INTRODUCTION

HISTORY & EXISTING CONDITIONS
PROJECT BACKGROUND AND GOALS
BATTLEGROUND NATIONAL CEMETERY

The National Park Service (NPS) and Rock Creek Park (ROCR) propose to create a new Architectural Barriers Act Accessibility Standard (ABAAS) compliant walkway and to rehabilitate the historic landscape vegetation of the site.

Battleground National Cemetery is a one-acre national cemetery located at 6625 Georgia Avenue NW, Washington D.C. 20012, approximately five miles north of the United States Capitol. The cemetery is part of the National Park Service’s Civil War Defenses of Washington and is managed by Rock Creek Park (ROCR). It is listed in the National Register of Historic Places and stated to be significant “for its association with the only military engagement ever fought in the District of Columbia. It is the District’s only national cemetery for Civil War casualties, and it is the Nation’s smallest national cemetery in number of burials.”

The purpose of this project is to provide universal accessibility to the cemetery that is compatible with the cultural landscape of the Civil War-era Battleground National Cemetery. In 2014 a Cultural Landscape Report (CLR) was prepared by Michael Commisso, NPS Cultural Resource Specialist. The Report outlined treatment recommendations for the site including a design concept for adding an accessible walkway.

As part of an IDIQ contract with the National Park Service (NPS) National Capital Region, SmithGroup was contracted to design the ABAAS compliant walkway and the landscape rehabilitation. The AE team conducted site investigations, including site survey, analysis of topography, analysis of existing vegetation, soil borings, mortar analysis, and masonry cleaning tests.

Based on the site observations, the walkway concept outlined in the CLR was evaluated, along with alternative solutions to achieve the project goals. The options were assessed based on the following criteria:

- Universal Accessibility (ABAAS) Factors
- Cultural Landscape Integrity
- Historic Buildings & Structures
- Historic Stone Wall
- Potential Archaeological Impacts
- Tree Preservation / Restoration
- Visitor Experience
- Drainage & Stormwater
- Maintenance

Through this detailed analysis a single concept was selected for further development. The drawings submitted for review depict the concept design, which introduces a new ABAAS compliant walkway accessed at the northwest corner of the site. The concept design also includes recommendations for the rehabilitation of the landscape.
SITE CONTEXT
BATTLEGROUND NATIONAL CEMETERY

- 1.03 acre park
- 6625 Georgia Avenue NW
  Washington D.C.
- NPS Civil Defenses of Washington
- Managed by Rock Creek Park (ROCR)

Upper Left: Map of Civil War Defenses of Washington

Lower Left: Aerial View
Google Maps

Right: Rock Creek Park
Courtesy of NPS
EXISTING CONDITIONS: EXISTING SITE
BATTLEGROUND NATIONAL CEMETERY

The site aerial shows the cemetery as it currently looks today. The boundary line of the site lies just outside the existing masonry wall on the north, east, and south ends of the site. On the west end of the site, the existing wall is outside the boundary line.

Note: Resolution of conflicting site property boundaries is still required.
EXISTING CONDITIONS: SITE TOPOGRAPHY
BATTLEGROUND NATIONAL CEMETERY

The cemetery grade is elevated four to six feet above the existing sidewalk. The height of the historic stone retaining wall along Georgia Avenue varies throughout, but is approximately 54" tall.

SITE SURVEY
Prepared by Sorba Engineering, 2022
EXISTING CONDITIONS: TOPOGRAPHY & VEGETATION ISSUES
BATTLEGROUND NATIONAL CEMETERY

The cemetery grade is elevated four to six feet above the sidewalk. The height of the stone retaining wall varies throughout, but is approximately 54” tall. There are currently only four existing trees on the site.

The proposed project is focused on:

1. Providing an ABAAS compliant access to the site that is respectful of the historic cultural landscape of a Civil War era cemetery.

2. Landscape improvements include the rehabilitation of historic landscape vegetation.

Existing Entrance Stair
The main entrance consists of blue stone steps leading from the sidewalk at Georgia Avenue to a blue stone landing.

