



FINDING OF NO SIGNIFICANT IMPACT

Rehabilitation of Constitution Gardens

National Mall and Memorial Parks

National Mall and Memorial Parks, an administrative unit of the National Park Service (NPS), in cooperation with the Trust for the National Mall, propose to undertake rehabilitation efforts of Constitution Gardens, located on the National Mall in Washington, DC. The project area is bounded by Constitution Avenue on the north, 17th Street NW to the east, the Lincoln Memorial Reflecting Pool to the south, and the eastern edge of the Vietnam Veterans Memorial to the west. The Vietnam Veterans Memorial is not included within this project area.

Constitution Gardens, in total, is a 43-acre wooded park designed in the 1970s to commemorate the American Bicentennial, and also includes the Vietnam Veterans Memorial at the west end. The approximately 36-acre project area within Constitution Gardens includes a Lockkeeper's House and an artificial lake with a small island that is home to the Memorial of the 56 Signers of the Declaration of Independence. Rows of trees surround the gardens on all sides, and trees are spaced throughout the gardens in groves and along pathways. There is a terraced paved area at the eastern edge of the lake, curvilinear pathways that serve as the gardens' circulation system, and a pattern of open lawn areas that create a pastoral setting.

The purpose of the project is to rehabilitate Constitution Gardens to improve the functionality, ecology, visitor services, and accessibility of the area, as envisioned in the 2010 National Mall Plan. The action is needed because Constitution Gardens, in its present condition, has poor soil conditions, and poor drainage is affecting the site's vegetation. Current walkways are in fair to poor condition. Pedestrian circulation can be confusing and does not meet capacity in some places, and some areas do not meet Architectural Barriers Act Accessibility Standard of 1968 (ABAAS) standards for universal accessibility. In addition, vehicular turning movements at the intersection of Constitution Avenue and 17th Street NW are difficult. Lastly, the area is underused by park visitors due to lack of public amenities and limited recreational opportunities.

The NPS completed an environmental assessment (EA) for the rehabilitation of Constitution Gardens in June 2015. The EA was done in accordance with National Environmental Policy Act (NEPA) and implementing regulations, Title 40 Code of Federal Regulations (CFR) 1500–1508; NPS Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision Making* and Handbook. Section 106 of the National Historic Preservation Act of 1966 (NHPA), as Amended, and its implementing regulations, 36 CFR 800, were addressed in a separate, but parallel, planning process.

SELECTED ALTERNATIVE

The NPS alternative selected for implementation is the Regenerative Garden alternative (the NPS preferred alternative), described starting on page 2-7 of the EA. The Selected Alternative will rehabilitate Constitution Gardens to improve sustainability and social spaces while including greater planting diversity and a mix of lawns and tree canopy with meadows and understory.

Topography and Soils. The topography will be re-graded to smooth irregularities and accentuate gently rolling hills, improve soil conditions, and provide a cohesive drainage system. Re-grading will work around and protect healthy trees that will remain in place. Existing soil will be combined with imported soils and suitable soils from on-site excavation.

Vegetation. A wooded park with a mixed mature canopy of shade trees will replicate the existing vegetation characteristics. Shade trees would have a diverse understory of flowering trees, shrubs, and low growing woodland plants. Lawns, meadows, and gardens will be established and dominate in open areas. Trees in good and fair condition will be protected to the greatest extent possible. Trees in poor and fair condition or in locations where facilities will be constructed will be removed. Mature trees in locations where facilities will be constructed will be relocated. Aquatic plants will be on a shallow, wide, submerged shelf around some of the lake edge and will have openings to allow for access to the water from the walkway.

Lake. A deeper (up to 12 feet), recirculating artificial lake within the same footprint will include a partial aquatic edge planting and a natural (non-concrete) bottom. Non-potable water (approximately 10 million gallons) to fill the lake and for irrigation may be collected from sources such as stormwater run-off; gray or black water collected, treated, and stored on site (in cisterns); or from wells (after further study). Treated potable water will be used only as needed to maintain the water level for the health of the fish or the recirculating system. A shallow lake ring (up to 56,000 square feet and 18-inches deep) with a concrete bottom will be located in the east end of the lake and used for recreational purposes. The water quality of the lake and the lake ring will meet the District of Columbia Department of Energy and the Environment (DOEE) and the Environmental Protection Agency (EPA) standards.

Cultural Resources. The overall character of the cultural landscape as designed by Skidmore Owings and Merrill in the 1970s will be maintained by retaining and improving its informal pastoral/wooded settings with lake reflections. An 18-inch stone wall will be added along the edges of Constitution Avenue and 17th Street NW.

The Lockkeeper's House will be relocated approximately 18 feet south and 5 feet west from its current location and will be rehabilitated according to the Secretary of the Interior's *Standards for the Treatment of Historic Properties* and adaptively reused. The main floor will be open to the public and will include a new 350 square feet basement to the existing 350 square feet building for mechanical equipment and storage, and may be connected to a geothermal field for climate control. A plaza will be built in front for interpretation.

The Memorial to the 56 Signers of the Declaration of Independence island will be made universally accessible (ABAAS compliant), and the plantings will be replaced as needed, while retaining the character of the original design. Additional access to the island will be created by possibly adding a stepping stone path on the northwestern edge of the island. The Overlook and east terraces will be removed to accommodate the pavilion.

Views. Existing views in, out, and through the gardens will be preserved and emphasized with wide dual entry walks originating from Constitution Avenue. The pavilion overlook deck and terrace will offer views of the gardens and the Washington Monument.

Visitor Destinations and Facilities. A pavilion will provide a new multi-purpose visitor facility (including access to food, a bookstore, restrooms, and recreation rentals) with an upper level of 3,700 square feet and a lower level of 30,000 square feet and space for concessioners and park staff. Service and delivery vehicles will access a loading dock on the lower level of the pavilion via a single curb-cut and below grade service road/turn-around from 17th Street NW. The pavilion will have an outdoor deck overlooking the lake and an event terrace on its east side. It will be designed to meet Leadership in Energy and Environmental Design (LEED) Silver standards or higher for sustainability and may include geothermal fields (after further study) as well as reuse of gray water. A green living roof will be planted over the lower level. Utilities will be upgraded as needed. Multi-purpose areas will be established,

including vigil sites and an amphitheater. Other areas will be enhanced, including the knoll next to the Vietnam Veteran Memorial and lawn areas.

The historic west end concession stand will be adaptively reused. The west end restroom is not included in this project. A lawn amphitheater and paved event spaces will be constructed on the south side of the lake towards the east.

Traffic and Circulation. Walks will be resurfaced to be fully accessible and slightly reconfigured to improve circulation; dual entry walks will welcome visitors, and the entrance near the Lockkeeper's House will serve as a gateway to Constitution Gardens and the National Mall. A 20-foot-wide walk will be built for access to the World War II Memorial. The southwest corner of the intersection of Constitution Avenue and 17th Street NW may be redesigned to improve the turning radius (50–100 feet) for vehicles and the crosswalk for pedestrians (after additional traffic studies).

OTHER ALTERNATIVES CONSIDERED

In addition to the NPS Selected Alternative described above, the EA analyzed The No Action Alternative, Alternative 1 – The Sustainable Garden, and Alternative 2 – The Social Garden. Table 2.2 in the EA provides key differences between the alternatives. Below is a brief summary of some key elements.

No-Action Alternative

The No-Action Alternative represents a continuation of current management, conditions, and uses. Under the No-Action Alternative, the 1970s era informal and pastoral garden with its rolling terrain, central lake, and diverse mature tree canopy would be maintained. The topography would remain gently rolling and wooded; the slopes and terrain would remain uneven and irregular with low areas as the result of poor soil conditions and poor drainage. The designed wooded park would remain with trees in poor to fair condition. The artificial concrete-lined lake would continue to be filled with potable water, with limited recirculation that affects water quality unless managed carefully. The overall character of the cultural landscape as designed by Skidmore, Owings, and Merrill in the 1970s would remain in poor to fair condition. The Lockkeeper's House would remain vacant, but would be stabilized. The Memorial to the 56 Signers of the Declaration of Independence island would continue to be inaccessible (ABAAS non-compliant) with the plantings in fair condition. The Overlook and east terraces would remain underused. A small, seasonal food concession stand (historic) at the west end of the lake and a small public restroom located at the southwest end of the lake, just beyond the concession stand, would continue to be the only visitor facilities. The series of curvilinear seeded asphalt walks meandering through the gardens connecting to nearby attractions would remain and the Overlook Terrace at the east end of the lake would remain in their deteriorated condition. Access for operations, deliveries, and emergencies would be accomplished by jumping the curb because no developed access points are provided. The tight turning radius affecting right turning vehicular movement at the southwest corner of Constitution Avenue and 17th Street NW would remain. The No Action Alternative was not selected because it did not meet the purpose and need for the project.

Alternative 1: The Sustainable Garden

Alternative 1, The Sustainable Garden would radically rehabilitate Constitution Gardens to more sharply focus on sustainability and an ecologically functioning environment, with greater planting diversity—meadows, lawns, understory, tree canopy, and aquatic vegetation. The overall character of the cultural landscape as designed by Skidmore Owings and Merrill in the 1970s would be altered. It would retain its informal pastoral/wooded settings with lake reflections but the topography would rise from 8–10 feet throughout the park. A 30-inch stone wall would edge the gardens along 17th Street NW and Constitution Avenue. The pavilion would add a new feature to the landscape. The shape of the lake would remain the same, but a lake ring would be added for increased recreational opportunities. The Lockkeeper's House would be relocated approximately 18 feet south and 5 feet west from its current location, and an outdoor plaza would be constructed. The building would be rehabilitated according to the Secretary of Interior's

Standards for the Treatment of Historic Properties. A 1,000 square foot basement for public use would be added to the existing 350 square foot building above, and a freestanding staircase would be added. This space could be used for public donor recognition and education. The Memorial to the 56 Signers of the Declaration of Independence island would be made accessible (ABAAS compliant). Plantings would be improved; however, the character of the original design would be retained. The Overlook and east terraces would be removed for construction of the pavilion. The historic west concessions building would be removed.

The Sustainable Garden was not selected because it was determined that portions of Alternative 1, The Sustainable Garden, and Alternative 2, The Social Garden were desirable and could be combined into a preferred alternative that better balanced protection of historic and park resources while providing improved and increased visitor amenities. The new combined alternative, which is the Selected Alternative described above, reduced impacts to historic views and viewsheds, required fewer revisions to the historic landform, minimized relocation of the Lockkeeper's House, and increased interpretation of the Lockkeeper's House. The Selected Alternative reduced the loss of existing fair to good condition trees and provided for the adaptive reuse of the west end concession stand. Additionally, the Selected Alternative would greatly improve operations for the proposed pavilion with the inclusion of a below grade service entry and would greatly enhance the visitor experiences by providing improved accessibility for 56 Signers Memorial and circulation improvements at all entrances to the park.

Alternative 2: The Social Garden

Alternative 2, the Social Garden would rehabilitate Constitution Gardens as a better place for people, providing a sustainable but more flexible social environment with greater planting diversity than currently exists, primarily lawns and tree canopy with some meadows, and understory. The overall character of the cultural landscape as designed by Skidmore Owings and Merrill in the 1970s would be altered. It would retain the informal pastoral/wooded settings with lake reflections, but its topography would be enhanced. An 18-inch stone wall would edge the gardens along 17th Street NW and Constitution Avenue. The pavilion and lake ring would add new features to the landscape. The shape of the lake and island would remain the same. The Lockkeeper's House would be relocated approximately 500-feet west and slightly south from its current location and would be rehabilitated according to the Secretary of the Interior's Standards for the Treatment of Historic Properties. A 500-SF addition would be added to the existing 350-SF building. This space could be used for the public, donor recognition, and education. The Memorial to the 56 Signers of the Declaration of Independence island would be made accessible (ABAAS compliant). Plantings would be improved, while retaining the character of the original design, and stepping stones would be added. The Overlook and east terraces would be removed for construction of the pavilion. The historic west concessions building would be adaptively reused.

The Social Garden was not selected because the aforementioned preferred alternative was developed to include the most desirable aspects of Alternative 1, The Sustainable Garden, and Alternative 2, The Social Garden, and thus became the Selected Alternative.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The NPS is required to identify the environmentally preferable alternative in its NEPA documents for public review and comment. The NPS, in accordance with the Department of the Interior's NEPA Regulations (43 CFR Part 46) and the Council on Environmental Quality's (CEQ's) Forty Questions, defines the environmentally preferable alternative (or alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA (section 101[b]) (516 DM 4.10). CEQ's Forty Questions (42 CFR Part 46.30) (Q6a) further clarify the identification of the environmentally preferable alternative as "the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."

After completing the environmental analysis, the NPS identified The Regenerative Garden, the Selected Alternative, as the environmentally preferable alternative. The Selected Alternative would rehabilitate and remediate soils, enhance tree plantings, diversify the vegetation community, and improve the water quality of the lake by incorporating the aquatic shelf, aeration, and better water circulation. The Selected Alternative would provide enhanced visitor facilities at the east end pavilion that would include a restaurant, refreshment area, bookstore, restrooms, and recreation rentals. New facilities would incorporate LEED Silver standards, including sustainable features such as harvesting stormwater and black water and the use of a green roof over the lower-level service area only. Under the Selected Alternative, there is the potential for moderate, adverse impacts on the cultural landscape, as a result of the potential to diminish the integrity of multiple contributing elements to the landscape, as well as the overall topographic landscape characteristic. However, the other alternatives would require more revision to the cultural landscape and would have greater impacts on the cultural environment.

MITIGATION MEASURES OF THE ACTION ALTERNATIVE

The NPS places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. To help ensure the protection of natural and cultural resources and the quality of the visitor experience, the following protective measures will be implemented as part of the Selected Alternative. The NPS will conduct an appropriate level of monitoring throughout the construction period to help ensure that protective measures are properly implemented and achieve their intended results. Mitigation measures identified to date are presented below.

SOILS

- Best management practices for erosion and sediment control will be employed during and after construction, including stabilization and revegetation after construction is completed.
- An erosion and sediment control plan will be prepared and implemented that conforms to the standards and specifications of the District of Columbia's *Soil Erosion and Sediment Control Handbook*, which lays out standards and specifications for sediment and erosion control (DOEE).
- During construction, exposed soils will be covered with plastic sheeting, jute matting, erosion netting, straw, or other suitable cover material to prevent soil erosion and movement during rain or wind events.
- Erosion containment controls, such as silt fencing and sediment traps (e.g., hay bales), will be used to contain sediment on-site.
- Replacement soil will be imported from the surrounding metro area. Replacement soil from non-pristine sites will be salvaged to the extent practicable, in accordance with NPS policy (4.8.2.4).
- Erosion control best management practices will be monitored during construction to ensure proper function.
- Erosion and sediment control devices will be left in place until all disturbed sites are revegetated and erosion potential has returned to pre-project conditions.
- Any contaminated soils discovered on site will be remediated to required standards using approved methods (NPS policy 9.1.6.2).

VEGETATION

- The NPS will protect the root zones of mature trees within the construction zone by placing fencing around the perimeter of the trees to prevent heavy equipment from compacting the

roots or damaging the bark.

- Replanting will be implemented as defined in the soil and tree strategy and in NPS guidelines concerning revegetation and landscaping.
- Vegetation in areas replanted will be monitored following construction to ensure successful establishment. All plants determined to be in an unhealthy condition will be replaced, and any exotic invasive species that appear in the replanted areas will be removed.

WATER RESOURCES

- During construction, the NPS will use sediment and erosion control practices consistent with the District of Columbia's stormwater rule and *Soil Erosion and Sediment Control Handbook*.
- Reclaimed stormwater/gray water and black water will be treated in an on-site facility (according to National Sanitation Foundation/American National Standards Institute (NSF/ANSI) Standard 350) and stored in cisterns or tanks.
- A National Pollution Discharge Elimination System permit will be obtained through EPA to meet all regulatory requirements.

CULTURAL RESOURCES

- Throughout the design process, the NPS will continue to consult with cooperating agencies and consulting parties. An adverse effect on cultural resources has been identified, there for an MOA is be required.
- Stipulations of the MOA include that the NPS will seek funding to update the update 1994 HABS documentation for the Lockkeepers House. The HABS documentation will be carried out prior to work being initiated on the building. The existing site will be documented with a site plan, additional photos and improved drawings. Following the relocation and rehabilitation of the Lockkeeper's House, as-built drawings will supplement the HABS documentation for the park record. The documents will be submitted to HABS for accessioning to the Library of Congress.
- Stipulations of the MOA include that the he NPS will seek funding to update the National Register Nomination for the Lockkeeper's House.
- Stipulations of the MOA include rehabilitation of the Lockkeeper's House and its new immediate surroundings according to the to the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. The previous locations of the Lockkeeper's House will be delineated in the paving.

Stipulations of the MOA include that the NPS will seek funding for interpretive media that may include wayside exhibits and will provide information on topics, such as the history of the Washington City canal and the Lockkeeper's House, the 17th Street Wharf, Tiber Creek Sewer outlet along 17th Street, and the Potomac Park Levee. Information may also be given about the history and archeology of the park, beginning with its creation as reclamation land, through its use by the United States Navy and Munitions Department as the location for temporary office structures, and ending with the development of Constitution Gardens by SOM. Waysides will follow the NPS standard. The NPS will also incorporate the keystone from the headwall of the

historic Tiber Creek Sewer Outlet on-site. Interpretive media will consist of both temporary and permanent features.

- Stipulations of the MOA address mitigation related to adverse effects on cultural landscapes; views and vistas; buildings and structures (including constructed water features); vegetation; topography; circulation; land patterns; and water features. Impacts on the cultural landscape and historic structures will be minimized. The NPS will plant trees, shrubs, and other plantings that acknowledge the general location and species of plantings historically located in the park, as noted in the original SOM plans. Favor will be given to the selection of species that reflect and respect the design and horticultural character of these previous plans. The design will also take into consideration native species, maintenance, and storm water management strategy.
- Land patterns will remain similar; the lake will retain the same shape and footprint; gently rolling terrain will characterize the site; vegetation will remain diverse and informal in character; and circulation will be similar in alignment but altered to accommodate use and improve accessibility.
- NPS will initiate a program of archeological monitoring and site investigation that will occur concurrently with construction activity. If archeological resources are discovered during construction, all work in the immediate vicinity of the discovery will be halted until the resources can be identified and documented and an appropriate mitigation strategy can be developed. Consultation with the NPS, and/or the NPS regional archeologist and the District of Columbia State Historic Preservation Officer (DC SHPO) will be coordinated to ensure that the protection of resources is addressed. In the unlikely event that human remains, funerary objects, sacred objects, or objects of cultural patrimony were discovered during construction, provisions outlined in the Native American Graves Protection and Repatriation Act (25 USC 3001) of 1990 will be followed. Additional archeological studies may be completed if required.
- Stipulations of the MOA include that the NPS will seek funding to complete Historic American Landscapes Survey (HALS) Standard Format documentation for Constitution Gardens before completion of Phase 2. The HALS documentation will be carried out prior to work being initiated on the park. The site history and measured drawing will be submitted to HALS for accessioning to the Library of Congress.

VISITOR USE AND EXPERIENCE

- The NPS will prepare public interpretation and education materials that broadly address the historical development of Constitution Gardens and its grounds. Public interpretation and historical education media may include, but will not be limited to, wayside exhibits, reconstruction drawings, NPS-style brochures, and internet-based content. The NPS will include "What's Going On?" informational signs to be placed on construction fencing for the duration of construction.
- The NPS will establish and implement a visitor use monitoring plan for Constitution Gardens within a year of the project start and will make this information available to the public.
- Construction activity will be timed so it does not coincide with special events that occur on the National Mall. Barriers and signs will be used around construction sites to divert the public away from potentially dangerous situations, but pedestrian access will be maintained so as not to disrupt visitor flow.

VISUAL/AESTHETICS

- Ongoing review with regulating agencies of the monumental core [(DC SHPO, National Capital Planning Commission (NCPC), and Commission of Fine Arts (CFA))] within the design development and Section 106 process will ensure the proposed options blend as harmoniously as possible with the existing scale, context, and landscape in the project area.
- Lighting will continue to be addressed through the design phase in coordination with NCPC and the DC SHPO. During Phase 1, lighting will only be modified around the Lockkeeper's House to address security. The amount and style of landscape lighting will remain the same. Washington Globes will remain the fixture of choice, with LED lights. Additional lighting in Phase 2 of the walkways and from the pavilion will be addressed in the design. The spacing of lights will be addressed in future design to ensure safety on the paths and will be coordinated with NCPC and the DC SHPO per the MOA. Lighting design will be coordinated with NCPC, CFA, and the DC SHPO to minimize the effects of lighting on the adjacent memorials.
- In the construction permit, the NPS will specify screening to be used to shield equipment during construction. These shields will partially obscure the equipment where appropriate and possible.

WHY THE SELECTED ALTERNATIVE WILL NOT HAVE A SIGNIFICANT EFFECT ON THE HUMAN ENVIRONMENT

As documented in the EA, the NPS has determined that the Selected Alternative, The Regenerative Garden, can be implemented without significant adverse effects. As defined in 40 CFR §1508.27, significance is determined by examining the following criteria:

Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an Environmental Impact Statement (EIS): Soils, vegetation, water resources views and vistas and visual character, visitor use and experience and safety, traffic and circulation, and park management and operations will experience beneficial and adverse impacts as a result of implementing the Selected Alternative. Cultural resources will experience negligible to moderate adverse impacts. However, no significant impacts were identified that will require analysis in an EIS. Anticipated impacts that will occur to the affected resources are summarized below:

Soils: The Selected Alternative will result in short-term, moderate, adverse impacts on soils from construction and excavation activities over much of the site. Localized ground disturbance would result from the relocation of the Lockkeeper's House and construction of new infrastructure and facilities within the footprint of those facilities. Long-term, negligible, adverse impacts will result from visitor use. Overall, the Selected Alternative will result in long-term, beneficial impacts on soils from the rehabilitation and remediation of soils resulting in improved soil quality, soil stabilization, and nutrient cycling throughout Constitution Gardens.

Vegetation: The implementation of the Selected Alternative will result in short-term, negligible to minor and long-term, negligible, adverse impacts from the removal of some trees and understory vegetation during construction activities. There will be long-term minor adverse impacts resulting from the removal and replacement of some mature healthy trees as new trees would take time to fully mature. Overall, enhancements such as trees and other plantings, diversification of the vegetation community, and improved soil conditions will result in long-term, beneficial impacts. The remediation of the existing poor soil and subsoil conditions and drainage and the permanent removal of dead, unhealthy, or hazardous trees would result in an overall healthier tree community, resulting in long-term beneficial impacts.

Water Resources: The Selected Alternative will result in long-term beneficial impacts on water quality in the lake and in the Potomac River, as a result of improved soils that would provide a better growing medium for plants, and a drainage system that will be installed to capture stormwater and improve filtration of stormwater into the soils. The improved soils, vegetation, and irrigation system will benefit water quality by reducing the amount of sediment and nutrients entering the lake via stormwater runoff; however, there will still be a negligible to minor, adverse impact to water quality within the lake and, to a lesser extent, to the Tidal Basin and Potomac River, as stormwater runoff will continue to transport sediments and nutrients into the lake. Harvesting stormwater and non-potable gray and black water and the green roof over part of the lower level of the pavilion will reduce the volume discharged in the combined sewer system, and improvements to soils and the infiltration capacity of those soils will reduce the volume of water discharged. Short-term, negligible to minor construction-related impacts related to exposed soils will be managed with accepted sediment and soil erosion control practices. Groundwater impacts are possible, but will likely be negligible.

Historic Structures and Districts: The Selected Alternative will result in long-term, beneficial as well as minor to moderate, adverse impacts (*adverse effects* under Section 106) on historic structures and districts, particularly the Lockkeeper's House. The relocation of the structure will result in impacts on its integrity of location.

Cultural Landscapes: The Selected Alternative will result in negligible to moderate, adverse impacts (*adverse effects* under Section 106) to the contributing features of the cultural landscape. Under this alternative, changes to the topography, vegetation, buildings and structures, and views and vistas will result in moderate, adverse impacts on the cultural landscape. In particular, the relocation of the Lockkeeper's House, construction of the pavilion, and removal of trees and the Overlook Terrace will result in impacts on its integrity of setting.

Archeological Resources: The Selected Alternative may result in permanent, moderate, adverse impacts (*adverse effects* under Section 106) on known and potential archeological resources present within the gardens. In particular, the deeper impacts associated with utility construction, the Lockkeeper's House relocation, lake improvements, and the east end pavilion construction have the potential for moderate impacts on Lock B of the Washington City Canal (51NW235), remnants of the 17th Street Wharf (51NW232), the Lockkeeper's House deposits (51NW233), and the outlet of the Tiber Creek Sewer (51NW234). There may be additional impacts on the Washington City Canal prism and towpath, the foundations of the Navy Administration Buildings, and the Washington Brewery (Coningham and Company).

Views and Vistas and Visual Character. Under the Selected Alternative, the poor conditions of all of the elements contributing to the visual character, views, and vistas of the gardens will be improved, resulting in long-term, beneficial impacts on the visual resources within Constitution Gardens. However, due to the changes of the listed character-defining views and vistas, removal of trees, and alteration of the topography, there will be minor to moderate, long-term, adverse impacts.

Visitor Use and Experience and Safety: The Selected Alternative generally will result in a long-term, beneficial impact on visitor experience due to improved pedestrian experiences, additional opportunities for enjoyment and education, a strong identity, improved visitor facilities, more convenient locations, and increased visibility and visitor safety, all of which will increase visitation at the gardens. There will be short-term, moderate, adverse impacts on visitor use and experience as a result of the closure of the gardens during construction. Overall beneficial impacts to visitor safety will occur. As a result of the increased amenities, enhanced visual aesthetics, and improved circulation surrounding Constitution Gardens, impacts from cumulative actions on visitor use and experience and safety will be long-term and beneficial.

Traffic and Circulation: Under the Selected Alternative, a better designed intersection (curb radius change) capable of processing two large vehicles turning right simultaneously may provide long-term, beneficial impacts with negligible impacts on traffic operations, congestion, or vehicle queuing; further study is needed. There will also be long-term beneficial impacts resulting from the new underground service access for service and emergency vehicles as this will create an official ingress and egress driveway. There will be some long-term minor, adverse impacts to traffic operations and pedestrian safety at the driveway entry points where the sidewalks cross the driveway.

During the construction period, there will be temporary sidewalk and bicycle facility closings, temporary new connections provided to compensate for the sidewalk and bicycle facility closings when necessary, and sidewalk and bicycle facility impacts such as narrowed or torn-up sidewalks. NPS will seek to post signage to direct pedestrians to safe passages adjacent to Constitution Gardens. Because all of the construction will occur internally to Constitution Gardens, the impacts will be limited to the pedestrian and bicycle facilities that travel through the interior and along the perimeter of the gardens. This will primarily impact Constitution Avenue NW between Henry Bacon Drive and 17th Street NW along the eastbound side and 17th Street between Constitution Avenue NW and the World War II Memorial along the southbound side. It will also impact access to the existing pedestrian and bicycle facilities that travel through Constitution Gardens. Alternative connections will be available for both pedestrians and bicyclists along Independence Avenue NW, south of the Lincoln Memorial Reflecting Pool, along the westbound side of Constitution Avenue NW adjacent to Constitution Gardens, and along the northbound side of 17th Street also adjacent to Constitution Gardens. Construction phasing could also be employed to minimize pedestrian and bicycle facility closures, thus allowing partial access to Constitution Gardens during construction.

Park Management and Operations: The Selected Alternative will result in long-term, beneficial impacts on park operations, management, utilities, and infrastructure, primarily as a result of the implementation of a variety of sustainable practices such as the addition of geothermal wells, construction of a minimum LEED silver certification building, reduction in potable water usage, and increased efficiency utility systems. Added space within the pavilion for NPS staff and volunteers and the conversion of the west end concession stand to park operations will provide additional park management and operations space resulting in long-term beneficial impacts on operational spaces in the park. The reduction in the use of potable water for lake operations will result in long-term beneficial impacts to park management and operations as it will reduce the costs associated with procuring potable water and help the park achieve sustainability goals. Long-term beneficial impacts will also result from decreased NPS staffing needed as concession staff will be responsible for the management of the pavilion and related areas. Although there will be a reduction in NPS staff as concession staff assume increased responsibilities, there will be the need for additional NPS specialty staff, such as those versed in LEED silver building management, aquatic plant management for the aquatic shelf, and lake water systems management resulting in moderate, adverse impacts on park staffing and budget. However, the added benefit of having skilled professionals on staff will outweigh the costs in terms of long-term park operations.

