



Parks

Soldiers & Sailors Monument Reconstruction

Landscape Improvements for ADA Compliant Accessibility

Project M071-323M

Located at Riverside Drive & W89th Street
in the Borough of Manhattan

PDC Preliminary Review

July 21, 2024

WXY architecture + urban design

ABB Landscape Architecture

NYC Parks

Total Budget: \$62.3M (Mayoral), *including monument restoration*
FY 2023

Project Size: ±45,000SF

Project Goals

- The complete restoration of the Soldiers & Sailors Monument, its surrounding terraces, and all associated structures (being reviewed under separate application).
- ADA compliant accessibility to all exterior levels of the monument.*

*The monument's interior will remain inaccessible to all public.



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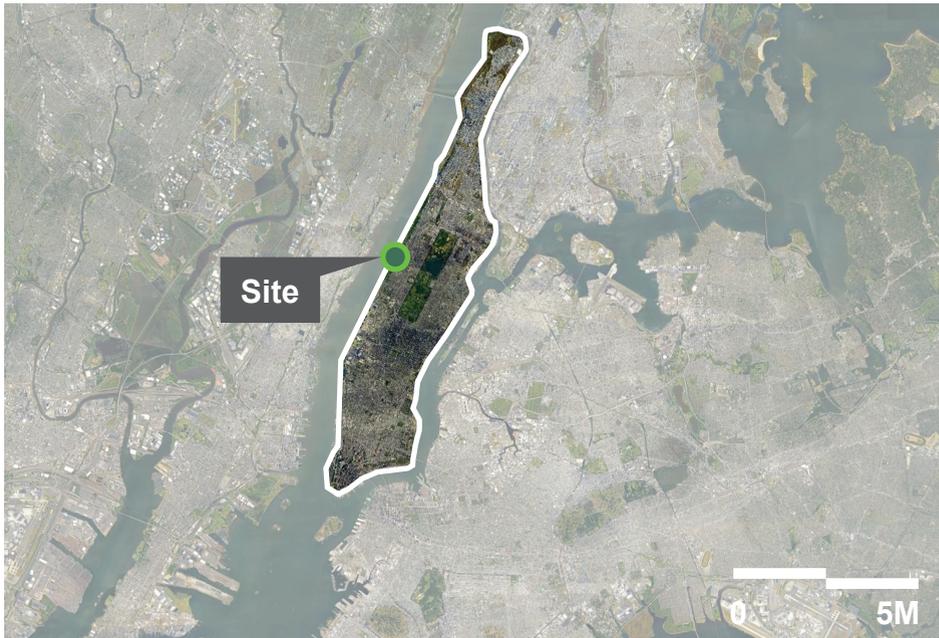
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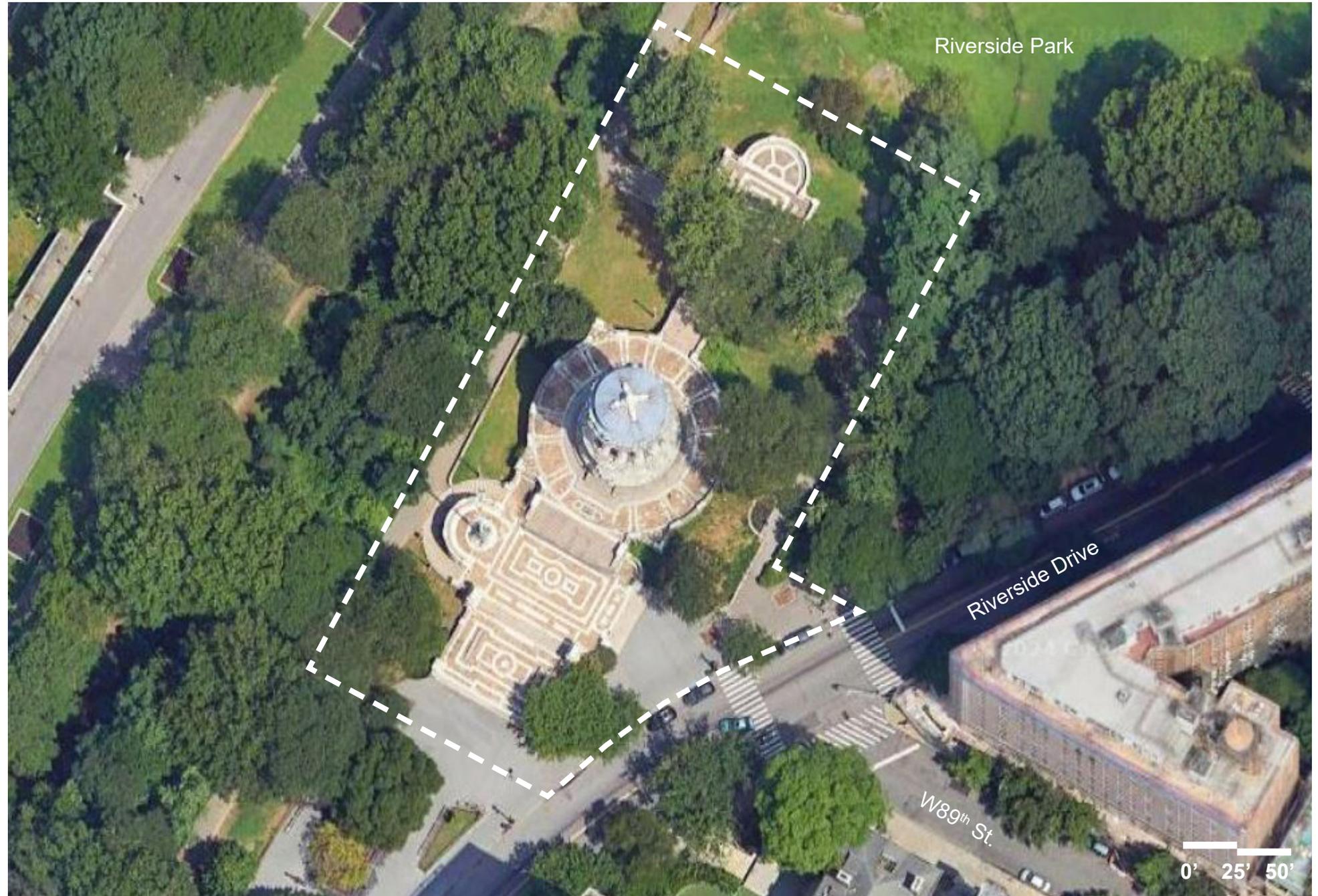
Soldiers & Sailors Monument Reconstruction
Riverside Park | Project Goals



Borough: Manhattan



Neighborhood: Upper West Side | CB7



Site: Riverside Park



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Project Location





Source: <http://www.nyc.gov/floodhazardmapper>

Base Flood Elevation (BFE): N/A
 Design Flood Elevation (DFE): N/A

Flood Hazard Zones

2015 Preliminary Flood Insurance Rate Map

- **V Zone (100-year floodplain subject to wave action)**
 Areas along coasts subject to inundation by the 1% annual chance flood event with additional hazards associated with storm-induced waves.
- **A Zone (100-year floodplain)**
 Areas subject to inundation by the 1% annual chance flood event.
- **Shaded X Zone (500-year floodplain)**
 Areas within the 0.2% annual chance floodplain, areas of 1% annual chance flooding where average depths are less than 1 foot, areas of 1% annual chance flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 1% annual chance flood by a levee.
- ■ ■ **Limit of Moderate Wave Action (LiMWA)**
 The inland limit of the area expected to receive 1.5ft or greater breaking waves during the 1% annual chance flood event. Data from 2015 PFIRMs.

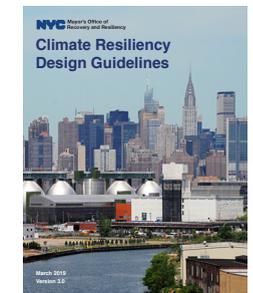
Future Floodplain 2050s

- Future 1% Annual Chance Floodplain (100-year)
- Future 0.2% Annual Chance Floodplain (500-year)

Resources (Links):



NYC Parks: Design and Planning for Flood Resiliency



NYC MOCR: Climate Resiliency Design Guidelines (v4.0)



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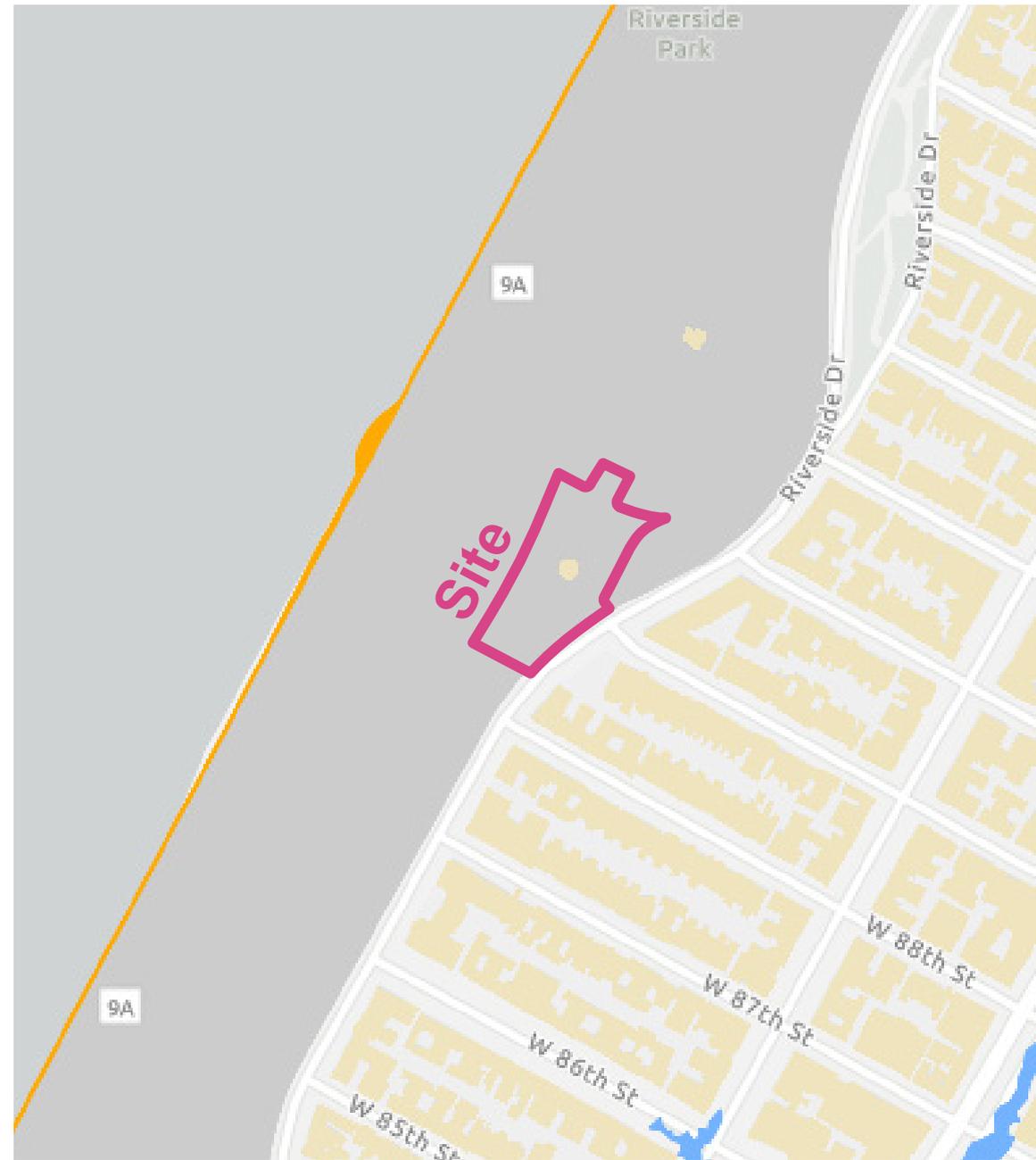
Soldiers & Sailors Monument Reconstruction Riverside Park | FloodRisk (Coastal)

NYC Stormwater Flood Maps

- Area not included in analysis
- Future High Tides 2050 (Moderate) & 2080 (Extreme)
- National Wetlands Inventory
- Deep and Contiguous Flooding (1ft and greater)
- Nuisance Flooding (greater or equal to 4 in and less than 1 ft)



Moderate Flooding (10-year storm)



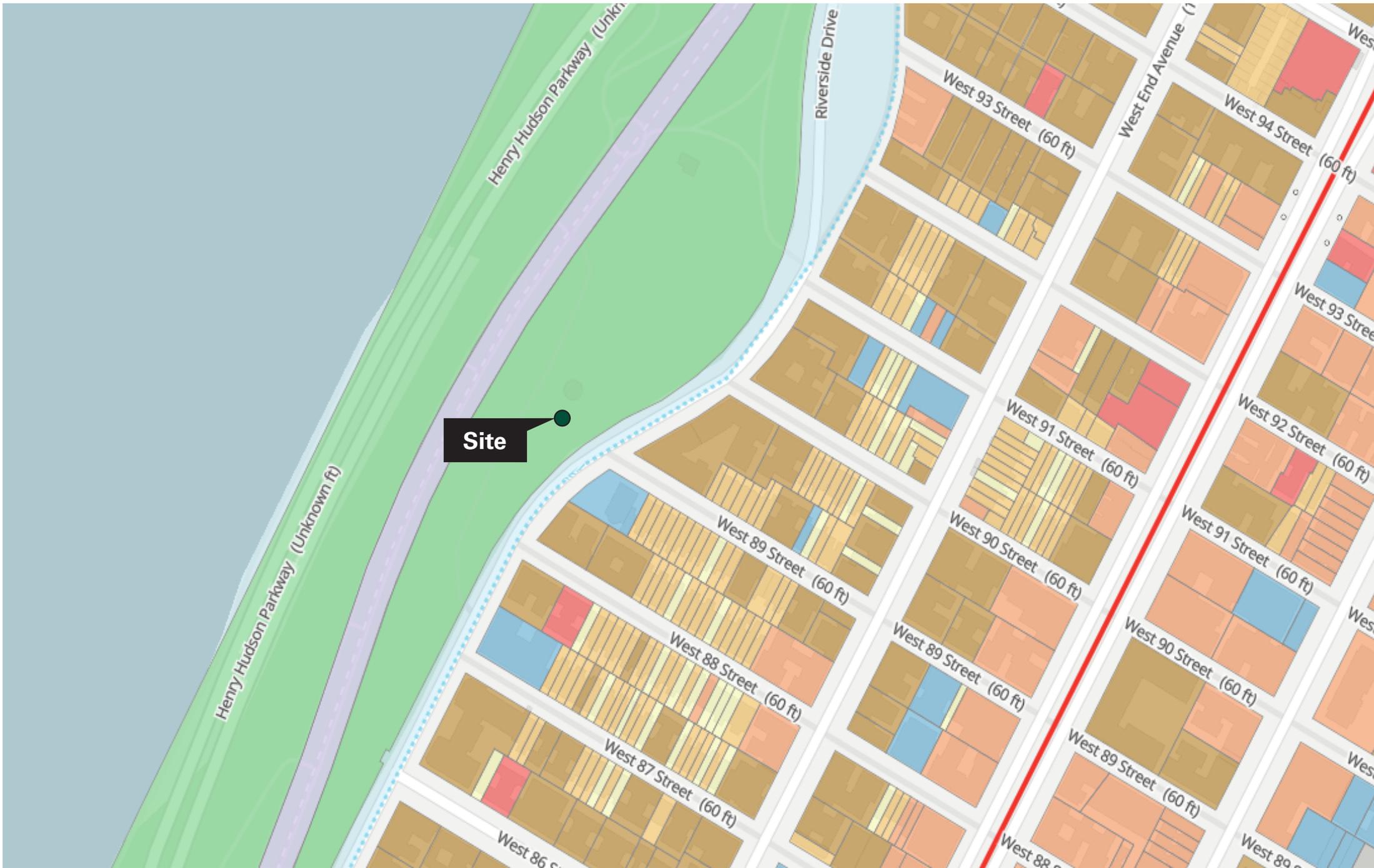
Extreme Flooding (100-year storm)



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Soldiers & Sailors Monument Reconstruction
Riverside Park | FloodRisk (Stormwater)



