

SEAPORT



Coastal Resilience

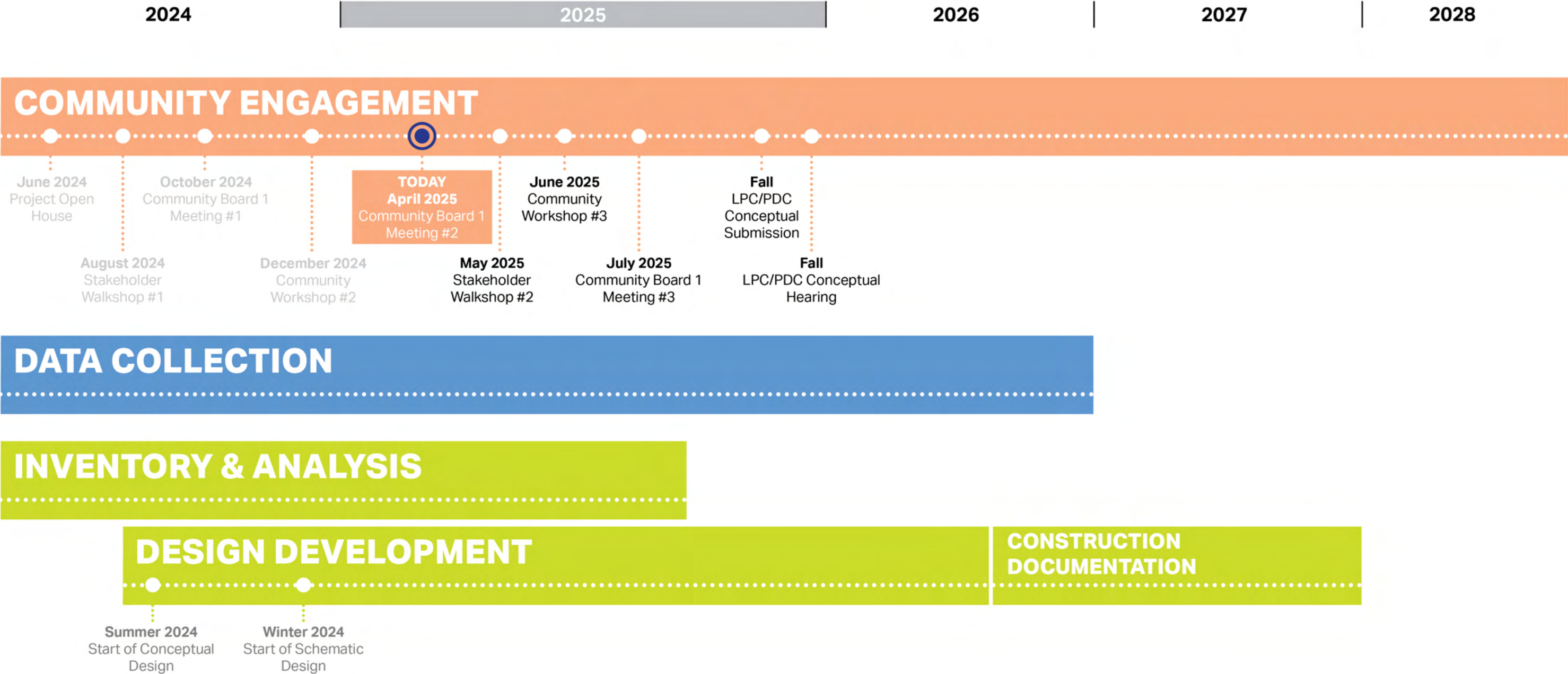
Community Board 1 Project Update

April 21st, 2025

Agenda

- 01 Project Overview
- 02 Community Engagement Recap
- 03 Alignment Update & Design Approach
- 04 Interior Drainage
- 05 Design Update
 - Northern Tie-ins
 - Connection to Adjacent Projects
 - Esplanade Shade & Plantings
 - Maintenance & Operation Access

Project Timeline

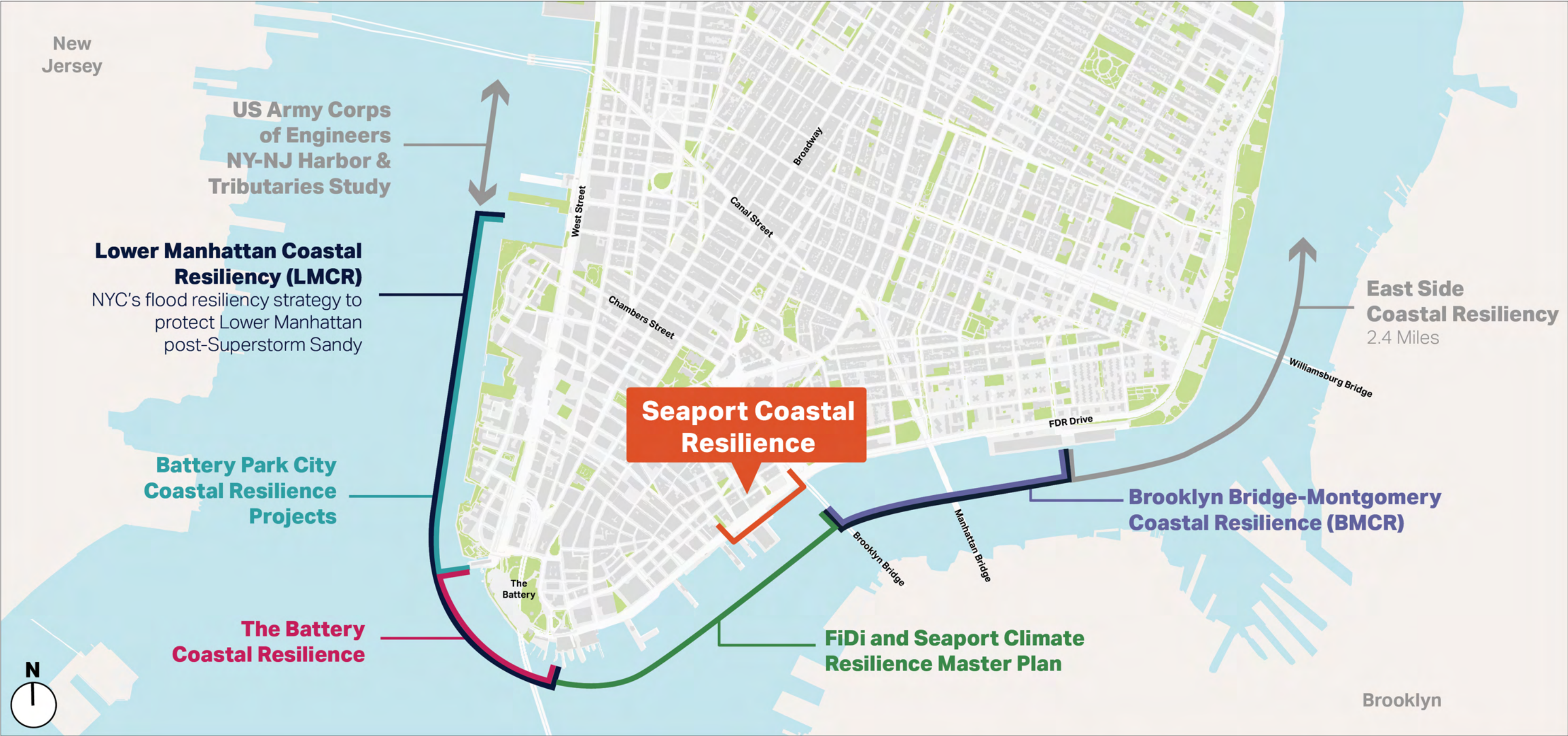


01



Project Overview

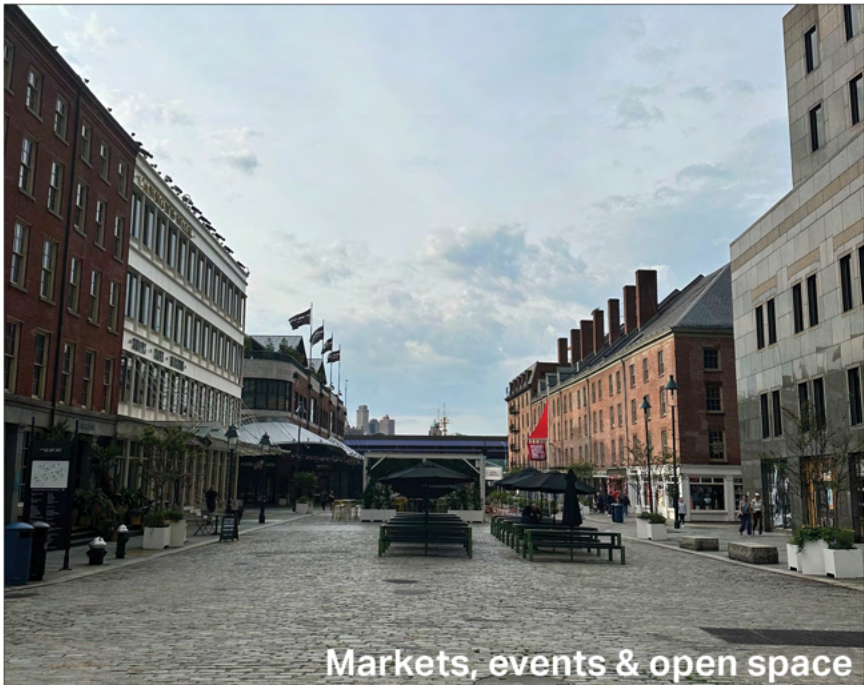
Lower Manhattan Coastal Resiliency (LMCR)



South Street Seaport Today



Neighborhood history



Markets, events & open space



Historic buildings



Maritime history

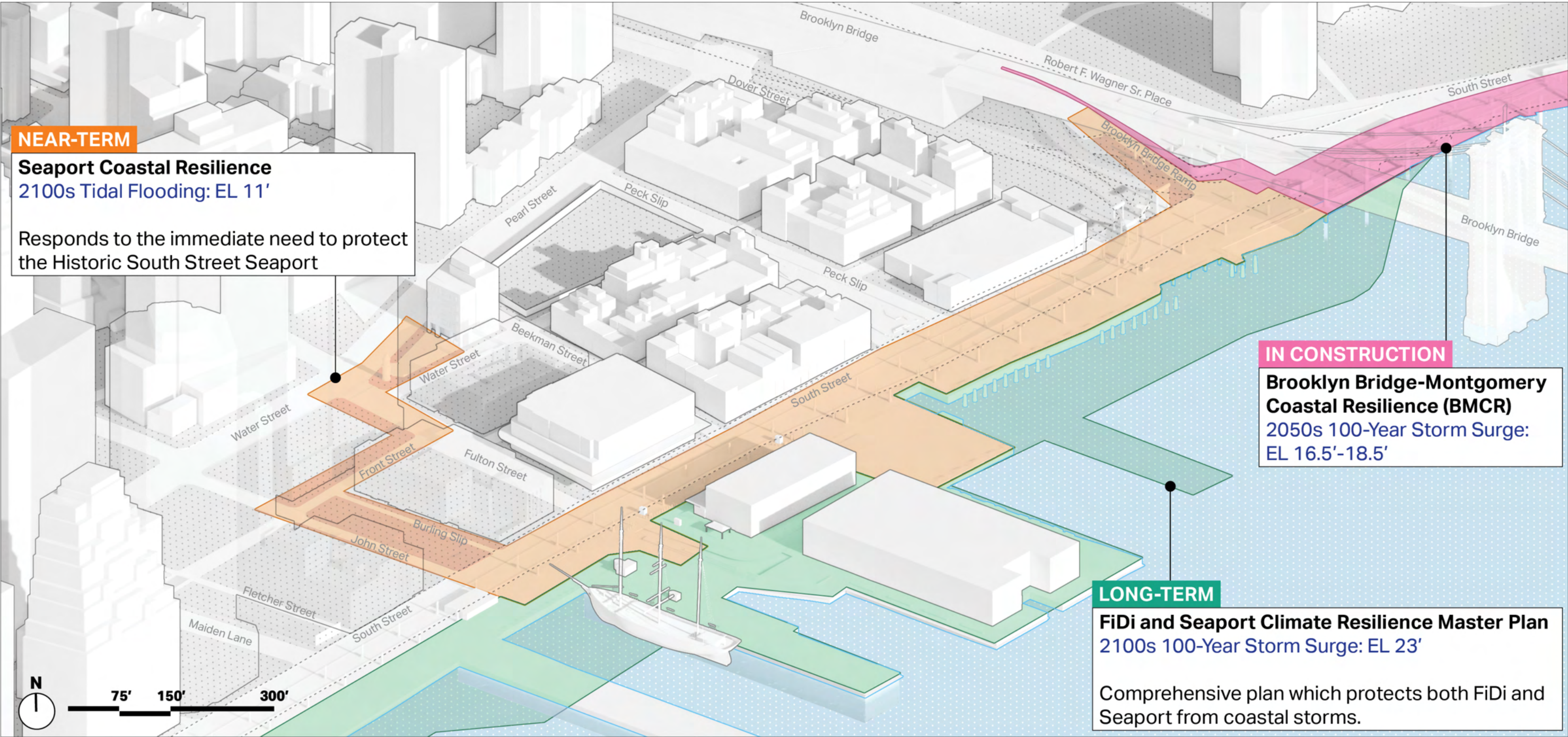


FDR Viaduct



Brooklyn Bridge & esplanade

How does Seaport Coastal Resilience compare to other resilience projects?



What is Seaport Coastal Resilience?

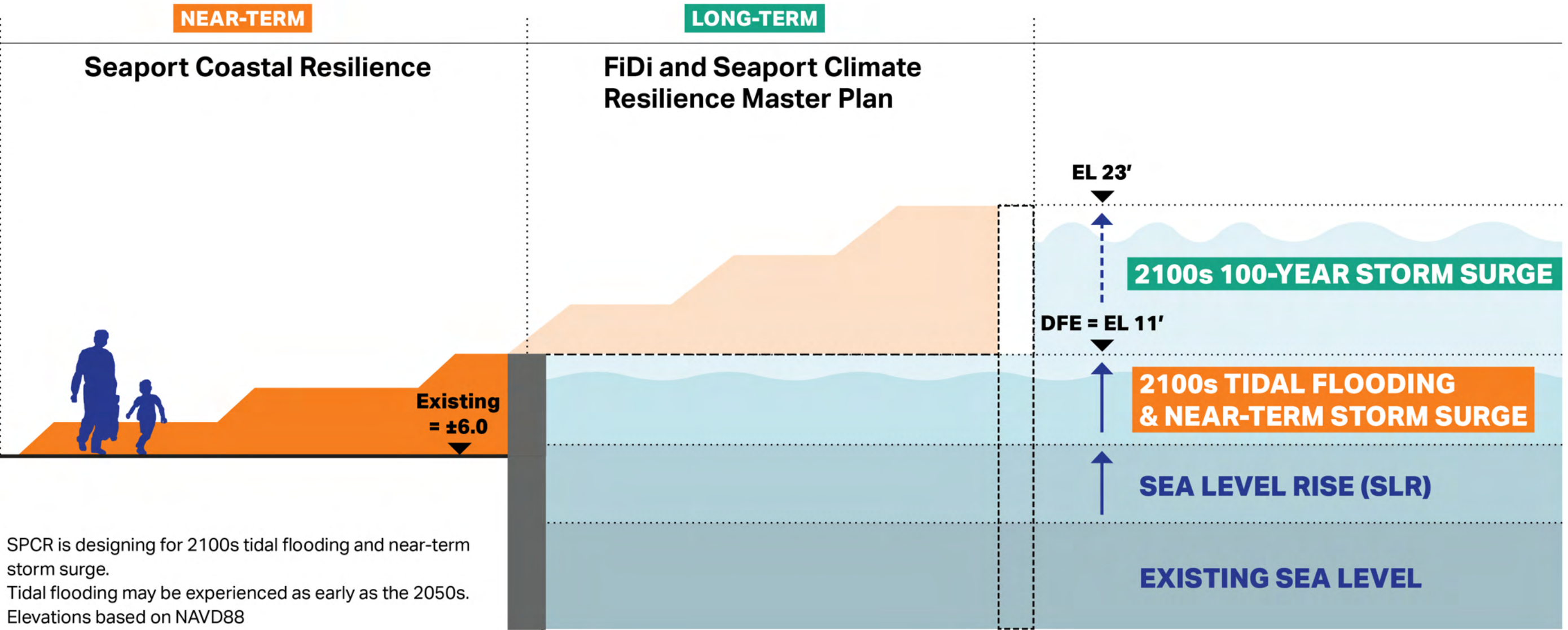
Seaport Coastal Resilience (SPCR) is a **flood mitigation project** that will provide resilience against future flooding events to the **historic South Street Seaport** neighborhood.



PROJECT GOALS

- Achieve a **Design Flood Elevation (DFE) of 11ft NAVD88** to protect against **2100s tidal flooding** (caused by sea level rise) and **near-term coastal storm events**
- Address extreme **precipitation** & urban **heat** island effect
- Maintain **pedestrian access**
- Recognize & celebrate **historic character**

Design Flood Elevation (DFE)



02



Community Engagement Recap

Community Engagement Recap | Community Workshop #2

What do you know about the site from **personal experience**?



What are your ideas for **placemaking**?



Images from Community Workshop #2 held on 12/16/2024



What are your thoughts on the **framework** being presented?

Community Engagement Recap | What did we hear?

