

A young boy with light brown hair, wearing a white t-shirt and dark shorts with a yellow and black pattern, is running barefoot across a lush green lawn. He is smiling and looking towards the left. In the background, a dense line of tall, multi-story city buildings (likely in Manhattan) rises behind a row of green trees. Other people are visible in the distance, some sitting on the grass. The scene is bathed in the warm, golden light of late afternoon or early evening, with a soft glow on the right side of the image.

**#ONENYC**

**Our Resilient City**

**East Side Coastal Resiliency Project**  
**July 28th, 2015 - Project Area 2**



# **Community Design Workshop**

## **Project Area Two**

- 1. Project Goals Re-Cap**
- 2. Project Schedule**
- 3. Progress of Technical Studies**
- 4. Community Feedback and Design Studies**
- 5. Next Steps**
- 6. Table Activity**

# PROJECT GOALS RE-CAP

# WHAT IS THE EAST SIDE COASTAL RESILIENCY PROJECT?

The ESCR Project is being designed to mitigate future climate change and flood risks on Manhattan's East Side.



## THE EAST SIDE

NOTE: ILLUSTRATIVE DIAGRAM, NOT TO SCALE



# WHAT IS THE EAST SIDE COASTAL RESILIENCY PROJECT?

The ESCR Project is being designed to mitigate future climate change and flood risks on Manhattan's East Side.



## WHAT HAPPENED DURING SANDY?

NOTE: ILLUSTRATIVE DIAGRAM, NOT TO SCALE



# WHAT IS THE EAST SIDE COASTAL RESILIENCY PROJECT?

The ESCR Project is being designed to mitigate future climate change and flood risks on Manhattan's East Side.



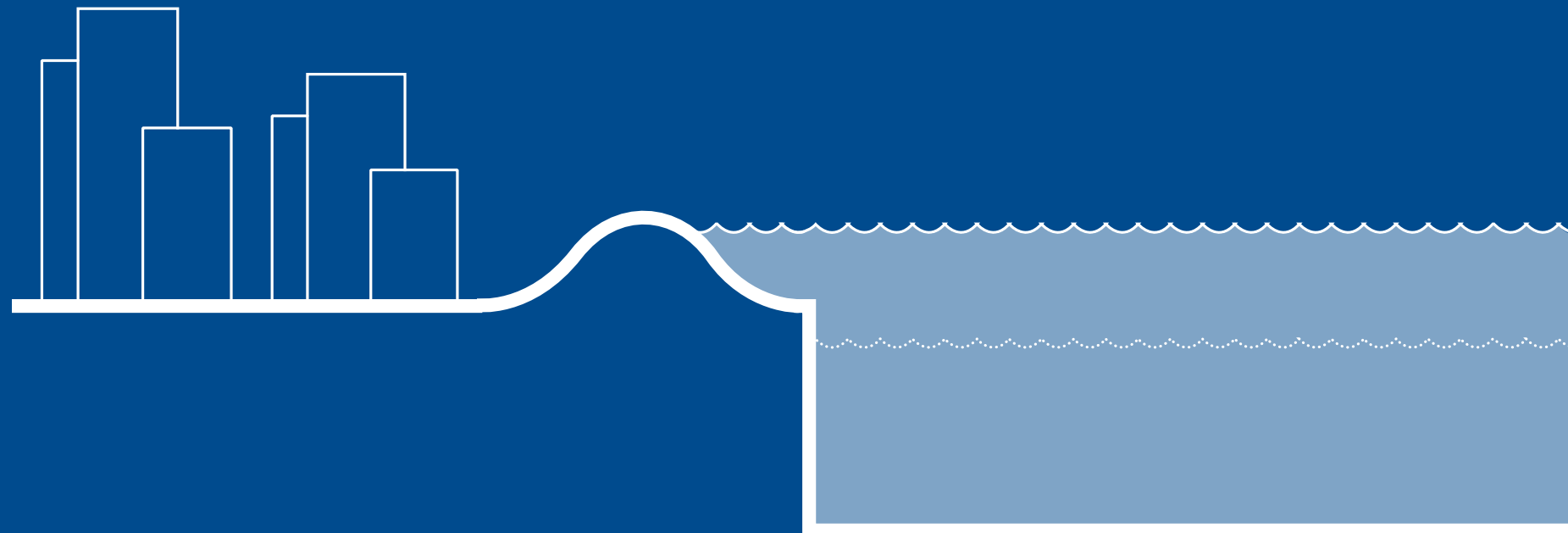
## BARRIER

NOTE: ILLUSTRATIVE DIAGRAM, NOT TO SCALE



# WHAT IS THE EAST SIDE COASTAL RESILIENCY PROJECT?

The ESCR Project is being designed to mitigate future climate change and flood risks on Manhattan's East Side.



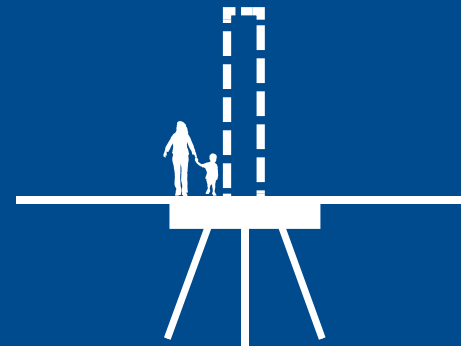
## FLOOD PROTECTION

NOTE: ILLUSTRATIVE DIAGRAM, NOT TO SCALE

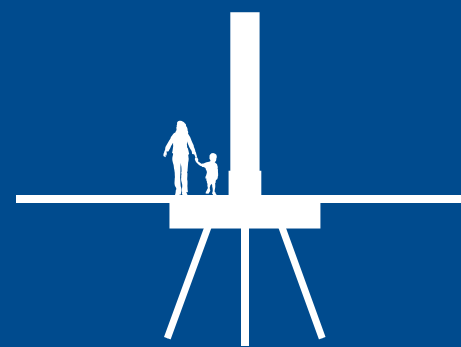


# TYPES OF FLOOD MITIGATION

Options for resiliency have varying forms and levels of reliability: from wide and passive earthen levees to narrow and even removable flood walls and deployable elements.



**DEPLOYABLE**



**FLOOD WALL**



**BERM / LEVEE**



# SOCIAL INFRASTRUCTURE

How can resiliency infrastructure double as places and spaces for people?



 PEOPLE



 RESILIENCY  
INFRASTRUCTURE



# SOCIAL INFRASTRUCTURE

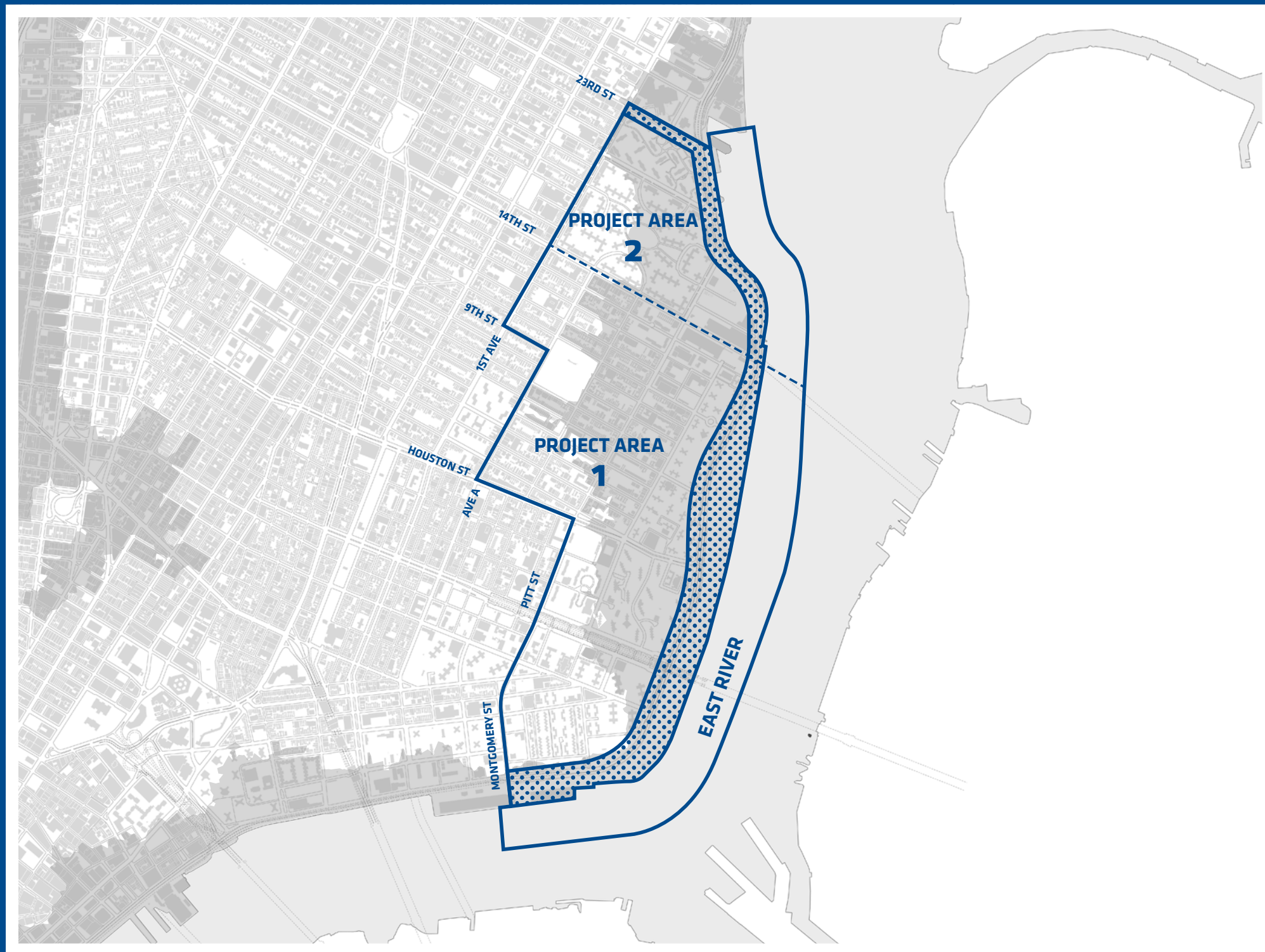
Integrating flood protection with improved access and open spaces throughout East River and Stuyvesant Cove Parks.



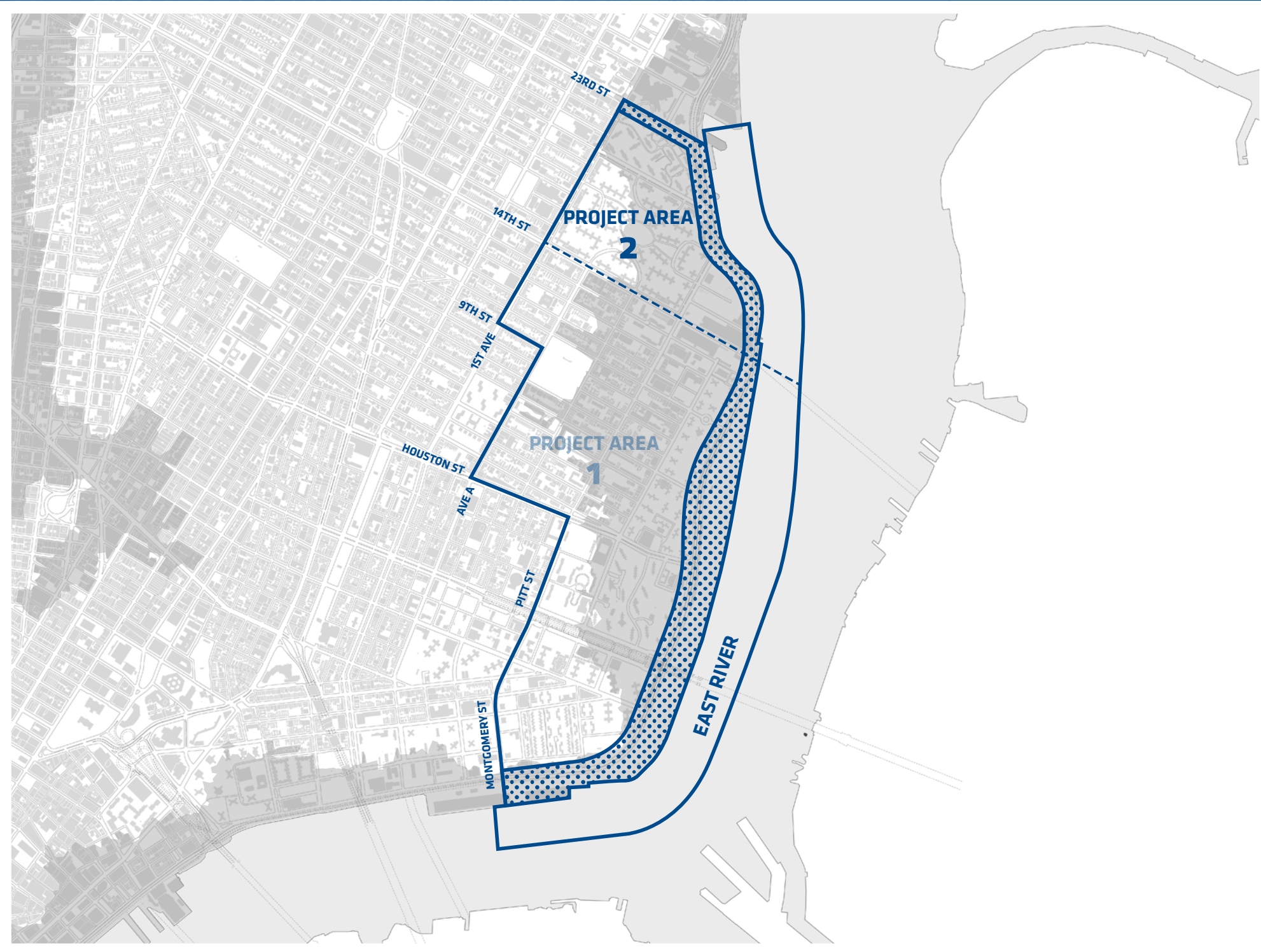


# ESCR PROJECT SCOPE

A \$335 million project to implement coastal protection from Montgomery Street to East 23rd Street.



# PROJECT AREA 2 - STUYVESANT COVE



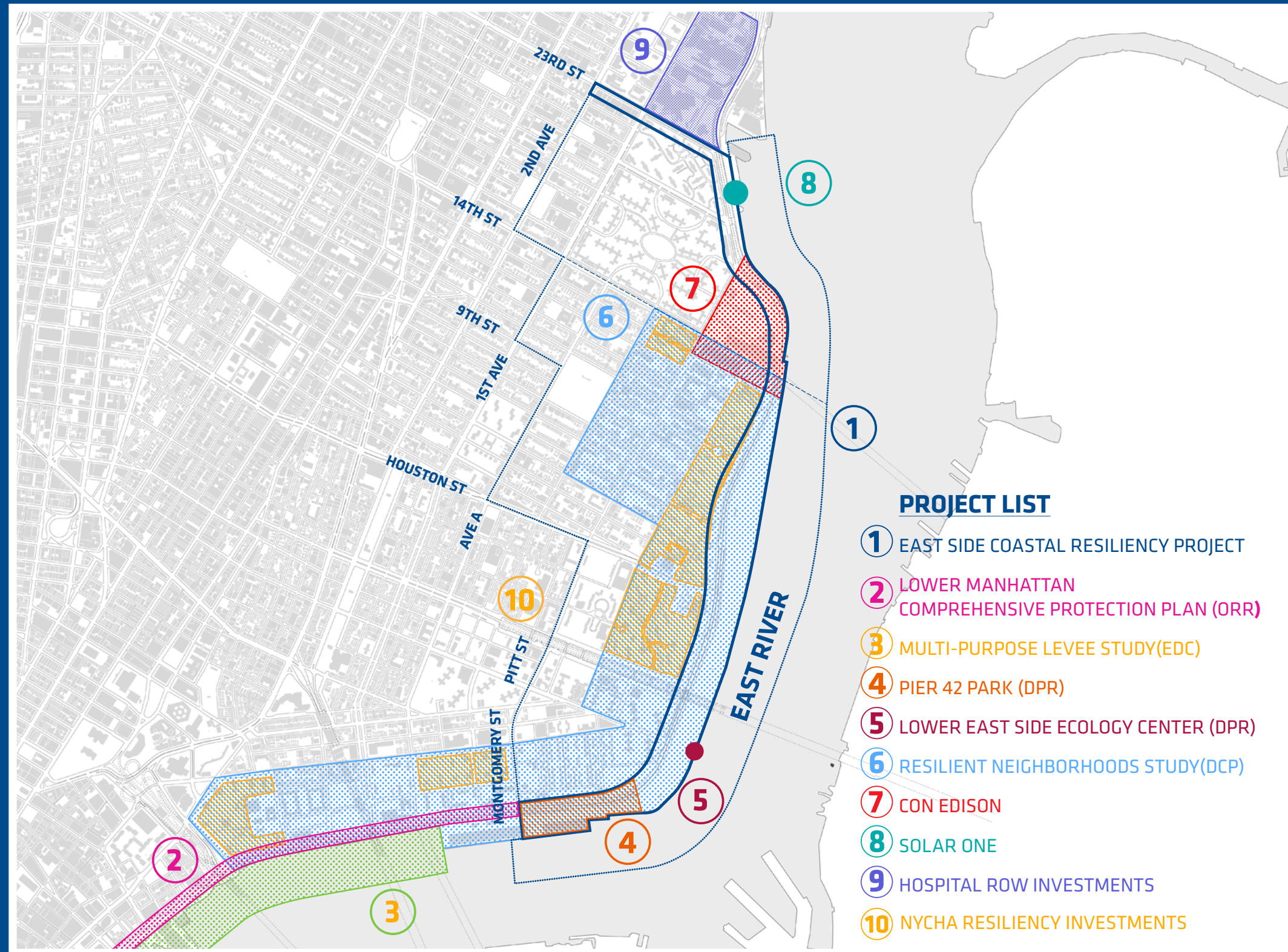
## PROJECT AREA 2 GOALS AND CHALLENGES:

