



Parks

Soldiers & Sailors Monument Reconstruction

Project M071-323M

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

Landmarks Preservation Commission Review

June 11, 2024

WXY architecture + urban design

NYC Parks

Total Budget: \$62.3M (Mayoral)
FY 2023

Project Size: 25,000SF

Project Goals

- The complete restoration of the Soldiers & Sailors Monument, its surrounding terraces, and all associated structures.
- ADA compliant accessibility to all exterior levels of the monument.*
- Lighting that is safe, secure, easy to maintain, and elevates the appearance of the monument's facade at night.

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



NYC Parks

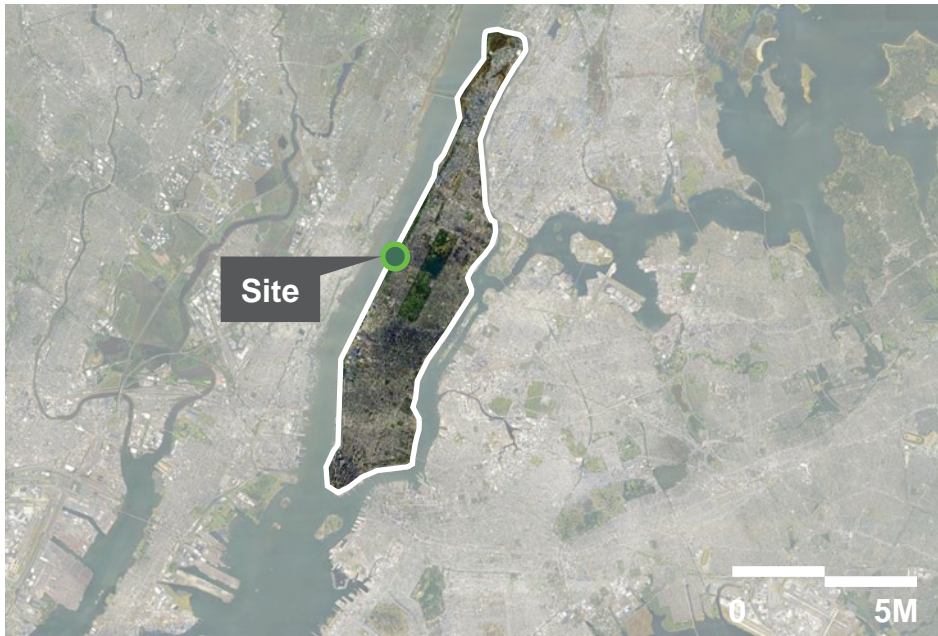
W X Y

abb

LERA
1923
2023
100

 **MCLaren**
ENGINEERING GROUP

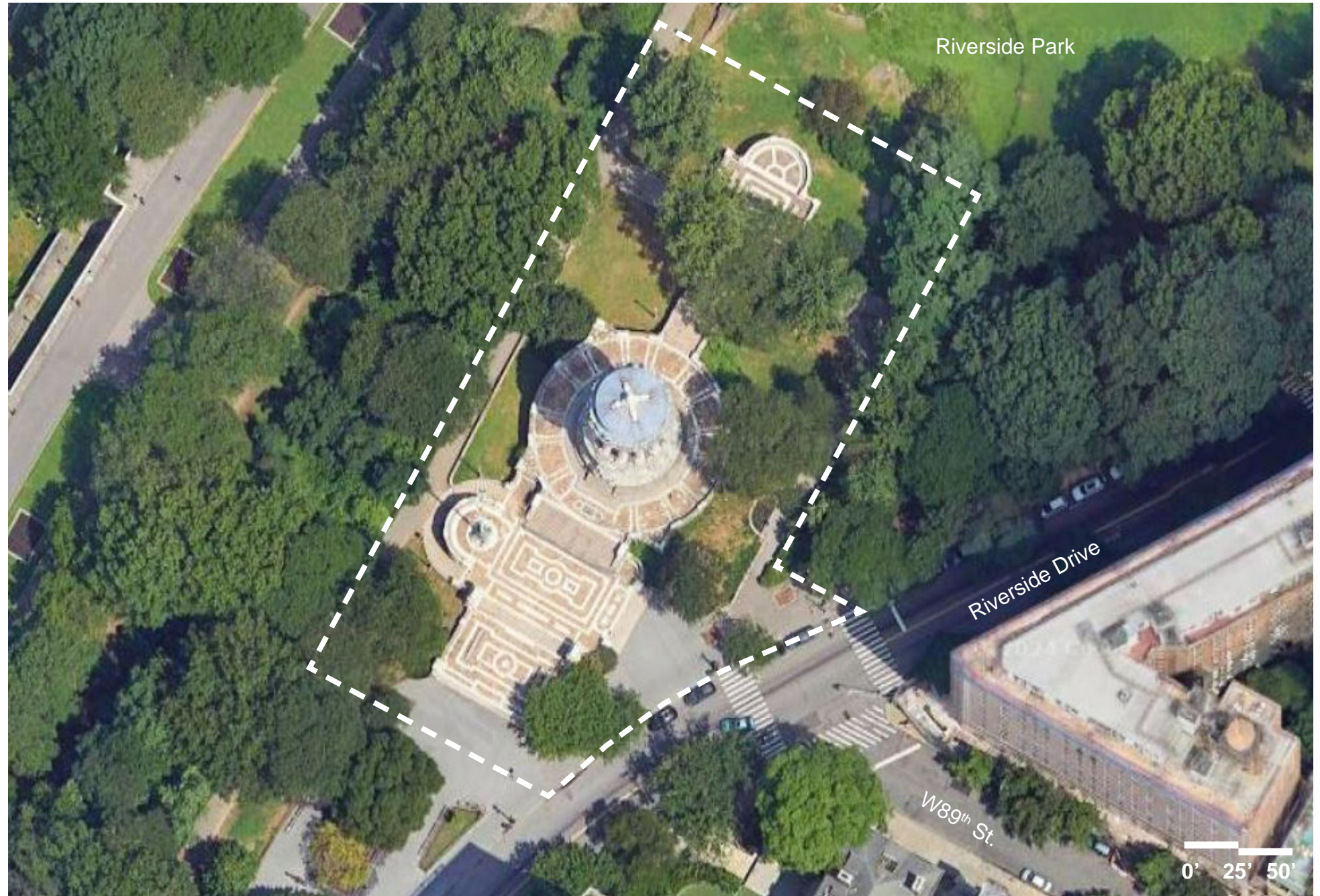
Soldiers & Sailors Monument Reconstruction
Riverside Park | Project Goals



Borough: Manhattan



Neighborhood: Upper West Side | CB7



Site: Riverside Park



NYC Parks



Soldiers & Sailors Monument Reconstruction
Riverside Park | Project Location





SOLDIERS' AND SAILORS' MONUMENT—RIVERSIDE DRIVE

1— Approaching the Monument from the South along Riverside Drive, c. 1935

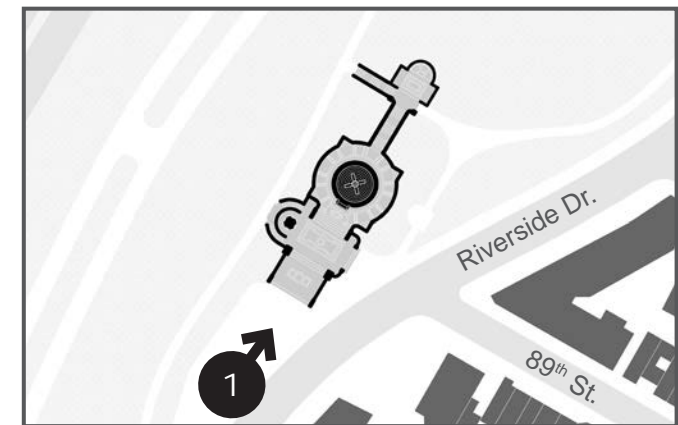


Photo Key



NYC Parks



Soldiers & Sailors Monument Reconstruction
Riverside Park | Historical Views





1— Aerial view from west, c. 1934

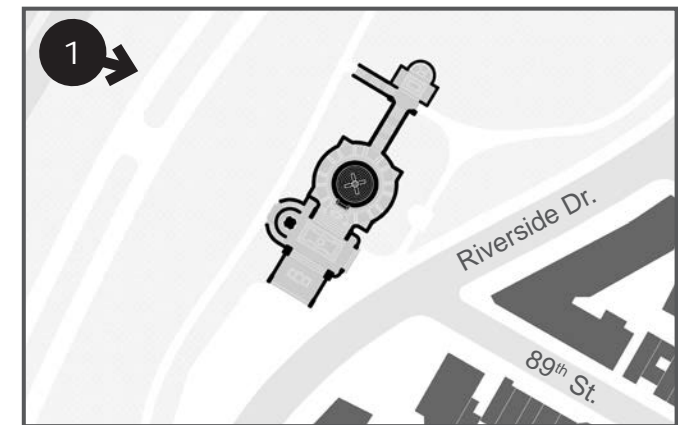


Photo Key



NYC Parks

W X Y

abb

LER A
1923
2023
100

MCLaren
ENGINEERING GROUP

Soldiers & Sailors Monument Reconstruction
Riverside Park | Historical Views





1— View from the South Plaza, 1911



2— View from South Plaza, 2024

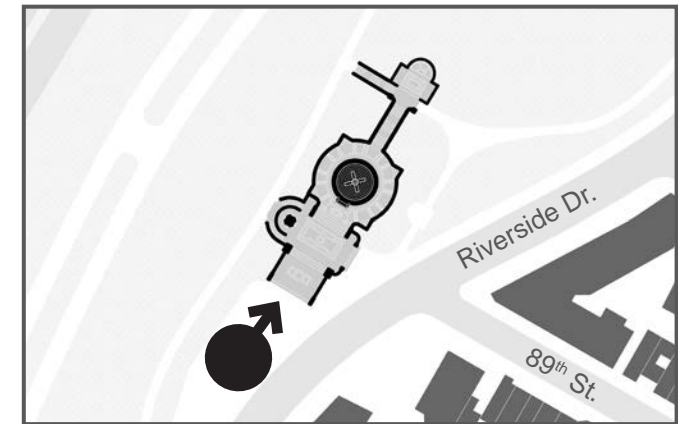


Photo Key



NYC Parks

W X Y

abb

LERA
1923
2023
100



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

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

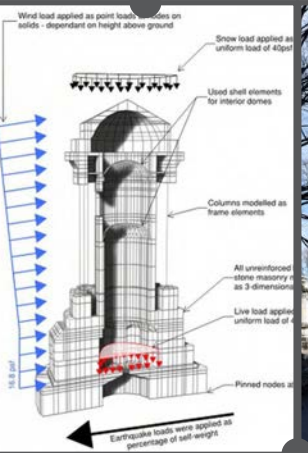
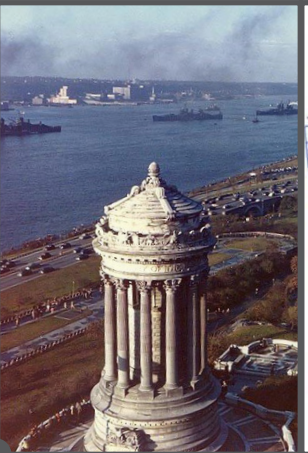
1897
Stoughton & Stoughton win design competition held by Board of Commissioners.

1899
NY Governor Theodore Roosevelt lays the cornerstone.

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.

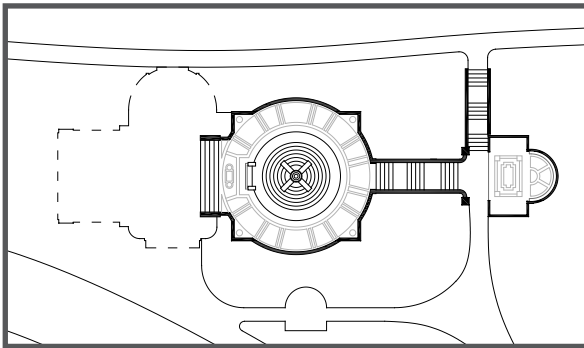
1930
The monument is coated with a protective paraffin.

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

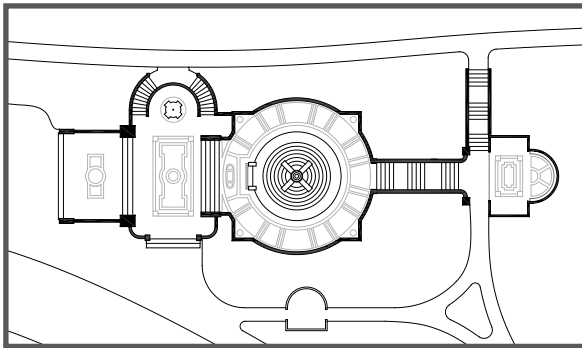
2024
Current reconstruction & accessibility project.



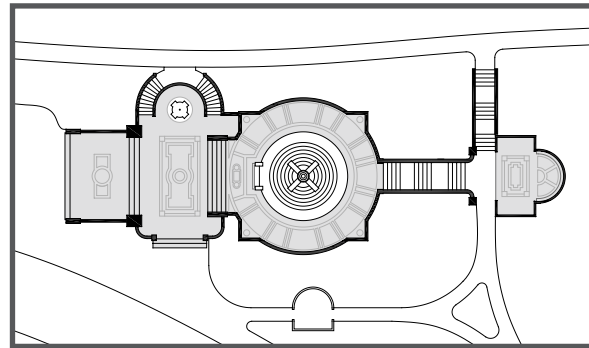
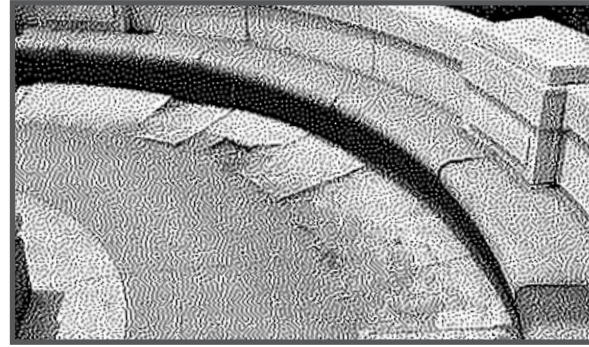
Soldiers & Sailors Monument Reconstruction Riverside Park | Monument History



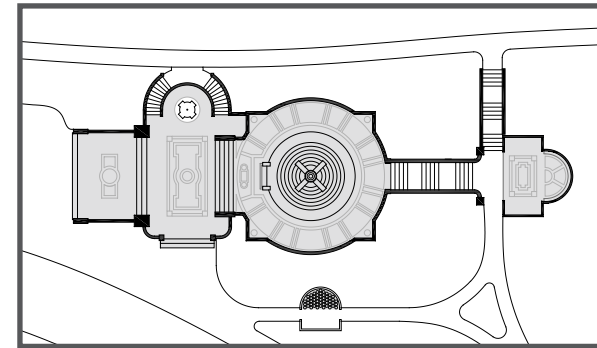
1902
The Monument is opened shortly before the Upper & Lower Terraces are completed.



