

# STAFF RECOMMENDATION

C. Saum

NCPC File No. 6885

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## WEST POTOMAC PARK LEVEE SYSTEM IMPROVEMENTS

17<sup>th</sup> Street, NW and Constitution Avenue, NW  
Washington, D.C.

Submitted by National Park Service

May 4, 2008

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### Abstract

The National Park Service (NPS) is seeking approval of the location, of preliminary and final approval for Phase 1, and comments on the concept design for Phase 2 of improvement to the Potomac Park levee in the area of 17<sup>th</sup> Street and Constitution Avenue, NW. Phase 1 consists of work necessary to provide protection against a 100-year flood event in accordance with the agreement between the District of Columbia and the Federal Emergency Management Agency (FEMA). Phase 2 includes measures to enhance the visual character of the improvements consistent with their location on the National Mall. Phase 1 will be constructed by the District of Columbia Department of Transportation (DDOT) on NPS land. Approval is being sought at this time so that DDOT may proceed with site mobilization in accordance with the schedule included in the agreement with FEMA. Work to be accomplished during site mobilization includes tree removal necessary to facilitate archaeological surveys and utility relocation. The Commission's authorities under the Planning Act do not include site preparation, but approval of this work is being sought because the impacts of it will be irreversible. Final approval of Phase 2 (including planting plan and stone clad flood walls) will be sought before construction of these elements.

### Commission Action Requested by Applicant

Approval of preliminary and final site development plans for Phase 1, and approval of comments on the concept design for Phase 2, pursuant to 40 U.S.C. § 8722(b)(1) and (d).

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### Executive Director’s Recommendation

The Commission:

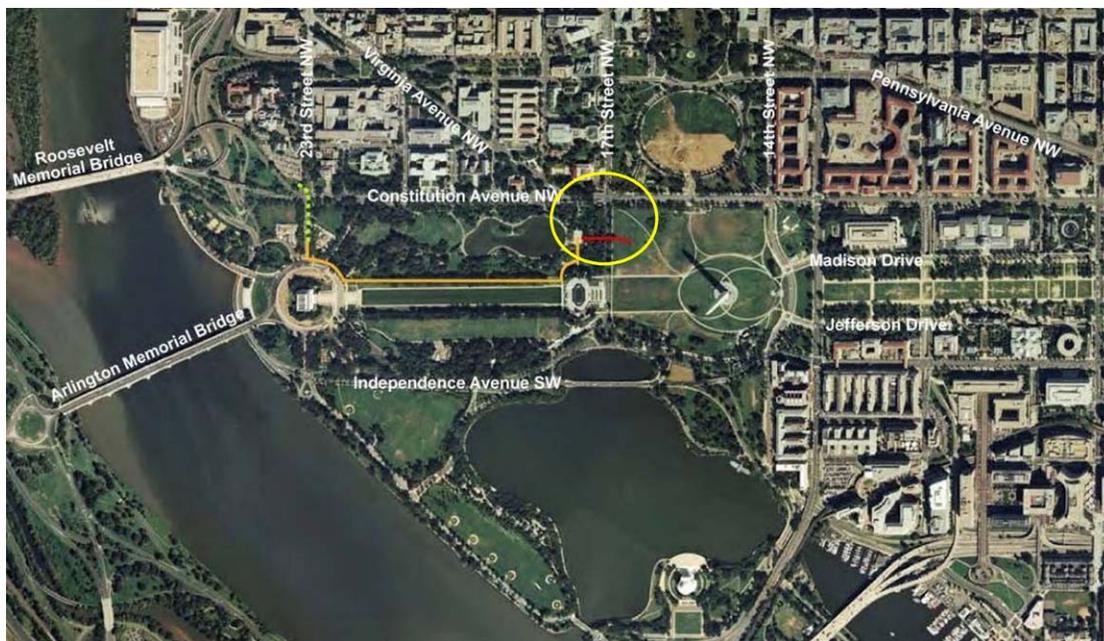
**Approves** the location of and preliminary and final site development plans for Phase 1 of improvements to the Potomac Park levee near the intersection of 17<sup>th</sup> Street and Constitution Avenue NW, as shown on NCPC Map File No. 1.42(03.40)42751, with the condition that the National Park Service and the District of Columbia consult with staff of NCPC, CFA and the D.C. Historic Preservation Officer in determining the final design of visible elements of the grade beam that will form the base for the post and panel system.