Greenery and canopies to **provide shade from the sun**

Dedicated & improved **maintenance of the public realm**

Seating opportunities to activate local spaces

Varied **play opportunities** for all ages



Permeable pavement and **stormwater drainage**

Opportunities to **interact with the waterfront**

Combination of **active & passive programs** along the waterfront

Community Engagement Next Steps



Extensive community engagement prior to LPC/PDC Meetings

UP NEXT

Tentatively
MAY 14TH

Stakeholder Walkshop #2

**EARLY
SUMMER**

Community Workshop #3
Design Updates & Public Realm
Design Workshop

FALL

Community Board 1 Meeting #3
LPC/PDC Conceptual Submission
LPC/PDC Conceptual Hearing



03



Alignment Updates & Design Approach

Key Design Principles

**FLOOD RISK
REDUCTION**



Maximize protected area and improve interior drainage

CIRCULATION



Provide universal pedestrian access throughout the project

CONTEXT



Celebrate historic character

**WATERFRONT
ACCESS**



Maintain and improve established access and viewsheds

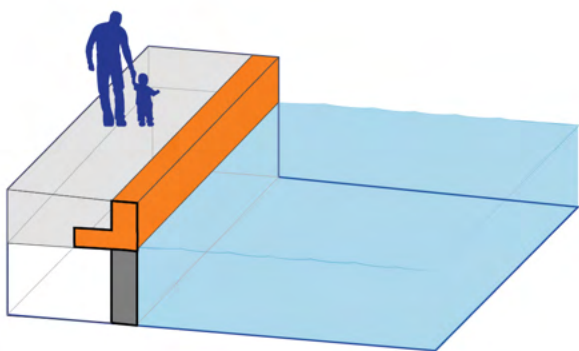
**MULTI-PURPOSE
INFRASTRUCTURE**



Integrate placemaking with infrastructure wherever possible

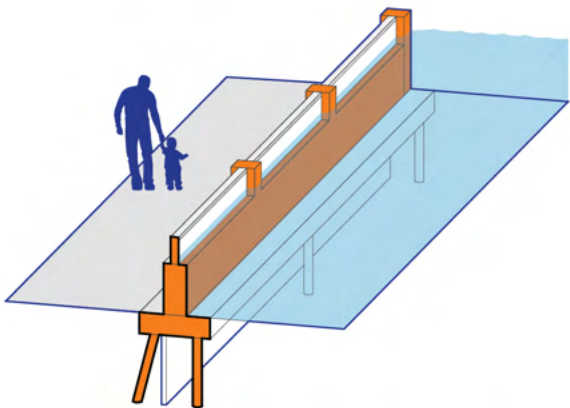
Flood Alignment Toolkit

PASSIVE



Raised Edge

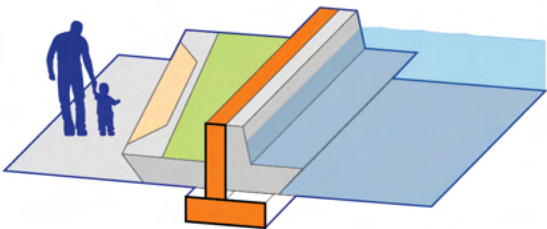
Infrastructure aligned to the edge of the waterfront, above the existing bulkhead.



Glass-Topped Flood Barrier

POTENTIAL OPTION UNDER EVALUATION

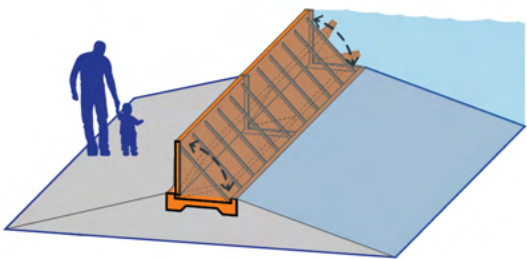
See-through infrastructure that promotes visibility and safety.



Flood Barrier with Placemaking

Infrastructure augmented by programmatic elements.

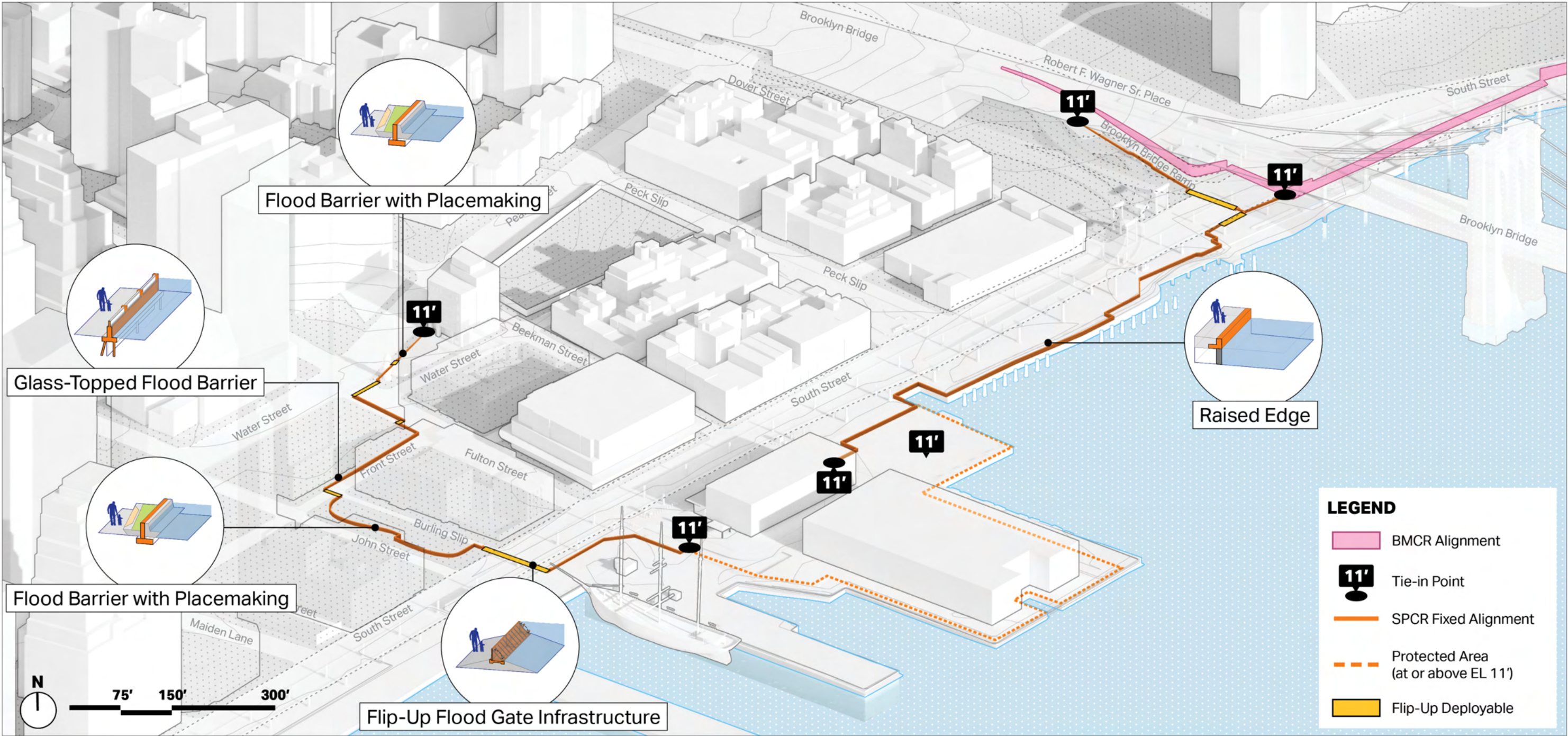
DEPLOYABLE



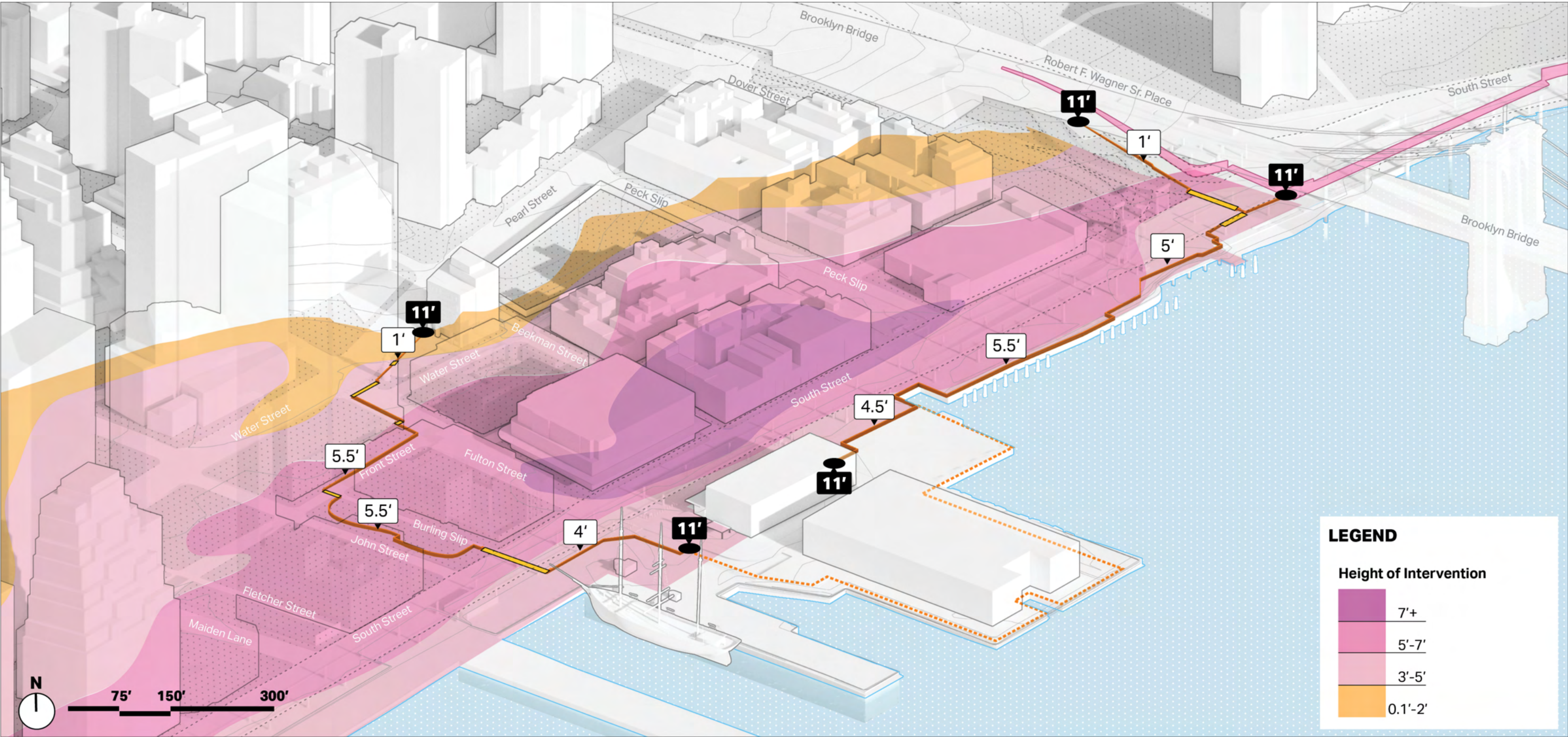
Flip-Up Flood Gate Infrastructure

Ground-level infrastructure that raises during storm events.

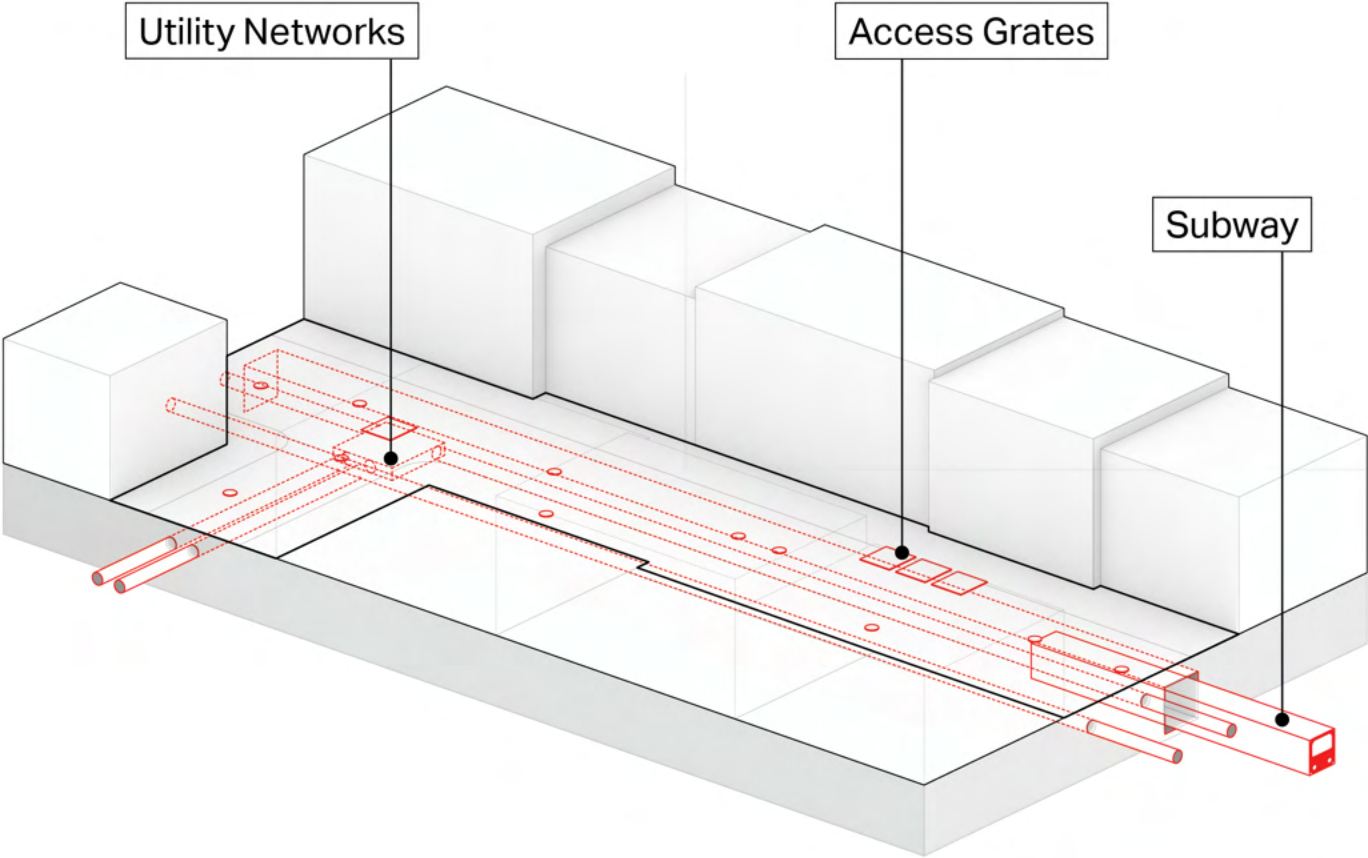
The Flood Alignment



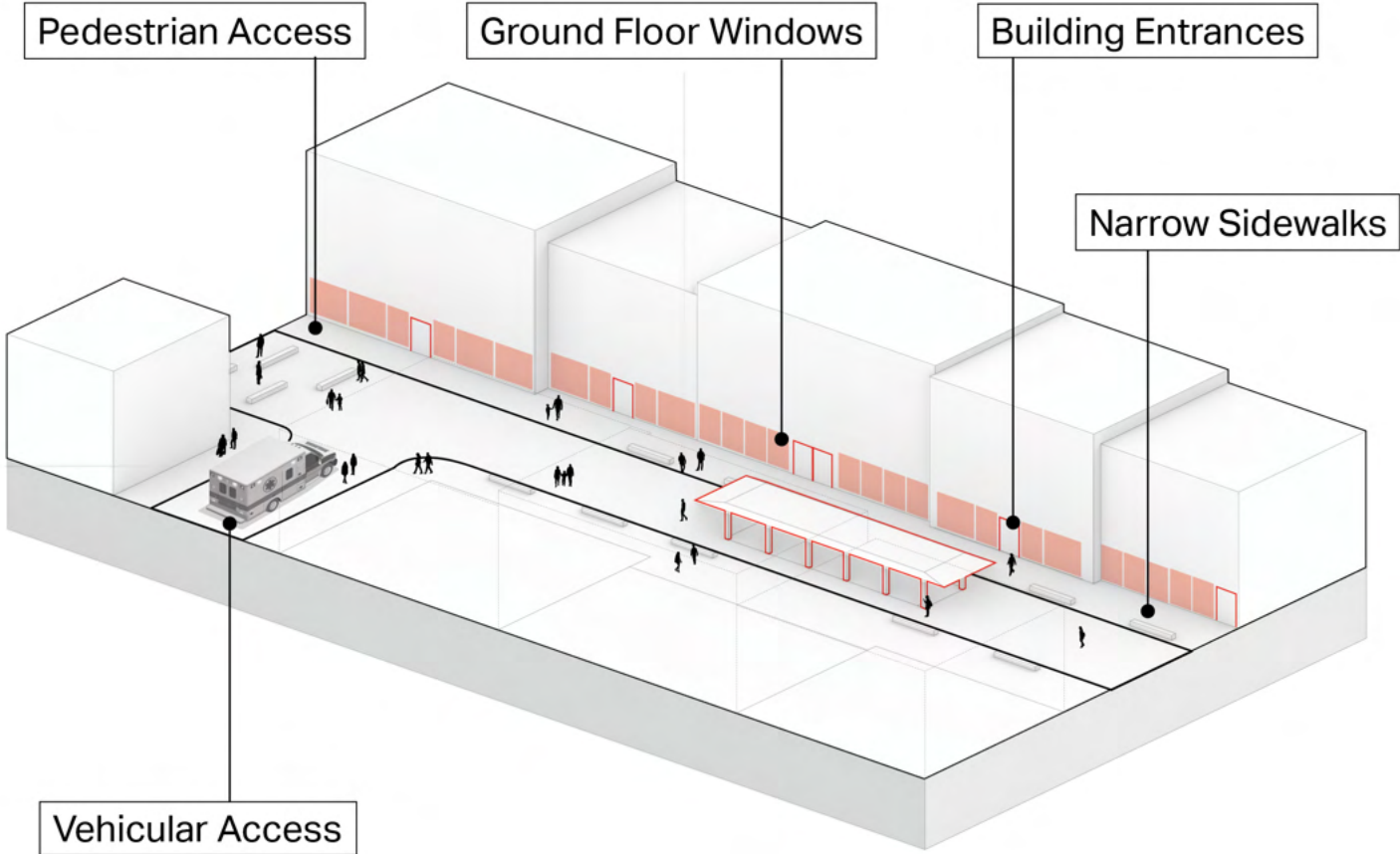
Height of Intervention (HOI)