Existing Vegetation
There are four existing trees on the site, which previously had significantly more plantings.
EXISTING CONDITIONS: STRUCTURES

BATTLEGROUND NATIONAL CEMETERY

The cemetery includes three historic buildings. The Superintendent’s Lodge is an L-shaped structure composed of Seneca sandstone with a slate mansard roof. The lodge was built in 1871 and was designed by Quartermaster General Montgomery C. Meigs, and underwent a major rehabilitation in 2009, during which select site utilities were upgraded.

An American-bond brick tool shed is located at the northeast corner of the site. The shed was constructed in 1906-1907 and is now used for maintenance equipment and storage.

A Doric-style marble rostrum stands directly opposite of the entrance gate on axis with a 50 foot metal flag pole. The Rostrum was built 1920-1921 and continues to be utilized as an elevated orator’s platform and used for ceremonies and special events.
EXISTING CONDITIONS: ADJACENT SITE FEATURES

BATTLEGROUND NATIONAL CEMETERY

In addition to the buildings and structures on the site, other significant features include monuments, tablets, and urns. There are four stone monuments located north of the entrance stair and facing west. All appear to be in good condition. The current concrete urns are not original to the property, but were installed by 1938. The urns are in poor condition and may be impacting the stone walls beneath them. There are two cannons that sit on masonry piers that flank the entry stairs. These cannons have been moved over time around the entry. The flagpole serves as the central focus of the axial entry path, encircled by grave stones.

Head Stones & Flag Pole
Head Stones are placed in a circle surrounding the flag pole.

Cannons
Cannons on stone bases frame the entrance stair.

Monuments
There are four existing stone monuments to the north of the entrance stair, which are adjacent to location of the proposed walkway.

Concrete urn
There are two concrete urns flanking the entrance stair.
EXISTING CONDITIONS: NORTH WALL CONDITION
BATTLEGROUND NATIONAL CEMETERY

The cemetery is surrounded by a stone wall on all sides. The stone wall at the north end of the cemetery is in poor condition showing severe cracks and instability. It also has a Seneca sandstone cap unlike the Georgia Avenue wall that has a bluestone cap. The wall in this portion (and others) of this site has been documented with the following defects:

- Gypsum Crust
- Missing and deteriorated mortar
- Evidence of past repointing
- Significant crack at the north wall near the northwest wall

Note: Need to confirm structural condition of north wall foundations and stability.
The design of this project is based on analysis of previous reports and site documentation, including:

- National Register of Historic Places (1980)
- Historic American Building Survey (1999)
- 2009 Superintendent’s Lodge Rehabilitation
- 2014 Cultural Landscape Report (CLR)
- 2018 Cultural Landscape Inventory (CLI)
HISTORY

BATTLEGROUND NATIONAL CEMETERY

- Battleground National Cemetery was established after the Battle of Fort Stevens (1864)

- The Superintendent’s Lodge was designed by Quartermaster General Montgomery C. Meigs

- Listed on the National Register of Historic Places

- Period of Significance: 1864 to 1936

Circa 1907 – 1914 image of the cemetery
Library of Congress, Prints and Photographs

This is the earliest known image of the site from the Period of Significance.
HISTORY OF DESIGN
BATTLEGROUND NATIONAL CEMETERY

- 1893 map documents the paths surrounding the graves and flagpole, as well as a walkway running the length of the western wall

- The new ABAAS walkway is being proposed at this approximate location.
PROJECT SCOPE

SITE ANALYSIS & DESIGN ALTERNATIVES
SITE ANALYSIS & TREATMENT OPTIONS
BATTLEGROUND NATIONAL CEMETERY

The cemetery grade is elevated four to six feet above the existing sidewalk along Georgia Avenue. The height of the stone retaining wall varies throughout, but is approximately 54” tall.

The concept design focuses on creating an efficient and equitable entrance to the site that provides a similar experience to entering from the entrance stairs. A new opening is created in the historic wall at the NW corner of the site, which requires less length of walkway because grade is at a lower elevation than to the south. The design includes rebuilding of the entrance stair to more closely resemble the stair present c. 1907-1914, which raises the upper stair landing to be level with the adjacent grade and concrete walkways leading to the flag pole and Superintendent’s Lodge.

