PRESENTATION CONTENTS

1. SITE DESIGN: PROJECT AREA 1 (PA1)

2. SITE DESIGN: PROJECT AREA 2 (PA2)

3. SITE ELEMENTS
PRESENTATION CONTENTS

1. SITE DESIGN: PROJECT AREA 1 (PA1)

2. SITE DESIGN: PROJECT AREA 2 (PA2)

3. SITE ELEMENTS
Pier 42 Maintenance Area Plan

Pier 42 Maintenance Area Elevation
Maintenance Area 3
EV Charging Station Pedestal Detail
Pier 42 Maintenance Area
Talia Louver Style Fence

Fence Appearance

Fence Detail
1. CROSS SECTION

2. SOUTH ELEVATION

Flat-Lock Metal Tile
Plumbing Vent w/ SS Shroud
Solid Glass Brick w/ SS Backup Wall
Granite Base

See Enlarged Drawing on Subsequent Pages
1. Flat-lock metal tile sloped roof assembly & matching coping

2. Aluminum window with low-e IGU

3. Brushed stainless steel column cover and masonry anchor

4. 4x8x3 solid glass brick veneer w/ running bond pattern; 3/8" joints w/ type "S" light grey mortar

5. Insulated composite back-up panels with brushed stainless steel finish

6. Granite base w/ flamed finish & graffiti resistant coating

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**CUTAWAY AXOMETRIC**

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**DETAILED RENDERED ELEVATION**

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South Gate Building
Façade Detail

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AKRF-KSE, JV BJARKE
INGELS GROUP
MATHEWS NIELSEN
LANDSCAPE ARCHITECTS, P.C.
NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION
NEW YORK CITY DEPT. OF PARKS AND RECREATION
NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION
NEW YORK CITY MAYOR’S OFFICE OF RESILIENCY

DECEMBER 16, 2019
1. TYPICAL WALL ASSEMBLY

- DEPLOYABLE FLOOD SHIELD
- OPERABLE ALUMINUM WINDOW WITH LOW-E IGU
- BRUSHED STAINLESS STEEL COLUMN COVER AND MASONRY ANCHOR

2. TYPICAL WALL ASSEMBLY AT CLERESTORY WINDOW

- ALUMINUM WINDOW WITH LOW-E IGU
- 4x8x3 SOLID GLASS BRICK VENEER W/ RUNNING BOND PATTERN; 3/8" JOINTS W/ TYPE "S" LIGHT GREY MORTAR

3. TYPICAL WALL SECTION

- FLAT-LOCK METAL TILE SLOPED ROOF ASSEMBLY & MATCHING COPING
- ALUMINUM WINDOW WITH LOW-E IGU
- INSULATED COMPOSITE BACK-UP PANELS WITH BRUSHED STAINLESS STEEL FINISH
- GRANITE BASE W/ FLAMED FINISH & GRAFFITI RESISTANT COATING
- BRUSHED STAINLESS STEEL COLUMN COVER AND MASONRY ANCHOR
- OPERABLE ALUMINUM WINDOW WITH LOW-E IGU
- SLOPED ROOF ASSEMBLY & MATCHING COPING
- ALUMINUM WINDOW WITH LOW-E IGU
Transition Detail - Bridge to Concrete Pier

Transition Detail - Bridge to Abutment

Section Through Bridge Arch

Bridge Elevation
Detail A
Section at Transition from Bridge to Concrete Pier

Detail B
Section at Concrete Deck

Detail C
Section at Top Structural Tube

1" x 1" GALV. STEEL CHAINLINK MESH W/ EYEBOLT ANCHORS
CONCRETE CURB

1.5" DIA. SS. HANDRAIL
1.5" DEPTH SS. GUARDRAIL W/ SS. T-VERTICAL SUPPORT
BRIDGE TRANSITION PIECE

1.5" DIA. SS. GUARDRAIL TRANSITIONS INTO BRIDGE ARCH

1.5" DIA. SS. HANDRAIL
1" x 1" GALV. STEEL CHAINLINK MESH W/ EYEBOLT ANCHORS
CONCRETE CURB

1.5" DIA. SS. GUARDRAIL TRANSITIONS INTO BRIDGE ARCH

1.5" DIA. SS. HANDRAIL
1" x 1" GALV. STEEL CHAINLINK MESH ON CHANNEL

TOP BRIDGE ARCH
CABLE WITH TIE-ARCH TO STRUCTURE
1" x 1" GALVANIZED STEEL CHAIN LINK MESH ON CHANNEL

LIGHTING W/ MTL SLEEVE AS BASE COVER
1" x 1" GALVANIZED STEEL CHAIN LINK MESH ON CHANNEL

CABLE WITH TIE-ARCH TO STRUCTURE
Amphitheater Final Review

Amphitheater design supports day-to-day use, community programming & passive recreation.

Accessible areas of hardscape interspersed with flexible lawn areas.

Backed seating.

Re-constructed Corlears Hook Bridge.

Corlears Hook Park.

