

# BK Bridge - Montgomery Coastal Resilience

October 2, 2019

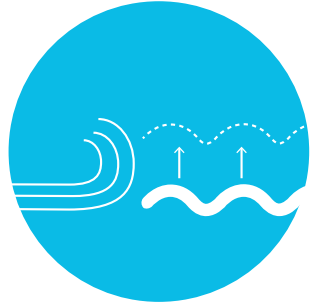
Public Meeting - Design Progress for Two Bridges Neighborhood Project  
PS 2 Meyer London

# Agenda

- ① Lower Manhattan Coastal Resiliency
- ② Project Recap
- ③ Design Updates
- ④ Open House

# 1 Lower Manhattan Coastal Resiliency

## Flood Risk



Storm Surge



Sea Level Rise (SLR)



# ① Lower Manhattan Coastal Resiliency



New York City is implementing **\$500M** in on-land capital projects in Lower Manhattan and advancing a Master Plan for FiDi-Seaport

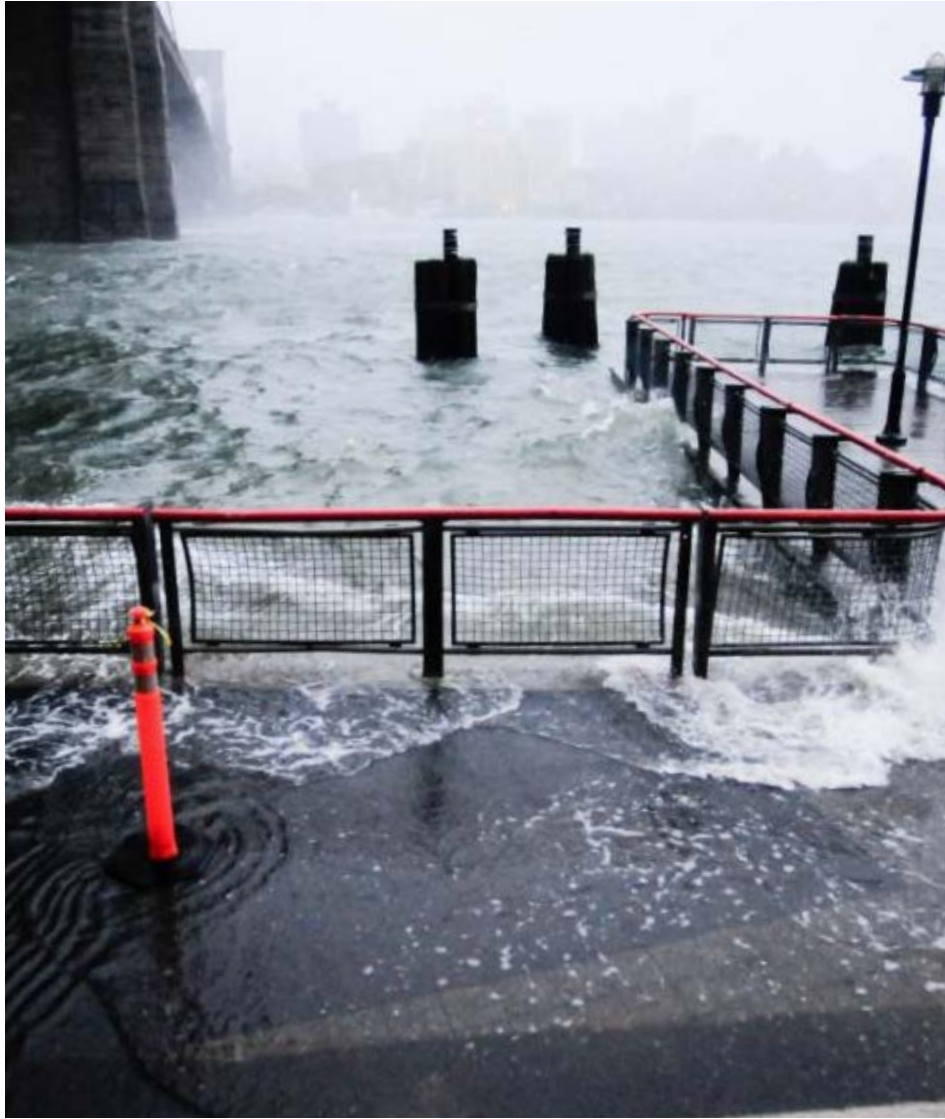
# 1 Lower Manhattan Coastal Resiliency



The **BK Bridge-Montgomery Coastal Resilience (BMCR)** project in the **Two Bridges neighborhood** will reduce flooding while maintaining the community's views and access to the waterfront.

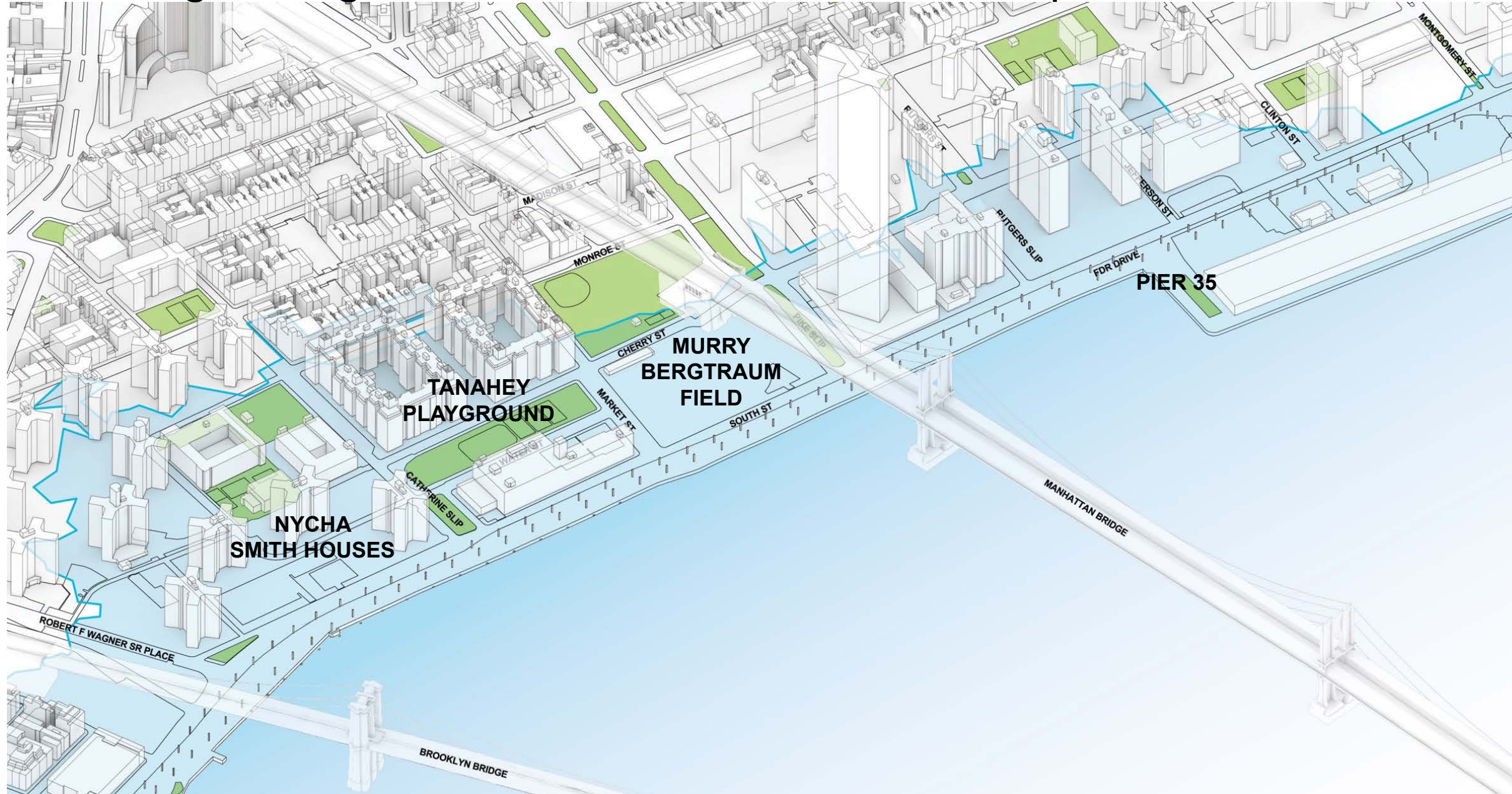
# ① Lower Manhattan Coastal Resiliency

Flood damage in Two Bridges from Hurricane Sandy



# 1 Lower Manhattan Coastal Resiliency

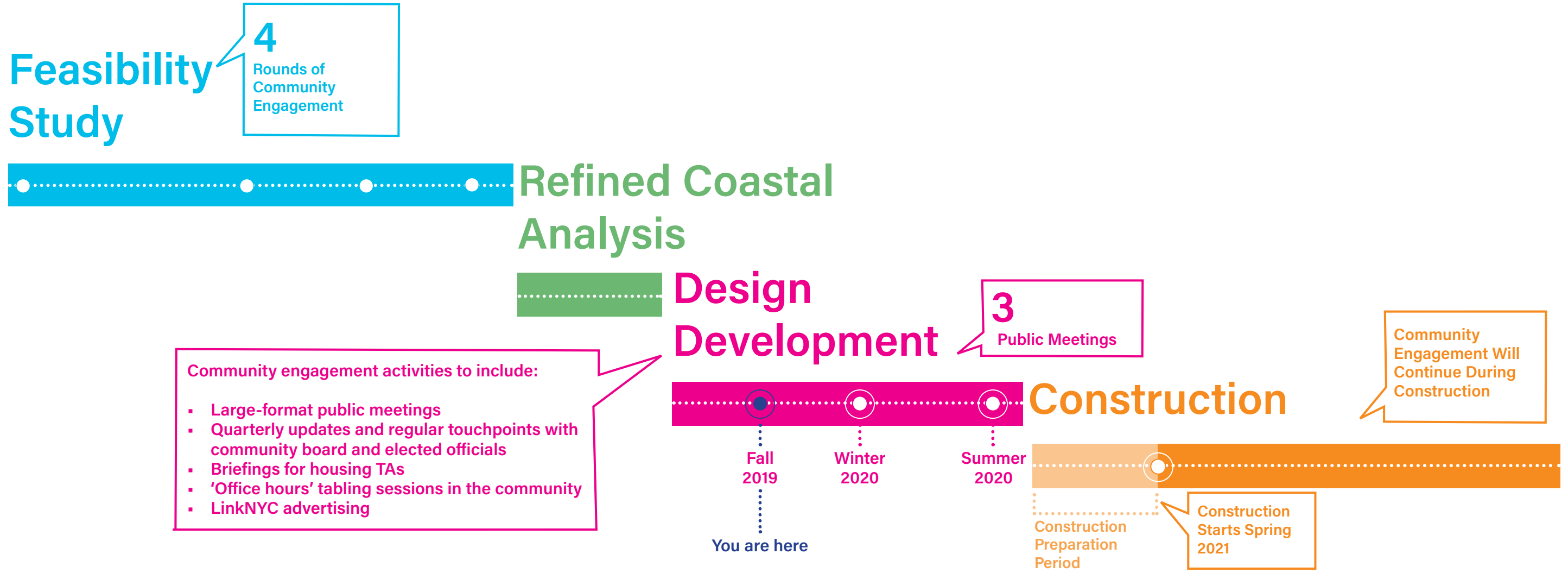
## Two Bridges Neighborhood - 2050s 100-Year Floodplain



# 2 Project Recap

2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |

## Brooklyn Bridge - Montgomery Coastal Resilience Timeline





## 2 Project Recap

We heard from the Two Bridges community that the project should try to achieve these goals:



**Provide Flood Protection and Resilience**



**Preserve Views + Access**



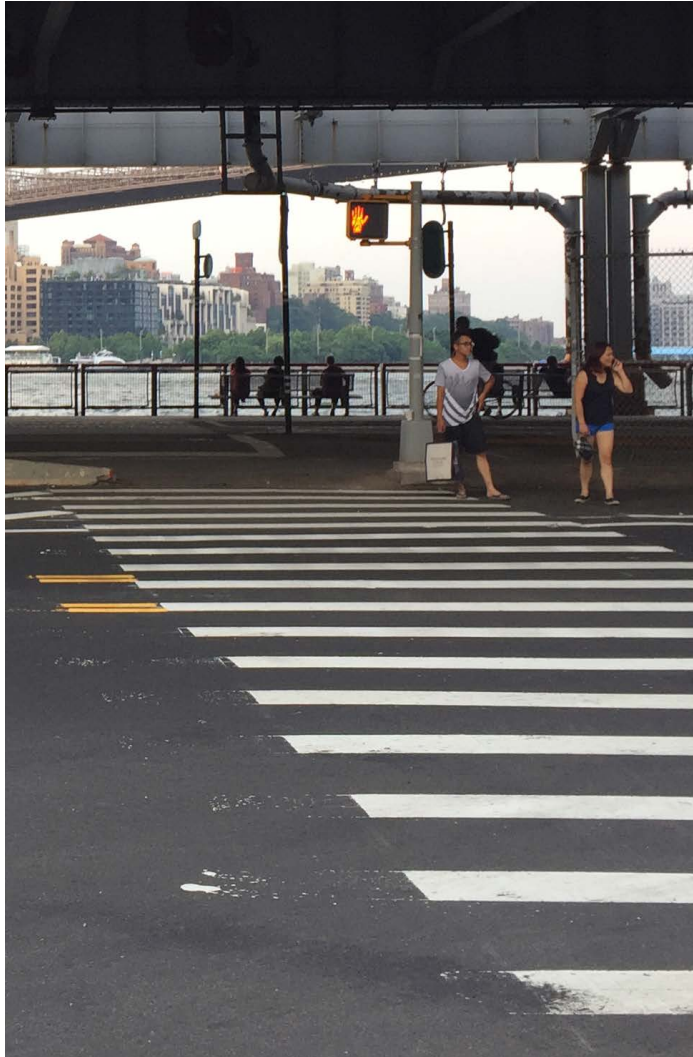
**Distribute Program Equitably**



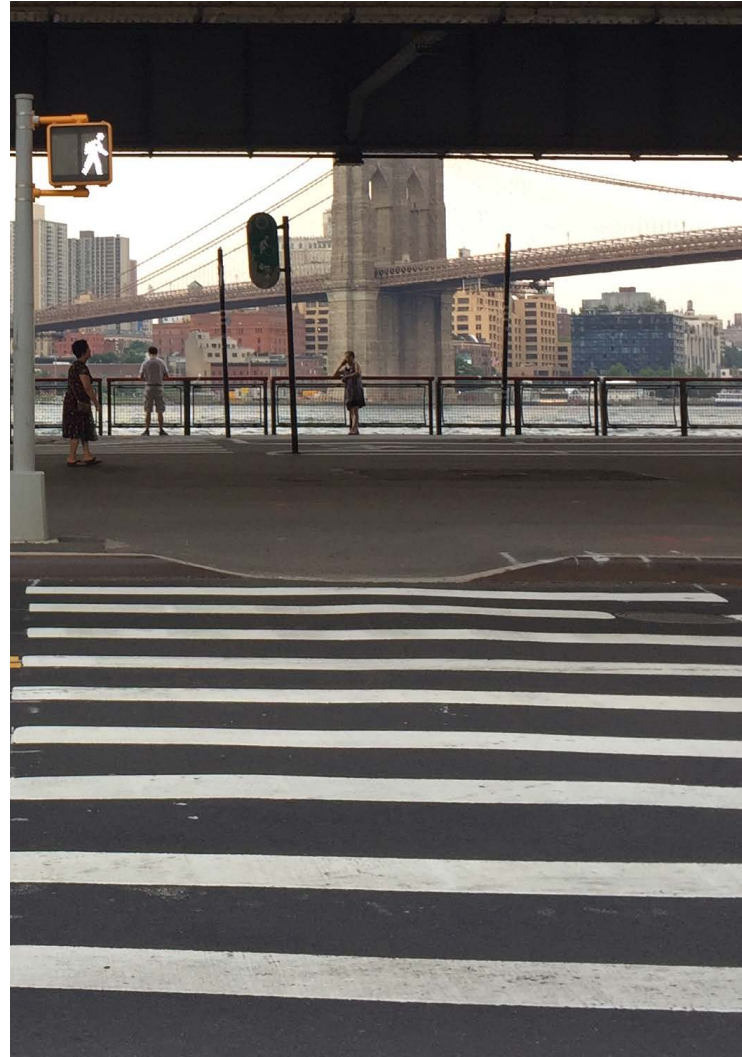
**Integrate Infrastructure into Public Realm**

