FiDi and Seaport

Climate Resilience Plan

Southern Tie-In Public Workshop
July 22, 2025

NYC EDC | NYC Mayor's Office of Climate & Environmental Justice | ARCADIS

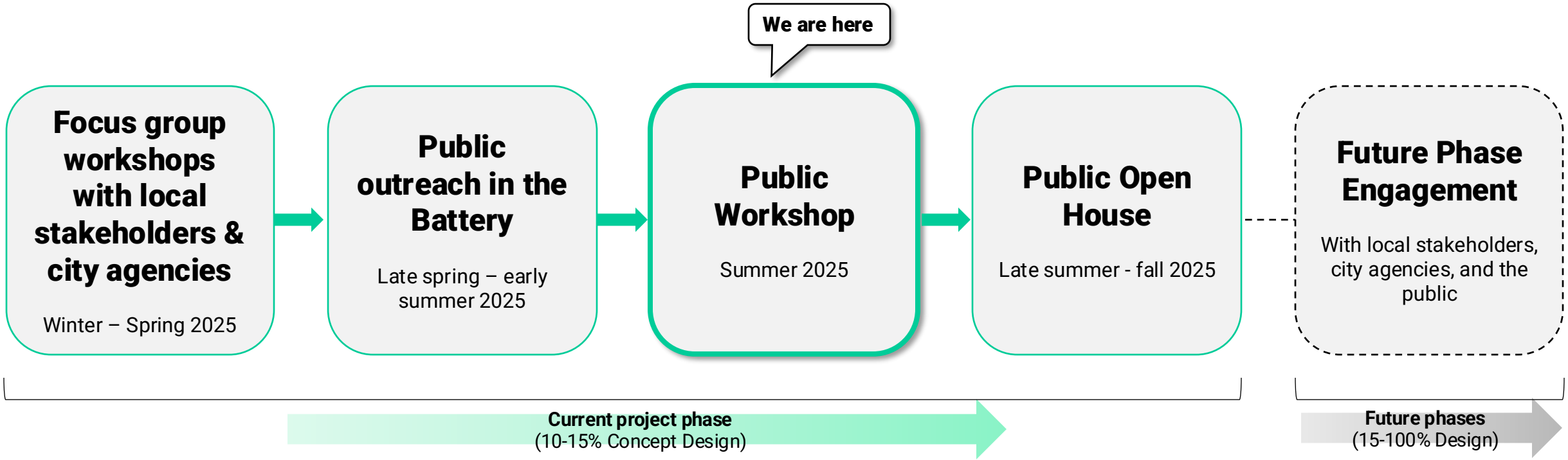
Welcome! Why are we here today?

To provide a public update on the Southern Tie-In portion of the FiDi and Seaport Climate Resilience Plan, and to gather input that will **help us advance the way the project's flood protection infrastructure ties into the surrounding neighborhood** at its southern end.

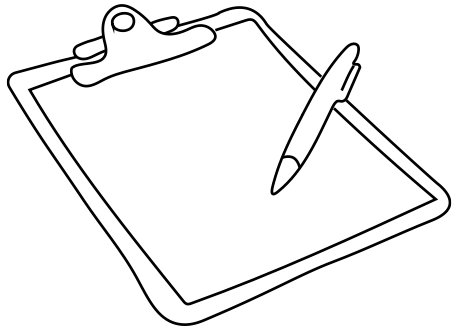
We will cover the following…

1. **The FiDi and Seaport Climate Resilience Plan**
   - *What are the project goals, site area, and timeline?*
2. **The Southern Tie-In**
   - *What is a tie-in and why is it necessary?*
   - *How do we create closed and connected flood protection?*
3. **The Battery**
   - *How does the Battery work today?*
   - *What could the Battery of the future look like?*

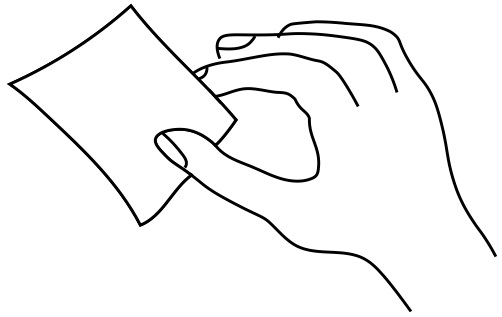
This meeting is part of a series of engagement sessions on this topic planned for 2025. Future phases of the FiDi-Seaport Project will include additional public and stakeholder engagement.



You can share questions and input in multiple ways throughout this event – we need and appreciate your participation!



Verbal feedback documented by notetakers

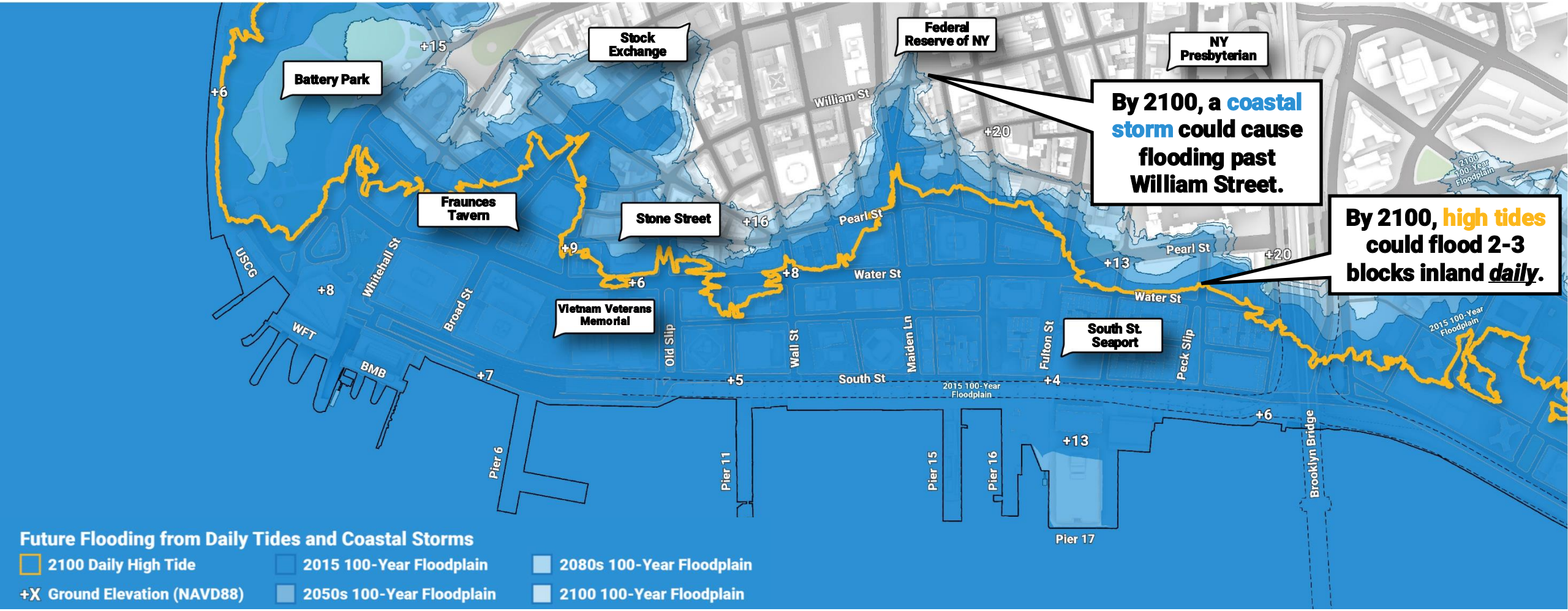


Post-its and written comments on presentation materials

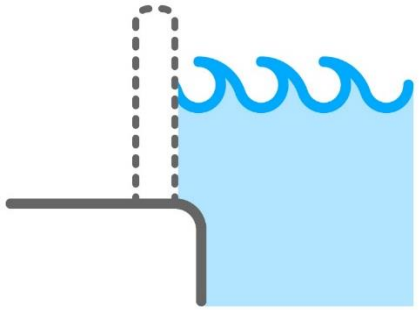
Discussion at breakout stations

1.
The FiDi and Seaport Climate Resilience Plan

We are planning for the Lower Manhattan of the future that will be underwater every day if we do not act now.



The FiDi and Seaport Climate Resilience Plan sets out to define a viable resilience solution to climate risks. This solution will accomplish three major goals.

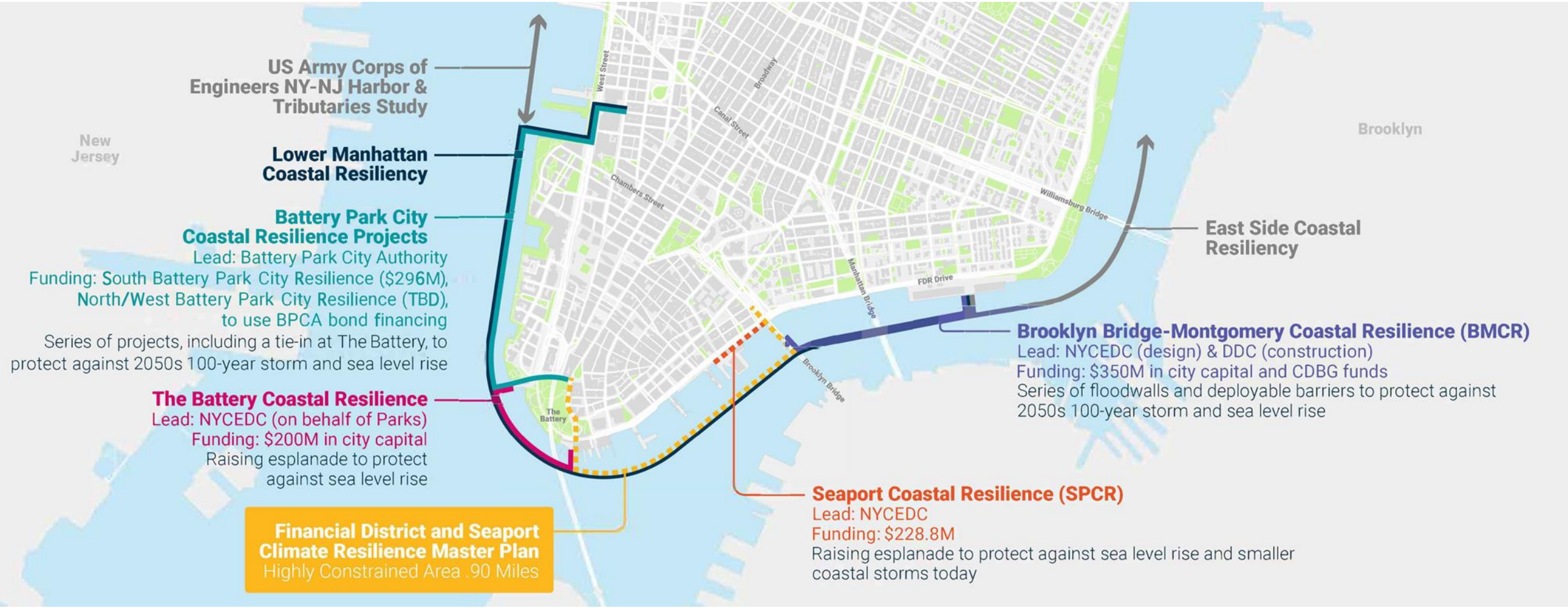


Protect Lower Manhattan from daily tidal flooding and coastal storms

Integrate our climate resilience infrastructure into the city

Enhance the public waterfront experience

Over $1.7B in capital investments have been committed for coastal protection projects in Lower Manhattan. Most of LMCR is under construction today or will soon complete design.

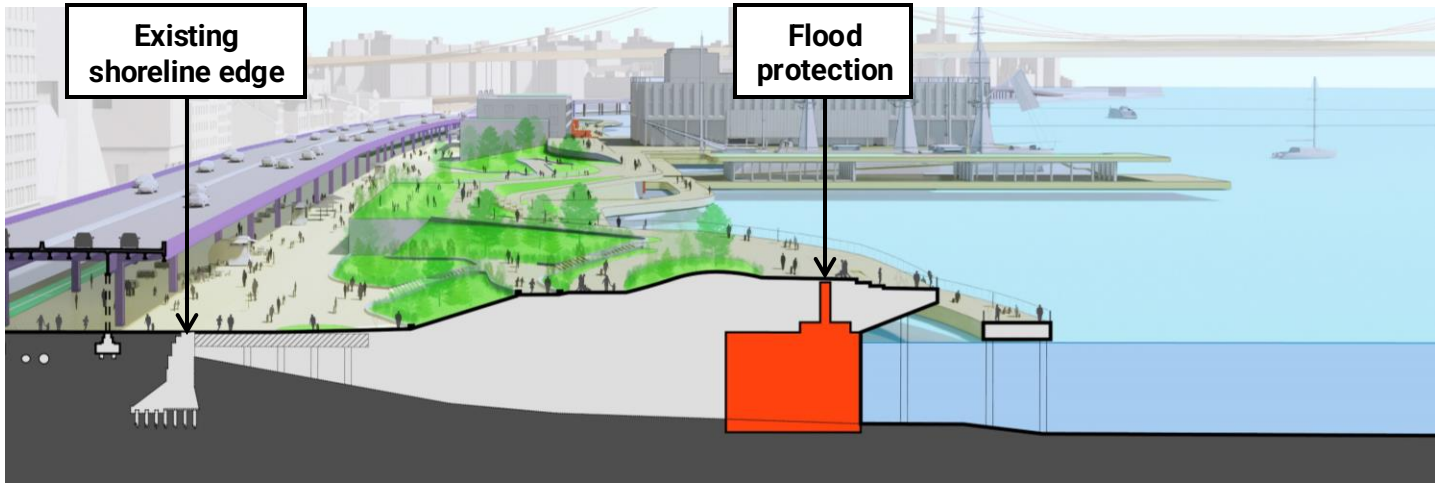


The Plan is a flexible framework for protecting Lower Manhattan.

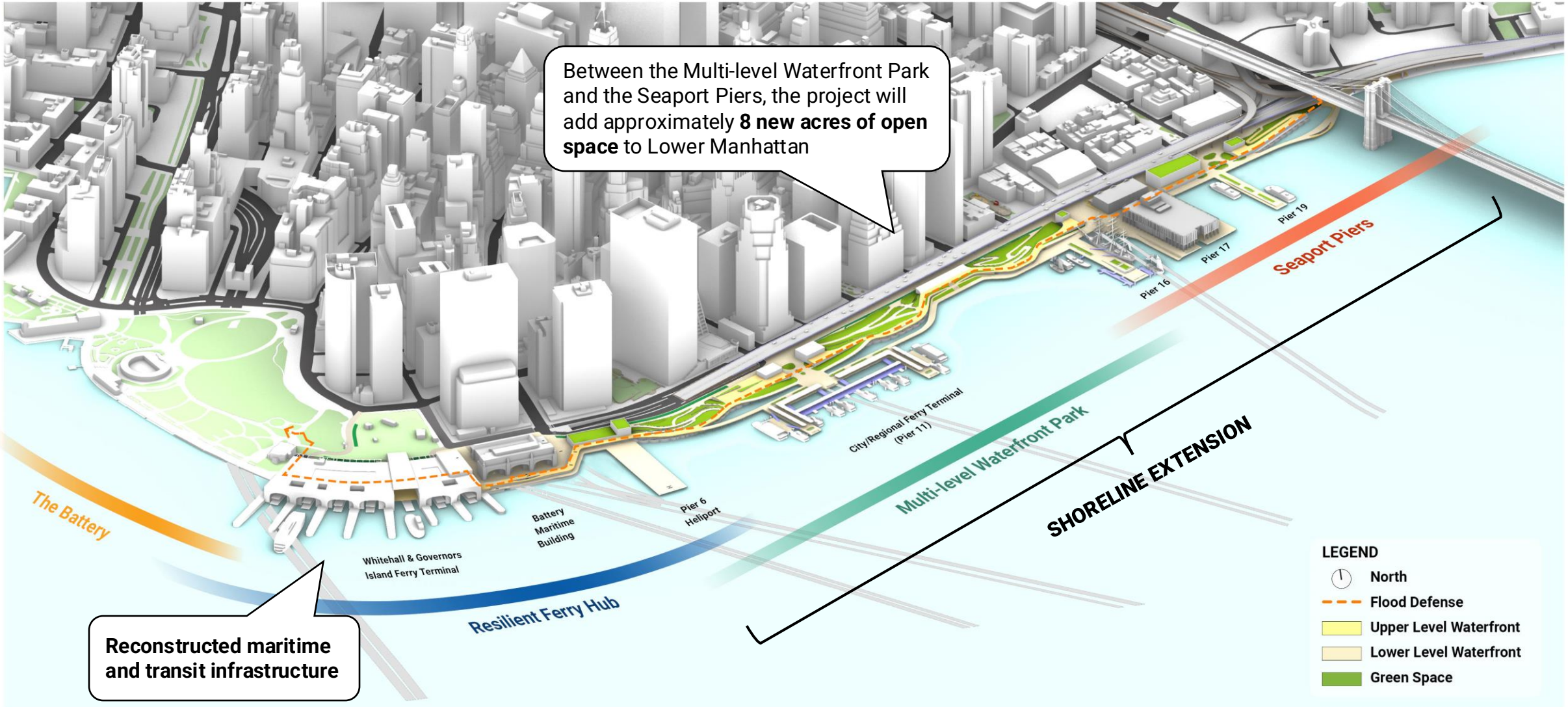
Highlights of Our Design

- **Two levels of flood protection:** a lower level for daily tidal flooding and an upper level for coastal storms
- **Extends into the water** up to a full city block at some locations (up to 200 feet) and down to a half-block (90 feet)
- **Improved drainage system,** including pump stations, to remove rainwater from our streets and homes

Explore the Plan in greater detail at
https://fidiseaportclimate.nyc



The shoreline extension allows for the addition of new waterfront open space, while also upgrading and reconstructing critical maritime infrastructure.

