Rehabilitation of the West 79th Street Rotunda Complex and West 79th Street Bridge Over Amtrak

Landmarks Preservation Commission
June 2019
Project Background

Listed on the National Register of Historic Places and a contributing element to the Riverside Park/Riverside Drive Scenic Landmark, the West 79th Rotunda Complex is an essential element of Riverside Park and the local community. After over 80 years of use, the Rotunda Complex is in poor condition. This rehabilitation will restore and enhance the structure’s place as a destination and serve as leap forward in New York City’s drive to revitalize the waterfront.
Riverside Park, a Scenic Landmark

Frederick Law Olmsted, co-designer of Central Park, was commissioned in 1873 and submitted a plan combining park and drive into a synthesized landscape which adhered to the general topographical contours of hill and dale. The result, stretching from West 72nd to 125th Streets, was a park with a grand, tree-lined boulevard, combined with an English-style rustic park with informally arranged trees and shrubs, contrasting natural enclosures, and open vistas. - NYCDPR

https://www.nycgovparks.org/parks/riverside-park
Rotunda Structure

Traffic Circle Level

Pedestrian Plaza Level

Garage Level
Historic Photographs

Aerial photograph over Hudson River, 1937

Rotunda and stepped ramp, 1937
Historic Photographs

Fountain and Guastavino ceilings, 1937

Arcade and Guastavino ceilings, 1937

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Historic Photographs
Historic Photographs

Guastavino arches and fountain, 1937

Rotunda opening ceremony, 1937
Historic Drawings
NOTE:
Construction Staging location to be determined by the Contractor. The Contractor will be required to present to LPC for approval during construction phase.

PROJECT LIMITS

Amtrak runs below bridge
Design Approach

- The historically meaningful elements of the structure will be restored to match the original construction as close as is technically feasible.

- New elements will be designed to be elegant, minimal, and transparent, allowing the historic architecture to be appreciated and understood as originally intended.

- New elements to use materials and finishes that complement the materials and finishes seen throughout Riverside Park.
Overview

New Elements and Modifications

- NYCDPR office space and glass façade
- Expand concessionaire space / New door opening to concessionaire space
- Profile pedestrian plaza (eliminate 4” step) within rotunda to meet the adjacent elevation for ADA compliance
- Refurbish and upgrade accessible public restrooms
- Provide multiple accessible ramps for access from street level to Riverside Park.
- Relocate kitchen exhaust shaft

Historic Restoration Elements

- Provide replica historic handrails on terrace and ramps
- Remove wooden stage and restore fountain
- Repair and restore existing masonry walls
- Restore exterior floor finishes
- Restore Guastavino ceilings and resolve water infiltration
- Provide replica historic lighting within the structure
**Traffic Circle Level**

**Scope of Work**

- New roadway concrete deck, steel beams, sidewalks, and approach roadway pavement
- Upgrade lighting for better roadway visibility
- Replace drainage to convey runoff off structure
- Restore stone masonry on existing walls and parapets
- Provide reinforced concrete barrier at traffic circle parapet and improve railing height for cyclists
Existing Conditions

Traffic Rotunda
• Restore parapet wall masonry
• Replace street lighting with NYCDOT Historic Type F Luminaire and Pole
• Repair Traffic Rotunda structure and surface
• Reinforced traffic circle parapet and improved railing height for cyclists

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Geometric Design Improvements

- 18’ Wide Traffic Circle Lane
- Maintains Operations of Large MTA Articulated Buses
- Improved Stopping Sight Distance at Henry Hudson Parkway Exit
- Encourages Reduced Travel Speeds in the Traffic Circle
- Provides Separation of Vehicles and Bicycles
Roadway Traffic Barrier Improvements

- Remove Existing Ashlar Stone Masonry Traffic Barrier and Store for Reuse
- Remove Concrete Deck and Steel Structure
- New Concrete Deck and Steel Structure
- Cut and Reuse Existing Ashlar Granite as Veneer
- New Reinforced Concrete Traffic Barrier
- Reuse Existing Granite Coping
- Black Steel Barrier
- Existing Traffic Circle Light Post to be replaced with NYCDOT Historic Type F Luminaire
- Existing Traffic Circle Barrier to be reinforced
Roadway Traffic Barrier Improvements

