

REBUILD BY DESIGN
HUDSON RIVER

JERSEY CITY HOBOKEN WEEHAWKEN | NEW JERSEY



PUBLIC MEETING

MAY 9, 2018



AECOM

MEETING AGENDA

- 1. Overview and Accomplishments**
- 2. Design Team Introduction**
- 3. Reviewing Purpose and Need**
- 4. Field Investigations**
- 5. Design Principles**
- 6. Engagement Schedule and Strategies**
- 7. Breakout Activity**

REBUILD BY DESIGN HUDSON RIVER

**New Jersey Department of Environmental
Protection**

Engineering and Construction

Assistant Commissioner Dave Rosenblatt

Bureau of Flood Resilience



REBUILD BY DESIGN VISION

RESIST

Potential Sites for Water Resisting Features in Hoboken

Resist Feature References

Terrestrial Edge
Site Design
Public Domain
Miles Dale

Outdoor Plaza
Public Domain
Miles Dale

Terrestrial Landmarks
JFK Center
Public Domain
Project Studio

DELAY

Potential Sites for Water Delaying Features in Hoboken

Delay Feature References

Green Roof
Public Domain
Miles Dale

Wooden Boardwalk
Public Domain
Miles Dale

Public Domain
Miles Dale

STORE

Potential Sites for Water Storage Features in Hoboken

Storage Feature References

Concrete Storage Tank
Public Domain
Miles Dale

Landscaped Area
Public Domain
Miles Dale

Stormwater Management Pipes
Public Domain
Miles Dale

DISCHARGE

Potential Sites for Water Discharge Features in Hoboken

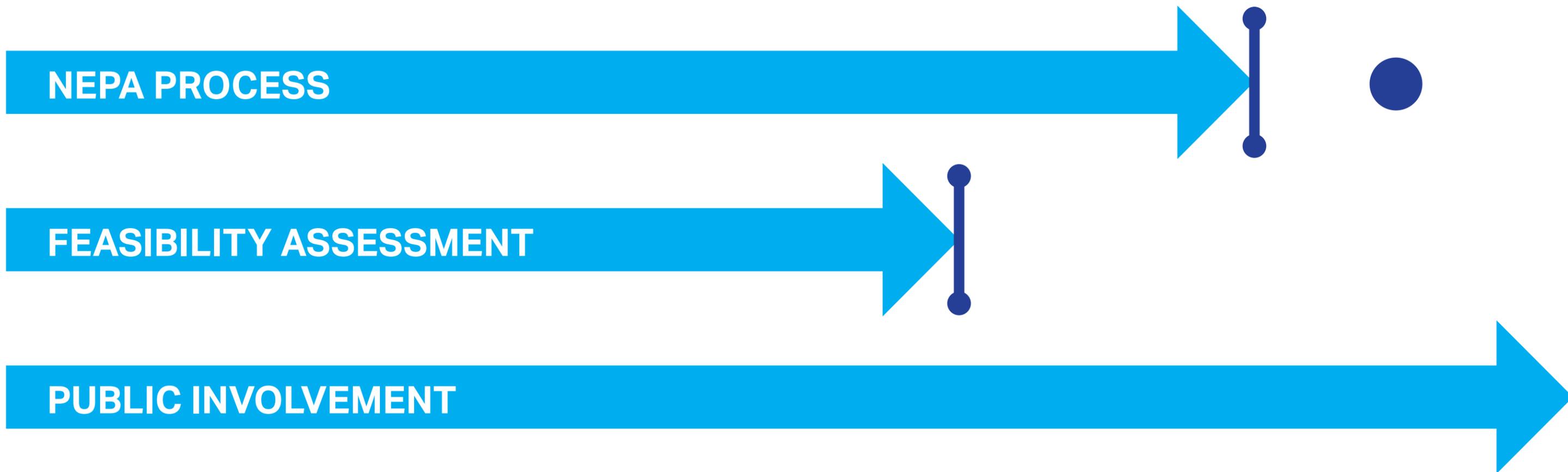
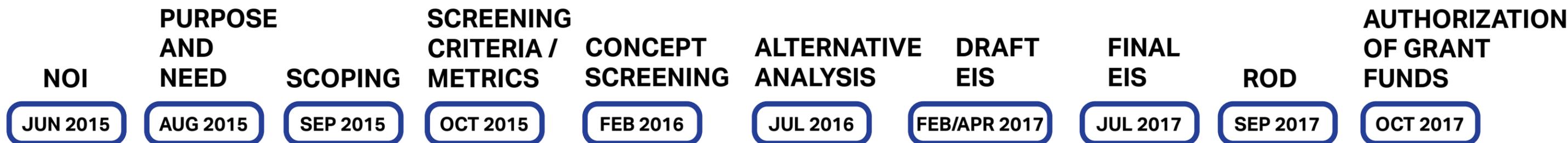
Discharge Feature References

Rocky Shoreline
Public Domain
Miles Dale

Stormwater and Wet Weather Pumping Station
Public Domain
Miles Dale

A LOOK BACK

2015 - 2017



A LOOK FORWARD



AREAS OF ONGOING COORDINATION

- **Executive Steering Committee**
- **Citizen Advisory Group**
- **Operations and Maintenance**
- **FEMA Accreditation**
- **Urban Design and Amenities**
- **Section 106 Programmatic Agreement**

ISSUES OF KNOWN CONCERN

SUMMARY

CHALLENGES	STATUS
<ul style="list-style-type: none">• Schedule	<p>Design Phase - Complete 2019</p> <p>Construction - Complete Sept. 2022</p>
<ul style="list-style-type: none">• Budget	<p>Under review during design phase</p> <p>Value Engineering will be required</p>
<ul style="list-style-type: none">• FEMA Accreditation	<p>Large number of gates</p> <p>Subsurface conditions under investigation</p>
<ul style="list-style-type: none">• Southern Resist Alignment (Option 1 vs. Option 2)	<p>A final decision has not yet been made</p>
<ul style="list-style-type: none">• Operations & Maintenance (O&M)	<p>Developing options, entity and long term financing</p>

THE TEAM

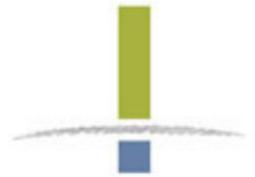
SPECIALTY SUB CONSULTANTS

AECOM

OMA

MATRIX **NEW** WORLD

MAGNUSSON
KLEMENCIC
ASSOCIATES



REMORA CONSULTING,
LLC.