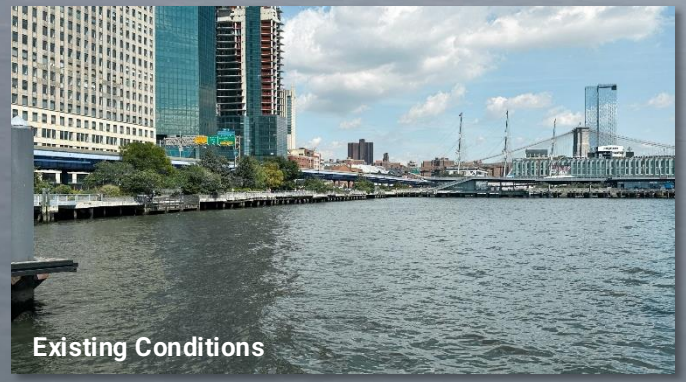


The new shoreline will add approximately 8 acres of new waterfront open space.

Open spaces provide areas for public educational programming and outdoor learning

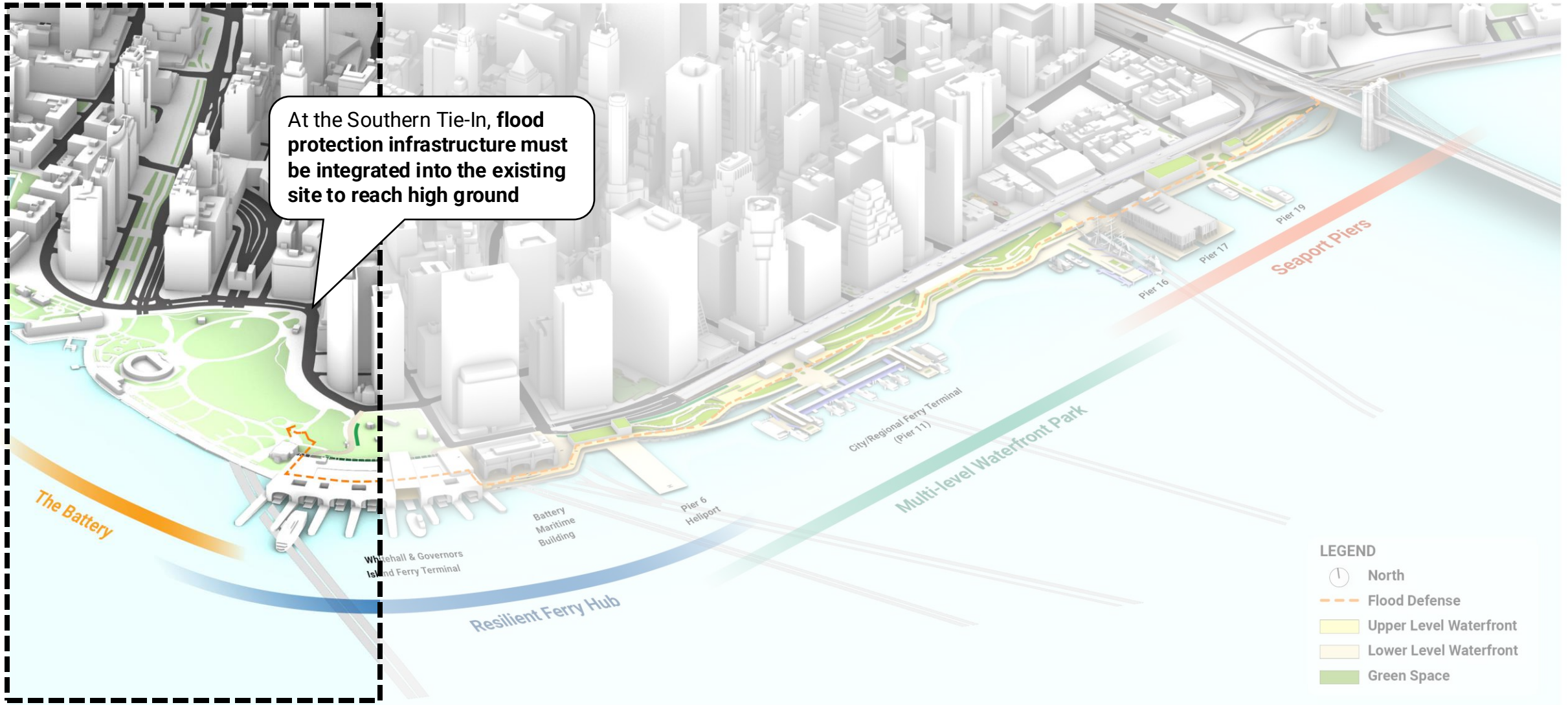
Universally accessible paths between the upper and lower levels

Open water areas between piers provide opportunities to get closer to the water

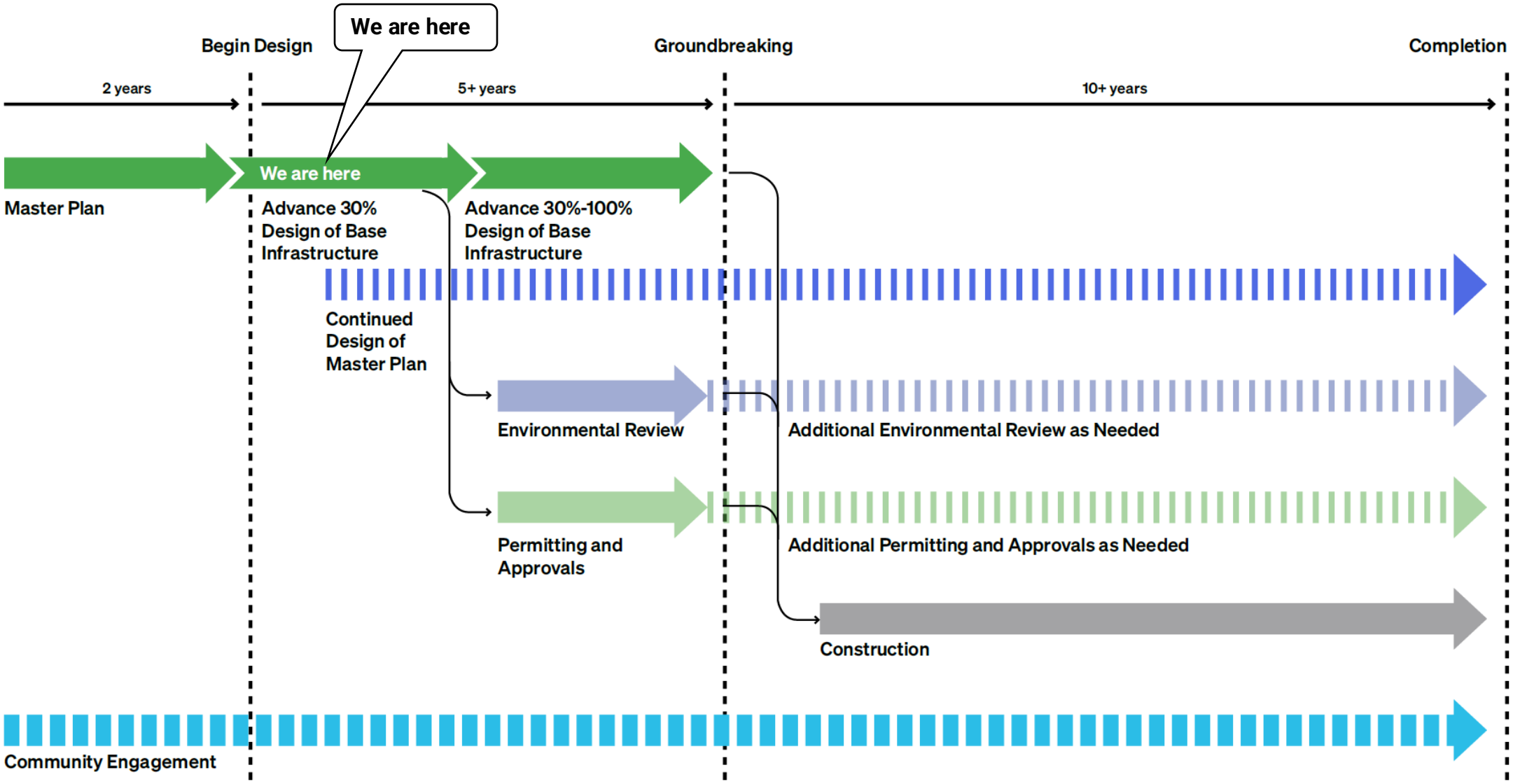

Existing Conditions

Looking north near Maiden Lane

Base infrastructure at the Southern Tie-In is the last piece of the project that remains to be developed into engineering schematics. This area is built on existing land.



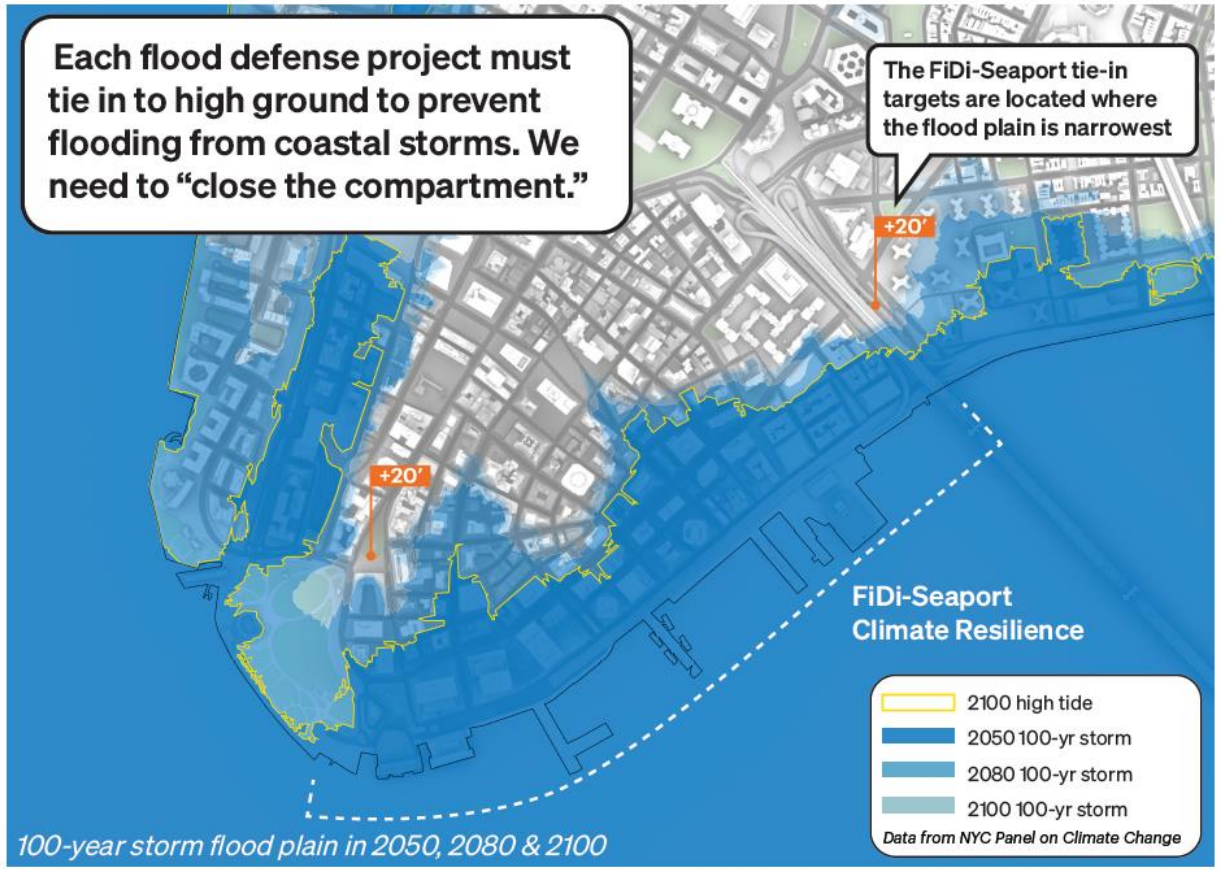
Our goal is to move the FiDi-Seaport Project from a conceptual vision to an actionable capital project.



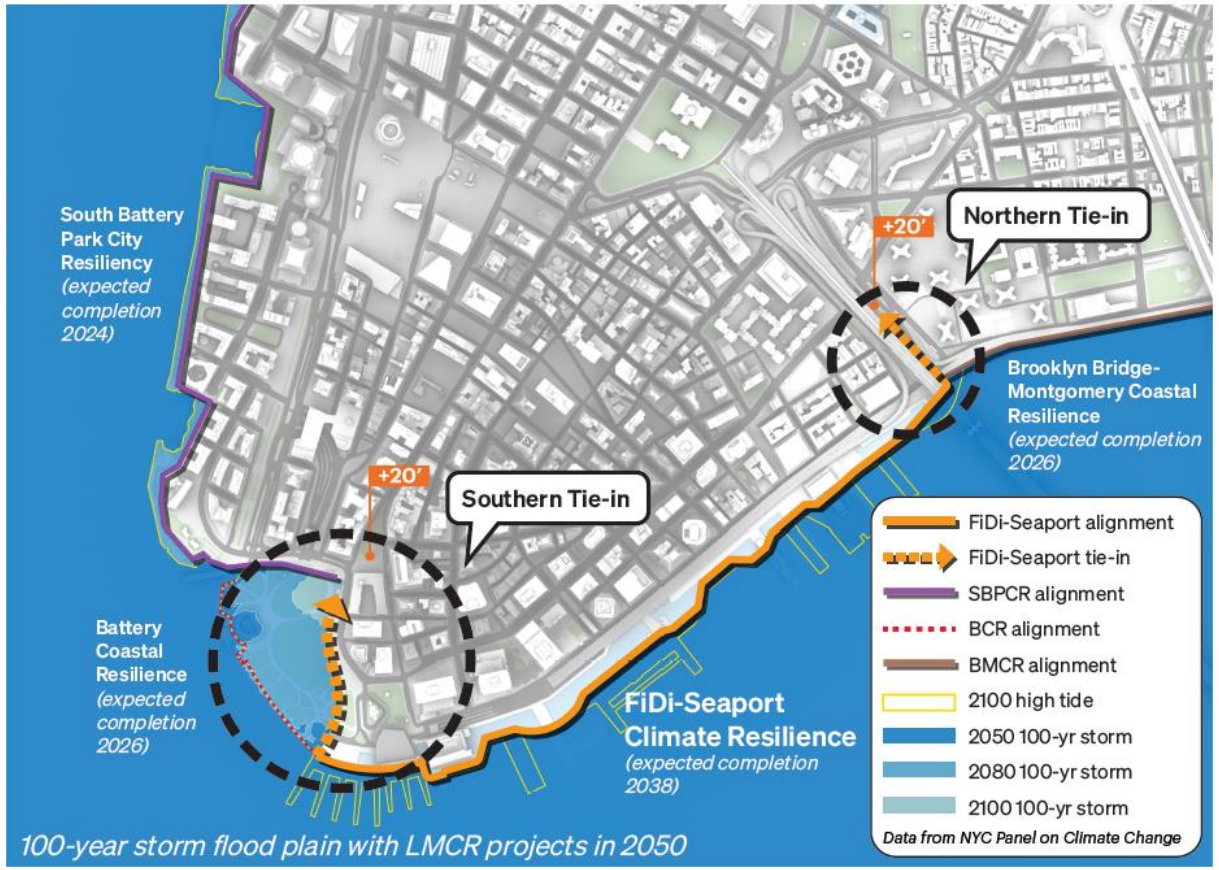
2.
The Southern Tie-In

What is the Southern Tie-In?

To protect Lower Manhattan, we must create a closed and connected flood protection system. Our flood protection alignment must tie in to high ground at either end of the project.