**Comments favorably** on the concept design for Phase 2.

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### PROJECT DESCRIPTION

#### Site



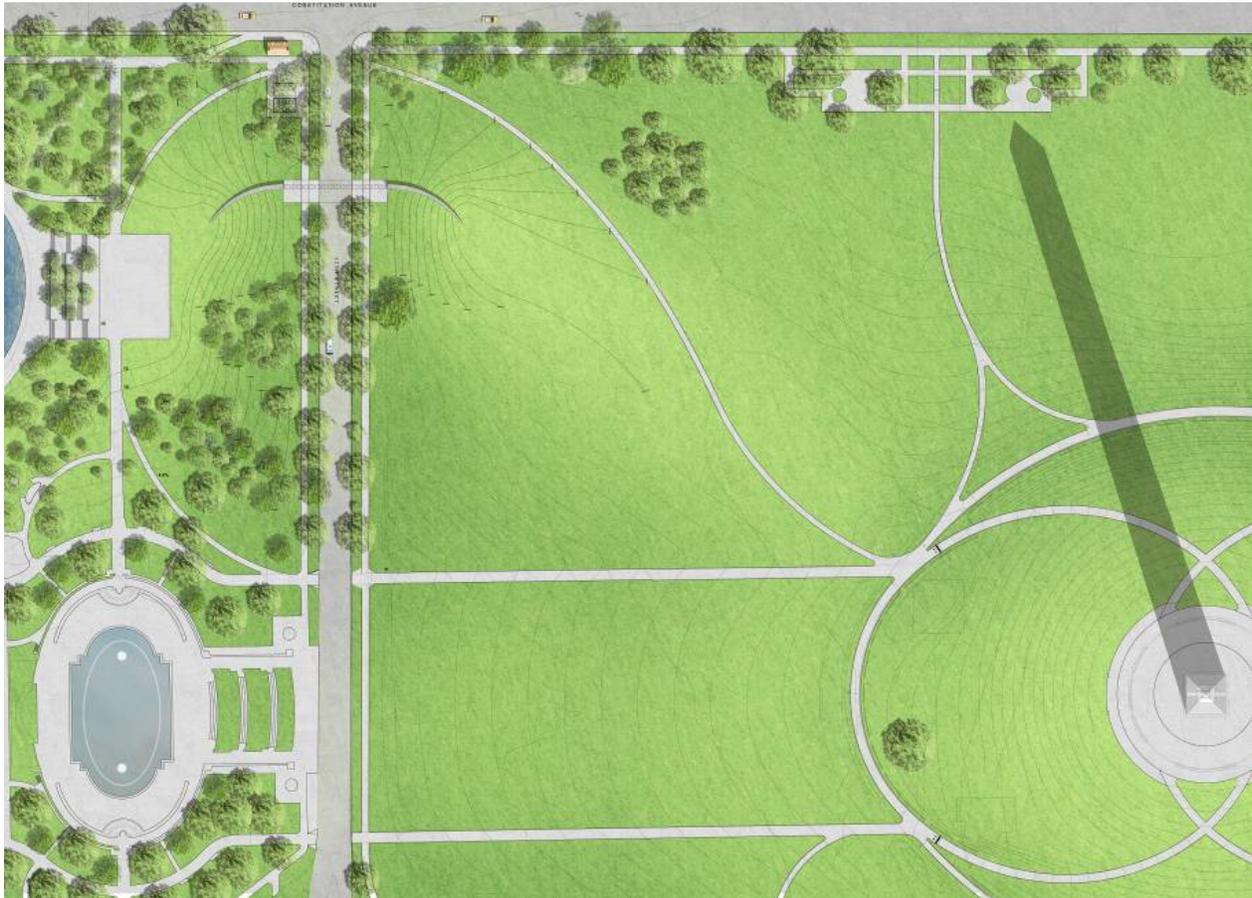
Aerial photograph showing project site (in circle) and vicinity