Corlears Hook Bridge.
ACCESSIBLE PATH

ACCESSIBLE ROUTE ACROSS CORLEARS BRIDGE

ADA ACCESS TO UPPER TIER VIEWING FROM SHARED USE PATH AND BRIDGE

MOST DIRECT ROUTE FROM FERRY

ADA ACCESS TO LOWER TIER AND STAGE FROM ESPLANADE
Amphitheater Seating

- ACCESSIBLE BACKED SEATING (110 PEOPLE)
- BACKED SEATING (220 PEOPLE)
- ACCESSIBLE HARDSCAPE (180 PEOPLE)
- ACCESSIBLE PATH

STAGE

40'
Scale: 1" = 40'-0"
TOTAL SIZE: +/-40,000 SF
TOTAL CAPACITY: +/-2,000 PEOPLE
LAWN CAPACITY: 1,070 PEOPLE
FIXED SEATING CAPACITY: 750 PEOPLE
HARDSCAPE CAPACITY = 180 PEOPLE

NOTE:
TOTAL CAPACITY +/- 2,000 PEOPLE
SUMMERSTAGE FOOTPRINT, MINIMUM SIZE OF CANOPY STRUCTURE
TEMPORARY STAGE OR PERFORMANCE AREA
STAGE OVAL PROVIDES FLEXIBLE SPACE FOR SMALL EVENTS

2000 PEOPLE
Amphitheater
Capacity 31

75 people

Temporary Stage or Performance Area

Stage Oval Provides Flexible Space for Small Events
ACCESSIBLE SEAT AND BACKED COMPANION SEAT

PLAN

SECTION A

SECTION B

SEAT WALL STEPS BACK TO PROVIDE ACCESSIBLE SEATS IN LINE WITH SEAT ROW

UPPER ROW ACTS AS SEAT BACK

Amphitheater
Seating
PRE-FABRICATED ROOF SLABS WITH INSULATION AND ROOFING MEMBRANE

STAINLESS STEEL FLASHING

SEALANT JOINT, COLOR TO MATCH CONCRETE HARDWARE BY FABRICATOR

PRE-FABRICATED CONCRETE WALL PANEL

RIGID INSULATION

SEALANT JOINT, COLOR TO MATCH CONCRETE

FOUNDATION ON PILES INSULATION AND VAPOR BARRIER

2: Section at Roll-up Gate

1: Section at Solid Wall

A: Section Detail at Base

B: Section Detail at Parapet

C: Detail Plan at Corner

PRE-FABRICATED CONCRETE WALL PANEL

STAINLESS STEEL ROLL-UP GATE

RIGID INSULATION

SEALANT JOINT, COLOR TO MATCH CONCRETE

HARDWARE BY FABRICATOR

RIGID INSULATION

FOUNDATION ON PILES INSULATION AND VAPOR BARRIER

NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION

ONE ARCHITECTURE AND URBANISM

NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY

AKRF-KSE, JV BJARKE INGELS GROUP

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NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY

PDC FINAL REVIEW

EAST SIDE COASTAL RESILIENCY PROJECT

DECEMBER 16, 2019
Delancey Street Bridge
City-Side Landing

SIDEWALK
5'

BRIDGE LANDING
12'
Tennis House Elevation

- 60'-2" GLAZED BRICK, TYP.
- COUNTER W/ FLIP-UP OPENING, TYP.
- S. MTL. DOOR & PANEL, TYP.
- GREEN ROOF

Tennis House Section

- CORRUGATED S.S. BEHIND SCREEN, TYP.
- CLERESTORY WINDOW BEHIND SCREEN, TYP.
- GLAZED BRICK, TYP.
- COUNTER W/ FLIP-UP OPENING, TYP.
- S. MTL. DOOR & PANEL, TYP.

Tennis House Elevation Tennis House Section
**Section at Counter**

- BRICK
- CONCESSION WINDOW WITH STAINLESS ROLL-UP GATE

**Section at Clerestory Window**

- BRICK
- BRICK AT BASE, SOLID BACK FILL, WATER PROOFING, FOUNDATION
- PERFORATED STAINLESS STEEL PANEL WITH STAINLESS STEEL PANEL BACKER

**Section at Roof Parapet**

- BRICK
- BRICK

**Section Detail at Light Tube**

- LIGHT TUBE WITH ANGLE ADAPTER AND EXTENSION TUBE
- STAINLESS STEEL FLASHING
- FROSTED GLASS

**Clerestory Window Details**

- CONCRETE PAVERS ON PEDESTALS
- STAINLESS STEEL COPING
- PERFORATED STAINLESS STEEL PANEL WITH STAINLESS STEEL PANEL BACKER

**Detail Plan at Clerestory Window**

- CONCESSION WINDOW WITH STAINLESS ROLL-UP GATE
- BRICK
- BRICK
- BRICK AT BASE, SOLID BACK FILL, WATER PROOFING, FOUNDATION
- PERFORATED STAINLESS STEEL PANEL WITH STAINLESS STEEL PANEL BACKER

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**Sponsored by**

- AKRF-KSE, JV
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- ONE ARCHITECTURE AND URBANISM
- PDC FINAL REVIEW
- EAST SIDE COASTAL RESILIENCY PROJECT

DECEMBER 16, 2019
Different module combinations create nooks for companion seating.

Backed seating provided.

