

# NORTH/WEST BATTERY PARK CITY RESILIENCY PROJECT

Reach 5 Workshop

March 15, 2023



Battery Park  
City Authority

Turner & CRUZ ARCADIS SCAPE BIG WSP

## Project Team

### CLIENT TEAM:

#### CLIENT:



#### ADVISORS:



#### CONSULTANTS:



### DESIGN-BUILD TEAM:

#### PRIMARY CONTRACT:



#### CONSULTANT:



#### SUB-CONSULTANTS:



## Project Schedule



Precise construction completion dependent upon agency permitting and approvals

**BATTERY PARK CITY**



# A Piece of a Connected & Resilient Waterfront





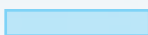


# Today's Focus Area



# Future Flood Risk

REACH 5

## LEGEND

-  SWEL\* DURING A 100-YEAR STORM EVENT WITH 2.5 FT OF SLR
-  PROJECT AREA
-  FERRY ROUTE

STILL WATER ELEVATION (SWEL) DOES NOT INCLUDE WAVE ACTION



STILL WATER ELEVATION (SWEL) DURING A 100-YEAR STORM EVENT WITH 2.5 FT OF SEA LEVEL RISE

# REACH 5 NORTH COVE



Reach 5

REACH 5

HUDSON RIVER

FERRY  
TERMINAL

PATH TUNNELS

PATH TUNNELS

BELVEDERE  
PLAZA

300 VESEY  
STREET

NORTH COVE  
MARINA

KOWSKY  
PLAZA

NORTH END AVE.

WATERFRONT  
PLAZA

250 VESEY  
STREET

PUMPHOUSE  
PARK

225 LIBERTY  
STREET



## What We Heard

- **Preserve views of waterfront.**
- **Need more greenery and shade.**
- **Improve accessibility and circulation in the plaza area.**

# What We Heard



## REACH 5A: UPLAND PLAZA

### ADVANTAGES:

- Reduced flood barrier height
- Maintains most sight-lines to Hudson River
- Opportunity for new resilient hard and softscape design
- Redesign of plaza spaces to improve accessibility and programming
- Opportunity for improved access to the water and universal access

### DISADVANTAGES:

- More disruption to North Cove Marina and Esplanade Plaza during construction
- Some areas of the plaza may still flood during major storm events



## REACH 5B: BARGE GATE

### ADVANTAGES:

- Reduced disruption to North Cove Marina and Esplanade Plaza during construction
- Minimal changes to plaza design

### DISADVANTAGES:

- Increased flood barrier height
- Significant impact on sight-lines to Hudson River
- Minimal opportunity for plaza upgrades
- Higher cost and complexity in operations and maintenance
- More complex and higher construction cost

