proposed solar sites.

Durand-Hedden House Archaeological Monitoring Plan, Maplewood, NJ— Project Manager and Principal Investigator for archaeological monitoring.

Manhattan Jail Archaeological Monitoring Plan and Monitoring, Manhattan, NY— Project Manager and Principal Investigator for archaeological Monitoring.

O&R Goshen Solar Phase I Archaeological Investigation, Goshen, NY— Project Manager and Principal Investigator for archaeological investigation.

O&R Goshen Underground Gas Main, Phase IA Archaeological Assessment, Goshen, NY— Project Manager and Principal Investigator for archaeological investigation.

O&R King's Highway Gas Main, Phase IA Archaeological Assessment, Goshen, NY— Project Manager and Principal Investigator for archaeological investigation.

Proposed Warehouse Development Phase IA Archaeological Assessment, Killingly, CT— Project Manager and Principal Investigator for archaeological investigation.

Proposed Housing Subdivision Phase I Archaeological Investigation, Brock Farms, Freehold, NJ— Project Manager and Principal Investigator for archaeological investigation.

Proposed Housing Subdivision Due Diligence, Readington, NJ— Project Manager and Principal Investigator for due diligence study.

Shady Rest Golf Club Archaeological Monitoring Plan, Scotch Plains, NJ— Project Manager and Principal Investigator for archaeological monitoring plan.

Rutgers Camden Gateway, Phase III Data Recovery, Camden, NJ— Project Manager and Principal Investigator for archaeological data recovery.

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Proposed Jacob's Creek HDD, Hopewell Township, NJ – Principal Investigator/Project Manager. Conducted full Phase I archaeological evaluation for pipeline realignment and horizontal directional drilling at Jacob's Creek in Hopewell Township, New Jersey. Included background research, Phase IA evaluation, Phase IB excavations, field record keeping, interpretation of field results, technical report writing, and site photography and documentation.*

Bishop House Phase IA Archaeological Assessment and Archaeological Management Plan, Bergen County, NJ – Principal Investigator. Planned, coordinated and implemented a Phase IA archaeological assessment and archaeological management plan associated with Historic Master Plan for the Ackerman-Dewsnap-Bishop House.*

Ferber Farm Archaeological Assessment, Morris County, NJ – Principal Investigator/Project Manager. Planned, coordinated and implemented a Phase IA archaeological assessment for a proposed wetland mitigation site adjoining New Jersey's Great Swamp.*

Phase I Archaeological Investigation and Intensive-Level Historic Architectural Survey, Livingston, NJ – Principal Investigator/Project Manager/Architectural Historian. Planned, coordinated and implemented a Phase I archaeological and intensive-level historic architectural investigation associated with construction of a new electric substation in Livingston, New Jersey. The proposed project requires a New Jersey Freshwater Wetlands Permit.*

Phase IA Cultural Resources Assessment and Intensive-Level Historic Architectural Survey, Greenwich Township, NJ – Principal Investigator/Architectural Historian/Archaeologist. Conducted a Phase IA Cultural Resources Assessment for a proposed new warehouse development site in advance of NJDEP Freshwater Wetland Permits.*

Phase IB Subsurface Archaeological Survey, Greenwich Township, NJ – Principal Investigator/Project Manager. Conducted a Phase IA Cultural Resources Assessment for a proposed new warehouse development site in advance of NJDEP Freshwater Wetland Permits.*

Freedom Pier, Gloucester City, NJ – Principal Investigator/Project Manager. Providing a series of cultural resources and historic preservation consulting services associated with the former U.S. Coast Guard site in Gloucester City, New Jersey. Services include HPO consultations, archaeological surveys, and development of avoidance and mitigation measures.*

North Brunswick 69k OP-Upgrades DRCC Raritan River Crossing, North Brunswick, NJ – Principal Investigator/Project Manager. Planned, coordinated and implemented a Phase I archaeological and intensive-level historic architectural investigation associated with the installation of new electric transmission towers crossing the Raritan River and the D&R Canal Historic District. The proposed project required an Application for Project Authorization under the New Jersey State Register Act as well as coordination with the Delaware and Raritan Canal Commission.*

Archaeological Monitoring, Proposed Camp Mohican Privy Replacement, Warren County, NJ – Principal Investigator/Project Manager. Planned, coordinated, and supervised an archaeological monitoring program within the Delaware Water Gap National Recreation Area associated with proposed privy replacements.*

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Archaeological Monitoring, Tower Improvements, Upper Delaware Scenic River and Recreation Area, PA – Principal Investigator/Project Manager. Planned, coordinated, and supervised an archaeological monitoring program within the Upper Delaware Scenic River and Recreation Area associated with proposed tower improvements.*

Archaeological Monitoring, Proposed Road Improvements, Morristown National Historic Site, Morris Township, Morris County, NJ – Principal Investigator / Project Manager. Planned, coordinated, and supervised an archaeological monitoring program within the Morristown National Historic Site associated with proposed road improvements.*

Archaeological Monitoring, Proposed Access Road Improvements, Roseland to Bushkill Transmission Line, Delaware Water Gap National Recreation Area, Warren County, NJ – Principal Investigator / Project Manager. Planned, coordinated, and supervised an archaeological monitoring program within the Delaware Water Gap National Recreation Area associated with proposed access road improvements for the Roseland to Bushkill Transmission Line corridor in Warren County, New Jersey.*

Phase IA Archaeological Investigation, Montour Ash Basin 1, Derry Township, PA – Principal Investigator / Project Manager. Planned, coordinated and implemented a Phase I/II archaeological associated with the proposed closing of Ash Basin 1 at the Talen Energy Montour Energy Facility in Montour County, Pennsylvania.*

Phase I/II Archaeological Investigation, Proposed Montour Gas Co-Firing Project, Anthony and Derry Townships, Montour County, PA – Principal Investigator / Project Manager. Planned, coordinated and implemented a Phase I/II archaeological associated with the proposed gas co-firing project at the Talen Energy Montour Energy Facility in Montour County, Pennsylvania.*