Land Use Categories

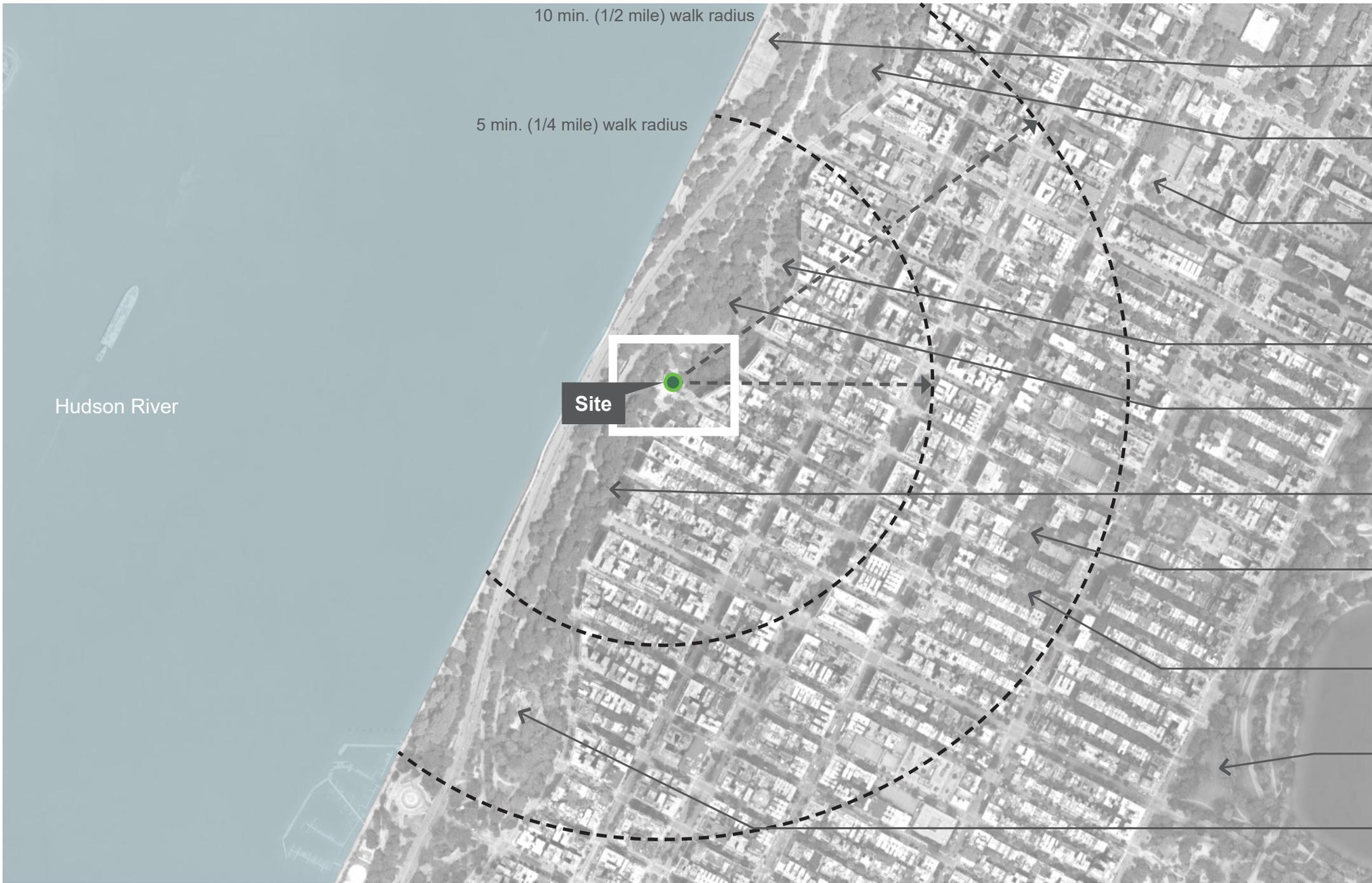
- 1 And 2 Family Residential
- Multi-Family Residential (Walkup)
- Multi-Family Residential (Elevator)
- Mixed Use
- Commercial & Office
- Industrial & Manufacturing
- Transportation / Utilities
- Public Facilities & Institutional
- Open Space And Outdoor Recreation
- Parking
- Vacant Land
- Other



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Soldiers & Sailors Monument Reconstruction Riverside Park | Surrounding Land Use



- 10 min. (1/2 mile) walk radius
- 5 min. (1/4 mile) walk radius
- 96th Street Clay Tennis Courts**
Clay Tennis Courts (6)
- Dinosaur Playground**
Playground
Public Restrooms
- Happy Warrior Playground**
Playground
Public Restrooms
Basketball Courts, Tennis Courts
- Joan of Arc Park**
- Hippo Playground**
Playground
Public Restrooms
- West 87th Street Dog Run**
Dog Run
- St. Gregory's Playground**
Playground
Basketball Courts
- Playground Eighty Nine**
Playground
- Central Park West**
Playground (3)
- River Run Playground**
Playground
Public Restrooms



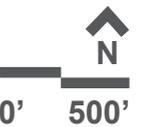
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Soldiers & Sailors Monument Reconstruction
Riverside Park | Neighborhood Context





SOLDIERS' AND SAILORS' MONUMENT—RIVERSIDE DRIVE

1— Approaching the Monument from the South along Riverside Drive, c. 1910

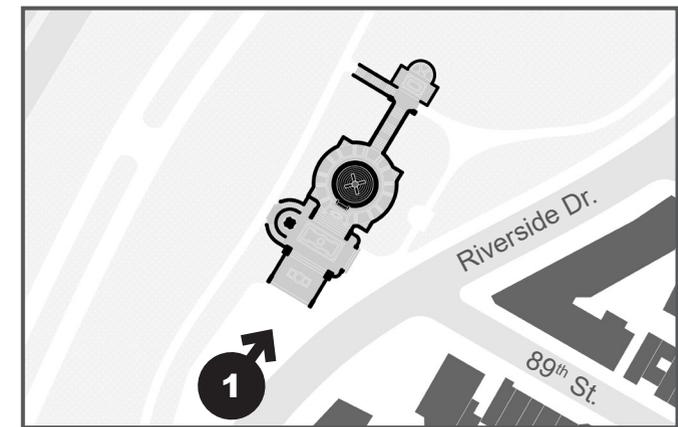


Photo Key



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Historical Views





1— Aerial view from west, c. 1934

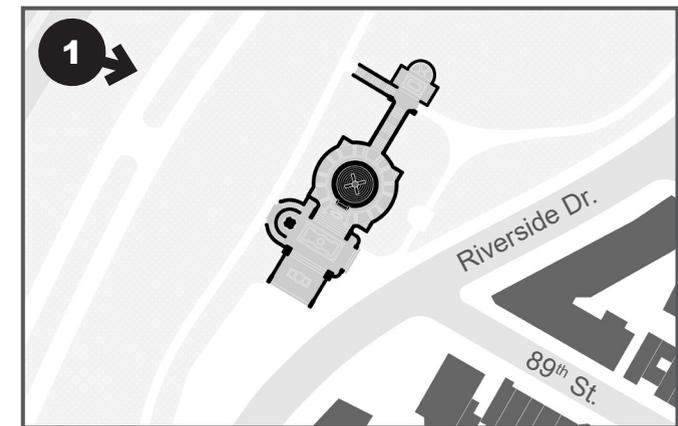


Photo Key



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Historical Views





1— View from the South Plaza, 1911



2— View from South Plaza, 2024

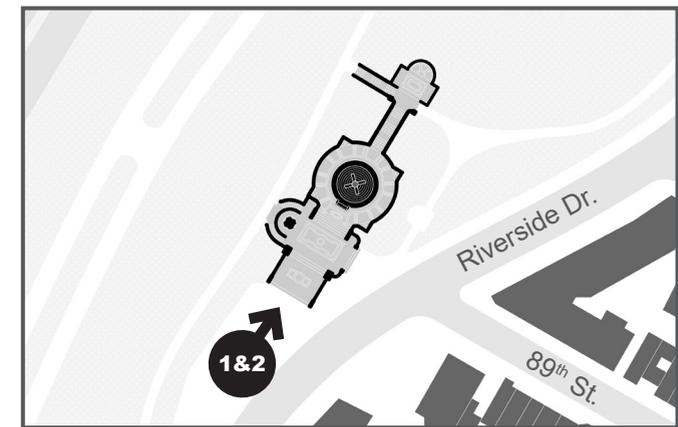


Photo Key



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Site Photos: Historic & Existing

1869
NY State Legislature authorizes the creation of a Soldiers & Sailors Monument.

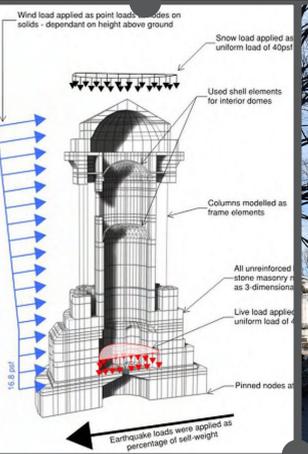
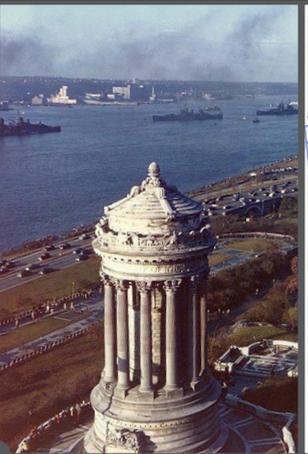
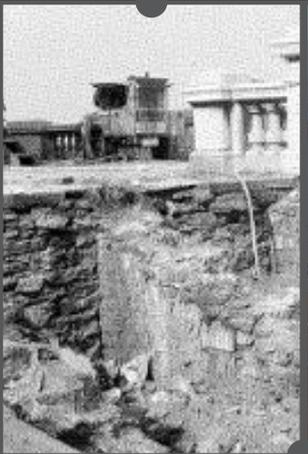
1897
Stoughton & Stoughton win design competition held by Board of Commissioners.

1899
NY Governor Theodore Roosevelt lays the cornerstone. The existing George Washington Statue is relocated.

1907
First reports of localized failure.

1962
The City undertakes a comprehensive restoration of the monument.

2017
Soldiers & Sailors Monument: Conditions Survey and Restoration Treatment Study is commissioned.



1893
A Board of Commissioners for the monument is established.

1899
The site in Riverside Park at 89th Street is chosen.

1902
Construction is completed and the Monument is unveiled.

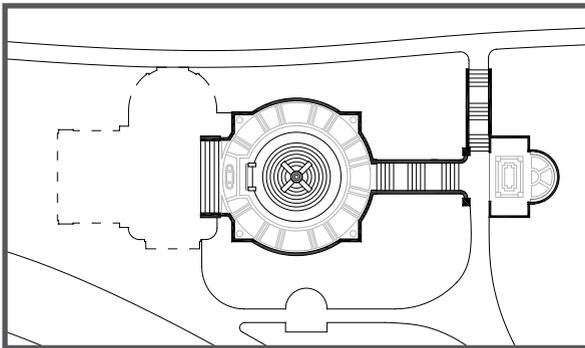
1930
The monument is coated with a protective paraffin.

1976
The Landmarks Preservation Commission, with the support of the DPR, designates the monument a Historical Landmark.

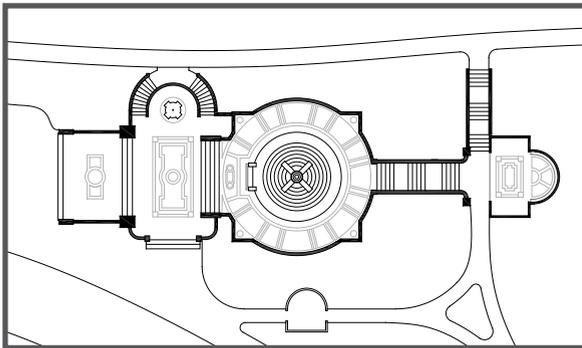
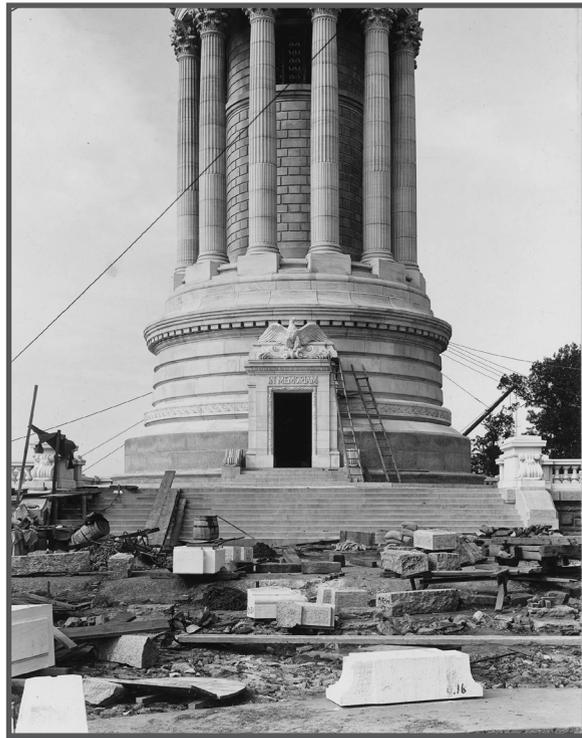
2024
Current reconstruction & accessibility project.



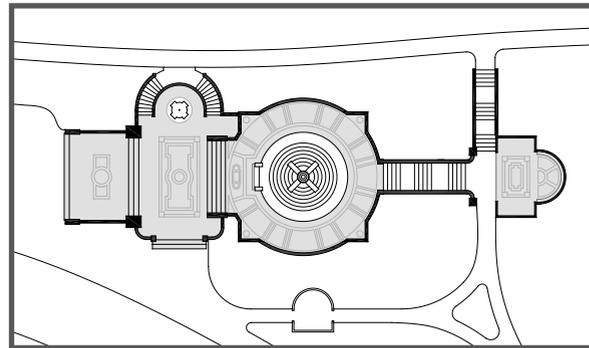
Soldiers & Sailors Monument Reconstruction Riverside Park | Monument History



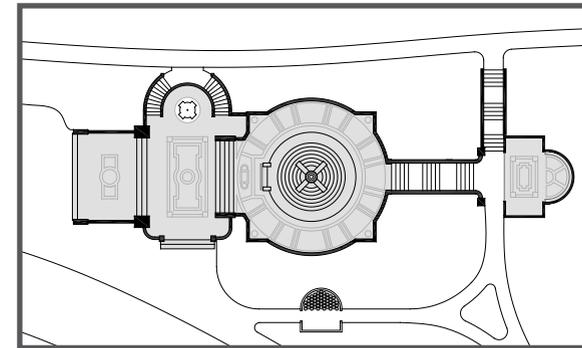
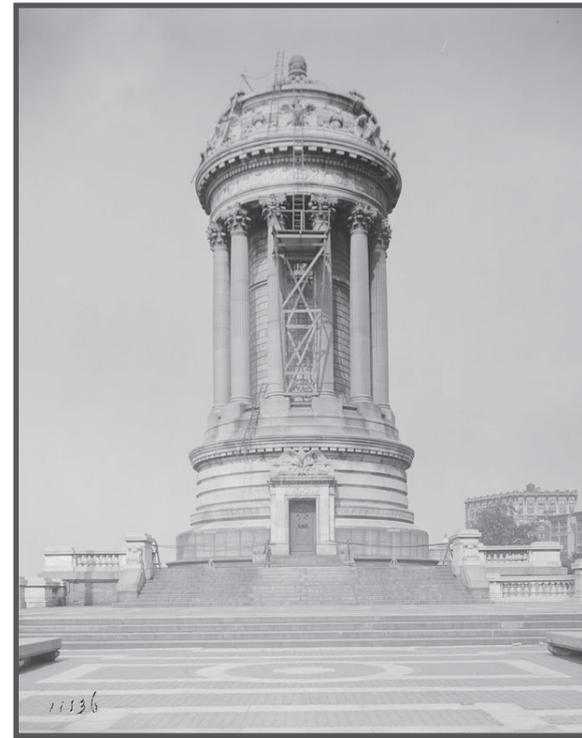
1902
The Monument is opened shortly before the Upper & Lower Terraces are completed.



1902
The Upper & Lower Terraces are completed.



1935
Original brick pavers are replaced with concrete.



1962
Last major restoration campaign—the terraces are repaved with Crab Orchard sandstone, balustrades are replaced, cannon balls are relocated, the side is regraded, and the flagpole is replaced.



