

WELCOME!

DORCHESTER'S RESILIENT WATERFRONT PROJECT COMMUNITY WORKSHOP #1



SCAPE

IN ASSOCIATION:

TETRA TECH

WOODS HOLE GROUP

DAWOOD

MARCH 30, 2023



TEAM INTRODUCTION



IN PARTNERSHIP WITH:



City of Boston
Environment



MASSACHUSETTS DEPARTMENT OF
CONSERVATION AND RECREATION

CONSULTANT TEAM:

SCAPE

LANDSCAPE ARCHITECTURE



TETRA TECH

COASTAL ENGINEERING DESIGN



COASTAL MODELING



SITE SURVEY

GRANT FUNDED BY:



MEETING RECORDING

At the request of community members, this event will be recorded and posted on the BPDA's Dorchester Resilient Waterfront project review webpage for those who are unable to attend the Zoom event live:

<https://www.bostonplans.org/planning/planning-initiatives/dorchester-resilient-waterfront-project>

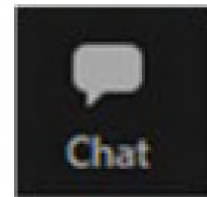
Also, it is possible that participants may be recording the meeting with their phone cameras or other devices. If you do not wish to be recorded during the meeting, please turn off your microphone and camera.

If your camera and microphone are off, you can still participate through the text chat feature.

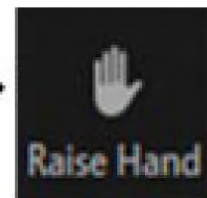
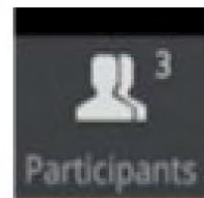
ZOOM TIPS

Welcome! Here are some tips on using Zoom for first-time users.

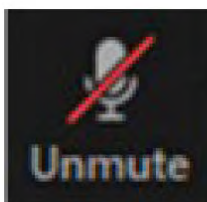
Your controls are at the bottom of the screen



Use the chat to type a comment or ask a question at any time – Members of the RSMPOC/ BPDA will moderate the chat



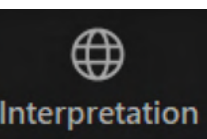
To raise your hand, click on “Participants” at the bottom of your screen, and then choose the “Raise Hand” option in the participant box, or press *9 on your phone



Mute/unmute – Participants will be muted during the presentation – the host will unmute you during discussion if you raise your hand and it is your turn to talk. To mute/unmute on your phone press *6.



Turns your video on/off



Do you need translations in Spanish, Vietnamese, or Haitian Creole? Click on the globe  at the bottom of the page and select the appropriate language.

ZOOM ETIQUETTE

We want to ensure that this conversation is a pleasant experience for all attendees.

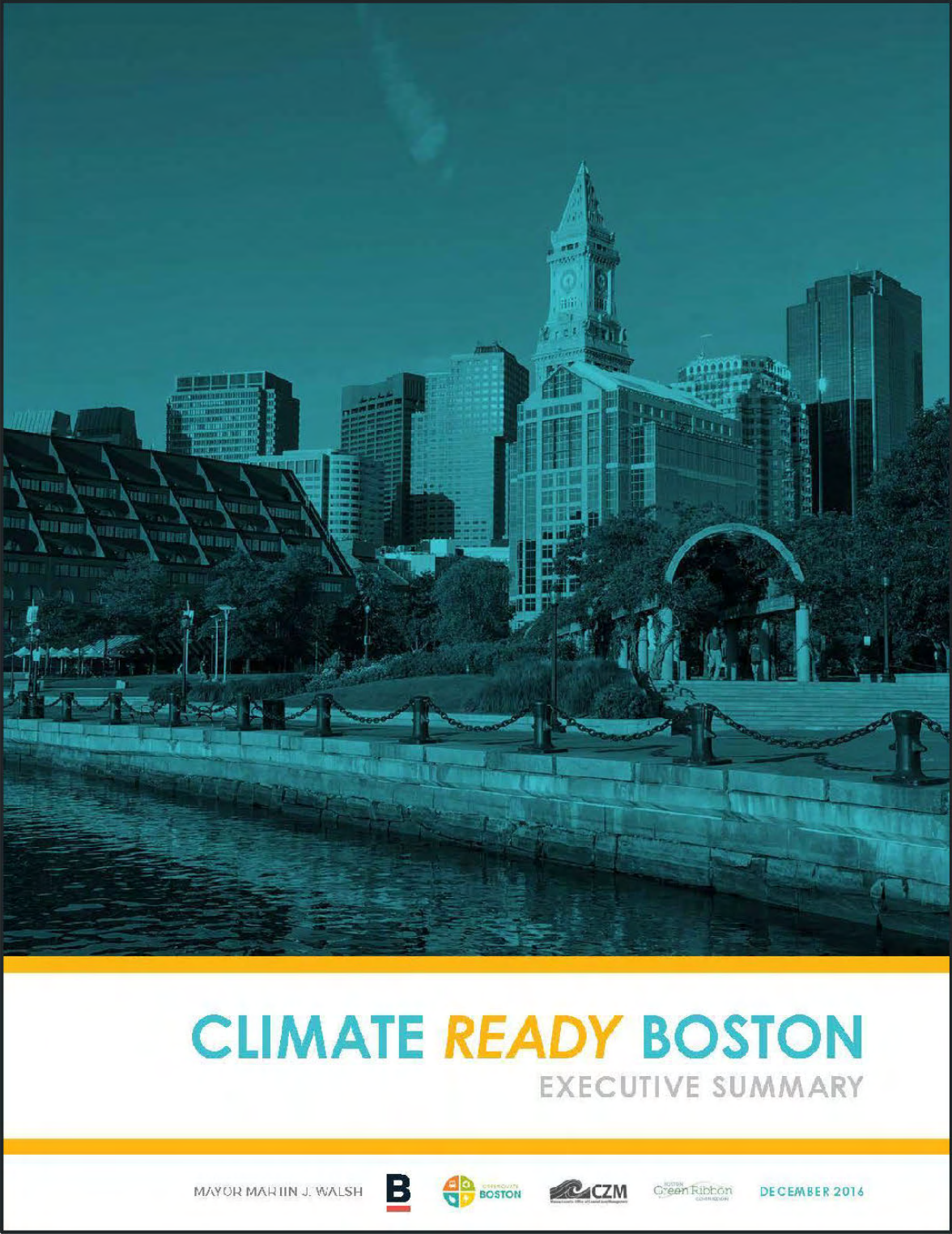
- Please remain muted until called on. If you'd like to speak during this time please use the "Raise Hand" function in Zoom so a BPDA moderator can unmute attendees.
- Please be respectful of each other's time.
- We ask that participants limit their questions so that others may participate in the discussion. If you have more questions, please wait until all others attending have an opportunity to ask questions.
- If we are unable to get to your question at this meeting please put them in the Chat at the end or email delaney.morris@boston.gov

AGENDA

- CLIMATE READY HISTORY
- ONGOING PROJECT COORDINATION
- EXISTING CONDITIONS AND KEY TAKEAWAYS
- PROJECT GOALS & EVALUATION CRITERIA
- CLIMATE ADAPTATION
- QUESTIONS
- NEXT STEPS

CLIMATE READY BOSTON

In 2016, the City of Boston released the *Climate Ready Boston* report, which included a comprehensive vulnerability assessment of current and projected risks associated with each of three climate hazards under a low, medium, and high greenhouse gas emissions scenario.