1902
The Upper & Lower Terraces are completed.



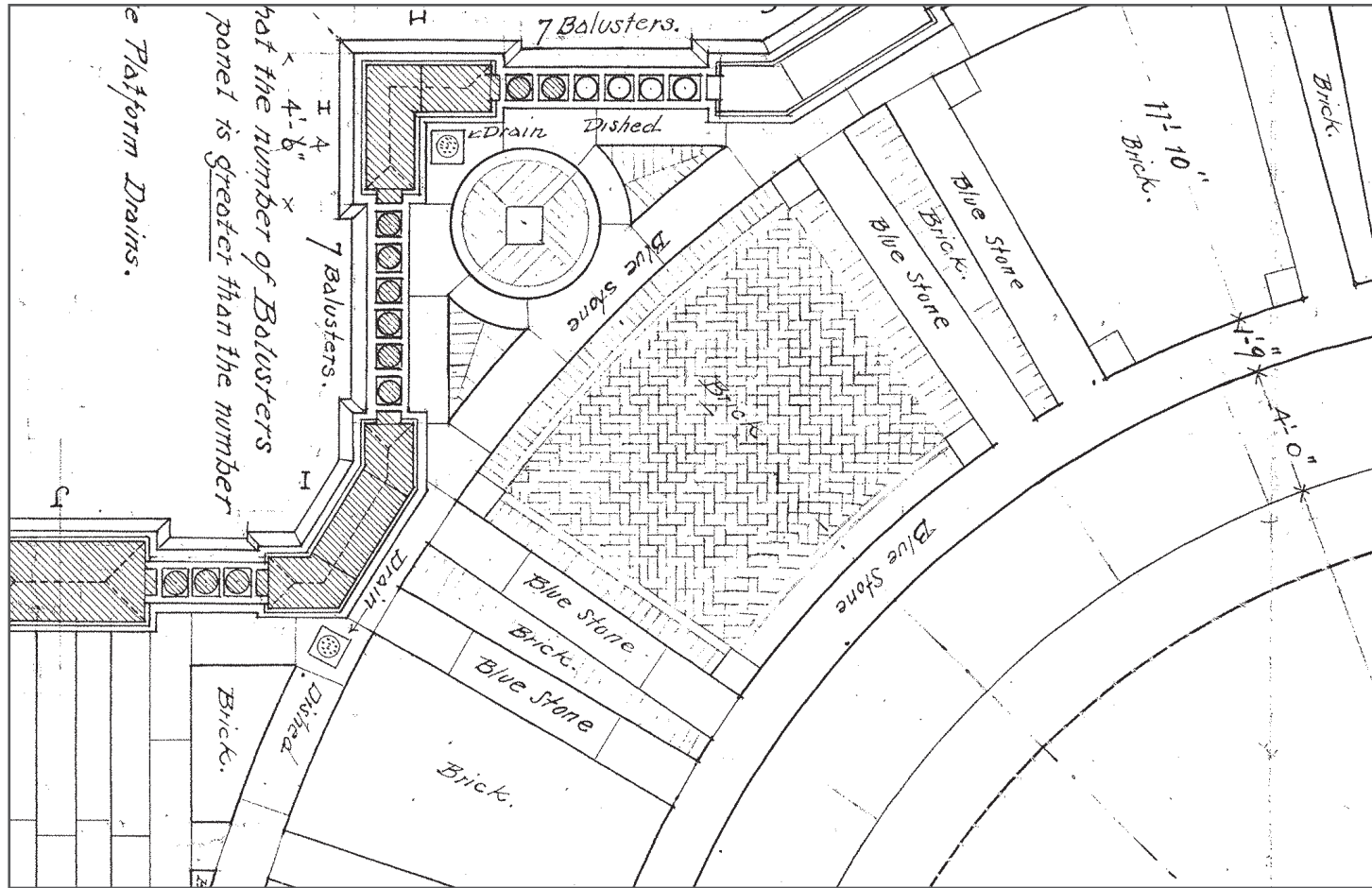
1935
Original brick pavers are replaced with concrete.



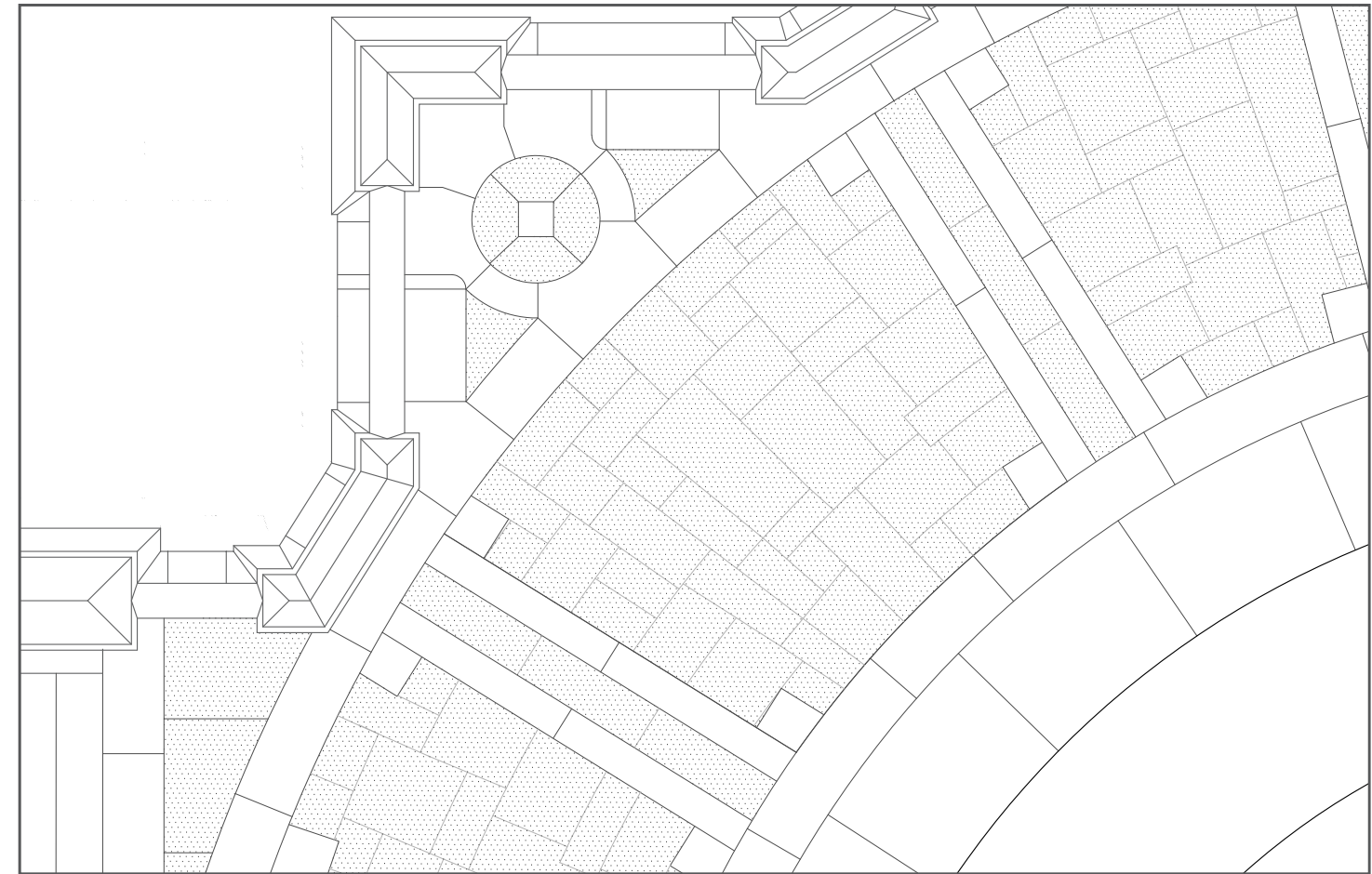
1962
Last major restoration campaign—the terraces are repaved with Crab Orchard sandstone, balustrades are replaced, cannon balls are relocated, the side is regraded, and the flagpole is replaced.



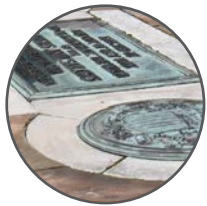
Soldiers & Sailors Monument Reconstruction
Riverside Park | Monument Evolution



1902
Terraces are completed in herringbone brick pavers.



1962
Last major restoration campaign—the terraces are repaved with Crab Orchard sandstone.



Bronze

Bronze is featured at the flag post, the tablets, the door itself and the interior cover to the vault. On the drum, Bronze is also used as a screen detail.



Crab Orchard Sandstone

Originally, the plazas featured a pattern of white marble banding with a brick field. In 1935 the brick was replaced by concrete.



During the 1962 restoration campaign, extensive work was conducted on the plazas. Additionally, the deteriorated original brick paving, most of which had already been replaced with concrete (as shown in period photographs), was replaced with the brownish-colored Crab Orchard sandstone.



Marble

The marble used for the monument and plaza balustrade and piers was sourced from Dorset, Vermont



Indiana Limestone

During the 1962 campaign, extensive work was done at the terraces and Belvedere—including the replacement of all of the original marble balustrades, their bases and railings, with Indiana limestone.



Milford Pink Granite

Milford Pink Granite was only used on the north approach stair.



Granite

The granite for the base and steps is reportedly quarried from the Lacasse Quarry located at Derby, Orleans County, Vermont.



NYC Parks



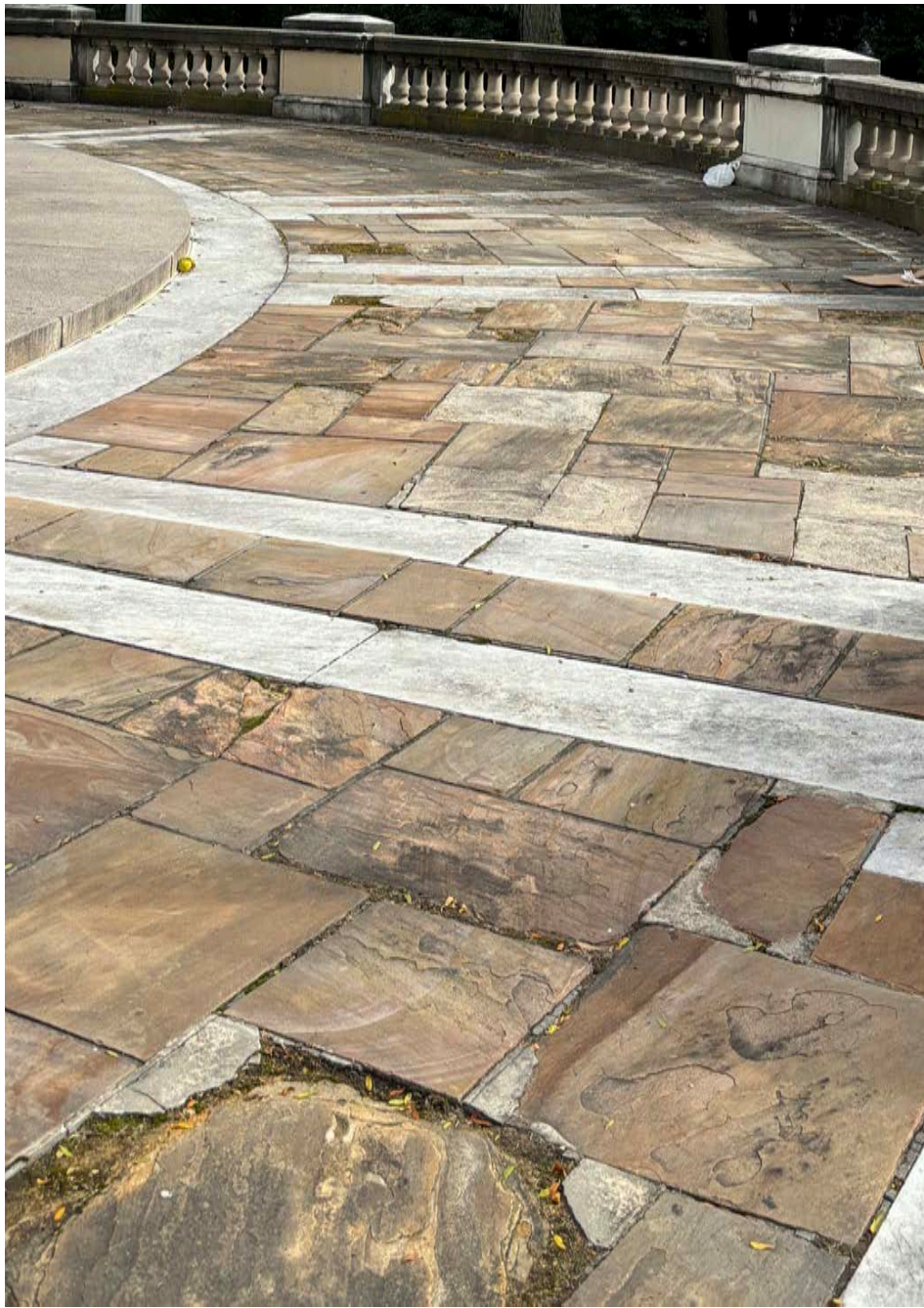
Soldiers & Sailors Monument Reconstruction Riverside Park | Monument Materials



- ① The existing grey granite, c. 1902, is to be restored.
- ② The existing marble, c. 1902, is to be restored.
- ③ The existing crab orchard sandstone, c. 1962, is proposed to be replaced with custom brick pavers as per the original Stoughton & Stoughton design intent



