

STAFF RECOMMENDATION

D. Hamilton

NCPC File No. 6423/6492



**NATIONAL AIR AND SPACE MUSEUM
PERIMETER SECURITY**
The National Mall, 4th Street and Independence Avenue, SW
Washington, DC

Submitted by the Smithsonian Institution

September 2, 2004

Abstract

The Smithsonian Institution (SI) has submitted preliminary and final site development plans for providing perimeter security around the National Air and Space Museum (NASM). The final plans are consistent with the Mall-Wide Perimeter Security concept plans that were approved by the Commission at its February 5, 2004 meeting, as well as the objectives and principles of the Commission's National Capital Urban Design and Security Plan.

Commission Action Requested by Applicant

Approval of preliminary and final site development plans pursuant to 40 U.S.C. § 8722(d) and Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b) (1)).

Executive Director's Recommendation

The Commission:

Approves the preliminary and final site development plans for perimeter security at the National Air and Space Museum, the Mall, 4th Street and Independence Avenue, SW, as shown on NCPC Map File No. 1.71(05.17)-41402, **except for** the design of the Exhibit Plinths on the north side of the National Air and Space Museum.

Delegates approval of the final design of the Exhibit Plinths to the Executive Director.

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PROJECT SUMMARY

Site Description

The NASM, located on the National Mall, is bounded on the north by Jefferson Drive, on the south by Independence Avenue, on the east by 4th Street, and on the west by 7th Street. The National Museum of the American Indian is immediately east of the site and the Hirshorn Museum is immediately west of the site. The green Mall panels are located north of the site and the National Aeronautics and Space Administration and Department of Education Buildings are located south of the site across Independence Avenue. Primary visitor entrances to the museum are located on the north and south sides of the building. The cafeteria pavilion and garage entrance is located on the east side and a sculptural element, memorial tree grove, and an additional garage entrance are located on the building's west side.

Background

The preliminary and final site development plans for perimeter security around the NASM are a result of an overall Mall-Wide Perimeter Security concept that was approved by the Commission at its February 5, 2004 meeting. The concept included all of Smithsonian museum buildings on the Mall, except for the National Museum of the American Indian, plans for which were approved separately, and was based on the principles established in the Commission's National Capital Urban Design and Security Plan. The current proposal for the NASM is the first museum perimeter security proposal to be brought to the Commission since approval of the Mall-Wide Perimeter Security concept approval.

Previous Commission Action

At its February 5, 2004 meeting, the Commission commended the SI and its consultants for an inclusive public process and incorporating the guidelines of the *National Capital Urban Design and Security Plan* in developing the Mall-Wide Perimeter Security concept plan. The Commission also approved the concept plan and recommended several refinements to the design during development of preliminary site and building plans that apply to NASM:

- Design openings in the freestanding walls to allow access to the lawn areas at the Museums of American History, Natural History, and the NASM to allow pedestrians access for sitting.
- Relocate the proposed bollards at the Air and Space Museum located at the three eastern pedestrian walkway entrances that align with the site walls to the bottom of the adjacent stairs, as well as the bollards at the pedestrian walkway on 4th Street. This will accentuate these entry areas, de-emphasize the bollards and break the visual monotony of the security line along these streets.
- Evaluate how the low freestanding wall to be placed at the outer edge of the Air and Space Museum's west lawn at Independence Avenue and 7th Street will impact the visual

quality of this corner and the landmark sculptural element and fountain. If the wall is determined to be a visual impediment, consider relocating the security line to the east, or incorporating it into the sculpture/fountain design.

- Consider integrating the guard booths into low retaining walls, and integrating signage and trash receptacles into the security line as hardened elements where possible to avoid redundant elements and reduce clutter along the street.

Development Program

Applicant: Smithsonian Institution
Architect: Beyer Blinder Belle Architects and Planners LLP
Estimated Cost: \$4-6 Million
Schedule: November 2004 to November 2005

Proposal

The SI has submitted preliminary and final development plans for improving perimeter security at the NASM. A secure perimeter would be created through the reuse and hardening of existing terrace planters on Madison Drive, 4th Street, 7th Street, and Independence Avenue. Where terrace planters do not meet the 30-inch minimum height required for security, the existing planters would be raised. Two types of custom stainless steel bollards and granite plinths would be incorporated at building entrances and site access locations. Driveways would be controlled by guard booths, retractable bollards and cable beam barriers.

Bollards and Plinth Design

Two types of custom bollards would be used at the NASM. The first type is a special fixed bollard with an aerodynamic form that would be located in front of the north entrance and between the exhibit plinths. The second type is a cylindrical bollard that would be used for the majority of the site's fixed and retractable bollards. Both bollard types are custom metal sleeves that would be fitted over the metal pipe that forms the structural bollard core. A brushed stainless steel finish with the grain running horizontally would complete their overall design.

The exhibit plinths are four-by-four foot granite elements that would be located between the bollard line at the north entrance. The top surface of the plinths will include sculptural elements that will incorporate interactive, tactile forms with an educational theme that relates to the exhibits in the NASM.