# ② Project Recap

## Preserve Views + Access



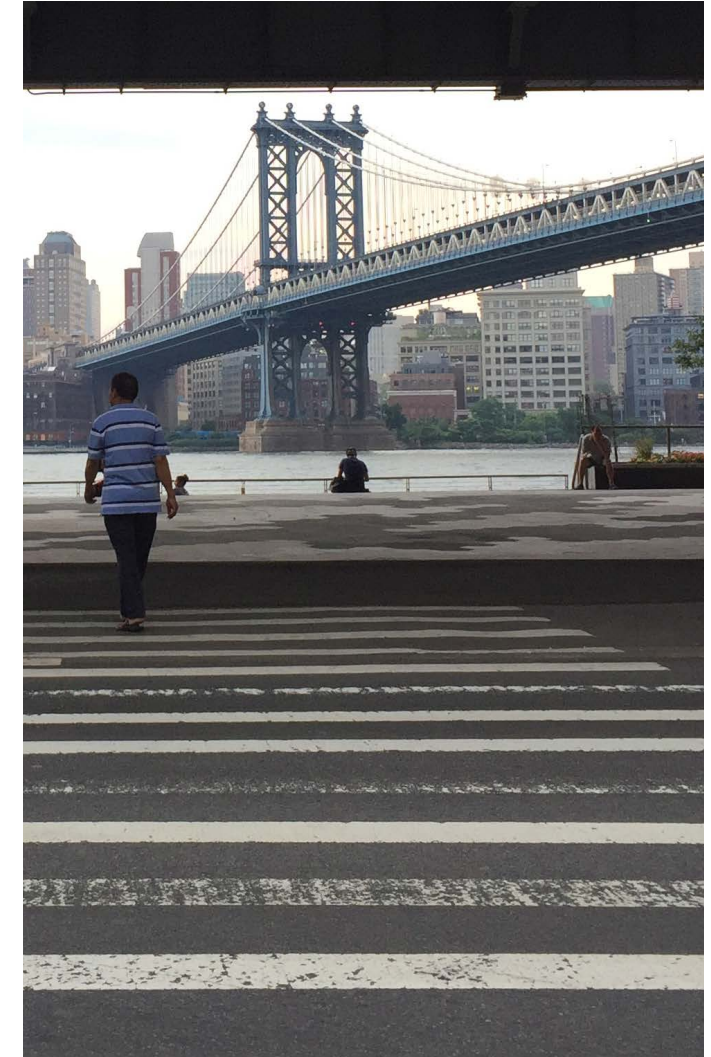
CATHERINE SLIP



MARKET SLIP



PIKE SLIP



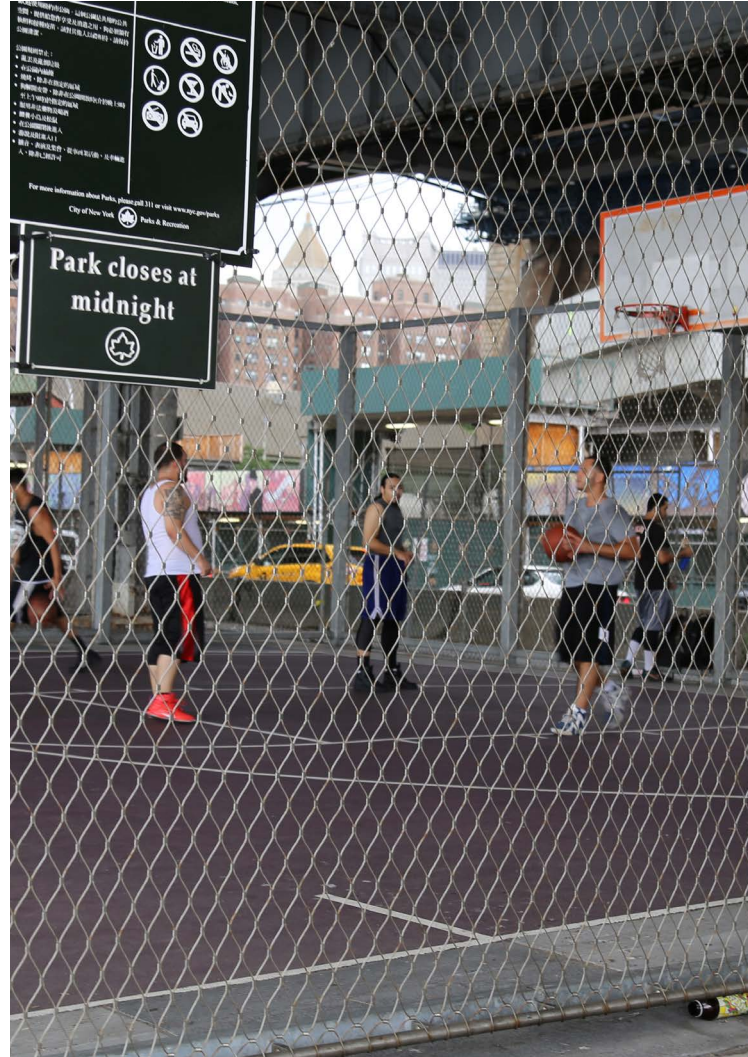
RUTGERS SLIP

# 2 Project Recap

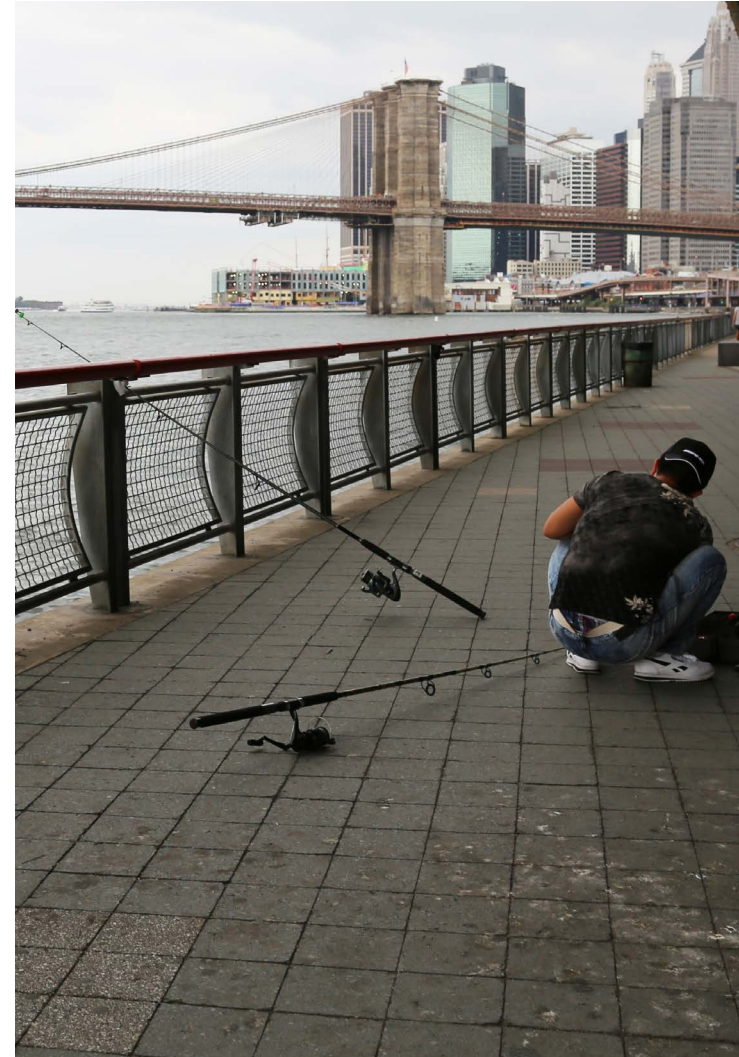
## Distribute Program Equitably



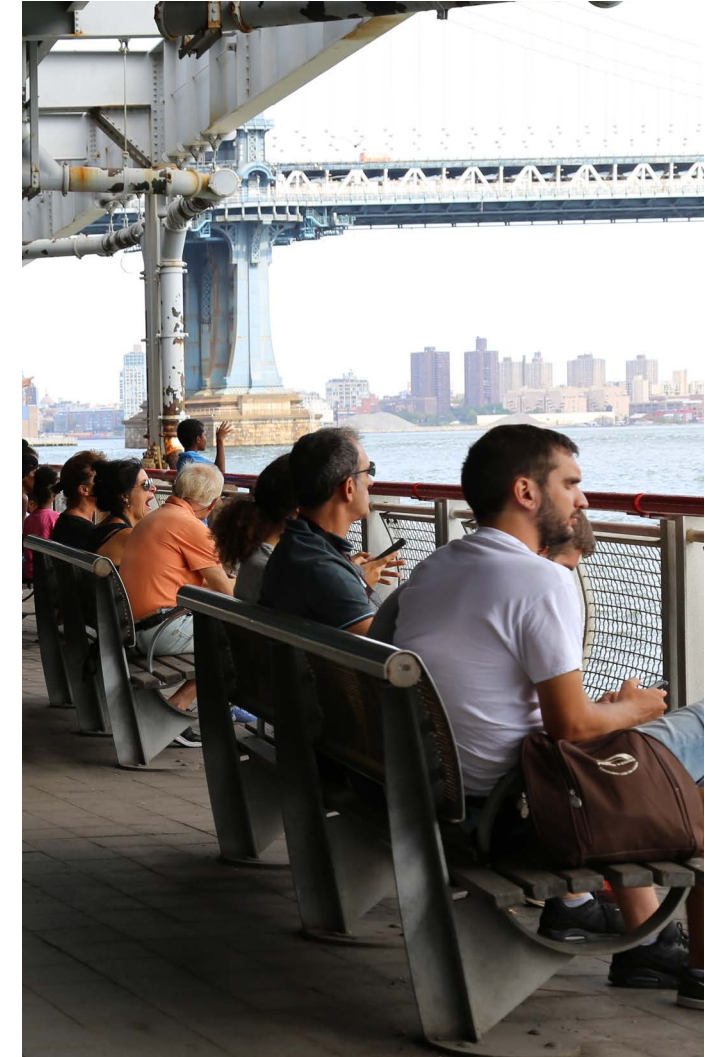
FITNESS PARK



BASKETBALL COURTS



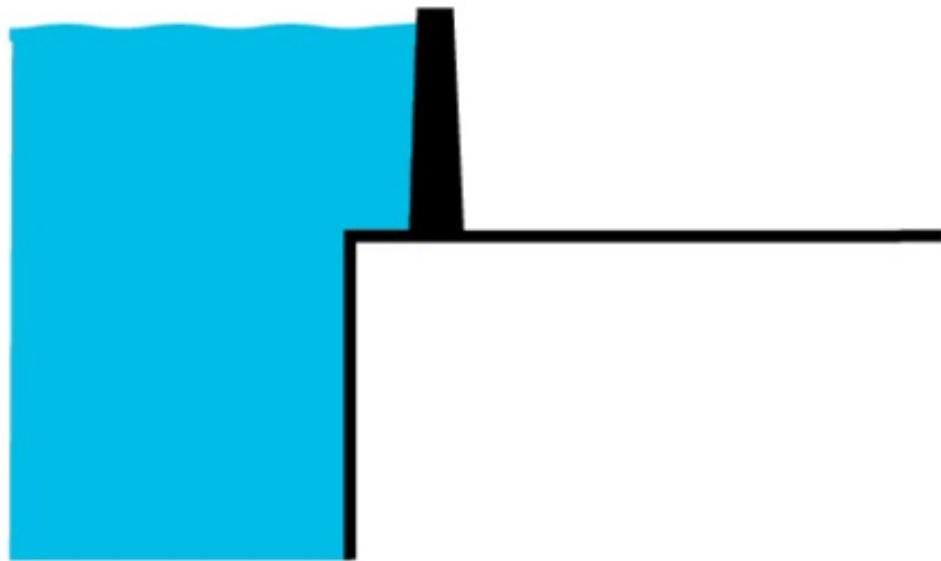
FISHING AREA



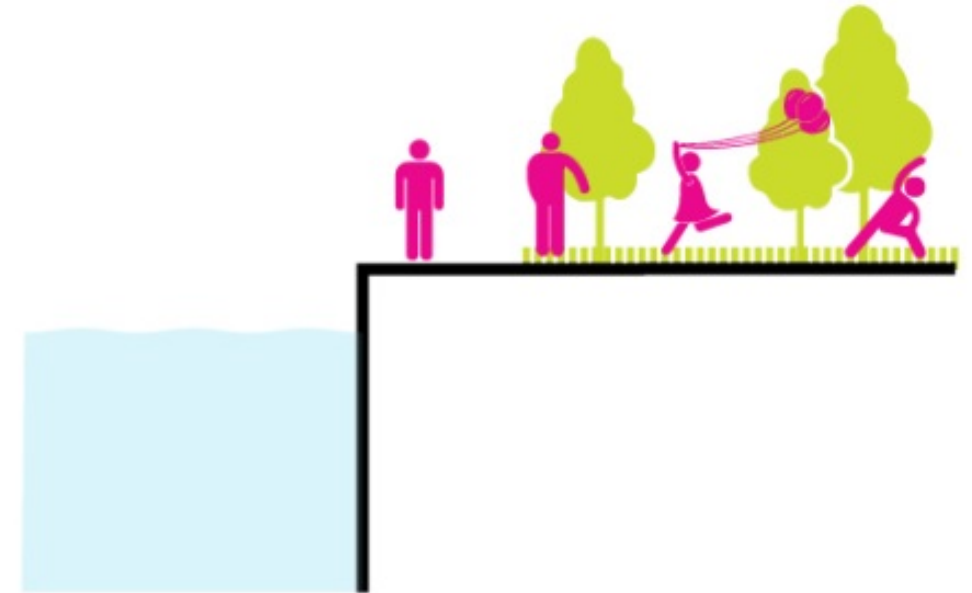
SEATING / OBSERVATION AREA

## ② Project Recap

### Integrate Infrastructure into Public Realm



FLOOD REDUCTION



PUBLIC SPACE

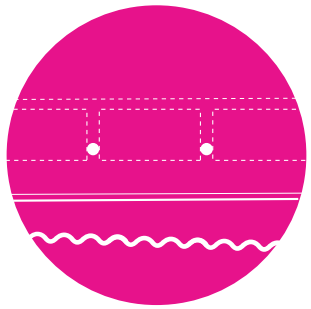
# 3 Design Updates



**Resilience Infrastructure**



**Raised Platform (Sea Level Rise)**



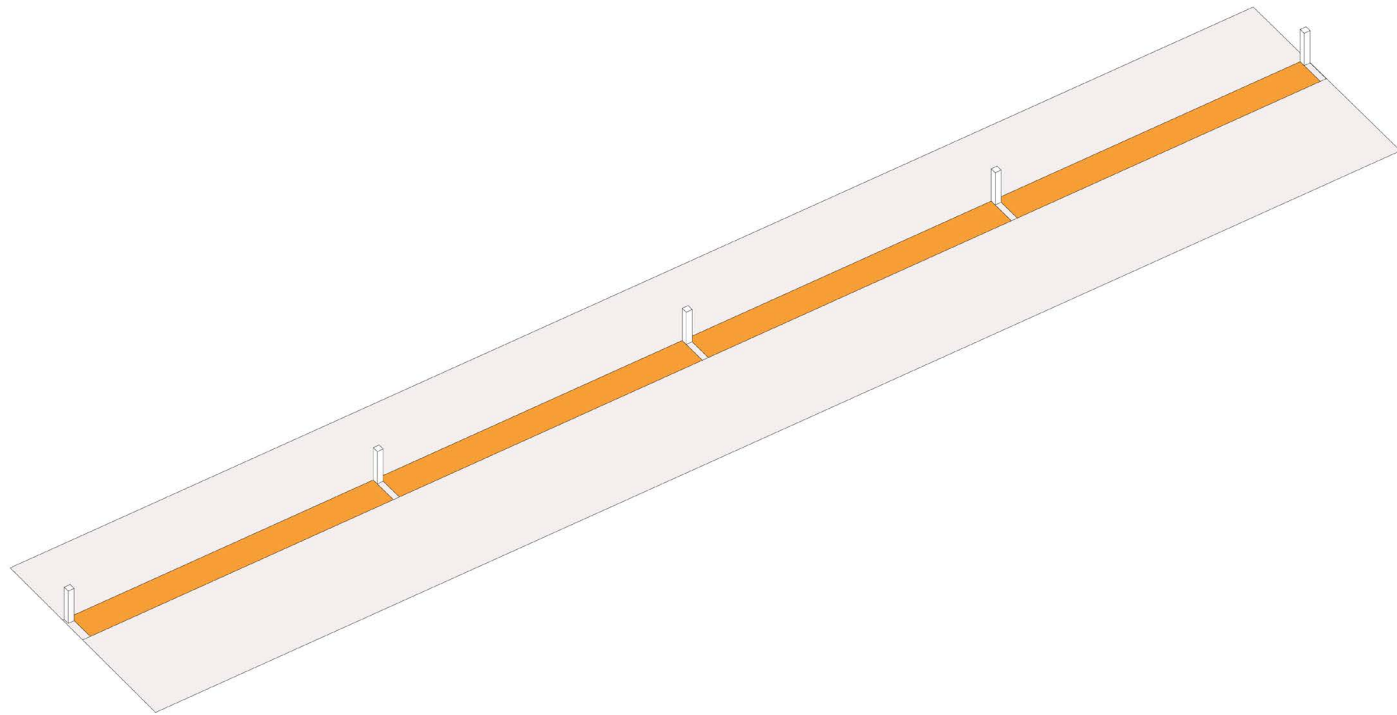