THE TEAM

WHO YOU WILL SEE TONIGHT FROM THE AECOM PROJECT TEAM



Presenter

**CHRISTOPHER BENOSKY,
PE, CFM**
Project Executive



Presenter

KAREN APPELL PE, CPESC
Project Manager



Presenter

ERIC OLSEN
Landscape Architecture/
Urban Design and Community
Engagement



Presenter

ADEL EBEID
Community Engagement
Facilitator



HEATHER MORGAN, RLA
Deputy Project Manager



CHRISTY CHENG
Community Engagement

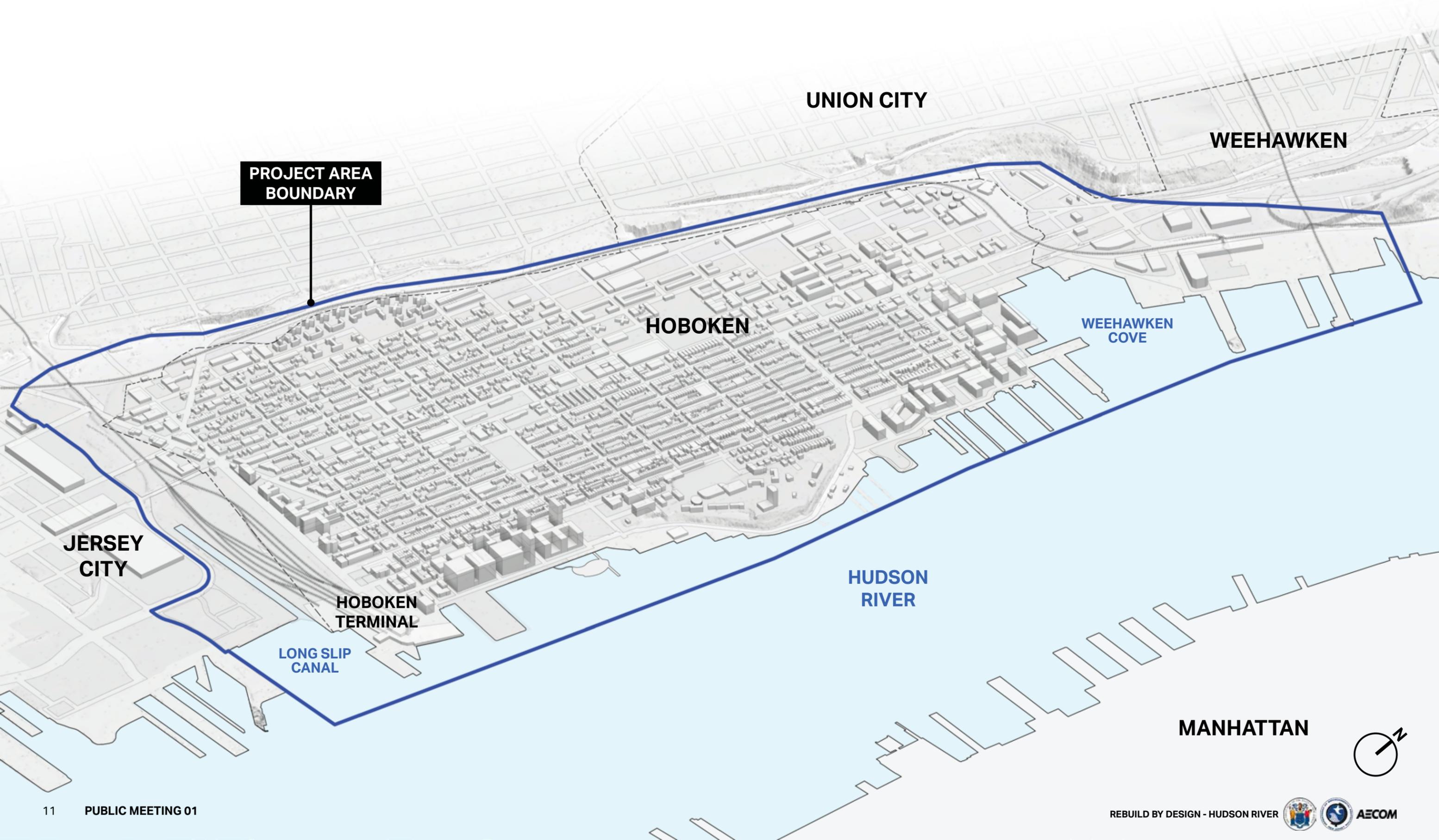


DANIEL SGRIZZI
Landscape Architecture/
Urban Design

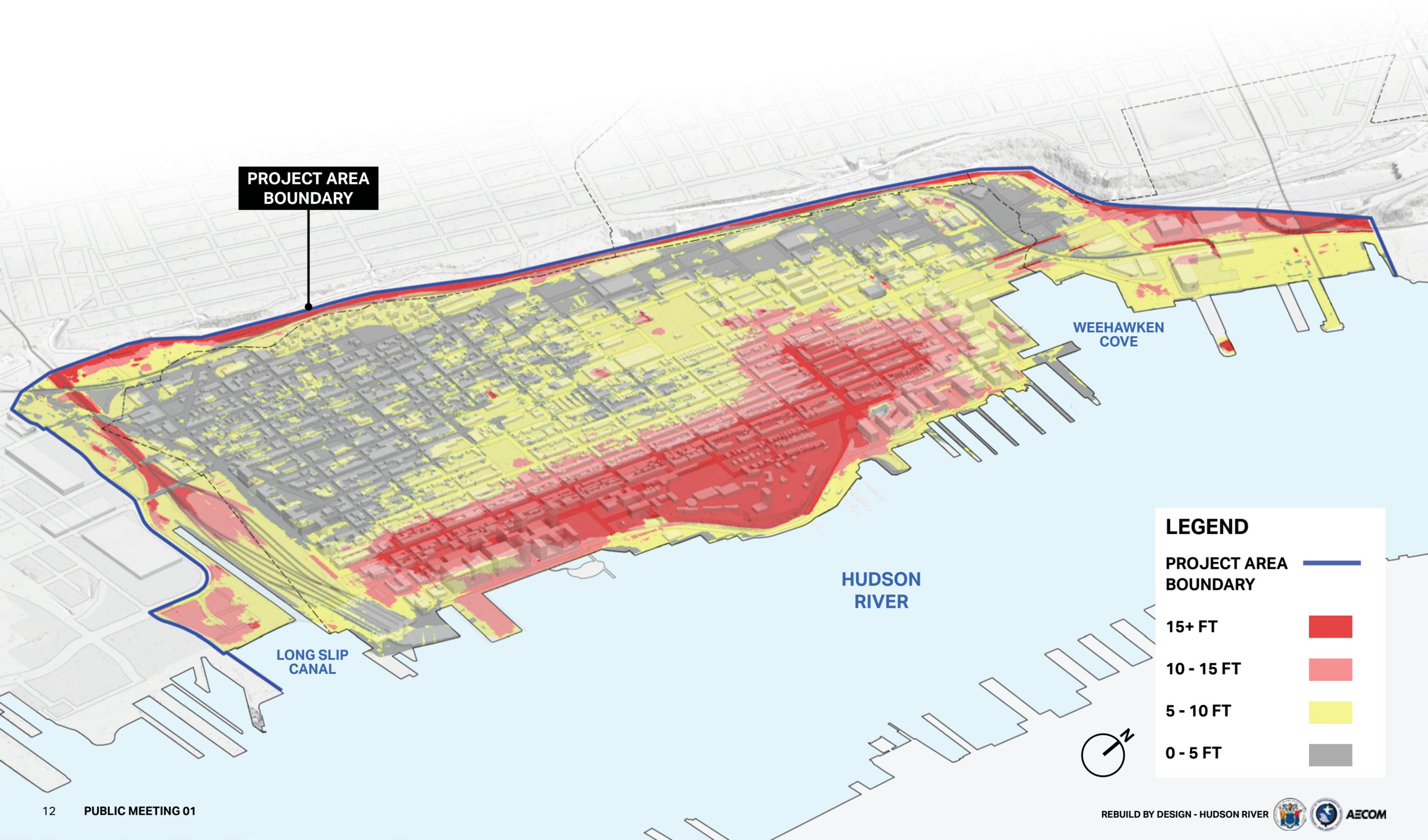


MARC TUOZZOLO
Project Specialist

PROJECT AREA



TOPOGRAPHY



PROJECT AREA
BOUNDARY

WEEHAWKEN
COVE

HUDSON
RIVER

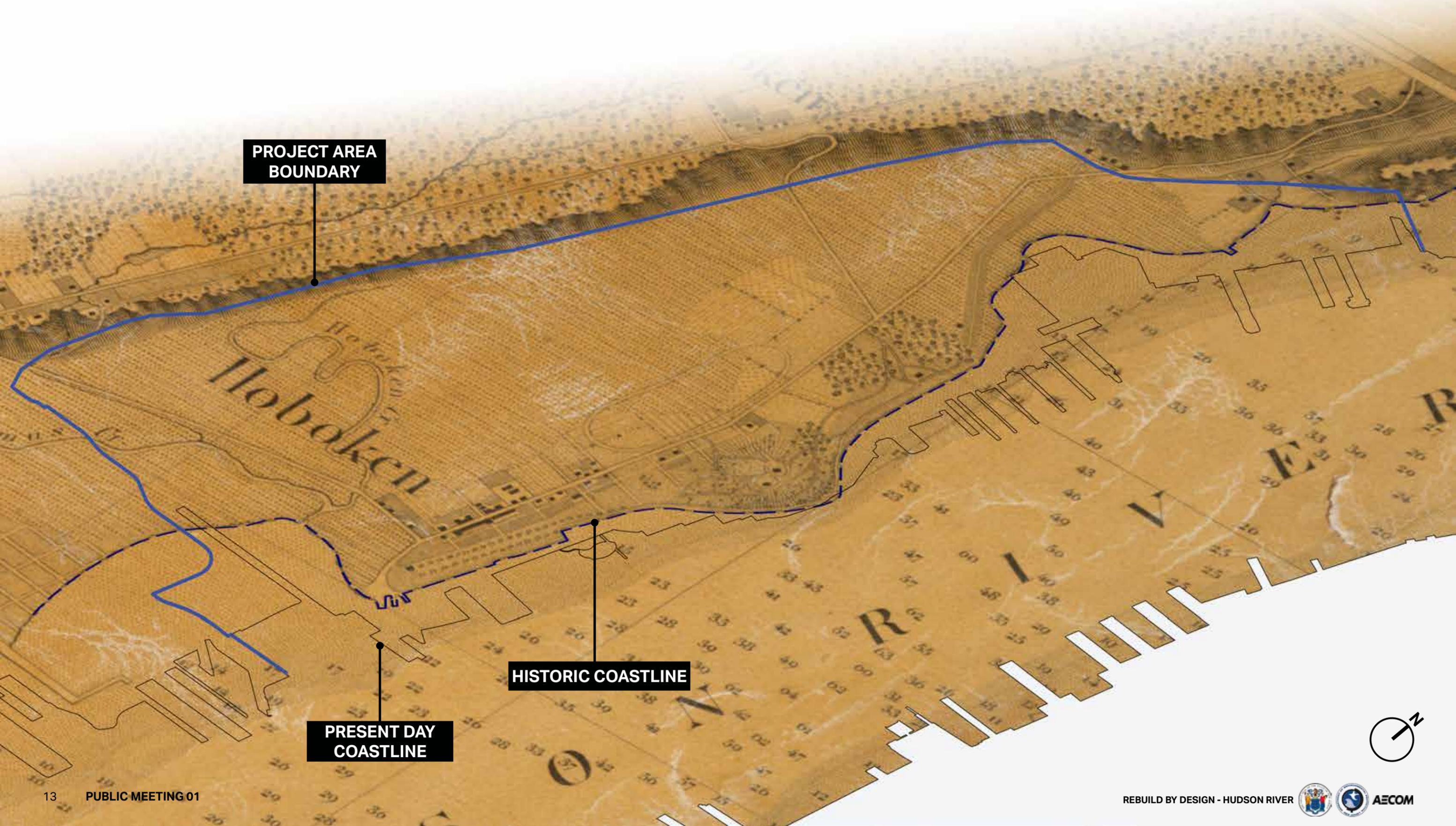
LONG SLIP
CANAL

LEGEND

PROJECT AREA BOUNDARY	
15+ FT	
10 - 15 FT	
5 - 10 FT	
0 - 5 FT	

HISTORICAL CONTEXT

1844



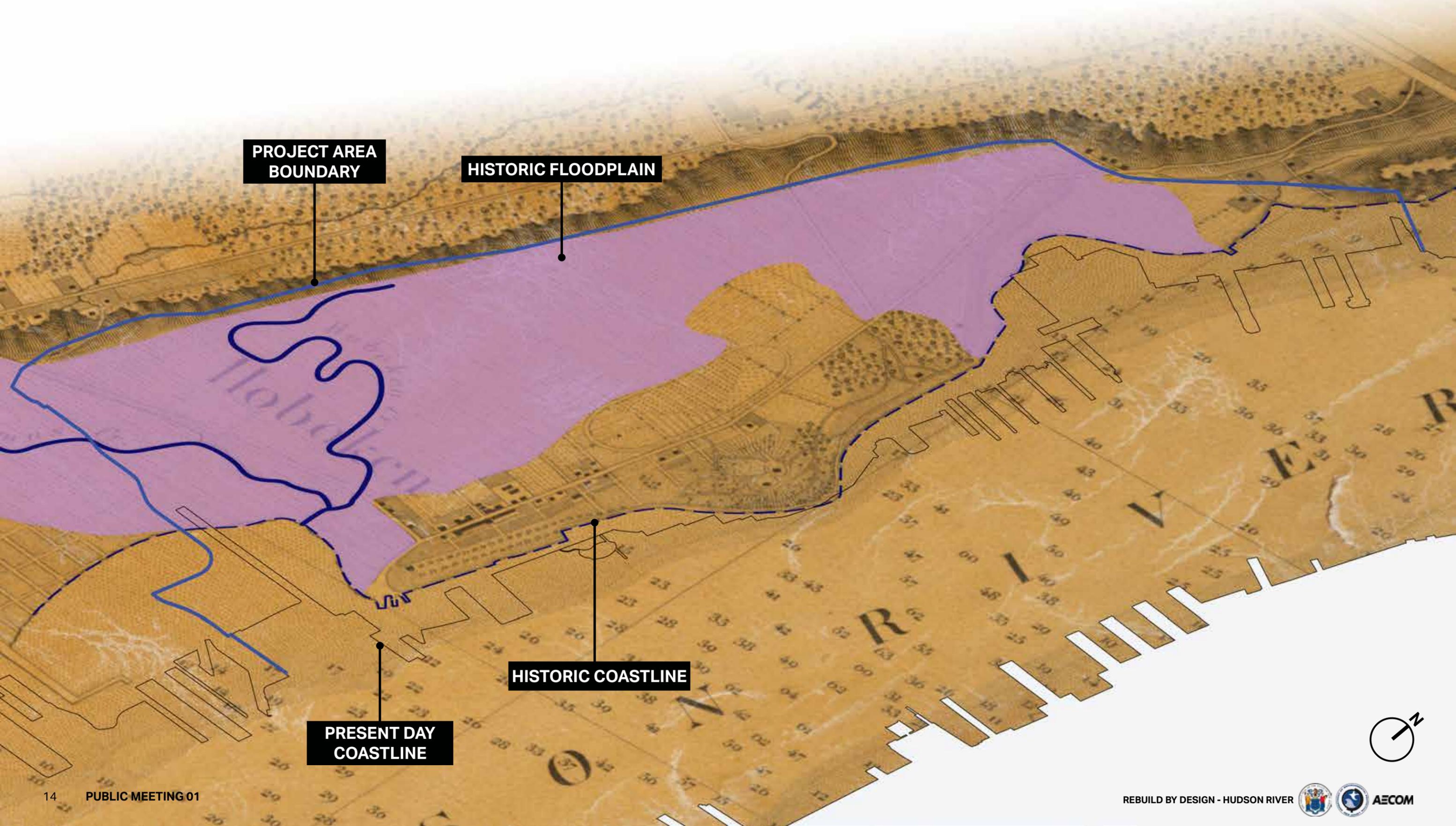
PROJECT AREA