- ④ The existing limestone balustrade, c. 1962, is to be restored



1— Deteriorated Crab Orchard paving



2— Evidence of water intrusion & damage



3— Deterioration of masonry elements



NYC Parks



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



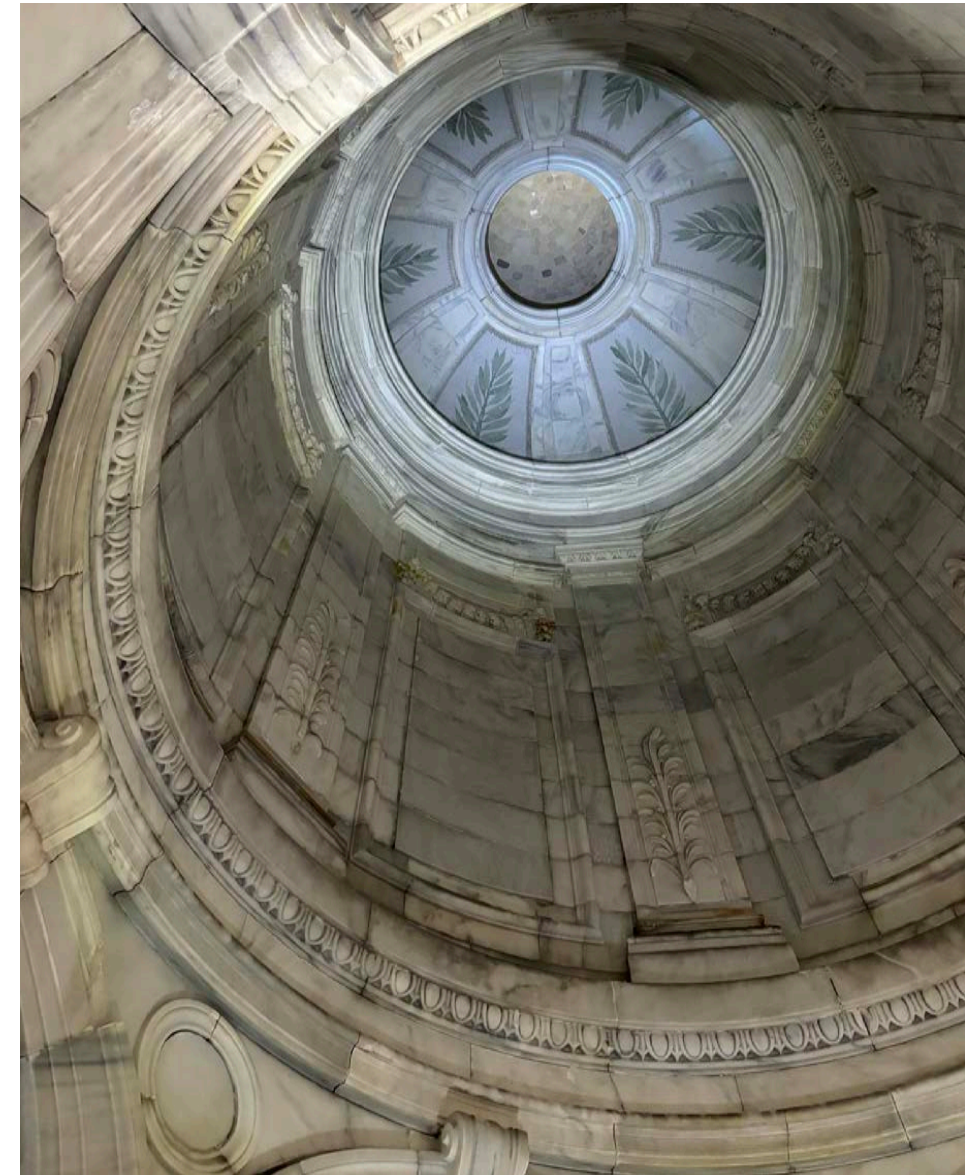
Terrace Reconstruction & Repaving

- 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

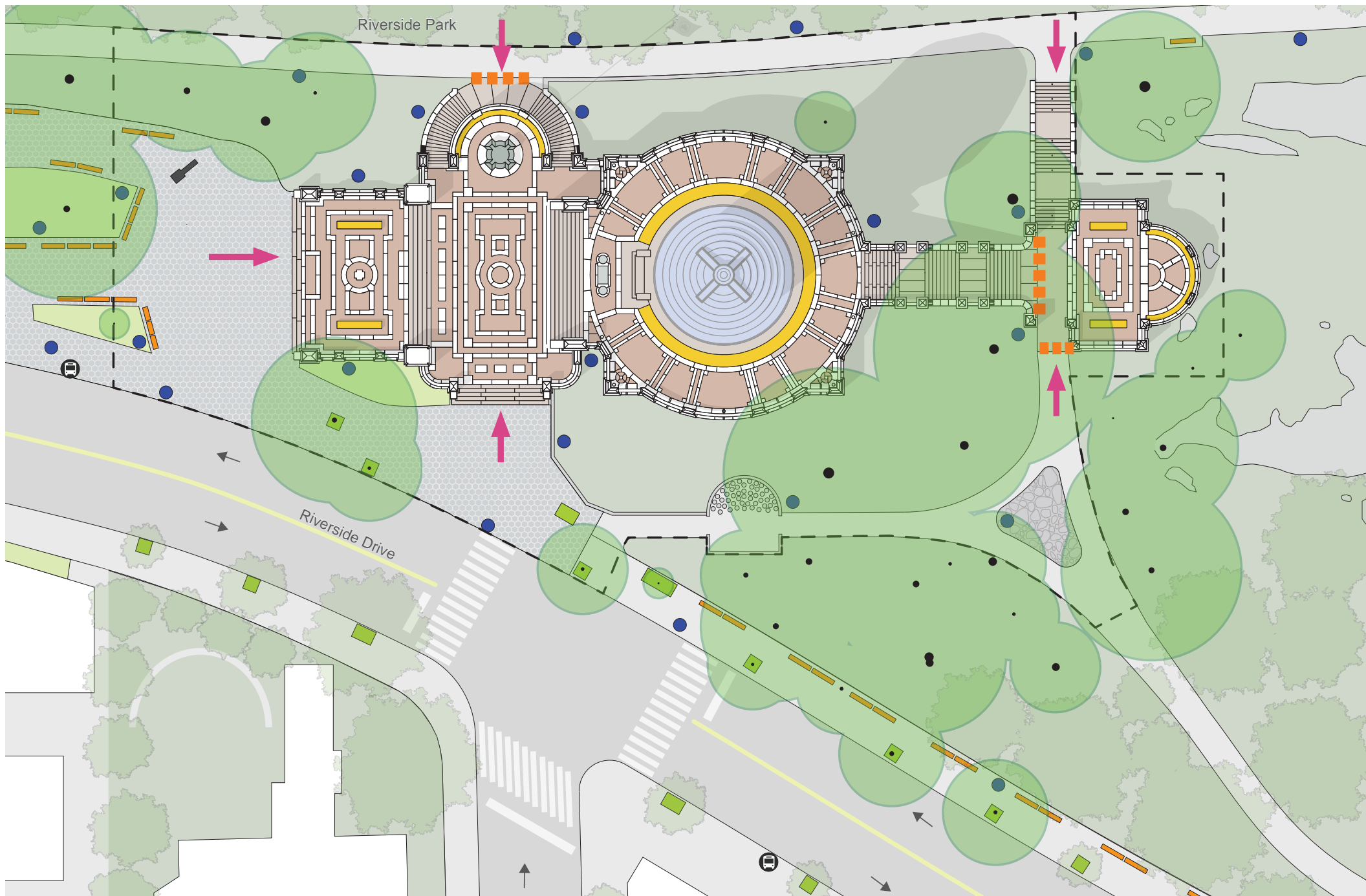
- Remediate deteriorated mortar & masonry joints
- Repair and restore mosaic tile floor
- Repair & restore corroded metal elements



NYC Parks



Soldiers & Sailors Monument Reconstruction Riverside Park | Scope of Restoration



Legend

- Project Limit
- ➔ Monument Access
- Tripping Hazard
- Existing Trees
- Open Lawn Area
- Rock Outcropping
- Tree pits
- Planted Beds
- Asphalt Pavement
- Hexagonal Paver
- Granite Stairs
- Cobblestone
- Crab Orchard Pavers
- Marble Paving Bands
- Bronze Tablets
- Granite Benches
- Site Benches
- Cannon
- Cannonballs
- Lamp Posts
- Bus Stops



NYC Parks

W X Y

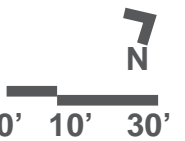
abb

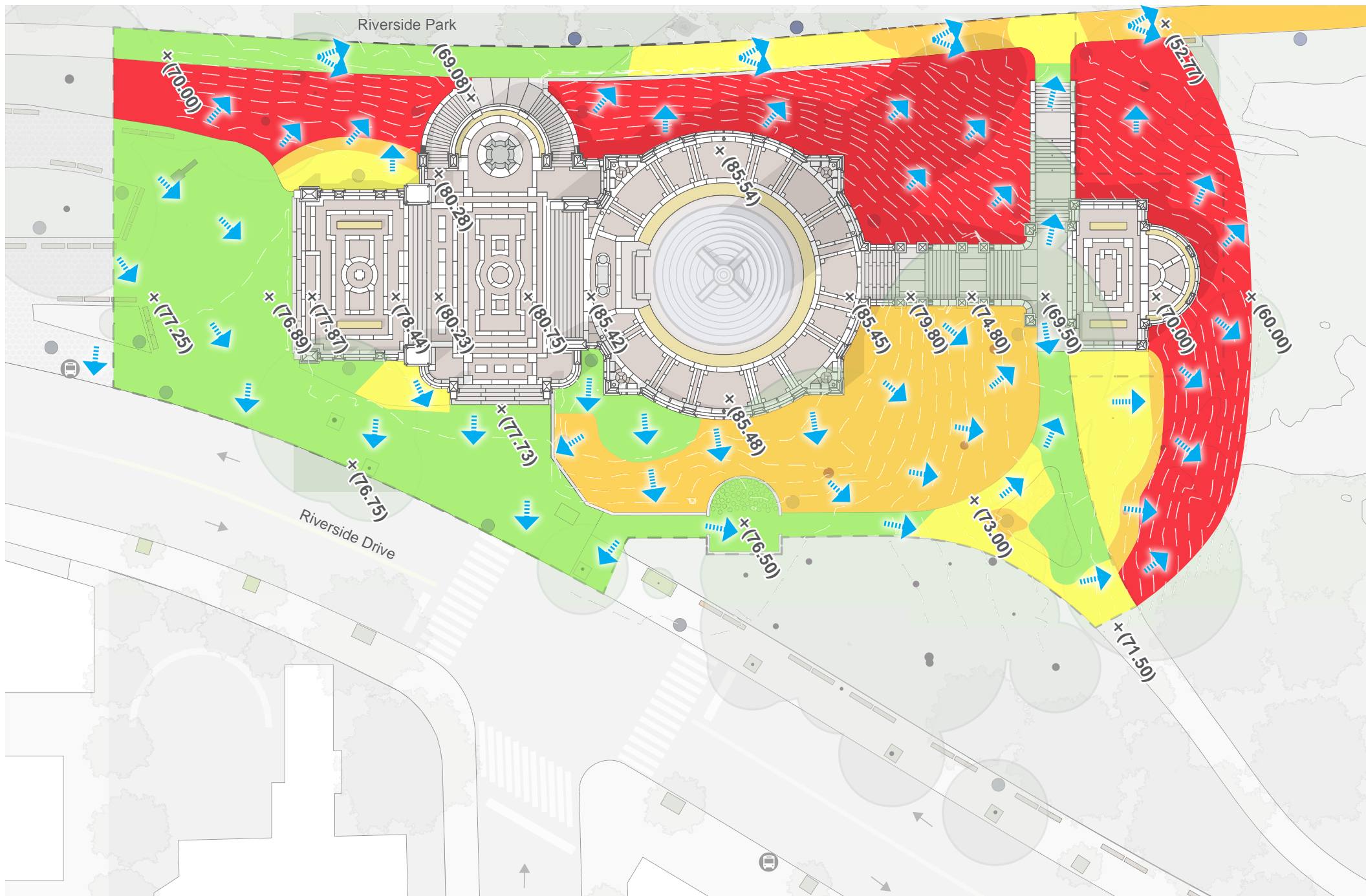
LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

Soldiers & Sailors Monument Reconstruction

Riverside Park | Existing Conditions: Site





Legend

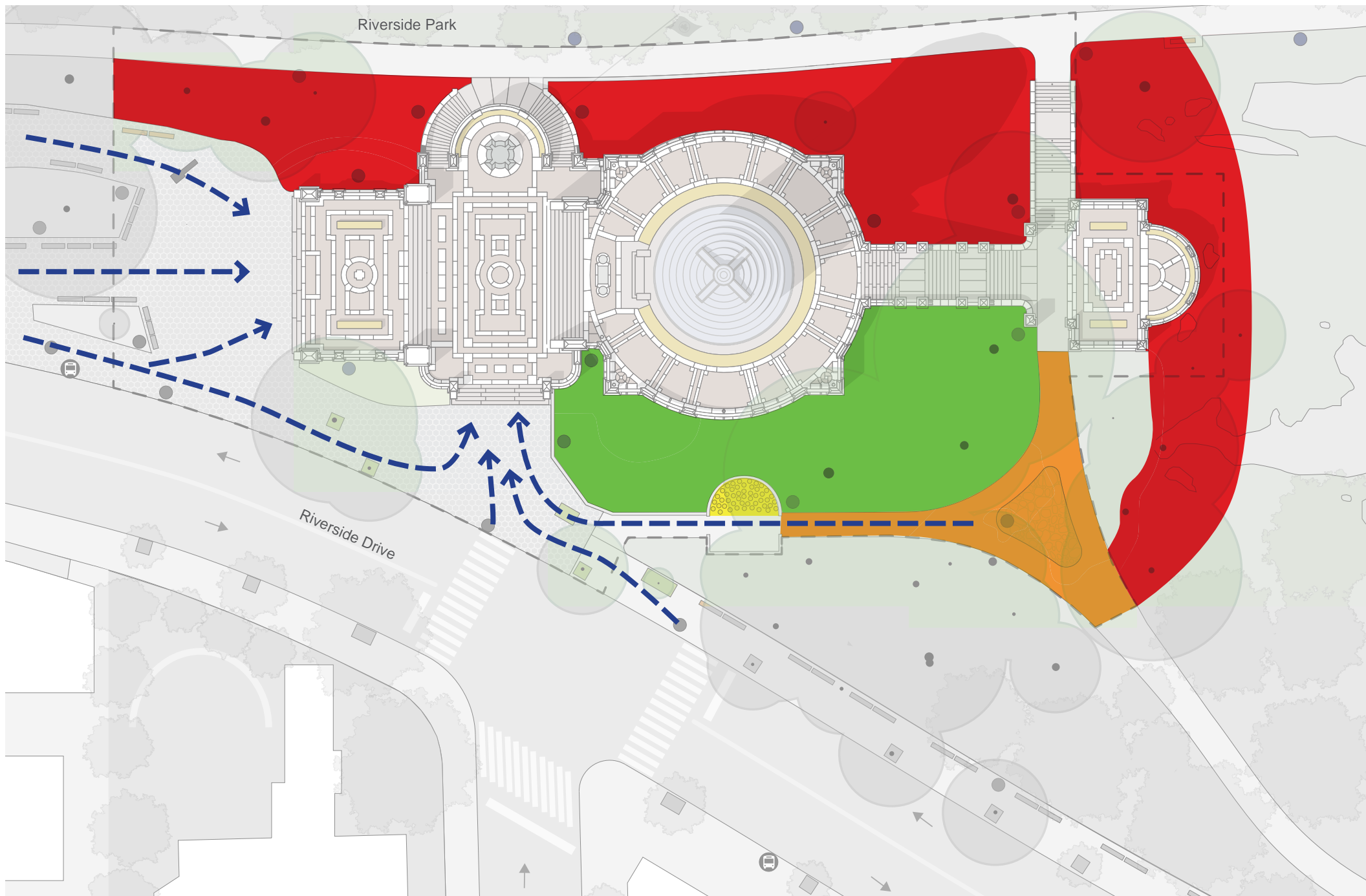
- Project Limit
- ▶ Stormwater Surface Flow
- x(60.00) Existing Spot Grade
- Low Slopes <5%
- Moderate Slopes ≥5%-10%
- Steep Slopes ≥10%-15%
- Severe Slopes ≥15%









NYC Parks



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



Legend

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



NYC Parks



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



NYC Parks

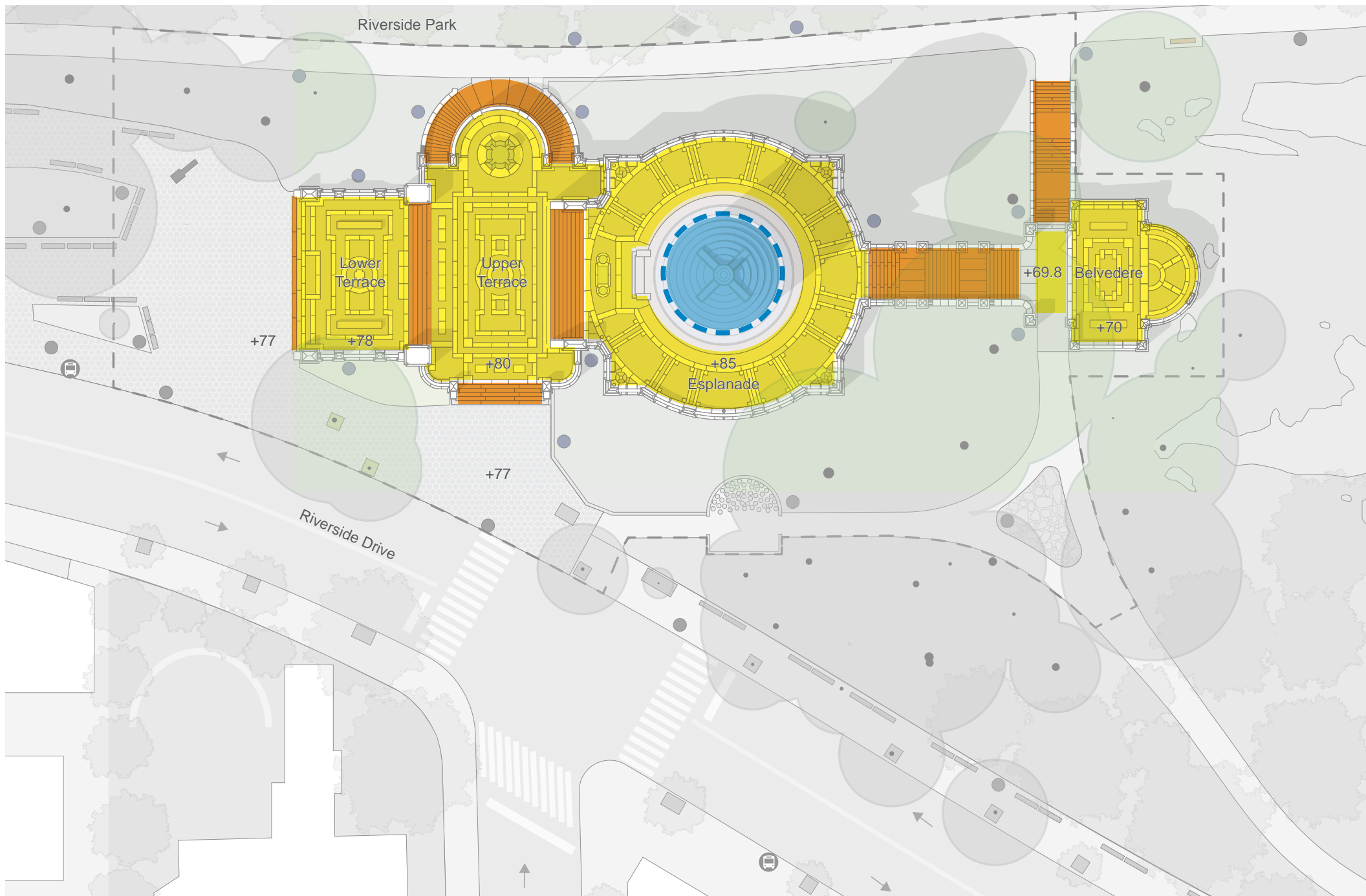
W X Y

abb





LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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