- PROVIDE ROBUST FLOOD RISK MITIGATION
- PRESERVE SIGHTLINES AND CONNECTIONS TO THE WATERFRONT
- ANTICIPATE FUTURE PROGRAMMING AND USES IN STUYVESANT COVE
- STRENGTHEN NORTH-SOUTH ROUTES
- ADDRESS SAFETY AND ACCESS CONCERNS



# COMPLEMENTARY INITIATIVES

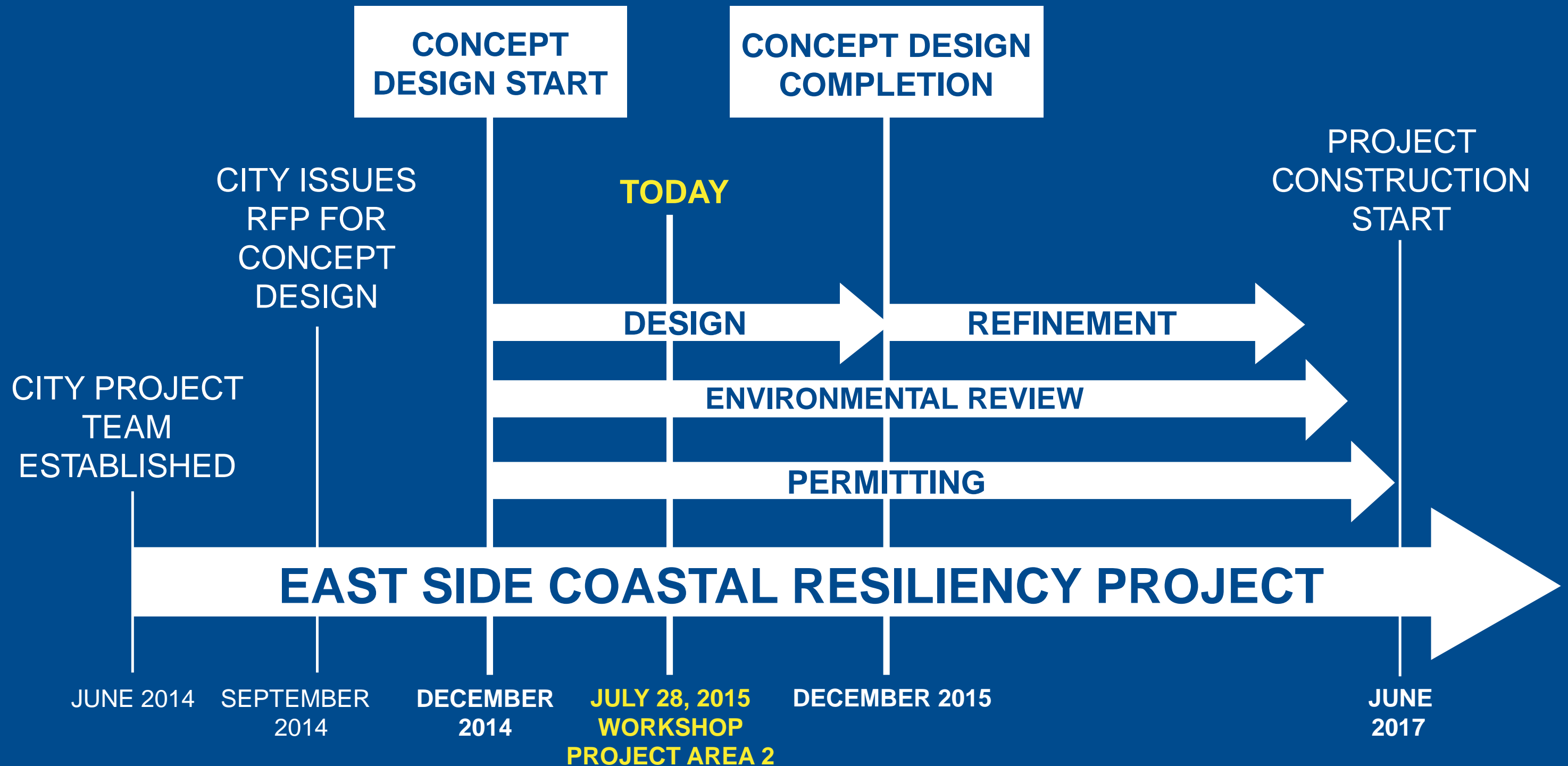
The ESCR Project will be coordinated with other initiatives in the area. City and State funds will be used to advance planning south of Montgomery St.



# PROJECT SCHEDULE

# PROJECT TIMELINE

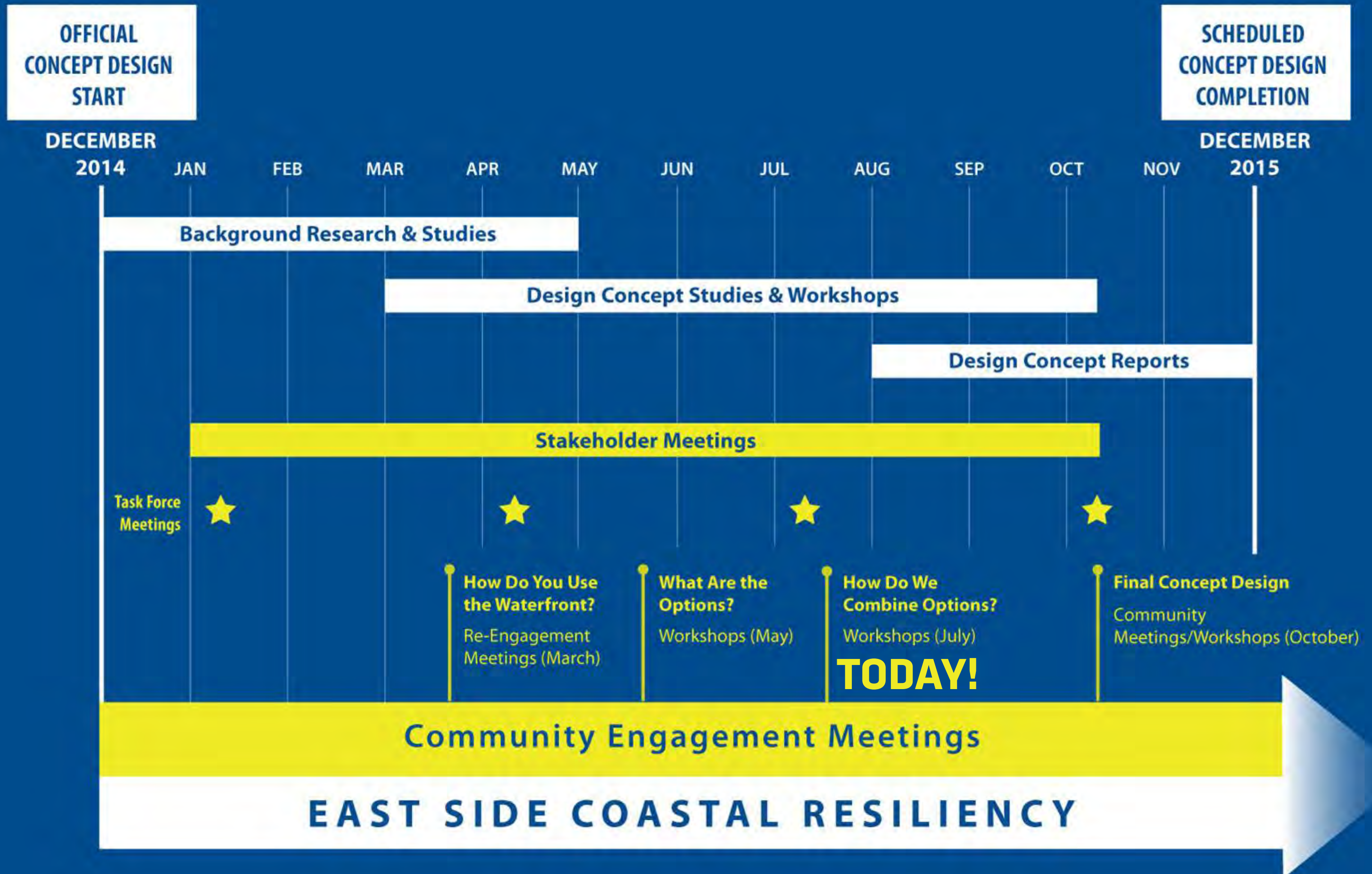
The ESCR Project has an ambitious timeline, now at approximately two-thirds of the way through Concept Design. Construction commencement is anticipated in mid-2017.





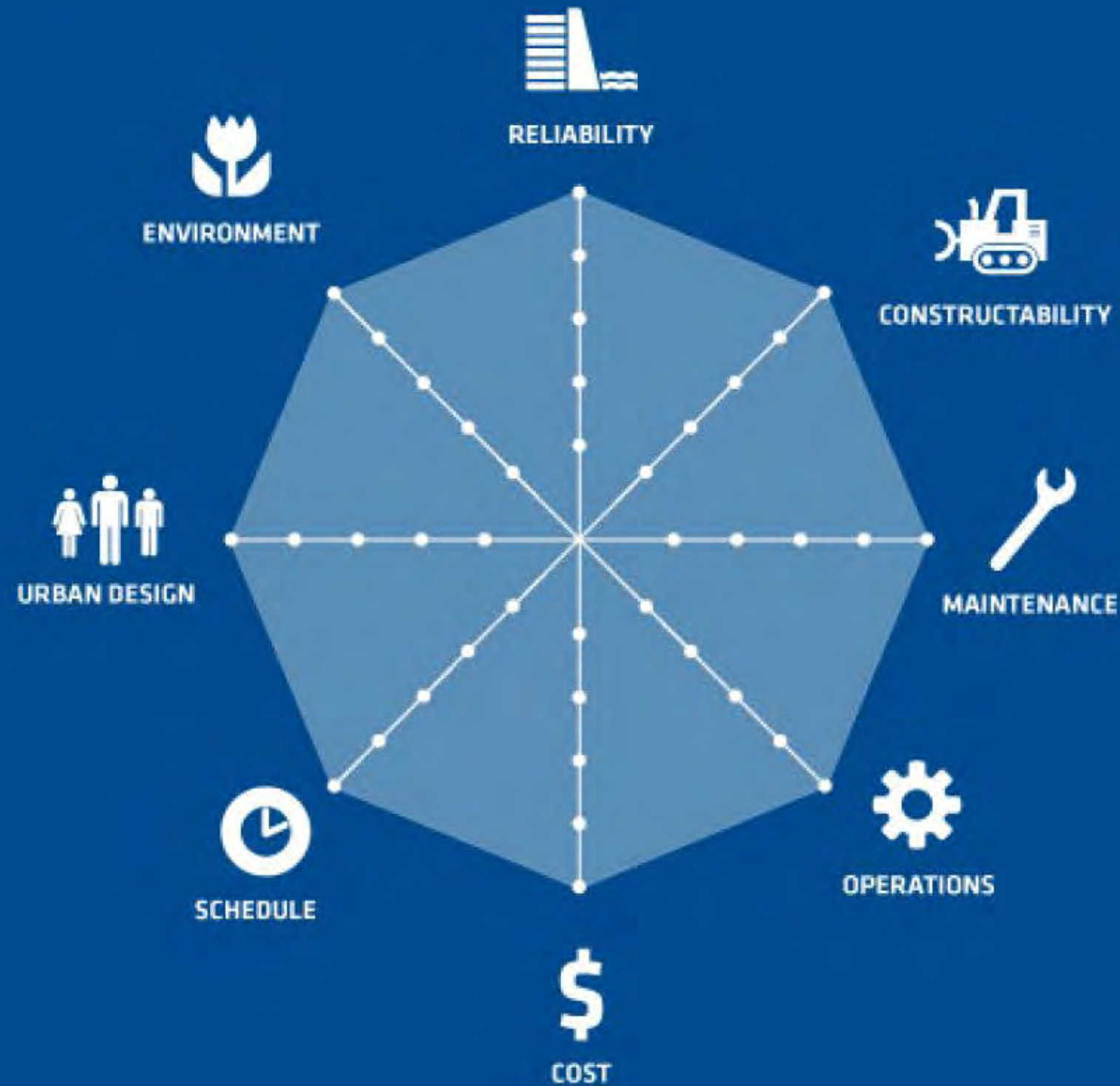
# ESCR CONCEPT DESIGN TIMELINE

Project Design Work & Community Engagement - Where are we now?



# EVALUATION CRITERIA

Each alternative will be evaluated for eight different criteria.



8 CRITERIA

# **PROGRESS OF TECHNICAL STUDIES**



# EXISTING CONDITIONS STUDIES - PROGRESS TO DATE

## Sewer Investigations

**95% - 100%**  
APRIL JULY



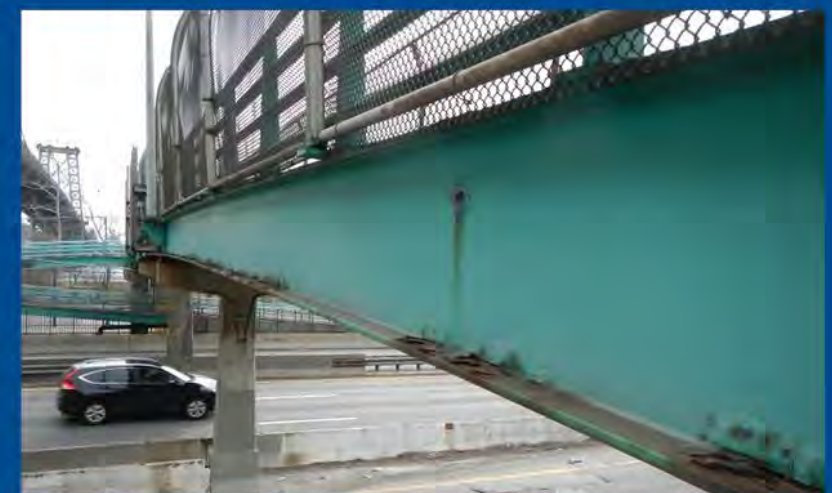
## Inspecting Waterfront Structures

**60% - 100%**



## Inspecting Bridges

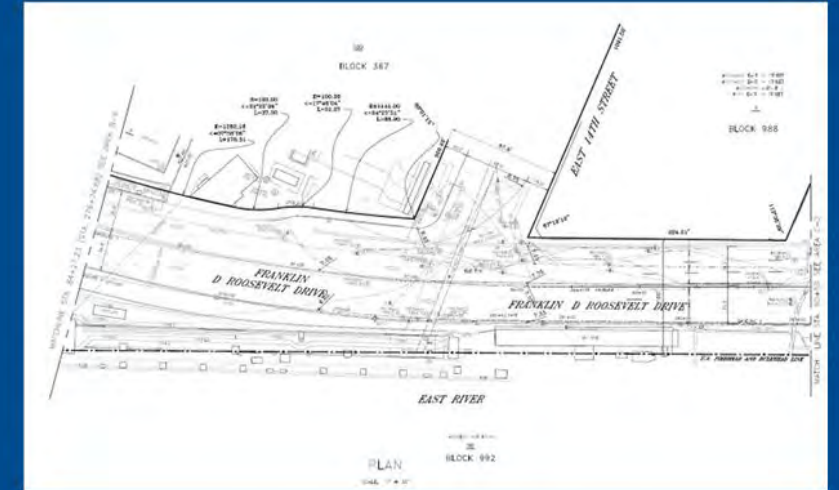
**60% - 100%**  
APRIL JULY



# EXISTING CONDITIONS STUDIES - PROGRESS TO DATE

## Surveying the Land

**95% - 97%**  
APRIL JULY



## Examining Flood Risk and Water Flow

**50% - 70%**  
APRIL JULY



## Testing the Soil

**10% - 70%**  
APRIL JULY





# EXISTING CONDITIONS STUDIES - PROGRESS TO DATE

## Studying Pedestrian and Bicycle Usage

**5% - 60%**  
APRIL JULY



## Making an Inventory of Existing Trees

**0% - 60%**  
APRIL JULY



# **COMMUNITY FEEDBACK AND DESIGN STUDIES**



# STAKEHOLDER ENGAGEMENT

Over 200 residents attended the second round of community engagement workshops on 05/19, 05/20, and 05/28.



**PROJECT AREA 1 WORKSHOP: MAY 28TH, CHURCH OF ST. BRIGID**



**PROJECT AREA 2 WORKSHOP: MAY 19TH, WASHINGTON IRVING HS**



# STAKEHOLDER ENGAGEMENT

In addition to the community engagement workshops and the CB3/CB6 Task Force meetings, the ESCR team is also collecting input from local CBOs and stakeholders.