- Required Safety Improvements to Provide Standard Bicycle Barrier Height
- Must Meet NYSDOT Standard Detailing Requirements
Roadway Traffic Barrier Improvements

Location of Improved Railing Heights

- Masonry barrier reconstruction
- Concrete barrier

Improved Railing Height
Historic Type F Luminaire and Pole

Note: Although not a replication of the original light fixtures, the Type F Luminaire and Pole will be more representative of the era of the original structure.
Pedestrian Plaza Level

Scope of Work

• New NYCDPR office space
• Expand concessionaire space / New door opening to concessionaire space
• Profile pedestrian plaza (eliminate 4” step) within rotunda to meet the adjacent elevation for ADA compliance
• Replace current modern iron handrails/guiderails on terrace with replica historic handrails/guiderails
• Restore fountain, existing masonry, and Guastavino ceilings
• Repair concrete deck and floor finishes
• Refurbish and upgrade public restrooms
• Restore historic lighting
• Upgrade drainage
• ADA compliant ramp
• Landscaping on North and South side of Rotunda
• ADA compliant ramp connecting pedestrian plaza to terrace level and from terrace level to esplanade level
Existing Conditions

1. Fountain/ Plaza Level
   • Remove stage, restore fountain and floor and wall finishes

2. South East Stepped Ramp
   • Restore floor and wall finishes, masonry and original bronze railings
Existing Conditions

1. Fountain/Plaza Level
   - Restore original floor, wall, ceiling finishes
Proposed Plaza Plan Interventions

- Accessible ramp from terrace to Riverside Park
- Opening at concessionaire space south
- Existing restrooms to be renovated and made ADA accessible
- Three-bay glass storefront to NYC parks administrative area
- Accessible ramp from street level to plaza
Existing Kitchen Exhaust Location
Proposed Kitchen Exhaust Locations

PROPOSED KITCHEN EXHAUST LOCATION 1

PROPOSED KITCHEN EXHAUST LOCATION 2
Proposed Kitchen Exhaust Locations

- Designed for North and South NYCDPR Spaces to provide flexibility for NYCDPR Operations
- Maintains symmetry (same condition on opposite side)
- NYC Building Code Compliant
- Minimally invasive structural modifications
- Reuse of existing stonework to blend with existing structure
- This project will provide the shaft enclosure, NYCDPR’s concessionaire to provide the internal ventilation system at a later date
Proposed Kitchen Exhaust Locations

![Diagram of kitchen exhaust system with labels: Ventilation Shaft Enclosure with Grating/Louver, Landscape, Kitchen Exhaust System (By NYCDPR Concessionaire).]

Proposed Condition
Existing Southeast Stepped Ramp (Street to Plaza)
Existing Southeast Stepped Ramp (Street to Plaza)

**NOTES:**

1. The south planting area was chosen for the location of an accessible ramp due to the existing accessible infrastructure located along the south side of West 79th Street.

2. Landscape and vegetation will be re-graded and restored to accommodate proposed accessible ramp.

3. Tree and shrub locations are based on survey information. All locations shall be field verified. Tree assessment to be coordinated with NYCDPR forestry to determine tree health and potential restitution costs.

4. Landscape Plan still in development, final plan to be approved by NYC Department of Parks and Recreation.

EXISTING TREE
Proposed Accessible Ramp Option (Street to Plaza) and Landscape Plan

NOTES:
1. The ramp design was carefully studied to provide accessibility with minimal impact to the historic design.
2. Drainage and irrigation will be modified to accommodate proposed layout.
3. Landscape Plan still in development, final plan to be approved by NYC Department of Parks and Recreation.
Proposed Accessible Ramp (Street to Plaza) and Landscape Section A

EXISTING STAIR RAMP
PROPOSED ACCESSIBLE RAMP
RE-GRADED PLANTING BED
GARAGE STRUCTURE

STREET LEVEL
PLAZA LEVEL
GARAGE LEVEL
Proposed Accessible Ramp (Street to Plaza) and Landscape Section B
Proposed Accessible Ramp (Street to Plaza) and Landscape Elevation

EXISTING LOW ASHLAR MASONRY WALL
EXISTING STEPPED RAMP
NO INFILL WHERE GUARDRAIL IS NOT REQUIRED DUE TO MINIMAL HEIGHT DIFFERENCE WITH ADJACENT LANDSCAPE
PROPOSED BLACKENED STEEL GUARDRAIL AND HANDRAIL
DEER ISLE GRANITE CURB AND WALL OF PROPOSED ACCESSIBLE RAMP
New Materials Palette: Asphalt Pavers, Deer Isle Granite, Blackened Steel