West Terrace Perimeter

At the west terrace lawn, new free standing walls at the property line would frame the existing lawn and terrace area. Breaks in the walls would provide access to this open space to allow pedestrians to sit on the lawn area. Additional freestanding walls would frame the outsides of the lower existing planters at the southwest and northwest corners.

North Entry

The north entry of NASM would be defined by a line of bollards and plinths set back approximately 13 feet from the curb of Jefferson Drive to allow space for tour bus loading and unloading. Two types of bollards—a custom cylindrical bollard and an aerodynamic bollard—are spaced between exhibit plinths and flanking flagpole plinths. Security for the remainder of the north façade would be provided by the existing terraced planters of the NASM, with the custom cylindrical bollard used at the breaks in the planters where stairs are located.

In addition to the security barriers at the north entrance, two new accessible ramps would be provided on each side of the entrance and would be constructed within the existing planters. Granite paving on the new ramps would match the existing terrace pavers.

South Entry

The south entry would include a series of cylindrical bollards placed approximately two feet back from the curb at Independence Avenue. These bollards would be symmetrical around the museum entrance and jog around existing streetscape elements such as curb cuts, traffic signals, fire hydrants, light poles and public telephones. The existing terrace walls along the south façade of the NASM would be hardened and the cylindrical custom bollards would be placed at the pedestrian entrances to the terrace. Retractable bollards would be located at the driveway curb cut at the southwestern side of the museum.

Guard Booths

Two new guard booths would be integrated within the existing planter walls adjacent to each side of the east garage entrance. Wall heights and finishes of the base of the guard booths have been adjusted to create a seamless transition from the planter walls, which are being hardened. The upper portion of the guard booths would include windows with stainless steel frames, and a standing seam metal roof.

PROJECT ANALYSIS

Executive Summary

The staff recommends that the Commission *approve* the preliminary and final site development plans for perimeter security improvements at the NASM:

- The proposal is consistent with the Mall-Wide Perimeter Security concept plans that were approved by the Commission at its February 5, 2004 meeting, as well as the objectives and principles of the Commission's National Capital Urban Design and Security Plan.
- The original design of the NASM incorporates a series of terraced planters that will allow for security measures to be seamlessly incorporated into the existing site design in a way that will be largely invisible to the public. The hardening of the planters and provision of

low walls in the same material of the building will provide a visual continuity between perimeter elements and the building architecture.

- Bollard use is minimal and confined to pedestrian and vehicular entrances. Bollard placement is confined to the edge of the building yard except at the north and south entrances, where the need for increased standoff distances is based on the large expanses of glass at these locations.
- Bollard design is site specific and complements the existing NASM building. At the north entrance, which is the most heavily used, the custom designed bollards and exhibit plinths provide visual variety and the opportunity for visitor interaction. The exhibit plinths will break-up the bollard line in this area and have the potential to facilitate use by museum visitors for activities as sitting and map reading. Given that these elements are not fully designed, **staff recommends that these plinths be excepted from approval at this time, and approval of the final design delegated to the Executive Director.**
- Accessible handicapped ramps would also be included on the north entrance side of the NASM and incorporated with the existing terraced planters to provide a more direct entry experience for visitors using wheelchairs or strollers. The ramps are symmetrical to the main entry stairs, thereby reinforcing the overall symmetry of the north façade and, they would use the same granite pavers that are currently used on the terrace.
- The low wall proposed on the western perimeter along 7th Street provides a sense of enclosure for the adjacent sculptural element, and the breaks in the wall allow for pedestrians to use the adjacent lawn area for sitting and passive recreational activities. The design is consistent with recommendations provided by staff in consultation following the previous commission action.
- The use of bollards on the south entry area is minimal and consistent with the design for the north entry. The bollards are positioned symmetrically to the museum entrance and jog around existing streetscape elements, thereby providing minimum disruption to the pedestrian movements in this area. The addition of new trees in this area also enhances the pedestrian experience. The design is consistent with recommendations provided by staff in consultation following the previous commission action.
- The guard booths at the garage entrance along 4th Street are simplistic with “clean” lines and are seamlessly incorporated into the low walls in this area. This is consistent with the previous commission action.

The Smithsonian Institution and their consultants should be commended for the design development and implementation of concepts contained in the National Capital Urban Design and Security Plan and the Mall-Wide Building Security Plan.

PROJECT CONFORMANCE

Comprehensive Plan for the National Capital

The proposed concept is consistent with the Comprehensive Plan for the National Capital. The Federal Facilities Element designates the site of the NASM for Park, Recreation, and Conservation Facilities. The NASM provides cultural and educational activities. The perimeter security improvements would allow for these activities to continue within a more secure environment.

Federal Capital Improvements Program

The proposed perimeter security improvements are not included in the Federal Capital Improvements Program for Fiscal Years 2004 – 2009. Anti-terrorism protection for Smithsonian Institution buildings in the Monumental Core is included, and strongly endorsed, in the Draft Federal Capital Improvements Program for Fiscal Years 2005-2010.