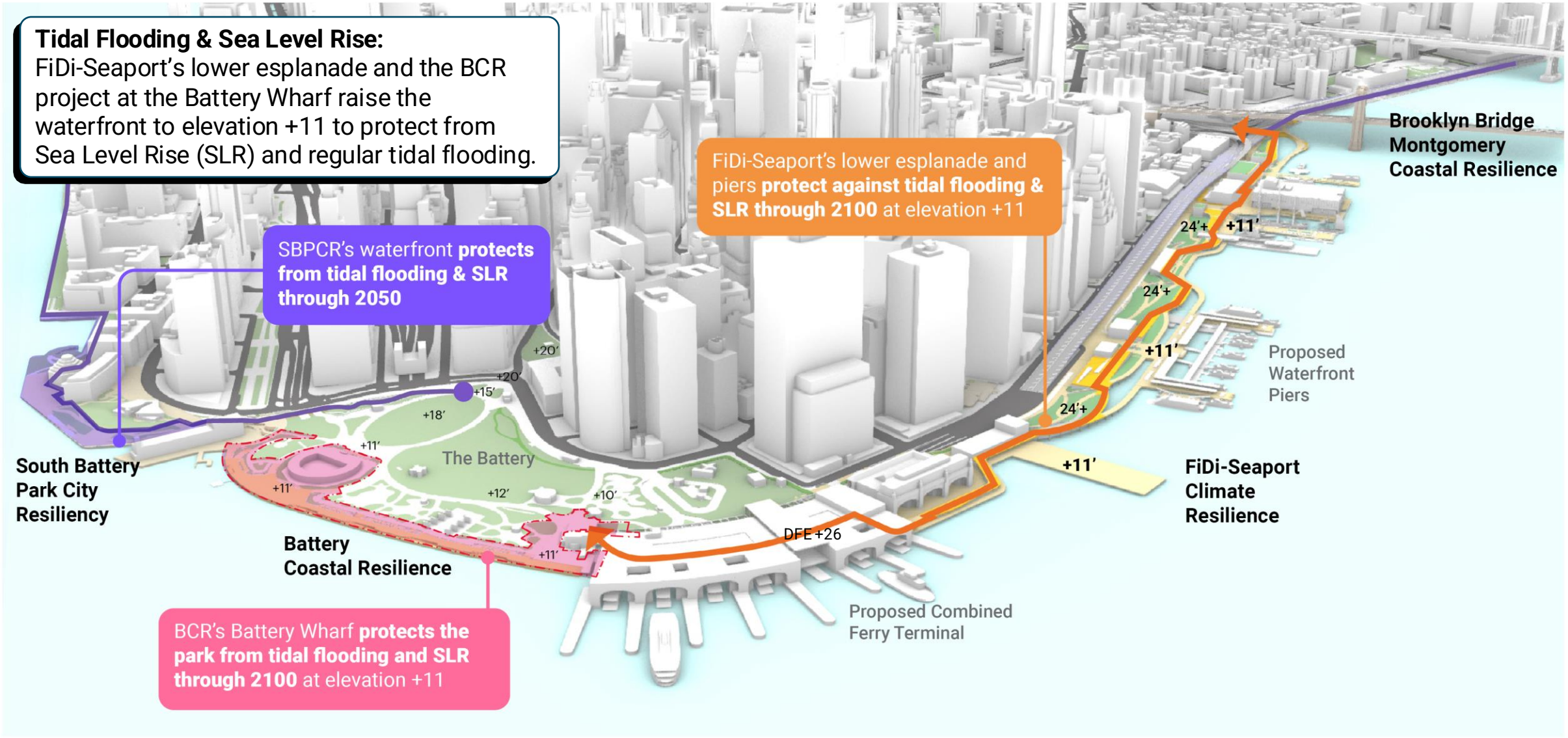
Without Lower Manhattan Coastal Resiliency (LMCR) projects, the neighborhood faces serious flooding during severe storm events, exacerbated by future sea level rise.



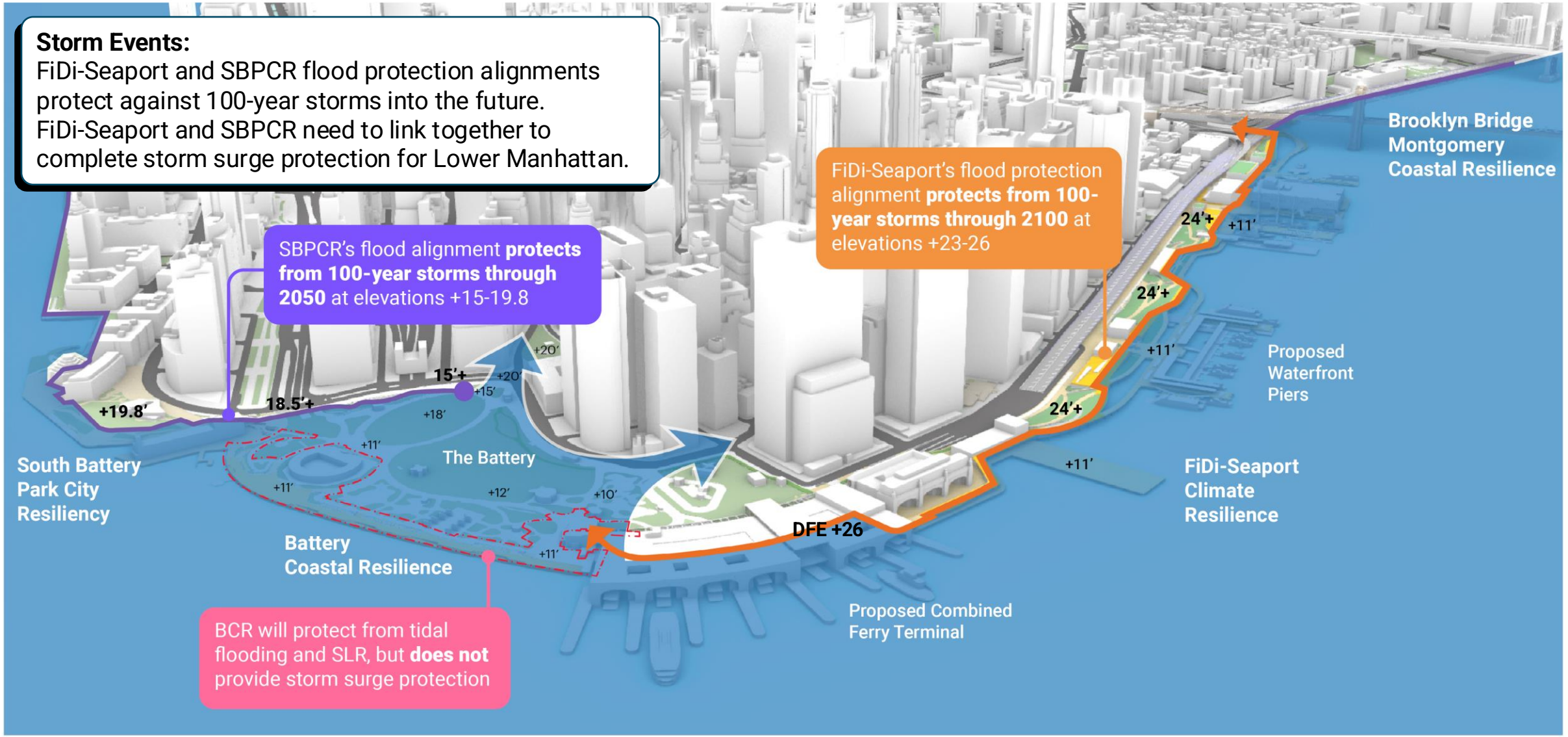
Closed and connected LMCR projects protect from storm surge flooding and sea level rise. The FiDi-Seaport project will protect through 2100.

Three resiliency projects come together at the tip of Manhattan. Each project protects from tidal flooding and sea level rise through 2050 or 2100.

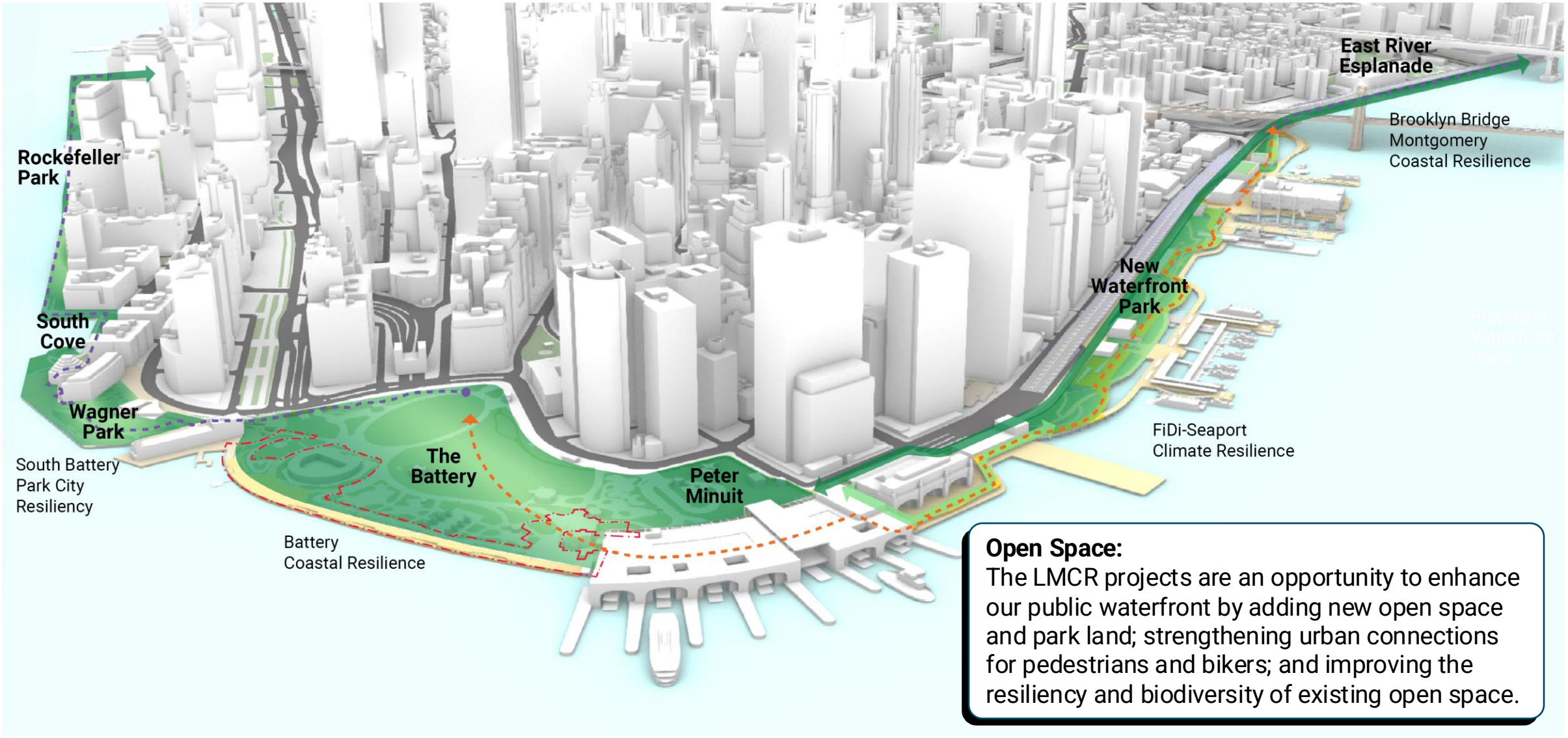
Tidal Flooding & Sea Level Rise:
FiDi-Seaport's lower esplanade and the BCR project at the Battery Wharf raise the waterfront to elevation +11 to protect from Sea Level Rise (SLR) and regular tidal flooding.



Three resiliency projects must link together at the tip of Manhattan to fully protect Lower Manhattan from coastal storms overtopping into the neighborhood.

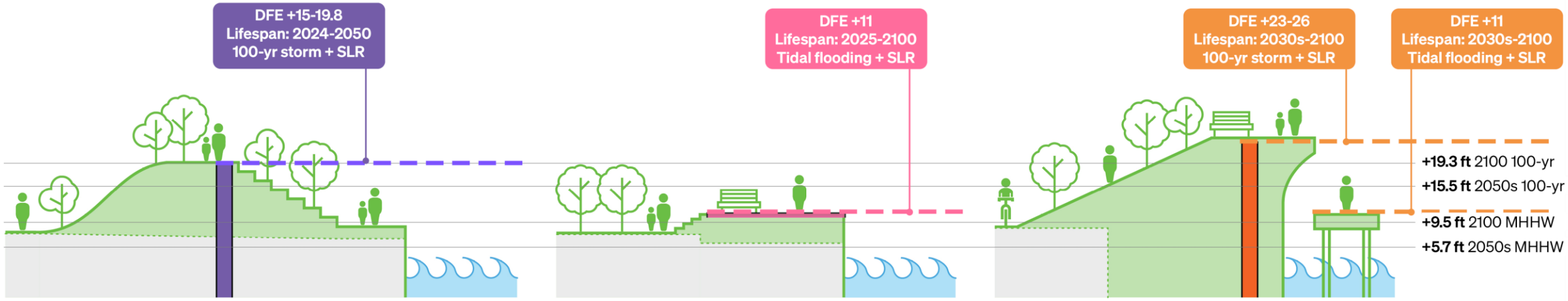


The goal is to integrate a closed flood protection system into a connected sequence of enhanced public waterfront open spaces wrapping the tip of Manhattan.



Open Space:
The LMCR projects are an opportunity to enhance our public waterfront by adding new open space and park land; strengthening urban connections for pedestrians and bikers; and improving the resiliency and biodiversity of existing open space.

Differences in Design Flood Elevations (DFEs) between adjacent projects are driven by the target lifespan of each. The FiDi-Seaport project has the highest DFE and the longest targeted lifespan.

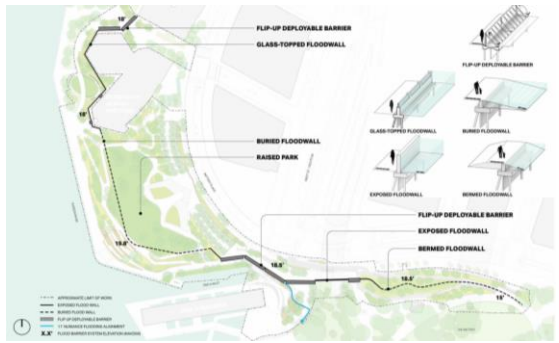


South Battery Park City Resiliency

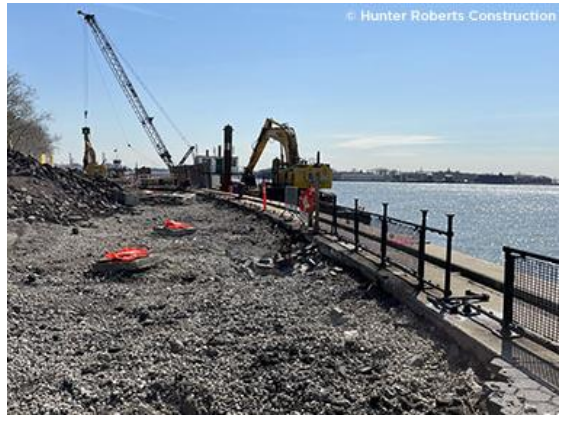
Battery Coastal Resilience

FiDi-Seaport Climate Resilience typical condition

These two adjacent projects are already underway, transforming our waterfront.

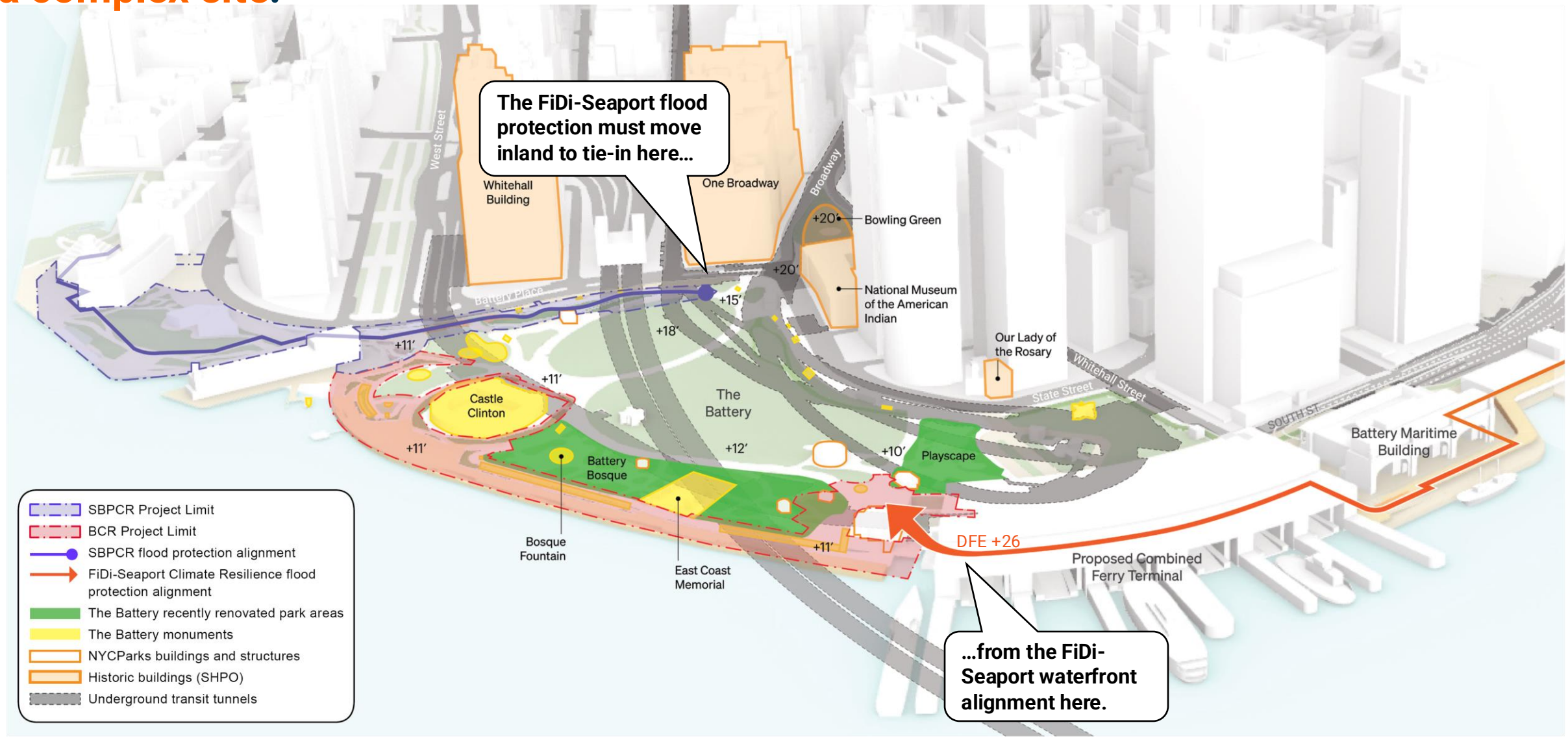


South Battery Park City Coastal Resilience (SBPCR)
Broke ground in 2023 - Expected completion in 2025



Battery Coastal Resilience (BCR)
Broke ground in 2024 - Expected completion in 2026

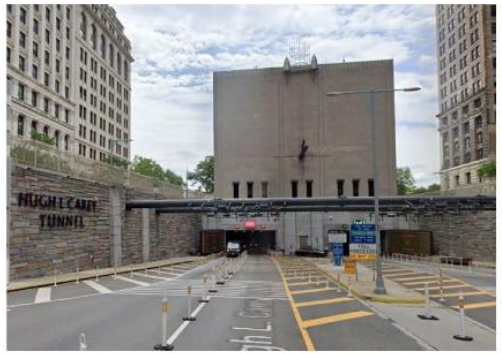
Closing the Southern Tie-In requires threading flood protection through a complex site.