Section A

Section B

Section C

Section D
Track Maintenance Area Plan

Track Maintenance Area Elevation

Maintenance Area 3
Final Review
10th Street Bridge
Existing Condition
10th Street Bridge
Aerial View
10th Street Bridge
Approach View
PRESENTATION CONTENTS

1. SITE DESIGN: PROJECT AREA 1 (PA1)

2. SITE DESIGN: PROJECT AREA 2 (PA2)

3. SITE ELEMENTS
TREES ON SOUTH SIDE PROVIDE SHADE

LARGE DOG RUN

PLAY MOUNDS

WATER PLAY

SMALL DOG RUN

Scale: 1" = 20'-0"
REVISION 2.1
SECURITY MEASURES

20th Street Entry Plaza
Final Review
1. CROSS SECTION

2. NORTH ELEVATION

Flat-Lock Metal Tile
Solid Glass Brick w/ SS Backup Wall
Granite Base

Plumbing Vent w/ SS Shroud

See Enlarged Drawing on Previous Pages
PRESENTATION CONTENTS

1. SITE DESIGN: PROJECT AREA 1 (PA1)

2. SITE DESIGN: PROJECT AREA 2 (PA2)

3. SITE ELEMENTS
WALL MODULE TOOLKIT:
THE WAVE PATTERN'S SCALE RESPONDS TO CONTEXT AND EXPERIENCE (SPEED AND DISTANCE)

PARK SCALE

PEDESTRIANS

CYCLISTS

MOTORISTS

HIGHWAY SCALE

4' TRANSITION

4' WAVE

8' WAVE

16' WAVE

32' WAVE

16' TRANSITION

64' WAVE
WALL RHYTHM TOOLKIT:
INDIVIDUAL PANELS ARE ARRAYED TO REINFORCE USER EXPERIENCE,
ACCELERATING AND DECELERATING THE PATTERN

PEDESTRIAN RHYTHM: A ↔ B ↔ C

BIKE PATH RHYTHM: D ↔ C ↔ B

HIGHWAY RHYTHM: C ↔ D ↔ E

100' TO 250' RHYTHM
200' TO 300' RHYTHM
250' TO 500' RHYTHM
THE WAVE PATTERN INTENSIFIES NEAR PARK ENTRANCES AND OTHER LOCATIONS WHERE PEDESTRIANS APPROACH THE WALL.

FLOOD SIDE ELEVATION

REVISION ITEM 1.1 WALL PATTERN RHYTHM + VARIATION

REVISION ITEM 1.3 GATE DESIGN
REVISION ITEM 1.1
WALL PATTERN
RHYTHM + VARIATION

REVISION ITEM 1.3
GATE DESIGN
THE WALL'S RHYTHM IS ADJUSTED LOCALLY TO ALIGN WITH INFLECTION POINTS, REINFORCING THE OVERALL CURVE OF THE WALL

PROTECTED SIDE ELEVATION
Flood and Highway Walls
Bike Path Rhythm Example
Avoid large notches in the gate face.

Color to be coordinated with other metal finishes (bridges, fences, bollards, etc.).

Round corners to match wall design.

Roadway signs stored on top when necessary.

Banded texture in response to wall finish approach.

 Previously reviewed.
Flood Wall Signage
1. Floodwall Signage Typ. Elevation

- No elevation marker for top 12".

2. Floodwall Signage Detail

3. Floodwall Signage Detail - Section

- No elevation marker for bottom 12".
TEXT + LABELING
GW GREY PAINT (ASSER LEVY)

TEXT + LABELING
MUNSEL GREY PAINT (TYP)

FLOODGATE
M-EGGR-16

13

18

ROUND CORNERS TO MATCH WALL DESIGN

SURFACE 1/32" ETCHED PATTERNING

SURFACE 1/16" DEBOSSED, ETCHED AND PAINTED

SURFACE 1/32" DEBOSSED, ETCHED AND PAINTED

COLOR TO BE COORDINATED WITH OTHER METAL FINISHES (BRIDGES, FENCES, BOLLARDS, ETC.)

Flood Protection
Gate Signage
**TYPICAL SWING GATE (PIER 42)**

- 1' WALL STEP TO ACCOMMODATE SWING GATE HINGE
- ADJUSTABLE HARDWARE FOR WATER SEAL
- EXPOSED SWING GATE HINGES

**TYPICAL ROLLER GATE (STUY COVE SOUTH)**

- RETAINING WALL GATE POCKET
- ROUNDED CORNERS

**ROLLER GATE WITHIN ASSERLEY PLAYGROUND**

- EXPOSED CASTERS BENEATH ROLLER GATES
Stainless Steel Perforated
Clerestory Screen

Stainless Steel Embossed
Doors and Fixed Panels

Stainless Steel Facade Openings Trim
Coping
Roll-up Gates

Glazed Brick Various Colors
Building Facade

Glass Building Windows

Roof Access Pre-cast Concrete Paver

Green Roof
NYC Parks Sustainability Initiative
Materials

Maintenance Areas

Louver Style Steel Fencing
M&O Fencing
Painted Black

Precast Concrete Building
M&O Area Buildings

Stainless Steel Canopy
M&O Area Canopy & Access Doors

Stainless Steel Roll-Up Door
M&O Area Access Doors

Photovoltaic Cells
M&O Area Canopy
Bridge Handrail
Stainless Steel

Bridge Guardrail + Fence
Galvanized Steel

Bridge Deck
Exposed Concrete

Bridge Structure
Painted Steel: Color George Washington Gray

Bridge Ramp + Abutments
Cast-In-Place Concrete
STAINLESS STEEL
Back Up Wall, Doors, & Trim Elements

SOLID GLASS BRICK
Facade
(Pictured: Office Mockup)

BARRE GREY GRANITE
Stone Base

FLAT-LOCK METAL TILE
Sloped Roof Assembly
OFFICE MOCKUP PHOTOGRAPHS
December 12th, 2019
New Parks Style Fence
w/ 1" Wire Mesh in High Park Grade Areas

New Parks Style Fence

MIN 8'