Degree of effect on human health or safety: The Selected Alternative will not adversely affect human health and safety. During construction of the Selected Alternative, visitors will not be permitted in active construction areas. Fencing, signage, and other means to inform the public will be installed at appropriate locations indicating the temporary closure of areas undergoing repair and improvement. To date, contaminated soils have not been encountered or documented within Constitution Gardens. However, it is unknown if contaminated soils will be unearthed as a result of the proposed rehabilitation efforts. Due to the potential for contaminated soils to be found on site, NPS will ensure that the construction contracts include requirements for the contractor to submit plans for the handling and disposal of contaminated soils (if encountered) that have been approved by the federal or local authorities. Any contaminated soils discovered on site would be remediated to required standards using approved methods.

There will be short-term effects due to closure of the project area during construction. Over the long term, additional pedestrian lighting, increased access points, rehabilitated walkways, and improved amenities will result in improved accessibility and visibility and long-term beneficial impacts. All of the rehabilitation efforts under the Selected Alternative will result in beneficial impacts to human health and safety.

Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, wetlands, prime farmlands, wild and scenic rivers, or ecologically critical areas: No prime farmlands, wetlands, wild and scenic rivers, ecologically critical areas, or park lands other than the NPS property located within the project area and therefore will not be subject to effects resulting from implementation of the Selected Alternative. The lake and surrounding area is within Zone X, 500-year floodplain. The project will have negligible effects on the current 500-year floodplain, because the proposed action would not affect floodplain functions or values or affect flood water flows. Also, as part of the Potomac levee system project, the berm on the south side of the project area would be built up and will protect the area from a 500-year flood event. The Lockkeeper's House is in the 100-year floodplain as currently mapped; however, under Section 5.B of Director's Order 77-2: *Floodplain Management Procedural Manual* (NPS 2003), projects involving historic structures are exempt from requiring a statement of findings (SOF) for floodplains provided their location is integral to their significance. A SOF is not necessary for this project because the proposed action would not affect floodplain functions or values, affect flood water flows, or involve construction of structures that could be affected by flooding because of the levee berm.

The origins of what is now the National Mall and Memorial Parks and Constitution Gardens within it pre-date the official establishment of the park and trace back to the open spaces and parklands envisioned by the L'Enfant Plan and McMillan Plan. Constitution Gardens is within the West Potomac Park Section of the National Mall and was named in the 1970s, designed by Skidmore, Owings, and Merrill.

Constitution Gardens is a component of two National Register-eligible properties: The East and West Potomac Park Historic District and the L'Enfant Plan of the City of Washington. The gardens as a whole are considered a contributing element to these districts. Constitution Gardens has also been determined to be a cultural landscape eligible for listing in the National Register with a period of significance of 1882 to 1993. A Cultural Landscape Inventory (CLI) was completed by the NPS for Constitution Gardens in 2008. The Lockkeeper's House was built in 1837, listed in the National Register in 1973, and is a contributing feature to the East and West Potomac Parks Historic District.

The Selected Alternative will result in long-term minor to moderate adverse impacts to cultural resources including historic districts/structures and cultural landscapes. Impacts will result from the relocation of the Lockkeeper's House and changes to several key landscape features, which will lessen the overall integrity of the Constitution Gardens cultural landscape. Adverse impacts will result from changes to the topography, vegetation, buildings and structures, and views and vistas resulting in moderate, adverse impacts on the cultural landscape. Impacts will be mitigated through the development of a MOA in consultation with the Section 106 consulting parties (Appendix B).

Degree to which effects on the quality of the human environment are likely to be highly controversial: No highly controversial effects in terms of scientific uncertainties as a result of the Selected Alternative were identified during the preparation of the EA or by the public during the public comment period.

Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks: No highly uncertain, unique, or unknown risks were identified during either preparation of the EA or during the public comment period.

Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration: The Selected Alternative neither

establishes an NPS precedent for future actions with significant effects nor represents a decision in principle about a future consideration.

Whether the action is related to other actions with individually insignificant but cumulatively significant impacts: Implementation of the Selected Alternative will have no significant cumulative impacts. Past, present, and future actions and projects within the project area that could affect soils, vegetation, water resources, historic structures and districts, cultural landscapes, archeological resources, visual resources, visitor use and experience and safety, traffic and circulation, and park management and operations are described in the EA on page 4-3, Table 4-1. Due to the project location, a large number of actions and projects have occurred, are occurring, or are proposed to occur. Projects were broken down into six project types:

- Attractions, including museums and memorials
- Visitor facilities
- Civil/site works
- Circulation/ transportation
- Security upgrades
- Plans

Cumulative impacts conclusions were determined for the following resources:

Soils: The Selected Alternative will result in long-term, beneficial impacts on soils throughout much of Constitution Gardens. Implementation of the sustainable soil management strategies and practices derived from the National Mall Plan and the turf and soil reconstruction project will result in additional long-term, beneficial impacts. While the Preferred Alternative will result in some short-term, moderate, and long-term, negligible, adverse impacts on soils, the cumulative impacts from the past, present, and reasonably foreseeable future projects in combination with the long-term, beneficial impacts of the Preferred Alternative will result in an overall long-term, beneficial impact on soils throughout Constitution Gardens.

Vegetation: Implementation of the Selected Alternative will result in short-term, negligible to minor and long-term, negligible, adverse impacts and long-term, beneficial impacts on vegetation in the study area. When combined with the short-term, minor, adverse and long-term, beneficial impacts from cumulative actions and the fact that the Selected Alternative will improve the existing vegetative community in the gardens, this alternative will have a noticeable beneficial contribution to overall cumulative impacts on vegetation.

Water Resources: The Selected Alternative will contribute mostly long-term, beneficial impacts on water resources, but there will also be short-term, negligible to minor, adverse impacts. When combined with the long-term, beneficial impacts from cumulative actions, the Selected Alternative will result in overall beneficial cumulative impacts on water resources.

Views and Vistas and Visual Character. The Selected Alternative will result in beneficial and minor to moderate, adverse impacts on visual resources. The impacts of the Selected Alternative, in combination with the beneficial and moderate, adverse impacts of other past, present, and reasonably foreseeable future actions, will result in a long-term, beneficial cumulative impact and long-term, moderate, adverse impacts as a result of changes to topography and the tree canopy. The Selected Alternative will be a small component of the beneficial cumulative effect.

Visitor Use and Experience and Safety: Cumulative impacts from other actions and projects will result in long-term, beneficial impacts from increased visitation surrounding the project area as well as the increased safety measures, amenities, and access in the vicinity of Constitution Gardens. When combined with long-term, beneficial impacts from cumulative actions, the Selected Alternative will

have a noticeable beneficial contribution to overall beneficial cumulative impacts on visitor use and experience and safety.

Traffic and Circulation: Some past, present, and reasonably foreseeable projects may create or improve visitor attractions or will have long-term beneficial impacts in terms of further drawing tourism to this area with a high number of visitor attractions. Visitor attractions may increase vehicles along Constitution Avenue NW and 17th Street NW and may cause long-term, minor, adverse impacts on intersection operations surrounding the gardens.

The Selected Alternative will result in long-term, beneficial impacts on circulation. When combined with the long-term, beneficial impacts from cumulative actions, the Selected Alternative will have a slight beneficial contribution on overall beneficial cumulative impacts on circulation.

Park Management and Operations: The Selected Alternative will result in long-term, beneficial impacts as well as long-term, minor, adverse impacts on park management and operations. When combined with long-term, beneficial and moderate, adverse impacts from cumulative impacts, Selected Alternative will have a noticeable beneficial contribution the overall long-term, beneficial impact on park management and operations.

Historic Structures and Districts: The long-term, minor to moderate, adverse impacts of the alternative, in combination with the long-term, beneficial to minor, adverse impacts of other past, present, and reasonably foreseeable future actions, will result in a long-term, beneficial and negligible to moderate, adverse cumulative impact. The Selected Alternative will result in a noticeable contribution to adverse cumulative impacts.

Cultural Landscapes: The long-term, negligible to moderate, adverse impacts of this alternative, in combination with the long-term, beneficial and minor, adverse impacts of other past, present, and reasonably foreseeable future actions, will result in a long-term, moderate, adverse cumulative effect. The Selected Alternative will result in a noticeable contribution to the adverse cumulative impact.

Archeological Resources: The moderate, adverse impacts of the Selected Alternative, in combination with the permanent, minor, adverse impacts of past, present, and reasonably foreseeable future actions, will result in permanent, moderate, adverse cumulative effects. The moderate, adverse impacts of the Selected Alternative will be a noticeable contribution to the adverse cumulative impact.

Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources: District and federal agencies were consulted during the NEPA process to identify issues and/or concerns related to natural and cultural resources at Constitution Gardens. All consultations with the SHPO, as mandated by Section 106 of the NHPA, occurred in conjunction with the development of the EA. The existing historic districts and structures/ cultural landscapes will be impacted by the Selected Alternative.

The NPS began consultation with the District of Columbia State Historic Preservation Officer (DC SHPO) on May 8, 2014. In addition, a number of agencies, organizations, stakeholders, including members of the public, were invited to participate as consulting parties throughout the Section 106 process. The first Section 106 meeting was held on August 7, 2014, and included the U.S. Commission of Fine Arts (CFA), National Capital Planning Commission (NCPC), and DC SHPO.). Coordination and consultation are ongoing. Consulting parties meetings were held on June 3, 2015 and August 4, 2015.

The Selected Alternative will result in long-term minor to moderate adverse effects to historic structures and districts, particularly the Lockkeeper's House. The relocation of the Lockkeeper's House will result in impacts on its integrity of location. The Selected Alternative will result in moderate adverse effects to

cultural landscapes. Changes to the topography, vegetation, buildings and structures, and views and vistas will result in moderate, adverse effects on the cultural landscape. In summary, the Selected Alternative will result in adverse effect on the following cultural resources: Constitution Gardens' cultural landscape (topography, circulation, vegetation, buildings and structures, views and vistas, constructed water features, and small scale features); the Lockkeeper's House; and six archeological resources. Impacts for any effects determined to be adverse under Section 106 will be mitigated through the development of a MOA in consultation with the Section 106 consulting parties (Appendix B). The MOA was developed through contributions received during the NEPA process as well as the Section 106 process by the Consulting parties. The MOA was signed by all parties on August 26, 2015.

Degree to which the action may adversely affect an endangered or threatened species or its critical habitat: In accordance with Section 7 of the Endangered Species Act, on May 8, 2014, the Park requested from the United States Fish and Wildlife Service (USFWS) an updated list of rare, threatened, and endangered species known to be present in the project area. No response from the USFWS was received.

The northern long-eared bat (*Myotis septentrionalis*) is one of the species of bats most impacted by the disease white-nose syndrome. On May 4, 2015, the northern long-eared bat received protection as a threatened species under the Endangered Species Act due to declines caused by white-nose syndrome, as well as the continued spread of the disease. Planning of the rehabilitation of Constitution Gardens began well in advance of the northern long-eared bat's current listing. As a result of this new listing and prior to the implementation of the selected alternative during design review, NPS will initiate consultation under Section 7 of the Endangered Species Act with U.S. Fish and Wildlife Service to determine the best course of action to avoid affecting this species. Should mitigation measures be determined through consultation that fall outside the framework of this FONSI, additional NEPA compliance may be required. NPS will ensure compliance with any additional regulatory requirements.

Whether the action threatens a violation of federal, state, or local environmental protection law: The Selected Alternative violates no federal, state, or local environmental protection laws.

PUBLIC INVOLVEMENT

NPS conducted a public meeting to solicit input and comment from members of the public. The meeting was held on May 22, 2014, at the Ronald Reagan Building in Washington, D.C., from 5 p.m. to 7 p.m.

The EA was made available for public review and comment on June 22, 2015 through July 24, 2015. The EA was placed on the NPS' PEPC website. A second public meeting was held on July 13, 2015 at the National Park Service National Capital Region Headquarters from 5:00 pm to 7:00 pm. At the public meeting and during the public comment period, five correspondences were received.

Three correspondences were received by webmail through the PEPC system and two correspondences were received by mail. Four commenters were from Washington, D.C, and the other commenter was from Mississippi. One comment was received from an unaffiliated individual and four comments from government organizations.

Several commenters expressed support for the project and the Selected Alternative. Some commenters suggested new alternative elements including stronger connections and access to the Organization of American States, play areas and picnic tables, and increased interpretive programming.

The Committee of 100 on the Federal City (The Committee of 100) provided comments requesting additional details about the extent of moving the Lockkeeper's House from its current location to the proposed location in the Selected Alternative. In addition, the Committee of 100 requested additional information and reconsidering for the revisions to the walls and berms along Constitution Avenue and the vista along 19th Street NW to the DC War Memorial within the Selected Alternative.

The National Capital Planning Commission (NCPC) provided extensive comments requesting additional information and clarification on various aspects of the project including lighting, floodplain and visual

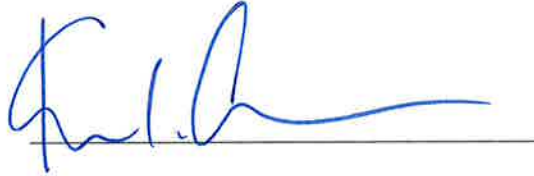
resources impacts, the selected methodology for the treatment of black and gray water, contaminated soil locations and treatment, the addition of wayfinding and signage and impacts to land use and relevant plans. The Committee of 100 also provided several substantive comments on relocation of the Lockkeeper's House, the wall and berms along Constitution Avenue, and the vista along the 19th Street axis to the World War II Memorial. The comments from The Committee of 100 and NCPC and NPS responses are addressed in the attached comment matrix. Subsequent changes and clarifications to the EA are addressed in the attached errata. The errata was prepared to correct minor errors and omissions, but does not change the overall decision to implement the Selected Alternative.

CONCLUSION

The NPS has selected the Regenerative Garden for implementation. In light of the impacts described in the EA for the project and with guidance from NPS *Management Policies 2006*, natural and cultural resources information, professional judgment, and considering agency and public comments, the impacts that will result from the Selected Alternative will not impair any park resources and values (see attached Non-Impairment Determination). The Selected Alternative does not constitute an action that normally requires preparation of an EIS. The Selected Alternative will not have a significant effect on the human environment. Adverse environmental impacts that could occur to park natural and cultural resources are short-term negligible to moderate in intensity. Long-term impacts will be negligible to moderate adverse and beneficial. There are no significant impacts to soils, vegetation, water resources, historic structures and districts, cultural landscapes, archeological resources, visual resources, visitor use and experience, traffic and circulation, and park management and operations. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the Selected Alternative will not violate any federal, state, or local environmental protection law.

Based on the foregoing, an EIS is not required for this action and will not be prepared. This is a finding of no significant impact.

Recommended:




Karen L. Cucurullo
Acting Superintendent
National Mall and Memorial Parks

8/27/2015

Date

Approved:


for
Deputy Robert A. Vogel
Regional Director
National Capital Region

8/27/2015

Date

1 **APPENDIX A – NON – IMPAIRMENT DETERMINATION**

2

NON – IMPAIRMENT DETERMINATION

The determination on impairment has been prepared for the Selected Alternative. An impairment determination is made for all resource impact topics analyzed for the Selected Alternative pursuant to the NPS Guidance for Non-Impairment Determinations and the NPS National Environmental Policy Act (NEPA) Process (October 31, 2011), a non-impairment determination for the Selected Alternative is included here as an appendix to the Finding of No Significant Impact.

The prohibition against impairment originates in the NPS Organic Act, which directs that the NPS shall:

promote and regulate the use of the...national parks...which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

According to *NPS Management Policies 2006*, an action constitutes an impairment when its impact “would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (sec. 1.4.5). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (sec. 1.4.5).

National Park System units vary based on their enabling legislation, natural and cultural resources present, and mission. Likewise, the activities appropriate for each unit and for areas in each unit also vary. For example, an action appropriate in one unit could impair resources in another unit. Constitution Gardens was originally identified as public open space in the West Potomac Park legislation and the 1902 MacMillan Plan. It was later named and design in further detail by Skidmore, Owings, and Merrill (SOM) in the early 1970s and completed in 1976. Constitution Gardens was designed to commemorate the American Bicentennial, providing a landscape with a naturalistic-appearing man-made lake creating a quiet oasis removed from the bustle of the capital. Six years after the park was completed, the Vietnam Veterans Memorial was built in a meadow at the west end of the gardens that required modification of the grade and planting design. In addition to the Vietnam Veteran’s Memorial, Constitution Gardens is composed of the Memorial of the 56 Signers of the Declaration of Independence, located on an island in the lake, and the Lockkeeper’s House, which is the oldest structure on the National Mall. Based on the Potomac Park enabling legislation, the Constitution Gardens is to remain a recreation area forever.

An impairment determination is not made for visitor use and experience, public safety and accessibility, and park management and operations because impairment findings relate back to Park resources and values, and these impact areas are not generally considered to be Park resources or values according to the Organic Act, and cannot be impaired in the same way that an action can impair Park resources and values.

The NPS has determined that the implementation of the Selected Alternative will not constitute an impairment to the resources or values of Constitution Gardens. This conclusion is based on consideration of the thorough analysis of the environmental impacts described in the EA, relevant scientific studies, the comments provided by the public and others, and the professional judgment of the decision-maker guided by the direction in *NPS Management Policies 2006*. Implementation of the NPS Selected Alternative will not result in impairment of Park resources or values whose conservation is (1) necessary to fulfill specific purposes identified in the Park’s establishing legislation, (2) key to the natural or cultural integrity of the Park or to opportunities for enjoyment of the Park, or (3) identified in the Park’s management plan or other relevant NPS planning documents as being of significance.

Soils: The Selected Alternative will not result in an impairment to soils. The significance of Constitution Gardens is related to the historical significance of the National Mall Plan, which did not specify a

1 designated use or purpose for soils. Under current conditions, intensive visitor use has resulted in erosion
2 and soil compaction, and the general condition of the park is poor. The Selected Alternative will improve
3 the degraded conditions of the park, and while the construction of certain elements of the Selected
4 Alternative will lower soil productivity, the overall character of the site will remain in line with the
5 original intent of the National Mall Plan.

6 Best Management Practices (BMPs) employed throughout the construction period will help minimize or
7 avoid localized adverse impacts to soils. Following construction, disturbed soils will be replaced, to the
8 extent feasible, and revegetated to avoid compaction and erosion. Because the Selected Alternative will
9 not inhibit the park's ability to provide a natural context in an urban environment, but instead help
10 promote it, including a permanent reduction of soil compaction and erosion along unsanctioned social
11 trails, the Selected Alternative will not result in impairment.

12 **Vegetation:** Vegetation is referenced in the National Mall Plan as a symbol of the cultural and diplomatic
13 exchanges and gifts from other nations, such as the Japanese Cherry Trees, pagoda, and lantern; the
14 German-American Friendship Garden, and Italy's gift of the Arts of Peace. Under the Selected
15 Alternative, some trees would be disturbed and removed temporarily during soil rehabilitation,
16 topographic enhancement, and during some construction activities. However, hundreds of trees that are in
17 good or fair condition and/or are healthy individuals would be preserved in place. During these processes
18 there would be more emphasis on protection of existing vegetation to retain vegetation as a contributing
19 feature. Therefore, the impacts of the Selected Alternative will not constitute impairment to vegetation.

20 **Water Resources:** Water resources are not specified in the National Mall Plan, however, under the
21 Selected Alternative there would be improvements to the quality of the lake and water resources. Thus,
22 the Selected Alternative would reinforce the purpose of the park as a recreation area by improving the
23 visual aesthetics and amenities of the park. As a result, the impacts of the Selected Alternative will not
24 constitute an impairment to water resources.

25 **Cultural Resources:** There will be no impairment to the park's cultural resources, including cultural
26 landscapes, historic structures and districts, and archeology. Cultural resources are mentioned in the
27 National Mall Plan as commemorative works that honor presidential legacies, distinguished public
28 figures, ideas, events, and military and civilian sacrifices and contributions that should be maintained. The
29 Selected Alternative will alter some character-defining features associated with the Constitution Gardens,
30 including the relocation of the Lockkeeper's House; however, the purposes of the National Mall will not
31 be significantly altered. Constitution Gardens will remain the setting of citizenship ceremonies that
32 contribute to the Mall's use as its preeminent national civic space. Its dignified symbolic setting for
33 government structures, museums, and national memorials will remain intact, as will the designed historic
34 landscape of the National Mall and Constitution Gardens in particular. Although changes to Constitution
35 Gardens under the Selected Alternative will impact cultural resources, these changes will not alter their
36 integrity such that they could no longer convey their significance. Commemorative works such as the
37 Memorial to the 66 Signers of the Declaration of Independence and the Vietnam Veterans Memorial will
38 be maintained to honor the legacies they commemorate. Therefore, the cultural landscapes, historic
39 districts and structures, and archeological resources surrounding Constitution Gardens will not be
40 impaired.

APPENDIX B – Memorandum of Agreement

REHABILITATION OF CONSTITUTION GARDENS

NATIONAL MALL AND MEMORIAL PARKS AND THE NATIONAL CAPITAL REGION

ENVIRONMENTAL ASSESSMENT – ERRATA

The following changes have been made to the *Rehabilitation of Constitution Gardens Environmental Assessment* (June 2015) *Finding of No Significant Impact (FONSI)* to correct minor statements of fact and update information. Additions to the text are identified by underlines and deletions are marked by ~~strikeout~~ unless otherwise noted.

APPLICABLE FEDERAL LAWS AND REGULATIONS, Page 1-5

Information pertaining to the Energy and Security Act Section 438 was omitted from the original EA. A description is provided below.

Energy Independence and Security Act Section 438

The Energy Independence and Security Act (EISA), Section 438, requires federal agencies to reduce stormwater runoff from federal development and redevelopment projects to protect water resources. Compliance can include use of a variety of stormwater management practices including reducing impervious surfaces and using vegetative practices, porous pavements, cisterns, and green roofs. EISA 438 compliance would be completed by NPS staff for the selected alternative.

A performance-based approach is used for EISA. To meet these performance objectives, technically feasible stormwater control practices that are effective in reducing the volume of stormwater discharge should be used. There are two options for site designers to comply with Section 438. Option 1 (retaining the 95th percentile rainfall event) is the primary tool utilized; however, in situations where Option 1 is not protective enough to maintain or restore the predevelopment hydrology of the project, Option 2 (site-specific hydrologic analysis) should be used. Additionally, common green infrastructure and low impact development tools can be implemented, which include:

- Rain gardens, bioretention, and infiltration planters
- Porous pavements
- Vegetated swales and bioswales
- Green roofs
- Trees and tree boxes
- Pocket wetlands
- Reforestation/revegetation using native plants
- Protection and enhancement of riparian buffers and floodplains
- Rainwater harvesting for use (e.g., irrigation, HVAC make-up, non-potable indoor uses)

Local Plans and Policies, Page 1-10

Discussion of how the proposed project aligns with several local plans was omitted in the original EA. The listed plans were reviewed in depth including a review of their goals and objectives. The proposed project's purpose and proposed actions were compared to the below plans. A description of how the project aligns with each plan is provided below.

SKIDMORE, OWINGS, AND MERRILL PLANS (1966 AND 1973)

In the 1960s, SOM became involved in efforts to redesign the National Mall and Pennsylvania Avenue. As part of its planning efforts, SOM submitted two reports “The Washington Mall Master Plan” in 1966, described in further detail below, and the “Washington Mall Circulation Systems” in 1973. The two reports aimed to remove automotive traffic and parking from the National Mall, replacing them with shuttle buses and underground or off-site parking, visually strengthening the central vista through planting more trees to highlight the lines of American elms, and adding outdoor visitor attractions on the National Mall. The proposed rehabilitation is consistent with the intent of the SOM Plans as it aligns with the goals of the Washington Mall Master Plan by creating a space that contributes outdoor visitor attractions on the Mall; improves the aesthetics of the project area to retain the romantic pastoral landscape juxtaposed against the more formal garden; and strengthens the central vista by planting more trees.

EXTENDING THE LEGACY PLAN (1997)

In 1997, the NCPD completed the plan titled *Extending the Legacy: Planning America’s Capital for the 21st Century*, which is the current guiding document for the monumental core. This plan provides a framework that expands on the L’Enfant and McMillan Plans and advocates preserving the open landscape of the National Mall. The proposed rehabilitation is consistent with the intent of the Extending the Legacy Plan as it preserves the open spaces within Constitution Gardens, apart from the pavilion; improves the aesthetics of the project area and connections to adjacent areas; and seeks to improve transportation.

COMPREHENSIVE PLAN FOR THE NATIONAL CAPITAL: FEDERAL ELEMENTS (2004)

In August 2004, the NCPD adopted the Comprehensive Plan for the National Capital: Federal Elements. The plan is a statement of goals, principles, and planning policies for the growth and development of the national capital during the next 20 years. The federal elements of the Comprehensive Plan for the National Capital identify and address the current and future needs of federal employees and visitors to the nation’s capital; provide policies for locating new federal facilities and maintaining existing ones; promote the preservation and enhancement of the region’s natural resources and environment; protect historic resources and urban design features that contribute to the image and functioning of the nation’s capital; and working with local, state, and national authorities, support access into, out of, and around the nation’s capital that is as efficient as possible for federal and nonfederal workers. The proposed rehabilitation is consistent with the intent of the Comprehensive Plan for the National Capital: Federal Elements to enhance the beauty of the nation’s capital, promote high quality and sustainable design, preserve open spaces, improve transportation flow, and provide increase visitor amenities and activities in respond to growth in tourism.

Impact Topics Dismissed From Further Analysis, Page 1-17

Information pertaining to the status of floodplains in the project area was incorrect and has been revised below.

FLOODPLAINS

EO 11988, *Floodplain Management*, provides for the protection of floodplain values, while DO 77-2: *Floodplain Management* (NPS 2003) provides the NPS with requirements for implementing the EO, which was amended, on January 30, 2015. The lake and surrounding area is within Zone X, 500-year floodplain and will remain so until the Potomac Park levee system improvements are constructed. However, the project will have negligible effects on the current 500-year floodplain, because the proposed action would not affect floodplain functions or values or affect flood water flows. As part of the Potomac levee system project, the berm on the south side of the project area would be built up and will protect the area from a 500-year flood event. The majority of the project area is not within the 100-year floodplain; however, although rehabilitation of the Lockkeeper’s House is in the 100-year floodplain as currently mapped (see Figure 1.2). Under Section 5.B of Director’s Order 77-2: *Floodplain Management Procedural Manual* (NPS 2003) projects involving historic structures are exempt from requiring a statement of findings (SOF) for floodplains provided their location is integral to their significance. The Lockkeeper’s House is considered

a historic structure; therefore, the proposed action does not require a SOF for floodplains. The Lockkeeper's House will be designed to the 100-year floodplain standards, using the US Army Corp of Engineers flood elevation at the Potomac levee for the 100-year storm plus two feet. The house will be relocated landside of the levee. It will not contain any rare or particularly valuable collections or artifacts, nor will it serve any function during a flood emergency. A SOF is not necessary for this project because the proposed action would not affect floodplain functions or values, affect flood water flows, or involve construction of structures that could be affected by flooding because of the levee berm. Based on the above information, this topic was dismissed from further analysis in this EA.

Figure 1.2 – Floodplains Map



Information pertaining to the potential effects of climate change was originally not included and is being addressed below.

CLIMATE CHANGE

Climate change refers to any significant changes in average climatic conditions (such as mean temperature, precipitation, or wind) or variability (such as seasonality and storm frequency) lasting for an extended period (decades or longer). Recent reports by the US Climate Change Science Program, the National Academy of Sciences, and the United Nations Intergovernmental Panel on Climate Change provide evidence that climate change is occurring as a result of rising greenhouse gas emissions and could accelerate in the coming decades. Climate change is a far-reaching, long-term issue that could affect park resources, visitors, and management. Projects can affect climate change by adding to greenhouse gas emissions, and climate change can affect projects by contributing to changes in vegetation communities, water supply, and flooding.