**Alignment - Location of Infrastructure**

# ③ Design Updates

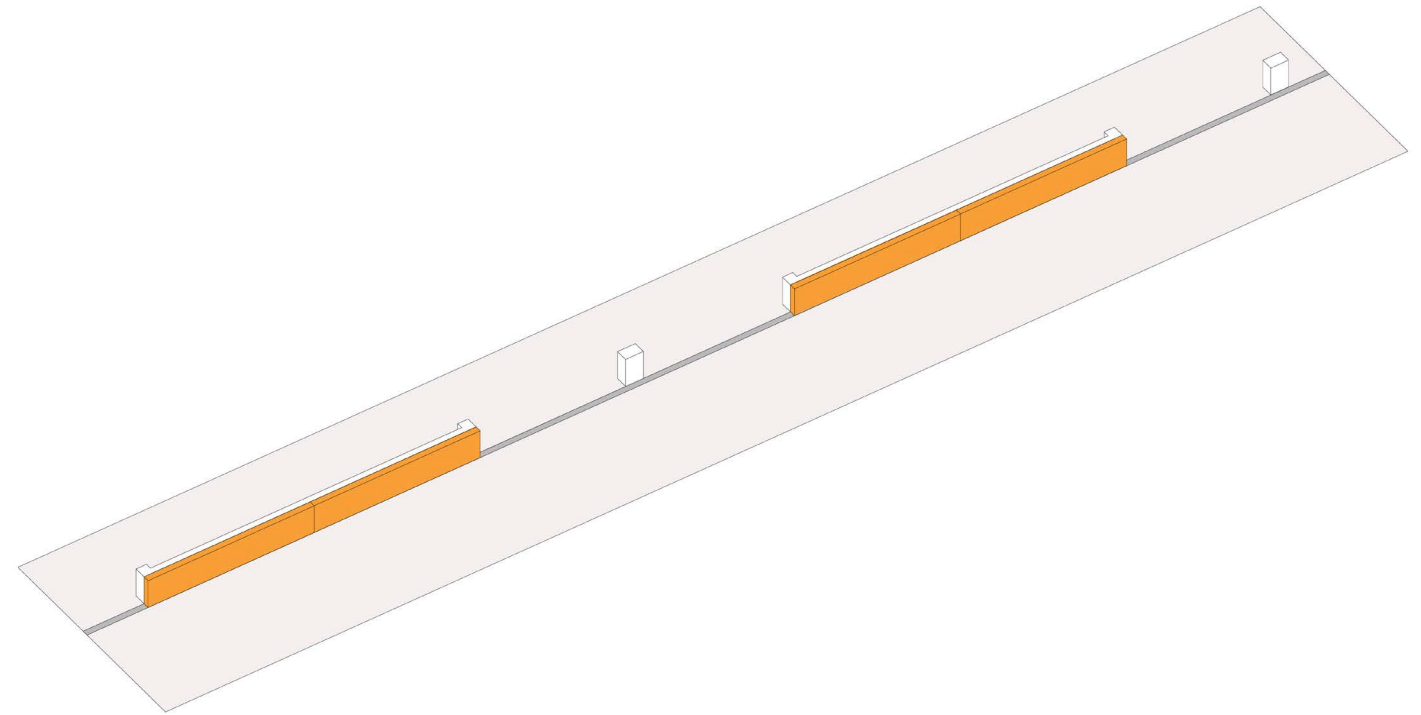
## Infrastructure Toolkit

To preserve views and access along the waterfront, the project will utilize an infrastructure toolkit that combines fixed structures with deployable flood gates.

Flip Up Barrier: Sunny Day



Roller Gates & Fixed Structures: Sunny Day

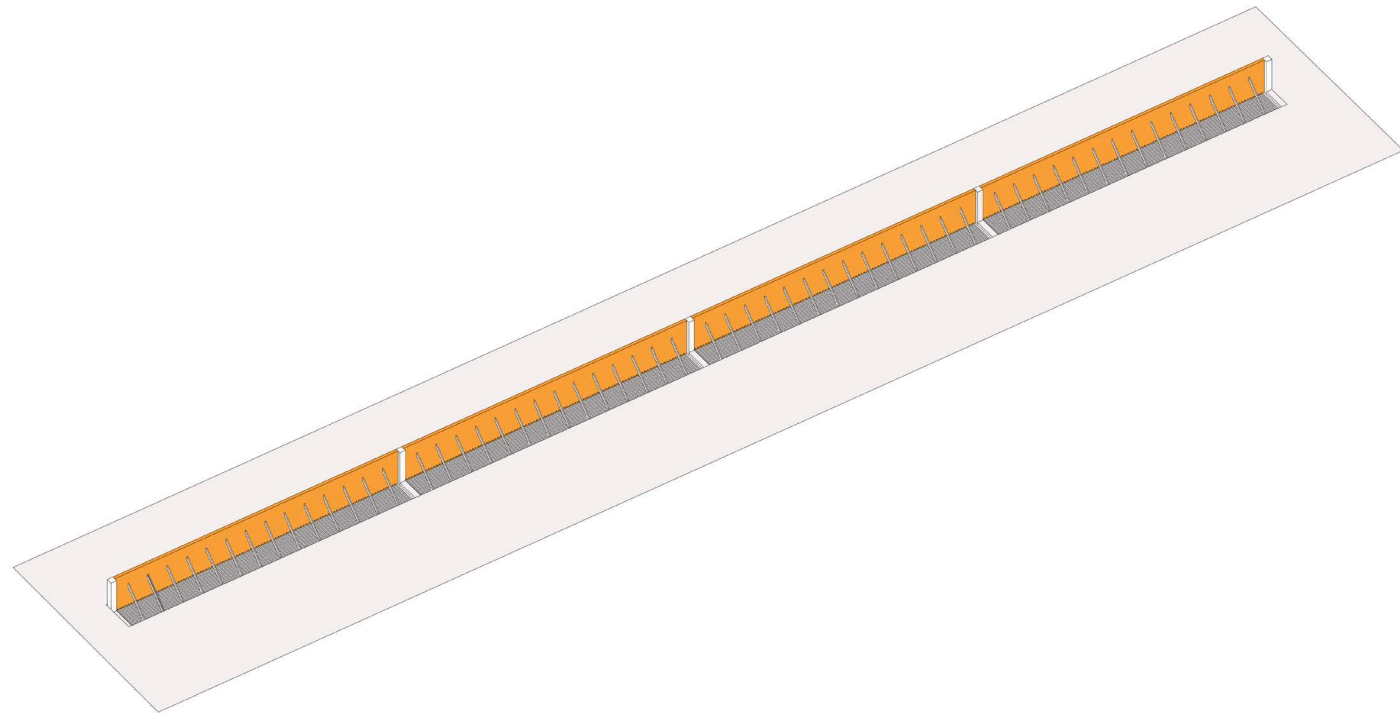


# ③ Design Updates

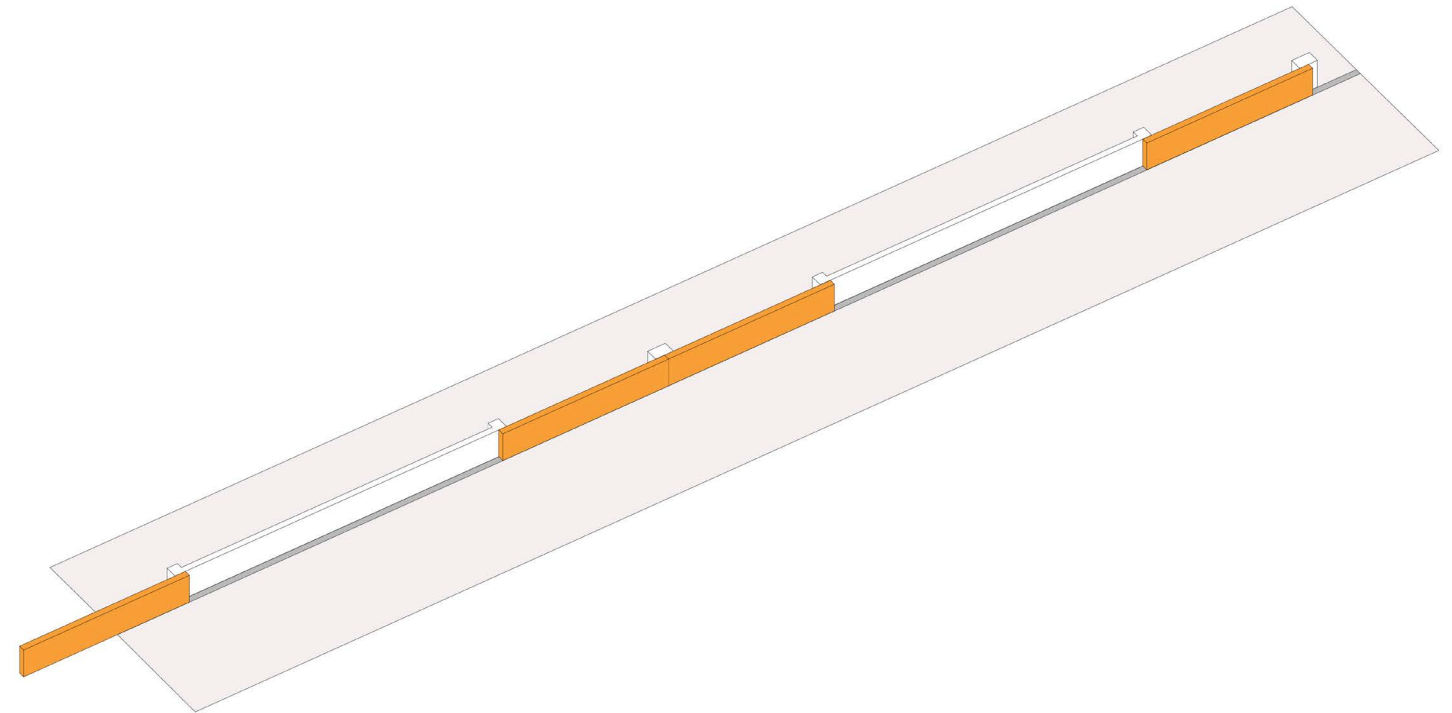
## Infrastructure Toolkit

To preserve views and access along the waterfront, the project will utilize an infrastructure toolkit that combines fixed structures with deployable flood gates.

