# DESIGN FOR HIGH BRIDGE REHABILITATION

## Contract M-037-707M

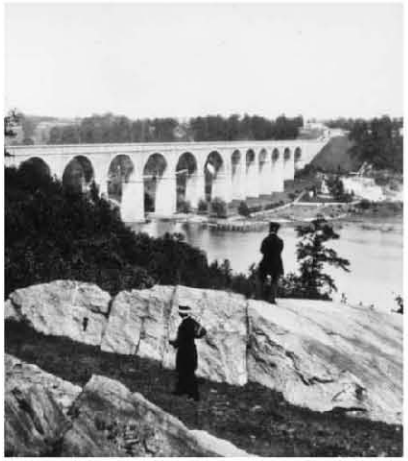
Landmarks Preservation Commission • April 5, 2011

# HIGH BRIDGE CHRONOLOGY

| | |
|---|---|
| 1837-1842 | Old Croton Aqueduct constructed |
| 1839-1848 | High Bridge constructed with fifteen masonry arches conveying two 36" water pipes |
| 1861-1864 | Side walls of High Bridge raised to accommodate new 90 1/2" pipe; New brick walkway and railings |
| 1926 -1928 | Five masonry arches replaced with single steel arch to accommodate navigation in Harlem River |
| 1958 | Old Croton Aqueduct removed from service across the High Bridge |
| 1960 | Land Transfer from DEP to DPR |
| 1970 | High Bridge awarded individual landmark designation (LPC) |
| 1972 | High Bridge listed on National Register of Historic Places |
| 1979 | Rehabilitation of the High Bridge including: repairs to brick paving and bridge railings, resetting of the cap stones and granite stairs, and installation of metal gates |
| 1992 | Old Croton Aqueduct designated National Historic Landmark (including High Bridge) |

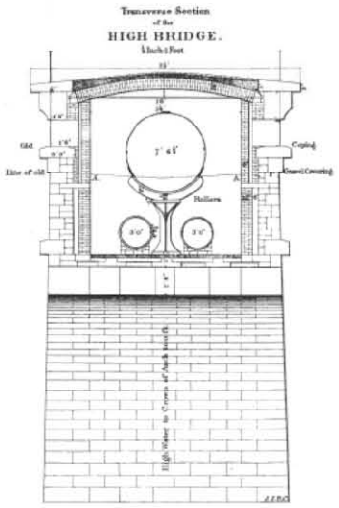
## 1839 - 1848 Original Construction

1843. *Croton Aqueduct at Harlem River Tower.* Fayette, B. ( Museum of the City of New York )



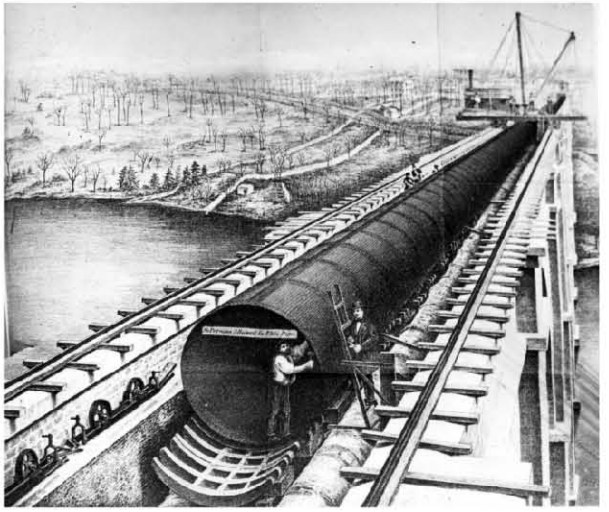
1859. *Riverbank View of Arched Bridge.* England, William. ( Corbis, Hulton-Deutsch Collection )

## 1860 - 1864 The Great Pipe




1862. *Transverse Section of the High Bridge.* ( DEP Archives, Lantern Slide Collection)

1860-61. *High Bridge during Construction of the Large Main Viewed from the New York Side Looking East.* ( DEP Archives, Lantern Slide Collection )

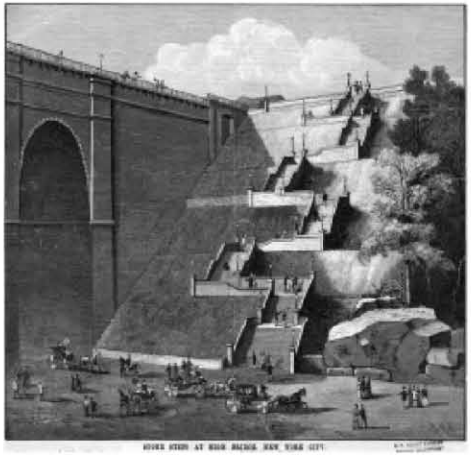


1862. *High Bridge during Construction of the Large Main Viewed from the West Gate House Looking East.* ( DEP Archives, Lantern Slide Collection )

# 1885 - 1925 Landscape Development

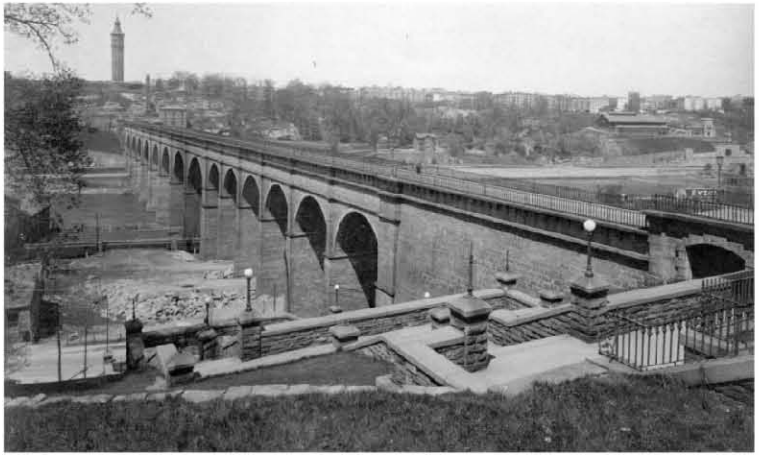
1916. *High Bridge and High Service Tower View North Up the Harlem River.* Manger, S. ( DEP Archives, Catskill Photo Collection )

1910 ca. *Harlem Speedway towards High Bridge.* McFadden, W. R. ( Museum of the City of New York, Print Archives )



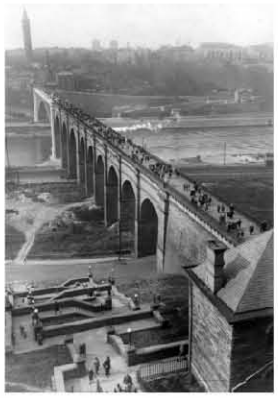
1886. *Stone Steps at High Bridge, New York City.* ( New York Public Library, Mid-Manhattan Picture Collection )

1902. *The Speedway Near High Bridge, N.Y.* Loeffler, A. ( Corbis )

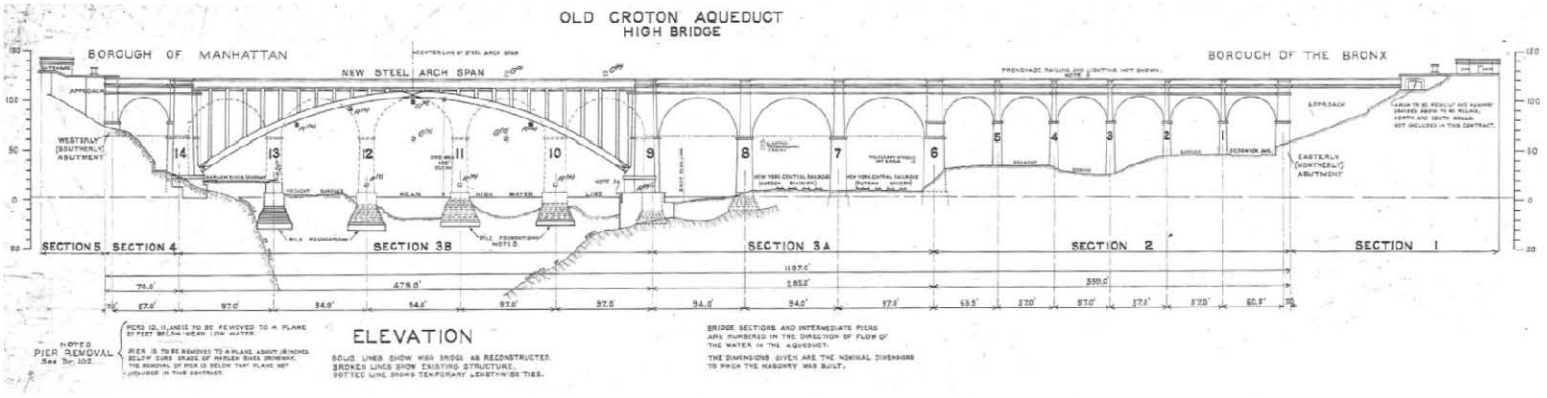


1916. *High Bridge Aqueduct Crossing the Harlem River Looking Northeast.* (DEP Archives )

# 1926 - 1928 The Steel Span



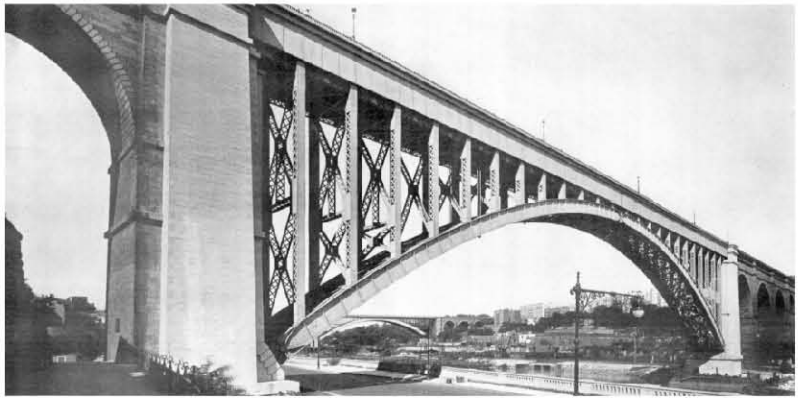
1928. *High Bridge.* ( Archive/The New York Times/Redux )



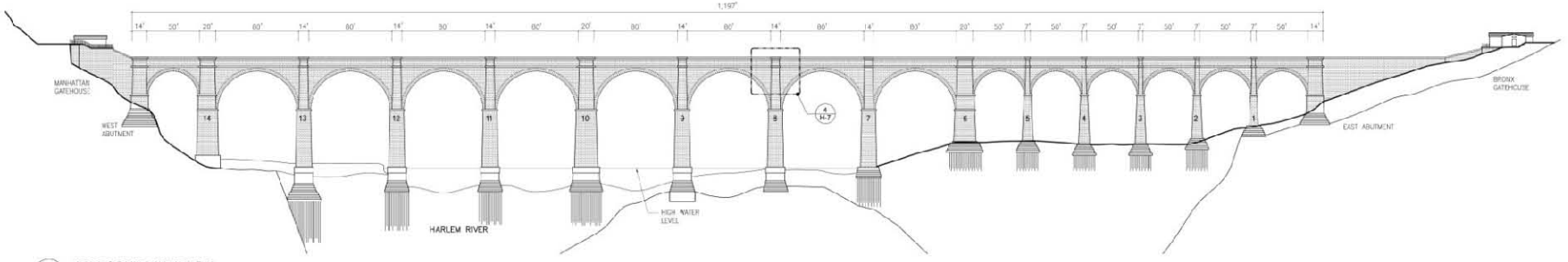

1926. *High Bridge Reconstruction over Harlem River Between the Boroughs of Manhattan and the Bronx, Location Plan.* Department of Plant and Structures. ( DEP Archives )

1924. *High Bridge View Showing Traveler.* Salignac, Eugene de. ( Municipal Archives, BPS Collection )

