

LOWER MANHATTAN COASTAL RESILIENCY PROJECT – BATTERY

CB1 Environmental Committee Meeting

July 18, 2022



Agenda:

- 1. Overview**
- 2. Pier A Tie In**
- 3. Emma Lazarus Memorial**
- 4. Castle Clinton**
- 5. Slip Lighting**
- 6. M&O Area**



Greg Sprich

PE, ENV SP

PROJECT MANAGER / CIVIL ENGINEER



Amy Seek

RLA, WEDG

LANDSCAPE ARCHITECTURE LEAD

Lower Manhattan Coastal Resiliency Projects



Existing Site Plan





Prepare for Climate Change

1. Reconstruct and elevate the wharf approximately 5 feet to address its deteriorating condition while also taking into account future sea level rise.
2. Tie into adjacent resilience projects.
3. Improve drainage.



Support Site Uses

1. Accommodate Statue of Liberty, Ellis Island, and Water Taxi vessels during and after construction.
2. Prioritize universal design.
3. Maintain sufficient seating.

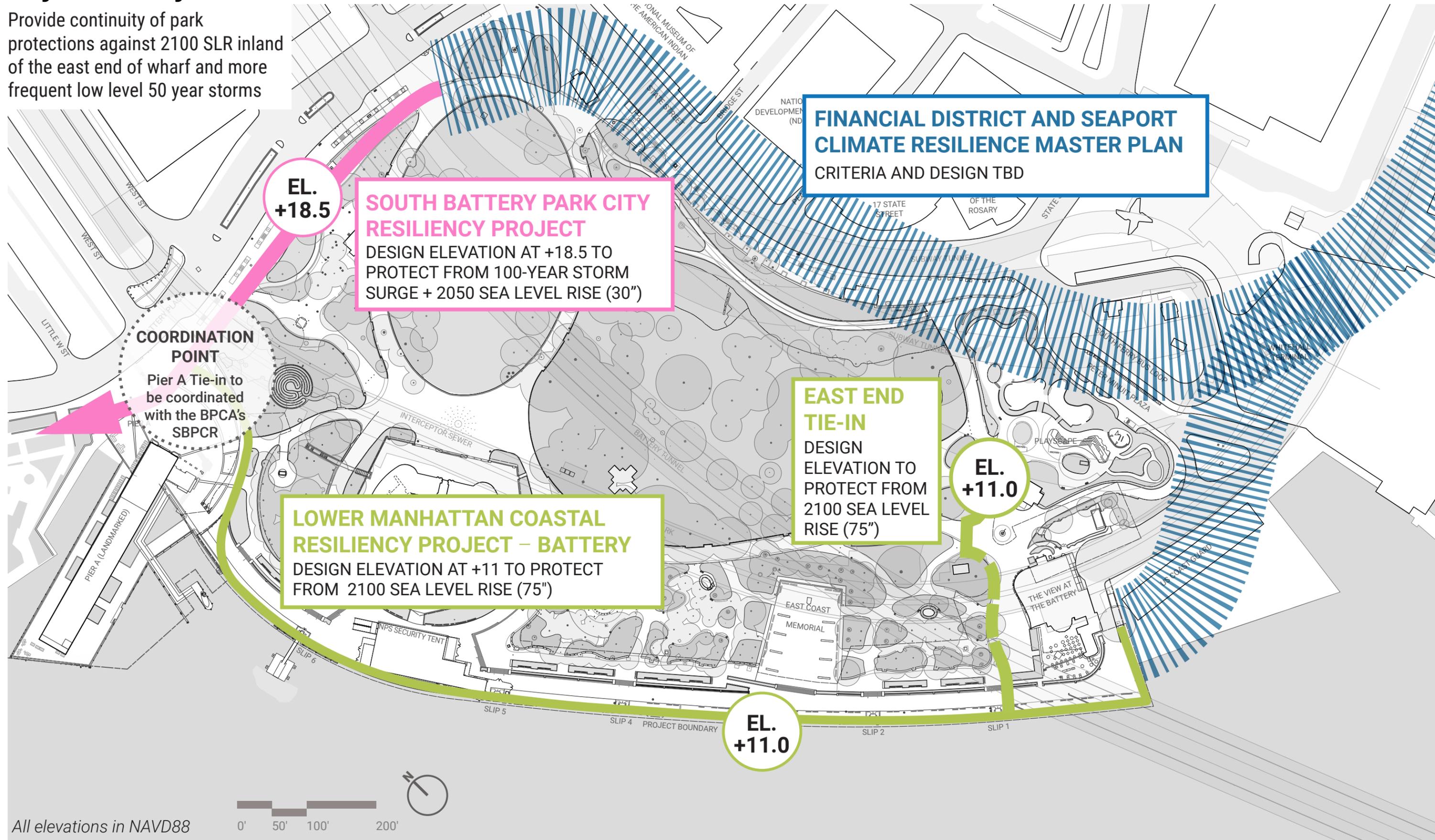


Preserve and Enhance Park Character

1. Maximize visibility of water/edge.
2. Minimize disturbance to physical structures, view corridors, and character of park.
3. Conserve existing artworks.
4. Minimize adverse impacts on historic structures and trees.
5. Reuse existing site materials.
6. Maximize sustainability of design/construction.
7. Provide new planting and public amenities.
8. Protect the park's historic resources.

Adjacent Projects

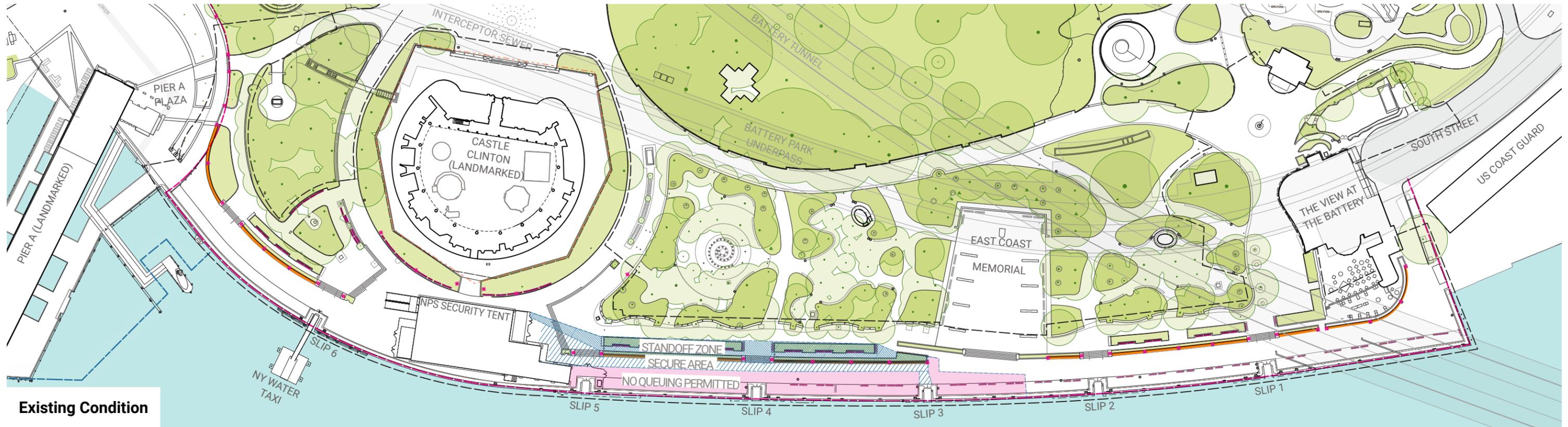
Provide continuity of park protections against 2100 SLR inland of the east end of wharf and more frequent low level 50 year storms