EXTREME TEMPERATURES



HEAT WAVES & DROUGHTS

EXTREME PRECIPITATION



STORMWATER FLOODING

SEA LEVEL RISE

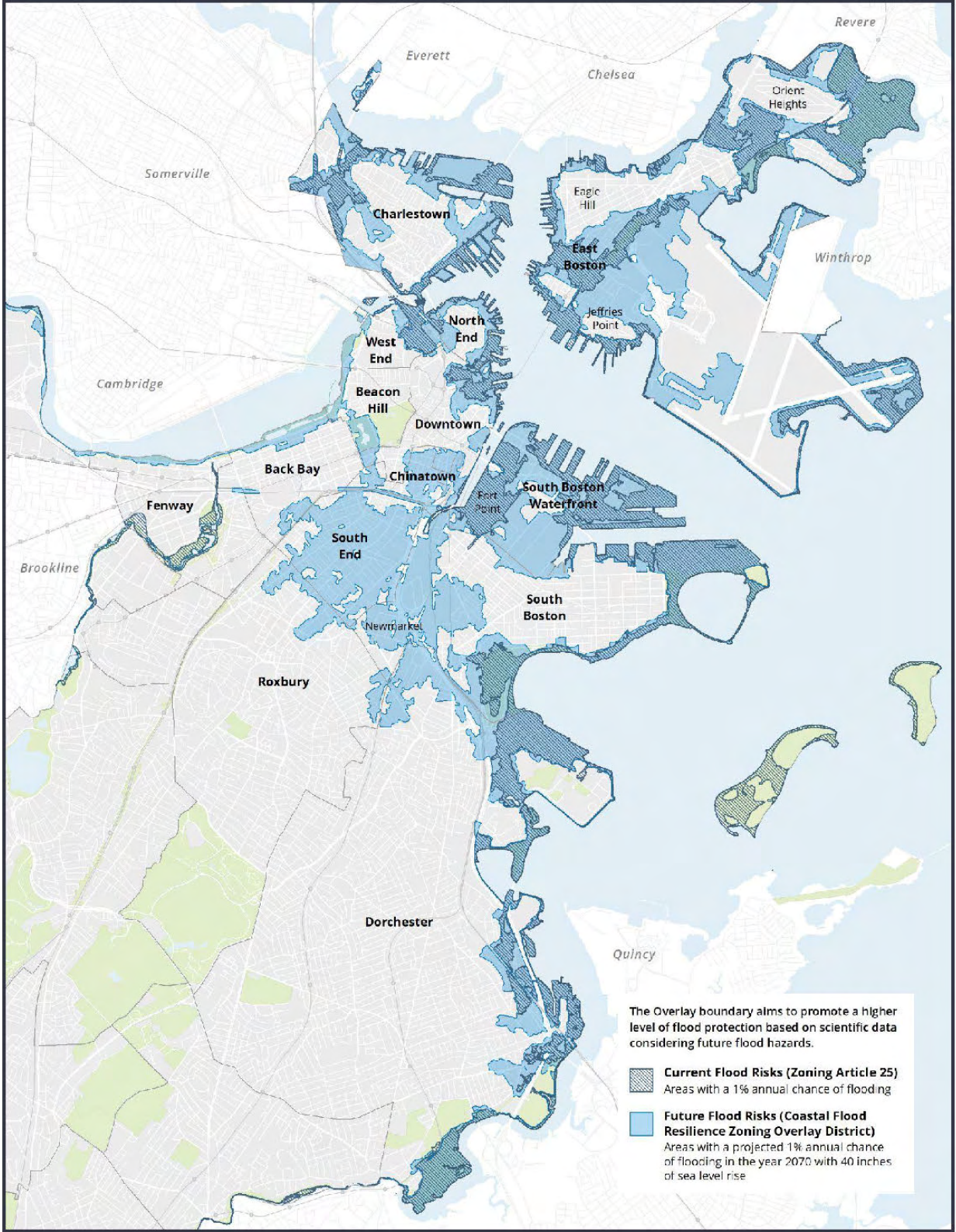


COASTAL & RIVERINE FLOODING

COASTAL STORMS



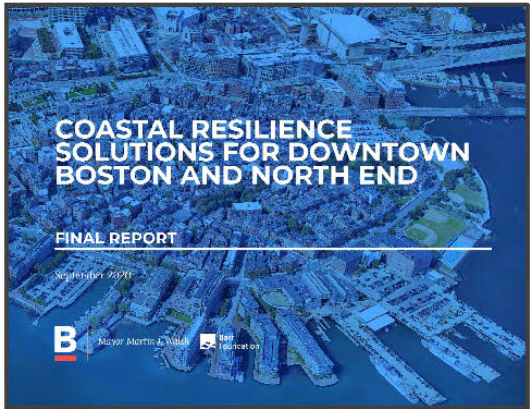
NEIGHBORHOOD-LEVEL COASTAL RESILIENCE PLANNING



East Boston & Charlestown Phase 1 (2017)



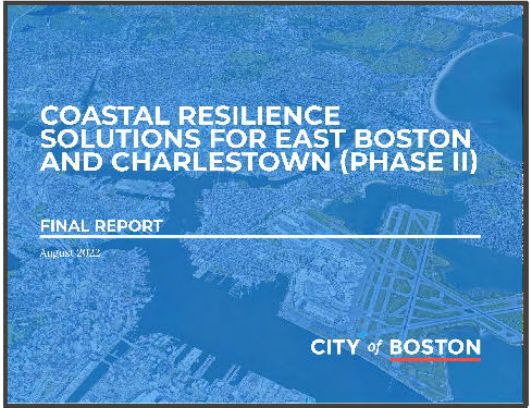
South Boston (2018)



North End & Downtown (2020)



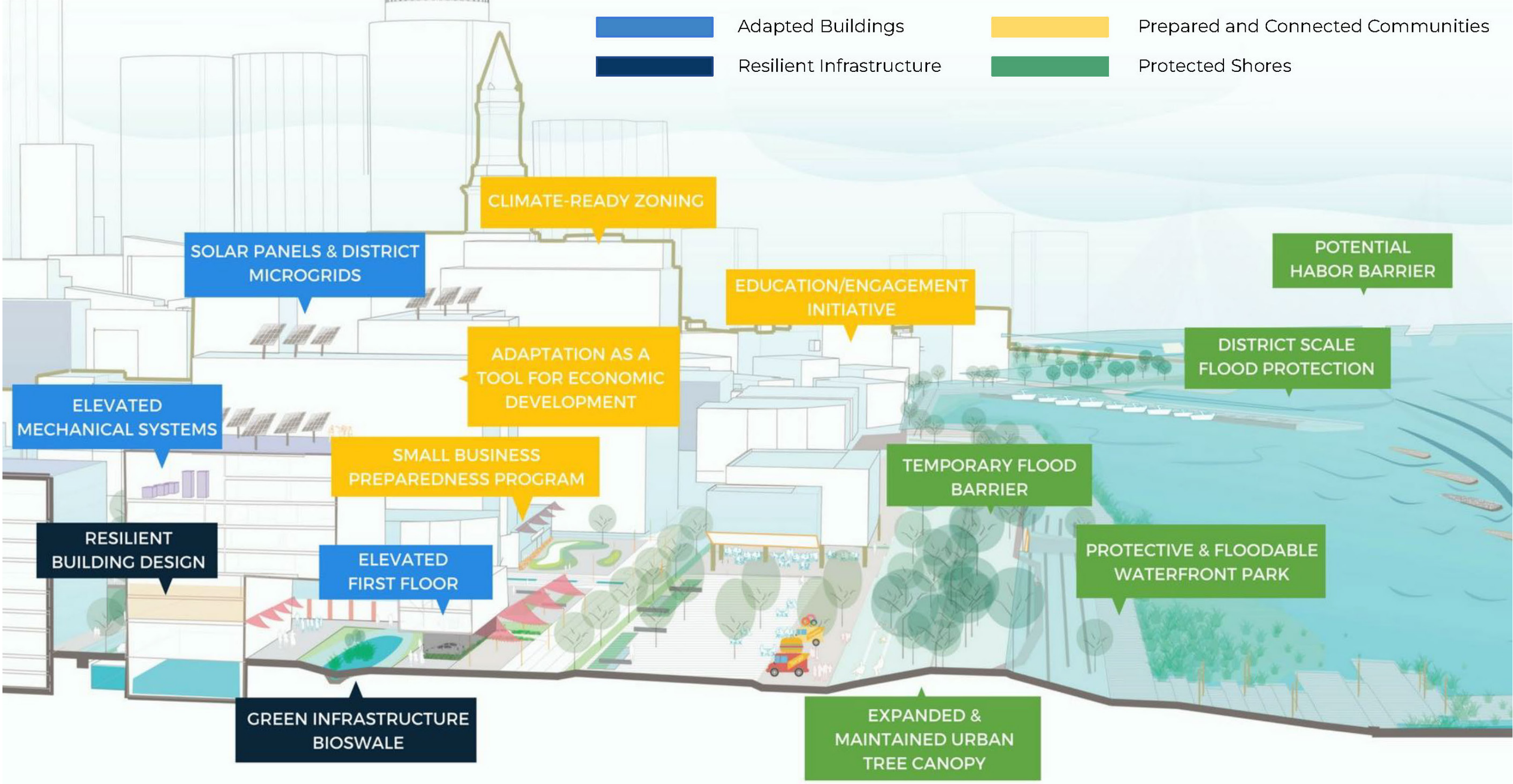
Dorchester (2020)



East Boston & Charlestown Phase 2 (2022)

1% annual chance storm with 9 inches of SLR (2030s)
 1% annual chance storm with 40 inches of SLR (2070s)