Archaeological Monitoring, Proposed Verizon-Mears Crossing, Fort Hamilton, Brooklyn, Kings County, NY – Principal Investigator / Project Manager. Planned, coordinated and supervised an archaeological monitoring program for geotechnical borings conducted within Fort Hamilton as part of the proposed Verizon-Mears Crossing.*

Archaeological Monitoring, Proposed Verizon-Mears Crossing, Fort Wadsworth, Gateway National Recreation Area, Staten Island, NY – Principal Investigator/Project Manager. Planned, coordinated and supervised an archaeological monitoring program for geotechnical borings conducted within Fort Wadsworth, part of the Gateway National Recreation Area, as part of the proposed Verizon-Mears Crossing.*

Phase I Archaeological Investigation, Proposed Cellular Communications Tower NJ420, Montgomery Township, NJ – Principal Investigator. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed new cellular tower.*

Phase I Archaeological Investigation, Proposed Cellular Communications Tower NJ418, Montgomery Township, PA – Principal Investigator. Planned, coordinated and implemented a Phase I archaeological assessment in support of a proposed new cellular tower.*

Phase I Archaeological Investigation, Proposed Zufall Health Center, West Orange Township, NJ – Principal Investigator/Project Manager. Planned, coordinated and implemented a Phase I Archaeological investigations in

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support of NJHPO Section 106 Approval for a proposed medical facility in West Orange Township, Essex County, New Jersey.*

Phase I/II Archaeological Investigation, Proposed Southwinds Residential Development, Gloucester Township, NJ – Principal Investigator / Project Manager. Planned, coordinated and implemented a Phase I/II archaeological survey in support of NJDEP Wetlands Permit Application for a proposed residential development in Gloucester Township, Camden County, New Jersey.*

Archaeological Monitoring, Garvies Point Waterfront Redevelopment, Nassau County, NY – Principal Investigator/Project Manager. Archaeological monitoring for the installation of subsurface drainage pipes and manholes associated with proposed waterfront redevelopment project at Garvies Point, Nassau County, New York.*

State Register Application, PSE&G Mercer to Trenton Culvert Upgrades, Abbott Farm NHL, Hamilton Township, NJ – Principal Investigator. Planned, coordinated, and implemented the completion of a State Register Application for Project Authorization for proposed PSE&G culvert repairs within the Abbott Farm NHL, Hamilton Township, Mercer County, New Jersey. For County of Mercer.*

Cultural Resources Scoping Investigation, Proposed Lakeside Substation, City of Orange, NJ – Principal Investigator / Project Manager. Planned, coordinated, and implemented a cultural resources scoping study for the proposed PSE&G Lakeside Substation in the City of Orange, Essex County, New Jersey.*

Phase IA Archaeological Assessment, Proposed Cellular Tower, Greenwich, RI – Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed new cellular tower in Greenwich, Rhode Island.*

Phase IA Archaeological Assessment, Proposed Cellular Tower, South Brunswick, NJ – Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed new cellular tower in South Brunswick, Middlesex County, New Jersey.*

Phase IA Archaeological Assessment, Proposed Cellular Tower, Spring Valley, NY – Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed new cellular tower in Spring Valley, Rockland County, New York.*

Phase IA Archaeological Assessment, Proposed Cellular Tower, Sandy Hook, NJ – Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed new cellular tower at Sandy Hook, Monmouth County, New Jersey.*

Phase I Archaeological Investigation, Proposed PSE&G Brunswick to Trenton 230kV Transmission Line, Middlesex and Mercer Counties, NJ – Project Manager / Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase I cultural resources survey in support of proposed transmission line improvements in Middlesex and Mercer Counties, New Jersey. Project Ongoing.*

Phase I/II Archaeological Investigation, Proposed PSE&G Trenton to Burlington 230kV Transmission Line, Mercer and Burlington Counties, NJ

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– Project Manager / Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase I cultural resources survey in support of proposed transmission line improvements in Mercer and Burlington Counties, New Jersey. Project Ongoing.*

Phase IB/II Archaeological Investigation, Proposed Wayne Day Care Center, Wayne, NJ – Principal Investigator/Project Manager. Planned, coordinated and implemented a Phase IB/II archaeological survey in support of NJDEP Wetlands Permit Application for a proposed new day care center in Wayne, Passaic County, New Jersey. Project Ongoing.*

Phase IA Archaeological Assessment, Proposed Wanaque Tower Replacement, Wanaque, NJ – Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed radio tower replacement in Wanaque Borough, Passaic County, New Jersey.*

Phase IA Archaeological Assessment, Proposed Cellular Tower, Pittstown, NJ – Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed new cellular tower in Pittstown, Hunterdon County, New Jersey.*

Phase IA Archaeological Assessment, Proposed Cellular Tower, Wantage, NJ – Principal Investigator-Archaeology. Planned, coordinated and implemented a Phase IA archaeological assessment in support of a proposed new cellular tower in Wantage, Sussex County, New Jersey.*

Cultural Resources Screening, Proposed PSE&G Culvert Upgrades, Cumberland County, NJ – Principal Investigator-Archaeology. Planned, coordinated and implemented a cultural resources screening in support of proposed culvert upgrades in Cumberland County, New Jersey.*

Cellular Tower Archaeological and Cultural Resource Services, Cherry Hill, NJ – Principal Investigator. 25 Cultural Resource Screening, Phase I, and Phase II archaeological investigations in advance of construction of proposed new monopole cellular towers, including Phase 1/II Archaeological Investigation, Proposed Cellular Monopole, Cherry Hill, New Jersey, and Phase 1/II Archaeological Investigation, Proposed Cellular Monopole, Medford, New Jersey. Included background and site file research, and fieldwork.