Multiple options for the placement of the walkway were analyzed before selecting the proposed concept design. These previously studied alternatives are further detailed on pages 19 - 27.
The proposed design introduces a new ABAAS compliant walkway accessed from the northwest corner of the site that ends at a landing at the top of the entry stairs, and includes replanting of trees based on the recommendations of the Cultural Landscape Report.

- A new 6' wide opening is created in the historic wall
- New retaining walls on either side of walkway
- Drainage swale created between historic wall and new retaining wall
- No handrails are required based on the 4.40% slope
- New walkway approx. 104'
- Entry stair reconfigured to resemble the c. 1910
- Most direct access to central path and lodge

Note several items need to be confirmed to proceed:
- Structural condition of north wall foundations and stability
- Resolution of conflicting site property boundaries
CONCEPT DESIGN
BATTLEGROUND NATIONAL CEMETERY

3D VIEW - CONCEPT DESIGN

NEW CONCRETE PATH
NEW BLUE STONE LANDING
EXISTING HISTORIC MONUMENTS TO REMAIN
NEW CONCRETE WALKWAY
NEW STONE WALLS COPING A WALL FACE TO BLUE STONE
NEW IRON GATE
NEW LINER WALL TO SUPPORT EXISTING WALL, CLAD WITH BLUE STONE TO MEET HT. OF EXISTING WEST WALL

SUPERINTENDENT'S LODGE
NEW CONCRETE PATH
EXISTING HISTORIC CANNONS & BASES
EXISTING HISTORIC URNS
NEW IRON GATE TO REPLACE HISTORIC
NEW STAIR WITH BLUE STONE TREADS & RAILS TO REPLACE HISTORIC LOOK AND PAINTED HANDRAIL

GEORGIA AVENUE

Concept Review
Battleground National Cemetery | Accessible Walkway & Landscape Improvements
September 1, 2022
PREVIOUS ANALYSIS OF DESIGN ALTERNATIVES

BATTLEGROUND NATIONAL CEMETERY

Analysis was completed on multiple options for the placement and configuration of the proposed walkway. Following the initial site investigation three options were advanced for further study.

- **West/Central Access 1 (Upper Left)**
  - The recommended concept prior to preliminary consultation input.
  - See further details on pages 20-21.

- **West/ Central Access 2 (Upper Right)**
  - This is a variation of the concept design with walkway running directly behind historic wall.
  - See further details on pages 22-23.

- **North Access (Lower Left)**
  - See further details on pages 24-25.

- **South Access (Lower Right)**
  - Based on the concept presented in the Cultural Landscape Report (CLR).
  - See further details on pages 26-27.
This was the preferred concept design prior to preliminary agency consultation. Comments of concern included the following:

- Shift the secondary entrance further north to the existing stone pier at the north masonry wall.
- Remove the proposed stone piers at the secondary entrance for a more subtle appearance.
- Provide a simplified gate design at the secondary entrance.
- Provide a liner wall between the new retaining wall and the existing north masonry wall. This provides additional support for the existing historic north wall to allow the walkway to shift north and adjacent to this wall.
PREVIOUS ANALYSIS: WEST CENTRAL ACCESS 1
BATTLEGROUNDS NATIONAL CEMETERY

EXISTING STONE MONUMENTS TO REMAIN
EXISTING CANNONS & BASES TO REMAIN
EXISTING DECORATIVE URNS TO REMAIN
GEORGIA AVENUE ELEVATION
LINE OF WALKWAY SURFACE BEYOND
NEW STONE PIERS TO MATCH EXISTING
NEW STAIR WITH BLUESTONE TREADS & RISERS TO REPLICATE HISTORIC LAYOUT WITH NEW PAINTED HANDRAILS
NEW PAINTED IRON GATES TO REPLICATE HISTORIC
This option is a variation of the proposed design concept that was evaluated. The primary difference is that the new walkway is directly adjacent to the historic wall.