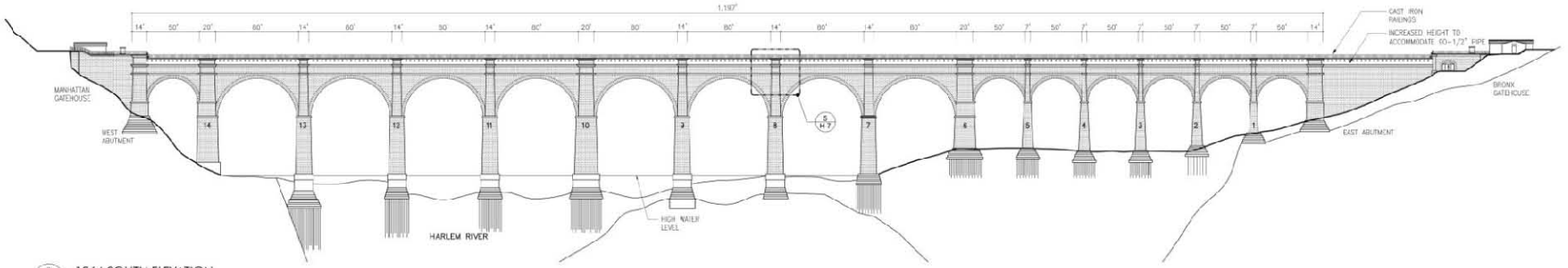
1927. *High Bridge General View from Harlem River Drive Looking Northeast.* Salignac, Eugene de. (Municipal Archives, BPS Collection)



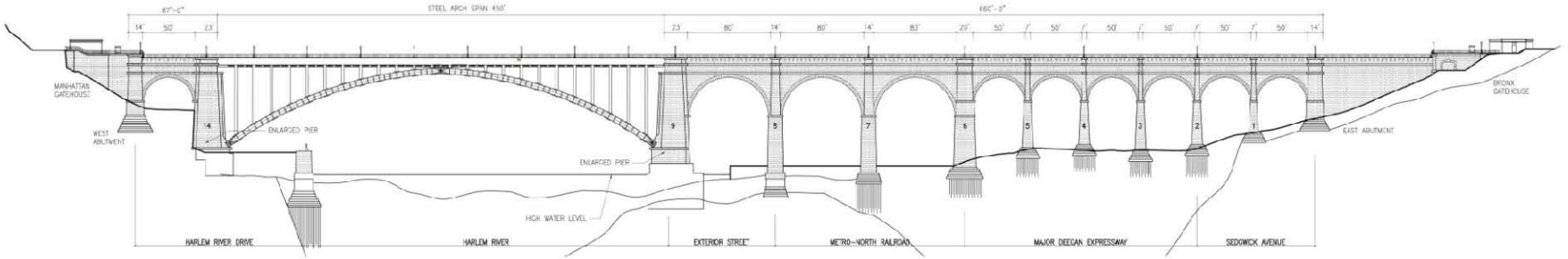
1928 ca. *High Bridge over Harlem River, New York City.* McClintic-Marshal Company. ( Hagley Museum and Library, Bethlehem Steel Collection )




1 H-6 1848 SOUTH ELEVATION
SCALE: 1" = 40'




2 H-6 1864 SOUTH ELEVATION
SCALE: 1" = 40'




3 H-6 1928 SOUTH ELEVATION
SCALE: 1" = 40'

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
05 April 2011

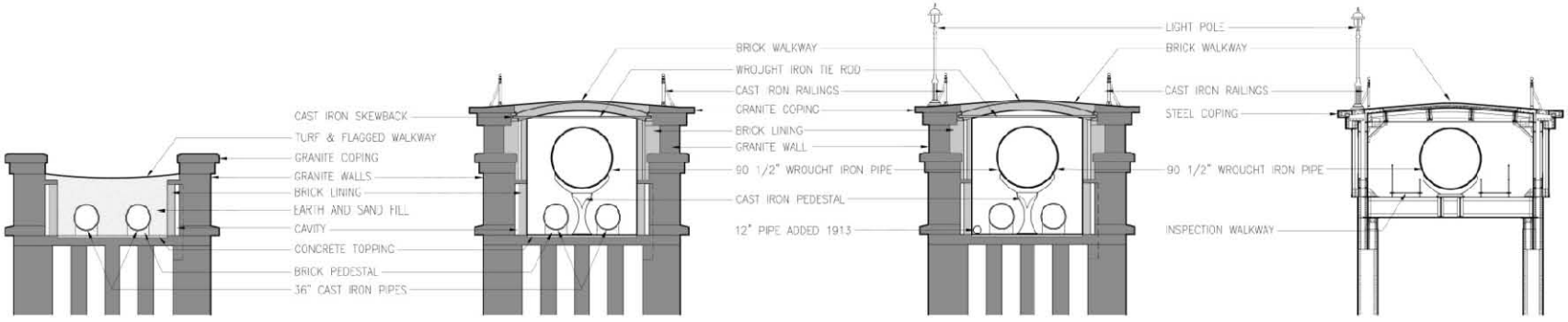
**H-6** (Sheet 8 of 50)
**Chronological Elevations**

Scale: As Noted

Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

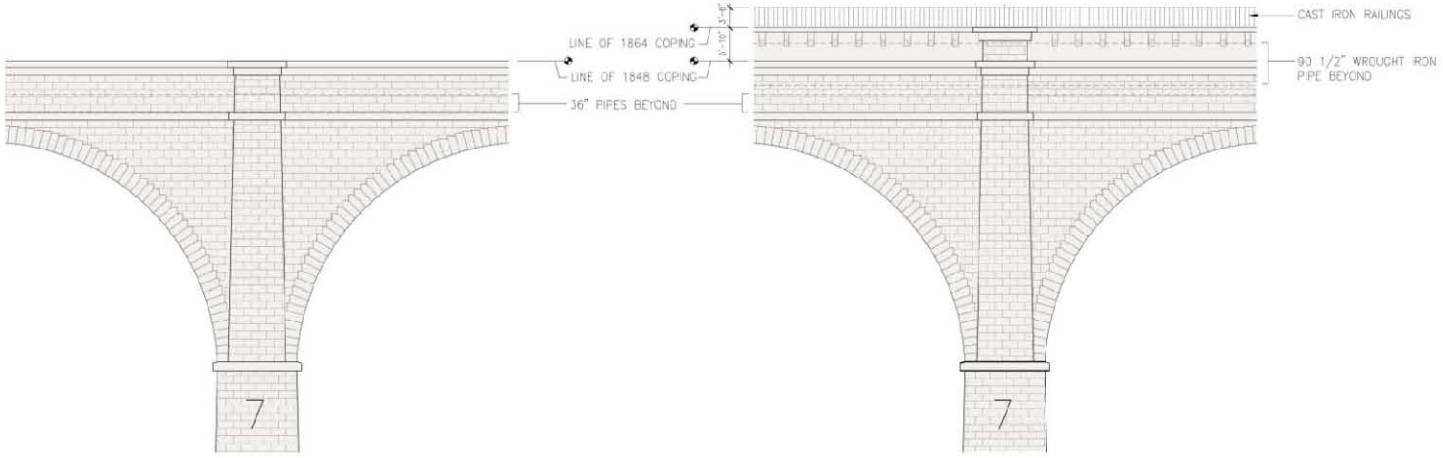
MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design




1 H-7 BRIDGE SECTION - 1848
SCALE: 3/16" = 1'-0"

2 H-7 BRIDGE SECTION - 1864
SCALE: 3/16" = 1'-0"

3 H-7 BRIDGE SECTIONS - 1928
SCALE: 3/16" = 1'-0"




4 H-7 ELEVATION DETAIL - 1848
SCALE: 1/8" = 1'-0"

5 H-7 ELEVATION DETAIL - 1864
SCALE: 1/8" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
05 April 2011

**H-7 (Sheet 9 of 50)**
**Chronological Sections & Detail Elevations**
Scale: As Noted

Lichtenstein Consulting Engineers

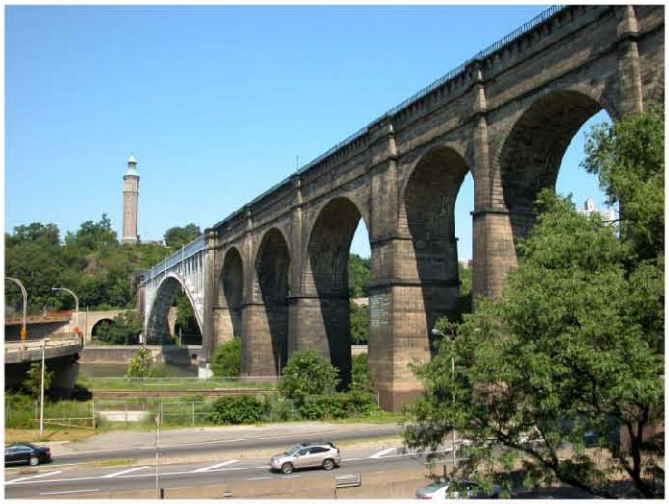
LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

# EXISTING AERIAL VIEW

AERIAL VIEW, 2010

# MASONRY AND STEEL SPANS



VIEW OF SOUTH ELEVATION FACING MANHATTAN

VIEW OF SOUTH ELEVATION FACING THE BRONX

VIEW OF SOUTH ELEVATION OF THE STEEL SPAN

VIEW OF NORTH ELEVATION OF MASONRY SPAN

# EXISTING CONDITIONS - BRICK WALKWAY


AERIAL VIEW OF WALKWAY FACING EAST


VIEW OF WALKWAY FACING EAST


VIEW OF WALKWAY FACING WEST


1862 herringbone paving


Juncture of 1862 herringbone paving & 1928 running bond paving


Deteriorated running bond brick units at expansion joint


Expansion joint detail a steel span center hinge


Example of non-matching brick patch circa 1970s


Manhole cover installed at vault light opening in metal span


Manhole cover installed at vault light opening in masonry span


Cast iron vault light seen from bridge attic


Bridge attic & pipe at masonry span


Bridge attic & pipe at steel span

# EXISTING CONDITIONS - RAILINGS AND LIGHTING

GATEHOUSE RAILING 1850

MASONRY SPAN RAILING 1864

STEEL SPAN RAILING 1928

Historic cast iron finial at the 1850 rail

Non-Historic cast iron finial (1979 ca. ) at expansion joint

Expansion joint detail at the metal span

Non-original in-board bracing at 1864 rail

Cracked cast iron rail post at metal span

Missing capital at cast iron baluster at metal span

Non-original in-board bracing at 1864 rail

Missing cast iron scrolls at masonry abutment steps

Deteriorated rail post base at metal span

Typical Brace at 1850 rail, set in granite coping

In-board (non-original) and out-board rail bracing at 1850 rail

Out-board bracing at 1928 rail

Cast iron light pole (1935 ca.) and cast iron scrolls at bridge steps

Cast iron light pole at metal span (1935 ca.)

Cast iron light pole at masonry pier (1935 ca.)