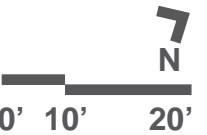


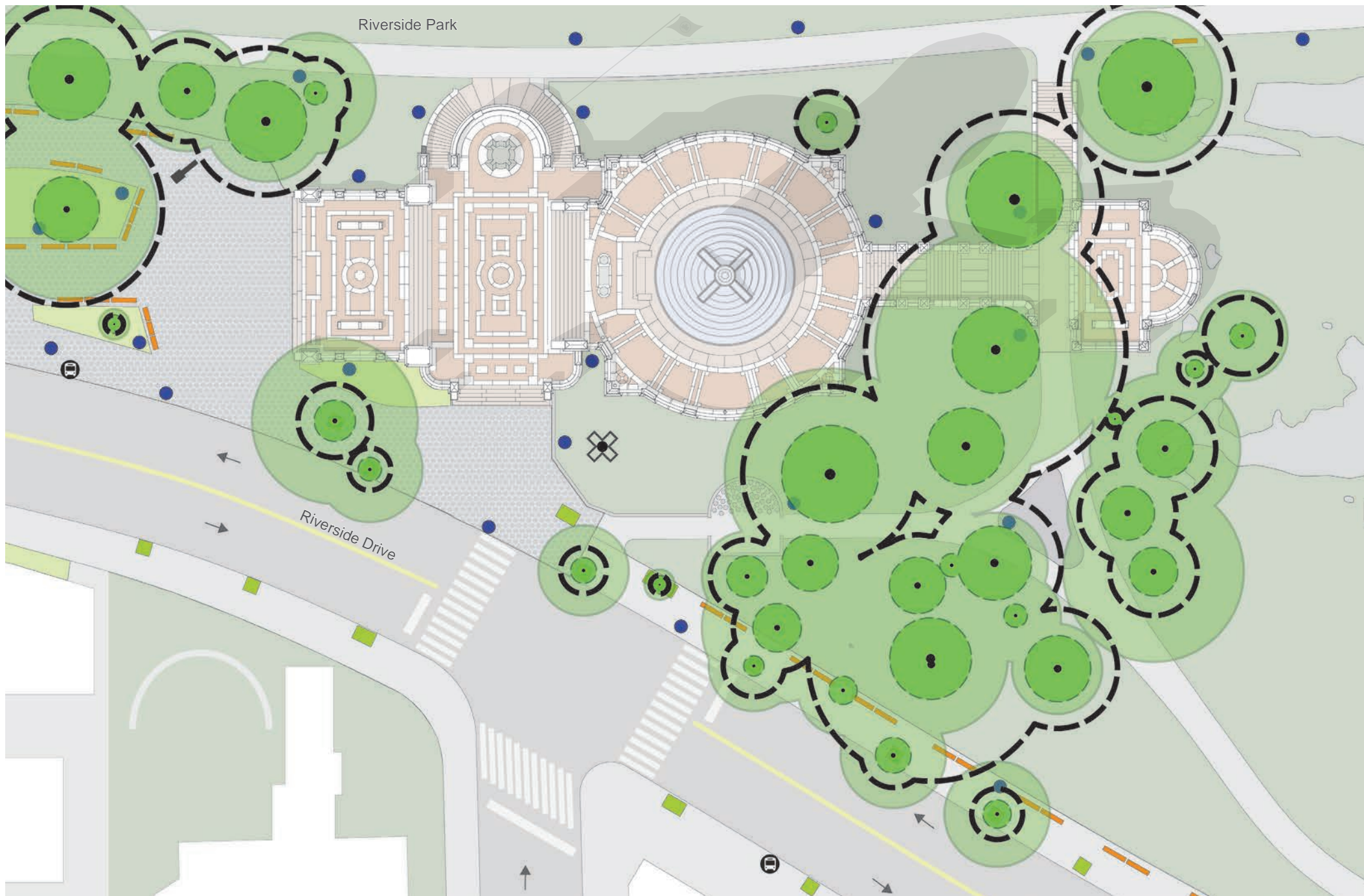
NYC Parks



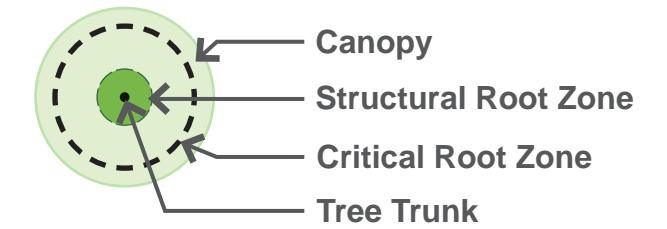
Soldiers & Sailors Monument Reconstruction

Riverside Park | Monument Plan: Universal Access Impediments





Legend



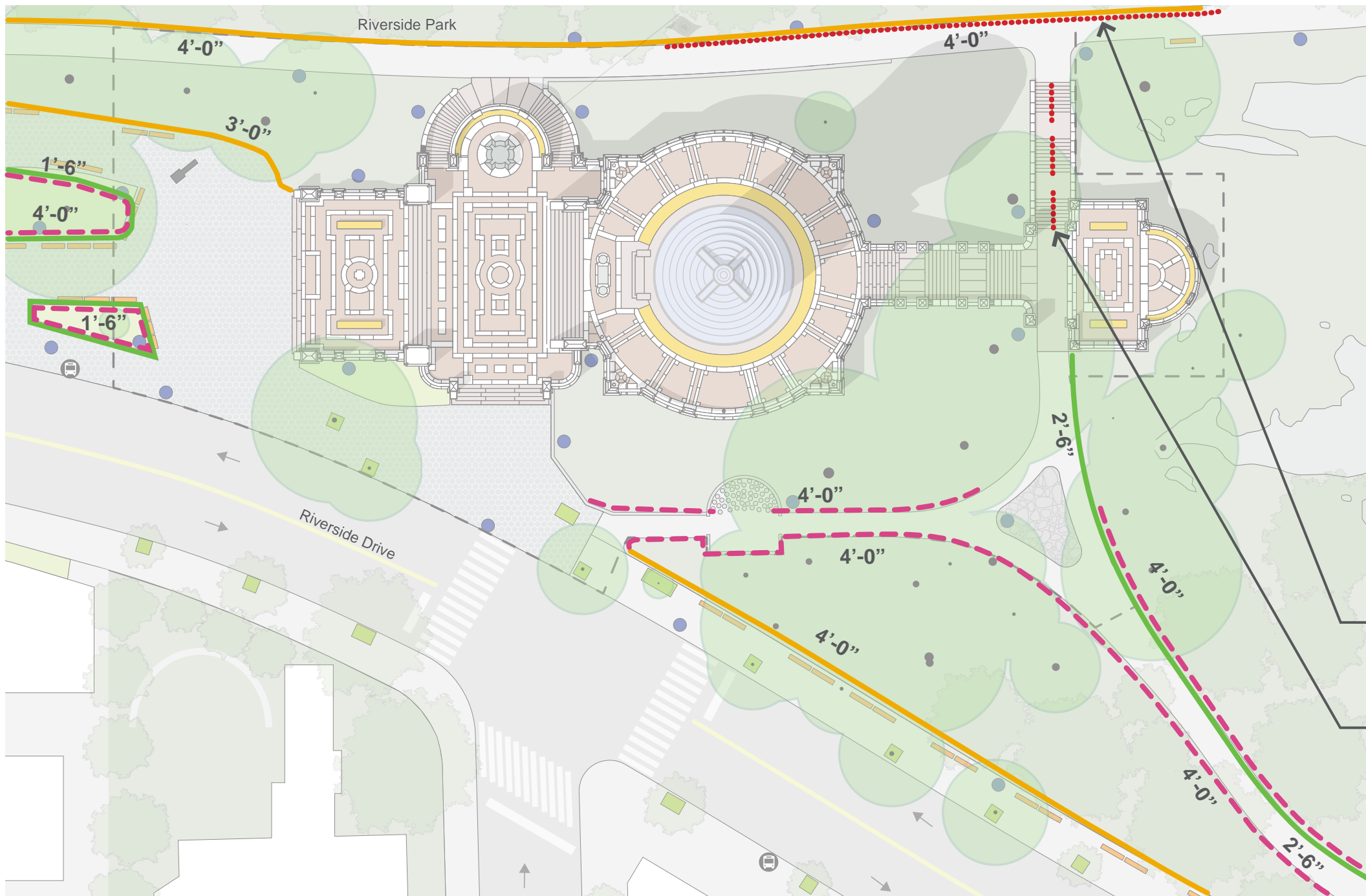
Park Tree Canopy Information
 67.2% Parkland Canopy Cover
 3.6% Canopy Change 2010-2017

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



Soldiers & Sailors Monument Reconstruction Riverside Park | Tree Inventory



Legend

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

- LOW FENCES**
 FENCES 2'-6" - 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

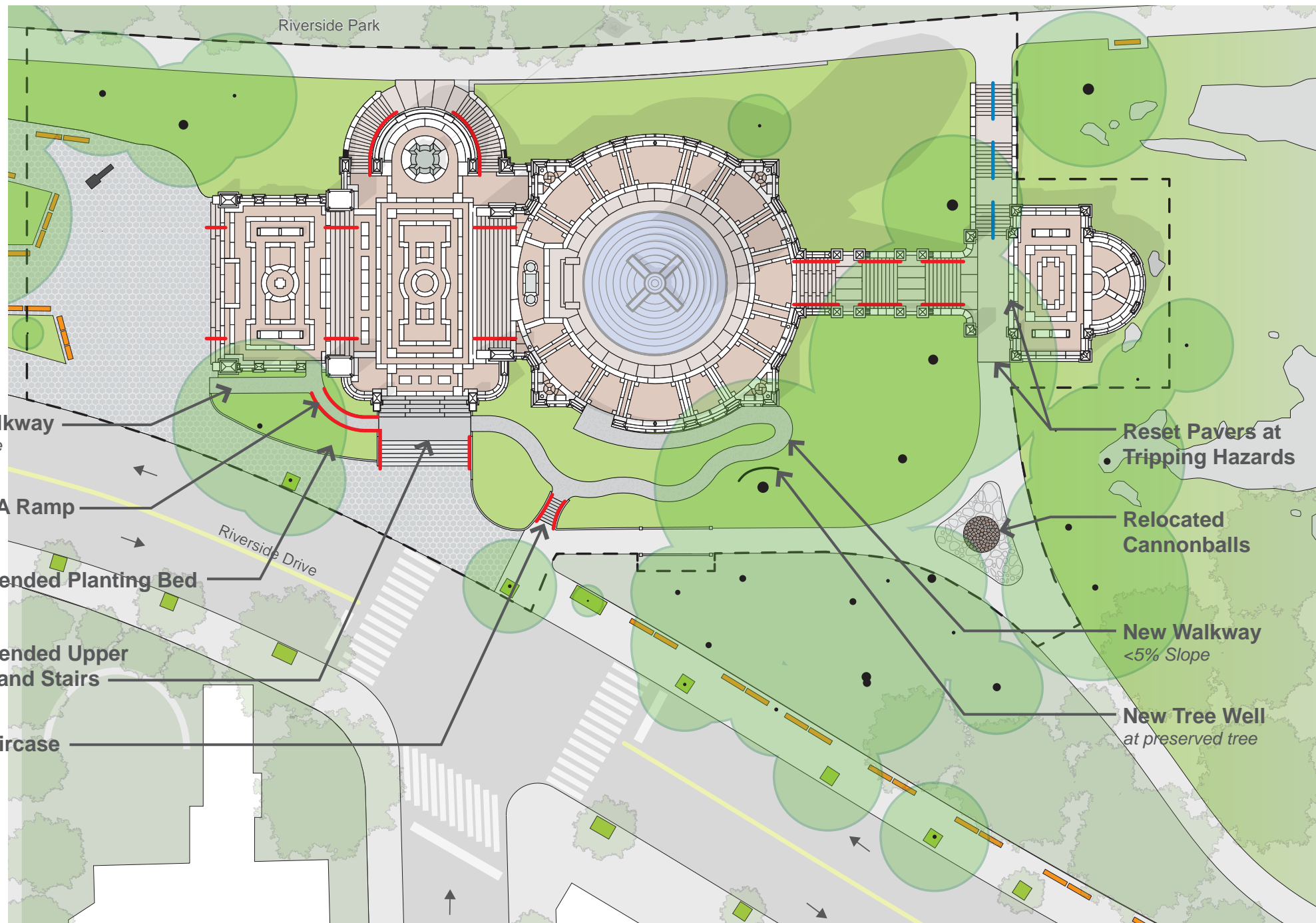
Freestanding handrails



NYC Parks



Soldiers & Sailors Monument Reconstruction Riverside Park | Existing Fence Diagram



Legend

- Project Limit
- Existing Trees
- Rock Outcropping
- Planted Beds
- Existing Asphalt Pavement
- Existing Hexagonal Paver
- New Brick Pavers
- Existing Marble Paving Bands
- Existing Bronze Tablets
- Existing Cannon
- Existing Cobblestone
- Relocated Cannonballs
- New Granite Terrace Extension
- New Walkways / Ramps
- New Handrail Locations
- Handrails to be Replaced for Code Compliance