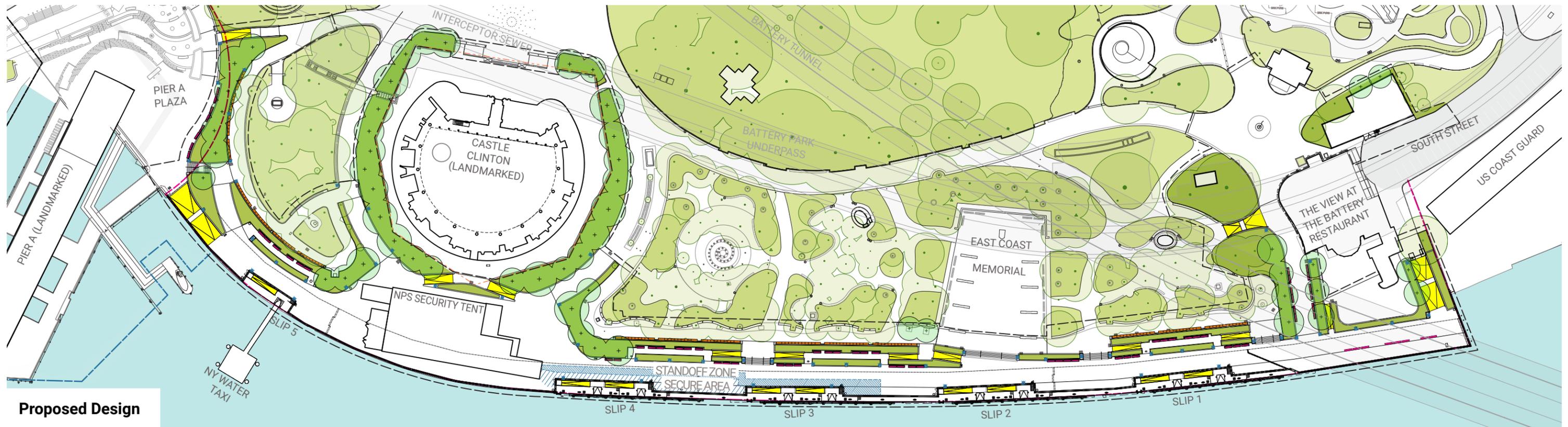
All elevations in NAVD88

Proposed Design

Overall Plan



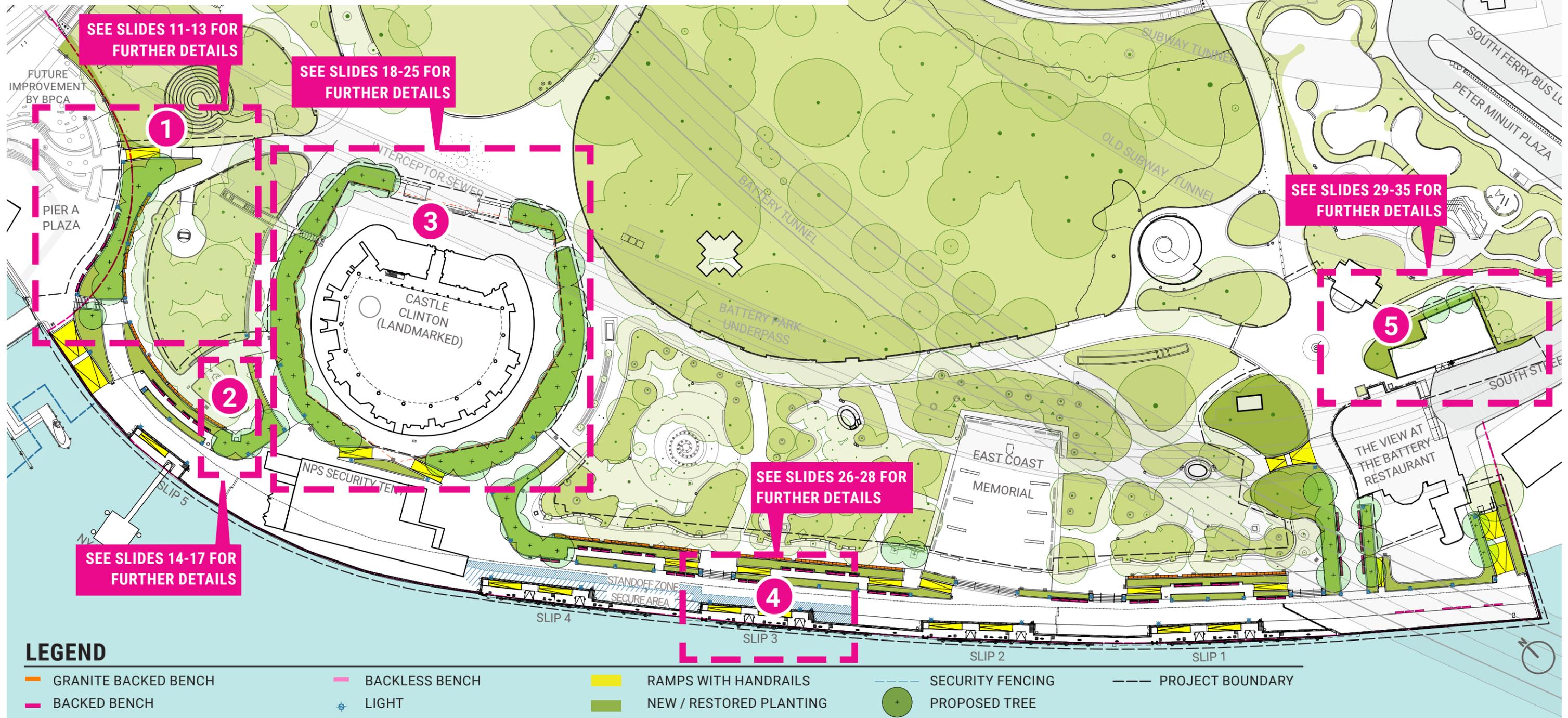
Existing Condition



Proposed Design

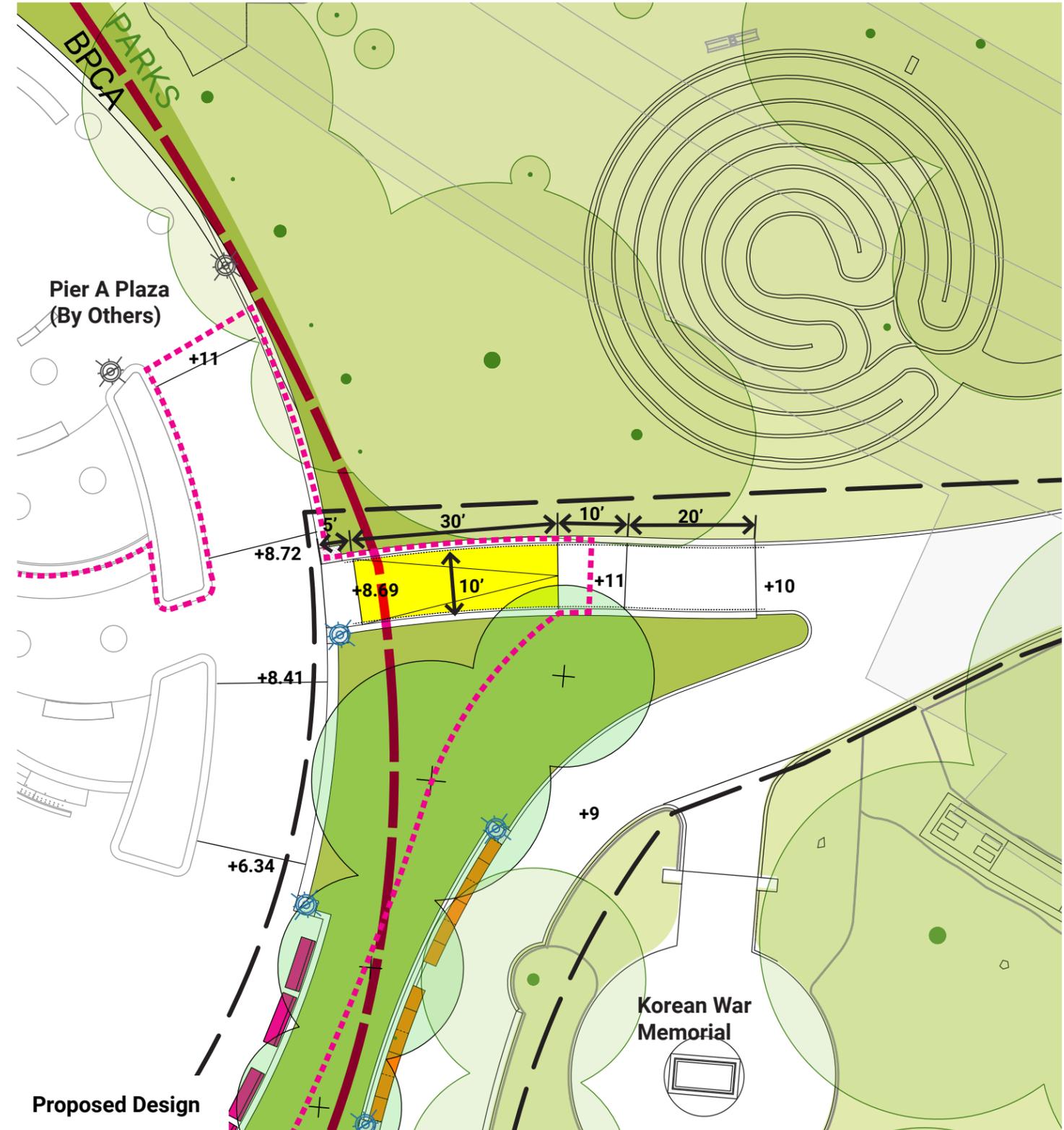
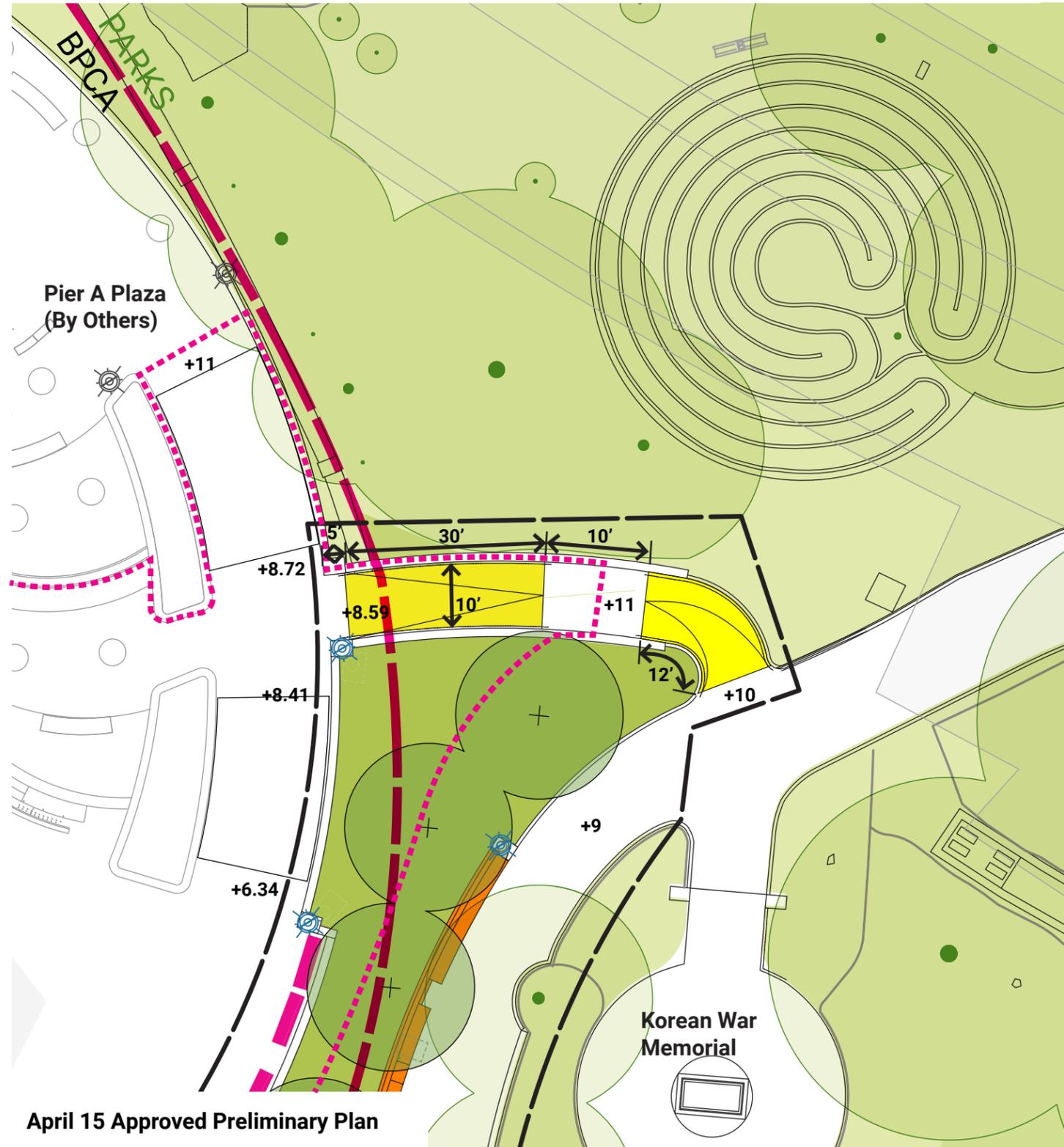
Design Changes

- 1 Pier A ramp connecting to BPCA landing realigned.
- 2 The Emma Lazarus Memorial relocated towards the southwest per request of Parks to help alleviate damage from skateboards and vehicles.
- 3 Four (4) existing London Plane trees and one (1) existing Crabapple tree within the planted area around Castle Clinton will be removed due to poor health, and new planting are proposed for that area. Ramps added to provide better universal access.
- 4 Two (2) light poles have been added at each slip to provide better lighting.
- 5 The M&O area has been further developed to accommodate Parks' needs.