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

**Rehabilitation of the High Bridge**

Borough of Manhattan & Bronx

05 April 2011

**E-4** (Sheet 13 of 50)

**Existing Conditions: Railings and Lighting**

Scale: As Noted

Lichtenstein Consulting Engineers

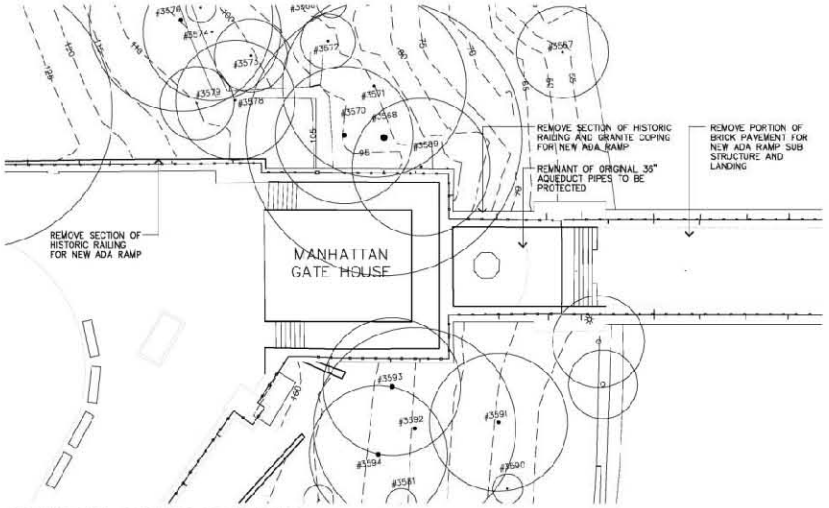
LI·SALTZMAN ARCHITECTS, P.C. ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC. Landscape Architecture | Site Planning | Urban Design

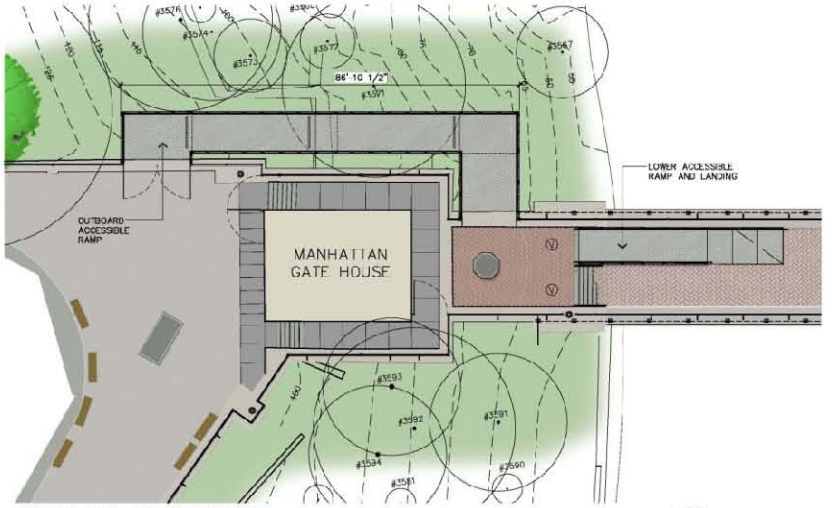
HIGHBRIDGE PARK - MANHATTAN

MANHATTAN GATEHOUSE PLAZA
Location of entrance to new ramp and gates

MANHATTAN GATEHOUSE PLAZA
Location of new ramp (right side)



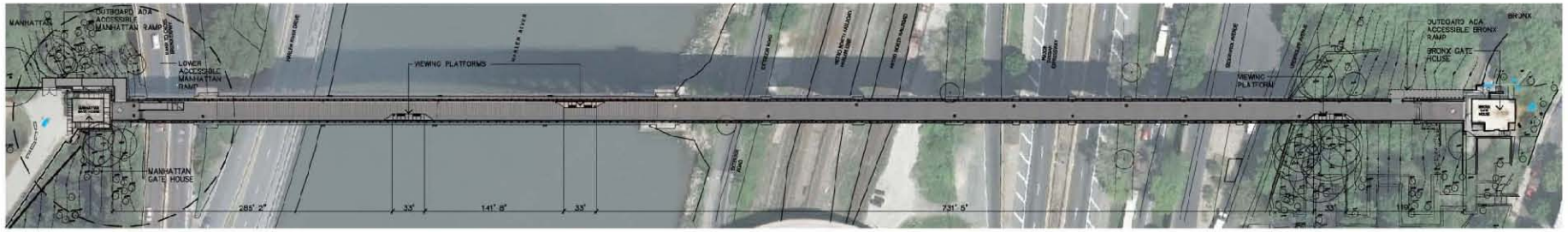

MANHATTAN - EXISTING CONDITIONS




MANHATTAN - PROPOSED PLAN

NORTH

SCALE: 1"=10'-0"




OVERALL PLAN

NORTH

SCALE: 1"=40'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

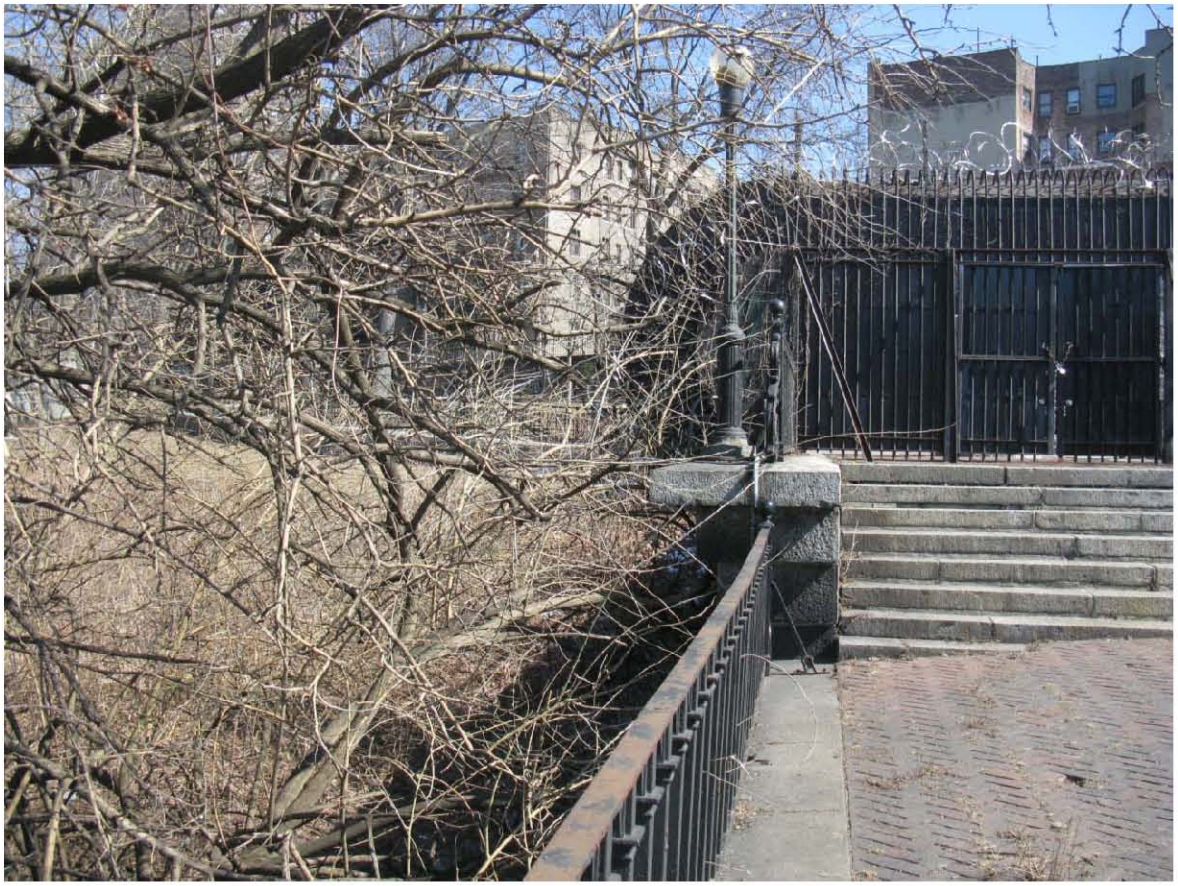
**L-1A (Sheet 16 of 50)**
**Manhattan Existing & Proposed Plan**
Scale: As Noted

Lichtenstein Consulting Engineers

LI·SALTZMAN ARCHITECTS, P.C. ARCHITECTURE AND PRESERVATION

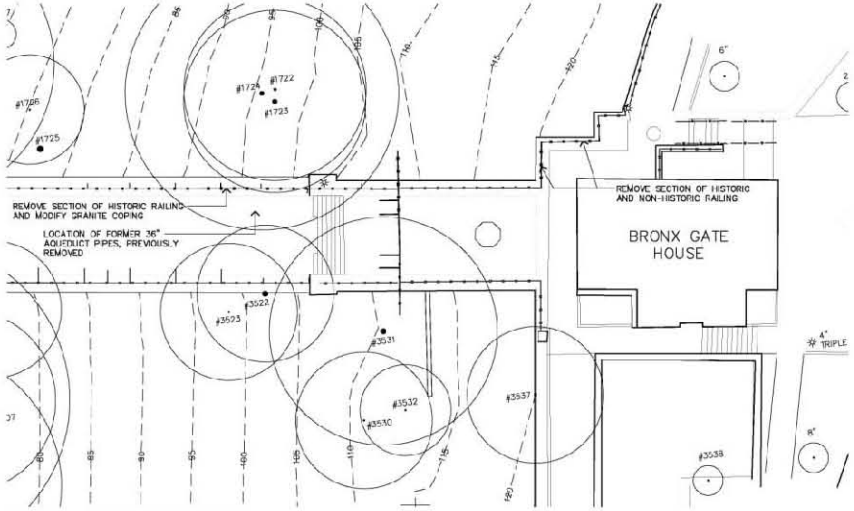
MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

BRONX GATEHOUSE PLAZA
Location of new ramp as seen from the bridge

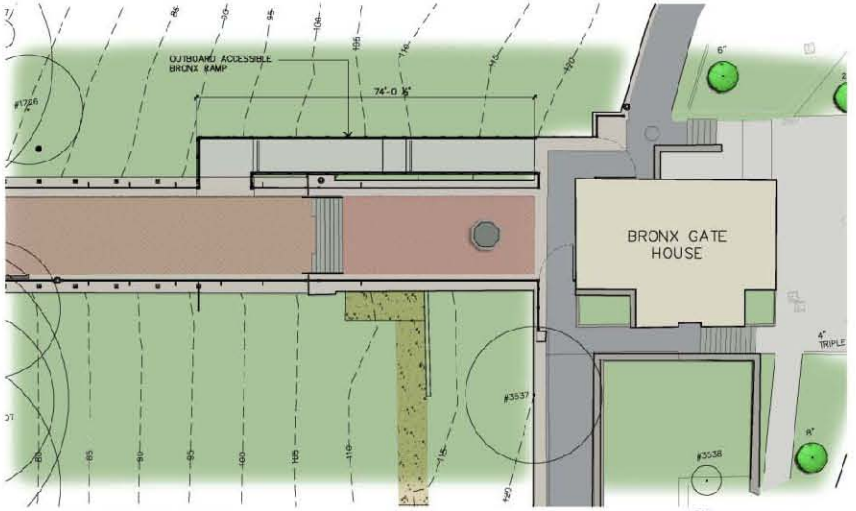


BRONX ABUTMENT STEPS
Location of new ramp (left side)

