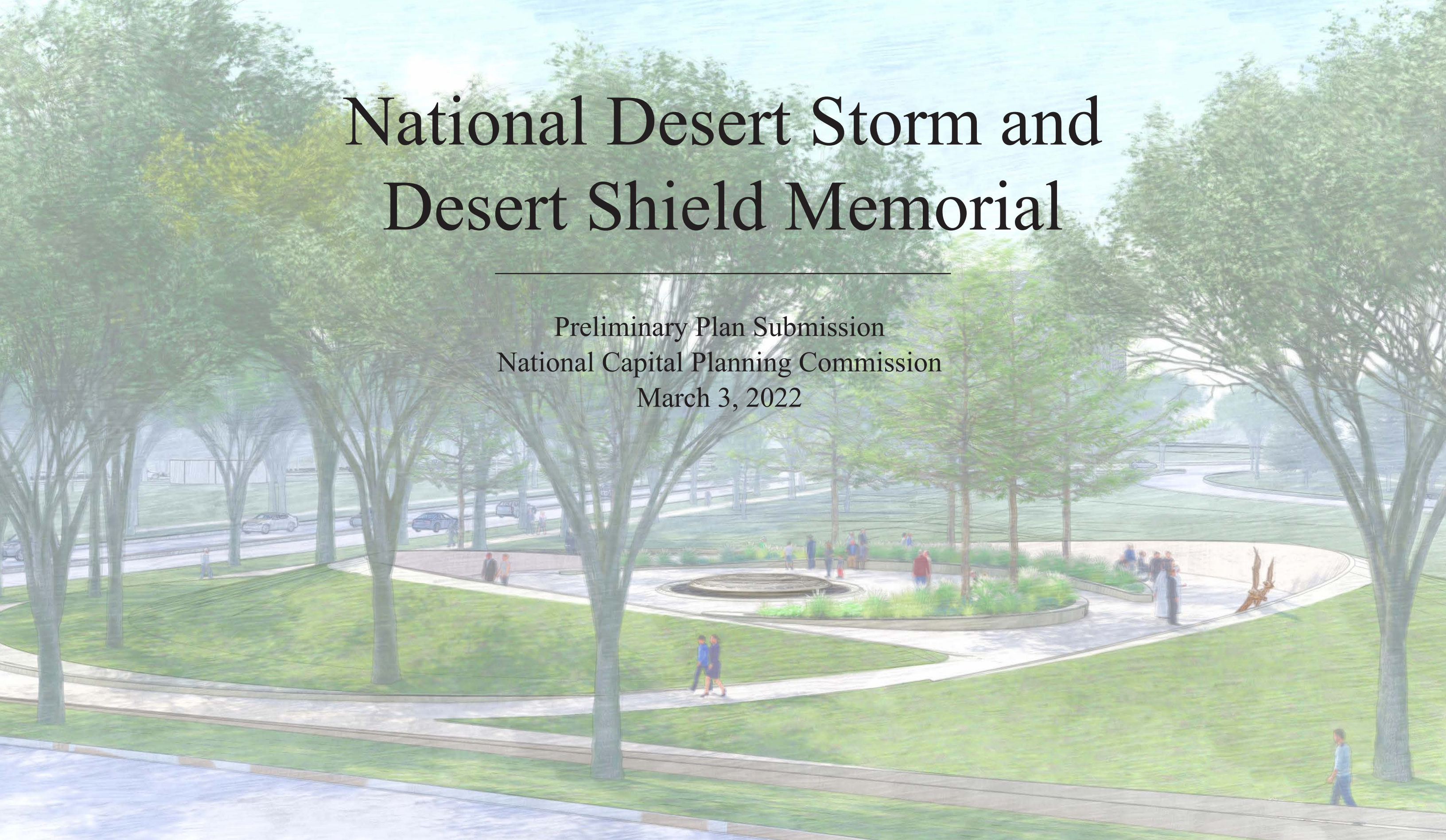


# National Desert Storm and Desert Shield Memorial

Preliminary Plan Submission  
National Capital Planning Commission  
March 3, 2022





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# Introduction





# Introduction

The National Park Service (NPS) and the National Desert Storm War Memorial Association (Association), in cooperation with the National Capital Planning Commission (NCPC), propose to establish a permanent National Desert Storm and Desert Shield (NDSDS) Memorial. The new memorial would be located at the southwest corner of the intersection of 23rd Street NW and Constitution Avenue.

The purpose of the NDSDS Memorial is to commemorate and honor members of the United States Armed Forces who served on active duty in support of Operation Desert Storm or Operation Desert Shield. The planning, design, and construction of the NDSDS Memorial is being undertaken to carry out Public Law 113-291, which authorizes the establishment of the NDSDS Memorial.

After the authorization of the development of the NDSDS Memorial, the Association conducted a site selection study to identify an appropriate location for the placement of a new memorial. The initial review considered over 20 potential sites. After presentations to the National Capital Memorial Advisory Commission (NCMAC), the U.S. Commission of Fine Arts (CFA), and NCPC, and a site selection scoping period to solicit comments from the public, the Association and NPS advanced three final sites for design consideration. The project site, a 4.4-acre area located at the southwest corner of the intersection of 23rd Street and Constitution Avenue, emerged as the selected site after approval within Area I by Congress on March 31, 2017 (P.L. 115-18).

The site is bounded by Constitution Avenue and exit ramps from the Theodore Roosevelt Bridge (I-66) to the north, 23rd Street to the east, Rock Creek and Potomac Parkway to the west, and the Reserve to the south. The Reserve is an area within DC established by the Commemorative Works Act (40 U.S.C. 8908 (c)) where no new memorial may be located. The site is under jurisdiction of the NPS.

Located in West Potomac Park within the National Mall, can be characterized as open space in an urban context. The site is currently an open lawn and used for recreational purposes.

Trees and sidewalks border the site to the north and east. The U.S. Institute of Peace and government office buildings are located to the north, while Rock Creek and Potomac Parkway and the Potomac River are located to the west. The Lincoln Memorial and Vietnam Veterans Memorial are located to the south and east of the site, respectively. These nearby high-profile attractions draw millions of visitors each year, including pedestrians.

Since the selection of the site, the conceptual design has advanced to identify the key memorial features. The NPS conducted a second scoping period to solicit public comment on the memorial design. Multiple agencies have reviewed the design concepts, including NCMAC, NCPC, and CFA. On October 21, 2021, CFA approved the revised concept proposal for the NDSDS Memorial design. Consulting parties under Section 106 of the National Historic Preservation Act (NHPA) provided comments at two meetings regarding the design. In 2020, the District of Columbia Department of Historic Preservation (DC SHPO) concurred that the design would result in no adverse effect on historic resources under Section 106 of the NHPA, which has different standards for analysis than National Environmental Policy Act (NEPA).

## Public Engagement

NPS has provided multiple opportunities for the public to comment on the proposed project. Consultation and coordination with federal and District of Columbia agencies and other interested parties was also conducted to refine the alternatives and identify issues and/or concerns related to park resources. This following is a brief summary of the public involvement and agency consultation and coordination that occurred during planning.

- » The NPS held two scoping meetings and 30-day public comment periods related to the NDSDS Memorial: one period for site selection (between June 23 and July 24, 2017) and one for Memorial design (between March 13 and April 13, 2018). The public, agencies, and interested parties were invited to submit comments.

- » The NPS initiated consultation with the DC SHPO on June 20, 2017 and with the Virginia SHPO on June 26, 2017.
- » NCMAC reviewed the site selection study and design in May 2017 and February 2020, respectively. The public was offered the opportunity to comment during the meetings.
- » CFA reviewed the project's design and site selection seven times between October 2017 and October 2021. During each of these meetings, the public was offered the opportunity to comment.
- » NCPC reviewed the memorial site selection and conceptual design in July 2017 and January 2020, respectively. During each of these meetings, the public was offered the opportunity to comment.
- » The NPS held two Section 106 consulting parties meetings, which occurred on November 13, 2018 and November 12, 2019. Consulting parties reached a consensus that the project would result in no adverse effects on historic properties. The NPS sent a determination of no adverse effect to the DC SHPO on March 2, 2020. The DC SHPO concurred with the determination on October 4, 2020.
- » The NPS, in cooperation with NCPC, plans to release an Environmental Assessment for public review February, 2022. The public will have 30 days to comment on the document.