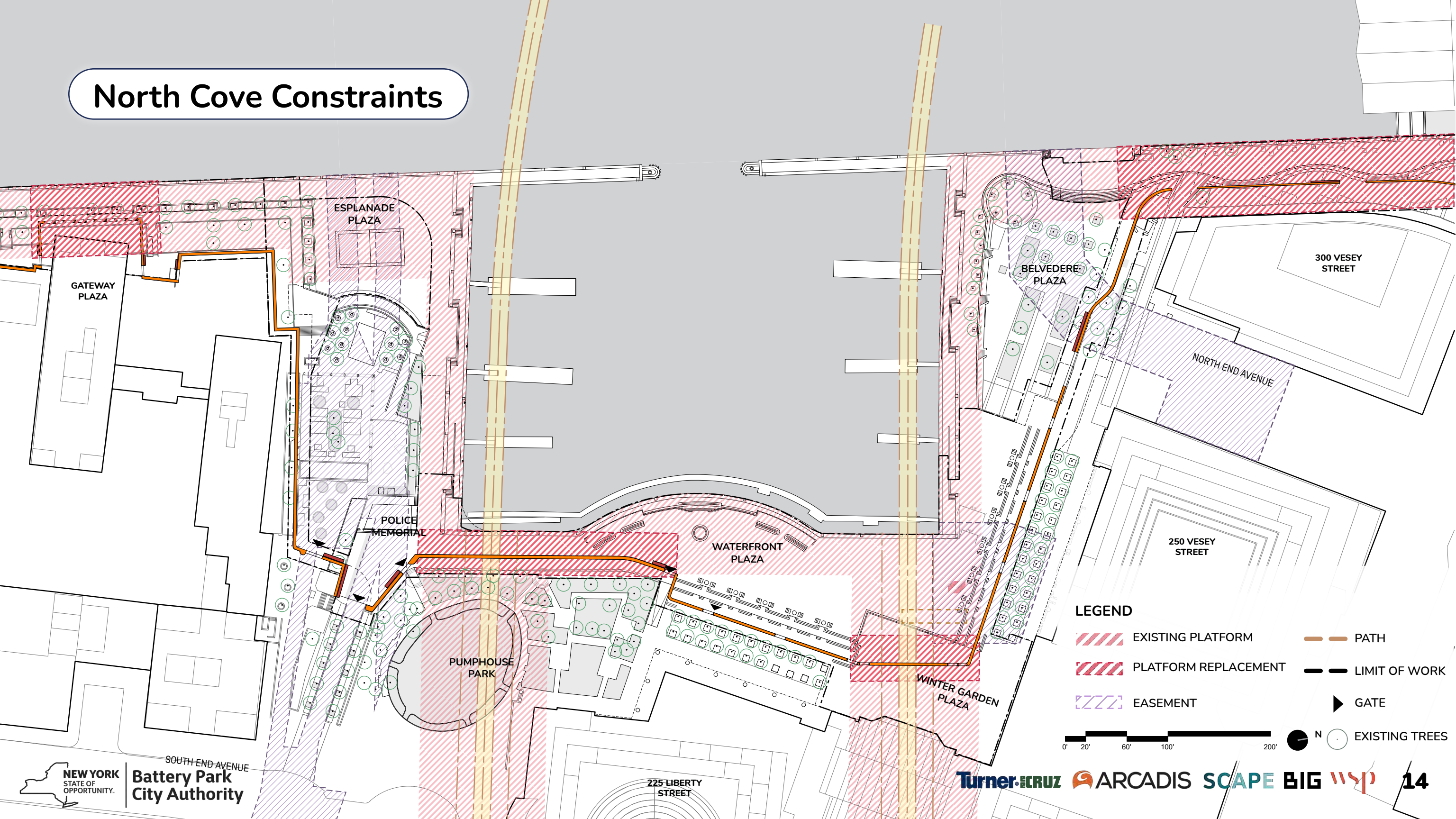






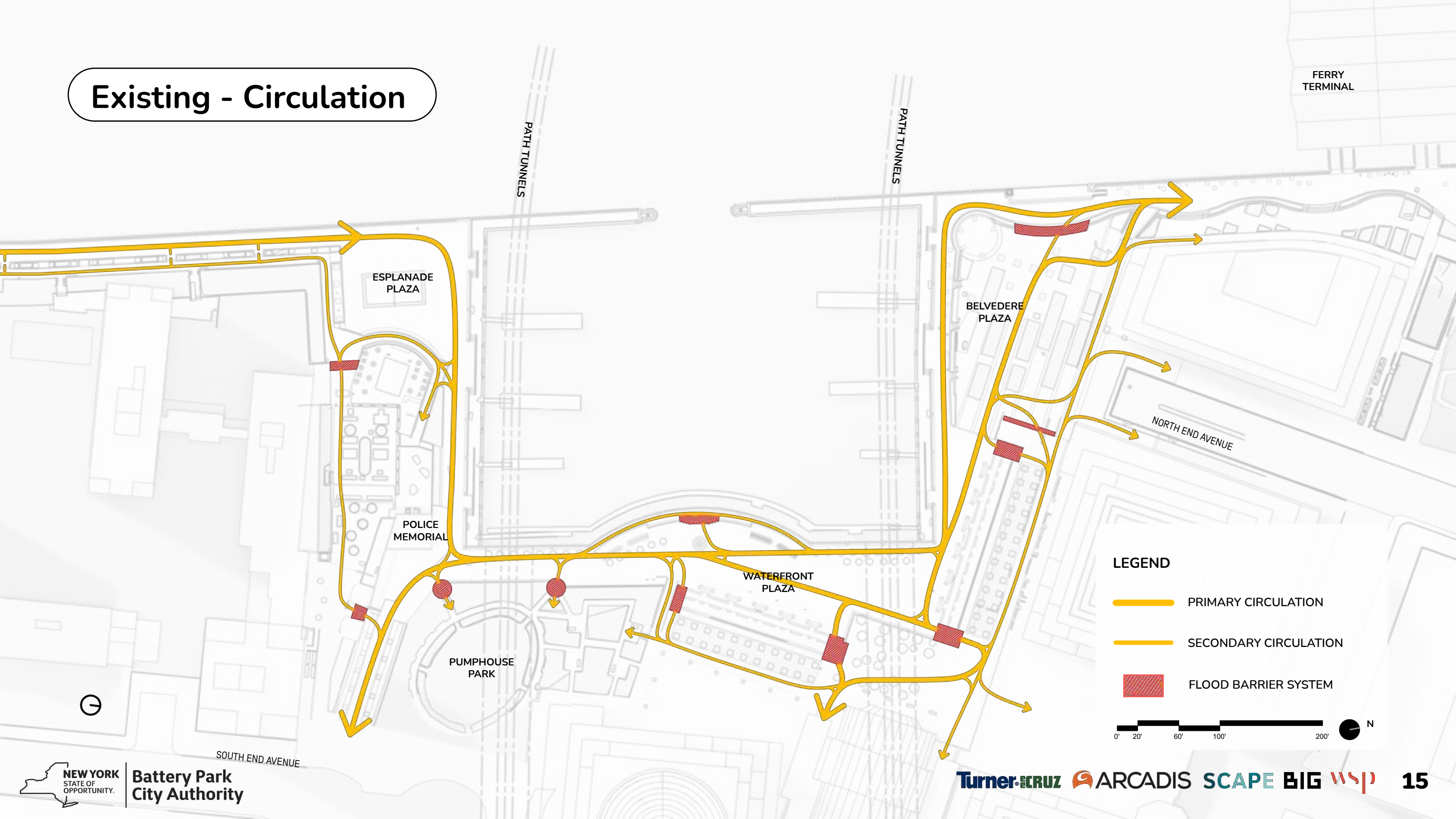


# North Cove Constraints





# Existing - Circulation

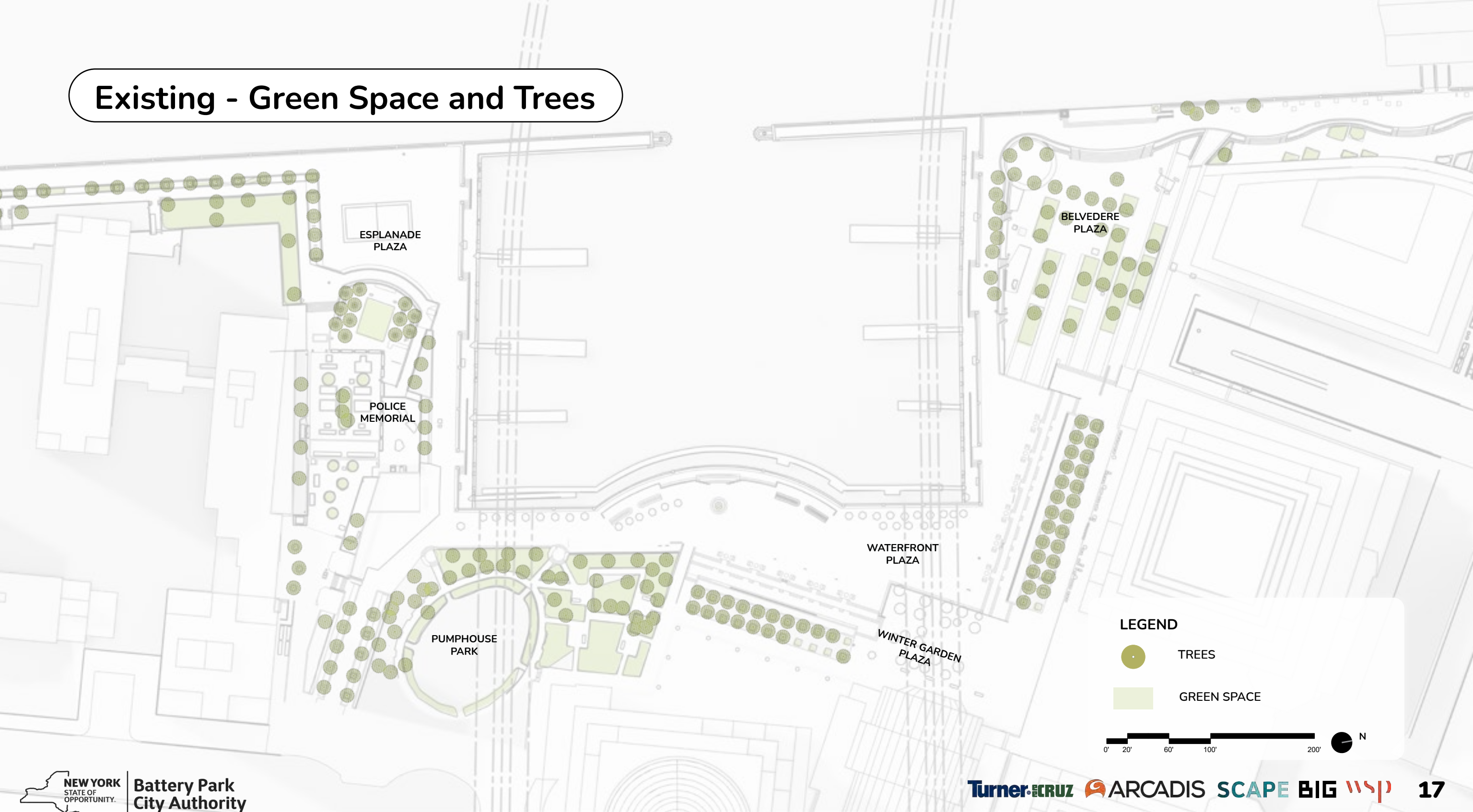


# Existing - Programming





# Existing - Green Space and Trees

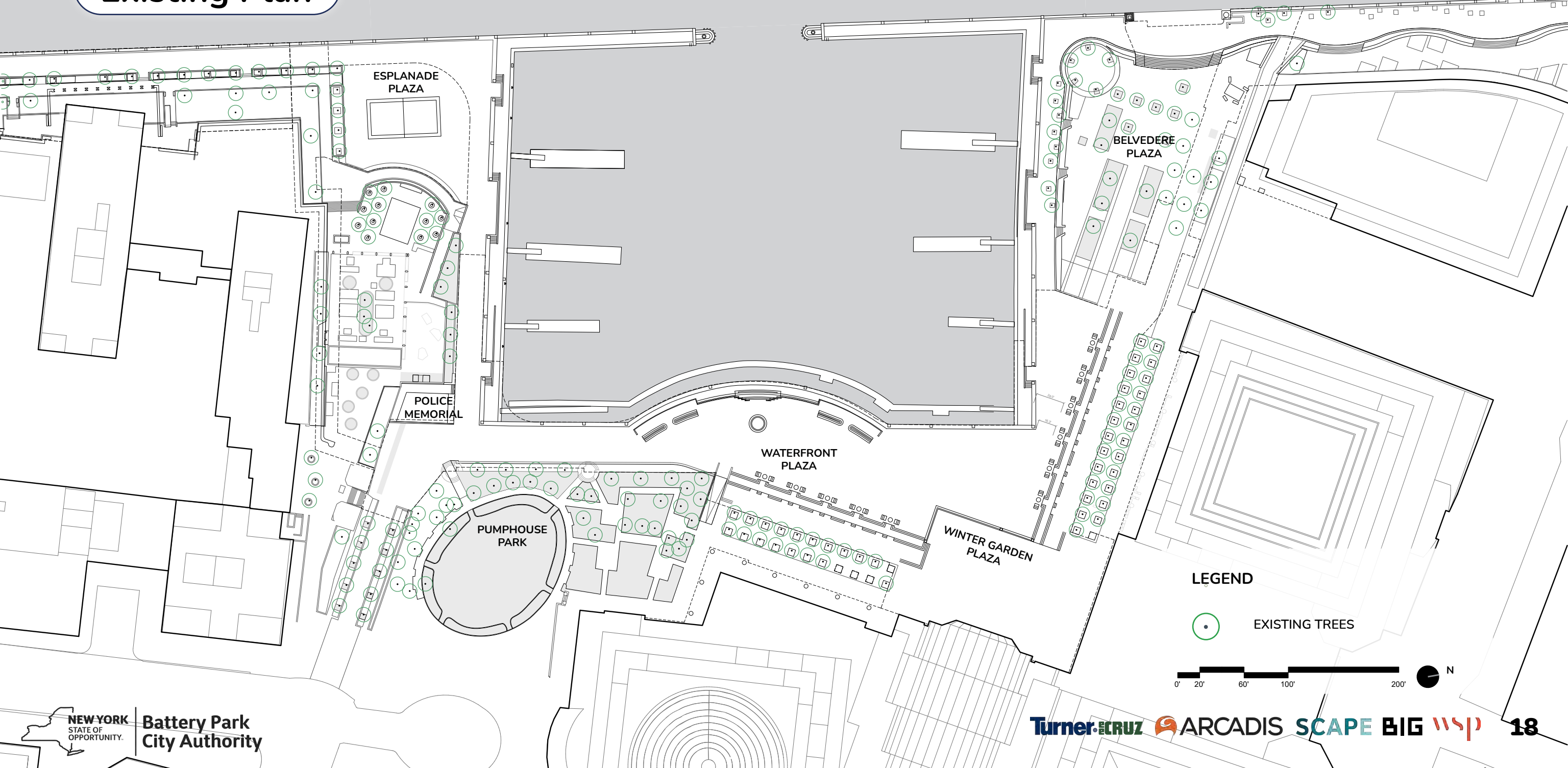


### LEGEND

- TREES
- GREEN SPACE



# Existing Plan



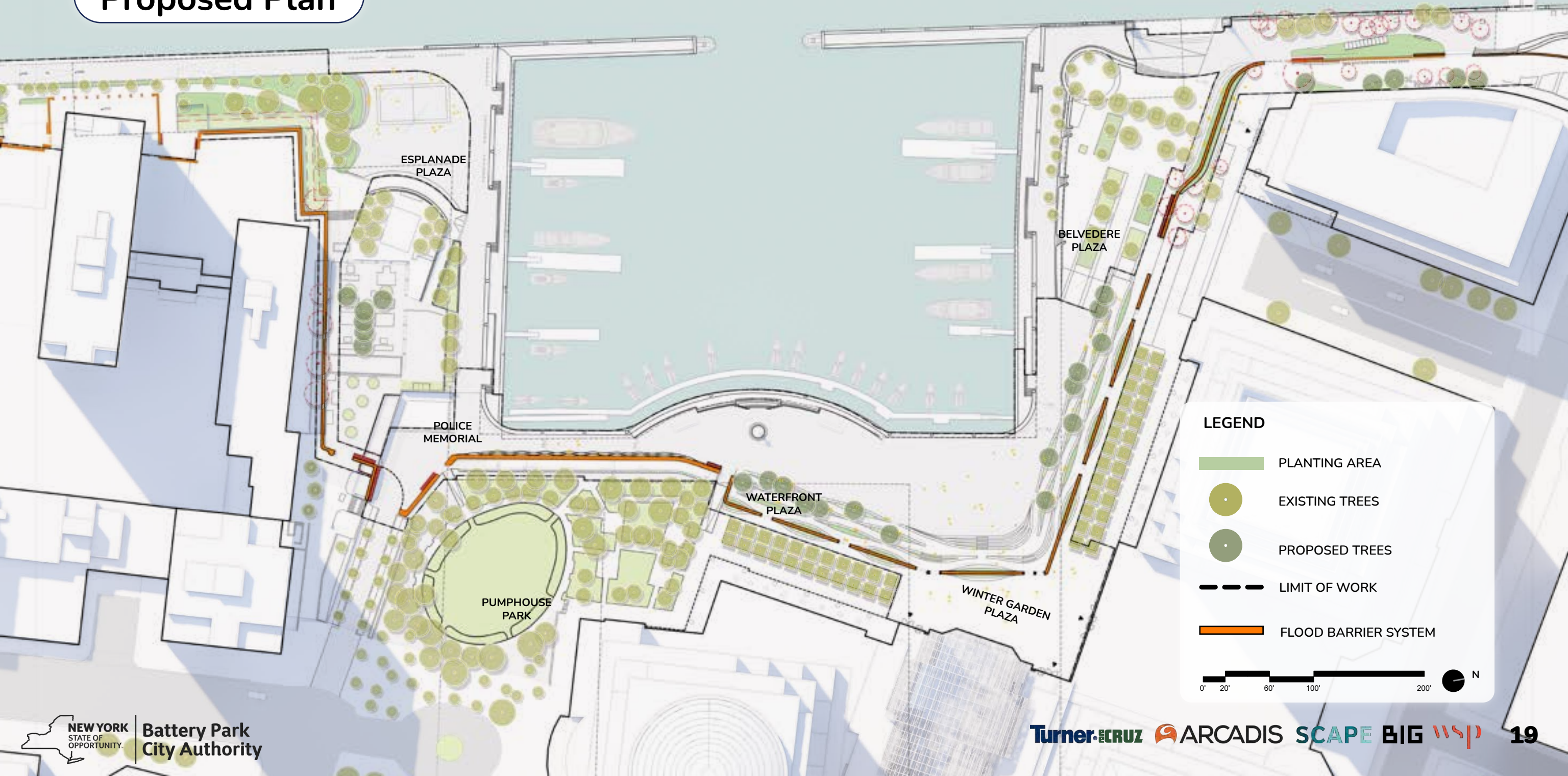
## LEGEND

EXISTING TREES





# Proposed Plan



**LEGEND**

- PLANTING AREA
- EXISTING TREES
- PROPOSED TREES
- LIMIT OF WORK
- FLOOD BARRIER SYSTEM

0' 20' 60' 100' 200' N

# BELVEDERE PLAZA

## NORTH COVE







# Belvedere Plaza

FERRY  
TERMINAL

NORTH COVE  
MARINA

LEGEND

- EXISTING PLATFORM
- PLATFORM REPLACEMENT
- PATH TUNNEL
- EASEMENT

0'