GRANITE BACKED BENCH	BACKLESS BENCH	RAMPS WITH HANDRAILS	SECURITY FENCING	PROJECT BOUNDARY
BACKED BENCH	LIGHT	NEW / RESTORED PLANTING	PROPOSED TREE	

Pier A - BPCA Ramp Tie In



LEGEND

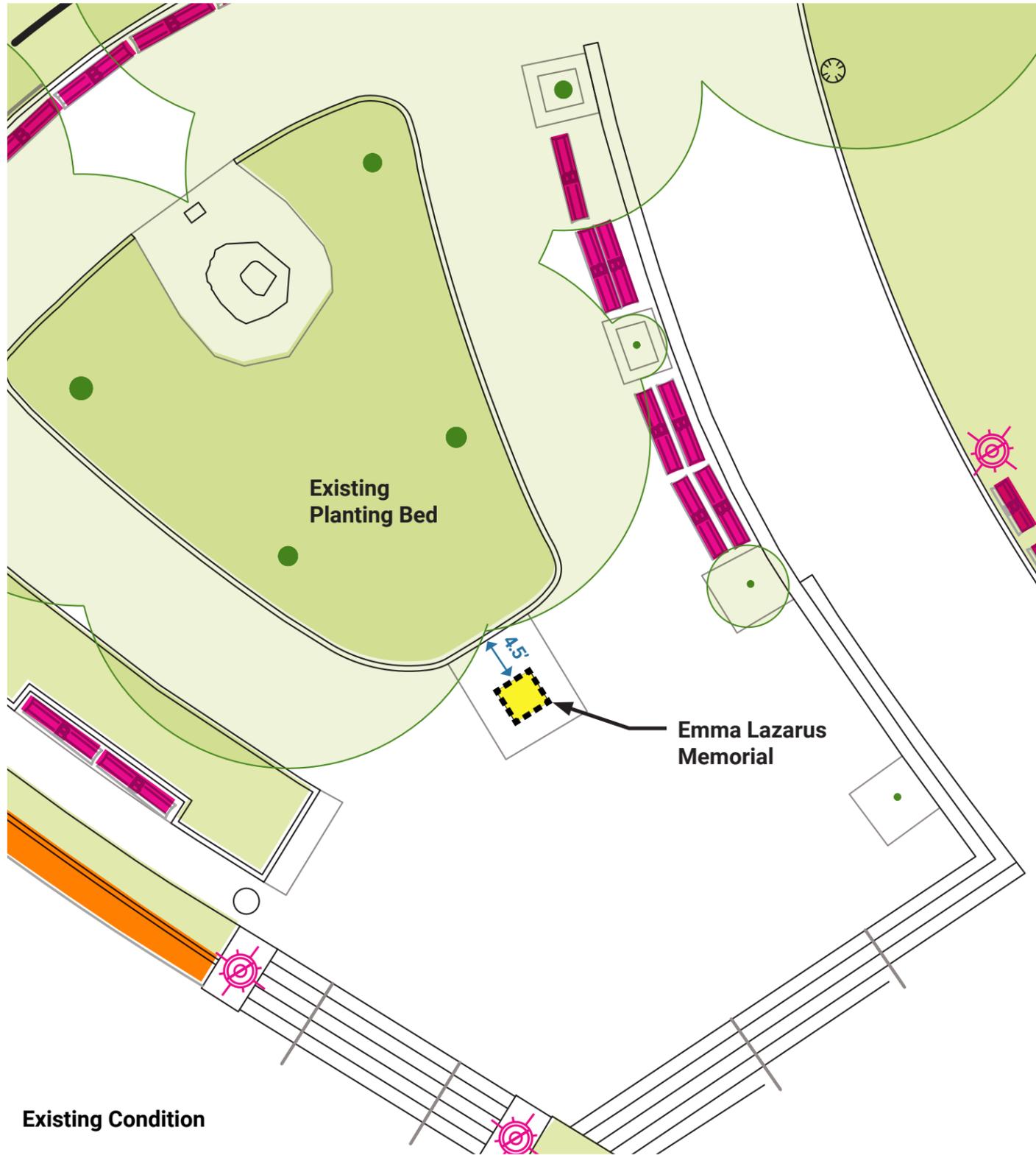
- GRANITE BACKED BENCH
- RAMPS WITH HANDRAILS
- PROPOSED TREE
- LIMIT OF WORK
- BACKED BENCH
- NEW / RESTORED PLANTING
- LIGHT
- +11 DFE