# Site and Context



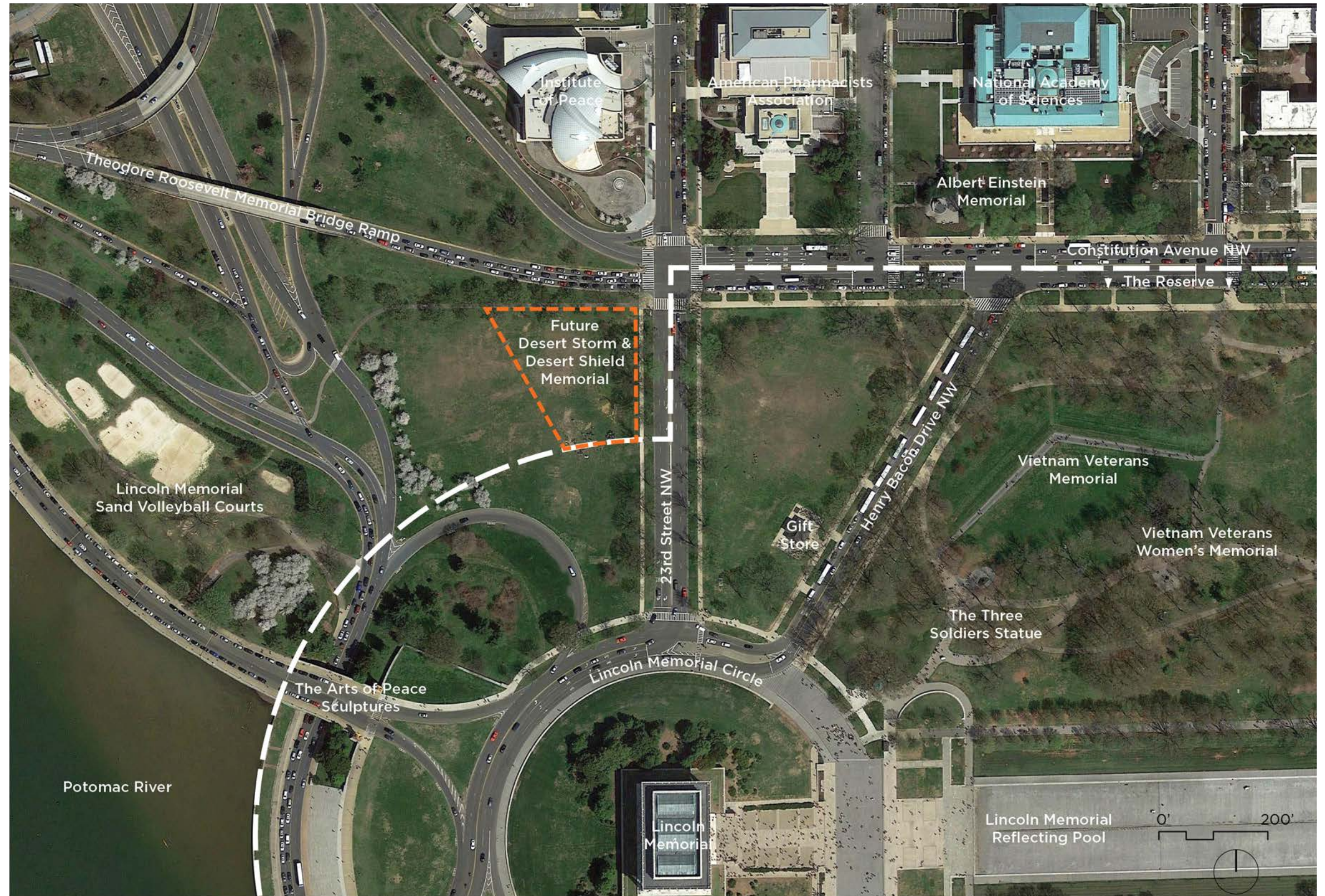


# Site and Context

The intersection of 23rd Street and Constitution Avenue in Washington, D.C. is a meaningful location in our nation's capital. It marks the symbolic meeting point of Diplomacy (23rd Street) and Ceremony (Constitution Avenue). The success of Operations Desert Storm and Desert Shield began with an extraordinarily diplomatic effort to gain passage of a United Nations resolution and bring together a coalition of 35 nations that liberated Kuwait.

Afterward, the American celebration of that victory was a proud military parade down Constitution Avenue. A major legacy of Operations Desert Storm and Desert Shield was the dramatic transformation in the relationship between the military and American citizens that had been damaged as a result of the Vietnam War. The location of the memorial near the Vietnam Veterans Memorial symbolizes the connection between these conflicts and represents the closure provided to Vietnam veterans, and the new bond of trust and respect for US servicemembers.

For these reasons, in 2017 Congress authorized the NDSDS Memorial to be located in Area 1, the portion of the Monumental Core set aside for commemoration of "preeminent and lasting significance." The memorial's placement at this critical location and intersection serves to remind all visitors of the importance of this conflict in American history.





# Current Photographs





# Memorial Design



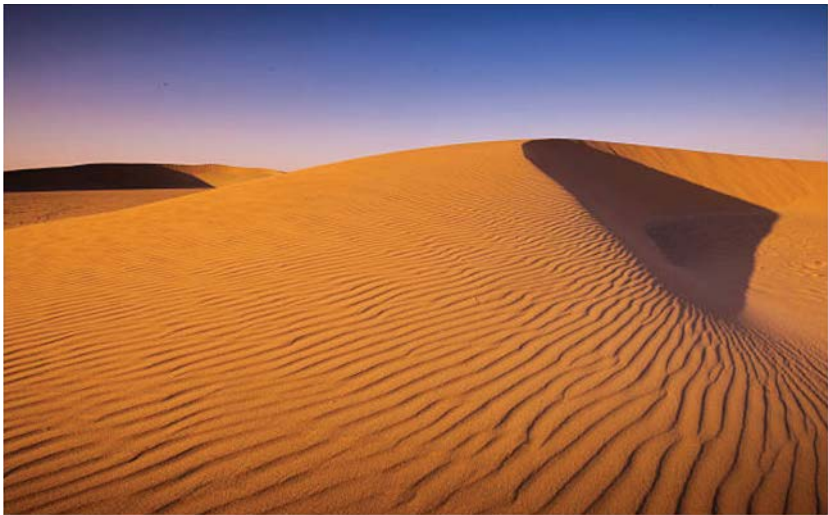


# Design Overview

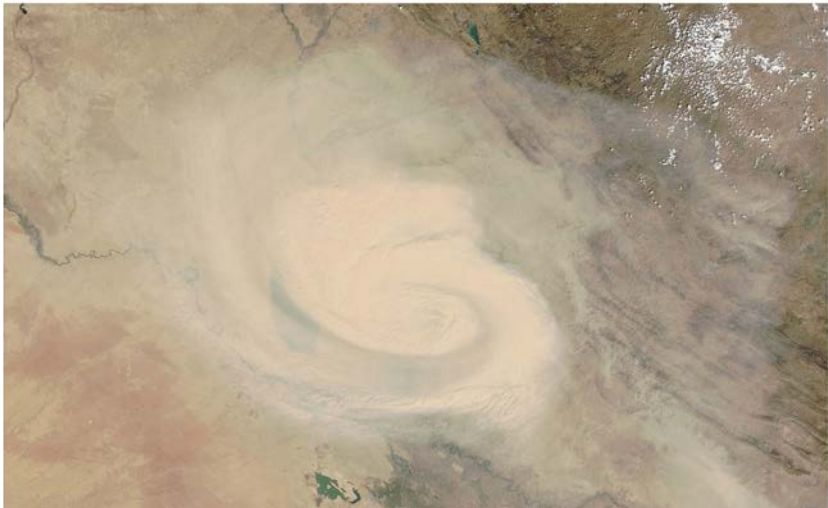
The NDSDS Memorial is conceived as an oasis, formed between two dune landforms rising out of the fabric of the National Mall. Within these earthworks, two curving walls encircle a shady grove. The sound of water bubbles from a source within the trees, unifying the space and creating a sanctuary.

Sculptural elements punctuate the artfully carved bas-relief wall. Collectively, the walls convey the sacrifice, leadership, hardship, and success of American servicemembers. Between the two walls, a central water feature commemorates the unique global coalition that came together in service and sacrifice to liberate Kuwait.

The commemorative narrative is revealed slowly and sequentially from left to right. A visitor experiences the memorial by traversing clockwise in a “left hook” circulation pattern, which emulates the famed circuitous attack conceived by General H. Norman Schwarzkopf. The primary path rises subtly in elevation along its curving trajectory through the memorial, allowing the visitor to ascend through the space to the central feature, a place of solemn appreciation and reflection.