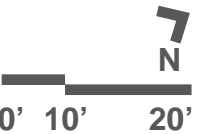


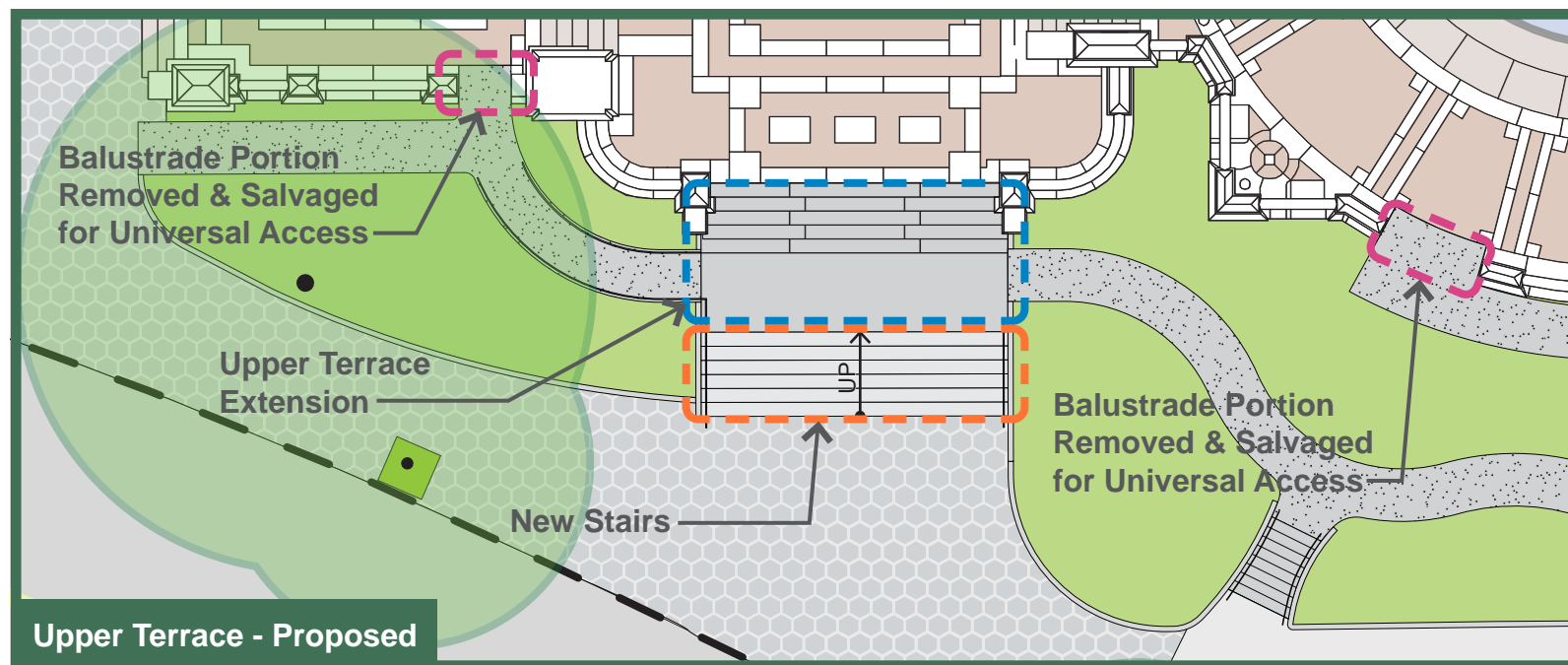
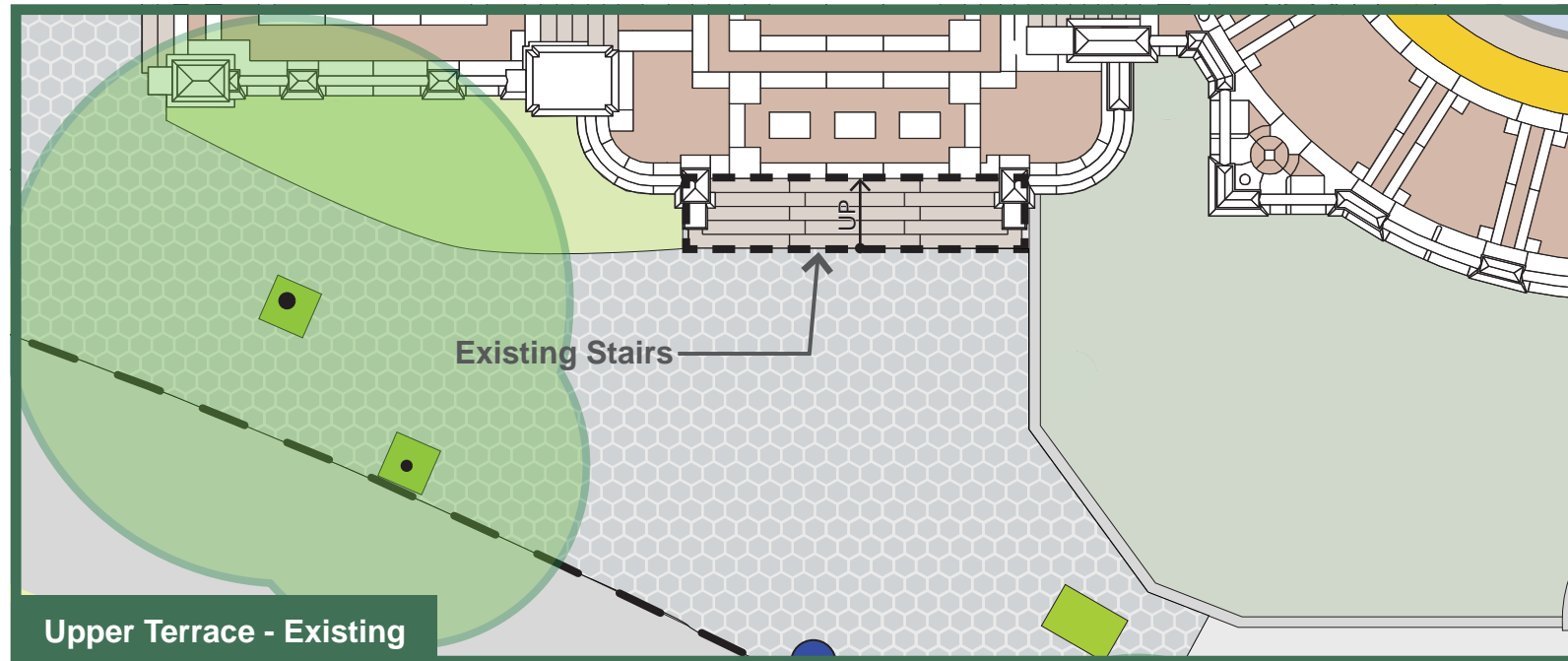
NYC Parks

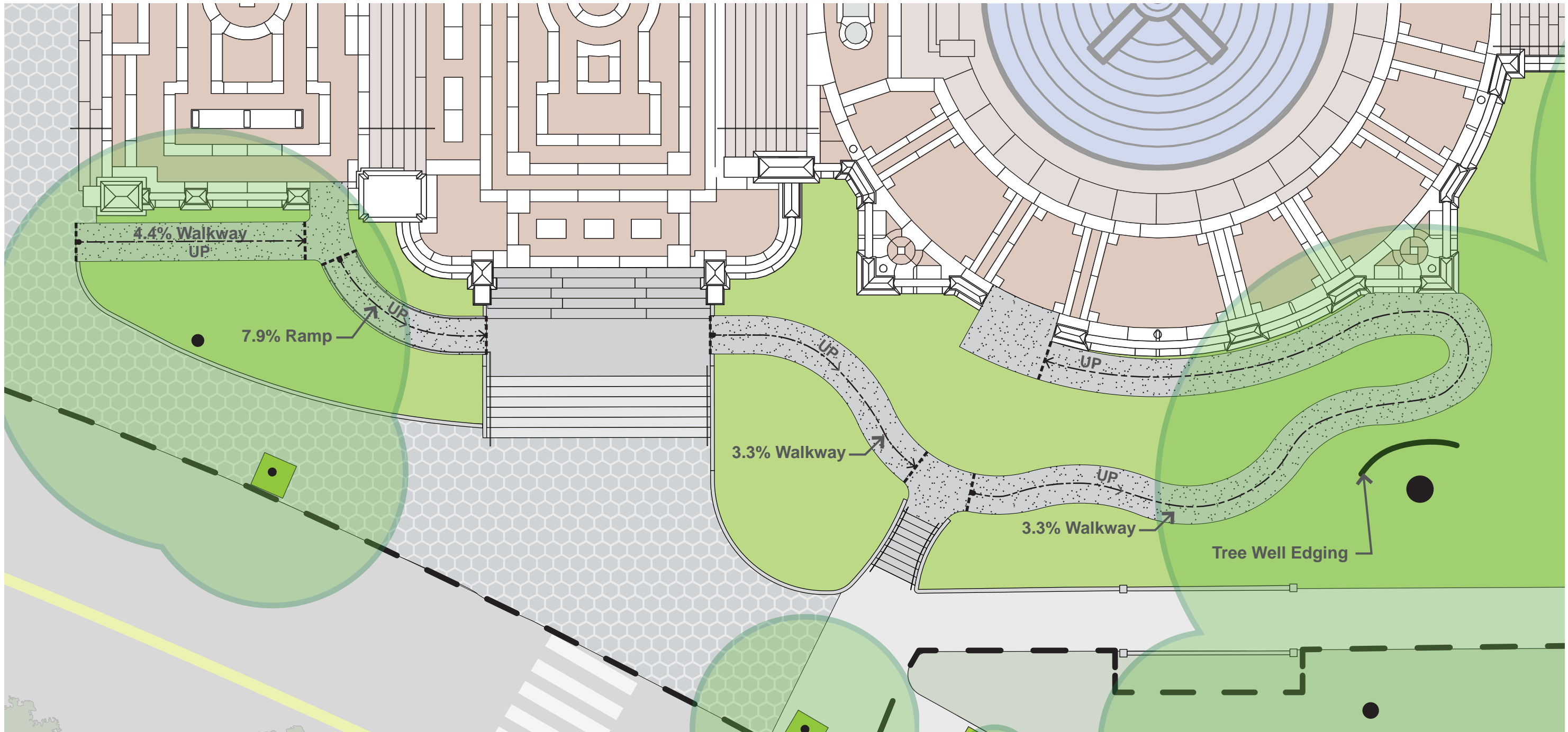


Soldiers & Sailors Monument Reconstruction

Riverside Park | Proposed Plan - Site







NYC Parks

W X Y

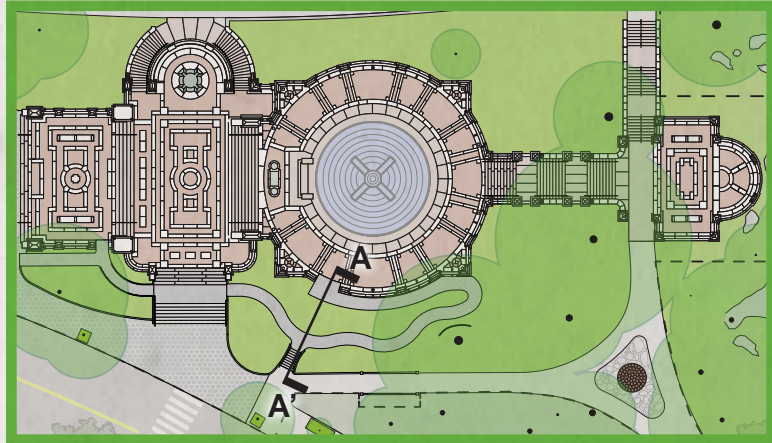
abb

LERA
1923
2023
100

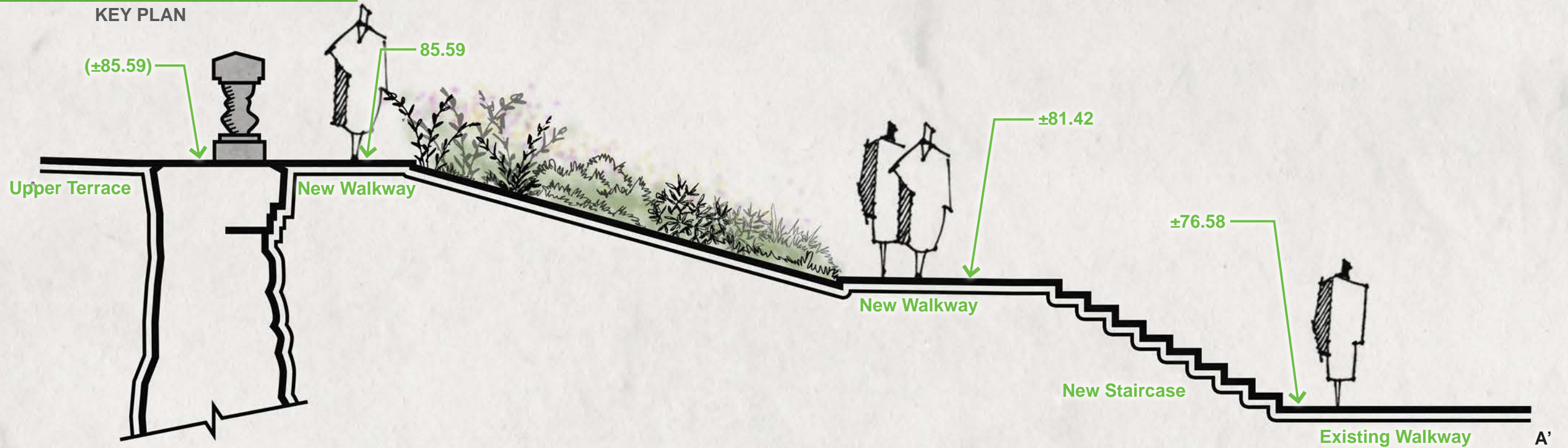
MCLaren
ENGINEERING GROUP

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

7
N



KEY PLAN



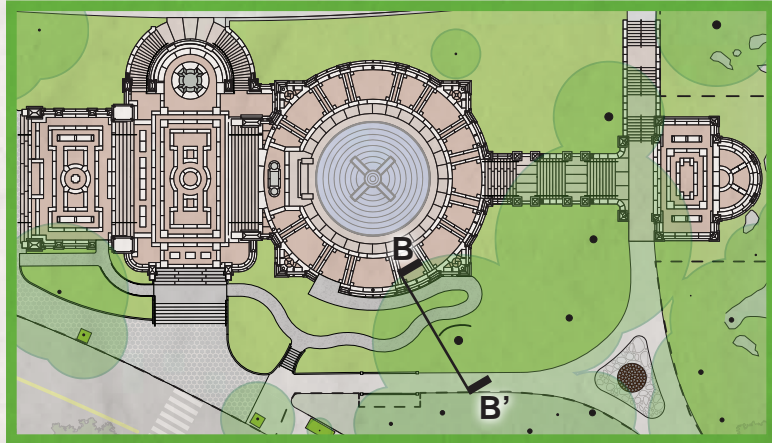
Note: All planted areas max slope 1:3
All walkways shall be less than 5%