Black Steel (handrails and guardrails)

Deer Isle Granite Veneer (curb and retaining walls)

Hexagonal Asphalt Pavers (ramp walking surface)

Precedent image: Hexagonal Asphalt Pavers are commonly used in NYC Parks.
New Materials: Handrails and Guardrails

Note: Additional Integrated Handrail LED Lighting details are included in the submitted material/catalog cuts.
Proposed Plant Palette

The proposed accessible ramp will require re-grading and plant removal. A study of existing plant species located in this section of the structure will be utilized to determine the type and location of new plantings.

**SHRUBS**

- **Hydrangea arborescens “Annabelle”**
  - Smooth Hydrangea
  - Height: 3'-5' h, Width: 4'-6' w

- **Hydrangea quercifolia “Snow queen”**
  - Oak Leaf Hydrangea
  - Height: 4'-6' h, Width: 5'-6' w

- **Viburnum carlesii**
  - Koreanspice viburnum
  - Height: 4'-6' h, Width: 4'-7' w

- **Viburnum x rhytidophylloides “Alleghany”**
  - Lantanaphyllum viburnum
  - Height: 8'-10' h, Width: 8'-10' w

- **Ilex crenata ‘Helleri’**
  - Japanese holly
  - Height: 2'-4' h, Width: 3'-5' w

**TREES**

- **Gleditsia triacanthos var. inermis**
  - Honey Locust
  - Height: 60'-80' h, Width: 60'-80' w

- **Quercus bicolor**
  - Swamp White Oak
  - Height: 50'-60' h, Width: 50'-60' w

- **Quercus rubra**
  - Red Oak
  - Height: 50'-75' h, Width: 50'-75' w

- **Malus x ‘Snowdrift’**
  - Snowdrift Crabapple
  - Height: 15'-20' h, Width: 15'-20' w
## Proposed Plant Palette (continued)

### PERENNIALS

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<th>Name</th>
<th>Description</th>
<th>Height</th>
<th>Width</th>
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<tbody>
<tr>
<td>Anemone Canadensis</td>
<td>Canadian anemone</td>
<td>1' - 1.5' h, 1' - 1.5' w</td>
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</tr>
<tr>
<td>Aquilegia Canadensis</td>
<td>Columbine</td>
<td>2' - 3' h, 1' - 1.5' w</td>
<td></td>
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<tr>
<td>Aster cordifolius</td>
<td>Blue wood aster</td>
<td>2' - 3' h, 2' - 3' w</td>
<td></td>
</tr>
<tr>
<td>Aster divaricatus</td>
<td>White wood aster</td>
<td>2' - 3' h, 2' - 4' w</td>
<td></td>
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<tr>
<td>Rudbeckia triloba</td>
<td>Three lobed coneflower</td>
<td>2' - 3' h, 12' - 18' w</td>
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### GROUNDCOVERS

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<th>Name</th>
<th>Description</th>
<th>Height</th>
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<tbody>
<tr>
<td>Carex appalachica</td>
<td>Appalachian sedge</td>
<td>1 h, 8' w</td>
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</tr>
<tr>
<td>Carex pennsylvanica</td>
<td>Oak Sedge</td>
<td>1 h, 1' w</td>
<td></td>
</tr>
<tr>
<td>Heuchera Americana</td>
<td>Hairy alum root</td>
<td>1.5 h, 1.5' w</td>
<td></td>
</tr>
<tr>
<td>Liriope muscari</td>
<td>Lilyturf</td>
<td>1' - 1.5 h, 1' w</td>
<td></td>
</tr>
<tr>
<td>Polystichum acrostichoides</td>
<td>Christmas fern</td>
<td>1' - 1.5 h, 1' - 1.5' w</td>
<td></td>
</tr>
</tbody>
</table>
Existing Photos at Proposed Accessible Ramp from Terrace to Riverside Park

Note: From the Hudson River Esplanade, existing trees will reduce visual impact of the new ramp on the historic structure.
Proposed Accessible Ramp from Terrace to Riverside Park
Accessible Ramp from Terrace to Riverside Park