## OPEN SPACE & RECREATION, TRANSPORTATION

CB3 & CB6

Hester St Collaborative

Lower East Side Ecology Centre

OLS Sparkle Little League

Partnerships for Parks

Solar One

Transportation Alternatives



## NYCHA TENANT ASSOCIATIONS

Baruch

Campos Plaza

Riis

Rutgers

Smith

Vladeck

Wald



**PROJECT AREA TWO**  
**DESIGN ANALYSIS AND STUDIES**



# SEGMENT A - CON-ED NARROWS



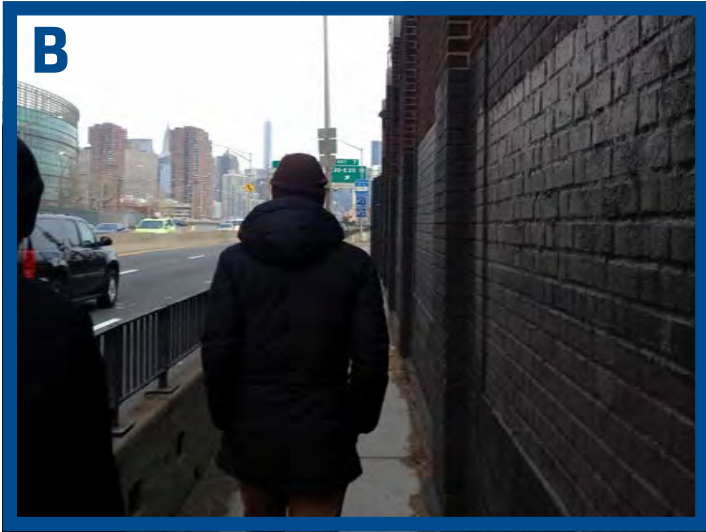


# SEGMENT A - CON-ED NARROWS

## EXISTING CONDITIONS



FDR



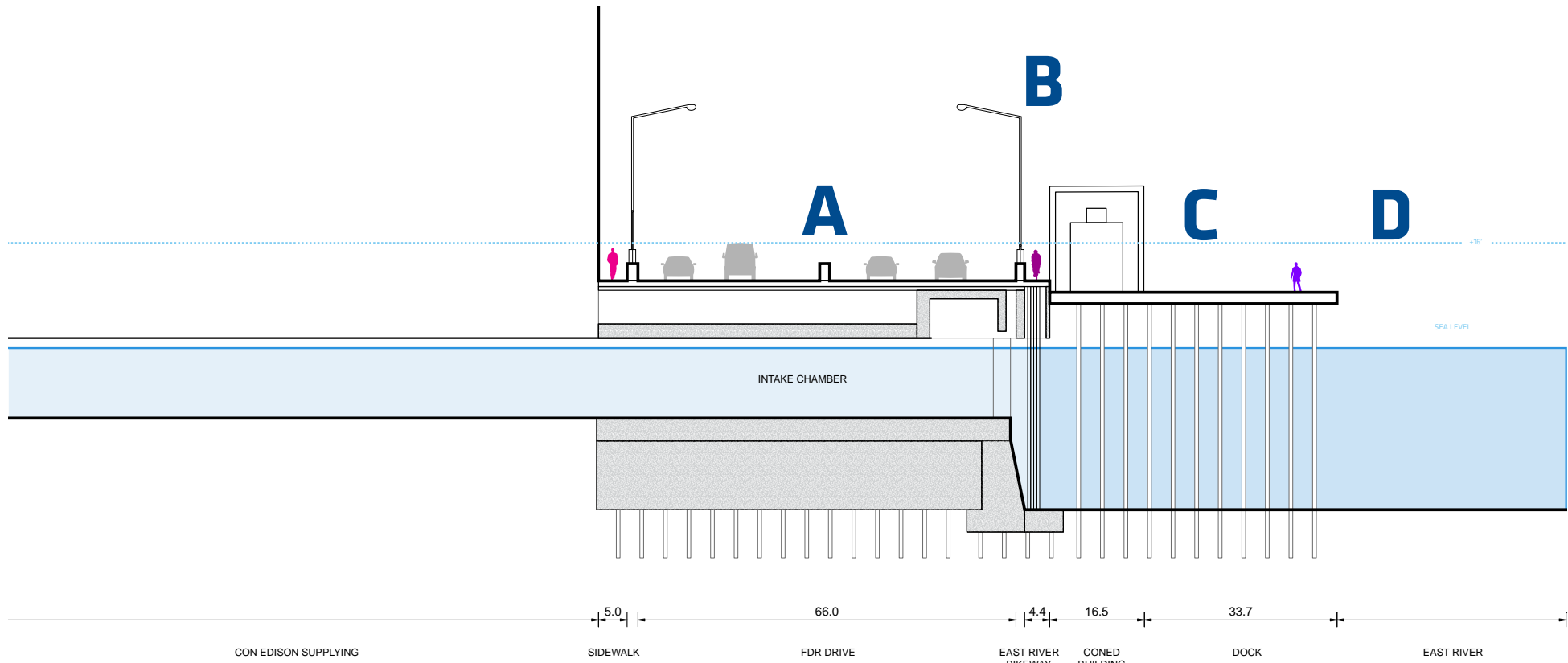
30" NARROWS ALONG  
CON-ED HEAD HOUSE



CON-ED RECEIVING PIER



VIEWS ACROSS EAST RIVER





# SEGMENT B - CAPT. PATRICK J. BROWN WALKWAY





# SEGMENT B - CAPT. PATRICK J. BROWN WALKWAY

## EXISTING CONDITIONS



CON-ED PARKING  
LOT



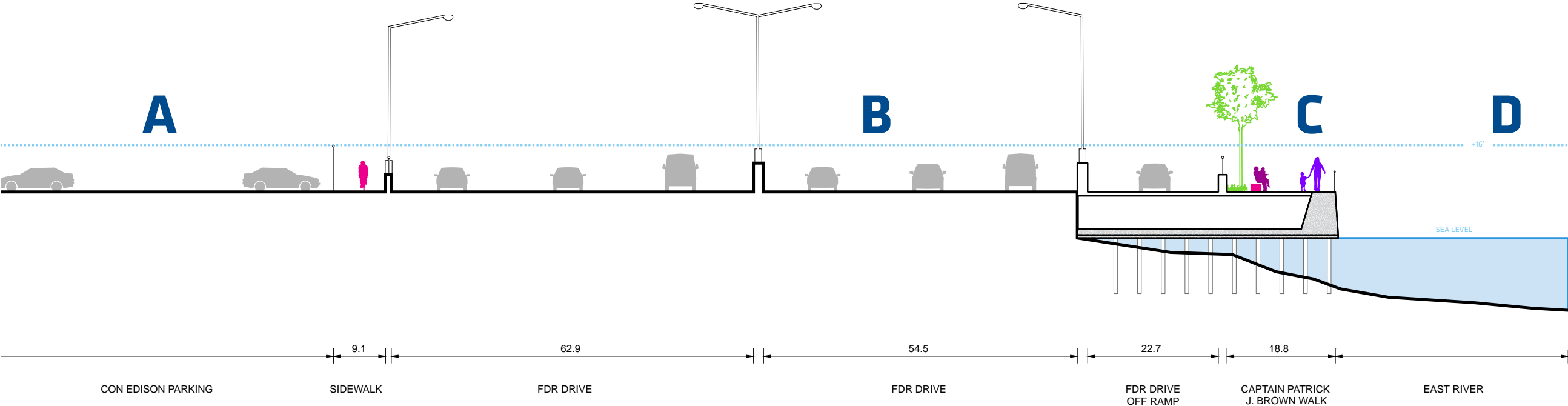
FDR DRIVE



CAPT. PATRICK J BROWN WALK

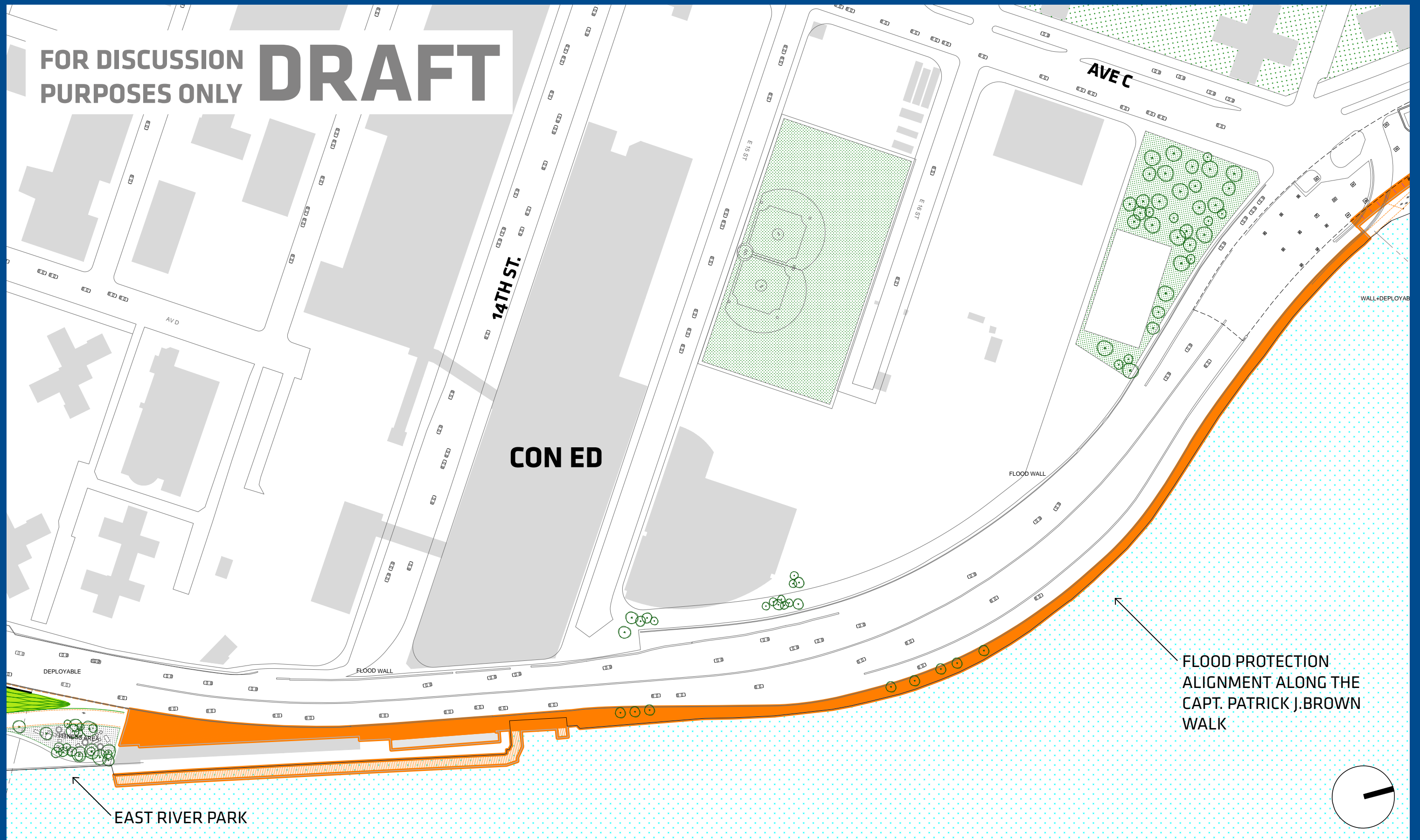


DISTANT VIEWS TO U.N.  
AND EAST RIVER



# SEGMENTS A+B - ALIGNMENT STUDY

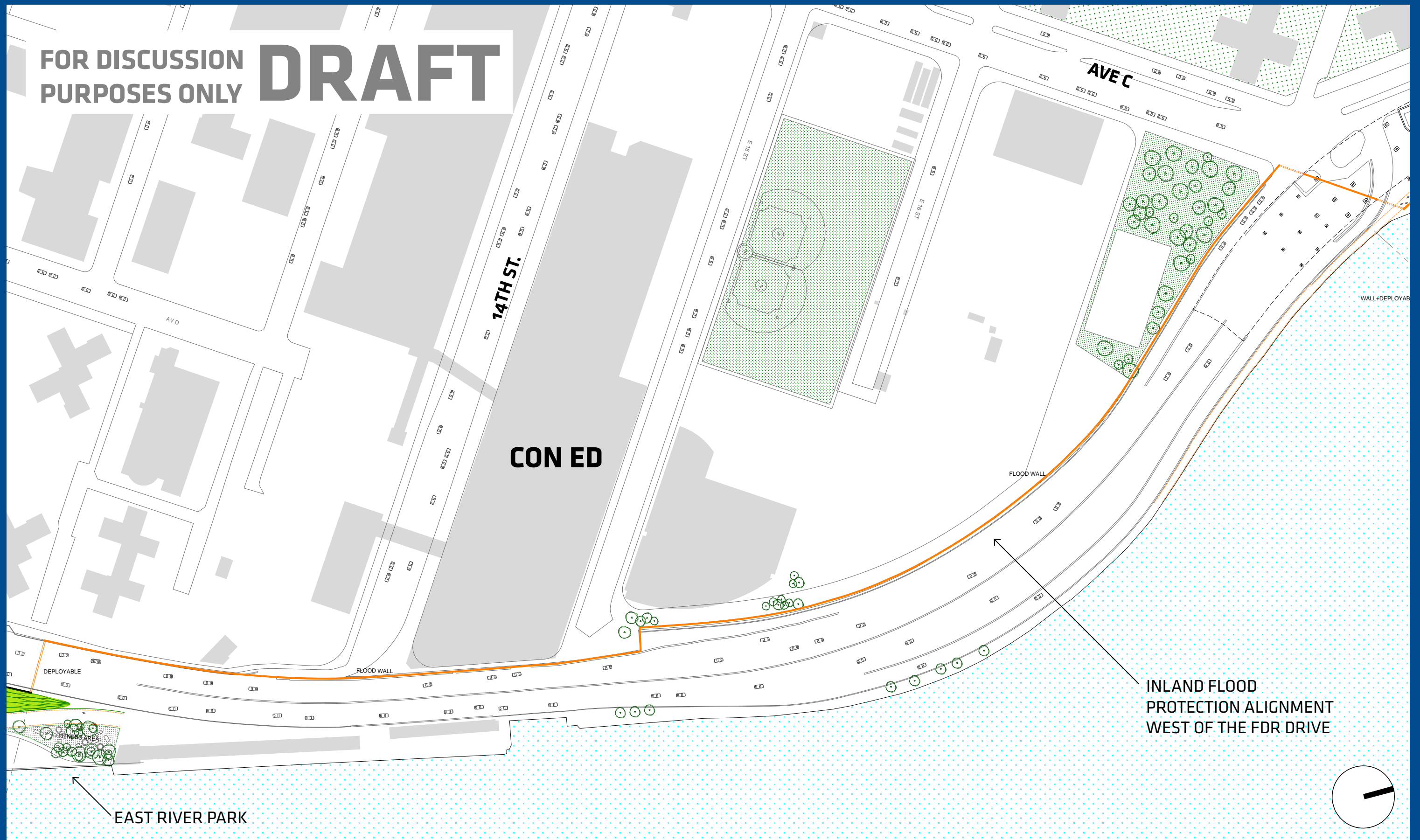
After much investigation, sub-surface constraints have presented a number of technical and cost constraints to an alignment along the Capt. Patrick J. Brown Walk.





# SEGMENTS A+B - ALTERNATIVE ALIGNMENT

As a result, an alternative alignment for this area has been identified inland - and is being studied in parallel with waterfront improvements to the North-South bikeway.