Soldiers & Sailors Monument Reconstruction
Riverside Park | Monument Evolution



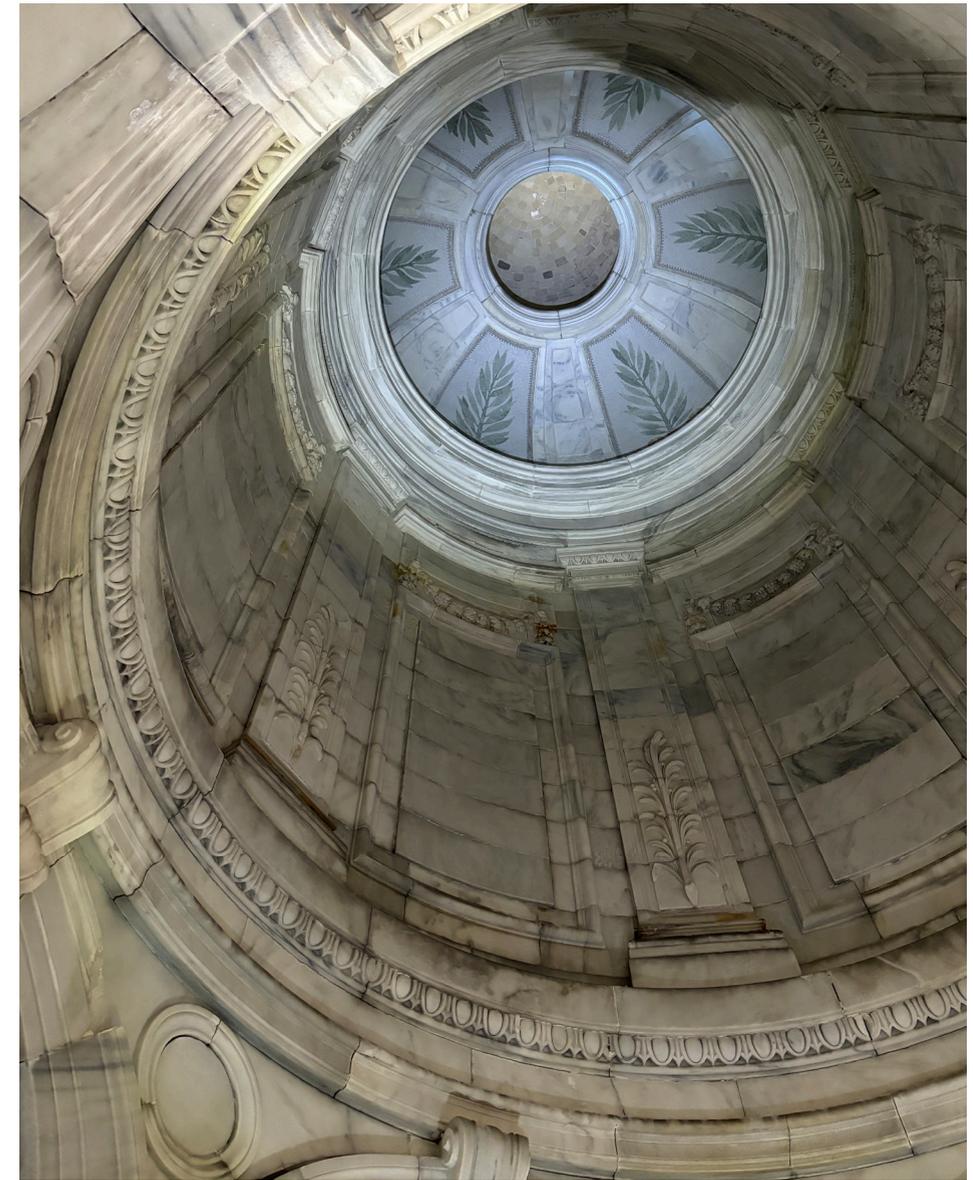
Terrace Reconstruction & Repaving

- Rebuild sub-grade assembly
- Install new drainage
- Reset & replace existing materials



Tower Exterior Repair

- Remediate deteriorated mortar & masonry joints
- Repair & replace roofing and flashing
- Repair & restore corroded metal elements



Tower Interior Repair

- Remediate deteriorated mortar & masonry joints
- Repair and restore mosaic tile floor
- Repair & restore corroded metal elements

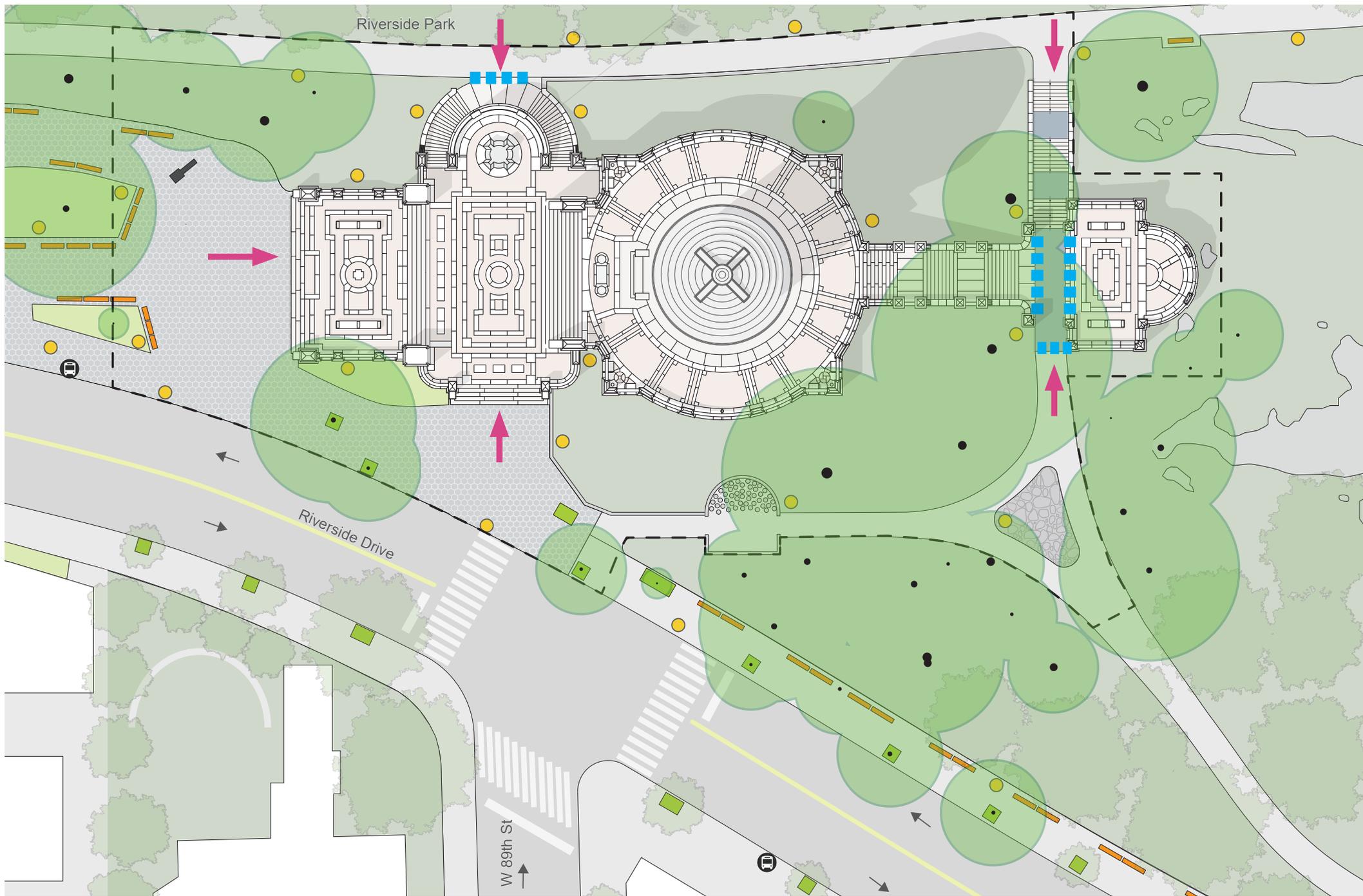


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Soldiers & Sailors Monument Reconstruction

Riverside Park | Scope of Restoration *to be reviewed under separate application*



Legend

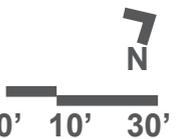
- Project Limit
- Monument Access
- Tripping Hazard
- Existing Trees
- Open Lawn Area
- Rock Outcropping
- Tree pits
- Bluestone Pavers
- Planting
- Asphalt Pavement
- Hexagonal Paver
- Granite Stairs
- Cobblestone
- Site Benches
- Cannon
- Cannon Balls
- Lamp Posts
- Bus Stops

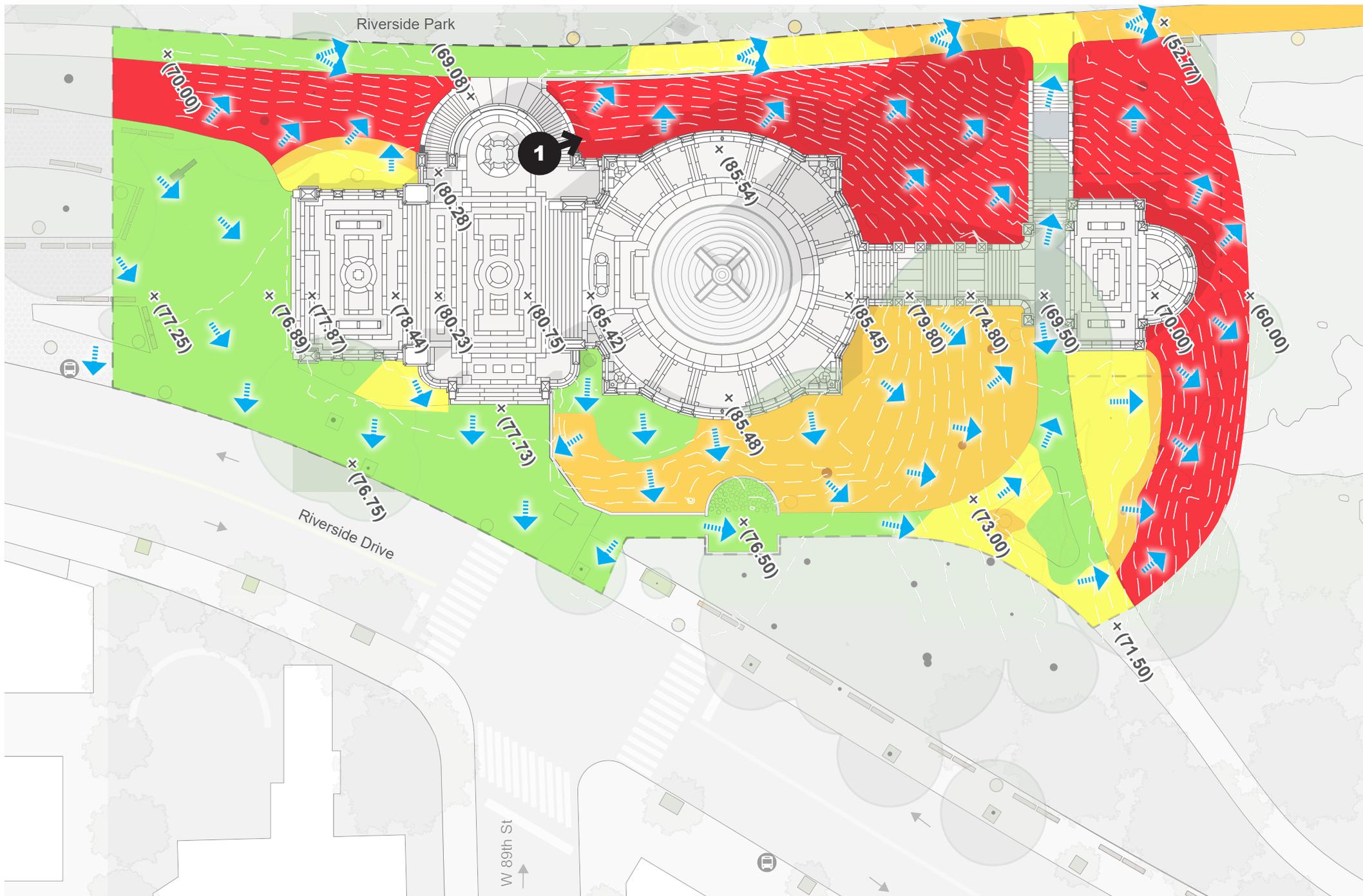


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Soldiers & Sailors Monument Reconstruction Riverside Park | Existing Conditions: Site





Legend

- Project Limit
- Stormwater Surface Flow
- x(60.00) Existing Spot Grade
- Low Slopes <math>< 5\%</math>
- Moderate Slopes $\ge 5\% - 10\%$
- Steep Slopes $\ge 10\% - 15\%$
- Severe Slopes $\ge 15\%$



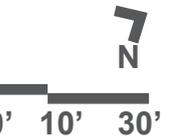
Steep slopes on the west side of the monument

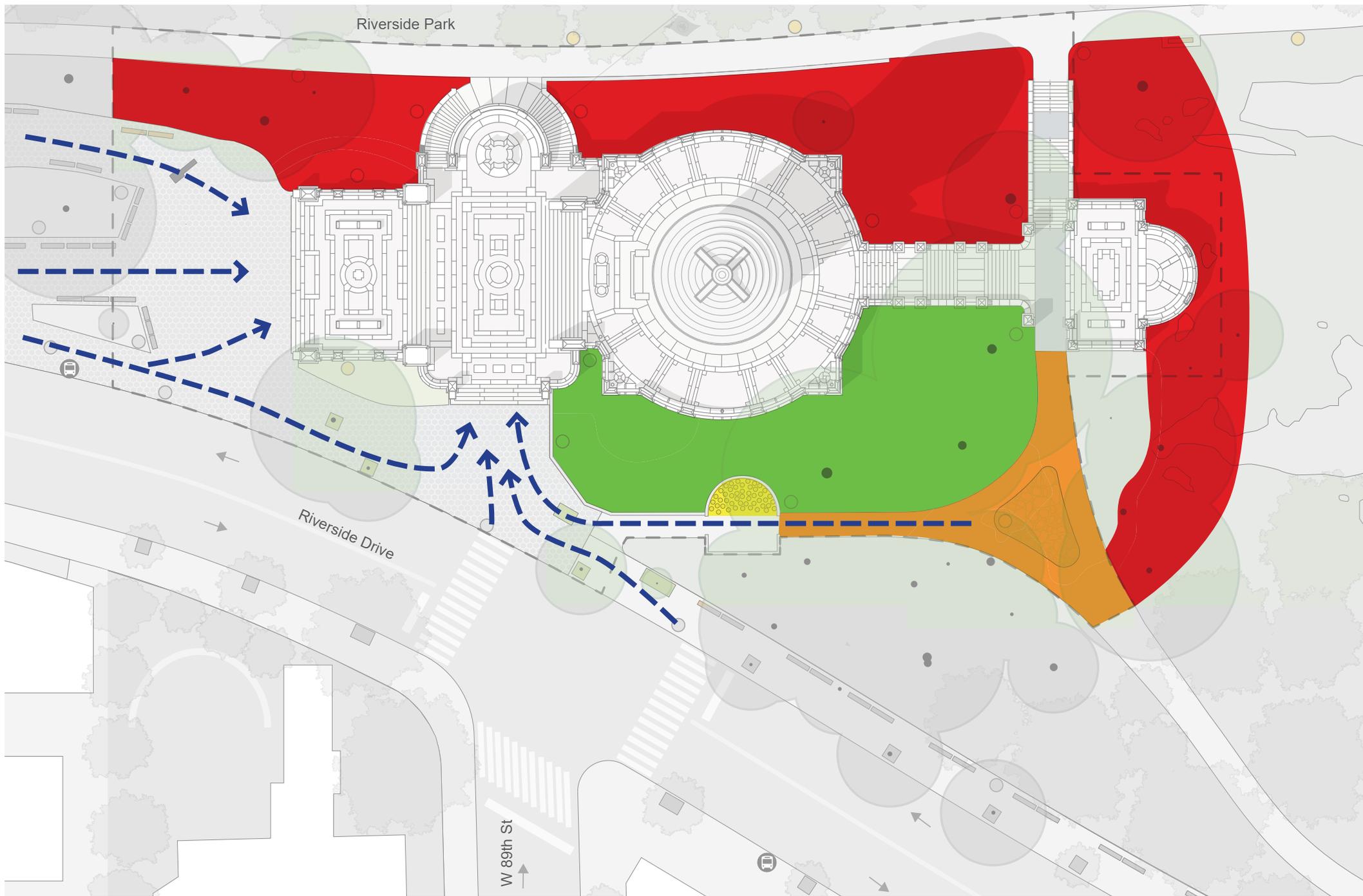


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Soldiers & Sailors Monument Reconstruction Riverside Park | Site Analysis - Slope Analysis





Legend

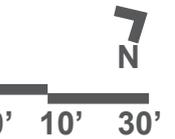
-  Project Limit
-  Typical Site Approaches
-  Site Area with Potential for Programming
-  Cannon Balls
-  Regrading Recommended for Universal Access
-  Soil Stabilization Recommended



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Soldiers & Sailors Monument Reconstruction Riverside Park | Site Analysis





Legend

- Project Limit
- Vegetative Screening
- Vistas
- Stormwater Ponding
- Open Landscape
- Major Critical Root Zones to Avoid
- Pavement in Poor Condition
- Empty Tree Pits