Although some effects of climate change are considered known or likely to occur, many potential impacts are unknown. Much depends on the rate at which the temperature would continue to rise and whether global emissions of greenhouse gases can be reduced or mitigated. Climate change science is a rapidly advancing field and new information is being collected and released continually.

Construction activities associated with implementation of the proposed action would contribute to increased greenhouse gas emissions, but such emissions would be short term and would not be noticeable, ending when construction is completed. It is not possible to meaningfully link the greenhouse gas emissions of such individual project actions to quantitative effects on regional or global climatic patterns. Any effects on climate change would not be discernible at a regional scale. Regarding effects of climate change on the project, the implementation of the Potomac levee system project will provide protection from the 500-year flood, so no future flooding is anticipated, and although temperature increases could cause stress on vegetation, no widespread changes to the plantings or established trees on the site from temperature increases can be reasonably anticipated. Therefore, this impact topic was dismissed from further evaluation.

CHAPTER 2: ALTERNATIVES

Common Elements to All Action Alternatives, Page 2-5

Signage and Wayfinding. Any wayfinding and signage would be done in accordance with the Wayfinding and New Pedestrian Guides.

Preferred Alternative - Regenerative Garden (Preferred Alternative), Page 2-6

To help facilitate understanding of the impacts to visual resources, renderings of the selected alternative were created.

Alternative 1 – Sustainable Garden, Page 2-13

To better illustrate the location of soil remediation for Alternative 1, Sustainable Garden, Figure 2.3 was revised to reflect additional demarcation of the areas of soil remediation.

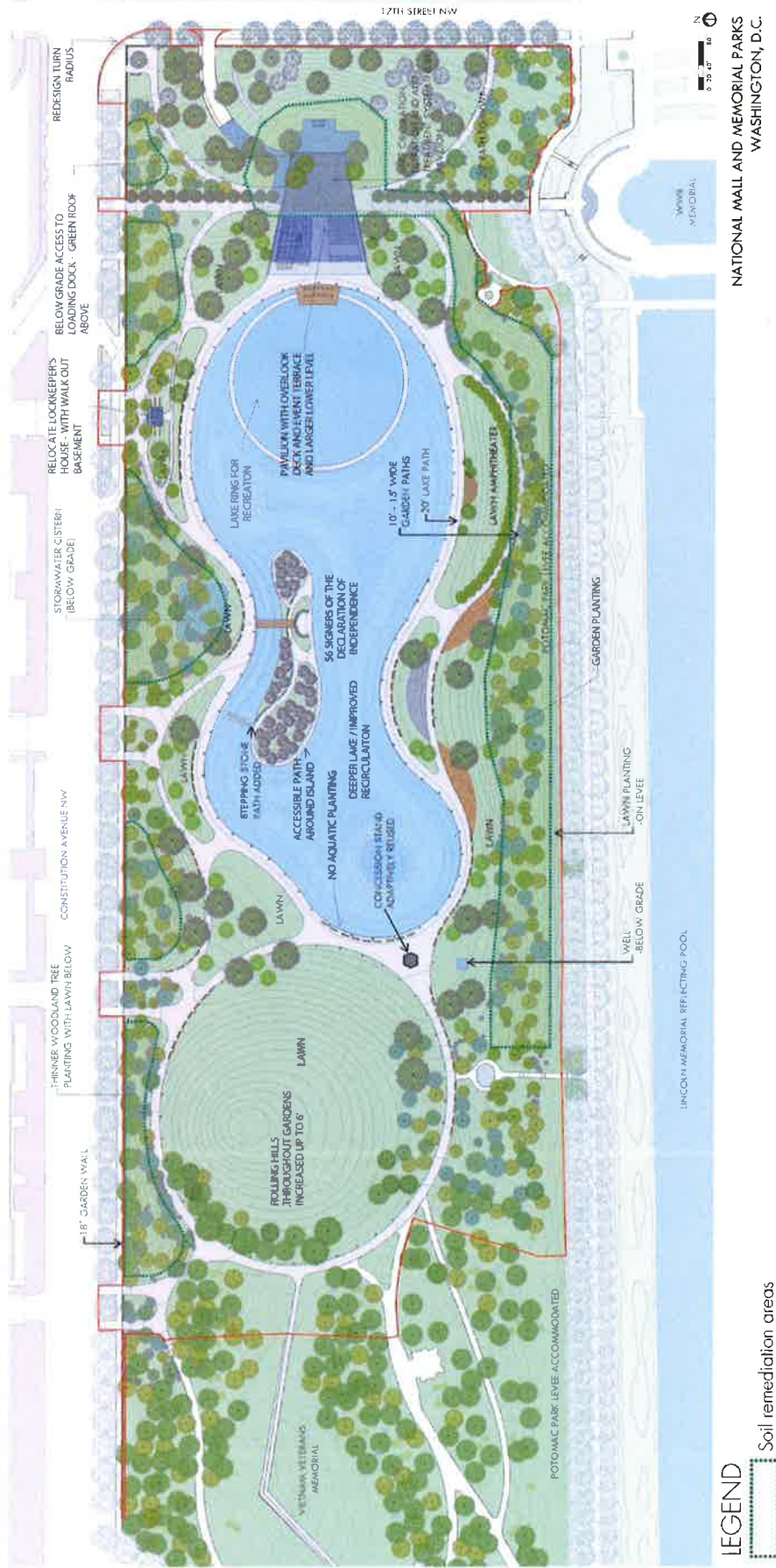
Figure 2.3 – Alternative 1 – Sustainable Garden



Alternative 2 – Social Garden, Page 2-17

To better illustrate the location of soil remediation for Alternative 2, Social Garden, Figure 2.4 was revised to reflect additional demarcation of the areas of proposed remediation.

Figure 2.4 – Alternative 2 – Social Garden



MITIGATION MEASURES FOR THE ACTION ALTERNATIVES, Page 2-31

Visual/Aesthetics

- Ongoing review with agencies having regulatory authority over the monumental core {District of Columbia State Historic Preservation Office (DC SHPO) National Capital Planning Commission (NCPC), and the US Commission of Fine Arts (CFA)] during the design development and Section 106 process would ensure that the proposed options blend as harmoniously as possible with the existing scale, context, and landscape in the project area.
- Lighting would continue to be addressed through the design phase in coordination with NCPC and the DC SHPO. During Phase 1, lighting would only be modified around the Lockkeeper's House to address security. The amount and style of landscape lighting would remain the same. Washington Globes would remain the fixture of choice, with LED lights. Additional lighting in Phase 2 of the walkways and from the pavilion would be addressed in the design. The spacing of lights would be addressed in future design to ensure safety on the paths and would be coordinated with NCPC and the DC SHPO per the MOA. Lighting design would be coordinated with NCPC, CFA, and the DC SHPO to minimize the effects of lighting on the adjacent memorials.

Table 2.3, Summary of Impacts, has been updated to reflect revisions to the traffic and circulation analysis under the Preferred Alternative: Regenerative Gardens.

Resource Area	No-Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Sustainable Garden	Alternative 2: Social Garden
TRAFFIC AND CIRCULATION				
Traffic and circulation	<p><u>Under the No-action Alternative, in spite of the multimodal transportation cumulative benefits, two large vehicles attempting to turn right from Constitution Avenue NW eastbound to 17th Street NW southbound at the same time would continue to impact the 17th Street NW northbound vehicles by requiring use of the northbound lane to complete their turns or running over the southwestern corner of the intersection, increasing congestion and resulting in long-term, moderate, adverse impacts. Delivery and emergency vehicle access would continue to result in long-term, minor, adverse impacts because access would be provided at any available existing walkway. When combined with the long-term, beneficial impacts from cumulative actions, the No-action Alternative would have a slight adverse contribution to overall minor, adverse cumulative impacts on circulation.</u></p>	<p><u>Under the Preferred Alternative, the multimodal transportation cumulative benefits combined with a better designed intersection capable of processing two large vehicles turning right simultaneously would provide long-term, beneficial impacts with negligible impacts on traffic operations, congestion, or vehicle queuing. Service and emergency vehicle access would be improved by creating official ingress and egress driveways, resulting in long-term, beneficial impacts and long-term, minor, adverse impacts on traffic at the driveway entry and exit points. When combined with the long-term, beneficial impacts from cumulative actions, the Preferred Alternative would have a slight beneficial contribution on overall beneficial cumulative impacts on circulation.</u></p>	<p><u>Under Alternative 1, the multimodal transportation and infrastructure cumulative benefits combined with a better designed intersection capable of processing two, large vehicles turning right simultaneously would provide long-term, beneficial impacts with negligible impacts on traffic operations, congestion, or vehicle queuing. Service and emergency vehicle access would be improved by creating multiple access points on walks, resulting in long-term, beneficial impacts and would result in long-term, minor, adverse impacts on traffic at the entry and exit points. When combined with the long-term, beneficial impacts from cumulative actions, Alternative 1 would have a significant beneficial contribution to overall beneficial cumulative impacts on circulation. When combined with the long-term, beneficial impacts from cumulative actions, Alternative 1 would have a slight beneficial contribution to overall beneficial cumulative impacts.</u></p>	<p><u>Under Alternative 2, the multimodal transportation and infrastructure cumulative benefits combined with a better designed intersection capable of processing two large vehicles turning right simultaneously would provide long-term, beneficial impacts with negligible impacts on traffic operations, congestion, or vehicle queuing. Service and emergency vehicle access would be even more improved over Alternative 1 by creating official ingress and egress driveways, resulting in long-term, beneficial impacts and long-term, minor, adverse impacts on traffic at the driveway entry and exit points. When combined with the long-term, beneficial impacts from cumulative actions, Alternative 2 would be similar to the Preferred Alternative, having a slight beneficial contribution to overall beneficial cumulative impacts on circulation.</u></p>

CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

TRAFFIC AND CIRCULATION, Page 4-71

IMPACTS OF THE PREFERRED ALTERNATIVE: REGENERATIVE GARDEN

During the construction period, there would be temporary sidewalk and bicycle facility closings, temporary new connections provided to compensate for the sidewalk and bicycle facility closings when necessary, and sidewalk and bicycle facility impacts such as narrowed or torn-up sidewalks. NPS would seek to post signage to direct pedestrians to safe passages adjacent to Constitution Gardens. Because all of the construction would occur internally to Constitution Gardens, the impacts would be limited to the pedestrian and bicycle facilities that travel through the interior and along the perimeter of the gardens. This would primarily impact Constitution Avenue NW between Henry Bacon Drive and 17th Street NW along the eastbound side and 17th Street between Constitution Avenue NW and the World War II Memorial along the southbound side. It would also impact access to the existing pedestrian and bicycle facilities that travel through Constitution Gardens. Alternative connections would be available for both pedestrians and bicyclists along Independence Avenue NW, south of the Lincoln Memorial Reflecting Pool, along the westbound side of Constitution Avenue NW adjacent to Constitution Gardens, and along the northbound side of 17th Street also adjacent to Constitution Gardens. Construction phasing could also be employed to minimize pedestrian and bicycle facility closures, thus allowing partial access to Constitution Gardens during construction.

CONCLUSION

Under the No-action Alternative, in spite of the multimodal transportation cumulative benefits, two large vehicles attempting to turn right from Constitution Avenue NW eastbound to 17th Street NW southbound at the same time would continue to impact the 17th Street NW northbound vehicles by requiring use of the northbound lane to complete their turns or running over the southwestern corner of the intersection, increasing congestion and resulting in long-term, moderate, adverse impacts. Delivery and emergency vehicle access would continue to result in long-term, minor, adverse impacts because access would be provided at any available existing walkway. When combined with the long-term, beneficial impacts from cumulative actions, the No-action Alternative would have a slight adverse contribution to overall minor, adverse cumulative impacts on circulation. As a result of the construction occurring at Constitution Gardens, there would be short-term, minor, adverse impacts to traffic and circulation and limited to pedestrian and bicycle facilities.

CHAPTER 5: CONSULTATION AND COORDINATION

AGENCY CONSULTATION, Page 5-1

Reference to the National Capital Planning Commission (NCPC) as a cooperating agency was omitted from the original EA. NCPC has been included as a cooperating agency below.

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their undertakings on historic properties. In accordance with the regulations implementing Section 106, letters initiating the process were sent to the District of Columbia State Historic Preservation Office (DC SHPO) and the Advisory Council for Historic Preservation (ACHP) on May 8, 2014. The DC SHPO responded on August 14, 2014, accepting the proposed Area of Potential Effect (APE) and stating concerns for the treatment of the Lockkeeper's House. A final Determination of APE letter was sent to the DC SHPO on April 1, 2015. Documentation of these efforts to obtain public agency consultation is contained in appendix A. A number of agencies, organizations, and stakeholders were invited to participate in this process as consulting parties.

CHAPTER 7: REFERENCES, ACRONYMS, AND GLOSSARY

REFERENCES, Page 7-4

National Park Service (NPS)

2003 Director's Order 77-2: *Floodplain Management*. September 8, 2003.

Federal Emergency Management Agency (FEMA)

2010 Flood Insurance Rate Map (FIRM) District of Columbia, Washington, D.C. Panel 18 of 100.
Map Number 1100010018C. Revised September 27, 2010.

COMMENT RESPONSE MATRIX

The following table includes substantive comments that were received during public review of the environmental assessment (EA) and the National Park Service's (NPS) responses to these comments. The substantive comments are presented as either direct excerpts (representative quotes) from the original comments or as text that has been excerpted from the original comments.

Section or Topic	Comment	Response
NCPC Comments	<ul style="list-style-type: none"> “... we requested to be a cooperating agency on the EA as the Commission has approval authority over the project and therefore has responsibilities under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act. While NCPC staff has participated in the Section 106 consultation meetings and anticipates working with the NPS and others in the drafting of a Memorandum of Agreement, NCPC was not identified as a cooperating agency in the EA nor were we consulted during the development of the document.” 	<p>We apologize for our oversight and will continue to work with NCPC through design development and to ensure concerns related to NEPA and NHPA are considered.</p>
Cultural Resources	<ul style="list-style-type: none"> In general, the EA covers historic and cultural resources adequately, though the document would benefit from additional graphics. Photographs of the Lockkeeper's House and Constitution Gardens would be helpful to understand both the resources and the associated impacts. 	<p>Comment noted. We concur that additional photographs would have been helpful; regrettably they were not included. We hope that the NHPA Section 106 process will help provide a better sense of the effects that will occur to these resources.</p>
Cultural Resources	<ul style="list-style-type: none"> We also specifically requested that lighting be addressed in the EA in the context of surrounding historic resources such as the Washington Monument, but no information on this subject was provided in the EA. 	<p>Lighting will continue to be addressed in design in coordination with NCPC and SHPO. During Phase 1, lighting will only be slightly modified around the Lockkeeper's House for security reasons. The amount and style landscape lighting will remain the same. Washington Globes will remain the fixture of choice, using LED lights. Additional lighting in</p>

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Section or Topic	Comment	Response
		<p>Phase 2 of both walkways and emanating from the pavilion will be further addressed in the design. The spacing of lights will be addressed in future design to ensure safety on the paths and will be coordinated with NCPC and SHPO as per the MOA.</p> <p>NPS has provided Errata under mitigations stating that lighting design would be done in close coordination with NCPC, CFA, and the DC SHPO to minimize the effects of lighting on the adjacent memorials.</p>
Visual Resources	<p>– Visual resources are analyzed in the EA, but no views of the proposed conditions are included, and without graphics it is difficult to understand how the conclusions are reached. Graphic illustrations of the existing views and the proposed views would help the reader understand the nature and type of impacts described. The visual analysis does not discuss the impacts of the introduction of the service driveway from 17th Street. As noted during the Section 106 consulting party meeting in June 2015, the driveway will be an adverse effect on the cultural landscape of Constitution Gardens and will have visual impacts. Visual analysis is needed to fully understand the impacts of this element of the project.</p>	<p>Unfortunately, there were no completed renderings by the time the EA was released for public comment. Our intention was to describe the impacts to the visual resources as best as possible, and once the designs were further developed, to have these rendered views prepared for the advancement of the MOA and well in advance of the NCPC and CFA reviews. The designs of both Phase 1 and Phase 2 will be developed within the framework provided within the EA in its description of alternatives and impact analysis, as well as the requirements that will be laid out in the NHPA Section 106 MOA. The NPS will</p>

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
		be presenting visualizations at the upcoming Section 106 meeting that will illustrate the views addressed in the EA, which will include the views of Virginia Avenue to the Washington Monument and impact of the 17th Street entrance.
Floodplains	<ul style="list-style-type: none"> – Floodplains and climate change were dismissed from analysis, but the site is located within the 500-year floodplain. NCPC staff reiterates its request to analyze impacts on floodplains in the EA. 	<p>There is very little ecological function or value associated with the floodplain found within this formalized landscape. Also, the berm construction as part of the Potomac levee system project will protect the site from 500-year floodwaters. While adding the pavilion within the current 500-year floodplain may affect the manner by which floodwaters flow, we do not feel that impact would be noticeable. In addition, we do not feel that the proposed actions would have a measurable effect on global climate change, and climate change would not impact the proposed project.</p> <p>NPS has added additional language to the floodplain dismissal statement of the potential impacts to the 500-year floodplain in the errata, as well as a dismissal statement for climate change.</p>

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
Natural Resources	<p>With our comments in June 2014, we noted the policy in the <i>Comprehensive Plan for the National Capital</i> regarding tree replacement at a one to one ratio, but given the District of Columbia's goal and federal sustainability goals, we recommended NPS replace trees at a higher ratio.... While there was discussion of vegetation and tree replacement in the EA, it does not describe a net increase in the number of trees and is therefore difficult to determine NPS' response to the comment. In general, the preferred alternative increases tree community health while introducing a more resilient native tree palette. A tree planting diagram showing tree protection, relocation, and replacement is needed to show the impacts of the proposed vegetation plan on existing trees.</p>	<p>The EA did not provide an exact ratio of tree replacement, but instead stated that some of the healthy trees currently present within the gardens would be relocated on-site, and new trees would be planted to replace those that are removed and to increase the overall number of trees. The NPS would continue to prune and remove unhealthy trees, and trees to remain would be analyzed on a case-by-case basis during design. Overall there would be an increased number of trees in the canopy because removed trees would be replaced by younger trees that would adapt more quickly than mature trees. Setting a prescriptive ratio may result in NPS having to plant a number of trees that is not appropriate for the site, or to find some alternate area outside of the project area to plant trees.</p>

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
Natural Resources	<ul style="list-style-type: none"> Further graphic illustrations are needed to define where wetlands or meadows will be used to treat black and gray water. Consideration should also be given to using wetland vegetation in these areas to increase plant diversity. 	<p>The NPS does not intend to utilize the meadows or the aquatic vegetation within the lake, or to create artificial wetlands to treat its gray and black water. Engineered water filtration systems will be used to treat gray and black water.</p>
	<ul style="list-style-type: none"> Likewise in regard to soils, graphic illustrations are needed to understand the impacts of soil rehabilitation on existing trees and to define where existing toxic soils will continue to remain. NCPC staff will be seeking this information in order to complete our preliminary and final review of the project. 	<p>Showing the soil remediation under the preferred alternative is difficult because it would be localized around trees throughout the gardens that would be preserved in place as well as where new plantings are proposed. Under the other action alternatives, it is marked on the illustrations as a light green dotted polygon, it is however, not labeled. This will be corrected in the Errata to the FONSI.</p>
Natural Resources	<ul style="list-style-type: none"> The document indicates that there is the potential for contaminated soils, but does specify the location or extent of the possible contamination and therefore it is difficult to evaluate the conclusions of the EA. 	<p>In 2013, a Phase I Environmental Site Assessment concluded that "historical information indicates possible contamination of soil associated with the historic fill and former naval office buildings on the property." To date, contaminated soils have not been encountered or documented within Constitution Gardens. Because we are not certain if or where contaminated</p>

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
		soils could exist within Constitution Gardens, we instead state what would be done if contaminated soils are encountered.
	<ul style="list-style-type: none"> With respect to stormwater management, the EA discussed water quality and stormwater runoff, and mentioned the use of gray and black water. A reference specification is provided for the level of treatment, however the treatment methods (wetlands and meadows) are not depicted in the landscape plans. 	Please see previous response regarding the treatment of gray and black water.
Natural Resources	<ul style="list-style-type: none"> NPS should work with the District Department of the Environment to ensure reusing treated black water and gray water is feasible, since the District of Columbia does not currently have regulations or guidelines to address this issue. In addition, the requirements of the Energy Independence and Security Act should be addressed in the EA to ensure compliance with stormwater regulations. 	NPS will work closely with DDOE as well as EPA to ensure the feasibility of gray and black water use. Also, EISA and its requirements will be added to the Errata to the FONSI, which describes the Act and NPS requirements.
	<ul style="list-style-type: none"> With regard to sustainability, the EA provides cursory information on sustainability targets for the new multi-purpose pavilion (LEED Silver versus LEED Platinum/net zero). Further assessment is necessary to adequately determine which target is appropriate. Financial costs and environmental impacts need to be analyzed over the anticipated life-cycle of the building to fully understand the implications of the selected sustainability target. 	Comment noted: Agreed.

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
Transportation	<p>– The analysis presented in the EA regarding transportation primarily focuses on the proposed modification to the curb radius at Constitution Avenue and 17th Street and the introduction of a below grade service driveway from 17th Street. The analysis concludes a beneficial impact on circulation based on the idea of permitting two large vehicles to turn right simultaneously. Vehicular impacts are one consideration of the circulation system; in our scoping comments we requested that impacts on bicyclists and pedestrians be analyzed as well. The transportation analysis should not only examine the modifications to Constitution Avenue and 17th Street, but also include a larger discussion regarding the capacity for pedestrians and bicyclists on the site and discuss the impacts on these modes of transportation. We also requested that the analysis discuss construction, normal operations, and special events with respect to transportation systems and impacts, but the analysis focuses primarily on normal operations.</p>	<p>The EA states that improvements to Constitution Gardens, including the new pavilion, ice skating rink, improved pedestrian paths, new Capital Bikeshare station, and other amenities would attract increased visitors to the National Mall, encouraging repeat local and regional visitation, and would enhance visitor experience. However, NPS feels Constitution Gardens is large enough to handle any uptake in visitation given its large area. If anything, visitation will be better distributed throughout the area.</p> <p>NPS does note the omission of construction impacts on local traffic. However, it does state in the Visitor Use and Experience section that Constitution Gardens would be closed during the construction and that staging would occur on site. Multimodal transportation during construction within Constitution Gardens would not occur. NPS has added an Errata regarding the impacts to transportation during construction.</p> <p>NPS intends to conduct additional transportation studies to determine the need and precise measurements of the possible change in turning radius during Phase 2 design. This adjustment may be necessary to preclude the right turns by</p>

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
Transportation	<ul style="list-style-type: none"> The increase in the intensity of uses, pedestrian counts, and noise at the site should be analyzed for any potential impacts to the surrounding memorials. In our scoping comments we also requested that wayfinding locations and signage be discussed and analyzed, but this was not included in the EA. 	<p>large vehicles (buses) into on-coming traffic.</p> <p>Because the programming and design of Constitution Gardens is not yet finalized for either Phase, NPS feels it is premature to determine the content and location of wayfinding and signage.</p> <p>Signage and wayfinding for Constitution Gardens was part of the parkwide signage and wayfinding plan. Signage and wayfinding currently installed may need to be adjusted due to the proposed changes. Any new signage or wayfinding would be consistent with what has already been developed for the park.</p> <p>NPS has added language to the Errata noting that any wayfinding and signage would be carried out in accordance with the Wayfinding and New Pedestrian Guides (http://parkplanning.nps.gov/document.cfm?parkID=427&projectID=24465&documentID=25959)</p>
Land Use	<ul style="list-style-type: none"> Finally, we requested the EA analyze land use, including relevant planning policies and impacts on public space and health and safety issues including hazardous materials. Land use was dismissed from analysis in the 	<p>This proposal will be cross-checked with the <i>Skidmore, Owings, and Merrill Plans, Extending the Legacy Plan</i> and the <i>Comprehensive Plan for the National</i></p>

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
	EA based on the project being consistent with NPS plans and policies. In Chapter I, an extensive list of relevant plans was provided, but this list described the plans and did not detail how the project met the objectives and goals of the plans. An analysis of the project against the <i>Skidmore, Owings, and Merrill Plans, Extending the Legacy, Comprehensive Plan for the National Capital</i> is needed to understand the consistency of the project with these plans.	<i>Capital</i> to ensure consistency and an Errata to the FONSI will be added to correct this omission. Should the proposal not be consistent, we will convene a meeting to discuss.
Committee of 100 Comments	–	
Relocation of Lockkeeper's House	– There is still some confusion about the location of the relocated Lockkeeper's House. The power point presentation for the June 3, 2015, meeting indicates that it would be relocated 5 feet west and 18 feet south, but the Final Handout for Section 106 Consulting Parties contains a chart indicating a relocation of 30–40 feet to the southwest. The power point presentation for the June 13, 2015, meeting (Slide 32) indicates a greater shift than 5 feet west and 18 feet south. Considering its importance, the distance the Lockkeeper's House is to be relocated should be clarified. Graphics should show the new location.	The Lockkeeper's House will be moved the shortest distance possible. Graphics included with the MOA illustrate where the structure will be relocated. Changes were made to the initial proposal of moving the structure 30–40 feet as the design progressed.
	– We believe it would be effective to install appropriate maps and background information in the first floor of the Lockkeeper's House, or possibly on adjacent mounted display boards just south of the relocated lockkeeper's house. The National Park Service has long experience with interpreting historical landscapes, including the	Comment noted. We are working with a well qualified media design firm for museums and public spaces.