Inland Site Considerations

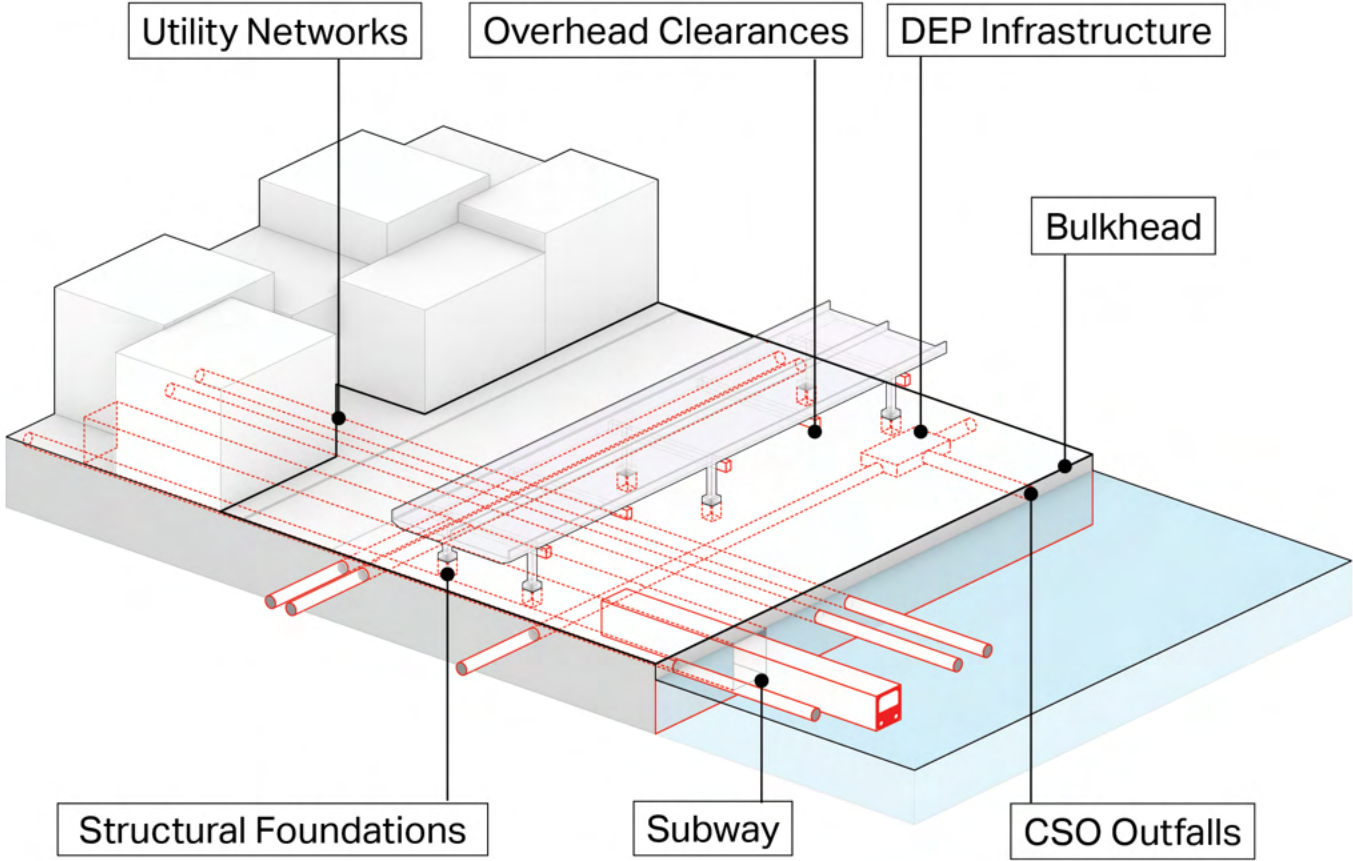


Utility Networks

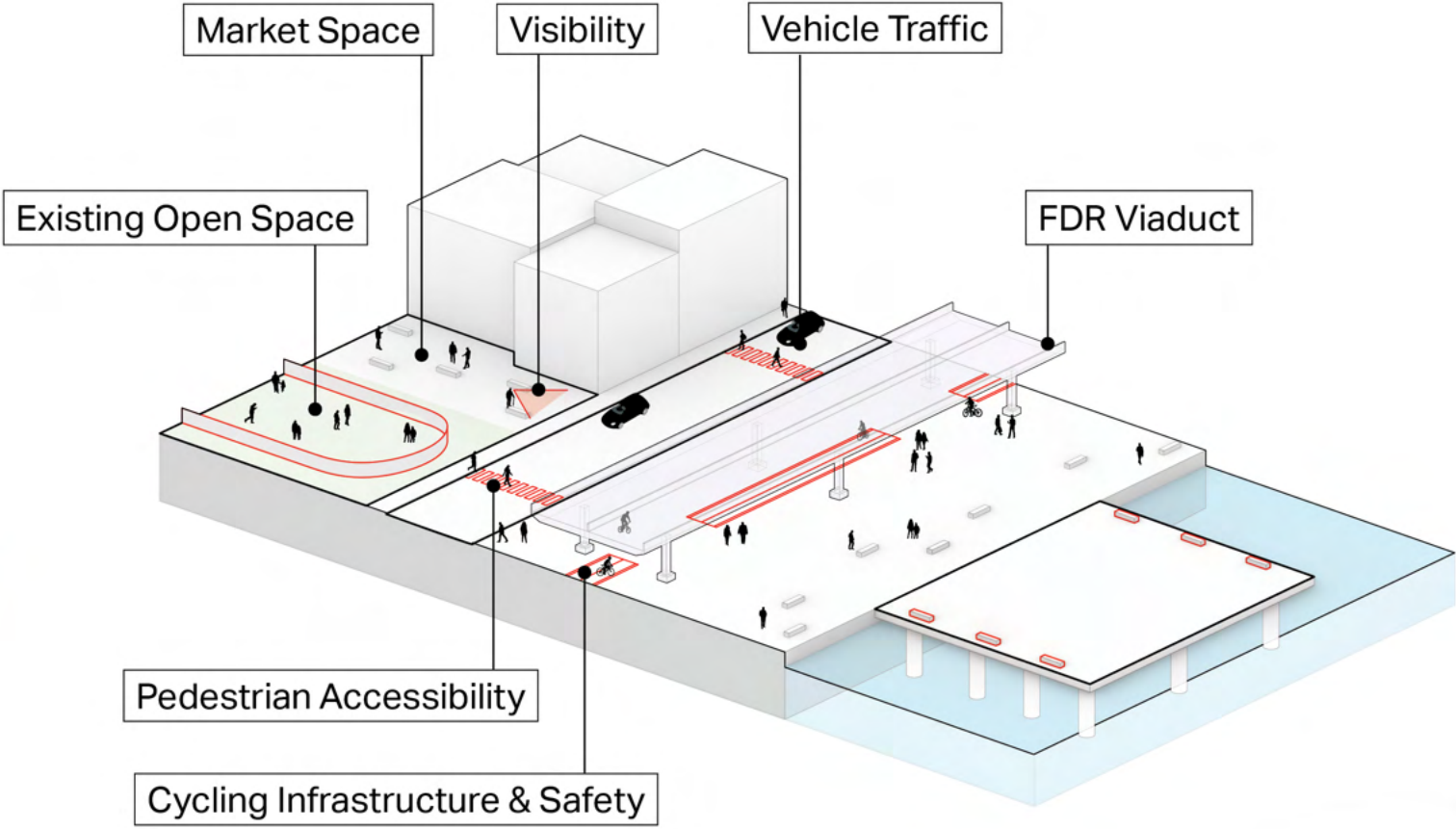


Circulation & Adjacent Uses

Waterfront Site Considerations



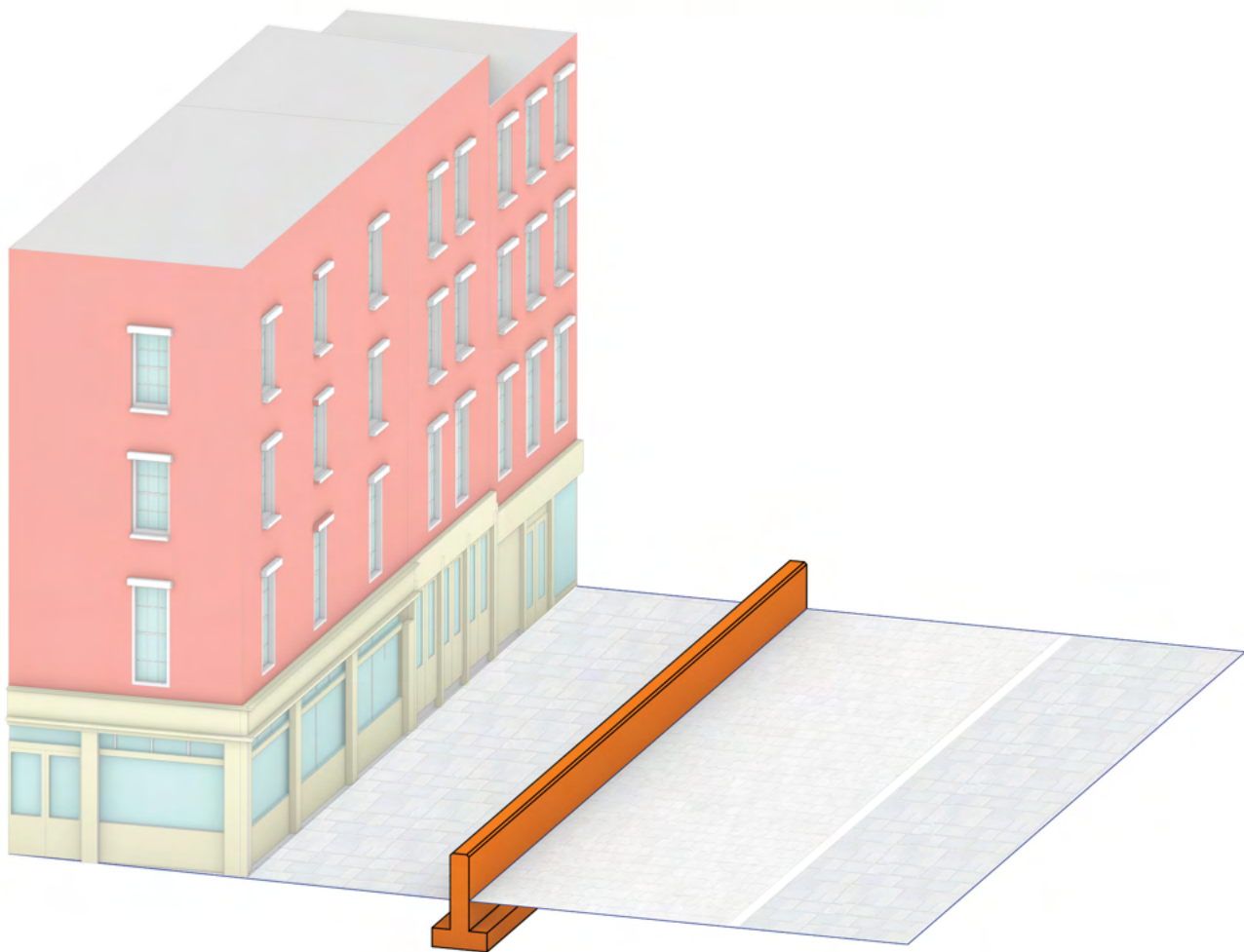
Subsurface Infrastructure



Circulation & Existing Uses

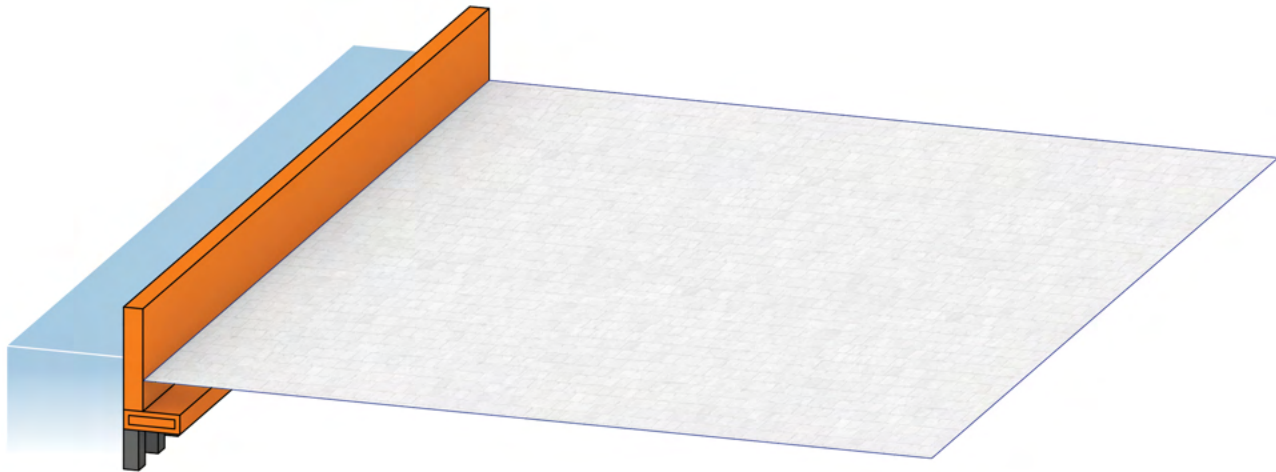
Design Approach | Infrastructure

INLAND



Carefully aligned infrastructure through the South Street Seaport

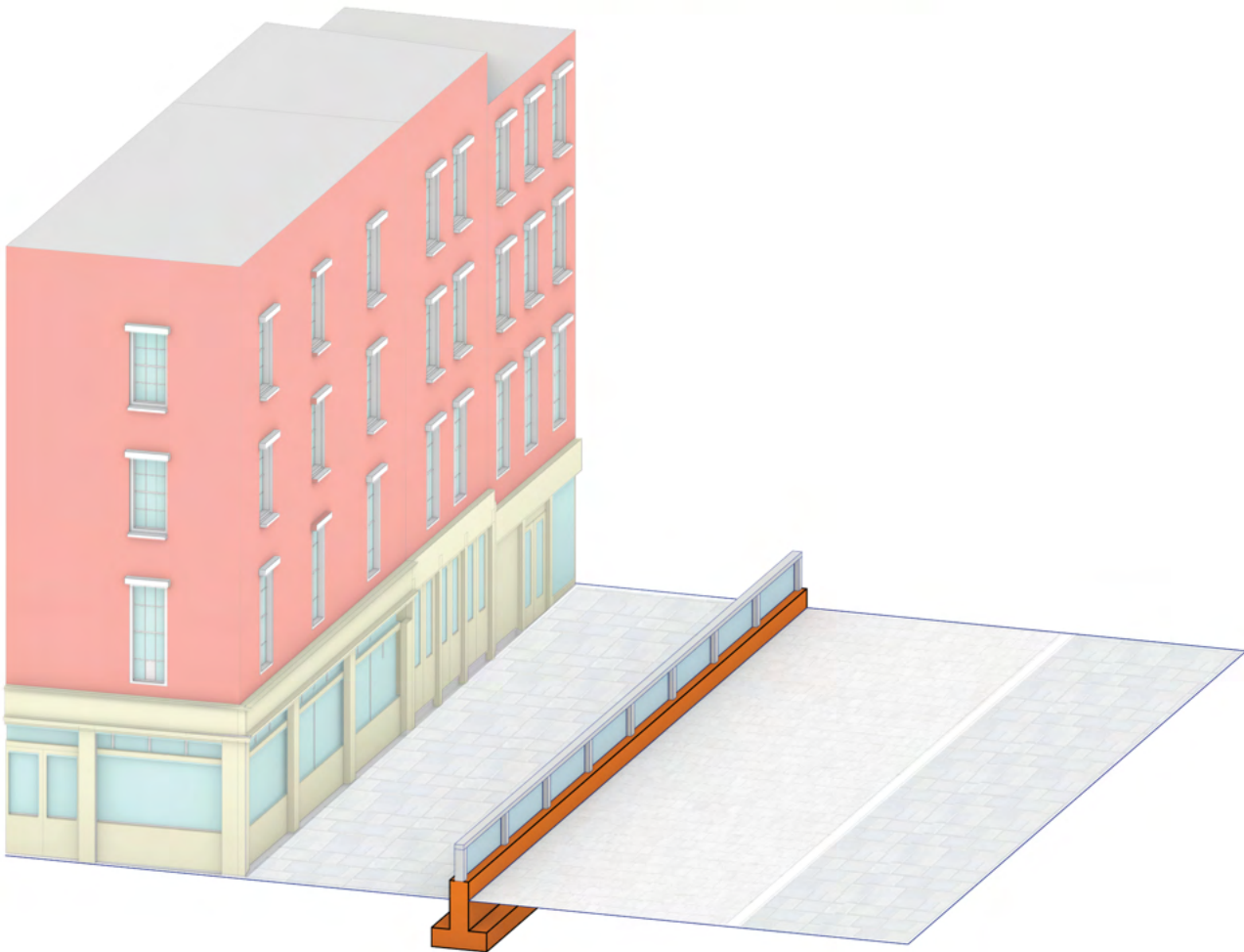
WATERFRONT



Infrastructure aligned to the edge of the waterfront, above the existing bulkhead