A LAYERED APPROACH TO BUILDING RESILIENCE

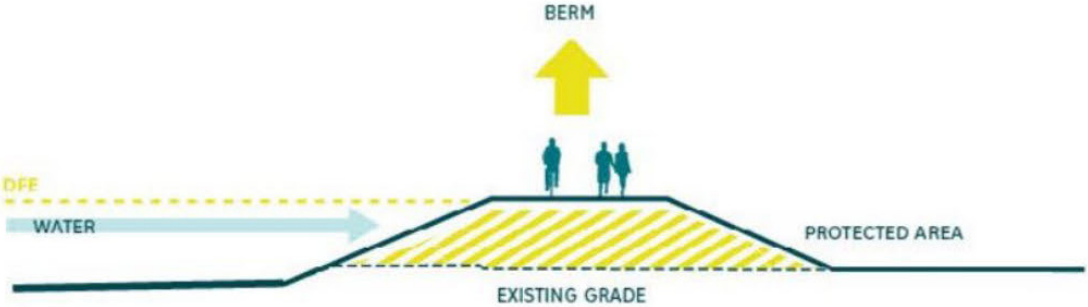


EXAMPLES OF COASTAL RESILIENCE STRATEGIES

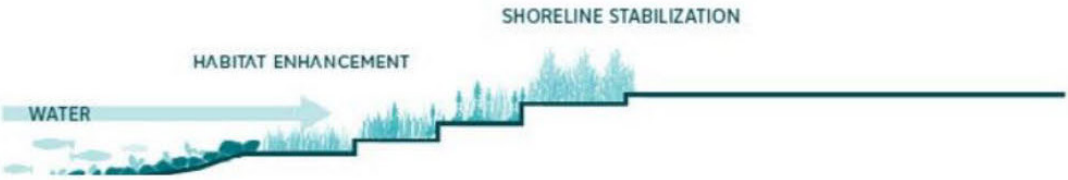
RAISED HARBORWALK / RAISED PARK SPACE



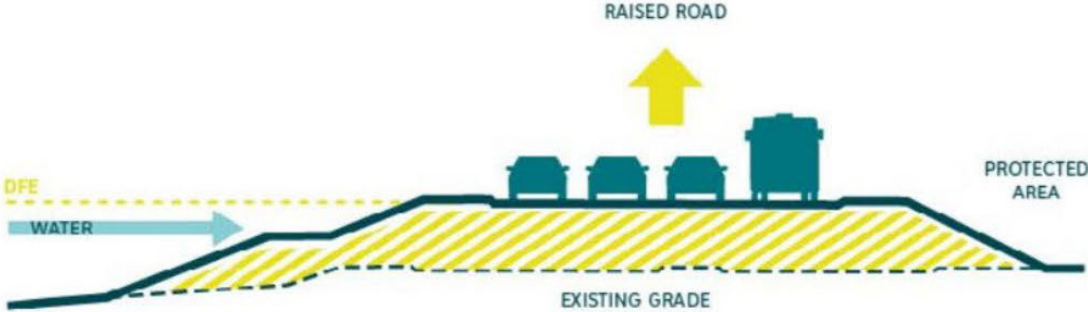
RAISED BERMS AND DUNES



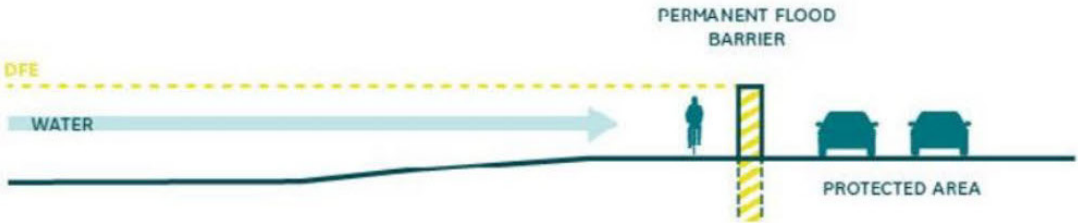
NATURE-BASED SOLUTIONS



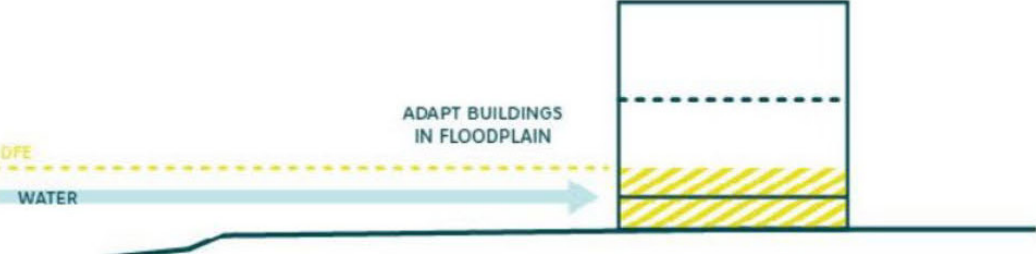
RAISED ROADWAYS / MEDIAN FLOODWALLS



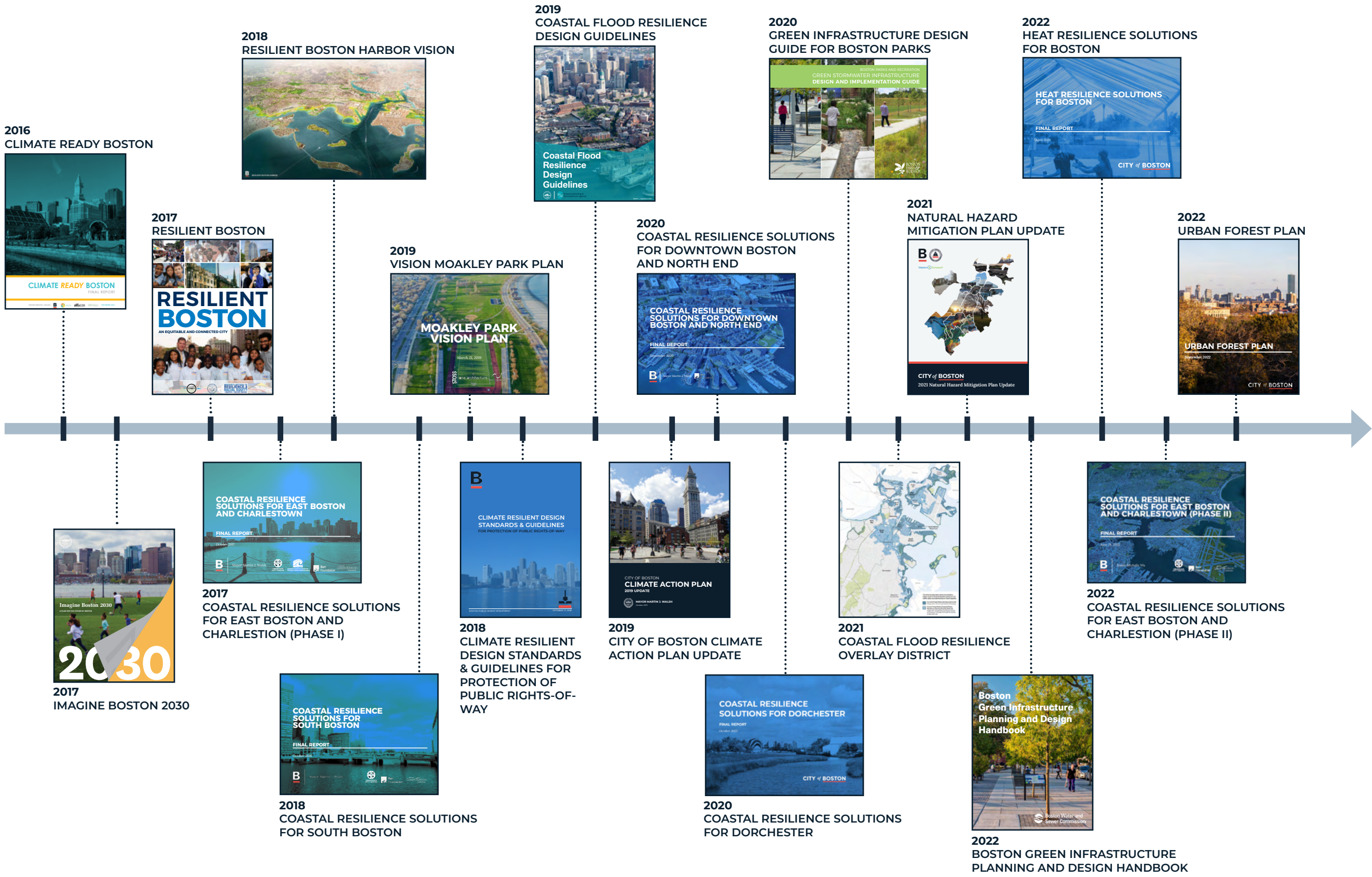
VERTICAL FLOODWALLS



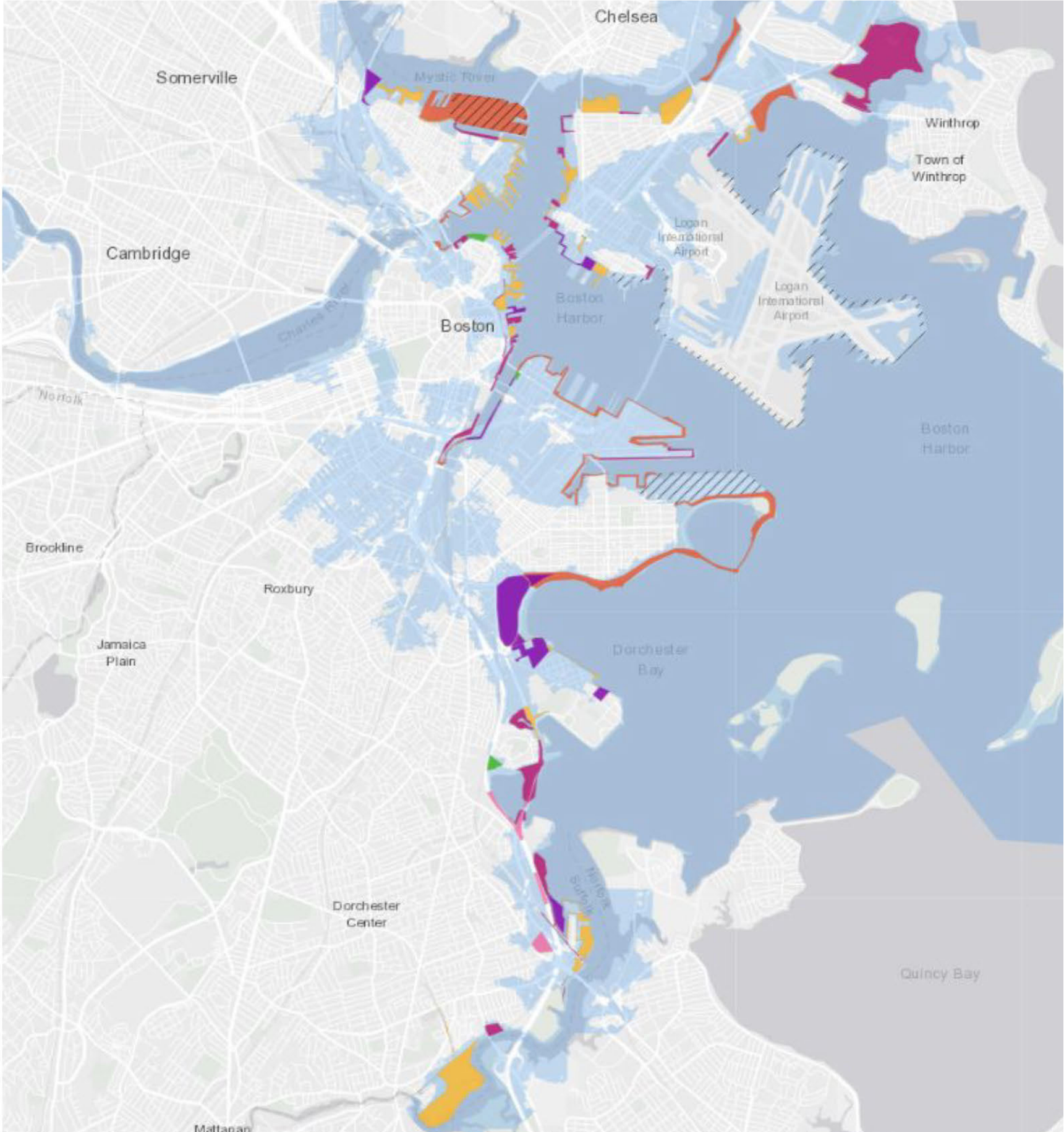
ADAPTED BUILDINGS AND STRUCTURES



CITYWIDE CLIMATE RESILIENCE EFFORTS



IMPLEMENTATION STATUS



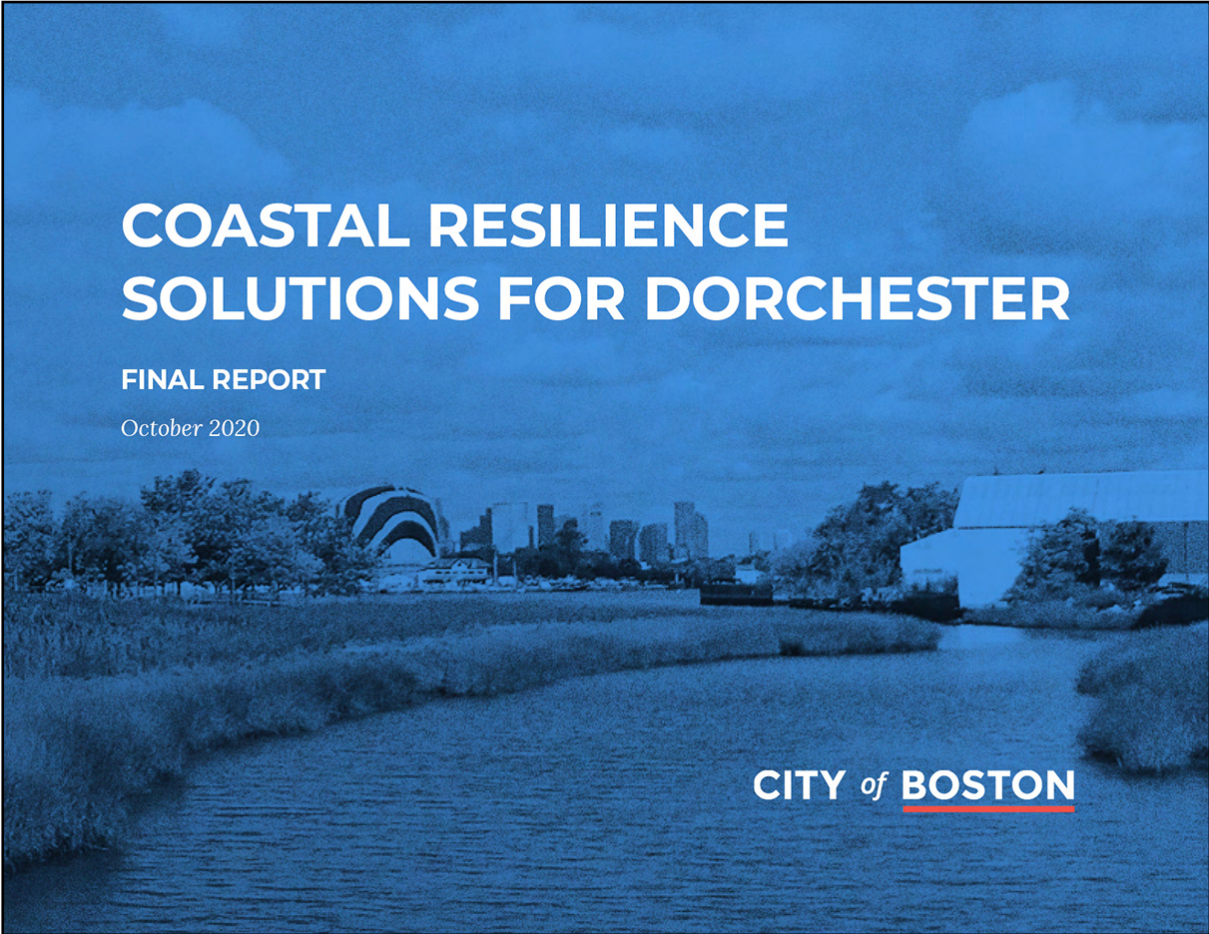
*WHO DO WE HAVE HERE IN THE
VIRTUAL ROOM?*