Flip Up Barrier: Deployed

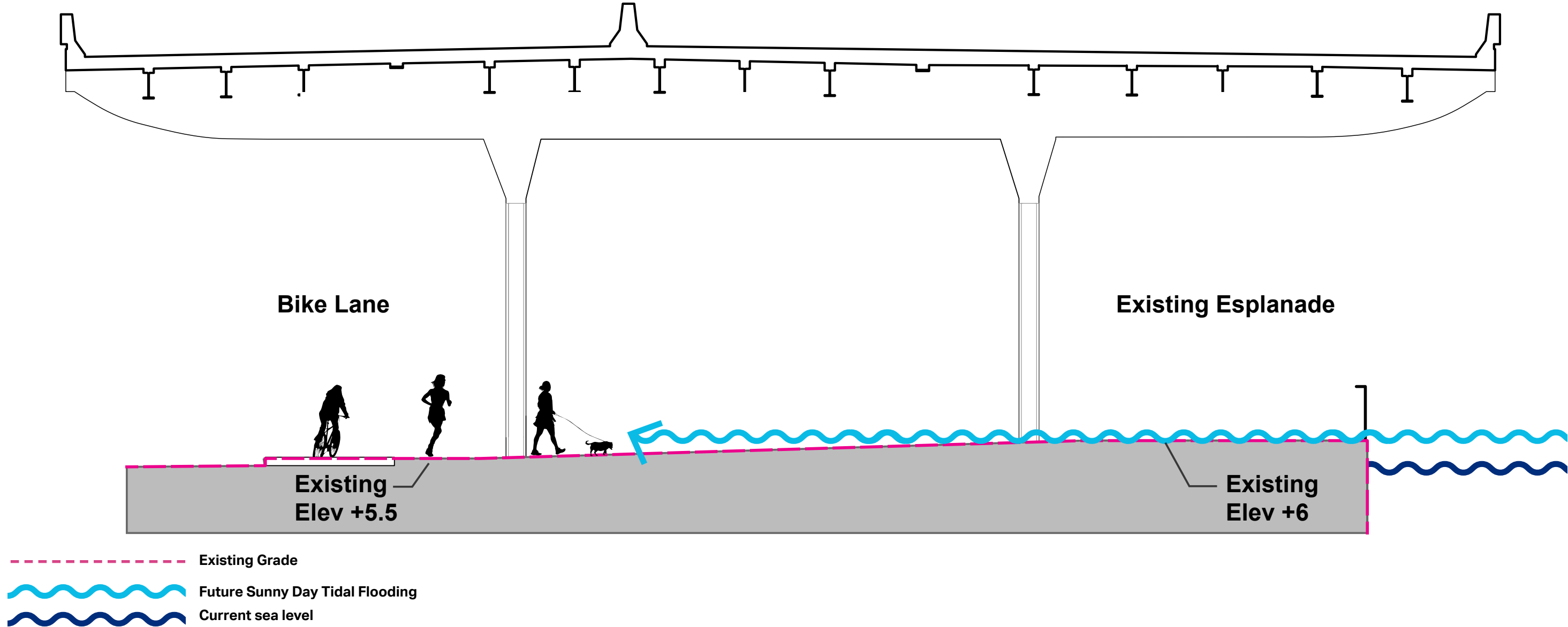


Roller Gates & Fixed Structures: Deployed



# 3 Design Updates

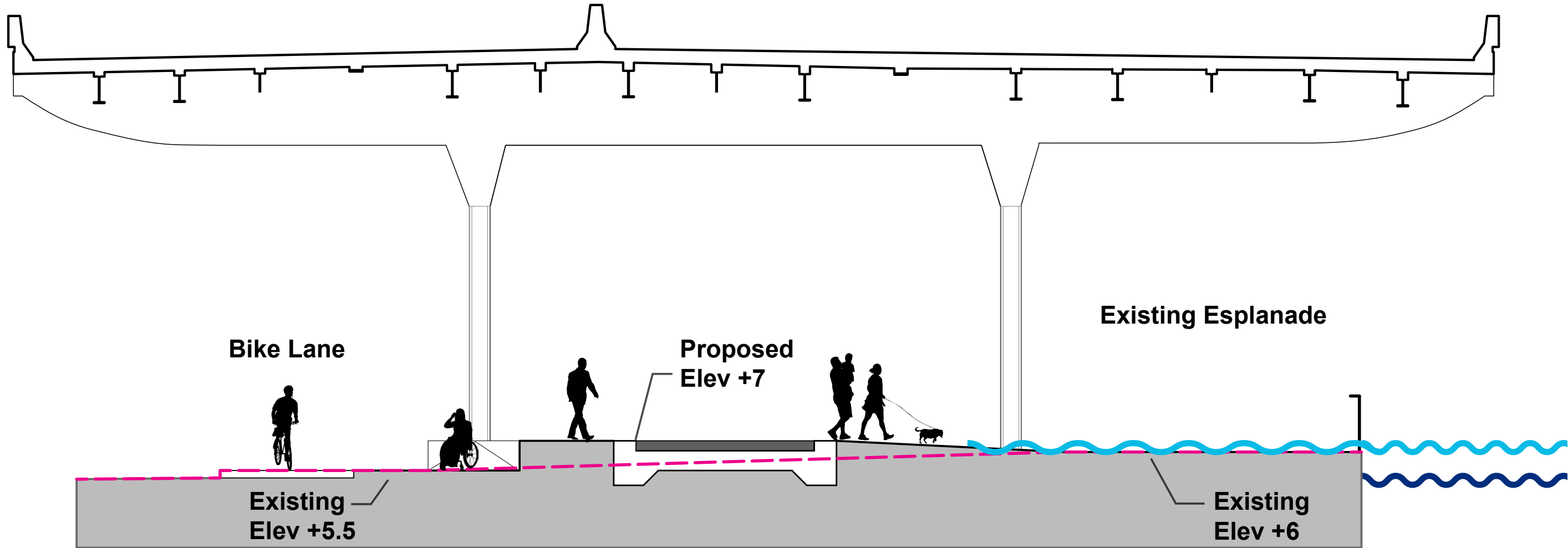
## Raised Platform to Address Sunny Day Tidal Flooding from SLR





# 3 Design Updates

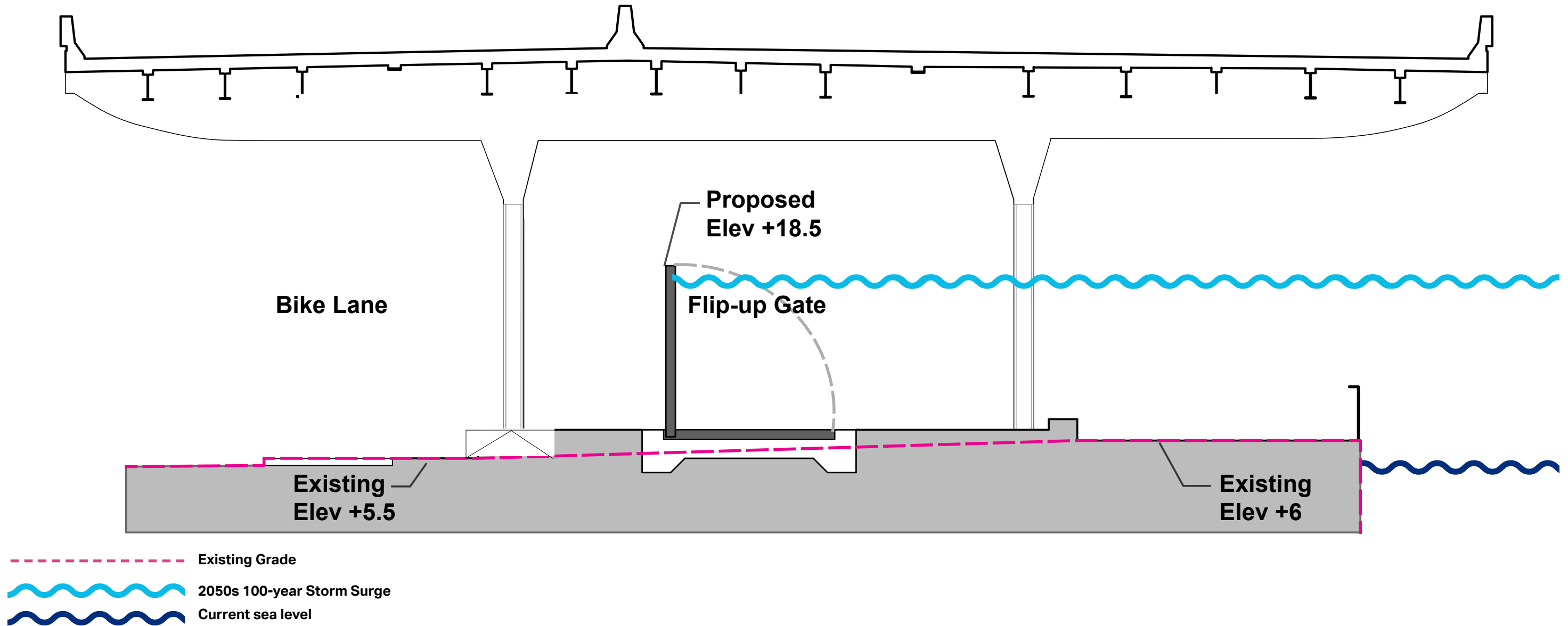
## Raised Platform to Address Sunny Day Tidal Flooding from SLR