MIN 8'

Existing ERP Parks Fence and Highway Barrier

4'-6"

VAR

NEW WALL AND FENCE

EXISTING TO REMAIN

NO CHANGE FROM APPROVED
Park Materials
Key Plan PA1
NO CHANGE FROM APPROVED

PDC FINAL REVIEW
EAST SIDE COASTAL RESILIENCY PROJECT
DECEMBER 16, 2019
AKRF-KSE, JV BJARKE INGELS GROUP
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Park Materials
Key Plan PA2

6TH ST
10TH ST
14TH ST
20TH ST
23RD ST
AVENUE C
FDR DRIVE
ELEVATED FDR DRIVE
EAST RIVER

Park Materials
Safety Surface (Play and Fitness Areas)
Resilient Sport Surface (Track)
Asphalt Pavement with Color Seal (Sports Courts)
Precast Concrete (Seatwalls)
Poured in Place Concrete (Walls and Stairs)
Stone (Slope and Edges)
Steel Edge (Nature Exploration Area)

Exposed Aggregate Concrete Pavement (Pathways)
Concrete Unit Pavers (Esplanade)
Asphalt Pavement (Bike Lane, Pathways)
Cement Concrete Pavement (Maintenance)
Granite Block Pavement (Along Floodwall)
Permeable Pavers (Under Williamsburg Bridge)
Synthetic Turf (Fields 1, 2, 3, 4 & Track Infield)
### PRIMARY PATHWAYS

- **Full Depth Asphalt Pavement**: Bike Lane
- **Exposed Agg. Concrete Pavement w/ Saw Cut Joints**: Park Pathways
- **Concrete Unit Paver**: Esplanade 8" Hex Paver
- **Concrete Unit Paver Pattern**

### SECONDARY PATHWAYS

- **Cement Concrete Pave**: Maintenance Areas
- **Recycled Bark Mulch**: Under Existing Trees & Natural Exploration Areas
Material Palettes
Walls, Edges and Stairs

**Walls, Edges and Stairs**

- **Concrete Walls**: Poured in Place Concrete
- **Concrete Seatwalls**: Precast Concrete
- **Landscape Stone**: Slope and Edges
- **Concrete Walls**: Standard Concrete Curbs
  - 6" Wide; Flush or 2" Height
  - Poured in Place
  - Average Concrete
- **Concrete Steps**: Average Concrete

*NO CHANGE FROM APPROVED*
**STANDARD SAFETY SURFACE**
MITCHELL RUBBER TILES
8' & 10' DROP HEIGHTS
COLOR: SAND
EAST RIVER PARK

**STANDARD SAFETY SURFACE**
MITCHELL RUBBER TILES
8' & 10' DROP HEIGHTS
COLOR: #12, #17, #2
MURPHY BROTHERS PLAYGROUND

**STANDARD SAFETY SURFACE**
MITCHELL RUBBER TILES
8' & 10' DROP HEIGHTS
COLOR: #14, #16, #20
ASSER LEVY PLAYGROUND

**SKINNED INFIELD**
FOR BASEBALL & SOFTBALL
STANDARD INFIELD MIX

**SYNTHETIC TURF W/ INFILL**
FIELDS 1, 2, 3, 4

---

**Material Palettes**
Sports and Play Surfaces
Material Palettes
Sports and Play Surfaces

TENNIS COURTS
ASPHALT WITH COLOR SEAL
COLORS: ARCTIC, MIDNIGHT, TEAL
EAST RIVER PARK TENNIS

BASKETBALL COURTS
ASPHALT WITH COLOR SEAL
COLORS: MIDNIGHT, PRO BLUE, ROYAL PURPLE,
BURGUNDY, BRICK RED, ARCTIC BLUE, PUMPKIN
EAST RIVER PARK DELANCEY STREET

BASKETBALL COURTS
ASPHALT WITH COLOR SEAL
COLORS: MIDNIGHT, LIGHT BLUE,
ARCTIC BLUE, TEAL, PUMPKIN
EAST RIVER PARK 10TH STREET

BASKETBALL COURTS
ASPHALT WITH COLOR SEAL
COLORS: CORAL, SCARLET
ASSER LEVY BASKETBALL

BASKETBALL COURTS
ASPHALT WITH COLOR SEAL
COLORS: DARK GREEN, GRASS
GREEN, KIWI, KEY LIME
MURPHY BROTHERS BASKETBALL
Material Palettes

Court Colors

Basketball Court Pattern - Delancey Street

Basketball Court Pattern - 10th Street
PARK FENCING
COATED CHAINLINK
4', 6', 8', 12' & 16' HEIGHTS
SPORTS FIELDS, PLAYGROUNDS,
MAINTENANCE AREAS
COLOR: BLACK

PLANT RAIL FENCE
PAINTED STEEL PIPE
2' 6" HEIGHT
COLOR: BLACK
STUYVESANT COVE PARK

HAND RAILS & GUARDRAILS
PAINTED STEEL PIPE
42" HEIGHT
COLOR: BLACK
EAST RIVER PARK

PARKS STANDARD PROMENADE RAIL
42" HEIGHT
BLACK
ESPLANADE
**STANDARD BENCH (BACK)**  
1964 WORLD'S FAIR  
WITH ARMS  
8'-0" & 4'-0" LENGTH  
RPL SLATS, WEATHERED WOOD  
LOCATION: ALL PROJECT AREAS