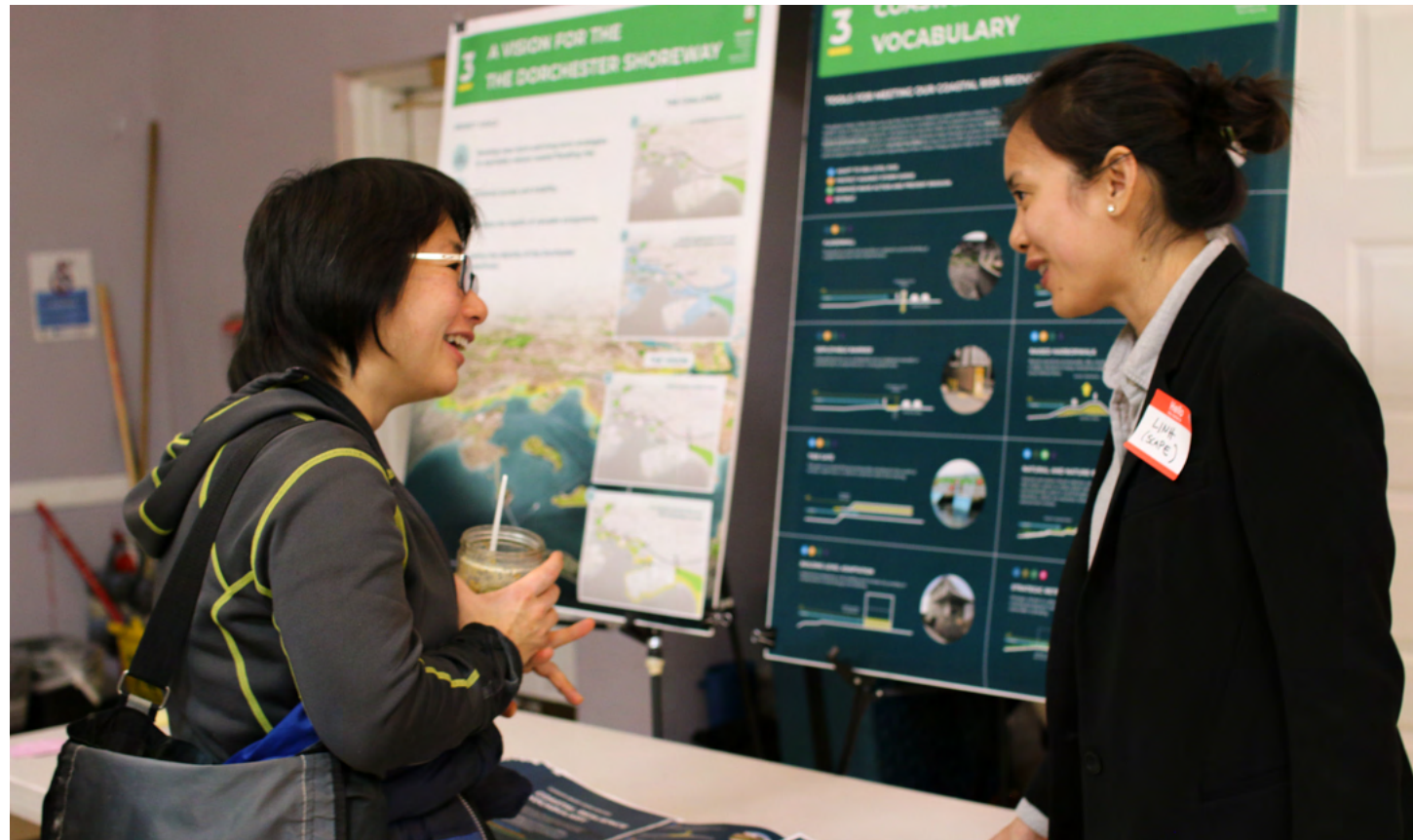
CLIMATE READY DORCHESTER RECAP



**boston planning &
development agency**

CLIMATE READY DORCHESTER RECAP





DORCHESTER WATERFRONT - COMMUNITY WORKSHOP #1
MARCH 30, 2023

RECREATION

WELLNESS

FOOD

CULTURE

ECONOMY

VICTORY PARK TO TENEAN BEACH

| | | | |
|---|--|--------------------------------------|------------------------|
| 9 VICTORY PARK | DOG WALKING: 1 PICNICKING: 1 | BICYCLING: 3 RUNNING: 2 | |
| 10 AREA BETWEEN VICTORY PARK AND TENEAN BEACH | SUN BATHING: 1 | BICYCLING: 2 | |
| 11 TENEAN BEACH | RELAXING: 2 PADDLE BOARDING: 2 SWIMMING: 3 | BICYCLING: 1 ACCESS IN AND OUT: 1 | PUBLIC TRANSIT STOP: 1 |



“ I would like to see more programming on the waterfront, more events, activities: a celebration of the fact that we’re a waterfront community! ”
 – OPEN HOUSE 1 PARTICIPANT



Tenean Beach, March 2018.
Source: Boston Harbor Now



“
During the January and March flood events (Grayson & Riley) in 2018, Tenean Beach was washed out.
– OPEN HOUSE 1 PARTICIPANT ”



“
The Vietnamese community sees the waterfront as part of their daily life and goes there frequently for fishing and clamming.
”

“
First of all, solutions must be effective in reducing floods, but they should also consider public health, quality of life and how they improve the neighborhood for the people.
– OPEN HOUSE 1 PARTICIPANT ”