Design Approach | Height Mitigation

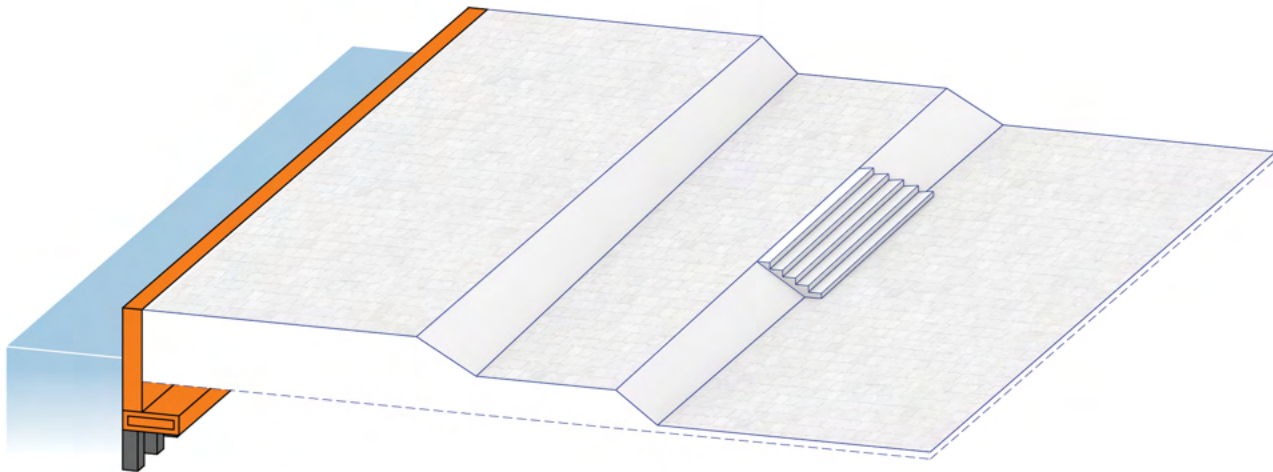
INLAND



POTENTIAL OPTION UNDER EVALUATION

Glass-Topped Flood Barrier to reduce visual impact and maintain transparency

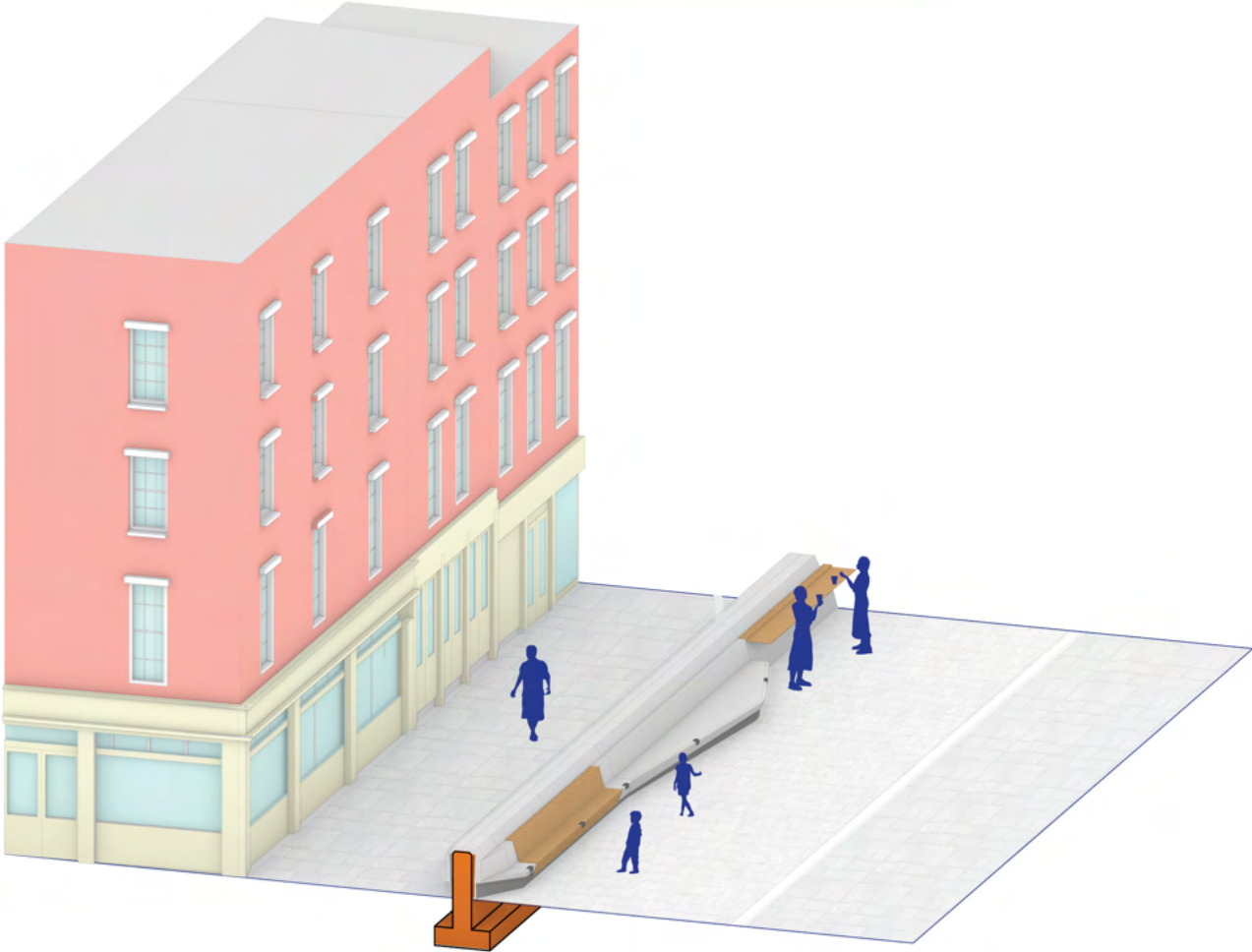
WATERFRONT



Terraced environment steps up to flood protection level to reduce visual impact and provide placemaking opportunities

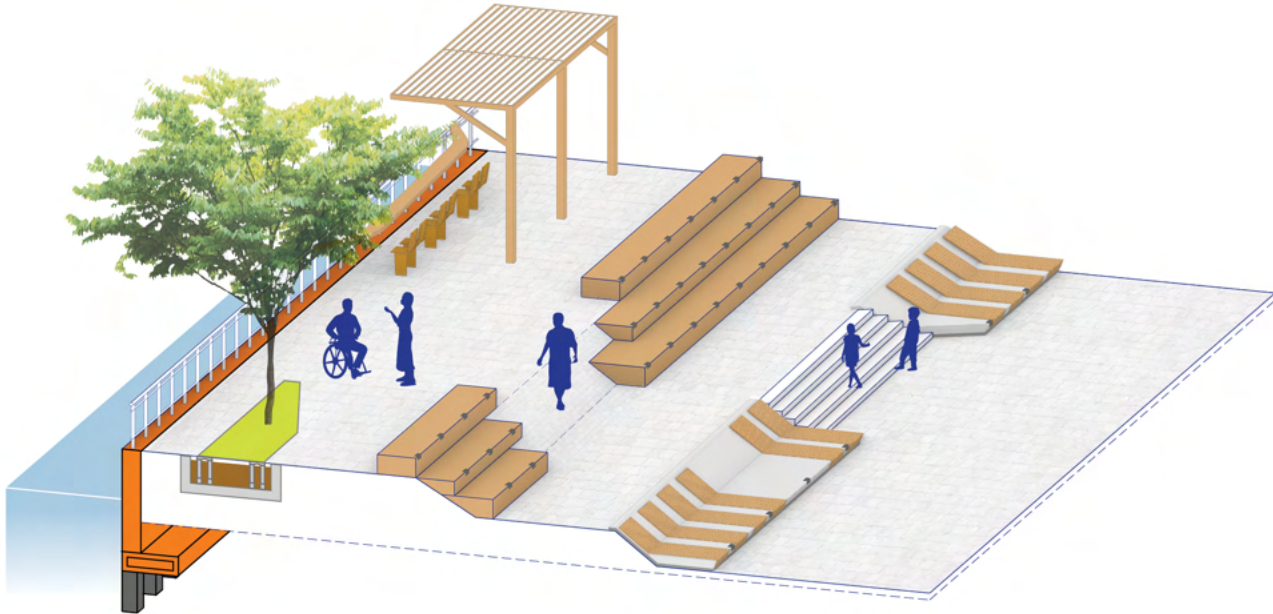
Design Approach | Placemaking

INLAND



Cladding with programmatic features to blend the infrastructure

WATERFRONT



Incorporating programmatic features throughout terraces and along edges

04

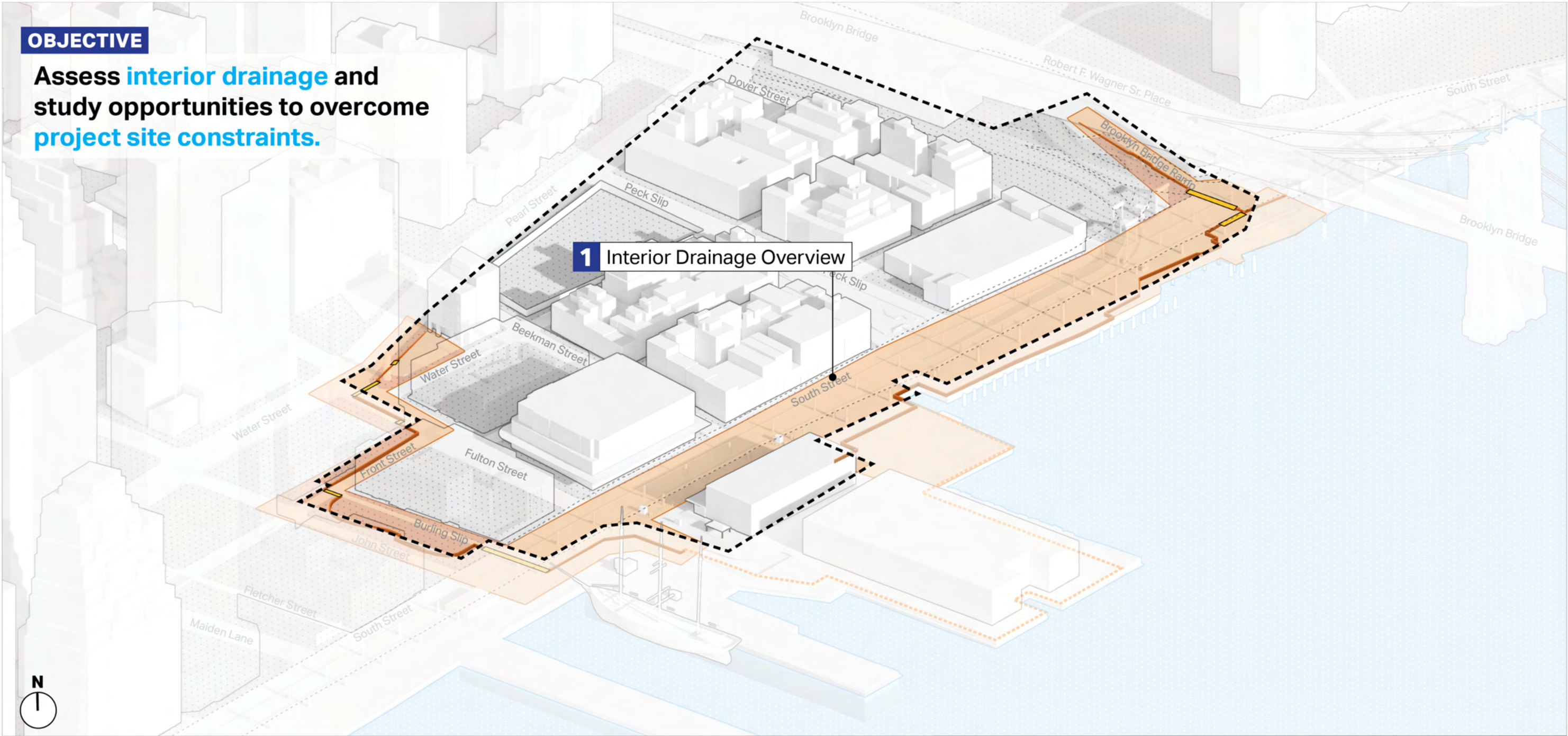


Interior Drainage

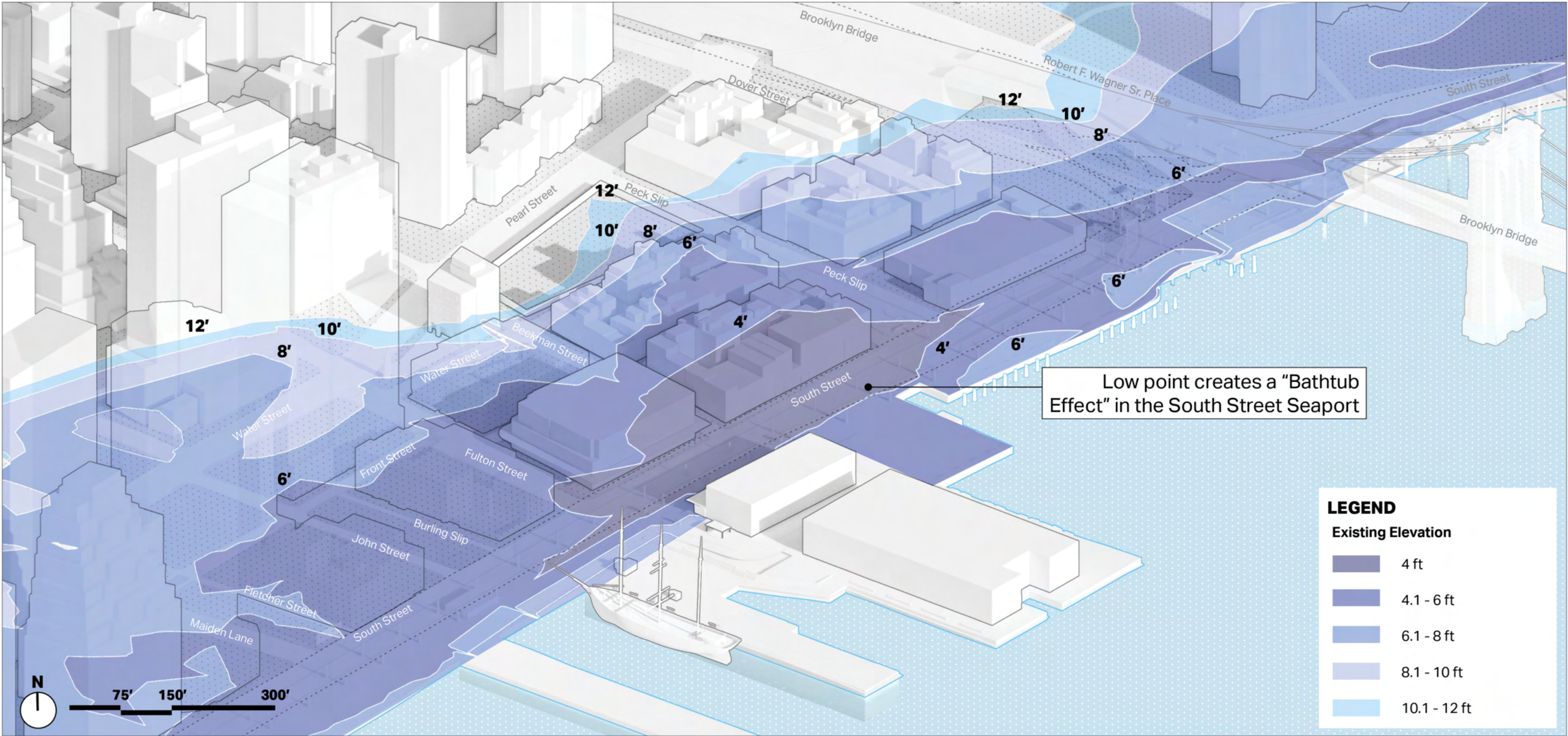
Interior Drainage

OBJECTIVE

Assess **interior drainage** and study opportunities to overcome **project site constraints**.



Site Topography



Interior Drainage

AFFECTED BY:

Topography (Bathtub Effect)

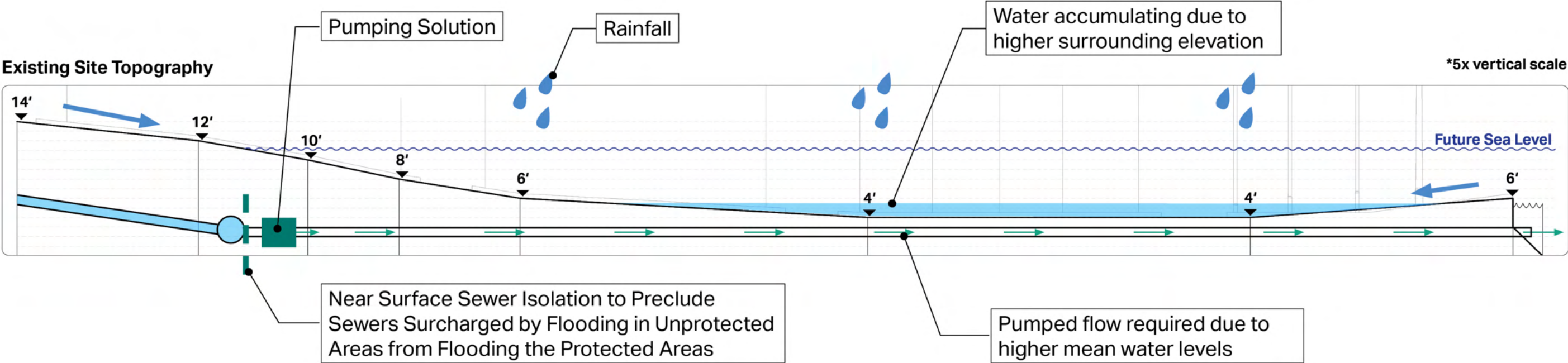
Rain/Storm Events

Sea Level Rise & Rising Tides

IMPROVED BY:

Near-Surface Sewer Isolation

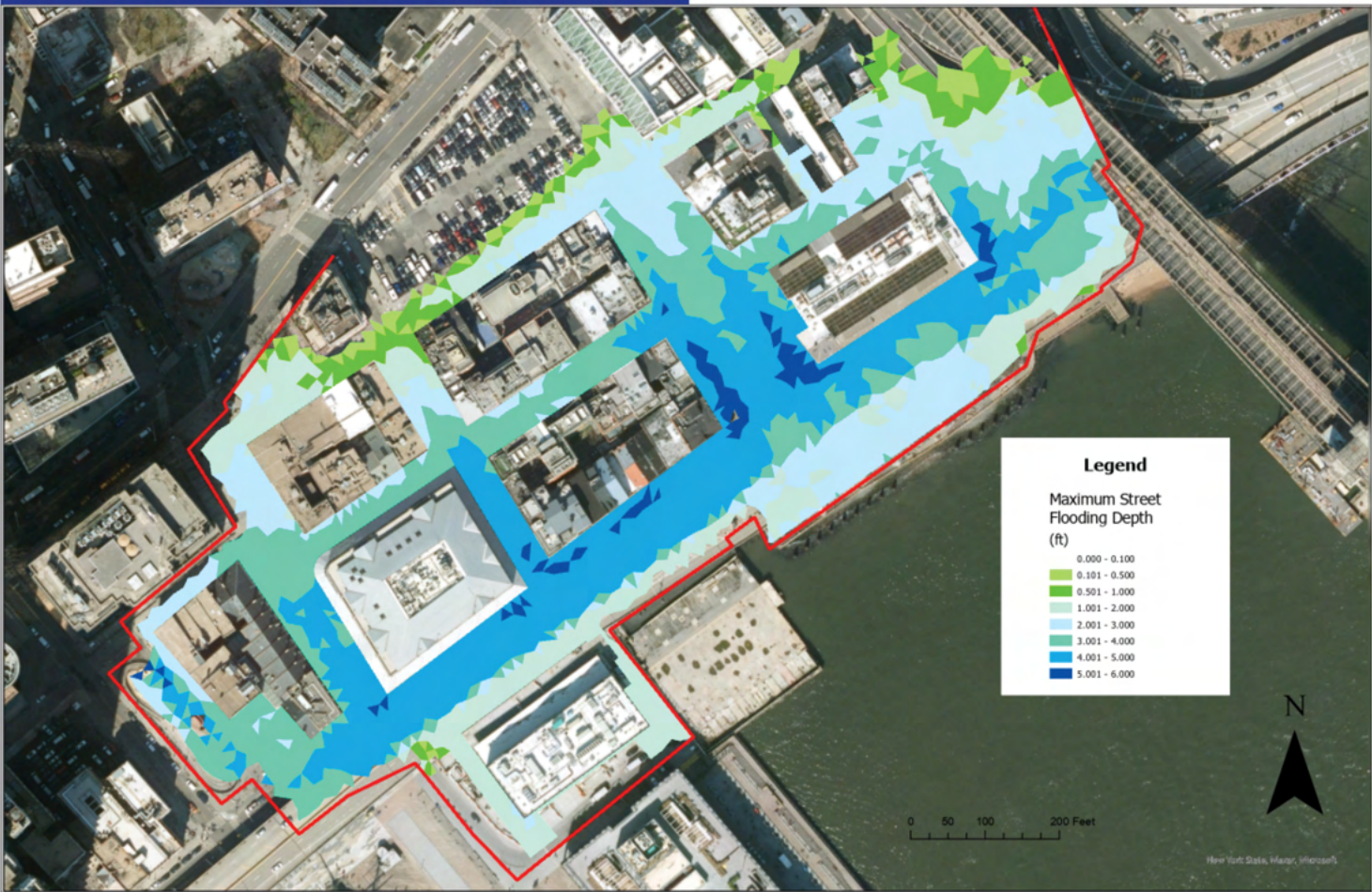
Supplemental Pumping



**Ongoing interior drainage coordination with the FiDi-Seaport Climate Resilience Masterplan*

Interior Drainage | Modeling Preliminary Results

NO INTERIOR DRAINAGE MANAGEMENT



An average of 4-6 feet of flooding throughout the South Street Seaport without interior drainage management