Below ground, a tangle of critical transit infrastructure creates significant technical challenges…

Subway tunnels run below the Battery upland, State Street, and Peter Minuit Plaza

Several subway entrances span along State Street between Bowling Green and Peter Minuit Plaza



Two vehicular tunnels cross under The Battery

Above-ground tunnel vents and access points dot the study area

…Above ground, the site holds many culturally significant monuments and open space assets.

Historically significant buildings

Busy public streetscapes and right of ways

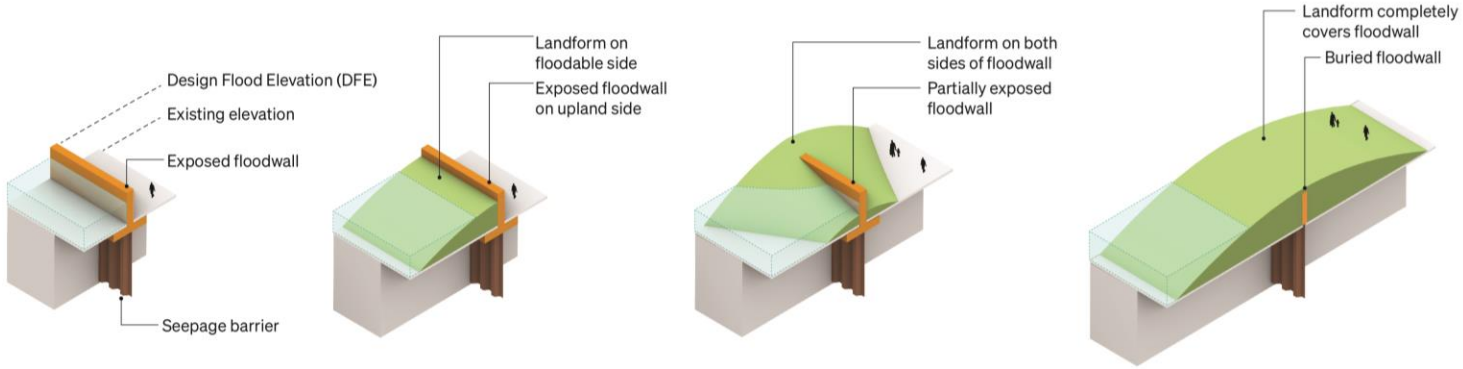
Adjacent resiliency projects

Waterfront open space, monuments and memorials

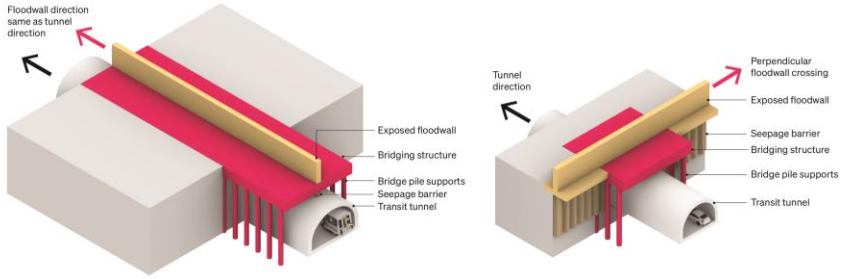
How do we create closed and connected flood protection?

The inland flood protection is made up of many infrastructure components. Some are visible above ground, while others are hidden below ground.

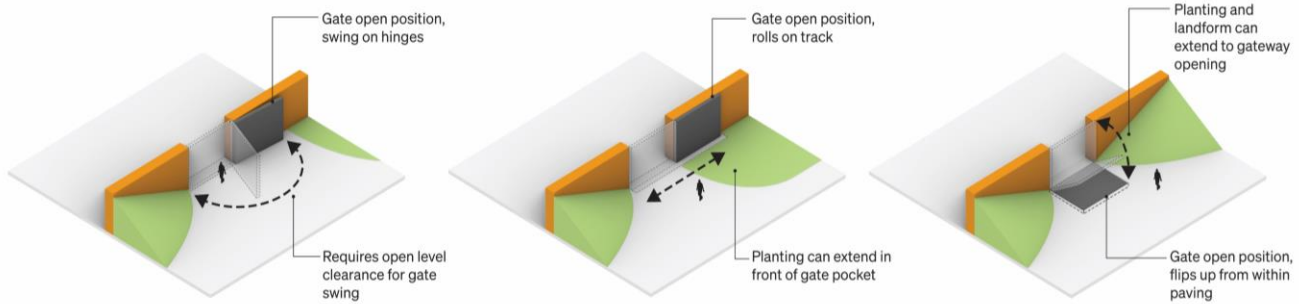
FLOOD WALLS
(above & below ground)



BRIDGING STRUCTURES
(below ground)

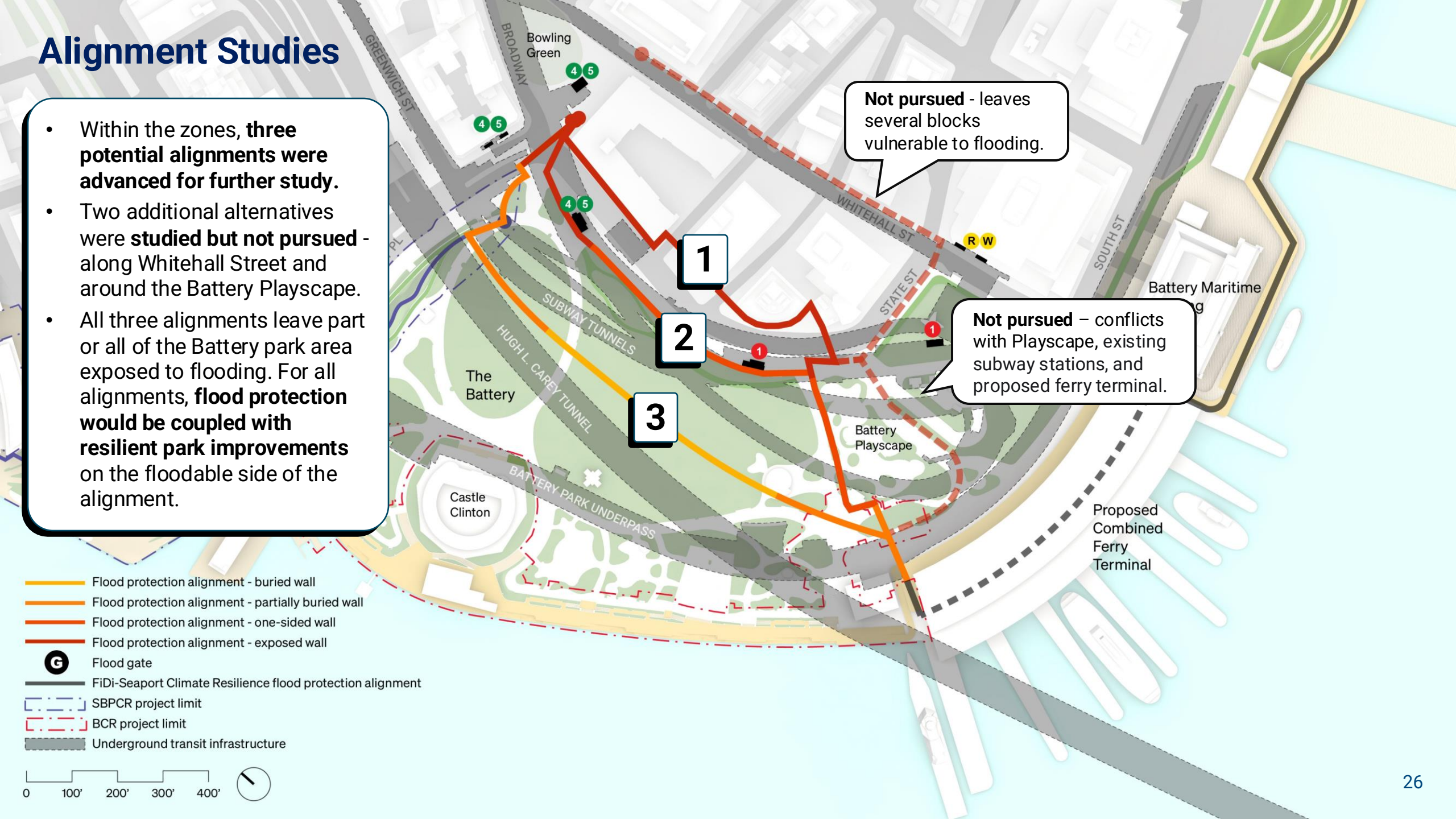


FLOOD GATES
(above & below ground)

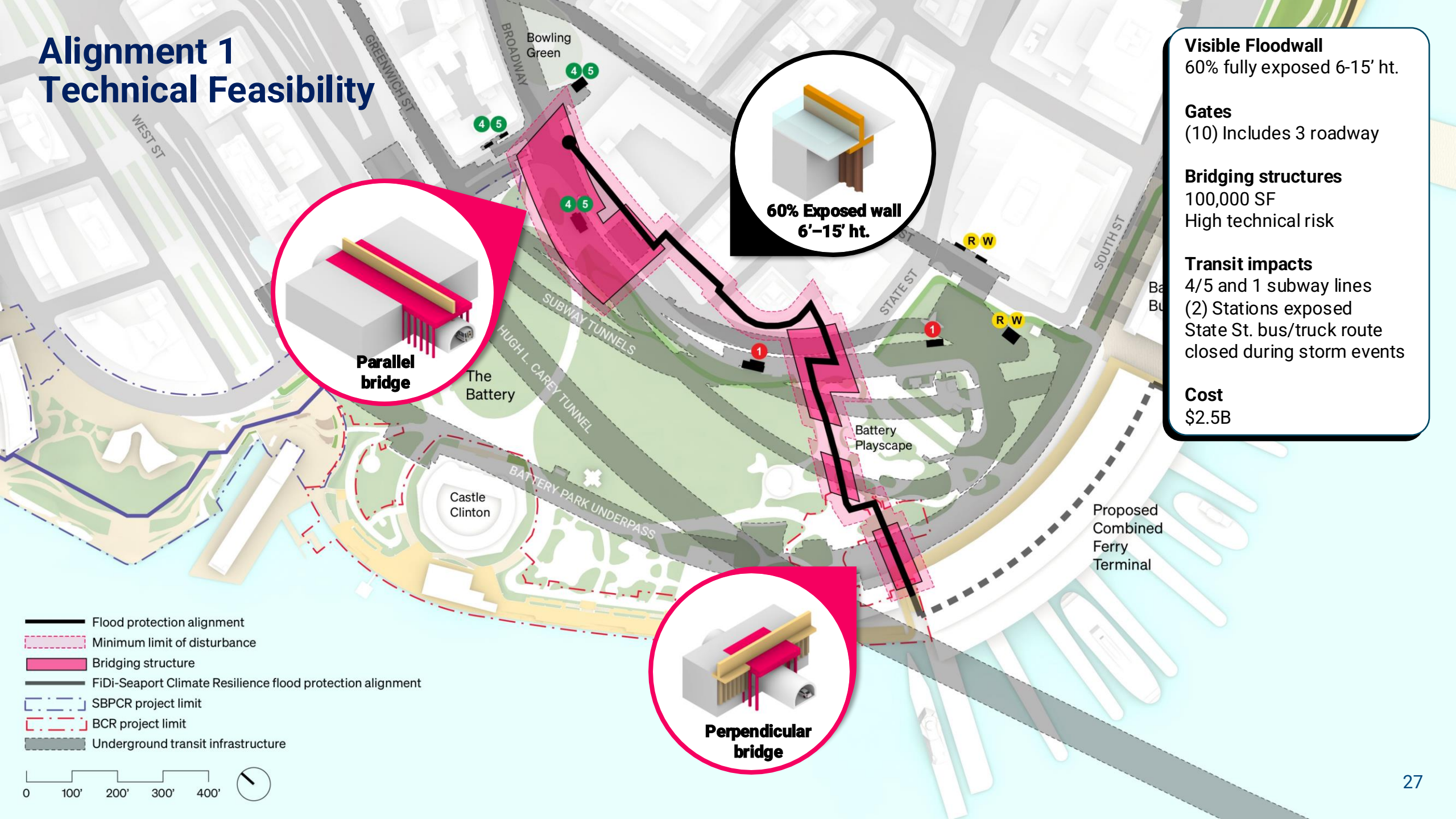


Alignment Studies

- Within the zones, **three potential alignments were advanced for further study.**
- Two additional alternatives were **studied but not pursued** - along Whitehall Street and around the Battery Playscape.
- All three alignments leave part or all of the Battery park area exposed to flooding. For all alignments, **flood protection would be coupled with resilient park improvements** on the floodable side of the alignment.



Alignment 1
Technical Feasibility



Visible Floodwall
60% fully exposed 6-15' ht.

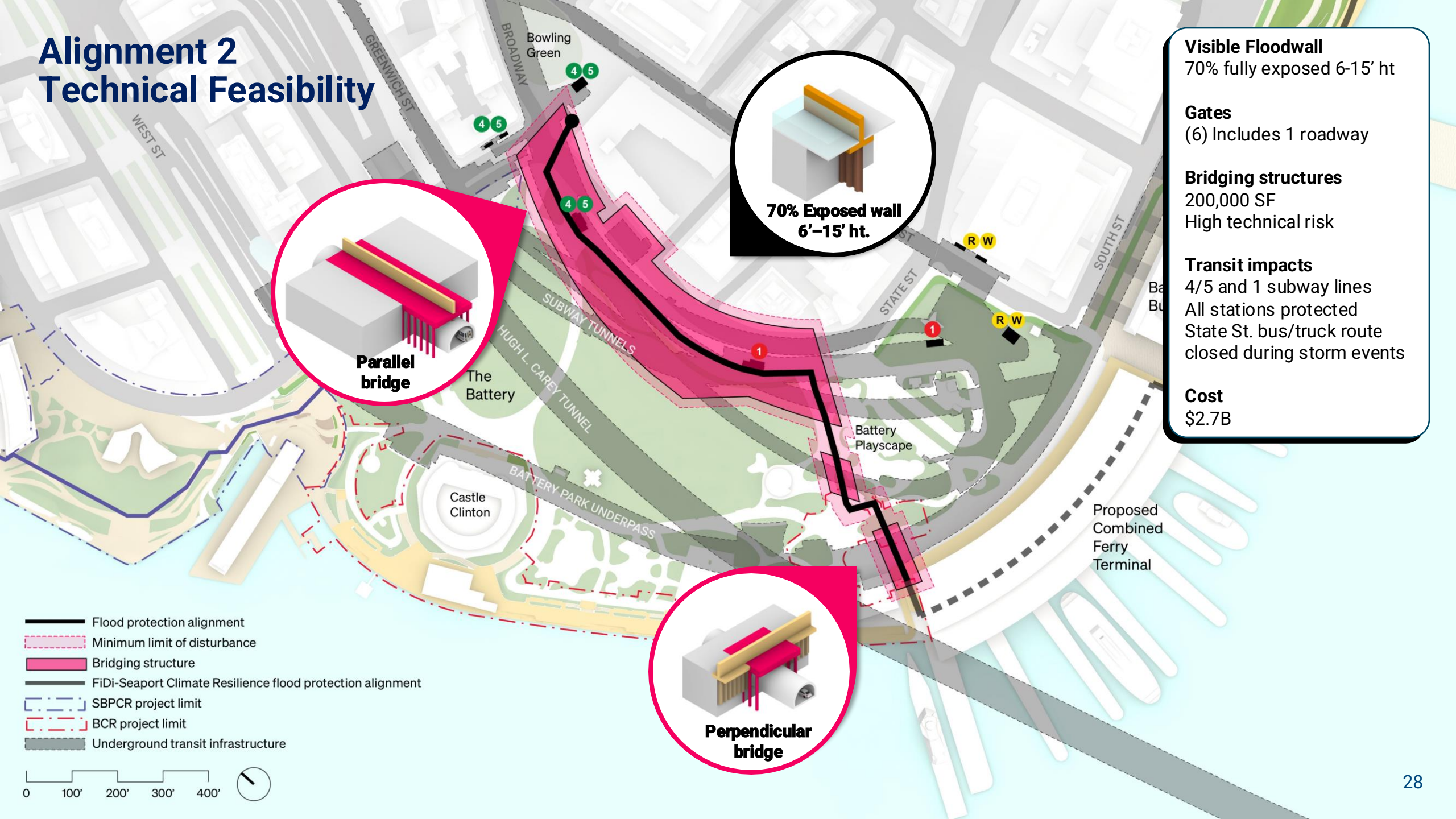
Gates
(10) Includes 3 roadway

Bridging structures
100,000 SF
High technical risk

Transit impacts
4/5 and 1 subway lines
(2) Stations exposed
State St. bus/truck route closed during storm events