Pier A - BPCA Ramp Tie In



Emma Lazarus Memorial Existing Condition



Existing Condition

LEGEND

- GRANITE BACKED BENCH
- BACKED BENCH
- LIGHT



Emma Lazarus Memorial

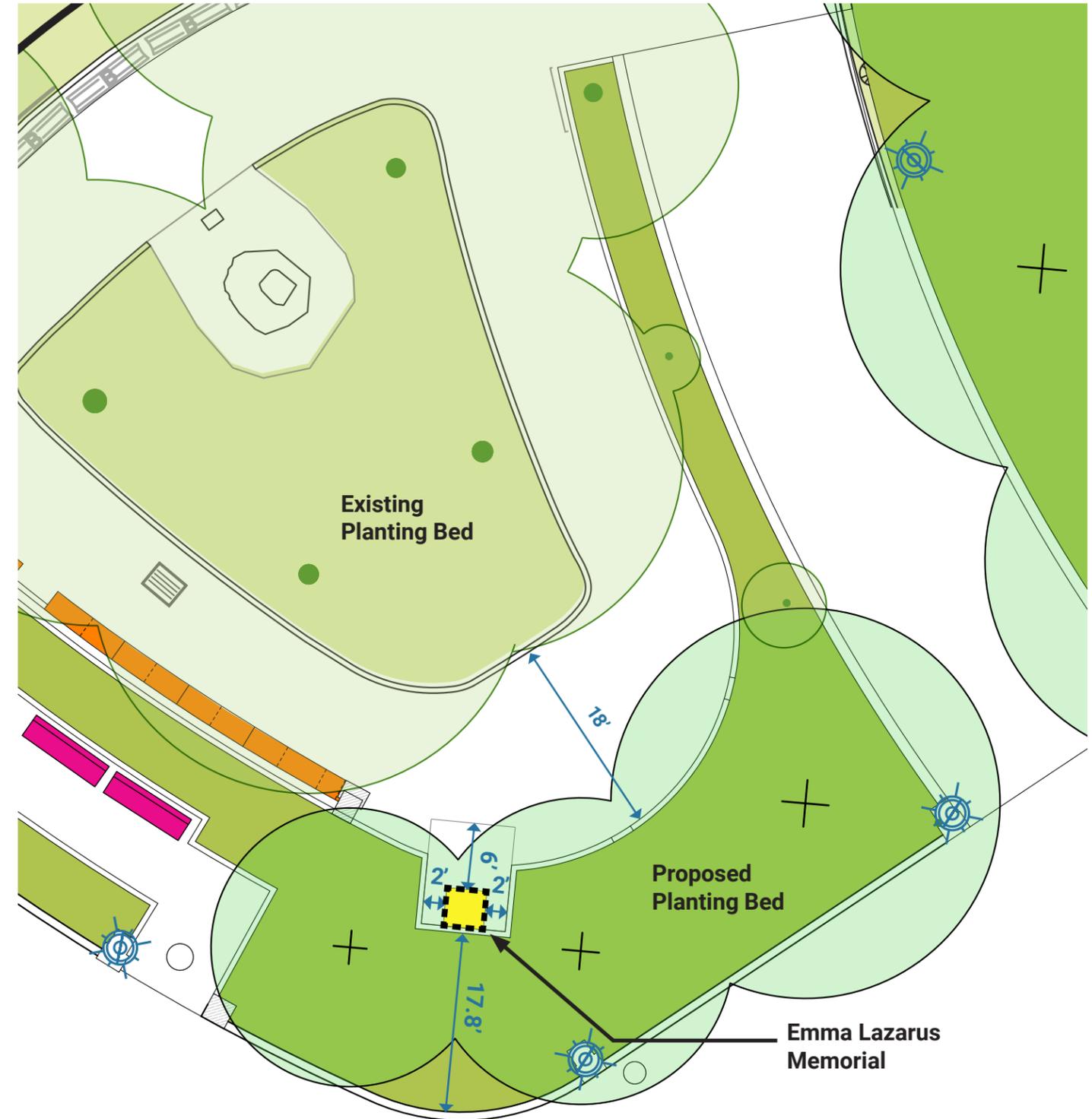
Flush granite cobble strip



Emma Lazarus Memorial Relocation



Approved April 15th Amended Preliminary Plan



Proposed Design

LEGEND

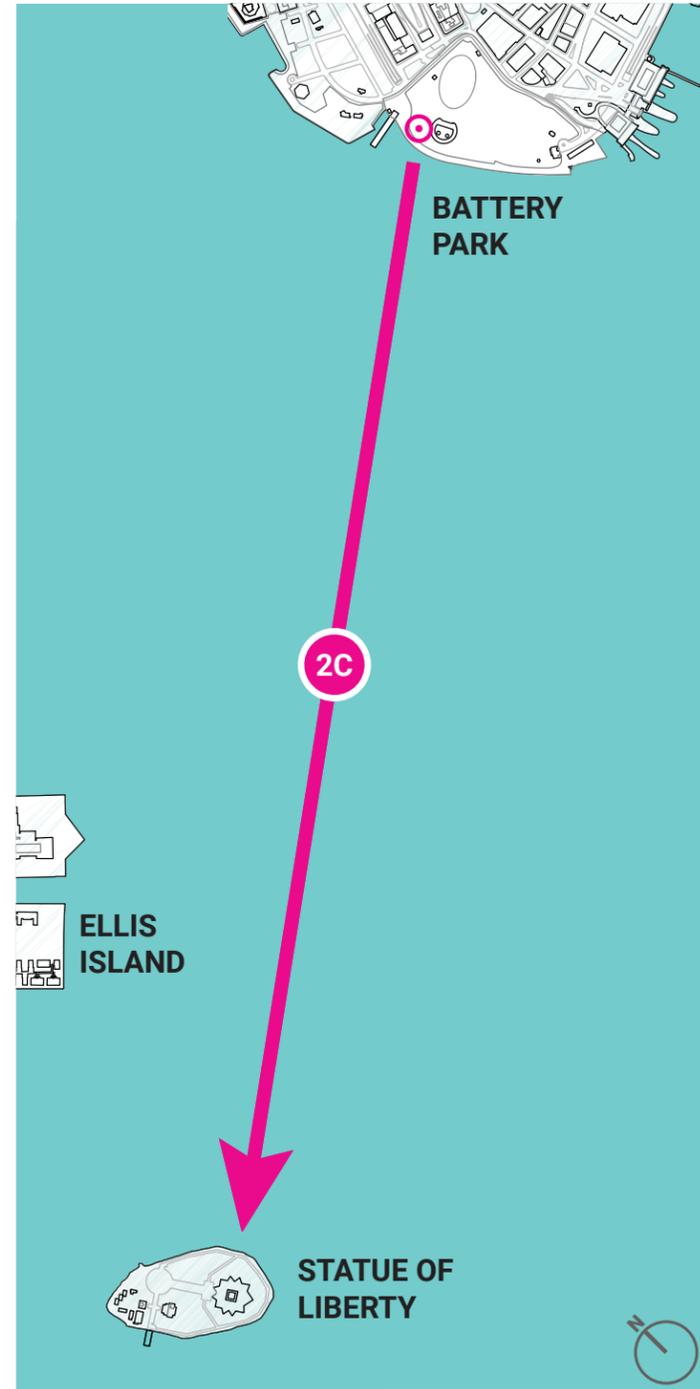
- GRANITE BACKED BENCH
- BACKED BENCH
- LIGHT
- NEW / RESTORED PLANTING
- PROPOSED TREE



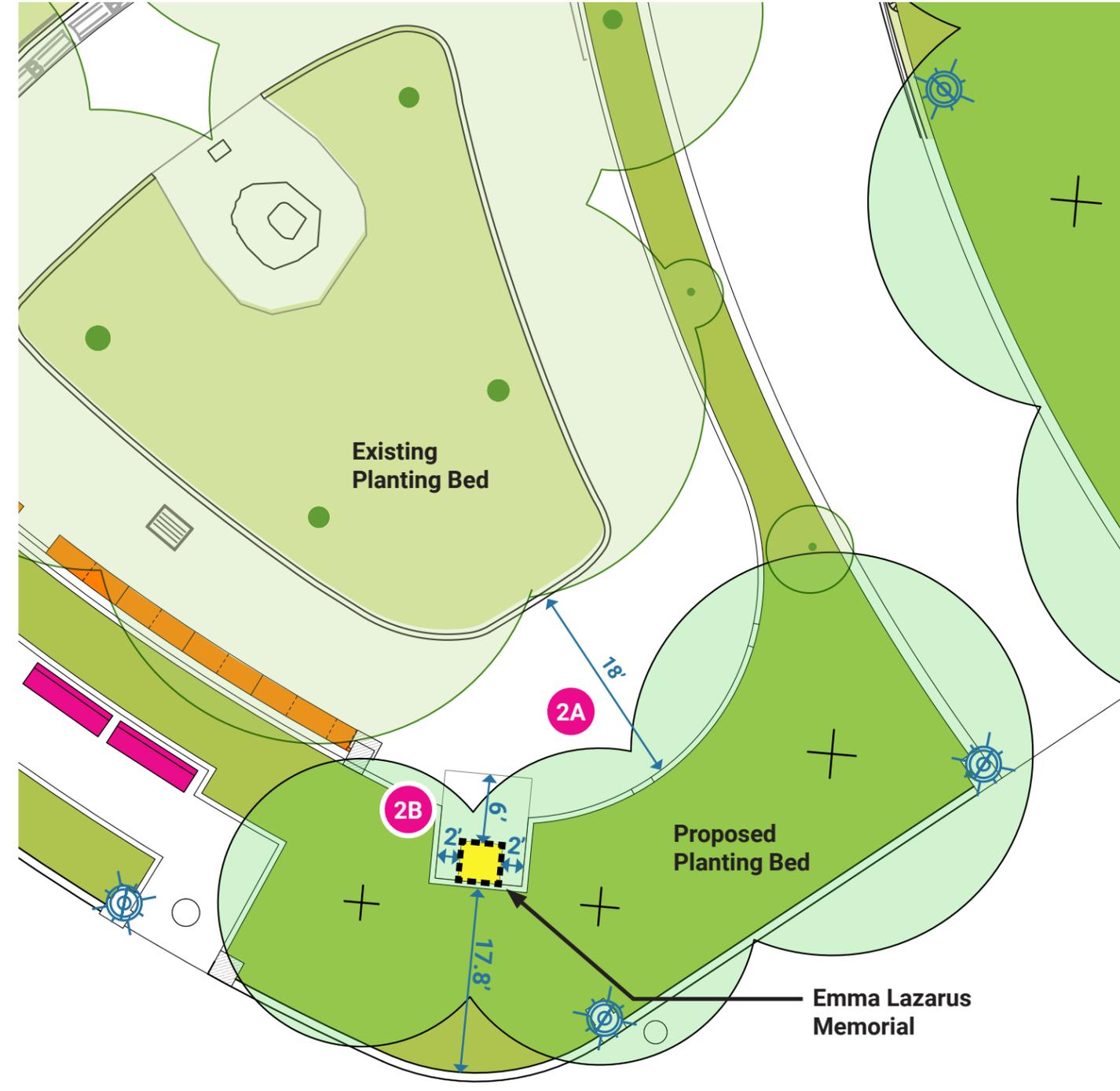
Emma Lazarus Memorial

DESIGN CHANGES

- 2A** The Emma Lazarus Memorial has been relocated towards the southwest per request of Parks to prevent damage from skateboards and vehicles
- 2B** The memorial is protected by planting on three sides.
- 2C** The proposed location has a direct view of Statue of Liberty in its background.