BRONX GATEHOUSE PLAZA
Location of new ramp as seen from plaza




BRONX - EXISTING CONDITIONS




BRONX - PROPOSED PLAN


OVERALL PLAN

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-1B (Sheet 18 of 50)**

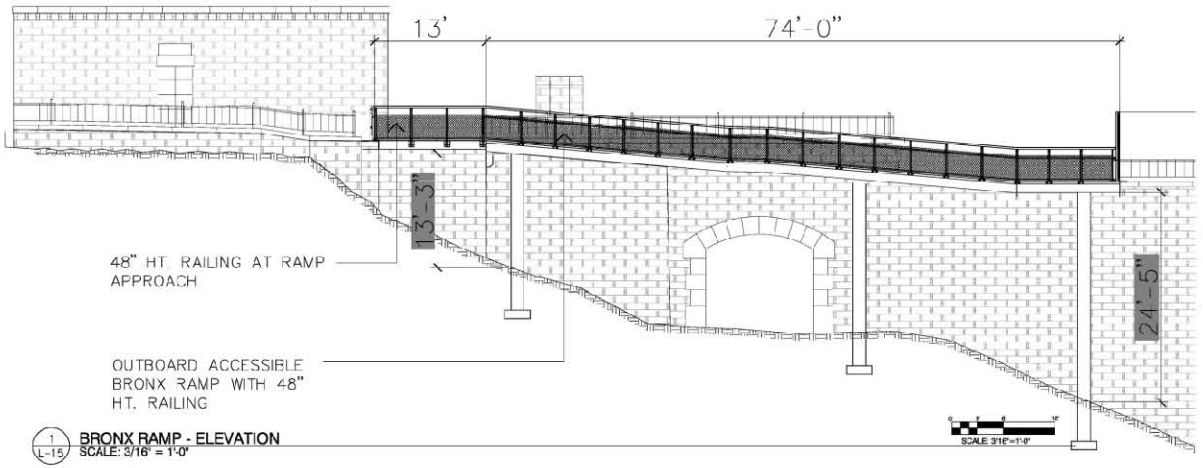
**Bronx Existing & Proposed Plan**

Scale: As Noted

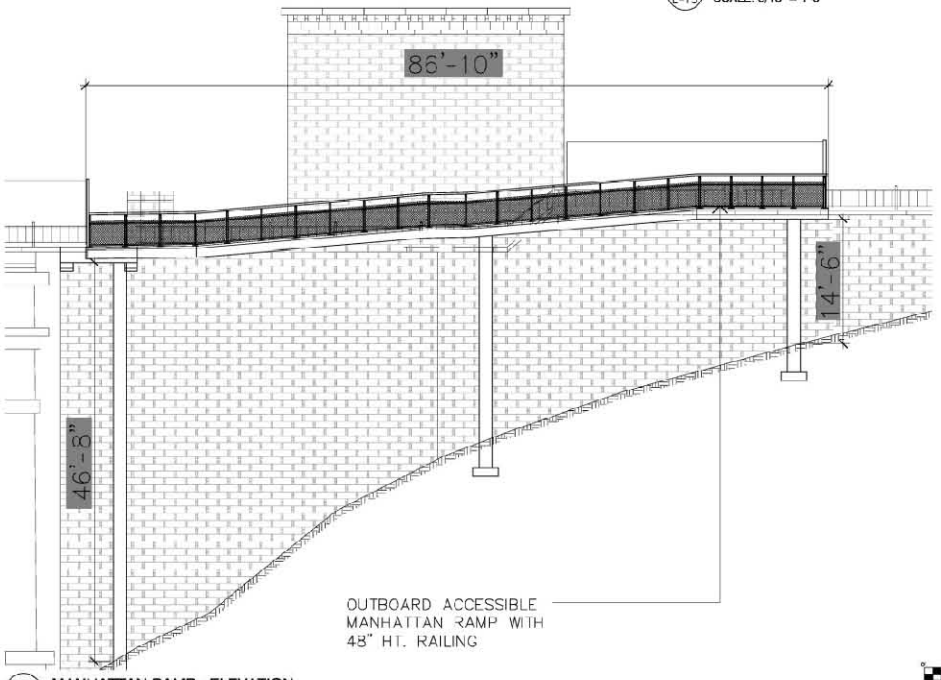
Lichtenstein Consulting Engineers

LJ SALTZMAN ARCHITECTS, P.C. ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC. Landscape Architecture | Site Planning | Urban Design




1 / L-15 BRONX RAMP - ELEVATION
SCALE: 3/16" = 1'-0"




2 / L-15 MANHATTAN RAMP - ELEVATION
SCALE: 3/16" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-2** (Sheet 19 of 50)

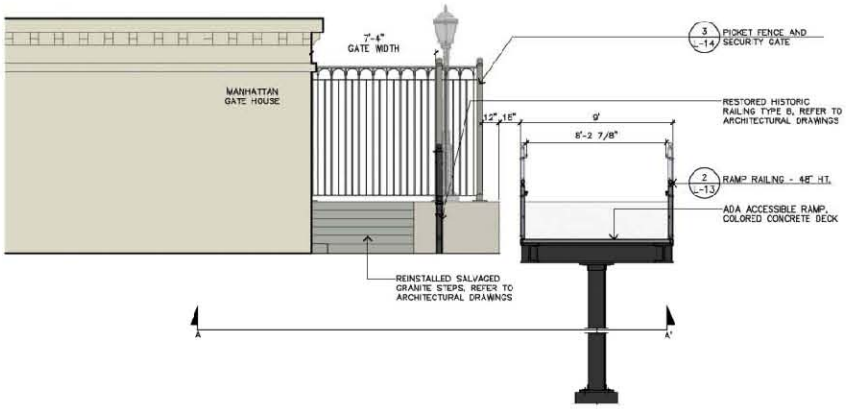
**Outboard Ramp Elevations**

Scale: As Noted

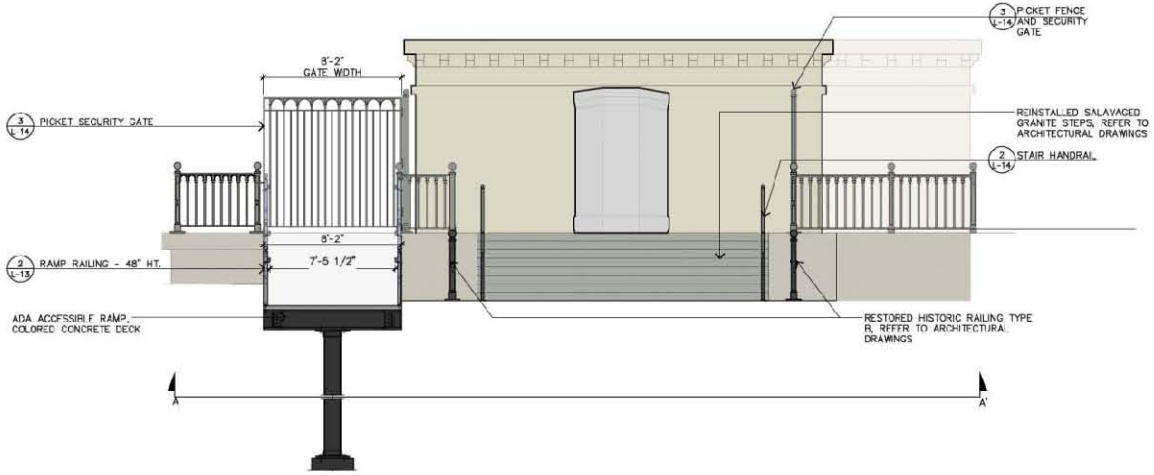
Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C. ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC. Landscape Architecture | Site Planning | Urban Design




1 L-3 MANHATTAN - OUTBOARD RAMP SECTION




2 L-3 BRONX- OUTBOARD RAMP SECTION

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-3** (Sheet 20 of 50)

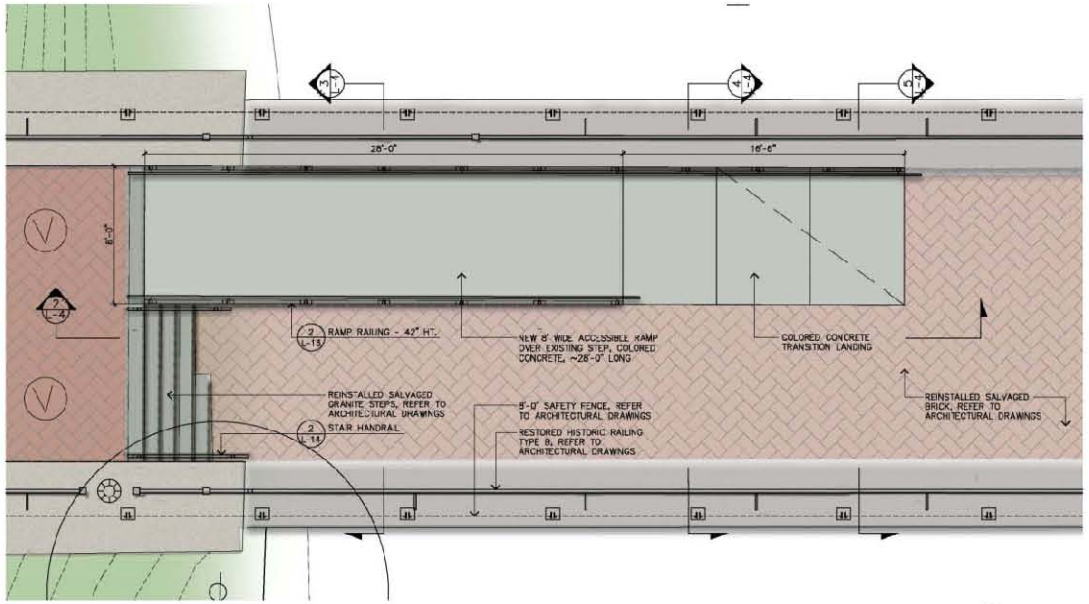
**Bronx & Manhattan Outboard Ramps**

Scale: As Noted

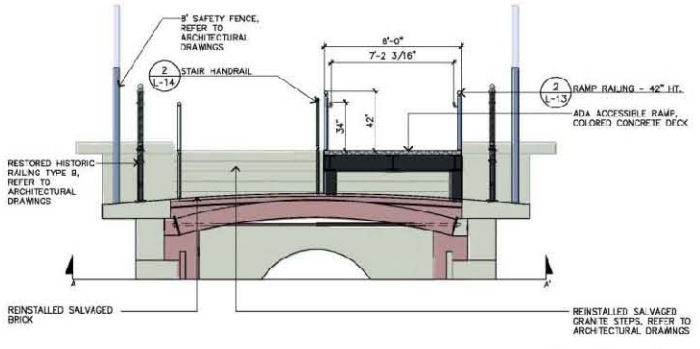
Lichtenstein Consulting Engineers

LI•SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

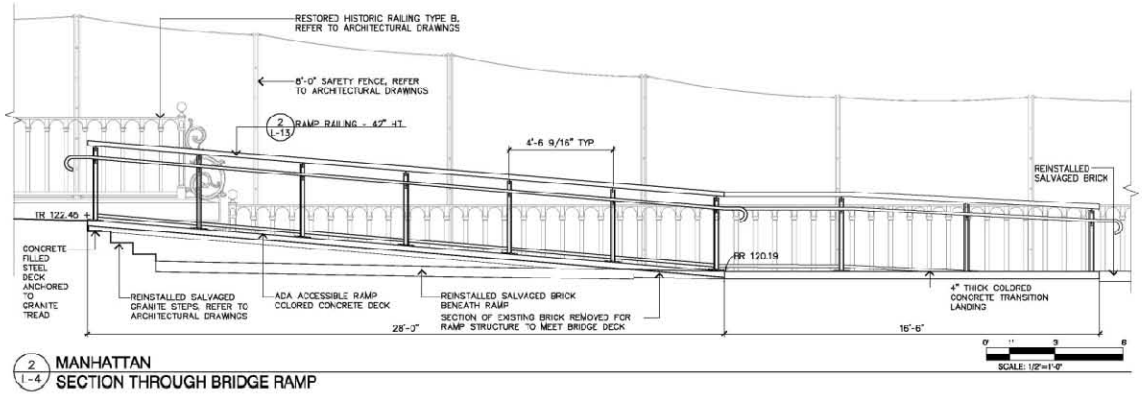
MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design



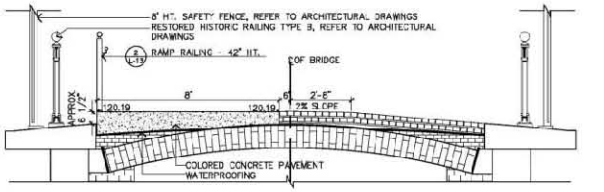

1 L-4 MANHATTAN
BRIDGE ACCESS PLAN



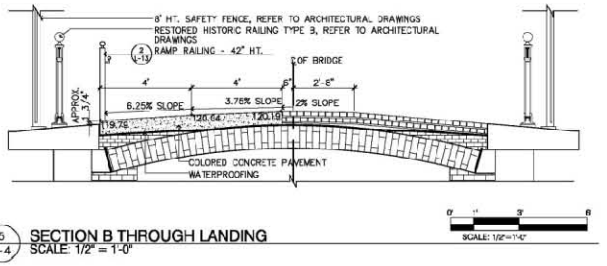

3 L-4 MANHATTAN
BRIDGE RAMP SECTION




2 L-4 MANHATTAN
SECTION THROUGH BRIDGE RAMP




4 L-4 SECTION A THROUGH LANDING
SCALE: 1/2" = 1'-0"




5 L-4 SECTION B THROUGH LANDING
SCALE: 1/2" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-4** (Sheet 21 of 50)
**Manhattan - Access Ramp**
Scale: As Noted