Cost
$2.5B

Alignment 2
Technical Feasibility



Visible Floodwall
70% fully exposed 6-15' ht

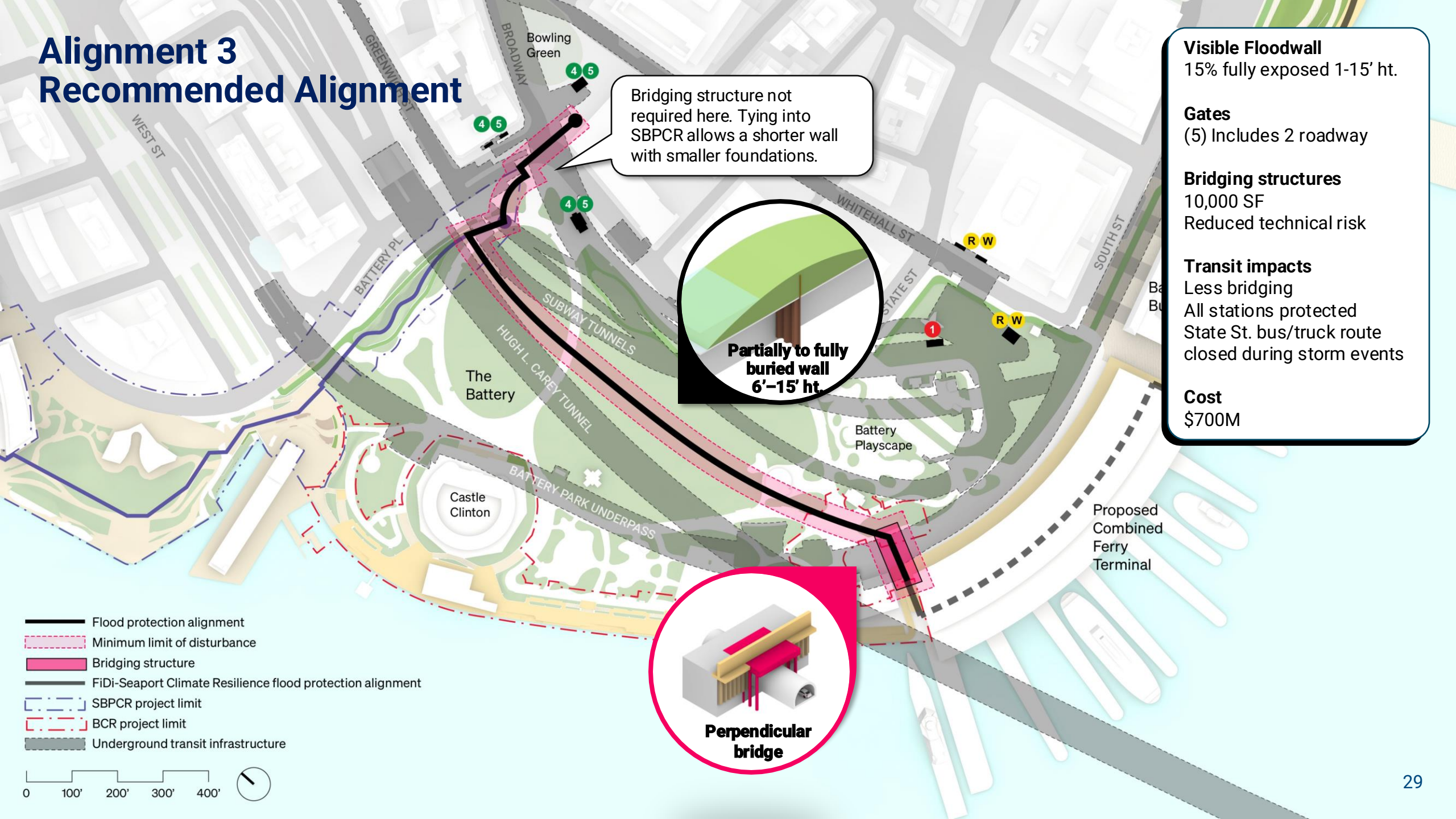
Gates
(6) Includes 1 roadway

Bridging structures
200,000 SF
High technical risk

Transit impacts
4/5 and 1 subway lines
All stations protected
State St. bus/truck route closed during storm events

Cost
$2.7B

Alignment 3
Recommended Alignment



Visible Floodwall
15% fully exposed 1-15' ht.

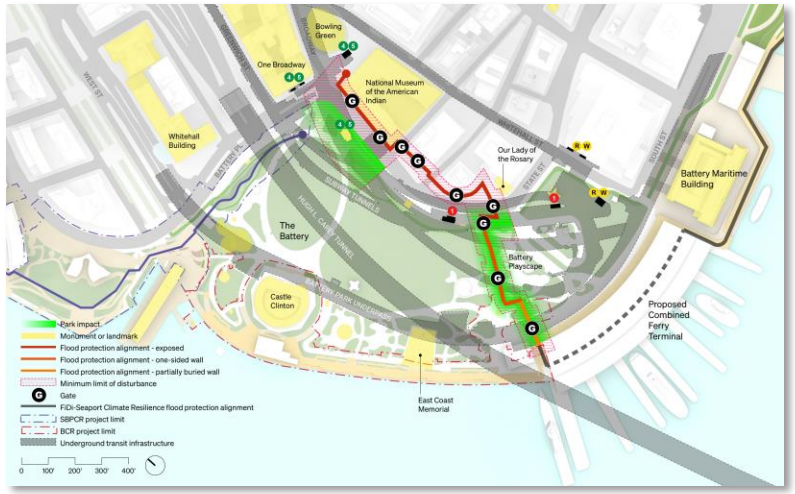
Gates
(5) Includes 2 roadway

Bridging structures
10,000 SF
Reduced technical risk

Transit impacts
Less bridging
All stations protected
State St. bus/truck route closed during storm events

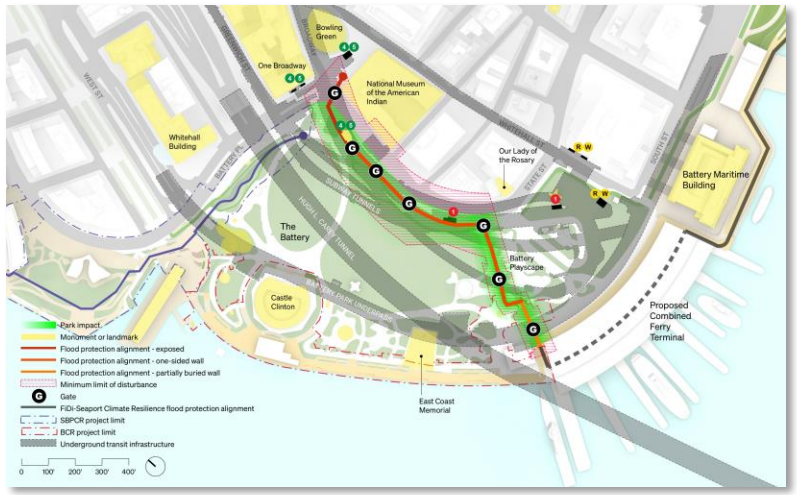
Cost
$700M

Alignment Summary



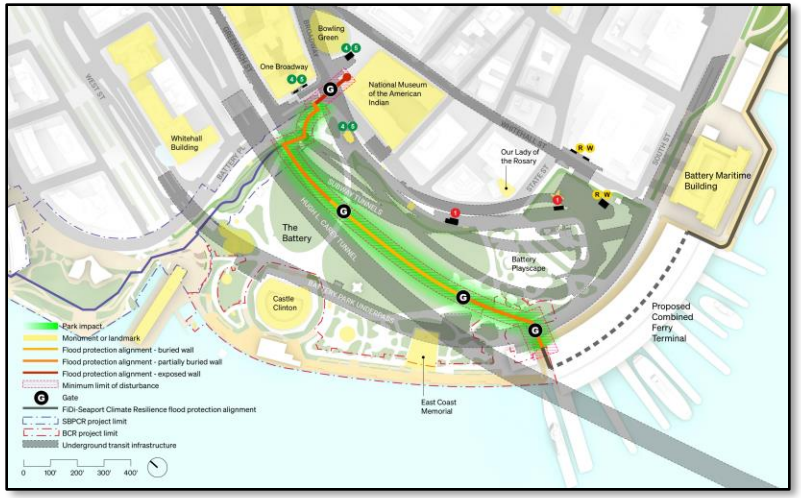
Alignment 1
State Street – Building Adjacent

- Challenges include technical feasibility, public realm impacts, building impacts, limited integration opportunities, and cost



Alignment 2
State Street – Park Adjacent

- Challenges include technical feasibility, park impacts, public realm impacts, limited integration opportunities, and cost



Alignment 3
Park – Battery Upland

- More technically feasible, less impact to critical infrastructure, transit, and buildings, and lowest cost

3.
The Battery

How does the Battery work today?

The Battery is a significant public waterfront, both locally and nationally.

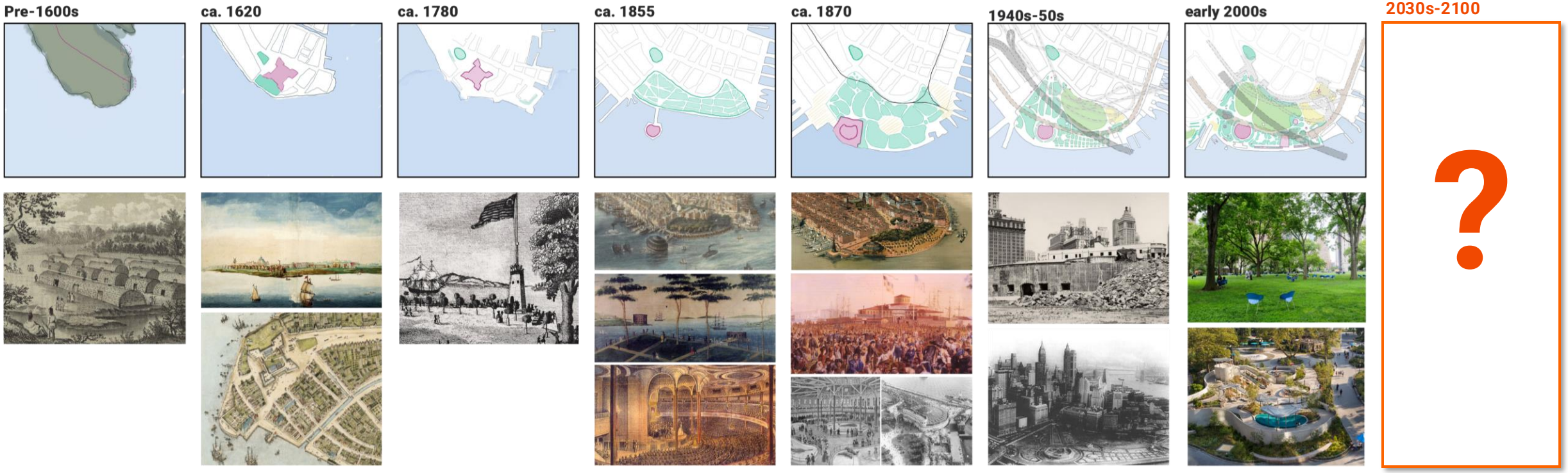
The Battery is a significant public waterfront and a gateway to harbor destinations, attracting visitors near and far.

The Battery holds a collection of important monuments and historic narratives.

The Battery is a green oasis of horticulturally rich gardens and mature trees.

The Battery is an urban neighborhood park serving diverse needs and users.

Like the rest of the city's waterfront, The Battery has continuously evolved in every phase of its history. How can we best serve the park into the future?



We want to hear from you! In prior sessions, we have begun to gather community input on what is most important about The Battery today.

Focus group workshops with local stakeholders & city agencies
Winter – Spring 2025

Public outreach in the Battery
May 2025

Some things we've heard from you so far…

Keep and create **open sightlines** to the waterfront and through The Battery.

Create **safer and more clear multi-modal pathways** for bikers and pedestrians.

Maintain or relocate **existing assets and land uses** in the park, including the **Urban Farm**.

Create **space for crowds and events** while protecting the lawns and trees.

Design new topography with **gentle slopes and lookouts.**

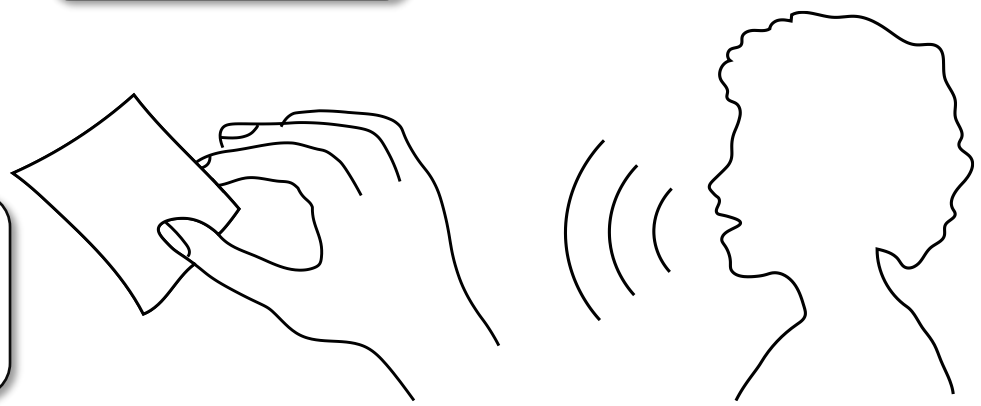
We love the gardens!!

Support **park users and workers** during **construction** so people can continue to enjoy the park.

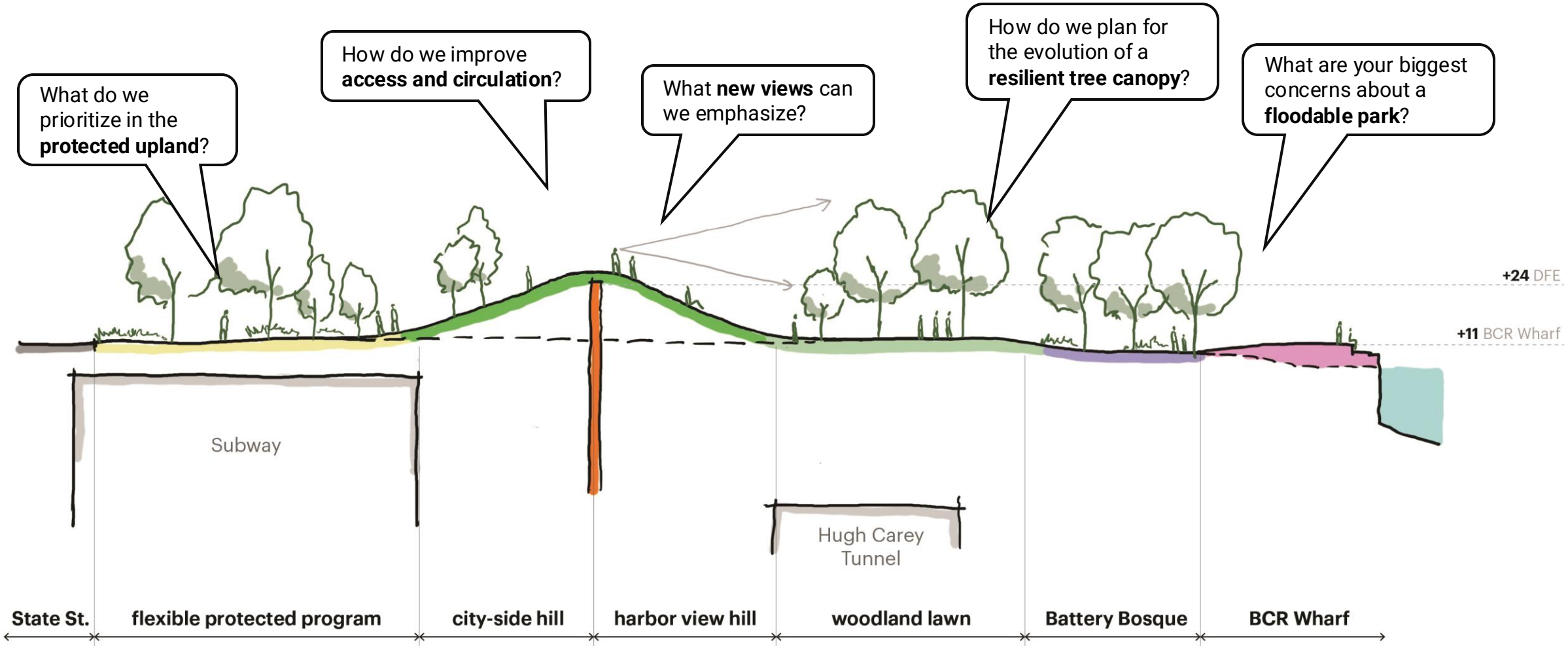
Keep lawns **open and usable.**

Expand biodiversity, pollinator and habitat gardens and education.

Preserve the existing **historic narrative** + share new or **missing stories.**



We spoke with stakeholders about what site considerations should guide the design strategy for flood protection integration within the existing park.



What can we expect in this phase of design vs. future phases of design?

This phase of design (through fall 2025) will establish:

10-15% Concept Design

- **Conceptual alignment for the flood protection infrastructure** so that engineering design can proceed.
- **Technical constraints and feasibility criteria;** assess design alternatives and impacts.
- **Open space goals and priorities** for integration of flood protection infrastructure.
- **Conceptual footprint** for new landforms and earthwork.
- **Conceptual circulation and programming** ideas.
- **Conceptual-level costing and implementation** analysis.

Future phases of design will develop:

15-100% Schematic - Final Design phases

- **Engineering design** for the flood protection infrastructure.
- Study and development of design details, **materials and finish selections** for exposed flood protection components.
- Refinement of open space design for **site grading, landform, and site circulation.**
- Open space design for site programming and character – including **materials selections, furnishings, lighting, and site elements.**
- **Resilient planting approach** and plant species selections.
- **Ongoing costing, implementation, and impacts** analysis.