OTHER OBJECTIVES

IMPROVE WATERFRONT ACCESS

SECURE DRY EVACUATION ROUTE

CREATE ADDITIONAL WATERFRONT ACCESS

ENHANCE ECOLOGY AND NATURAL RESOURCES

4

1

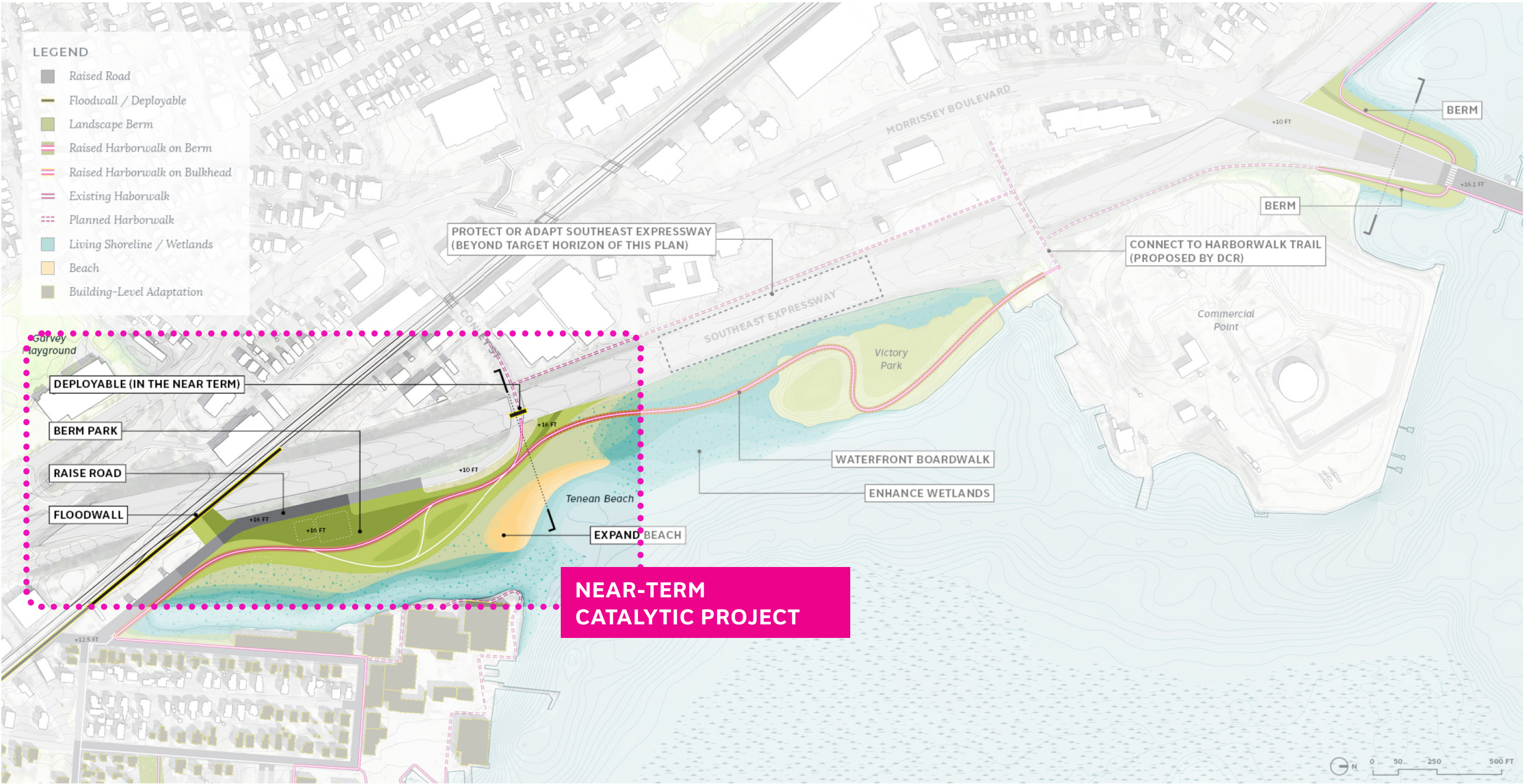
3

2



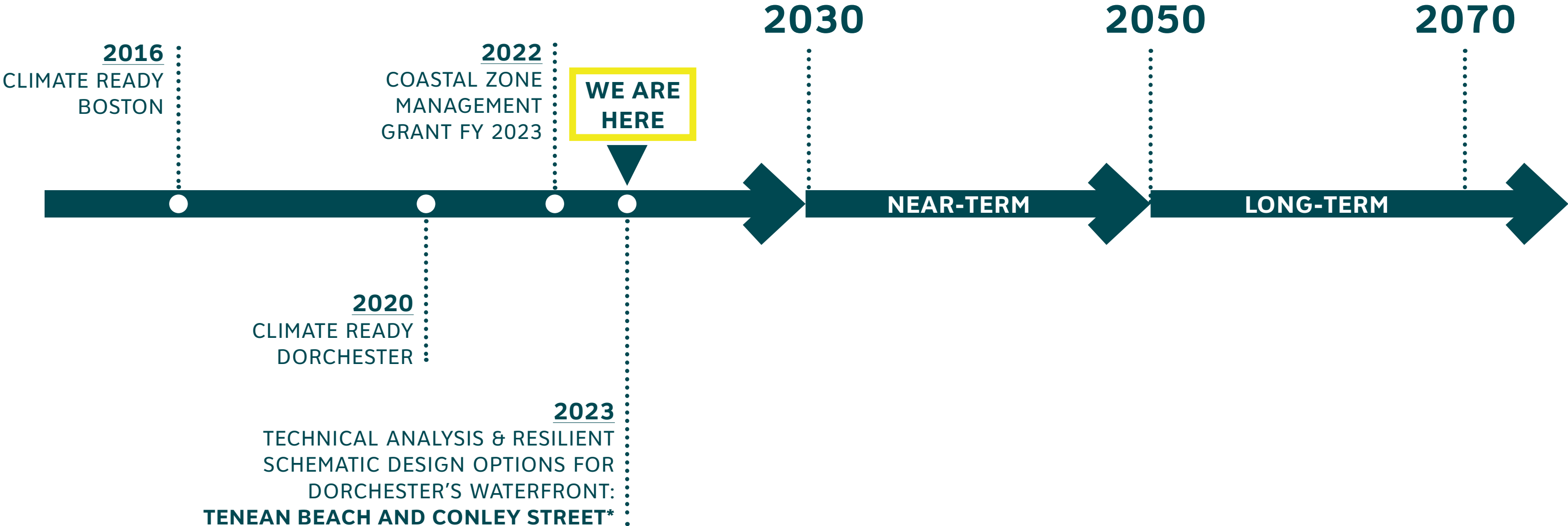
RESPONSES FROM OPEN HOUSE 1 REGARDING WATERFRONT EXPERIENCES FROM VICTORY PARK TO TENEAN BEACH.

CLIMATE READY DORCHESTER: LONG-TERM VISION





PROJECT TIMELINE



*POST CZM GRANT PROJECT WILL BE SEEKING ADDITIONAL FUNDING FOR FINAL DESIGN, PERMITTING AND CONSTRUCTION

PROJECT EXTENTS



COORDINATING WITH ONGOING EFFORTS



**boston planning &
development agency**

MORRISSEY BOULEVARD



NEPONSET RIVER GREENWAY EXTENSION



Project Scope

- Shared-use path with a boardwalk over Dorchester Bay with overlooks for ocean views
- Civil engineering drainage improvements
- Provide plantings and site furnishings along project corridor
- Improved access to Victory Park
- Improved way-finding signage



CONCEPTUAL RENDERING

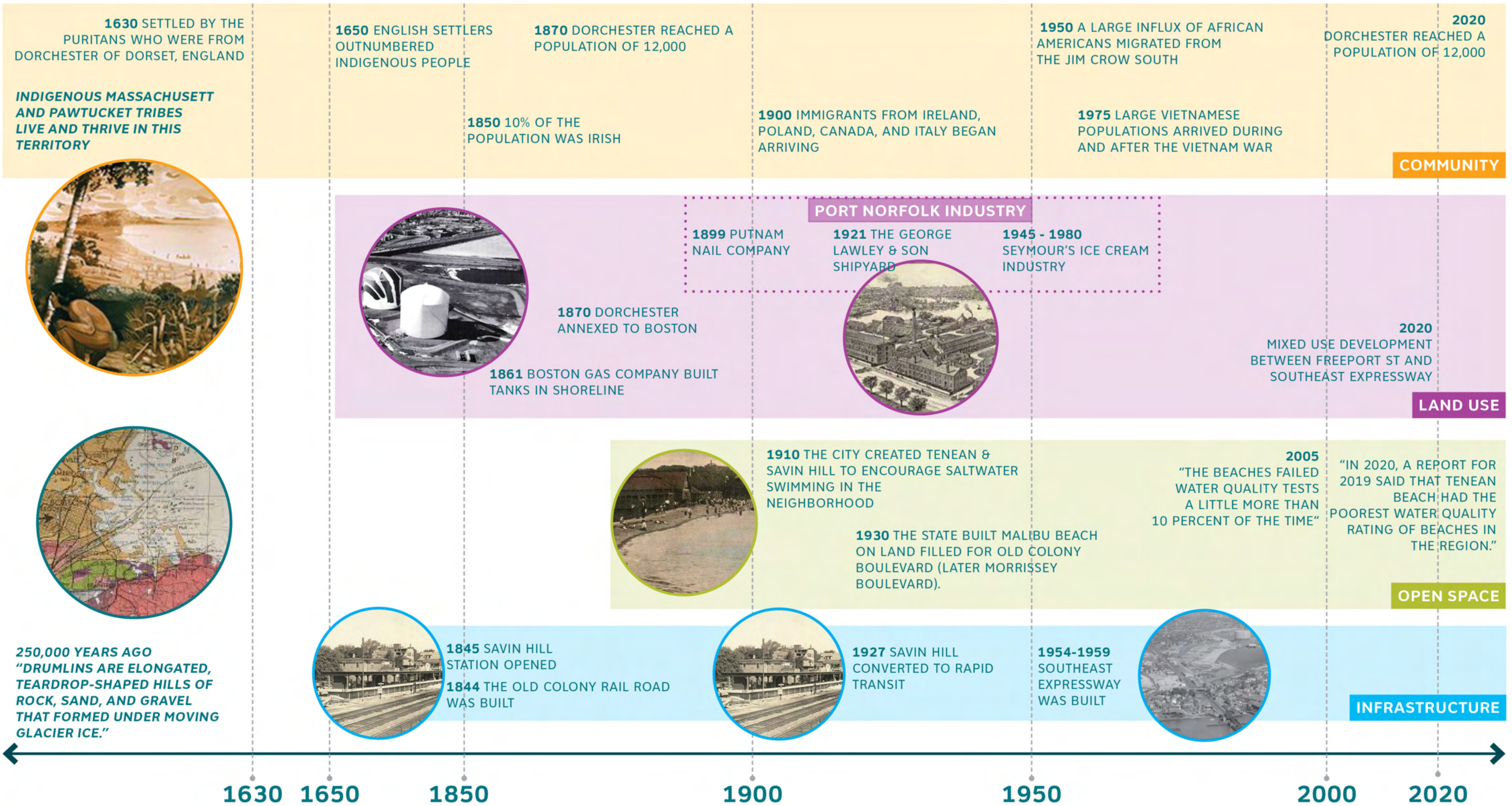
*WHAT'S YOUR FAVORITE THING ABOUT
THE PARK AND BEACH AT
TENEAN TODAY?*

TENEAN BEACH *EXISTING CONDITIONS & KEY TAKEAWAYS*



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development agency**

A RICH DEVELOPING HISTORY



TENEAN BEACH TODAY

VIEWS OF THE BOSTON HARBOR

NEPONSET TRAIL



EXISTING SITE PROGRAM



SANDY BEACH & NEPONSET TRAIL (HARBORWALK)

DORCHESTER WATERFRONT - COMMUNITY WORKSHOP #1
MARCH 30, 2023



PLAYGROUND & SPORTS COURTS



PICNIC PAVILIONS

UNIQUE PROGRAMMING IN THE AREA

GARVEY PLAYGROUND



MCMORROW PLAYGROUND



DORCHESTER SHORES RESERVATION



TENEAN BEACH

TENEAN BEACH



GARVEY PLAYGROUND



TENEAN BEACH



DORCHESTER SHORES RESERVATION



MCMORROW PLAYGROUND

HOW WOULD YOU LIKE TO USE THE SITE IN THE FUTURE?