# SEGMENT E - 23RD STREET TIE-BACK





# SEGMENT E - 23RD STREET TIE-BACK

## EXISTING CONDITIONS



23RD STREET  
LOOKING WEST



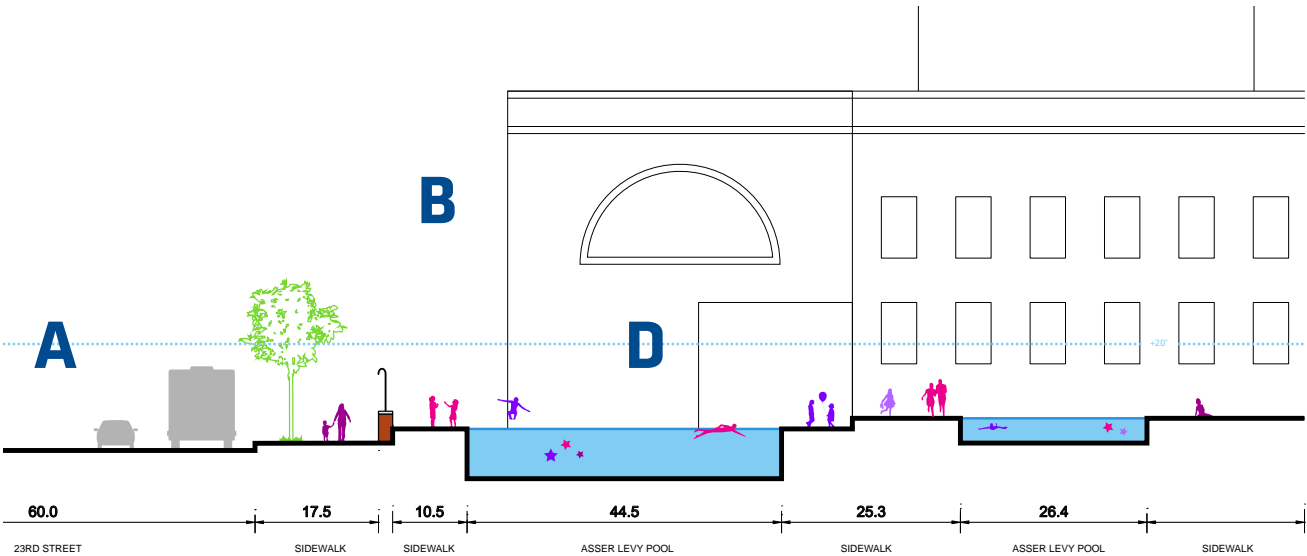
HISTORIC ASSER-LEVY  
PUBLIC BATHHOUSE



ASSER-LEVY PARK FROM  
ACROSS 23RD STREET



ASSER LEVY POOL, SUMMER



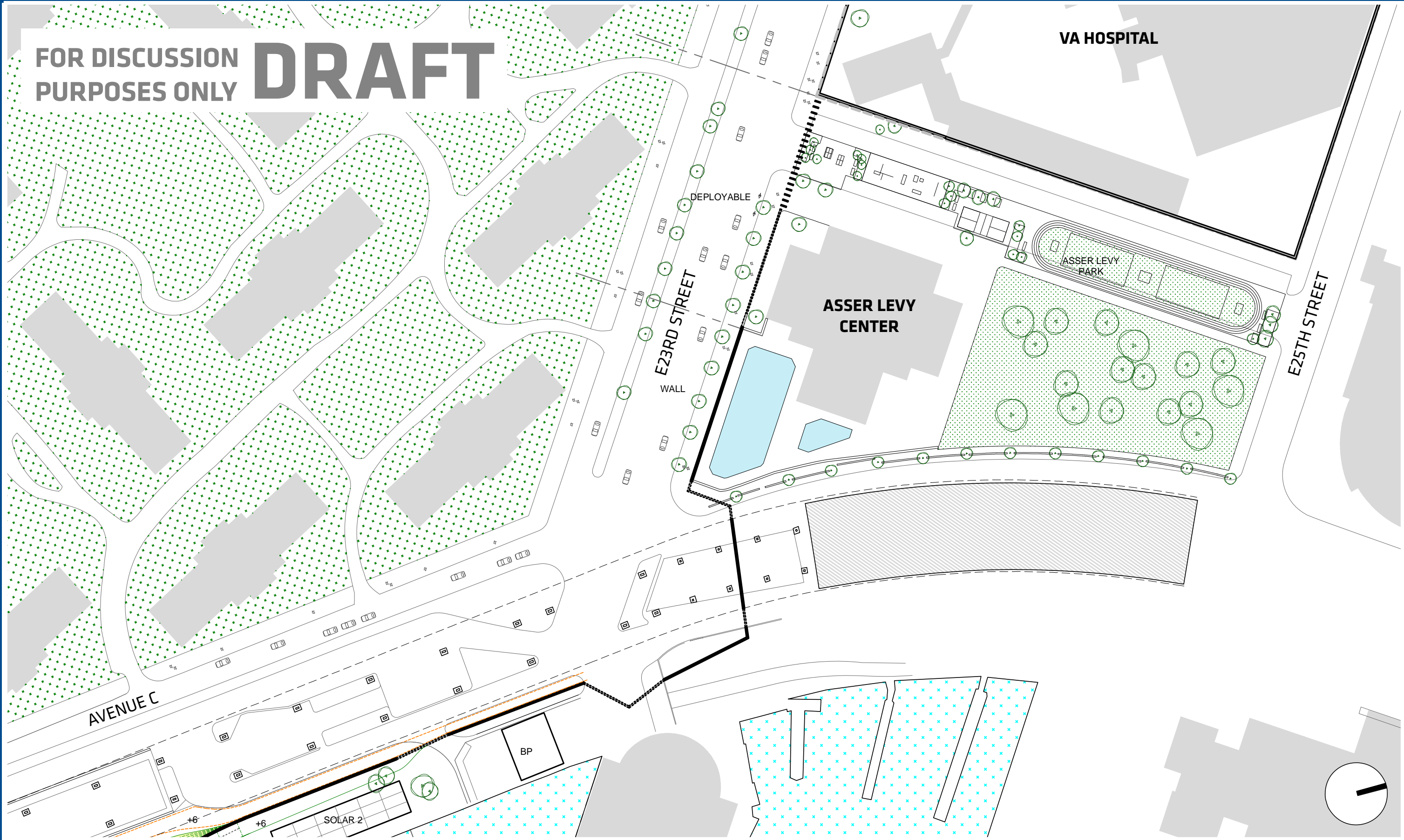
Section - Asser Levy Pool



Section - Asser Levy Park

# SEGMENT E - 23RD STREET TIE-BACK

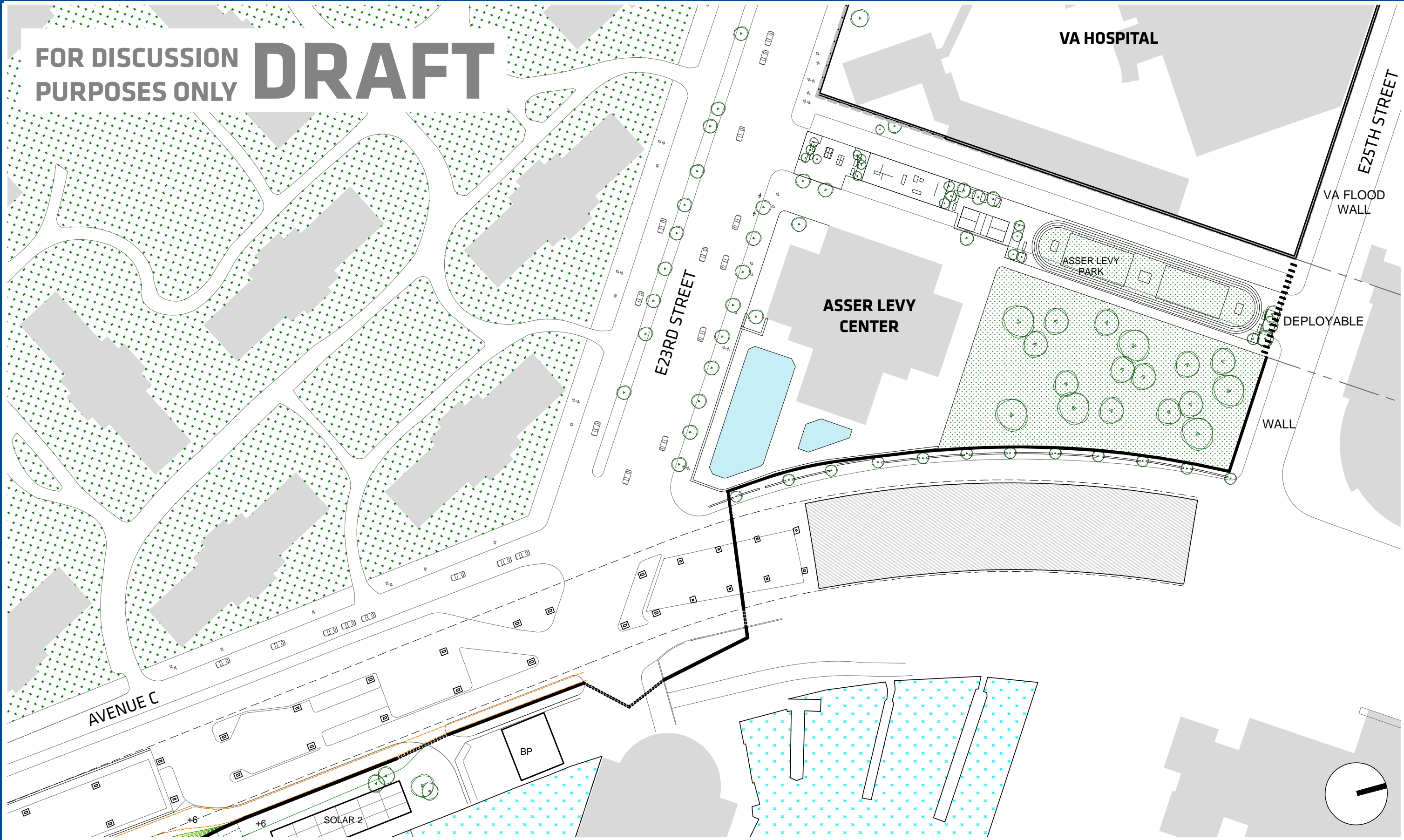
## DESIGN STUDY





# SEGMENT E - ALTERNATIVE UNDER STUDY

## 25TH STREET





# SEGMENTS C+D - STUYVESANT COVE PARK AND FDR VIADUCT





# SEGMENTS C+D - STUYVESANT COVE PARK AND FDR VIADUCT

## EXISTING CONDITIONS



AVENUE C



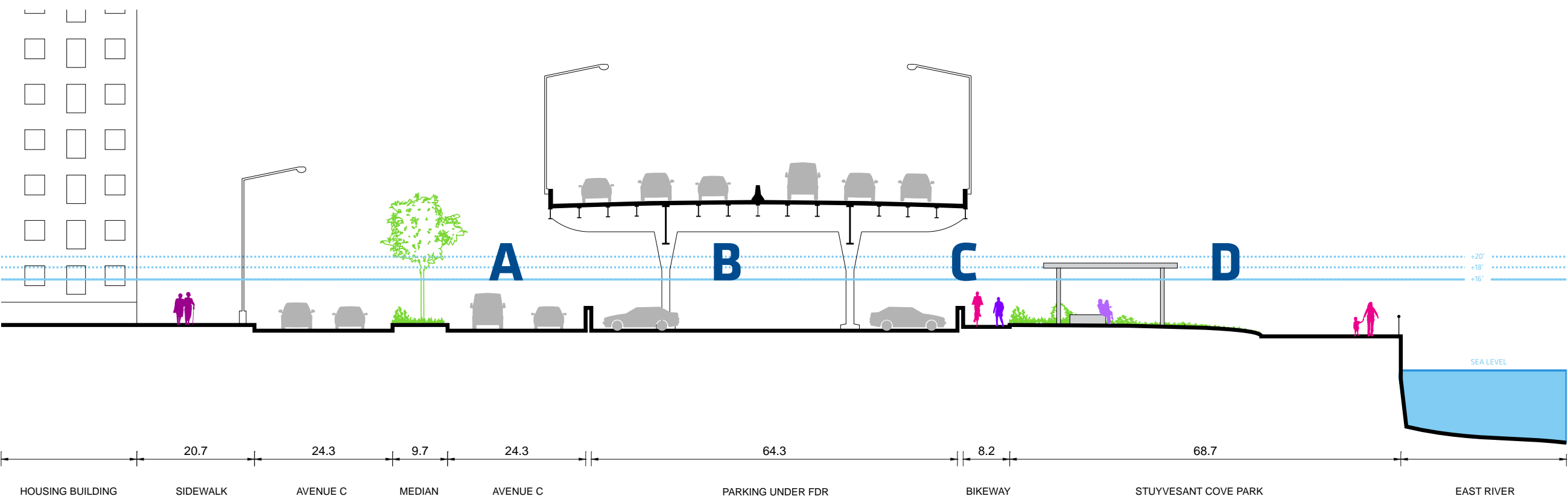
UNDER-FDR



BIKE PATH



STUYVESANT COVE PARK



# **STUYVESANT COVE ALIGNMENT COMMUNITY ENGAGEMENT FINDINGS**



# STUYVESANT COVE ALIGNMENT

The ESCR team gathered feedback about the pros and cons of each flood protection type for Stuyvesant Cove during the community engagement workshop on 05/19.





# STUYVESANT COVE ALIGNMENT - WIGGLE WALL

## COMMUNITY ENGAGEMENT FEEDBACK

**"IT'S ALREADY A DESOLATE AREA AND THE WALL WILL MAKE IT MORE DANGEROUS"**

**"IT WOULD MASK THE UGLY PARKING"**

**"IT WILL CREATE ONE LONG CLAUSTROPHOBIC AND DANGEROUS ALLEYWAY ALONG AVE. C !"**

**"I PREFER THIS PERMANENT TYPE OF STRUCTURE, IT'S MORE RELIABLE"**

**"IT WILL BLOCK LIGHT AND AIR TO AVENUE C FOR PEDESTRIANS"**



# STUYVESANT COVE ALIGNMENT - FLIP-DOWN CANOPY

## COMMUNITY ENGAGEMENT FEEDBACK

**"IF ONE OF THE FLIP-DOWN GATES IS BLOCKED THEN IT WOULD COMPROMISE THE WHOLE SYSTEM. THE #1 PRIORITY IS FLOOD PROTECTION!"**

**"IT WOULD PRESERVE THE VIEW TO THE WATER"**

**"THE ART COULD BE AN INTERESTING ADDITION BUT THERE'S A BIG CHANCE IT WOULD GET DESTROYED. VANDALISM IS AN ISSUE!"**

**"THEY WON'T BE MAINTAINED PROPERLY"**

**"IT'S VERY EXPENSIVE!"**

# STUYVESANT COVE ALIGNMENT - PROTECTIVE PAVILIONS

## COMMUNITY ENGAGEMENT FEEDBACK

"I WOULD USE THE PAVILIONS IN THE SUMMER BUT NOT IN WINTER. A LITTLE CAFE OR A FREE BIKE COMFORT STATION WOULD BE NICE!"

"THERE ISN'T ENOUGH ACTIVITY AROUND HERE TO SUSTAIN COMMERCIAL USE"

"THE PARKING SPACES MUST BE MAINTAINED!"

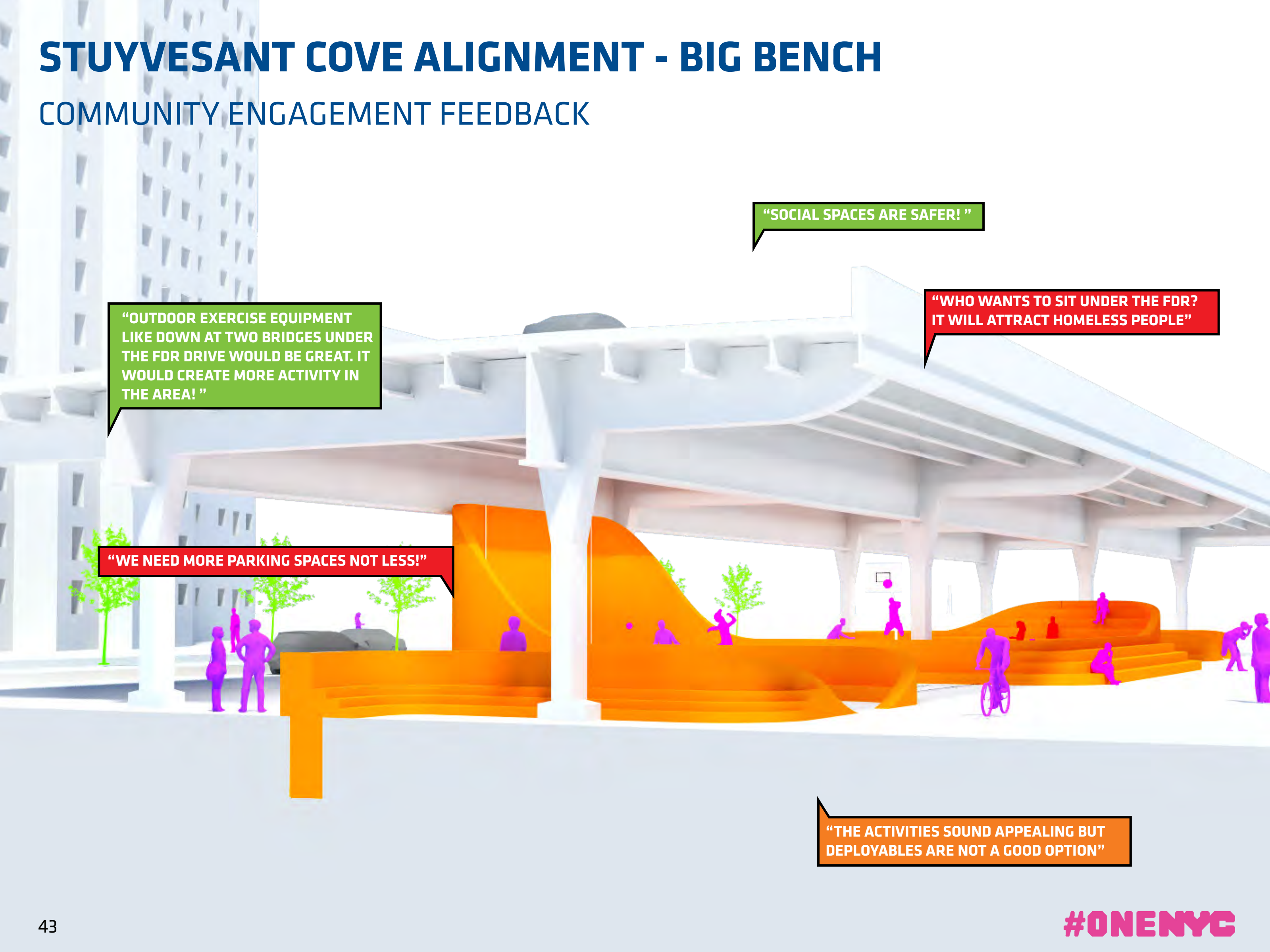
"IT WOULD CREATE ACTIVITY UNDER THE FDR DRIVE. A CAFE WOULD GIVE PEOPLE A REASON TO COME!"

"ELIMINATING THE PARKING IS A GOOD IDEA!"



# STUYVESANT COVE ALIGNMENT - BIG BENCH

## COMMUNITY ENGAGEMENT FEEDBACK



"OUTDOOR EXERCISE EQUIPMENT LIKE DOWN AT TWO BRIDGES UNDER THE FDR DRIVE WOULD BE GREAT. IT WOULD CREATE MORE ACTIVITY IN THE AREA!"

"SOCIAL SPACES ARE SAFER!"