**STANDARD BENCH (NO BACK)**  
1964 WORLD'S FAIR  
WITH OR WITHOUT ARMS  
8'-0" LENGTH  
RPL SLATS, WEATHERED WOOD  
LOCATION: EAST RIVER PARK AND STUYVESANT COVE PARK WATERFRONT ESPALANADES

**STANDARD TYPE ‘C’ SPORTS BENCH**  
WITHOUT ARMS & BACKS  
7'-0" LENGTH  
RPL SLATS, WEATHERED WOOD  
LOCATION: SPORTS FIELDS

**STANDARD PICNIC TABLE & ACCESSIBLE PICNIC TABLE**  
7'-0" LENGTH  
RPL SLATS, WEATHERED WOOD  
LOCATION: BBQ AND PICNIC AREAS IN EAST RIVER PARK, MURPHY BROTHERS PLAYGROUND & ASSER LEVY PLAYGROUND

**STANDARD BOTTLE FILLER WITH HI-LO DRINKING FOUNTAINS**  
ELKAY MODEL LK4430BF1UNYC  
COLOR GRAY/SILVER

**STANDARD SPORTS STEEL SPRAY FIXTURE**  
AQUAJEUX MODEL 1507-MALF-08  
COLOR GRAY/SILVER

**BBQ GRILL**  
CLUSTER OF THREE  
MDF, INC.  
COLOR BLACK

**NYC DOT CITYRACK “HOOP”**  
COLOR GRAY/SILVER

**CAROUSEL SEATING**  
3 OR 4 SEATS WITH BACKS  
DINING HEIGHT, LANDSCAPE FORMS  
COLOR SILVER  
LOCATION: EAST RIVER PARK ECOLOGY PLAZA

**STANDARD PUB-LIC SPACE BINS**  
TRASH RECEPTACLE  
MAGLIN MODEL: CMLWR9074032HST  
COLOR GRAY W/ BLACK LID

**BIGBELLY RECYCLING RECEPTACLE**

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**NOTES:**  
1. See Anchor Details drawing for Unifix Base installation.  
2. See color chart for available options.  
3. Standard water flow rate: 19 GPH @ 25 PSI [71,9 LPH @ 172,4 KPa].  
4. Installation recommendations:  
   1. Align “E-E” marks on structure’s flange with Unifix base’s welded nipple as indicated on plan.  
   2. Pour a 5000psi compressive strength concrete footing of 24” [406mm] diameter below the frost line.  
   3. Recommended depth: 60” [1524mm] under the finished surface.  
   4. It is recommended to electrically ground all play components.  
5. Maintenance:  
   1. At opening time in spring:  
      1. Remove recessed nozzles using supplied key in maintenance kit.  
      2. Clean all nozzles.  
      3. Put nozzles back.  

---

DOME COLUMN 9 nozzles Low Flow is completely built out of 304L schedule 10 stainless steel and is 6” [150mm] in diameter and 84” [2134mm] in height. Structure holds 9 recessed nozzles of 2,1 GPH. Structure activation is set through an integrated mechanical push button. Structure is equipped with a flange for easy connection to Unifix Base. Tamper-proof hardware requires a special tool provided by the manufacturer. Non-toxic polyester powder coating is applied in two coats: color and clear sealer. None of the components contain any heavy metals. Everything fully complies with National Plumbing Code (NPC) requirements. Plumbing and slab sub-base by others.
BAR STOOL, 1964 WORLD'S FAIR
1'-6" WIDTH 4'-9" LENGTH
RPL SLATS, WEATHERED WOOD
LOCATION: ESPLANADE

CHAIR, 1964 WORLD'S FAIR
1'-6" WIDTH
RPL SLATS, WEATHERED WOOD
LOCATION: ESPLANADE

CHAISE LOUNGE, 1964 WORLD'S FAIR
2'-1" WIDTH
RPL SLATS, WEATHERED WOOD
LOCATION: ESPLANADE

BAR TOP TABLE HIGH HEIGHT
22'-0" LENGTH
RPL SLATS, WEATHERED WOOD
LOCATION: ESPLANADE

BAR TOP TABLE LOW HEIGHT
22'-0" LENGTH
RPL SLATS, WEATHERED WOOD
LOCATION: ESPLANADE

SOLSTICE UMBRELLA - ALTAIR
LANDSCAPE FORMS
LOCATION: ESPLANADE
COLORS:
OCEAN / SEAGREEN/GREEN /
FLAMBE ORANGE / TANGERINE

STANDARD PICNIC TABLE & ACCESSIBLE PICNIC TABLE
8'-0" LENGTH
PERFORATED METAL
LOCATION: EAST RIVER PARK

SOLSTICE UMBRELLA - ALTAIR
LANDSCAPE FORMS
PRECEDENT IMAGE
## Proposed Evergen M Series Solar Light by SOL, Inc.