The existing levee system is designed to protect downtown Washington from Potomac River flooding. It extends from 23<sup>rd</sup> Street NW, north of the Lincoln Memorial, east to the raised mound on which the Washington Monument stands. It includes an earthen levee that extends

from 23<sup>rd</sup> Street on the west to 17<sup>th</sup> Street on the east, between Constitution Gardens and the Reflecting Pool, and requires temporary measures (currently consisting of sandbags, Jersey barriers and an earthen dam) across 23<sup>rd</sup> and 17<sup>th</sup> Streets during flood events. The proposed project will provide a more secure closure system across 17<sup>th</sup> Street, consisting of a post-and-panel barrier connected to masonry walls and an on-site storage vault for the post and panel members when not in use. The construction boundaries of the proposed project include portions of West Potomac Park and the Washington Monument grounds adjacent to 17<sup>th</sup> Street south of Constitution Avenue.

### Background

The Commission commented favorably on the concept design for the project at its meeting on January 8, 2009. The Commission also recommended that in the further development of the design, the applicant develop a landscape plan that respects the intent of the 1976 Skidmore, Owings & Merrill plan for Constitution Gardens and the 2003 Olin Partnership plan for the Washington Monument grounds, that minimizes encroachment on the World War II Memorial, and that strives to minimize visual intrusion of the flood walls on the 17<sup>th</sup> Street view corridor.

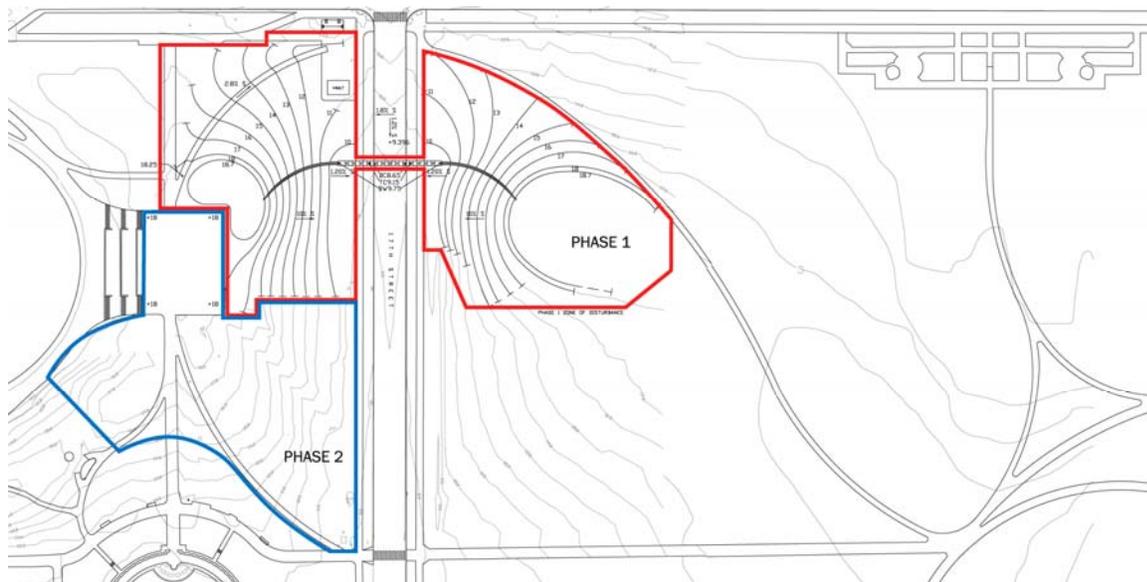


This work is required to comply with the terms of an agreement between the District of Columbia and the Federal Emergency Management Agency (FEMA). This agreement requires that levee improvements to provide protection against a 100-year flood event be complete by November 2009. The levee improvements will be implemented in multiple phases as funds

become available. Phase 1 is the minimum necessary to meet FEMA requirements and will include the post and panel system, concrete flood walls and tree replacement necessary for mitigation. Phase 2 will include stone cladding for the flood walls, a vault for storage of the post and panel system, and additional site work.

