



## Executive Director's Recommendation

Commission Meeting: February 2, 2017

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<b>PROJECT</b> <b>Visitor Screening Facility</b> Washington Monument Bound by 15th Street, 17th Street, Constitution Avenue, and Independence Avenue, NW Washington, DC	<b>NCPC FILE NUMBER</b> 6176
<b>SUBMITTED BY</b> United States Department of the Interior National Park Service	<b>NCPC MAP FILE NUMBER</b> 1.42(38.00)44489
<b>REVIEW AUTHORITY</b> Federal Projects in the District per 40 U.S.C. § 8722(b)(1) and (d)	<b>APPLICANT'S REQUEST</b> Approval of final site and building plans
	<b>PROPOSED ACTION</b> Approve final site and building plans with comments
	<b>ACTION ITEM TYPE</b> Staff Presentation

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### PROJECT SUMMARY

The National Park Service (NPS) has submitted final site and building plans for a new visitor screening facility at the Washington Monument. NPS added the existing one-story structure to the east face of the Monument to accommodate security screening and visitor entry in 2001. The existing security screening facility is 443 square feet and approximately 16 feet wide by 28 feet long and 12 feet high. NPS intended for this structure to be temporary and notes that it needs to be replaced to meet the long-term security and cultural resource management requirements at the Monument. The purpose of the proposed project is to improve the security and visitor flow at the Monument in a manner that preserves the character and visitor experience of the Monument and its grounds. The program for the facility includes queueing for 20-25 visitors, an accessible restroom for the NPS and United States Park Police staff, a staff office, and space for screening equipment.

The NPS conceived of this proposed visitor screening facility as a portal or passageway functioning as an independent structure that will be connected to the east side of the Washington Monument in a minimal manner. In the future, if NPS no longer needs to screen visitors or the structure is not needed for security purposes, the structure could be removed. The visitor screening facility incorporates the use of a double glazed envelope separated by a heavy structural member. The proposal calls for the use of glass on both the exterior and interior, but due to program requirements, the outer layer of glass will need to have a level of opacity so that the screening process is not visible from the outside.

NPS is also proposing a new system for heating and cooling associated with this project. In reviewing all options for the heating and cooling of the proposed visitor screening facility, NPS took into account the heating and cooling needs of the entire Monument. NPS states this review resulted in a recommendation to use a combined system for the Monument and the visitor

screening facility. In an effort to reduce visibility of the mechanical systems, the majority of the mechanical equipment will be located underground or in the Monument mechanical bunkers. NPS will install a ground-coupled geothermal heat recovery chilled water system in an existing Monument mechanical bunker. This bunker is located west of the Monument. This type of mechanical system provides the ability to have heating or cooling year-round while delivering an extremely high level of overall building energy efficiency. NPS notes that this geothermal heat recovery chilled water system will include the installation of approximately 60 geothermal wells below-grade. These geothermal wells will be between 200 and 400 feet deep and the well field will be located west of the existing Monument. According to NPS, the wells will not impact the foundation of the Monument nor will they be visible above ground. When the Commission approved the preliminary design in March 2014, NPS proposed a total of eight to ten geothermal wells north of the Monument to heat and cool only the visitor screening facility.

## KEY INFORMATION

- The temporary visitor screening facility has been in place at the Washington Monument since 2001.
- The new visitor screening facility is conceived as a portal or passageway to the Monument and will function as an independent structure that is located on its east side.
- The Section 106 process concluded with the execution of a Memorandum of Agreement dated February 11, 2014.
- Since the Commission's Preliminary Review in March 2014, NPS has proposed minor changes to the east façade of the new visitor screening facility and changed the location and number of geothermal wells for the site.

## RECOMMENDATION

The Commission:

**Notes** that NPS is proposing minor changes to the east façade of the Washington Monument's new visitor screening facility and moving the geothermal wells to a site west of the Monument.

**Notes** that NPS responded to the following Commission requests:

- Detailed plan including the number and location of geothermal wells and what, if any, associated impacts there may be to the Monument's foundation and related grounds;
- Blast and ballistic analysis that will inform the final material selection for the visitor screening facility;
- Lighting design that demonstrates how the facility will be lit to ensure compatibility with the nighttime illumination of other monuments and memorials on the National Mall.

**Approves** the final site and building plans for a new visitor screening facility at the Washington Monument and the associated, below-grade geothermal wells located west of the Monument.

## PROJECT REVIEW TIMELINE

<b>Previous actions</b>	<b>November 2010</b> – Information Presentation <b>March 2014</b> - Approval of Preliminary Site and Building Plans
<b>Remaining actions (anticipated)</b>	None

## PROJECT ANALYSIS

### Executive Summary

Staff reiterates its finding from Preliminary Review that that the proposed visitor screening facility will meet the long-term security and cultural resource management requirements of the Monument. Overall, it is consistent with the Federal Elements of the Comprehensive Plan of the National Capital. The final proposed design accommodates security and screening functions, which will allow visitors to gain access to the interior of the Monument. The design also respects the Monument and its grounds as a historic property. The proposed visitor screening facility is a significant aesthetic improvement to the existing one-story structure that is currently located on the east side of the Monument. The proposed changes from the preliminary design to the final design are either minor or are below-grade.

### Analysis

Staff notes that the Commission, at its March 2014 meeting, requested that NPS provide responses to three issues when it submits the final visitors screening facility design:

- Detailed plan including the number and location of geothermal wells that will be required and what, if any, associated impacts there may be to the Monument and its foundations;
- Blast and ballistic analysis that will inform the final material selection for the visitor screening facility;
- Lighting design that demonstrates how the facility will be lit and to what intensity to ensure compatibility with the nighttime illumination of other monuments and memorials on the National Mall.

Staff finds that NPS provided an appropriate response to all of these requests and therefore recommends that that Commission **approve the final site and building plans for a new visitor screening facility at the Washington Monument and the associated, below-grade geothermal wells located west of the monument.**

Regarding the geothermal well location, NPS is proposing to install approximately 60 wells between 200 and 400 feet in depth, 12 inches in diameter, and 20 feet apart to the east of the Washington Monument. NPS provided a detailed plan showing the location and configuration of the proposed well field which will be sited approximately 200 feet west of the Monument foundations. Each well will be situated approximately 12 inches below grade and will not be visible on the surface. NPS will restore the grass surface for everyday use once the wells have been installed. NPS notes that they are proposing significantly more wells than the eight to ten originally proposed in the previous design so that they can heat and cool the entire Monument not just the visitors screening facility. Staff is very supportive of NPS providing a sustainable solution for conditioning the entire Monument.