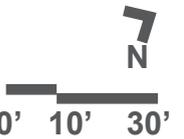
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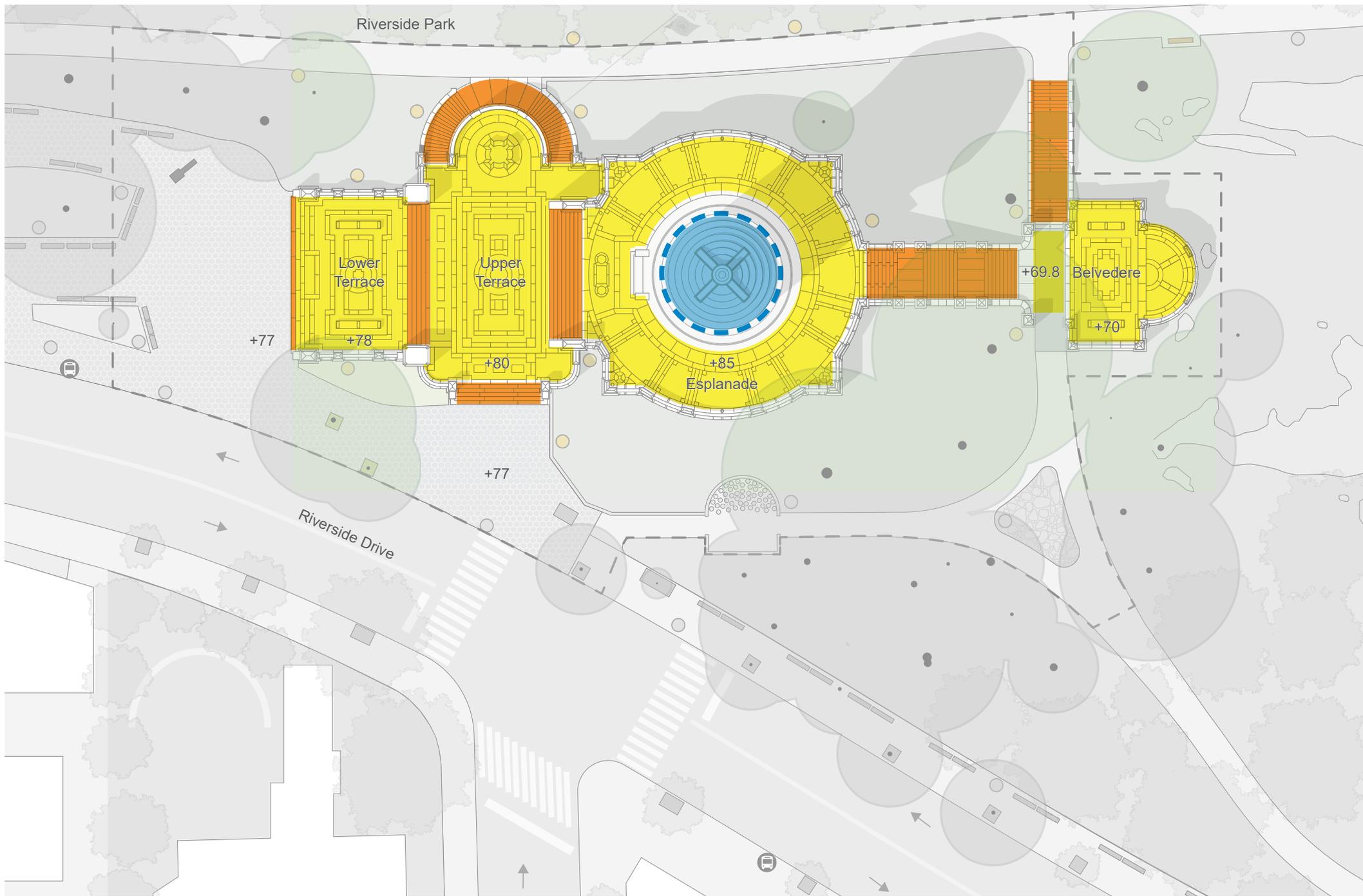
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Soldiers & Sailors Monument Reconstruction Riverside Park | Site Analysis - Surface Conditions





Legend

- Project Limit
- Inaccessible Areas
Uneven Stone Paving
- Access Barriers
- Monument interior closed to the public

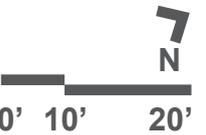


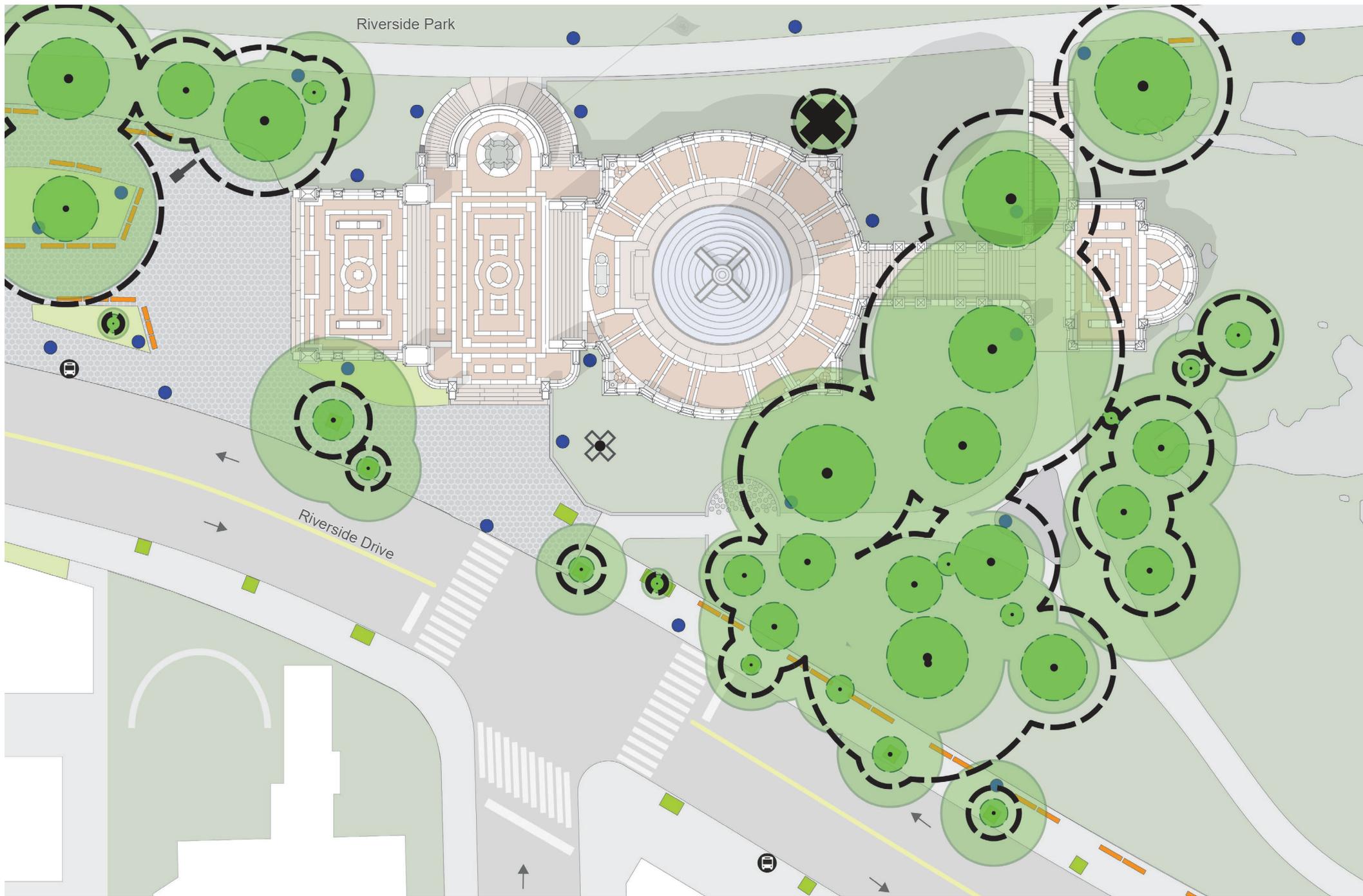
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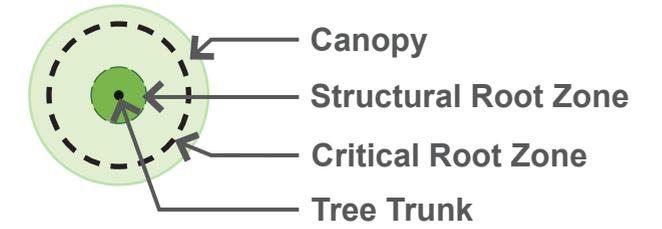
Soldiers & Sailors Monument Reconstruction

Riverside Park | Site Analysis - Universal Access Impediments





Legend



Stump Removal



Tree Removal

Park Tree Canopy Information
 67.2% Parkland Canopy Cover
 3.6% Canopy Change 2010-2017

Note: Canopy Information provided for extents of Riverside Park, localized site data not available.

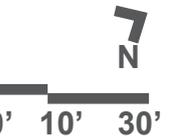
Heat Vulnerability Index
 Site is not in a high HVI area

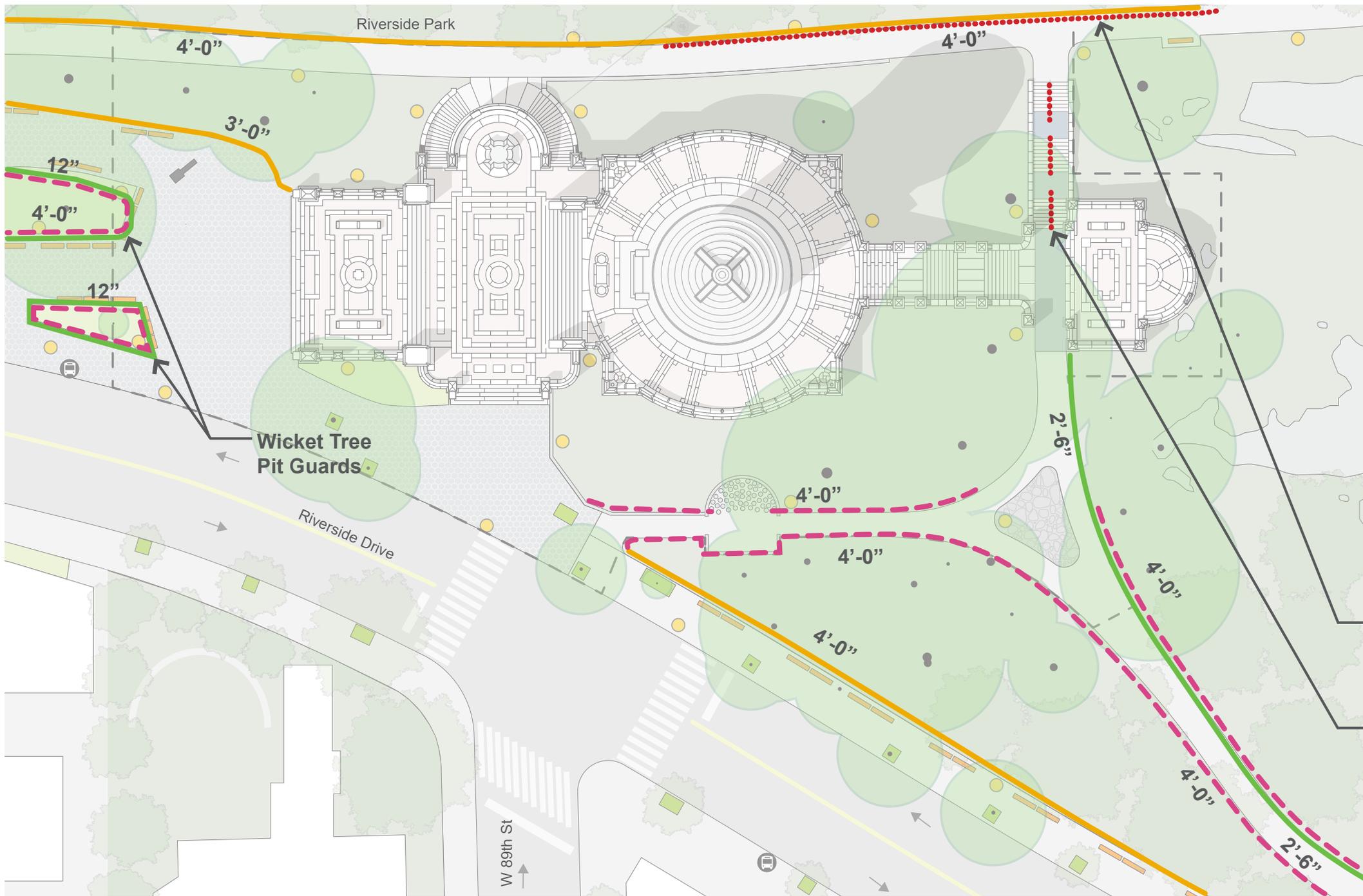


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Soldiers & Sailors Monument Reconstruction
 Riverside Park | Tree Inventory





Legend

- MEDIUM FENCES**
 FENCES 4' - 7'-6" HT. (x = HEIGHT)
 x' STEEL

- LOW FENCES**
 FENCES 12" - 3'-6" HT. (x = HEIGHT)
 x' STEEL

- TEMPORARY RANGE FENCES**
 FENCES 4'-0" HT. (x = HEIGHT)
 x' STEEL

- HANDRAILS**
 TYPICAL HEIGHT, 2'-10"
 STEEL

Handrail attached to steel fence

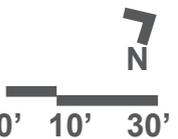
Freestanding handrails

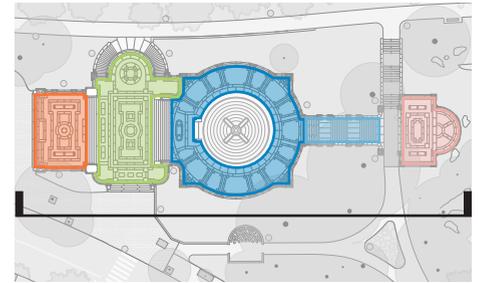
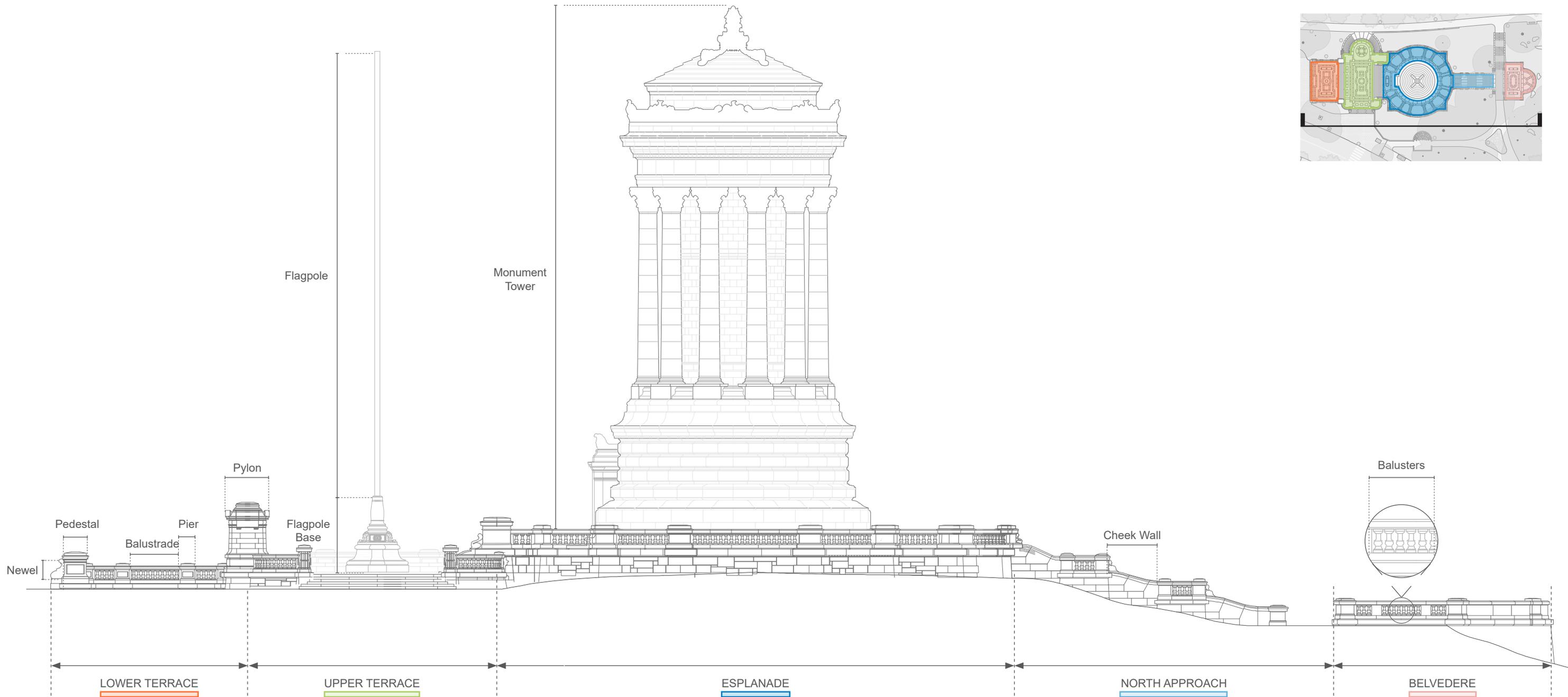