Lichtenstein Consulting Engineers

LI·SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-5** (Sheet 22 of 50)

**Manhattan 3D View - Ramp View**

Scale: Not to Scale

Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-7** (Sheet 23 of 50)

**Manhattan 3D View - Bridge View**

Scale: Not to Scale

Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-8** (Sheet 24 of 50)

**Bronx 3D View - Gate View**

Scale: Not to Scale

Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-9** (Sheet 25 of 50)

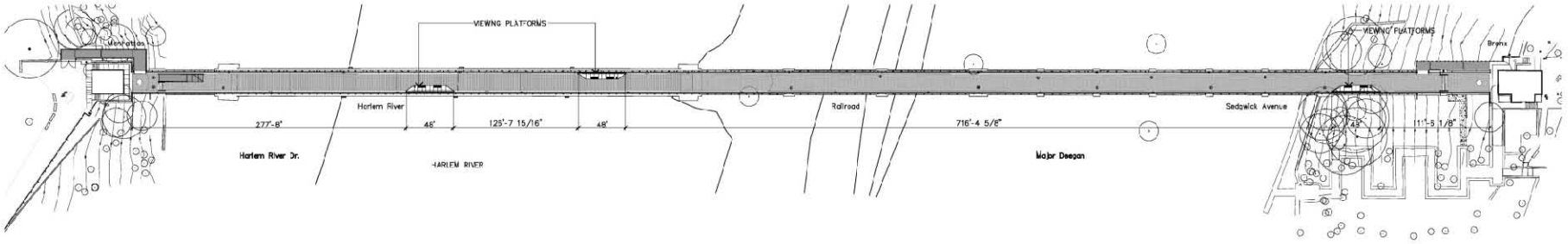
**Bronx 3D View - Bridge View 2**

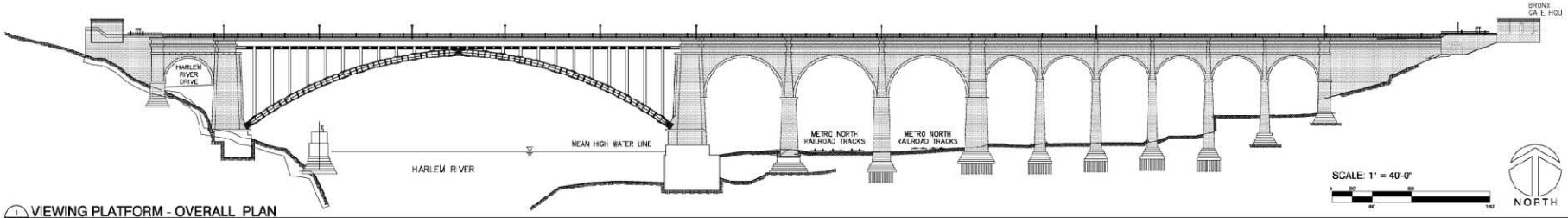
Scale: Not to Scale

Lichtenstein Consulting Engineers

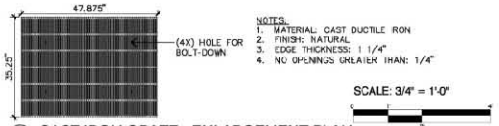
LI · SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

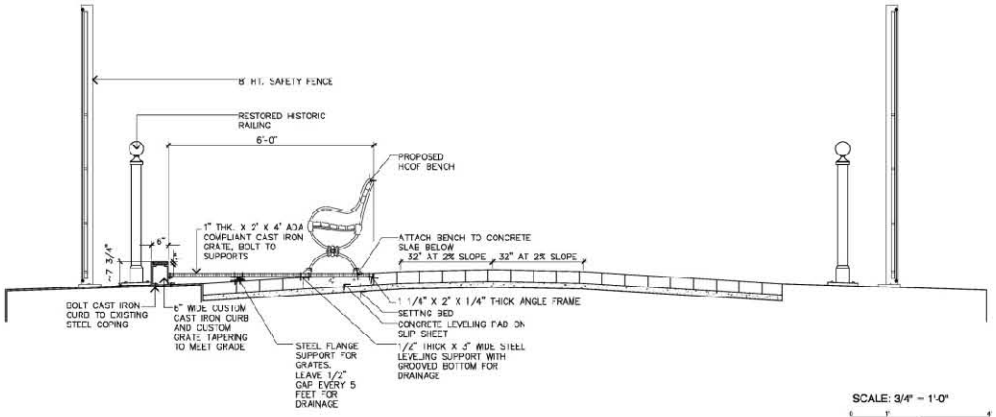


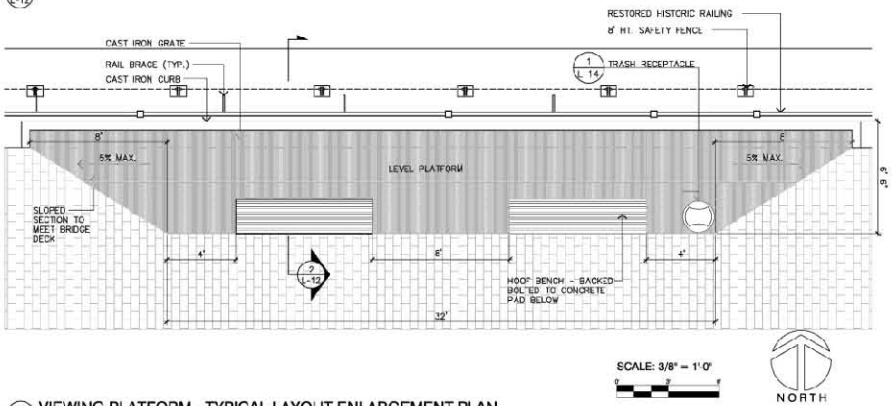

1 L-12 VIEWING PLATFORM - OVERALL PLAN




3 L-12 CAST IRON GRATE - ENLARGEMENT PLAN




2 L-12 VIEWING PLATFORM - SECTION ELEVATION




4 L-12 VIEWING PLATFORM - TYPICAL LAYOUT ENLARGEMENT PLAN

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-12 (Sheet 26 of 50)**

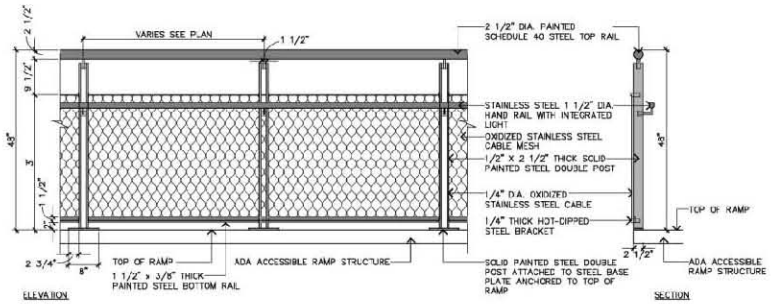
**Site Details: View Platform**

Scale: As Noted

Lichtenstein Consulting Engineers

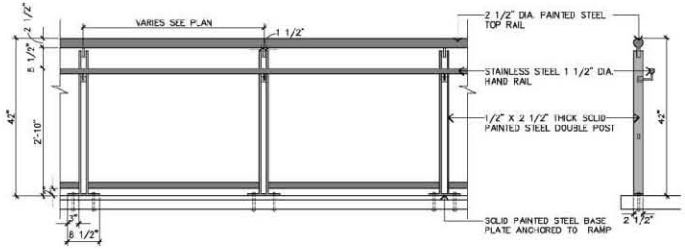
LI-SALTZMAN ARCHITECTS, P.C. ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC. Landscape Architecture | Site Planning | Urban Design




1 / L-13 RAMP RAILING - 48" HT. WITH CABLE NETTING
SCALE: 1" = 1'-0"

3 / L-13 RAMP RAILING - 48" HT. - 3D VIEW
SCALE: N.T.S.




2 / L-13 RAMP RAILING - 42" HT.
SCALE: 1" = 1'-0"

4 / L-13 RAMP RAILING - 42" HT. - 3D VIEW
SCALE: N.T.S.

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

**Rehabilitation of the High Bridge**

Borough of Manhattan & Bronx
03 March 2011

**L-13** (Sheet 29 of 50)

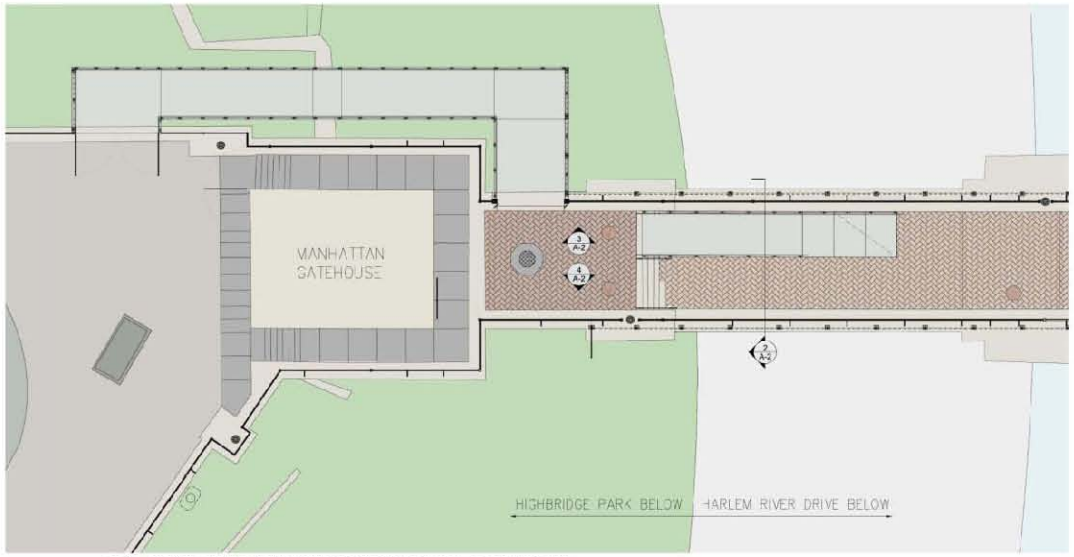
**Site Details: Railing Details**

Scale: As Noted

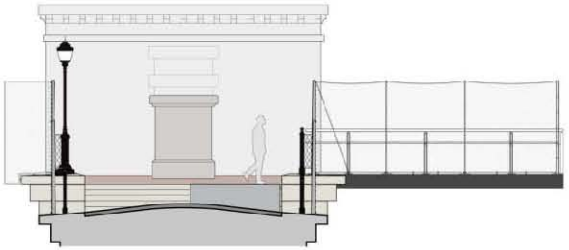
Lichtenstein Consulting Engineers

LI·SALTZMAN ARCHITECTS, P.C. ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC. Landscape Architecture | Site Planning | Urban Design

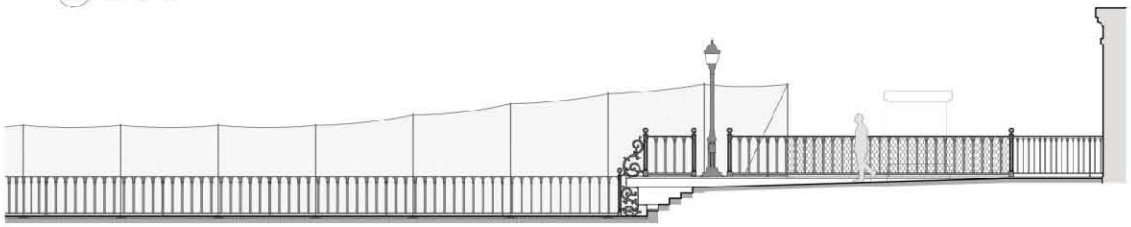



1 A-2 PARTIAL PLAN & ELEVATION OF FENCE & RAILING AT MANHATTAN
SCALE: 1/8" = 1'-0"



2 A-2 ELEVATION/SECTION OF FENCE & RAILING AT MANHATTAN STEPS
SCALE: 1/8" = 1'-0"

3 A-2 ELEVATION/SECTION OF FENCE & RAILING AT MANHATTAN STEPS
SCALE: 1/8" = 1'-0"



4 A-2 ELEVATION/SECTION OF FENCE & RAILING AT MANHATTAN STEPS
SCALE: 1/8" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