Phase IA Literature Search and Archaeological Assessment, Proposed Subway Ventilation Improvements, New York, NY – Principal Investigator. For a Phase IA literature search and archaeological assessment for proposed subway ventilation structure improvements beneath Forsyth Street in Manhattan, New York. Included background research, pedestrian reconnaissance, and GIS.*

Phase I Archaeological Investigation, Proposed Residential Development, Evesham, NJ – Principal Investigator. For a Phase I archaeological investigation for a proposed residential development in Evesham, Burlington County, New Jersey. Included background research, pedestrian reconnaissance, shovel testing, artifact analysis, and GIS.*

Phase IB Archaeological Survey, Wehrlen Brothers Marina Improvement Project, Brick Township, NJ – Principal Investigator. Responsible for Phase IB archaeological survey of 2.59-acre marina property proposing improvements following Hurricane Sandy. Included shovel testing and the analysis of historic artifacts within the property.*

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Phase I/II Cultural Resource Investigation, Camden BRAC, Lakeland # 2 Site, Gloucester Township, NJ – Principal Investigator. Phase I/II archaeological investigation in advance of proposed BRAC action. Included background research and fieldwork. For the U.S. Army.*

Phase I/II Cultural Resource Investigation, Camden BRAC, Gloucester, NJ – Principal Investigator. Phase I/II Archaeological investigation in advance of proposed BRAC action. Included background research and fieldwork. For the U.S. Army.*

Phase IA Archaeological Assessment, 77th Readiness Command, NJ – Principal Investigator. Archaeological assessment of eight United States Army Reserve Command Readiness Centers in seven New Jersey counties. Included historical and contextual background research, site file searches at the New Jersey State Museum and New Jersey Historic Preservation Office, and pedestrian reconnaissance and photo documentation of the project areas. For the U.S. Army.*

Section-106 Checklist Preparation, Dover Post Office, Dover, NJ – Completed Federal Section-106 Checklist in advance of the deaccessioning of a United States Post Office. Included background research and site inspection.*

Phase IA/IB Archaeological Investigation, Little Tor Substation, Rockland County, NY – Principal Investigator. Responsible for conducting a Phase I archaeological investigation in advance of the construction of an electrical substation in Rockland County, New York. Project was conducted under NY State Environmental Quality Review Act for review by the New York State Office of Parks, Recreation and Historic Preservation. As Principal Investigator, tasks performed included pedestrian reconnaissance, GIS, graphics production, supervision of fieldwork, analysis of artifacts, and report writing.*

Phase IA Archaeological and Geomorphological Assessment. Laser Northeast, Susquehanna County, PA – Principal Investigator Responsible for conducting a Phase IA archaeological assessment associated with a 27 -mile natural gas collector line in Susquehanna County. Project was conducted for a US Army Corps of Engineers Permit Application for review by the Pennsylvania Historical and Museum Commission. As Principal Investigator, tasks performed included pedestrian reconnaissance, supervising geomorphological studies, GIS, and report writing.*

Phase I Cultural Resource Survey for Proposed Sentinel Williams/TRANSCO Pipeline Mountain View Loop, Hillsborough and Montgomery Townships, NJ – Project Archaeologist. Cultural resource survey of 3.78-mile proposed pipeline corridor as part of FERC permitting process and Section 106 compliance. Investigation identified one Middle to Late Archaic period prehistoric site. For Williams/Transco, Houston, Texas.*

Five Phase I Archaeological Surveys, Black & Veatch and Delmarva Power, Various Locations in Delaware and Maryland – Principal Investigator. Responsible for conducting Phase I archaeological surveys associated with proposed electric transmission tower replacements. Individual transmission lines included the Harrington to Vernon line, South Harrington to Milford line, the Church to Townsend line, and the Mission to Indian River line. These projects were conducted under Section 106 of the National Historic Preservation Act for review by the Maryland and Delaware State Historic Preservation Offices. As Principal Investigator, tasks

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performed included pedestrian reconnaissance, direction of fieldwork, GIS, background research, and report writing.*

Phase IA Cultural Resource Assessment, 115kV Transmission Line, Clearfield Township, PA – Principal Investigator. Responsible for Phase IA cultural resource assessment of 4-mile corridor in advance of installation of upgraded transmission line. Included historical and cartographic research and identification and analysis of past disturbances and/or prior settlement and land use. For the First Energy Service Company.*

Phase III Data Recovery, PSE&G George Brown Historic Farm Site, Berkeley Heights, NJ – Principal Investigator. For the archaeological data recovery of a multi-component historic archaeological site which was to be impacted by the proposed construction of new monopole electrical transmission towers. Tasks included the full implementation and reporting of the archaeological data recovery, supervision of field personnel, conducting of background research, artifact analysis, and the preparation of report graphics.*

Project Management Contract for Superstorm Sandy Waterway Debris Removal, New Jersey Department of Environmental Protection (NJDEP), NJ – Archaeologist. Responsible for providing support and review for terrestrial resources as well as supporting the Environmental and Historic Preservation (EHP) Geographic Information Systems (GIS) mapping program. Daily activities include updating project tracking maps, and generating site-specific and general EHP mapping. Additional responsibilities include managing Global Positioning Systems (GPS) data collection, processing, training and support for EHP field staff. Dewberry is responsible for supporting the NJDEP in planning and managing a state-level, regionally organized contract to remove and monitor debris from waterways, while maximizing FEMA reimbursement under the Public Assistance Program.*

Archaeological Monitoring, Essex County Riverfront Park, Newark, NJ – Principal Investigator-Industrial Archaeology. Archaeological monitoring for the installation of subsurface drainage pipes and manholes, electric light poles, and electrical conduit within a formal industrial property located along the Passaic River in Newark, New Jersey. Monitoring identified the subsurface remnants of foundations associated with various industrial buildings located within the property as well as subsurface remnants of the National Register listed Morris Canal prism which extended through the project area.*

Phase III Archaeological Data Recovery, Newark Riverfront Park, Newark, NJ – Principal Investigator-Industrial Archaeology. For the archaeological data recovery of the National Register eligible Balbach Smelting and Refining Works site, and portions of the National Register listed Morris Canal slated to be impacted by the construction of a new City park. Tasks included the full implementation and reporting of the archaeological data recovery, supervision of field personnel, conducting of background research, artifact analysis, and the preparation of report graphics.*