BOUNDARY

HISTORIC COASTLINE

PRESENT DAY
COASTLINE

HISTORICAL FLOODING

1844 FLOODPLAIN



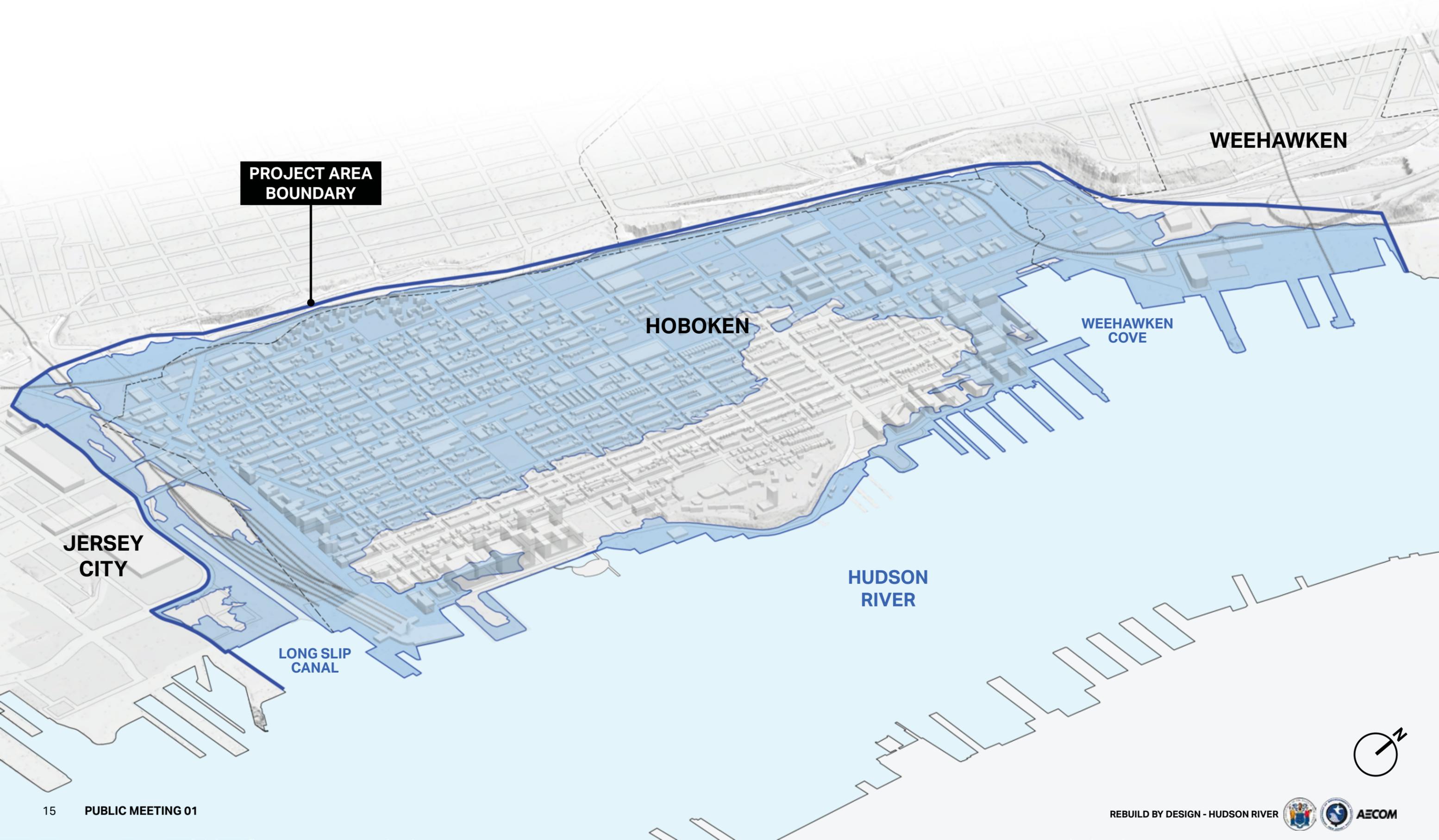
PROJECT AREA
BOUNDARY

HISTORIC FLOODPLAIN

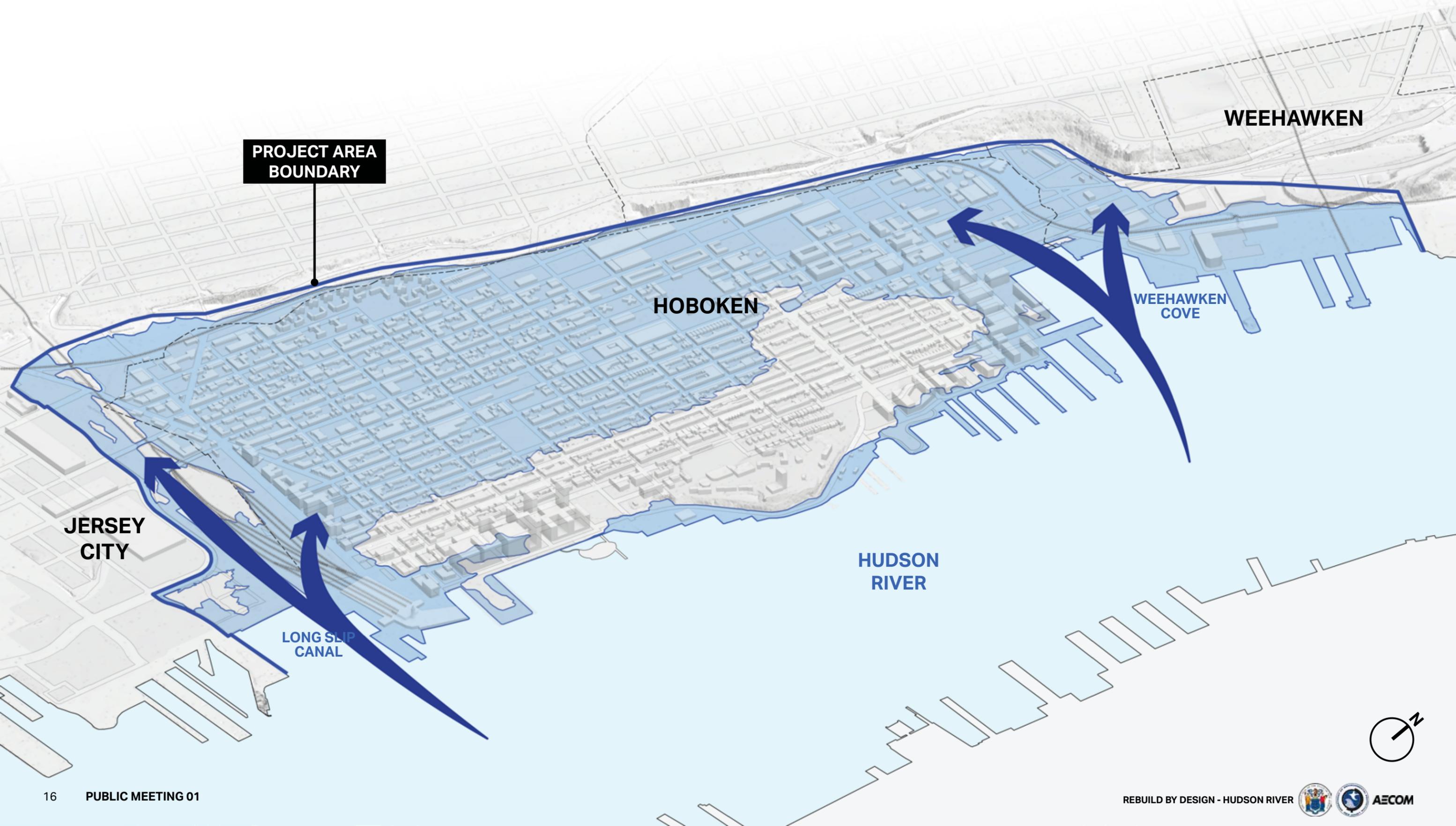
HISTORIC COASTLINE

PRESENT DAY
COASTLINE

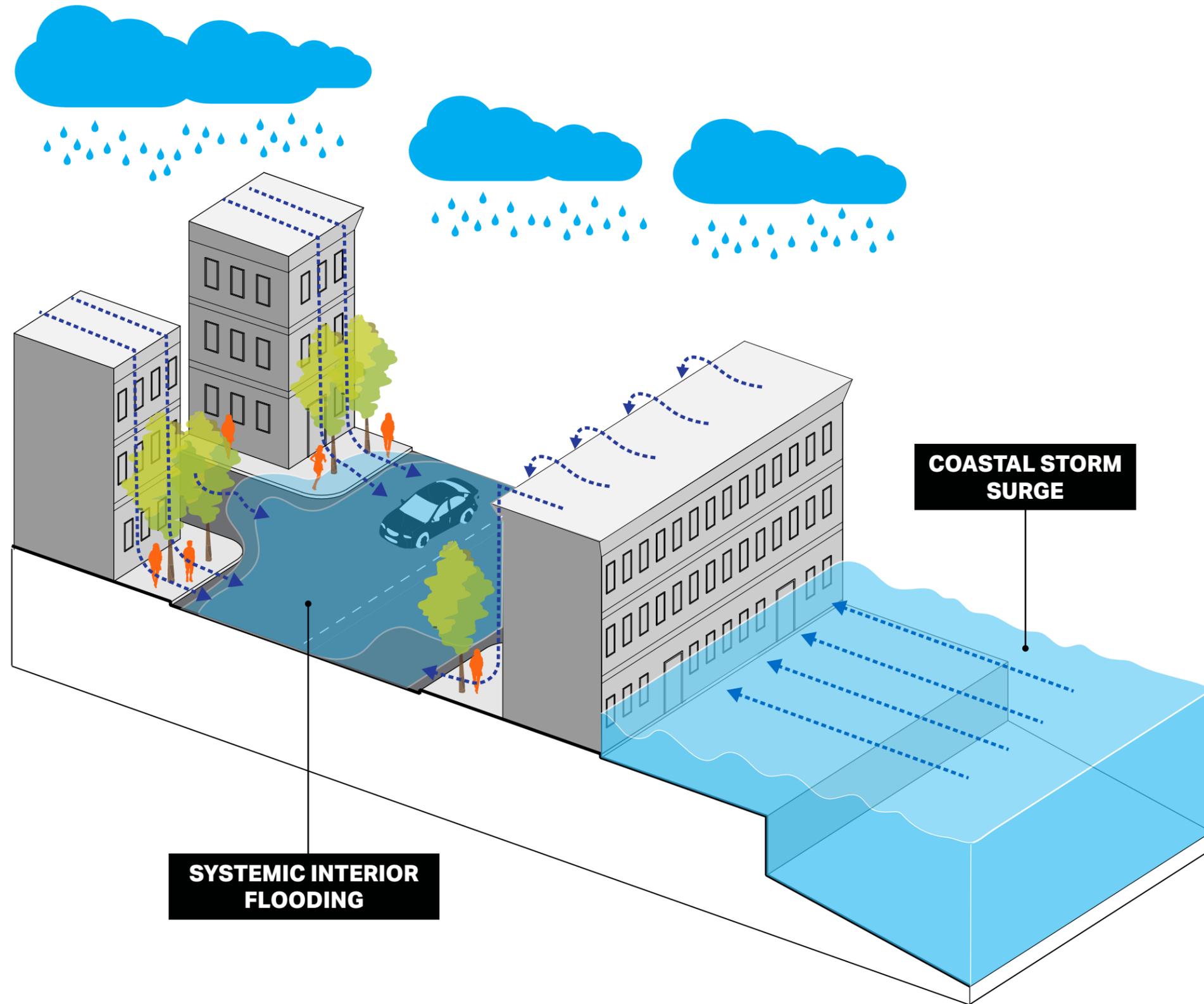
100-YEAR FLOODPLAIN



HURRICANE SANDY BREACH POINTS

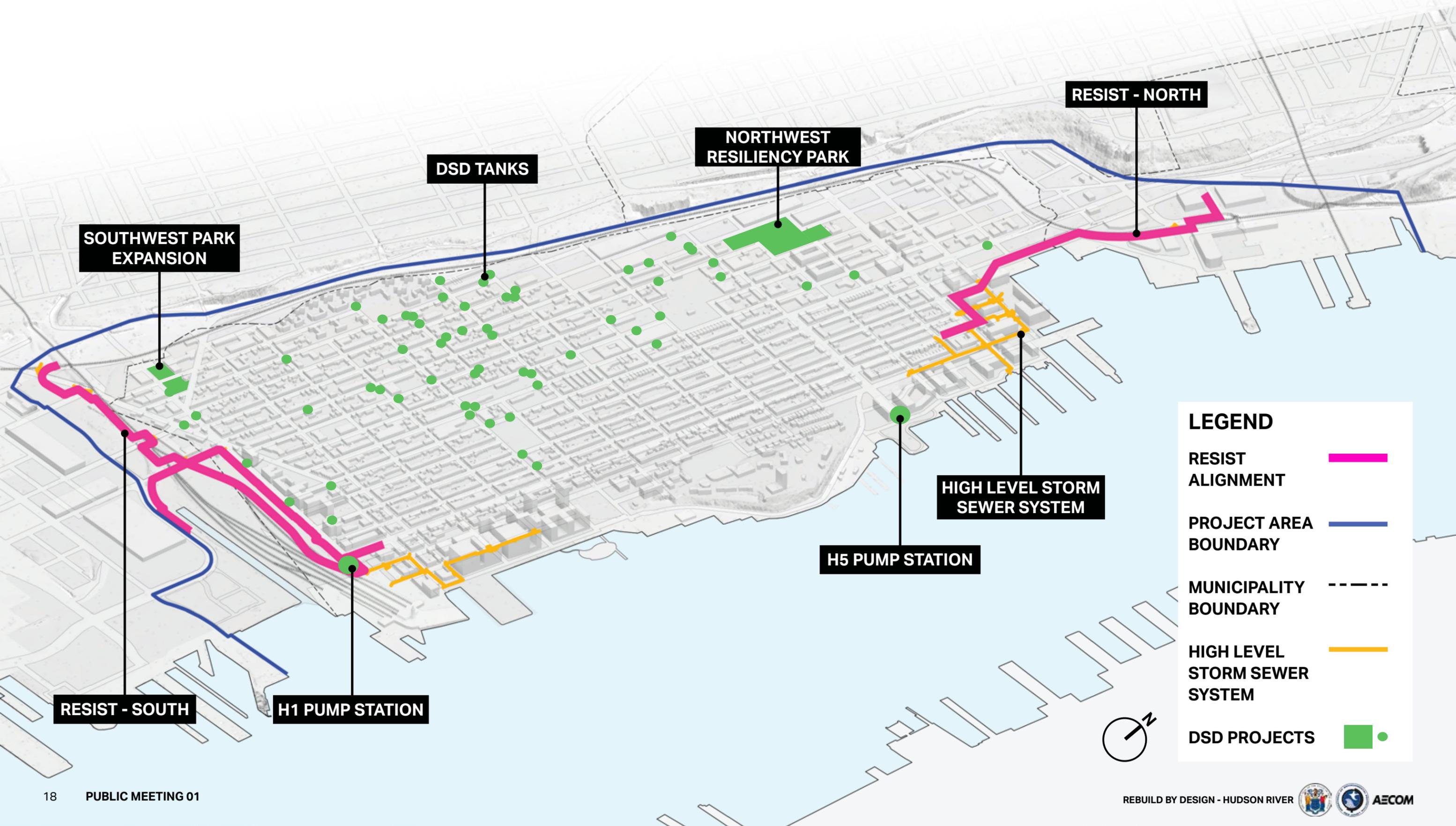


PURPOSE AND NEED



COMPREHENSIVE WATER MANAGEMENT STRATEGY

RESIST, DELAY, STORE, DISCHARGE

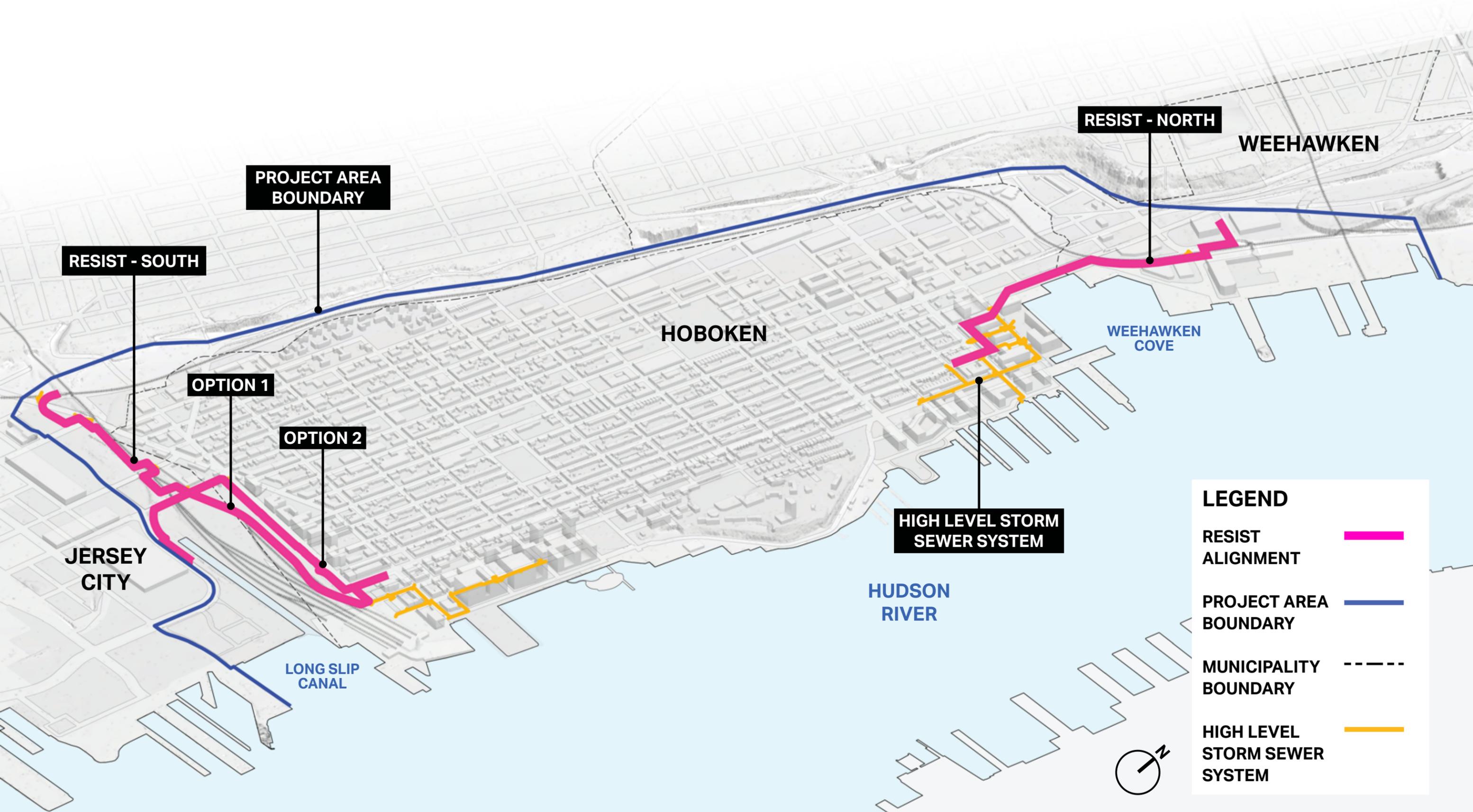


LEGEND

- RESIST ALIGNMENT
- PROJECT AREA BOUNDARY
- MUNICIPALITY BOUNDARY
- HIGH LEVEL STORM SEWER SYSTEM
- DSD PROJECTS



RESIST COMPONENTS

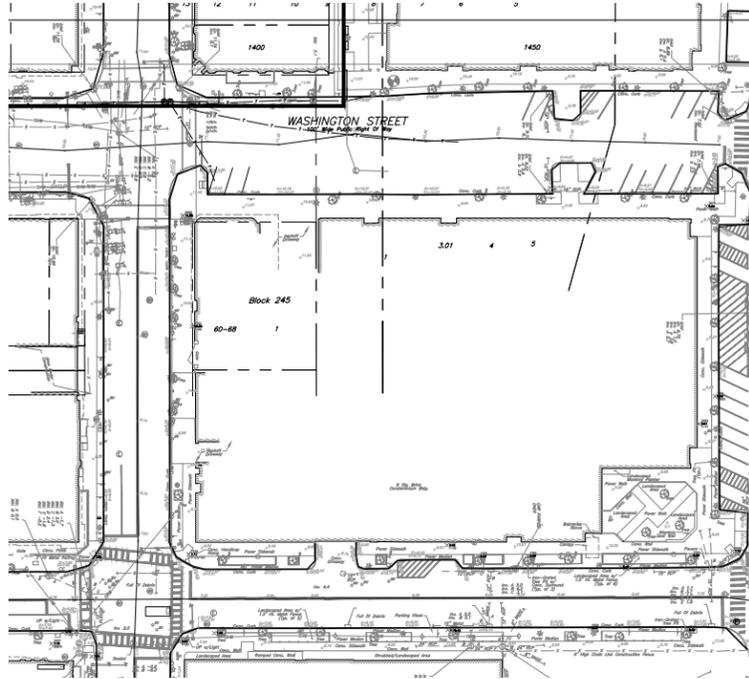


LEGEND

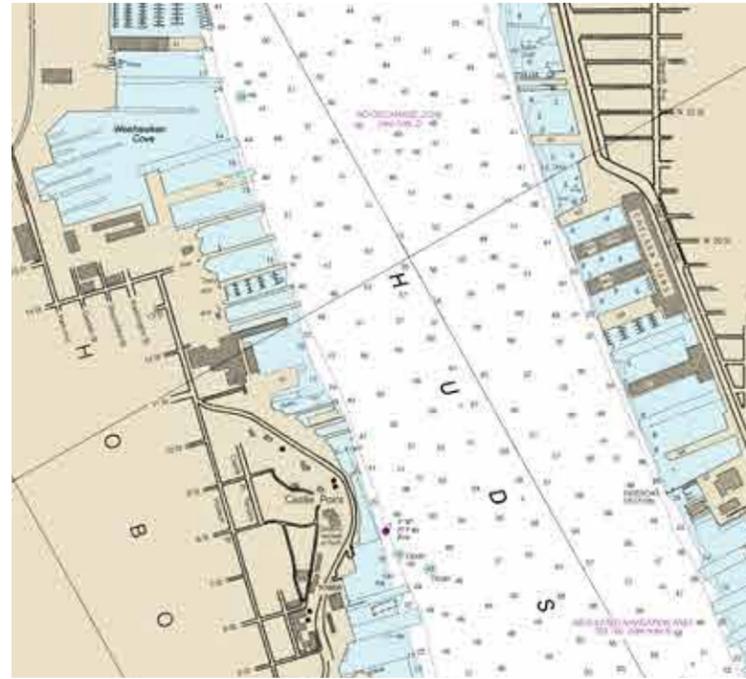
- RESIST ALIGNMENT 
- PROJECT AREA BOUNDARY 
- MUNICIPALITY BOUNDARY 
- HIGH LEVEL STORM SEWER SYSTEM 