- **Pole Height:** 18’
- **Color:** Black

### Applications
- **East River Park Esplanade** (Under Review)

### Lamp/Optics
- **Type 2085 fixture**
- **75W LED**
- **IES Type V**

### Material/Color
- Steel/black, brown, or green

### Cost Compared to SS
- No comparison provided.
LEGEND

---
MAJOR CIRCULATION PATHS (EAST RIVER PARK)

VEHICULAR ENTRIES FOR SECURITY MEASURES
SECURITY RATED BOLLARDS
FIXED OR REMOVABLE
(STAINLESS STEEL)

SECURITY RATED VEHICULAR GATE
(GEORGE WASHINGTON GRAY)
Security Measures
Corlears Hook Park

LEGEND

VEHICULAR GATE

BOLLARD

WALL

SHARED USE PATH

PLANTING

STONE BARRIER

STEPS

DIRECTION OF TRAFFIC
(ADJACENT STREETS)

EXISTING STEPS TO REMAIN
EXISTING WALL TO REMAIN

EXISTING CONCRETE PIERS TO REMAIN
FIXED BOLLARDS

EXISTING CONDITION

KEY PLAN

FIXED BOLLARDS

VEHICULAR GATE

FUTURE DOG RUN
(NOT PART OF ESCR)
Security Measures
20th Street

EXISTING CONDITION

KEY PLAN

AVENUE C
K8 REMOVABLE BOLLARDS
K8 FIXED BOLLARDS

PED ACCESS TO PARKING
K8 VEHICULAR GATE

JERSEY BARRIER AT PARKING LOT

FLOOD GATE

LEGEND

VEHICULAR GATE
BOLLARD
REMOVABLE BOLLARD
WALL
SHARED USE PATH
PLANTING
STONE BARRIER
DIRECTION OF TRAFFIC
(ADJACENT STREETS)

VEHICULAR GATE
JERSEY BARRIER AT PARKING LOT
K8 REMOVABLE BOLLARDS
K8 FIXED BOLLARDS
PED ACCESS TO PARKING
K8 VEHICULAR GATE

EXISTING CONDITION

KEY PLAN

AVENUE C
K8 REMOVABLE BOLLARDS
K8 FIXED BOLLARDS

PED ACCESS TO PARKING
K8 VEHICULAR GATE

JERSEY BARRIER AT PARKING LOT

FLOOD GATE

LEGEND

VEHICULAR GATE
BOLLARD
REMOVABLE BOLLARD
WALL
SHARED USE PATH
PLANTING
STONE BARRIER
DIRECTION OF TRAFFIC
(ADJACENT STREETS)
ESPLANADE STRATEGY

SHARED PATH STRATEGY

TREE SIZE AT PLANTING

AVERAGE HEIGHT AT 3”-3.5” CALIPER: 14’-16’
TYPICAL MAXIMUM HEIGHT: 18’
(per ANSI Z60.1)

SHARED USE PATH SHIFTS EAST AWAY FROM FDR EDGE ALLOWING SPACE TO GROW HEALTHY TREES ON BOTH SIDES OF THE PATHWAY.

AREAS WITH GREATER SUN (SUCH AS THE ESPLANADE) ARE DESIGNED TO BE IN CLOSE PROXIMITY OF AREAS WITH GREATER SHADE.

FLOOD PROTECTION AND DEP INFRASTRUCTURE OFFSETS LOCATED IN COURTS AND FIELDS TO ALLOW FOR MORE PLANTING AREAS.

NOTES:
TREE GROWTH WILL VARY BY SPECIES, BUT IN NURSERY SETTINGS A RULE OF THUMB IS THAT TREES WILL OFTEN ADD ½” CALIPER PER YEAR WITH 1’-2’ OF GROWTH IN THE CANOPY.

THE DESIGN TEAM IS WORKING WITH PARKS PROCUREMENT TO IDENTIFY WHETHER SOME SPECIES MAY BE ABLE TO BE SOURCED AT LARGER SIZES WITHOUT COMPROMISING TREE HEALTH.

PROPOSED TREES
EXISTING TREES TO REMAIN

MONTGOMERY ST
WATER ST
JACKSON ST
FDR DRIVE
FDR DRIVE
FDR DRIVE
GRAND ST
DELANCEY ST
DELANCEY ST
WILLIAMSBURG BRIDGE
HOUSTON ST
6TH ST
10TH ST

Tree Canopy Shade Strategy PA1

Shade Strategy PA1
Tree Canopy

NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION
NEW YORK CITY DEPT. OF TRANSPORTATION
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NEW YORK CITY DEPT. OF CONSTRUCTION
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NEW YORK CITY MAYOR’S OFFICE OF RESILIENCY
MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.
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NEW YORK CITY DEPT. OF PARKS AND RECREATION
NEW YORK DEPT. OF DESIGN AND CONSTRUCTION

December 16, 2019
Permanently metal umbrellas are located in areas where planting is limited due to structural limitations, in the offset areas and BBQ areas. Benches and tables are placed in close proximity to shade trees wherever possible.

The proposed lighter colored exposed aggregate concrete and concrete pavers will reduce heat gain on paved surfaces.

The design includes a picnic area to benefit from Williamsburg Bridge shadow.

Notes: To maximize tree planting, solar lighting is implemented only along the esplanade. Areas interior to the park utilize standard flushing meadow light poles.
EXISTING TREES ARE PRESERVED IN SEVERAL LOCATIONS.

PROPOSED TREES
EXISTING TREES TO REMAIN
UMBRELLA CLUSTERS

Shade Strategy
PA2 149
Shade Strategy
Woodland Edge

THE PLANTING DESIGN MAXIMIZES TREE PLANTING IN THE PARK AND INCLUDES A HIGH PROPORTION OF FAST TO MEDIUM GROWING TREES.