Archaeological Monitoring, Combined Sewer Overflow (CSO) Sewer Upgrades, Hoboken, NJ – Principal Investigator. Archaeological monitoring for the replacement and upgrade of portions of the National Register eligible Hoboken Sewer System. Monitoring identified and documented the subsurface remnants of and construction technology pertaining to intact wooden box sewers, and oval brick sewers located through portions of Hoboken, New Jersey.*

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Phase IB Cultural Resource Assessment, Burlington Sod Farm, Springfield Township, NJ – Principal Investigator, Archaeologist, Architectural Historian. Responsible for Phase IB archaeological assessment of 640-acre agricultural property slated to become new county fairground. Included shovel testing and the analysis of three historic vernacular farm homes on the property. For the Freeholders of Burlington County.*

Phase IA Cultural Resource Assessment, Beacon Institute for Rivers and Estuaries, Beacon, NY – Project Archaeologist-Industrial Archaeology. Phase IA archaeological assessment of nineteenth- to twentieth-century historic brickworks property under SEQRA. Included historical and cartographic research and identification and analysis of past disturbances and/or prior settlement and land use. For The Beacon Institute for Rivers and Estuaries, Dormitory Authority of the State of New York, and the New York State Office of Parks, Recreation and Historic Preservation.*

Phase IA/IB Archaeological Investigation, Southern Water Pollution Control Facility Expansion Project, Stafford Township, NJ – Principal Investigator. Archaeological assessment and subsurface survey conducted as part of the permitting process for loan application submitted to the New Jersey Department of Environmental Protection Environmental Infrastructure Trust. Included historical and contextual background research, archaeological site file and historic property searches at the New Jersey State Museum and the New Jersey Historic Preservation Office, and pedestrian reconnaissance and subsurface survey. For the Ocean County Utilities Authority.*

Phase IA Cultural Resource Assessment, Burlington Sod Farm, Springfield Township, Burlington County, NJ – Project Archaeologist. Phase IA archaeological assessment of 640-acre agricultural property slated to become new county fairground. Included historical and cartographic research and identification and analysis of past disturbances and/or prior settlement and land use. For the Freeholders of Burlington County.*

Phase IA Cultural Resource Assessment, Proposed Oak Point Detention Facility, Block 2604, Lot 174, Bronx, NY – Project Archaeologist. Phase IA archaeological assessment of late nineteenth- to early twentieth-century rail yard under CEQR. Included historical and cartographic research and identification and analysis of past disturbances and/or prior settlement and land use. For the New York City Department of Corrections*

Phase IB Archaeological Survey, Jamaica Avenue School, Block 4102, Lots 19, 27, 33, 35 and 36, Brooklyn, NY – Crew Chief. For archaeological trenching at proposed school location. Excavations identified, evaluated, and mitigated extensive backyard deposits dating to the late nineteenth through early twentieth centuries. For the New York City School Construction Authority.*

Phase La Cultural Resource Assessment, Proposed Eagle Academy For Young Men, East 176th Street, Block 2923, Lots 17, 23, 26, Bronx, NY – Project Archaeologist. Phase IA archaeological assessment for proposed school building. Included historical and cartographic research and identification and analysis of past disturbances and/or prior settlement and land use. For New York City School Construction Authority.*

Phase Iii Archaeological Data Recovery, Garden State Parkway, Int. 9-11, Cape May, NJ – Principal Investigator. For the archaeological data recovery of four identified prehistoric, historic, and/or multi-component archaeological sites which were to be impacted by the Proposed Garden

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State Parkway Interstate 9-11 Project in Cape May Court House, New Jersey. Tasks included the full implementation and reporting of the archaeological data recovery, supervision of field personnel, conducting of background research, artifact analysis, and the preparation of report graphics.*

Phase I/II Archaeological Investigations, New Jersey Turnpike Authority, Interchanges 6 To 9 Widening, Brookland Wetland Mitigation Site, Monroe Township, NJ – Principal Investigator for the archaeological investigation of the proposed Brookland Wetland Mitigation Site to be impacted by the ongoing New Jersey Turnpike Widening program. Tasks included the full implementation and reporting of the archaeological investigation, field work and research design, supervision of field personnel, conducting of background research, artifact analysis, and the preparation of report graphics.*

Phase Ia Cultural Resource Assessment, Trenton-Robbinsville Airport, Robbinsville, NJ – Principal Investigator. Responsible for Phase Ia archaeological assessment in advance of proposed improvements to the Trenton-Robbinsville Airport. Included historical and cartographic research, with identification and analysis of past disturbances and/or prior settlement and land use*

Phase I Archaeological Investigation, Bucks County Maintenance Facility, Plumstead Township, PA – Project Archaeologist. Phase I archaeological investigation in advance of construction of the Bucks County Maintenance Facility. Included historical and cartographic background research, surface and subsurface survey. Study identified heavily disturbed historic artifact scatter associated with historic farmstead mapped within the property.*

Phase IA Cultural Resources Assessment And Phase IB* Archaeological Investigation, Saddler's Run Watershed Restoration, Delaware Riverkeeper Network, Haddon Township, NJ – Principal Investigator-Archaeology and Architectural History. For cultural resource assessment in advance of watershed restoration. Included NJHPO and NJSM site file searches, historical documentary and cartographic research in order to identify areas of archaeological sensitivity and historic properties located within the vicinity of the historic African American community of Saddlertown and Saddler's Woods. Also responsible for Phase IB archaeological assessment of several discontinuous work zones to be impacted by stream restoration project. Included shovel testing within and adjacent to an early nineteenth-century free African-American community*

Phase I/II Eligibility/Effects, County Route 571, West Windsor, NJ – Principal Investigator. Phase I/II archaeological investigation in advance of proposed road improvements. Included background research and fieldwork. For the County of Mercer.*