PICNIC



SPORTS



ECOLOGICAL EDUCATION



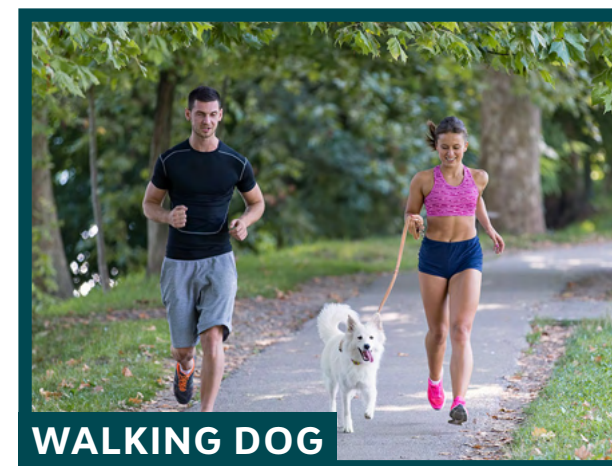
BIKING



PLAYGROUND



QUIET REFLECTION



WALKING DOG

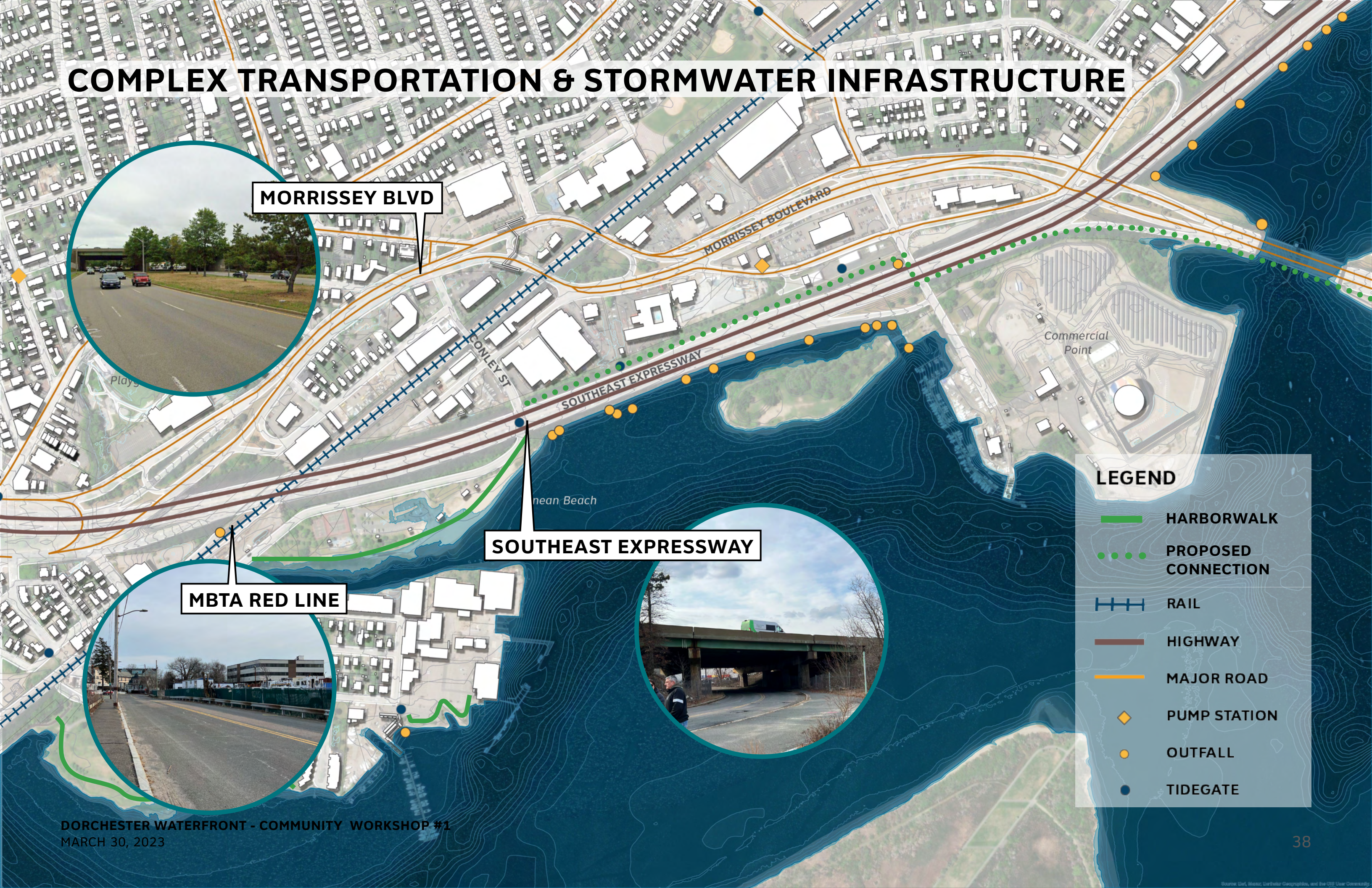


OTHER

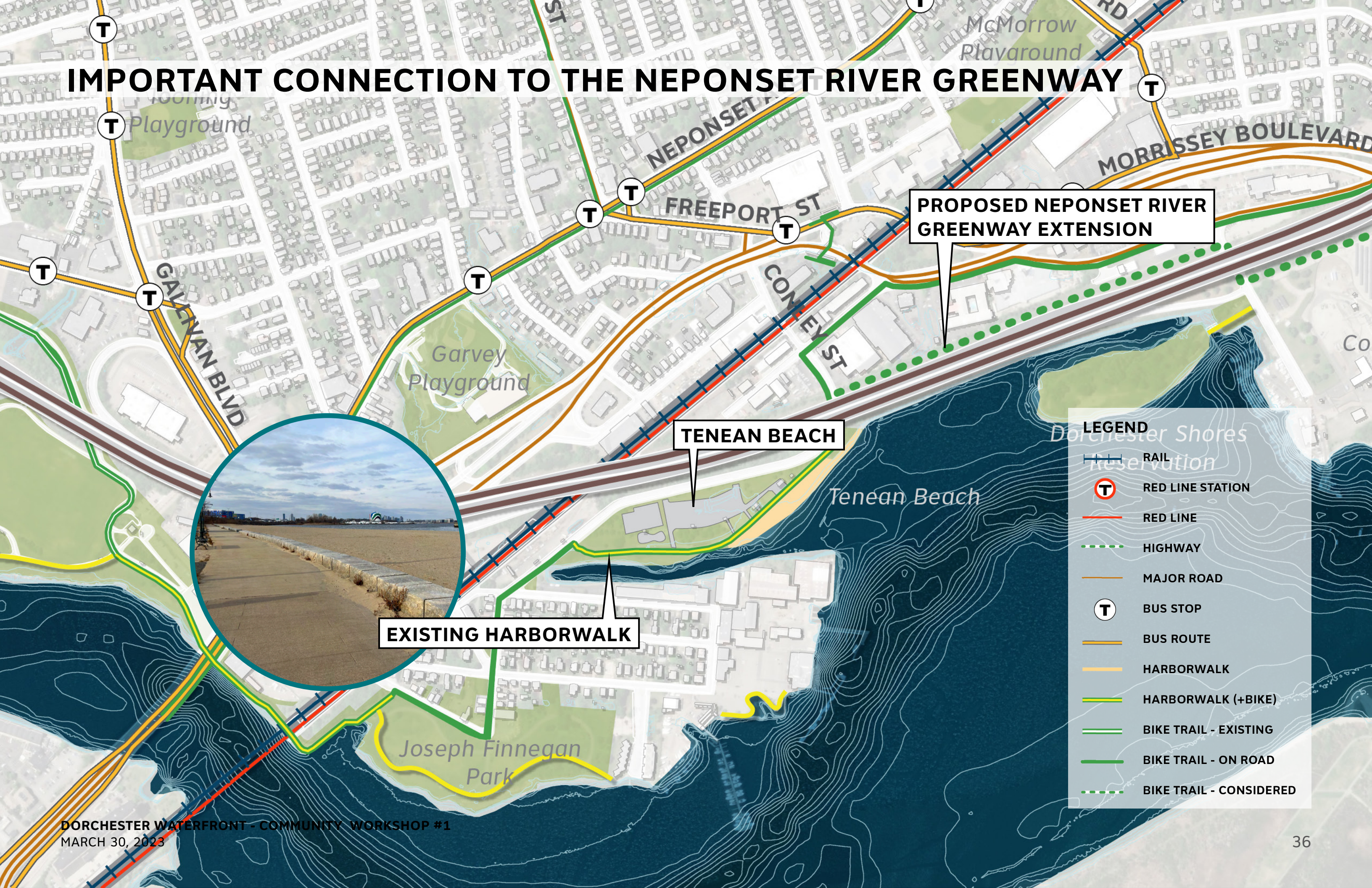
ENHANCING ACCESS POINTS



COMPLEX TRANSPORTATION & STORMWATER INFRASTRUCTURE



IMPORTANT CONNECTION TO THE NEPONSET RIVER GREENWAY



PROPOSED NEPONSET RIVER GREENWAY EXTENSION

TENEAN BEACH

EXISTING HARBORWALK

LEGEND

- RAIL
- RED LINE STATION
- RED LINE
- HIGHWAY
- MAJOR ROAD
- BUS STOP
- BUS ROUTE
- HARBORWALK
- HARBORWALK (+BIKE)
- BIKE TRAIL - EXISTING
- BIKE TRAIL - ON ROAD
- BIKE TRAIL - CONSIDERED