Relationship to Statue of Liberty



Proposed Design

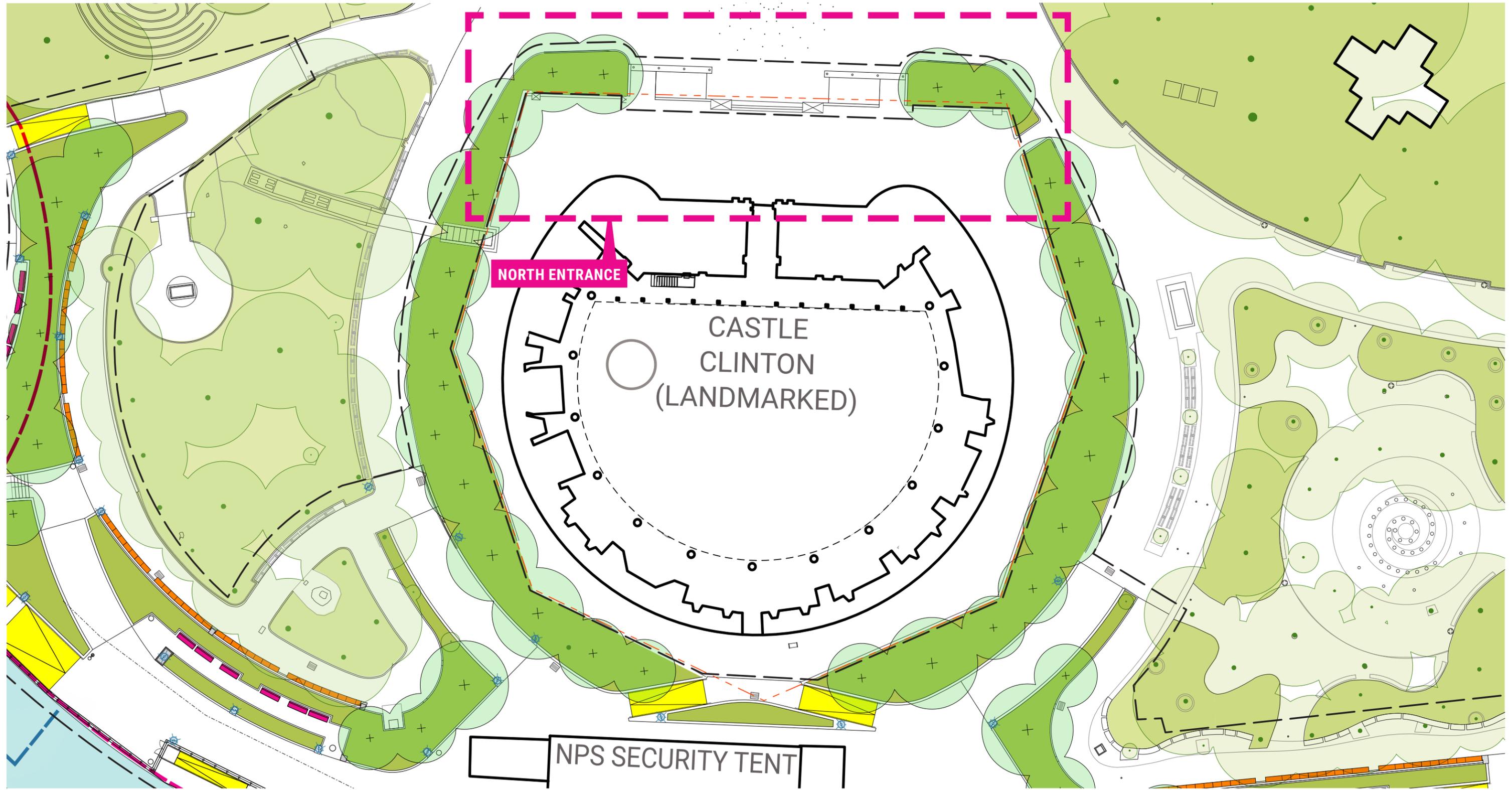
LEGEND

- GRANITE BACKED BENCH
- BACKED BENCH
- LIGHT
- NEW / RESTORED PLANTING
- PROPOSED TREE

Emma Lazarus Memorial



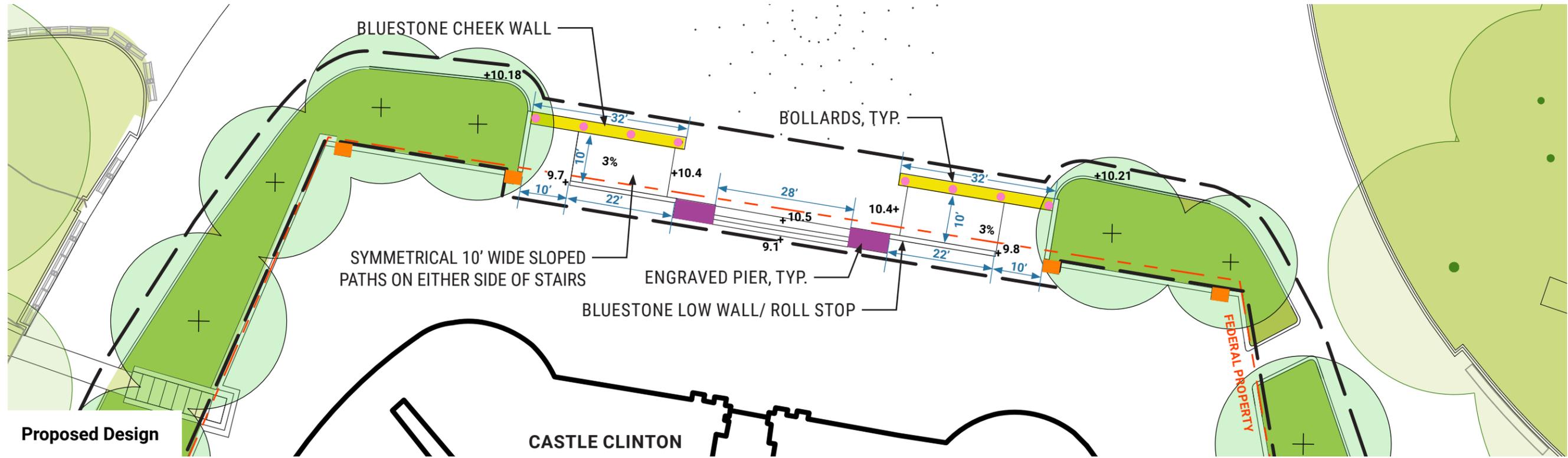
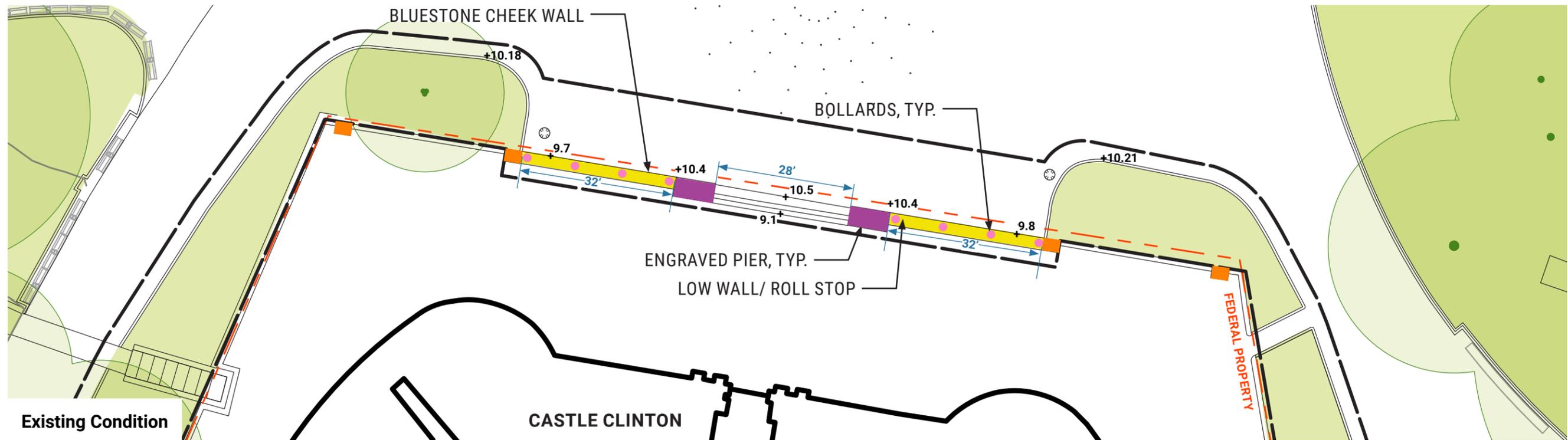
Castle Clinton



LEGEND

- GRANITE BACKED BENCH
 - BACKLESS BENCH
 - BACKED BENCH
- RAMPS WITH HANDRAILS
 - NEW / RESTORED PLANTING
- PROPOSED TREE
 - - - LIMIT OF WORK
- ⊙ LIGHT

Proposed Castle Clinton North Entry



LEGEND

- NEW / RESTORED PLANTING
- LIMIT OF WORK
- + PROPOSED TREE

Note: Bollards and cheek walls to be salvaged for reuse. Piers to remain in place.

Piers/ Bollards



Engraved Pier



Pier



Bollard



Cheek Wall

Proposed Castle Clinton North Entry



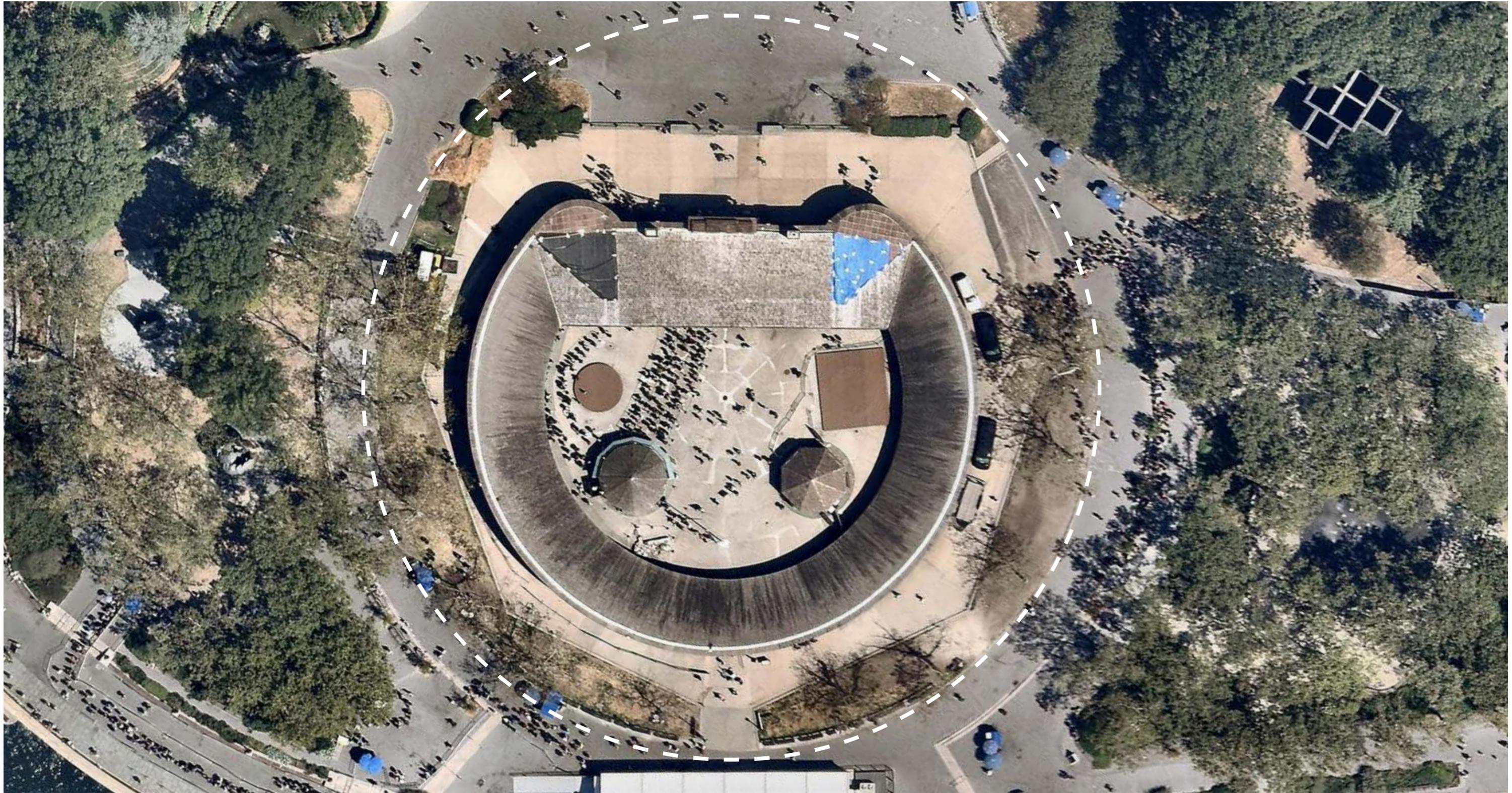
Tree
doesn't
exist
today

Existing Condition



Proposed Design

Existing Castle Clinton Planting



- Without trees there would be a lack of shade in this dashed area
- Four (4) existing London Plane trees and one (1) existing Crabapple tree within the planted area around Castle Clinton will be removed due to poor health, and new plantings are proposed for the entire plant bed around Castle Clinton