EXISTING ELEVATION

EXISTING ASHLAR MASONRY WALL WITH GRANITE COPING

DAMAGED DECORATIVE TILE OPENING

PROPOSED ELEVATION

ACCESSIBLE RAMP FROM PLAZA TO TERRACE

RESTORE DECORATIVE TILE GRILLE

RESTORE HISTORIC BRONZE RAILING ON TERRACE AND STEPPED RAMP

DEER ISLE GRANITE WALL

BLACKENED STEEL HANDRAILS AND GUARDRAILS
Photos at Proposed NYC Parks Administrative Office Location

NOTE: Photo taken from Garage Level looking up
Proposed NYC Parks Administrative Office Location

EXISTING BLIND ARCADE

FOUNTAIN TO BE RESTORED

LOCATION OF NEW ADMINISTRATIVE OFFICE
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Proposed NYC Parks Administrative Office

1. Existing Blind Arcade

Proposed Plan (see next slide for proposed elevations)

EXISTING DAMAGED ASHLAR MASONRY

EXISTING 3 ½” STEP

Elevation at NYC Parks Administrative Office Façade
Proposed NYC Parks Administrative Office (continued)

1. Proposed Administrative Office Storefront (view from exterior)
   - ROTUNDA BARRIER
   - REPAIR ASHLAR MASONRY
   - STOREFRONT MULLIONS BEHIND EXISTING STRUCTURE
   - BLACK STEEL FRAMING AROUND DOOR
   - BUTT GLAZED TO MINIMIZE STOREFRONT APPEARANCE
   - EXTERIOR BLUESTONE PAVEMENT TO BE SLOPED TO ELIMINATE 3 ½" STEP

2. Proposed Administrative Office Storefront (view from interior)
   - BLACK STEEL SECURITY DOOR ENCLOSURE
   - HISTORIC ARCH STRUCTURE BEYOND
   - BLACK STEEL MULLIONS VISIBLE FROM INTERIOR
Proposed Alternate NYC Parks Administrative Office

1. Proposed Administrative Office Storefront (view from exterior)

- ROTUNDA BARRIER
- REPAIR ASHLAR MASONRY
- ULTRA NARROW STOREFRONT MULLIONS
- MINIMAL BLACK STEEL FINISH AROUND DOOR
- EXTERIOR BLUESTONE PAVEMENT TO BE SLOPED TO ELIMINATE 3 ½" STEP
Proposed NYC Parks
Administrative Office (continued)

- The automated security gate is proposed behind the glass storefront in accordance with LPC guidelines.

- Mullions, louvers, and electrical devices located behind existing historic structure, obscured from view from the Plaza.
Proposed NYC Parks Administrative Office (continued)

Proposed Administrative Office Storefront (view from interior)
Security Doors

SteelWeave Metal Mesh Grille

- Motor Operation
- Mesh provides transparency
- Aesthetic Trim
- Placed behind glass facade for minimal visual impact
Precedent for Storefront Replacement at Blind Arcade:
Restoration of 102nd Street Field House
NYC Parks
Administrative Office and Fountain Level Restoration Rendering

Note:
Safety railing at traffic circle level is currently under development.

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Existing Photos at Proposed Concessionaire Space South

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Elevation at New Concessionaire Spaces
Elevation at Proposed Concessionaire Space South

1. EXISTING ELEVATION

2. PROPOSED ELEVATION

EXISTING DOOR

PROPOSED DOUBLE DOOR TO CONCESSIONAIRE SPACE SOUTH. MATCH EXISTING BRONZE DOOR AND ADJACENT MASONRY

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Elevation at New Concessionaire Spaces
Concessionaire Space South

SECTION A

EXISTING GARAGE

CONCESSIONAIRE SPACE SOUTH

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Elevation at New Concessionaire Spaces
Accessible Drinking Fountain/Bottle Filler

- NYCDPR Standard Details
- Conveniently Located Near Bike Path and Esplanade
Garage Level

Scope of Work

- Expand NYCDPR Maintenance and Operations Office
- Repair concrete ramps
- Removal of existing concrete encasement to accommodate structural framing repairs and upgrades
- Replace all three stairs to pedestrian plaza
- Restore stone masonry on exterior
- Replace lighting and drainage systems
- Replace or repair mechanical, electrical, and plumbing elements
Existing Conditions