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
Walls and Berms along Constitution Ave.	<p>National Mall. We believe that appropriate interpretation is needed for the relocated Lockkeeper's House.</p> <ul style="list-style-type: none"> The Preferred Alternative (Regenerative Garden) appears to increase the height of berms on the north side of Constitution Gardens, with an 18-inch seat wall along Constitution Avenue. This change has the effect of walling Constitution Gardens off from Constitution Avenue. While the four double entrances to Constitution Gardens are intended to open up the view, the plan shows plantings in the middle of the double entrances and new trees that would further block the view. We believe that, at a minimum, there should be some open views into Constitution Gardens. Despite many pages of description and analysis in the EA and Section 106 reports, the reason for the wall and blocking the views into Constitution Gardens from Constitution Avenue has not been clearly stated. 	<p>Comment noted. The intent of the low wall and berm is to create an intimate space and to define the entry paths into the gardens.</p>
Vista along 19th Street Axis to World War II Memorial	<ul style="list-style-type: none"> In previous comments, The Committee of 100 has urged that a vista to the DC War Memorial along the axis of 19th Street NW be opened across Constitution Gardens and the row of trees on each side of the Lincoln Reflecting Pool. Opening this new vista would require removal of some existing trees and not planting new trees in the vista line. Careful consideration is needed, but the Committee of 100 believes that this would add an important new feature to this part of the National Mall. This new vista would allow a view of the DC War Memorial along 19th Street from several blocks north of Constitution Avenue, NW. We understand that increasing 	<p>Comment noted. While opening a view to the DC War Memorial has its merits, the view does not currently exist. The existing views should be protected. Increasing the existing berm is necessary to achieve flood control.</p>

COMMENT RESPONSE MATRIX

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Section or Topic	Comment	Response
	<p>the height of the existing berm on the south side of Constitution Gardens by two feet may complicate or eliminate achieving the vista. However, we would like to see this vista concept carefully considered. We note that the August 14, 2014, letter from the D.C. State Historic Preservation Office also notes that "Views of the World War I Memorial should be protected and encouraged". Despite these comments, neither the updated Section 106 report nor the updated Environmental Assessment addresses the view to the DC World War Memorial from within Constitution Gardens or from further north on 19th Street.</p>	

APPENDIX B – Memorandum of Agreement

**MEMORANDUM OF AGREEMENT
AMONG
THE NATIONAL PARK SERVICE,
THE TRUST FOR THE NATIONAL MALL,
THE NATIONAL CAPITAL PLANNING COMMISSION,
AND
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
REGARDING
THE REHABILITATION OF CONSTITUTION GARDENS PROJECT,
WASHINGTON, D.C.**

This Memorandum of Agreement (“MOA”) is made as of this 26th day of August, 2015, by and among the National Park Service (“NPS”), the National Capital Planning Commission (“NCPC”), and the District of Columbia State Historic Preservation Officer (“DCSHPO”) (referred to collectively herein as the “Parties” or “Signatories” or individually as a “Party” or “Signatory”), and the Trust for the National Mall (Trust) (referred to herein as an “Invited Signatory”) pursuant to Section 106 of the National Historic Preservation Act (“NHPA”), 54 U.S.C. §§ 306108, and its implementing regulations at 36 CFR Part 800 regarding the rehabilitation of Constitution Gardens in Washington, DC (“Undertaking”); and

WHEREAS, Constitution Gardens is owned by the United States government and under the administrative jurisdiction of the NPS and occupies approximately 43 acres on the National Mall bounded by Constitution Avenue on the north, 17th Street NW to the east, and the Lincoln Memorial Reflecting Pool to the south, and includes the Vietnam Veterans Memorial at the west end. The park was identified in the West Potomac Park legislation (29 Stat 624 March 3, 1897) and the 1902 McMillan Plan. It was later named and designed by Skidmore, Owings, and Merrill (SOM) in the early 1970s (NPS 2008, rev. 2014) and was completed in 1976. In 1982, the 56 Signers of the Declaration of Independence Memorial was dedicated on the small island in the lake. Constitution Gardens was designed to commemorate the American Bicentennial, providing a landscape with a naturalistic-appearing man-made lake creating a quiet oasis removed from the bustle of the capital; and

WHEREAS, Constitution Gardens is a contributing site within the L’Enfant Plan of the City of Washington, and East-West Potomac Parks Historic Districts, both listed on the National Register of Historic Places (“National Register”). The Constitution Gardens contributing landscape features; vegetation, circulation paths, water features, small-scale features, views and vistas, and two contributing buildings, were documented through the 2008 Cultural Landscape Inventory prepared by NPS (Exhibit 1 - Cultural Landscape Inventory Summary), with concurrence from the DCSHPO on September 29, 2008, and;

WHEREAS, the Lockkeeper’s House is located within Constitution Gardens and is the oldest structure on the National Mall. In 1915, the building was relocated forty-nine feet west and six feet north of its original location for the construction of Constitution Avenue. The Lockkeeper’s House contributes to both National Register Historic Districts and was also individually listed on the National Register in 1973. A Historic Structure Report was completed for the Lockkeeper’s House in 2011 and there is an archeological site (51NW233) associated with the House’s original location; and

WHEREAS, the purpose of the rehabilitation of Constitution Gardens is to improve the functionality, ecology, sustainability, visitor services, and accessibility of the area, as envisioned in the 2010 National Mall Plan. The NPS recognizes that the project is needed to address these deficiencies, such as poor soil conditions and drainage that affect the site’s vegetation, walkways that are in poor condition and not universally accessible, the water quality in the lake that is poor and does not meet the original design intent and to revitalize Constitution Gardens so that it attracts and serves all visitors; and

WHEREAS, the rehabilitation of Constitution Gardens includes planting a greater diversity and mix of vegetation; re-grading the topography and installing a low retaining wall along Constitution Avenue and 17th Street; deepening the existing lake; relocating the Lockkeeper's House; removing the Overlook Terrace and constructing a pavilion and plaza; constructing a below grade access road; improving and minor reconfiguring of the existing pedestrian walks (Exhibit 2). These efforts will be collectively referred to herein as the Undertaking ("Undertaking"); and

WHEREAS, NCPC will review the Undertaking pursuant to its authorities in the National Capital Planning Act of 1952; and

WHEREAS, the approval action by NCPC is also an undertaking subject to Section 106 of the NHPA and by entering into this MOA, NCPC designates the NPS as the lead agency pursuant to 36 CFR 800.2(a)(2); and

WHEREAS, the Trust for the National Mall ("Trust"), the official nonprofit partner of the National Park Service dedicated to improving, preserving, and restoring the National Mall who is providing funding for the project and any associated mitigation, has participated in the consultation and has been invited to sign this MOA as an Invited Signatory pursuant to 36 CFR 800.6(c) (2); and

WHEREAS, the NPS, NCPC, DCSHPO and the Trust are the Signatories and Invited Signatory, respectively, to this MOA; and

WHEREAS, the Undertaking will be a phased implementation in order to prepare for the NPS centennial celebration. The NPS has developed Concept Drawings ("Concept Drawings") for Phases 1 and 2 (Exhibit 2), and Design and Development Drawings ("DD Drawings") for Phase 1 (Exhibit 3); and

WHEREAS, the NPS, issued letters dated May 6, 2014, initiating consultation with the DCSHPO and inviting the Advisory Council on Historic Preservation (ACHP) to participate in the consultation but the ACHP elected not to participate in the consultation; and

WHEREAS, the April 20, 2009, Levee Improvement Project Programmatic Agreement among the NPS, U. S. Army Corps of Engineers, The Government of the District of Columbia (DC), NCPC, DCSHPO, and ACHP, provided mitigation for adverse effects to be carried out by the NPS that included the following stipulations related to Constitution Gardens: preparation of an exterior stabilization plan for the Lockkeeper's House and development of public interpretation and educational materials that address the historical development of the flood control system and its importance within the cultural landscape. The measures stipulated in the 2009 Levee Improvement Project Programmatic Agreement will be implemented as part of this MOA; and

WHEREAS, the NPS identified and consulted with consulting parties identified in Exhibit 4; and

WHEREAS, the NPS, pursuant to 36 CFR 800.8(a), has coordinated its Section 106 and National Environmental Policy Act (NEPA) reviews and has provided opportunities for review and comment on the Undertaking, as its planning and design proceeded, at public meetings, consulting parties meetings; and

WHEREAS, the NPS, in consultation with DCSHPO and the consulting parties, defined both a primary and secondary Area of Potential Effect (APE) for the Undertaking (Exhibit 5); and

WHEREAS, in June 2015 the NPS released the Rehabilitation of Constitution Gardens Environmental Assessment (EA) for a 30-day public comment period pursuant to the National Environmental Policy Act (NEPA). The EA analyzed a range of alternatives for the Undertaking and identified the Regenerative Garden as the NPS preferred alternative (Exhibit 6); and

WHEREAS, as identified in the Phase IA archeological report (Exhibit 7 – public summary only), there are seven archeological sites within the primary APE. These sites include the former location of Lock B of the Washington City Canal (51NW235), remnants of the 17th Street Wharf (51NW232), the Lockkeeper's House deposits (51NW233), the outlet of the Tiber Creek Sewer (51NW234), potential deposits associated with the foundations of the Navy Administration Buildings, potential remains of the Washington City Canal prism and towpath, and potential remains of the Washington Brewery (Coningham and Company); and

WHEREAS, the NPS, in consultation with DCSHPO, NCPC, and the consulting parties, determined in June 2015, that the Undertaking will have adverse effects upon the Constitution Gardens Cultural Landscape and the Lockkeeper's House. DCSHPO was notified of the determination of adverse effect on July 15, 2015 and concurred with the determination; and

WHEREAS, such adverse effects include, but are not limited to, potential damage to the seven archeological sites within the primary APE, the relocation of the Lockkeeper's House 18 feet south and 5 feet west of its current location; removal of the Overlook Terrace (including honey locust trees); removal of trees in poor condition, particularly honey locust trees in paved areas; construction of a new pavilion; construction of a ring on the east end of the lake; resurfacing and slight reconfigurations to existing pedestrian walks; construction of a below grade access road off of 17th Street, NW; installation of an 18-inch stone perimeter wall along Constitution Avenue and 17th Street; and alterations of views and vistas, including views from the park to the Washington Monument, views from the location of the overlook terrace, and views along 17th Street 9 (Exhibit 8).

WHEREAS, the NPS made significant progress in avoiding and minimizing some adverse effects by means of the Section 106 consultation and National Environmental Policy Act (NEPA) review through an EA that was issued for public comment in June 2015 with a 30- day public comment period. Such measures include retaining the shape of Constitution Gardens Lake; retaining the refreshment kiosk; reducing the number of trees to be removed; limiting topographical changes to re-grading; retaining the majority of the existing walkway configuration; and preserving the majority of internal and external views and vistas.

WHEREAS, since NCPC and CFA are empowered to request design modifications after NHPA and NEPA compliance has been completed, this MOA provides a process to address any new or intensified adverse effects that may result from subsequent design changes;

NOW, THEREFORE, the NPS, DCSHPO, and NCPC agree that the Undertaking will be carried out in accordance with the following stipulations in order to take into account the effects of the Undertaking on historic properties.

STIPULATIONS

The NPS shall ensure that the following measures are carried out:

I. PHASING

This project will be implemented in two (2) phases.

Phase I will be substantially completed by August 2016. Phase 1 will occur on the northeast corner of Constitution Gardens and includes the relocation and rehabilitation of the Lockkeeper's House and related landscape and walk improvements. The Lockkeeper's House will be relocated approximately 18 feet south and 5 feet west from its current location and rehabilitated. Rehabilitation of the Lockkeeper's house includes repair of masonry walls, repair or replacement of wooden elements, removal of non-historic interior features, and mechanical system upgrades (Exhibit 3).

Phase 2 will take approximately 36 to 48 months to complete after Phase 1 and will include planting a greater diversity and mix of lawns, meadows, and deciduous canopy and understory trees; re-grading the topography; creating a deeper, artificial lake within the existing footprint; improving access to the 56 Signers of the Declaration of Independence Memorial; removing the Overlook Terrace and constructing a multi-purpose visitor services pavilion with an adjacent event plaza; constructing an 18-inch retaining wall along the sidewalk on Constitution Avenue and 17th Street; resurfacing and minor reconfigurations to existing pedestrian walks to improve accessibility; and constructing a below grade access road off of 17th Street, NW, for operational and service related use (Exhibit 2). These efforts will be collectively referred to herein as the Undertaking ("Undertaking"); and

II. MITIGATION MEASURES

1. PHASE I

- a. Heritage Documentation: The NPS will seek funding to update 1994 HABS documentation for the Lockkeeper's House. The HABS documentation will be carried out prior to work being initiated on the building. The existing site will be documented with a site plan, additional photos and improved drawings. Following the relocation and rehabilitation of the Lockkeeper's House, as-built drawings will supplement the HABS documentation for the park record. The documents will be submitted to HABS for accessioning to the Library of Congress.
- b. The Lockkeeper's House and its new immediate surroundings will be rehabilitated in accordance with the *Secretary of the Interior Standards for Historic Properties*.
- c. The NPS will seek funding for interpretive media that may include wayside exhibits and will provide information on topics, such as the history of the Washington City canal and the Lockkeeper's House, the 17th Street Wharf, Tiber Creek Sewer outlet along 17th Street, and the Potomac Park Levee. Waysides will follow the NPS standard. The NPS will also incorporate the keystone from the headwall of the historic Tiber Creek Sewer Outlet on-site. The keystone is currently located at the National Park Service Brandywine Storage Facility. Information on the Tiber Creek Sewer Outlet is included in Exhibit 9.
- d. The NPS will delineate the former locations of the Lockkeeper's house through pavement treatments.

- e. The NPS will seek funding to update the National Register Nomination for the Lockkeeper's House.

2. PHASE 2

- a. Historic American Landscape Survey (HALS): The NPS will seek funding to complete HALS Standard Format documentation for Constitution Gardens. The HALS documentation will be carried out prior to work being initiated on the park. The site history and measured drawing will be submitted to HABS for accessioning to the Library of Congress.
- b. Tree and Vegetation Planting Plan: Because the canopy density is a contributing feature to Constitution Gardens, the NPS will develop and implement a tree maintenance plan that includes procedures for the removal of trees in poor health, supports the health of trees in fair to good health, and plans for the addition of new trees with the purpose of maintaining a healthy canopy.
- c. Vegetation Design: The NPS will plant trees, shrubs, and other plantings that acknowledge the general location and species of plantings historically located in the park, as noted in the original Skidmore, Owings, and Merrill (SOM) plans. Favor will be given to the selection of species that reflect and respect the design and horticultural character of these previous plans. The design will also take into consideration native species, maintenance, and storm water management strategy.
- d. The NPS will install interpretative exhibits that may include information about the history and archeology of the park, beginning with its creation as reclamation land, through its use by the United States Navy and Munitions Department as the location for temporary office structures, and ending with the development of Constitution Gardens by SOM. If included, waysides will follow the NPS standard.
- e. When additional design details of Phase 2 are known and prior to CFA and NCPC reviews of Phase 2, the Signatories, Invited Signatory and Consulting Parties will consult to identify ways to avoid or minimize adverse effects. Topics to be consulted upon include, but are not limited to the pavilion design and construction, lighting design, below grade access road off of 17th Street, and potential changes to the radius at the intersection of Constitution Avenue and 17th Street. If any new or intensified adverse effects are identified as a result of this consultation, additional mitigation may be required.
- f. Prior to CFA and NCPC reviews of Phase 2, the Signatories will evaluate the final design and make a determination regarding whether any design modifications required by CFA or NCPC have resulted in any new or intensified adverse effects. The NPS will forward the final designs and its determination to the DC SHPO for a thirty day review. If the NPS and DC SHPO concur that no new or intensified adverse effects result, no further action will be required. If either the NPS or DC SHPO determine that a new or intensified adverse effect will result, the Signatories will consult further to determine whether an amendment to this MOA will be necessary. Any such amendment will be addressed in accordance with the Administration Stipulation VIII-3, Amendments.]

III. CURRENT PROJECT PLANS

The most recent plans for the Rehabilitation for Constitution Gardens are attached for reference in Exhibits 2 and 3.

IV. DESIGN REVIEW

In order to ensure that the mitigation measures specified in Stipulation I are carried out in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, the NPS shall provide the DC SHPO with plans, drawings, renderings, narratives, and any other information necessary to fully describe the manner in which each mitigation measure is proposed for implementation of both phases at the 30%, 60% and 90% design levels. The DC SHPO shall review submittals for each phase and provide the NPS with comments within thirty (30) days of receipt which the NPS shall incorporate into the designs to the maximum extent possible. The NPS may continue with the designs as proposed if the DC SHPO fails to provide comments within the thirty day comment period.

V. ARCHEOLOGICAL RESOURCES

1. Archeological Sites

The NPS will include the following provisions to this effect in the design and construction of both phases of the project for the treatment of known archeological sites within the primary Area of Potential Effect.

- a. The NPS will make every effort to avoid and protect the seven archeological site localities, which include the former location of Lock B of the Washington City Canal (51NW235), remnants of the 17th Street Wharf (51NW232), the Lockkeeper's House deposits (51NW233), the outlet of the Tiber Creek Sewer (51NW234), potential deposits associated with the foundations of the Navy Administration Buildings, potential remains of the Washington City Canal prism and towpath, and potential remains of the Washington Brewery.
- b. If the potential for adverse effects to a known archeological resource are unavoidable, the NPS will consult with DC SHPO to determine the need for archeological investigation and/or mitigation. All investigations will follow the *Guidelines for Archaeological Investigations in the District of Columbia* (1998, as amended), the *Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* (as amended and annotated), and be conducted under the direct supervision of an archeologist that meets or exceeds the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44738-44739).

2. Unanticipated Discoveries

The NPS will include the following provisions to this effect in the construction permits for the treatment of unanticipated archeological discoveries, including human remains, during excavation, construction, or other ground-disturbing activity resulting from improvements made to Constitution Gardens.

- a. In the event that a previously unidentified archeological resource is discovered during project activities, the NPS will immediately halt all ground-disturbing activities in the area of the resources and in the surrounding area where further subsurface remains can reasonably be expected to occur.

- b. The NPS will notify the DC SHPO immediately upon discovery of previously unidentified archeological resources. The NPS and the SHPO will visit the site within 48 hours of such notification, inspect the work site, and determine the nature and extend of the affected archeological property and establish a resource area. Construction may then continue in the project area outside the established boundaries of the resource area.
- c. Within three (3) working days of the original notification of discovery, the NPS, in consultation with the SHPO, will determine the National Register eligibility of the resources.
- d. The NPS, in consultation with the DC SHPO, will ensure compliance with 36 CFR §800.13. Work in the resource are shall not proceed until either a) the development and implementation of an appropriate data recovery or other recommended mitigation procedures; or b) the determination is made that the located archeological remains are not eligible for including in the National Register of Historic Places.
- e. If human remains are discovered during construction, NPS shall immediately notify the US Park Police (USPP) and shall ensure that all ground-disturbing activities in the immediate area of the discovery ceases immediately and stays halted in accordance with the protocols established by the USPP and the District of Columbia Metropolitan Police Department. The NPS shall also ensure that the Secretary of Interior's guidelines on human remains are followed. If the remains are assumed to be Native American, the Native American Graves Protection and Repatriation Act of 1990 through the implementing regulations at 43 CFR Part 10 will govern the NPS procedures and outcomes, including consultation with appropriate tribal representatives.

VI. PROJECT FUNDING

The NPS shall seek funding to ensure that the stipulations of this MOA are carried out. If funding identified for this proposed Undertaking is a result of a partnership between NPS and an entity, other than the Trust for the National Mall, this MOA shall be amended to reflect the roles and responsibilities of the financial partner(s) in implementing the terms of the MOA.

VII. ELECTRONIC COPIES

Within one week of the last signature on this MOA, the NPS shall provide each Signatory and Invited Signatory with one legible, color, electronic copy of this fully-executed MOA and all of its attachments. If the electronic copy is too large to send by e-mail, the NPS shall provide each signatory with a copy of this MOA on a compact disc.

VIII. ADMINISTRATION

1. Dispute Resolution

Should any Signatory or Invited Signatory to this MOA object in writing to the NPS regarding any action carried out in accordance with this MOA, the signatories shall consult to resolve the objection as expeditiously as possible. Should the signatories be unable to resolve the disagreement, the NPS shall forward its proposed resolution of the dispute and any other documentation relevant to the dispute to the ACHP. Within thirty (30) days after receipt of all pertinent documentation, the ACHP will either:

- a. Provide the NPS with recommendations, which the NPS will take into account in reaching a final decision regarding the dispute; or
- b. Notify the NPS that it will comment pursuant to 36 CFR 800.7(c), and proceed to comment. Any ACHP comment provided in response to such a request shall be taken into account by the NPS in accordance with 36 CFR 800.7(c) (4) with reference to the subject of the dispute. Any ACHP recommendation or comment will be understood to pertain only to the subject of the dispute; NPS's responsibility to carry out all actions under this MOA that are not subjects of the dispute will remain unchanged.

2. Duration

This MOA shall be valid for a period of ten (10) years from the date of the last signature.

3. Amendments

This MOA may be amended when an amendment is agreed to in writing by all signatories. The amendment shall be effective on the date a copy signed by all of the signatories. At any time in the six-month period prior to expiration of the MOA, the signatories may mutually agree to extend the MOA with or without amendments.

4. Termination

If any Signatory or Invited Signatory to this MOA determines that the terms of the MOA cannot or are not being carried out, that objecting party shall so notify the other signatories in writing and consult with them to seek amendment of the MOA. If within fourteen (14) days an amendment cannot be reached, any Signatory or Invited Signatory may terminate the MOA upon written notification to the other signatories. Once the MOA is terminated, and prior to work continuing on the Undertaking, the NPS must (a) either execute a new MOA or (b) request, take into account, and respond to the comments of the ACHP per 36 CFR Section 800.7. The NPS will notify the signatories as to the course of action it will pursue.

IX. ANTI-DEFICIENCY ACT

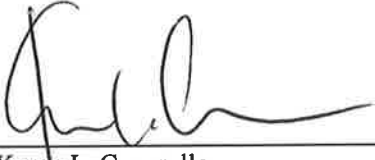
This MOA is subject to applicable laws and regulations. As to the Signatories only, fulfillment of this MOA and all of the provisions herein are subject, pursuant to the Anti-Deficiency Act, 31 U.S.C. § 1341 et seq., to the availability of funds. This MOA is not an obligation of funds in advance of an appropriation of such funds, and it does not constitute authority for the expenditure of funds. If a Signatory or Invited Signatory does not have sufficient funds available to fulfill the Stipulations of this MOA, such Signatory or Invited Signatory shall so notify the other Signatories and shall take such actions as are necessary to otherwise comply with 36 C.F.R. Part 800. NPS shall make reasonable and good faith efforts to seek funding for implementing this MOA.

X. SIGNATURES

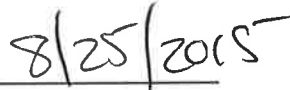
Execution of this MOA and implementation of its terms, evidences that NPS and the Signatories or Invited Signatory with Section 106 responsibilities have afforded the ACHP an opportunity to comment on the Undertaking and taken into account the effects of the Undertaking on historic properties.

[Signatures Follow On Separate Pages]

**SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
AMONG
THE NATIONAL PARK SERVICE,
THE TRUST FOR THE NATIONAL MALL
THE NATIONAL CAPITAL PLANNING COMMISSION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
REGARDING
THE REHABILITATION OF CONSTITUTION GARDENS PROJECT,
WASHINGTON, D.C.**



Karen L. Cucurullo
Acting Superintendent
National Mall and Memorial Parks
National Park Service

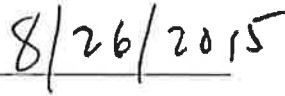


Date

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THE TRUST FOR THE NATIONAL MALL
THE NATIONAL CAPITAL PLANNING COMMISSION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
REGARDING
THE REHABILITATION OF CONSTITUTION GARDENS PROJECT,
WASHINGTON, D.C.**



David Maloney
District of Columbia State Historic Preservation Officer

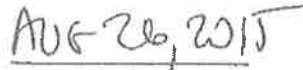


Date

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THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
REGARDING
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WASHINGTON, D.C.**



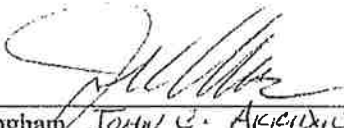
Marcel C. Acosta
Executive Director
National Capital Planning Commission



Date

INVITED SIGNATORY PAGE
MEMORANDUM OF AGREEMENT
AMONG
THE NATIONAL PARK SERVICE,
THE TRUST FOR THE NATIONAL MALL
THE NATIONAL CAPITAL PLANNING COMMISSION,
THE DISTRICT OF COLUMBIA STATE HISTORIC PRESERVATION OFFICER
REGARDING
THE REHABILITATION OF CONSTITUTION GARDENS PROJECT,
WASHINGTON, D.C.

Caroline Cunningham
President—
The Trust for the National Mall


JOHN C. ARCEAUX, III
Chairman

8/25/15
Date

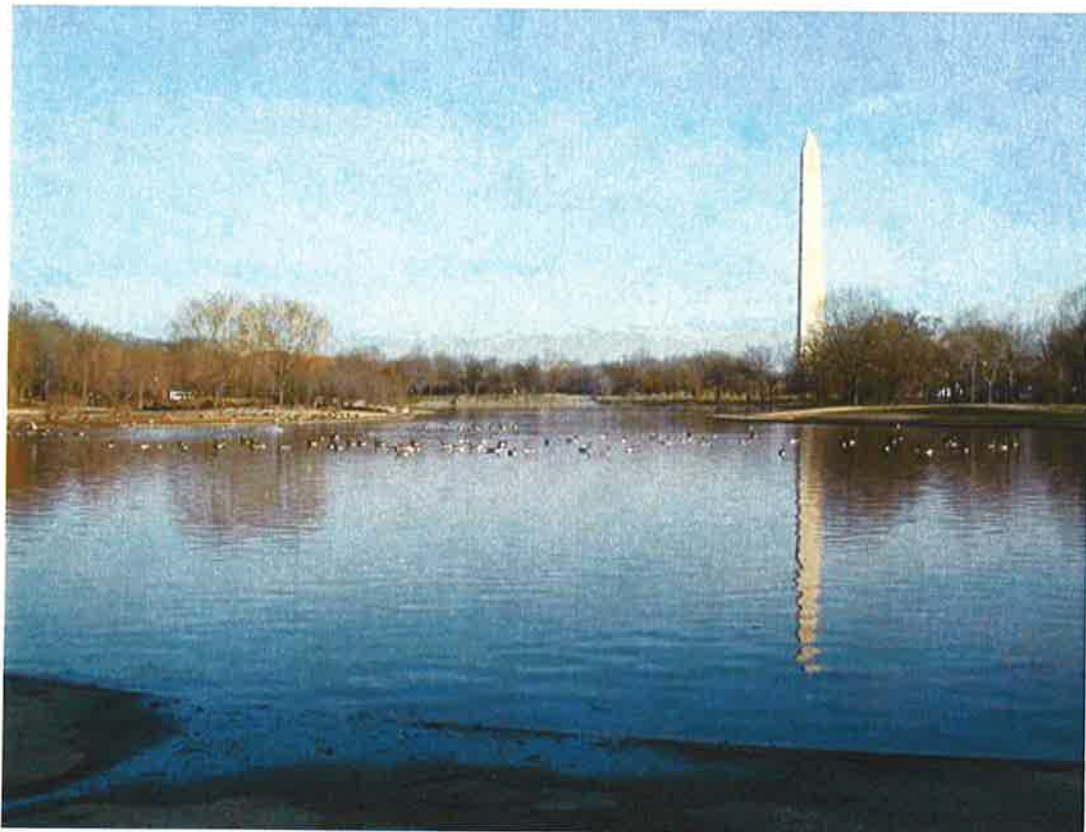
T. Durkin
Sr. Project Director

8/25/15

EXHIBIT LIST

- Exhibit 1 2008 Cultural Landscape Inventory Summary Document (updates in 2014)
<http://parkplanning.nps.gov/document.cfm?parkID=427&projectID=50222&documentID=59140>
- Exhibit 2 Concept Drawings for Preferred Alternative—Regenerative Garden
- Exhibit 3 Design and Development Drawings for Phase I
- Exhibit 4 List of Consulting Parties
- Exhibit 5 Rehabilitation of Constitution Gardens APE
- Exhibit 6 June 2015 Rehabilitation of Constitution Gardens Environmental Assessment: Executive Summary: Full document available at <http://parkplanning.nps.gov/COGA>
- Exhibit 7 Summary of Geoarchaeological Interpretations of Soil Coring Borings in Constitution Gardens. Washington, DC. Geo-Sci Consultants, LLC, University Park, Maryland.
- Exhibit 8 Assessment of Effects Matrix
- Exhibit 9 Tiber Creek Sewer Outfall

National Park Service
Cultural Landscapes Inventory
2008



Constitution Gardens
National Mall & Memorial Parks - West Potomac Park

Inventory Unit Summary & Site Plan

Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Cultural Landscapes Inventory – General Information

The Cultural Landscapes Inventory (CLI) is a database containing information on the historically significant landscapes within the National Park System. This evaluated inventory identifies and documents each landscape's location, size, physical development, condition, landscape characteristics, character-defining features, as well as other valuable information useful to park management. Cultural landscapes become approved inventory records when all required data fields are entered, the park superintendent concurs with the information, and the landscape is determined eligible for the National Register of Historic Places through a consultation process or is otherwise managed as a cultural resource through a public planning process.

The CLI, like the List of Classified Structures (LCS), assists the National Park Service (NPS) in its efforts to fulfill the identification and management requirements associated with Section 110(a) of the National Historic Preservation Act, National Park Service Management Policies (2001), and Director's Order #28: Cultural Resource Management. Since launching the CLI nationwide, the NPS, in response to the Government Performance and Results Act (GPRA), is required to report information that respond to NPS strategic plan accomplishments. Two goals are associated with the CLI: 1) increasing the number of certified cultural landscapes (1b2B); and 2) bringing certified cultural landscapes into good condition (1a7). The CLI maintained by Park Historic Structures and Cultural Landscapes Program, WASO, is the official source of cultural landscape information.

Implementation of the CLI is coordinated and approved at the regional level. Each region annually updates a strategic plan that prioritizes work based on a variety of park and regional needs that include planning and construction projects or associated compliance requirements that lack cultural landscape documentation. When the inventory unit record is complete and concurrence with the findings is obtained from the superintendent and the State Historic Preservation Office, the regional CLI coordinator certifies the record and transmits it to the national CLI Coordinator for approval. Only records approved by the national CLI coordinator are included on the CLI for official reporting purposes.