### Proposal

Phase 1 of the levee improvements will include a removable post and panel system across 17<sup>th</sup> Street approximately 253 feet south of the center line of Constitution Avenue. The post and panel system will be approximately 120 feet long and will sit on an exposed concrete grade beam for its entire length. Two symmetrical concrete flood walls will flank the post and panel system. Each flood wall will be approximately 120 feet long and 9 feet above grade at the point closest to 17<sup>th</sup> Street, from which they will be set back approximately 23 feet. Final grading and tree replanting within the limits of construction for Phase 1 as shown below will also be included in Phase 1 as mitigation for the adverse effects of construction. Phase 2 will include a vault for storage of the post and panel system when not in use, stone cladding of the flood walls and final grading and tree replanting within the limits of construction for Phase 2 as shown below. The submission includes a concept design for tree replacement to be accomplished in Phase 1 and Phase 2 in accordance with the previous commission action and with the National Park Service 2008 Cultural Landscape Inventory for Constitution Gardens.

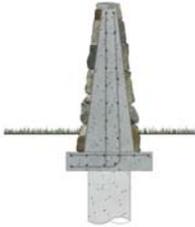


Phasing Plan



Landscape Plan Phase 2

Replacement of trees would be done in conjunction with soil improvement to improve the health and longevity of new trees. Replacement trees would include a combination of native species, including a canopy consisting of oaks and maples and an understory of dogwood. Stone color and coursing for the cladding of the concrete levee walls is still under development, but will be determined through further consultation and submitted for approval as part of Phase 2.



Option for stone cladding

## PROJECT ANALYSIS

### Executive Summary

The proposal submitted has been developed through very close consultation among staff of the National Park Service (NPS), the National Capital Planning Commission (NCPC), the U.S. Commission of Fine Arts (CFA), the U.S. Army Corps of Engineers (USACE), the District of Columbia Historic Preservation Officer (SHPO) and others. The height and location of the levee walls and location of the footings for the post and panel system are unchanged from the previous submission, which received favorable comments from both NCPC and CFA. The design of the structural elements is consistent with the requirements of the USACE. **Staff therefore recommends preliminary and final approval of Phase 1.**

The size and placement of the caissons that will support the post and panel system, and the design of the grade beam that will form the seal where the post and panel system meets the ground or pavement, are still being developed by the structural engineers. The visual expression of the grade beam in the turf between the street and the flood walls is an issue of great interest to NPS, NCPC, CFA and SHPO. **Staff therefore recommends that the approval recommended above be with the condition that NPS and DDOT consult with staff of NCPC, CFA and the SHPO in determining the final design of visible elements of the grade beam.**

Mobilization for the construction of Phase 1 will require removal of existing trees in order to facilitate relocation of utilities and an archaeological survey. Because tree removal is irreversible, NCPS requested in its previous action that the National Park Service develop a concept design for tree replacement that was consistent with earlier plans for the area. Because the landscape plan that was submitted is consistent with the previous commission action and with the National Park Service 2008 Cultural Landscape Inventory for Constitution Gardens, and with comments offered by staff of NCPC, CFA and DCSHPO during consultation, **staff recommends that the commission comment favorably on the concept design for Phase 2.**

### Issue: Funding

While it does not affect its recommendation for approval, staff notes ongoing concerns regarding the availability of funding for construction. Work to date has been funded by the District of Columbia and the National Park Service. The U.S. Army Corps of Engineers has proposed to fund the remaining activities necessary to complete the construction documents through its Recovery Act Funds, and to seek funds for construction of both Phase 1 and 2 through its FY 2010 appropriation. The amount required for the construction of Phase 1 is approximately \$3 million. The amount required for the construction of Phase 2 is unknown, but estimated to be approximately \$1 million. While the current recommendation is to authorize construction of Phase 1, staff notes that to initiate construction of Phase 1 without funding in place for Phase 2 could leave the project looking incomplete. This would be regrettable given the project's prominent location on the National Mall.