The geothermal well field will also not disturb the Jefferson Pier, an existing, small stone marker that demarcates the symbolic center of the National Mall – the point due south of the White House and due west of the U.S. Capitol. The Jefferson Pier is located north of the proposed geothermal well field location.

NPS also conducted blast and ballistic analysis to inform its decision in the final material selection for the exterior of the visitors screening facility. NPS states the approved design incorporates a double glazed envelope separated by a heavy, steel, structural member and airspace. NPS provided a detail of the exterior wall at several conditions. The exterior is proposed to be ballistic rated laminated glass (or polycarbonate) with a metal mesh insert. The roof of the facility will be fritted glass or tinted glass to mitigate heat gain. Staff is satisfied that NPS conducted sufficient analysis to determine the appropriate glazing for the exterior of the proposed structure.

NPS notes that an architectural lighting specialist was engaged to insure that the site lighting is designed in accordance with the Illuminating Engineering Society of North America (IESNA) guidelines and is compatible with the nighttime illumination of other monuments and memorials on the National Mall. NPS states that the proposed solution includes code compliant pathway lighting on the granite with the facility's exterior walls lit from their base so that the cube glows at the base of the monument. It further notes that the primary design intent is to provide adequate ambient lighting for circulation and security without obstructing nighttime views of the monument. NPS also sought to minimize the lighting load and maximize energy conservation. The lighting fixtures will utilize the most energy efficient source available for each space. Staff is satisfied with this response.

## **CONFORMANCE TO EXISTING PLANS, POLICIES AND RELATED GUIDANCE**

### **Comprehensive Plan for the National Capital**

As noted during Preliminary Review, staff finds that the proposed design continues to be consistent with policies in the Federal Elements of the Comprehensive Plan for the National Capital (2004) and in particular, those policies contained in the Historic Preservation and the Visitors and Commemoration Element. These policies encourage the federal government to preserve and

protect historic properties while also accommodating visitors and balancing the needs of security and accessibility. The proposed action will satisfy both of these areas.

Policies in the Preservation and Historic Features Element that the proposed action is consistent with the following:

- Plan carefully for appropriate uses and compatible design in and near the monumental core to reinforce and enhance its special role in the image of the nation's capital.
- Protect and enhance the vistas and views, both natural and designed, that are an integral part of the national capital's image.
- Sustain exemplary standards of historic property stewardship.
- Identify and protect both the significant historic design integrity and the use of historic landscapes and open space.
- Protect the settings of historic properties, including views to and from the sites where significant, as integral parts of the historic character of the property.
- Ensure that new construction is compatible with the qualities and character of historic buildings and their settings, in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* and the *Guidelines for Rehabilitating Historic Buildings*.
- Develop the monumental core in accordance with the principles of the *Legacy Plan* and the *Memorials and Museum Master Plan*. The National Mall's historic open space and monumental character should be respected and preserved for the benefit of future generations. New development should not infringe on the integrity of the National Mall and the surrounding monumental core, and should be excluded from the *Reserve* (in accordance with the Commemorative Works Act, as amended).

The proposed action is consistent with the following in the Visitors Element:

- Balance the needs of security and visitor accessibility by ensuring that federal visitor attractions in the National Capital Region provide for the safety of visitors while remaining accessible and aesthetically pleasing, following the recommendations in *The National Capital Urban Design and Security Plan*.

### **National Mall Plan**

The National Mall Plan seeks to rehabilitate and refurbish the National Mall so that very high levels of use can be accommodated and the needs of all visitors and users can be met in an attractive, high-quality, energy-efficient, and sustainable manner. The National Mall Plan establishes a framework to protect memorials and landscapes while maintaining large areas of unprogrammed open space. The plan seeks to balance contemporary uses while respecting the planned historic landscapes of the L'Enfant and McMillan plans. The proposed visitor screening facility was not included in the National Mall Plan, but was considered a separate project and part of the Washington Monument Perimeter Security Improvements (vehicular barrier system, landscape improvements, new flagpoles, lighting, irrigation, utility work, and rehabilitation of Monument Lodge).

### **National Historic Preservation Act**

NCPC and NPS each have an independent responsibility to comply with the National Historic Preservation Act (NHPA); NCPC's responsibility stems from its approval authority over the project. NCPC designated NPS as lead agency to fulfill their collective obligations for Section 106 consultation. NPS initiated consultation with the District of Columbia State Historic Preservation Officer (SHPO) in November 2010 and Section 106 consultation meetings were held in March 2011, December 2011, February 2011, September 2012, and June 2013. Five options were presented to the Section 106 consulting parties in October 2012, and the majority of consulting parties expressed support for the freestanding pavilion (Alternative C in the EA).

Through the Section 106 consultation, NPS determined the construction of the visitor screening facility would have adverse effects on historic properties. Adverse effects include the construction of a building in the historically open space of the Monument plaza; alteration of the simplicity of the existing relationship between the Monument, plaza, and surrounding landscape; alteration of several significant views, including views of the Monument from the Monument grounds, the National Mall, and the air, and panoramic views from the Monument to the east, north, and south. To address the adverse effects, NPS, NCPC, the Advisory Council on Historic Preservation, and the SHPO entered into a Memorandum of Agreement (MOA). The MOA stipulates a design review process for finalizing the design of the proposed visitor screening facility. In addition, the MOA includes mitigation measures that consist of the development of interpretation and education materials that broadly address the prehistory of the site as well as the historical development of the Washington Monument and its grounds. The types of materials may include wayside exhibits, reconstruction drawings, brochures, or internet-based content. Other mitigation measures include a provision for NPS to implement a plan for periodic monitoring of elevation benchmarks on or near the base of the Monument prior to, during, and after construction and to make this information available to the public. NPS will also implement measures to protect the integrity of the Monument during construction.

The final design includes only minor changes to the eastern façade, a change in the base material from metal to granite and a change in the mechanical vent from the roof to the rear of the entry pavilion. Moving the geothermal wells from the site north of the new entry pavilion to a site west of the monument and increasing them from approximately eight to approximately 60 wells will not be an intensification since the wells will be approximately 12 inches below-grade and not visible and will not impact any archeological sites. Since these changes do not constitute an intensification of any of the impacts, the existing MOA does not need to be amended.

### **National Environmental Policy Act**

NCPC and NPS each have an independent responsibility to comply with the National Environmental Policy Act (NEPA); NCPC's responsibility stems from its approval authority over the project. In accordance with the Council on Environmental Quality's rules for implementing

NEPA, and the Commission's Environmental and Historic Preservation Policies and Procedures, NPS prepared an Environmental Assessment (EA) for the project, to which NCPC was a cooperating agency. The EA analyzed a no action alternative and three development alternatives; the preferred alternative was identified as "Alternative C." Topics analyzed in the EA include: visitor use and experience, public safety, park management and operations, soils, visual resources, cultural resources, park operations and management, soils, transportation systems, vegetation, and utilities. NPS issued a Finding of No Significant Impact (FONSI) for Alternative C on February 13, 2014.