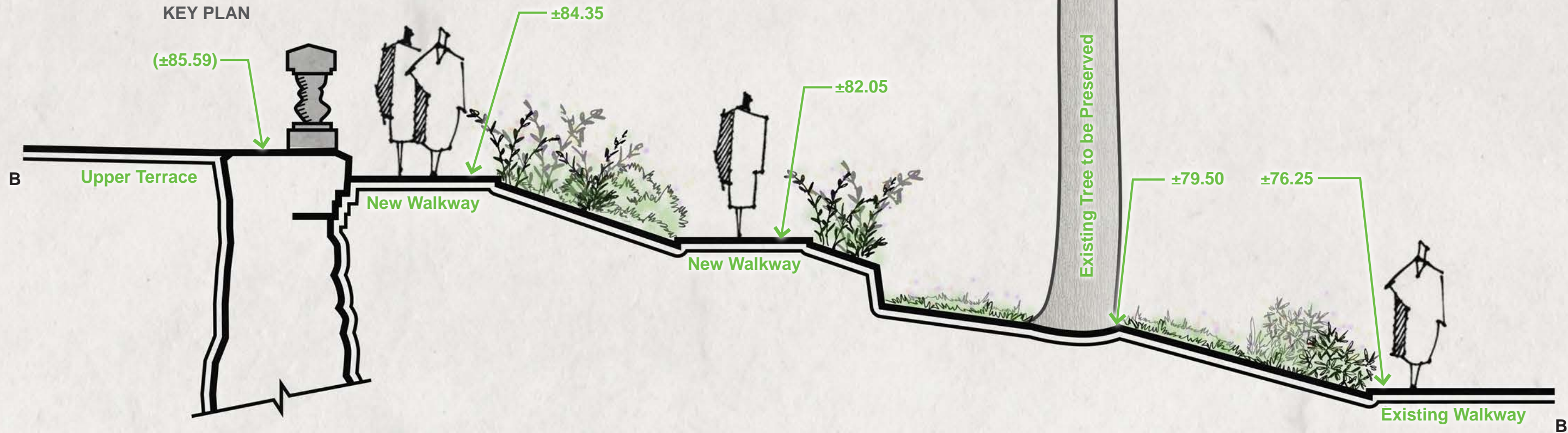
NYC Parks



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



KEY PLAN



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



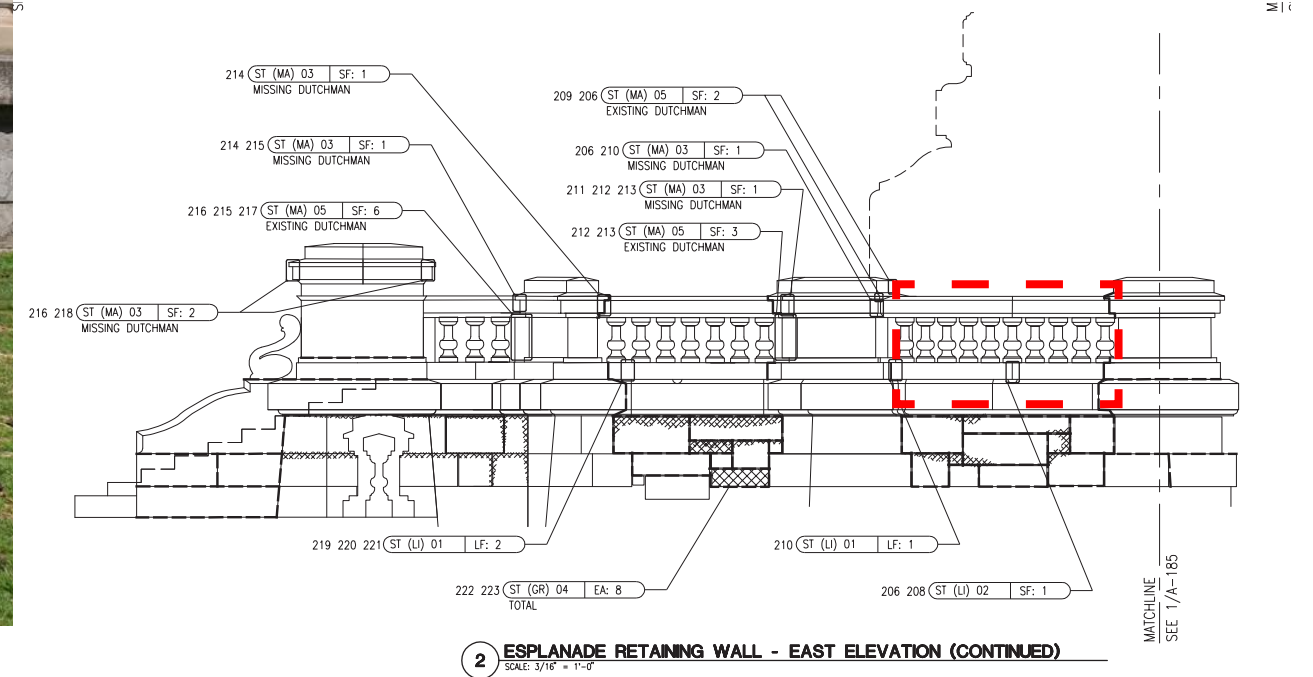
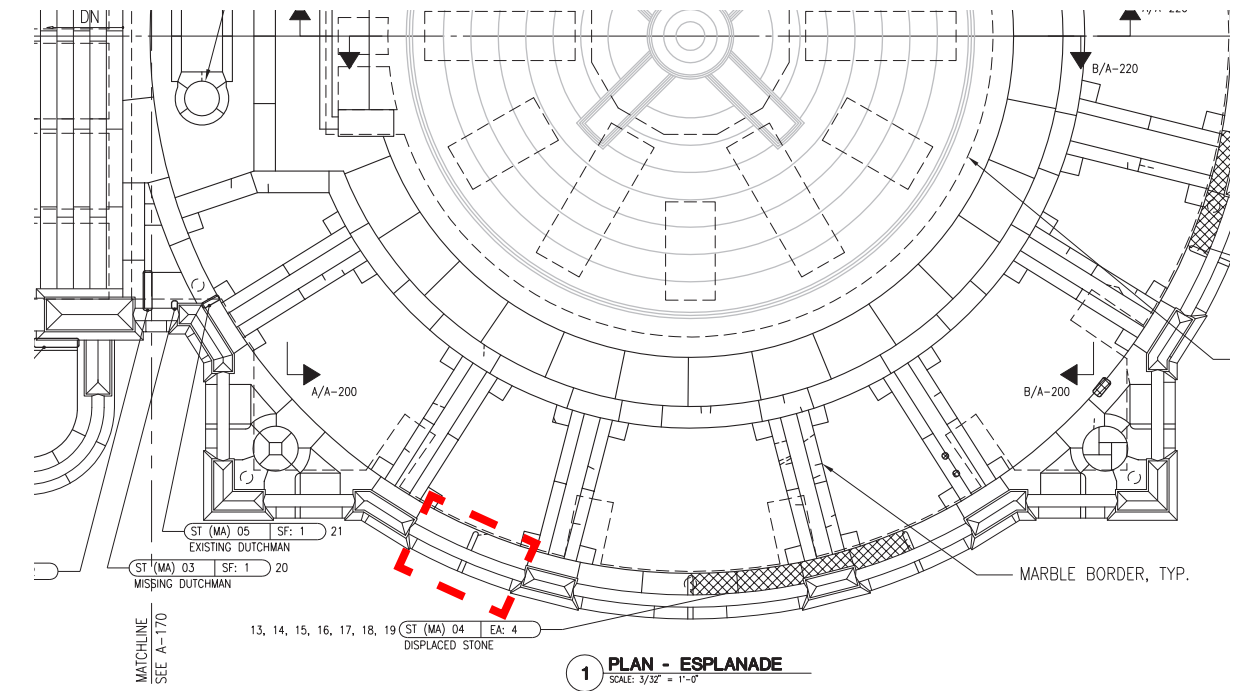
NYC Parks



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



1962 Balustrade components to be removed and salvaged for use where needed in monument restoration



Soldiers & Sailors Monument Reconstruction

Riverside Park | Garden Walkway: Balustrade Impact at Upper Terrace



NYC Parks

W X Y

abb

LERA
1923
2023
100

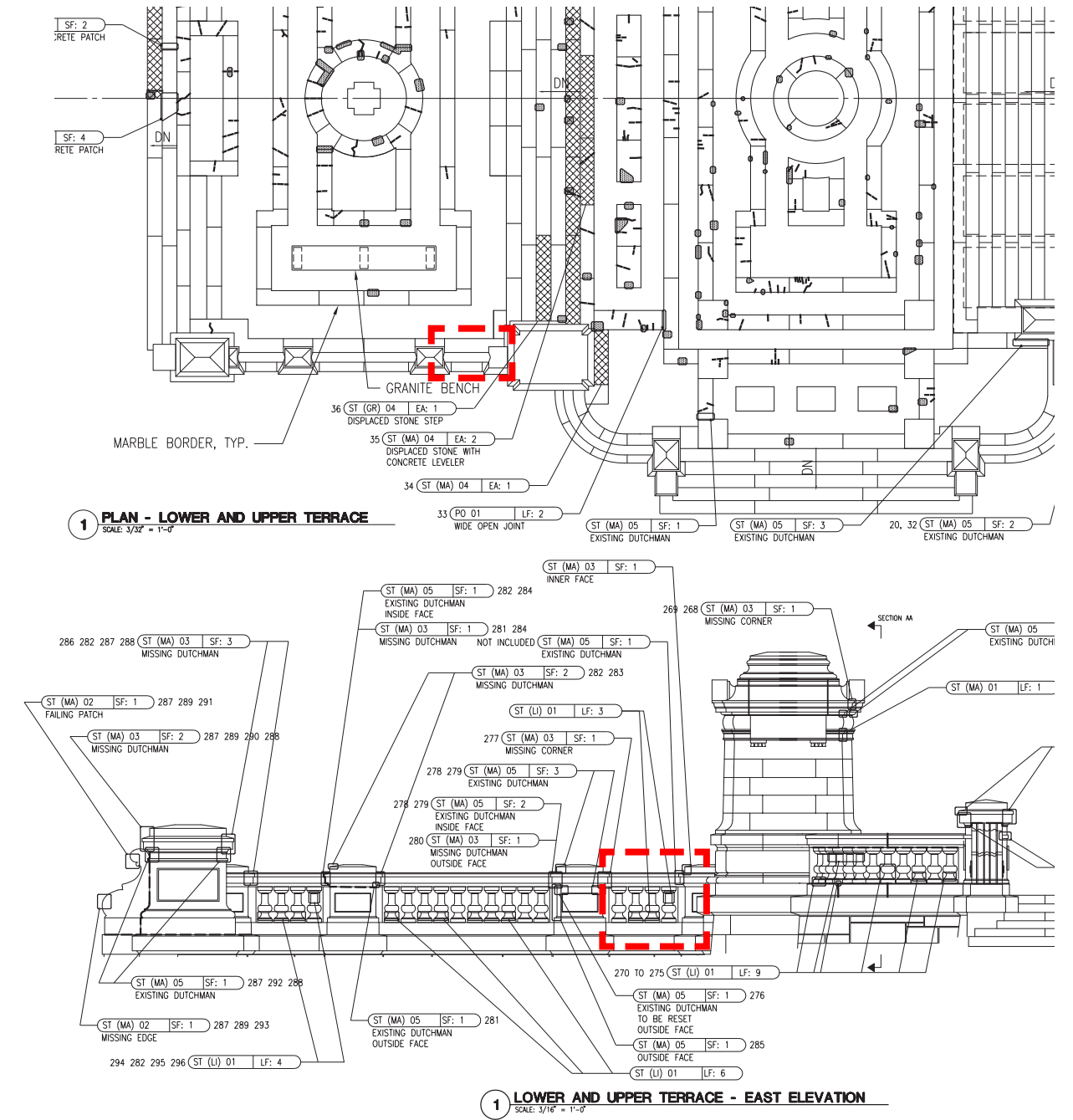
MCLaren
ENGINEERING GROUP

Soldiers & Sailors Monument Reconstruction

Riverside Park | Garden Walkway: Balustrade Impact at Upper Terrace



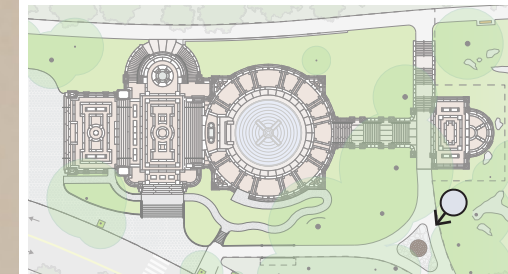
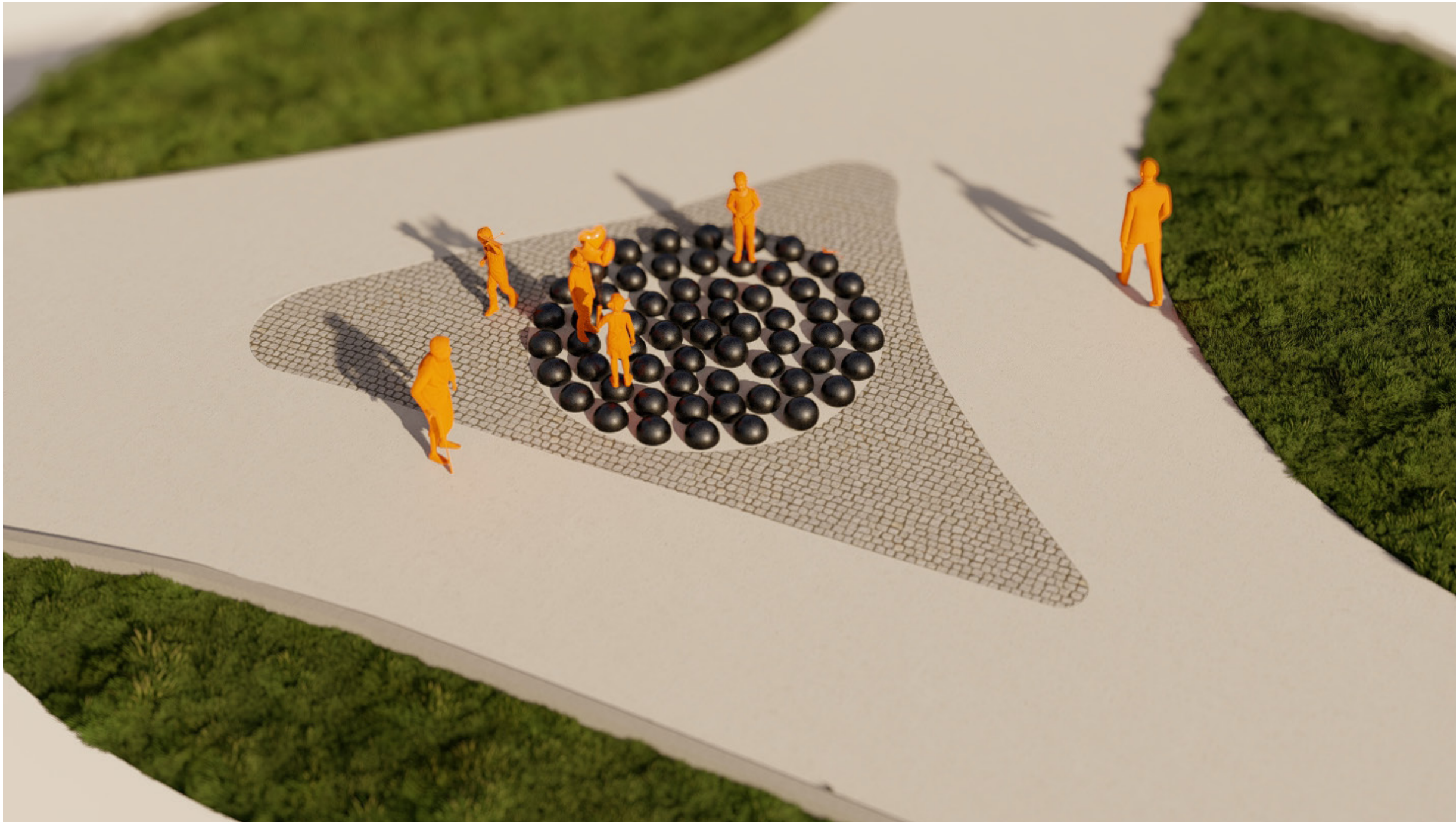
1962 Balustrade components to be removed and salvaged for use where needed in monument restoration



Soldiers & Sailors Monument Reconstruction

Riverside Park | Garden Walkway: Balustrade Impact at Lower Terrace





NYC Parks

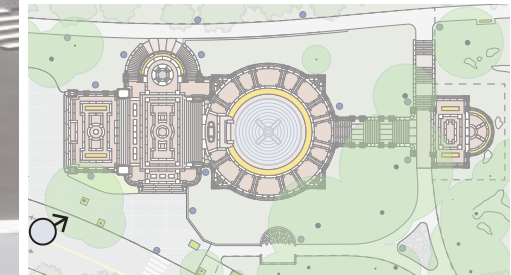
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

Soldiers & Sailors Monument Reconstruction Riverside Park | Relocated Cannonballs



NYC Parks

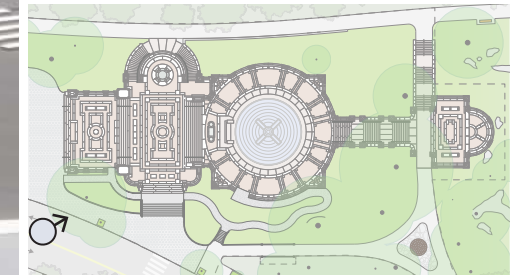
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