Quercus Phellos

- 40'-75' Height, 25-50' Spread
- Grows fast
- Oval to rounded crown, willow-like leaves
- Golden-brown fall color
- Fruits are rounded acorn cups (to 1/2" long)
- Tolerant of occasionally saturated or very wet soils as well as periods of drought (Cornell)
- Tolerant to slightly alkaline pH (up to 7.4) of specified Green Infrastructure soils
- Generally tolerant of urban pollution and coastal conditions
- High salt spray and soil salt tolerance
- Moderate wind resistance
- Clearly thrives in The Battery
- On NYC Parks Coastal Tree Species List



Typical Spacing



~5 Years

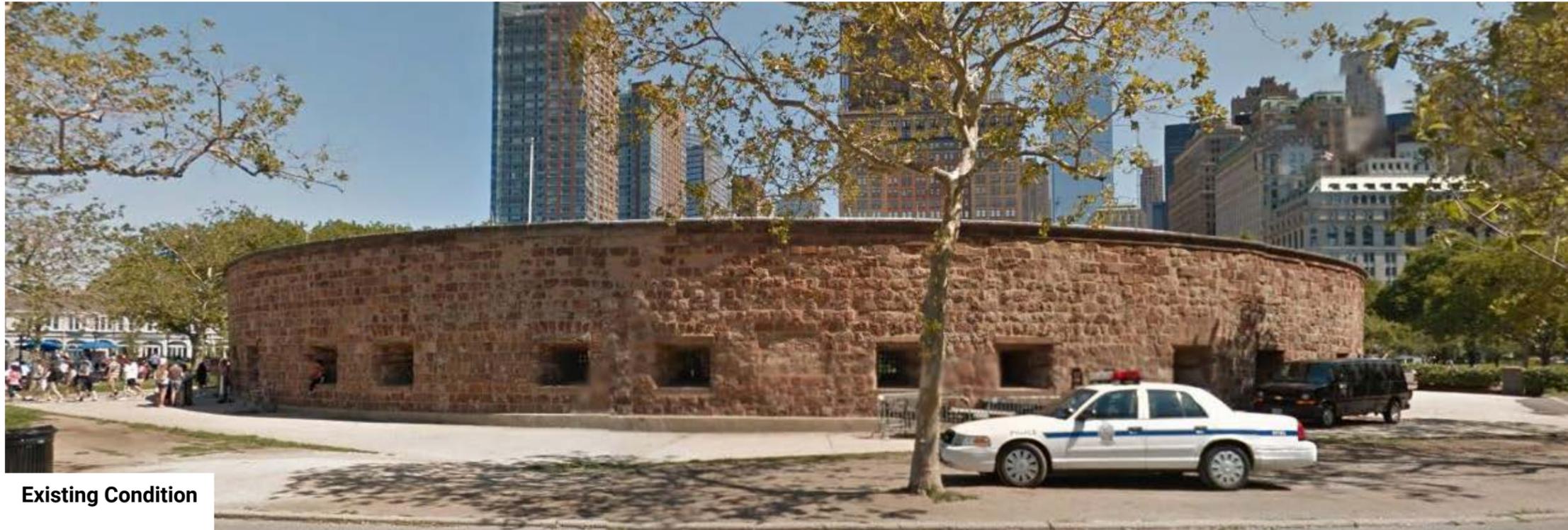


20+ Years



Fall color

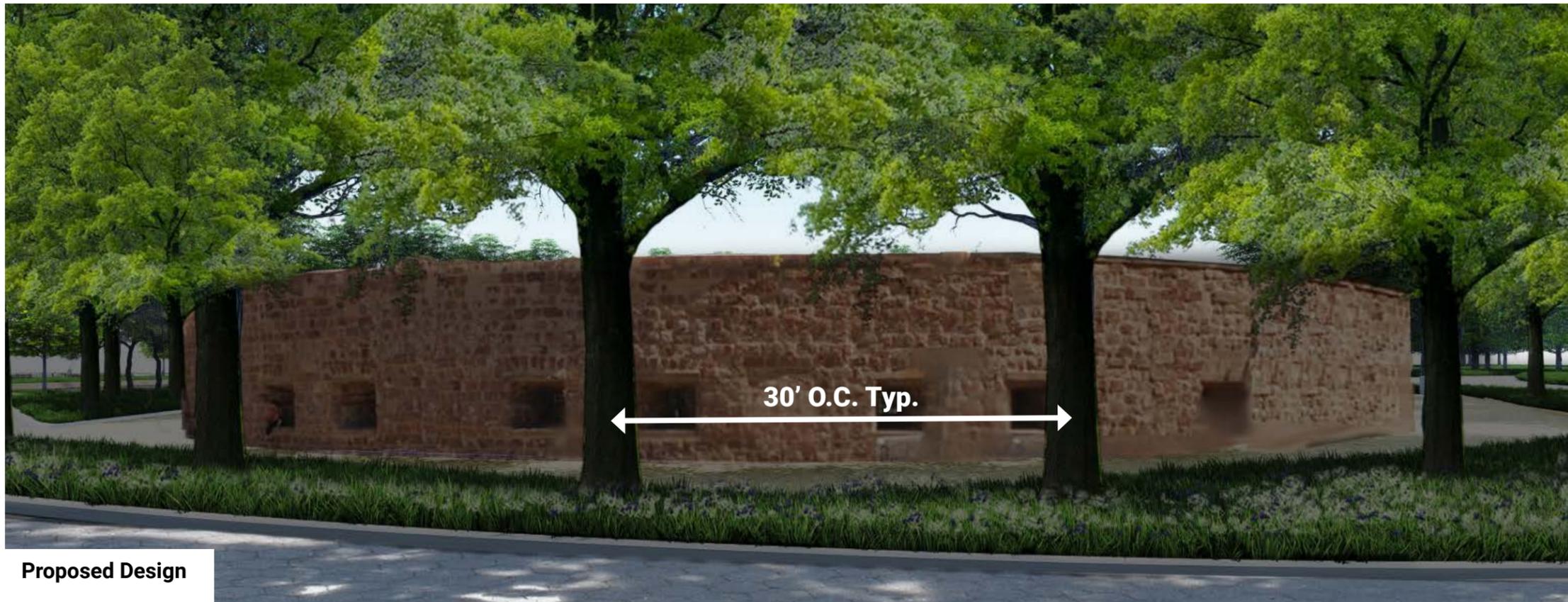
Castle Clinton Tree Planting



Existing Condition

Tree Spacing Range (30'):

- Trees are far enough apart to grow an appealing, species-typical canopy structure.
- Trees are close enough that the canopies will touch, creating even shade for underplantings.
- Trees would be limbed up to have view of restored Castle Clinton.
- Minimal root competition between trees and tough herbaceous underplantings for optimal planting development.



Proposed Design

Castle Clinton Tree Planting

Existing



Proposed Spacing



Castle Clinton Tree Planting

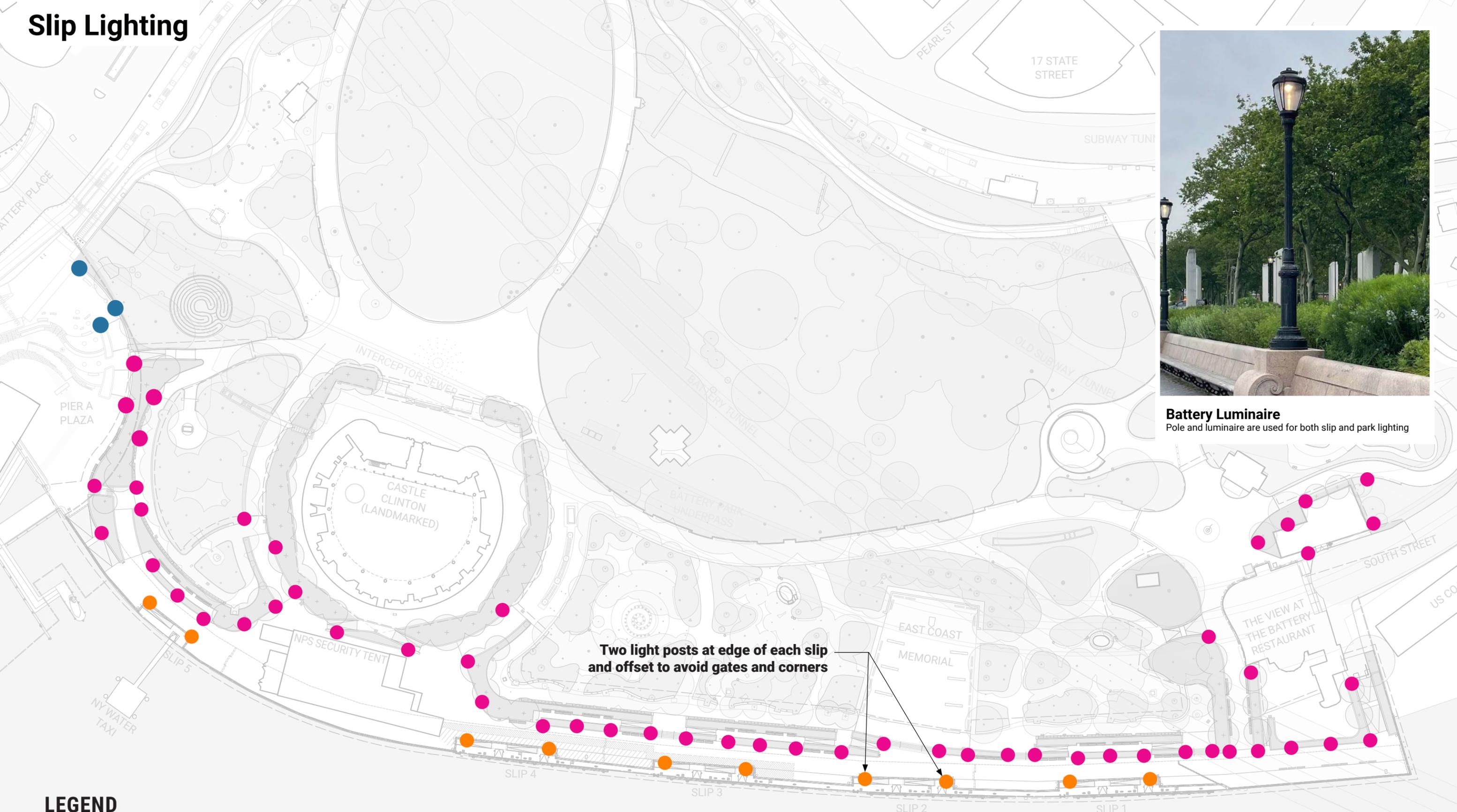
Existing



Proposed Spacing



Slip Lighting



Battery Luminaire
Pole and luminaire are used for both slip and park lighting

LEGEND

- PROPOSED LIGHTING (APPROVED IN APRIL 15 AMENDED PRELIMINARY)
- ADDITIONAL PROPOSED LIGHTING
- BPCA LIGHTING (BY OTHERS)