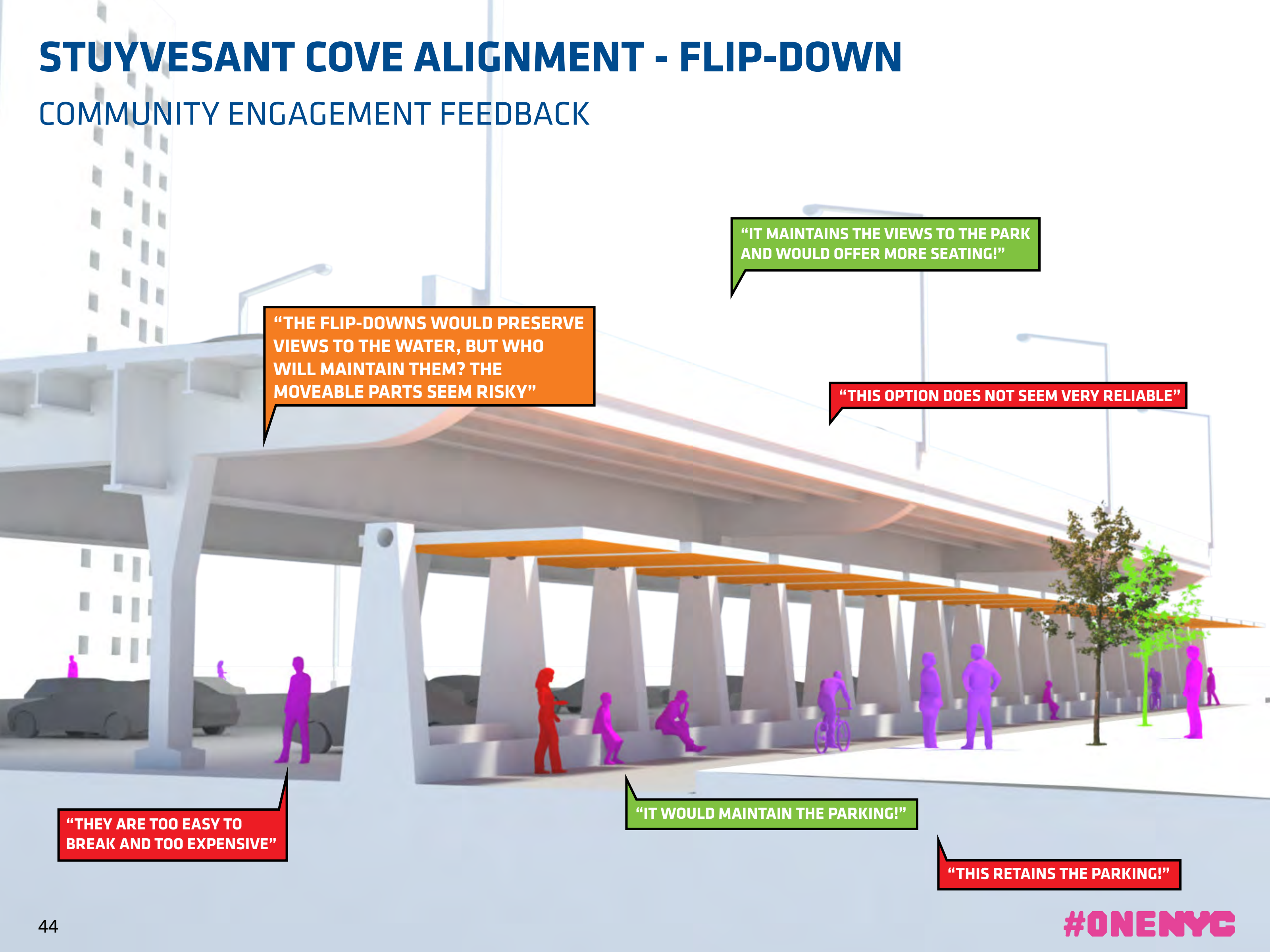
"WHO WANTS TO SIT UNDER THE FDR? IT WILL ATTRACT HOMELESS PEOPLE"

"WE NEED MORE PARKING SPACES NOT LESS!"

"THE ACTIVITIES SOUND APPEALING BUT DEPLOYABLES ARE NOT A GOOD OPTION"

# STUYVESANT COVE ALIGNMENT - FLIP-DOWN

## COMMUNITY ENGAGEMENT FEEDBACK



"THE FLIP-DOWNS WOULD PRESERVE VIEWS TO THE WATER, BUT WHO WILL MAINTAIN THEM? THE MOVEABLE PARTS SEEM RISKY"

"IT MAINTAINS THE VIEWS TO THE PARK AND WOULD OFFER MORE SEATING!"

"THIS OPTION DOES NOT SEEM VERY RELIABLE"

"THEY ARE TOO EASY TO BREAK AND TOO EXPENSIVE"

"IT WOULD MAINTAIN THE PARKING!"

"THIS RETAINS THE PARKING!"



# STUYVESANT COVE ALIGNMENT - FLIP-DOWN CANOPY

## COMMUNITY ENGAGEMENT FEEDBACK

"THESE COULD PROVIDE SHADE AND BECOME PART OF THE WATERFRONT LANDSCAPE. I LIKE IT!"

"IT'S AN EYESORE AND WOULD BREAK EASILY"

"IT WOULD PROTECT MORE OF THE AREA: THE PARKING AND THE RESIDENTIAL BUILDINGS"

"VERY RELIANT ON MANUAL MAINTENANCE AND OPERATION"



# STUYVESANT COVE ALIGNMENT - ELEVATED PARK

## COMMUNITY ENGAGEMENT FEEDBACK

"ELEVATING STUYVESANT COVE PARK IS THE BEST SOLUTION BECAUSE IT IS PERMANENT AND HAS MASS TO ADD THINGS TO. THE TERRACED BERM CAN BE USED FOR EXERCISING OR PICNICS! "

"MOST RELIABLE AND AESTHETICALLY PLEASING!"

"YES!"

"THE PARK WILL BECOME NARROWER AND ACCESS COULD BE CHALLENGING FOR SENIORS"

"YOU CAN'T SEE THE WATER FROM THE STREET BUT ELIMINATING THE SIGHTLINES ISN'T AN ISSUE IF WE GET BETTER VIEWS FROM THE TOP!"

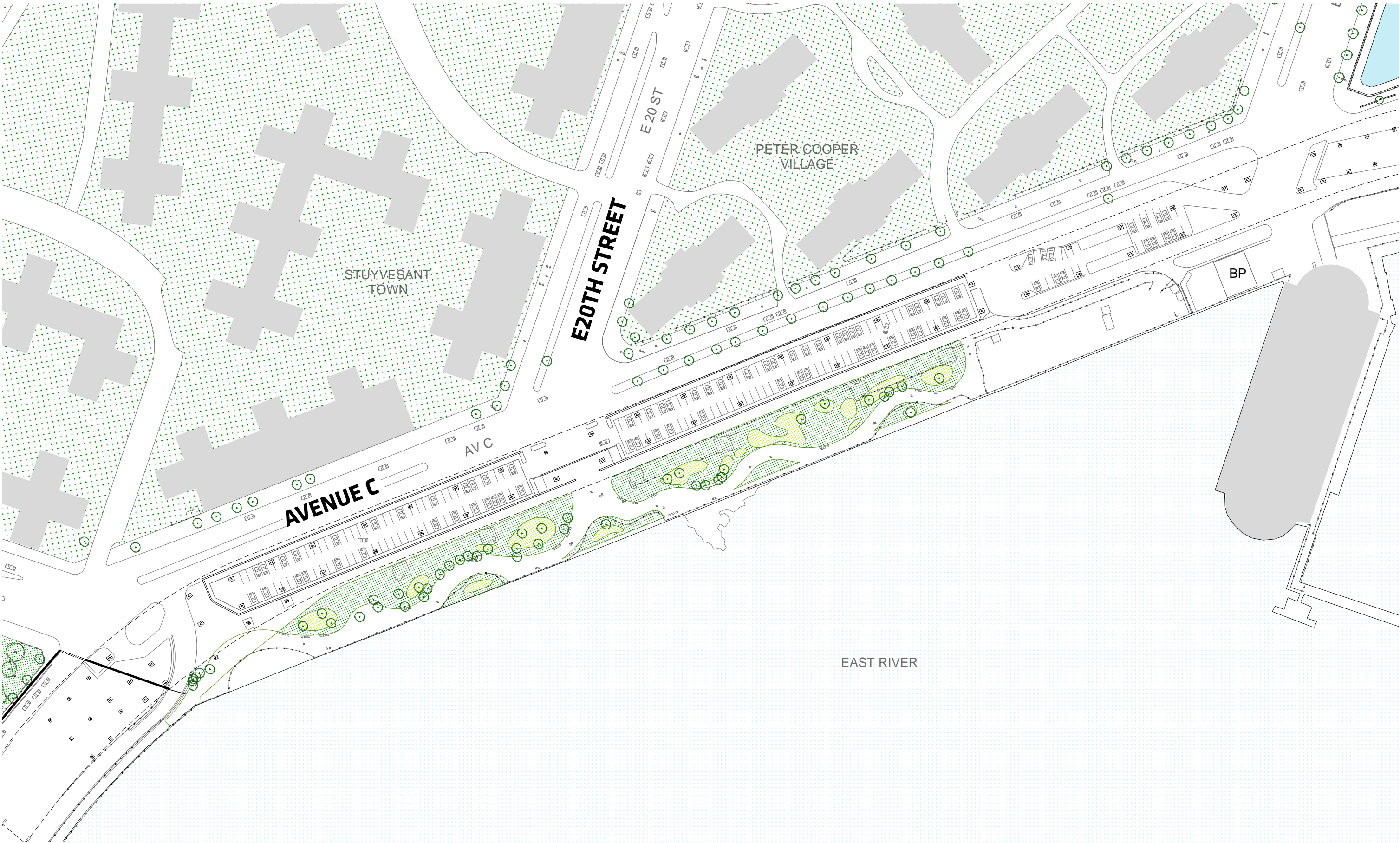


## **STUYVESANT COVE: PRINCIPLES**

- Minimize use of deployables.
- Maximize passive, reliable measures.
- Maintain at-grade crossing at key junctures.
- Ensure safety and security adjacent to and under the FDR viaduct.
- Support future developments such as the 20th St. ferry landing and Solar Two.

# STUYVESANT COVE - TODAY

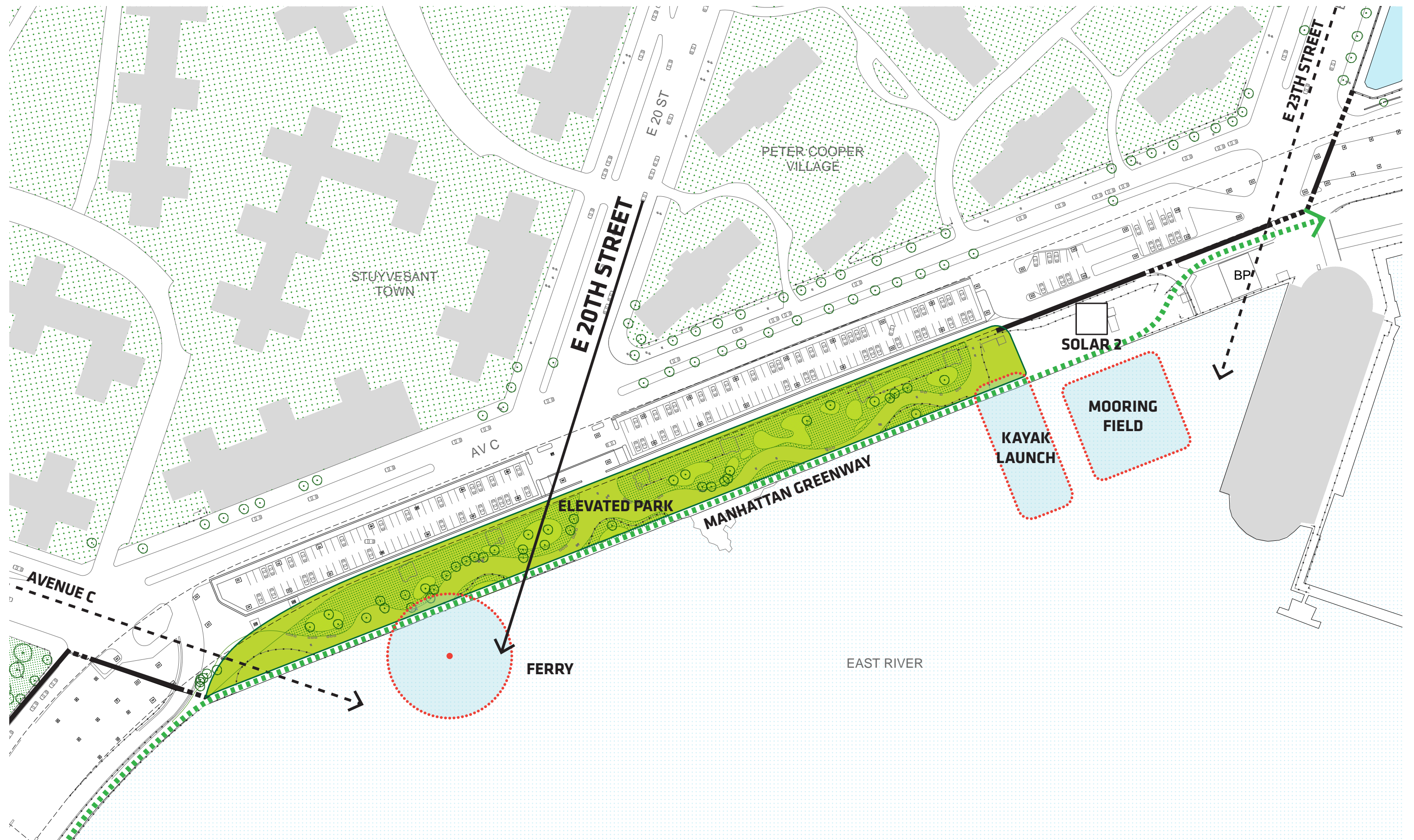
## EXISTING CONDITIONS





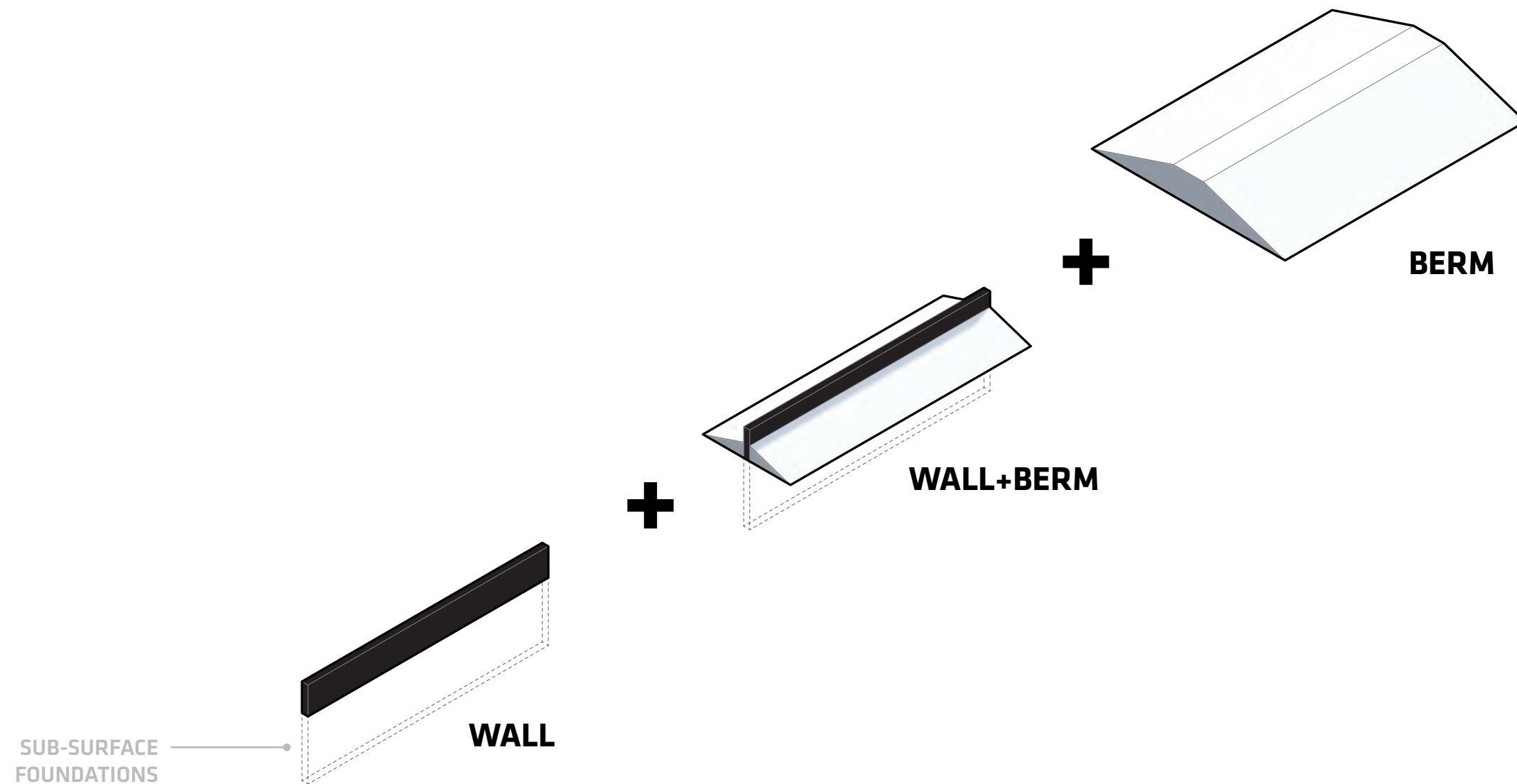
# FLOOD PROTECTION AND FUTURE DEVELOPMENTS