Phase IA Archaeological Assessment, 250 Bowery, Block 507 Lots 36, 37 And 38, New York, NY – Principal Investigator. Archaeological assessment conducted underneath SEQRA of urban lot in lower Manhattan. Included LPC file, deed, and NYC Department of Buildings research to assess archaeological potential as well as limited excavation to determine extent of prior disturbance. Also responsible for background research, pedestrian reconnaissance, and photo documentation of project area. For Peter Moore Associates, Inc.*

Phase IA/IB Archaeological Investigation, Alcan Aluminum Corporation Focused Remedial Investigation Project, Oswego County, NY – Project

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Archaeologist and Crew Chief. Phase IA/IB archaeological investigation under SEQRA prior to the execution of project designed to mitigate contaminated soils. Included historical and cartographic research and identification and analysis of past disturbances and/or prior settlement and land use.*

Phase I Archaeological Survey, Proposed Sewer Realignment, Matamoras, PA – Principal Investigator. For the Phase I archaeological investigation of a proposed sewer realignment. Included historical and cartographic background research, surface and subsurface survey.*

Phase I Archaeological Services, New Jersey Turnpike Authority, NJ Turnpike Interchanges 6-8a, Burlington, Mercer And Middlesex Counties, NJ Principal Investigator, Phase I archaeological investigations for the locations of planned wetland mitigation and detention basin sites and pipeline relocation areas associated with the proposed turnpike widening. To date, this project has resulted in the identification of more than ten historic and prehistoric archaeological sites. Background research and fieldwork.*

Phase IA Sensitivity Assessment, Wetland Mitigation Site, New Jersey Turnpike Authority, Garden State Parkway Interchanges 9-11, Cape May, NJ – Principal Investigator. Phase IA archaeological investigation. Background research and fieldwork.*

Phase I Cultural Resource Survey, New Jersey Turnpike Authority, NJ Turnpike Widening Of Interchanges 6 To 9, Gervasoni Farm Property, Robbinsville Township, NJ – Principal Investigator. Phase I/II subsurface archaeological investigation and building material analysis for former farm. Identified one historic archaeological site, the Robbins Gervasoni Farm Site (28-Me- 374) but no significant associated archaeological deposits were encountered in project area. Under EO 215.*

Phase I Cultural Resource Survey, New Jersey Turnpike Authority, NJ Turnpike Widening From Interchanges 6 To 9, Appleby House Investigation, Chesterfield, NJ – Principal Investigator. Phase IB subsurface archaeological survey and building material analysis of former toll house associated with the Bordentown and Crosswicks Turnpike between 1857 and 1901. Under EO 215.*

Phase I/II Eligibility/Effects, New Jersey Turnpike Authority, Garden State Parkway Interchanges 9-11, Cape May, NJ – Principal Investigator. Phase I/II archaeological investigation in advance of proposed improvements planned to eliminate signalized intersections. Background research and fieldwork. Five previously unrecorded prehistoric archaeological sites were recommended as eligible for the National Register of Historic Places. For the New Jersey Turnpike Authority.*

Screening Report, Route 21, Newark, NJ – Project Archaeologist. Cultural resource screening for improvements to Route 21 in Newark, NJ. Included historical and cartographic research, with identification and analysis of past disturbances and/or prior settlement and land use. For New Jersey Department of Transportation.*

Phase I Archaeological Assessment, PennDOT – District 6, Proposed Maintenance Facility, Bucks County, PA – Principal Investigator. Planned, coordinated and implemented a Phase I cultural resources survey in support of a proposed new PennDOT maintenance facility in Bucks County.*

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Phase I Archaeological Assessment, FEMA, Jersey City Water Supply And Sanitary Sewer Repairs, Morris County, NJ – Principal Investigator. Planned, coordinated and implemented a Phase I cultural resources survey in support of proposed repairs to the Jersey City Forced Sewer Main in Morris County.*

Phase I Archaeological Assessment, Forced Main Replacement, Piscataway, NJ – Principal Investigator. Planned, coordinated and implemented a Phase I cultural resources survey in support of a proposed Forced sewer main in Middlesex County, New Jersey.*

Phase I Archaeological Assessment, Proposed Roadway Improvements, River Road, Garfield, NJ – Principal Investigator. Planned, coordinated and implemented a Phase I cultural resources survey in support of proposed road improvements in Garfield, New Jersey.*

Phase I/II Archaeological Investigation, Institute For Advanced Studies, Proposed Student Housing, Princeton, NJ – Archaeologist and GIS Analyst. Analyzed troop movements and firing positions for the Battle of Princeton from historic accounts and cartographic sources. Project included metal detecting and subsurface survey.*

Phase I Archaeological Survey, Proposed Improvements To Dayton High School Athletic Fields, Springfield, NJ – Principal Investigator. Examined modern landforms sensitive for artifacts related to the Battle of Springfield. Identified filled wetlands and made landforms. Project included subsurface survey.*

Phase I Archaeological Survey, Fort Billingsport, Billingsport, NJ – Field Director. Directed field investigation for Phase I archaeological survey of landforms sensitive for association with a Revolutionary War fort and skirmish. Project included metal detecting and subsurface survey.*

ARCHITECTURAL HISTORY

AST South Brunswick Intensive-Level Architectural Survey, South Brunswick, NJ—Architectural Historian and Project Manager responsible for managing and assisting with historic architectural survey in support of proposed project.

FMERA Redevelopment HABS Documentation 400 Block, Fort Monmouth, NJ—Architectural Historian and Project Manager responsible for managing and assisting with HABS documentation in support of proposed project.

Pioneer Homes HABS Documentation, Syracuse, NY— Architectural Historian and Project Manager responsible for managing and assisting with HABS documentation in support of proposed project.

Whitehouse National Register Nomination, Long Neck, DE— Architectural Historian and Project Manager responsible for managing and assisting with NR nomination in support of proposed project.