Slip Lighting



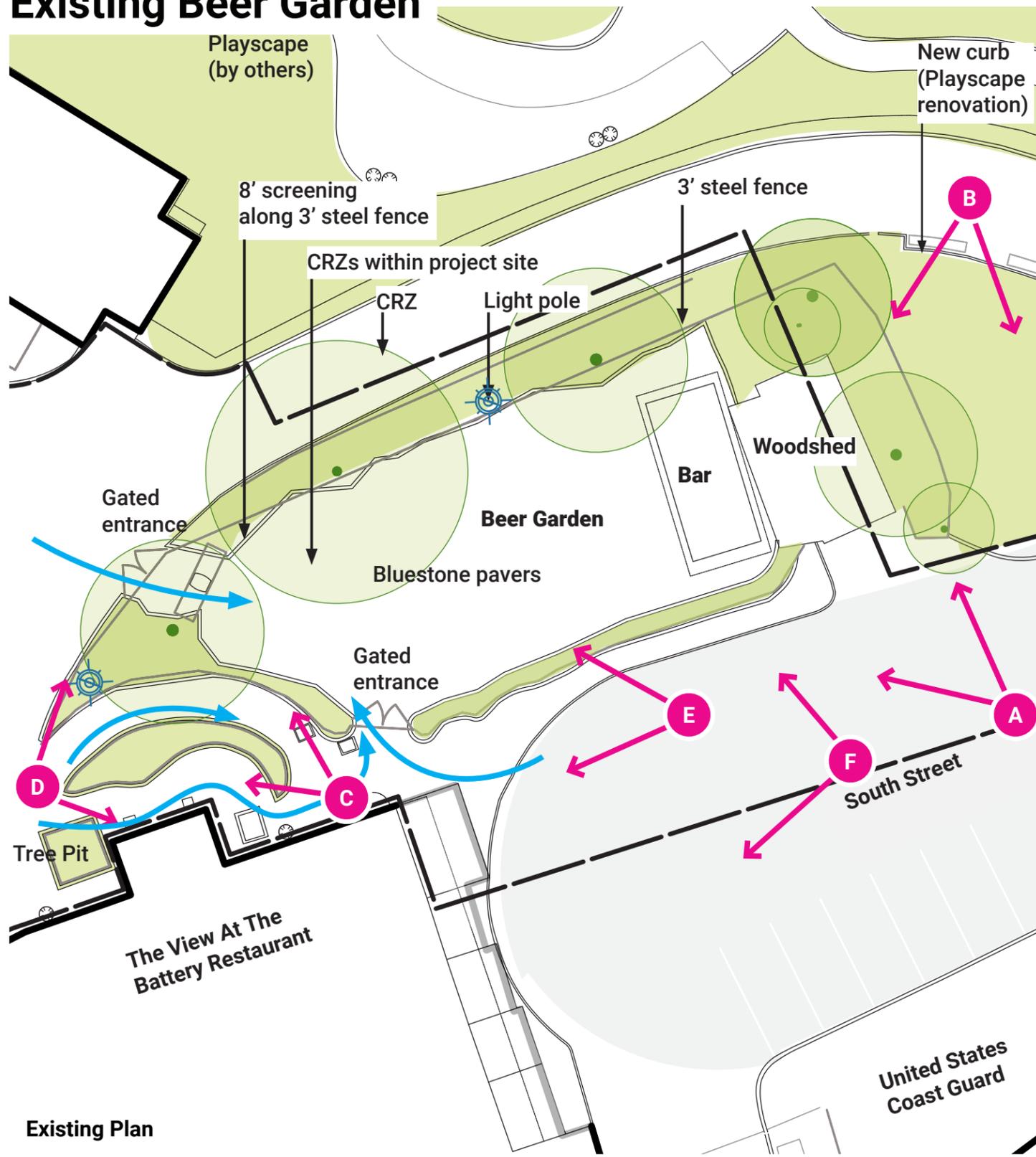
Slip Lighting



Existing Beer Garden / Proposed Maintenance and Operations Area



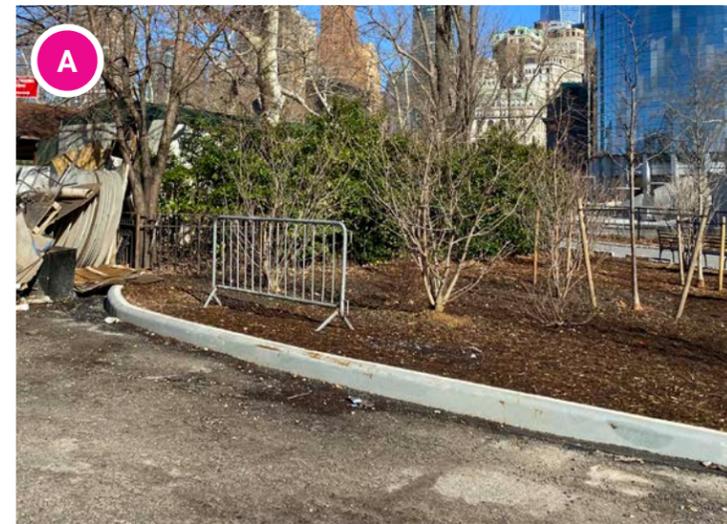
Existing Beer Garden



Existing Plan

LEGEND

- LIMIT OF WORK
- LIGHT



New concrete curb (playscape renovation)