## STUYVESANT COVE



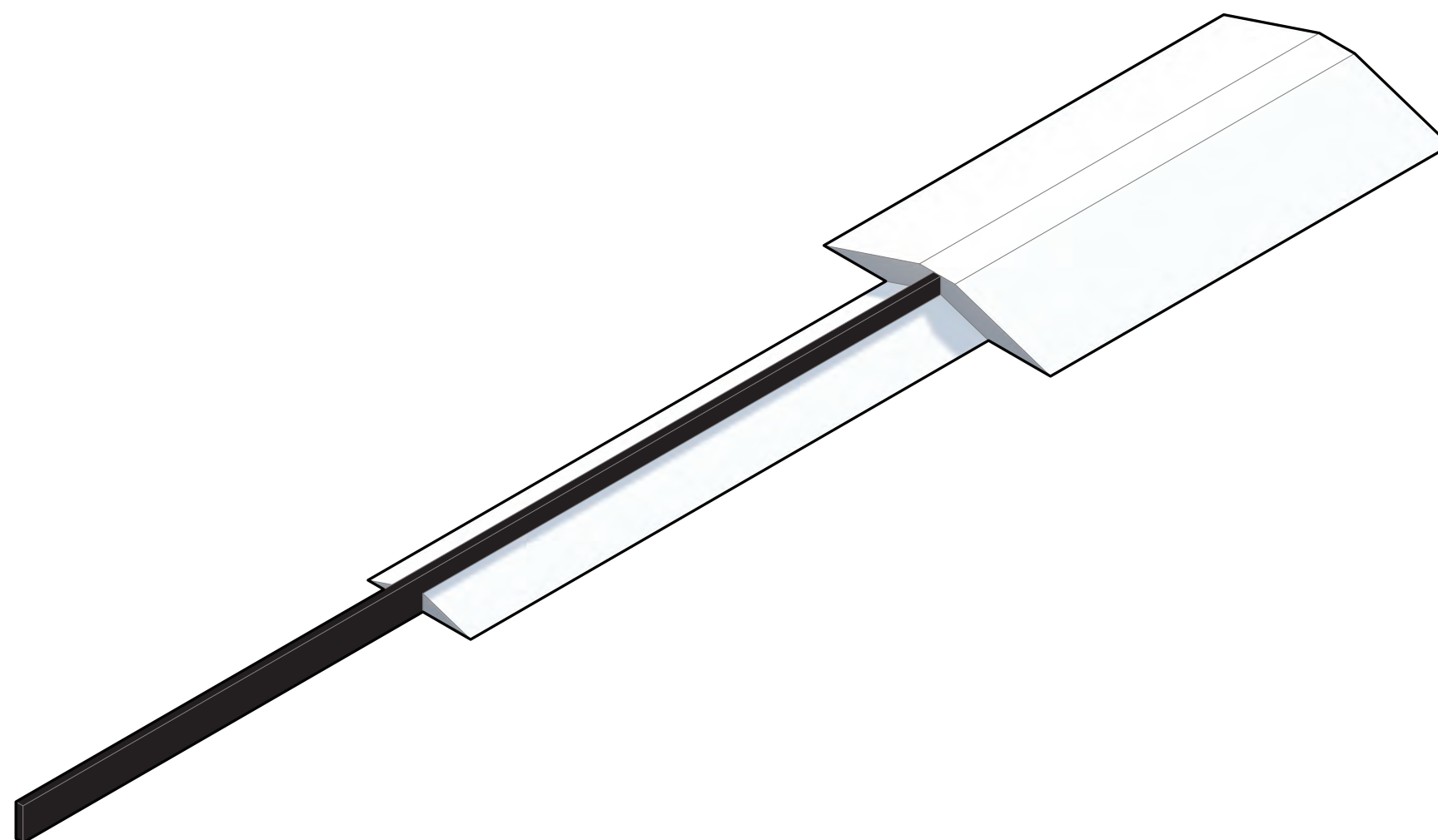
# **ELEVATED PARK ELEMENTS**





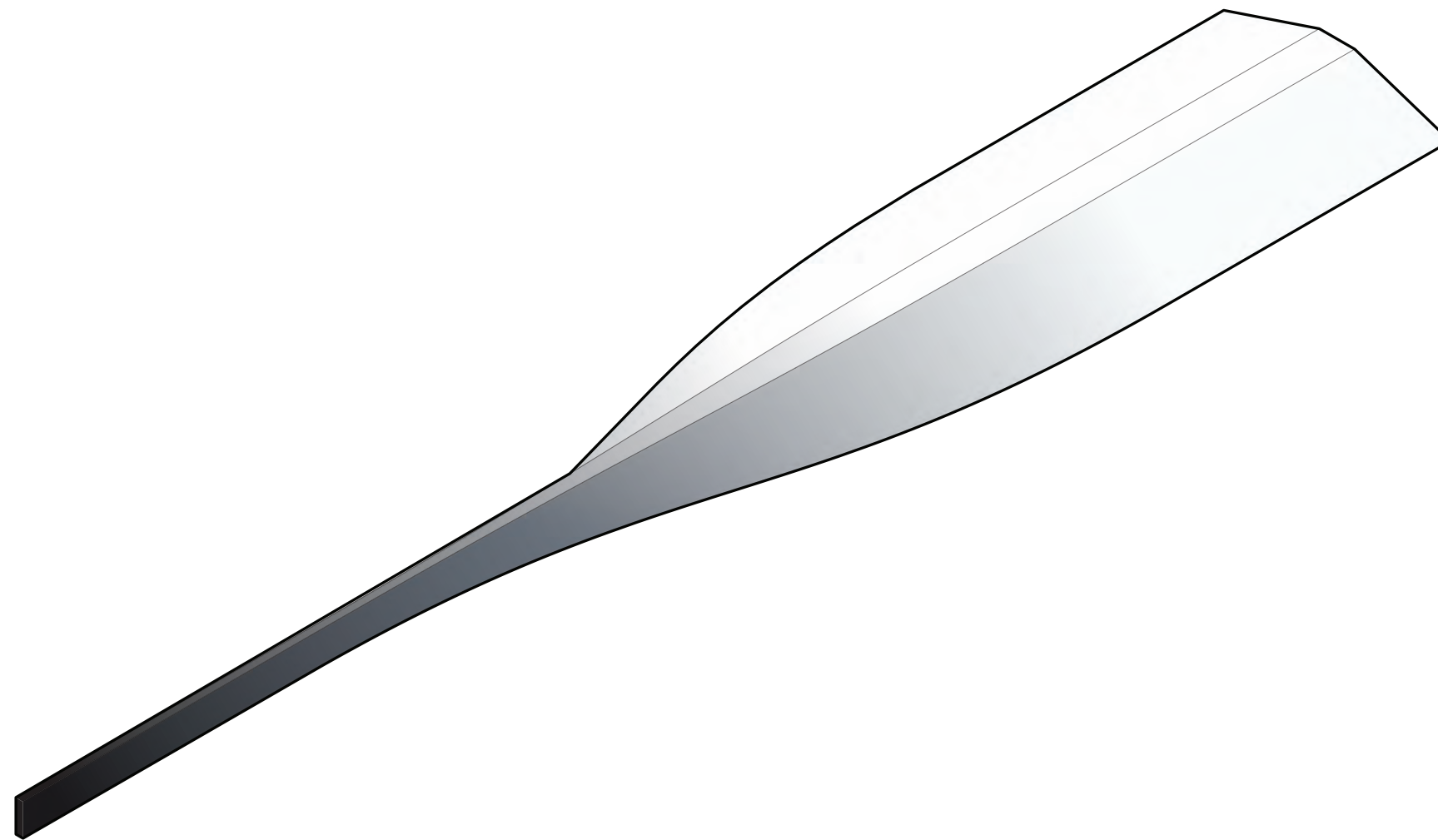
## **FLOOD PROTECTION ELEMENTS**

THREE DIFFERENT ELEMENTS FORM THE TOOLKIT OF FLOOD PROTECTION,  
BASED ON PASSIVE SPACE AVAILABLE



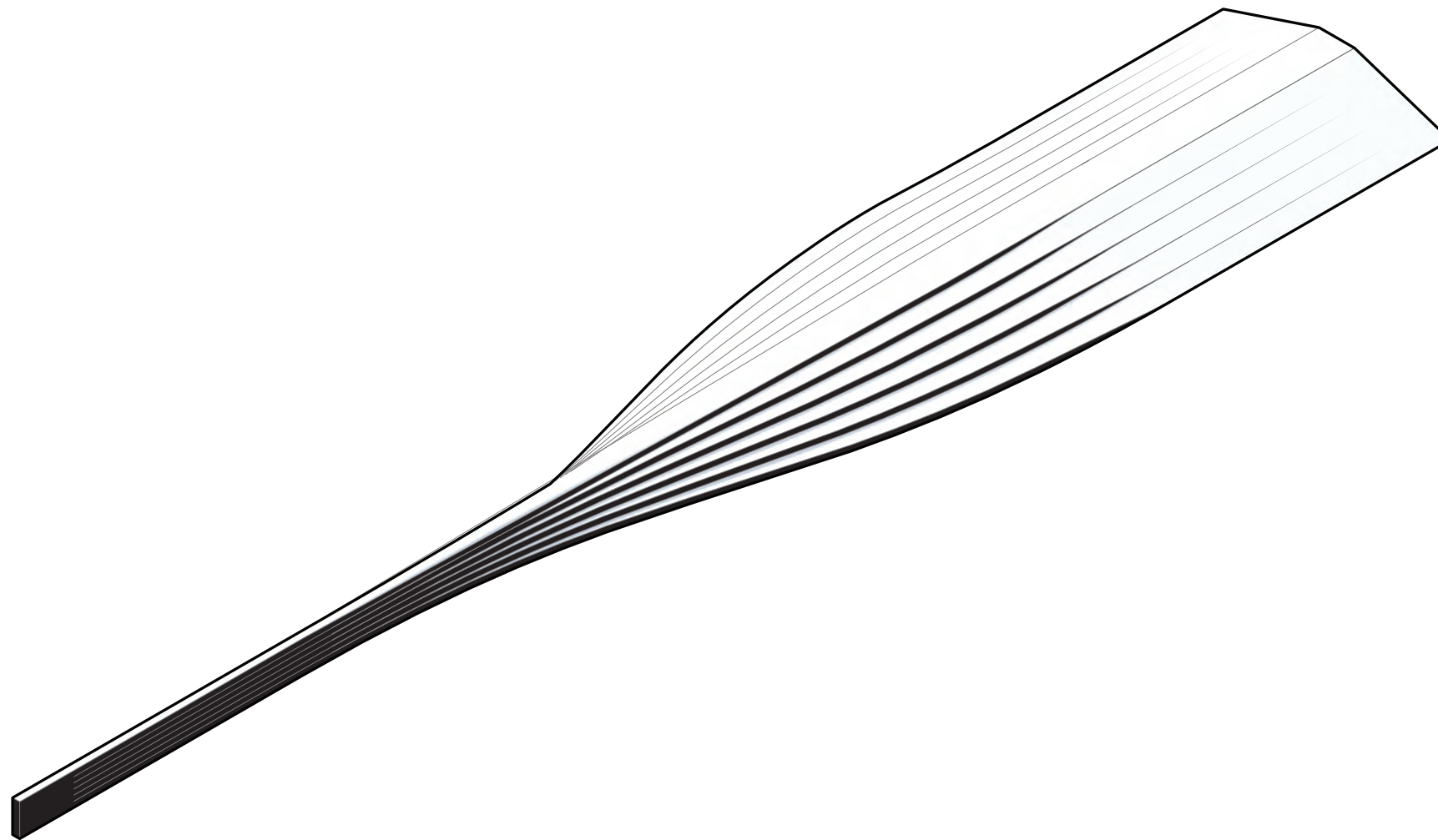
## CONNECTING THE ELEMENTS





## **SOFTENING TRANSITIONS**

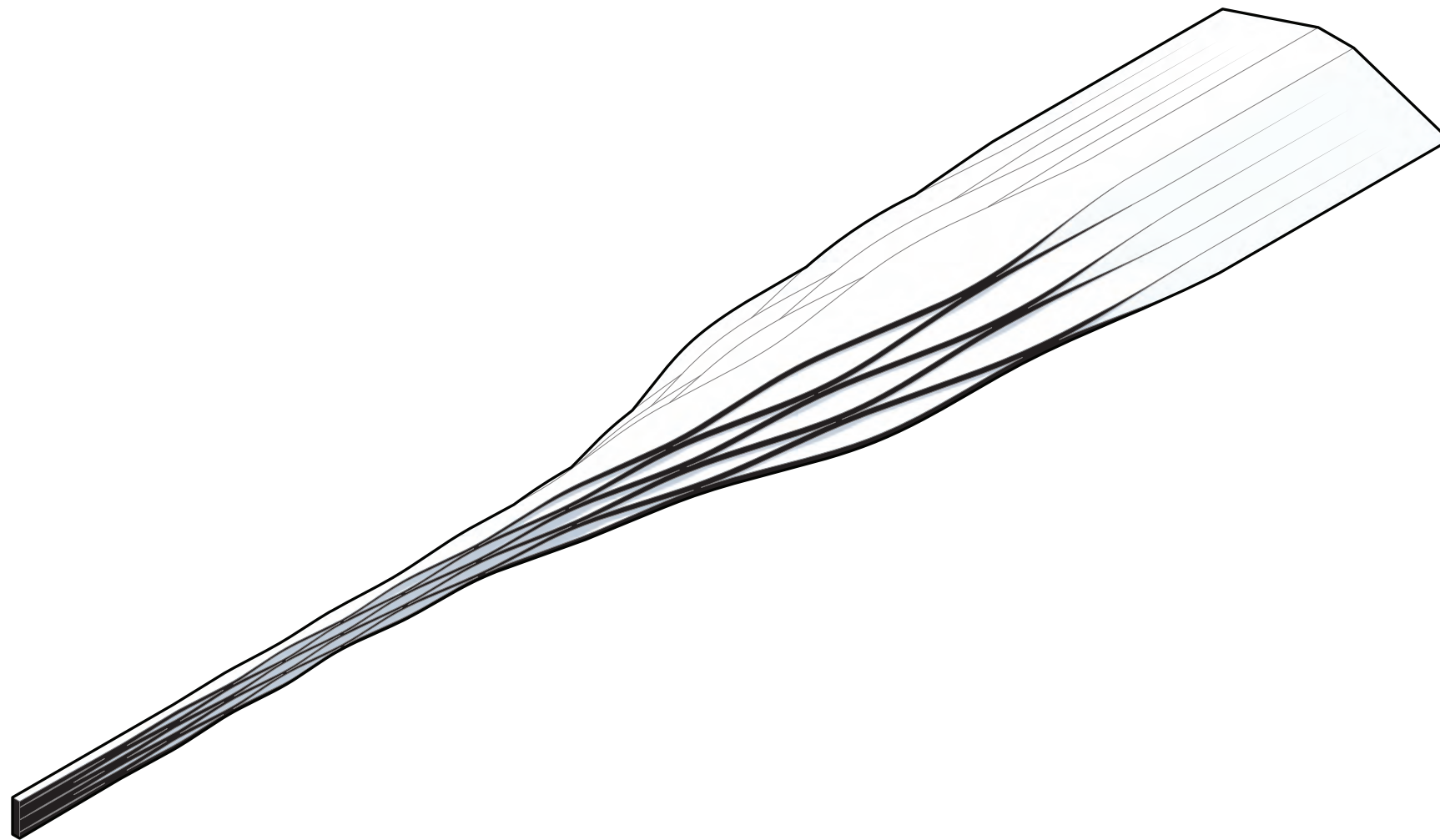
SMOOTHING BETWEEN ELEMENTS



## **TERRACING**

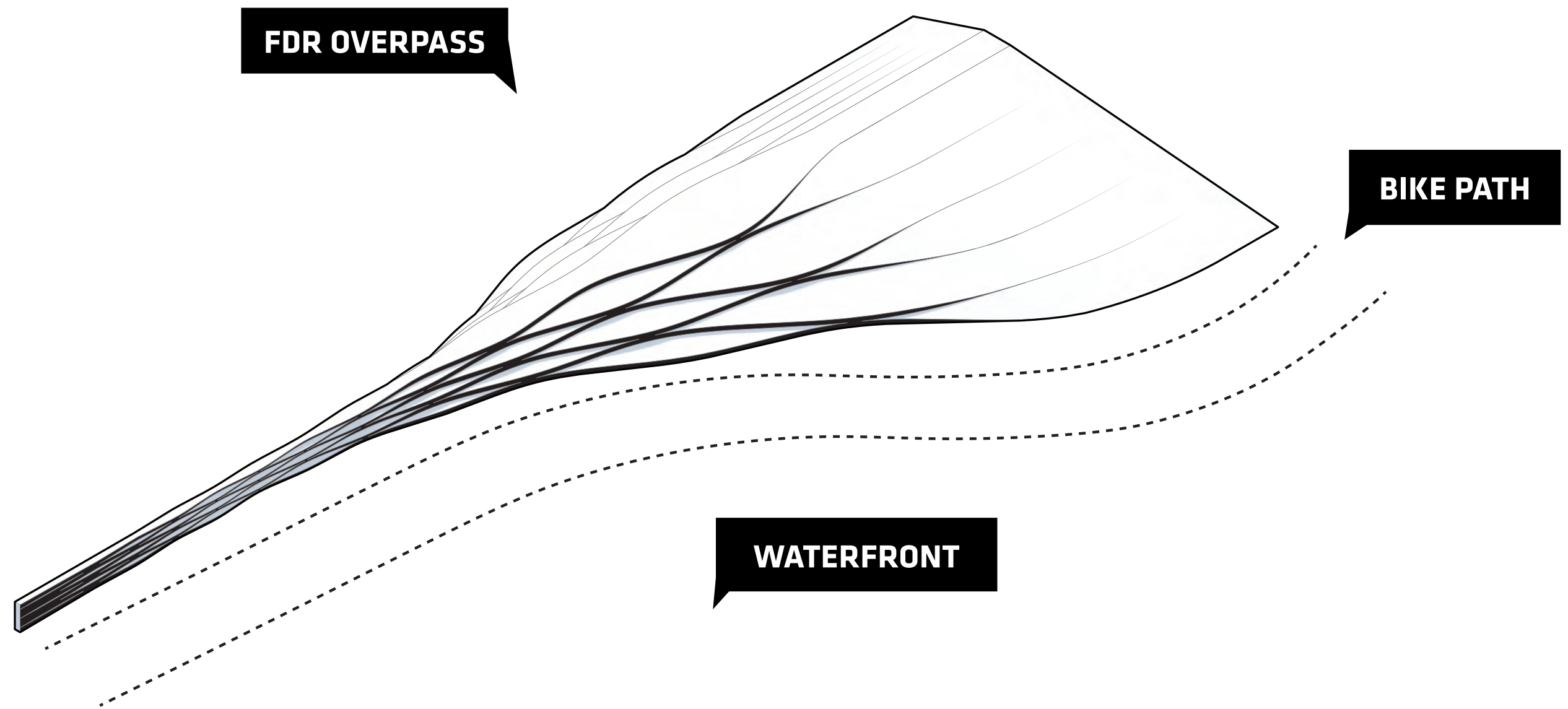
TERRACES STABILIZE THE TERRAIN WHEN SLOPES ARE GREATER THAN 3:1





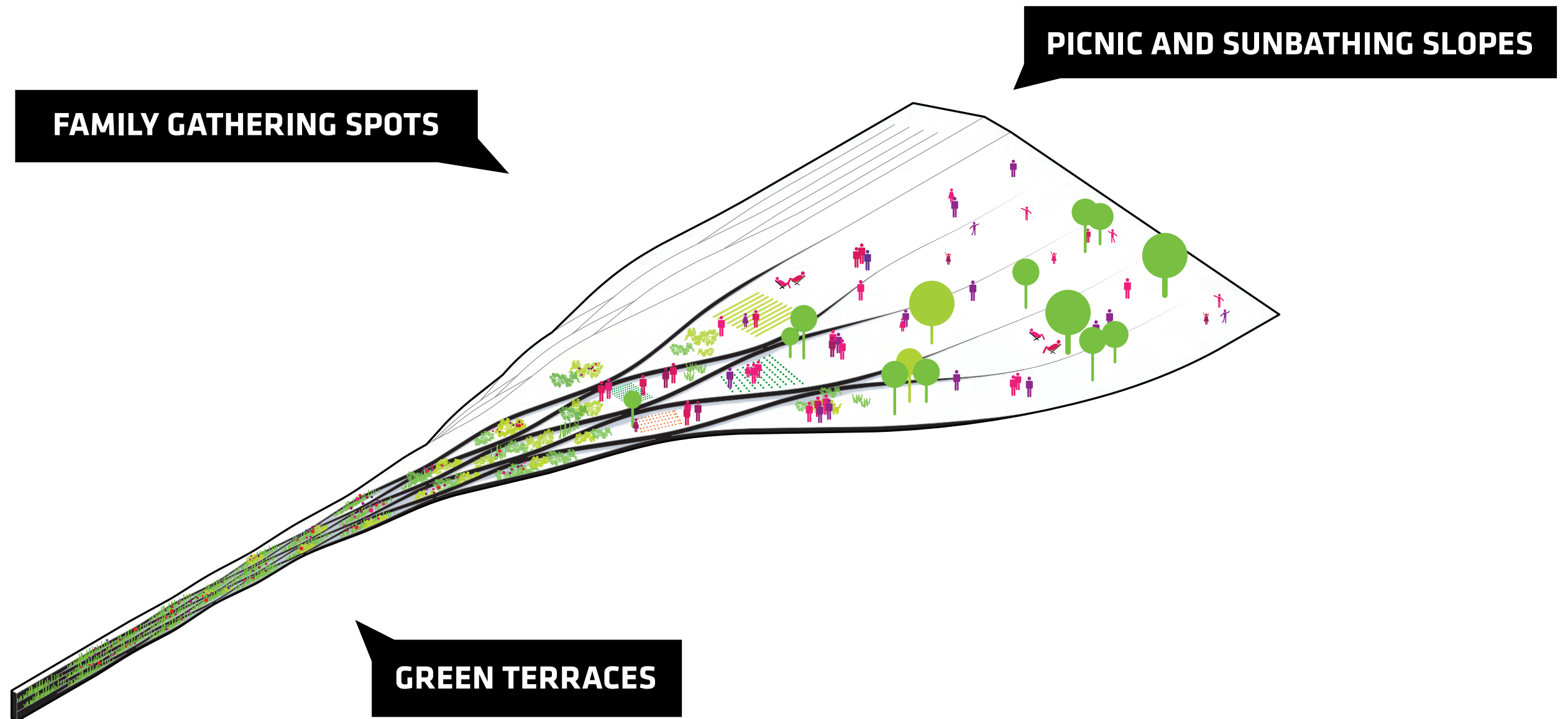
## **WEAVING**

WEAVING CREATES POCKETS AND TERRACES FOR PLANTINGS AND ACTIVITIES



**ADAPTING TO SITE CONDITIONS**





## **SUPPORTING PARK DIVERSITY**

DIFFERENTIATED TERRACES AND SLOPES PROVIDE FOR A DIVERSE AND VIBRANT PARK EXPERIENCE