Proposed Concept Design:

What could the Battery of the future look like?

Today we will be sharing a proposed concept design that addresses the technical criteria, project goals, and input received so far. This concept will continue to evolve with stakeholder input. We will also give a brief overview of an alternative study.

Selected proposal due to reduced impacts on existing site elements.

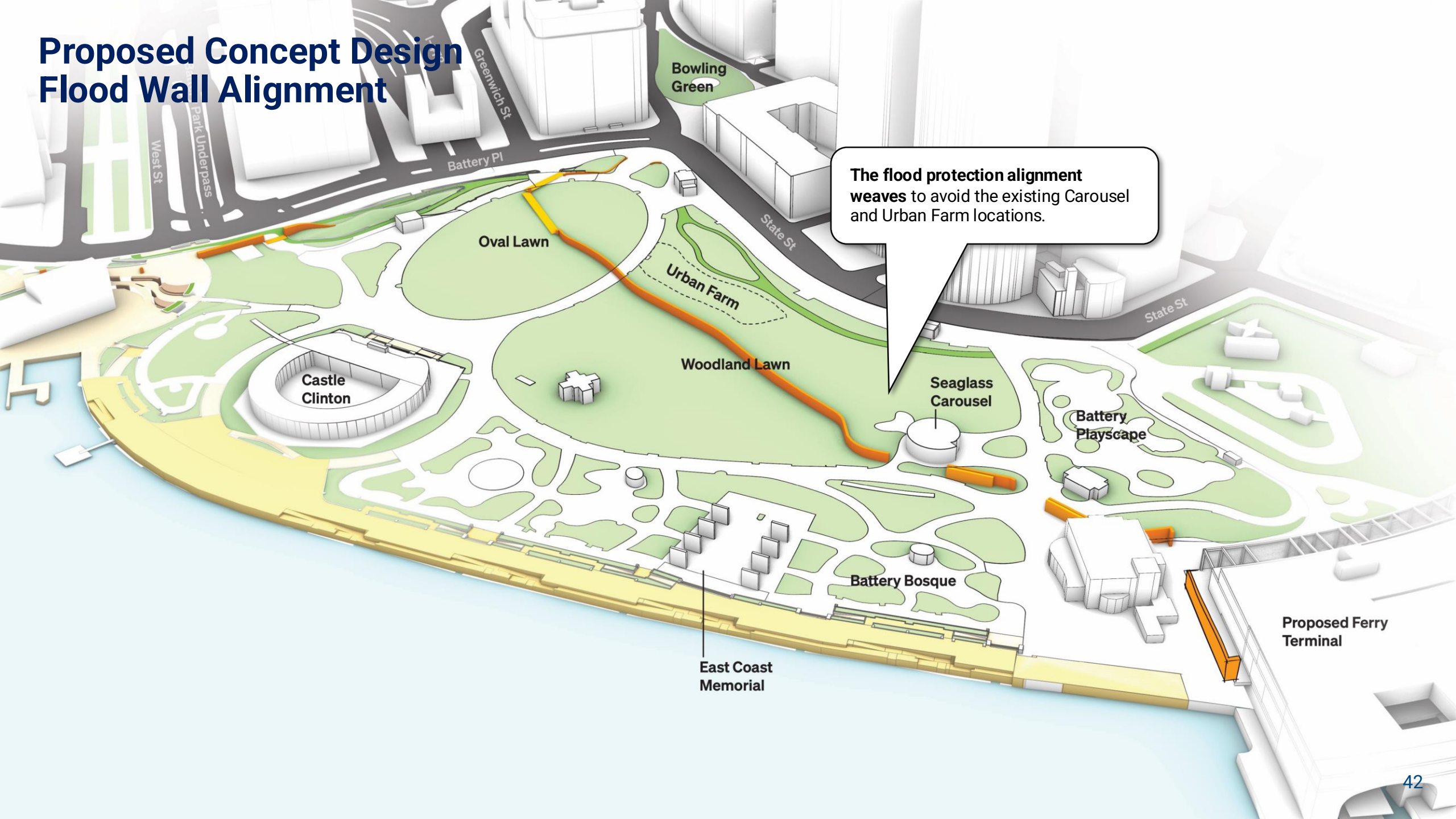
Proposed Concept Design

Not pursued due to increased disturbance to existing site elements.

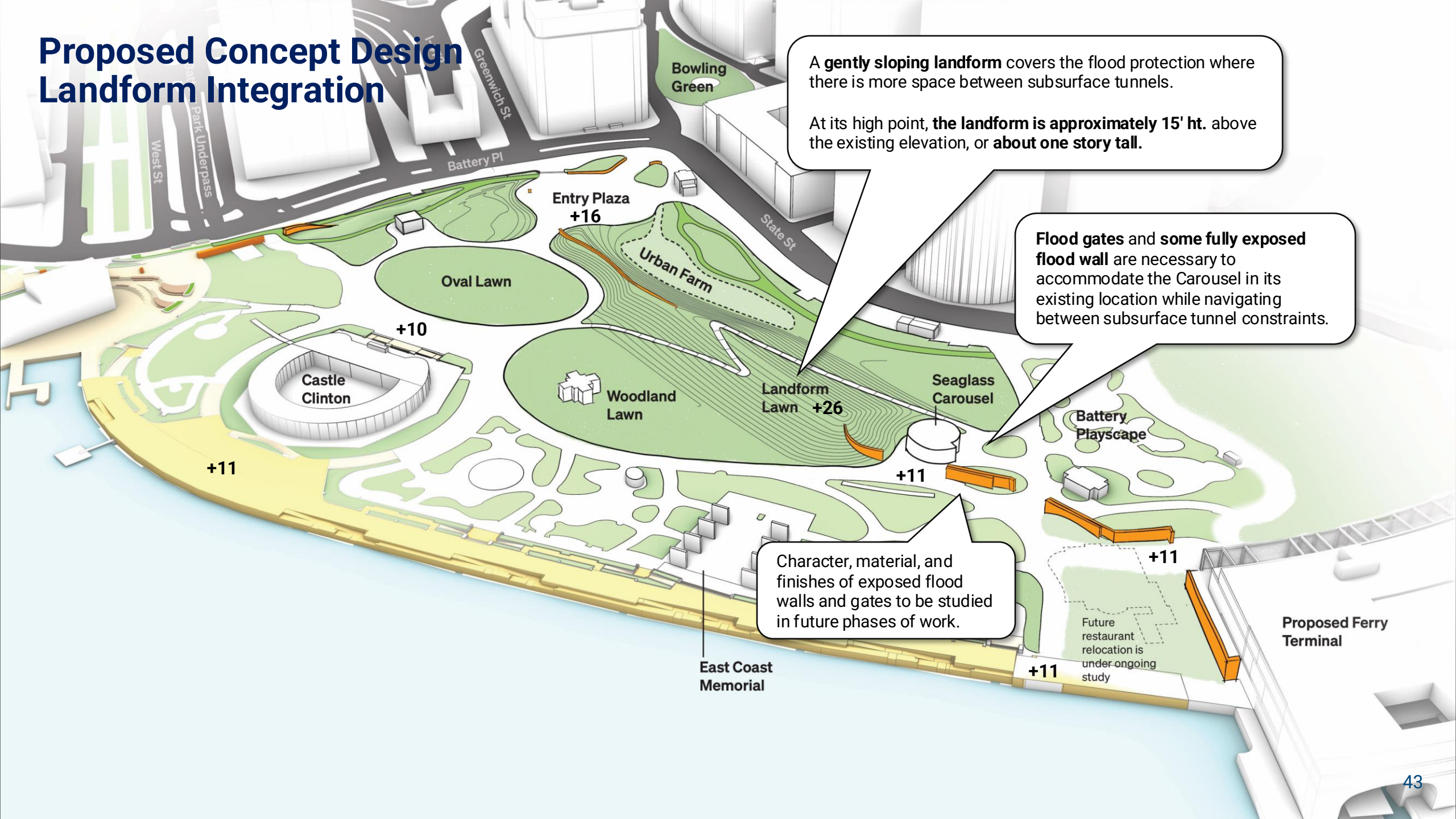
Alternative Study (not pursued)

Existing Conditions

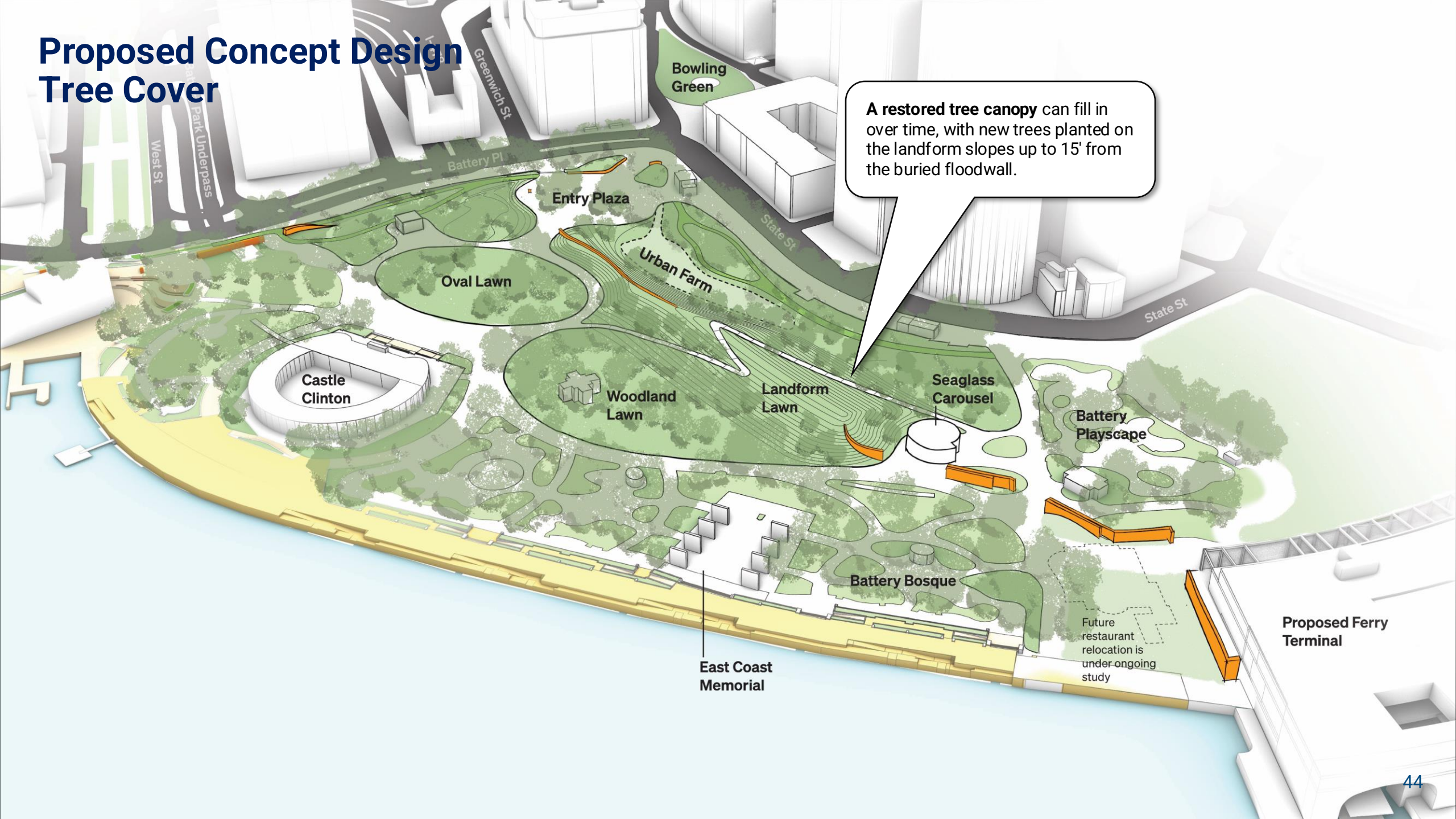
Proposed Concept Design
Flood Wall Alignment



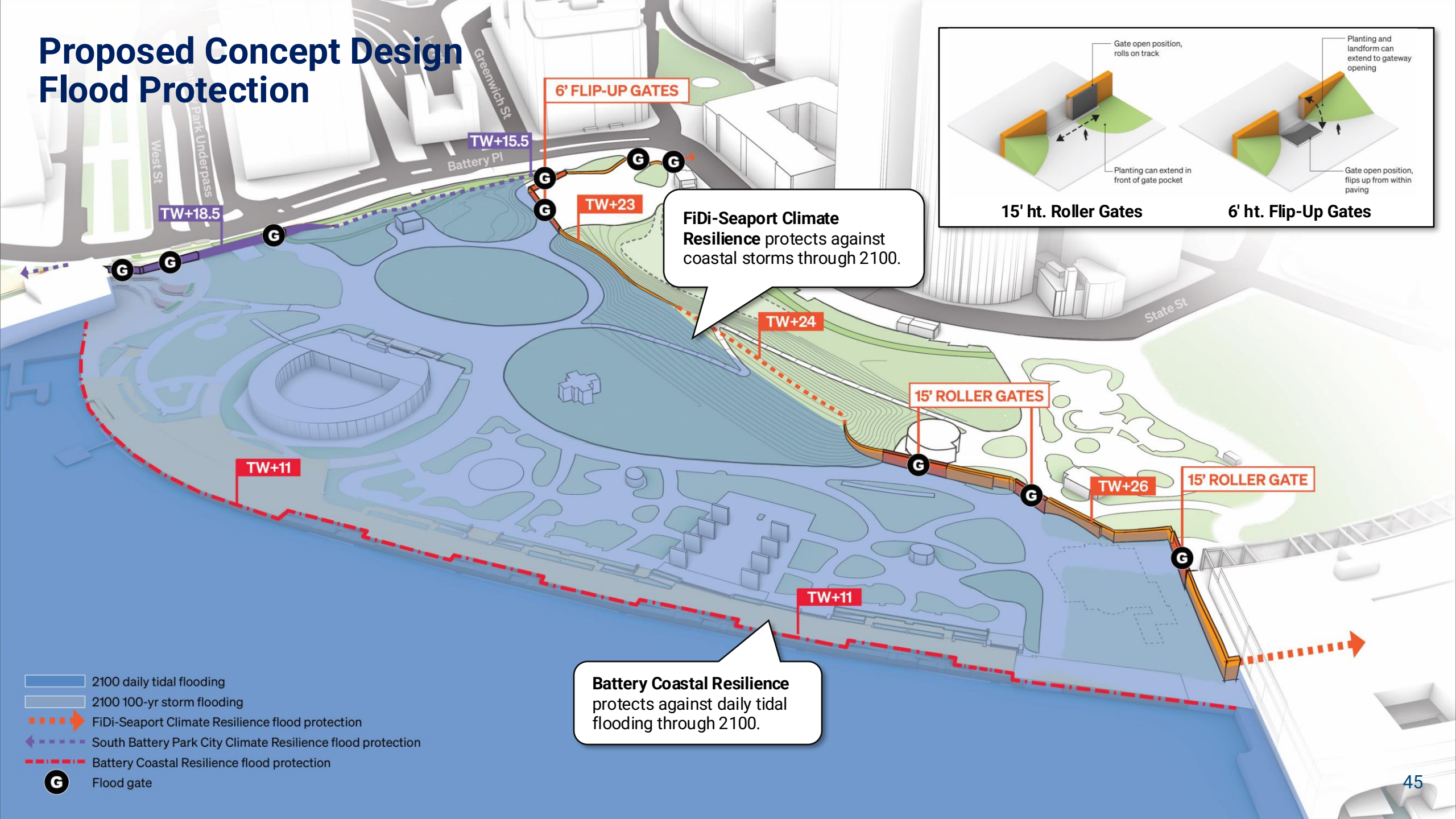
Proposed Concept Design
Landform Integration



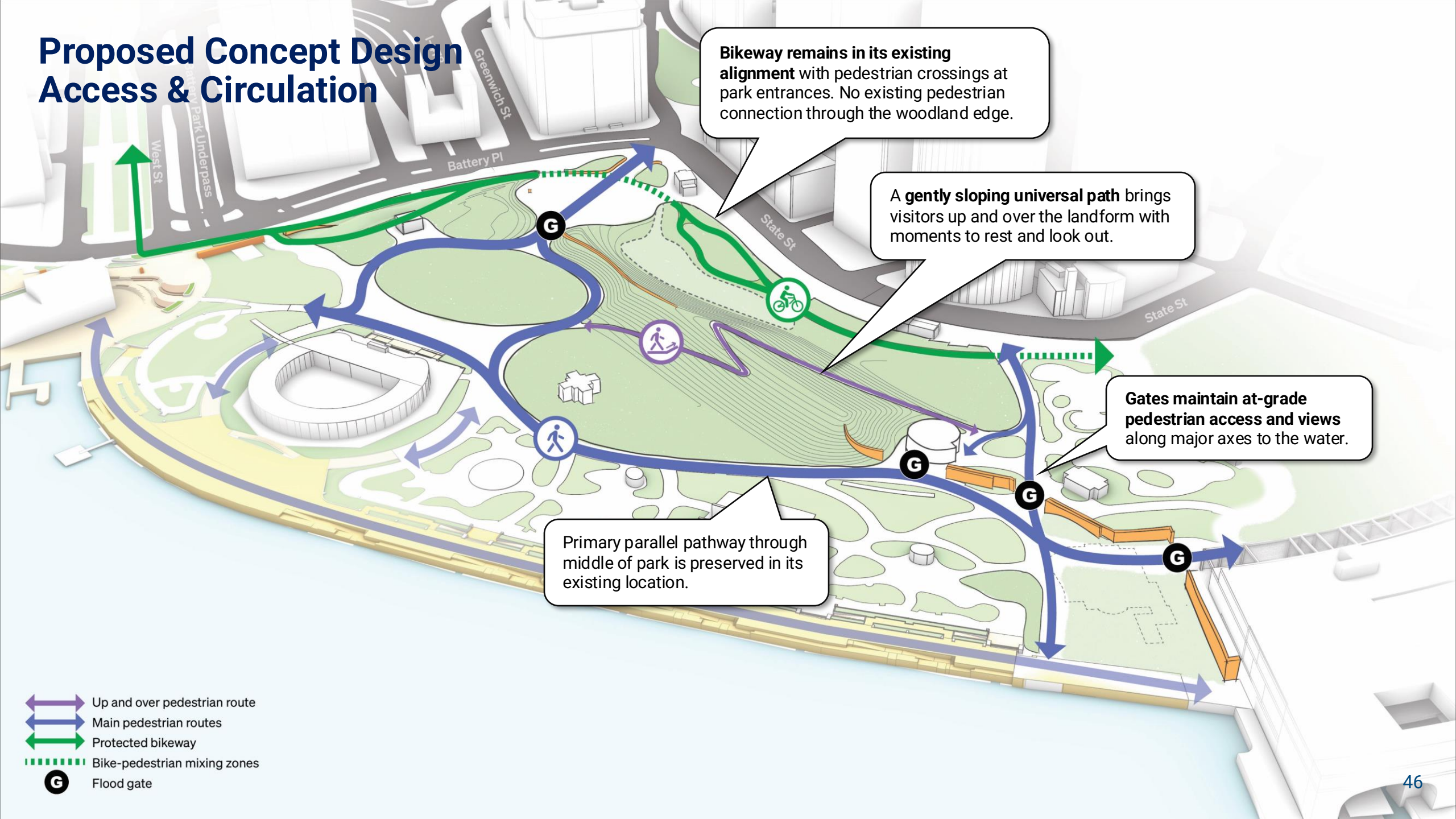
Proposed Concept Design
Tree Cover



Proposed Concept Design
Flood Protection



Proposed Concept Design
Access & Circulation



Proposed Concept Design
New Experiences

A **reconfigured oval lawn** allows clear views to Castle Clinton and a passive gathering space.