After NCPC staff reviewed the EA and NPS's FONSI determined that the information and analysis provided met the standards for an adequate EA as set forth in NCPC's Environmental and Historic Preservation Policies and Procedures and that a FONSI is warranted based on the information contained in the EA. At its meeting on March 6, 2014, the Commission adopted the NPS EA and FONSI, for this project.

## **CONSULTATION**

Through both the NEPA and Section 106 process, NPS coordinated with a number of agencies, organizations, and stakeholders.

### **Coordinating Committee**

The Coordinating Committee reviewed the proposal at its January 11, 2017 meeting. The Committee forwarded the final site and building plans to the Commission with the statement that the proposal has been coordinated with all participating agencies. The participating agencies were: NCPC; the District of Columbia Office of Planning; the District of Columbia Department of Transportation; the District of Columbia State Historic Preservation Office; the General Services Administration; the National Park Service and the Washington Metropolitan Area Transit Authority.

### **U.S. Commission of Fine Arts**

The U.S. Commission of Fine Arts (CFA) reviewed concept plans for the visitor screening facility at its June 20, 2013 meeting. During this meeting, NPS presented two conceptual directions for the facility - a pure "glass cube" and a "portal". The "glass cube" focused on a pure geometric form of a cube adjacent to the iconic obelisk of the Monument while the "portal" alternative focused on the subordinate role the addition would play as an entrance. CFA noted the transitory nature of security operations and advised that the facility should appear as an elegant, but temporary passage and therefore CFA endorsed the "portal" alternative. In addition to expressing a preference for the "portal" design, CFA commented that the lower roofline, connecting hyphen, and embedded metal mesh would differentiate the addition from the Monument so that the new facility would appear as a transparent shadow at the Monument's base.

CFA reviewed and approved the final design at its January 23, 2017 meeting noting that the design was the essentially the same as the concept design alternative it endorsed in June 2013 with a few minor changes to the visitors screening facility's east façade and some other minor design changes.

### **ONLINE REFERENCE**

The following supporting documents for this project are available online:

- Submission Package

Prepared by Carlton Hart  
01/27/2017

### **POWERPOINT (ATTACHED)**



# Visitors Screening Facility

Washington Monument Grounds  
Washington, DC

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Department of the Interior, National Park Service

Final Site and Building Plans

February 2, 2017



Photo credit: [www.panoramio.com](http://www.panoramio.com), taken by Tim Stewart, 9/7/14