Garage Level
Structure supporting the historic plaza and Rotunda levels above will also be rehabilitated to mitigate leaking, structural, and electrical issues.
Appendix 1
ADA Ramp Studies
Ramp Studies

Several ramp configuration designs were tested. Due to the conflicts with the garage roof structure directly below, these designs were not feasible.
Ramp Studies (continued)

Several ramp configuration designs were tested. Due to the conflicts with the garage roof structure directly below, these designs were not feasible.
Ramp Studies (continued)

Several ramp configuration designs were tested. Due to the conflicts with the garage roof structure directly below, these designs were not feasible.
Appendix 2
Restoration Items
Historic Features to be Restored: Guastavino Ceilings

- Retain Historic Geometry and Method of Construction
- Field Investigations
  - Sampling/Testing of Materials
  - Visual Inspection
- Preliminary Structural Analysis
  - Historical Methods used by R. Guastavino Company and/or Finite Element Analysis
- Performance Specifications
  - Contractor/Engineer Qualifications
  - Replication of Tiles/Mortars
  - Waterproofing
  - Mock-Up/Load Testing

Note: Field Investigations Currently Ongoing
Historic Features to be Restored: Terracotta Tile Grilles at Restrooms

Tiled Grilles Window Opening 1937

Existing Condition

Elevation

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Historic Features to be Restored: Terracotta Tile Grilles at Vents
Historic Materials and Finishes to be Restored: Bronze

- **Turtle Sculptures**
- **Fountain Inlet Cap**
- **Continuous Bronze Drain**
- **Bronze Railing**
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Historic Materials and Finishes to be Restored: Granite

Granite Texture
Granite Seat Pieces

Fountain Basin Plan
Fountain Basin Section
Fountain Basin Elevation

Materials Selection
Granite

a Fountain Seating  b Paving  c Borders
d Spout Basin  e Rotunda Steps
The proposed thermal bluestone aims to preserve historic appearance while providing an ADA accessible finish.

**Note:** All historic material to be salvaged and returned to NYC DPR for use in other locations.
Historic Materials and Finishes to be Restored: Quarry Tile

Terracotta Tile under Guastavino ceilings

Terracotta Quarry Tile Segment

a Quarry Tile

b Quarry Tile Continued

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City of New York Department of Transportation Department of Parks and Recreation

Materials Selection Quarry Tile
Historic Materials and Finishes to be Restored: Hexagonal Field Stone

- Hexagonal 6” Field Tile
- Field Tile Continued
Historic Features to be Restored: Light Fixtures

LEGEND

A Light Fixture Type One

B Light Fixture Type Two

C Light Fixture Type Three

Note: Historic light fixtures are based on available information and will be reproduced by the Contractor using a performance specification in the Contract Documents.
Historic Features to be Restored: Light Fixtures

Note: Historic light fixtures are based on available information and will be reproduced by the Contractor using a performance specification in the Contract Documents.
Historic Features to be Restored: Light Fixtures

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Historic Features to be Restored: Light Fixtures

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Historic Features to be Restored: Light Fixtures

Light Fixture Type A

**Section**

**Reflected Plan Looking Up**

**NOTE:**

1. LIGHT FIXTURE WILL BE SPECIFIED TO REPLICATE AESTHETIC OF THE HISTORIC FIXTURES

2. THE LIGHT FIXTURE WILL MEET CURRENT NYC CODE REQUIREMENTS FOR LIGHT LEVELS AND ENERGY COMPLIANCE

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Historic Fixture

Historic Fixture
Historic Features to be Restored: Light Fixtures

Light Fixture Type B

Section

Reflected Plan Looking Up

NOTE:

1. LIGHT FIXTURE WILL BE SPECIFIED TO REPLICATE AESTHETIC OF THE HISTORIC FIXTURES

2. THE LIGHT FIXTURE WILL MEET CURRENT NYC CODE REQUIREMENTS FOR LIGHT LEVELS AND ENERGY COMPLIANCE
Historic Features to be Restored: Light Fixtures

Light Fixture Type C

Historic Fixture

Elevation

Reflected Plan Looking Up

NOTE:

1. LIGHT FIXTURE WILL BE SPECIFIED TO REPLICATE AESTHETIC OF THE HISTORIC FIXTURES

2. THE LIGHT FIXTURE WILL MEET CURRENT NYC CODE REQUIREMENTS FOR LIGHT LEVELS AND ENERGY COMPLIANCE