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Soldiers & Sailors Monument Reconstruction Riverside Park | Existing Fence Diagram





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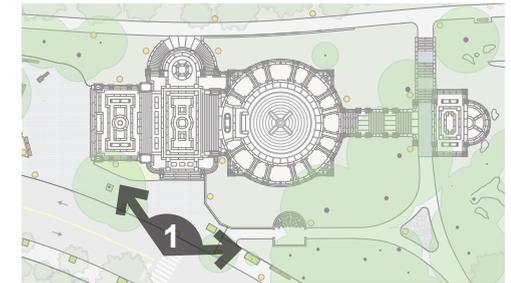
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Soldiers & Sailors Monument Reconstruction Riverside Park | Site Elements Nomenclature



1 - Panorama of site taken from pedestrian ramp



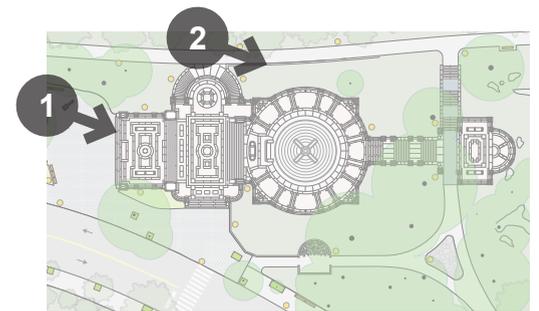
Soldiers & Sailors Monument Reconstruction Riverside Park | Site Photographs



1 - View of Monument Lower Terrace from plaza



2 - View of asphalt pathway, west of monument



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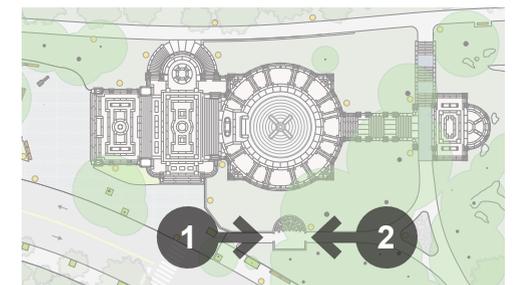
Soldiers & Sailors Monument Reconstruction
Riverside Park | Site Photographs



1 - View towards existing cannon ball nook from Riverside Drive sidewalk



2 - View south at cannon ball nook



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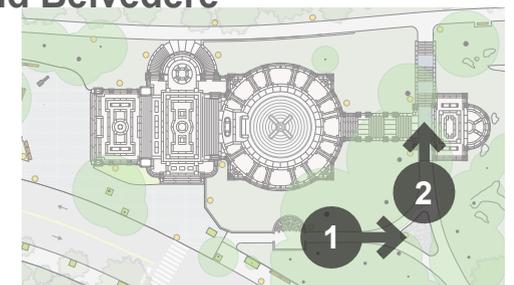
Soldiers & Sailors Monument Reconstruction
Riverside Park | Site Photographs



1 - View of cobblestone triangle from cannon ball nook



1 - View west of pathway between North Approach and Belvedere



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Site Photographs



Legend

- Project Limit
-  Addition to Monument
-  Monument Terrace
-  Traditional Route Through Monument
-  New Accessible Route



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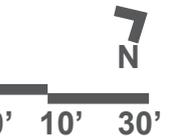
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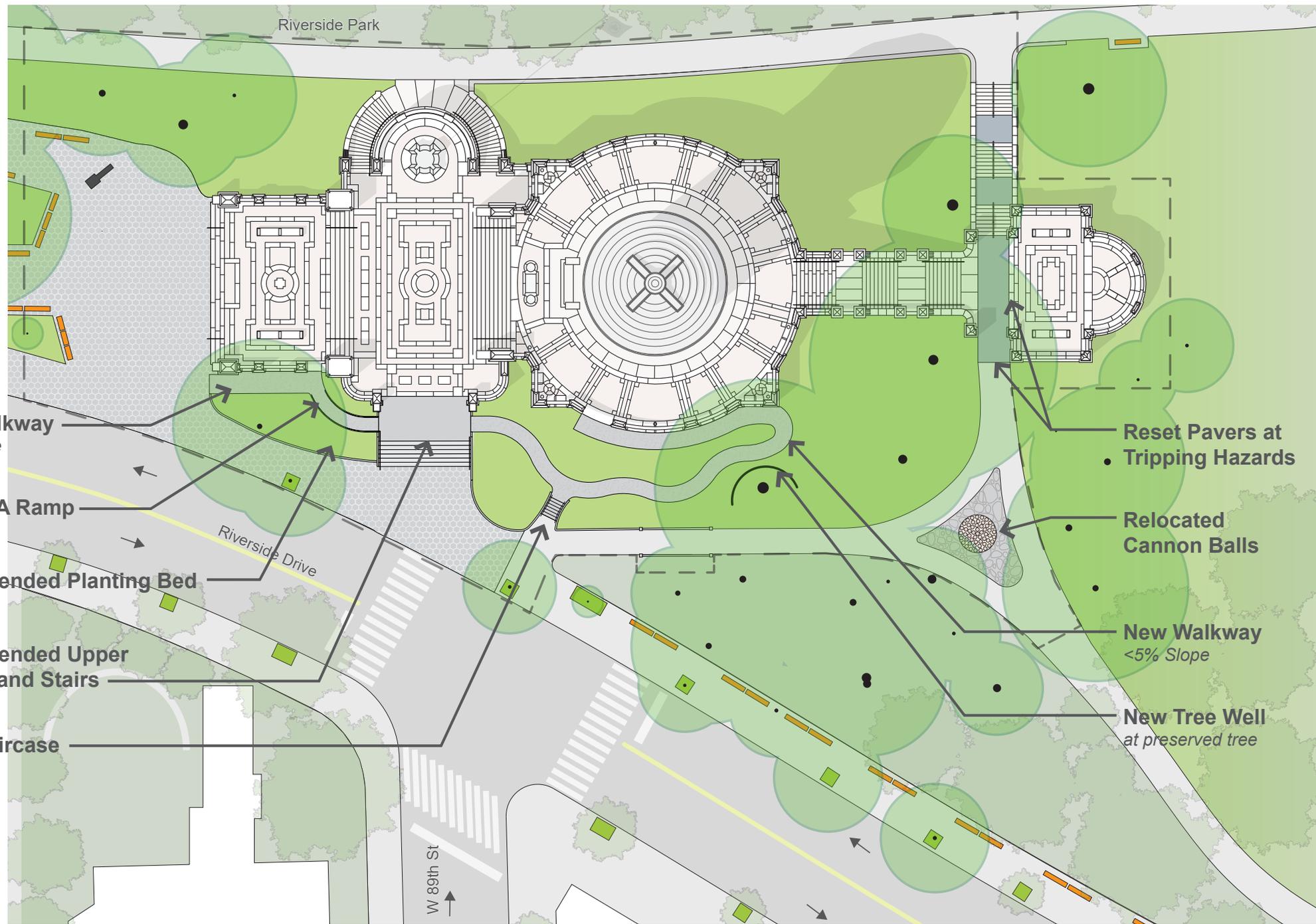
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Soldiers & Sailors Monument Reconstruction Riverside Park | Monument Access Diagram





Legend

- Project Limit
- Existing Trees
- Rock Outcropping
- Planting
- Existing Asphalt Pavement
- Existing Hexagonal Paver
- New Bluestone Pavers
- Existing Cannon
- Existing Cobblestone
- Relocated Cannon Balls
- New Walkways / Ramps

New Walkway
<math><5\%</math> Slope

New ADA Ramp

New Extended Planting Bed

New Extended Upper Terrace and Stairs

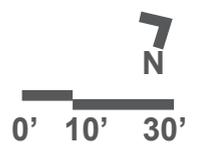
New Staircase

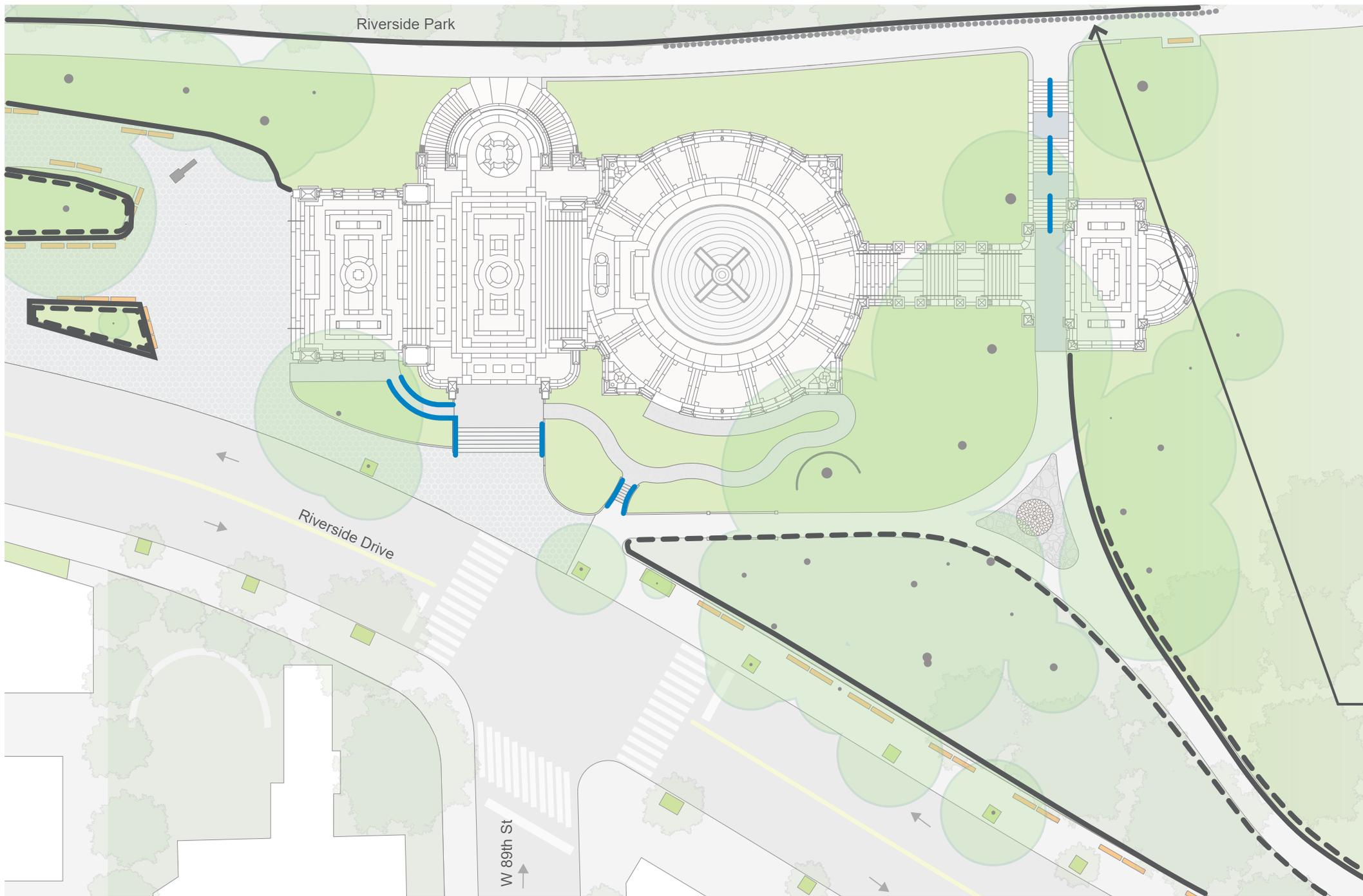
Reset Pavers at
• Tripping Hazards

Relocated
Cannon Balls

New Walkway
<math><5\%</math> Slope

New Tree Well
at preserved tree





Legend

- EXISTING FENCES**
 STEEL

- EXISTING TEMPORARY RANGE FENCES**
FENCES 4'-0" HT.
 STEEL

- EXISTING HANDRAILS**
TYPICAL HEIGHT, 2'-10"
 STEEL

- NEW HANDRAILS**
TYPICAL HEIGHT, 2'-10"
 STEEL

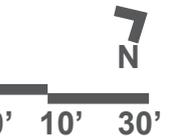
Existing Handrail attached to steel fence

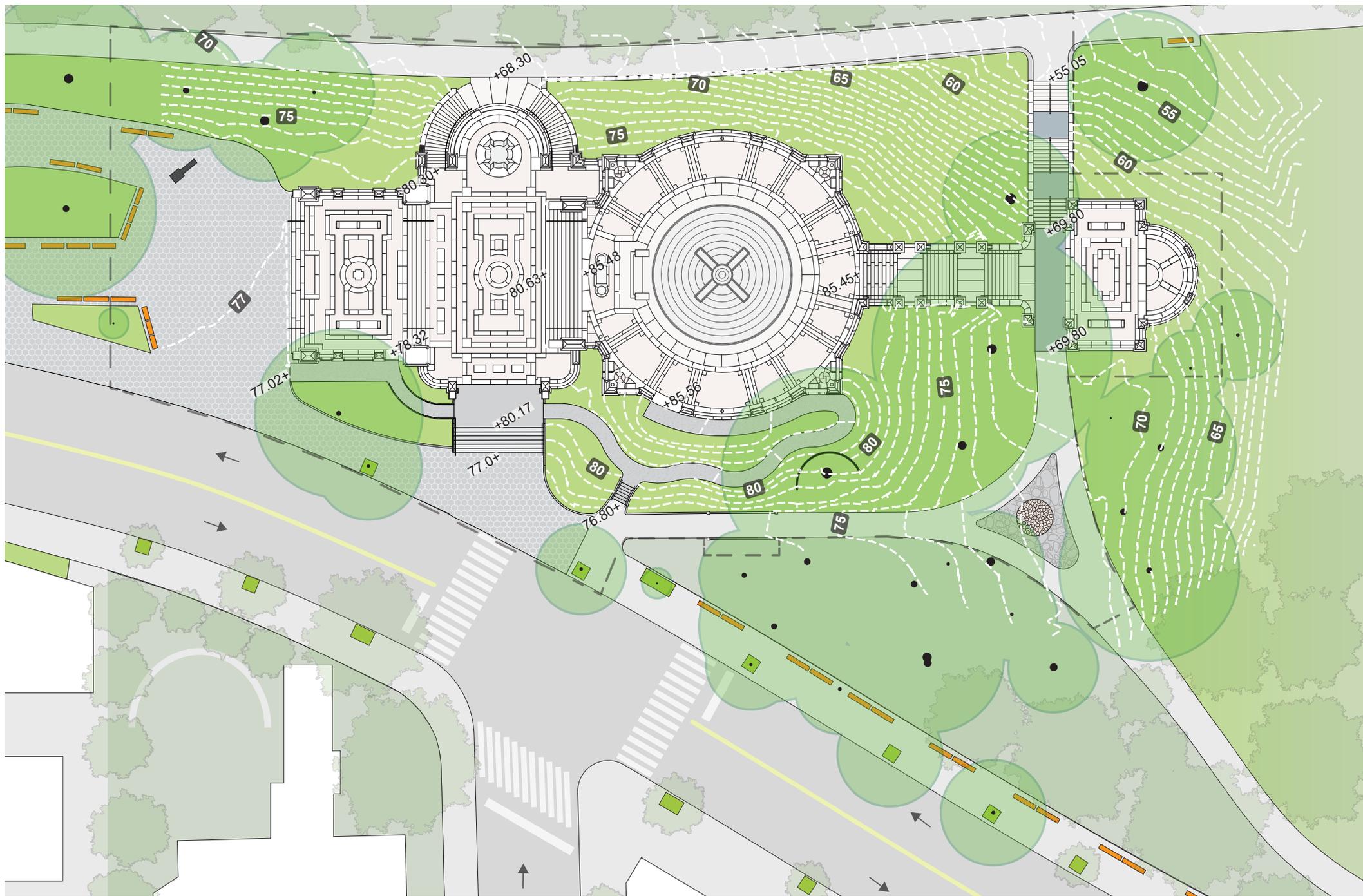


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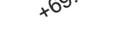