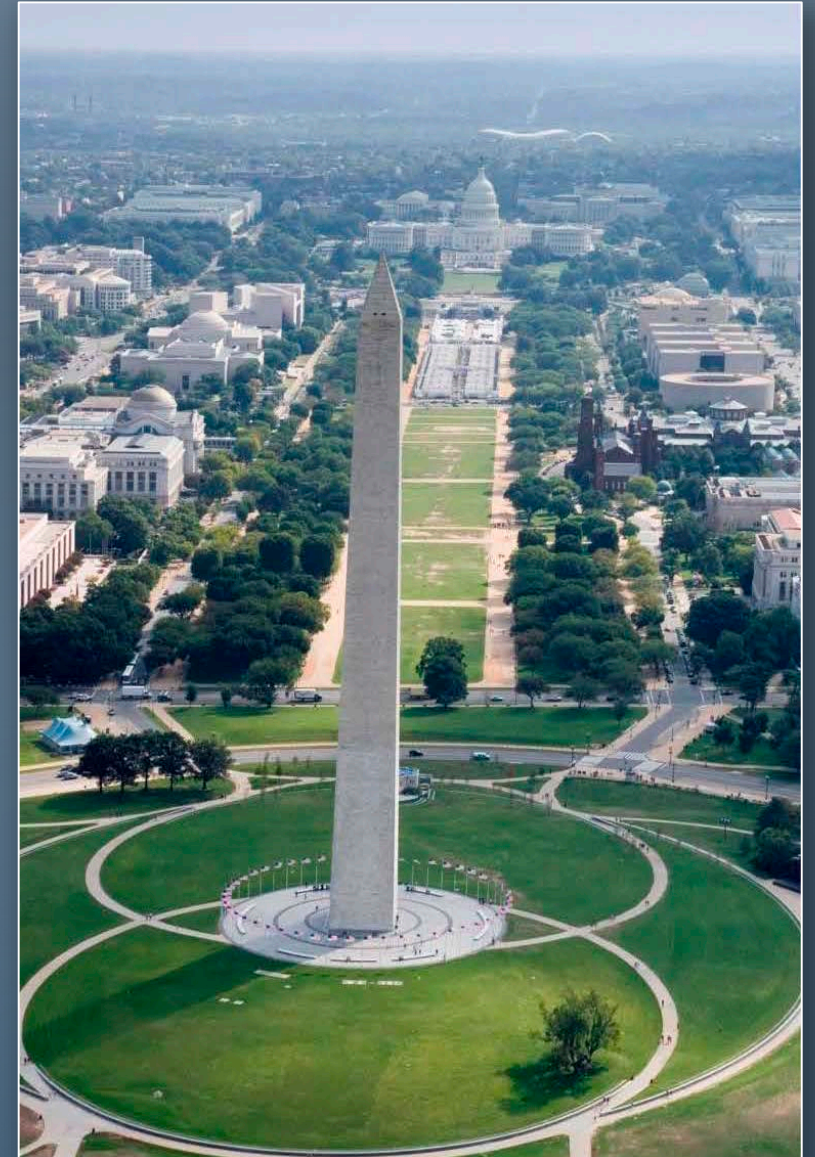
## LEGEND

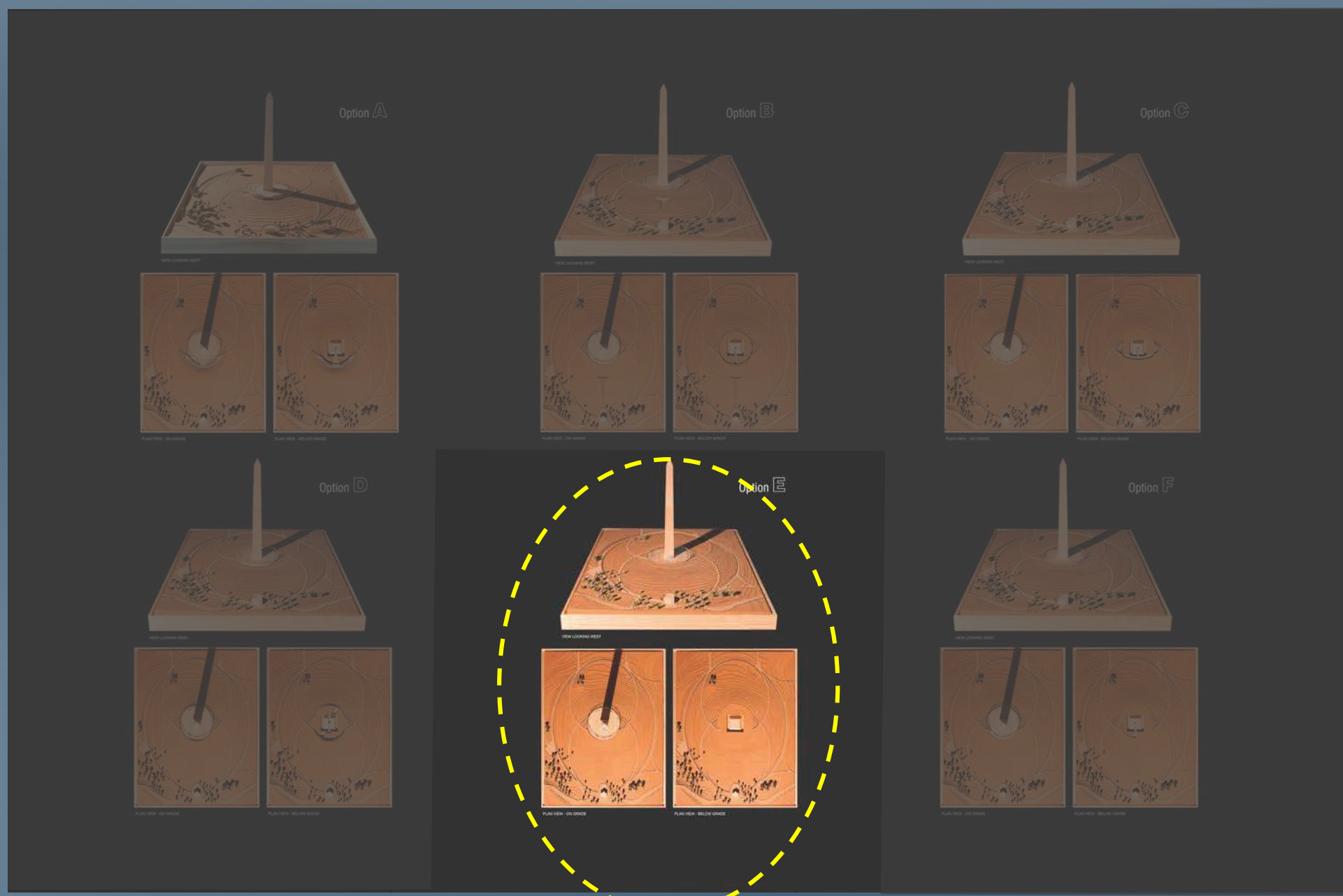
- Washington Monument Grounds
- Permanent Vehicular Barrier
- Granite Plaza and Flagpole Circle
- Temporary Visitors Screening Facility
- Monument Lodge
- Sylvan Theater
- Jefferson Pier



US Park Police and NPS have the following requirements for the screening facility:

- Full visibility is required outward to the north, east, and south
- Full visibility inward is prohibited; from a datum of 4 feet above the floor level, translucent or opaque material must be used
- Queuing for 20-25 people must be provided in the facility
- Circulation within the facility is deliberately circuitous to avoid allowing a path of direct access into the Monument
- New accessible staff restroom must be provided in the facility
- Park Police office must be provided with full visual control of the security screening and be proximate to the entrance to the Monument to enable lock down, if needed
- One magnetometer and one x-ray machine must be accommodated
- Egress must be managed such that no visitors are allowed back into the Monument after they exit
- Facility must have a ballistic rating and have a blast rating
- Materials analysis – interior and exterior materials and finishes