WITH SEWER ISOLATION & SUPPLEMENTAL PUMPING NEAR REGULATOR



Near Surface Sewer Isolation & Supplemental Pumping



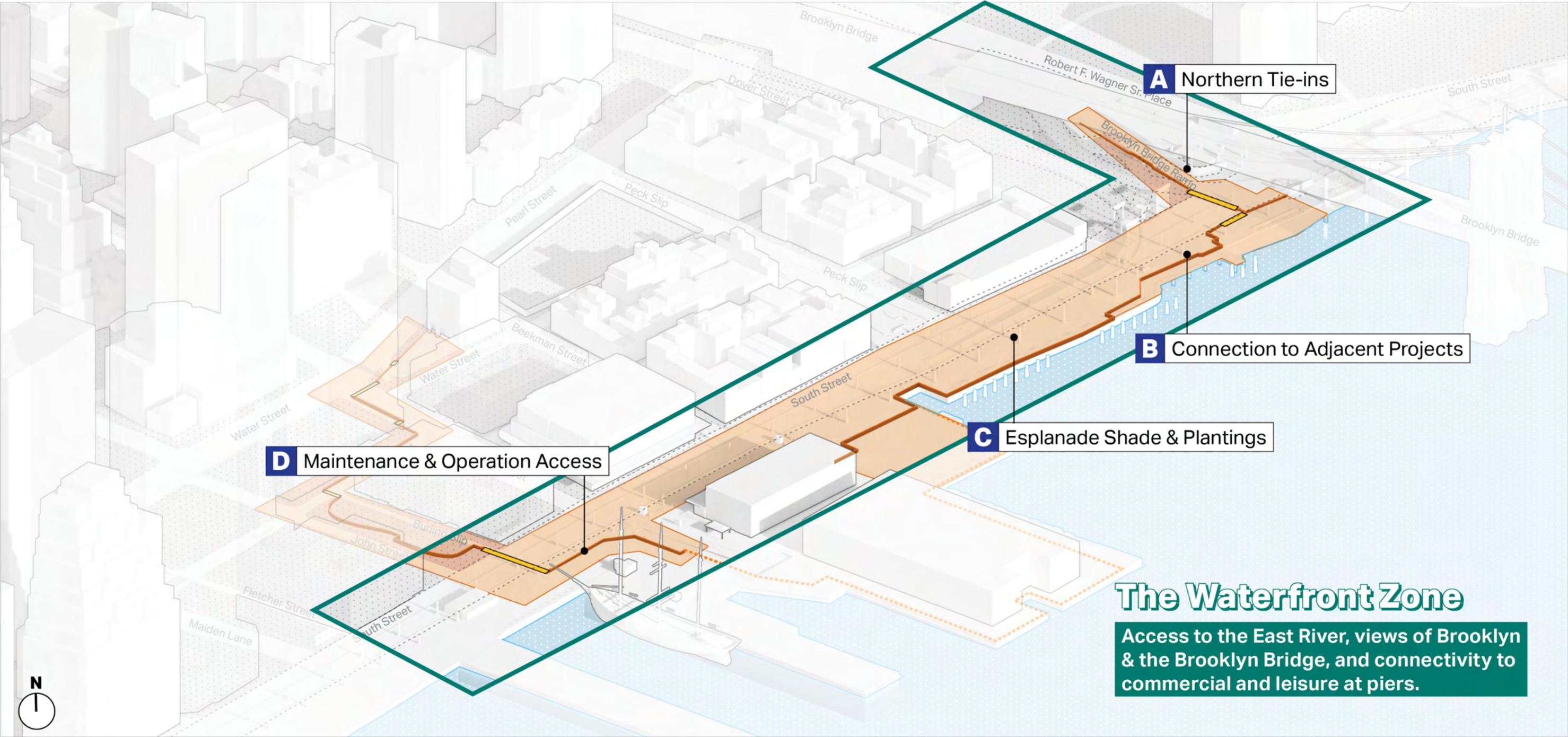
Modeling based on **5-year rainfall event with 2080 Sea Level Rise (45")**. Flooding outside the protected area not shown for clarity.

05



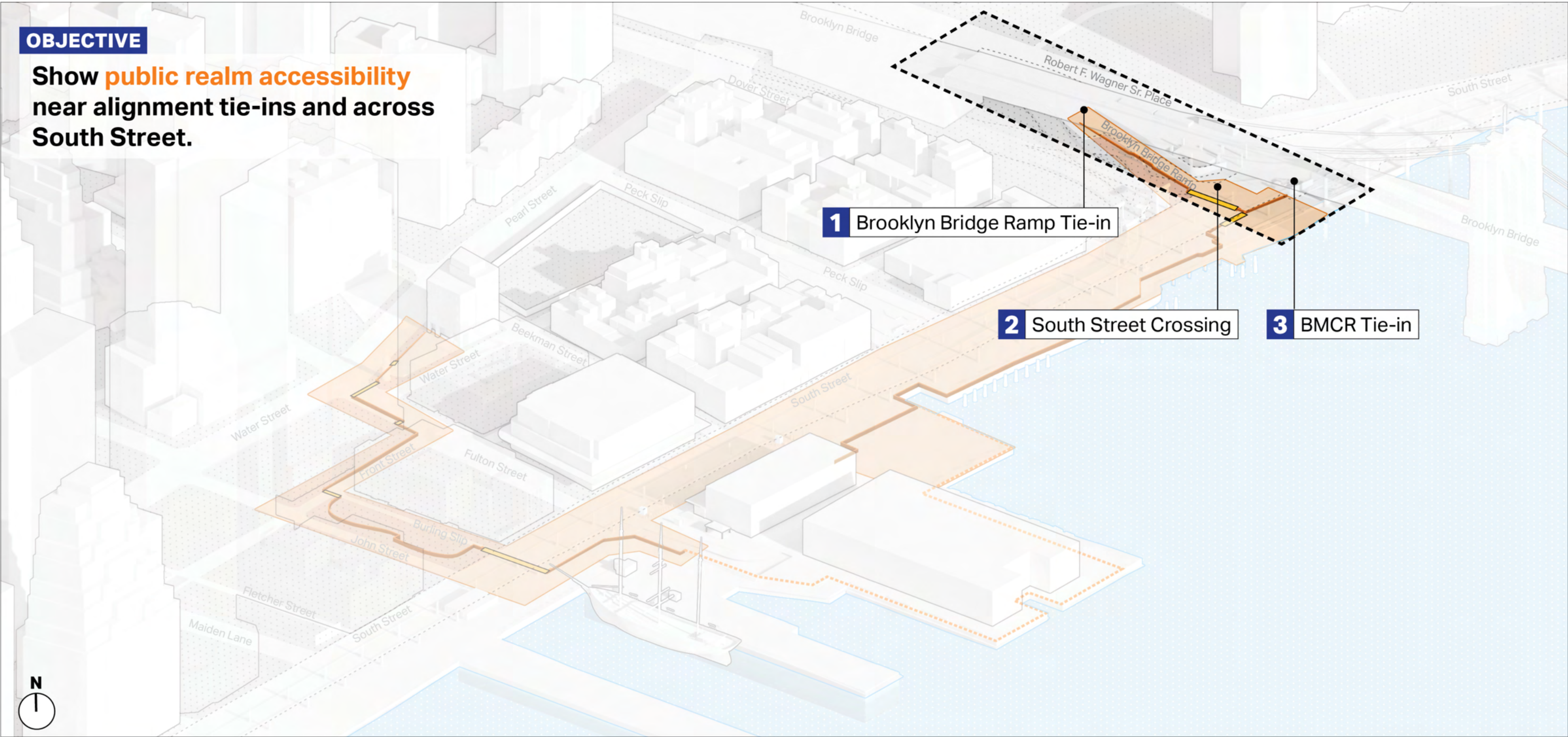
Design Update

Design Update | The Waterfront Zone

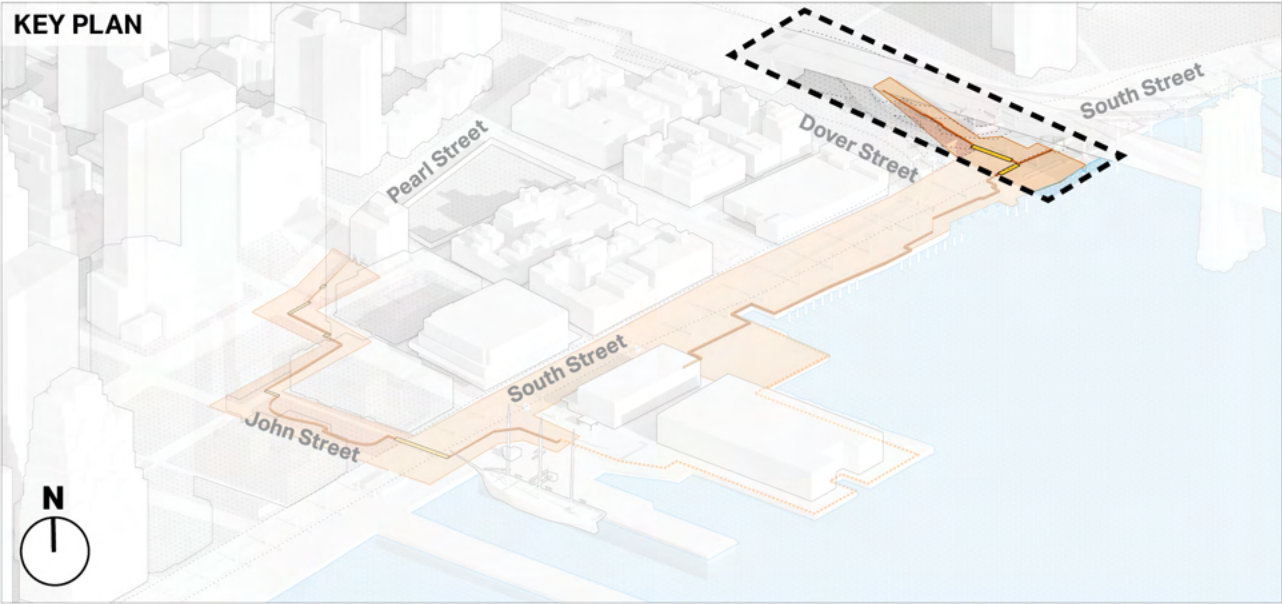
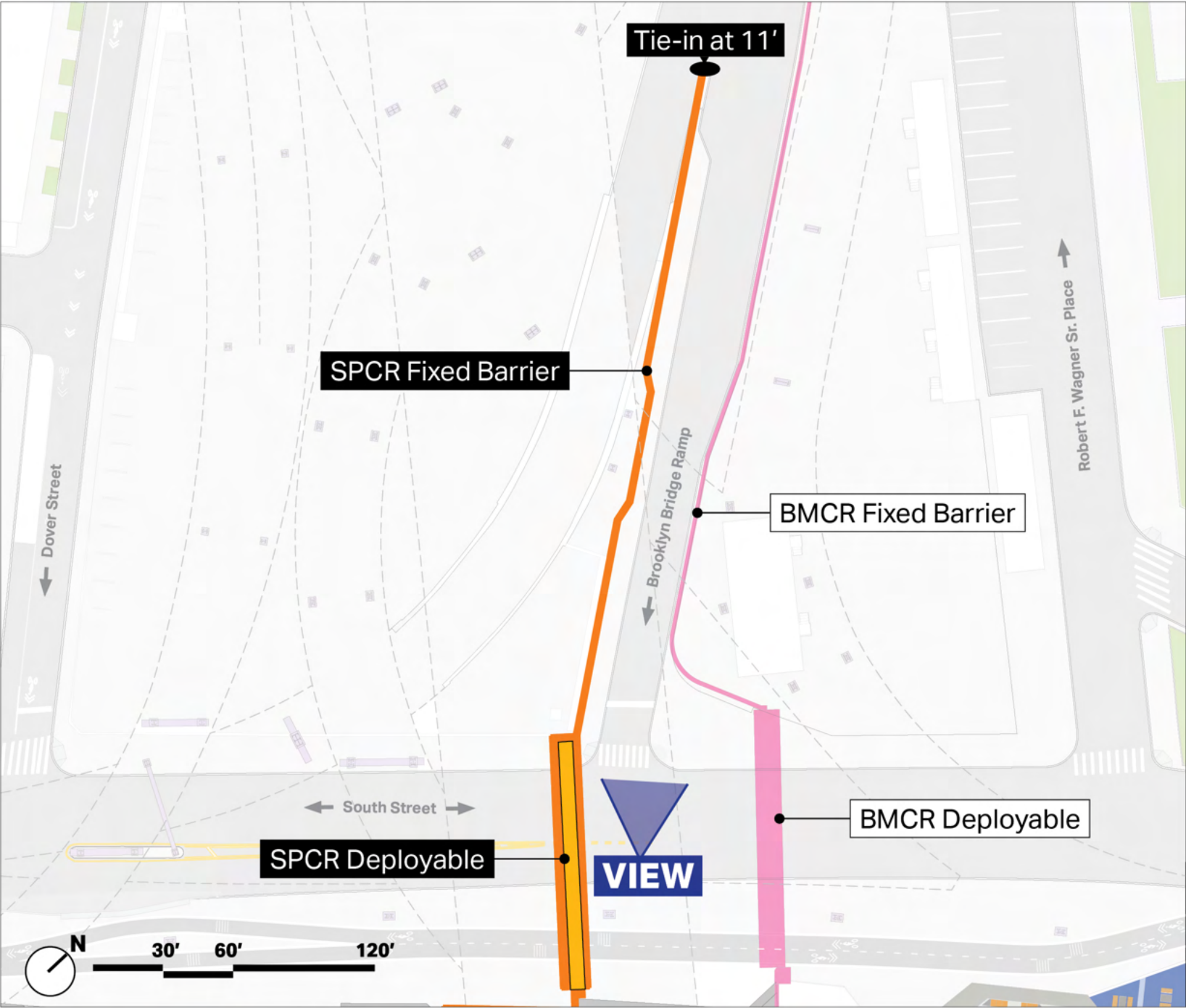


The Waterfront Zone
Access to the East River, views of Brooklyn & the Brooklyn Bridge, and connectivity to commercial and leisure at piers.

Design Update | Northern Tie-ins



Northern Tie-ins | Brooklyn Bridge Ramp Tie-in

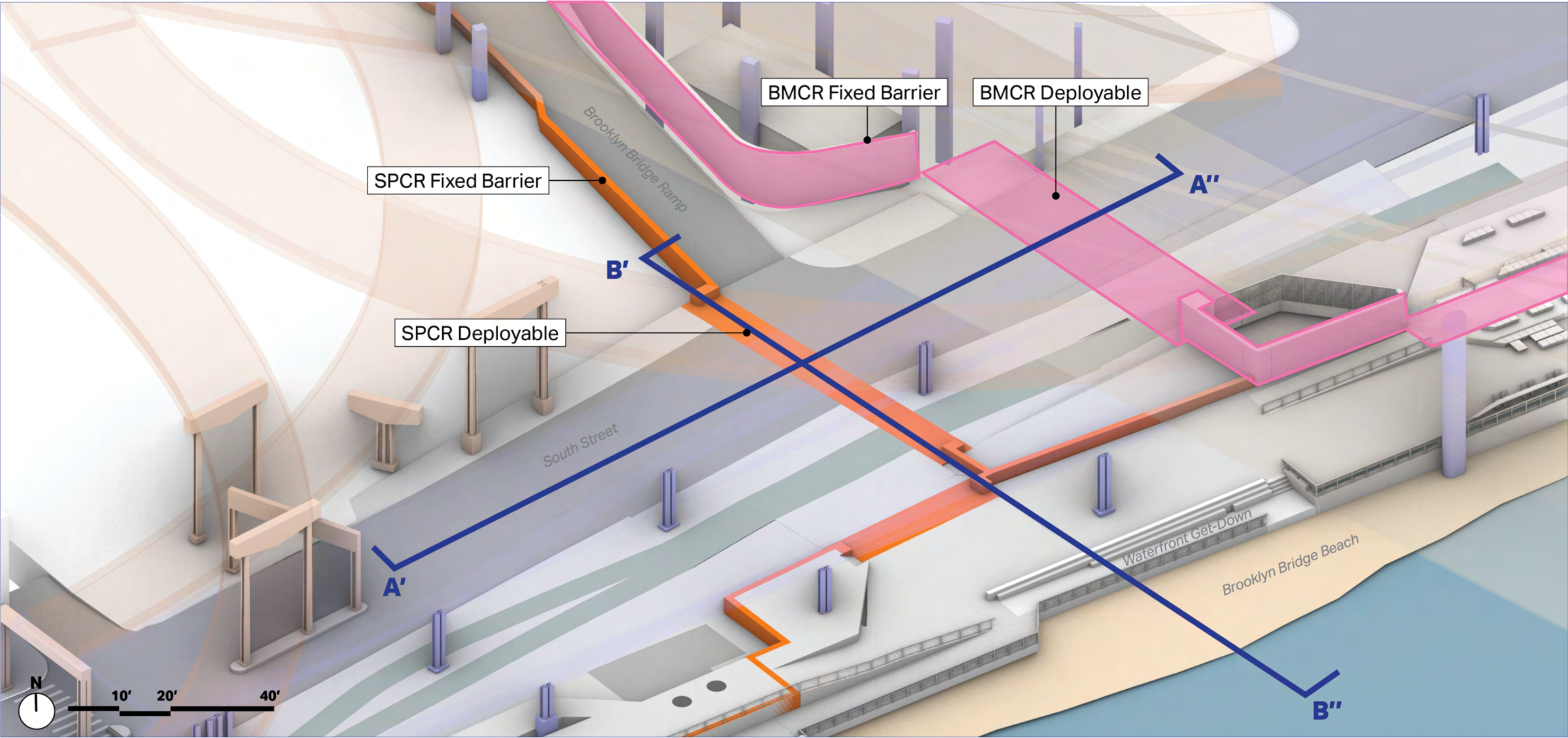


The alignment ties in to elevation 11' directly across the street from the BMCR tie-in.