Soldiers & Sailors Monument Reconstruction Riverside Park | Fencing Plan





Legend

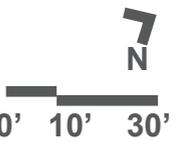
-  Project Limit
-  Existing Trees
-  Rock Outcropping
-  Planting
-  Existing Asphalt Pavement
-  Existing Hexagonal Paver
-  New Bluestone Pavers
-  Existing Cannon
-  Existing Cobblestone
-  Relocated Cannon Balls
-  New Walkways / Ramps
-  Contour Line
-  Spot Grade

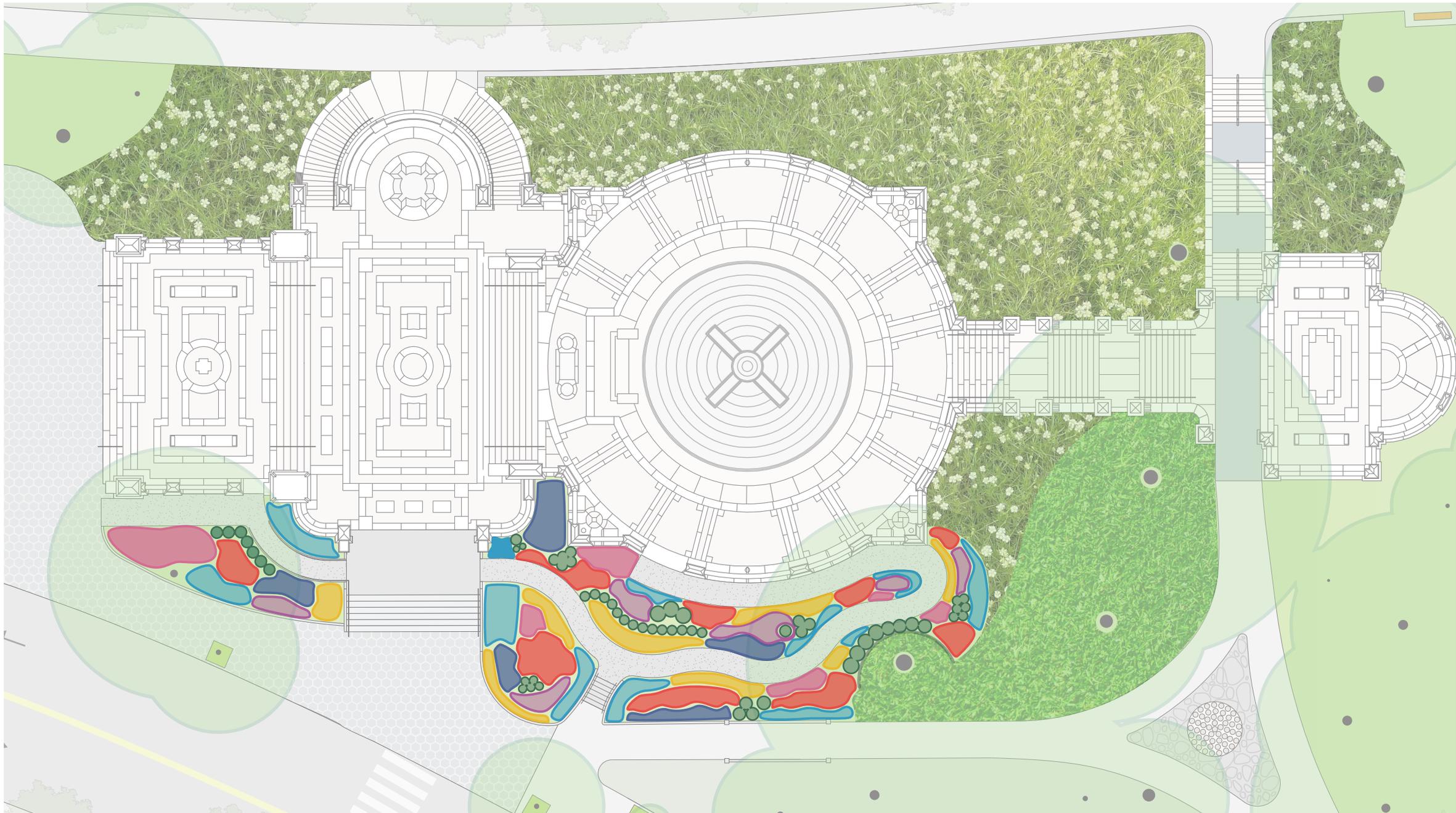


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Soldiers & Sailors Monument Reconstruction Riverside Park | Grading Plan





Legend

- Project Limit
-  Existing Trees
-  Erosion Control Native Seed Mix
-  Turf Grass
-  Perennials
-  Groundcover
-  Ornamental Grasses
-  Evergreen Shrubs



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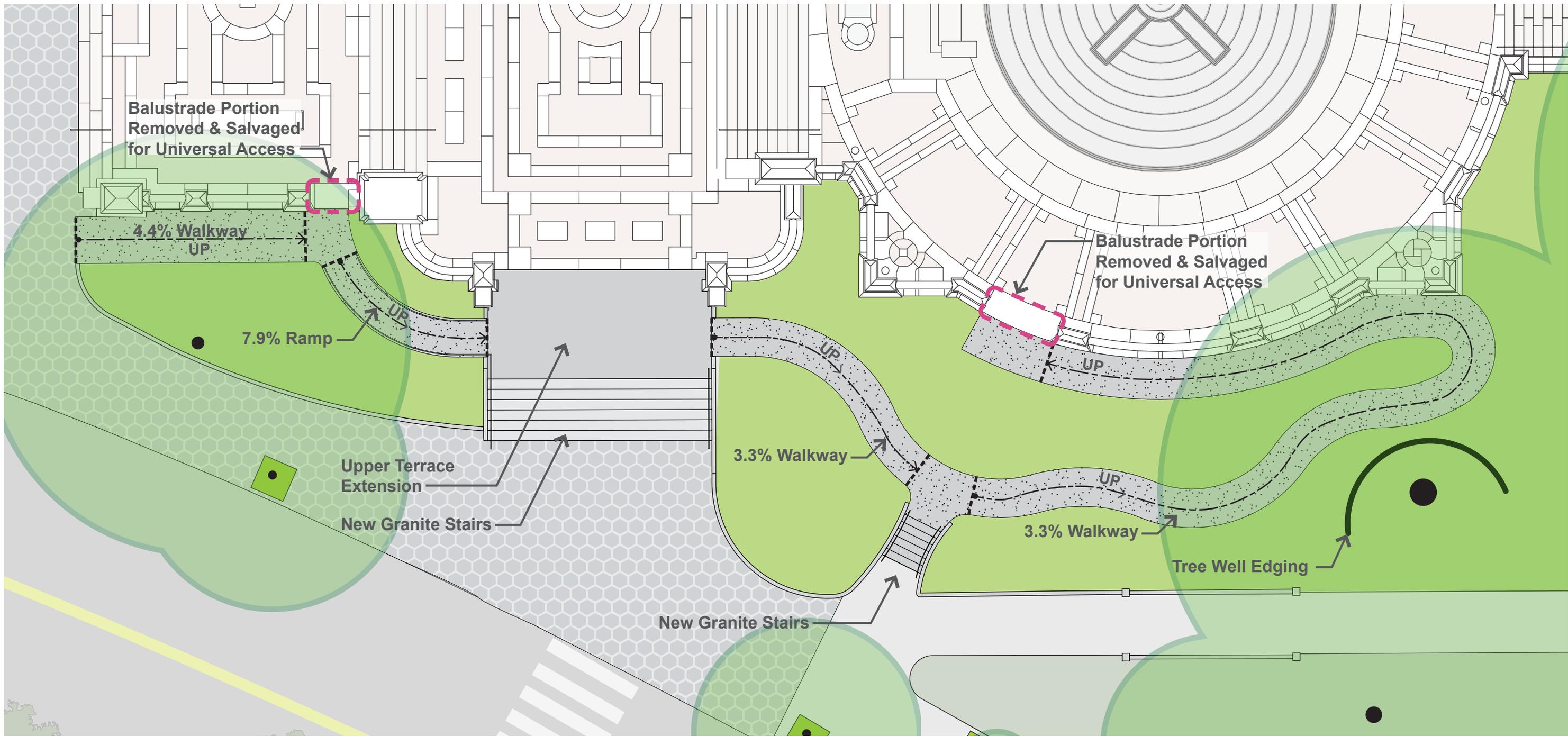
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Soldiers & Sailors Monument Reconstruction Riverside Park | Schematic Planting Plan



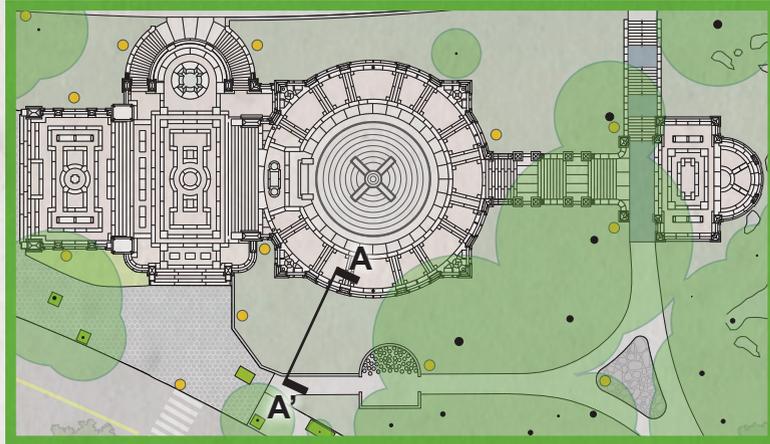


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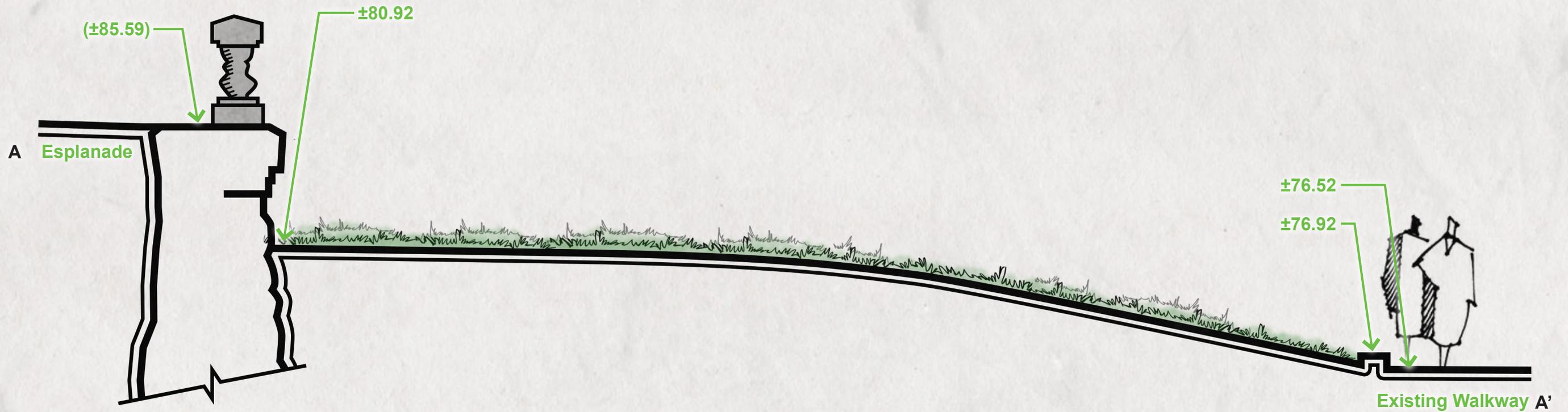


Soldiers & Sailors Monument Reconstruction
Riverside Park | Site Plan: Garden Walkway





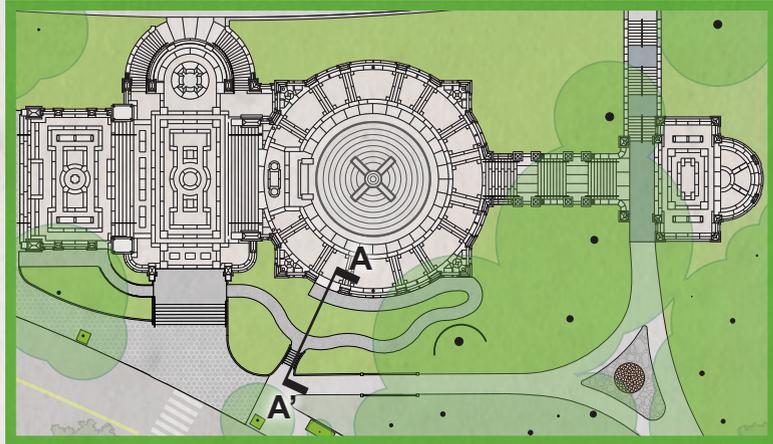
KEY PLAN



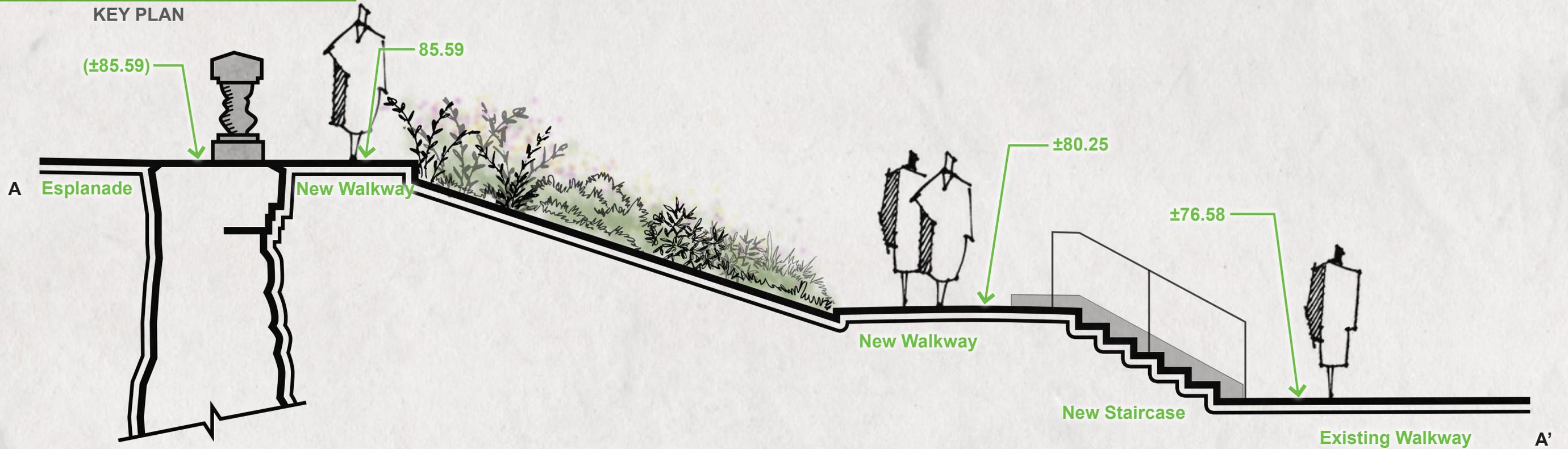
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Soldiers & Sailors Monument Reconstruction
Riverside Park | Garden Walkway: Existing Section A-A'



KEY PLAN



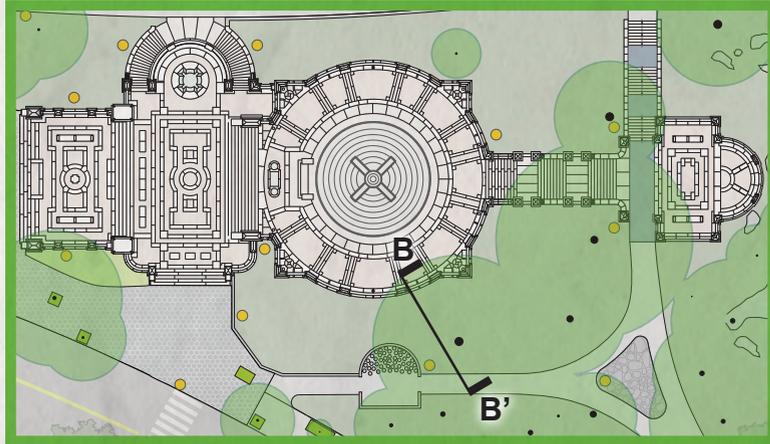
Note: All planted areas max slope 1:3
 All walkways shall be less than 5%