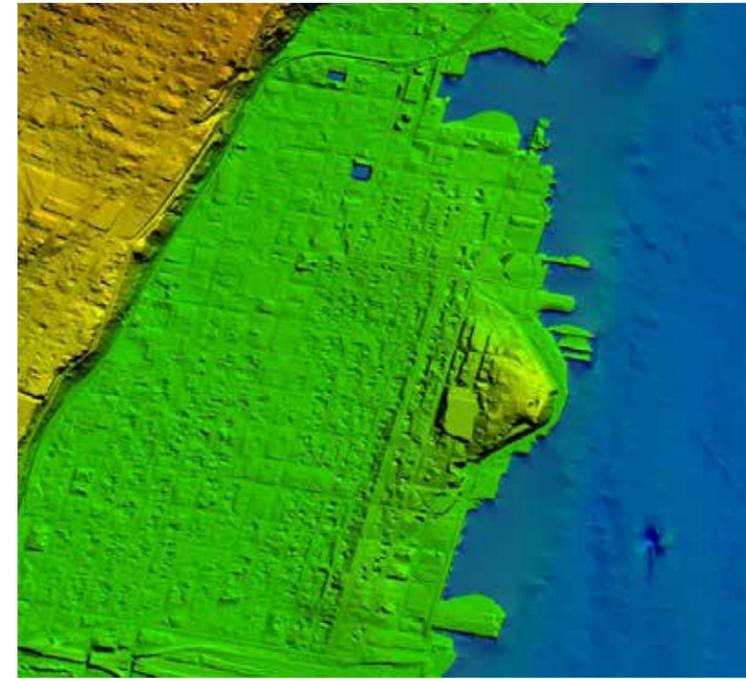
FIELD INVESTIGATIONS



Survey - Topographic Dry Land Contour Mapping



Bathymetry - Underwater Contour Mapping



Survey + Bathymetry: LIDAR



Subsurface Investigations - Geotechnical and Environmental

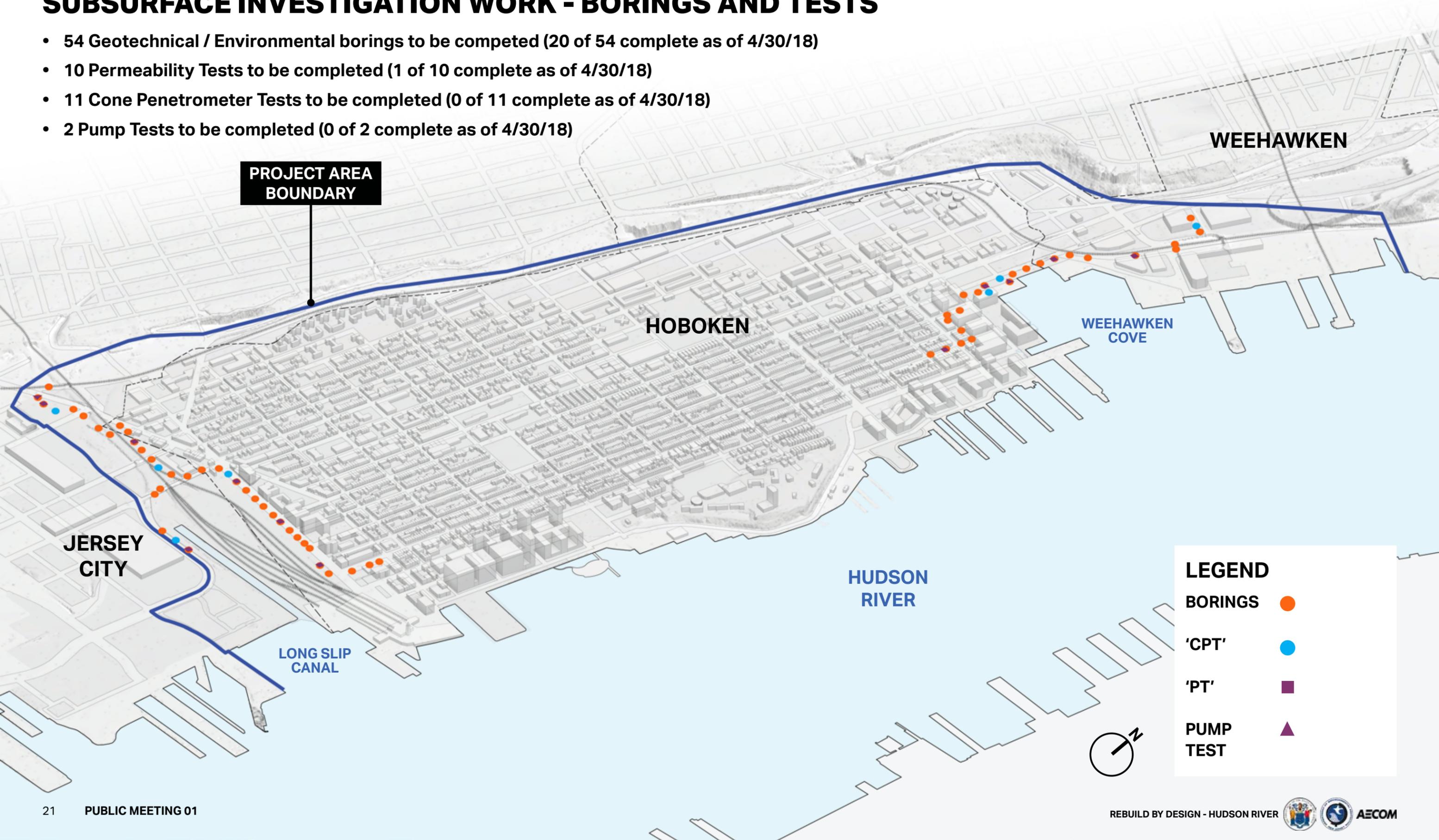


Pile Load Testing - starting soon

FIELD INVESTIGATIONS

SUBSURFACE INVESTIGATION WORK - BORINGS AND TESTS

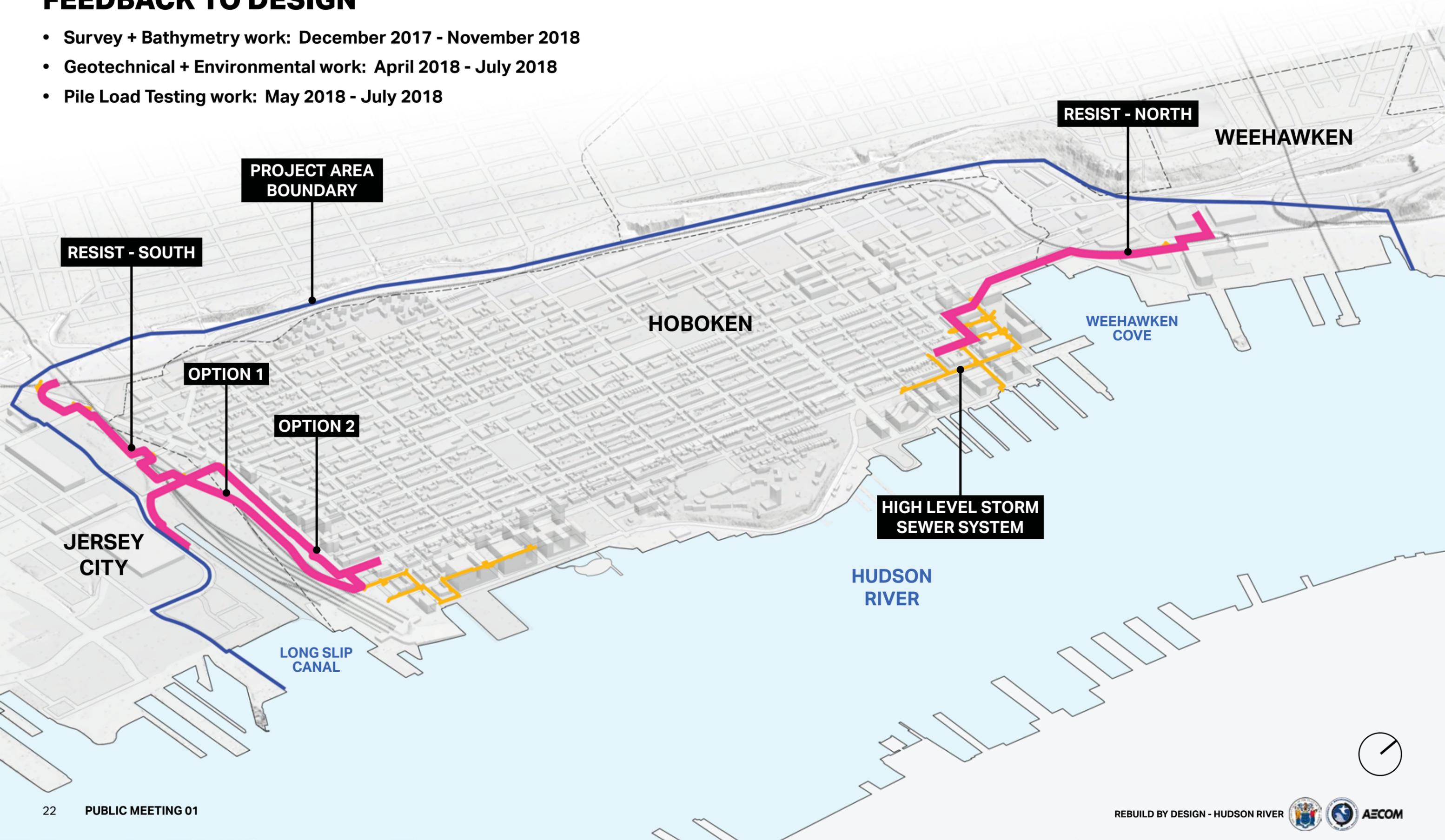
- 54 Geotechnical / Environmental borings to be completed (20 of 54 complete as of 4/30/18)
- 10 Permeability Tests to be completed (1 of 10 complete as of 4/30/18)
- 11 Cone Penetrometer Tests to be completed (0 of 11 complete as of 4/30/18)
- 2 Pump Tests to be completed (0 of 2 complete as of 4/30/18)



FIELD INVESTIGATIONS

FEEDBACK TO DESIGN

- Survey + Bathymetry work: December 2017 - November 2018
- Geotechnical + Environmental work: April 2018 - July 2018
- Pile Load Testing work: May 2018 - July 2018



DEVELOPMENT OF DESIGN

**DESIGN
DEVELOPMENT**

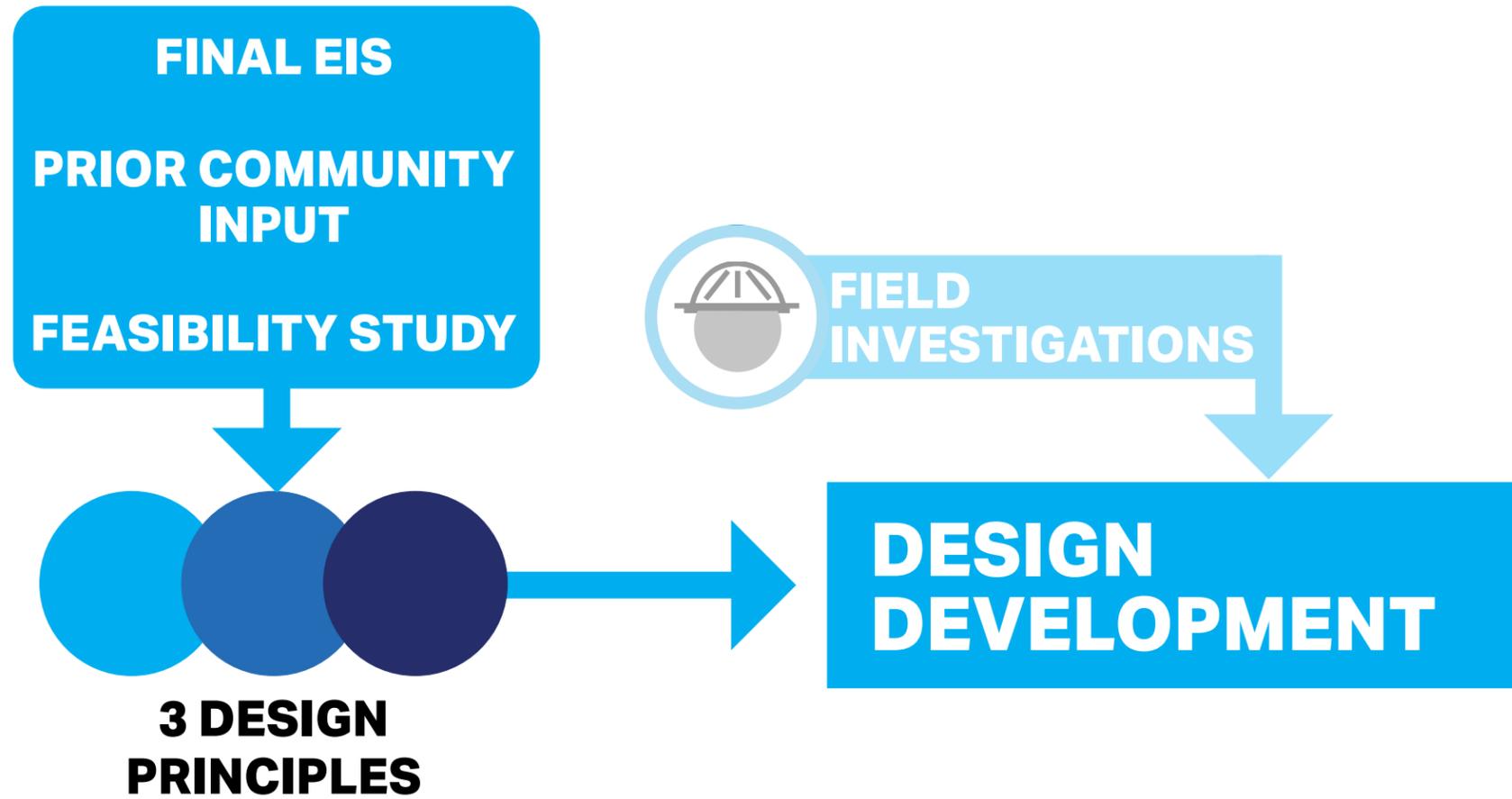
DEVELOPMENT OF DESIGN

FIELD INVESTIGATIONS INFORMING DESIGN DEVELOPMENT



DEVELOPMENT OF DESIGN

3 DESIGN PRINCIPLES INFORMING DESIGN DEVELOPMENT



DESIGN PRINCIPLES

**Engineering Design
Principles**

FLOOD RISK REDUCTION

**Urban Design &
Landscape Architecture
Design Principles**

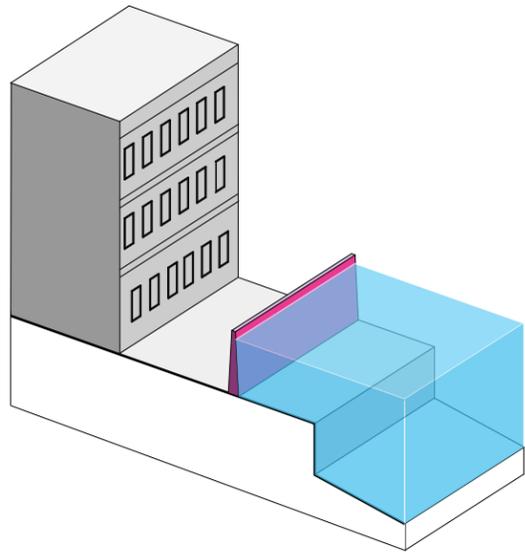
MULTI-PURPOSE

**WOVEN INTO
EXISTING URBAN
FABRIC**

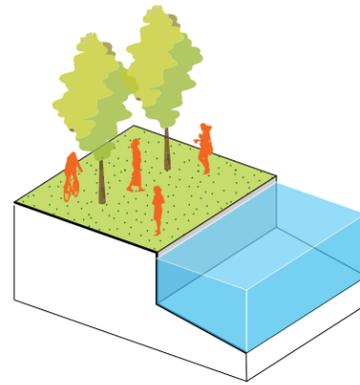
**INTEGRATED
INTO OPEN SPACE
IMPROVEMENTS**