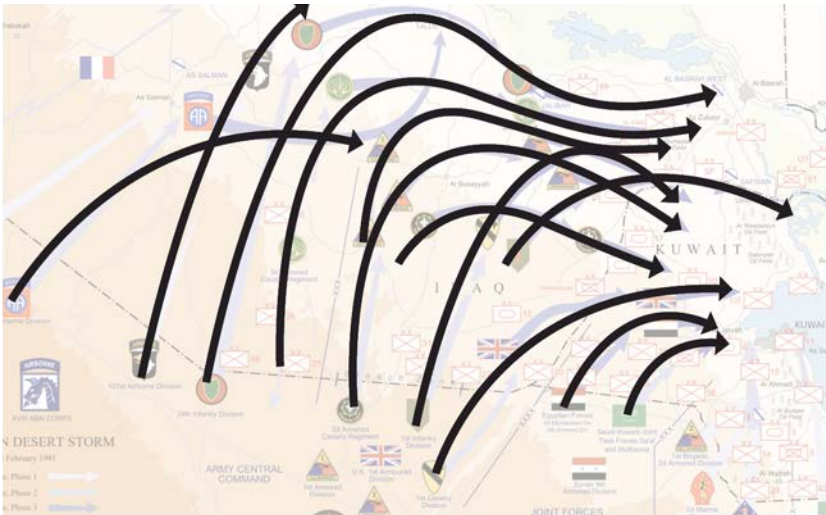
Dunes



Storm



Coalition



Left Hook



Oasis



Parade

The memorial’s design is inspired by the unique environmental and battle conditions, the unprecedented coalition that joined to liberate Kuwait, and the resulting transformation of the public’s faith in the U.S. military.



# Proposed Program

The proposed project would establish a new NDSDS Memorial, as authorized in Public Law 113-291, at the southwest intersection of Constitution Avenue and 23rd Street. The approximately one-acre memorial employs a landscape-based approach, using sloped berms to enclose a memorial featuring two walls: the Storm Wall, approximately 240 feet in length and an average height of 4.5 feet (maximum height of approximately 6.5 feet), and the Inscription Wall, approximately 165 feet in length and an average height of approximately four feet (maximum height of approximately six feet). The interior enclosure provided by the walls would contain a central commemorative element, the Unity Shield; vegetated berms; and seating. The proposed project would also include new lighting, replacement of approximately three street trees along Constitution Avenue and 23rd Street, and alteration of topography to incorporate flood control systems.

The proposed project would remove approximately five understory trees outside the streetscape allées and approximately 15,250 square feet of turf. The memorial would also replace the existing delineated ball field and backstop with turf open space. The southwest portion of the site would accommodate informal ball games through the placement of the memorial in the northeast corner of the site.

Outside the new memorial, but within the project site, one additional tree along 23rd Street and nine trees along Lincoln Circle would be planted, consistent with the implemented historic planting plan for the grass panel.

The NDSDS Memorial would add accessible entrances along both Constitution Avenue and 23rd Street and would reinforce the existing path along Constitution Avenue, adjacent to the site. The existing signalized intersection at Constitution Avenue and 23rd Street would continue to include crosswalks and pedestrian signals. The NDSDS Memorial would not alter the existing roadway or add new parking. Portions of the interior memorial would feature seat walls of 18 inches

in height. These gradually lower to approximately 6 inches at the ends. The design offers ample room in front of, or angled next to, the seat walls for wheelchairs and the slopes throughout the memorial are all accessible. The design team will continue to explore accessible seating options.

## Landscape Approach

The overall landscape approach of the NDSDS Memorial emphasizes the historic allees of the Lincoln Memorial and offers a memorial landscape evocative of a desert oasis. The NDSDS Memorial would replace missing trees in historic allees along Constitution Avenue, 23rd Street, and the Lincoln Circle north grove adjacent to the project site. These additions would complete the historic vegetation massing along the north, east, and southern sides of the Lincoln Memorial grass panel in which the NDSDS Memorial site is located. Additionally, six new canopy trees would provide shade to visitors. The plantings within the core commemorative area would be selected for their foliage, form, and texture, rather than flowering color. These plantings would be native or adaptive to the area, with an emphasis on species that are drought tolerant and require little maintenance.

## Lighting Approach

The overall lighting approach of the NDSDS Memorial is subdued and intended to minimize the addition of new light sources at the site to the extent practicable. The existing site receives a substantial amount of ambient light from existing street lights, such as twin-20 fixtures at Constitution Avenue and Washington globe fixtures along 23rd Street, and from the nearby Institute of Peace. The lighting design would focus on the proposed key commemorative elements. Low-level, linear lighting along the base of site elements would accent the walls and provide the footcandles required to illuminate and guide visitors along pathways. Discreet poles within the core memorial landscape would accent commemorative elements from above. However, the lighting of these features would

be subordinate to other important elements of the National Mall, such as the Lincoln Memorial. The lighting design would provide the base level of lighting required to meet code requirements and would retain existing street lighting on adjacent streetscapes, which would continue to provide ambient light. Combined, these features would be designed to avoid glare and would meet dark skies requirements.



# Resource Management

## Floodplain

Executive Order 11988, “Floodplain Management,” Executive Order 13690, “Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input,” and NPS DO #77-2: Floodplain Management define the NPS goal to maintain and preserve the beneficial values of floodplains. The limit of disturbance of the NDSDS Memorial includes an area within the 500-year floodplain. DO #77-2 requires NPS to take action to “reduce the risk of flood loss” (to capital resources), “minimize the impact of floods on human safety, health and welfare,” and maintain “natural and beneficial values served by floodplains.” Section 5.0 of DO #77-2 states that projects within the 500-year floodplain that are considered critical actions, such as irreplaceable record storage and museums, are subject to floodplain policies and procedures. The NDSDS Memorial would not result in significant negative impacts on human health and safety, federal capital resources, or natural beneficial floodplain values. Furthermore, the project does not include a critical action, and it was therefore determined that a Floodplain Statement of Findings (FSOF) was not necessary for the action.

The Baltimore District, U.S. Army Corps of Engineers (USACE) and National Park Service (NPS) propose to construct improvements to the Washington, DC and Vicinity Flood Risk Management (FRM) Project at the National Mall and Memorial Parks that would improve reliability of the project under extreme flood events. The project provides FRM for portions of the monumental core, portions of Pennsylvania and Constitution Avenues, and other public and private facilities located south of the U.S. Capitol to Fort McNair. The proposed FRM action allows for two possible futures: 1) Construction of an earthen berm on the west/southwest side of the 23rd Street and Constitution Avenue parcel (the NDSDS Memorial site) with construction of the NDSDS Memorial, or 2) incorporation of FRM features into the grounds and structure of the new NDSDS Memorial. The Memorial Plan: Grading diagram is illustrative of how the FRM features could be incorporated into the grounds and structure of the new NDSDS Memorial.

## Water Resources and Stormwater Management

The project site does not contain bodies of water, but is located within the Potomac River Basin and is approximately 870 feet from the Potomac River. The project would follow applicable stormwater requirements listed in the District of Columbia’s 2013 Rule on Stormwater Management and Soil Erosion and Sediment Control and the federal Energy Independence and Security Act (EISA). The project team has consulted with the District Department of Energy and the Environment (DOEE) to identify appropriate stormwater management approaches. As the design advances, the NPS will continue to explore potential stormwater management strategies and will continue to consult with DOEE.

## Other Natural Resources

The project area for the construction and establishment of the new NDSD Memorial requires the removal and replacement of four diseased or missing American elm trees along the Constitution Avenue and 23rd Street existing streetscape allées and the addition of nine new trees at the double allée along Lincoln Circle to the south of the memorial site. Additionally, five existing understory trees will be removed and an estimated six new trees, whose species is to be determined through advancement of the design process, will be installed within the memorial interior. An estimated 15,250 square feet of turf would be removed. In accordance with Section 7 of the Endangered Species Act, the NPS consulted with the U.S. Fish and Wildlife Service to determine the potential for federally listed protected species to be present at the project site. This consultation indicated the potential for the federally threatened Northern Long-Eared Bat (*Myotis septentrionalis*). The project would have tree clearing of less than 15 acres (the level required for additional consultation for the Northern Long-Eared Bat).



# Aerial Perspective



The dune landforms create an enclosed, reflective memorial experience that is visually connected to the National Mall.



# Site Plan



The site plan illustrates the modest scale of the Memorial and its connection to Constitution Avenue.