Relationship between the CLI and a Cultural Landscape Report (CLR)

The CLI and the CLR are related efforts in the sense that both document the history,

Constitution Gardens

National Mall & Memorial Parks - West Potomac Park

significance, and integrity of park cultural landscapes. However, the scope of the CLI is limited by the need to achieve concurrence with the park superintendent resolve eligibility questions when a National Register nomination does not exist or the nomination inadequately addresses the eligibility of the landscape characteristics. Ideally, a park's CLI work (which many include multiple inventory units) precedes a CLR because the baseline information in the CLI not only assists with priority setting when more than one CLR is needed it also assists with determining more accurate scopes of work.

In contrast, the CLR is the primary treatment document for significant park landscapes. It, therefore, requires an additional level of research and documentation both to evaluate the historic and the existing condition of the landscape in order to recommend preservation treatment that meets the Secretary of Interior's Standards for the treatment of historic properties.

The scope of work for a CLR, when the CLI has not been done, should include production of the CLI record. Depending on its age and scope, existing CLR's are considered the primary source for the history, statement of significance, and descriptions of contributing resources that are necessary to complete a CLI record.

Inventory Unit Description:

Designed by the Washington office of the architectural firm Skidmore, Owings and Merrill in the early 1970s, Constitution Gardens is the firm's interpretation of the barely sketched design for this area offered by the 1902 McMillan Plan. The 43.1-acre park occupies a prominent position in West Potomac Park, northeast of the Lincoln Memorial Grounds. Constitution Gardens is considered part of the National Mall area, yet is somewhat hidden from view by grade changes: the 1930s/1940s flood control levee that runs along its south boundary, a low berm along Constitution Avenue on the north, and raised elevations at the east and west. Six years after the park was completed in 1976, the Vietnam Veterans Memorial was built in a meadow at its west end, requiring modification of the grade and planting design. Later, two sculpture groups with additional landscaping were added south of the memorial: the Three Servicemen in 1984, which includes a flagpole as part of its design, and the Vietnam Women's Memorial in 1993. The "In Memory" plaque was added adjacent to the Three Servicemen in 2004.

Constitution Gardens is a constructed park. East and West Potomac Parks were created in the late-nineteenth and early-twentieth centuries from material that had been dredged from the Potomac River and deposited along its banks to improve navigation. The reclaimed lands were graded, covered with top soil, seeded with grass, planted with trees, and developed into recreational areas. In 1918, on the future Constitution Gardens site, two enormous temporary office buildings for the Navy Department were built (these were removed in 1971). In the 1930s, an earth-and-concrete flood control levee was erected along the south side of the area, also extending some distance up 17th Street. The levee was rebuilt in the 1940s, and again in the mid-1970s as part of the park's construction. It forms part of a larger legislated flood control project that is still maintained by the U.S. Army Corps of Engineers and the National Park Service, and protects a large section of Washington from flooding. Under the Flood Control Act of June 22, 1930, the NPS has to maintain the height of this levee.

Constitution Gardens

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Constitution Gardens comprises a roughly rectangular site, the eastern half of which gently slopes down to a 6.75-acre lake that has a continuously curving shoreline, oriented with its long axis east-west. Near the north shore of the lake lies a half-acre island. A wooden pedestrian bridge provides access to the island, a memorial landscape dedicated to the 56 Signers of the Declaration of Independence that was designed by landscape architects from EDAW's Alexandria office. From the bridge, a granite walk leads to a paved semicircular plaza that opens to the south shore, lined on the north side by fifty-six granite blocks organized into thirteen groups representing each of the original states. Carved into the slanted top face of each block is the signature, name, hometown, and occupation of a signer. Behind both quarter-circles of granite stones is a triangular planting bed, and another planting bed lines the island's sloping north shore. The beds hold remnants of the original plantings, which were dense, linear arrangements of perennials, shrubs such as azaleas and junipers, and trees including weeping willows and saucer magnolias. A curving line of saucer magnolias is planted in the lawn along the island's east-west center line.

Almost two thousand trees grow in Constitution Gardens. Over two thousand (2654) trees were planted at the time the park was built, in 1975-76, but a large percentage of these soon died because of poor soil conditions and, possibly, because of heavy rains; many of the existing trees are replacements (Hodge WP 5/28/76:C7). Trees are planted regularly around the park's perimeter, effecting a gradual transition from the formal lines of trees surrounding the park – the European elms along the Reflecting Pool on the south, and the American elms lining the streets on the north and east. Trees within the park are primarily a mixture of native deciduous species and flowering upland understory species. Because of replacements, the original species composition has been altered and is now more complex; also, some planting locations have been altered. Several existing trees were incorporated into the design, mostly at the west end near the Vietnam Veterans Memorial, and at the east end near the Lockkeeper's House are several trees that pre-date the establishment of Constitution Gardens.

Running through the park are about two miles of meandering walks designed for use by pedestrians and cyclists. These are laid out in two large peanut-shaped loops that are aligned east to west; one follows the shoreline of the lake, the other curves around the large western knoll and the Vietnam Veterans Memorial. Secondary walks branch off from and connect back with the main loops. Nearly all walks are paved with gravel-topped asphalt, an asphaltic material in which gravel is rolled into the surface of the asphalt while it is still warm; however, the walk in front of the Vietnam Veterans Memorial has two types of granite pavers. At first, hundreds of Norway maples were planted in circular openings in the asphalt, along one side of the loop walks, to create a linear wall of trees shading and emphasizing the curving pedestrian routes. Most of these trees have died and been replaced by red maples, placed adjacent to the walks rather than within them, though in some places maples have been planted in the original tree holes.

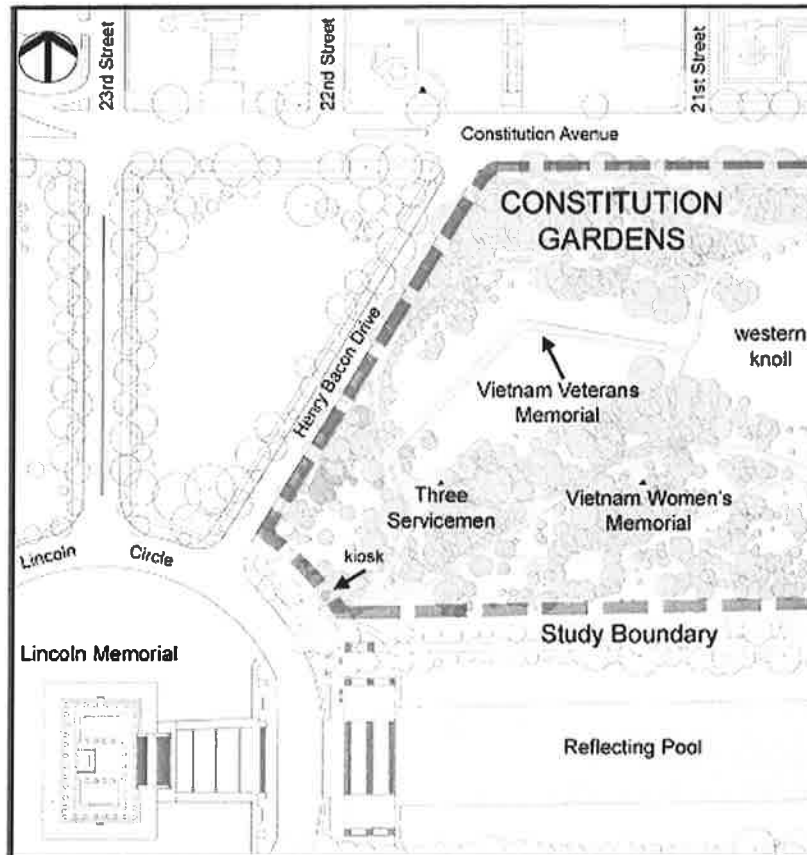
Overlooking the lake at its east end is a large paved platform, planned as the site for a visitors facility with a restaurant that was never built because of a lack of funds (Hodge WP 5/28/76:C7). Three stone-walled terraces, designed for outdoor seating, descend the slope from the plaza to the lake (the first terrace is at the same level as the paved platform). Honey locust trees are planted in lines along the terraces. At the northeast corner of the site stands the historic Lockkeeper's House, built when the

Constitution Gardens
National Mall & Memorial Parks - West Potomac Park

Washington City Canal was joined to the Chesapeake & Ohio Canal in the 1830s. The Lockkeeper's House was relocated forty-nine feet west and six feet north from its original to its present location in 1915 to accommodate the extension of 17th Street.

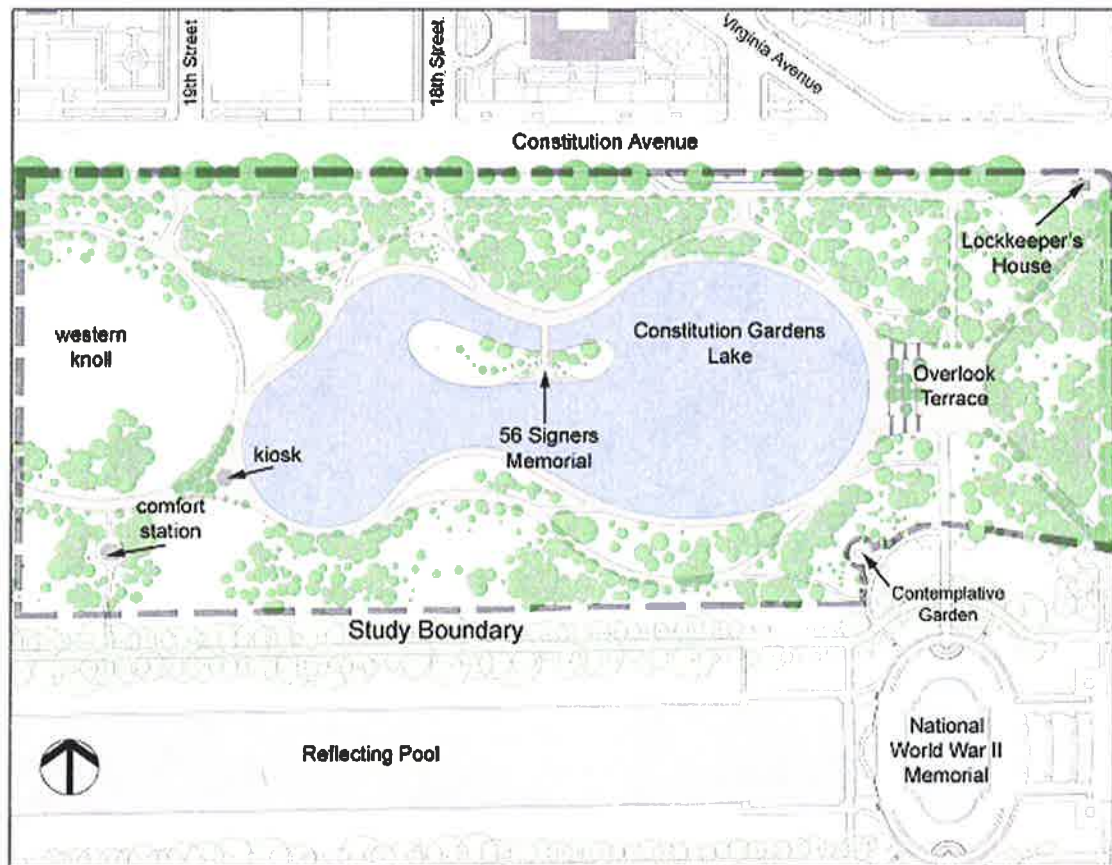
Though secluded from the highly public grounds of the Lincoln Memorial and Washington Monument, and the busy arterial road of Constitution Avenue, Constitution Gardens is tied to these other areas through circulation and views. Walks connect with nearby memorials and streets. Views of the Washington Monument, in particular, are prominent throughout the park, and other structures, including the Lincoln Memorial, the Old Post Office tower, the Thomas Jefferson Memorial, the U.S. Capitol dome, and the buildings of Federal Triangle, are visible. The statues of the Three Servicemen and the Vietnam Women's Memorial were placed to provide views from specific locations of the Vietnam Veterans Memorial.

Site Plan



Site plan 1 of 2. This plan depicts the western third of Constitution Gardens, the area where the Vietnam Veterans Memorial is located. (Sept. 2007, CLP file "COGA west side site plan.jpg.")

Constitution Gardens
National Mall & Memorial Parks - West Potomac Park



Site plan 2 of 2. This graphic depicts the major features and current condition of the eastern two-thirds of Constitution Gardens. (Sept. 2007; CLP file "COGA east side site plan.jpg.")

Property Level and CLI Numbers

Inventory Unit Name:	Constitution Gardens
Property Level:	Component Landscape
CLI Identification Number:	600012
Parent Landscape:	600007

Park Information

Park Name and Alpha Code:	National Mall & Memorial Parks - West Potomac Park -NAMA
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Constitution Gardens
National Mall & Memorial Parks - West Potomac Park

Park Organization Code: 3495
Subunit/District Name Alpha Code: National Mall & Memorial Parks - West Potomac Park
- NAMA
Park Administrative Unit: National Capital Parks-Central

Concurrence Status

Inventory Status: Incomplete

Completion Status Explanatory Narrative:

The Constitution Gardens Cultural Landscape Inventory was written by Kay Fanning, Ph.D., Landscape Historian with the Cultural Landscapes Program of the National Capital Region. She began work in September 2006 and completed the inventory in April 2008. Research material was gathered from the following repositories: Cultural Resource Files, National Mall & Memorial Parks (NAMA), National Capital Region (NCR); Beautification Files, Cultural Landscapes Program (CLP) files, NCR; maps and plans from the Technical Information Center (TIC) and Land Resources Program Center (LRPC), NCR; Constitution Gardens and Lincoln Memorial grounds photos, NCR Museum Resource Center (MRCE); Commission of Fine Arts (CFA) minutes from National Archives & Records Center (NARA); and Washington Post archives, ProQuest Newspaper Database. Interviews were conducted with David Childs, Consulting Partner, SOM and Chairman, Commission of Fine Arts and with John Parsons, Associate Regional Director for Lands, Resources and Planning, NCR concerning the design development of Constitution Gardens in the 1970s. Other NPS professionals provided their insights on the various issues related to the flood levee, vegetation and water quality: Glenn DeMarr, Project Manager, NCR; Robert Defeo, Regional Horticulturist, NCR; Dr. James Sherald, Chief of Natural Resources and Science, NCR; and Mary Willeford Bair, Natural Resources Specialist, NAMA. Many other professionals within the NPS (National Capital Region and National Mall and Memorial Parks) reviewed the document and provided information and corrections.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	08/12/2008
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	09/29/2008

National Register Concurrence Narrative:

The State Historic Preservation Officer for the District of Columbia concurred with the findings of the Constitution Garden Cultural Landscape Inventory on September 29, 2008, in accordance with Section 110 of the National Historic Preservation Act. It should be noted that the "National Register Eligibility Concurrence Date" refers to this Section 110 Concurrence and not the date of listing on the National Register.

Geographic Information & Location Map

Inventory Unit Boundary Description:

Constitution Gardens
National Mall & Memorial Parks - West Potomac Park

Constitution Gardens is a 43.1-acre park unit in West Potomac Park, part of the National Mall, bounded by Henry Bacon Drive on the west, Constitution Avenue on the north, 17th Street on the east, and, on the south, the toe of the slope that runs down to the elm walks along the Reflecting Pool. This slope follows the flood control levee. The Vietnam Veterans Memorial, along with the Three Servicemen statue and the Vietnam Women's Memorial, occupies a site legislated as two acres at the west end of Constitution Gardens.

State and County:

State: DC

County: District of Columbia

Size (Acres): 43.10

Boundary UTMS:

<u>Source</u>	<u>Type of Point</u>	<u>Datum</u>	<u>UTM Zone</u>	<u>UTM Easting</u>	<u>UTM Northing</u>
GPS-Differentially Corrected	Point	NAD 83	18	322,390	4,306,781
GPS-Differentially Corrected	Point	NAD 83	18	322,313	43,065,559
GPS-Differentially Corrected	Point	NAD 83	18	323,111	4,306,555
GPS-Differentially Corrected	Point	NAD 83	18	323,113	4,306,765

Constitution Gardens
National Mall & Memorial Parks - West Potomac Park

Location Map:



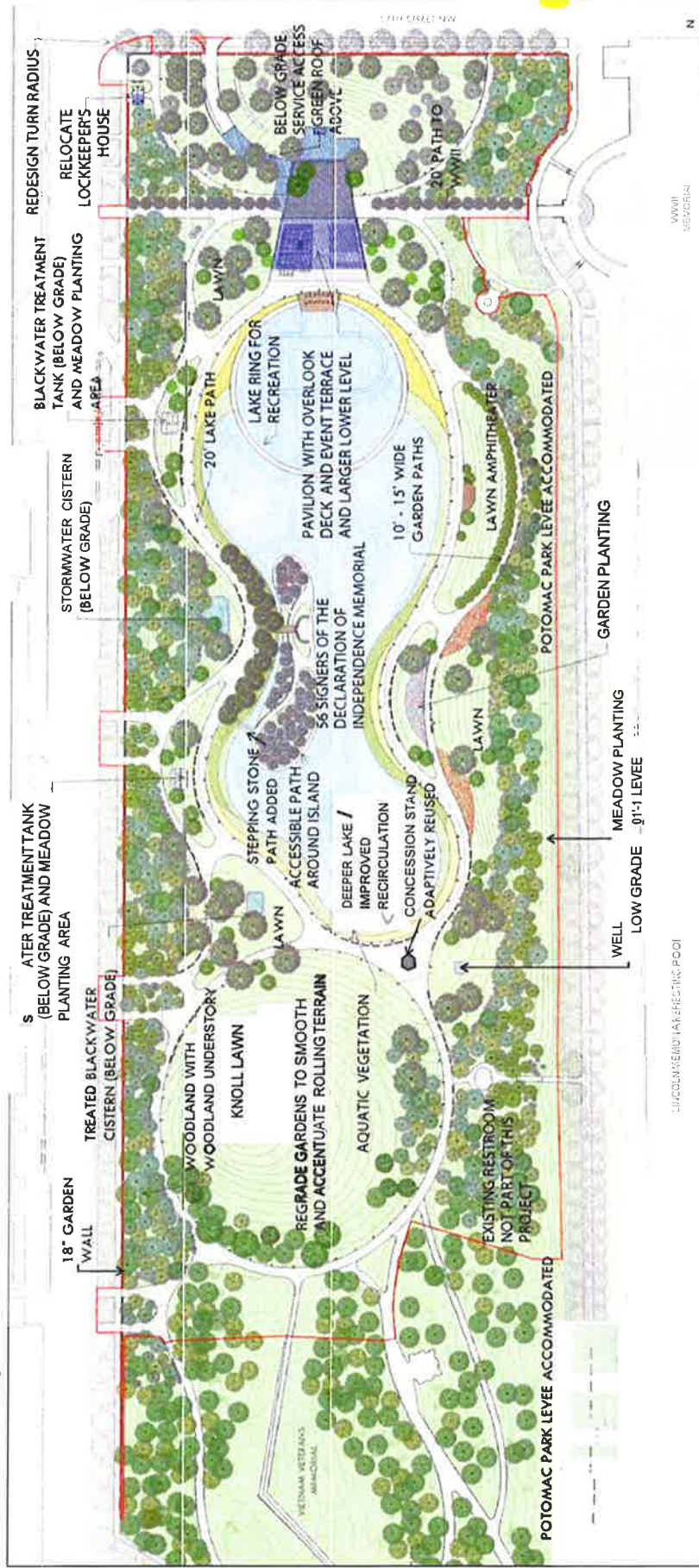
Map showing location of Constitution Gardens within West Potomac Park. (Sept. 2007; CLP file "COGA location map.")

Management Unit: Constitution Gardens

Track Numbers: Reservation 332

Exhibit 2 - Concept Drawings for Preferred Alternative — Regenerative Garden

Figure 2.2 - Preferred Alternative-Regenerative Garden



REHABILITATE CONSTITUTION GARDENS
FIGURE 2.2- PREFERRED ALTERNATIVE - REGENERATIVE GARDEN

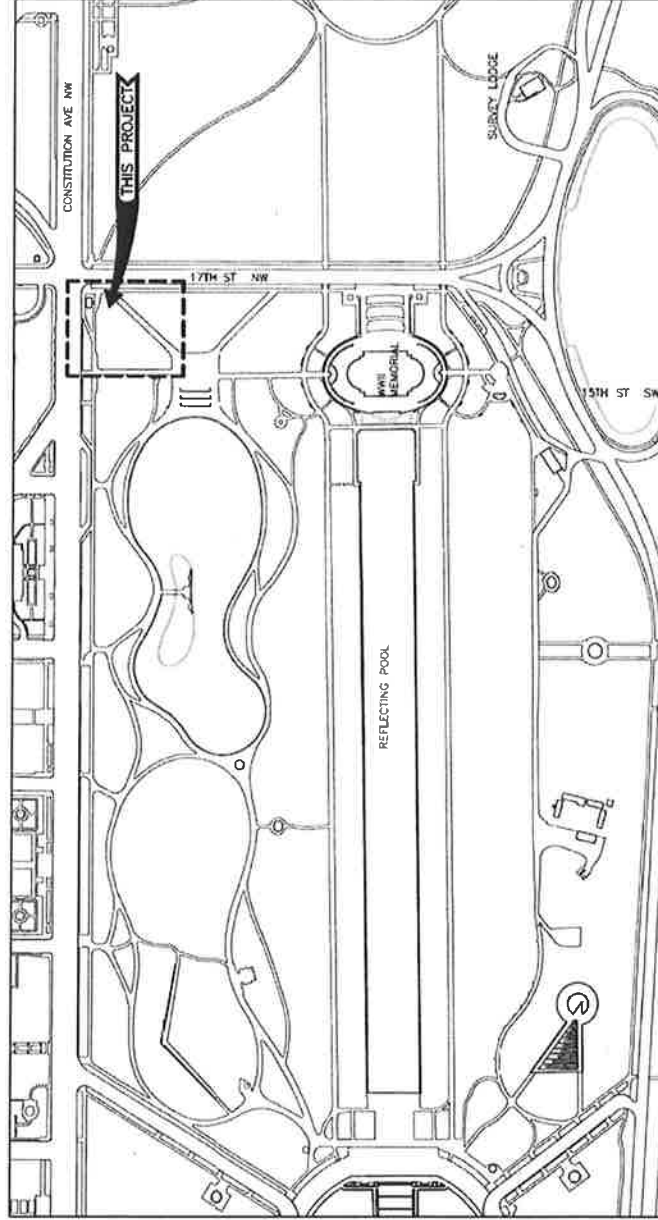
NATIONAL MALL AND MEMORIAL PARKS
WASHINGTON, D.C.

UNITED STATES DEPARTMENT OF INTERIOR
NATIONAL PARK SERVICE

REHABILITATE CONSTITUTION GARDENS

NATIONAL MALL AND MEMORIAL PARKS
WASHINGTON, DC.

NAMA 203983



PREPARED FOR: THE TRUST
FOR THE NATIONAL MALL /
NATIONAL PARK SERVICE

FOR COORDINATION ONLY
NOT FOR CONSTRUCTION



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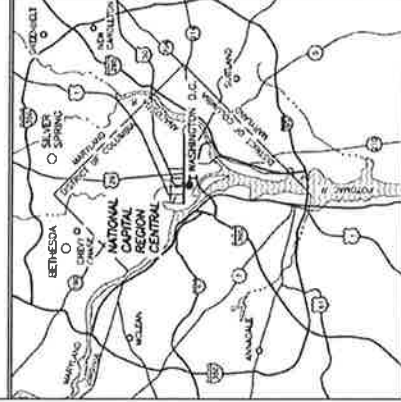
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COVER SHEET
TITLE OF PROJECT

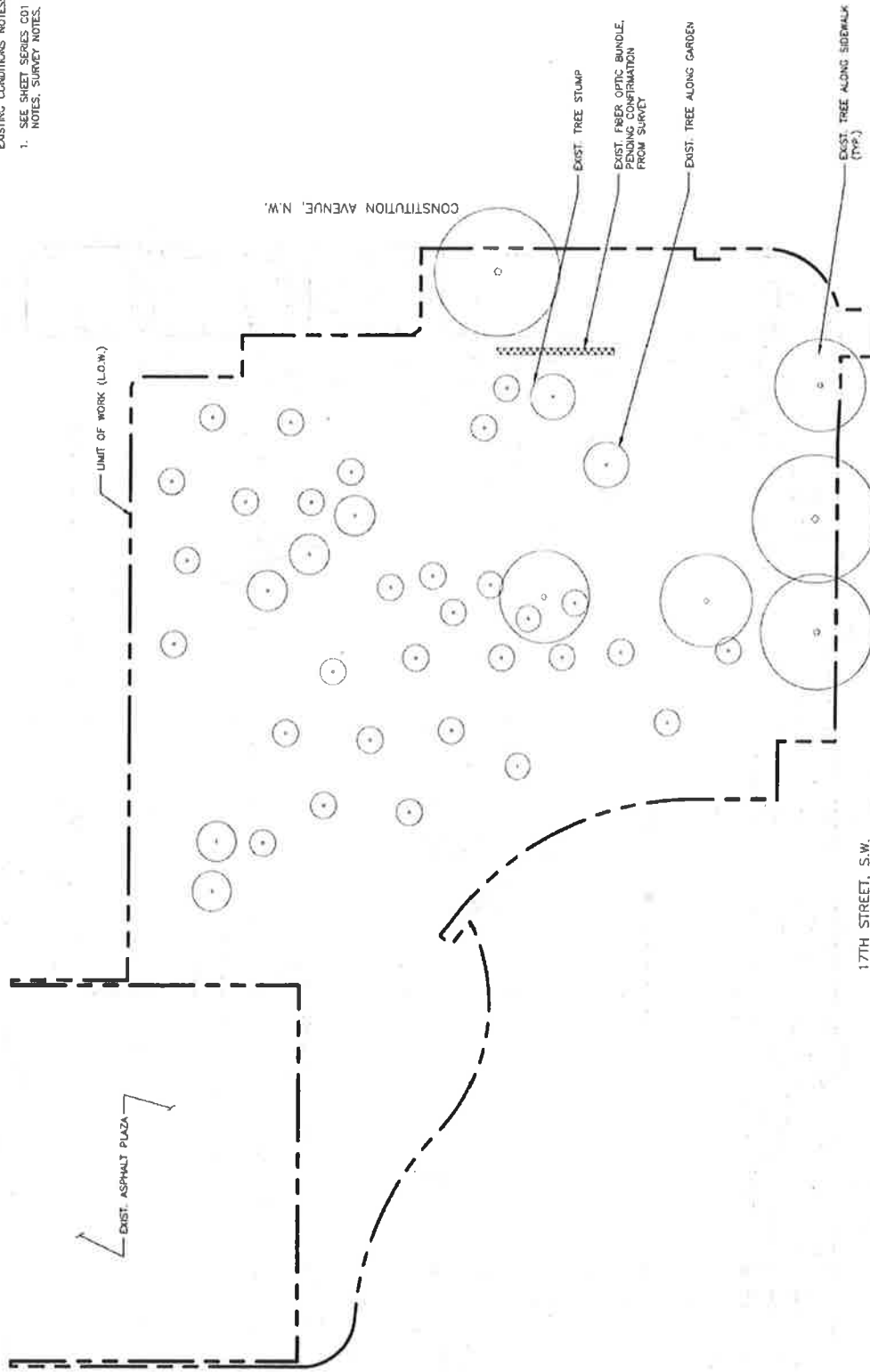
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REHABILITATE CONSTITUTION GARDENS
CONSTITUTION GARDENS
NATIONAL MALL AND MEMORIAL PARKS
WASHINGTON, D.C.