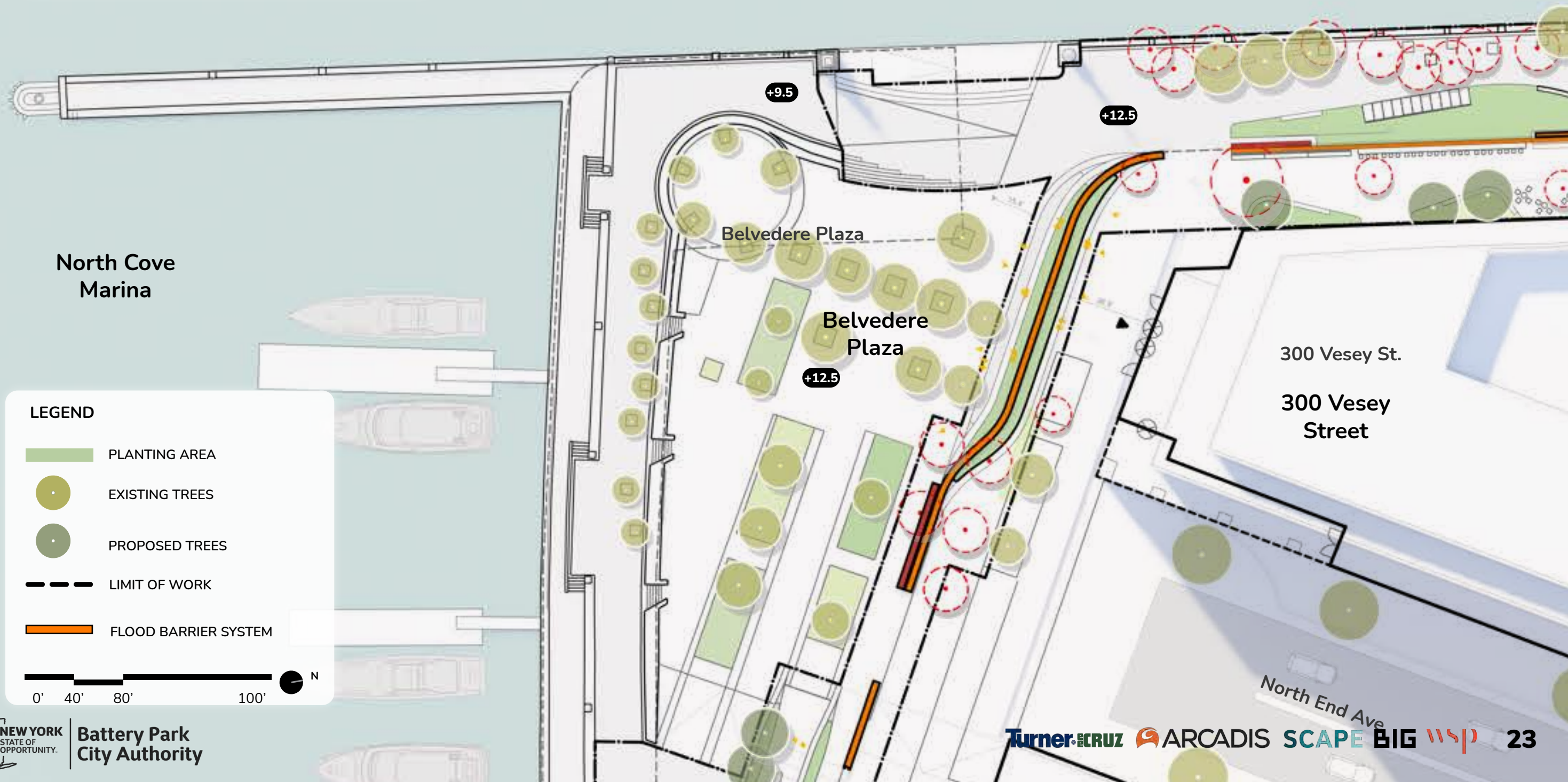
40'

80'

100'