# Historic Properties

Historic properties were identified within the project’s Area of Potential Effect (APE). As defined by 36 CFR 800.16(d), the APE represents “the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist.” The project is situated within the following historic resources:

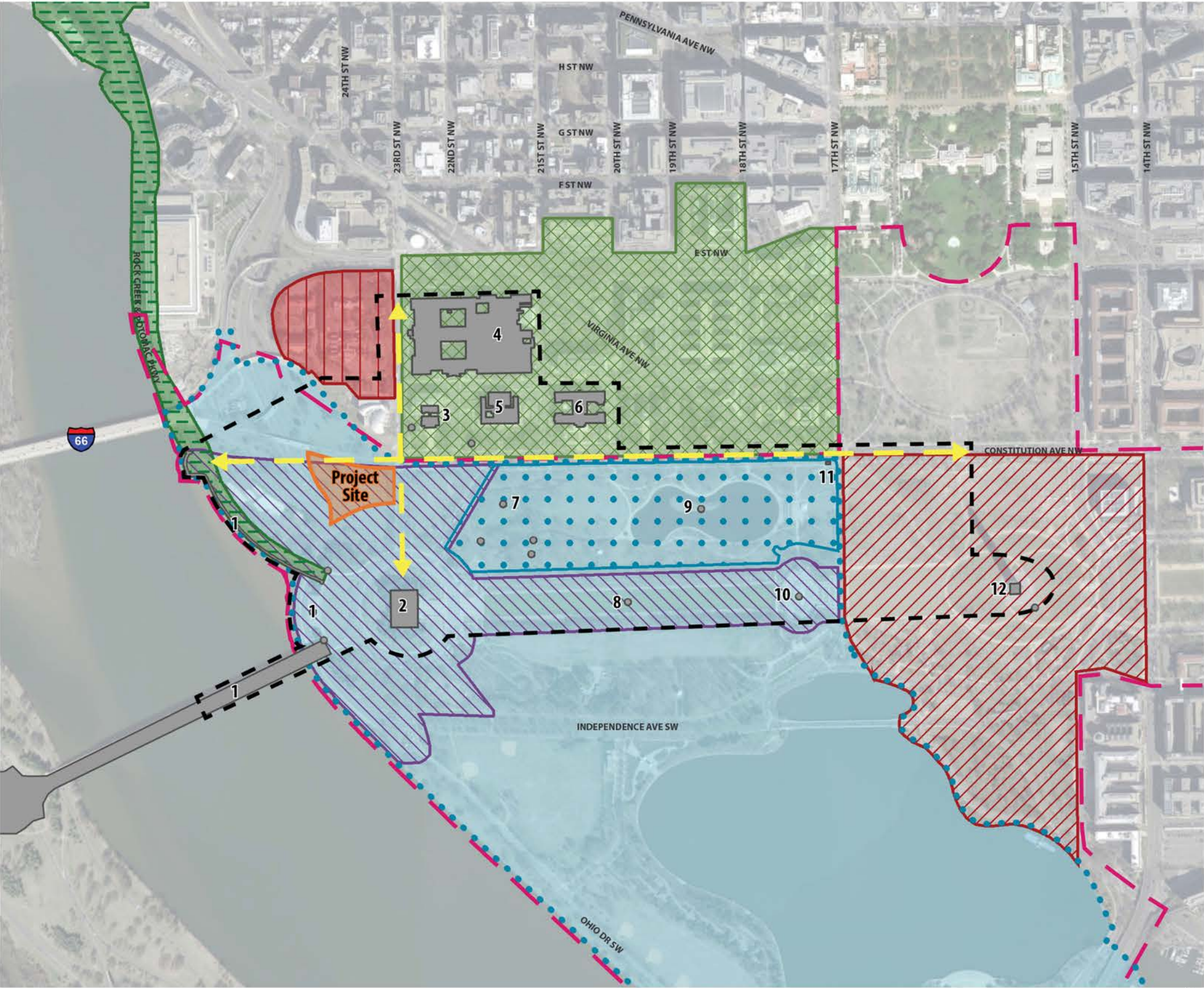
- » **L’Enfant Plan of the City of Washington (L’Enfant Plan).** The L’Enfant Plan contains reservations, streets, and vistas that contribute to the L’Enfant Plan’s National Register of Historic Places (NRHP) listing, including West Potomac Park (Reservation No. 332), Constitution Avenue, 23rd Street; Constitution Avenue and 23rd Street corridor vistas; and the primary vista from the U.S. Capitol along the Mall to the Lincoln Memorial and the western horizon.
- » **National Mall Historic District.** Contributing vistas to the National Mall Historic District within the APE include the 23rd Street vista from Constitution Avenue to its southern terminus and the vista from the Lincoln Memorial to the Washington Monument.
- » **East and West Potomac Parks Historic District.** Contributing vistas in the APE include the 23rd Street vista from Constitution Avenue to its southern terminus and the vista from the Lincoln Memorial to the Washington Monument.
- » **Lincoln Memorial Cultural Landscape.** The Lincoln Memorial Grounds cultural landscape encompasses the entire project site and part of the APE. The Cultural Landscape Report identifies landscape features that contribute to the landscape’s significance. Specific features present in and adjacent to the project site that contribute to the landscape’s significance include active recreation within grass panels; views and vistas, including the Mall axis vista from and to the Lincoln Memorial to the Washington Monument to the U.S. Capitol, and the vista from the Lincoln Memorial from the raised terrace north to Constitution Avenue, along 23rd Street axes; and pedestrian circulation.

The NDSDS Memorial would be located within a contributing turf panel of the Lincoln Memorial Grounds, remove and replace four diseased or missing American elm trees along Constitution Avenue and 23rd Street, and reduce the area available for active recreation. The proposed low height of the memorial berms would minimize the visual intrusion on the National Mall and the Lincoln Memorial, as well as along the existing views along Constitution Avenue and 23rd Street. The replacement of four existing trees in the allées along Constitution Avenue and 23rd Street would be consistent with the historic landscape design implementation. Furthermore, additional trees would be planted on the southern edge of the project site consistent with the Lincoln Memorial’s planting plan implementation. The NDSDS Memorial would not alter pedestrian or traffic patterns at the site. Nighttime lighting would be limited to the extent possible.

The NDSDS Memorial introduces commemorative elements in an area that is currently open space and is used for active recreation. During the Section 106 process, consulting parties noted that the NDSDS Memorial would add an additional military memorial to the western end of the National Mall. However, the National Mall plays a commemorative role, and the NDSDS Memorial would be consistent with that character. As a result of its low and discreet design, the NDSDS Memorial would result in no adverse effect to historic properties.



# Area of Potential Effects



- Legend**
- Project Site
  - Area of Potential Effect (APE)
  - Constitution Gardens Cultural Landscape
  - East & West Potomac Parks Historic District
  - Lincoln Memorial Grounds Cultural Landscape
  - National Mall Historic District
  - Northwest Rectangle Historic District
  - Observatory Hill Historic District
  - Rock Creek & Potomac Parkway Historic District
  - Washington Monument Grounds Cultural Landscape
  - L'Enfant Plan of the City of Washington Views
  - Memorials
  - Historic Resources in the APE
  - 1 Arlington Memorial Bridge and related features
  - 2 Lincoln Memorial (and Statue of Lincoln)
  - 3 American Institute of Pharmacy (American Pharmacists Association)
  - 4 Harry S. Truman Federal Building
  - 5 National Academy of Sciences
  - 6 Federal Reserve Building
  - 7 Vietnam Veterans War Memorial
  - 8 Reflecting Pool
  - 9 Memorial to the 56 Signers of the Declaration of Independence
  - 10 World War II Memorial
  - 11 Lockkeeper's House
  - 12 Washington Monument



\*The project site is within the L'Enfant Plan of the City of Washington

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



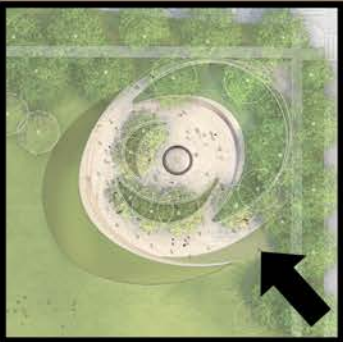
# New Tree Planting



The historic double allée along Constitution Avenue and 23rd Street NW is re-established with the planting of disease-resistant elms to match the existing mature trees.