Durand-Hedden National Register Nomination, Maplewood, NJ— Architectural Historian and Project Manager responsible for managing and assisting with NR nomination in support of proposed project.

Frick Estates Intensive-Level Historic Architectural Evaluation, Alpine, NJ— Architectural Historian and Project Manager responsible for managing and assisting with historic architectural survey in support of proposed project.

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Warehouse Development Intensive-Level Architectural Survey, Hillsborough, NJ— Architectural Historian and Project Manager responsible for managing and assisting with historic architectural survey in support of proposed project.

IMTT Bayonne Yards Historic American Engineering Record Documentation, Bayonne, NJ— Architectural Historian and Project Manager responsible for managing and assisting with Historic American Engineering Record documentation in support of proposed project.

O&R Goshen Intensive-Level Architectural Survey, Goshen, NY— Architectural Historian and Project Manager responsible for managing and assisting with historic architectural survey in support of proposed project.

Proposed Warehouse Intensive-Level Architectural Survey, Killingly, CT— Architectural Historian and Project Manager responsible for managing and assisting with historic architectural survey in support of proposed project.

Rutgers Camden Gateway, Historic American Building Survey Documentation, Camden, NJ—Architectural Historian and Project Manager responsible for managing and assisting with HABS documentation in support of proposed project.

Washington Park Historic District Design Guidelines, North Plainfield, NJ – Architectural Historian / Project Manager. Assisted in developing historic design guidelines for the historic district to include photographs of real-life examples from within the district, a comprehensive expanded history of the district, updated descriptions of common styles, and an extensive illustrated glossary of terms.*

Short Hills Historic District Architectural Survey, Borough Of Millburn, NJ – Architectural Historian and Project Manager. Responsible for managing, and assisting with the historic architectural survey of approximately 268 structures within the Short Hills section of Millburn Township, Essex County, New Jersey.*

Montclair Estate Area Historic District Intensive-Level Architectural Survey, Borough Of Montclair, NJ – Historian / Architectural Historian. Provided historical background research, GIS Support, and reporting assistance for the evaluation of the proposed Montclair Estate Area Historic District, Borough of Montclair, Essex County, New Jersey.*

Intensive-Level Historic Architectural Survey, ESK Builders, Proposed Housing Development, Lacey Township, NJ – Architectural Historian/Manager. Conducted background research and developed detailed land use history of the proposed development site. Planned and managed the implementation of the intensive-level historic architectural survey.*

Phase I Archaeological Investigation And Intensive-Level Historic Architectural Survey, Proposed Livingston Substation, Livingston, NJ – Principal Investigator / Project Manager. Planned, coordinated and implemented a Phase I archaeological and intensive-level historic architectural investigation associated with construction of a new electric substation in Livingston, New Jersey. The proposed project requires a New Jersey Freshwater Wetlands Permit.*

North Brunswick 69kv Op-Upgrades DRCC Raritan River Crossing, North Brunswick, NJ – Principal Investigator/Project Manager. Planned, coordinated and implemented a Phase I archaeological and intensive-level historic architectural investigation associated with the installation of new

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electric transmission towers crossing the Raritan River and the D&R Canal Historic District. The proposed project required an Application for Project Authorization under the New Jersey State Register Act as well as coordination with the Delaware and Raritan Canal Commission.*

Historic Resource Study, Montour Ash Basin 1, Derry Township, PA – Project Manager. Planned and coordinated an identification-level historic resource study associated with the proposed closing of Ash Basin 1 at the Talen Energy Montour Energy Facility in Montour County, Pennsylvania.*

Historic Farm Study, Proposed Montour Gas Co-Firing Project, Anthony And Derry Townships, PA – Project Manager. Planned and coordinated an identification-level historic farm study associated with the proposed gas co-firing project at the Talen Energy Montour Energy Facility in Montour County, Pennsylvania.*

Intensive-Level Historic Architectural Investigation, Proposed Zufall Health Center, West Orange Township, NJ – Principal Investigator / Project Manager. Planned, coordinated and implemented an Intensive-level historic architectural investigations in support of NJHPO Section 106 Approval for a proposed medical facility in West Orange Township, Essex County, New Jersey.*

Intensive-Level Historic Architectural Investigation, Kinkora Railroad, Chesterfield Township, Burlington County, NJ – Principal Investigator / Project Manager. Planned, coordinated and implemented an Intensive-level historic architectural investigation in support of NJDEP Freshwater Wetland Permit for a proposed access road through the previously-identified Delaware & Atlantic / Columbus, Springfield & Kinkora Railroad Historic District.*

HAER Documentation, PSE&G Trenton To Burlington 138kv Transmission Line, Mercer And Burlington Counties, NJ – Principal Investigator / Project Manager. Planned, coordinated, and implemented the HAER recordation of approximately 130 electric transmission towers within a 28-mile corridor stretching from Trenton to Burlington, New Jersey.*

HAER Documentation, PSE&G Metuchen To Trenton 138kv Transmission Line, Middlesex And Mercer Counties, NJ – Principal Investigator / Project Manager. Planned, coordinated, and implemented the HAER recordation of approximately 300 electric transmission towers within a 28-mile corridor stretching from Edison to Trenton, New Jersey.*

Berlin Historic District Architectural Survey, Borough Of Berlin, NJ – Historian and GIS Specialist. Provided historical background research, GIS Support, and reporting assistance for the re-evaluation of the Berlin Historic District, Borough of Berlin, Camden County, New Jersey.*

Photographic Documentation, 250 Proposed Small Cellular Communication Sites Throughout New Jersey, NJ – Project Manager. Provided project oversight, GIS mapping support, public outreach, and technical guidance for the photo-documentation of 250 small-cell telecommunication sites throughout Union, Essex, Bergen, and Hudson Counties, New Jersey. Project Ongoing.*

Build It Back Program, New York City Economic Development Corporation And Mayor's Office Of Housing Recovery Operations, New York, NY – Historic Preservation Lead. Archaeologist and architectural historian for the cultural resources review of more than 10,000 residential properties damaged as a result of hurricane sandy. Daily activities include overseeing