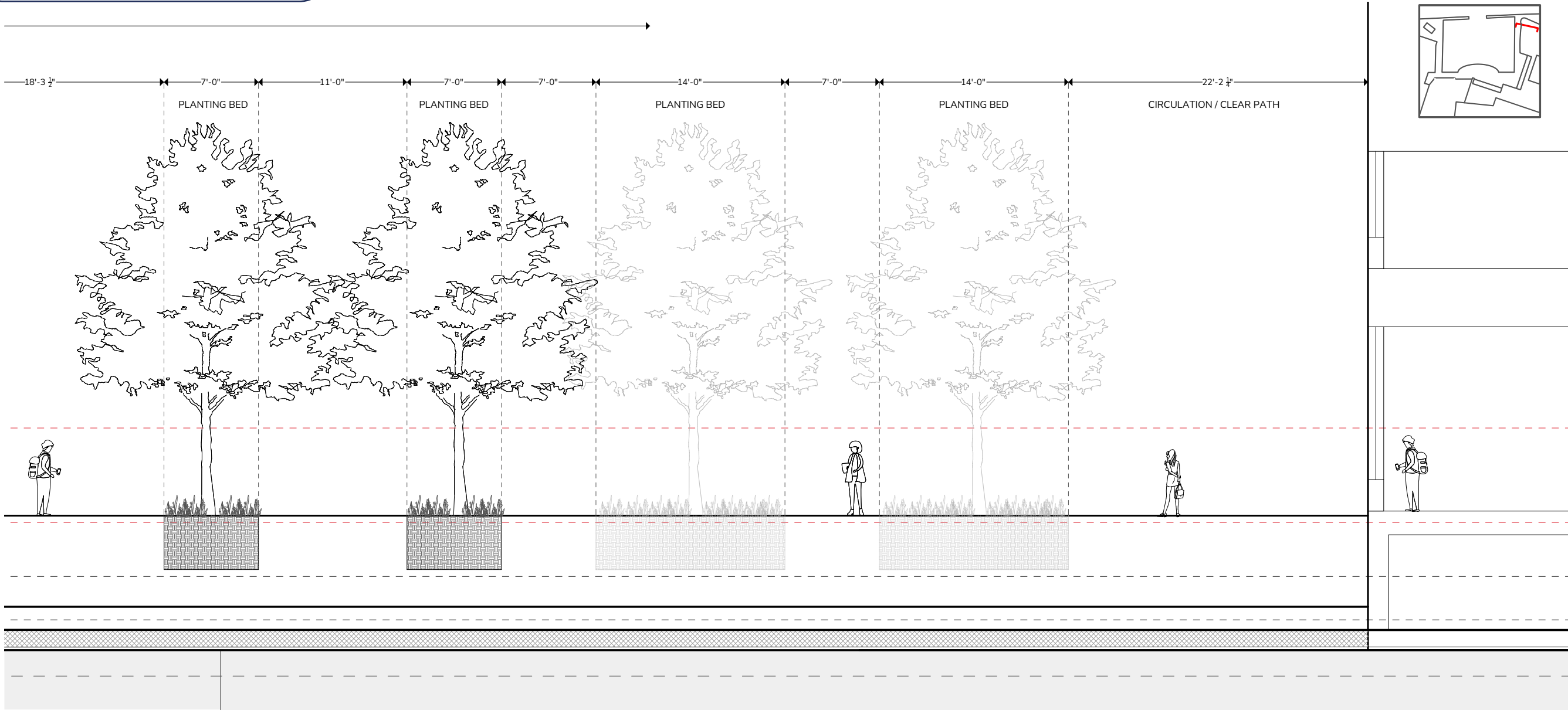
N

# Belvedere Plaza - Plan

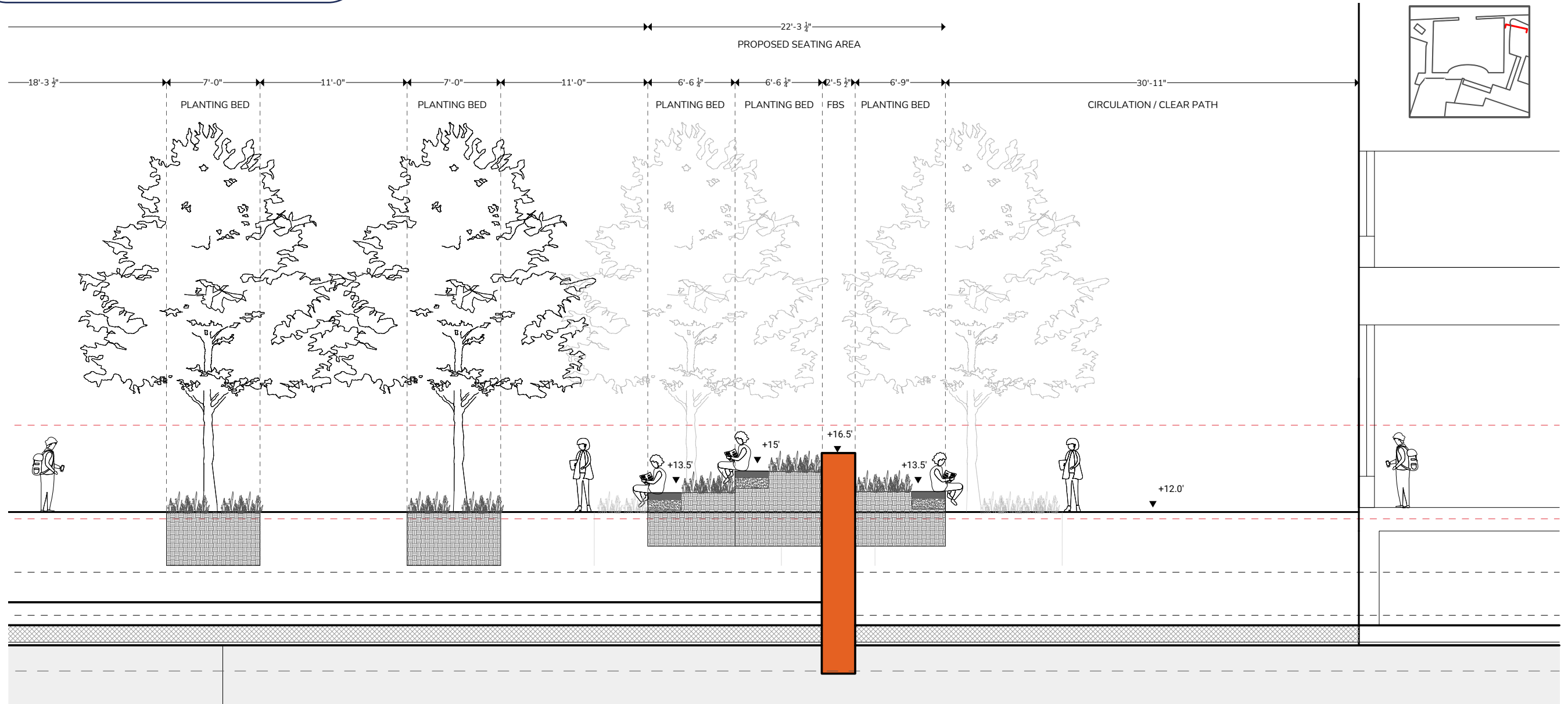




# Existing Section



# Proposed Section





## Belvedere Plaza: Proposed





## Belvedere Plaza: Proposed



+16.5'

+12.5

FG-04



## Belvedere Plaza: Existing





## Belvedere Plaza: Proposed





## Belvedere Plaza: Existing





## Belvedere Plaza: Proposed

+16.5'

+12.5'



## Belvedere Plaza: Existing





## Belvedere Plaza: Proposed

+16.5'

+12.5'