# Memorial Site and Massing



SUMMER MORNING



SPRING MORNING



FALL AFTERNOON

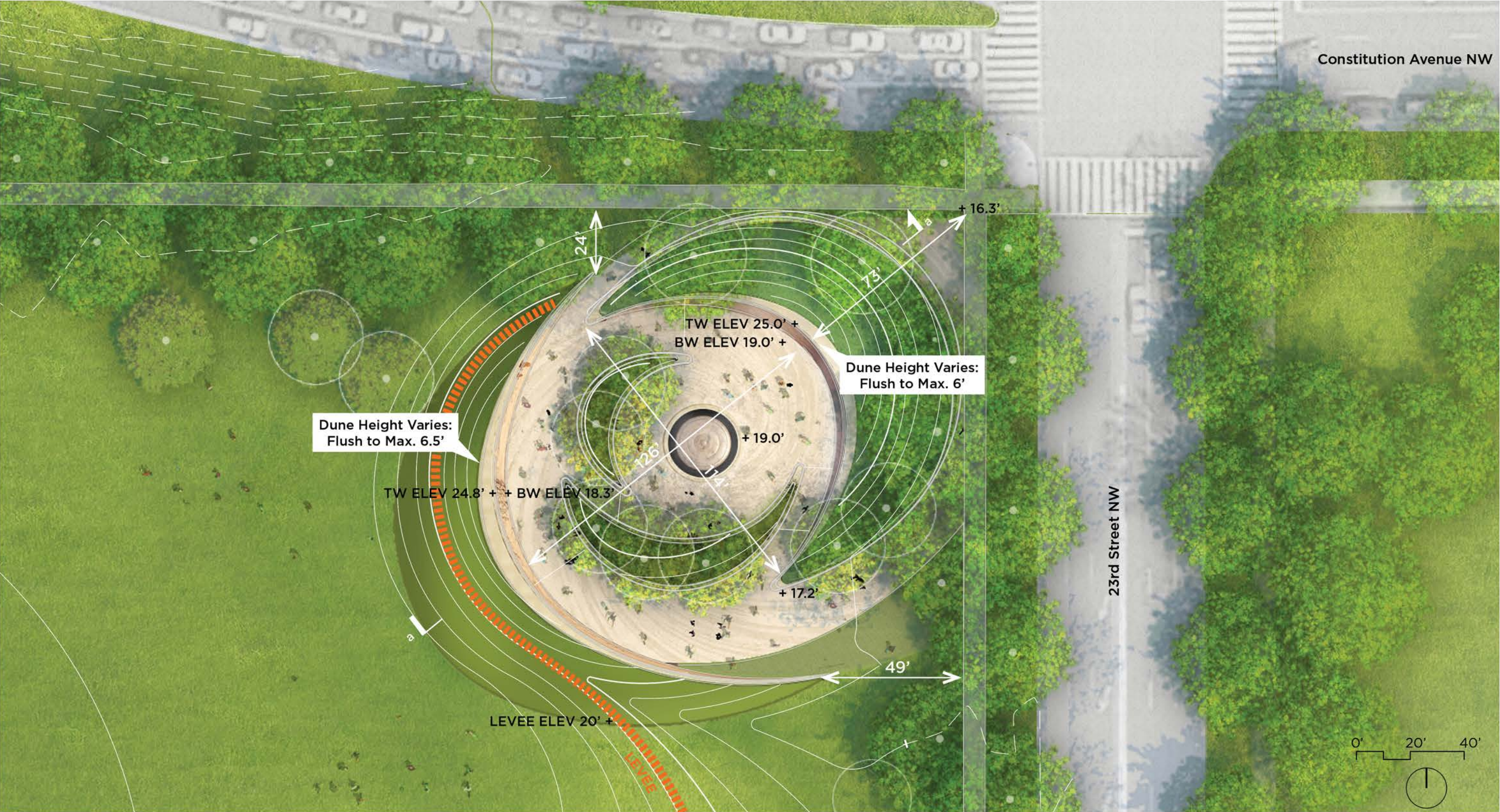


WINTER MORNING

Curving landforms provide a backdrop for dynamic light and shadow throughout the day and year.



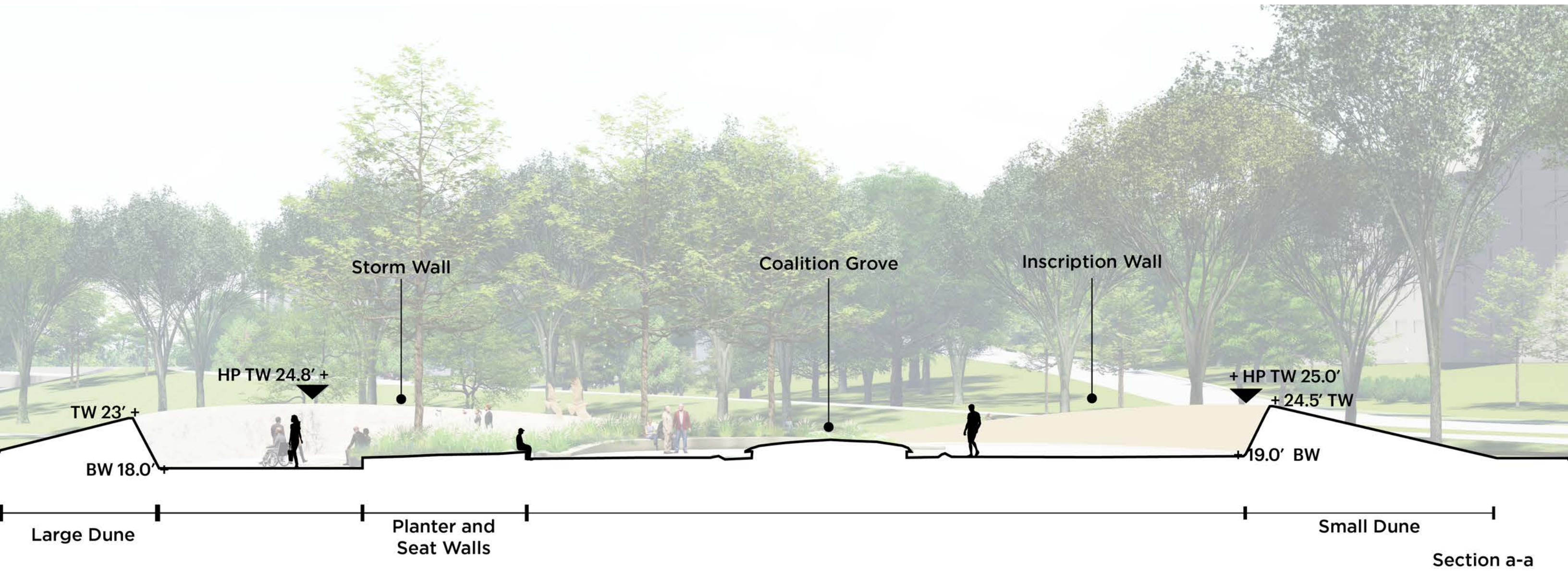
# Memorial Plan: Grading



The Memorial's placement provides commemoration while maintaining the allées of trees and multipurpose recreation space. The Memorial's size and separation from the Constitution Avenue and 23rd Street intersection enables a focused, contemplative experience. The site grading creates gentle dune-like slopes in the landscape to define the memorial.



# Site Section



This Section illustrates the grade changes across the site, including the landscape forms, planting area, and circulation paths.