1 of 1

VICINITY MAP



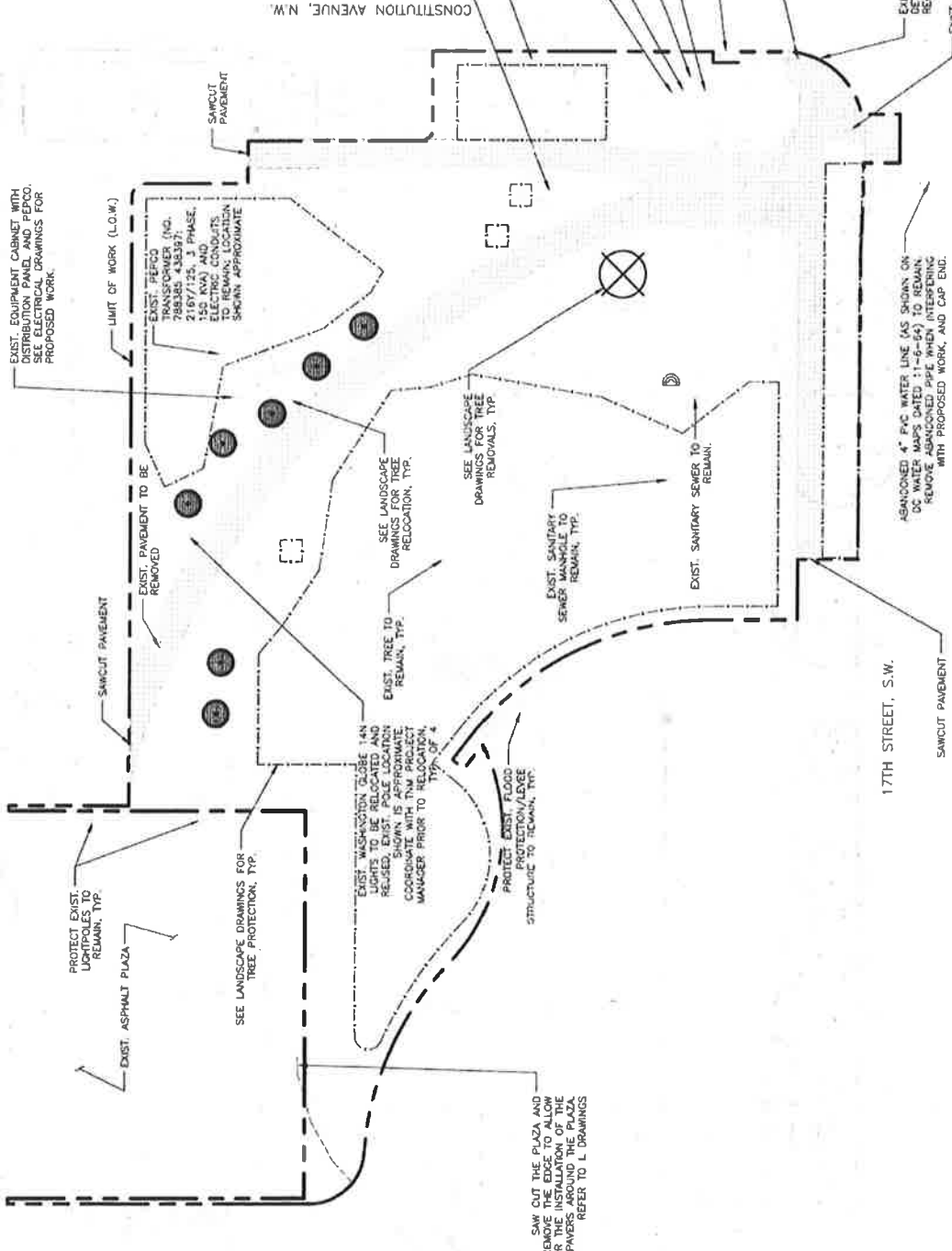
EXISTING CONDITIONS NOTES:
 1. SEE SHEET SERIES C01 FOR EXISTING CONDITIONS NOTES, SURVEY NOTES, AND LEGEND.



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DATE: 8/7/2015 DRAWING NO.: 127016 SHEET: X OF XX	PROJECT: REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS	TITLE OF SHEET: EXISTING CONDITIONS PLAN	SUB SHEET NO.: C02.0
PREPARED BY: PWP LANDSCAPE ARCHITECTURE BERKELEY, CA	CHECKED BY: DAVIS BUCKLEY ARCHITECTS AND PLANNERS WASHINGTON D.C.	DESIGNED BY: DAVIS BUCKLEY ARCHITECTS AND PLANNERS WASHINGTON D.C.	DATE: 8/7/2015
PROJECT: REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS	PROJECT: REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS	PROJECT: REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS	PROJECT: REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS

- DEMOLITION NOTES:
1. SEE SHEET C04.0 FOR DEMOLITION NOTES AND LEGEND.
 2. ALL TREE PROTECTION AND EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION. CARE SHALL BE TAKEN FOR WORK IN THE VICINITY OF TREES TO REMAIN.
 3. SEE LANDSCAPE DRAWINGS FOR TREE PROTECTION, REMOVAL AND RELOCATION PLAN.
 4. SEE LANDSCAPE DRAWINGS FOR NEW PAVEMENT AND SIDEWALK.



SCALE OF FEET
0 20 40

DEMOLITION
SITE
PLAN

C04.0

DATE: 8/7/2015

DESIGNED BY: HENRY ADAMS, LLC
WASHINGTON, DC

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NOT FOR CONSTRUCTION

FOR COORDINATION ONLY
NOT FOR CONSTRUCTION

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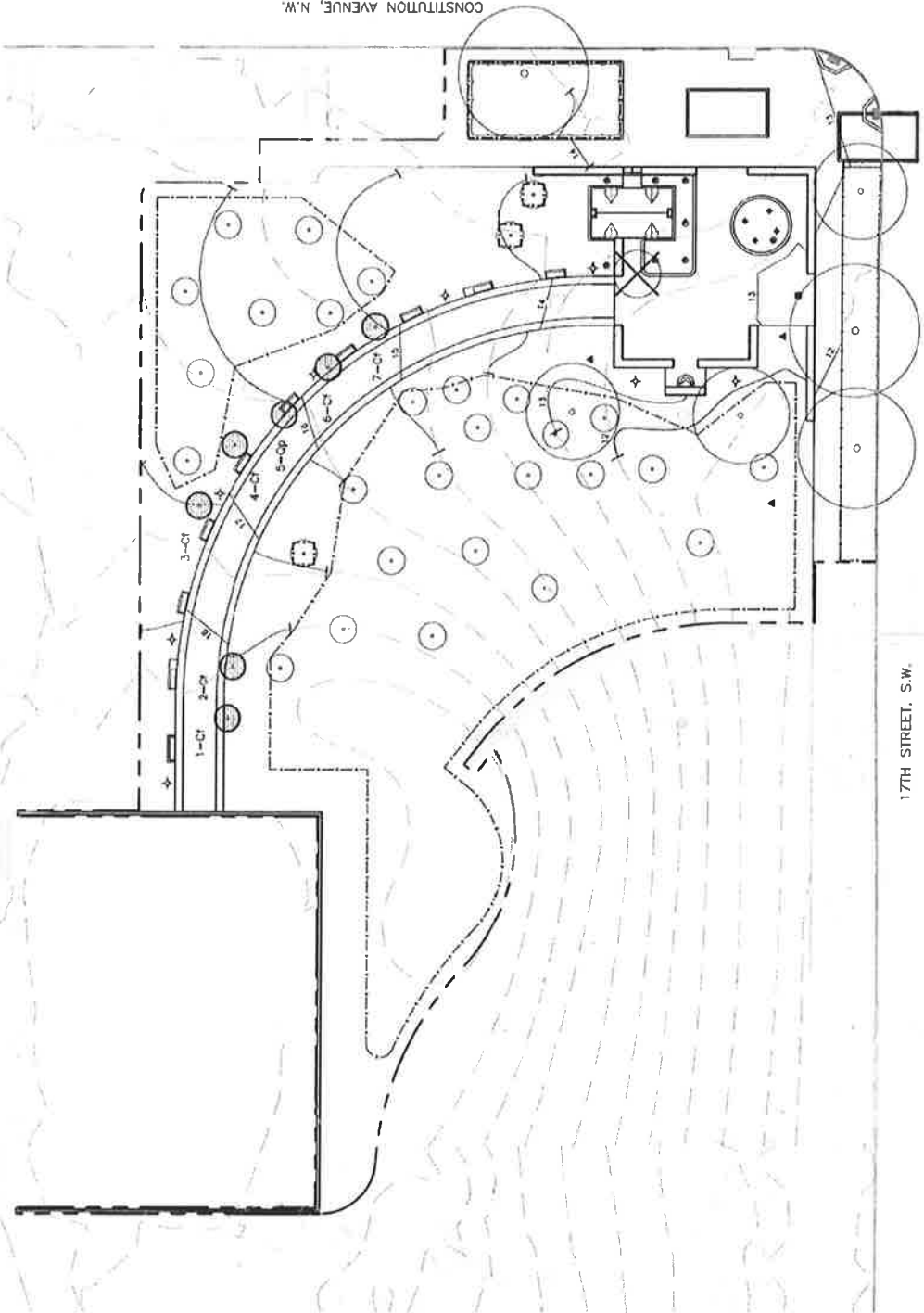
TREE PROTECTION PLAN

- EXISTING TREE TO REMAIN
- EXISTING TREE TO RELOCATE
SEE PLANTING PLAN FOR
FINAL LOCATION
- EXISTING TREE TO REMOVE
- TREE PROTECTION FENCE
-6" TALL CHAIN LINK
-METAL POSTS @ 6' O.C.
-PROVIDE 6" DIAMETER
WOODEN RAIL, 4' HIGH AT
EACH TREE

GENERAL-ALL SHEETS

- LIMIT OF WORK
- BENCH WITH CONCRETE PAD
- EXISTING TREE
- PROPOSED TREE
- STONE WALL
- STAIR
- CURB (STONE PARADES)
- AREA DRAIN IN PAVING
- SD FOR CONNECTION
- AREA DRAIN IN PLANTING
- SD FOR CONNECTION
- AREA DRAIN IN MULCH
- SD FOR CONNECTION
- AREA DRAIN IN MEADOW
- SD FOR CONNECTION
- LIGHT FIXTURE TYPE ED
- PEDESTRIAN POLE LIGHT
- LANDSCAPE UP LIGHTS
- POST & CHAIN
- CURB RAMP

NOTE: VERIFY TREE PROTECTION
SEE SHEET L00.1 FOR NOTES



17TH STREET, S.W.

FOR COORDINATION ONLY
NOT FOR CONSTRUCTION

SITE PLAN PRIME/LANDSCAPE ARCHITECT PMP LANDSCAPE ARCHITECTURE BERKELEY, CA PREPARED BY ARCHITECT DAVIS BUCKLEY ARCHITECTS AND PLANNERS WASHINGTON D.C.		CIVIL/SITE ELECTRICAL/SITE STRUCTURAL ENGINEER WEIDINGER ASSOCIATES NEW YORK, NY PREPARED BY STRUCTURAL ENGINEER 1200 ARCHITECTURAL ENGINEERS PLLC ALEXANDRIA, VA		DATE 8/7/2015	SUB SHEET NO. L01.1	TITLE OF SHEET TREE PROTECTION, REMOVAL AND RELOCATION REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS	DRAWING NO. B01- 127016 PROJECT NO. NALL 200583 SHEET X OF XX
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[illegible]

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 (12.1)

SECTION/ELEVATION DETAIL

BENCH
-SEE L16.1

EXISTING TREE

PROPOSED TREE

AREA DRAIN IN PAVING
—EOD FOR CONNECTION

105. **NOTED BY CHAIRMAN**

AREA DRAIN IN PLANTING
-SCD FOR CONNECTION

AREA DRAIN IN MILCH

—SCD FOR CONNECTION

AREA DRAIN IN MEADOW

-SCD FOR CONNECTION

LIGHT FIXTURE TYPE EO

PEDESTRIAN POLE LIGHTS

LIGHT FIXTURE TYPE E1
LANDSCAPE LIP LIGHTS

1990-1991

POST & CHAIR

SEE SHEET L00.1 FOR NOTES



DRAWING NO. 801	TITLE OF SHEET ENLARGEMENT PLAN ENTRY PLAZA	PROJECT NO. 127016
DATE 12/7016	DRAWN BY MM	CHECKED BY MM
SCALE 1" = 20'00"	PROJECT NAME REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS	SHEET NO. 104.1

	PMP LANDSCAPE ARCHITECTURE BERKELEY, CA	Civil/Electrical/ITE Structural Engineer Medlin Associates New York, NY	MEDLINE PROTECTION HENRY ADAMS, LLC WASHINGTON, DC	ISSUED BY	DATE
	DRAWN BY: DEAN BUCKLEY ARCHITECTS AND PLANNERS WASHINGTON D.C.	PROJECT NO.: STRUCTURAL ENGINEER 1789 ASPECT/CUTLAC ENGINEERS PLLC ALEXANDRIA, VA	TITLE	SHEET NO.	DATE
				8/7/2015	

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NOT FOR CONSTRUCTION

LAYOUT ENLARGEMENT PLAN

- STONE PAVERS AT PLAZA
- STONE PAVERS AT PATH
- STONE PAVERS AT PREVIOUS LOCKKEEPERS LOCATIONS
- STONE CURB
- STONE WALL
- SCORE JOINT IN CONCRETE PAVING
- EXPANSION JOINT WITH DOWEL
- EXPANSION JOINT WITHOUT DOWEL

GENERAL-ALL SHEETS

- LIMIT OF WORK
- DETAIL NUMBER
- SHEET NUMBER
- SECTION/ELEVATION DETAIL
- ROUGH
- EXISTING TREE
- PROPOSED TREE
- LIGHT FIXTURE TYPE E0
- PEDESTRIAN POLE LIGHT
- LIGHT FIXTURE TYPE E1
- LANDSCAPE UP LIGHTS

SEE SHEET L00.1 FOR NOTES

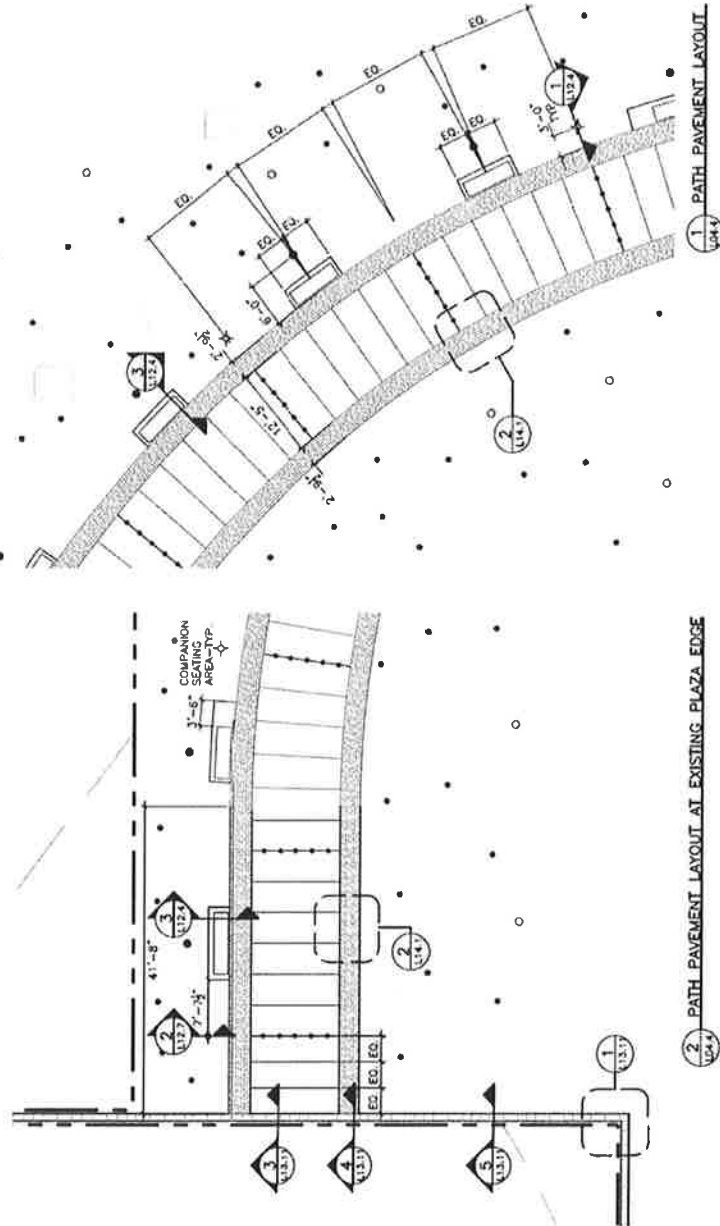
SCALE OF FEET

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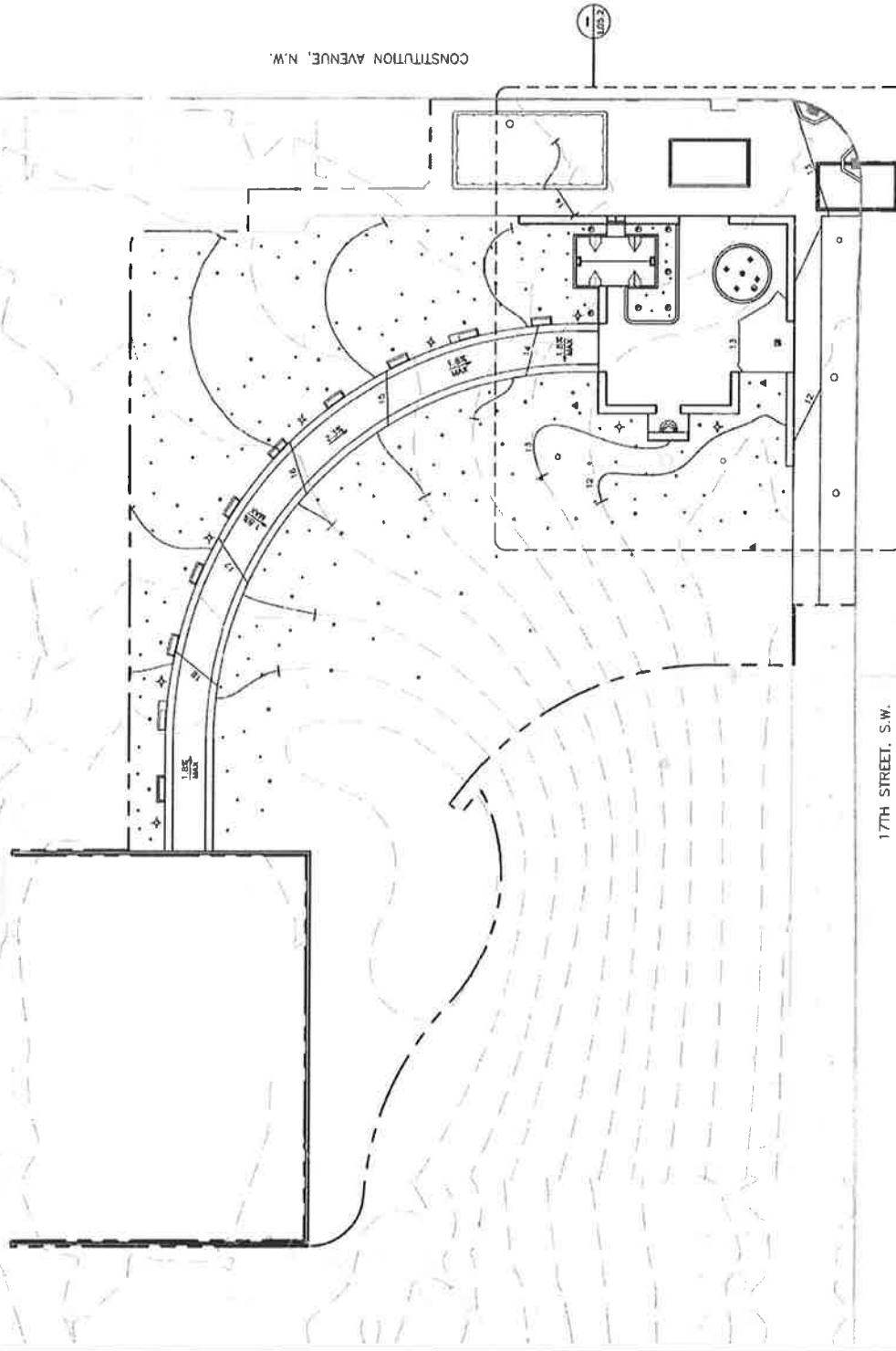
DRAWING NO.	801
PROJECT NO.	127016
DATE	MAY 2015
SHEET	X OF XX
TITLE OF SHEET	
ENLARGEMENT PLAN	
PATH	
REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS	
SUB SHEET NO.	L04.4
DATE	8/7/2015
DESIGNED BY	AC
CHECKED BY	MC
DATE	8/7/2015

FOR COORDINATION ONLY NOT FOR CONSTRUCTION	<p>LANDSCAPE ARCHITECT PWP LANDSCAPE ARCHITECTURE BERKELEY, CA</p> <p>PREPARED BY DAVIS BUCKLEY ARCHITECTS AND PLANNERS WASHINGTON D.C.</p> <p>DATE: 8/7/2015</p> <p>PROJECT NO.: 127016</p> <p>PROJECT NAME: REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS</p> <p>DESIGNED BY: AC</p> <p>CHECKED BY: MC</p> <p>DATE: 8/7/2015</p> <p>PROJECT NO.: 127016</p> <p>PROJECT NAME: REHABILITATE CONSTITUTION GARDENS NATIONAL MALL & MEMORIAL PARKS</p>
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2 PATH PAVEMENT LAYOUT AT EXISTING PLAZA EDGE

1 PATH PAVEMENT LAYOUT



GRADING PLAN

- *XXX.XX SPOT ELEVATION
- *XXX.XX EXISTING SPOT ELEVATION
- *FS XXX.XX PROPOSED FINISHED SURFACE ELEVATION
- *FC XXX.XX PROPOSED FINISHED GRADE
- *TW XXX.XX PROPOSED TOP OF WALL
- *BW XXX.XX PROPOSED BOTTOM OF WALL
- *TS XXX.XX PROPOSED TOP OF STAIR
- *BS XXX.XX PROPOSED BOTTOM OF STAIR
- *TC XXX.XX PROPOSED TOP OF CURB
- *BC XXX.XX PROPOSED BOTTOM OF CURB
- 1.9% FINISHED SLOPE DIRECTION
- 268 GRADE BREAK
- EXISTING CONTOUR ELEVATION NOTED ON HIGH SIDE
- 320 PROPOSED CONTOUR ELEVATION NOTED ON HIGH SIDE
- CONNECT TO EXISTING CONTOUR

GENERAL-ALL SHEETS

- LIMIT OF WORK
- 1 122 DETAIL NUMBER
- 122 SHEET NUMBER
- ENLARGED PLAN
- BENCH WITH CONCRETE PAD
- EXISTING TREE
- PROPOSED TREE
- STONE WALL
- STAIR
- CURB (STONE PAVERS)
- AREA DRAIN IN PAVING
- SCD FOR CONNECTION
- AREA DRAIN IN PLANTING
- SCD FOR CONNECTION
- AREA DRAIN IN MULCH
- SCD FOR CONNECTION
- AREA DRAIN IN MEADOW
- SCD FOR CONNECTION
- AREA DRAIN IN MEADOW
- SCD FOR CONNECTION
- LIGHT FIXTURE TYPE E1
- PEDESTRIAN POLE LIGHT
- LANDSCAPE UP LIGHTS
- POST & CHAIN
- CURB RAMP

SEE SHEET L00.1 FOR NOTES



CLIPPING NO.	801
DATE	12/7/16
PROJECT NO.	127016
SHEET	X OF XX

LAB SHEET NO.	L05.1
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DESIGNED BY	AD
CHECKED BY	AD
DATE	8/7/2015

PREPARED BY	AD
DATE	8/7/2015

CLIENT/ARCHITECT/ENGINEER	CHALITE ELECTRICAL/STRUCTURAL ENGINEER
CLIENT/ARCHITECT/ENGINEER	WEDINGER ASSOCIATES
CLIENT/ARCHITECT/ENGINEER	NEW YORK, NY
CLIENT/ARCHITECT/ENGINEER	WASHINGTON, DC

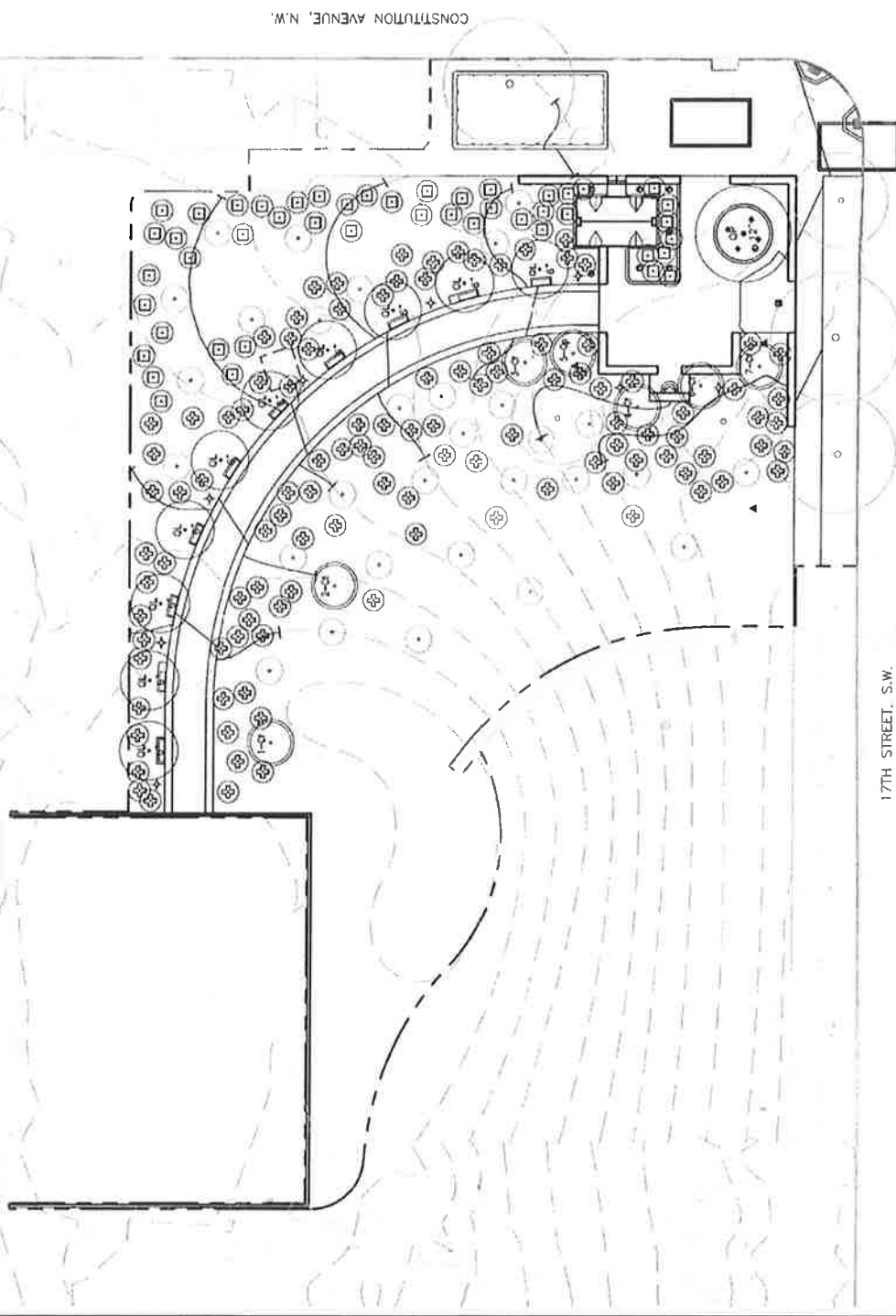
PREPARED BY	AD
DATE	8/7/2015

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PROJECT/ARCHITECT/ENGINEER	DAVIS BUCKLEY ARCHITECTS AND PLANNERS
PROJECT/ARCHITECT/ENGINEER	WASHINGTON, D.C.

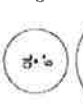
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PROJECT/ARCHITECT/ENGINEER	WASHINGTON, D.C.

PROJECT/ARCHITECT/ENGINEER	DAVIS BUCKLEY ARCHITECTS AND PLANNERS
PROJECT/ARCHITECT/ENGINEER	WASHINGTON, D.C.