# **WATERFRONT PLAZA**

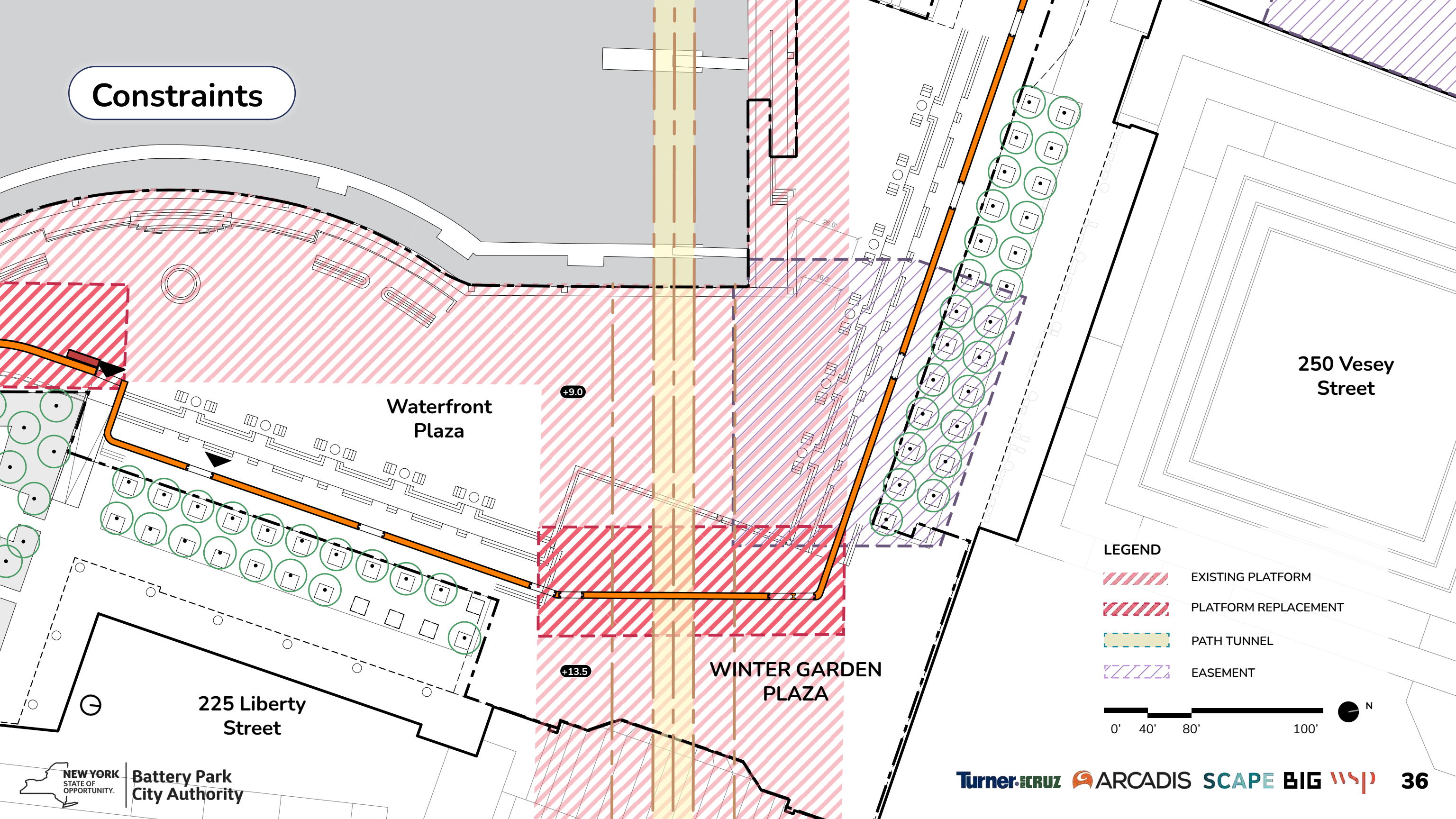
## **NORTH COVE**







# Constraints





# Waterfront Plaza - Plan



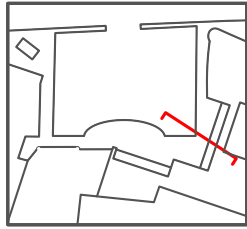
**LEGEND**

- PLANTING AREA
- EXISTING TREES
- PROPOSED TREES
- LIMIT OF WORK
- FLOOD BARRIER SYSTEM

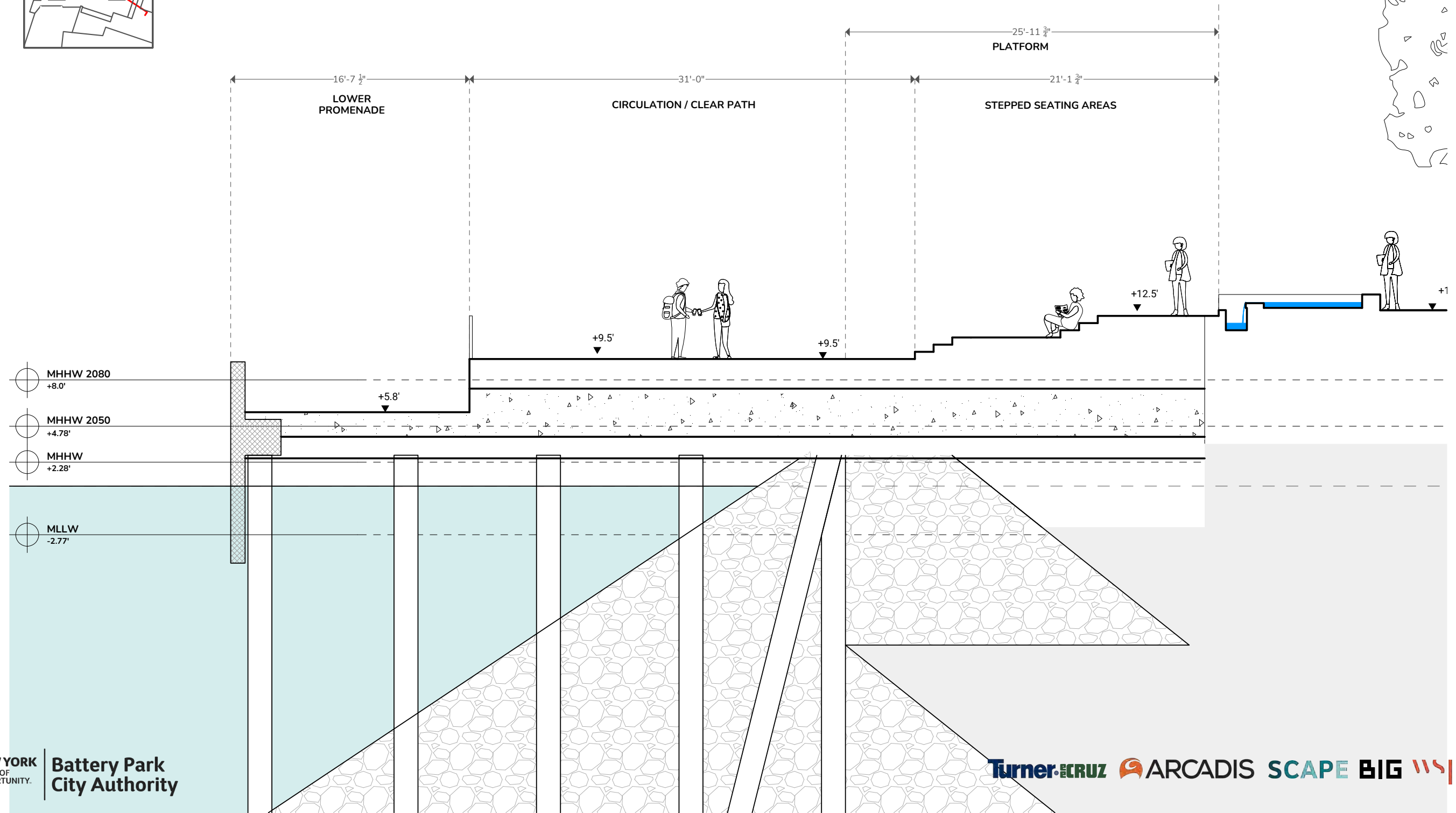
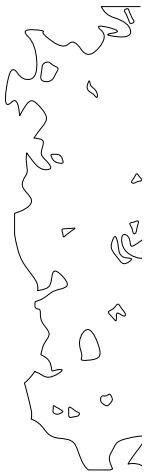
0' 40' 80' 100'

N

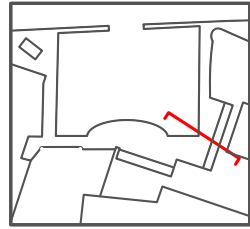




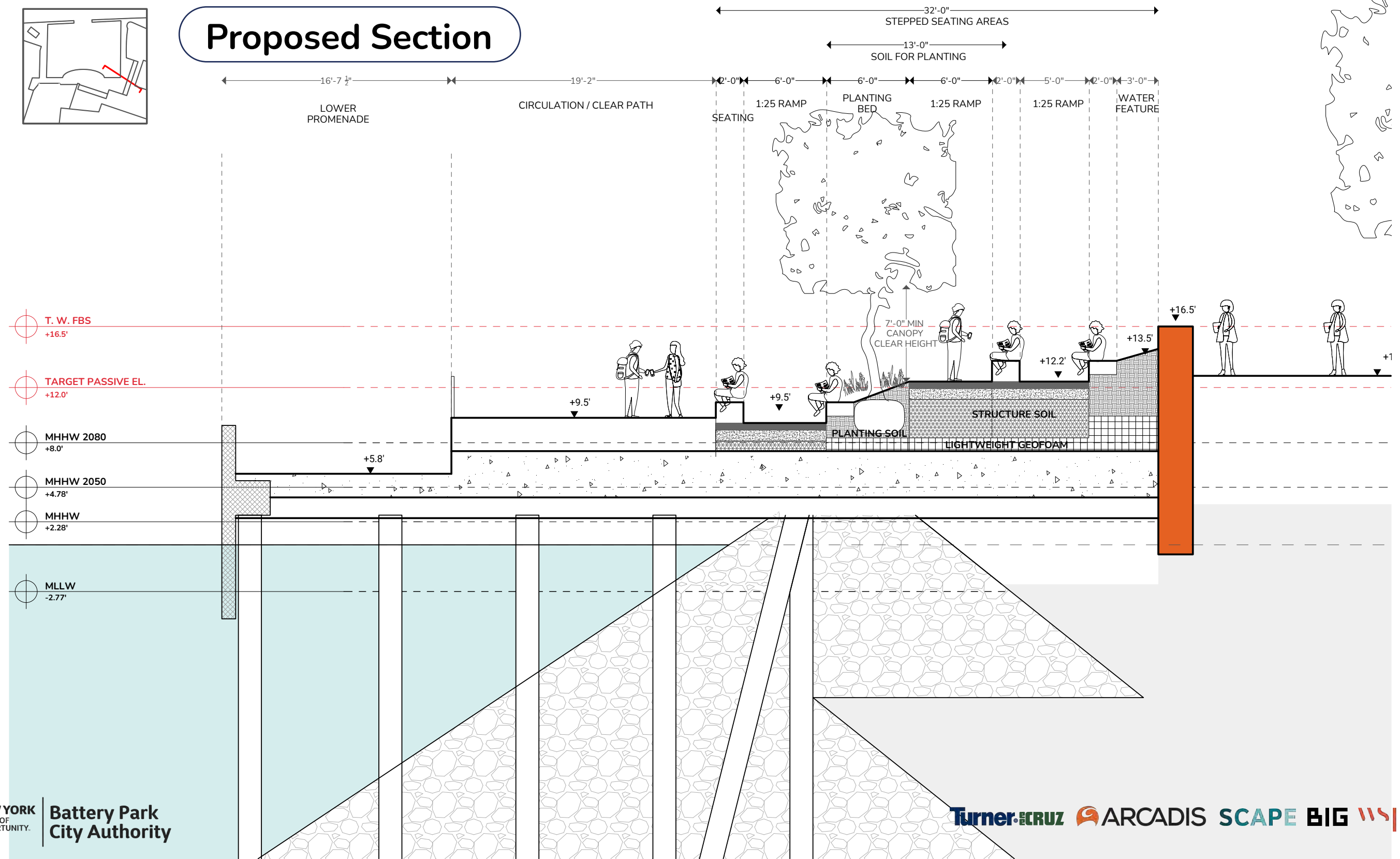
# Existing Section







# Proposed Section





## Winter Garden: Existing





# Winter Garden: Proposed





## Winter Garden: Existing





# Winter Garden: Proposed



+16.5'

+9.5'

+13.5'



# Winter Garden: Existing





# Winter Garden: Proposed

+16.5'

+9.5'