**Rehabilitation of the High Bridge**
Borough of Manhattan & Bronx
05 April 2011

**A-2 (Sheet 34 of 50)**
**Design: Partial Plan & Elevation of Fence & Railing at Manhattan**
Scale: As Noted

Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
03 March 2011

**L-6** (Sheet 35 of 50)

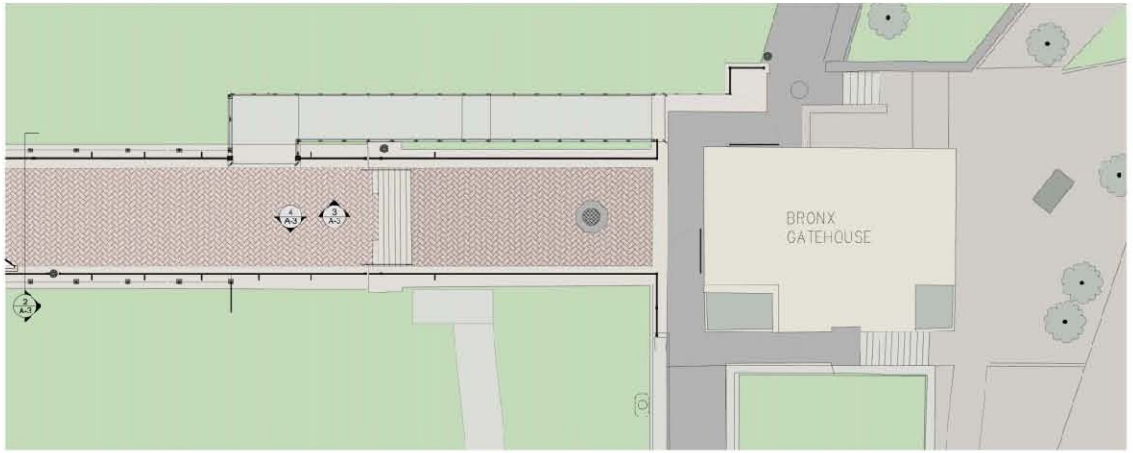
**Manhattan 3D View - Street View**

Scale: Not to Scale

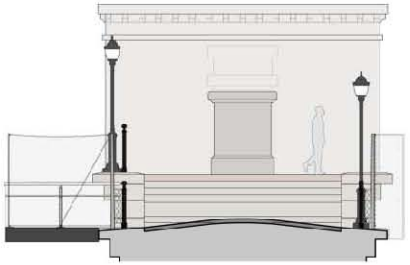
Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

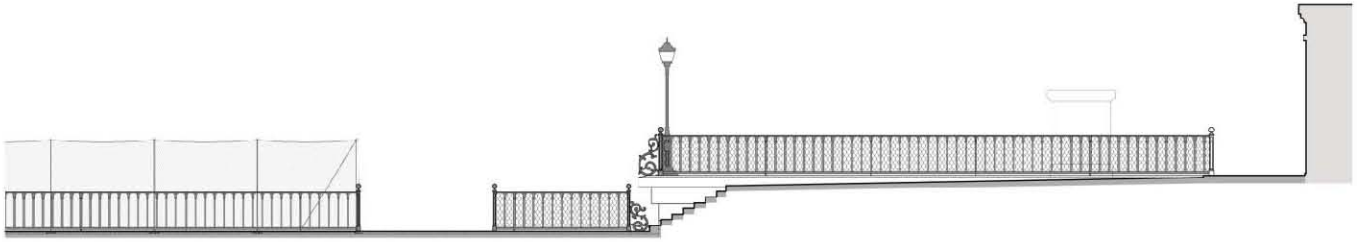
MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design



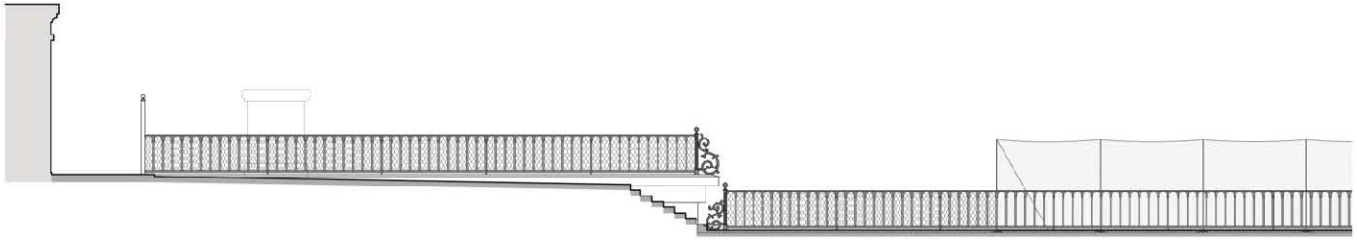

1 A-3 PARTIAL PLAN OF FENCE & RAILING AT BRONX
SCALE: 1/8" = 1'-0"



2 A-3 ELEVATION/SECTION OF FENCE & RAILING AT BRONX STEPS
SCALE: 1/8" = 1'-0"



3 A-3 ELEVATION/SECTION OF FENCE & RAILING AT BRONX STEPS
SCALE: 1/4" = 1'-0"



4 A-3 ELEVATION/SECTION OF FENCE & RAILING AT BRONX STEPS
SCALE: 1/4" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

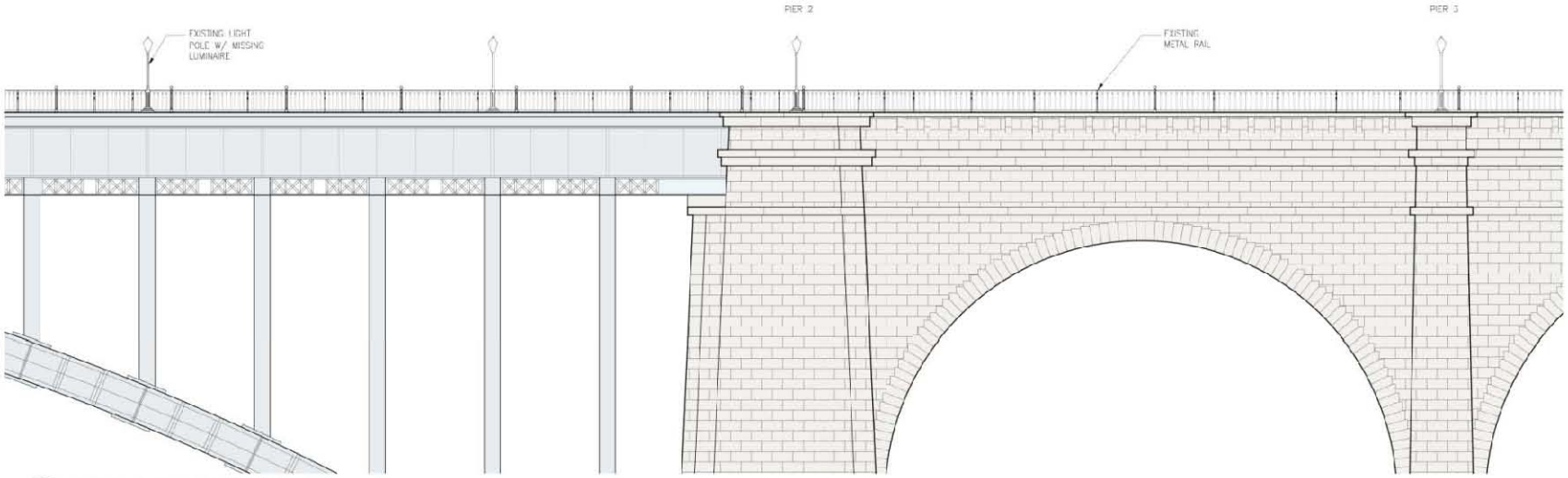
**Rehabilitation of the High Bridge**
Borough of Manhattan & Bronx
05 April 2011

**A-3 (Sheet 36 of 50)**
**Design: Partial Plan & Elevation of Fence & Railing at Bronx**
Scale: As Noted

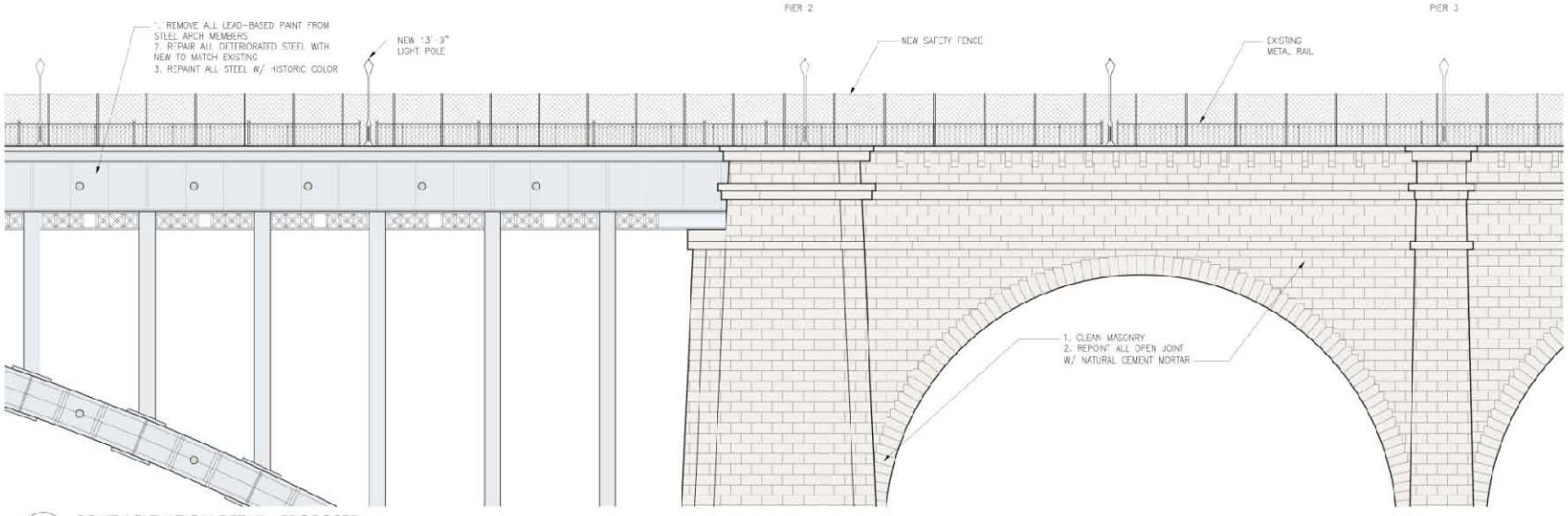
Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design




1 A-5 SOUTH ELEVATION DETAIL - EXISTING
SCALE: 1/8" = 1'-0"




2 A-5 SOUTH ELEVATION DETAIL - PROPOSED
SCALE: 1/8" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
05 April 2011

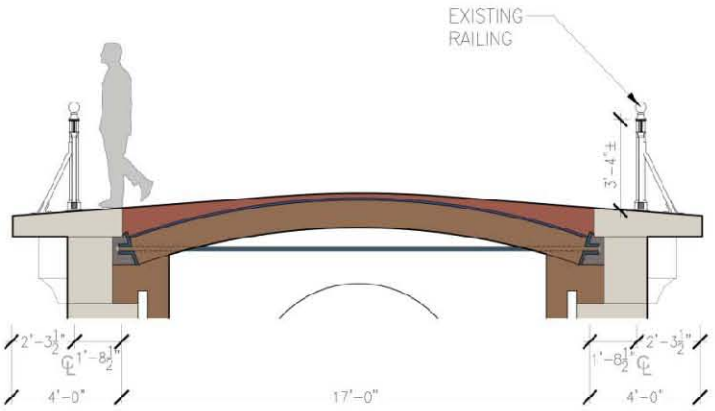
**A-5 (Sheet 38 of 50)**
**Existing & Proposed Enlarged Elevations**