- Existing Grade
- Future Sunny Day Tidal Flooding
- Current sea level

# 3 Design Updates

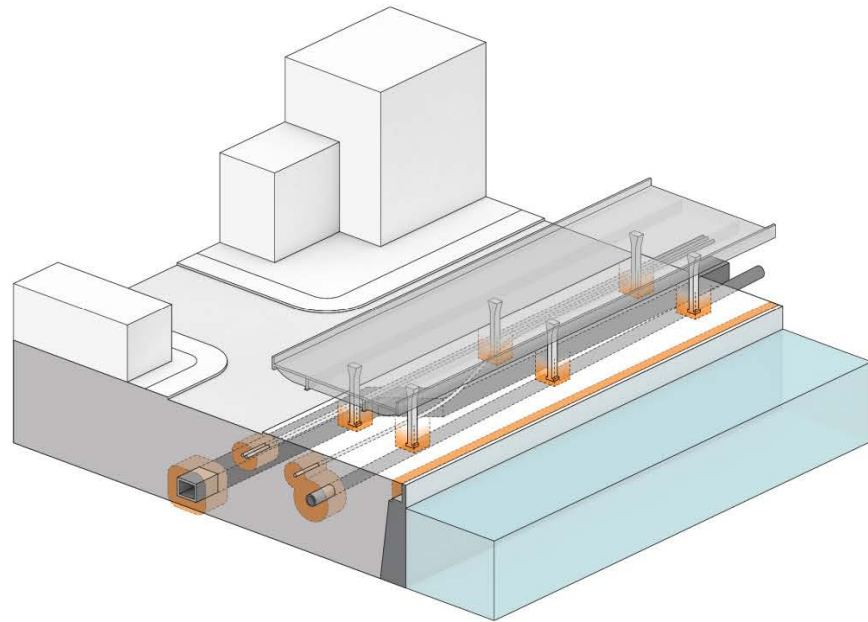
## Deployed Flood Infrastructure



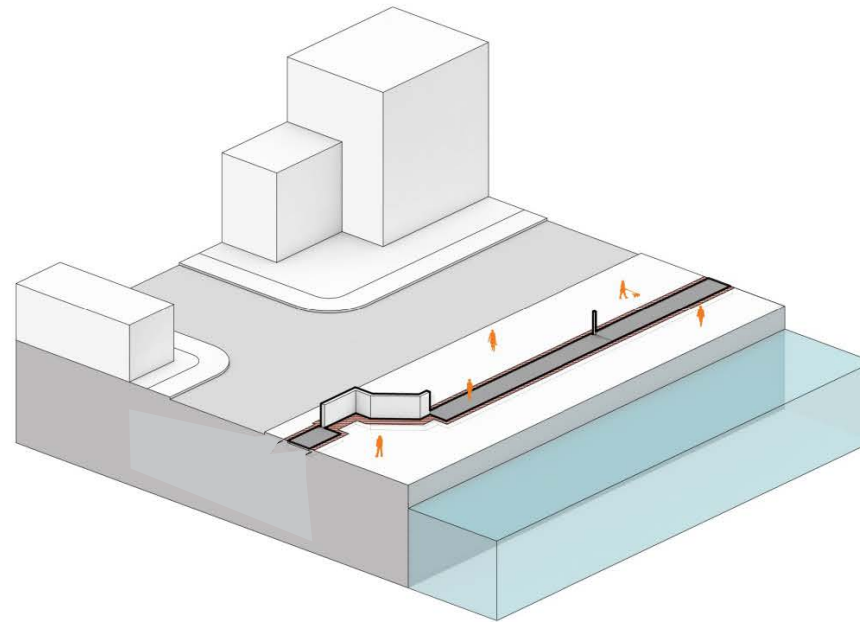
# 3 Design Updates

## Flood Protection Alignment - Location of Infrastructure

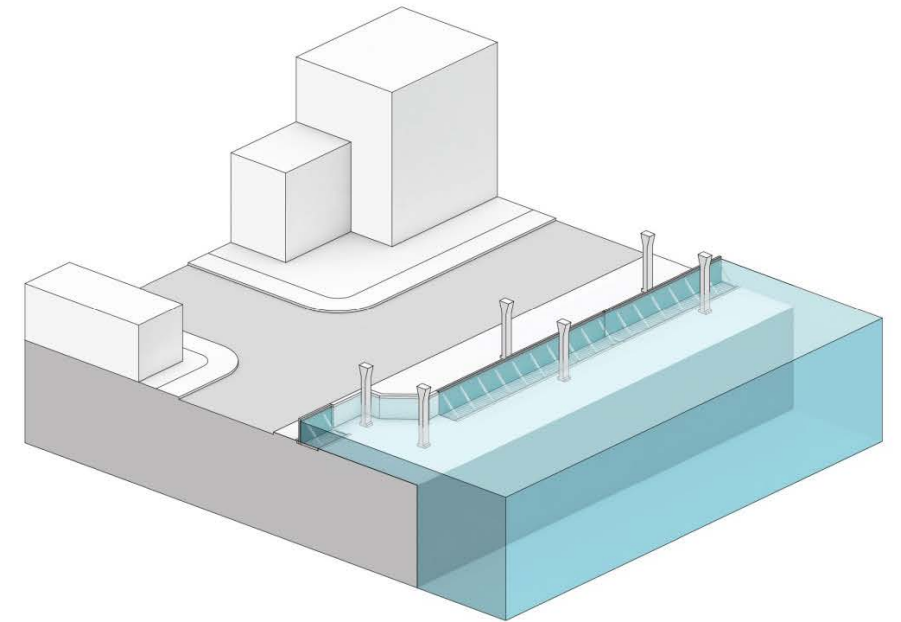
**Site Constraints**  
Existing Infrastructure



**Line of Protection**  
Sunny Day

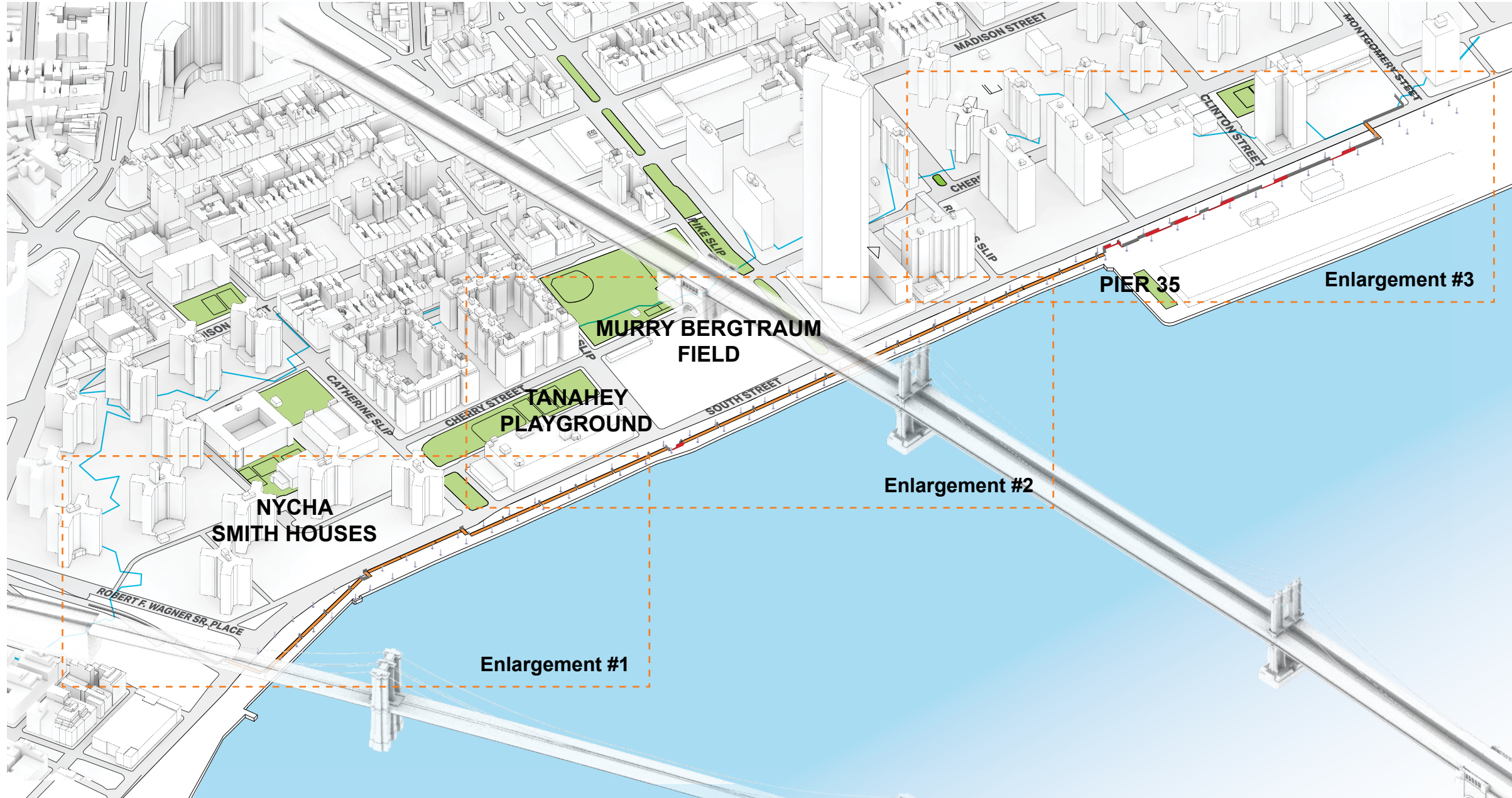


**Line of Protection**  
Deployed



# ③ Design Updates

## Flood Protection Alignment

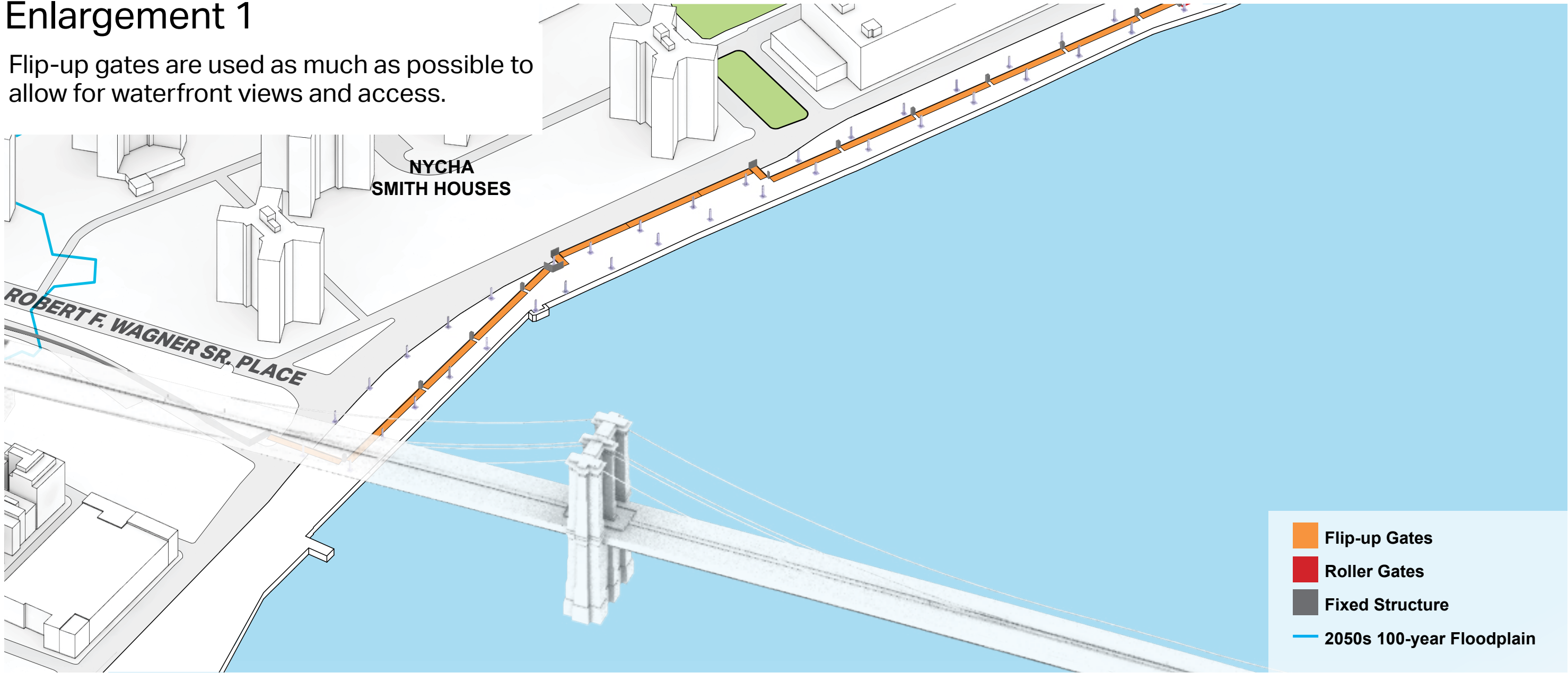


- Flip-up Gates
- Roller Gates
- Fixed Structure
- 2050s 100-year Floodplain

# 3 Design Updates

## Enlargement 1

Flip-up gates are used as much as possible to allow for waterfront views and access.

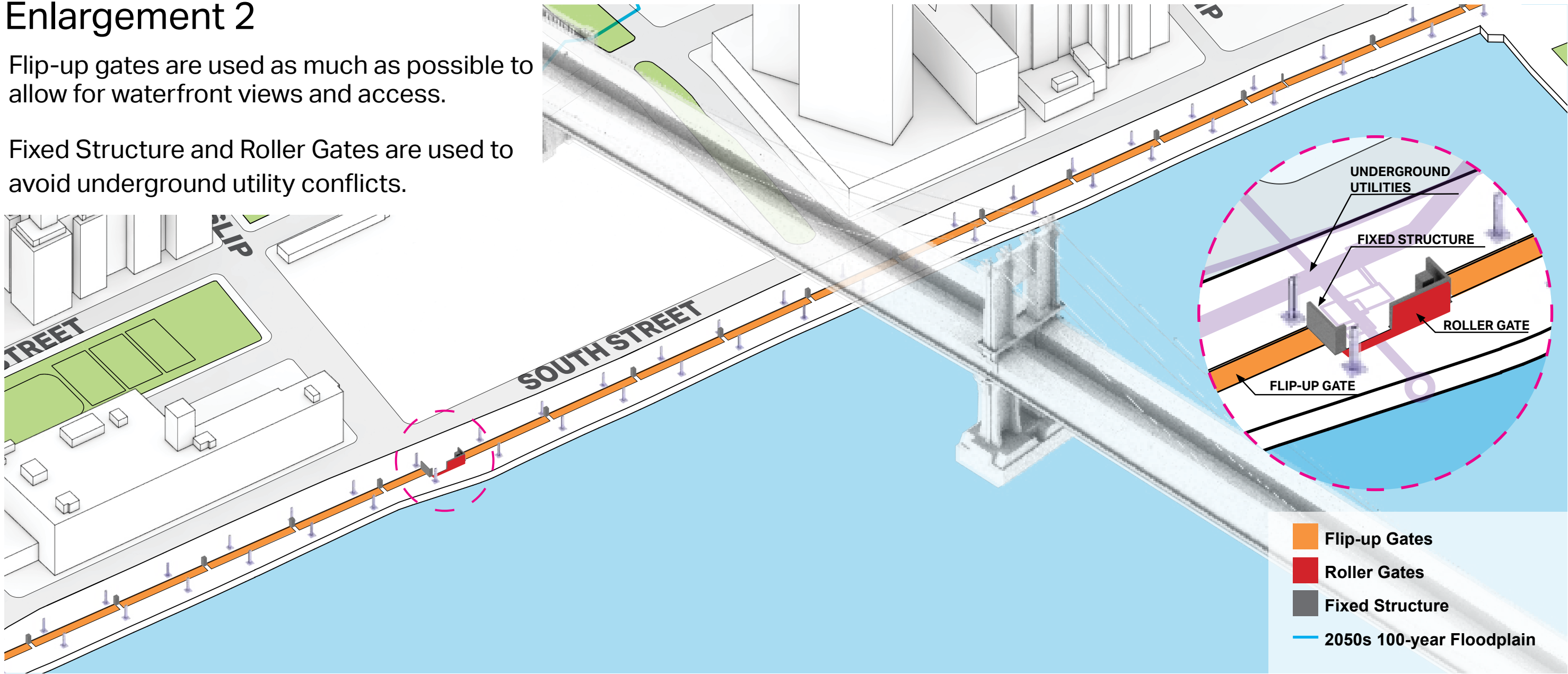


# 3 Design Updates

## Enlargement 2

Flip-up gates are used as much as possible to allow for waterfront views and access.

Fixed Structure and Roller Gates are used to avoid underground utility conflicts.