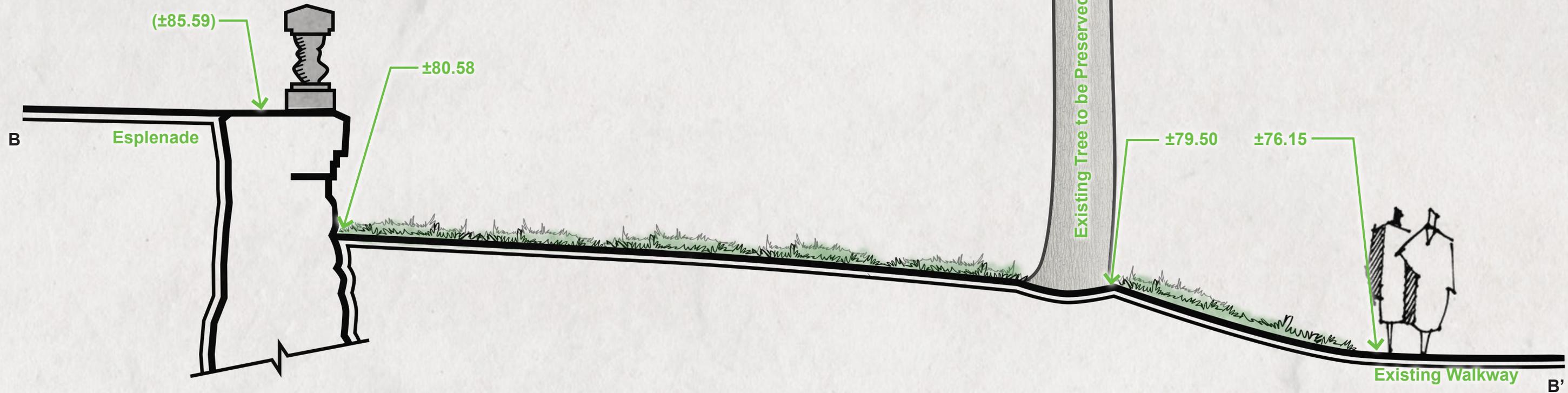
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Soldiers & Sailors Monument Reconstruction
 Riverside Park | Garden Walkway: Proposed Section A-A'



KEY PLAN

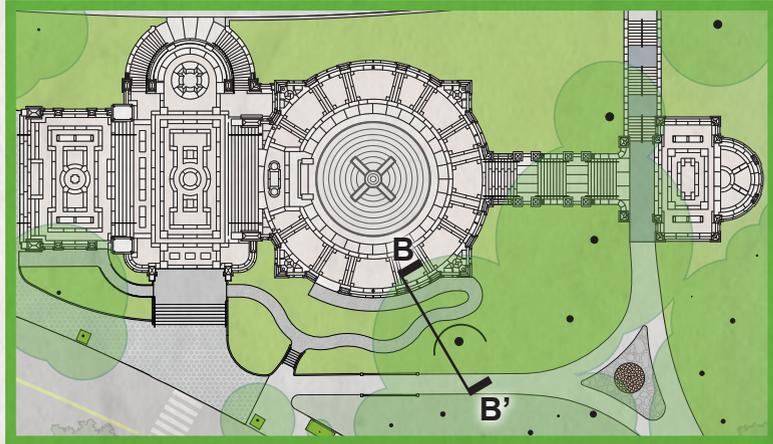


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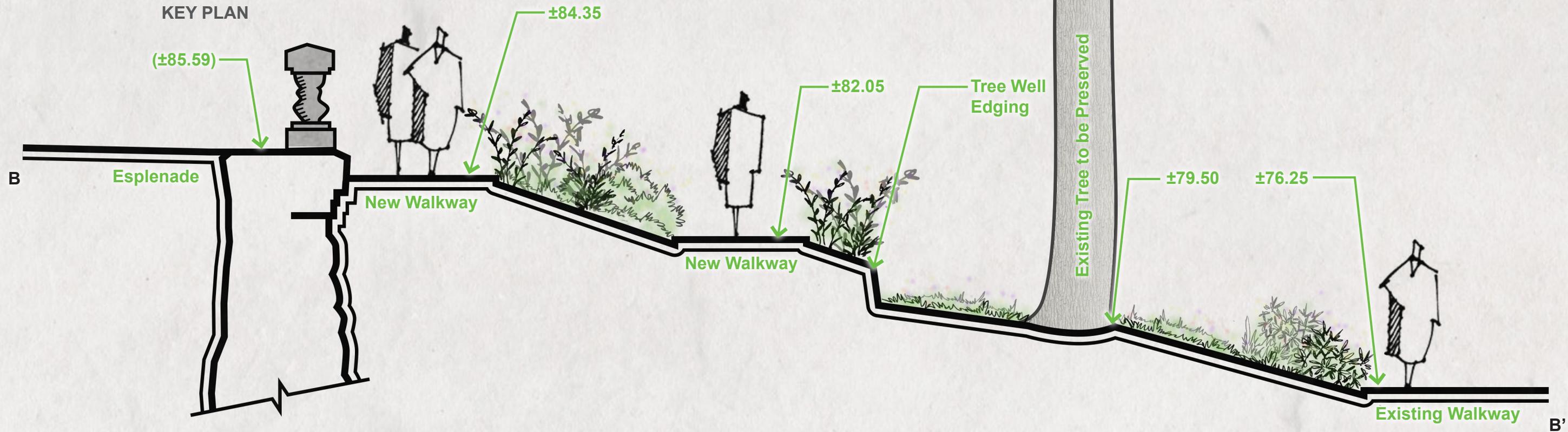


Soldiers & Sailors Monument Reconstruction

Riverside Park | Garden Walkway: Existing Section B-B'



KEY PLAN



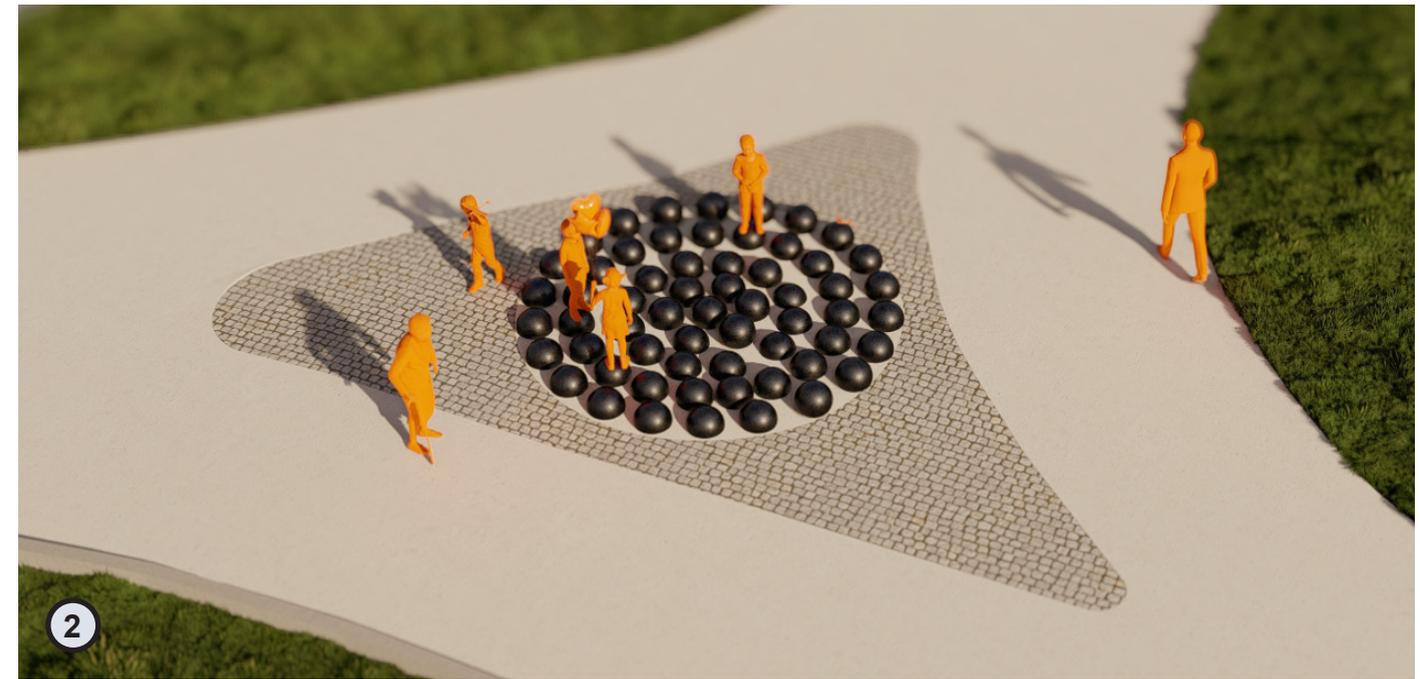
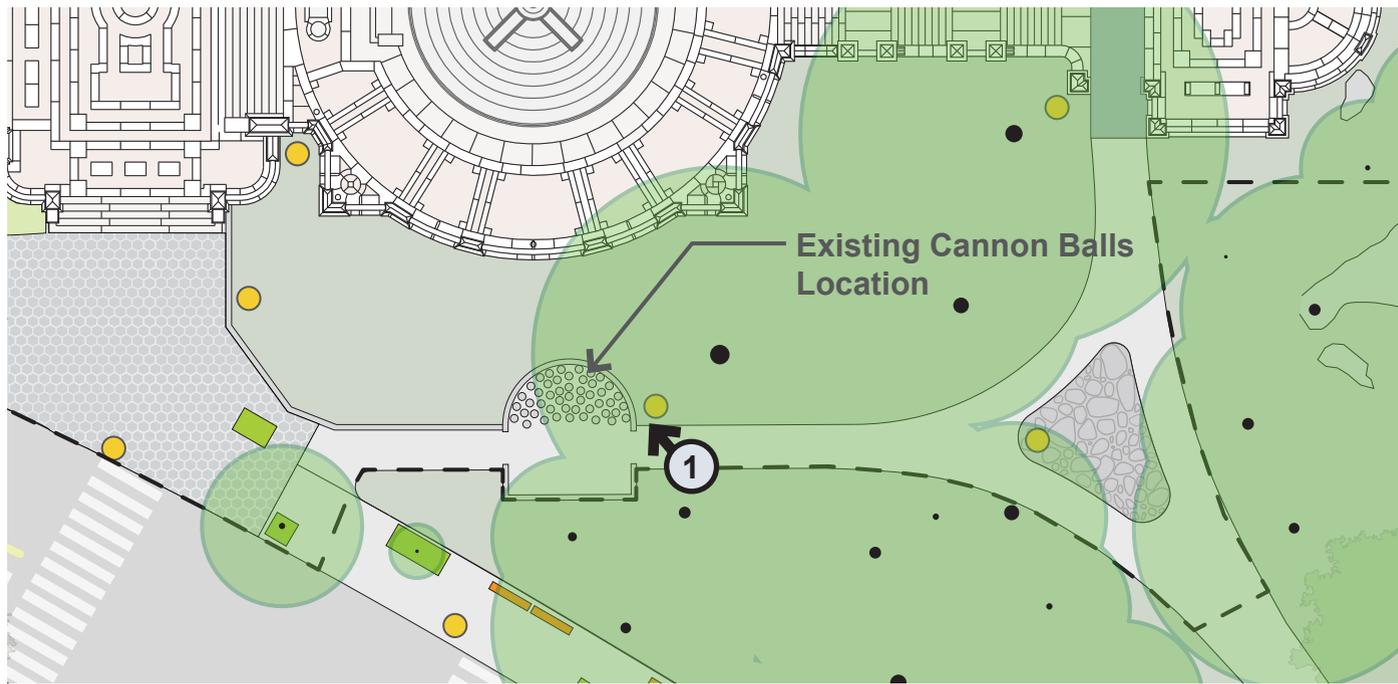
Note: All planted areas max slope 1:3
 All walkways shall be less than 5%



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Soldiers & Sailors Monument Reconstruction
 Riverside Park | Garden Walkway: Proposed Section B-B'



Existing Condition

Proposed Rendering



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Cannon Balls Relocation



North Approach

A



North Approach

Belvedere

A

B



Belvedere

B

Existing Conditions



North Approach

Path Regraded to be flush

New Bluestone Pavers



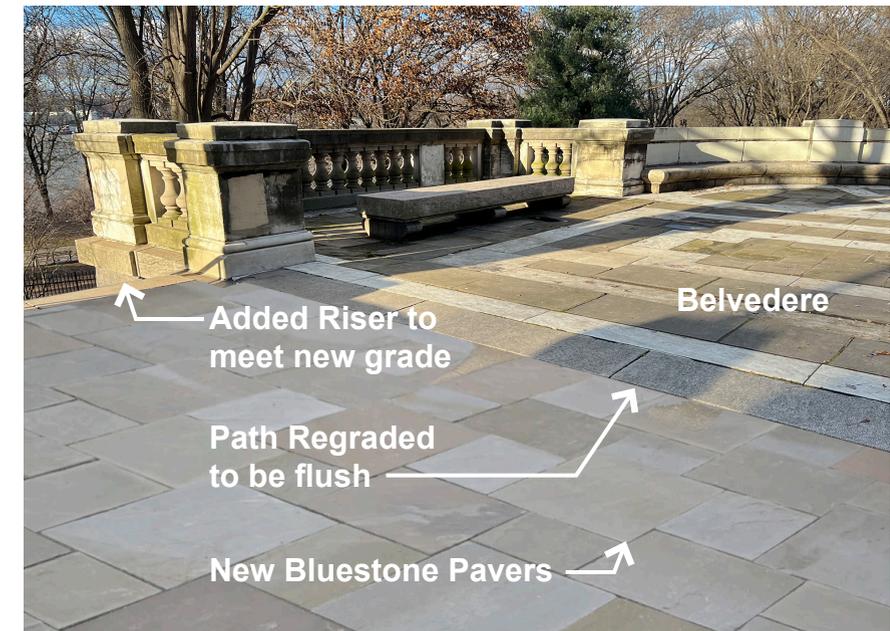
North Approach

Belvedere

Added Riser to meet new grade

Path Regraded to be flush

New Bluestone Pavers



Belvedere

Added Riser to meet new grade

Path Regraded to be flush

New Bluestone Pavers

Proposed Conditions

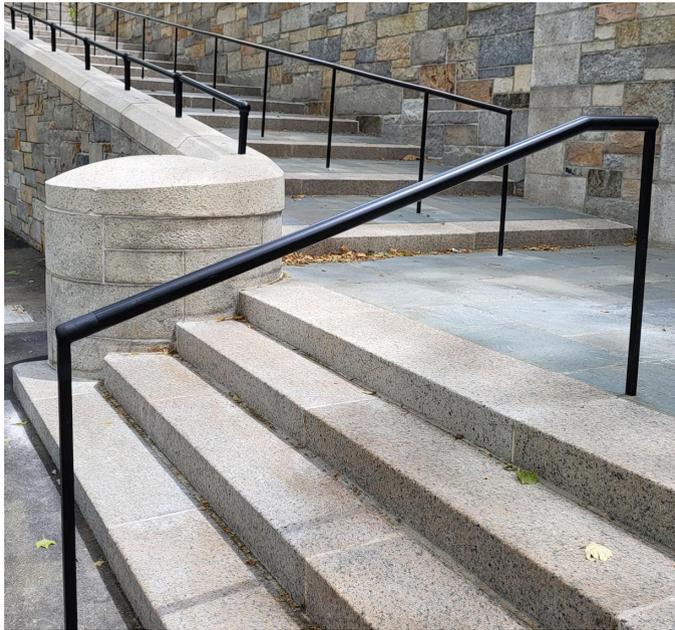


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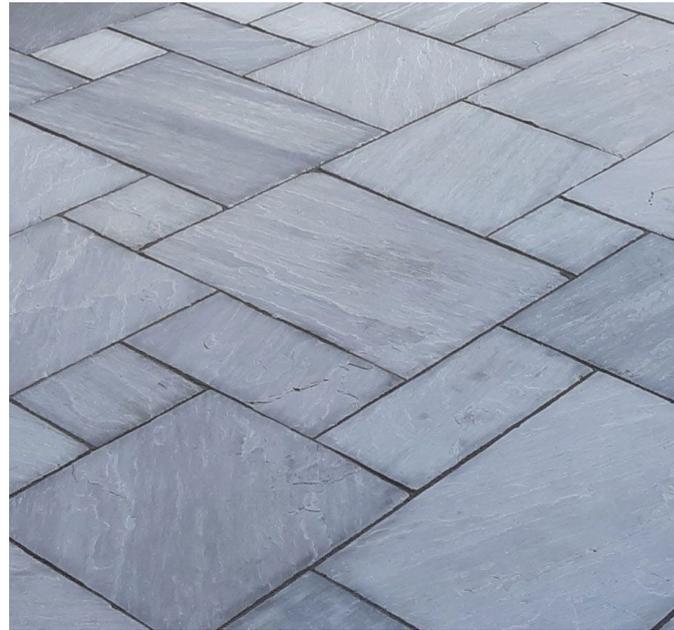