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a team of preservation professionals including historians, architectural historians, and archaeologists to review residential properties for historic preservation issues, both architectural (above ground), and archaeological (below ground), under the may 2013 programmatic agreement executed between the federal emergency management agency, the New York State Historic Preservation Office, and the New York City Landmarks Preservation Commission for compliance with the National Environmental Policy Act (NEPA) and us department of Housing and Urban Development (HUD) regulations. Other key tasks included conducting consultation with New York State and City review agencies, and developing mitigation treatment plans for historic properties adversely affected by the recovery project.*

RREM Contract For Superstorm Sandy Recovery, New Jersey Department Of Environmental Protection (NJDEP), New Jersey, NJ –Archaeologist and Architectural Historian. Responsible for cultural resources reviews in support of NEPA permitting for 50+ storm-damaged properties receiving HUD funding in response to Hurricane Sandy.*

Ocean County Cultural And Heritage Commission. Historical Consultant, Forked River, NJ – Historical Consultant. Advised Commission on historic preservation and National Register of Historic Places nomination preparation for historic property in Forked River, New Jersey.*

Historic American Engineering Record (HAER) Documentation, Route 130 Bridge Over Raccoon Creek, Bridgeport, NJ – Principal Investigator-Architectural History. Researched and prepared HAER documentation in support of the proposed replacement of the Route 130 Bridge over Raccoon Creek, Bridgeport, New Jersey.*

Historic American Building Survey (HABS) Documentation And National Register Nomination, Bellmawr Park, Bellmawr, NJ –Principal Investigator-Architectural History. Researched and prepared HABS documentation in support of proposed Route 295 improvements in Bellmawr, New Jersey.*

National Register / New Jersey State Register Nomination And Review Defense, Maplewood Memorial Park, Maplewood, NJ – Principal Investigator-Architectural History. Assisted with preparing NR/State Register nomination for Maplewood Memorial Park and defending the Nomination before the State Register Review Board.*

Phase IB Cultural Resource Assessment, Burlington Sod Farm, Springfield Township, NJ – Principal Investigator, Archaeologist, Architectural Historian. Responsible for Phase IB archaeological assessment of 640-acre agricultural property slated to become new county fairground. Included shovel testing and the analysis of three historic vernacular farm homes on the property. For the Freeholders of Burlington County.*

MARTIME/SUBMERGED RESOURCES

Public Maritime Archaeology Program Development, Confidential Client – Principal Investigator / Project Manager. Planned and developed a maritime public archaeology program for the County Historic Sites and History Services Division. Services provided to-date include desktop aerial reviews of county waterways to identify potential targets and field documentation of identified targets.*

Phase I Archaeological Assessment, United States Geological Survey, Natural Resources Conservation Service, Proposed Fish Ladder, Creskill, NJ – Principal Investigator. Planned, coordinated and implemented a Phase I cultural resources survey in support of a proposed fish ladder in Bergen County, New Jersey.*

Phase I Archaeological Assessment, FEMA, Bridgeton Canal Repairs, Bridgeton, NJ – Principal Investigator-Industrial Archaeology. Planned, coordinated and implemented a Phase I cultural resources survey in support of proposed repairs to the historic Bridgeton Canal and Raceway, Bridgeton, Cumberland County, New Jersey.*

Phase I Archaeological Assessment, Proposed Wetland Mitigation Bank, Carlstadt, NJ – Principal Investigator. Planned, coordinated and implemented a Phase I cultural resources survey in support of a proposed new wetland mitigation bank in Carlstadt, New Jersey.*

Archaeological Monitoring, Demolition Of The Gloucester City Water Works Reservoir, Camden County, NJ – Principal Investigator-Industrial Archaeology. Archaeological monitoring of circa 1873 National Register-listed resource, and identification and photo documentation of its components. For the City of Gloucester.*

Archaeological Monitoring, Centerton Road Dam Replacement, Elmer, NJ – Principal Investigator-Industrial Archaeology. Monitored the replacement of the Centerton Road Dam and identified the presence of a mid-nineteenth century mill and tail race on the downstream banks.*

Phase I Archaeological Investigation And Maritime Survey For The Replacement Of The Harry W. Nice Bridge, Newburg, MD And Dahlgren, VA – Principal Investigator. Conducted Phase I archaeological investigations associated with the replacement of the Harry W. Nice Bridge examining both terrestrial archaeological resources and underwater maritime resources potentially related to the Civil War.*

OTHER

Springfield Yeshiva Site Plan And Permitting, North Plainfield Borough, NJ – Project Manager. Managed a team of engineers and permitting specialists to develop site plans, Zoning/Planning Board Approvals, and Permit Approvals for a residential Yeshiva located within a historic district.*

Springfield Yeshiva Site Plan And Permitting, North Plainfield Borough, NJ – Project Manager. Managed a team of natural resources specialists and cultural resources professionals to identify and obtain New Jersey Department of Environmental Protection Permits for a proposed warehouse development in Greenwich Township, Gloucester County, New Jersey.*

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Buildings 25 And 26 Redevelopment Site Plan And Permitting, Fort Hancock, Sandy Hook, NJ – Project Manager. Managed a team of engineers and permitting specialists to develop site plans for redevelopment of a National Park Service property at Sandy Hook.*

Morris County Cultural and Heritage Commission, Morris County, NJ – Historical Consultant. Transcribed and edited circa 1890-1940 Weather Book of Gentleman Farmer Charles Foster into an MS/Access database with digital photographs.*

Ocean County Historical Society, Ocean County, NJ – Historical Consultant. Assisted in proofreading and transcribing of federal census data on Monmouth and Ocean counties to be incorporated in a research Webpage. Gave presentation on Historic Preservation, Historic Tax Credits, and Adaptive Use. As an Intern developed an artifact management and tracking system for the Ocean County Historical Society's artifact storage room. Modified the society's accessioning system and developed artifact classification system to use in digital database.*

Middlesex County Division Of Historic Sites And History Services, Middlesex, NJ – Consultant. Developed an educational program to NJEA Standards and Curriculum involving archaeological investigation, historic research and documentation, and artifact analysis to help students develop critical thinking and analytical skills.*

SELECTED PUBLICATIONS, REPORTS, AND PRESENTATIONS

Book Review, Closed Sea by Kent Mountford, in New Jersey History, Newark. Spring/Summer 2004.