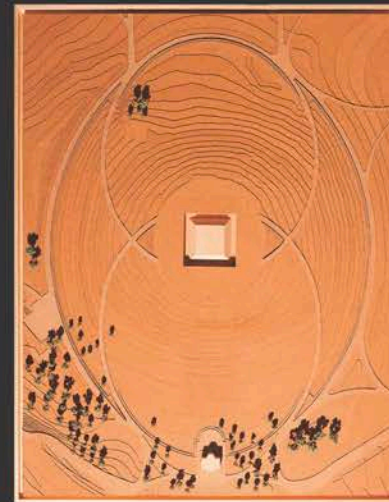


Option E

VIEW LOOKING WEST

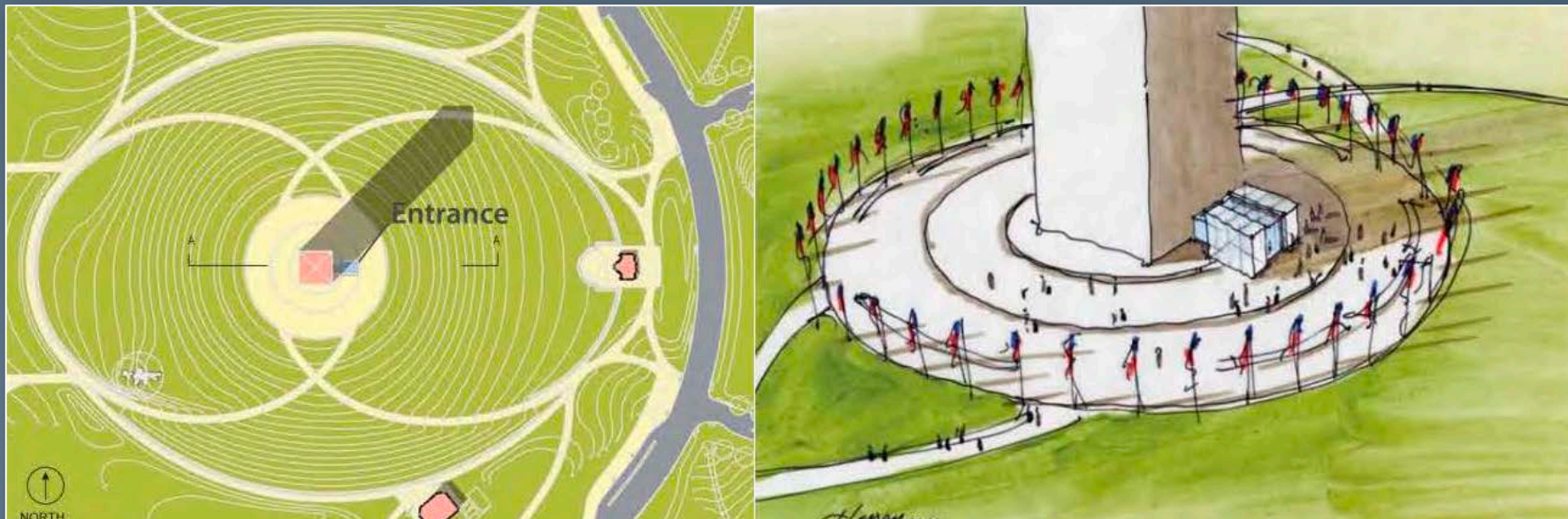


PLAN VIEW - ON GRADE



PLAN VIEW - BELOW GRADE

- New Pavilion would be the least intrusive
- Reversible if screening is no longer needed in future
- Minimizes impacts to historic fabric of the Monument – all other subsurface alternatives would have required modifications to foundations of the Monument
- Direct route through the east is preferable over a circuitous system of paths
- Recent perimeter security project should be protected