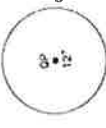


TREE PLANTING PLAN

- CERCIS CANADENSIS
- CORNUS FLORIDA



QUERCUS LYRATA 'Highbow'



QUERCUS PHELLOS 'Hickory'

GENERAL - ALL SHEETS

- LIMIT OF WORK
- o EXISTING TREE
- o PROPOSED TREE
- STONE WALL
- STAIR
- CURB (STONE PAVING)
- AREA DRAIN IN PAVING
- SOD FOR CONNECTION
- AREA DRAIN IN PLANTING
- SOD FOR CONNECTION
- AREA DRAIN IN MULCH
- SOD FOR CONNECTION
- AREA DRAIN IN MEADOW
- SOD FOR CONNECTION
- LIGHT FIXTURE TYPE E0
- PEDESTRIAN POLE LIGHT
- LIGHT FIXTURE TYPE E1
- LANDSCAPE UP LIGHTS
- POST & CHAIN
- CURB RAMP



DATE: 8/7/2015 DRAWING NO.: 127016 SHEET: X OF XX	TITLE: TREE PLANTING PLAN L08.1	PROJECT: REHABILITATION CONSTRUCTION, GARDENS NATIONAL MALL & MEMORIAL PARKS	PREPARED BY: AG CHECKED BY: MC DATE: 8/7/2015
			CIVIL/ARCHITECTURAL/ENGINEERING: WELLSER ASSOCIATES, NEW YORK, NY CIVIL/ARCHITECTURAL/ENGINEERING: HENRY ADAMS, LLC, WASHINGTON, DC PRESERVATION ARCHITECT: DAVIS BUCKLEY ARCHITECTS AND PLANNERS, WASHINGTON, DC PRESERVATION ARCHITECT: 1200 ARCHITECTURAL ENGINEERS PLLC, ALEXANDRIA, VA

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NOT FOR CONSTRUCTION

17TH STREET, S.W.

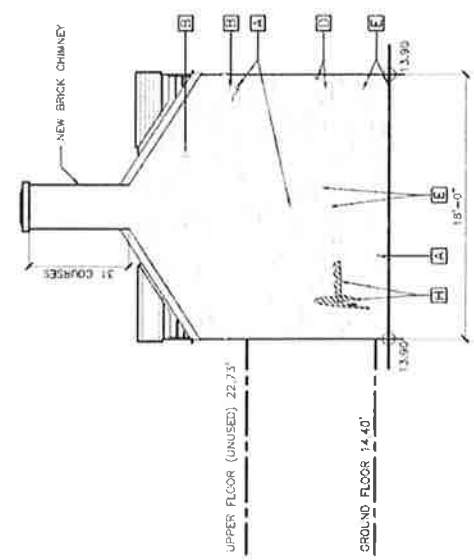
GENERAL NOTES

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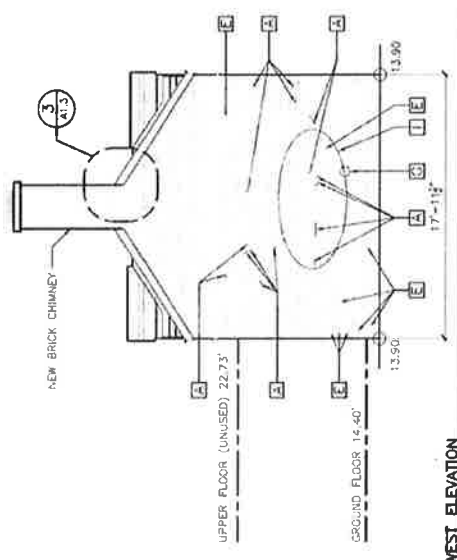
REPAIR KEYNOTES

- | | |
|---|--|
| A | REPOINT HARLINE CRACK |
| B | RECHARGE LOOSE STONE PIECE |
| C | REMOVE BAD PATCH, APPLY NEW PATCH |
| D | SAND STONE |
| E | UNSTABLE SANDSTONE, PERFORM CEMENTITIOUS MORTAR REPAIR |
| F | PATCH HOLE |
| G | CLEAN EXCESSIVE MORTAR, DO NOT DAMAGE STONE |
| H | CLEAN CEMENTITIOUS WASH |
| I | CLEAN PAINT REMOVAL RESIDUE |
| J | CLEAN PAINT SPLATTER |
| K | CLEAN BIOLOGICAL GROWTH |
| L | REMOVE EXISTING SHINGLE ROOF, REMOVE PLYWOOD SHEATHING BELOW, INSTALL NEW CYPRESS SHINGLE ROOF |

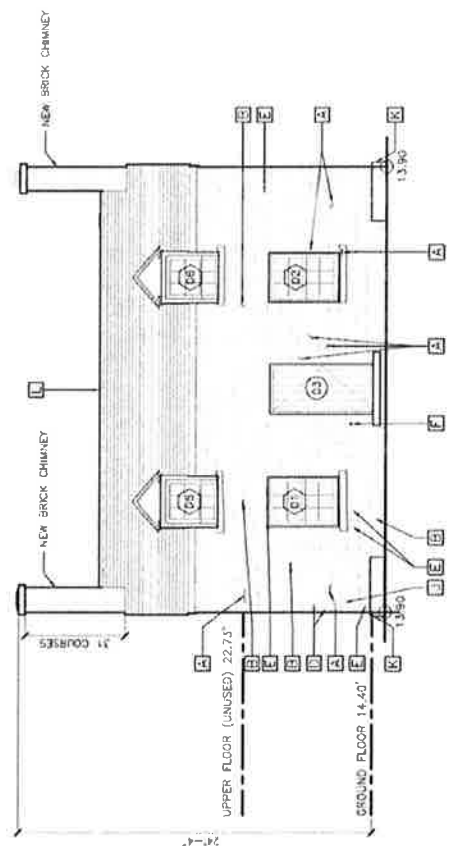
LEGEND



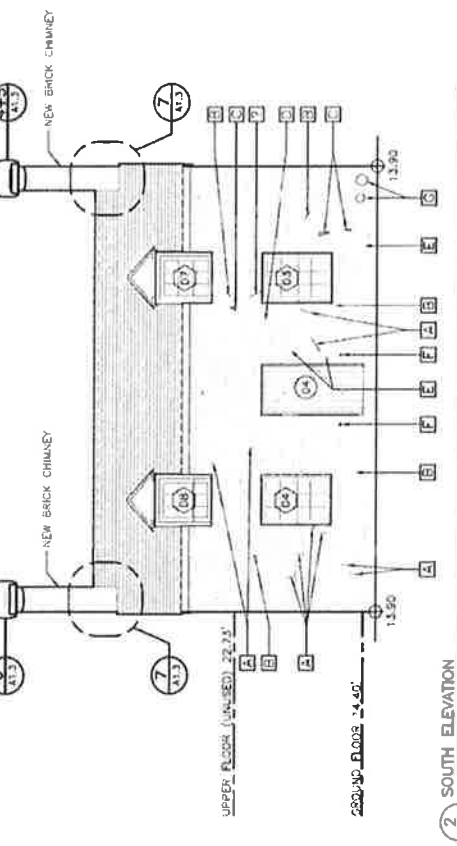
3 EAST ELEVATION



1 WEST ELEVATION



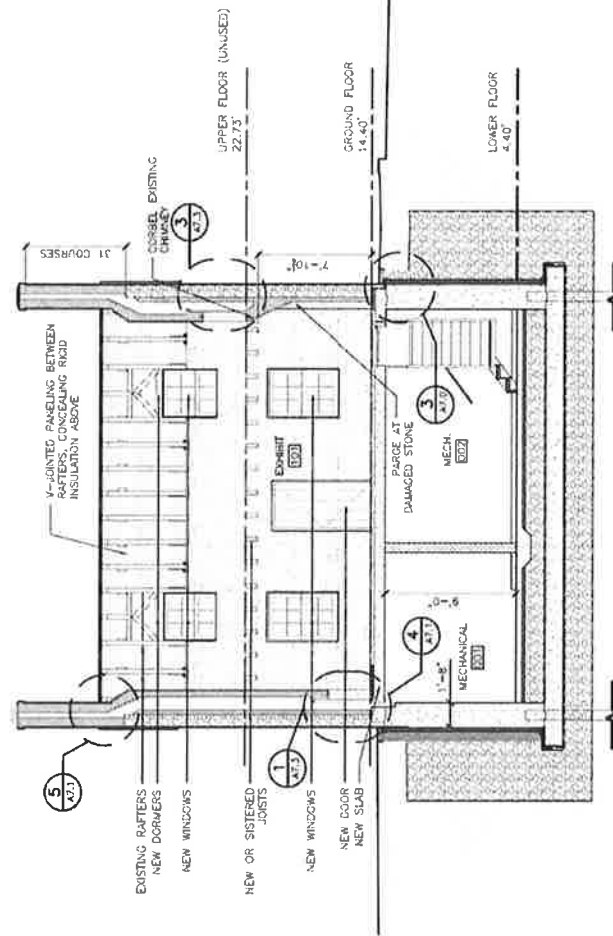
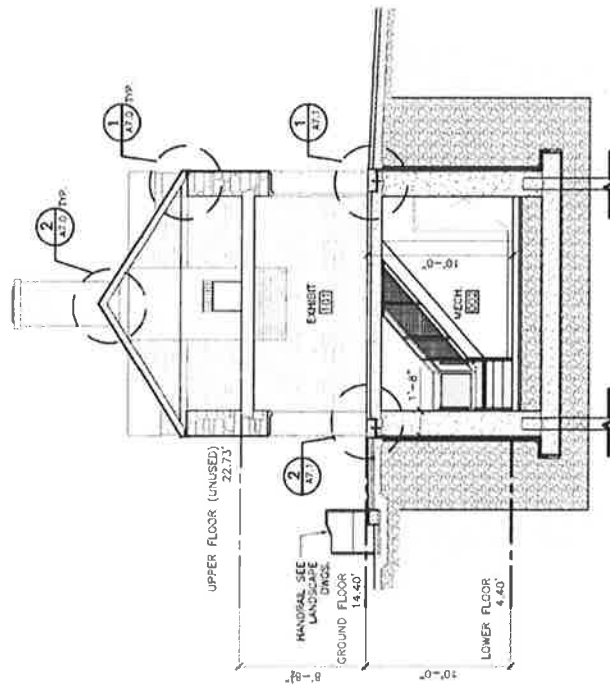
4 NORTH ELEVATION



2 SOUTH ELEVATION



DRAWING NO. 801		TITLE OF SHEET POST RELOCATION ELEVATIONS	
PMS/PRC NO. 127016		REQUALIFIED CONSULTATION, CASES NATIONAL WALL & MEMORIAL PARKS	
DATE 8/7/2013		SCALE A3.0	
CLIENT CIVIL/VE ELECTRIC/VEIT STRUCTURAL ENGINEER WEDINGER ASSOCIATES NEW YORK, NY		DESIGNER HENRY ADAMS, LLC WASHINGTON, DC	
PREPARED BY DAVIS BUCKLEY ARCHITECTS AND PLANNERS WASHINGTON, D.C.		CHECKED BY DAVIS BUCKLEY ARCHITECTS AND PLANNERS WASHINGTON, D.C.	

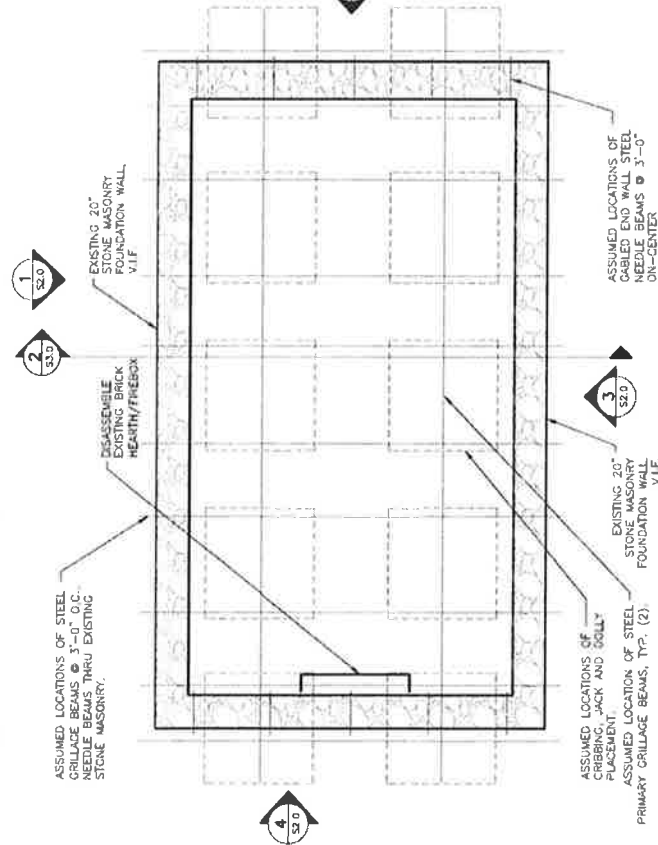


2 NORTH-SOUTH SECTION FACING EAST

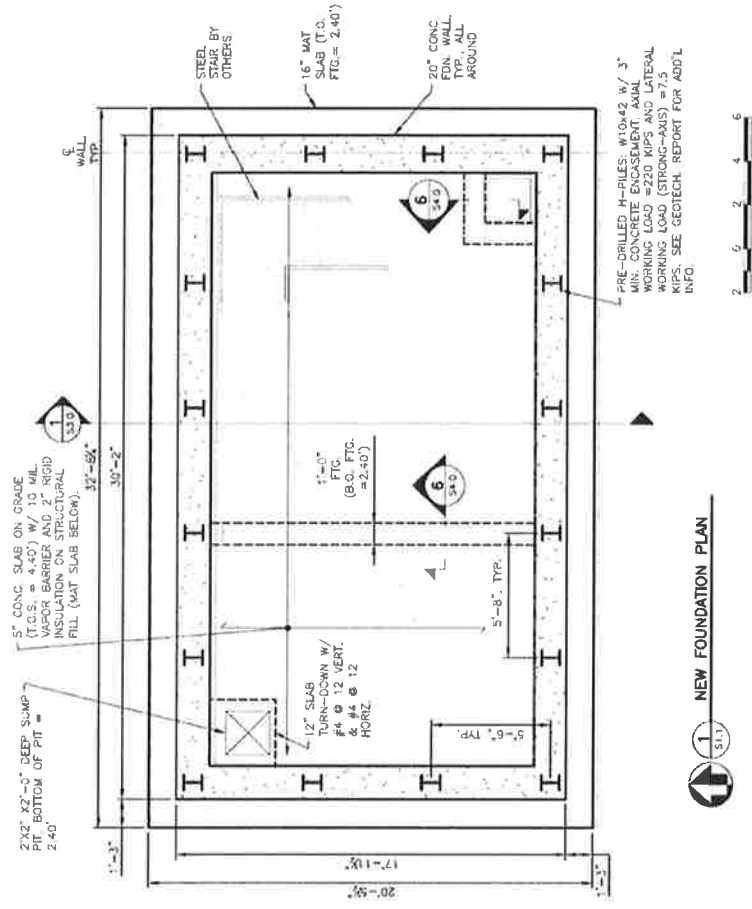
① EAST-WEST SECTION FACING NORTH

[illegible]

NOTE: THIS DRAWING SHOWS THE ASSUMED STEEL CRIBBLING, CRIBBLING, JACK AND DOLLY LOCATIONS AND IS SHOWN FOR ILLUSTRATION ONLY. CONTRACTOR IS RESPONSIBLE FOR DESIGN, SIZE, NUMBER, PLACEMENT, INSTALLATION, MONITORING, ETC. BEFORE SUBMITTAL. SUBMITTAL MUST INCLUDE CALCULATIONS AND MEANS/METHODS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE DISTRICT OF COLUMBIA TO THE OWNER/GOVERNMENT REVIEW AND APPROVAL.



1. BUILDING PREPARATION FOUNDATION PLAN

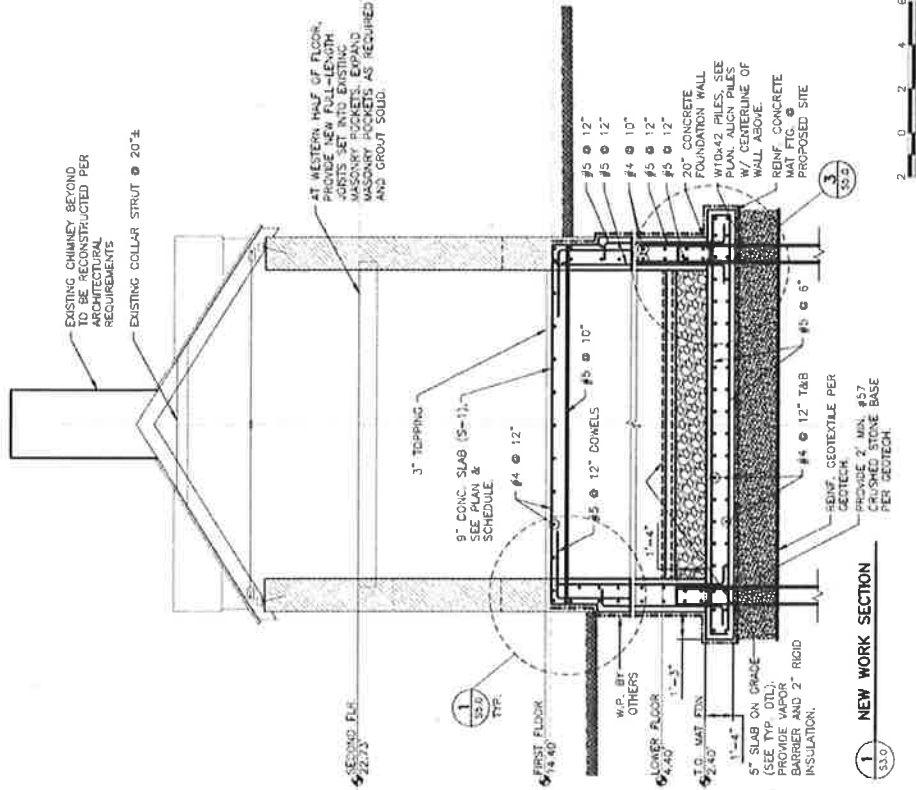


2. NEW FOUNDATION PLAN

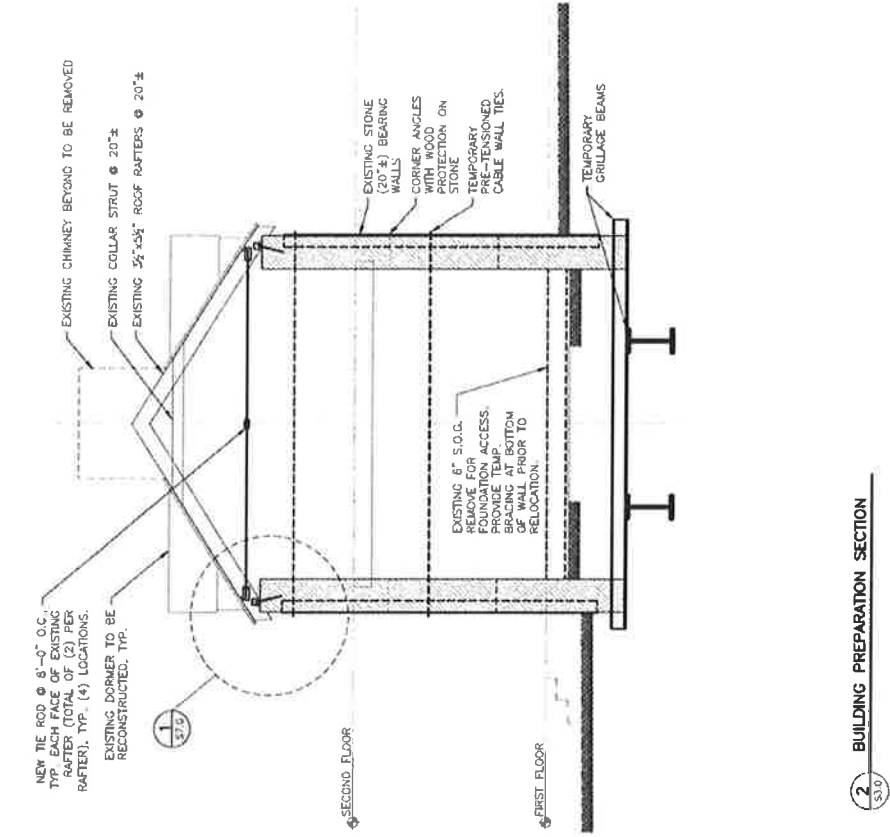
SHEET NO. 801 127016 PWS/PG 02 NAME: 203953 5/27	FOUNDATION PLANS REHABILITATE CONSTITUTION GARDENS NATIONAL WALL & MEMORIAL PARKS	SCALE: 1" = 4'-0" SCALE OF FEET 2 4 6	SHEET NO. S1.1 6/7/2015
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PROJECT ARCHITECT PRINCE & ASSOCIATES BERKELEY, CA	CONSULTING ELECTRICAL/MECHANICAL ENGINEER HENRY ADAMS, LLC WASHINGTON, DC	CONSULTING STRUCTURAL ENGINEER PRESTON ARCHITECTS AND PLANNERS WASHINGTON, D.C.	PREPARED BY PRESTON ARCHITECTS AND PLANNERS WASHINGTON, D.C.
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1 NEW WORK SECTION



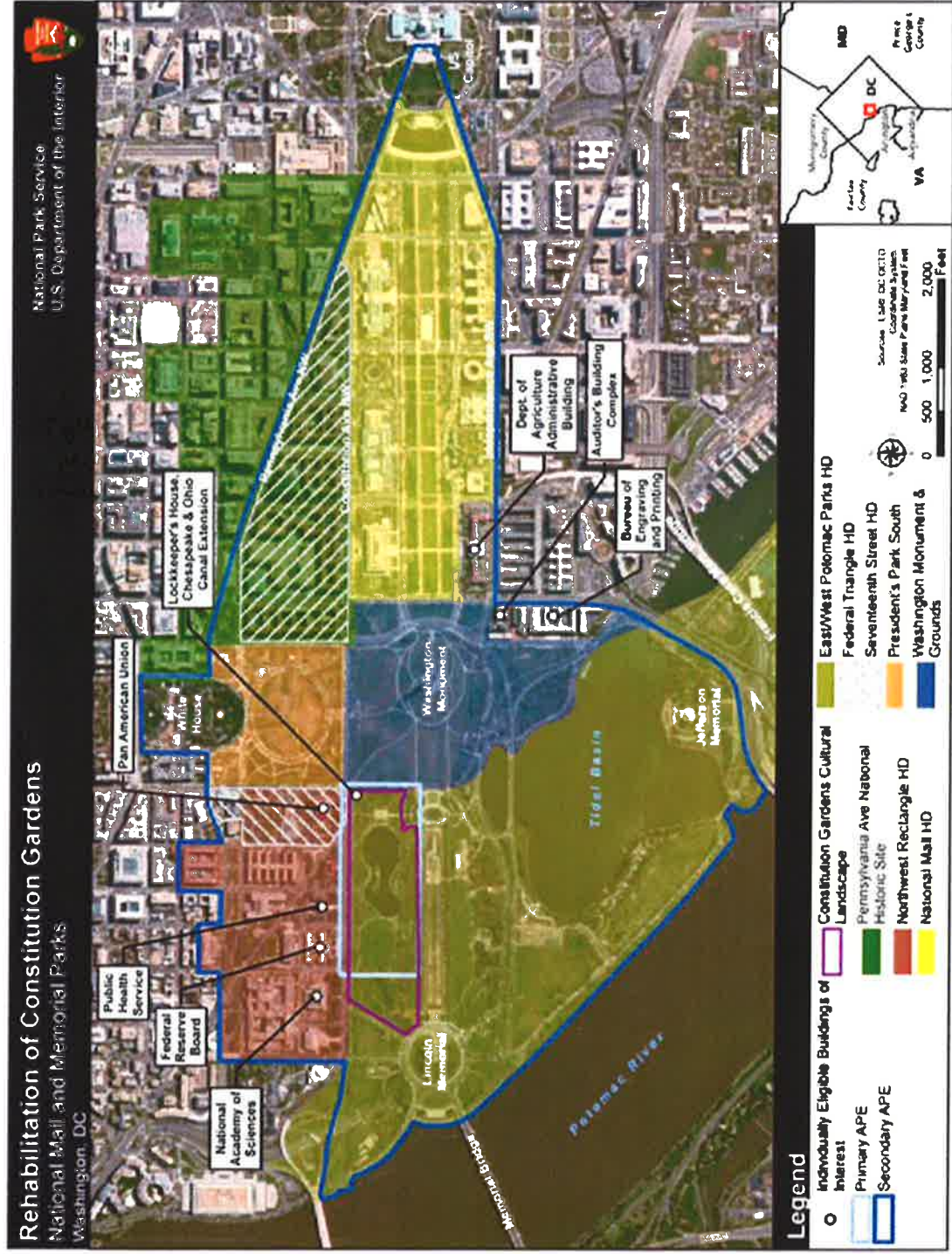
2 BUILDING PREPARATION SECTION

DRAWING NO. 801 PROJECT NO. 127016 DATE 10/1/2015	SUB SHEET NO. S3.0	DESIGNER J.D. CHECKER J.D. DATE 8/7/2015	PROJECT LOCATION WET/RE PROTECTION HENRY ADAMS, LLC WASHINGTON, DC PROJECT NO. 1200 ARCHITECTURAL ENGINEERS PLLC ALEXANDRIA, VA	SECTIONS REHABILITATE CONSTITUTION GARDENS NATIONAL WALL & MEMORIAL PARKS
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Exhibit 4 - List of Consulting Parties

National Capital Planning Commission
Advisory Council on Historic Preservation
Friends of the World War II Memorial
Organization of American States
Commission of Fine Arts
Committee of 100
District of Columbia State Historic Preservation Office
DC Preservation League
National Coalition to Save Our Mall
National Parks Conservation Association
National Trust for Historic Preservation
Washington, DC, Guild of Professional Tour Guides
Trust for the National Mall
Vietnam Veterans Memorial Foundation

Exhibit 5 - Area of Potential Effect



**Exhibit 6 - June 2015 Rehabilitation of Constitution Gardens Environmental Assessment:
Executive Summary**

Constitution Gardens
National Mall and Memorial Parks
Washington, D.C.

U.S. Department of the Interior
National Park Service

REHABILITATION OF CONSTITUTION GARDENS

ENVIRONMENTAL ASSESSMENT



JUNE 2015

PROJECT SUMMARY

Introduction

The National Park Service, National Mall and Memorial Parks proposes to allow its partner, the Trust for the National Mall, to undertake rehabilitation efforts of Constitution Gardens located between the Vietnam Veterans Memorial and 17th Street NW on the National Mall in Washington, DC. The proposed efforts are the subject of this environmental assessment. This environmental assessment was prepared in compliance with the National Environmental Policy Act of 1969, as amended to (1) analyze a reasonable range of alternatives to meet objectives of the proposal, (2) evaluate potential impacts on resources and values, and (3) identify mitigation measures to lessen the degree or extent of such impacts.

Purpose of and Need for the Action

The purpose of the project is to rehabilitate Constitution Gardens to improve the functionality, ecology, visitor services, and accessibility of the area, as envisioned in the 2010 National Mall Plan.

The action is needed because Constitution Gardens, in its present condition, has poor soil conditions, and poor drainage is affecting the site's vegetation. Current walkways are in fair to poor condition. Pedestrian circulation can be confusing and does not meet capacity in some places, and some areas do not meet Architectural Barriers Act Accessibility Standard of 1968 standards for universal accessibility. In addition, vehicular turning movements at the intersection of Constitution and 17th Street NW are difficult. Lastly, the area is underused by park visitors due to lack of public amenities and limited recreational opportunities.