The Hunt for Red Oak Grove. The Scroll: Bulletin of the ocean County Historical Society. Toms River. April 2003.

Phase I/II Archaeological Survey, Merchants and Drovers Tavern (Site 28-UN-32). Contributing author with Richard Veit and Michael Gall Report on file, New Jersey Historic Preservation Office, April 2003.

The Ruins in the Woods: The History of the Legendary Pasadena Terra Cotta Company, Fact and Fiction. Informational brochure developed from Brendan T. Byrne State Forest. February 2003.

Forgotten Clay Remembered in Ocean County: A Note on Current Research. Archaeological Society of New Jersey Newsletter. January 2003.

Pasadena: A Forgotten Town that Never Was. The Scroll: Bulletin of the Ocean County Historical Society. October 2002.

An Old Salty Tale. The Scroll: Bulletin of the Ocean County Historical Society. April 2002.

A Seasoned History: An Archaeological and Historical Investigation of the Pennsylvania Salt Works of Toms River, NJ. Manuscript on file, Ocean County Historical Society. 2001.

Cleaning off the Tarnish: A Historical Study of the Eustis Coach, Roxbury Massachusetts. Manuscript on file, Shirley-Eustis House Association. 2001.

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History Below: An Analysis of the Unprovenienced Collection retrieved from the Gardner Carriage House Excavation, Roxbury Massachusetts. Manuscript on file, Shirley-Eustis House Association. 2001.

Through the Bottle Glass: A Cautionary Tale of Artifact Analysis. Archaeological Society of New Jersey Newsletter. January 2000.

J.B. Tilton. The Scroll: Bulletin of the Ocean County Historical Society. April 1999.

Murray Grove: A National Site Overlooked. Manuscript on file, Ocean County Historical Society. 1999.

Of Myth and Brick: Examining the Legendary Pasadena Terra Cotta Company. Master's thesis. Department of History and Anthropology, Monmouth University. February 2003.

Clay in the Pines: Deconstructing the Myth of the Pasadena Terra Cotta Company, Pasadena, New Jersey. Paper presented at Council for Northeast Historical Archaeology Conference in Wilmington, Delaware. October 2002.

Conditions Assessment: Livermore Tomb, Mount Auburn Cemetery, Cambridge, Massachusetts. Paper presented to Mount Auburn Cemetery Association and Boston University Building Conservation Class. April 2001.

Brendan R. Tuttle, PhD

Field Technician

CULTURAL RESOURCES

Dr. Tuttle is an archaeologist with 4 years of experience in the Cultural Resources Management (CRM) field. He has conducted archaeological investigations at all phases of study in the Midwest and Mid-Atlantic regions of the United States. This experience includes excavations at precontact sites ranging from Archaic through Late Woodlands periods and historic sites through the early twentieth century. Projects were completed in compliance with the National Historic Preservation Act (NHPA), the National Environmental Policy Act (NEPA), Section 106 regulations, Archaeological Resources Protection Act (ARPA), Department of the Interior Director's Order # 12, and state/local regulations.



SELECTED PROJECTS

- **Langan – Field Technician, July 2025-September 2025.** Field responsibilities included excavation, artifact identification, artifact handling and recording, field notes and observations, soil profile drawings, organizing and maintaining paperwork.
- **NTM Engineering – Field Technician, June 2025 – July 2025 – Phase IB Vera Cruz Jasper Quarry Site (36LH0012), PA, Phase IB Archaeological Shovel-test survey.** Field responsibilities included excavation, artifact identification, artifact handling and recording, field notes and observations, soil profile drawings, organizing and maintaining paperwork.*
- **Temple University, Anthropology Laboratory and Museum – Curation Technician/Research Technician, July 2011-November 2011** – Responsibilities included inventorying, documenting, packaging, and moving ethnographic and archaeological collections, carrying out provenience and provenance research.*
- **Cultural Heritage Research Services – Archaeological Field Technician, December 2007-December 2008** – Phase I and II, various locations in PA and NJ. Responsible for excavations, artifact identification, in-situ artifact handling and recording, field notes and observations, plan and soil profile drawings, unit and feature photographs, organizing and maintaining paperwork, and equipment repair; laboratory responsibilities included artifact washing, artifact cataloging, analysis by artifact type.*
- **Illinois Transportation Archaeological Research Project (ITARP), American Bottom Survey Division, southwestern IL – Crew Chief, April 2002-October 2003** – Phase II and III, various locations in IL, including the East St. Louis Mound Center (11S706). Responsible for excavations, feature and artifact identification, in-situ artifact handling and recording, field notes and observations, plan and soil profile drawings, unit and feature photographs, organizing and maintaining paperwork, site mapping, monitoring during machinery excavations, coordination

EDUCATION

PhD, Anthropology,
Temple University,
Philadelphia PA

B.A. of Anthropology,
University of Pittsburgh,

Archaeological Field
School, University of
Indianapolis Rantidi Forest
Excavations

*Work performed prior to joining Langan.

Brendan Tuttle

and supervision of field crew; laboratory responsibilities included artifact washing, artifact cataloging, analysis by artifact type and distribution.*

- **Skelly & Loy – Archaeological Field Technician, May 1999-February 2002** – Phase I, II, and III, various in PA, Del, and NJ. Responsible for excavations, artifact identification, in-situ artifact handling and recording, field notes and observations, plan and soil profile drawings, unit and feature photographs, organizing and maintaining paperwork, and equipment repair.*