## Winter Garden: Existing





## Winter Garden: Proposed





## Winter Garden: Existing





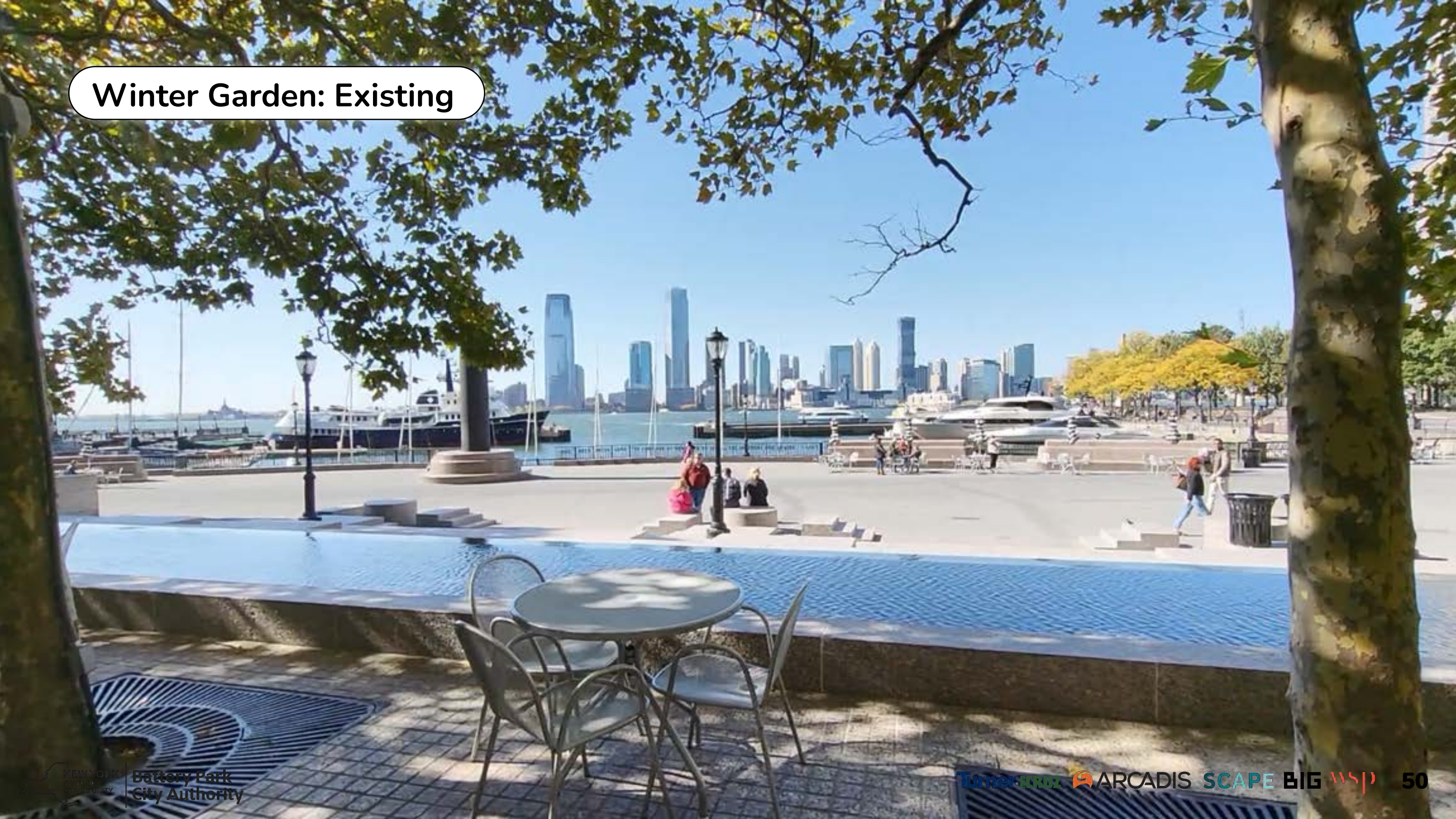
# Winter Garden: Proposed

+16.5'

+13.5'



## Winter Garden: Existing





# Winter Garden: Proposed





# PUMPHOUSE PARK

## NORTH COVE







# Pumphouse Park Constraints

## LEGEND

- EXISTING PLATFORM
- PLATFORM REPLACEMENT
- PATH TUNNEL
- EASEMENT



Kowsky Plaza

NYC Police Memorial

Platform Replacement

Waterfront Plaza

Berlin Wall

Pumphouse Park

Battery Park City Authority



# Pumphouse Park - Plan

LEGEND

- PLANTING AREA
- EXISTING TREES
- PROPOSED TREES
- LIMIT OF WORK
- FLOOD BARRIER SYSTEM

0'

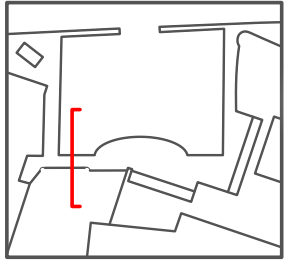
40'

80'

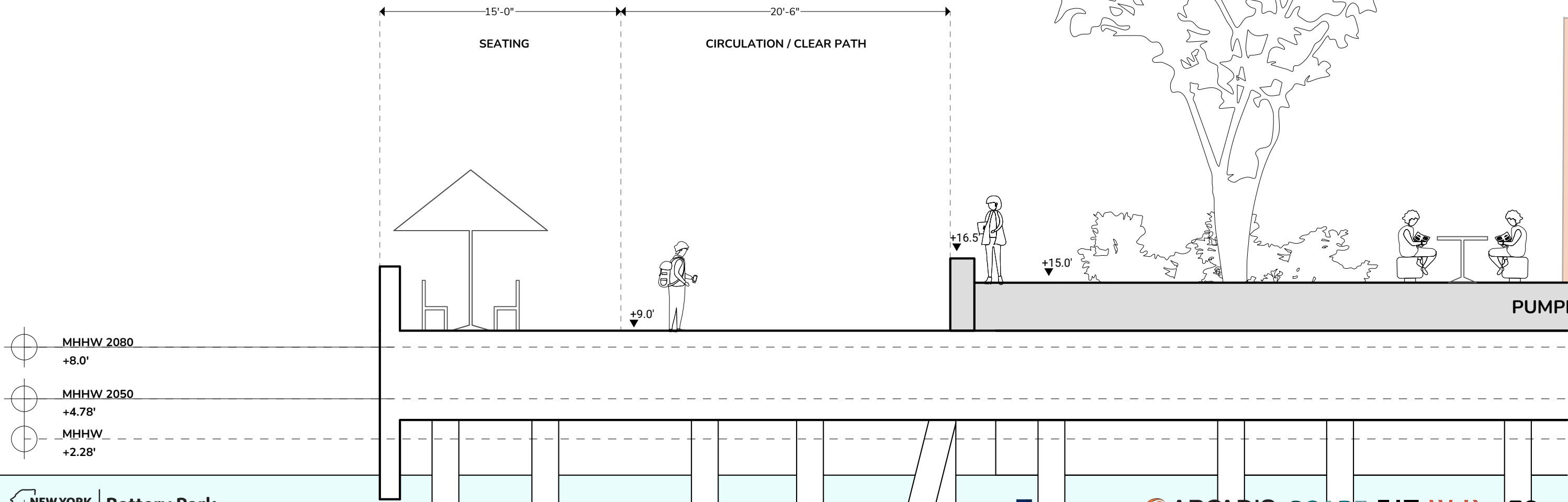
100'

N





# Existing Section





# Pumphouse Park Constraints



+17.5'

DFE

+11.0'

EXISTING RETAINING WALL

+9.5'