**PRIMARY SPECIES**

- **Acer rubrum**
  - Red Maple ‘Oct Glory’
  - GROWTH RATE: MEDIUM

- **Quercus palustris**
  - Pin Oak
  - GROWTH RATE: MEDIUM

- **Quercus bicolor**
  - Swamp White Oak
  - GROWTH RATE: MEDIUM

- **Celtis occidentalis**
  - Hackberry
  - GROWTH RATE: FAST

- **Betula nigra ‘Heritage’**
  - Heritage River Birch
  - GROWTH RATE: FAST

- **Liquidambar styraciflua**
  - Sweetgum
  - GROWTH RATE: FAST

- **Taxodium distichum**
  - Bald Cypress
  - GROWTH RATE: MEDIUM

- **Quercus palustris**
  - Pin Oak

- **Quercus bicolor**
  - Swamp White Oak

- **Celtis occidentalis**
  - Hackberry

- **Betula nigra ‘Heritage’**
  - Heritage River Birch

- **Liquidambar styraciflua**
  - Sweetgum

- **Taxodium distichum**
  - Bald Cypress
Liriodendron tulipifera
Tulip poplar
GROWTH RATE: FAST

Quercus rubra
Red Oak
GROWTH RATE: FAST

Quercus coccinea
Scarlet Oak
GROWTH RATE: FAST

Catalpa speciosa
Catalpa
GROWTH RATE: FAST

Gymnocladus dioicus
Coffee Tree
GROWTH RATE: MEDIUM

Platanus acerifolium
London plane trees
GROWTH RATE: FAST

Metasequoia glyptostroboides
Dawn Redwood
GROWTH RATE: FAST

Catalpa - multi trunk
Multi-trunk catalpa
GROWTH RATE: FAST

Quercus rubra
Red Oak
GROWTH RATE: FAST

Catalpa speciosa
Catalpa
GROWTH RATE: FAST

PRIMARY SPECIES

Shade Strategy
Pastoral Openings
Shade Strategy
Maritime Edge

PRIMARY SPECIES

Liquidambar styraciflua
Sweetgum
GROWTH RATE: FAST

Rhus typhina
Staghorn Sumac
GROWTH RATE: FAST

Gleditsia triacanthos
Honey Locust
GROWTH RATE: MEDIUM

Gymnocladus dioicus
Coffee tree
GROWTH RATE: MEDIUM

Gleditsia triacanthos
Honey Locust
GROWTH RATE: FAST

Liquidambar styraciflua
Sweetgum
GROWTH RATE: FAST

Gleditsia triacanthos
Honey Locust
GROWTH RATE: MEDIUM

PRIMARY SPECIES

Rhus typhina
Staghorn Sumac
GROWTH RATE: FAST

Gymnocladus dioicus
Coffee tree
GROWTH RATE: MEDIUM

Gleditsia triacanthos
Honey Locust
GROWTH RATE: MEDIUM

Liquidambar styraciflua
Sweetgum
GROWTH RATE: FAST

Gleditsia triacanthos
Honey Locust
GROWTH RATE: MEDIUM

PRIMARY SPECIES

Rhus typhina
Staghorn Sumac
GROWTH RATE: FAST

Gymnocladus dioicus
Coffee tree
GROWTH RATE: MEDIUM

Gleditsia triacanthos
Honey Locust
GROWTH RATE: MEDIUM

Liquidambar styraciflua
Sweetgum
GROWTH RATE: FAST

Gleditsia triacanthos
Honey Locust
GROWTH RATE: MEDIUM
NOTE:
901 TREES TO BE REMOVED IN EAST RIVER PARK;
1,606 NEW TREES ARE PROPOSED IN EAST RIVER PARK;

SCALE: 1" = 160'-0"
**Planting Spatial Concept PA1**

- **High, Full Canopy Creates Connected, Dappled Shade**
  - Location: Western urban edge of park. Ornamental understory trees, conifers, shrubs, and perennials provide visual interest along paths and slopes while buffering views.
  - Maintenance: Trees, shrubs, groundcovers

- **Tall, Spreading Canopy, with Dappled Shade**
  - Location: Maritime edges of open spaces and esplanade.
  - Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge.
  - Maintenance: Trees, shrubs, grasses

- **Clear Understory with Open Lawn**
  - Location: Open lawns and spectator areas.
  - Lawn groundplane maintains open sight lines and open circulation.
  - Maintenance: Trees, lawn

- **Colorful, Textural Perennial & Grass Groundplane**
  - Location: Clearing edges and special areas.
  - Ornamental understory trees and a low perennial groundplane maintain veiled, eye-level sight lines.
  - Maintenance: Trees, garden beds

- **Ornamental, Seasonal Understory Trees**
  - Location: Maritime edges of open spaces and esplanade.
  - Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge.
  - Maintenance: Trees, shrubs, grasses

- **Ornamental, Maritime Perennials & Groundplane**
  - Location: Maritime edges of open spaces and esplanade.
  - Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge.
  - Maintenance: Trees, shrubs, grasses

- **Woodland Edges**
  - Location: Maritime edges of open spaces and esplanade.
  - Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge.
  - Maintenance: Trees, shrubs, grasses

- **Pastoral Openings**
  - Location: Open lawns and spectator areas.
  - Lawn groundplane maintains open sight lines and open circulation.
  - Maintenance: Trees, lawn

- **Layered Groves**
  - Location: Clearing edges and special areas.
  - Ornamental understory trees and a low perennial groundplane maintain veiled, eye-level sight lines.
  - Maintenance: Trees, garden beds

- **Maritime Edges**
  - Location: Maritime edges of open spaces and esplanade.
  - Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge.
  - Maintenance: Trees, shrubs, grasses
**Maritime Edges**

- **Location:** Edges of open spaces and esplanade
- **Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge**
- **Maintenance:** Trees, shrubs, grasses
SHRUBS