# Commemorative Framework



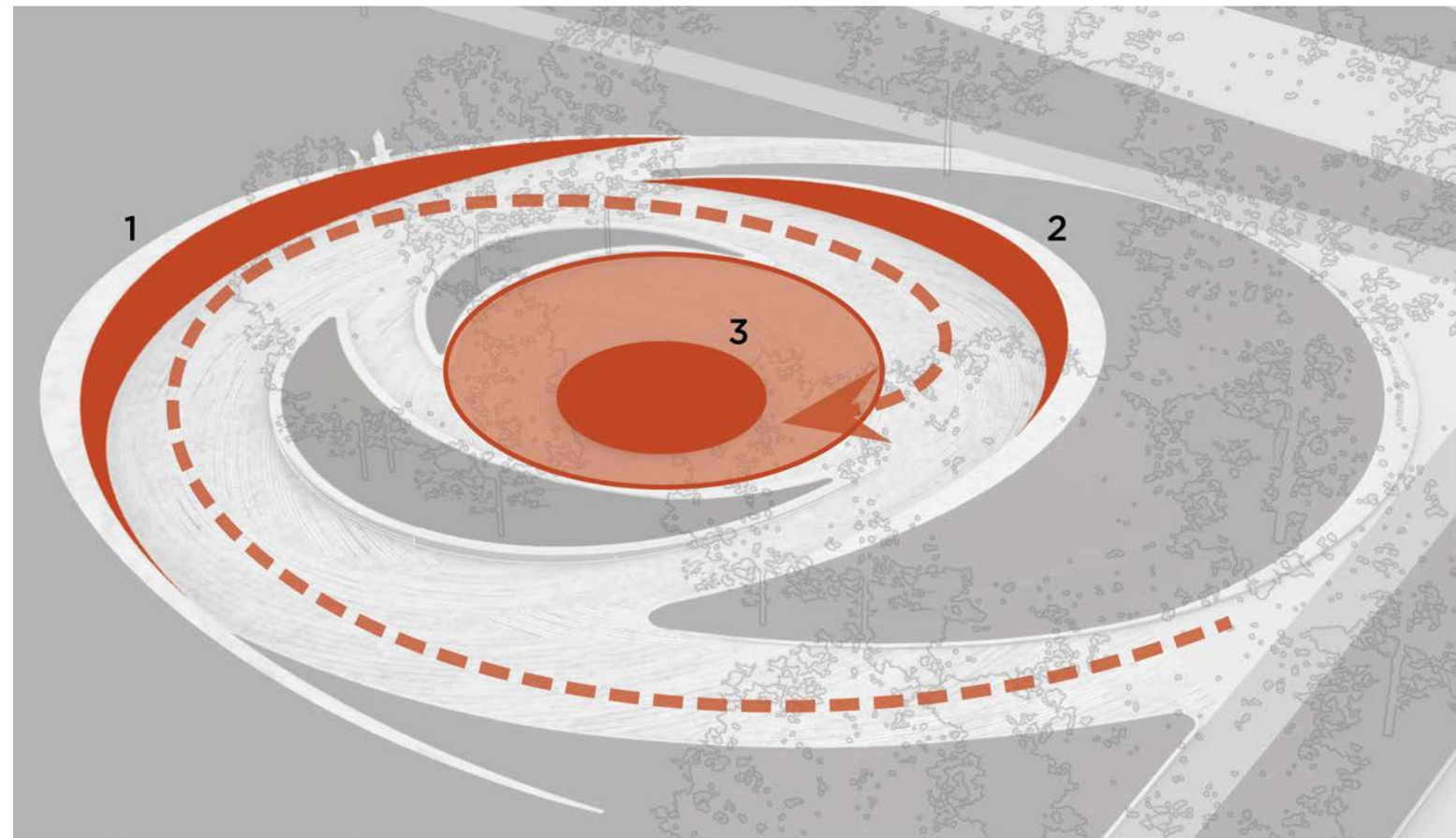


# Commemorative Framework: Service

*To honor those who served.*

A clockwise circulation path recalls the successful left-hook military maneuver that was integral to the conflict's resolution.

The path's subtle, ascending elevations reinforce the proud and affirmative tone to this memorial, culminating with a high point at the center, with the Coalition at the memorial's core.



**1. SERVICE IN THE CONFLICT**  
*how they served and changed the nation*

**2. SERVICE AND SACRIFICE**  
*how they sacrificed*

**3. SERVICE OF THE COALITION**  
*how they worked together*



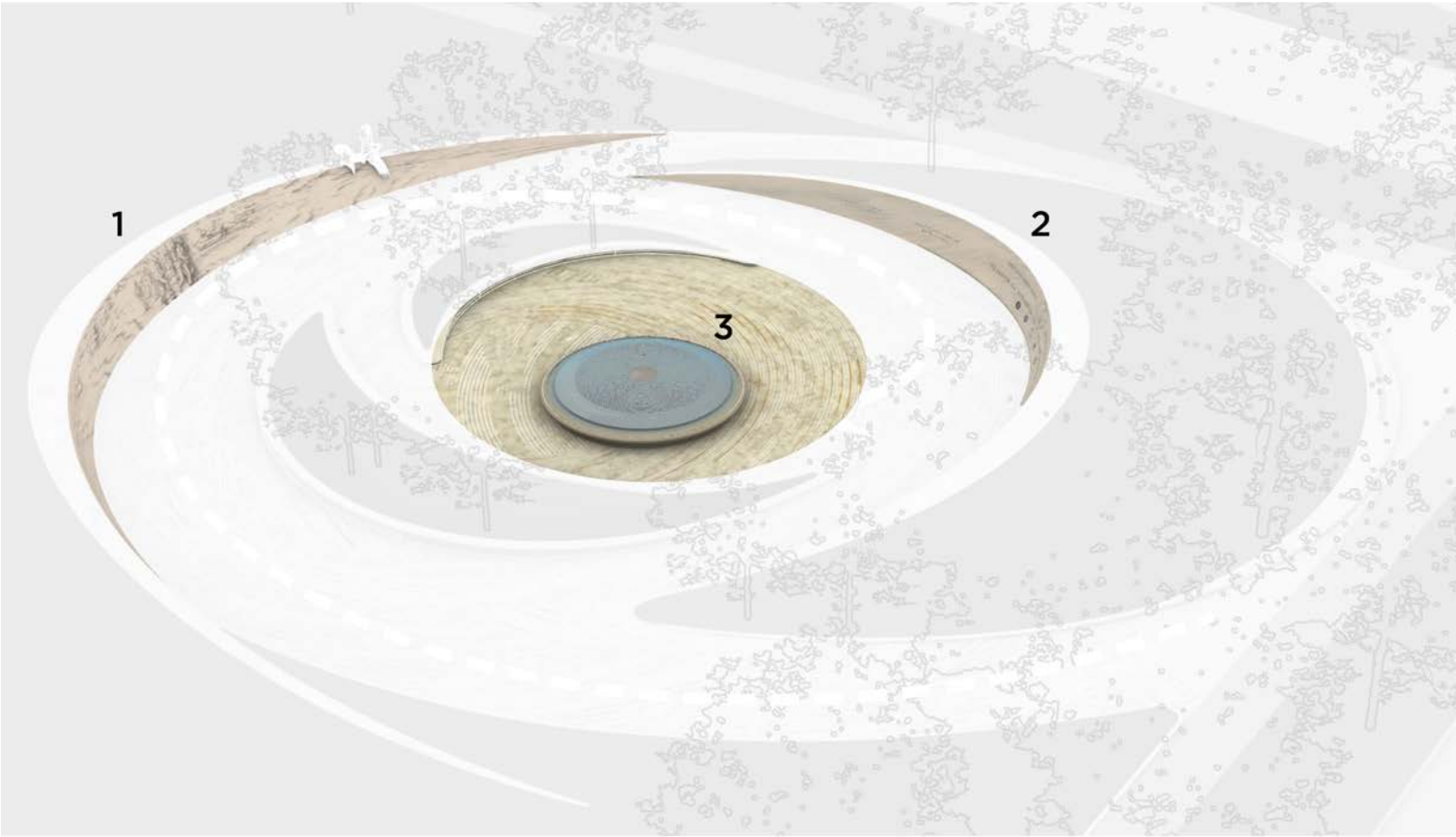
# Commemorative Framework: Service

*To honor those who served.*

**1. SERVICE IN THE CONFLICT**  
*how they served and changed the nation*

The bas-relief on this wall depicts the build-up of the Operation, the troops on the ground, and the dawn of a new day.

The bald eagle and falcon symbolize the leadership of the United States and the role of regional allies, and commemorate the liberation of Kuwait.



**2. SERVICE AND SACRIFICE**  
*how they sacrificed*

The inscription honors those who volunteered to serve and those who lost their lives in service.

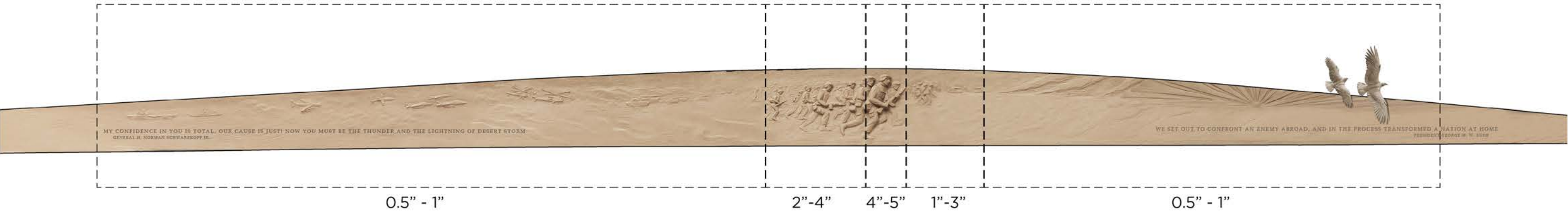
**3. SERVICE OF THE COALITION**  
*how they worked together*

The Unity Shield commemorates all nations of the Coalition, highlighting success of cooperation and underscoring their shared sacrifice in this conflict.

Reminiscent of a battle shield of antiquity, this element represents the collective effort of all coalition nations to join forces and assist the nation of Kuwait.



# Storm Wall: Depth of Relief



The bas-relief transitions from low to high and back in a crescendo of energy, highlighting the individuals serving in the conflict and layering the desert landscape on either side to convey depth and the vast scale. The photograph of a clay study model illustrates the curving form of the Storm Wall.