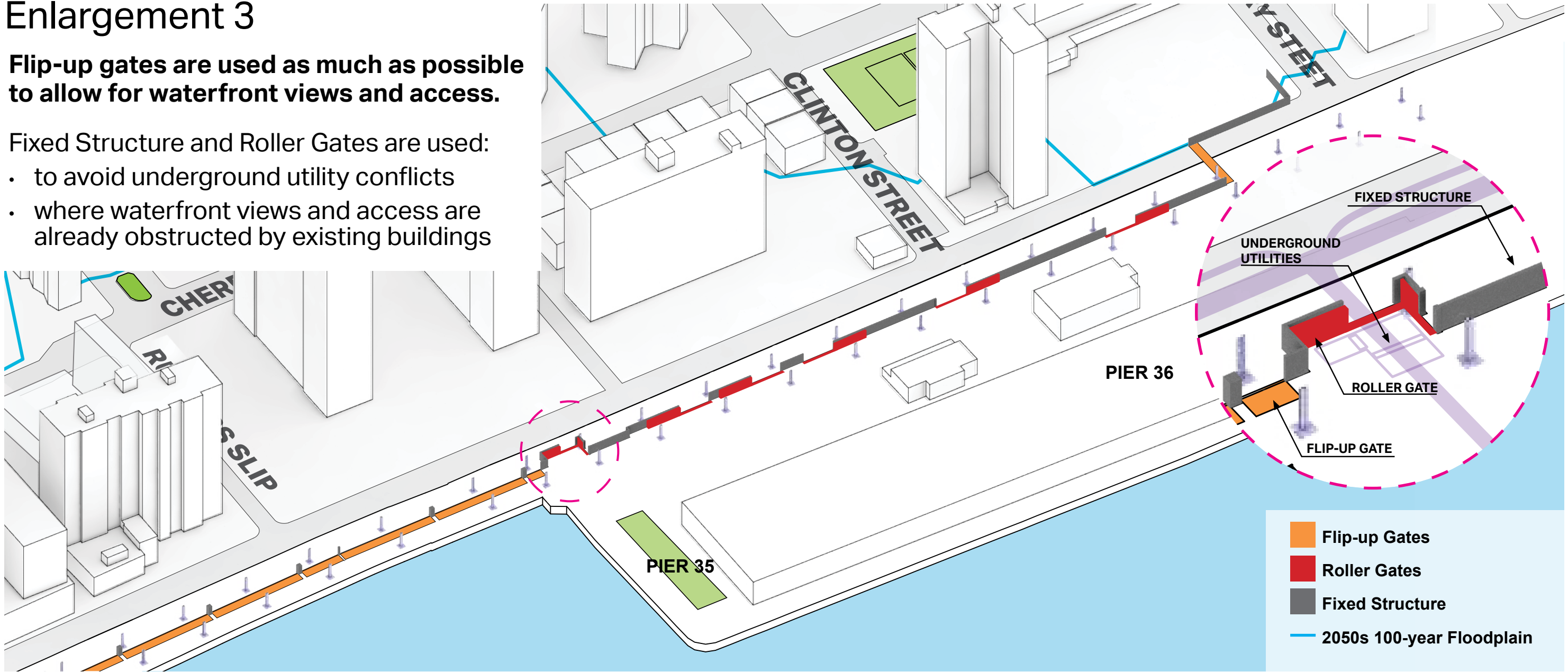
# 3 Design Updates

## Enlargement 3

Flip-up gates are used as much as possible to allow for waterfront views and access.

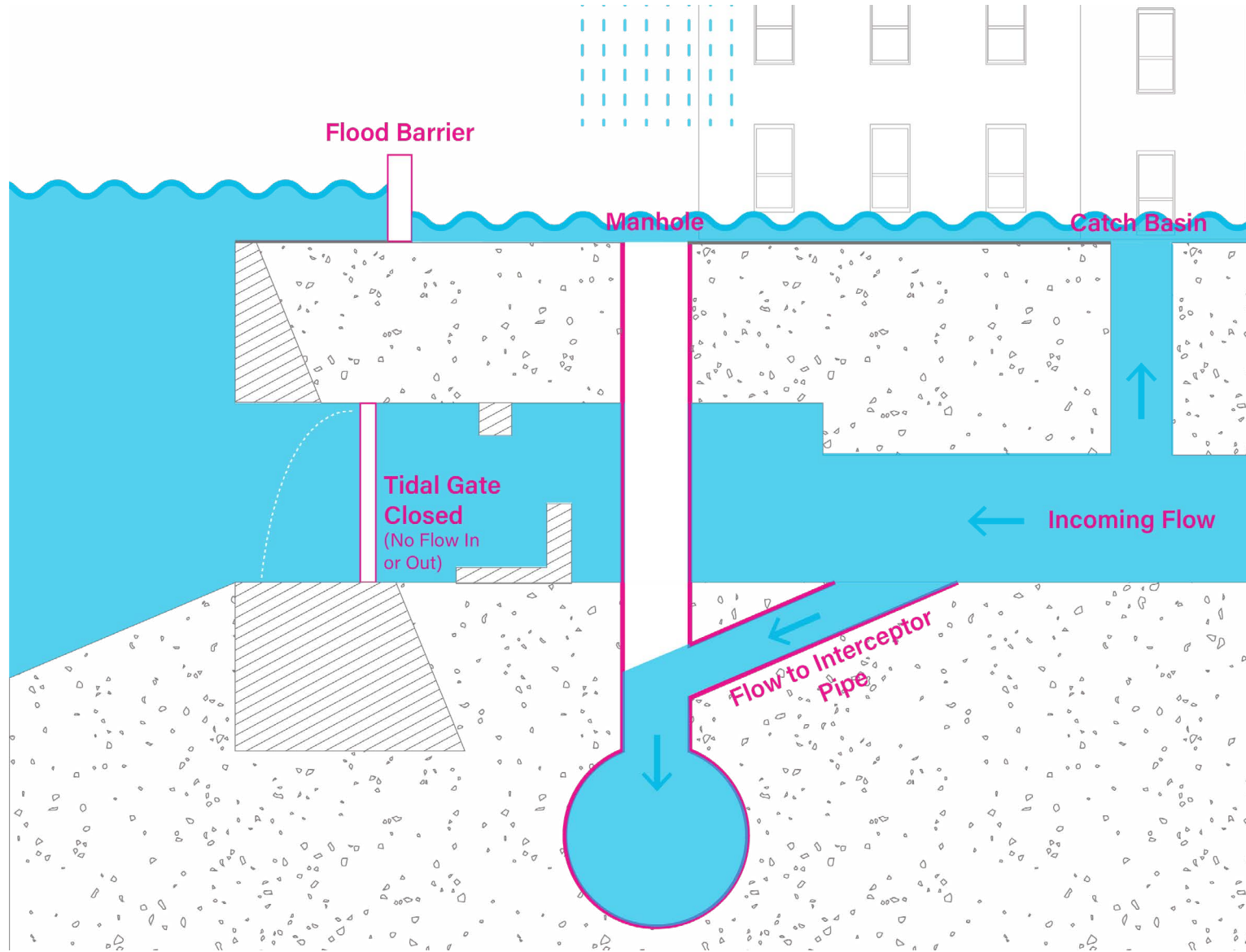
Fixed Structure and Roller Gates are used:

- to avoid underground utility conflicts
- where waterfront views and access are already obstructed by existing buildings



# 3 Design Updates

## BMCR Without Drainage Intervention

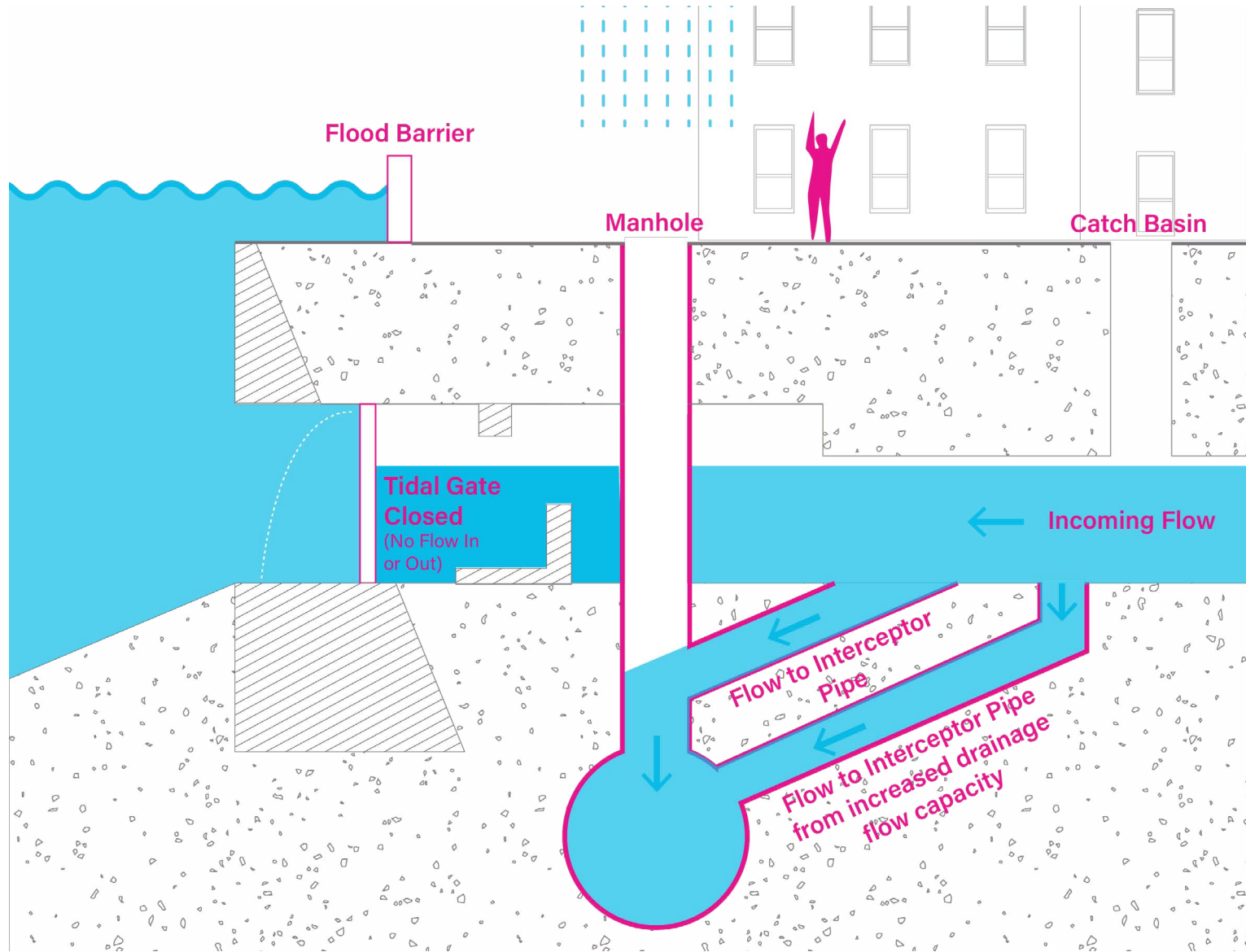


Storm surge and sea level rise decrease the system's ability to discharge, leading to **street and basement flooding.**



# 3 Design Updates

## BMCR With Drainage Intervention



The proposed drainage system will allow **additional flow capacity** to the interceptor pipe, **reducing the risk of street and basement flooding.**

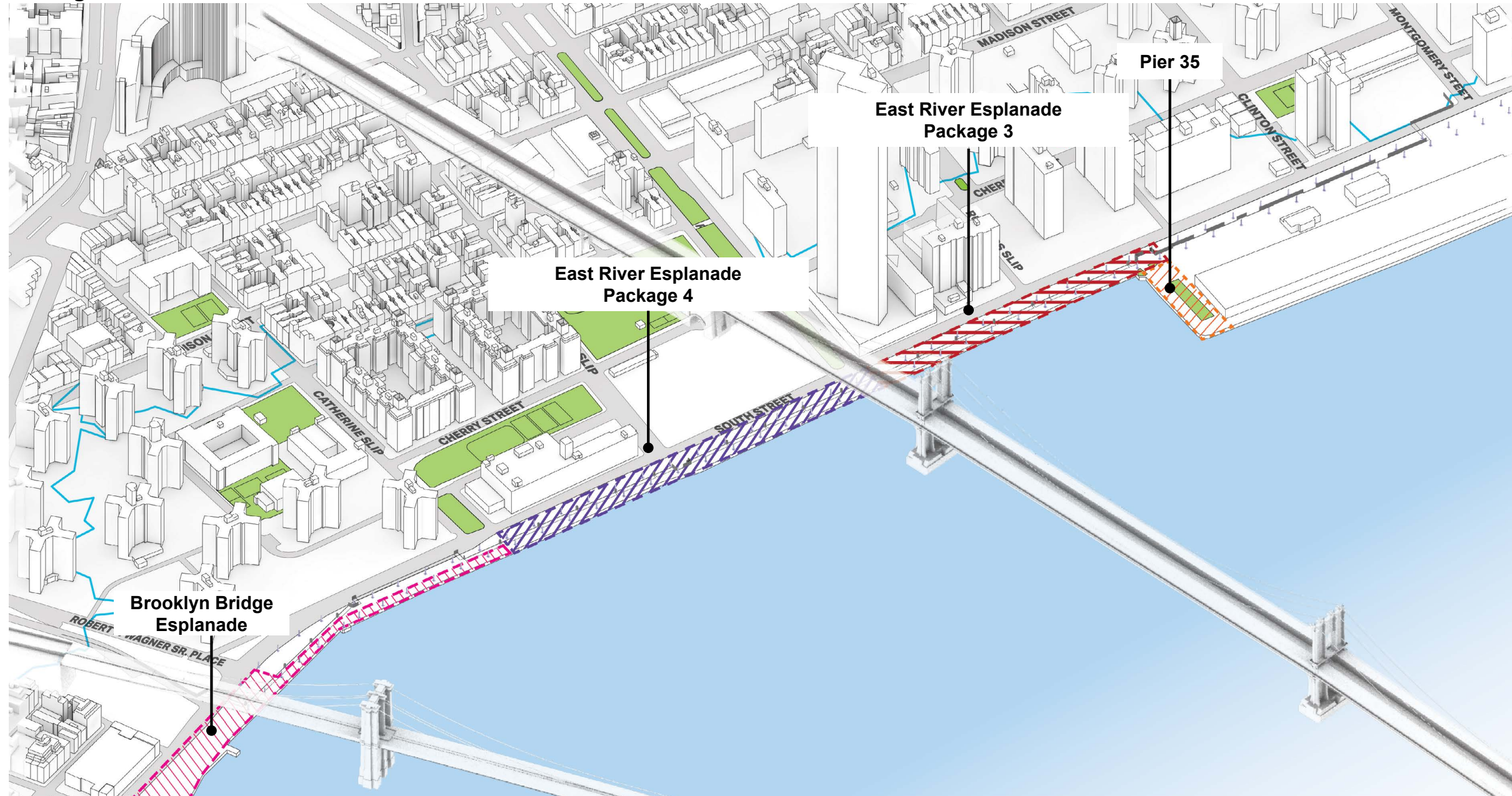
### 3 Design Updates

The BMCR and ESCR **drainage systems will be connected** so that stormwater flows to the Manhattan Pump Station and gets pumped to and treated at the Newtown Creek Wastewater Treatment Plant.