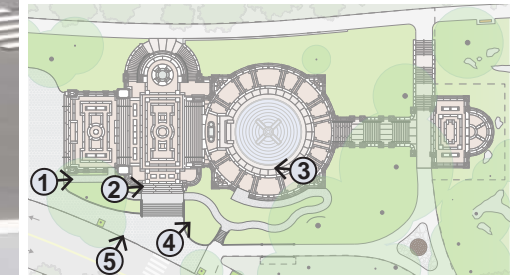
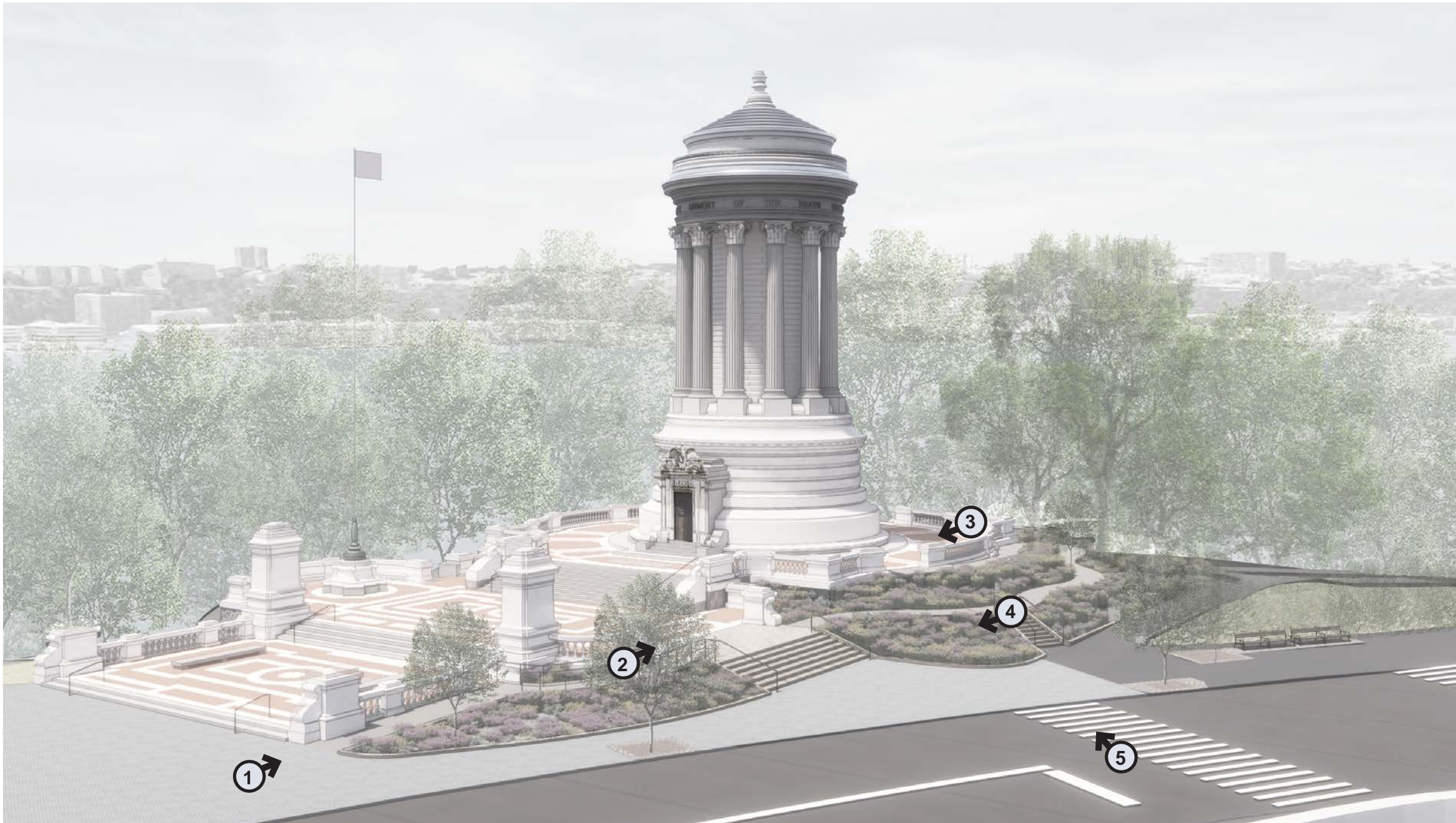
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



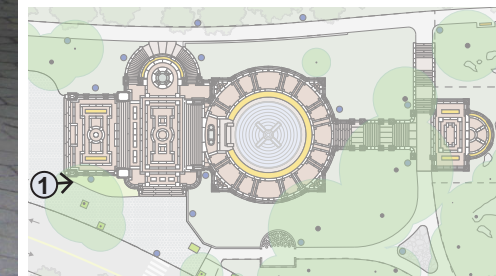
W X Y

abb

LERA
1923
2023
100



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



NYC Parks

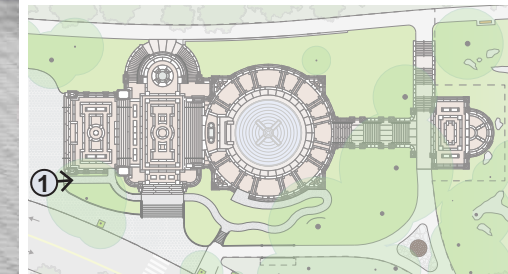
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

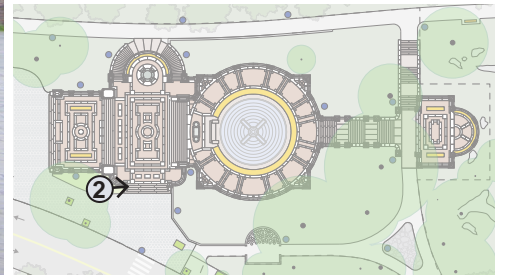
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

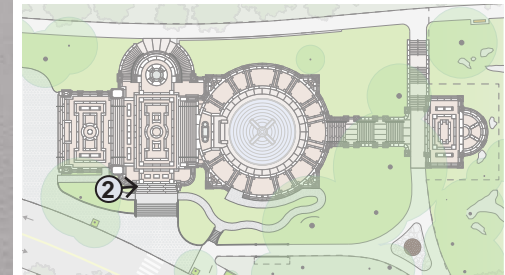
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

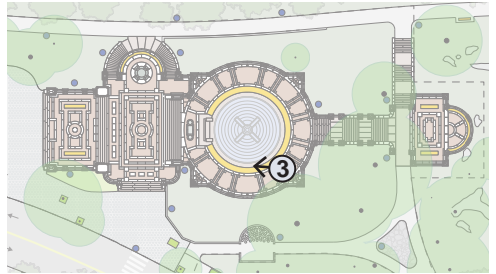
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

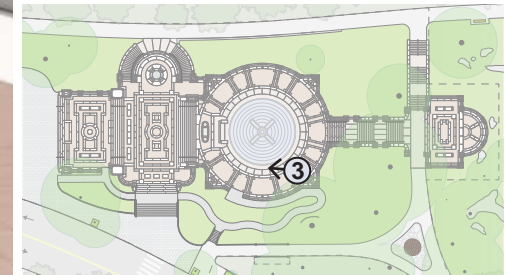
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

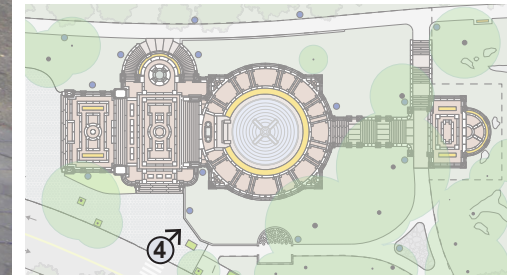
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

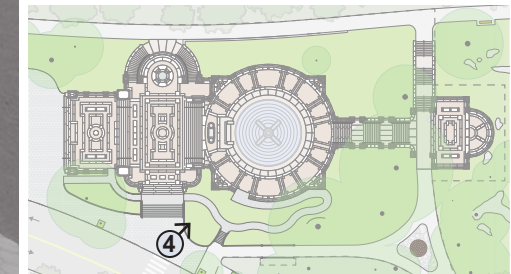
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



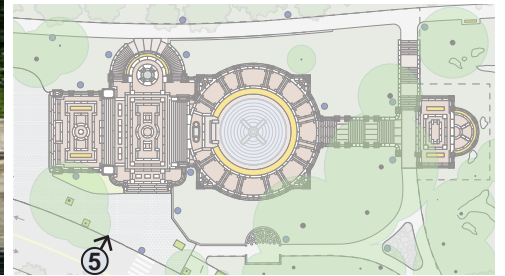
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



NYC Parks

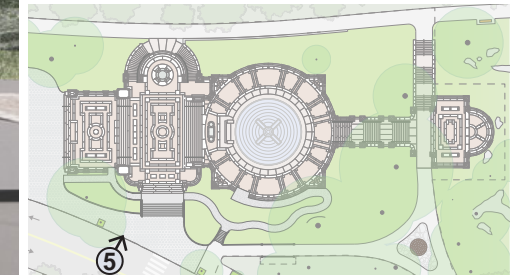
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



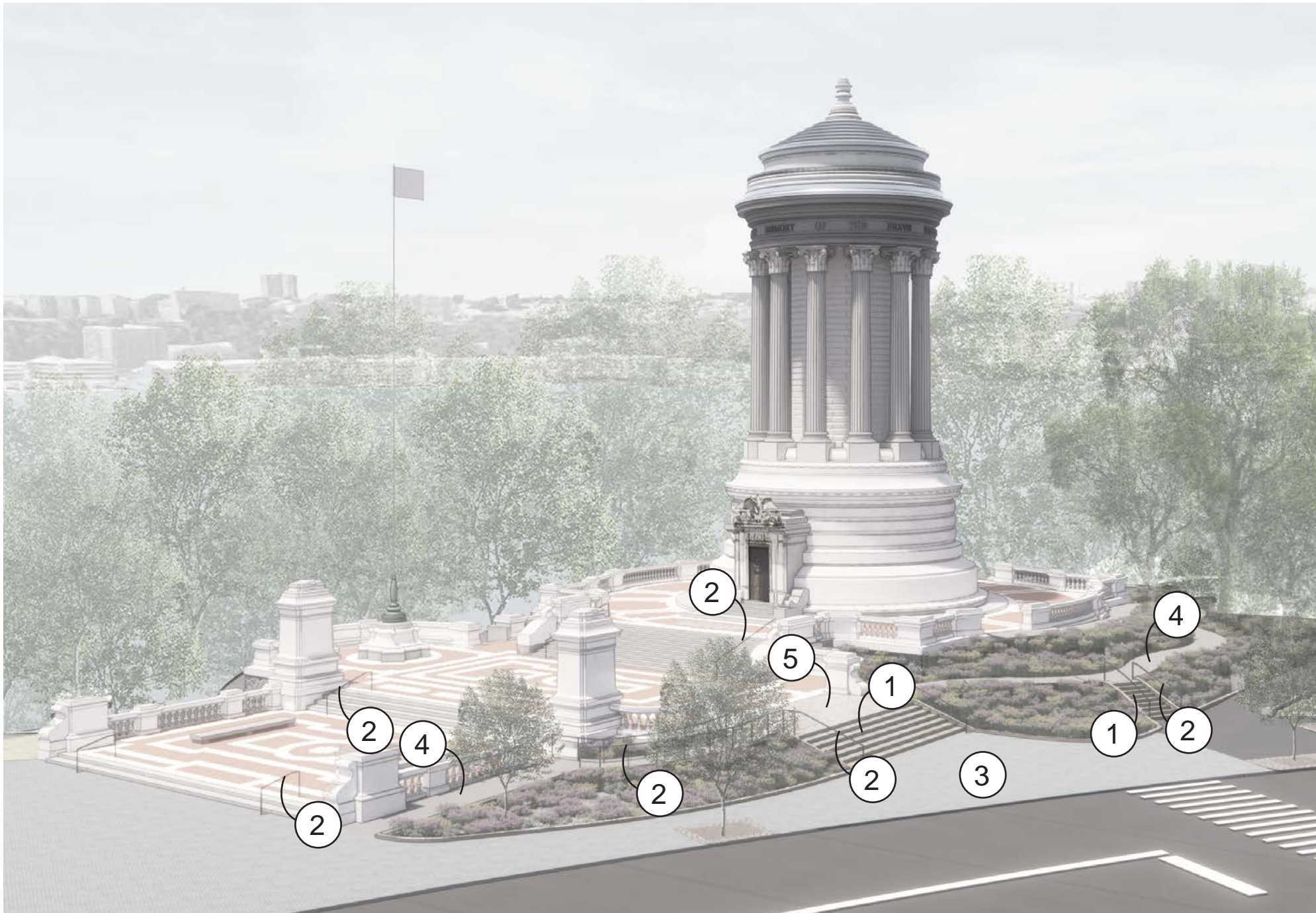
W X Y

abb

LERA
1923
2023
100

MCLaren
ENGINEERING GROUP

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



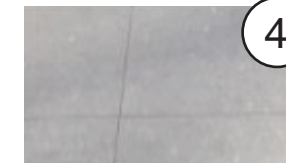
1 Granite Pathways, edging, curbs, and new steps to compliment existing monument granite



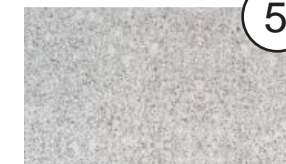
2 New Handrails, black



3 New asphalt pavers to match existing



4 New 'Landmark Grey' concrete for garden walkway & ramp



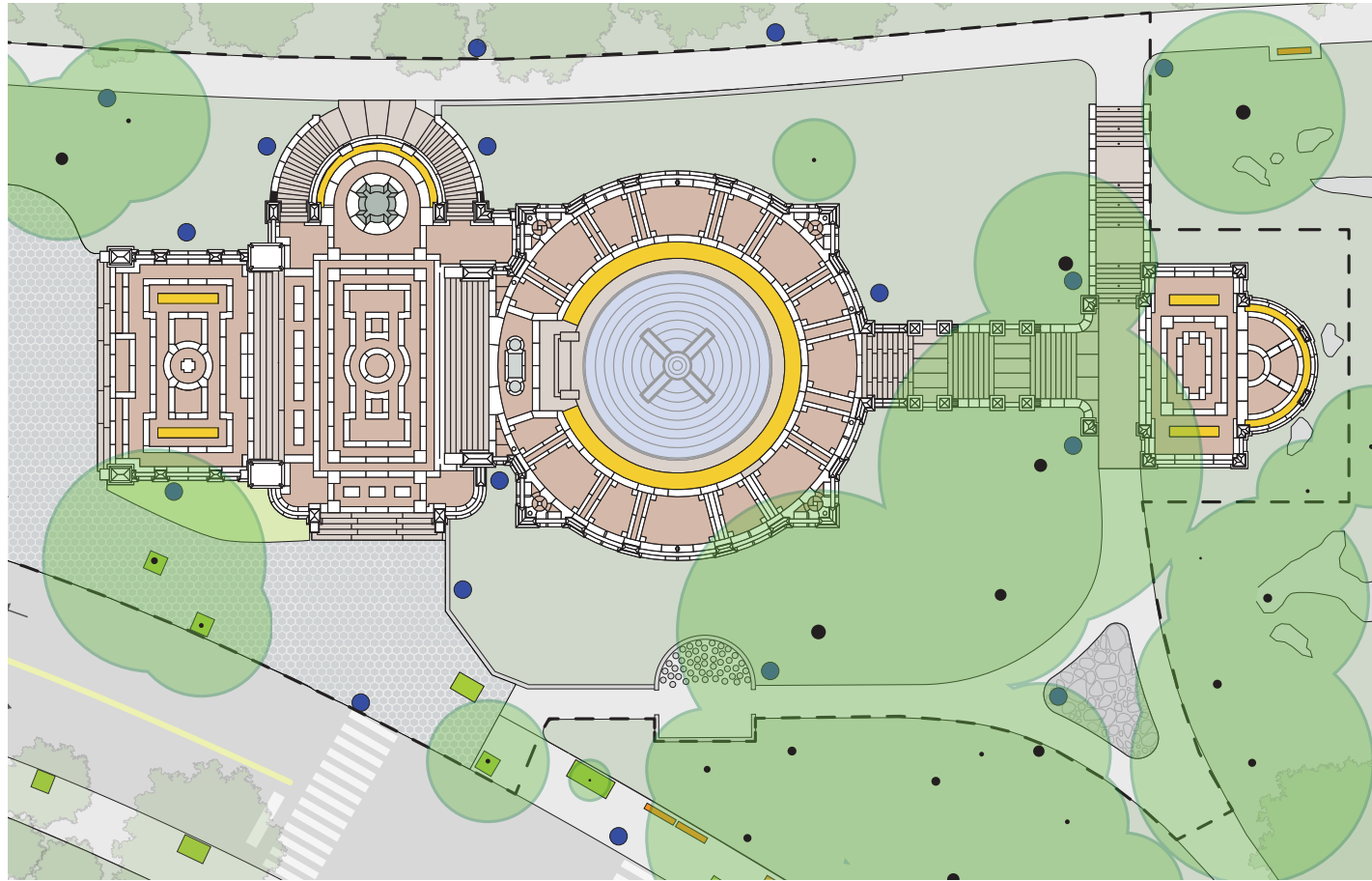
5 Granite Extension of middle terrace to match existing terrace step material