DESIGN PRINCIPLES

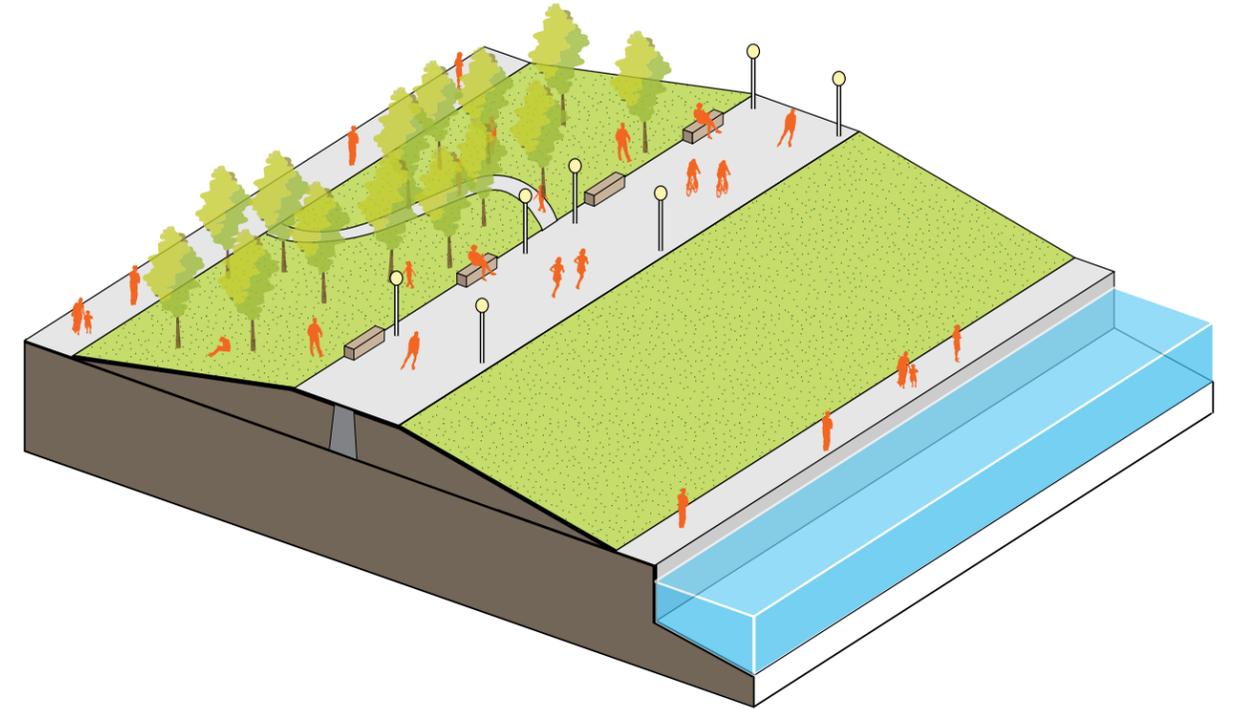
● MULTI-PURPOSE



FLOOD RISK REDUCTION



PUBLIC BENEFIT



MULTI-PURPOSE FLOOD RISK REDUCTION ALIGNMENT



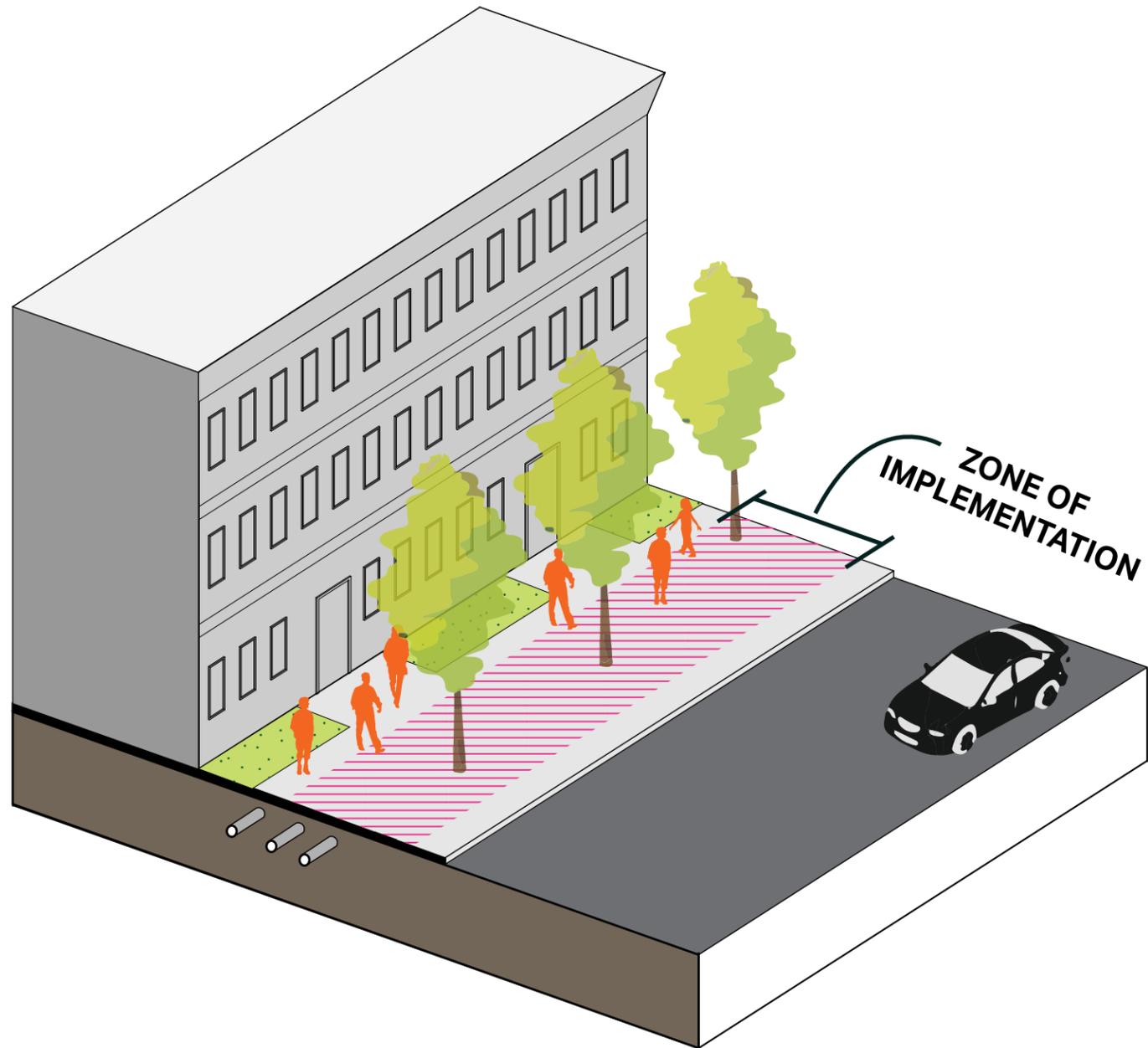
MULTI-PURPOSE ALIGNMENT



MULTI-PURPOSE ALIGNMENT

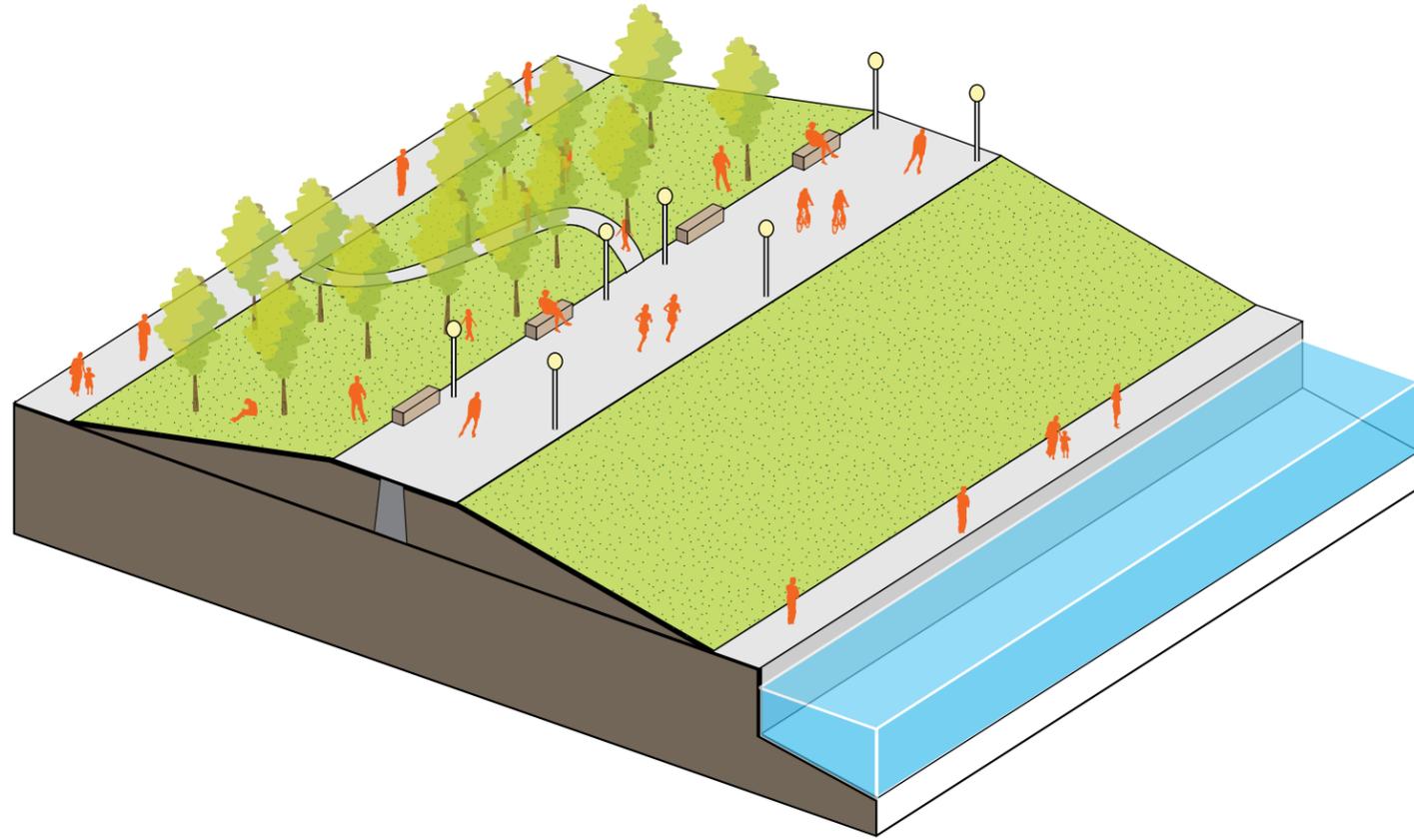
DESIGN PRINCIPLES

WOVEN INTO EXISTING URBAN FABRIC



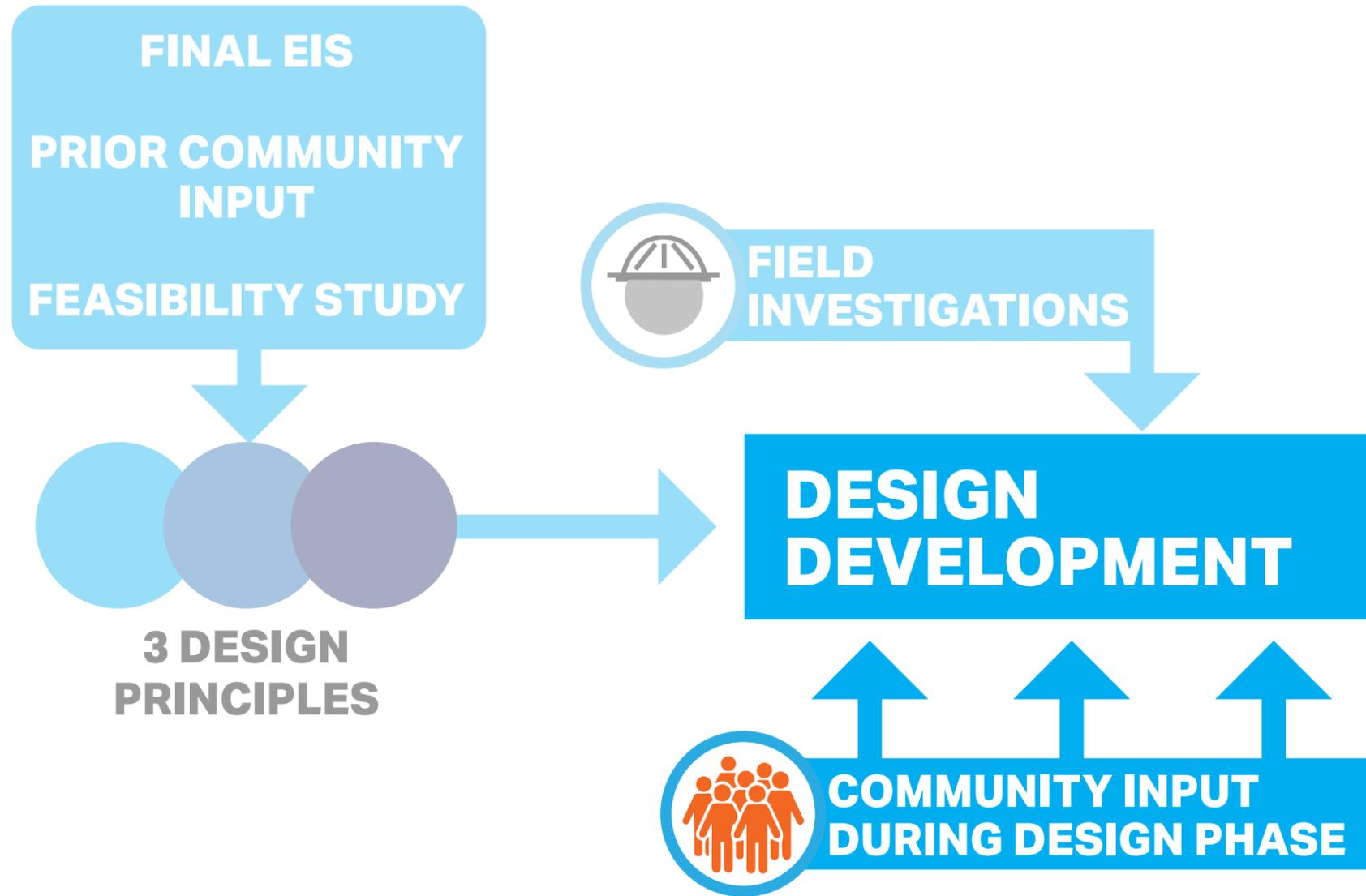
DESIGN PRINCIPLES

● INTEGRATED INTO OPEN SPACE IMPROVEMENTS



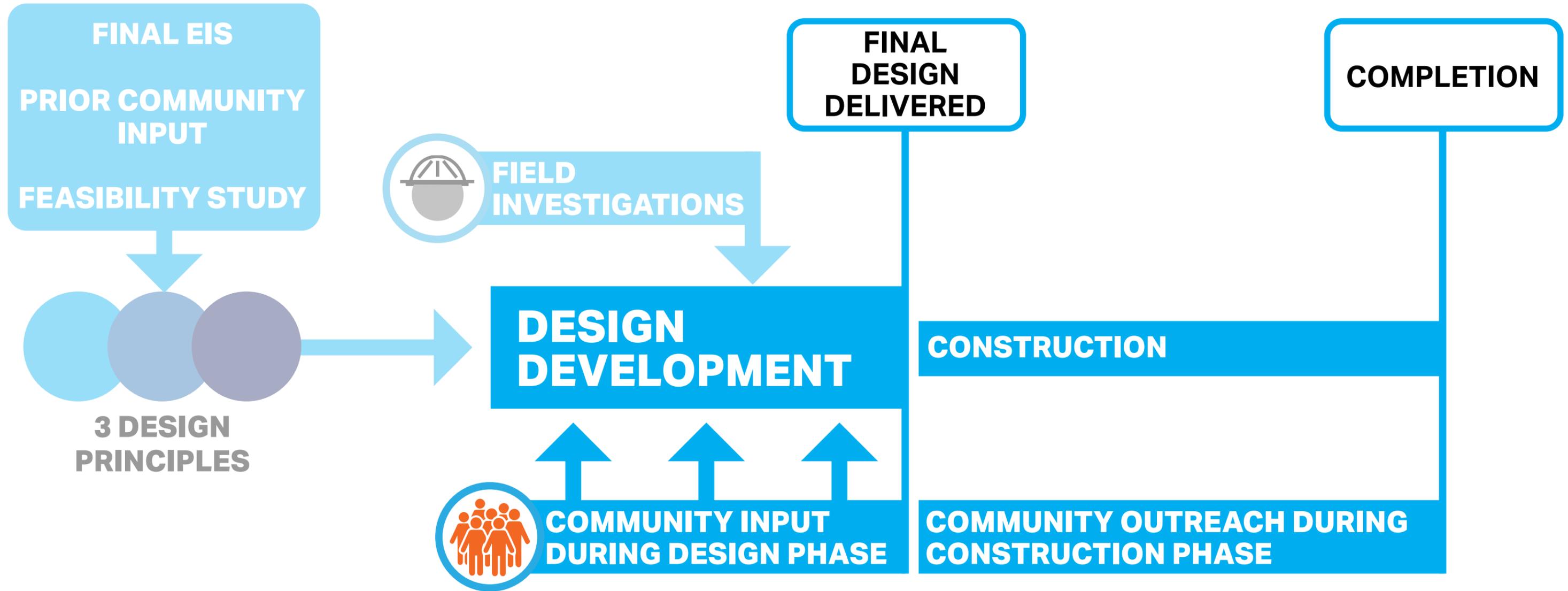
DEVELOPMENT OF DESIGN

COMMUNITY ENGAGEMENT INFORMING DESIGN DEVELOPMENT



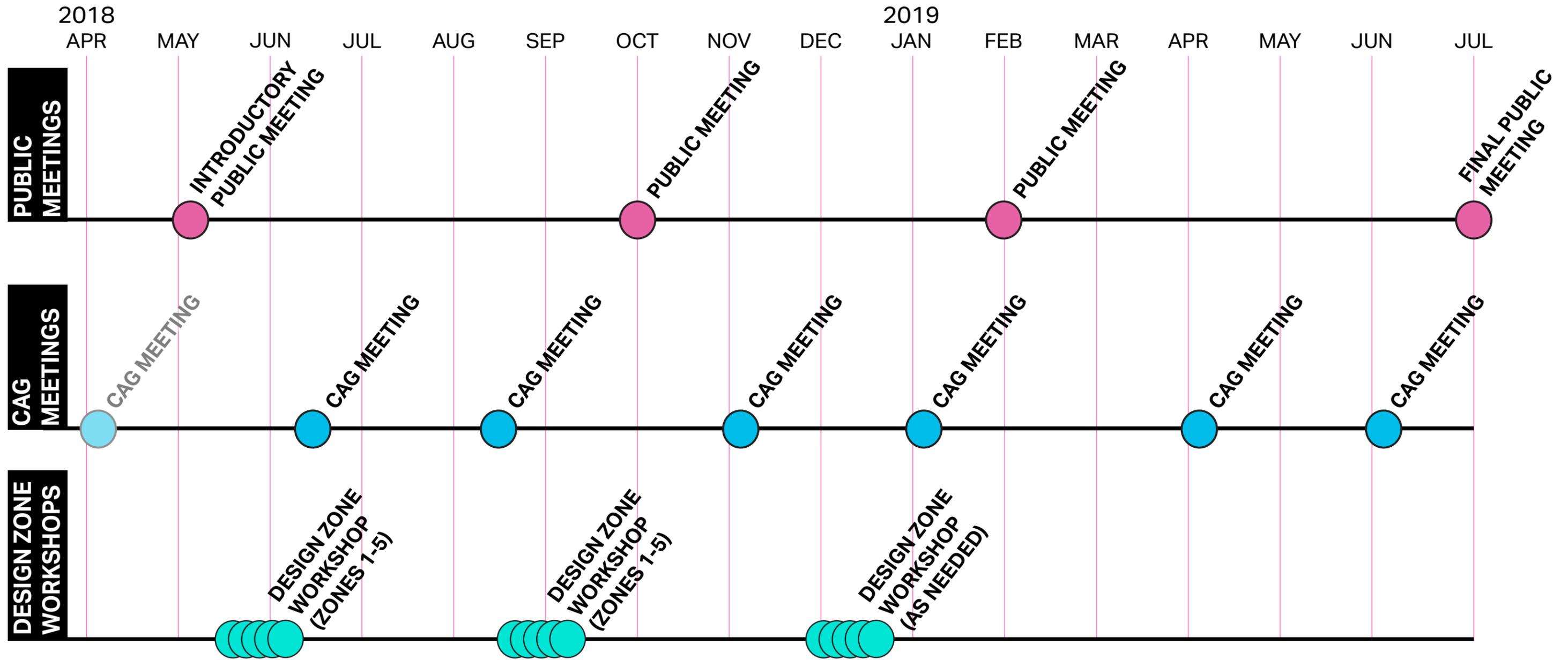
DEVELOPMENT OF DESIGN

COMMUNITY ENGAGEMENT INFORMING DESIGN DEVELOPMENT



ENGAGEMENT SCHEDULE + STRATEGIES

CADENCE + ORGANIZATION

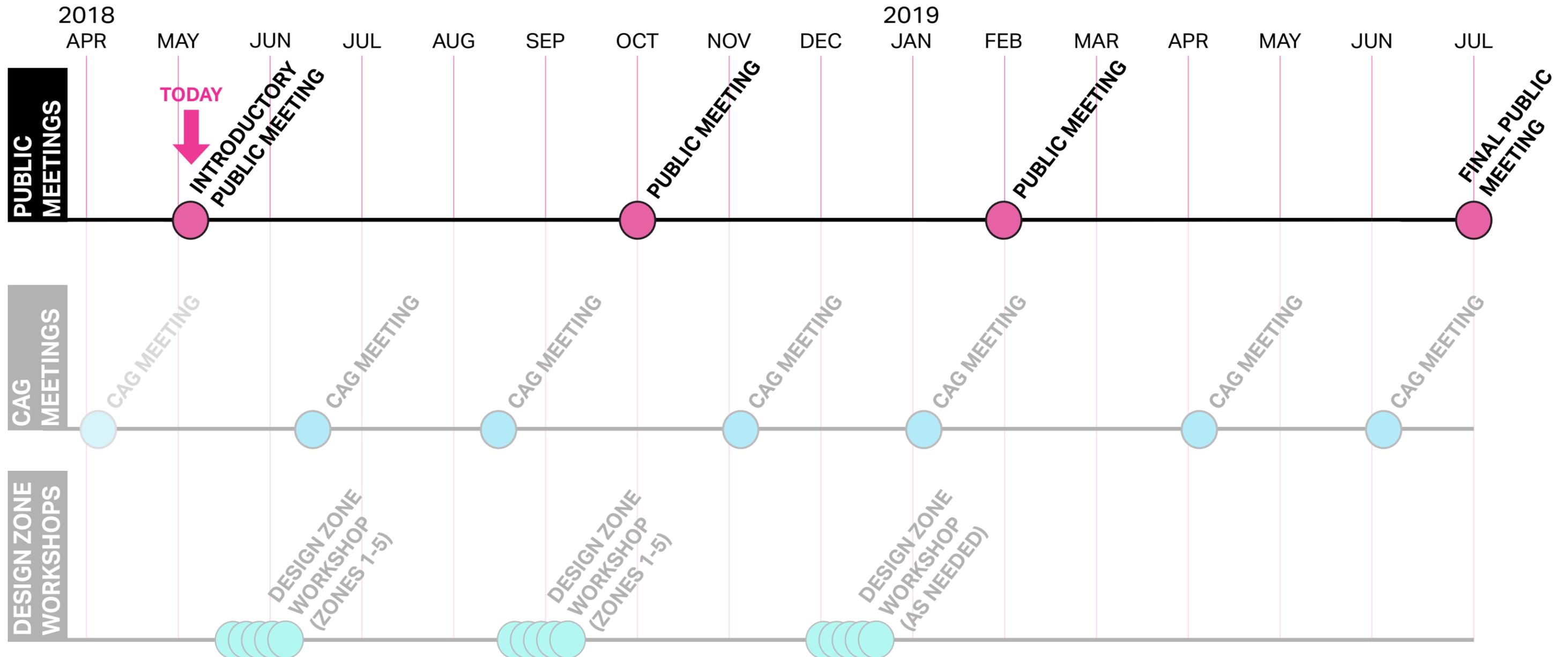