# STUYVESANT COVE PARK - CROSS-SECTION

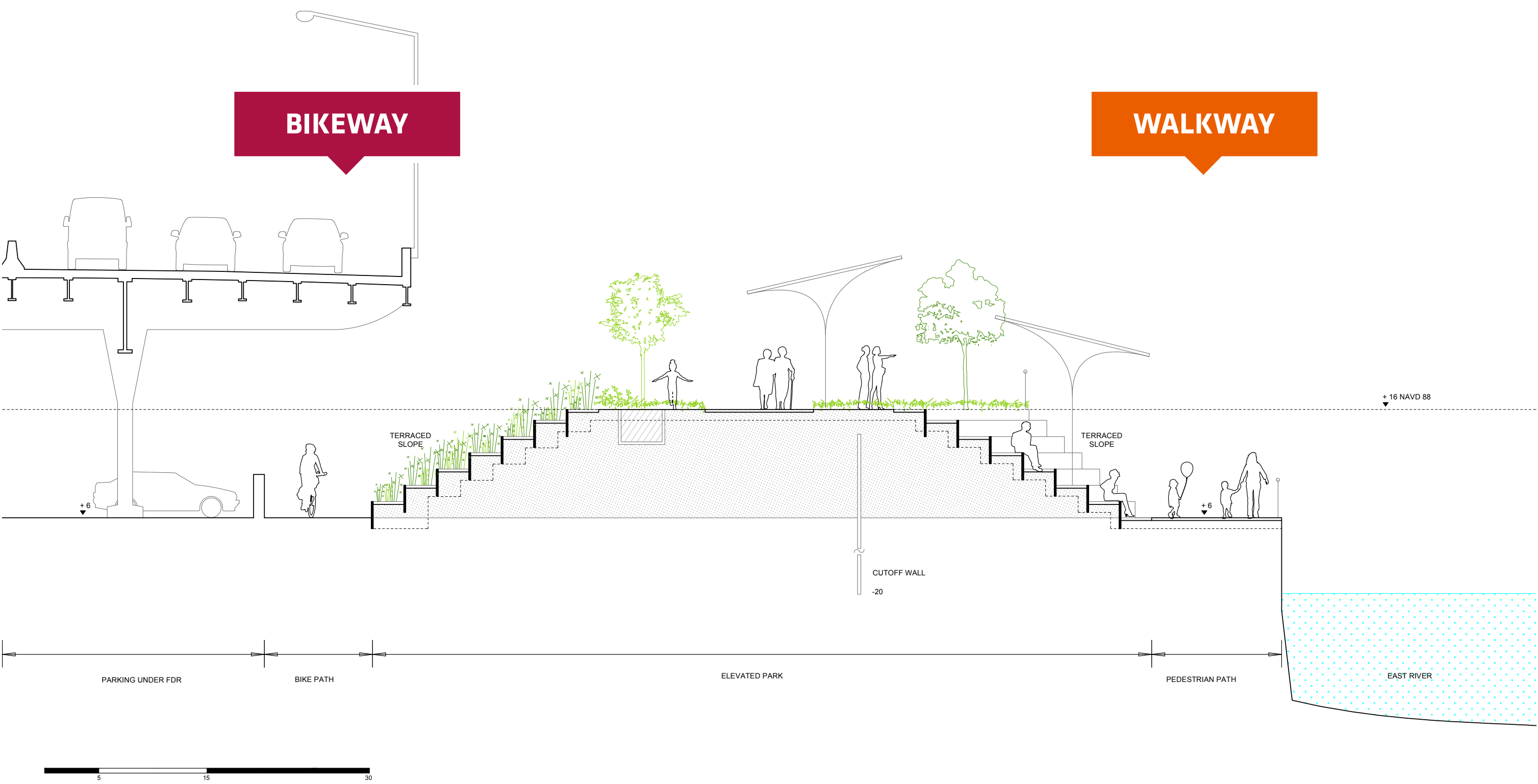
## EXISTING CONDITIONS





# PRELIMINARY CROSS-SECTION - ALTERNATIVE 1

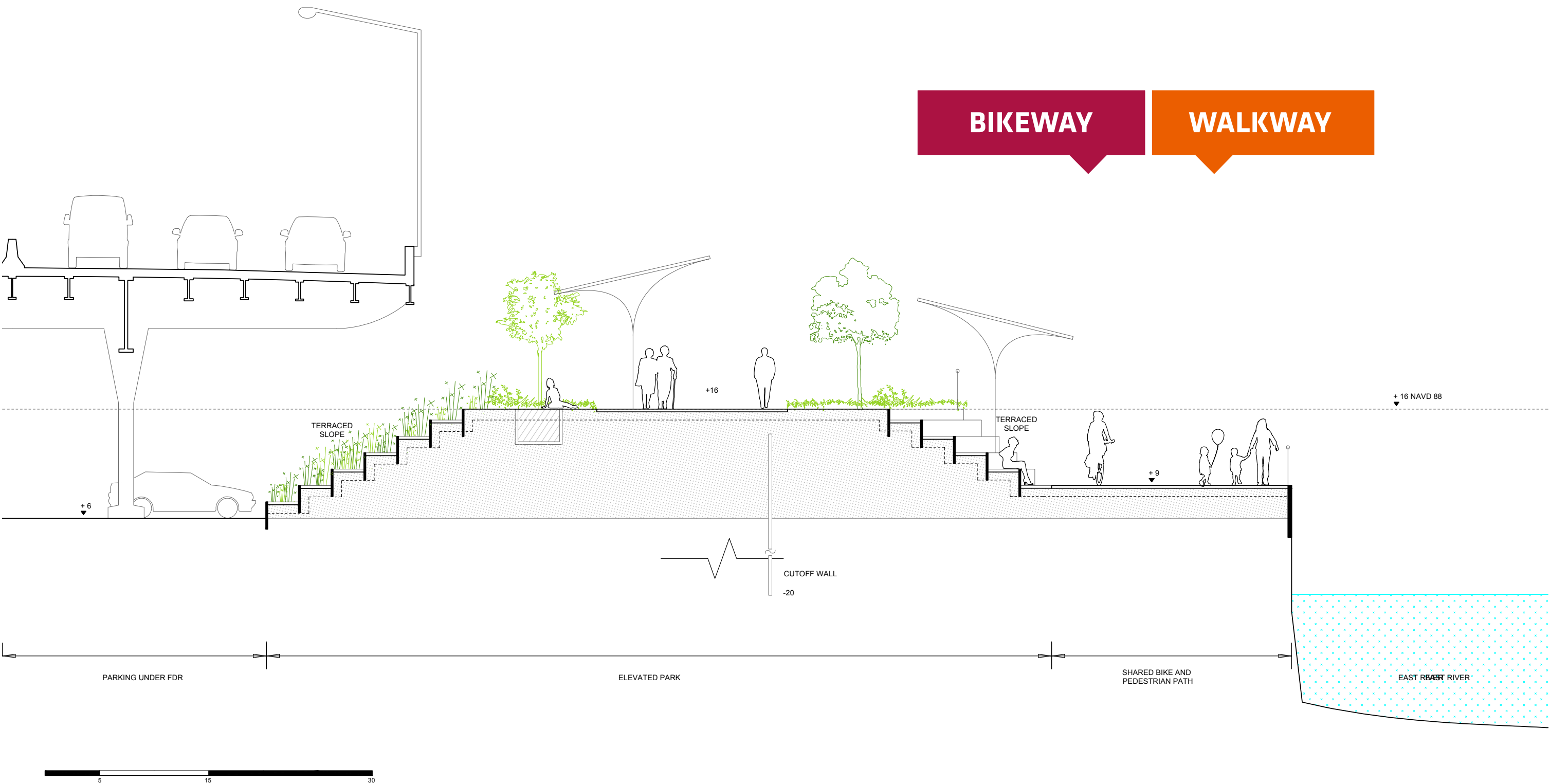
## SPLIT BIKEWAY AND FOOT-PATH



FOR DISCUSSION  
PURPOSES ONLY **DRAFT**

# PRELIMINARY CROSS-SECTION - ALTERNATIVE 2

## WATERSIDE BIKEWAY AND FOOT-PATH, PARTIALLY ELEVATED

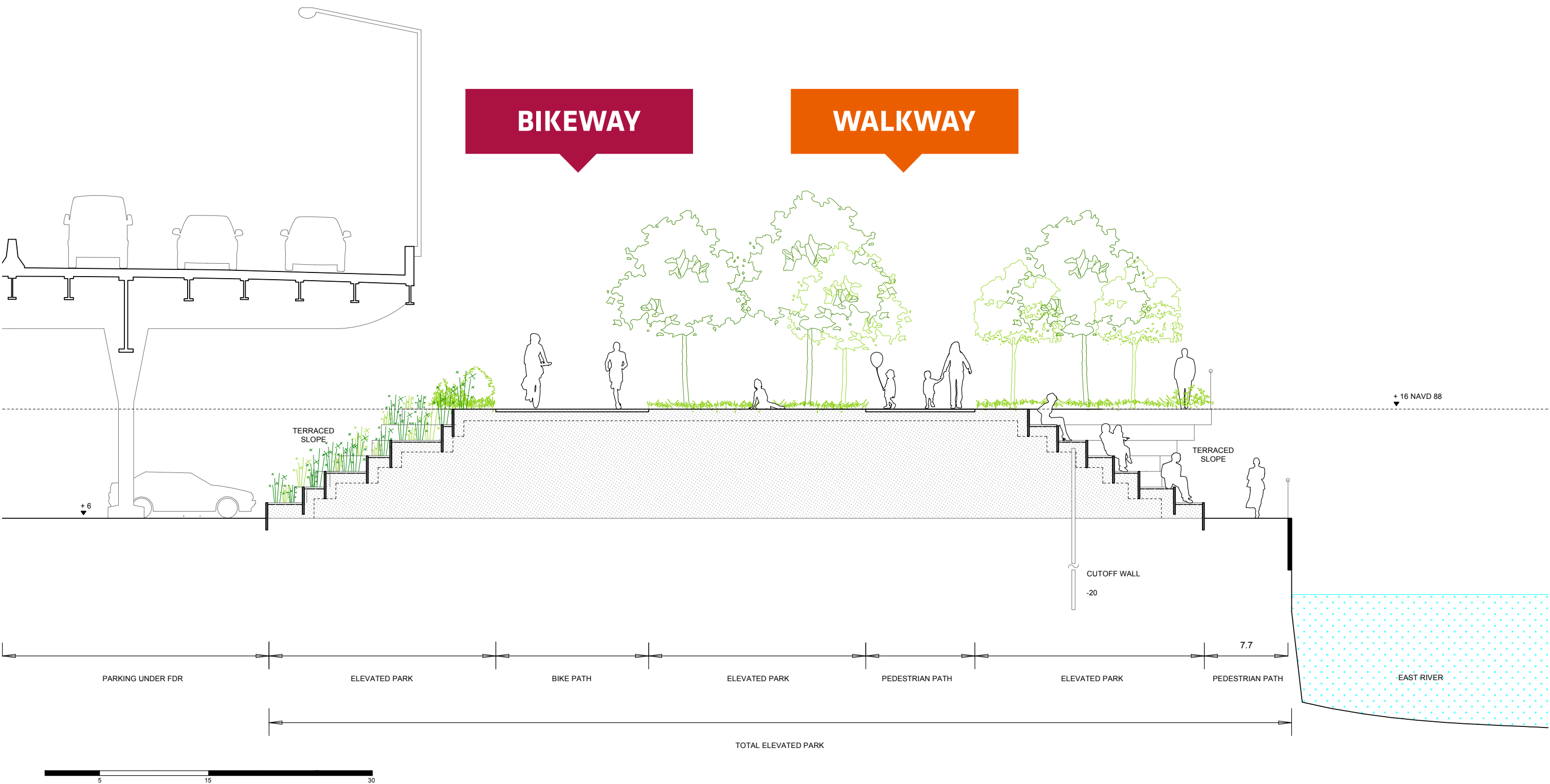


FOR DISCUSSION  
PURPOSES ONLY **DRAFT**



# PRELIMINARY CROSS-SECTION - ALTERNATIVE 3

## FULLY ELEVATED PARK AND PATH








FOR DISCUSSION PURPOSES ONLY **DRAFT**

# STUYVESANT COVE ALIGNMENT - E20TH ST CONNECTION

## COMMUNITY ENGAGEMENT FEEDBACK

At which intersection do you feel most comfortable crossing...