*HOW DO YOU
GET TO TENEAN BEACH?*

VIBRANT AND DIVERSE COMMUNITY



VIETNAMESE LUNAR NEW YEAR CELEBRATION



IRISH HERITAGE FESTIVAL CELEBRATION



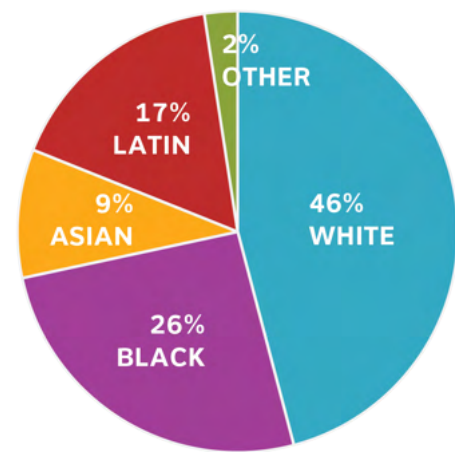
DORCHESTER DAY PARADE



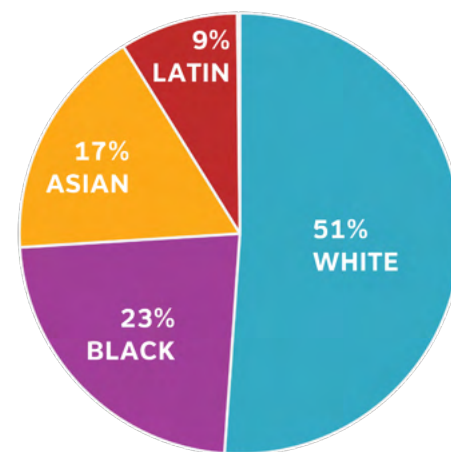
CARIBBEAN CARNIVAL PARADE

VIBRANT AND DIVERSE COMMUNITY

RACIAL DIVERSITY

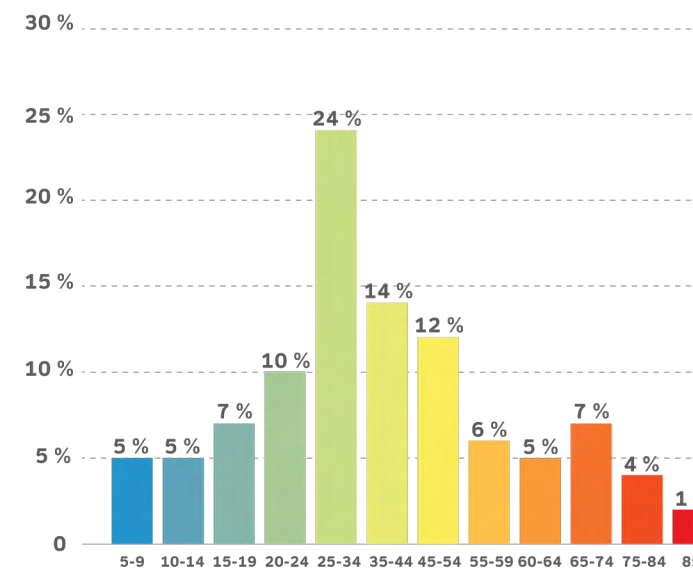


CITY OF BOSTON

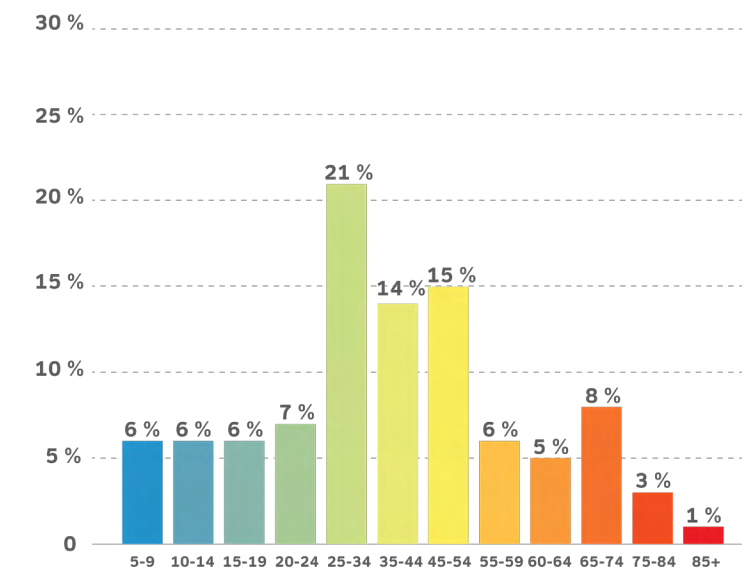


TENEAN BEACH

AGES



CITY OF BOSTON



TENEAN BEACH

Data: 2020 Census

COASTAL FLOODING



**boston planning &
development agency**

COASTAL FLOOD RISK IN 2030

- 1 Clam Point buildings at risk
- 2 Morrissey Blvd at risk
- 3 Access to Tenean Beach at risk
- 4 Conley Street at risk
- 5 MBTA Red Line at risk

LEGEND

- 2030 1% ANNUAL STORM
- FLOODING PATH (PROGRESSION IN STEPS)

*1% ANNUAL STORM, ALSO REFERRED TO AS THE "100-YEAR FLOOD", IS THE 1% PROBABILITY OF A STORM EVENT OCCURING IN ANY GIVEN YEAR.



**COASTAL FLOODING ISN'T JUST A
FUTURE PROBLEM**

RECENT HIGH TIDE FLOODING

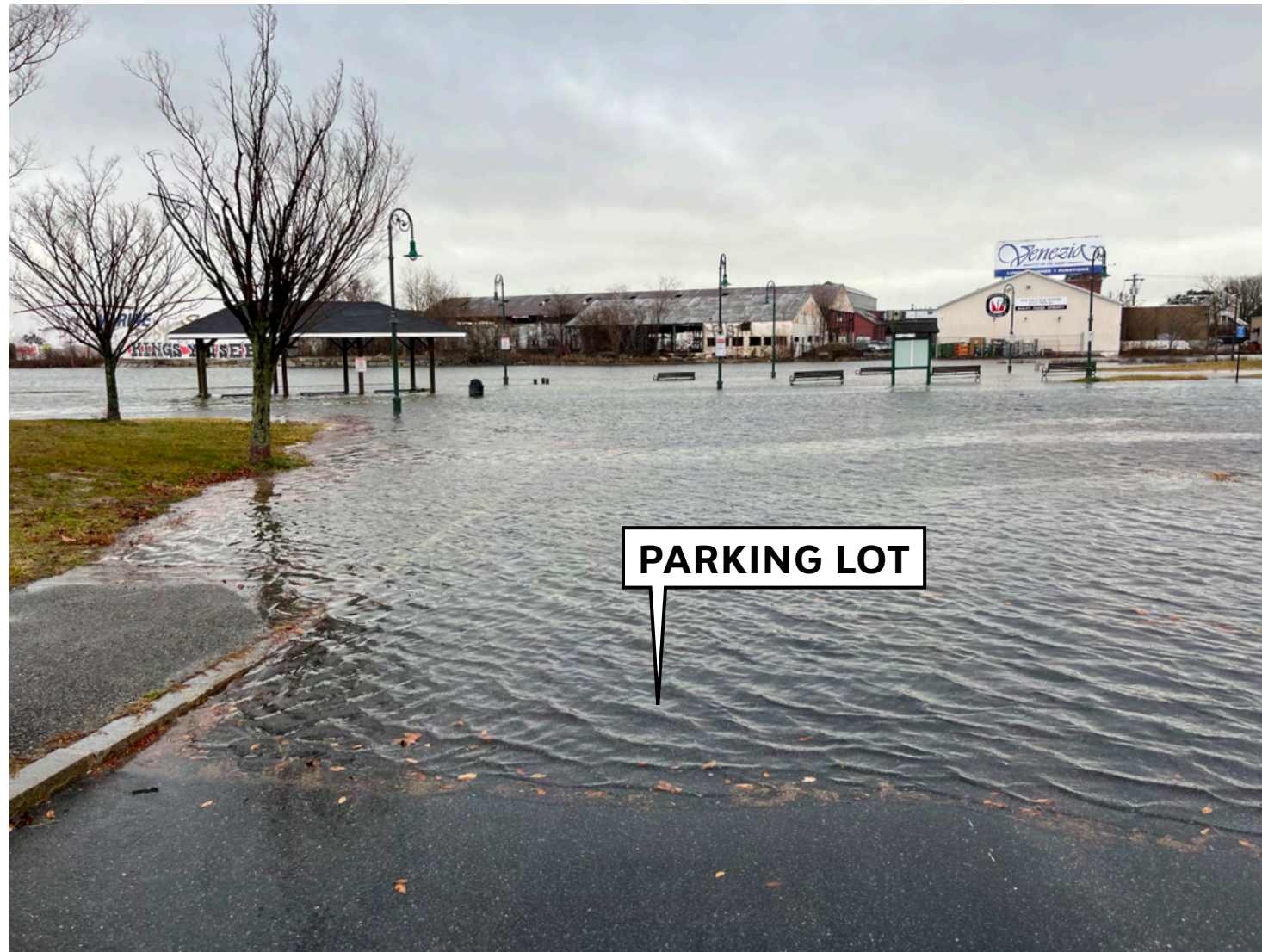
EL 6.0' NAVD88 | 2/19/2023 AT 9:00AM



- WATER LEVELS IN BOSTON REACH THIS ELEVATION ON AVERAGE OF 67 DAYS/YR OVER THE PAST 10 YEARS
- ESTIMATED AROUND 57 DAYS IN 2022

RECENT STORM EVENT

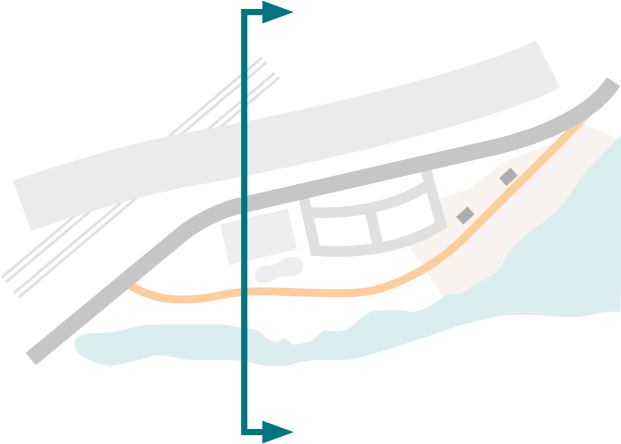
EL 7.3' - 7.5' NAVD88 (SHOWN), EL. 8.47' PEAK | 12/23/2022 AT 9:27AM



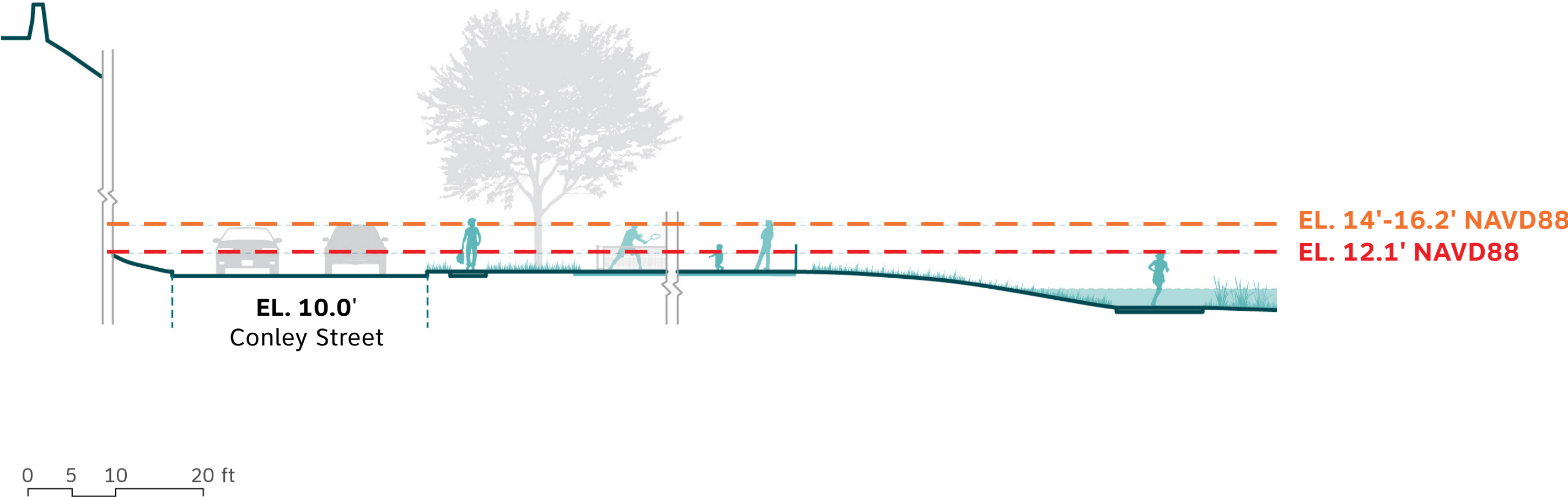
- WATER LEVELS IN BOSTON REACH THIS ELEVATION ON AVERAGE OF 4 DAYS/YR OVER THE PAST 10 YEARS
- ESTIMATED AROUND 4 DAYS IN 2022

DESIGN FLOOD ELEVATIONS

The "Design Flood Elevation" (DFE) is the target elevation we're aiming to design coastal resilience solutions in order to reduce coastal flood risk in the **near term (2030s)** and the **long term (2050s - 2070s)**.



The DFEs are based on 1% annual chance flood and account for sea-level rise and wave action.