- Public meeting materials will be posted to the web, as well as project updates.
- Video recordings of public meetings will be posted to the web for those who can't attend.
- Working focus group meeting periods will compliment the cadence of meetings above, and will serve as a way to engage with the public and specific identified special interest groups on an as need basis throughout the overall engagement process.

*** Meeting dates shown on graphic schedules are approximate and subject to change to best reflect and meet project needs. See NJDEP website for formal meeting date confirmations and announcements.*

ENGAGEMENT SCHEDULE + STRATEGIES

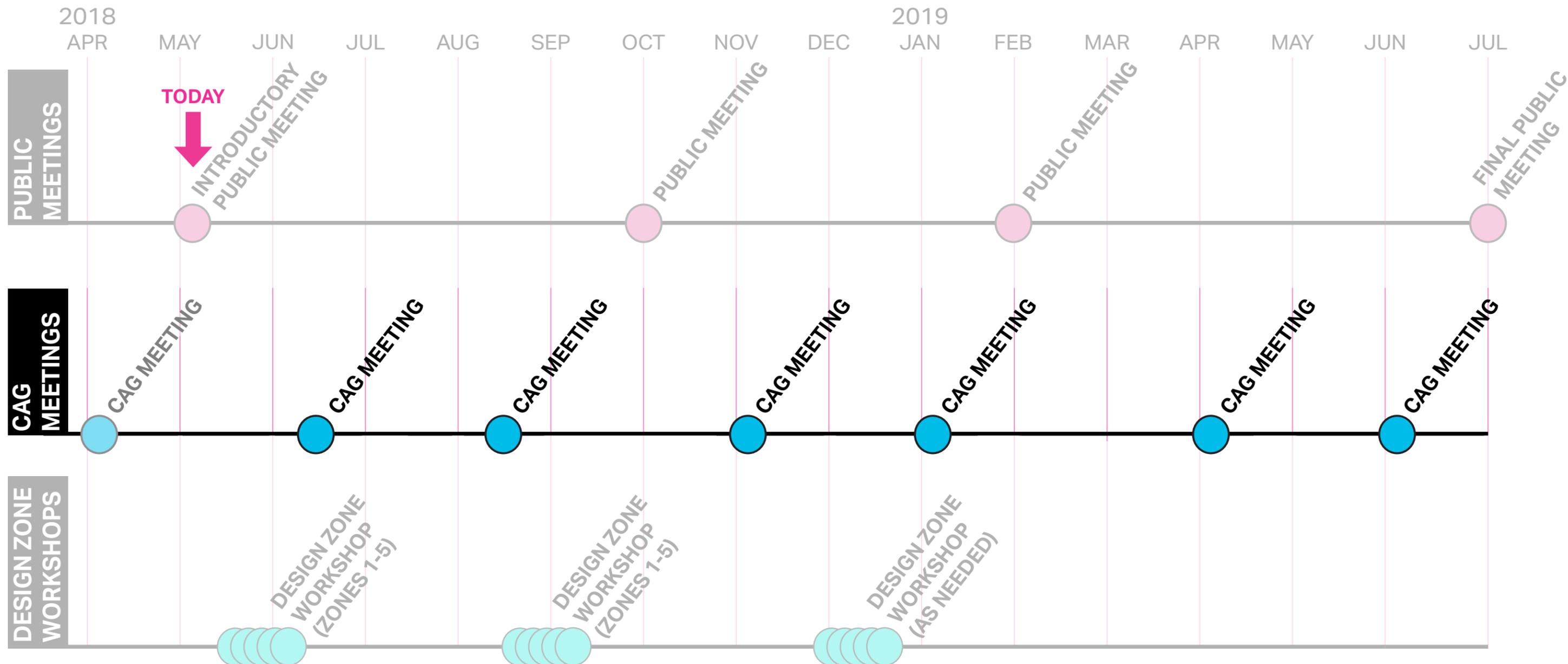
PUBLIC MEETINGS



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ENGAGEMENT SCHEDULE + STRATEGIES