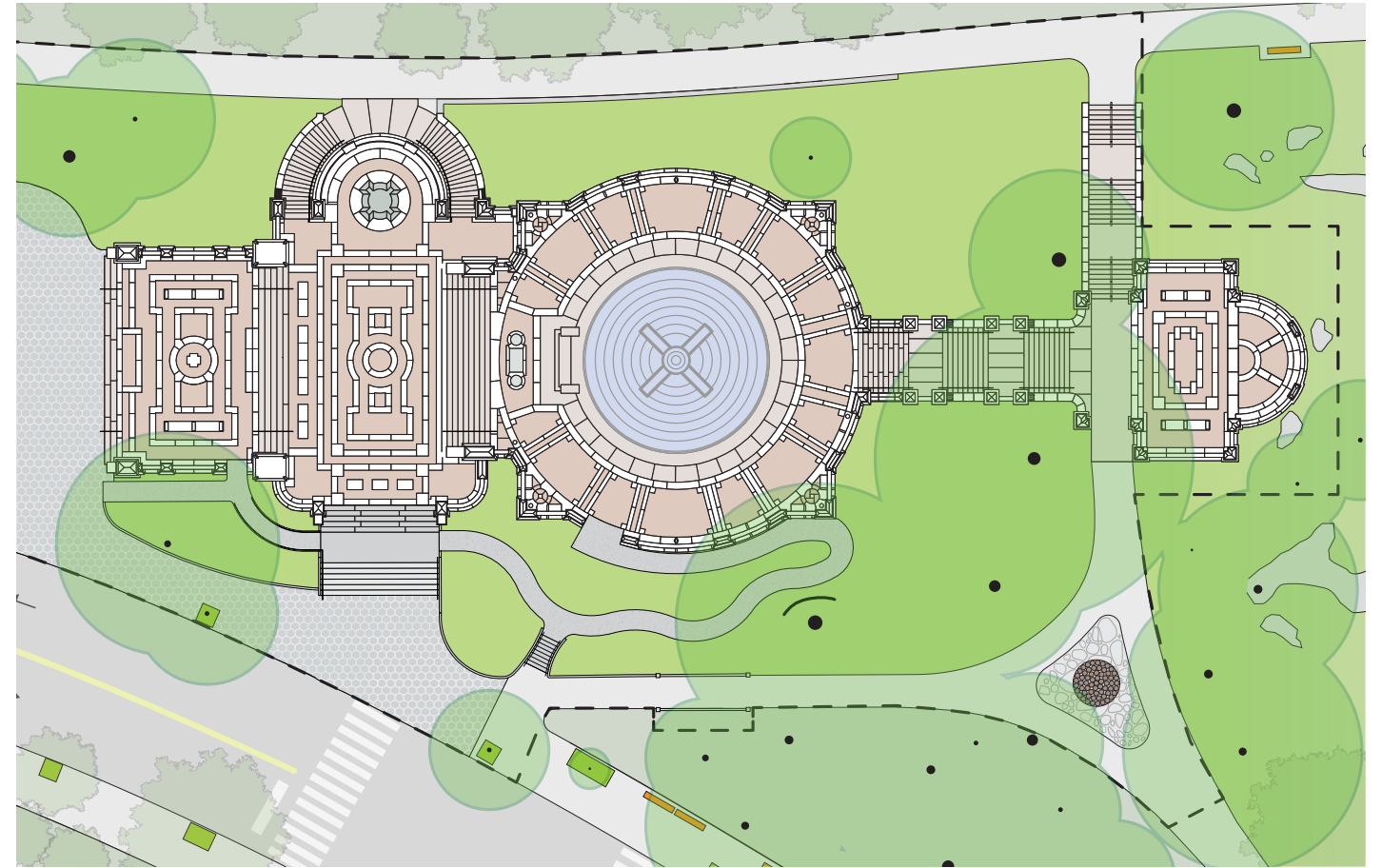
NYC Parks



Soldiers & Sailors Monument Reconstruction Riverside Park | Restoration Palette



Existing Conditions



Proposed Conditions



NYC Parks



Soldiers & Sailors Monument Reconstruction
Riverside Park | Before & After

Appendix



NYC Parks

W X Y

abb

LERA
1923
2023
100



Soldiers & Sailors Monument Reconstruction
Riverside Park



Sweet Pepperbush
Clethra alnifolia



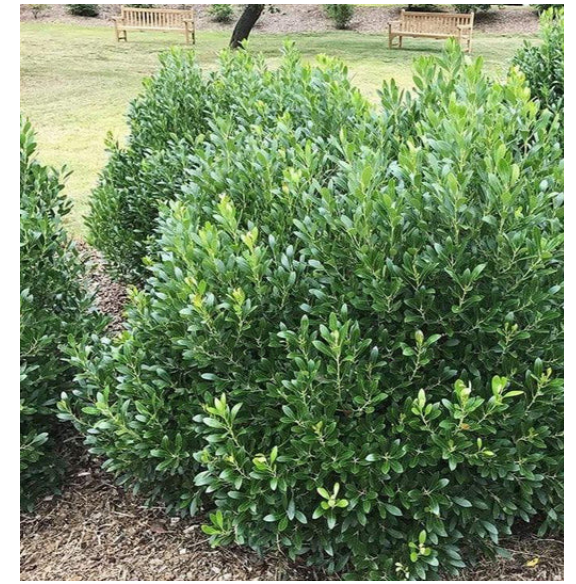
Bayberry
Morella pensylvanica



English Laurel
Prunus laurocerasus 'Otto Luyken'



Northern Bayberry
Myrica pensylvanica



Compact Inkberry
Ilex glabra 'Compacta'



Lowbush Blueberry
Vaccinium angustifolium



Northern Spicebush
Lindera benzoin



Witch Alder
Fothergilla gardenii



Red Osier Dogwood
Cornus sericea



NYC Parks



Soldiers & Sailors Monument Reconstruction
Riverside Park | Plant Palette: Small Trees & Shrubs



Little Bluestem
Schizachyrium scoparium



Palm Sedge
Carex muskingummensis



Purple Love Grass
Eragrostis spectabilis



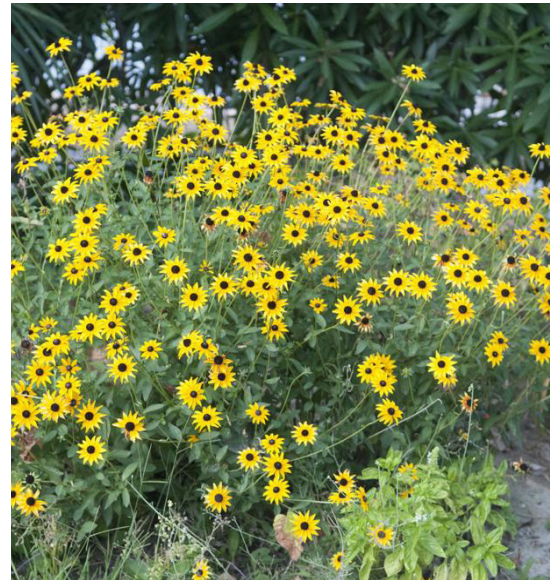
Red Beauty Yarrow
Achillea millefolium 'Red Beauty'



Blanket Flower
Gaillardia spp.



Blue Star Aster
Aster cordifolius



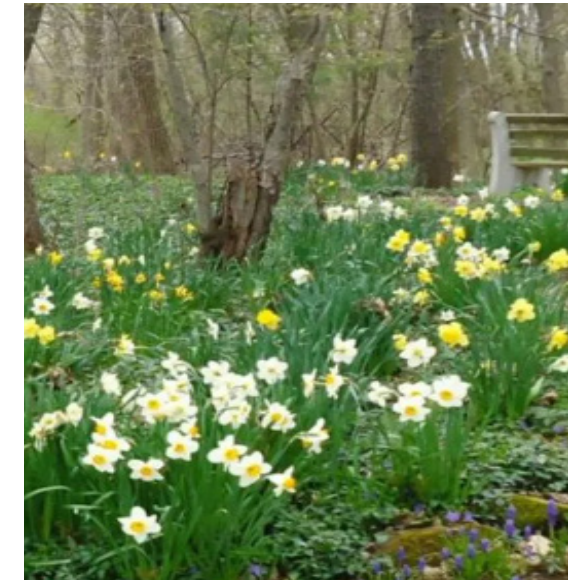
Goldstrum Orange Coneflower
Rudbeckia fulgida 'Goldstrum'



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



Decorative Onions
Allium 'Globemaster'



Daffodils variety
Narcissus spp.



NYC Parks



Soldiers & Sailors Monument Reconstruction

Riverside Park | Plant Palette: Ornamental Grasses, Perennials, Forbs, & Bulbs



Before

Upon the site's opening in 1939, the *Nancy Brown Peace Carillon on Belle Isle, Detroit, MI* was predominantly surrounded by open lawn.



After

In 2021, an ecological 3 acre garden consisting of perennials, grasses, shrubs, and trees was added in front of and around the Nancy Brown Peace Carillon. Plants were selected based on their hardiness, durability, and ever-changing textures and colors for enjoyment in all four seasons.

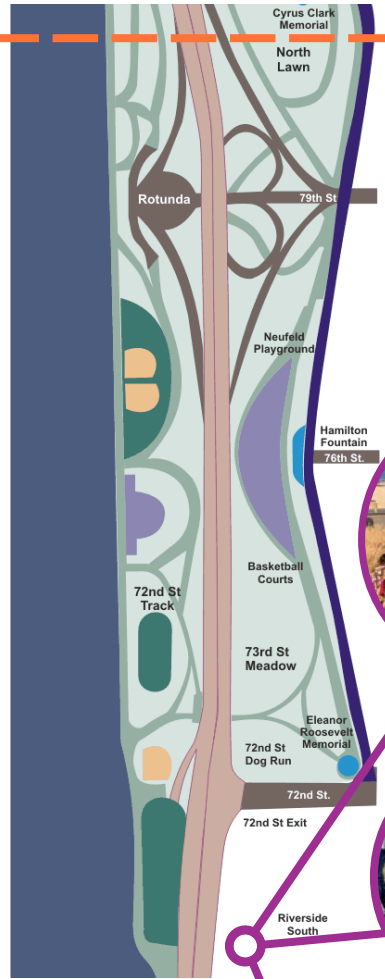


NYC Parks

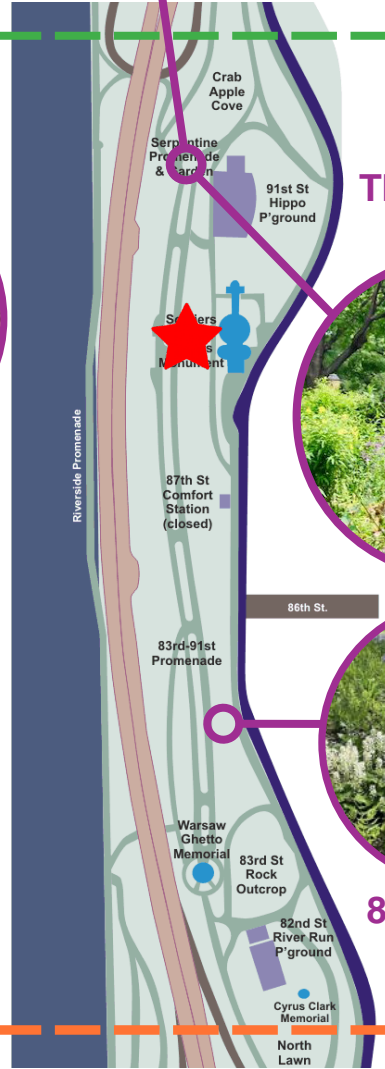


Soldiers & Sailors Monument Reconstruction

Riverside Park | Design Precedent: Nancy Brown Peace Carillon



Riverside Park South



The Garden People



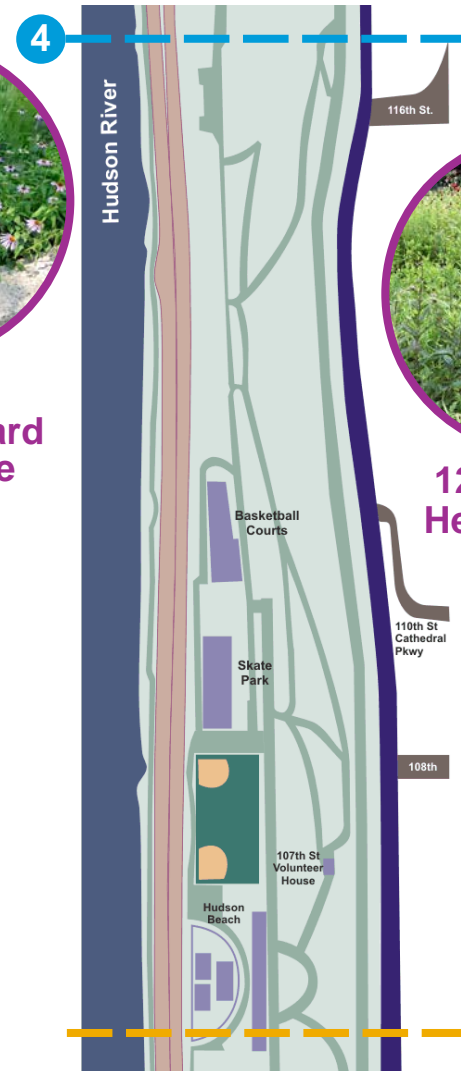
84th Street Hillside



RCTA & Compost Yard Landscape



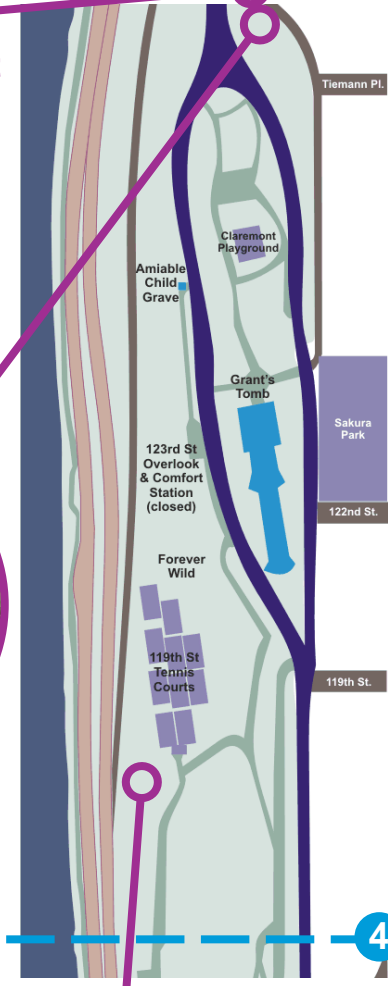
135th Street Greenway



125th Street / Henry Hudson Parkway



119th Street Pollinator Meadow



★ **Soldiers & Sailors Memorial**



W X Y

abb

LER A
1923 100
2023

MCLaren
ENGINEERING GROUP

Soldiers & Sailors Monument Reconstruction

Riverside Park | Design Precedent: Plant Palette within the Park