Scale: As Noted

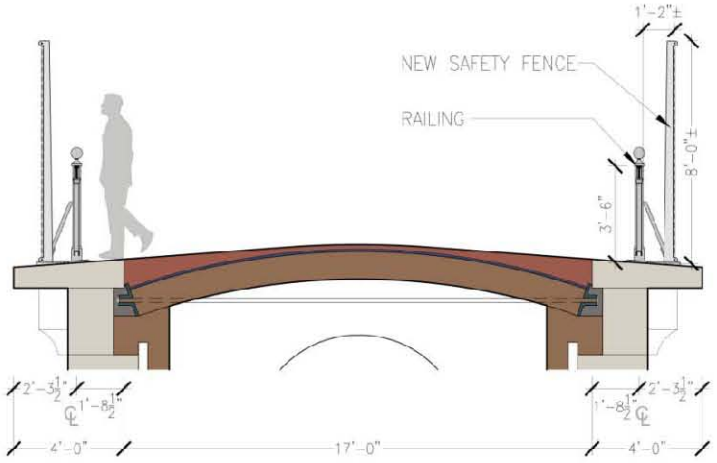
Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

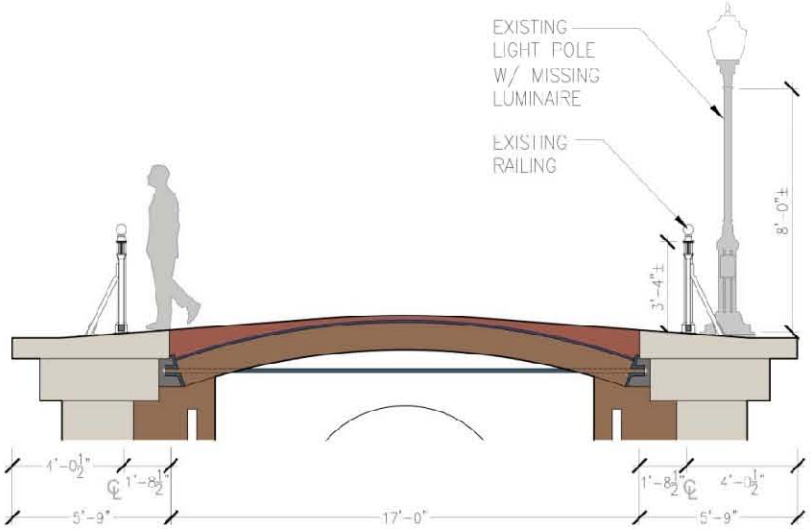
MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design



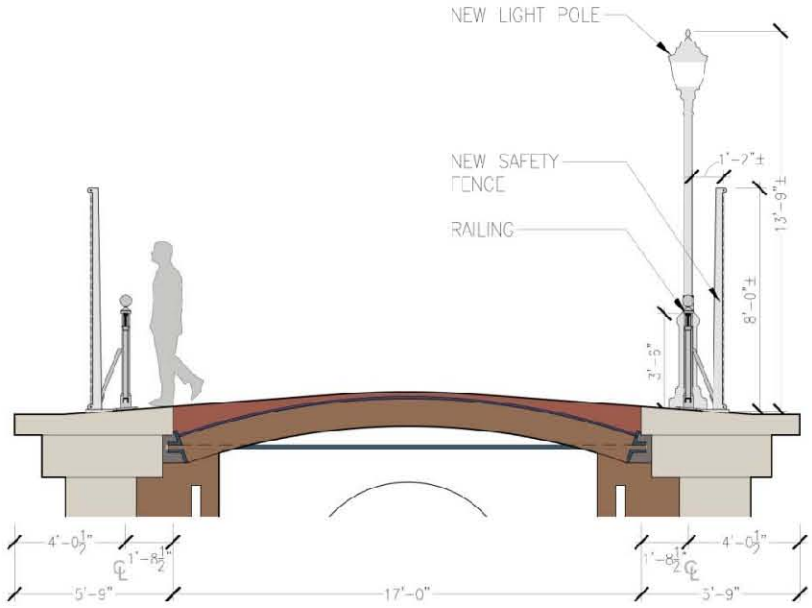

1 / A-6 EXISTING SECTION AT NON-PIER
SCALE: 1/2" = 1'-0"




3 / A-6 PROPOSED SECTION AT NON-PIER
SCALE: 1/2" = 1'-0"




2 / A-6 EXISTING SECTION AT PIER
SCALE: 1/2" = 1'-0"




4 / A-6 PROPOSED SECTION AT PIER
SCALE: 1/2" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
05 April 2011

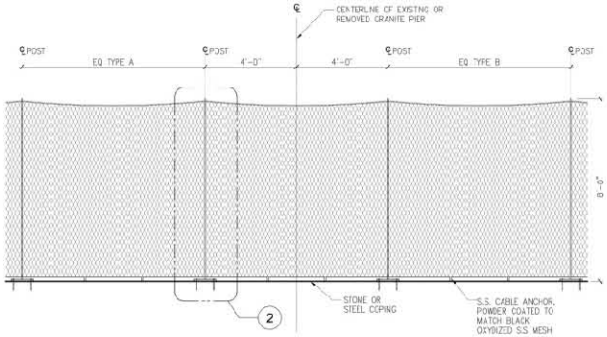
**A-6** (Sheet 39 of 50)
**Existing & Proposed Sections**

Scale: As Noted

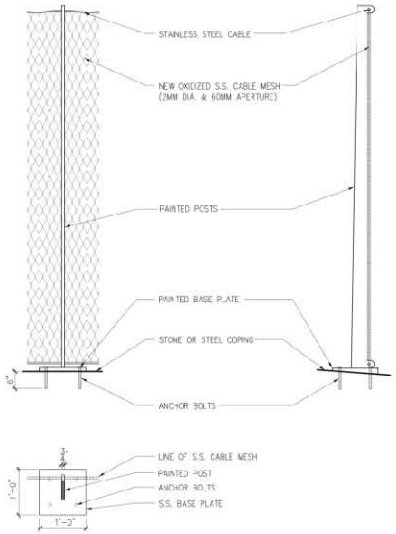
Lichtenstein Consulting Engineers

LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

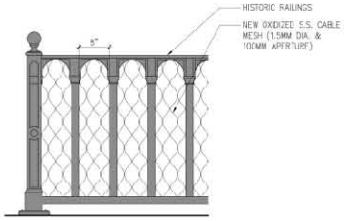
MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design




1 A-7 SAFETY FENCE - TYPICAL SPACING
SCALE: 1/2" = 1'-0"




2 A-7 SAFETY FENCE POST - PLAN, FRONT & SIDE PROFILES, TYP
SCALE: 1" = 1'-0"




3 A-7 1864 RAILINGS W/ OXIDIZED S.S. CABLE MESH
SCALE: 1" = 1'-0"

4 A-7 DESIGN PERSPECTIVE
SCALE: 1/2" = 1'-0"

5 A-7 STAINLESS STEEL CABLE MESH DETAIL VIEW
SCALE: 1/2" = 1'-0"

6 A-7 STAINLESS STEEL CABLE MESH DETAIL VIEW
SCALE: 1/2" = 1'-0"

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
05 April 2011

**A-7** (Sheet 40 of 50)
**Fence Details**

Scale: As Noted

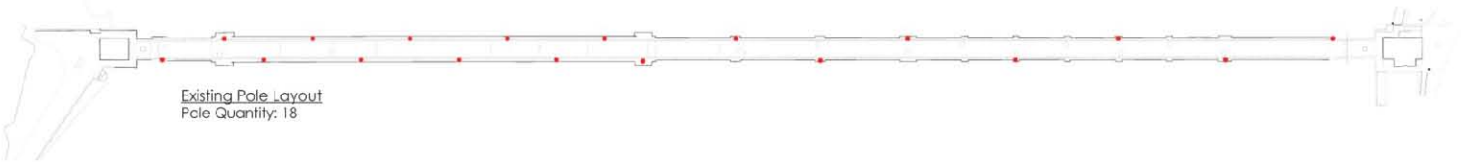
Lichtenstein Consulting Engineers

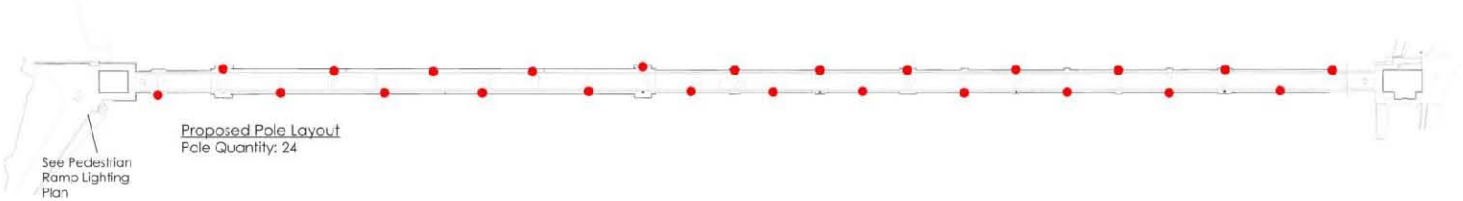
LI-SALTZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

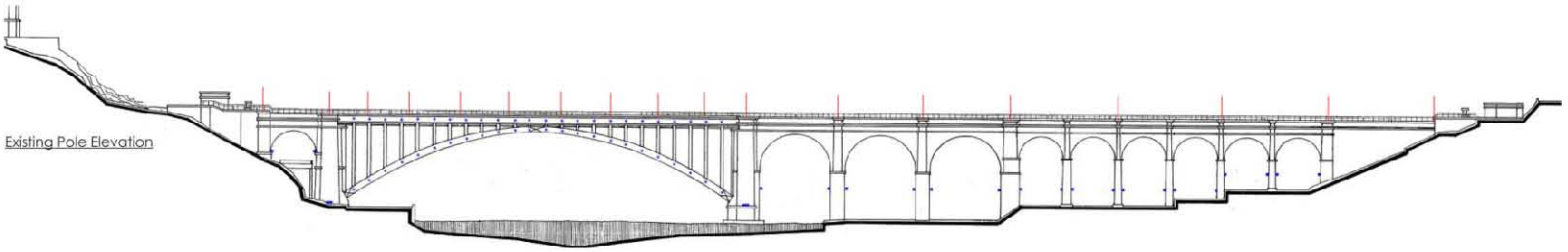
MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design