Alternative 01



Alternative 02



Alternative 03



Alternative 04

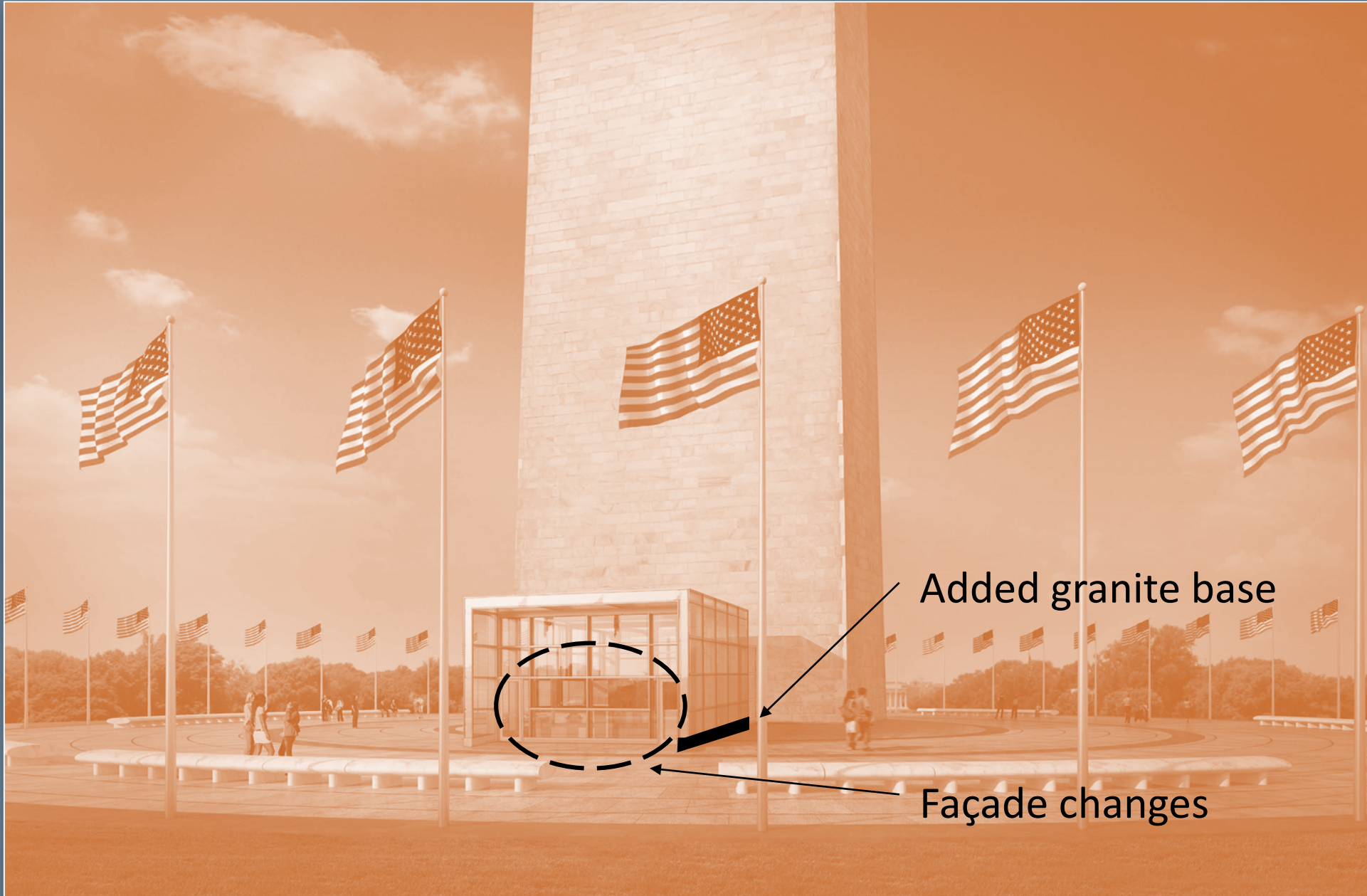


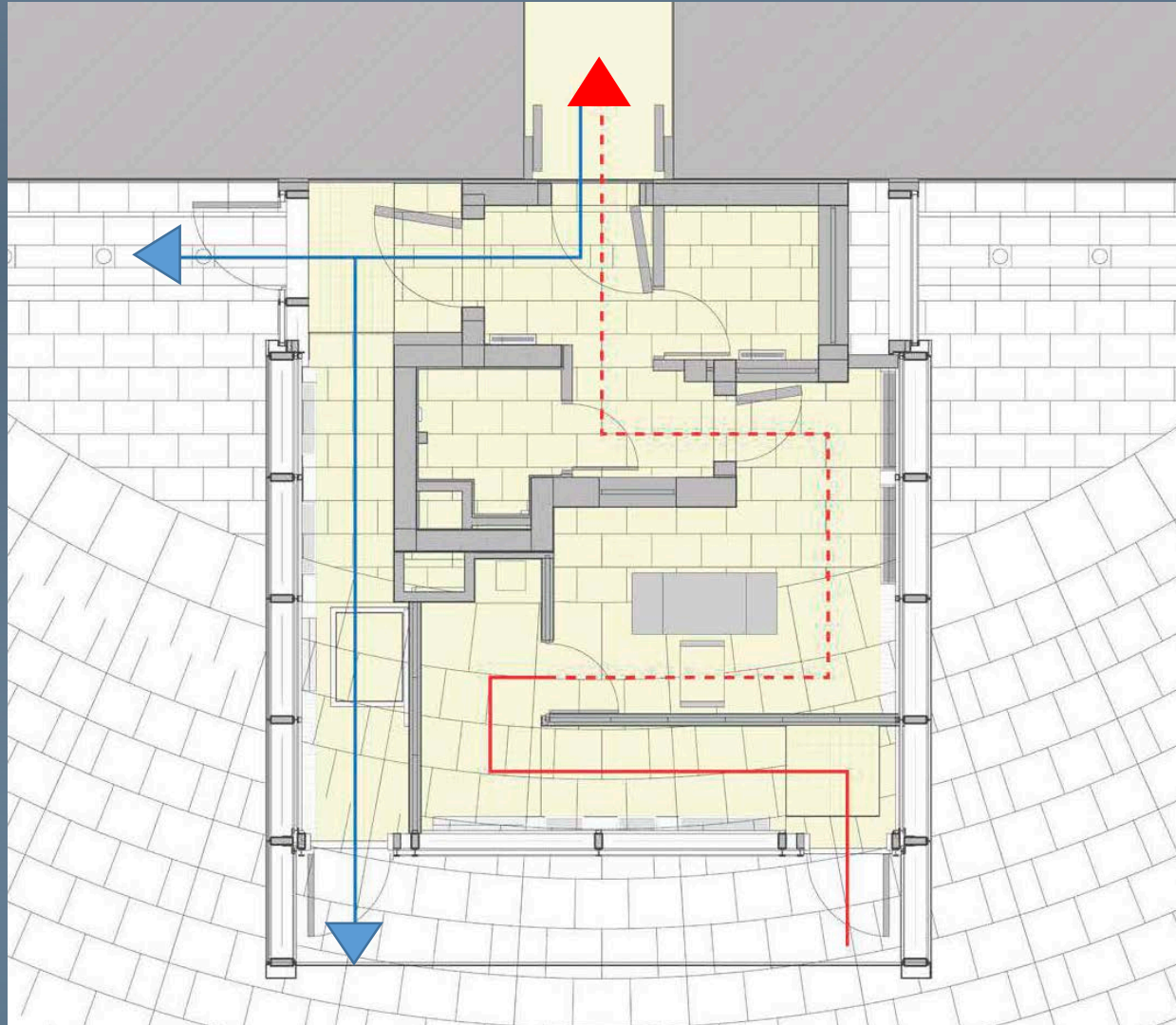