# 3 Design Updates

## Project Coordination



# 3 Design Updates

## Existing and Planned Public Amenities



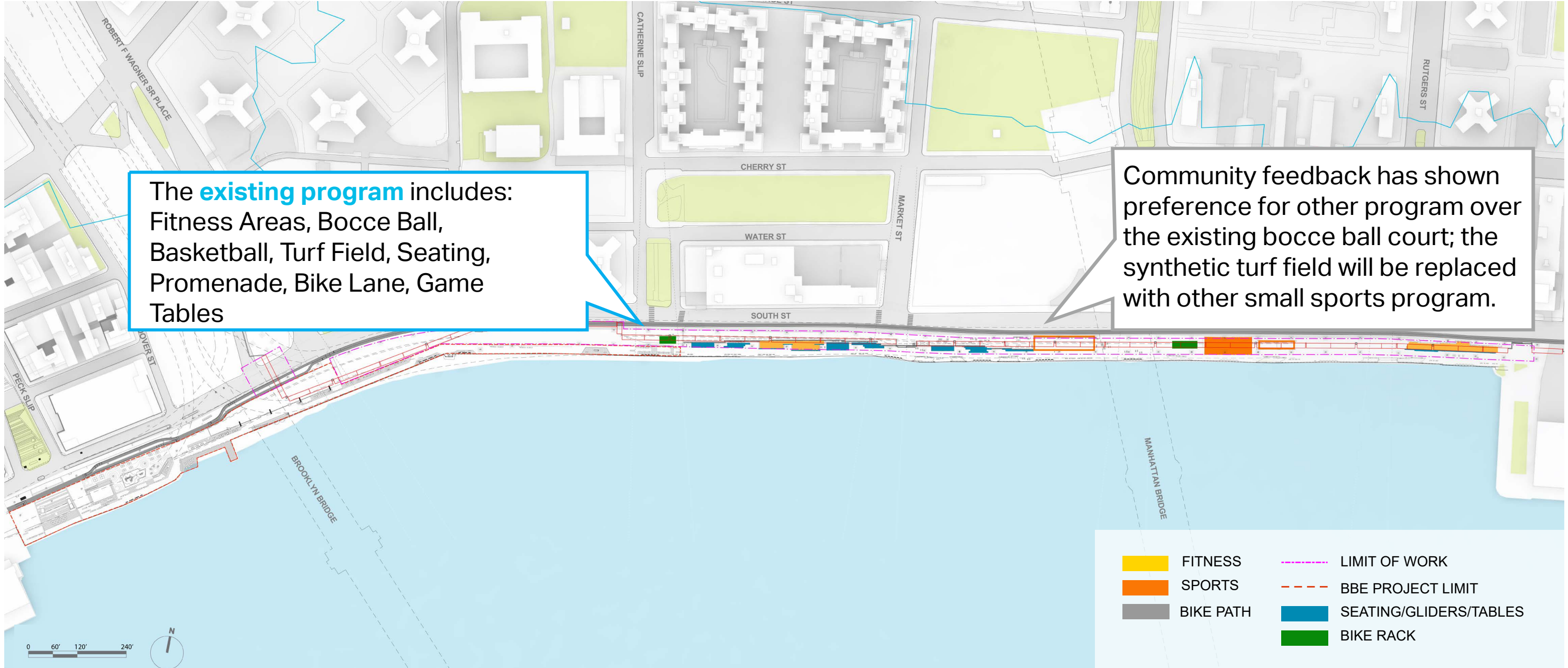
# ③ Design Updates

2016-2018 Community Input



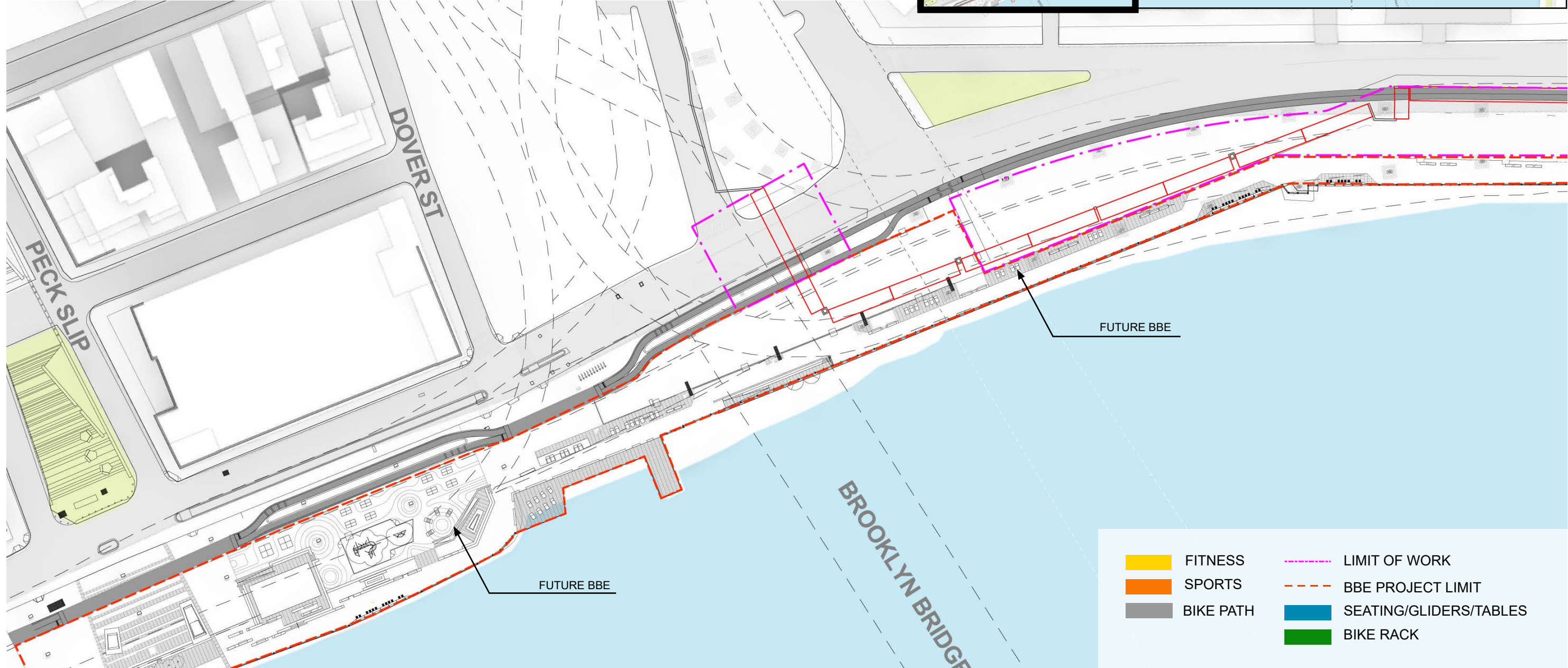
# 3 Design Updates

## Impacted Program to Replace or Remove



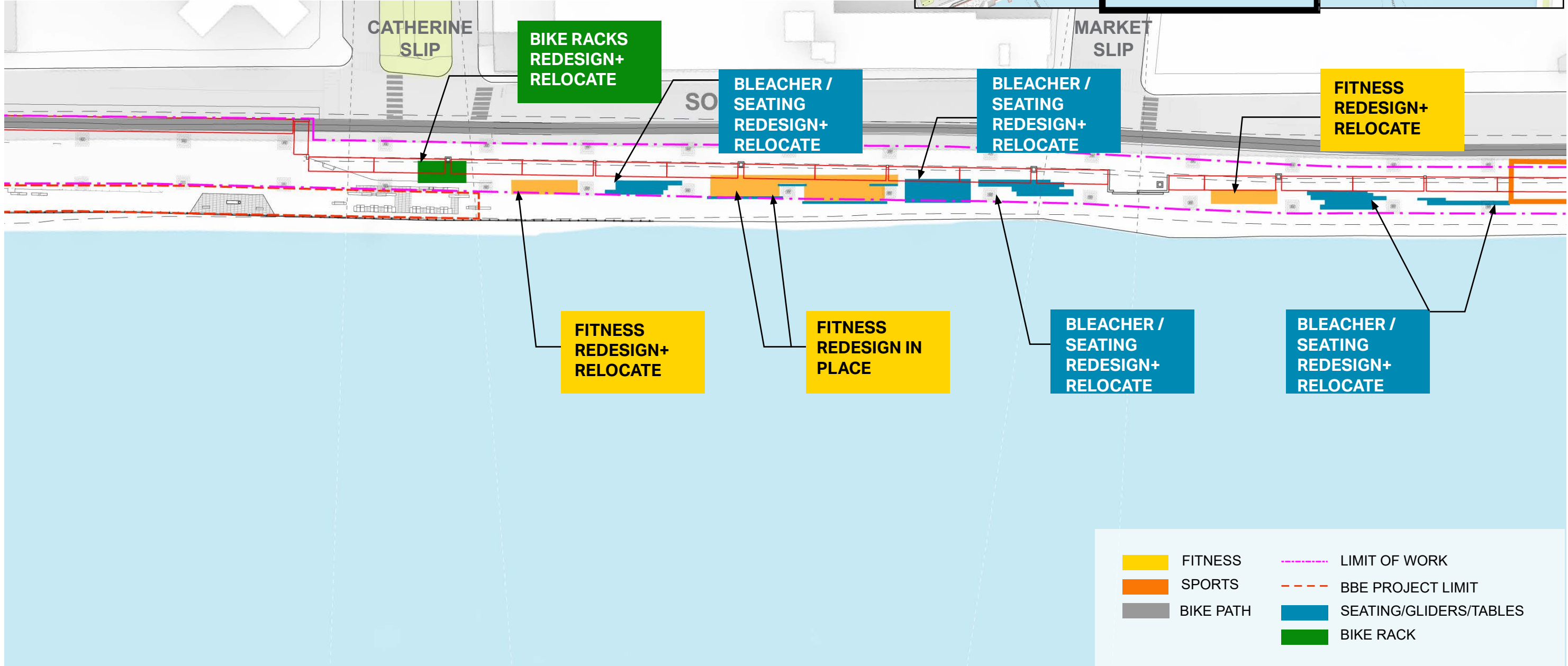
# 3 Design Updates

Impacted Program to Replace or Remove



# 3 Design Updates

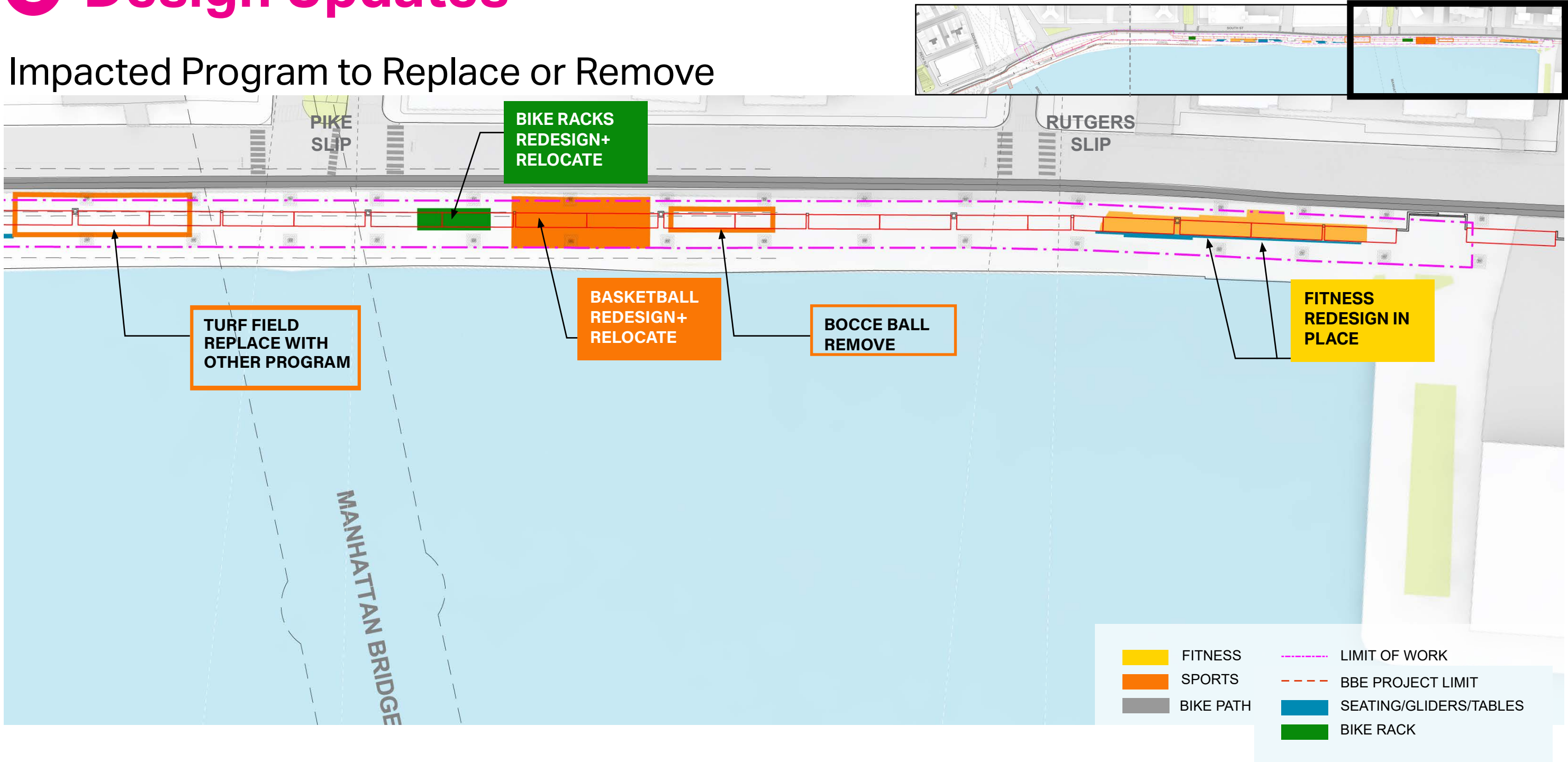
Impacted Program to Replace or Remove





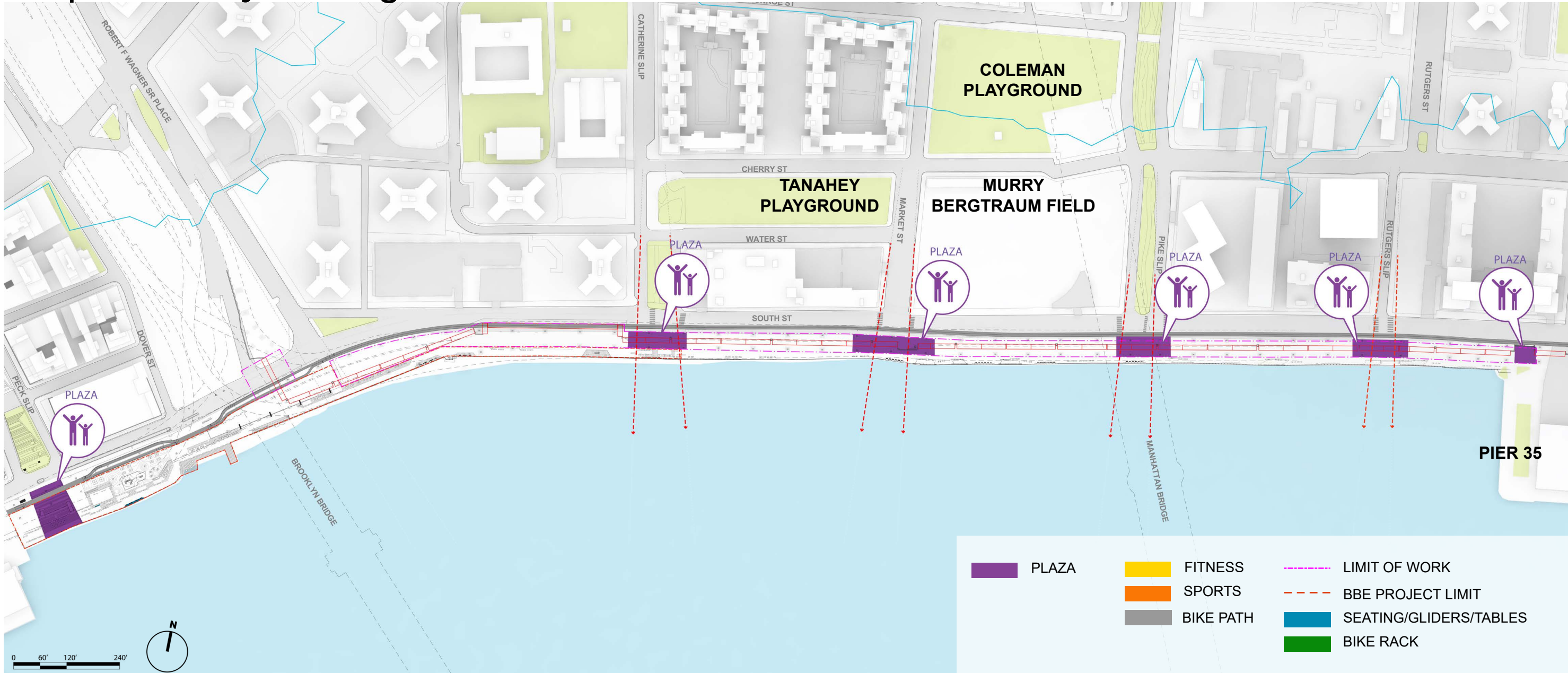
# 3 Design Updates

## Impacted Program to Replace or Remove



# ③ Design Updates

## Proposed Project Program



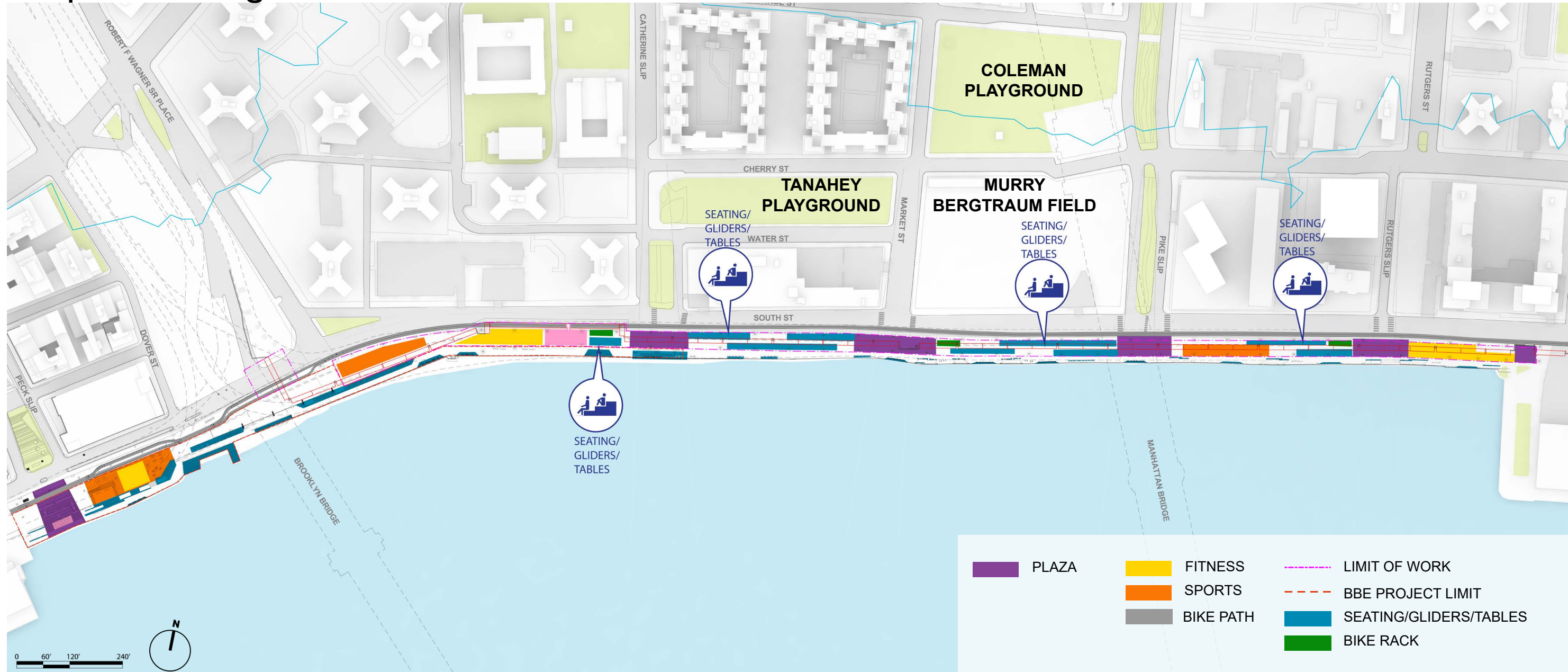
# ③ Design Updates

## Proposed Project Program



# ③ Design Updates

## Proposed Program



## 4 Open House

Please join us in **activities to learn** about the City's project to **prepare the Two Bridges neighborhood for climate change.**

# 4 Open House

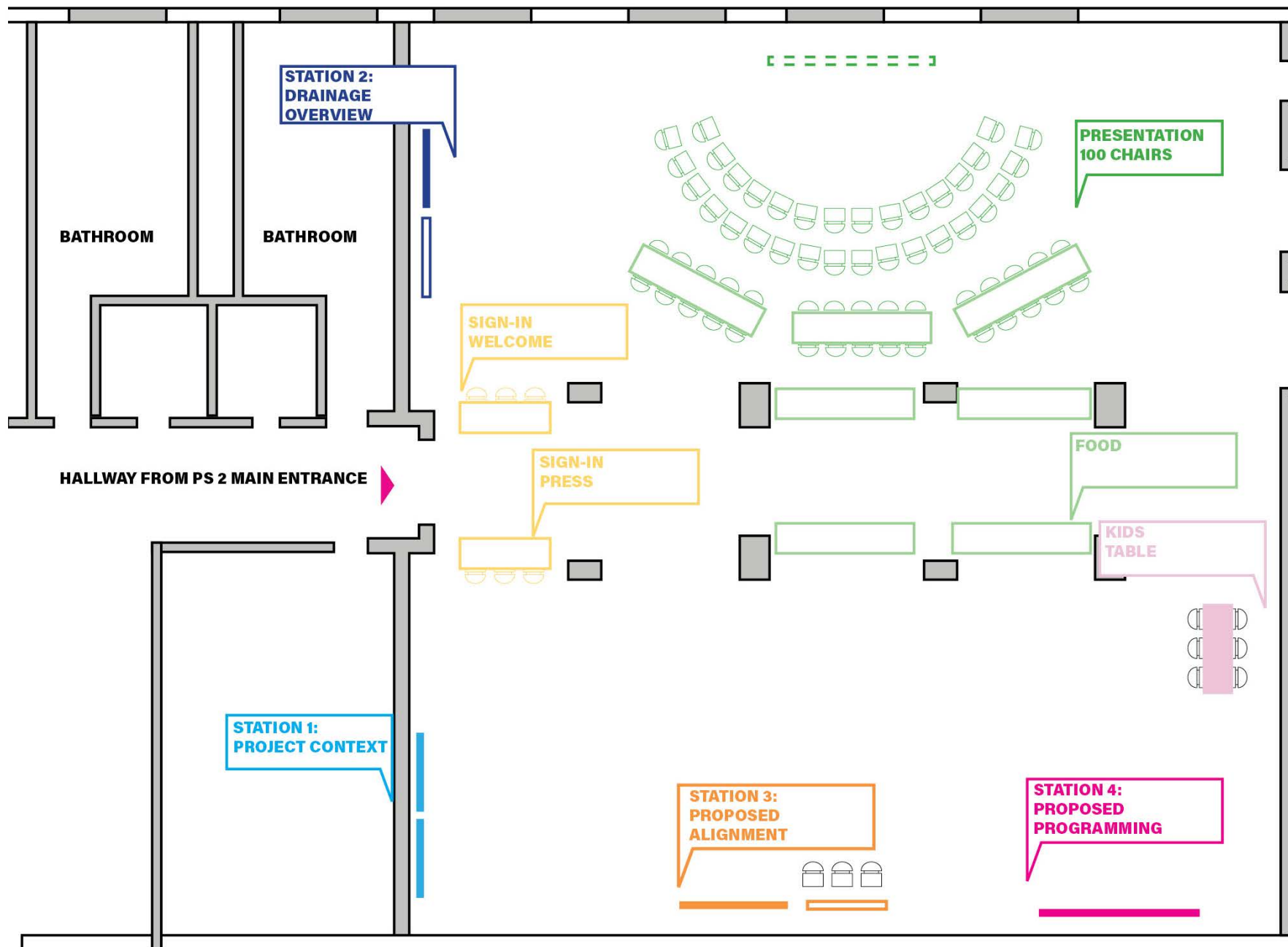
**Station 1:  
Project  
Context**

**Station 2:  
Drainage  
System  
Overview**

**Station 3:  
Proposed  
Alignment**

**Station 4:  
Proposed  
Programming**

# 4 Open House



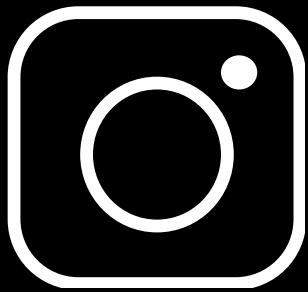
## KEY

- STATION 1:  
PROJECT RECAP
- STATION 2:  
DRAINAGE
- STATION 3:  
ALIGNMENT
- STATION 4:  
PROGRAM
- KIDS  
TABLE
- FOOD
- PRESENTATION
- SIGN-IN  
WELCOME
- Board 26x36"
- Board 36x48"
- PS Screen
- Rented Screen
- CHARS

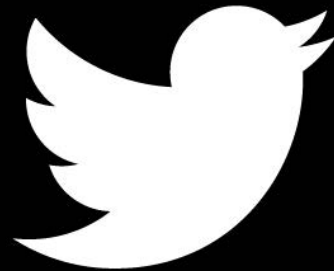
**STAY IN TOUCH:**



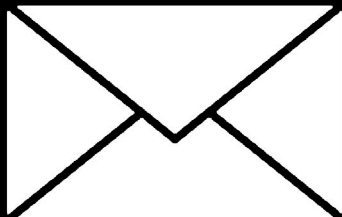
**[www.nyc.gov/lmcr](http://www.nyc.gov/lmcr)**



**@NYClimate**



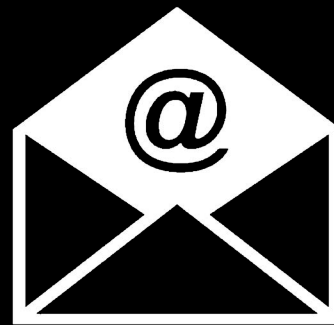
**@NYClimate**



**By Mail**  
**253 Broadway - 14th Floor**



**In Person**



**[lmcr@cityhall.nyc.gov](mailto:lmcr@cityhall.nyc.gov)**