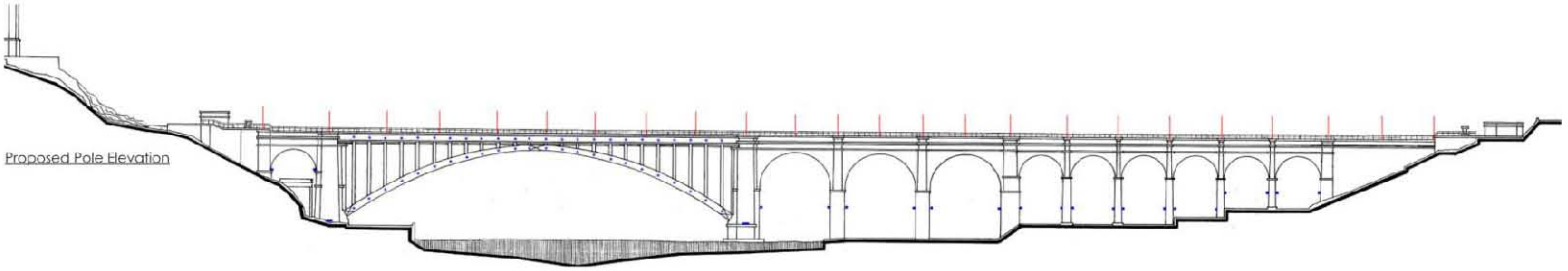
# LIGHTING

## BRIDGE TOP LIGHTING




NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York Parks & Recreation

**Rehabilitation of the High Bridge**

Borough of Manhattan & Bronx
10 February 2011

**LT-1** (Sheet 41 of 50)

**Bridge Lighting Pole Plan & Elevation**

Scale: As Noted

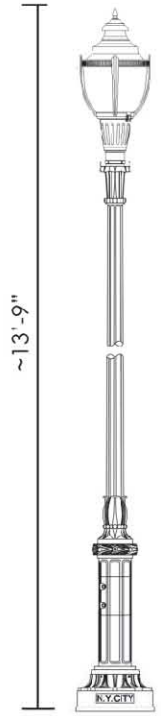
Lichtenstein Consulting Engineers

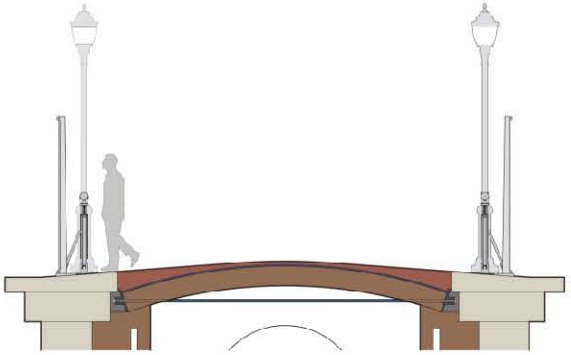
LI-SALTZMAN ARCHITECTS, P.C. ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC. Landscape Architecture | Site Planning | Urban Design

# LIGHTING

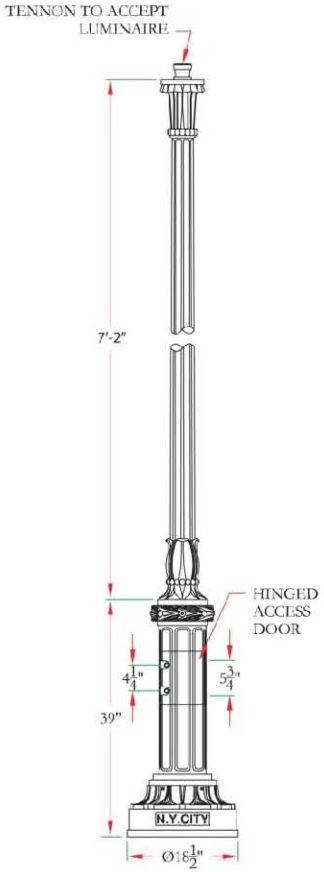
## BRIDGE TOP LIGHTING



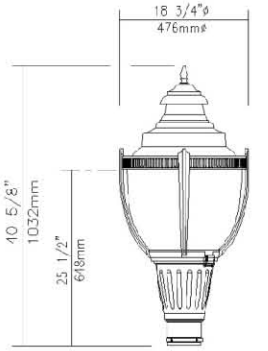



Bridge Section at Non-Pier Locations

Bridge Elevation



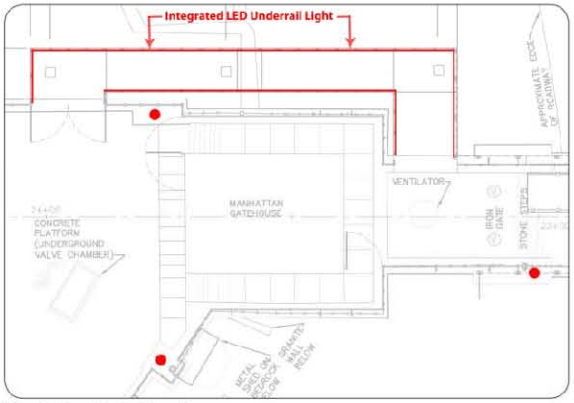

DOT Type 'B' Pole




DOT LED Post Top

# LIGHTING

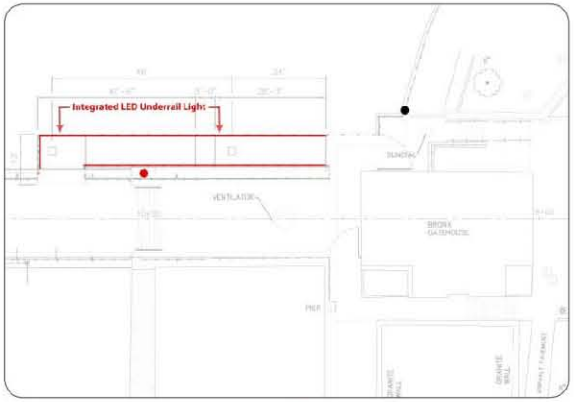
## PEDESTRIAN RAMPS & GATEHOUSE AREAS




Manhattan Pedestrian Ramp

Re-use Existing 9'-1" pole with DOT LED Post Top

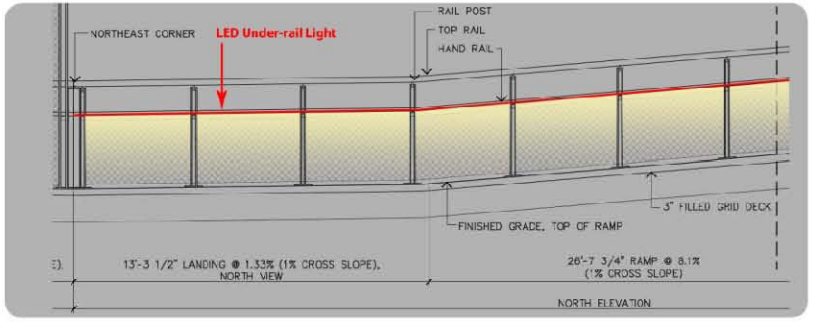
Existing Pole Locations



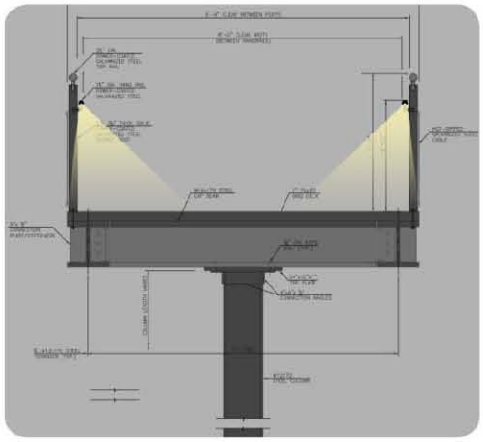

Bronx Pedestrian Ramp

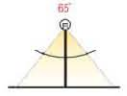
Re-use Existing 9'-1" pole with DOT LED Post Top

Existing Pole Locations

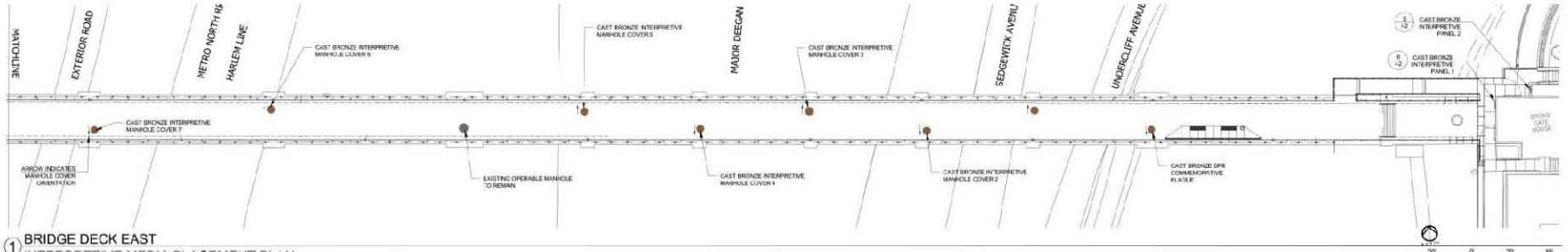



Manhattan Pedestrian Ramp Elevation Typical

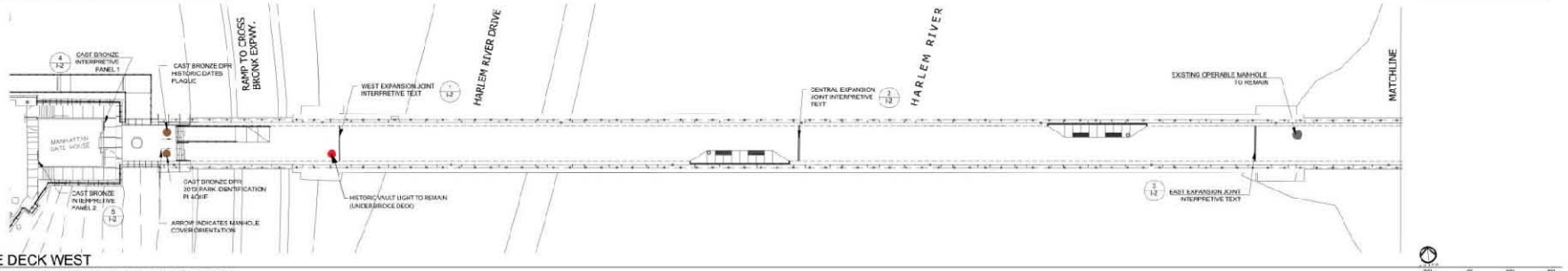




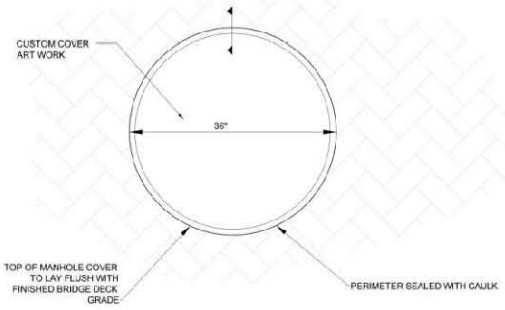

Pedestrian Ramp Section Typical




1 BRIDGE DECK EAST
INTERPRETIVE MEDIA PLACEMENT PLAN



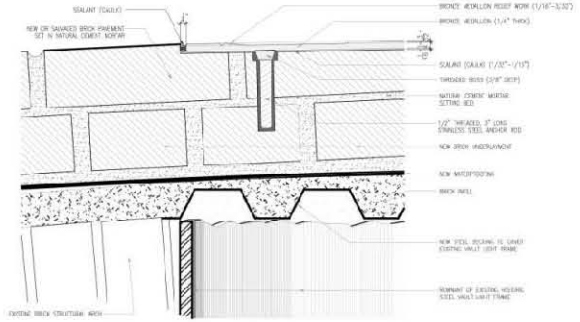

2 BRIDGE DECK WEST
INTERPRETIVE MEDIA PLACEMENT PLAN




NOTES:

1. COVER MATERIAL SHALL BE CAST BRONZE
2. ALL MEASUREMENTS TO BE VERIFIED IN THE FIELD PRIOR TO METAL CASTING
3. SEE SHEET XX FOR INSTALLATION DETAILS

3 FIXED WATERTIGHT MANHOLE COVER
PLAN




4 MANHOLE COVER ANCHOR DETAIL

LEGEND

- BRONZE MEDALLION PLAQUE AT HISTORIC VAULT LIGHT LOCATION
- NEW MANHOLE COVER AT EXISTING MANHOLE LOCATION
- HISTORIC VAULT LIGHT TO REMAIN (UNDER BRIDGE DECK)

NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION

City of New York
Parks & Recreation

# Rehabilitation of the High Bridge

Borough of Manhattan & Bronx
5 April 2011

**I-1** (Sheet 49 of 50)

**Interpretive Program: Site Plan & Details**

Scale: As Noted

Lichtenstein Consulting Engineers

LI+ SALIZMAN ARCHITECTS, P.C.
ARCHITECTURE AND PRESERVATION

MKW + ASSOCIATES, LLC.
Landscape Architecture | Site Planning | Urban Design