Battery Park Luminaire



8' screening along 3' steel fence



Planters to the north of The View at The Battery

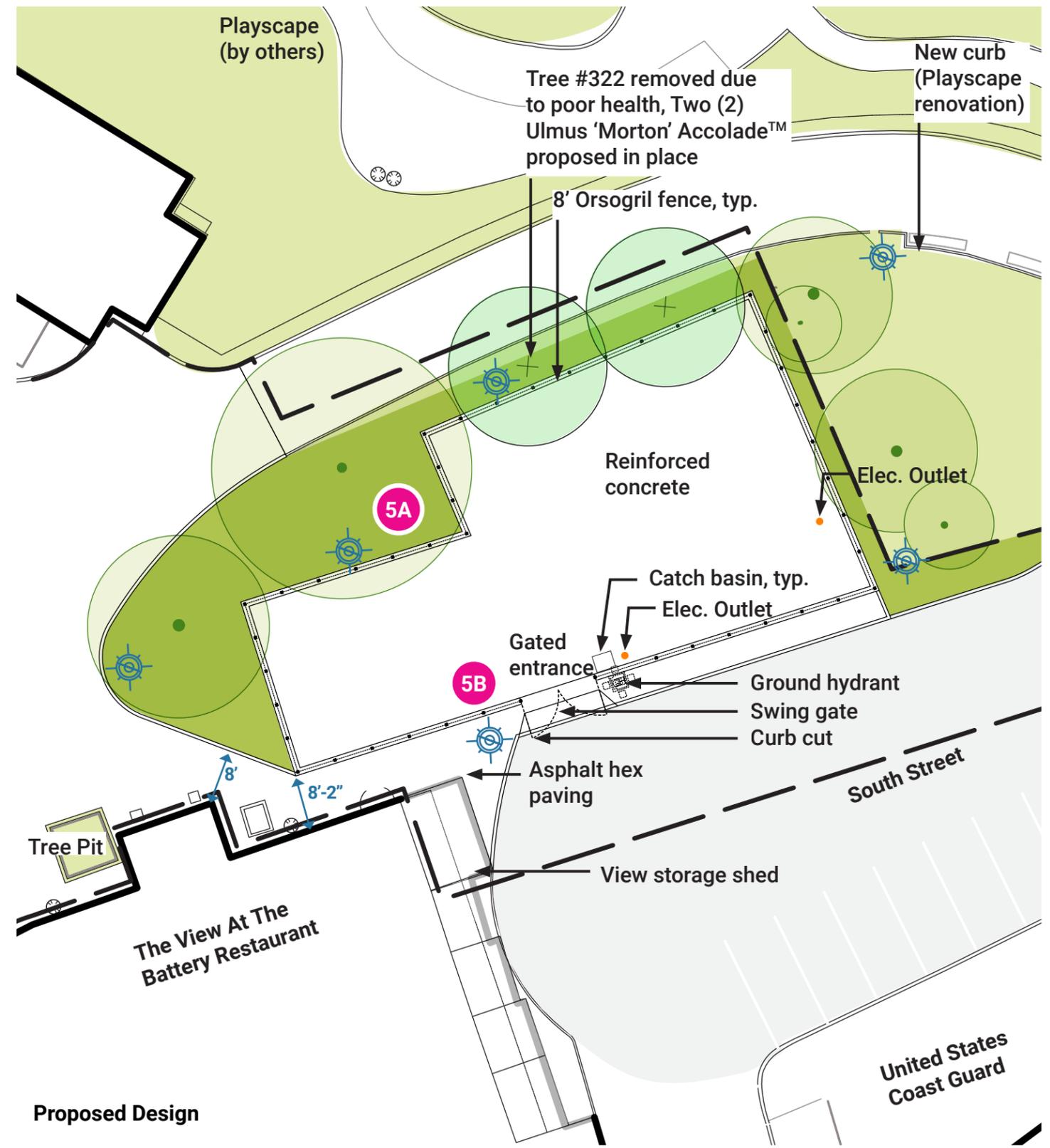
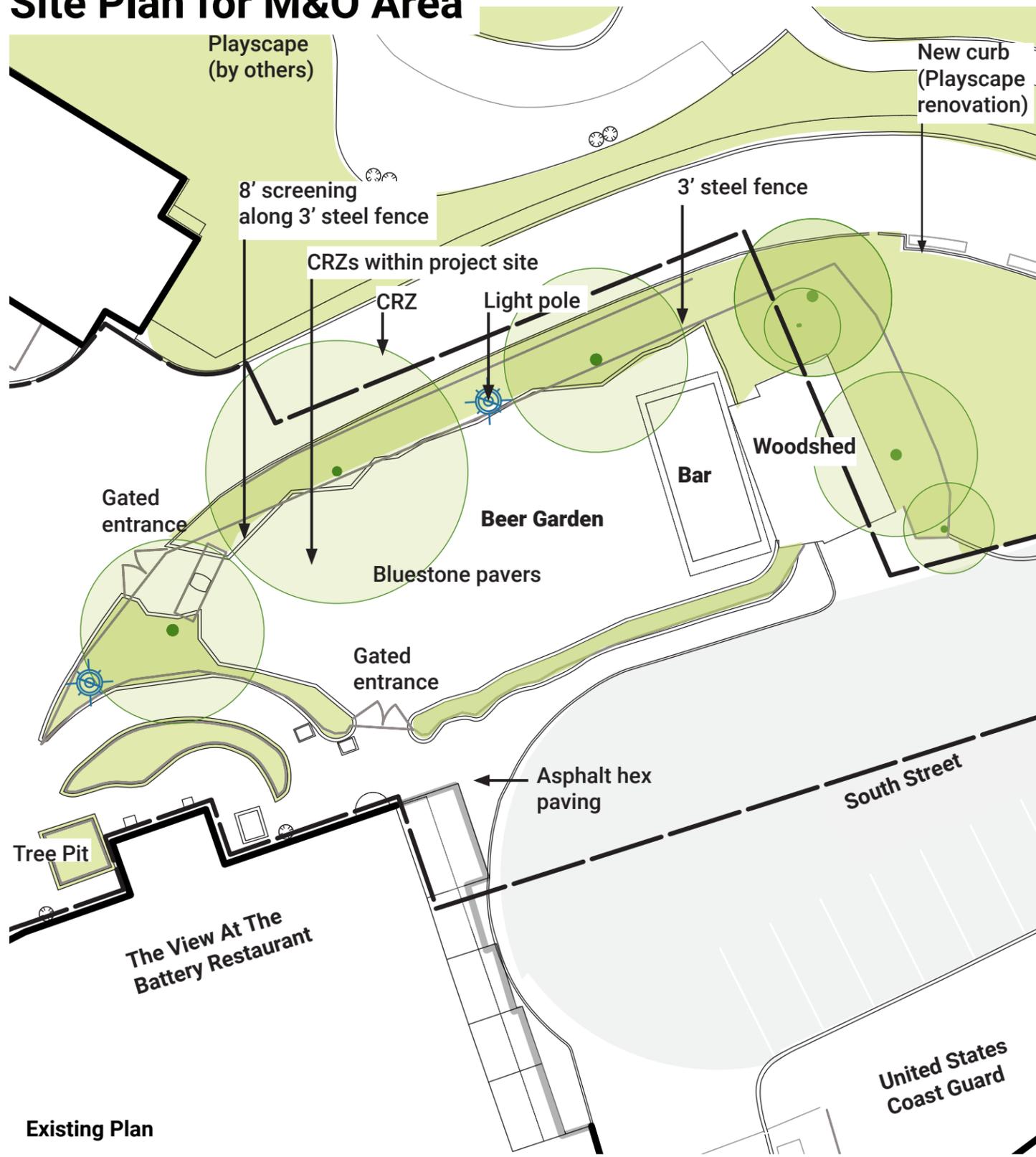


Path to The View at The Battery entrance and The Battery



Beer Garden from South Street

Site Plan for M&O Area



LEGEND

- NEW / RESTORED PLANTING
- LIMIT OF WORK
- LIGHT
- PROPOSED TREE

Site Plan for M&O Area

DESIGN CHANGES

- 5A** Adjustment of the footprints of the paved area and surrounding planting
- 5B** Further development of the fence and gate design materials

DESIGN NOTES

- Tree #332 removed to provide additional space for M&O area
- New pavement minimizes impacts to CRZ's to provide more M&O space for operations
- Pavement installed at existing beer garden elevation to reduce impacts to trees (drop curb located at gated entrance)
- Paved area will provide secure space for DPR M&O storage containers and vehicles, all of which are fence height or lower.



LEGEND

- NEW / RESTORED PLANTING
- LIMIT OF WORK
- + PROPOSED TREE
- ⊙ LIGHT

Existing Beer Garden



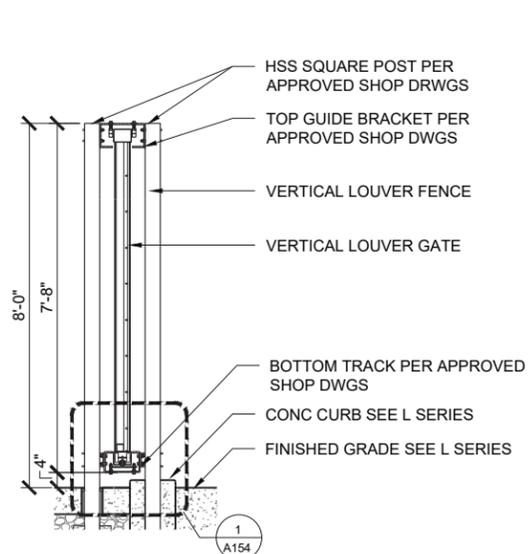
Existing view of Beer Garden from North Path

Proposed M&O Area

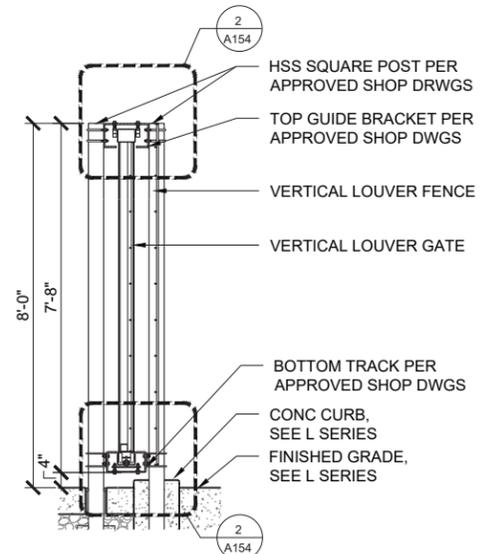


Proposed View of M&O Area from North Path

Proposed M&O Area Fence



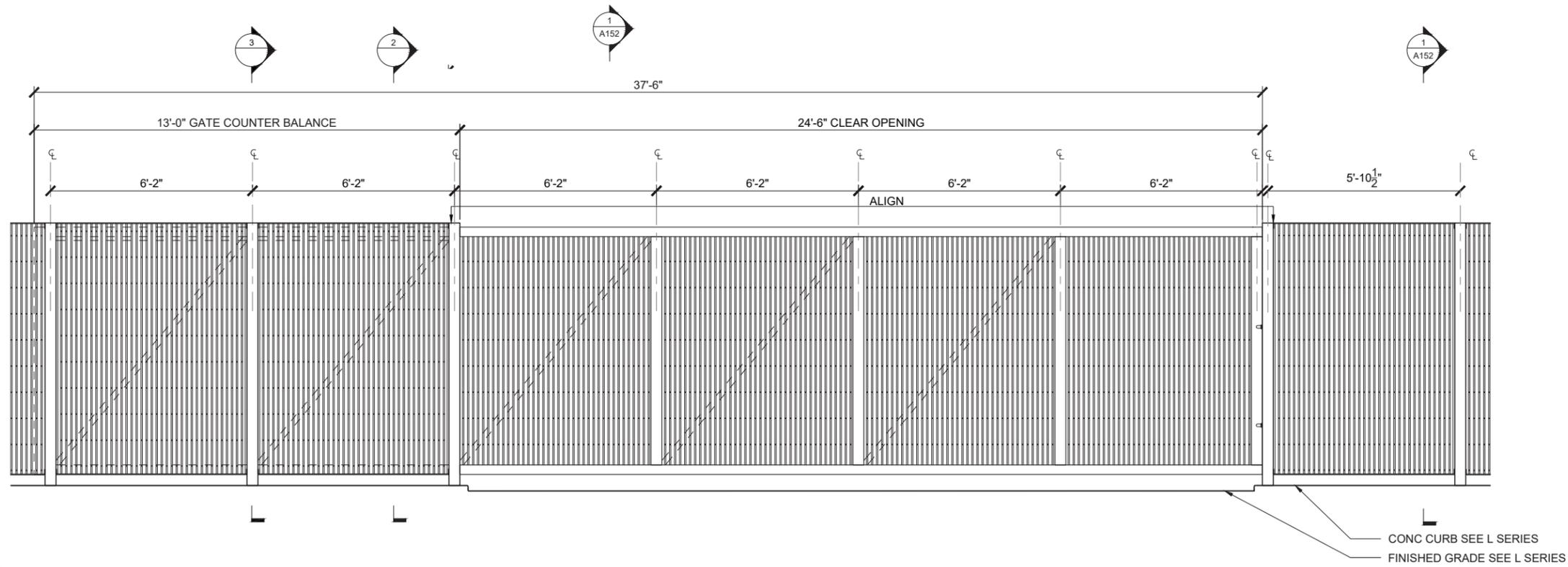
3 TYPICAL POST SECTION
SCALE: 1/2"=1'-0"



2 TYPICAL GATE SECTION
SCALE: 1/2"=1'-0"



8ft "Orsogrill Style" vertical fixed louvered panels



1 TYPICAL FENCE AND GATE ELEVATION
SCALE: 1/2"=1'-0"

Questions?

Thank You!