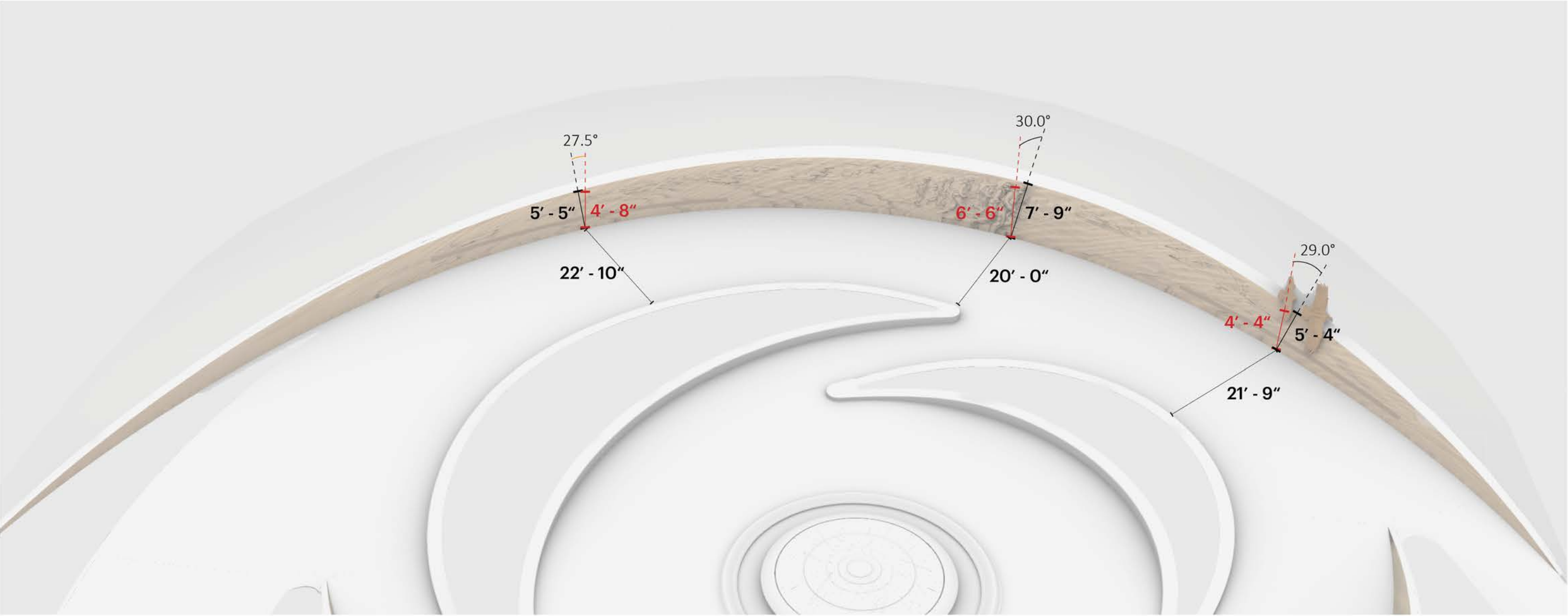
# Storm Wall: Conflict Detail



The central bas-relief figures highlight the humanity of the ground effort. Visitors are confronted with this personalized moment as a direct reflection of the individual sacrifice and shared experience throughout the conflict.



# Storm Wall: Service in the Conflict



DIMENSIONS  
Wall Length - 238'-4"  
Average Height - 4'-7"

XX°      Angle of Wall  
X' - X"    Length Along Surface  
X' - X"    Plumb Height

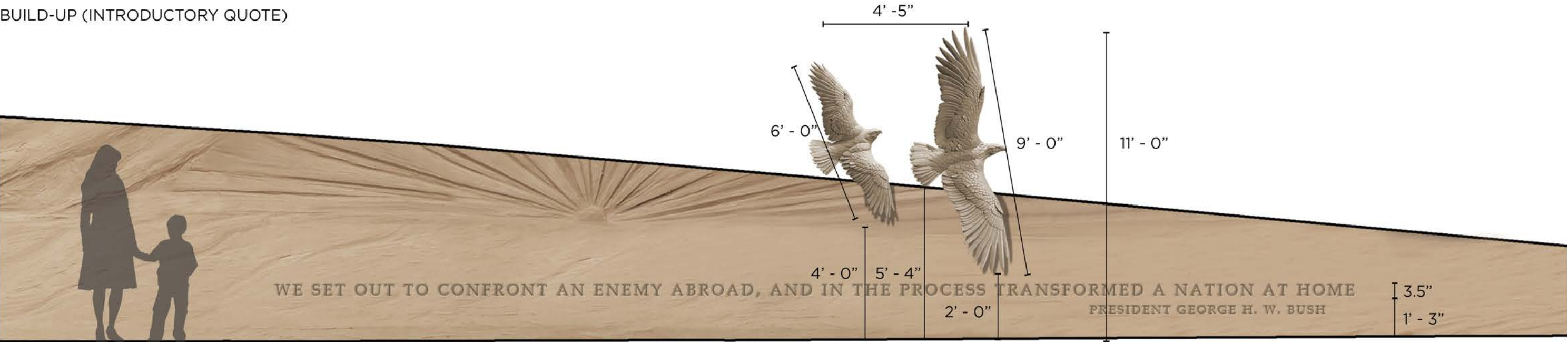
The canvas of the Storm Wall is revealed as one walks along the ascending “left-hook” path, clockwise through the Memorial. Shaded seating provides a central spot for visitors to view the wall bas-relief and textures.



# Storm Wall: Service in the Conflict



BUILD-UP (INTRODUCTORY QUOTE)

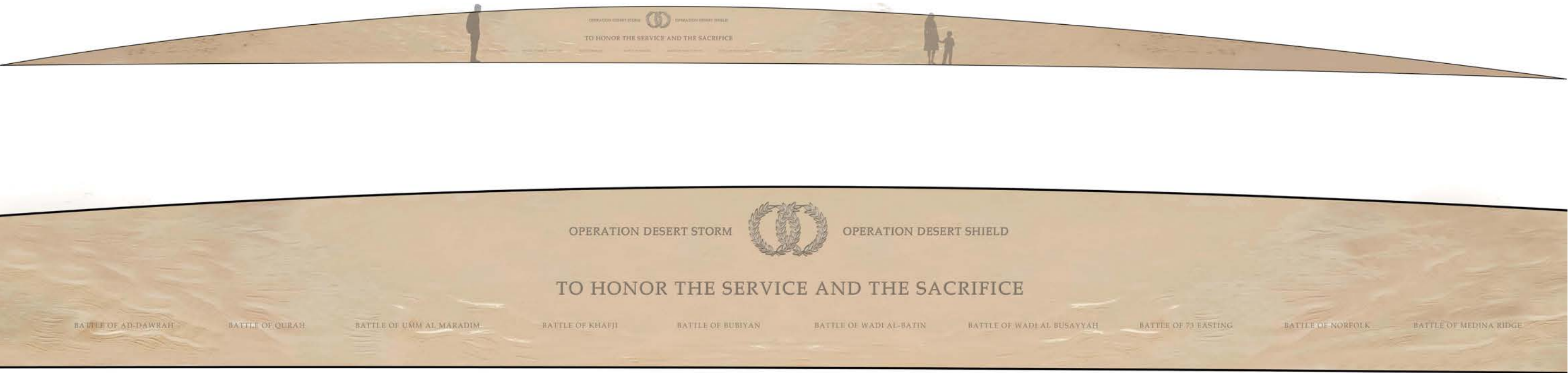


LIBERATION (CONCLUDING QUOTE)

Patinated stainless steel sculptures of raptors in flight pull the movement up and along the wall, flying out of the sunrise. Beyond the soaring raptors, the movement on the wall reflects a calmer tone leading to the Inscription Wall.