Soldiers & Sailors Monument Reconstruction

Riverside Park | Grading Changes at Belvedere Walkway



Parks Legacy Railing - Steel, Black



Bluestone Pavers



Concrete Pavement, Landmarks Grey



Cobblestone Pavers



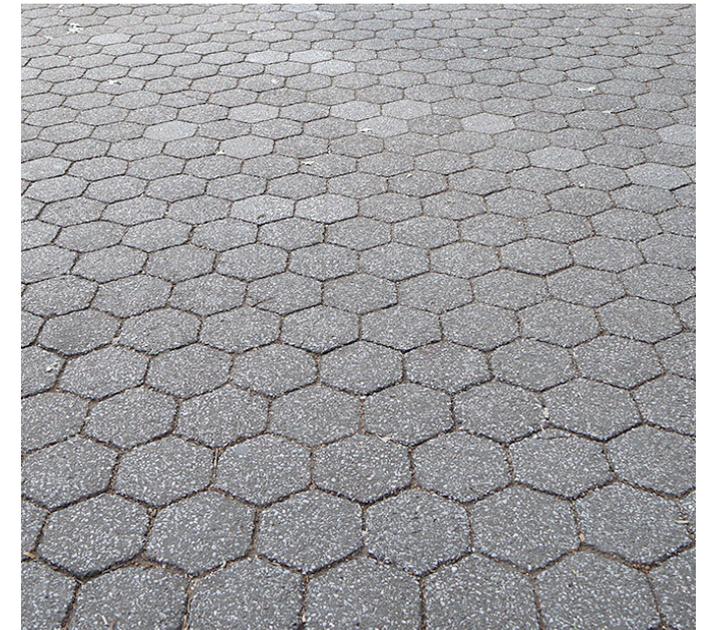
Stacked Stone Wall



Steel Edging (Tree Well & Garden Path)



Light Barre Granite, to match existing



Asphalt Hex Paver



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**Soldiers & Sailors Monument Reconstruction
Riverside Park | Materials**



Sweet Pepperbush
Clethra alnifolia



Bayberry
Morella pensylvanica



English Laurel
Prunus laurocerasus 'Otto Luyken'



Gro-Low Sumac
Rhus aromatica 'Gro-Low'



Compact Inkberry
Ilex glabra 'Compacta'



Lowbush Blueberry
Vaccinium angustifolium



Witch Alder
Fothergilla gardenii



Yellow Twig Dogwood
Cornus sericea 'Flaviramea'



Little Bluestem
Schizachyrium scoparium



Purple Love Grass
Eragrostis spectabilis



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Plant Palette



Pennsylvania Sedge
Carex pensylvanica



Palm Sedge
Carex muskingumensis



Tussock Sedge
Carex stricta



Blue Star Aster
Aster cordifolius



Blanket Flower
Gaillardia spp.



Red Beauty Yarrow
Achillea millefolium 'Red Beauty'



Goldstrum Orange Coneflower
Rudbeckia fulgida 'Goldstrum'



Walker's Low Catmint
Nepeta x faassenii 'Walker's Low'



Globemaster Allium
Allium 'Globemaster'



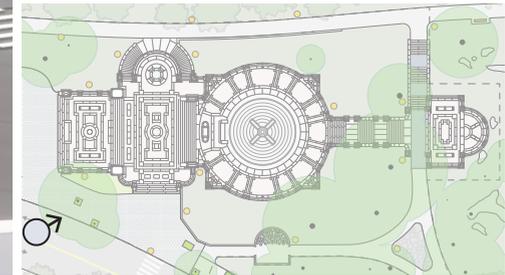
Daffodils variety
Narcissus spp.



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Soldiers & Sailors Monument Reconstruction Riverside Park | Plant Palette



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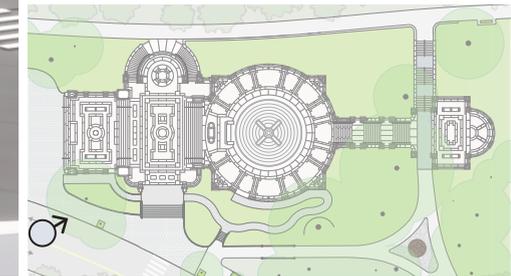
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Soldiers & Sailors Monument Reconstruction Riverside Park | Monument Aerial - Existing



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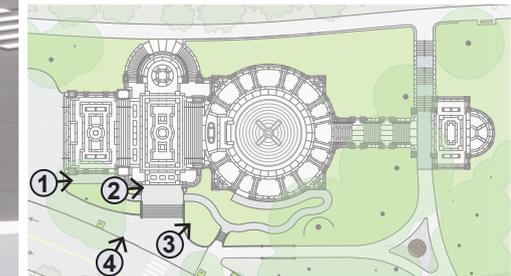
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Soldiers & Sailors Monument Reconstruction Riverside Park | Monument Aerial - Proposed



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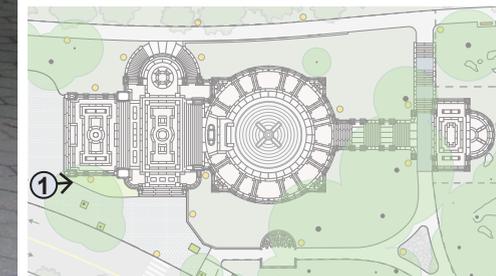
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Soldiers & Sailors Monument Reconstruction
Riverside Park | Walkway Experience: Key Views



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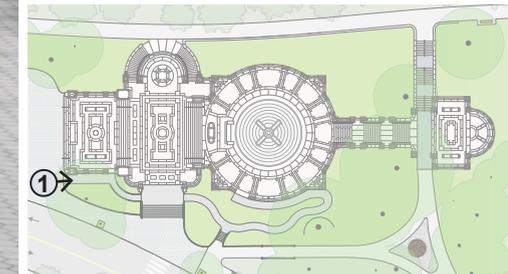
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Soldiers & Sailors Monument Reconstruction Riverside Park | Walkway Experience: Existing



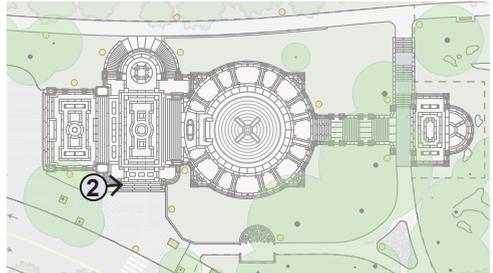
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Soldiers & Sailors Monument Reconstruction Riverside Park | Walkway Experience: Proposed



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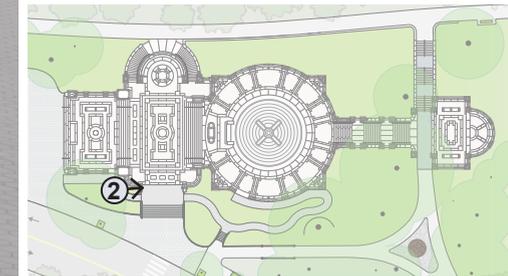
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Riverside Park | Walkway Experience: Existing



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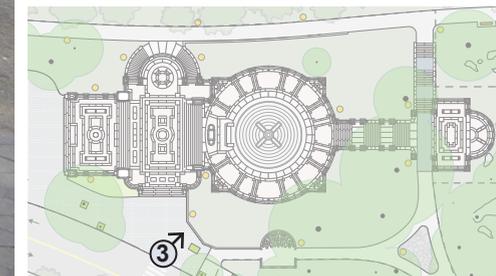
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Soldiers & Sailors Monument Reconstruction Riverside Park | Walkway Experience: Proposed



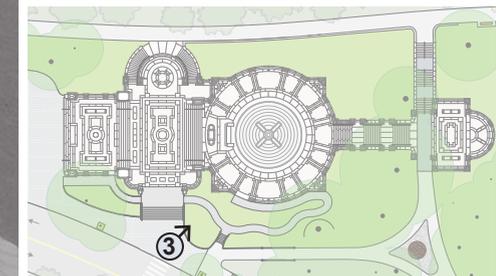
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Soldiers & Sailors Monument Reconstruction Riverside Park | Walkway Experience: Existing



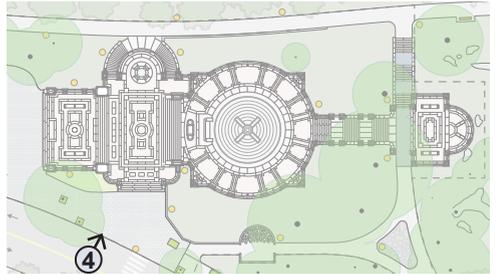
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Soldiers & Sailors Monument Reconstruction
Riverside Park | Walkway Experience: Proposed



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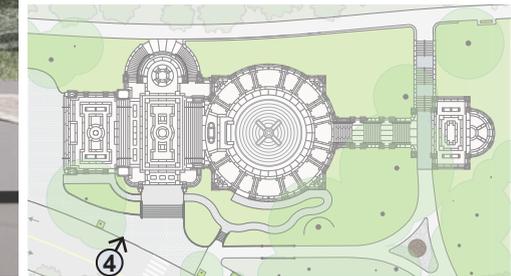
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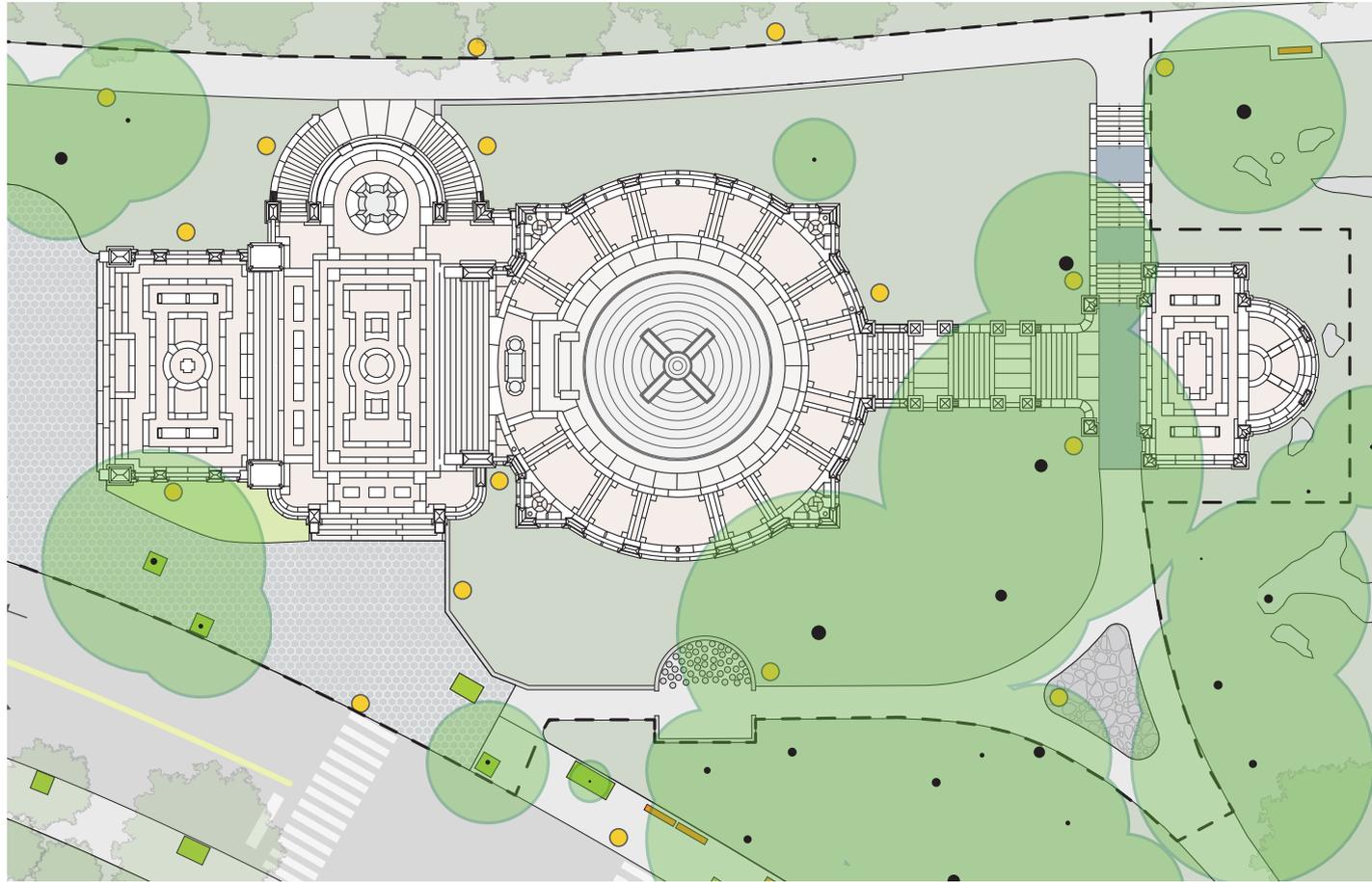
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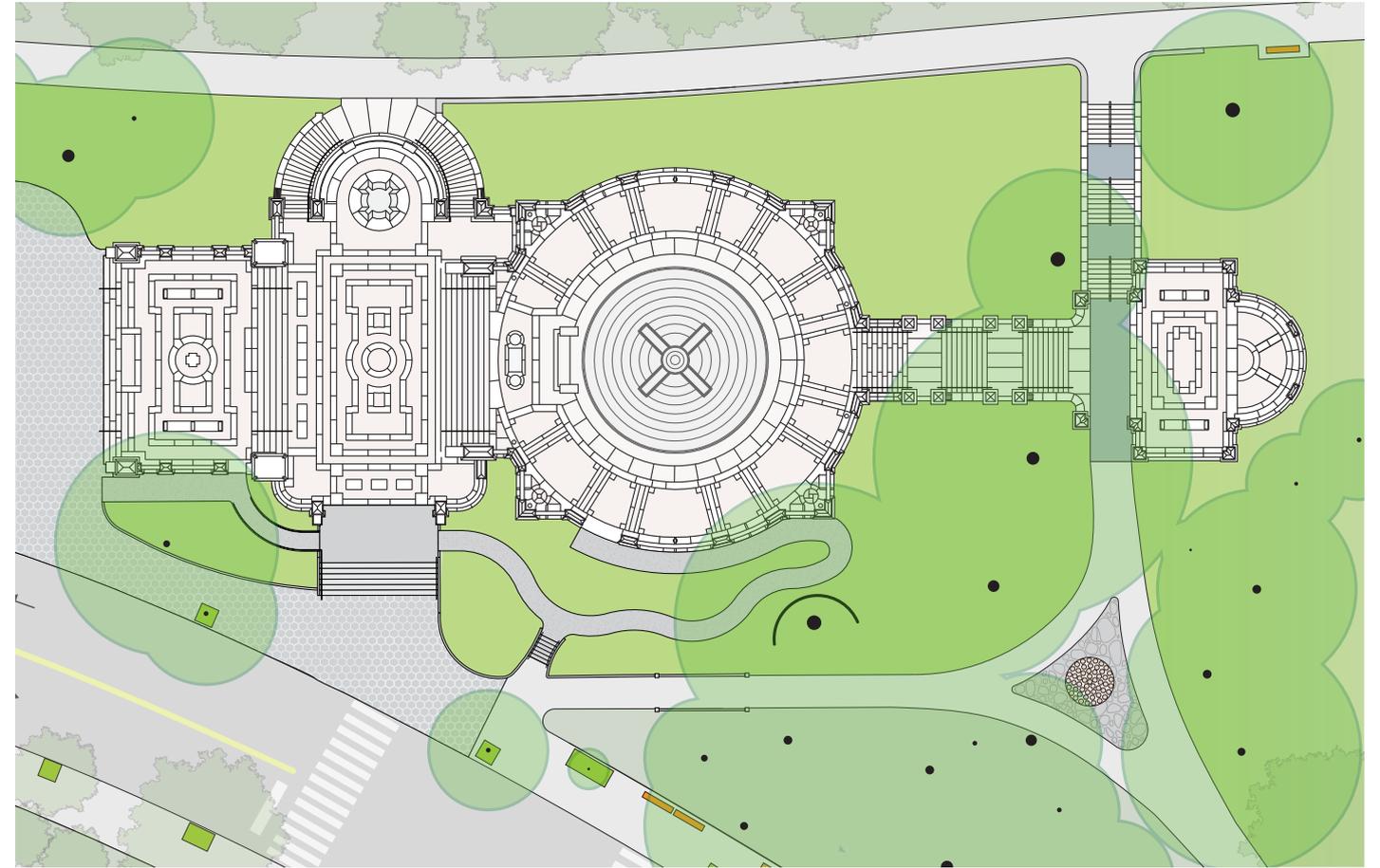
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Soldiers & Sailors Monument Reconstruction Riverside Park | Walkway Experience: Proposed



Existing Conditions



Proposed Conditions



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Soldiers & Sailors Monument Reconstruction
Riverside Park | Existing & Proposed Site Plans