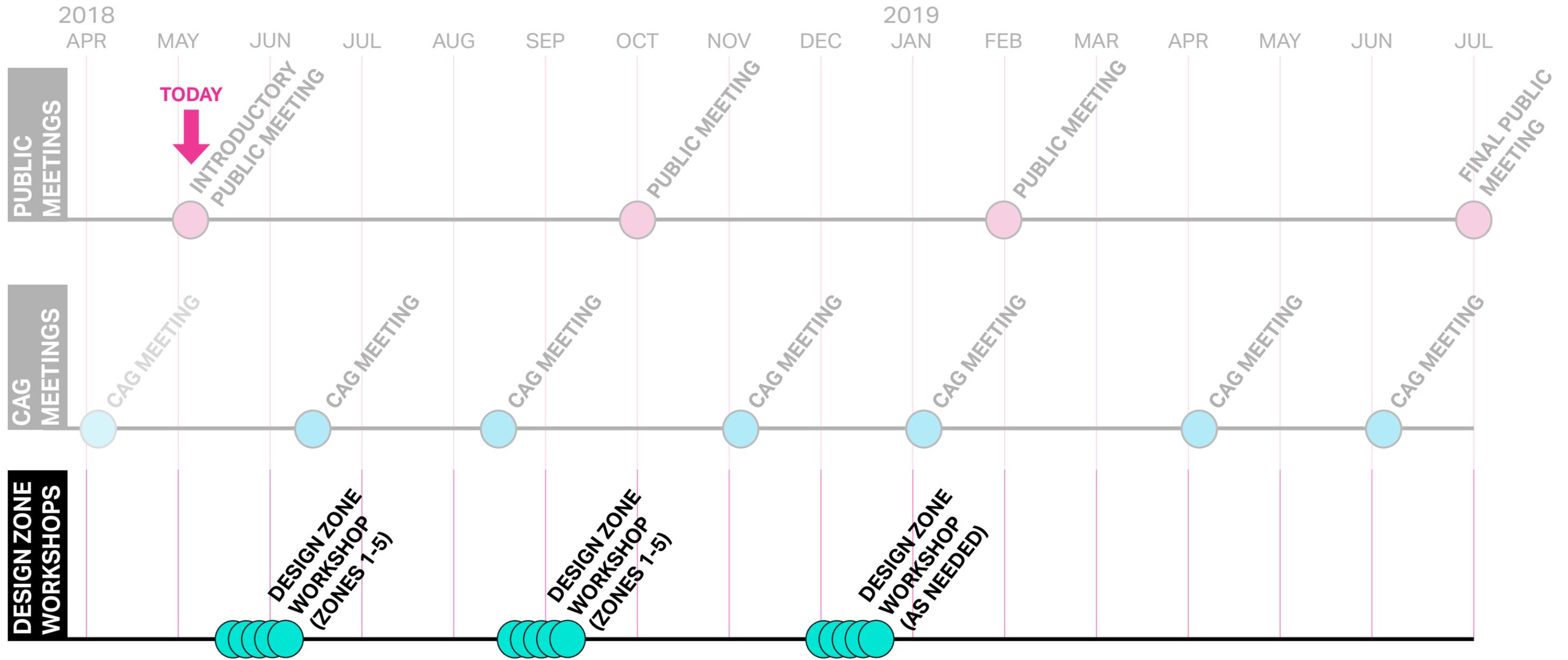
CITIZEN ADVISORY GROUP MEETINGS (CAG)



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ENGAGEMENT SCHEDULE + STRATEGIES

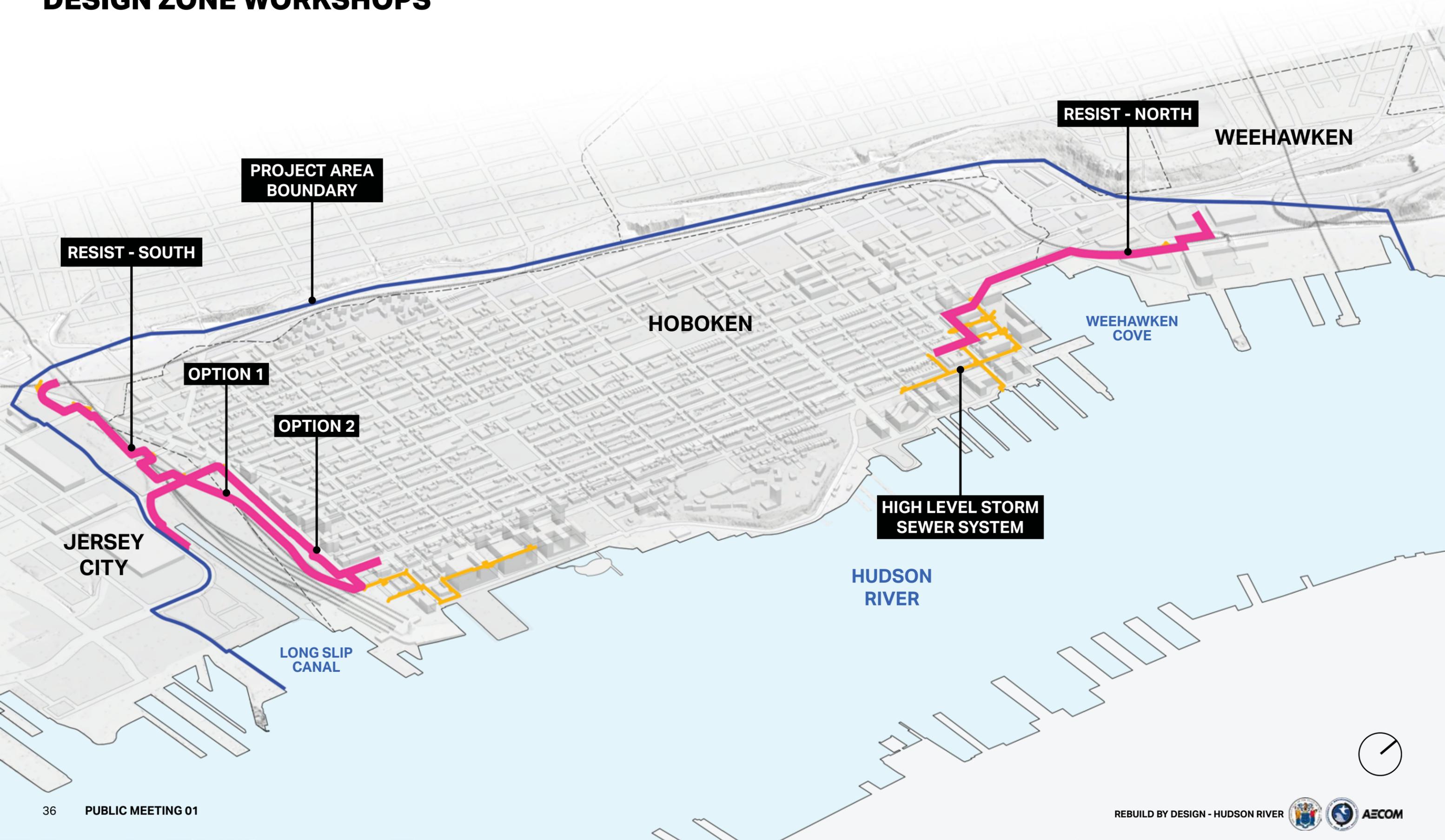
DESIGN ZONE WORKSHOPS



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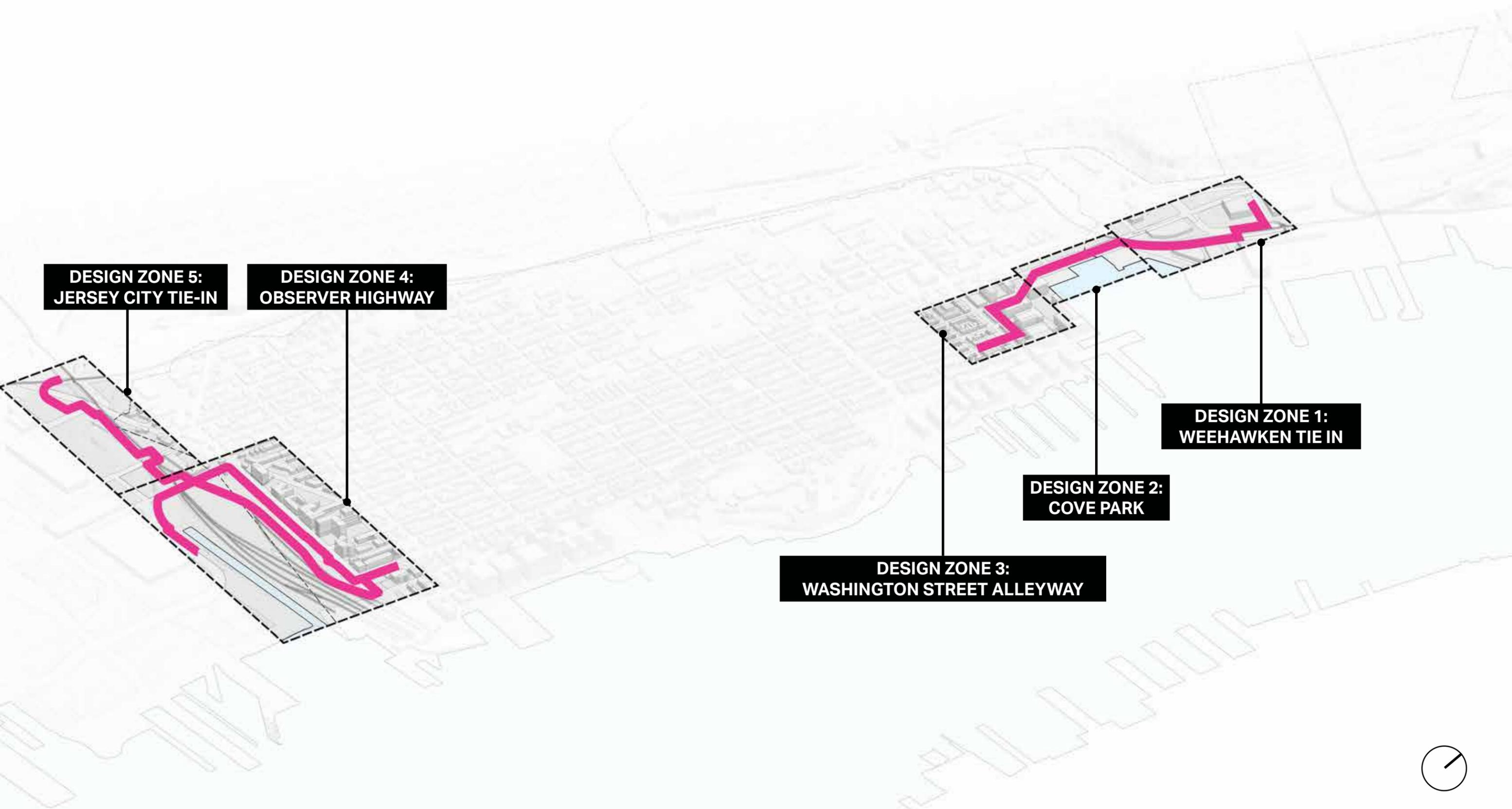
ENGAGEMENT SCHEDULE + STRATEGIES