Overview of the Alternatives

The National Park Service explored and objectively evaluated a range of alternatives. The Regenerative Garden is the NPS Preferred Alternative and also the environmentally Preferred Alternative. The alternatives listed below are described in Chapter 2, which also describes mitigation measures and summarizes impacts. Four alternatives were carried forward for further analysis:

- No-action Alternative
- Preferred Alternative – Regenerative Garden
- Alternative 1 – Sustainable Garden
- Alternative 2 – Social Garden

Impacts of the alternatives were assessed in accordance with the National Environmental Policy Act, the National Park Service's Director's Order 12: *Conservation Planning, Environmental Impact Analysis, and Decision Making*, and the National Historic Preservation Act. Several impact topics were dismissed from further analysis because the action alternatives would result in no impacts or negligible to minor and/or short-term impacts on those resources. The Preferred Alternative would result in minor to moderate, short- and long-term impacts and long-term beneficial impacts.

How to Comment

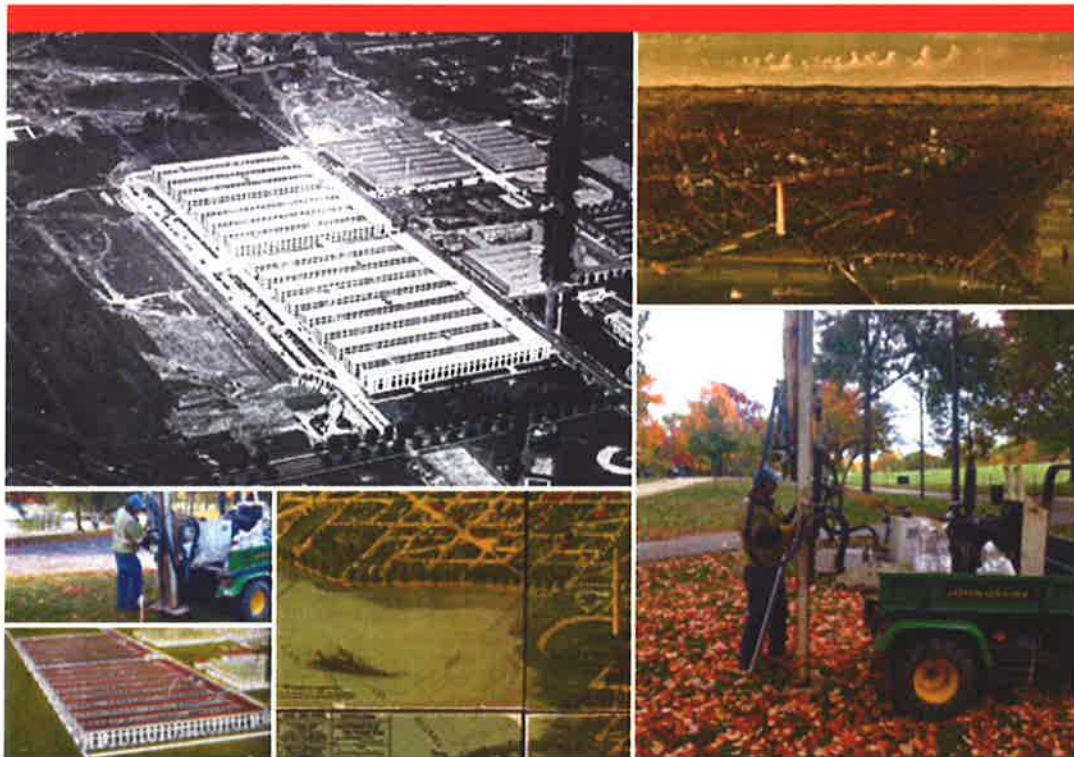
Agencies and the public are encouraged to review and comment on the contents of this environmental assessment during a 30-day public review and comment period. We invite you to comment on this document, and you may do so by any one of two methods. The preferred method of providing comments is on the NPS Planning, Environment, and Public Comment website at <http://parkplanning.nps.gov/COGA>. You may also submit written comments to:

Superintendent
National Mall and Memorial Parks
RE: Constitution Gardens Rehabilitation Project
900 Ohio Drive, SW
Washington, DC 20024

Only written comments will be accepted. Please submit your comments within 30 days of the posting of the notice of availability of this environmental assessment on the Planning, Environment, and Public Comment website. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including personal identifying information—may be made publicly available at any time. Although you can request in your comment to withhold your personal identifying information from public review, NPS cannot guarantee that it will be able to do so.

Exhibit 7 - Summary of Geoarchaeological Interpretations

**PHASE I ARCHEOLOGICAL INVESTIGATION FOR
CONSTITUTION GARDENS
NATIONAL MALL AND MEMORIAL PARKS
WASHINGTON, D.C.**



**THIS REPORT CONTAINS CONFIDENTIAL INFORMATION
NOT FOR PUBLIC DISTRIBUTION**

Prepared for:



National Park Service
Denver Service Center
12796 W. Alameda Parkway
Denver, Colorado 80225

Prepared by:



Louis Berger

Louis Berger
1250 23rd Street, NW, Suite 400
Washington, D.C. 20037

*Final Report
June 12, 2015*

PUBLIC SUMMARY

The National Park Service (NPS), Denver Service Center sponsored a Phase IA archeological investigation of Constitution Gardens, part of the National Mall and Memorial Parks (NAMA) in Washington, D.C. The recreational area is owned by the NPS and is located in the monumental core area of Washington, D.C. The Phase IA study was conducted by The Louis Berger Group, Inc. (Louis Berger) of Washington, D.C. NPS is proposing to rehabilitate Constitution Gardens in partnership with the Trust for the National Mall. Plans have been developed to enhance the historical and recreational qualities of the park while transforming it into a more active, flexible, and sustainable park. The design alternatives are being evaluated in an Environmental Assessment under the National Environmental Policy Act (NEPA).

This Phase IA study was designed to comply with the NEPA and the National Historic Preservation Act (NHPA). It included background research and geoarcheological survey to evaluate the archeological potential of the project area.

The historic landscape of the Constitution Gardens area was dramatically different from that of today. In the colonial period this area was open water and marshes at the mouth of Tiber Creek. Tiber Creek is one of several streams in Washington that no longer exist, at least above ground. In 1807, shortly after the founding of the City of Washington, a wharf was built at the foot of 17th Street, extending into Tiber Creek. The 17th Street Wharf was a major shipping point for the early city, and remains of the wharf are located along the eastern edge of Constitution Gardens. In 1832 the Washington City Canal ran along the northern portion of the park property. This canal linked the city's ports to the nearby C&O Canal. In the 1870s Washington transformed its waterfront areas and created new lands. The canals fell into disuse, and the 17th Street Wharf ceased operations. The former canal path became a city sewer, and Tiber Creek was filled. At some point circa 1890, Constitution Avenue was constructed over part of the canal's length. In the twentieth century a gigantic set of interconnected structures known as the Navy War and Munitions Building (1918 to 1970) encompassed nearly the entirety of Constitution Gardens. This building had a shallow basement, and its construction did not eradicate the deeply buried older landscape features. Constitution Gardens is a designed landscape, intended to look naturalistic. It was built in 1976.

A series of soil cores was excavated along the northern portion of Constitution Gardens to gauge the preservation of the older landscape, and to see if evidence of the Washington City Canal or of Tiber Creek could be found. The soil cores found marshy soils below thick fill deposits, and it is thought that the canal and the creek are fairly intact underneath the park. Further archeological study of the park is recommended.

Exhibit 8 - Assessment of Effects Matrix

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
CULTURAL LANDSCAPES					
Constitution Gardens Cultural Landscape	Spatial Organization				
	Street trees and border of trees	No effect	Street trees would remain and the garden with its rolling terrain would be separated from the street by a 30-inch retaining wall. Border of lindens (south of the walk) could be removed since trees are not in good or fair condition. <i>No adverse effect.</i>	Street trees would remain and the garden with its rolling terrain would be separated from the street by a 30-inch retaining wall. Border of lindens (south of the walk) could be removed since trees are not in good or fair condition. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
	Open central area	No effect	The open central area of the gardens would be retained. <i>No adverse effect.</i>	The open central area of the gardens would be retained. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
	Topography				
	Flood control levee	No effect	No change from this project. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
	Gentle slopes	No effect	The gently rolling topography would be retained to maintain a smooth rolling surface, but re-grading would occur to restore character. <i>No adverse effect.</i>	The gentle, rolling topography would be altered by amplifying the height and slopes with 8-10 feet of soil. <i>Adverse effect.</i>	The gently rolling topography would be retained to maintain a smooth rolling surface but the height would be increased by 4-6 feet. <i>Adverse effect.</i>
	Plateau at Overlook Terrace	No effect	The Plateau at Overlook Terrace would be removed and replaced with a pavilion. Overlook function would be retained with pavilion overlook deck and events terrace to the east. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Western knoll	No effect	The Western Knoll would be retained, but would be slightly re-graded to restore historic character. <i>No adverse effect.</i>	The Western Knoll would be removed and replaced with a number of amplified hills. <i>Adverse effect.</i>	Retained but height increased 4-6 feet. <i>Adverse effect.</i>
	North berm	No effect	The North berm would be retained, but would be slightly re-graded to restore historic character and accommodate proposed 18-inch retaining wall. <i>No adverse effect.</i>	The height of the Northern Berm would be increased 8-10 feet and the entrance widened. <i>Adverse effect.</i>	Retained but height increased 4-6 feet. <i>Adverse effect.</i>
	Low central area occupied by lake	No effect	No change. <i>No adverse effect.</i>	No change. <i>No adverse effect.</i>	No change. <i>No adverse effect.</i>
	Slope and cut at the Vietnam Veterans Memorial	No effect	No change. <i>No adverse effect.</i>	No change. <i>No adverse effect.</i>	No change. <i>No adverse effect.</i>

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
Constitution Gardens Cultural Landscape	Land Use (Note: Citizenship and other ceremonies will continue to occur throughout the National Mall)				
	Passive recreation	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Visiting the memorials	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Ceremonies at the Vietnam Veterans Memorial	No effect	Increased visitation and changes in setting may have an effect on the memorial. Potential for adverse effect.	Same as preferred alternative. Potential for adverse effect.	Same as preferred alternative. Potential for adverse effect.
	Demonstrations	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Citizenship ceremony at the Overlook Terrace	No effect	Overlook Terrace would be replaced with the pavilion. This would require a change in the setting. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
	Circulation				
	Overlook Terrace	No effect	Removed and replaced with a pavilion. Adverse effect.	Removed and replaced with a pavilion. Adverse effect.	Removed and replaced with a pavilion. Adverse effect.
	Loop walk around the lake	No effect	Path location would remain the same, but it would be streamlined and widened from 14 to 20 feet along entire path. Adverse effect.	Same as preferred alternative. Adverse effect.	Same as preferred alternative. Adverse effect.
	Loop walk around west end and the Vietnam Veterans Memorial	No effect	Path location would remain the same, but it would be streamlined and widened from 14 to 20 feet along entire path. Adverse effect.	Same as preferred alternative. Adverse effect.	Same as preferred alternative. Adverse effect.
	Secondary walks over slopes	No effect	These paths would be reconstructed and in some cases streamlined with improved connections at intersections. Adverse effect.	Same as preferred alternative. Adverse effect.	Same as preferred alternative. Adverse effect.
	Walks parallel to stairs	No effect	Alignment would be retained as part of pavilion design. No adverse effect.	Parallel walks would be revised as part of pavilion design. Adverse effect.	Parallel walks would be revised as part of pavilion design. Adverse effect.
	Diagonal walk, northeast corner of Overlook Terrace	No effect	Alignment would be retained. No adverse effect.	Diagonal walk would be revised. Adverse effect.	Diagonal walk would be revised. Adverse effect.
	Walk south, Overlook Terrace to World War II Memorial	No effect	Alignment would be retained, but the path would be widened to 20 feet. Adverse effect.	Alignment would be retained, but the path would be widened to 20 feet. Adverse effect.	Alignment would be retained, but the path would be widened to 20 feet. Adverse effect.

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
Constitution Gardens Cultural Landscape	Walk north, Overlook Terrace to Constitution Avenue	No effect	Alignment would be retained, but the path would be widened to 20 feet. <i>Adverse effect.</i>	Alignment would be retained, but the path would be widened to 20 feet. <i>Adverse effect.</i>	Alignment would be retained, but the path would be widened to 20 feet. <i>Adverse effect.</i>
	Two sidewalks along Constitution Avenue	No effect	Retained, entrance to park expanded to 75 feet wide with two paths entering the garden, each 15 feet wide, instead of one. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Sidewalk along 17 th Street	No effect	Alignment would be retained. <i>No adverse effect.</i>	Alignment would be retained. <i>No adverse effect.</i>	Alignment would be retained. <i>No adverse effect.</i>
	Service Drive	Does not exist. <i>No effect.</i>	Creation of new underground service access drive may result in adverse visual impacts from 17 th Street. <i>Adverse effect.</i>	Does not exist. <i>No adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Vegetation				
	Deciduous trees	No effect	Wooded park with a mixed, mature canopy of shade trees; remove trees in poor condition and fewer trees in fair condition; close to or replicating today's massing and canopy. <i>Adverse effect.</i>	Wooded park, but primarily mixed canopy of young trees, not providing as much shade and altering the massing and canopy. Most mature trees would be removed or relocated to improve soils. Trees would replace or exceed current number. <i>Adverse effect.</i>	Wooded park with mixed mature canopy of shade trees, saving hundreds of trees that are in good to fair condition and removing trees in poor and some trees in fair condition, somewhat altering the massing and canopy. Remove or relocate mature trees affected by construction. Replace trees to approximate existing number. <i>Adverse effect.</i>
	Honey locust trees at Overlook Terrace	No effect	Removed and replaced with a pavilion. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Honey locust trees around refreshment terrace	No effect	Removed. Trees in asphalt areas would also be removed and not replaced. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Magnolias, Memorial to the 56 Signers of the Declaration of Independence	No effect	Preserved in place whenever possible. <i>No adverse effect.</i>	Removed and replace. <i>Adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
	Remnant plantings, Memorial to the 56 Signers of the Declaration of Independence	No effect	Preserved in place whenever possible. <i>No adverse effect.</i>	Some removed and replaced with perimeter wall. <i>Adverse effect.</i>	Removed. <i>Adverse effect.</i>

Resource	Features	Alternative 1: Ecological Garden			Alternative 2: Social Garden		
		No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
Constitution Gardens Cultural Landscape	Street trees	No effect	Remain in place except for area that will include new service entrance. <i>Adverse effect</i>	Street trees would remain and the gardens with its rolling terrain would be separated from the street by a 30-inch retaining wall; border of lindens (south of the walk) could be removed since trees are not in good or fair condition. <i>Adverse effect</i>	Same as preferred alternative. <i>Adverse effect</i>		
	Lawns	No effect	Approximately 64% lawn, 12% meadow, and 24% woodland understory. <i>No adverse effect</i>	Primarily meadow and woodland understory planting approximately 24" maximum height. The meadows would be mowed to function as lawns. <i>Adverse effect</i>	Understory vegetation will remain mowed lawn with some shrub and bulb planting. <i>No adverse effect</i>		
	Buildings and Structures						
	Refreshment Kiosk	No effect	Adaptively reused in place for operations or volunteers. Will comply with <i>Secretary of the Interior's Standards</i> . <i>No adverse effect</i>	Removed. <i>Adverse effect</i>	Same as preferred alternative. <i>No adverse effect</i>		
	Comfort station	No effect	No change (outside of project scope). <i>No adverse effect</i>	No change (outside of project scope). <i>No adverse effect</i>	No change (outside of project scope). <i>No adverse effect</i>		
	Constitution Gardens Island	No effect	Shape would be retained; a perimeter path and second access path would be added; fishing would be allowed. <i>No adverse effect</i>	Shape retained, a perimeter path would be added and fishing would be allowed. <i>No adverse effect</i>	Shape would be retained; a perimeter path and second access path would be added; fishing would be allowed. <i>No adverse effect</i>		
	Memorial to the 56 Signers of the Declaration of Independence	No effect	Memorial would be rehabilitated, which would include resetting all the stonework and replacing vegetation where needed; accessibility would be improved by adding a perimeter path and second access path. <i>No adverse effect</i>	Same as preferred alternative. <i>No adverse effect</i>	Same as preferred alternative. <i>No adverse effect</i>		
	Lockkeeper's House	Continued deterioration of the Lockkeeper's House in its current location would result in an adverse effect on the cultural landscape. <i>Adverse effect</i>	The Lockkeeper's House would be relocated 18 feet to the south and 5 feet to the west and rehabilitated. <i>Adverse effect</i>	Same as preferred alternative. <i>Adverse effect</i>	The Lockkeeper's House would be relocated 500 feet to the southwest and rehabilitated. <i>Adverse effect</i>		
	Overlook Terrace and three terraces	No effect	Removed. <i>Adverse effect</i>	Removed. <i>Adverse effect</i>	Removed. <i>Adverse effect</i>		
	Vietnam Veterans Memorial	No effect	No change. <i>No adverse effect</i>	No change. <i>No adverse effect</i>	No change. <i>No adverse effect</i>		
	Three Servicemen Statue	No effect	No change. <i>No adverse effect</i>	No change. <i>No adverse effect</i>	No change. <i>No adverse effect</i>		

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
Constitution Gardens Cultural Landscape	Vietnam Veterans Memorial	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Three Servicemen Statue	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Vietnam Women's Memorial	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Views and vistas				
	Vistas from park to Washington Monument	No effect	Altered by the inclusion of the pavilion. Adverse effect.	Altered by the inclusion of the pavilion. Adverse effect.	Altered by the inclusion of the pavilion. Adverse effect.
	Vista from Vietnam Veterans Memorial to Washington Monument	No effect	No change. No adverse effect.	Vista would be altered by amplifying the height and slopes with 8-10 feet of soil. Adverse effect.	Vista would be altered by amplifying the height and slopes with 4-6 feet of soil. Adverse effect.
	Views to reflecting pool area	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Vistas to Lincoln Memorial	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Vistas to buildings north of Constitution Avenue	No effect	No change. No adverse effect.	Vista would be altered by amplifying the height and slopes with 8-10 feet of soil. Adverse effect.	Vista would be altered by amplifying the height and slopes with 4-6 feet of soil. Adverse effect.
	View from Virginia Avenue to Washington Monument	No effect	No change. No adverse effect.	No change. No adverse effect.	No change. No adverse effect.
	Vistas to the Vietnam Veterans Memorial	No effect	No change. No adverse effect.	Vista would be altered by amplifying the height and slopes with 8-10 feet of soil. Adverse effect.	Vista would be altered by amplifying the height and slopes with 4-6 feet of soil. Adverse effect.
	Views from Overlook Terrace	No effect	Views would be altered by the construction of the pavilion, which would alter the vantage point, and the addition of the ring in the lake; pavilion overlook deck and event terrace would provide similar views. Adverse effect.	Same as preferred alternative. Adverse effect.	Same as preferred alternative. Adverse effect.

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
Constitution Gardens Cultural Landscape	Internal views to lake	<i>No effect</i>	Internal views of the lake would be altered by the addition of the ring in the lake and the pavilion at the east end. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Internal views to island	<i>No effect</i>	Additional plantings may affect views. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Views to buildings on or near the mall	<i>No effect</i>	Views to the east may be altered by the addition of the pavilion. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Constructed Water Features				
	Constitution Gardens Lake	<i>No effect</i>	The shape of the island would be retained but a ring would be added to the east end. Lake would be excavated between 2 and 12 feet in depth and would have a non-concrete/natural bottom with a liner. Aquatic plants would be added along the shoreline. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
	Small-Scale Features				
	Cast iron and wood-slat benches	<i>No effect</i>	Site furnishing would be designed to complement the site context, be sustainable and easy to maintain. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
	Lighting	<i>No effect</i>	Lighting would be designed to complement the site context, be sustainable and easy to maintain. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
	Washington City Canal Memorial Stone, Plaque, and Mounting Block	<i>No effect</i>	These would be relocated along with the Lockkeeper's House and used for interpretative purposes. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
	Vietnam Veterans Memorial flagpole "In Memory" Plaque, lighting fixtures and locations	<i>No effect</i>	No change. <i>No adverse effect.</i>	No change. <i>No adverse effect.</i>	No change. <i>No adverse effect.</i>

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
BUILDINGS AND HISTORIC DISTRICTS					
L'Enfant Plan Historic District		<i>No effect</i>	This alternative would not remove the park setting of Constitution Gardens, as specified for the area in the McMillan Plan. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
East West Potomac Parks Historic District		<i>No effect</i>	Two contributing features to the district would be altered: the 56 Signers Memorial and the Lockkeeper's House. The effects to the Lockkeeper's House are discussed below. The 56 Signers Memorial would be rehabilitated in-kind. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
Lockkeeper's House		Continued deterioration of the Lockkeeper's House in its current location would result in an adverse effect on the cultural landscape. <i>Adverse effect.</i>	The Lockkeeper's House would be relocated 18 feet to the south and 5 feet to the west and rehabilitated. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	The Lockkeeper's House would be relocated 500 feet to the southwest and rehabilitated. <i>Adverse effect.</i>
Northwest Rectangle Historic District		<i>No effect</i>	No change. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
Seventeenth Street Historic District		<i>No effect</i>	No change. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
The Washington Monument Grounds		<i>No effect</i>	No change. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
National Mall Historic District		<i>No effect</i>	Two contributing features to the district would be altered: the 56 Signers Memorial and the Lockkeeper's House. The effects to the Lockkeeper's House are discussed below. The 56 Signers Memorial would be rehabilitated in-kind. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
President's Park South		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
The White House		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
Federal Triangle and Pennsylvania Avenue National Historic Site		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
Auditor's Building Complex		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
Department of Agriculture (Administration Building)		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
Bureau of Engraving and Printing		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
Federal Reserve Board Building		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
Public Health Service (Department of Interior South Building)		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.
National Academy of Sciences Building		No effect	No change. No adverse effect.	Same as preferred alternative. No adverse effect.	Same as preferred alternative. No adverse effect.

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
The Pan American Union (Organization of American States) Building		No effect	No change. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
ARCHEOLOGICAL RESOURCES					
Lockkeeper's House deposits (51NW233)		No effect	The topsoil would not be removed under this alternative but would be remediated in place. Underground utilities would be installed, including water cisterns. A basement would be added to the Lockkeeper's House. <i>Adverse effect.</i>	The vast majority of the topsoil in Constitution Gardens would be removed. Underground utilities would be installed, including water cisterns. A basement would be added to the Lockkeeper's House. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
Washington City Canal (unevaluated)		No effect	The topsoil would not be removed under this alternative but would be remediated in place. Underground utilities would be installed, including water cisterns. A stormwater system would be constructed across Constitution Avenue and 17th Street. <i>Adverse effect.</i>	The vast majority of topsoil would be removed, which would not extend to depths sufficient to impact the resource. A stormwater system would be constructed across Constitution Avenue and 17th Street, which would directly impact sections of the resource. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
Lock B of the Washington City Canal (51NW235)		No effect	The topsoil would not be removed under this alternative but would be remediated in place. Underground utilities would be installed, including water cisterns. A stormwater system would be constructed across Constitution Avenue and 17th Street. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
17th Street Wharf (unevaluated) (51NW232)		No effect	A storm water system would be constructed across Constitution Avenue and 17th Street. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
WWI and WWII Temporary Buildings (unevaluated)		No effect	The foundations of the temporary buildings cover most of the primary APE and are buried by several feet of fill. Deep construction impacts, including the deepening of the lake, construction of a basement for the Lockkeeper's House, underground utility construction, and construction of a pavilion on the east end of the lake could all impact this resource. <i>Adverse effect.</i>	The foundations of the temporary buildings would be removed entirely. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>

Resource	Features	No Action Alternative	Preferred Alternative: Regenerative Garden	Alternative 1: Ecological Garden	Alternative 2: Social Garden
Outlet of the Tiber Creek sewer (unevaluated) (51NW234)		No effect	This resource is found under several feet of fill on the west side of 17th Street and underneath 17th Street. Stormwater and water system improvements may directly impact the resource, as may construction of a driveway leading to east concession stand area. <i>Adverse effect.</i>	The vast majority of the topsoil in Constitution Gardens would be removed. The soil removal would not extend to depths sufficient to impact the resource. The outlet of the Tiber Creek sewer could be <i>adversely affected</i> however by the construction of stormwater systems in the park and under 17th Street. <i>Adverse effect.</i>	Same as alternative 1. <i>Adverse effect.</i>
Washington Brewery (Cunningham and Company) (not located)		No effect	The brewery remains have not been identified but likely are found underneath several feet of fill. Deep construction impacts, including construction of a basement for the Lockkeeper's House and underground utility construction could impact this resource. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>	Same as preferred alternative. <i>Adverse effect.</i>
Monument Grounds Site (51NW035) (unevaluated)		No effect	No change. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
Commissioner's Wharf (H68) (not located)		No effect	No change. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>
Washington City Gas Works (H69) (not located)		No effect	No change. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>	Same as preferred alternative. <i>No adverse effect.</i>

Exhibit 9 - Tiber Creek Sewer Outfall

DC SHPO Archaeological Report # 557

ARCHEOLOGICAL MONITORING OF CONSTRUCTION POTOMAC PARK LEVEE NATIONAL MALL AND MEMORIAL PARKS DISTRICT OF COLUMBIA

PREPARED FOR:



GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION
64 New York Avenue, NE
Washington, D.C. 20002

PREPARED BY:



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FIGURE 28: Close-up View of Keystone

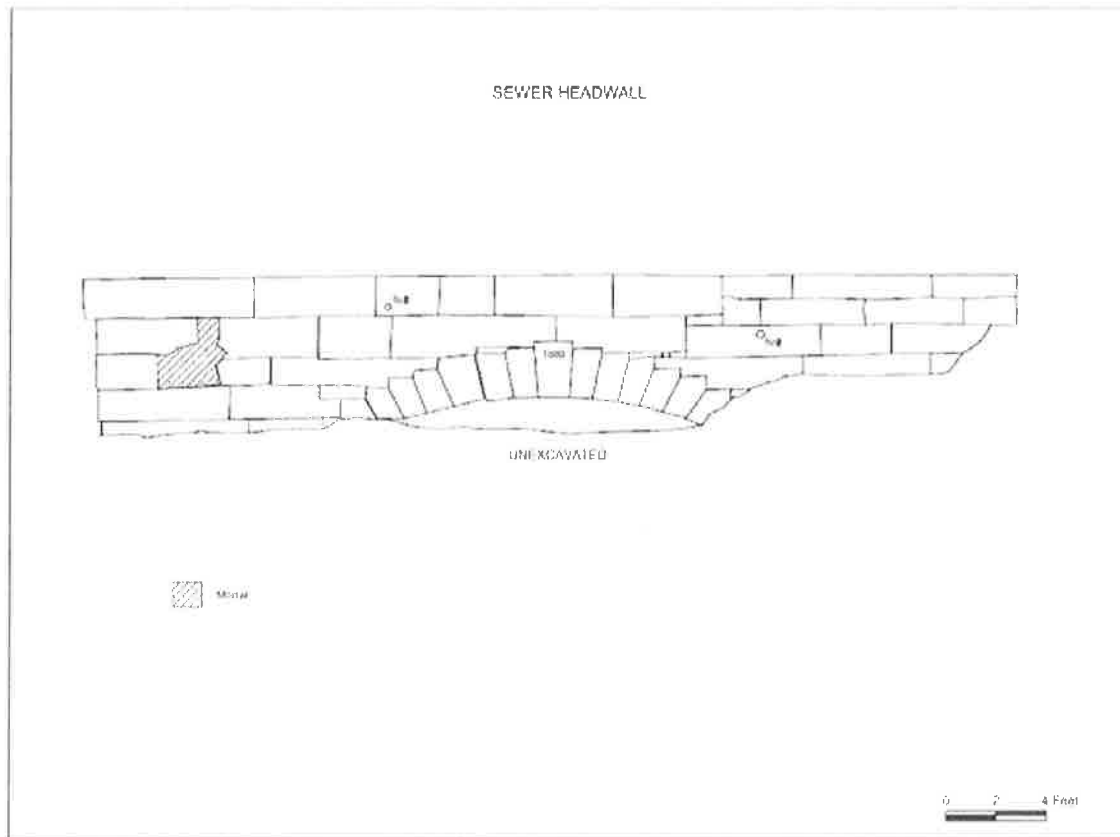


FIGURE 26: Elevation Drawing, Tiber Creek Sewer Headwall