National Capital Urban Design and Security Plan

The proposed concept is consistent with the Urban Design and Security Plan (UDSP) which calls for the use of a custom design solution in this area. The manner that the proposed security elements are incorporated with the existing fabric of the NASM site results in an overall cohesive security design. The use of custom bollard designs, low walls, exhibit plinths and other features are consistent with the goals and objectives of the UDSP.

National Environmental Policy Act

NCPC staff has analyzed, in conformance with the requirements of the National Environmental Policy Act (NEPA) the prepared Environmental Assessment (EA) completed by the Smithsonian Institution (SI) for planning and construction of perimeter security improvements at Smithsonian Museums on the Mall, including the National Air and Space Museum. Staff has prepared a Finding of No Significant Impact (FONSI) based on adoption of the EA. The staff's independent review finds that the EA conclusions represent an effective analysis of the potential environmental impacts of the plans submitted to the Commission by the SI and conform to the Commission's Environmental and Historic Preservation Policy and Procedures.

The proposed alternative, presented as the preferred action in the EA, identifies the SI completing a variety of new security improvements for the SI facilities. A contextual approach to perimeter security would be employed along Jefferson Drive, Madison Drive, and the numbered streets; while a consistent approach would be pursued along Constitution and Independence Avenues, NW. In addition, Jefferson Drive adjacent to the Smithsonian Institution Building would be realigned to provide an increased setback of the building from the road. The alternative is designed to mitigate the threat of attack on the buildings by explosive-laden vehicles. The improvement of existing security measures for the structures is a critical issue. SI requirements for upgrading of physical building protection have, in recent months, included more stringent "hardening" regulations and increased standoff distances. Temporary barriers have been employed in many locations around the Mall including "jersey" and planter barriers and now will be removed with more permanent solutions. These temporary barriers, necessarily

defensive, are visually incompatible with the aesthetic character of the SI buildings and the open vistas of the Mall.

The EA reviews two alternatives for implementing the security project—the No Action alternative and the proposed alternative. Four other early planning schemes were also discussed. The four alternative concepts were fully presented to public review groups but were eliminated from further assessment due to identified deficiencies. Those plans included a completely contextual approach, two approaches that were partly contextual and partly consistent, and a completely consistent approach. The contextual standards were measured against the goals of the National Capital Urban Design and Security Plan. Through SI presentations to interested agencies and individuals, feedback was provided on each of the initial alternatives. From those reactions, it became clear that none of the four alternatives were acceptable approaches that would meet the purpose of the proposal and those alternatives were not developed further. The final design of the NASM does not deviate from the concept proposal of the Mall-wide plan and does not introduce any additional environmental impacts to the NASM area. Temporary disturbance to surface soils would occur during the removal of the existing surface landscaping and hardscape along the Mall. To reduce the potential adverse impacts associated with soil disturbance, a Soil Erosion and Sedimentation Control (SESC) plan for construction activities on the various properties would be developed. SESC plans incorporate best management practices (BMPs) to prevent erosion of soils. Grading and excavation of soils within the project area would be minimized to the greatest extent possible. BMPs, such as silt fences and siltation barriers, would be used to prevent the loss of soils. As part of the application for a construction permit, the contractor must submit an erosion and sediment control plan or a storm water management plan (or both, depending on the nature of the construction). Storm water management, erosion and sediment control, and floodplain management within the District are regulated in accordance with District of Columbia regulations at DC MR, Title 21, Chapter 5 and Title 20, Chapter 31.

Staff finds the minor environmental effects and their mitigation supportable and fully defined by the EA evaluation. Cumulative effects of the proposed action have been identified and considered in the EA. The separate National Historic Preservation Act, Section 106 review and mitigation actions will be further specified by additional analysis and design efforts in consultation with the District of Columbia Historic Preservation office, and a Memorandum of Agreement developed. Staff believes the SI determination is sufficient for evaluation of the affects of the proposed project and supports the mitigation actions identified in the EA.

National Historic Preservation Act

The Smithsonian determined that the project would have an adverse effect on the National Mall and on the L'Enfant Plan. The Smithsonian and the D.C. State Historic Preservation Officer have agreed on the current design and have completed a Memorandum of Agreement (MOA). The MOA and project materials were also submitted to the Advisory Council on Historic Preservation. The Smithsonian has completed its Section 106 review for this museum's security project, which is a component of the Mall-wide security plan being developed by the Smithsonian.

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed this item at its meeting on January 14, 2004 and forwarded the proposal to the Commission with the statement that the project has been coordinated with all agencies participating. The participating agencies were NCPC; the District of Columbia Office of Planning; the Department of Housing and Community Development; the General Services Administration; and the Washington Metropolitan Area Transit Authority.

Commission on Fine Arts

The proposal was reviewed and approved by the Commission on Fine Arts at its July 15, 2004 meeting.