# Inscription Wall: Service and Sacrifice



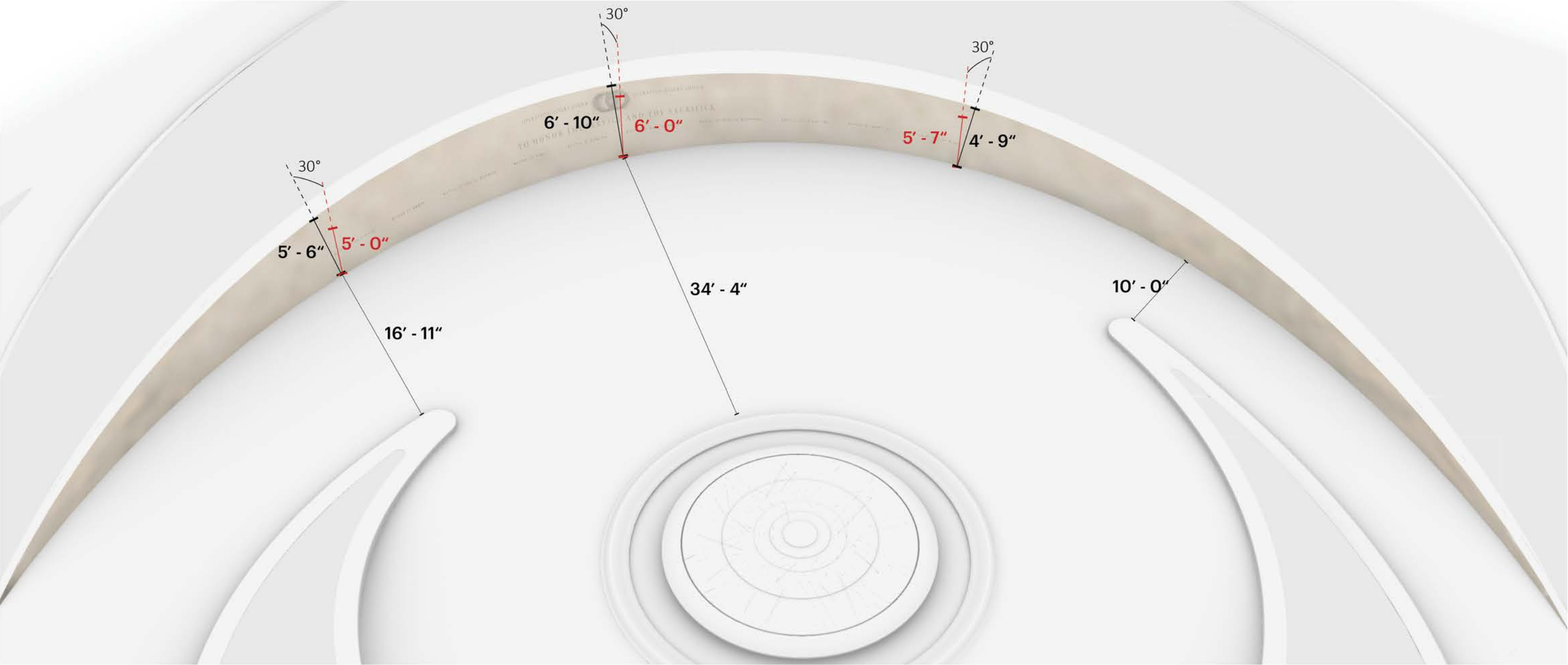
BATTLES TO BE INCLUDED IN WALL INSCRIPTIONS:

- BATTLE OF AD DAWRAH
- BATTLE OF QURAH
- BATTLE OF UMM AL MARADIM
- BATTLE OF KHAFJI
- BATTLE OF BUBIYAN
- BATTLE OF WADI AL-BATIN
- BATTLE OF WADI AL BUSAYYAH
- BATTLE OF 73 EASTING
- BATTLE OF NORFOLK
- BATTLE OF MEDINA RIDGE

Linked wreaths signify Operation Desert Storm and Desert Shield and recall the Kuwaiti Liberation Medal. The ten significant battles are noted across the length of the wall.



# Inscription Wall: Service and Sacrifice



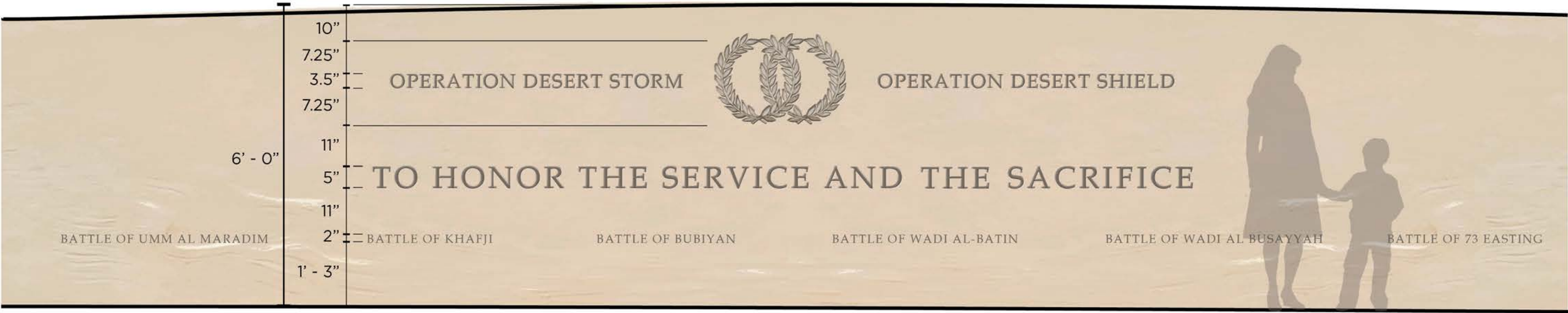
DIMENSIONS  
Wall Length - 164'-9"  
Average Height - 4'-2"

XX°      Angle of Wall  
X' - X"    Length Along Surface  
X' - X"    Plumb Height

Details and dimensions of the Inscription Wall.



# Inscription Wall: Service and Sacrifice



Details and dimensions of the Inscription Wall.



# Unity Shield: Service of the Coalition

The Memorial's centerpiece is a cascading water feature situated within an open plaza and sheltered by a grove of trees. The fountain washes over a circular battle shield. Around the edge of the Unity Shield, the names of 35 countries are engraved to commemorate the international Coalition that acted together to enforce UN Resolution 660 and liberate the country of Kuwait. The complete ring of countries highlights the significance of this moment in history: a new, cooperative approach to resolving conflict that united the world and marked the end of the Cold War.

However, the battle shield is imperfect. It bears scars to show the sacrifice of nations and individuals involved in the conflict. The wash of the water has various modes of intensity. As a high flow, it emphasizes the turbulence and upheaval of battle. In a gentler flow, water becomes a cleaner, more reflective surface. When the shield is dry, the detailed patterning and battering of the shield are obvious. They are a solemn reminder of the wounds suffered and the lives lost in a complex, cooperative effort to rescue a nation in need.





# Unity Shield: Service of the Coalition



The Unity Shield serves as the focal point of the Coalition Grove oasis. Water cascades over the surface, etched with patterning that recalls a battered shield.



# Unity Shield: Service of the Coalition



Water cascading down the shield's texture would have a lively and mesmerizing effect when the flow is highest. At more solemn moments of commemoration, the water flow can be reduced to create concentric reflective pools. When the water is off, the shield's subtle patterns become pronounced.



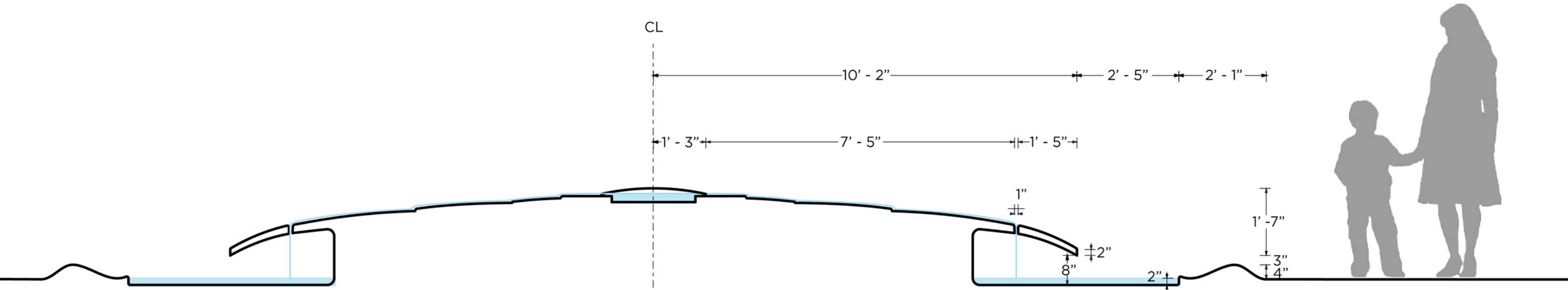
# Unity Shield: Service of the Coalition



BIRD'S EYE



EDGE DETAIL



Details and dimensions of the Unity Shield.



# Memorial Views



Bird's eye aerial looking into the Memorial space through the existing allée along 23rd Street NW.



# Memorial Entrance: Corner of Constitution Ave + 23rd St NW



View looking southwest from the corner of 23rd Street and Constitution Avenue. The Memorial name would be incorporated into the stone curb leading visitors to the entrance.



# Memorial Views



View of the Memorial looking northwest from 23rd Street NW.



# Memorial Views



The Coalition Grove is a shady and comfortable place to contemplate the memorial.



# Memorial Views



View looking south toward the Lincoln Memorial.