DESIGN ZONE WORKSHOPS



ENGAGEMENT SCHEDULE + STRATEGIES

DESIGN ZONES



**DESIGN ZONE 5:
JERSEY CITY TIE-IN**

**DESIGN ZONE 4:
OBSERVER HIGHWAY**

**DESIGN ZONE 3:
WASHINGTON STREET ALLEYWAY**

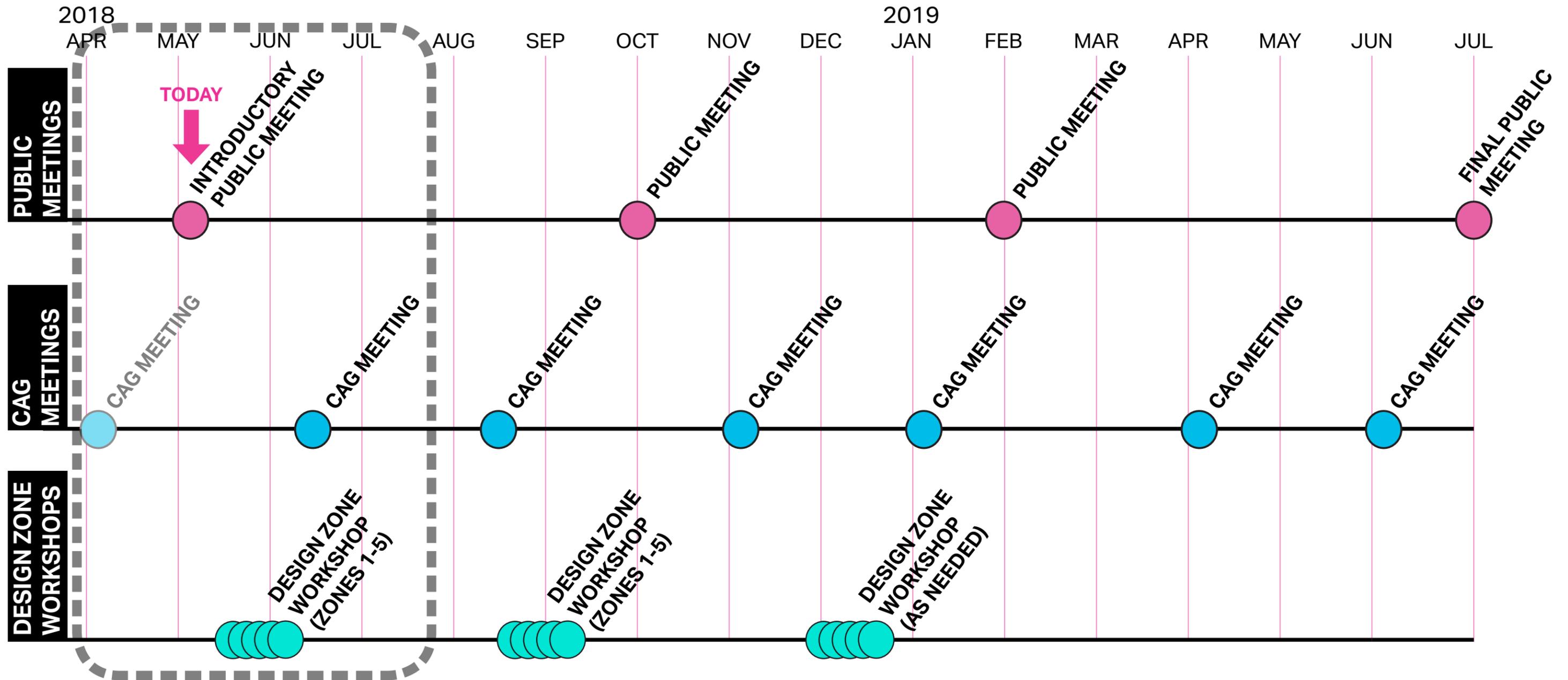
**DESIGN ZONE 2:
COVE PARK**

**DESIGN ZONE 1:
WEEHAWKEN TIE IN**



ENGAGEMENT SCHEDULE + STRATEGIES

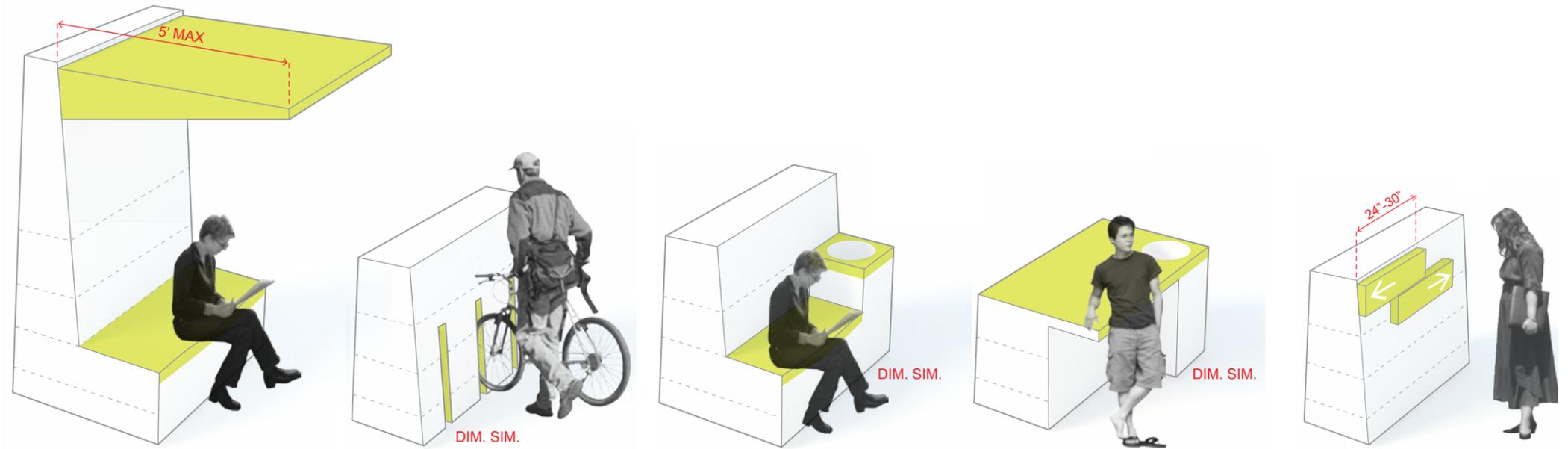
UPCOMING MEETINGS



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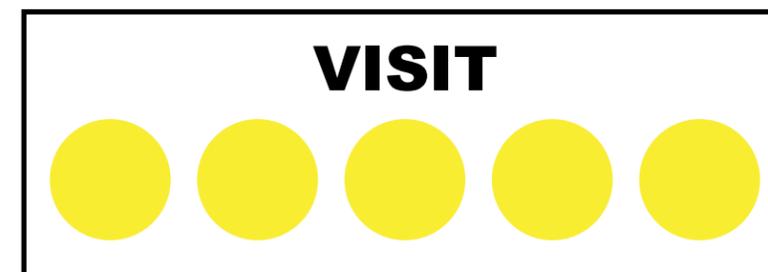
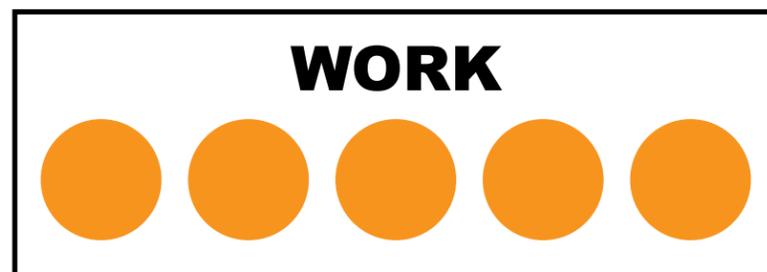
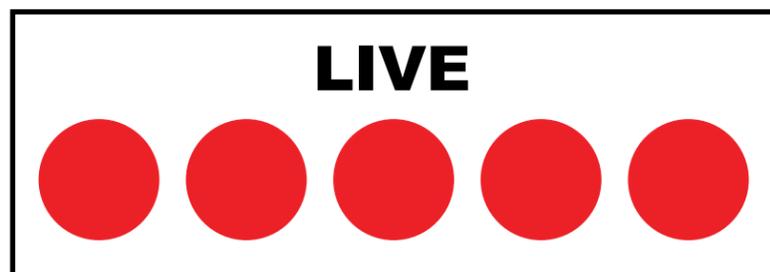
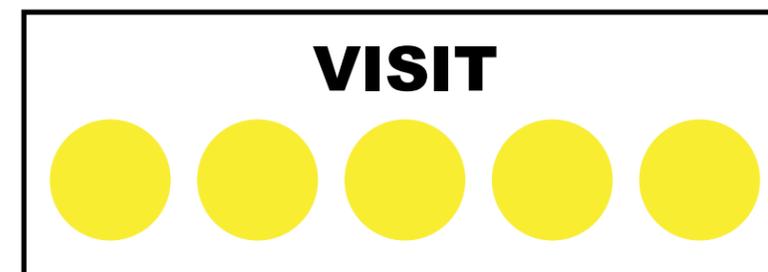
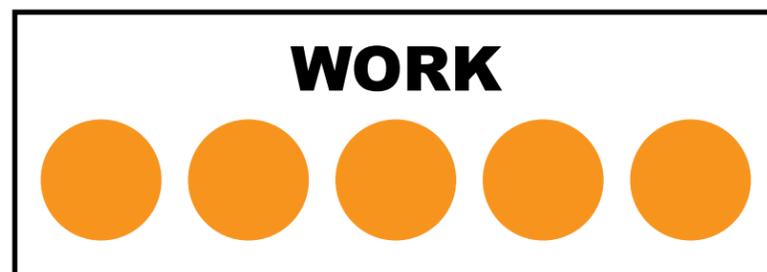
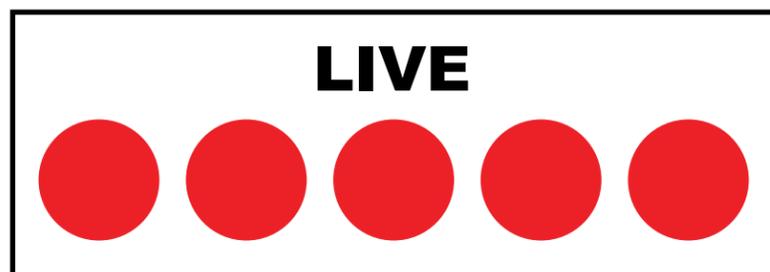
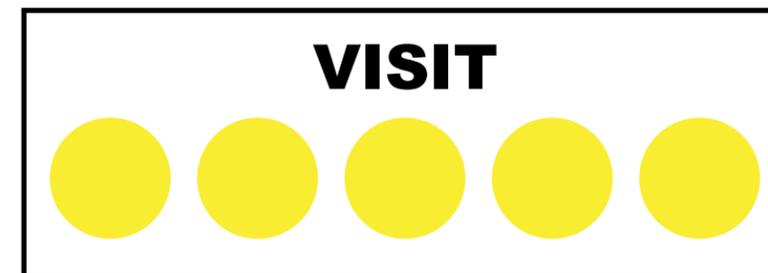
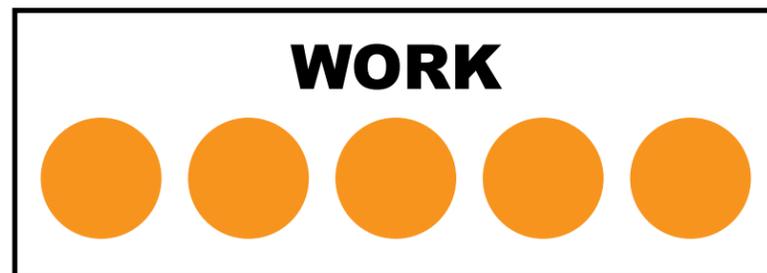
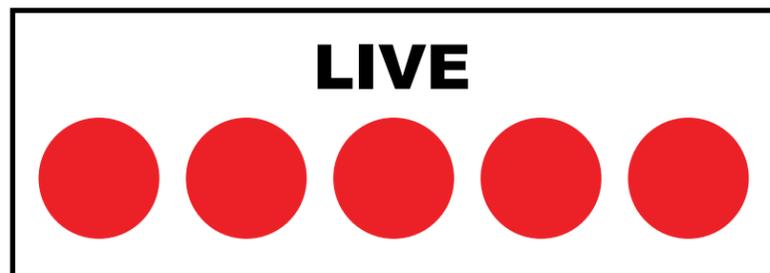
INFORMING FUTURE ENGAGEMENT LOOKING TOWARDS DESIGN ZONE WORKSHOPS

Input from today's activity will guide discussions in the upcoming Design Zone Workshops on how to best utilize the previously defined tools/toolkit, along with additional strategies identified as appropriate, to design the urban spaces and amenities along the alignment based on the qualities identified in the activity as desirable for your community.



ENGAGEMENT TODAY

STICKERS - RECEIVED AT CHECK IN



ENGAGEMENT TODAY

5 TYPES OF URBAN SPACES FOR INPUT

ALLEYWAY



SIDEWALK



COVE PARK



URBAN STREET



GREEN CORRIDOR



5 types of urban spaces identify the nature of existing spaces along the Resist alignment system.

ENGAGEMENT TODAY

COMPARISONS - WHAT DO YOU LIKE?



VIBRANT

HOW SHOULD IT LOOK?

SUBDUED



DESTINATION

WHAT SHOULD IT BE?

PASS-THROUGH



SOCIAL

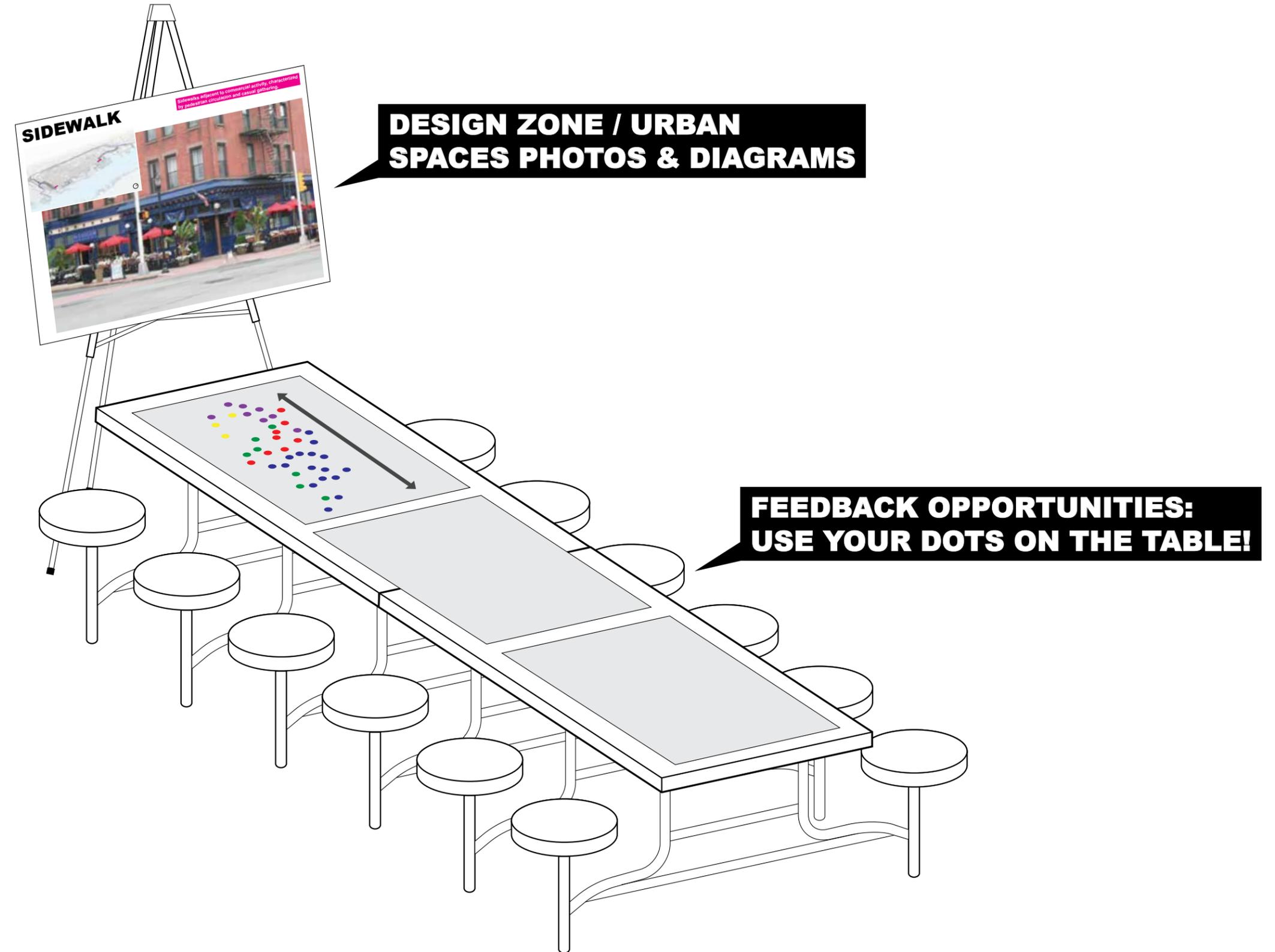
HOW SHOULD IT FEEL?

PERSONAL



3 questions ask for your preferences on the **quality of design interventions** within each type of urban space.

ENGAGEMENT ACTIVITY SETUP



ACTIVITY TIME!

NEXT STEPS + KEY DATES

- **Design Zone Workshops Round 1**

May 29 - June 6th

- **Communications**

Field work updates will be posted to the website.

Survey + Bathymetry: December 2017 to November 2018

Geotechnical + Environmental: March 2018 to May 2018

Pile Load Testing: May 2018 to July 2018

Public meeting materials will all be posted to the web.

Public meetings will be video recorded for those who cannot attend.

- **Questions & Comments:**

rbd-hudsonriver@dep.nj.gov

- **Mail**

Dennis Reinknecht, Chief
Bureau of Flood Resilience
501 East State Street,
Mail Code 501-01A, PO Box 420
Trenton, NJ 08625-0420

- **Website:**

www.rbd-hudsonriver.nj.gov

REBUILD BY DESIGN
HUDSON RIVER

JERSEY CITY HOBOKEN WEEHAWKEN | NEW JERSEY



GOOD NIGHT!

MAY 9, 2018