Northern Tie-ins | Brooklyn Bridge Ramp Tie-in

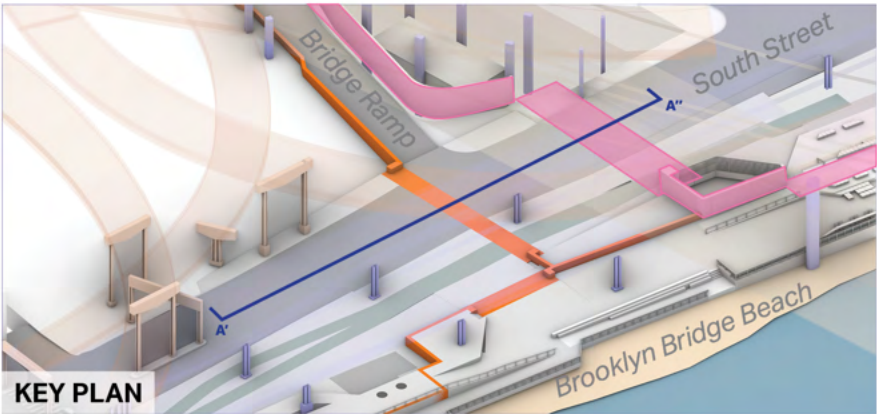
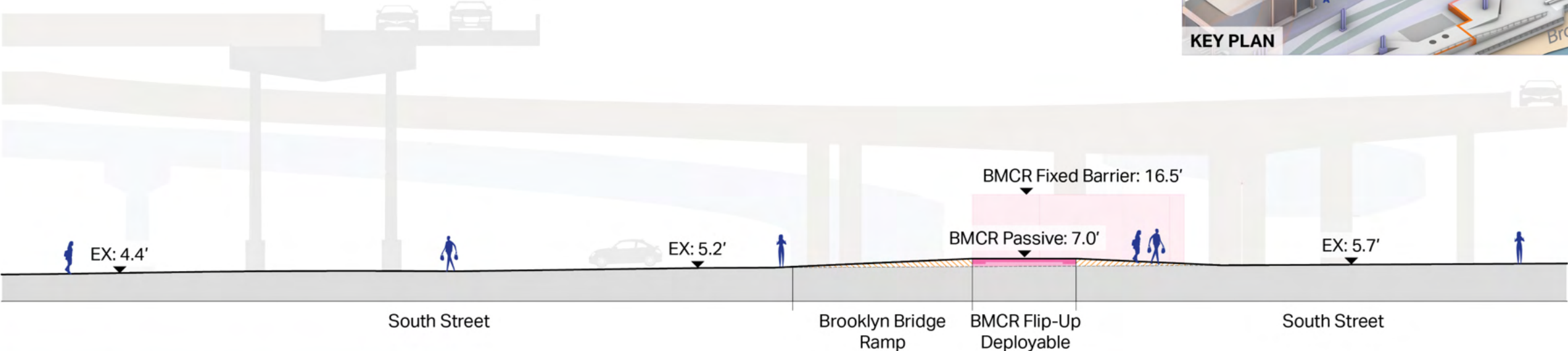


Northern Tie-ins | South Street Crossing

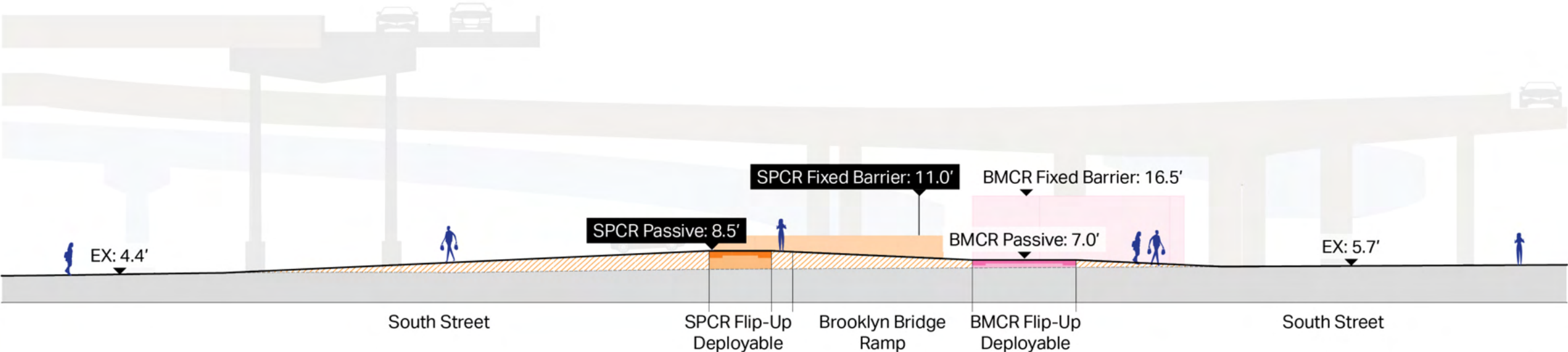


Northern Tie-ins | Section A - Along South Street

BMCR DESIGN CONDITIONS

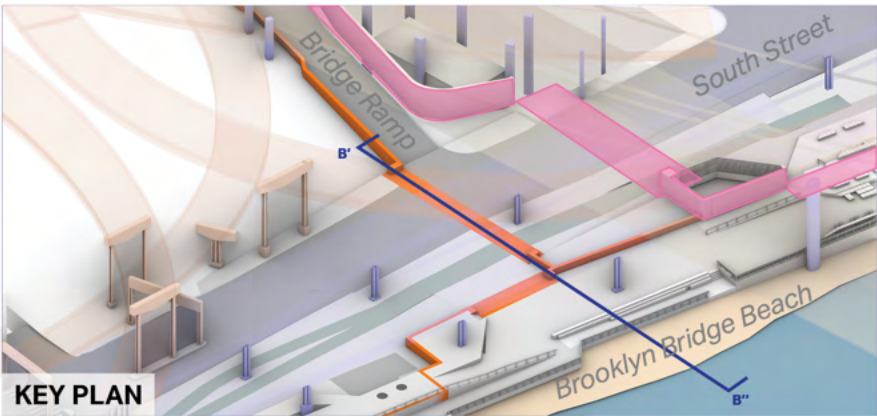
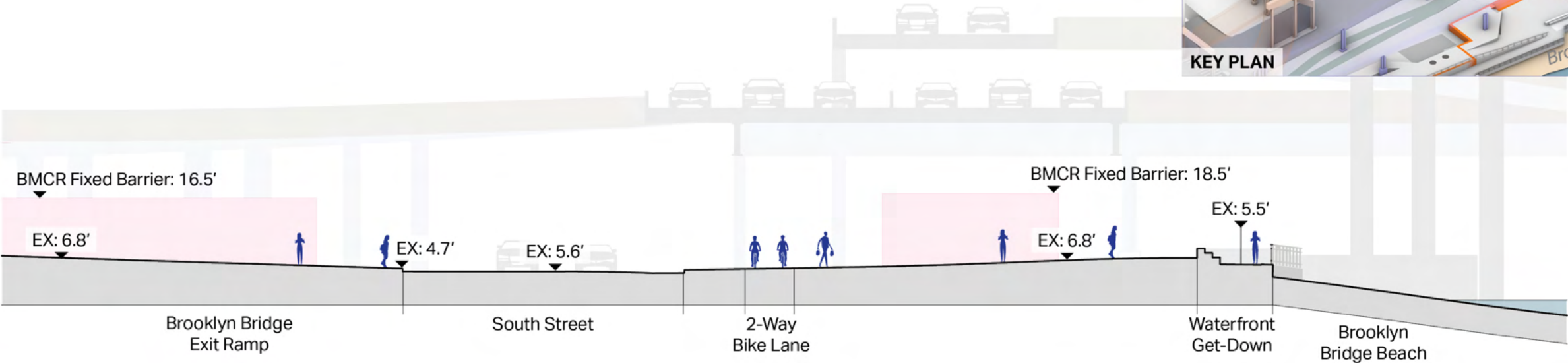


SPCR FLIP-UP FLOOD GATE INACTIVE

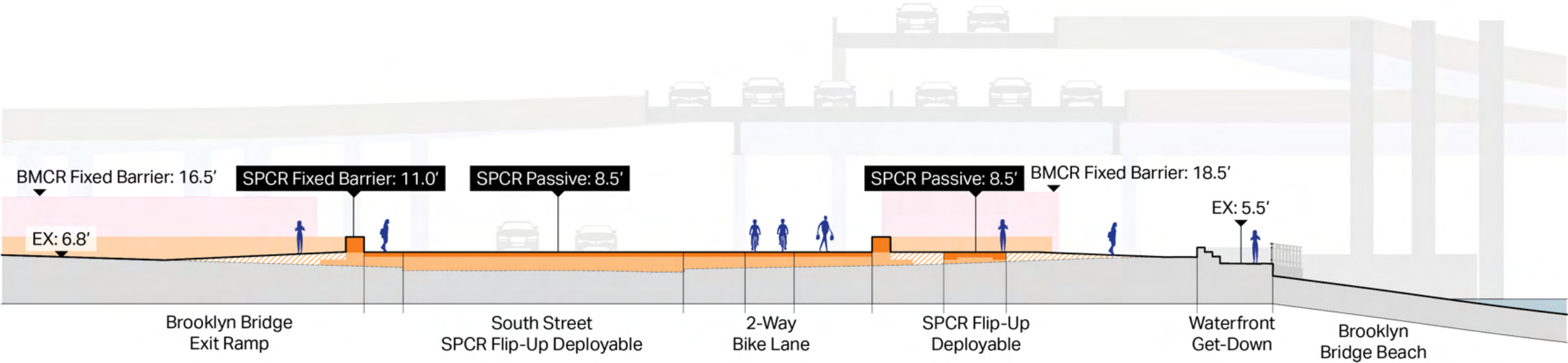


Northern Tie-ins | Section B - Bridge Ramp to East River

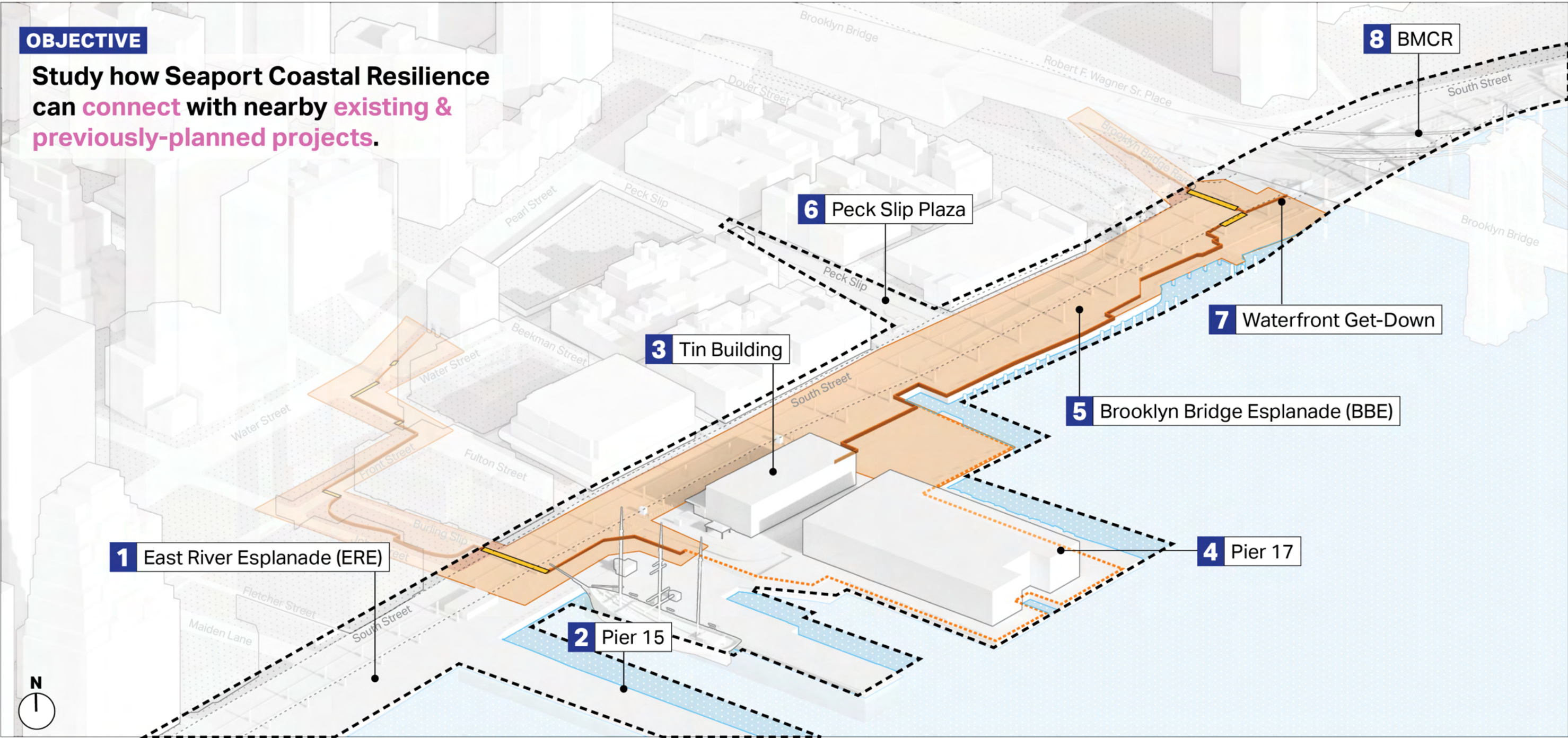
BMCR DESIGN CONDITIONS



SPCR FLIP-UP FLOOD GATE INACTIVE



Design Update | Connections to Adjacent Projects



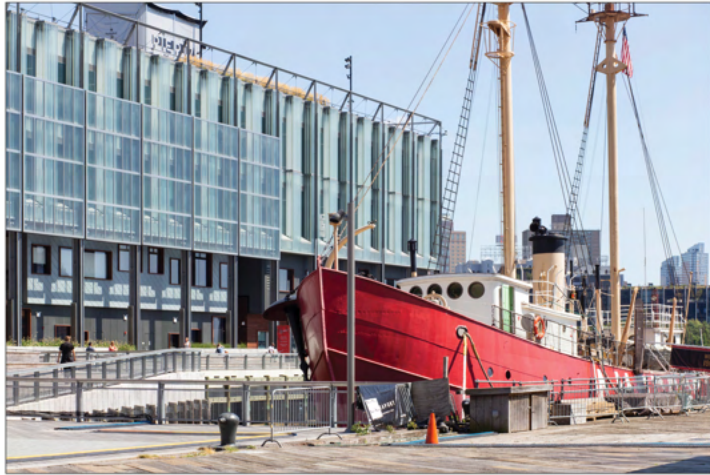
Connections to Adjacent Projects



East River Esplanade (ERE)



Pier 17



Peck Slip Plaza



Waterfront Get-Down



Pier 15



Tin Building



Brooklyn Bridge Esplanade (BBE)



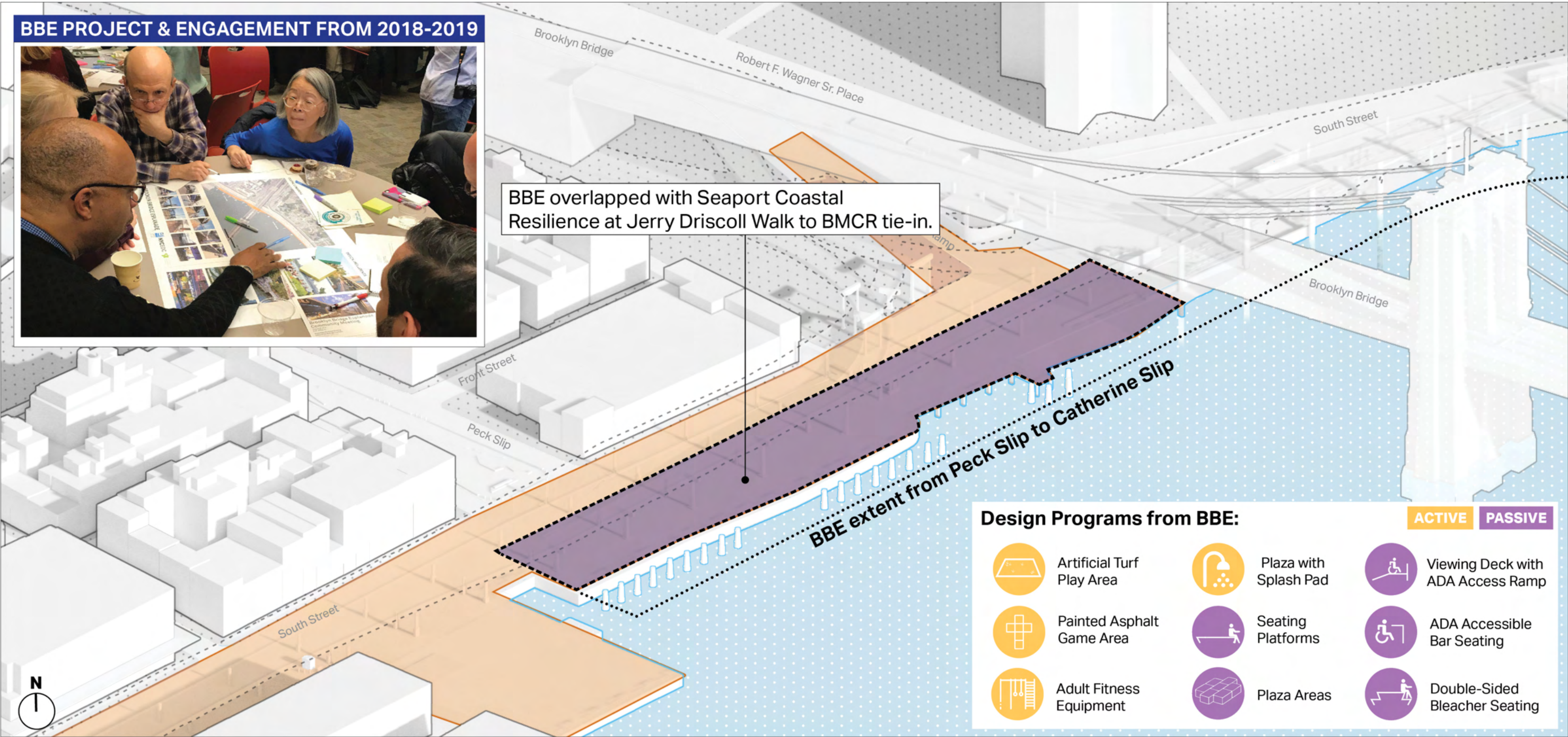
Brooklyn Bridge-Montgomery
Coastal Resilience (BMCR)
IN CONSTRUCTION

Brooklyn Bridge Esplanade (BBE) | What and where?