DATUM REFERENCE: NAVD88



# KOWSKY PLAZA

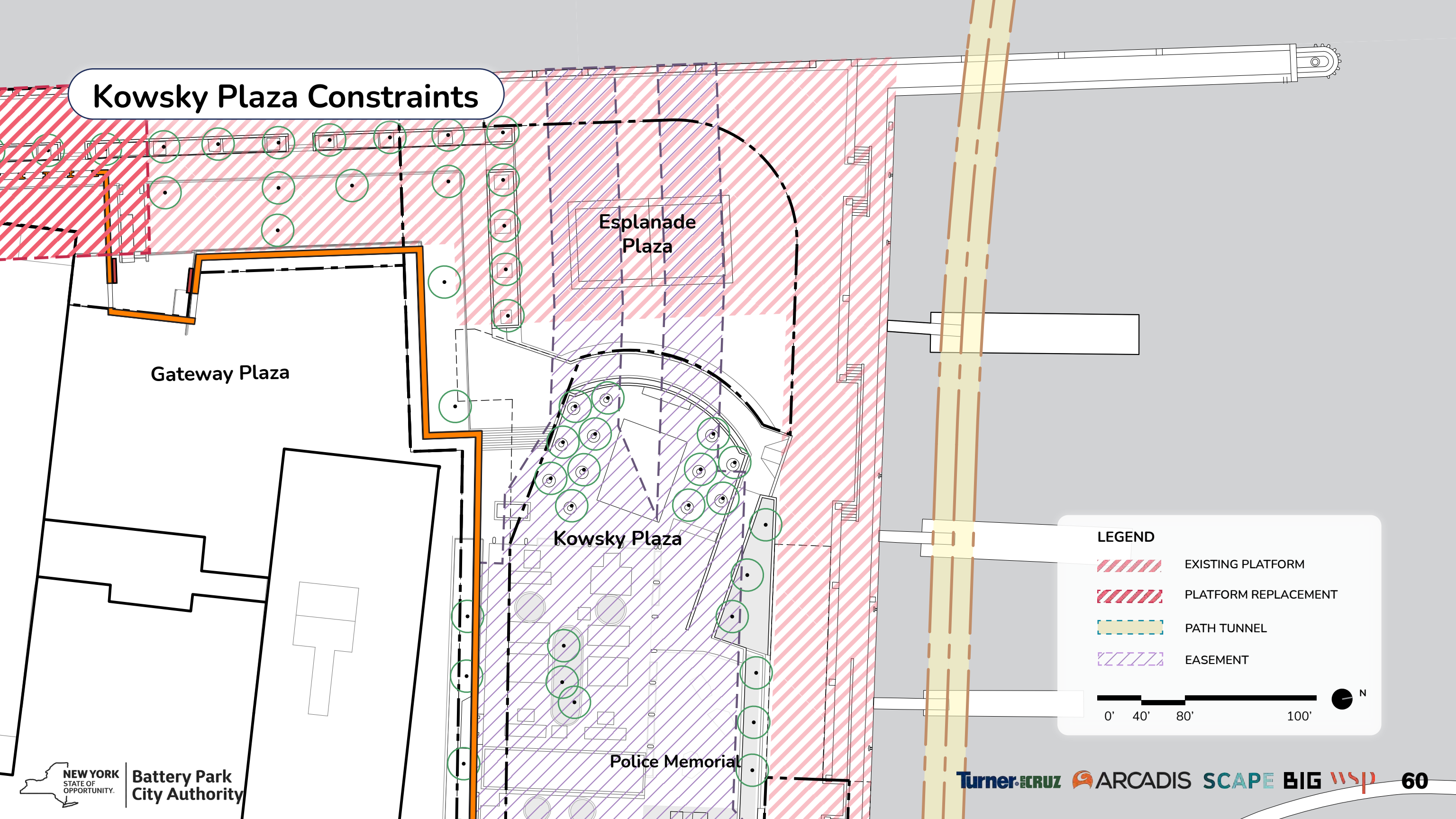
## NORTH COVE





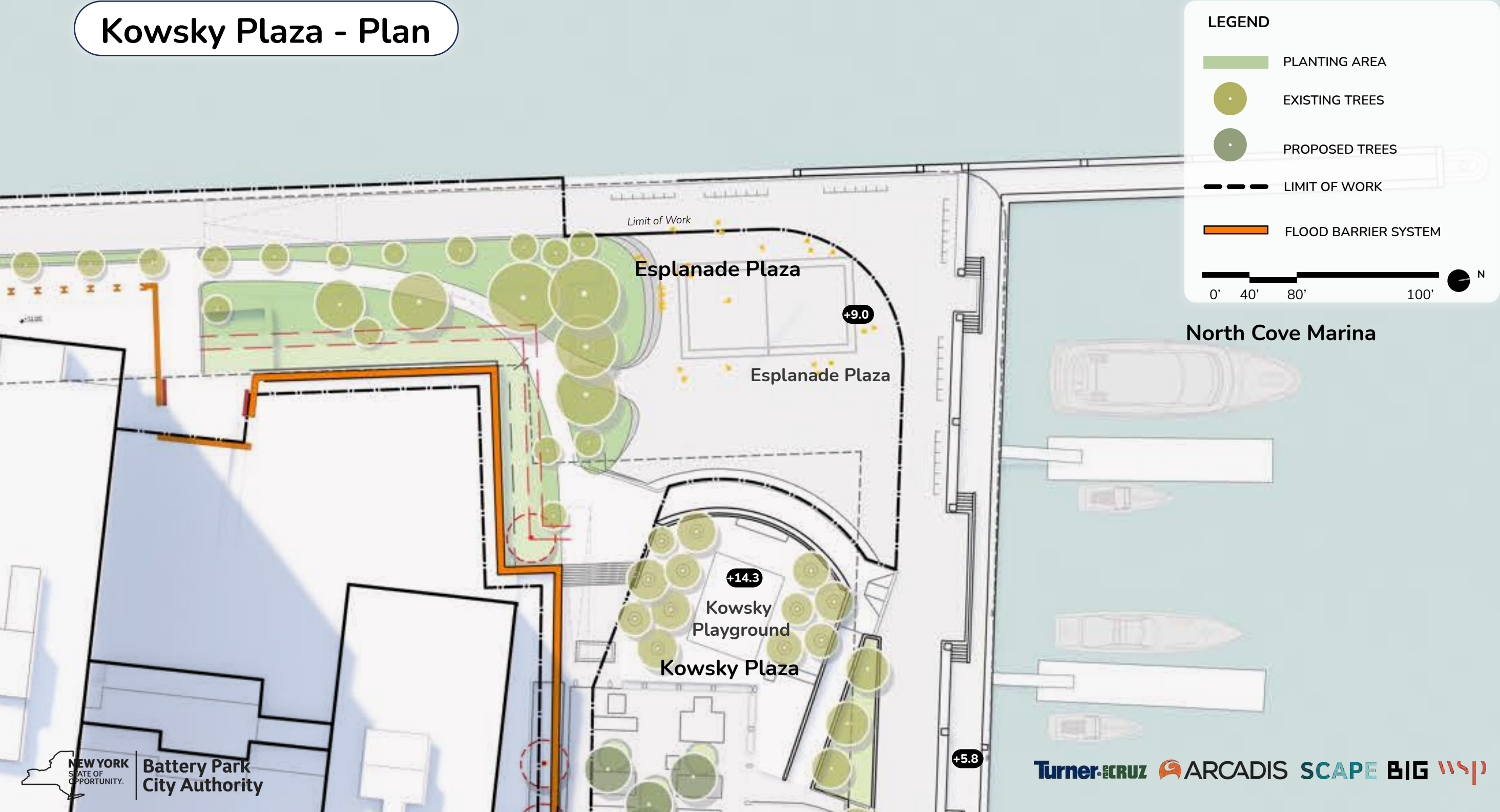


# Kowsky Plaza Constraints





# Kowsky Plaza - Plan





# Kowsky Plaza





# Kowsky Plaza Constraints



DATUM REFERENCE: NAVD88





**Battery Park  
City Authority**

**Turner & CRUZ**  **ARCADIS SCAPE BIG WSP**