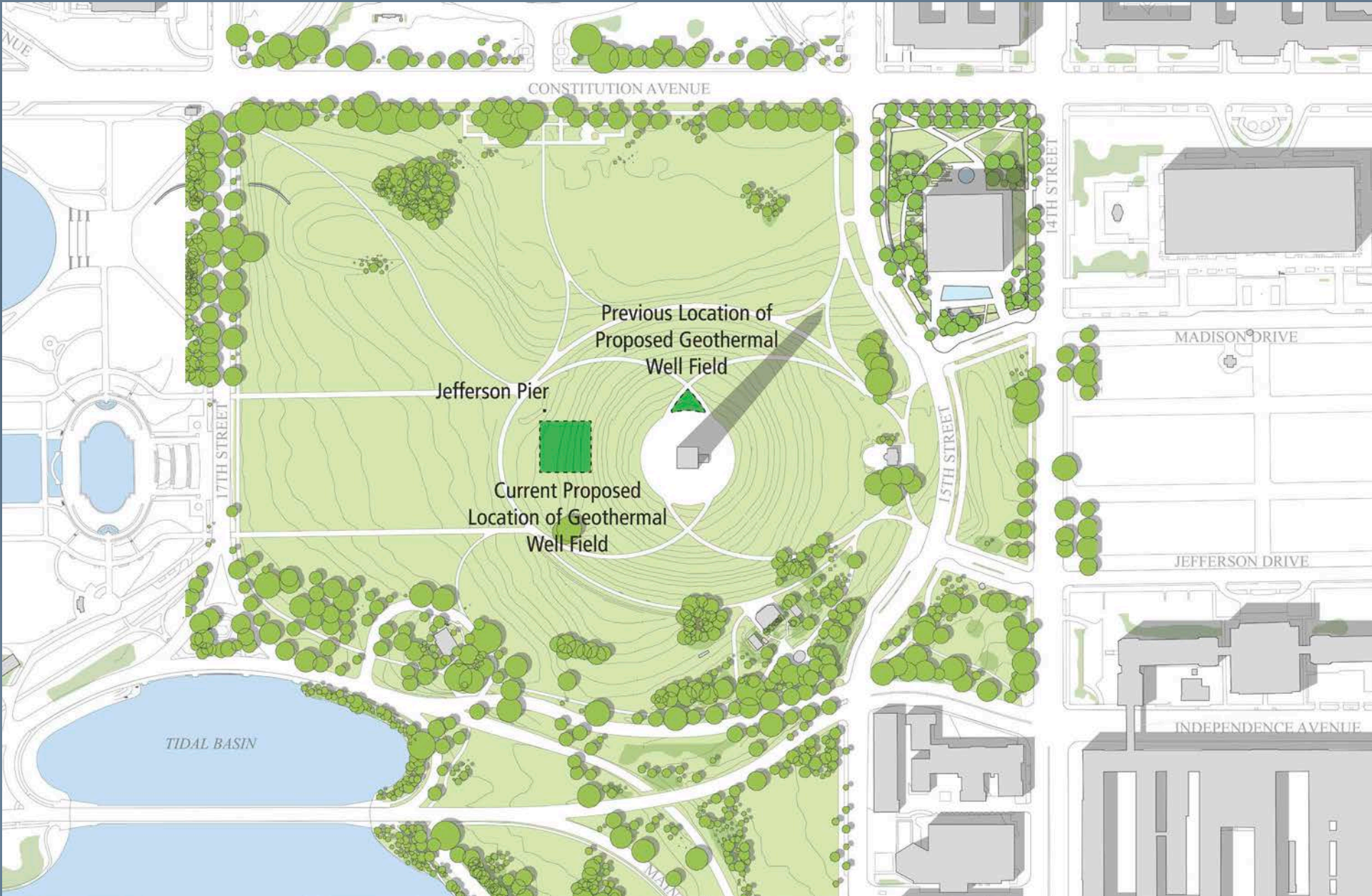








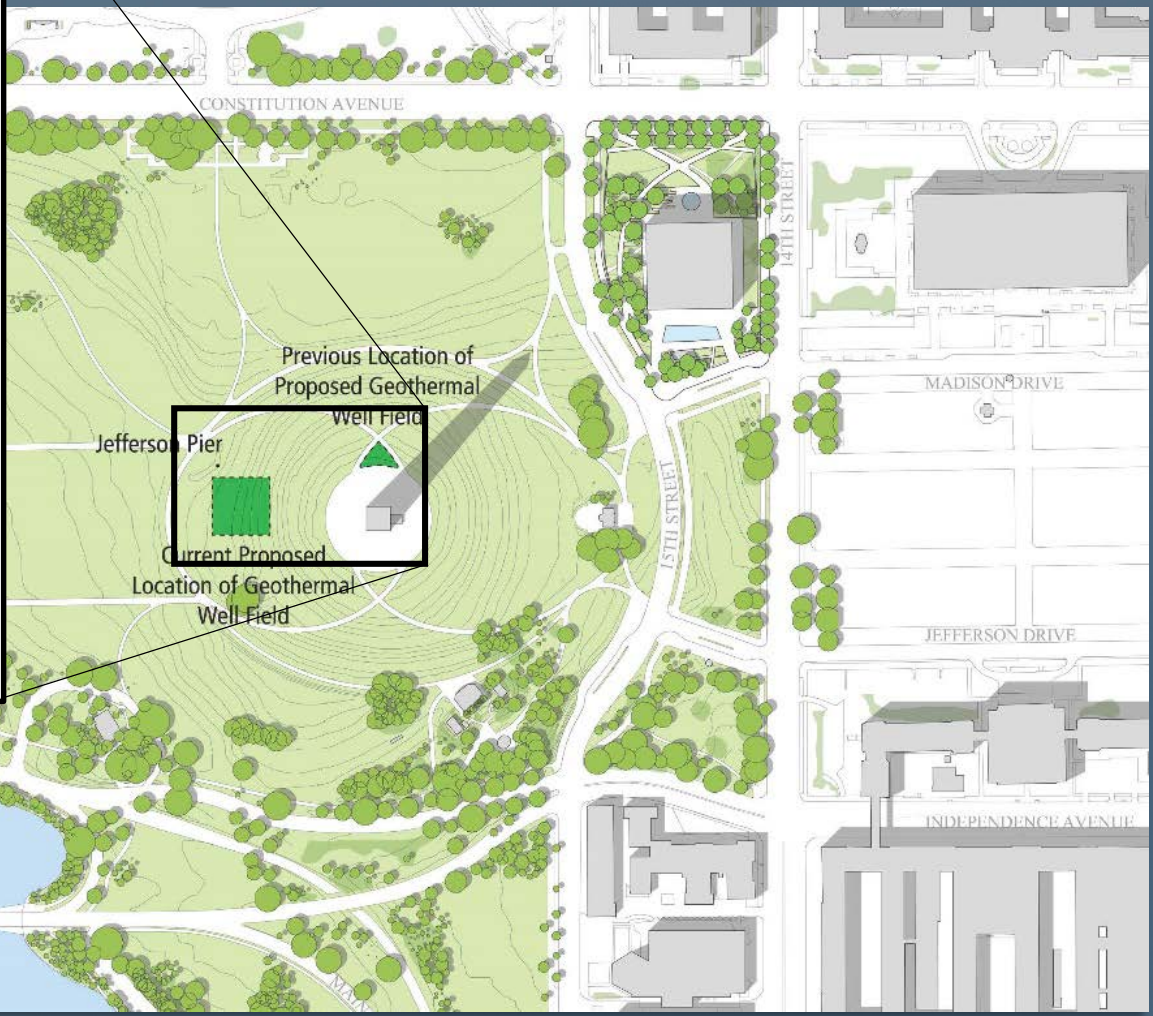
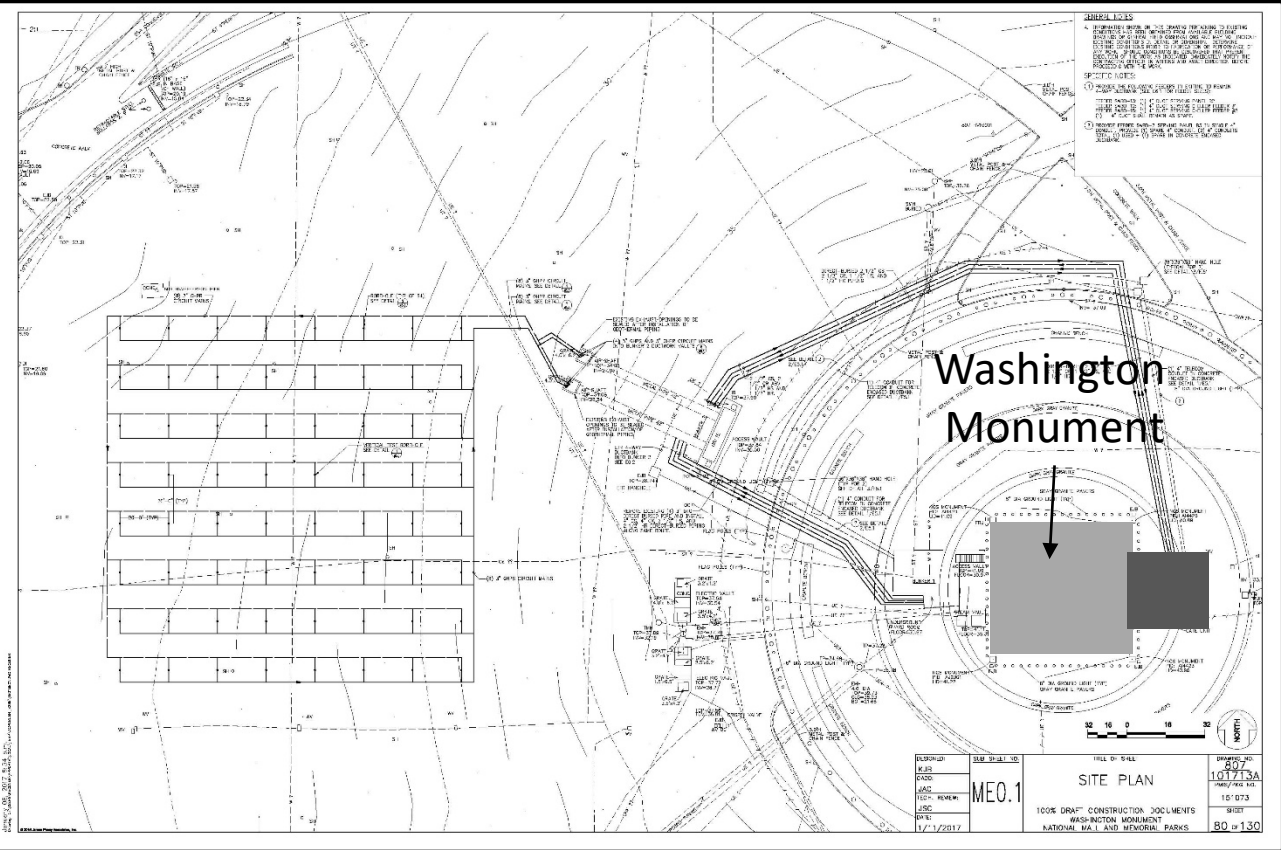