BBE PROJECT & ENGAGEMENT FROM 2018-2019



BBE overlapped with Seaport Coastal Resilience at Jerry Driscoll Walk to BMCR tie-in.



Design Programs from BBE:

		ACTIVE	PASSIVE
	Artificial Turf Play Area		Plaza with Splash Pad
	Painted Asphalt Game Area		Seating Platforms
	Adult Fitness Equipment		Plaza Areas
			Viewing Deck with ADA Access Ramp
			ADA Accessible Bar Seating
			Double-Sided Bleacher Seating

Brooklyn Bridge Esplanade (BBE) | Jerry Driscoll Walk Programming



Adult Fitness Equipment



Suitable for a wide range of ages and activity levels



Plaza with Splash Pad



Open space, in-ground fountains and shaded seating



Multi-purpose Active Surfacing



Rubber surfacing for integrated play and sport courts

Brooklyn Bridge Esplanade (BBE) | Bridge Pier

EXISTING CONDITIONS



BBE-PROPOSED REPLACEMENT



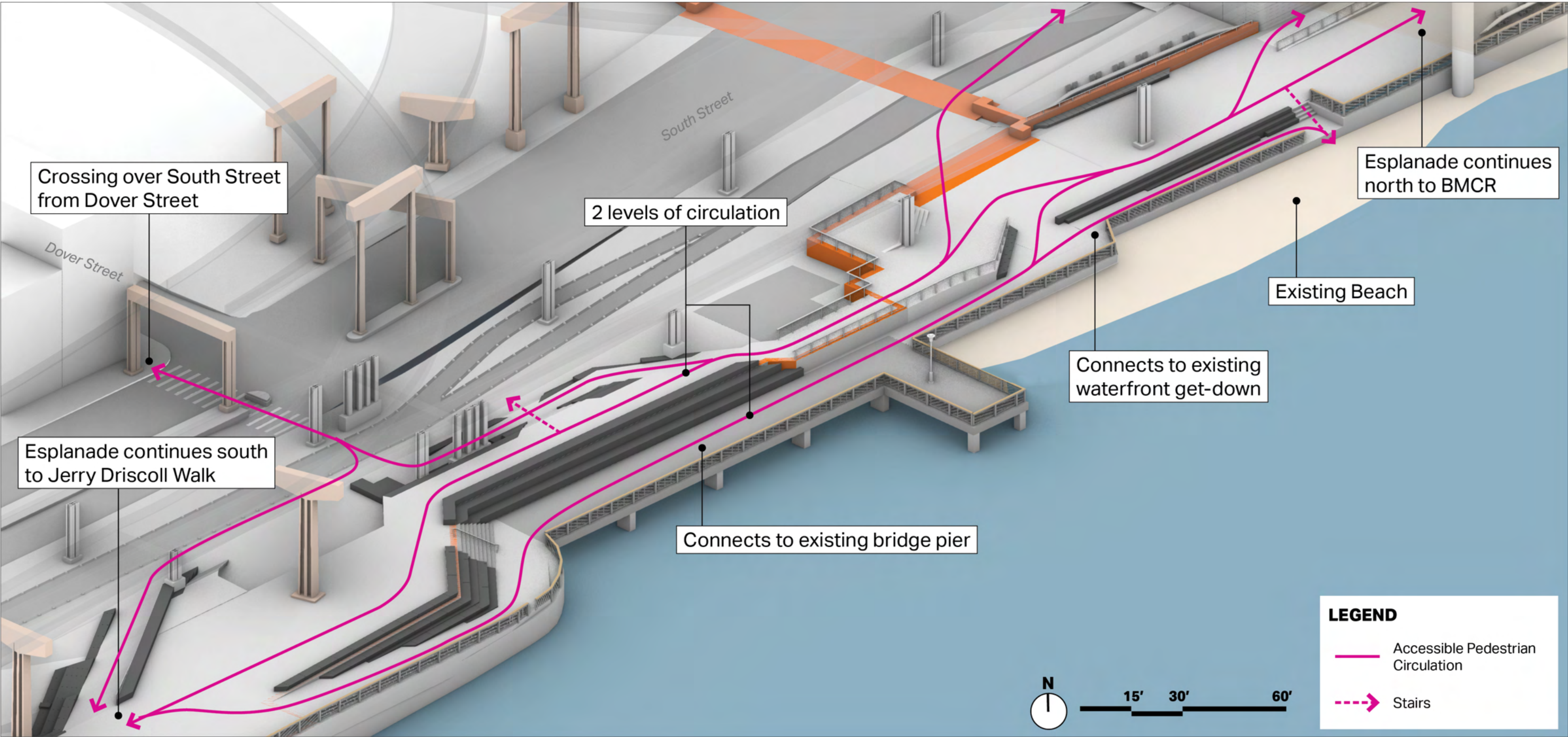
East River Esplanade
Steel Grating

ALTERNATIVE

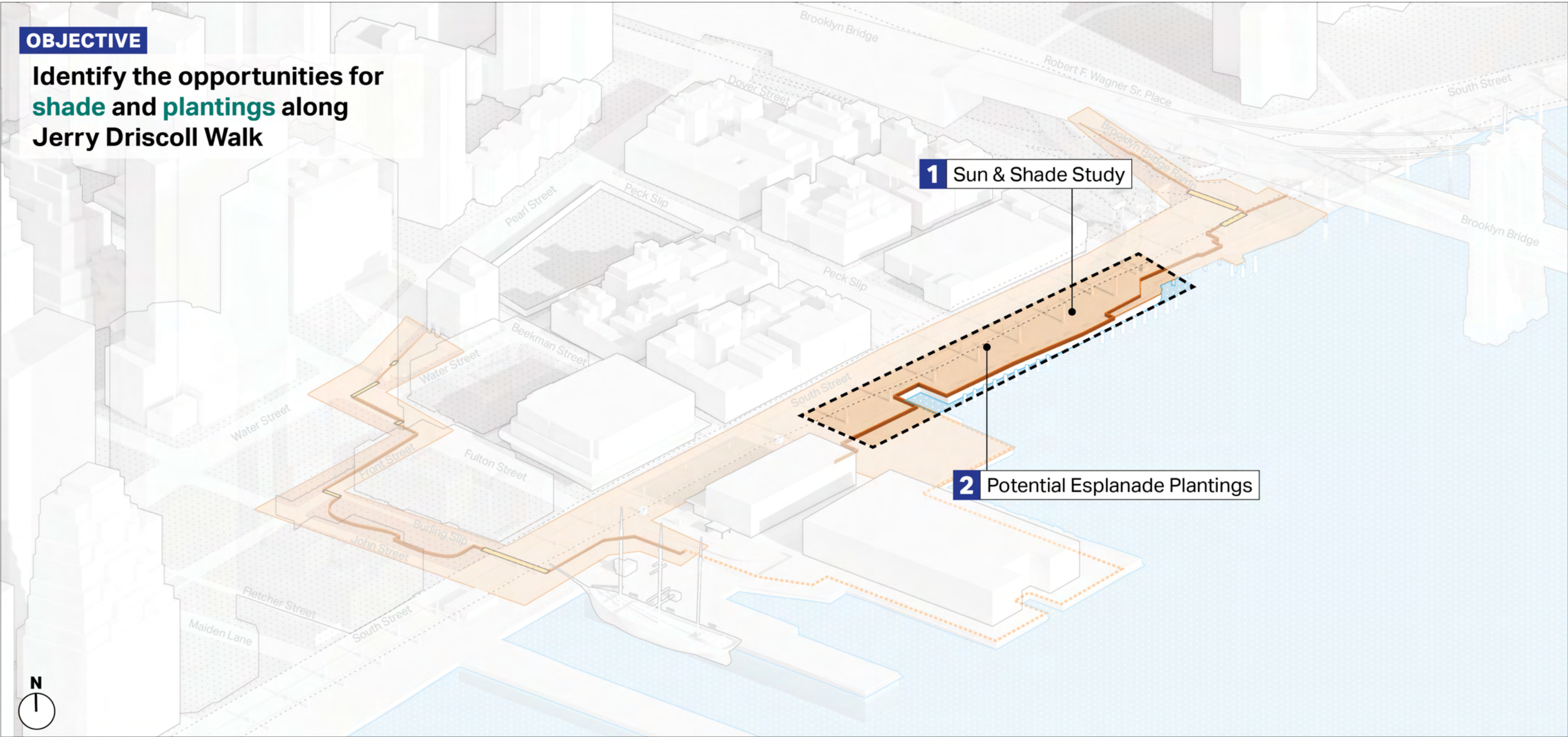


Steeplechase Pier, Coney Island
Recycled Plastic Lumber (RPL)

Brooklyn Bridge Esplanade (BBE) | Bridge Pier Circulation



Design Update | Esplanade Shade & Plantings



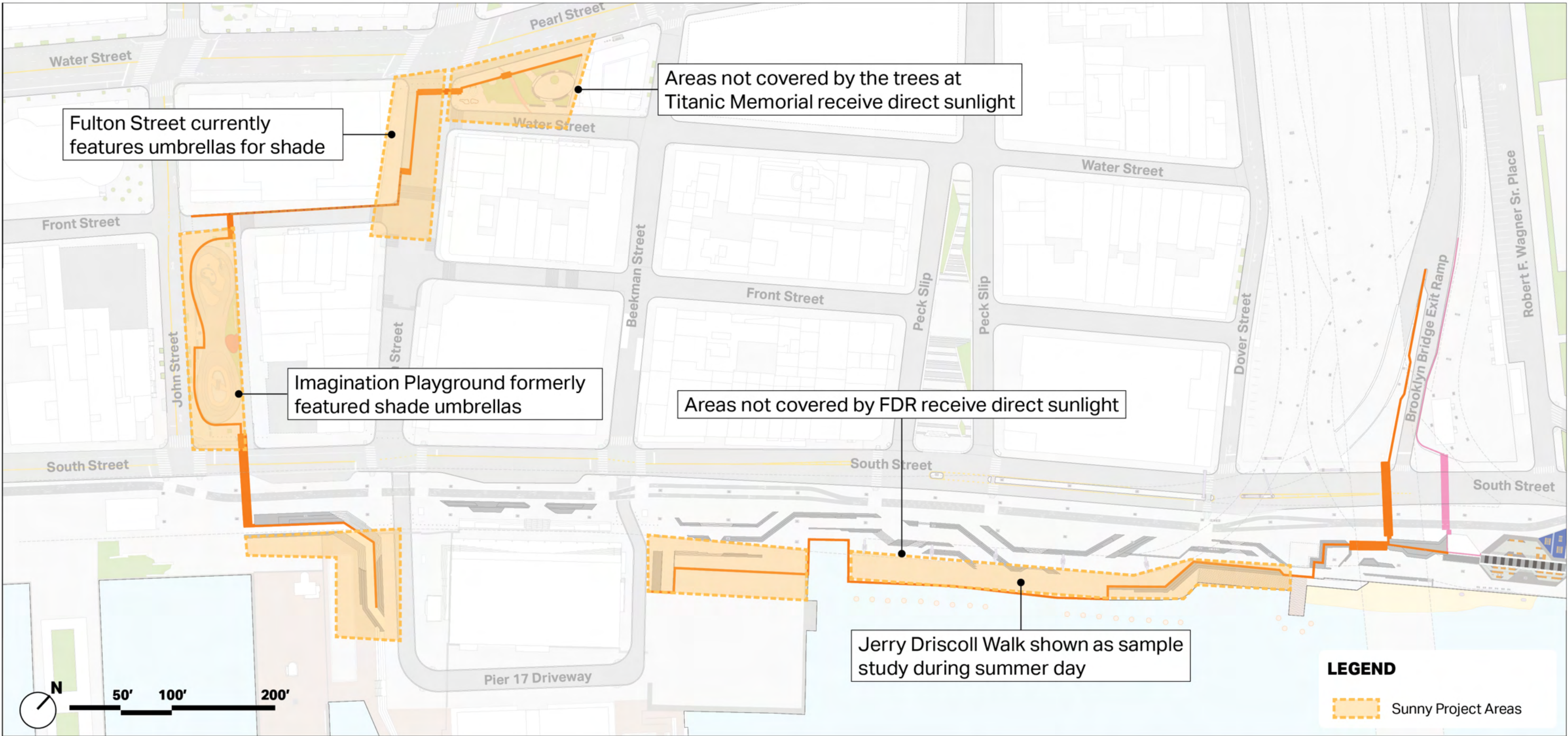
OBJECTIVE

Identify the opportunities for **shade** and **plantings** along Jerry Driscoll Walk

1 Sun & Shade Study

2 Potential Esplanade Plantings

Sun & Shade Study | Where was shade requested?



Sun & Shade Study | At Jerry Driscoll Walk

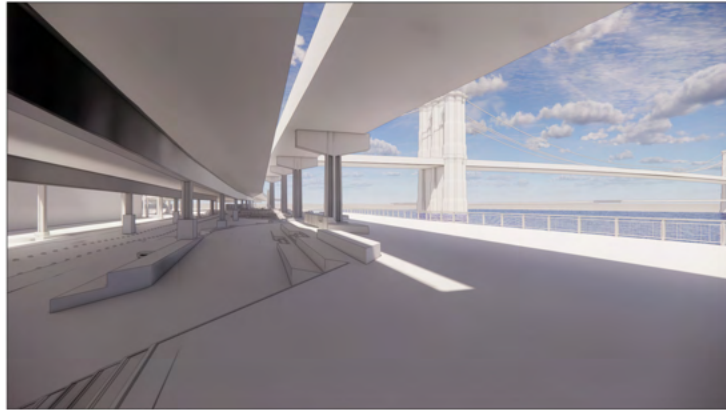
SUMMER DAY SUNLIGHT EXPOSURE



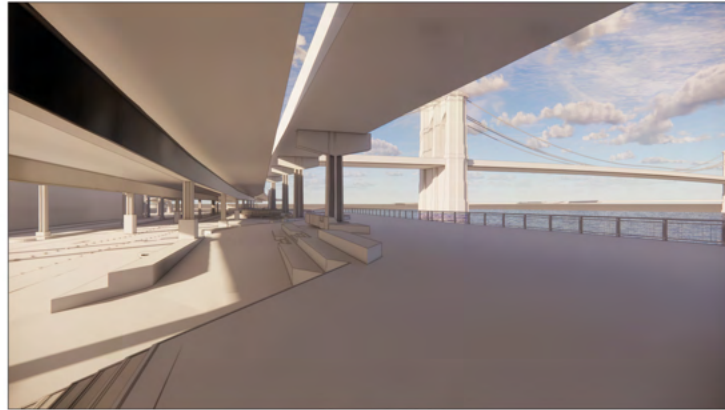
9 AM



12 PM

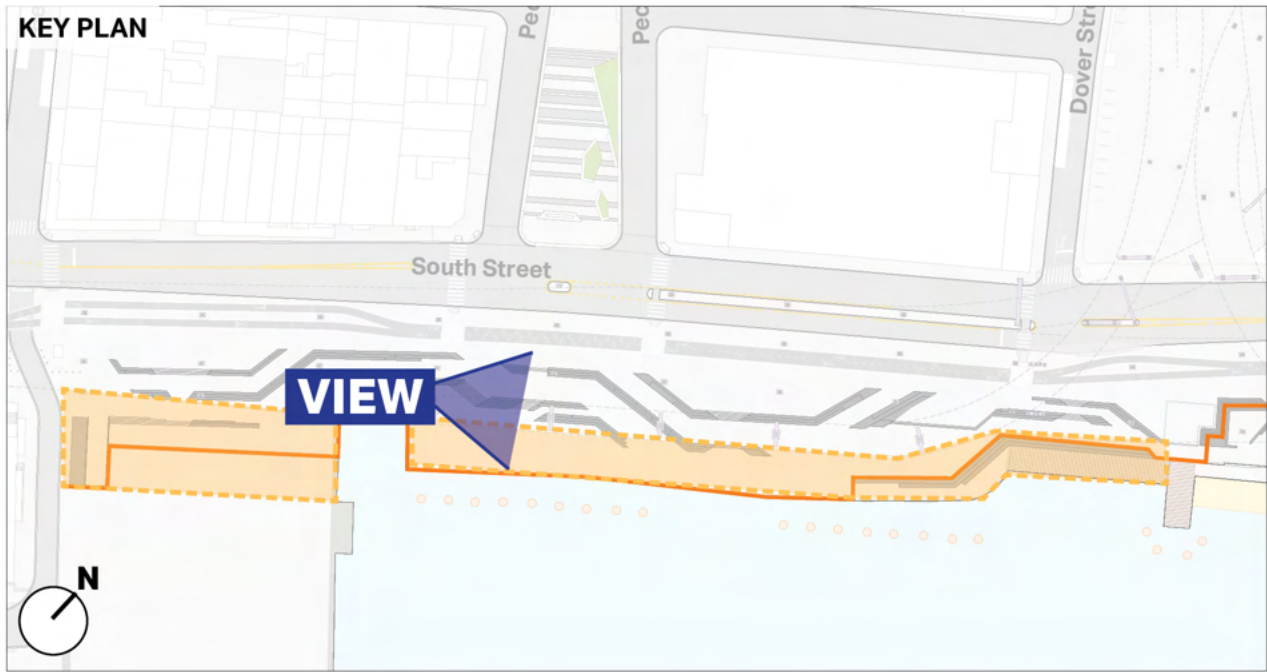


3 PM



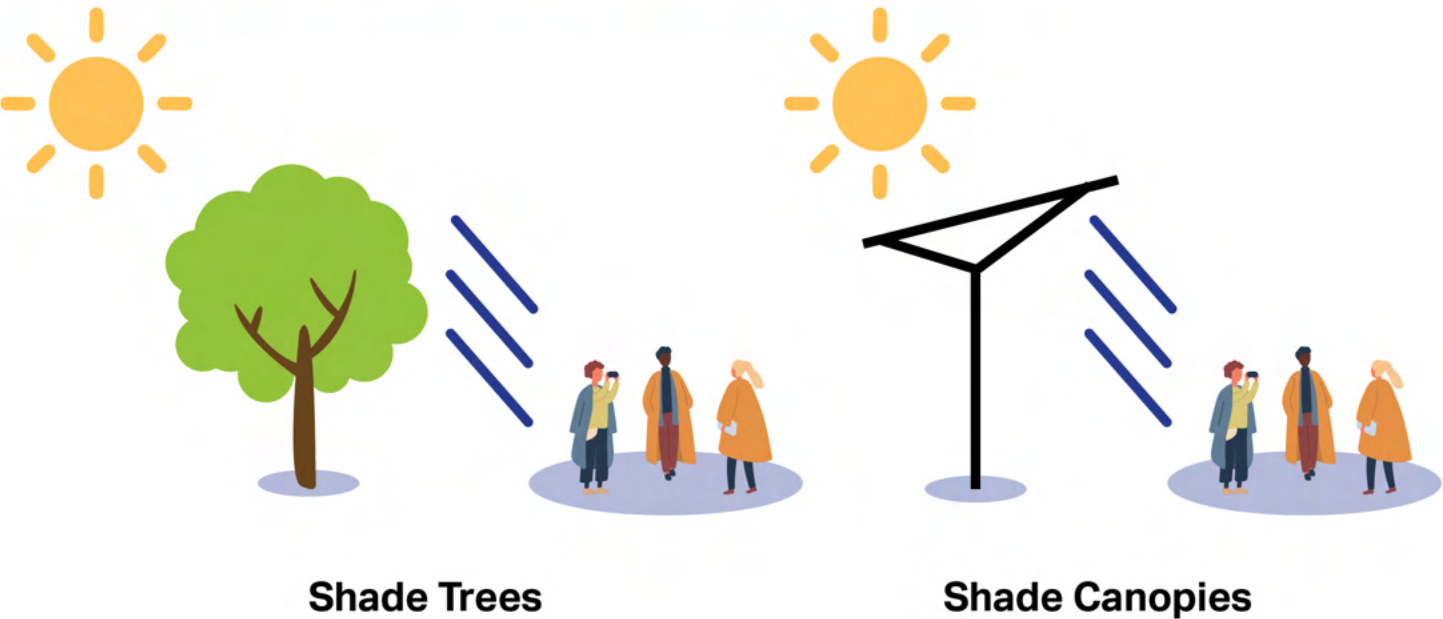
6 PM

- Jerry Driscoll Walk receives direct sunlight from **7AM-5PM** during the summer
- Sunlight reaches under the FDR after 6PM