An expanded, tree-shaded plaza welcomes visitors at the main entrance and can be used for flexible events.

An accessible path runs through **large, gently sloping lawns** for flexible gathering.

A hilltop ridge offers new harbor views.

- Sloped lawn
- Flat lawn
- Planting
- Plaza
- Other assets
- Primary axis

Proposed Concept Design Elements to Remain

The Urban Farm remains in its existing location and configuration, new landform bends around it.

Bikeway and gardens along the State Street edge remain in existing configuration. No existing pedestrian path through woodland edge.

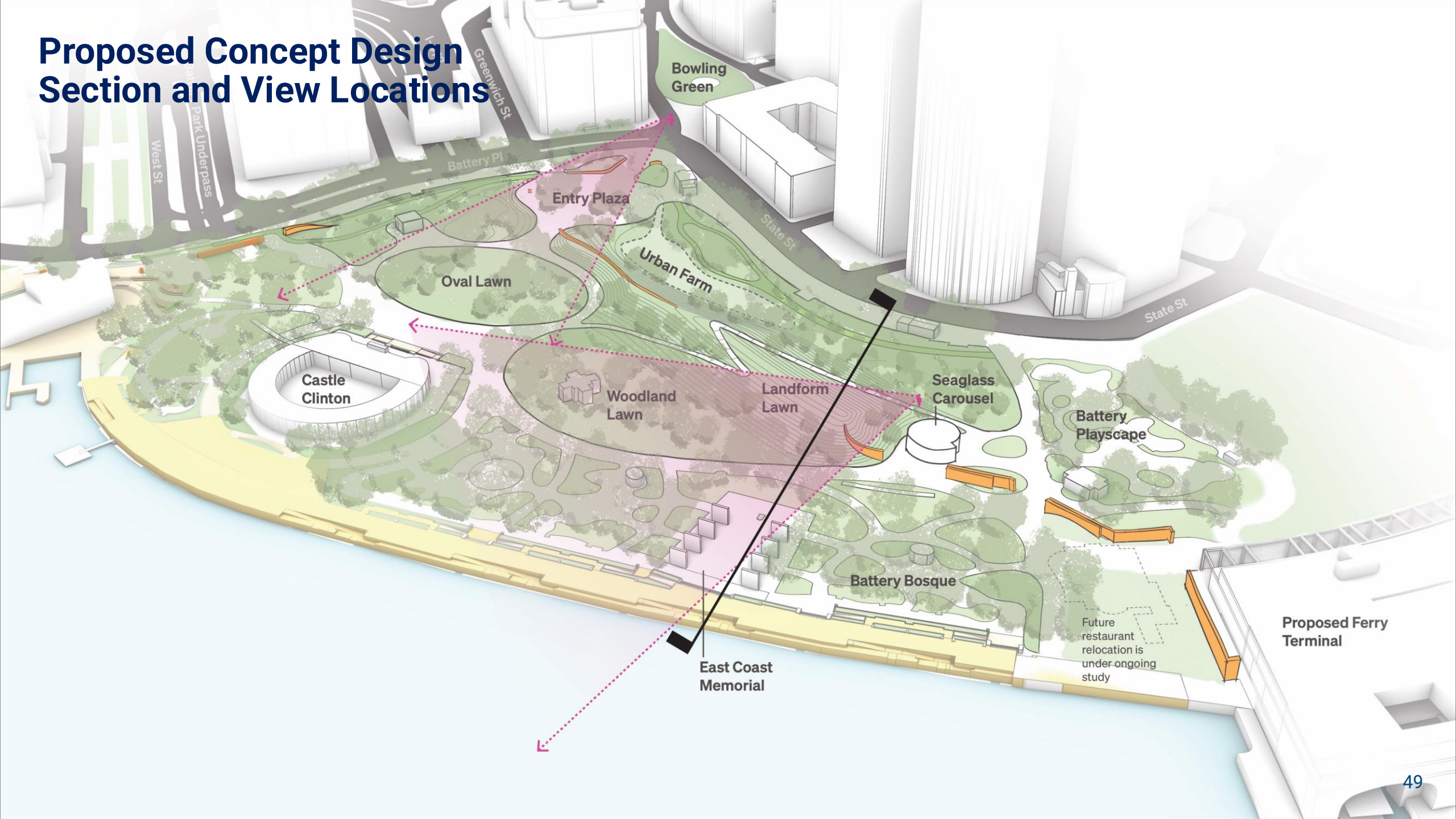
Carousel is preserved in its existing location, approx. 17' offset from the exposed flood walls and gates.

The Bosque, Castle, and waterfront zones remain outside the limit of work.

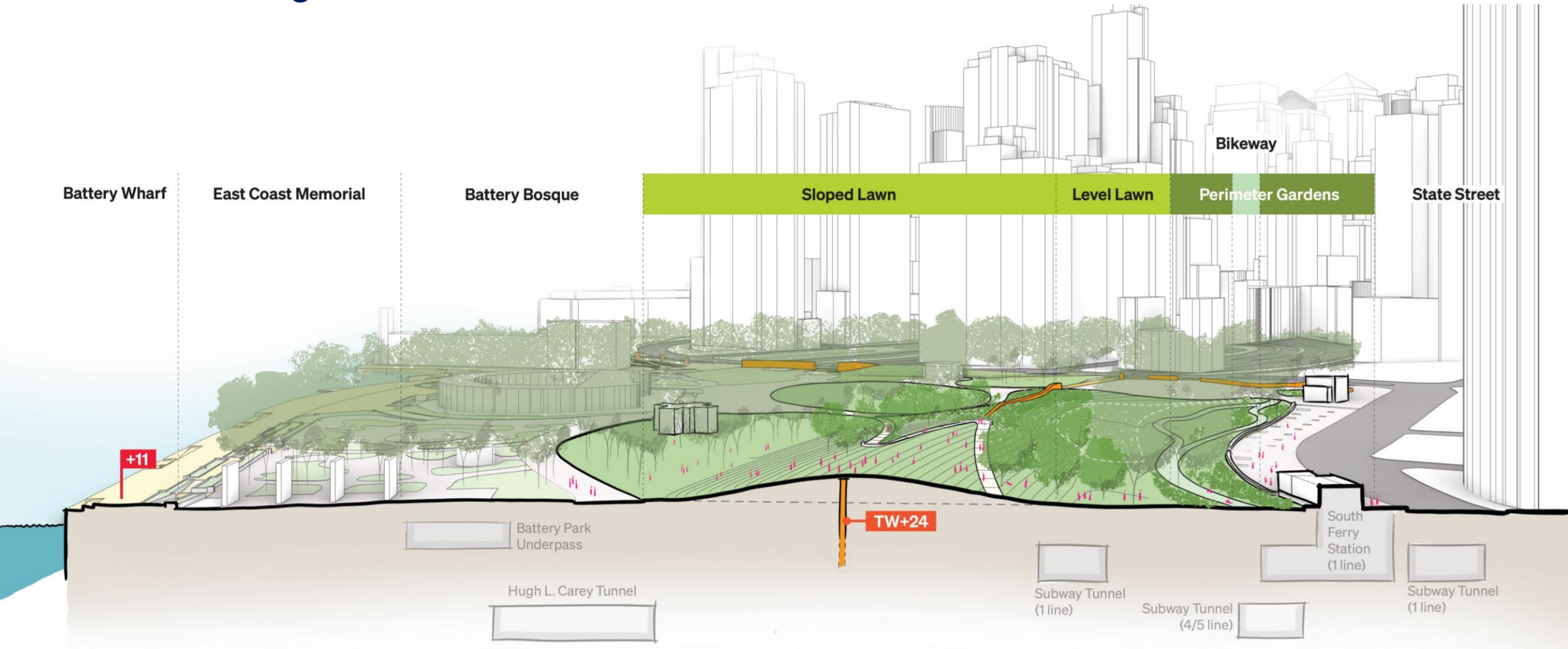
Bowling Green
Greenwich St
Battery Park Underpass
West St
Battery Pl
Entry Plaza
Urban Farm
State St
Oval Lawn
Castle Clinton
Woodland Lawn
Landform Lawn
Seaglass Carousel
Battery Playscape
East Coast Memorial
Future restaurant relocation is under ongoing study

- Sloped lawn
- Flat lawn
- Planting
- Plaza
- Other assets
- Primary axis

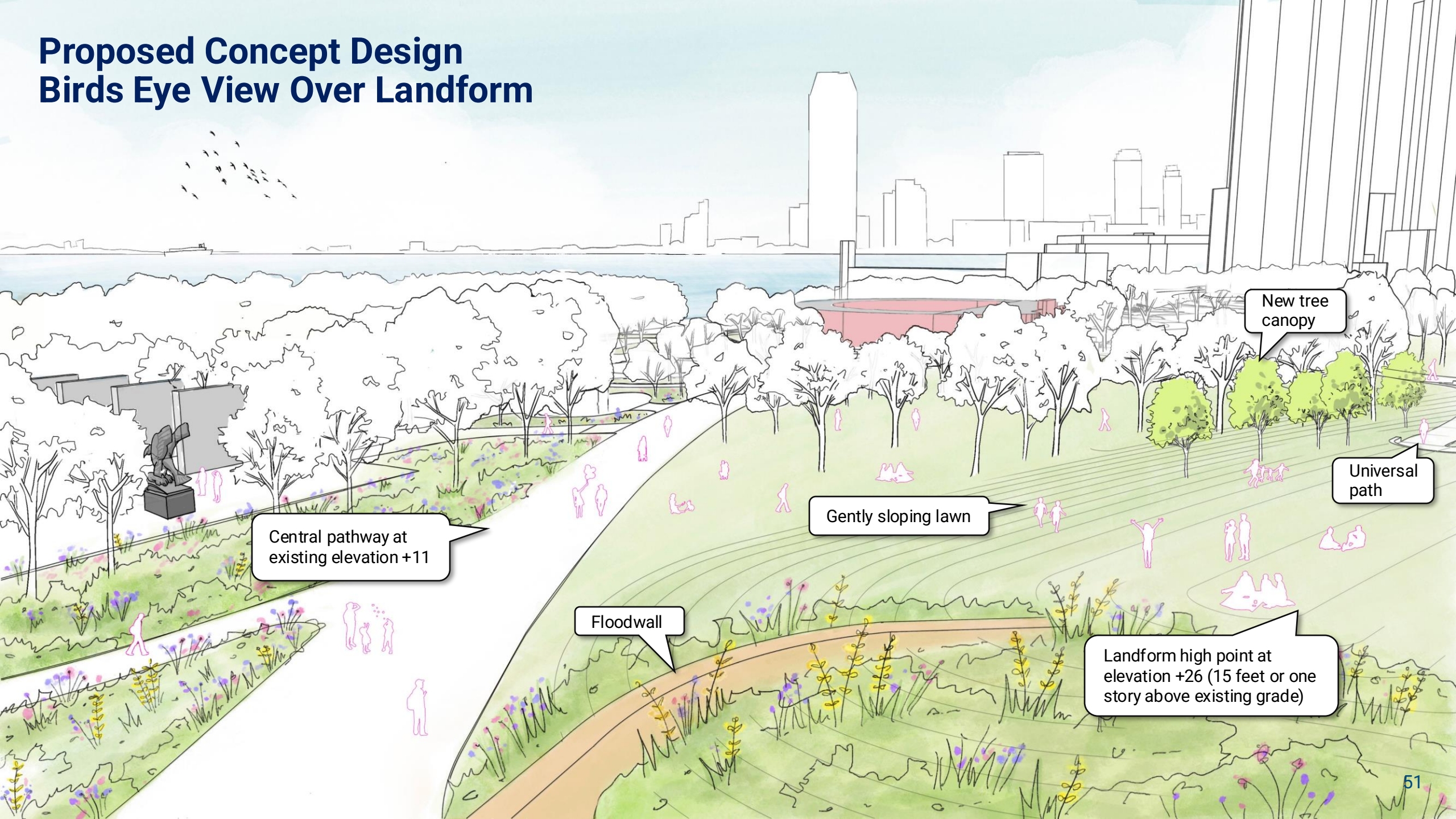
Proposed Concept Design
Section and View Locations



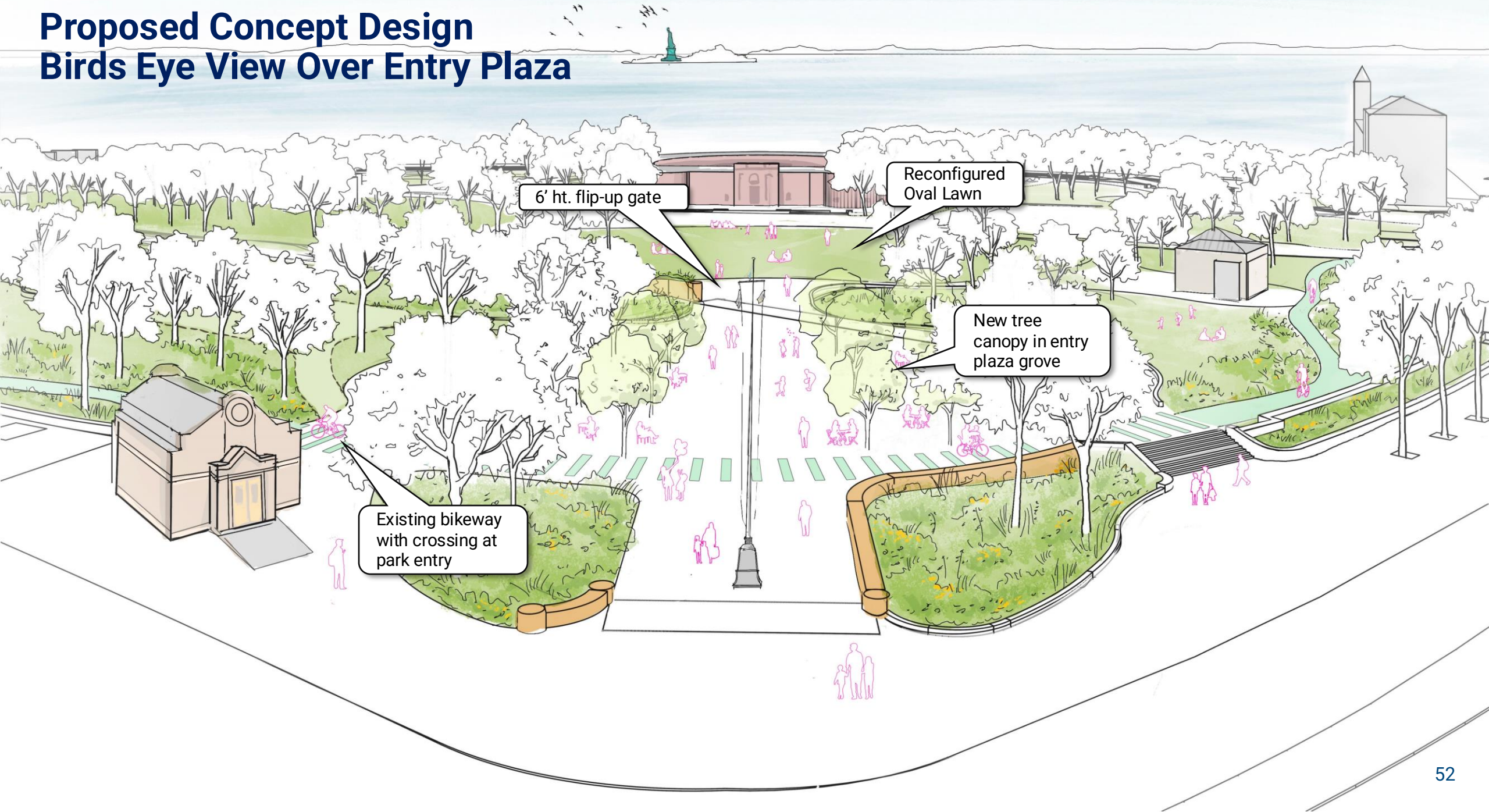
Proposed Concept Design
Section Through Landform



Proposed Concept Design
Birds Eye View Over Landform



Proposed Concept Design
Birds Eye View Over Entry Plaza



What trade-offs were assessed with the alternative study?