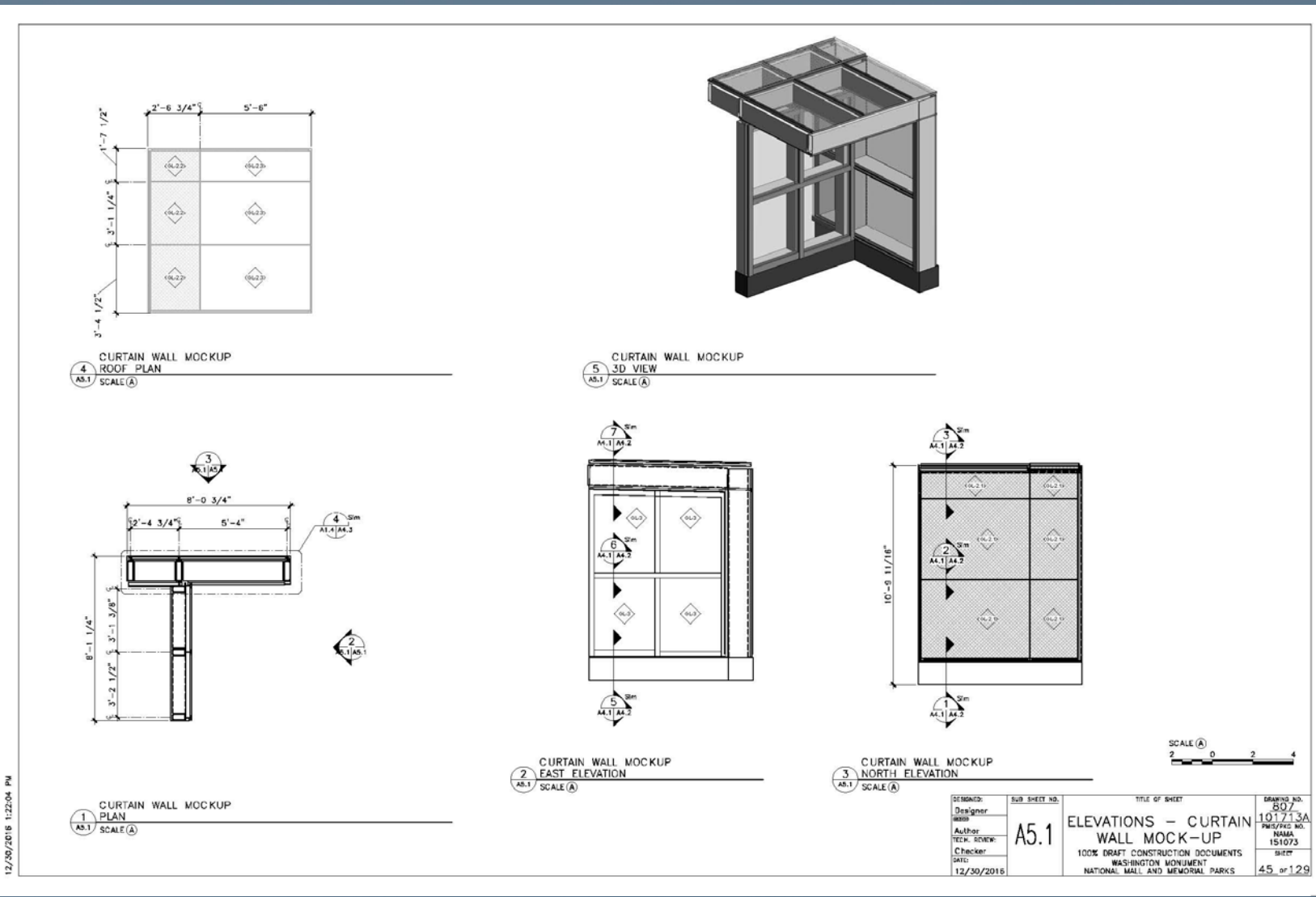
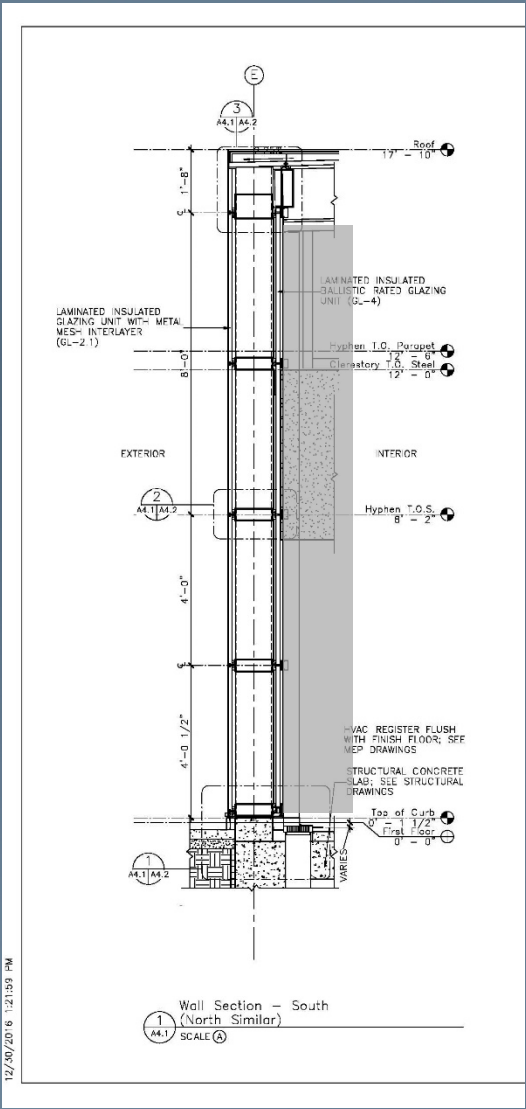


Commission requested the following at Preliminary design phase:

- Detailed plan including the number and location of geothermal wells that will be required and what, if any, associated impacts there may be to the Monument and its foundations;
- Blast and ballistic analysis that will inform the final material selection for the visitor screening facility;
- Lighting design that demonstrates how the facility will be lit and to what intensity to ensure compatibility with the nighttime illumination of other monuments and memorials on the National Mall.









- NPS engaged an architectural lighting specialist
- Illuminating Engineering Society of North America (IESNA) guidelines
- Compatible with the monument and other monuments and memorials on the National Mall.