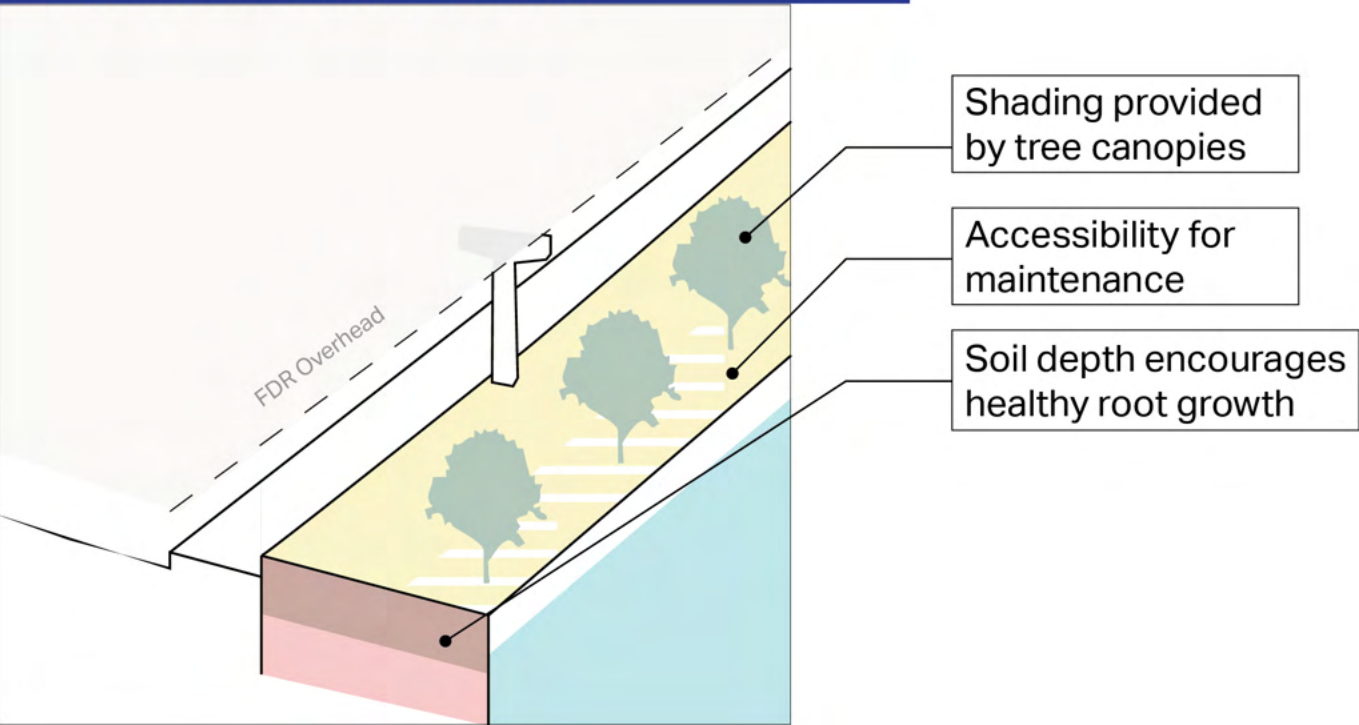


Potential Esplanade Plantings | Opportunities

POTENTIAL METHODS OF INCREASED SHADED AREA



FUTURE JERRY DRISCOLL WALK



IMPORTANT TREE SELECTION CONSIDERATIONS



Able to tolerate full sun



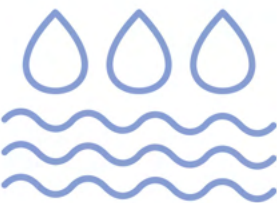
Durable in the public realm



Good size fitted for waterfront



Provide dappled shade



Able to tolerate salt spray

Potential Esplanade Plantings | Tree Candidates



Gleditsia triacanthos var. *inermis*
Thornless Honeylocust

NT ST CP



Quercus bicolor
Swamp White Oak

NT SL ST CP



Juniperus virginiana
Eastern Red Cedar

NT SL CP



Pinus rigida
Pitch Pine

NT CP

SL From Park & Rec Salt Tolerant Species List

NT NY Native Trees

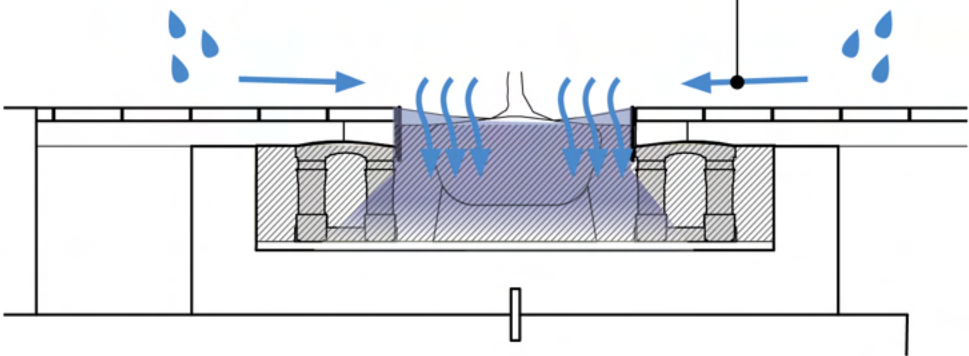
ST From NYC Approved Street Trees List

CP From Park & Rec Capital Projects Plant Schedule-Suggested List

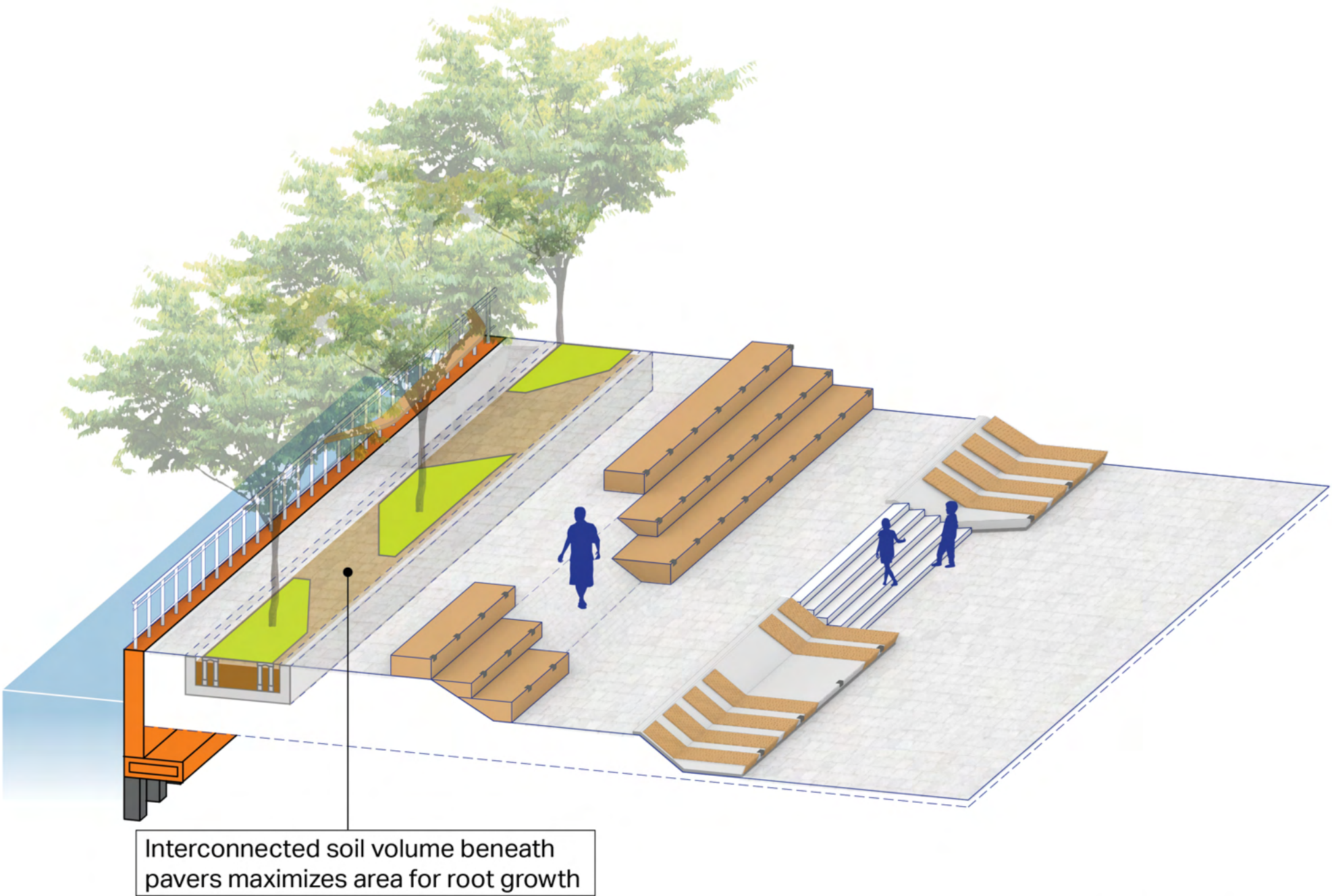
Potential Esplanade Plantings | Tree Trench Design

PITCHED PAVING W/ CONCRETE PLANTER

Paving slopes towards tree pits, increasing area of rainfall capture

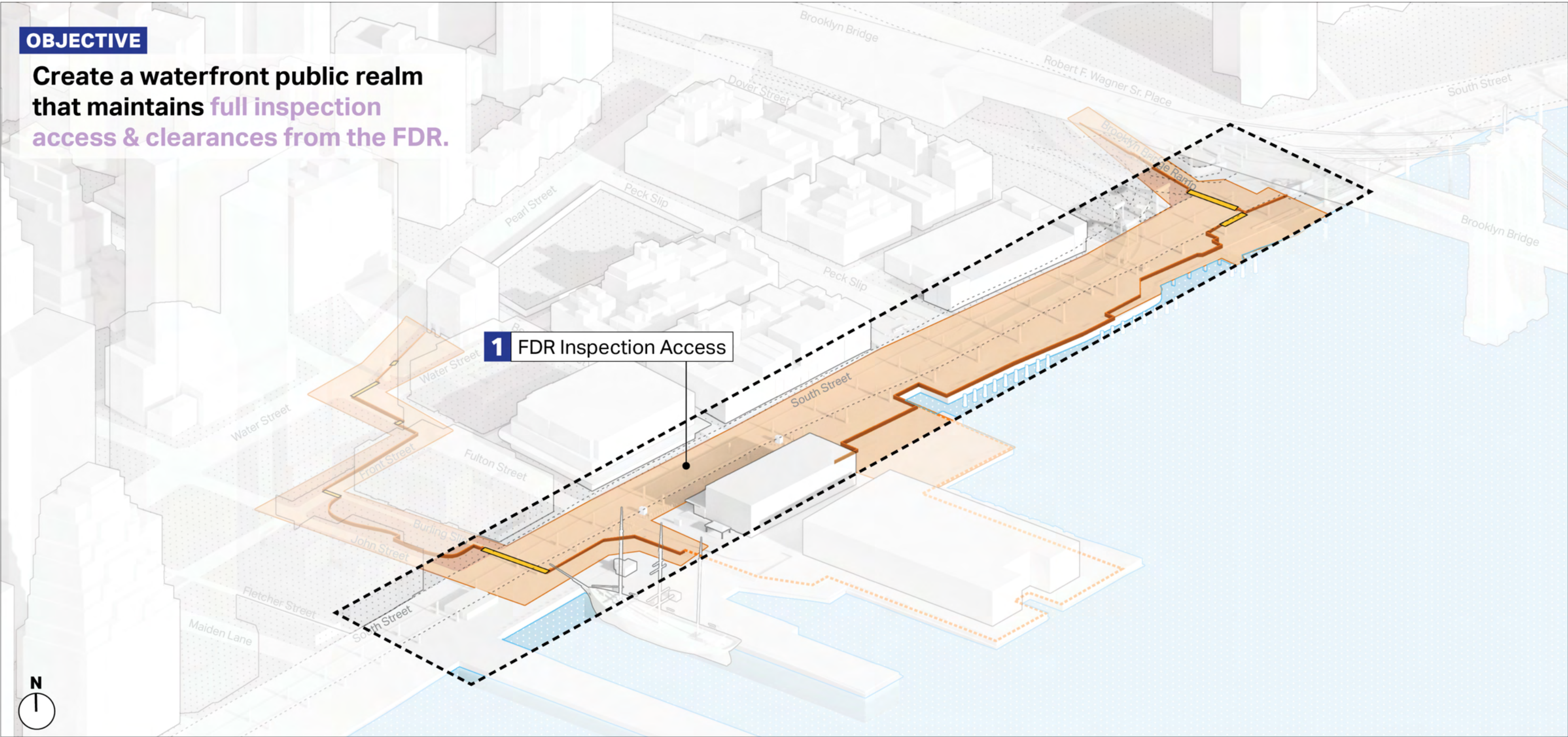


Sloped paving captures precipitation from the top of the esplanade and directs water through the tree pit opening.

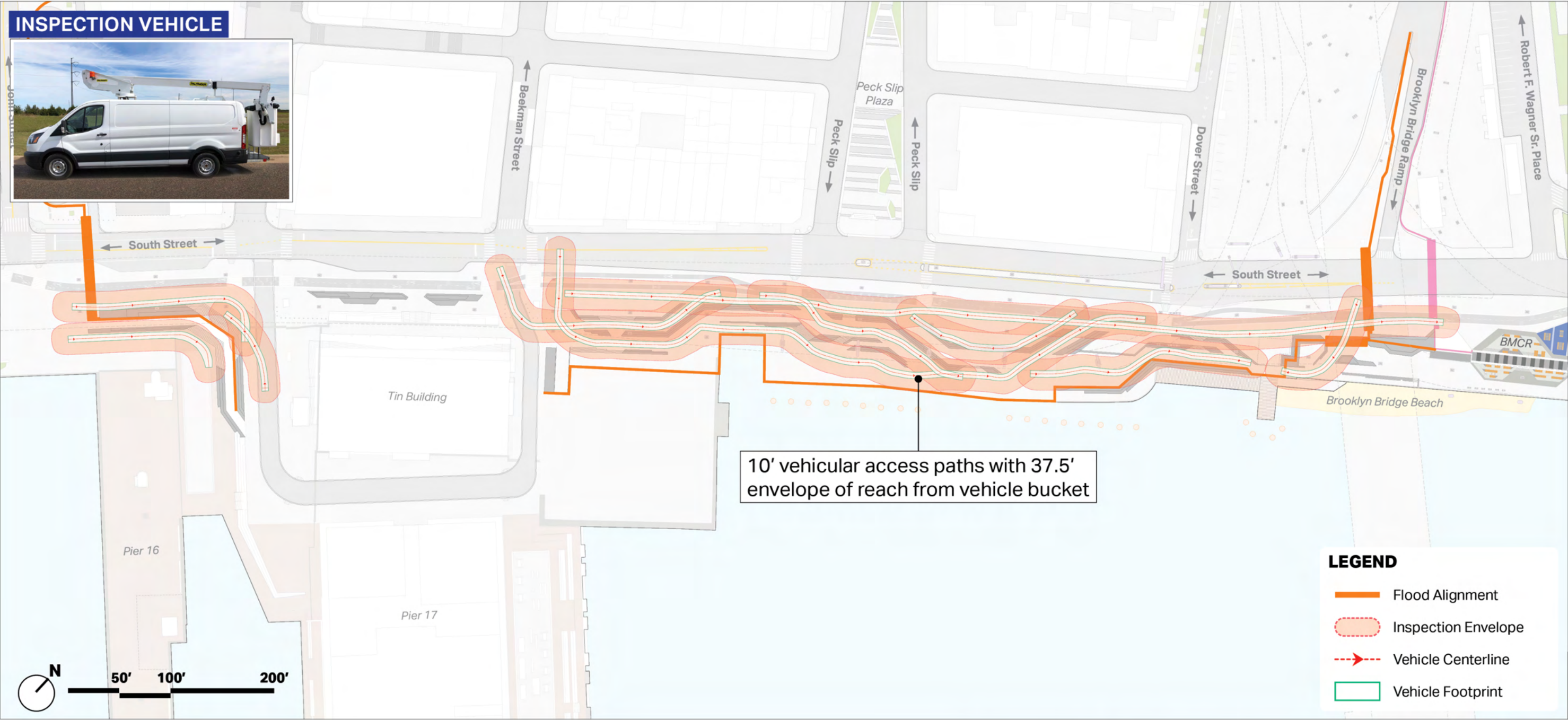


Interconnected soil volume beneath pavers maximizes area for root growth

Design Update | Maintenance & Operation Access



Maintenance & Operation Access | FDR Inspection Paths



Community Engagement Next Steps



Extensive community engagement prior to LPC/PDC Meetings

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