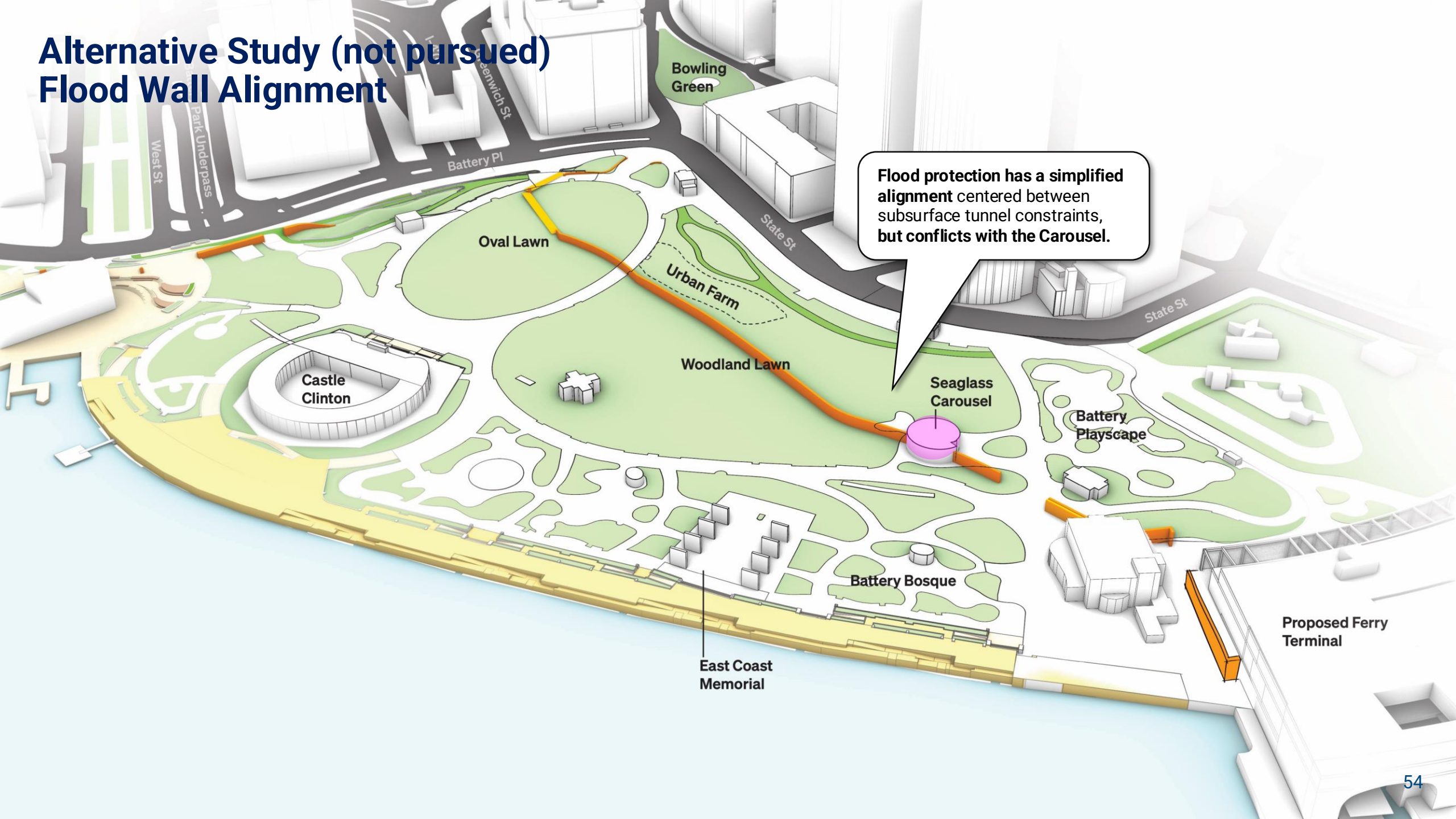
Selected proposal due to reduced impacts on existing site elements.

Proposed Concept Design

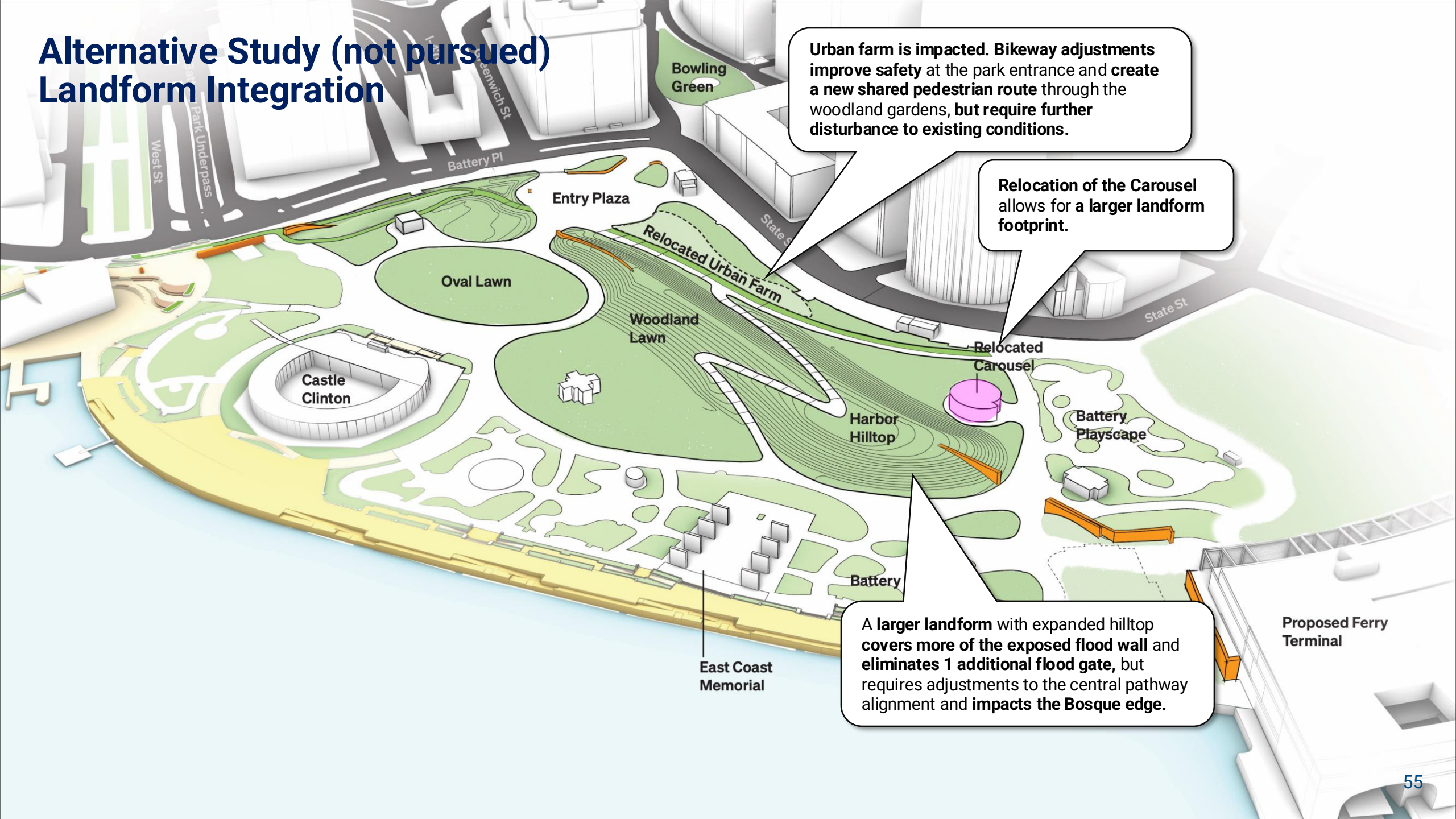
Not pursued due to increased disturbance to existing site elements.

Alternative Study (not pursued)

Alternative Study (not pursued)
Flood Wall Alignment



Alternative Study (not pursued)
Landform Integration



Assessment of the Proposed Concept Design and the Alternative Study concluded that the benefits of integrating more flood protection within a larger landform did not outweigh the additional impacts to existing park amenities.

Selected proposal due to reduced impacts on existing site elements.

Proposed Concept Design

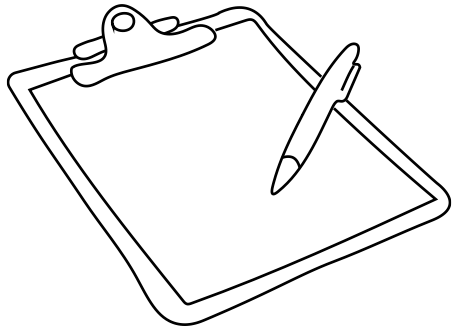
- Flood protection integrated into gently sloping landform
- Universally accessible up-and-over landform pathway
- New entry plaza and modified Oval Lawn
- Carousel, Urban Farm, and bikeway preserved in place

Not pursued due to increased disturbance to existing site elements.

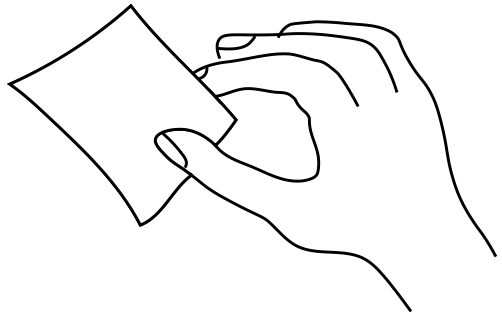
Alternative Study (not pursued)

- Larger landform footprint with expanded hilltop
- Reduced length of visible exposed flood wall and eliminates 1 flood gate
- Requires relocating the Carousel, and impacts the Urban Farm, bikeway, and central pathway alignments

We want to hear from you! Please visit our project boards or engage our project team to ask questions and share input – we need and appreciate your participation!



Verbal feedback documented by notetakers



Post-its and written comments on presentation materials

Discussion at breakout stations

Next Steps

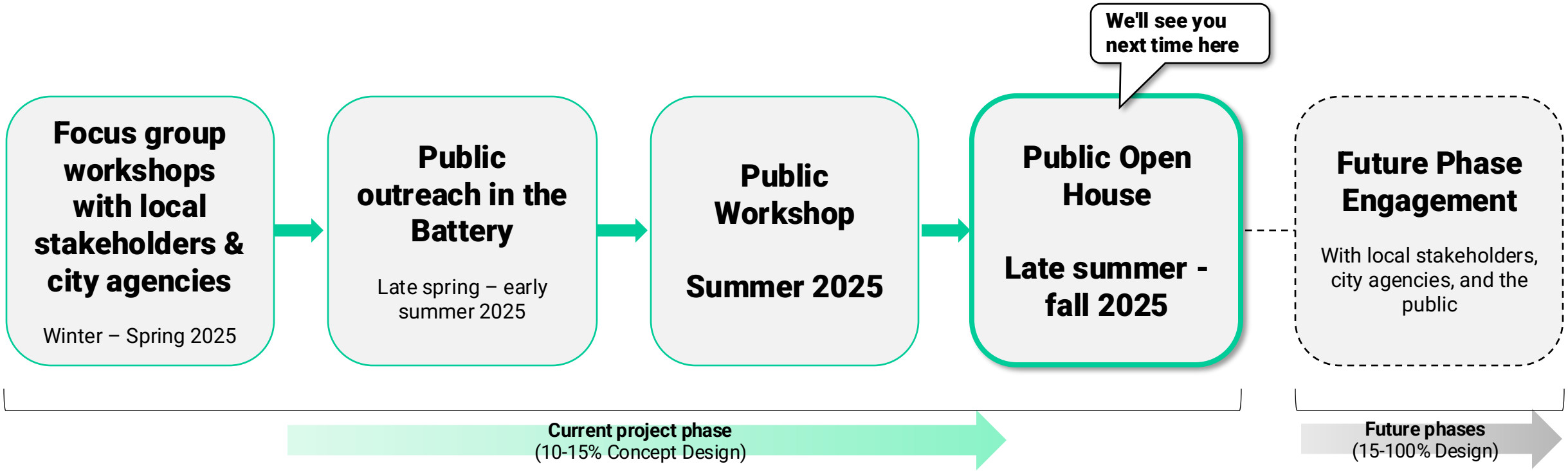
What's next?

- The project team will **document and organize feedback** heard here today.
- The project team will input feedback into the design process to **refine concept-level site designs** in coordination with city agencies and stakeholders.
- The project team will continue to assess **impact mitigation, technical feasibility, and cost-effectiveness** for the design studies.

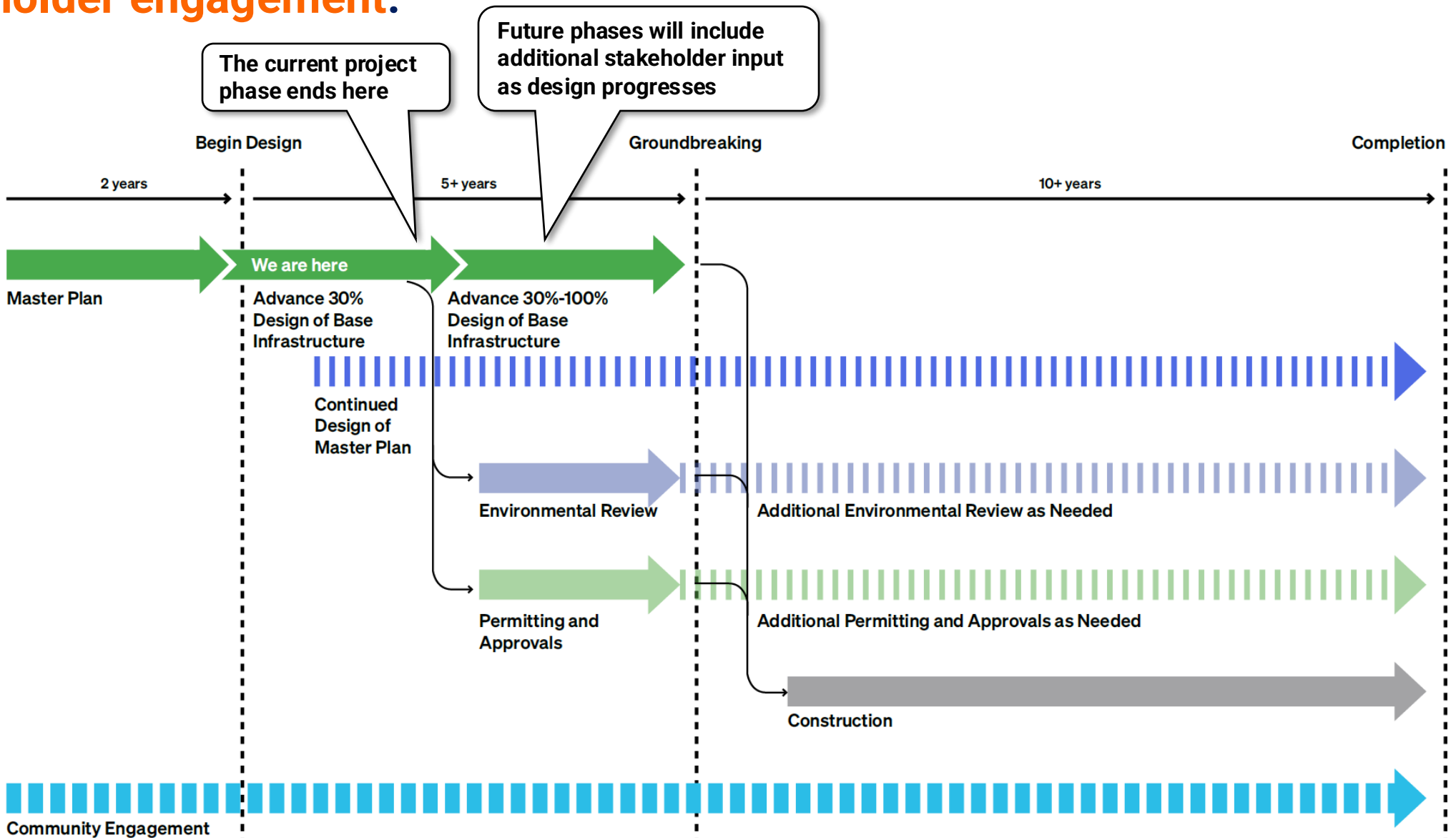
By the end of this phase...

- The project team will share a **concept-level site design update** for the integration of the flood protection into The Battery's upland park area.
- This will include **additional public events** to continue to answer questions and gather stakeholder input.

This meeting is part of a series of engagement sessions on this topic planned for 2025. Future phases of the FiDi-Seaport Project will include additional public and stakeholder engagement.



Future phases of the FiDi-Seaport Project will include continued public and stakeholder engagement.



Questions & Answers

Please reach out to the FiDi-Seaport Climate Resilience team with additional questions & comments at **FiDiSeaportClimate@edc.nyc**.

FiDi and Seaport
Climate Resilience Plan

Thank you!