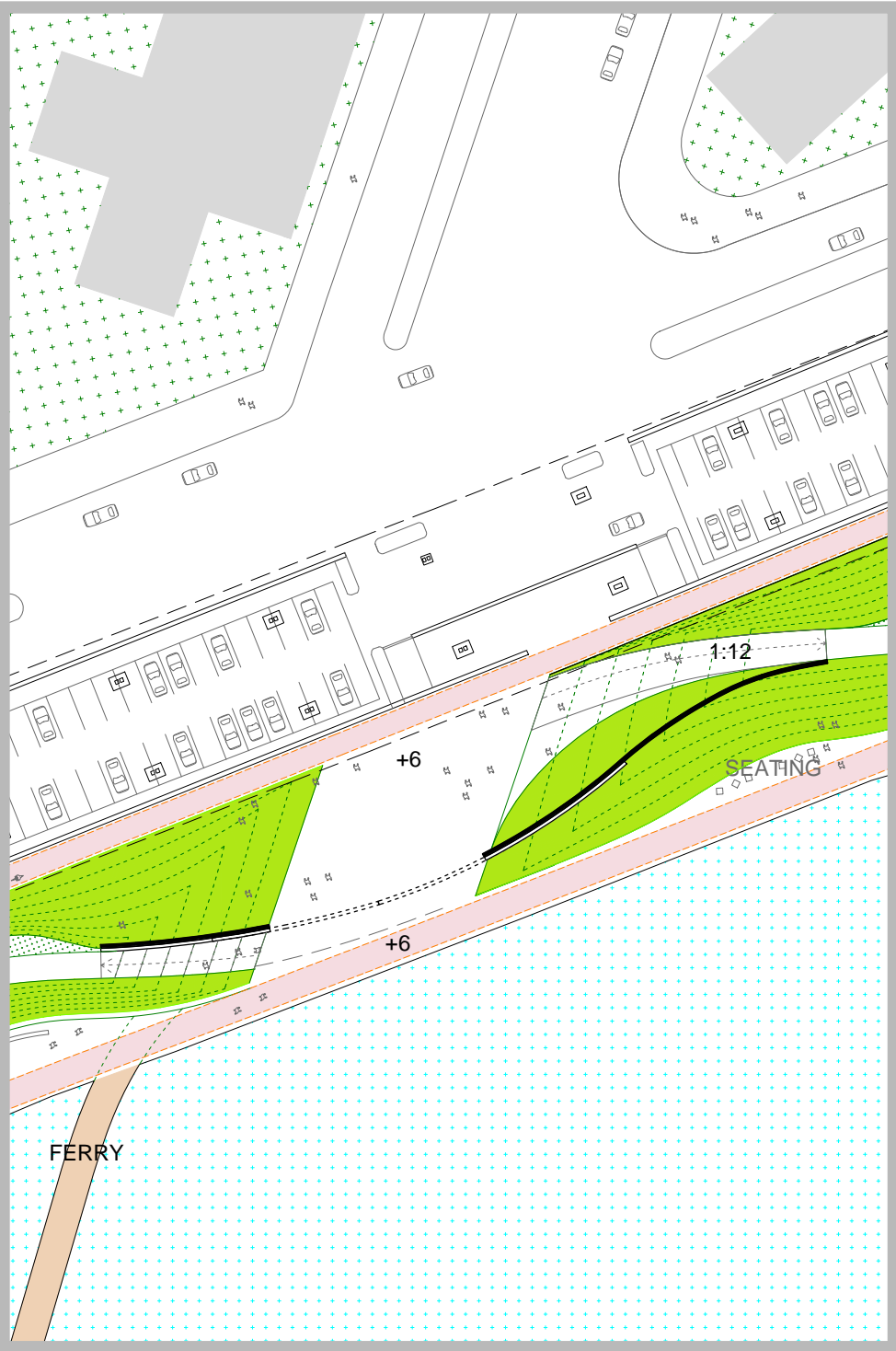
		E23rd St	E20th St	Ave. C & FDR
...on foot?			✓ 11/17	
...on a bike?				✓ 2/3
...with children?			✓ 3/5	
...with/as a senior?			✓ 4/6	
...with a wheelchair?			✓ 4/4	

\* Small sample size: Total number of participants: 17 out of 49 workshop attendees

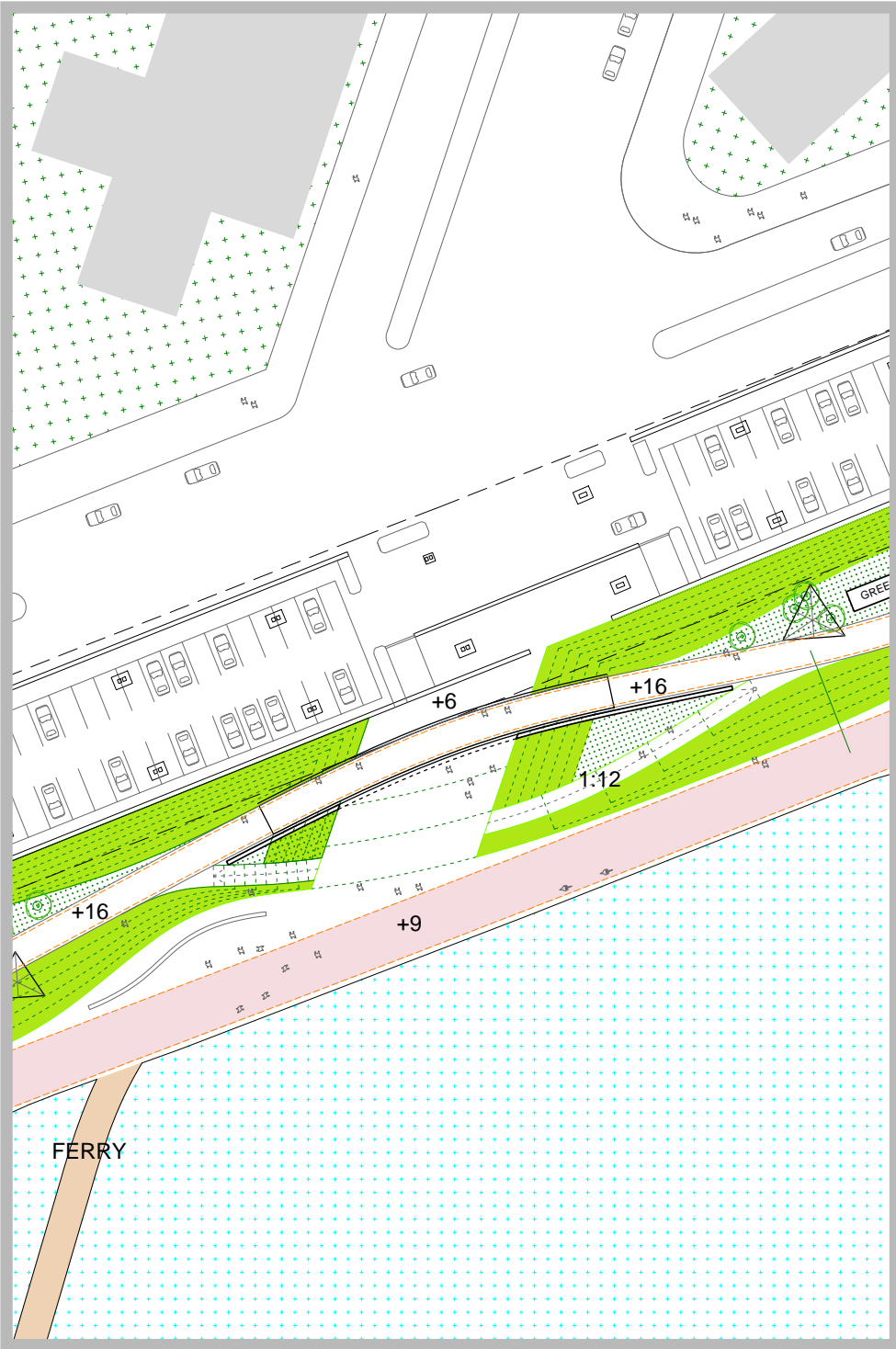


# STUYVESANT COVE ALIGNMENT - E20TH ST CONNECTION

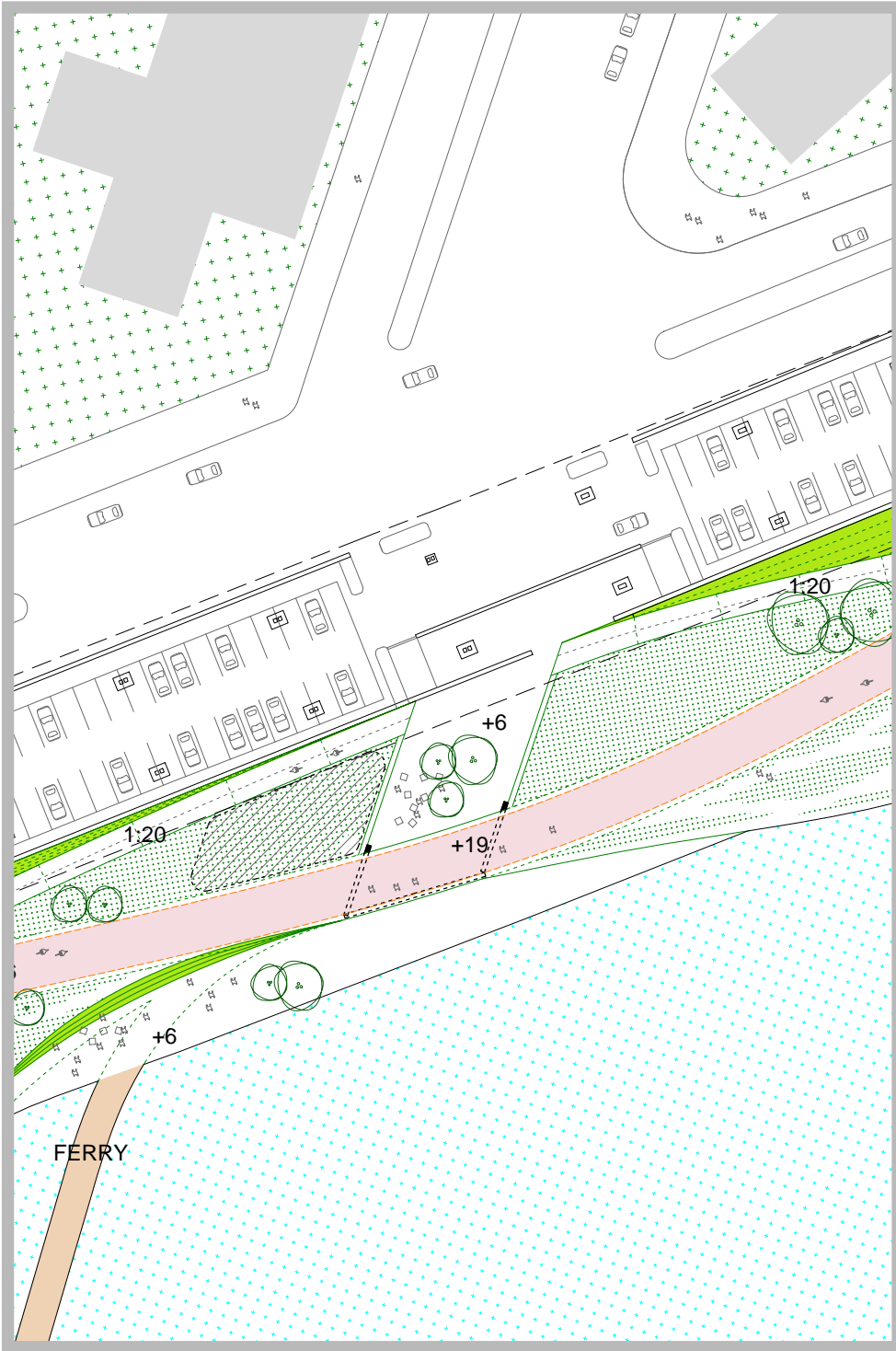
## THREE ALTERNATIVES



**ALT 1. - WIDE**



**ALT. 2 - MEDIUM**



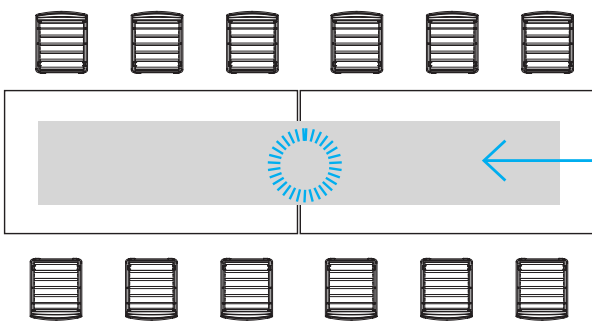
**ALT. 3 - NARROW**

FOR DISCUSSION PURPOSES ONLY **DRAFT**

# TONIGHT'S ACTIVITY

## Table Set-Up

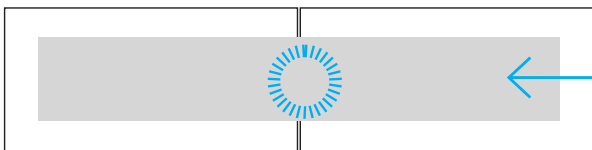
Table 1



Alt. 1 model:

*Elevated Park: Landside bike path, waterside ped. path  
E20th St crossing: Wide width (flip-downs)*

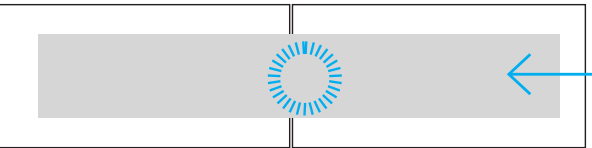
Table 2



Alt. 2 model

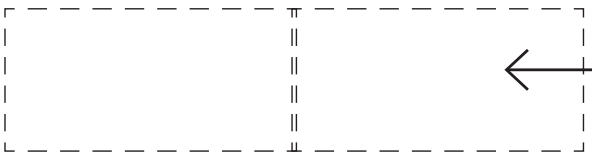
*Elevated Park: Combined bike and ped. path, waterside  
E20th St crossing: Medium width (roller gates)*

Table 3



Alt. 3 model

*Elevated Park: Combined bike and ped. path, raised  
E20th St crossing: Narrow width (Swing gates)*



City Resources  
Table

**TONIGHT WE WILL BE DISCUSSING THE OPTIONS FOR STUYVESANT COVE PARK**



**NEXT STEPS**

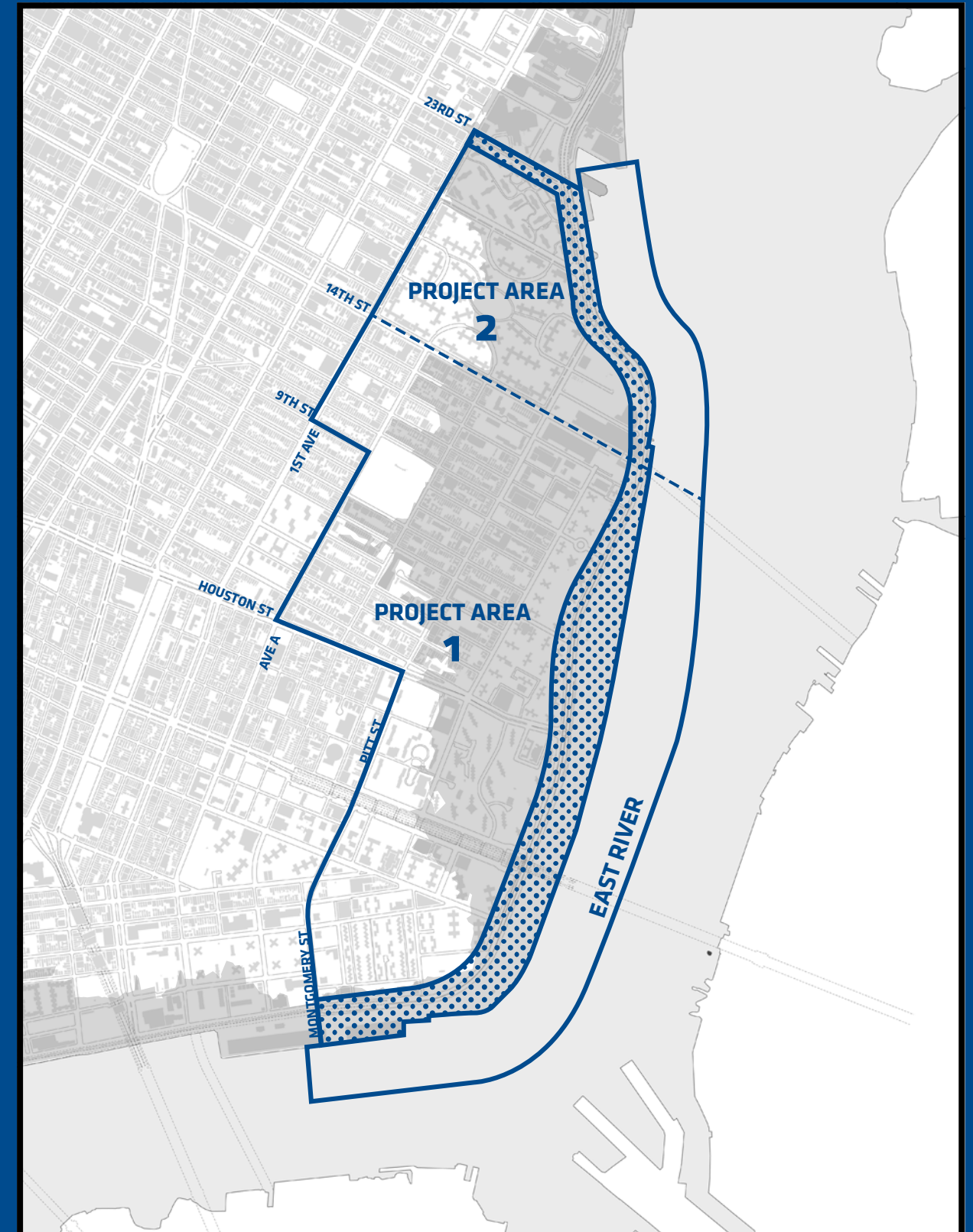
# NEXT STEPS

## STAKEHOLDER ENGAGEMENT

UPCOMING COMMUNITY ENGAGEMENT WORKSHOPS WILL BE HELD FOR **PROJECT AREA 1**:

**JULY 29TH FROM 6:30-8:30PM**  
AT CHURCH OF ST. BRIGID  
119 AVENUE B

**JULY 30TH FROM 6:30-8:30PM**  
AT MANNY CANTOR CENTER  
197 EAST BROADWAY





A young boy with light brown hair is running barefoot across a lush green lawn in Central Park. He is wearing a white t-shirt and dark shorts with a yellow and black pattern. He is smiling and looking towards the left. In the background, there are several tall city buildings under a bright, slightly cloudy sky. Other people are visible in the distance, some sitting on the grass and others walking.

# #ONENYC

[nyc.gov/resiliency](https://nyc.gov/resiliency)

## QUESTIONS/DISCUSSION

E: [nycresiliency@cityhall.nyc.gov](mailto:nycresiliency@cityhall.nyc.gov)

Twitter: @NYClimate



**REPORT BACK**