## CONFORMANCE

### Comprehensive Plan for the National Capital

The proposal is consistent with the Comprehensive Plan for the National Capital. Specifically, it is consistent with policies that encourage modification of existing developments to correct flood hazards and to restore floodplain values, as well as with policies stating that elements designed to provide security shall be designed in a manner that enhances and beautifies the public realm, does not excessively restrict or impede operational use of sidewalks and vehicular mobility, and minimizes impact on the health of existing mature trees.

### Federal Capital Improvements Plan

Levee improvements were authorized by the Flood Control Act of 1946, the Water Resources Development Act of 1996, and the Water Resources Development Act of 1999. The 1999 Act increased the project ceiling. Funding for construction was included in the President's 2007 budget but funding was not authorized by Congress. The project first appeared in the FCIP for FY 2000-2004. The FY 2009-2014 FCIP lists the project as Recommended and Strongly Endorsed. The estimated project total cost is shown as \$9,912,000. The USACE Baltimore District has received \$3,122,000 in prior funding for engineering studies and flooding analyses.

### Relevant Federal Facility Master Plan

The National Park Service is currently developing a Mall Management Plan that will include this area. NPS has confirmed that the proposal is consistent with its plans for the area, though that plan has not yet been published.

### National Environmental Policy Act (NEPA)

In accordance with the National Environmental Policy Act of 1969 (NEPA) and in cooperation with NCPC, the National Park Service prepared an Environmental Assessment (EA) for the project in January 2009. Based on the EA, NPS has executed a Finding of No Significant Impact (FONSI) with mitigation.

As a result of its approval authority under the National Capital Planning Act, NCPC has independent responsibility under the National Environmental Policy Act and the National Historic Preservation Act for Federal projects in the District of Columbia. Based on the EA prepared by NPS, NCPC has executed a Finding of No Significant Impact (FONSI), with mitigation, for the project.

Mitigation included in both the NPS and NCPC FONSI includes rehabilitation of the area disturbed by construction, stone cladding of the levee walls to match the historic character of the adjacent cultural landscape and historic resources, and additional interpretation and education appropriate to the historic context of the project and the site.

### National Historic Preservation Act (NHPA)

The DC Historic Preservation Officer (SHPO) acknowledged the formal initiation of the Section 106 process on July 29, 2008, and confirmed NPS' determination that the levee project had the

potential to constitute an adverse affect on historic properties, including the historic landscapes of the Washington Monument Grounds, the National Mall, and West Potomac Park. The Advisory Council on Historic Preservation (ACHP) subsequently accepted an invitation to participate in consultation, as well.

NPS has provided numerous opportunities for review and comment on the undertaking through postings on the NPS Planning, Environment and Public Comment (PEPC) website, regular inter-governmental agency working group sessions, public meetings and/or site visits, and public meetings of the DC Historic Preservation Review Board (HPRB), the CFA, and NCPC. A Programmatic Agreement (PA) was executed on May 1, 2009. The PA stipulates mitigation measures and addresses the process and goals for further consultation in the event that NCPC and/or CFA require changes to previously approved plans as a result of future reviews, and for the development and review of levee improvement plans for Phase 2..

#### Coordinating Committee

The Coordinating Committee reviewed the proposal on December 17, 2008, and forwarded the proposal to the Commission with the statement that the project has been coordinated with all agencies represented. The participating agencies were NCPC, the General Services Administration, the National Park Service, the Washington Metropolitan Area Transit Authority, and the District of Columbia Departments of Transportation, of Housing and Community Development, and of Fire and Emergency Medical Services.

#### Commission of Fine Arts

The Commission of Fine Arts reviewed this submission at its meeting on April 16 and approved the final design for Phase I at the location proposed. The Commission requested further study of the character of the exposed levee walls so that they are appropriate within the larger context of the National Mall. The Commission also noted that the stone cladding to be installed as part of Phase 2 must be informed by the details of its intersection with the visible concrete joints, caps and end abutments. A copy of the Commission's letter to the General Services Administration dated 24 April is attached.