- Amorpha fruticosa
- Callicarpa americana
- Comptonia peregrina
- Cotinus obovatus
- Fothergilla major
- Spiraea tomentosa

GROUND-COVERS

- Amsonia hubrichtii
- Anemone canadensis
- Asclepias incarnata
- Asclepias tuberosa
- Echinacea purpurea
- Hibiscus coccineus

- Bluebeelite
- Monarda punctata
- Panicum virgatum
- Phlox paniculata
- Rudbeckia hirta
- Symphyotrichum novi-angeli

- Layers of groves

- Location: Clearing edges and special areas
- Ornamental understory trees and a low perennial groundplane maintain veiled, eye-level sight lines
- Maintenance: Trees, garden beds

Planting
Palette PA1
• Location: Western urban edge of park.
Ornamental understory trees, conifers, shrubs, and perennials provide visual interest along paths and slopes while buffering views
• Maintenance: Trees, shrubs, groundcovers
NATIVE PLANT COMMUNITIES ARE LEARNING OPPORTUNITIES THAT ALSO PROVIDE INSPIRATION FOR PLANTING DESIGN
Planting Palette PA2

Trees

- **Acer rubrum**
- **Amalanchier laevis**
- **Celtis occidentalis**
- **Gleditsia triacanthos**
- **Juniperus virginiana**
- **Nyssa sylvatica**
- **Pinus rigida**
- **Pinus virginiana**
- **Quercus bicolor**
- **Quercus coccinea**
- **Quercus nuttallii**
- **Quercus palustris**
- **Rhus typhina**

NO CHANGE FROM APPROVED
Carex stricta  Carex pensylvatica  Carex vulpinoidea  Juncus effusus  Juncus tenius  Panicum virgatum ‘Ruby Ribbons’

Anemone canadensis  Aquilegia canadensis  Asclepias incarnata  Echinacea purpurea  Equisetum hyemale  Eutrochium dubium

Helianthus decapetalus  Hibiscus coccineus  Hibiscus moscheutos  Iris versicolor  Liatris spicata  Lobelia cardinalis*

Monarda didyma  Monarda punctata  Onoclea sensibilis  Verbena hastata  Vernonia noveboracensis  Zizia aurea*

*Solar1 Plant List (2016)  *Short-Lived
**Planting Palette PA2**

No Change from Approved

**Grasses**
- *Bouteloua curtipendula*
- *Bouteloua gracilis*
- *Carex albicans*
- *Carex pensylvanica*
- *Chasmanthium latifolium*
- *Deschampsia flexuosa*
- *Panicum virgatum* (Ruby Ribbons)
- *Schizachyrium scoparium*
- *Sporobolus cryptandrus*
- *Sporobolus heterolepis*
- *Sorghastrum nutans*

**Perennials**
- *Amsonia hubrichtii*
- *Asclepias syriaca* *
- *Asclepias tuberosa* *
- *Asclepias verticillata* *
- *Baptisia australis*
- *Baptisia australis*
- *Chytrium purpureum* *
- *Echinacea purpurea* *
- *Eryngium yuccifolium*
- *Eutrochium purpureum* *
- *Geum triflorum* *
- *Helianthus decapetalus*
- *Liatris aspera*
- *Liatris scariosa novae angliae* *
- *Monarda fistulosa*
- *Phlox paniculata*
- *Rudbeckia fulgida* *
- *Solidago juncea*
- *Solidago rigida* *
- *Symphyotrichum novi-belgii*
- *Symphyotrichum oblongifolium* *
- *Zizia aptera* / aurea* (*

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ONE ARCHITECTURE AND URBANISM
NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY

**PDC Final Review**
**East Side Coastal Resiliency Project**
**December 16, 2019**
SHRUBS

- Amorpha frutiosa
- Ceanothus americanus
- Clethra alnifolia
- Diervilla lonicera
- Diervilla sessilifolia
- Hypericum prolificum
- Itea virginica
- Morella pensylvanica
- Prunus maritima
- Rhus aromatic
- Rosa carolina
- Rosa virginica

GRASSES

- Andropogon virginicus
- Bouteloua gracilis
- Carex albicans
- Carex pensylvanica
- Chasmanthium latifolium
- Deschampsia flexuosa
- Panicum virgatum
- Ruby Ribbons
- Schizachyrium scoparium
- Sporabolis heterolepis

PERENNIALS

- Achillea millefolium
- Amsonia hubrichtii
- Asclepias verticillata
- Aster prenanthoides
- Eryngium yuccifolium
- Monarda punctata
- Phlox divaricata
- Physostegia virginiana
- Pycnanthemum tenuifolium
- Rudbeckia fulgida
- Solidago odora
- Solidago graminifolia
- Solidago semper-virens
- Symphyotrichum oblongifolium
- Zizia aptera
- Zizia aurea

Planting Palette PA2

NO CHANGE FROM APPROVED
Plants for Playgrounds

**Trees**
- Acer rubrum
- Celtis occidentalis
- Gleditsia triacanthos
- Ilex opaca ‘Jersey Queen’
- Liquidambar rotundifolia

**Small Trees**
- Quercus rubra
- Quercus phellos
- Quercus bicolor
- Quercus coccinea
- Amelanchier canadensis ‘Autumn Brilliance’
- Chionanthus retusus
- Magnolia Virginiana
- Prunus serrulata ‘Mt. Fuji’

**Planting Palette PA2**