- Similar to the concept design a new 6’ wide opening is created in the historic wall and the entry stair is shown to be reconfigured; however, there is only one new retaining wall on east side of the new walkway
- Based on the location of the there is more risk of damage to the historic wall.
- Significant revisions needed to the drainage.
- Handrails are needed on the street side because there a more than 30’ drop to the sidewalk.
PREVIOUS ANALYSIS: WEST CENTRAL ACCESS 2

BATTLEGROUNDS NATIONAL CEMETERY

GEORGIA AVENUE ELEVATION

EXISTING STONE WALL
NEW STONE PIERS TO MATCH EXISTING
LINE OF WALKWAY SURFACE BEYOND
NEW PAINTED METAL SAFETY HANDRAIL AT STREET SIDE ONLY
NEW STAIR WITH BLuestone TREADS & RISERS TO REPLICATE HISTORIC LAYOUT WITH NEW PAINTED HANDRAILS
NEW PAINTED IRON GATES TO REPLICATE HISTORIC
EXISTING STONE MONUMENTS TO REMAIN
EXISTING CANNONS & BASES TO REMAIN
EXISTING DECORATIVE LIPS TO REMAIN
PREVIOUS ANALYSIS: NORTH ACCESS

BATTLEGROUND NATIONAL CEMETERY

An option was evaluated where the ABAAS walkway enters the site at approximately the same location at the northwest corner of the site and then extends east into the cemetery and connects with the central path from the north side.

- Similar to the concept design new 6’ wide opening is created in the historic wall; however the walkway extends east 60’ into the cemetery
- New retaining walls on either side of the new walkway for the initial run, which may create a tunnel effect
- The path is longer than the concept design, at 160’
- Entrance experience is different from using the central stair
- More site disturbance than in the proposed concept
PREVIOUS ANALYSIS: NORTH ACCESS
BATTLEGROUNDS NATIONAL CEMETERY

GEORGIA AVENUE ELEVATION

EXISTING STONE MONUMENTS TO REMAIN
EXISTING URNS
EXISTING CANNONS AND BASES
NEW PAINTED METAL HANDRAILS
NEW PAINTED IRON GATES TO REPLICATE HISTORIC
NEW 8-THREAD BLUESTONE STAIR TO REPLICATE HISTORIC

NEW STONE PIERS
The option to provide an ABAAS complaint walkway entering the site at the southwest corner, is based on the design previously developed for the Cultural Landscape Report (CLR). The topographic survey revealed that the south side of the site sits higher than the north and therefore requires the walkway to be longer.

- A new 6’ wide opening is created in the historic wall
- New retaining walls on either side of the new walkway for the initial run
- This location would require the longest walkway at 190’
- Entrance experience is different from using the central stair
- Access to the lodge is from the rear
- This configuration requires the most site disturbance, adds paving adjacent to the lodge, and connects to the central path in close proximity to the flagpole/headstones
PREVIOUS ANALYSIS: SOUTH ACCESS
BATTLEGROUND NATIONAL CEMETERY

NEW PAINTED IRON GATES TO REPLICATE HISTORIC
EXISTING BLUESTONE STAIR
EXISTING STONE WALL
EXISTING URNS
EXISTING CANNONS AND BASES
GEORGIA AVENUE ELEVATION
PROJECT DETAILS

PROPOSED ABAAS WALKWAY & LANDSCAPE IMPROVEMENTS
All of the options evaluated show the creation of a new opening in the existing stone wall along Georgia Avenue. The entrance stair is a character-defining feature of the site and creating a sloped walkway at this location was problematic due to increased disruption of the site and historic fabric.

The recommended location for the new opening is shown on the site plan (left) and in the image (above).
ENTRY STEPS & GATE
BATTLEGROUND NATIONAL CEMETERY

The cemetery is elevated approximately four to six feet above the existing street level along Georgia Avenue. Along the center of the west elevation, the stone wall curves and dies into a pier on either side of five bluestone steps that lead to an intermediate bluestone landing. At the north side of the landing is a short concrete retaining wall. To the south are four steps leading to a concrete walkway that wraps around the Superintendent’s Lodge. To the east are three steps that land at a concrete walkway on axis with the flag pole.

The steps from the street were recently replaced and are in good condition. However, the landing and steps are in poor condition. The bluestone is delaminating and resulting in an uneven surface.

Review of a historical photograph of Battleground National Cemetery reveals that the steps were replaced/reconfigured. The original condition shows seven steps total and does not appear to have a landing. In addition the steps do not extend past the front of the retaining wall (i.e. into the sidewalk), and the metal gate has been replaced and relocated from the bottom of the stair to the top. It was observed that other modifications have been made, such as rotation of the cannons and their bases, and the relocation and replacement of the urns.
ENTRY STEPS & GATE
BATTLEGROUND NATIONAL CEMETERY

The proposed stairs and gate are designed to resemble the condition depicted in the historic photo, including:

- Number of steps
- Location of the gate*
- Detailing of gate filigree

* Note: gate is shown at second step up instead of first step, so that the gate swing will not extend into the public right of way.
NEW ENTRANCE GATE
BATTLEGROUNDS NATIONAL CEMETERY

In addition to the replacement of the main entrance gate, a new gate is proposed for new opening in the historic wall and entrance to the proposed ABAAS complaint walkway.

- Gate is more simple compared to the main entrance gate
- Gate to swing in and have a sliding lock
- The new opening is detailed to meet the existing west wall. The new retaining walls conclude at the back of the existing wall. The intent is to minimize the emphasis and cut into the historic wall.
From the stair landing there are four steps to the south, leading to a concrete walkway that wraps around the Superintendent’s Lodge. To the east are three steps that land at a concrete walkway on axis with the flag pole.

Both walkways are shown to be replaced to tie into the new stair landing and grading. The central walkway is proposed to be widened from approximately 4’ to 5’ wide, which is ABAAS compliant.
Today, there are just four trees extant on the site (see site survey below). The 2014 Cultural Landscape Report shows 14 existing trees on the grounds of the cemetery (see right image). Both deciduous and coniferous species from Red Maples to False Cypress trees decorated the site. Since then, trees have been lost both to disease and weather events.
The following planting plan follows the intent of the recommendations for plantings made in the CLI but with some slight modifications both to accommodate the new ramp and to alter some plant species.

PLANTING PLAN - CONCEPT DESIGN

LEGEND
- GROUND COVER
- LAWN
- PROPOSED TREE
- PROPOSED SHRUBS
- EXISTING TREE

PLANTING PLAN BATTLEGROUND NATIONAL CEMETERY

The following planting plan follows the intent of the recommendations for plantings made in the CLI but with some slight modifications both to accommodate the new ramp and to alter some plant species.

PLANTING PLAN BATTLEGROUND NATIONAL CEMETERY

The following planting plan follows the intent of the recommendations for plantings made in the CLI but with some slight modifications both to accommodate the new ramp and to alter some plant species.
Based on the configuration of the new ABAAS walkway it would not be possible to restore the large Red Maple or the Cedar to their original locations, at the northwest corner of the site. The Cedar is however shown to be replanted east of the new walkway.

- A new swale is created between the new retaining wall and the existing historic wall. It is shown to be planted with Silver Brocade and Little Bluestem.
- Ground cover (Blue Spruce Creeping Sedum) is also planted to the east of the new walkway. The grade in this area is nearly 30° above the concrete of the walkway. A rail is not required; however the ground cover is intended to deter visitors from walking in this area.
TREATMENT OF MASONRY WALL
BATTLEGROUND NATIONAL CEMETERY

The cemetery is surrounded by a stone wall on all sides. The stone walls at the north, east, and south of the cemetery are approximately 4’ high and consist of granite stones laid in a random rubble pattern with a sandstone cap. These walls function as both retaining walls and free-standing walls in various locations around the site. The scope of this project is limited to the treatment of the west retaining wall, which consists of a 4.5’ coursed granite rubble wall with a 4” bluestone coping. There is a 3’ x 3’ pier at both the northwest and southwest corner that extends above the west wall and connects to the flanking (north and south) walls. The walls and piers are believed to be unreinforced masonry.

The following conditions were observed along the west retaining wall and are shown to be treated in the schematic design:

- Biological growth on mortar joints and cap stones
- Gypsum Crust
- Missing and deteriorated mortar
- Evidence of past repointing
- Significant crack at the north wall near the northwest wall (Not currently shown in schematic design drawings)