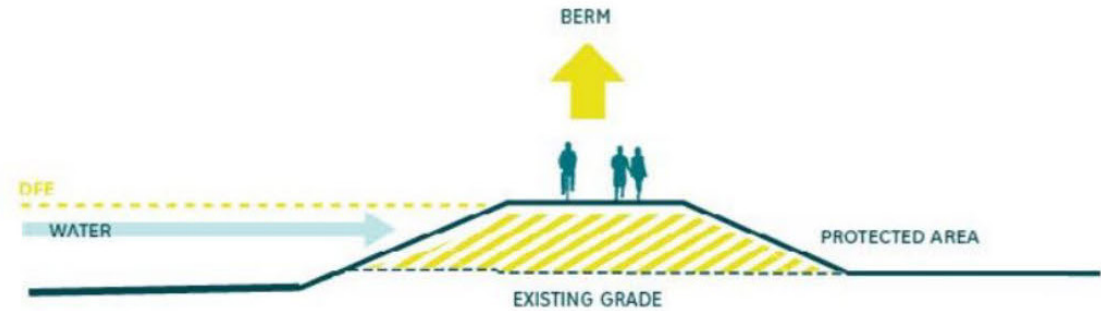


EXAMPLES OF COASTAL RESILIENCE STRATEGIES

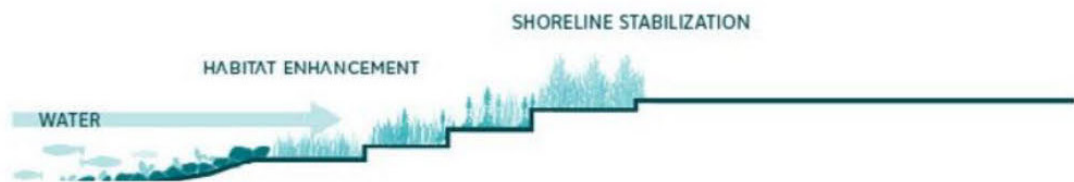
RAISED HARBORWALK / RAISED PARK SPACE



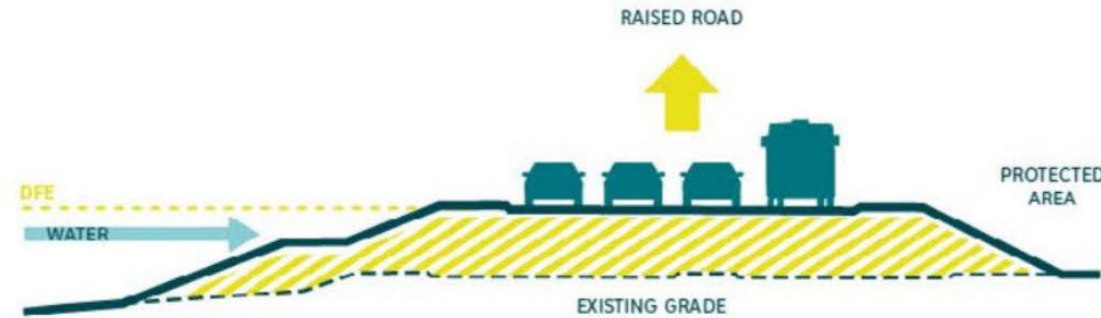
RAISED BERMS AND DUNES



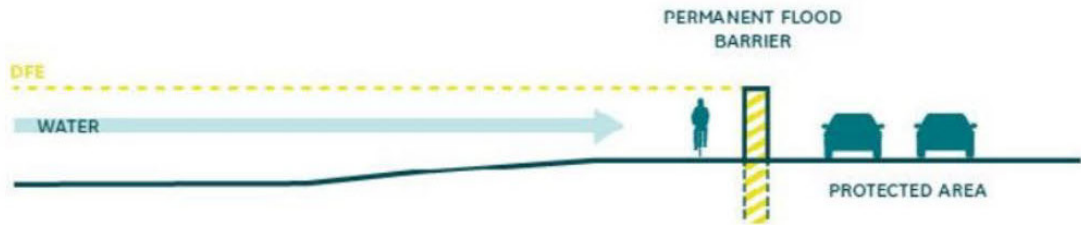
NATURE-BASED SOLUTIONS



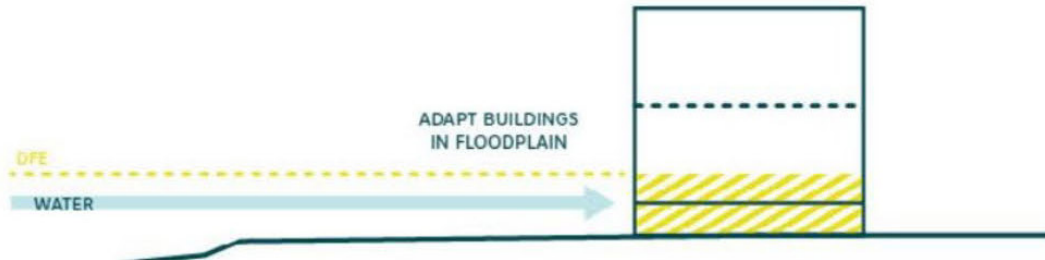
RAISED ROADWAYS / MEDIAN FLOODWALLS



VERTICAL FLOODWALLS



ADAPTED BUILDINGS AND STRUCTURES



*HAVE YOU EXPERIENCED THE IMPACTS
OF FLOODING AT TENEAN BEACH?*

PROJECT GOALS & EVALUATION CRITERA



**boston planning &
development agency**

PROJECT GOALS

- 1 Provide flood risk reduction to inland neighborhoods as well as DCR's Morrissey Boulevard during:
 - (a) larger/rare flood events,
 - (b) tidal flood events.

- 2 Preserve, protect, and enhance waterfront access and recreation, by providing flood risk reduction to DCR's assets at Tenean Beach.

- 3 Preserve, protect, and enhance local ecology and open space.

- 4 Improve or be compatible with adaptation efforts of critical transportation infrastructure, such as (1) the Southeast Expressway, (2) MBTA Rail Line, and (3) Evacuation routes from Port Norfolk

- 5 Improve or be compatible with adaptation efforts of stormwater infrastructure.

CLIMATE READY BOSTON EVALUATION CRITERIA



EFFECTIVENESS



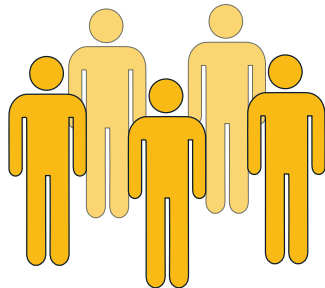
FEASIBILITY & MAINTENANCE



DESIGN LIFE & ADAPTABILITY



ENVIRONMENTAL & PUBLIC HEALTH BENEFITS



SOCIAL EQUITY & QUALITY OF LIFE

CLIMATE ADAPTATION



**boston planning &
development agency**

THE FOCUS OF THIS PROJECT

NEAR-TERM COASTAL FLOOD RISK REDUCTION AREA

ESTIMATED 66 BUILDINGS DAMAGED, \$54 MILLION TOTAL

NEAR-TERM PROJECT AREA

LEGEND

- 2030 1% ANNUAL STORM
- FLOODING PATH (PROGRESSION IN STEPS)

This project aims to reduce coastal flood risk to the areas that are projected to experience coastal flood risk in the near term (2030s).

LONG-TERM STRATEGY IN MIND

ESTIMATED 231 BUILDINGS DAMAGED,
\$250 MILLION TOTAL

LONG-TERM COASTAL
FLOOD RISK AREA

OTHER/FUTURE PROJECTS

OTHER/FUTURE PROJECTS

LEGEND

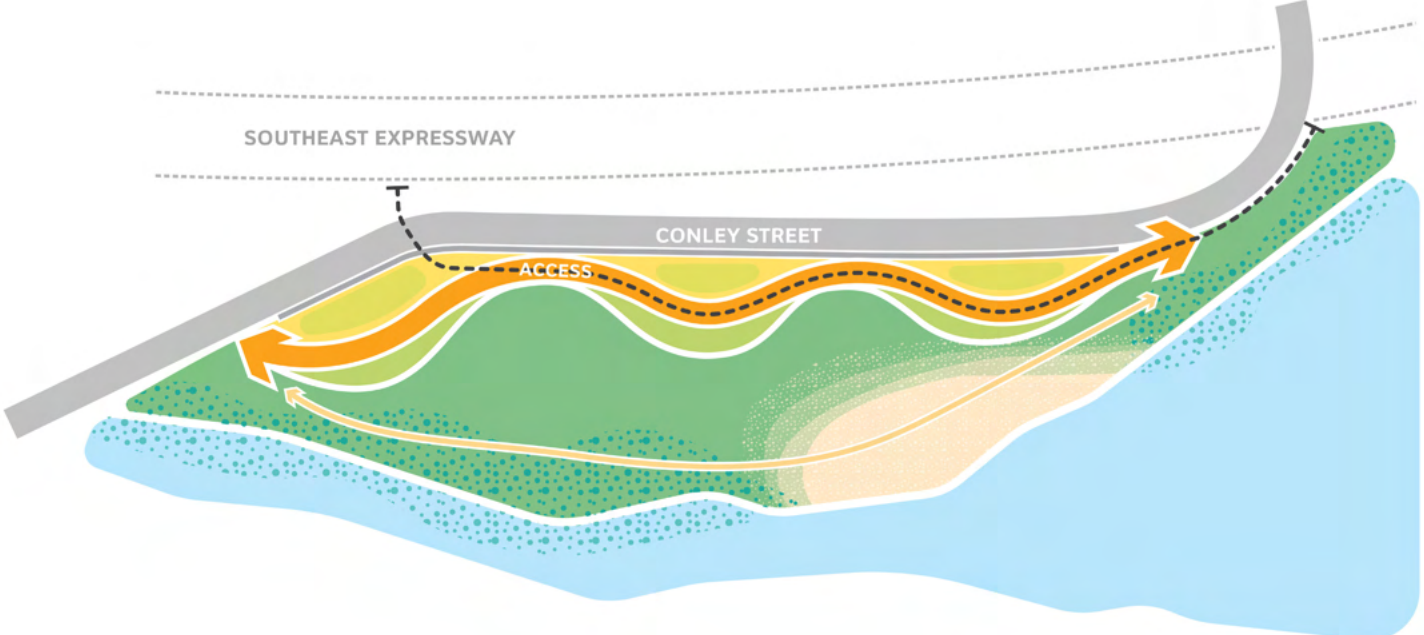
- 2070 1% ANNUAL STORM
- FLOODING PATH (PROGRESSION IN STEPS)

This project is the first step towards a long-term continuous line of protection along the coast that reduces coastal flood risk from all three pathways.

DESIGN OPTIONS | RESILIENCE

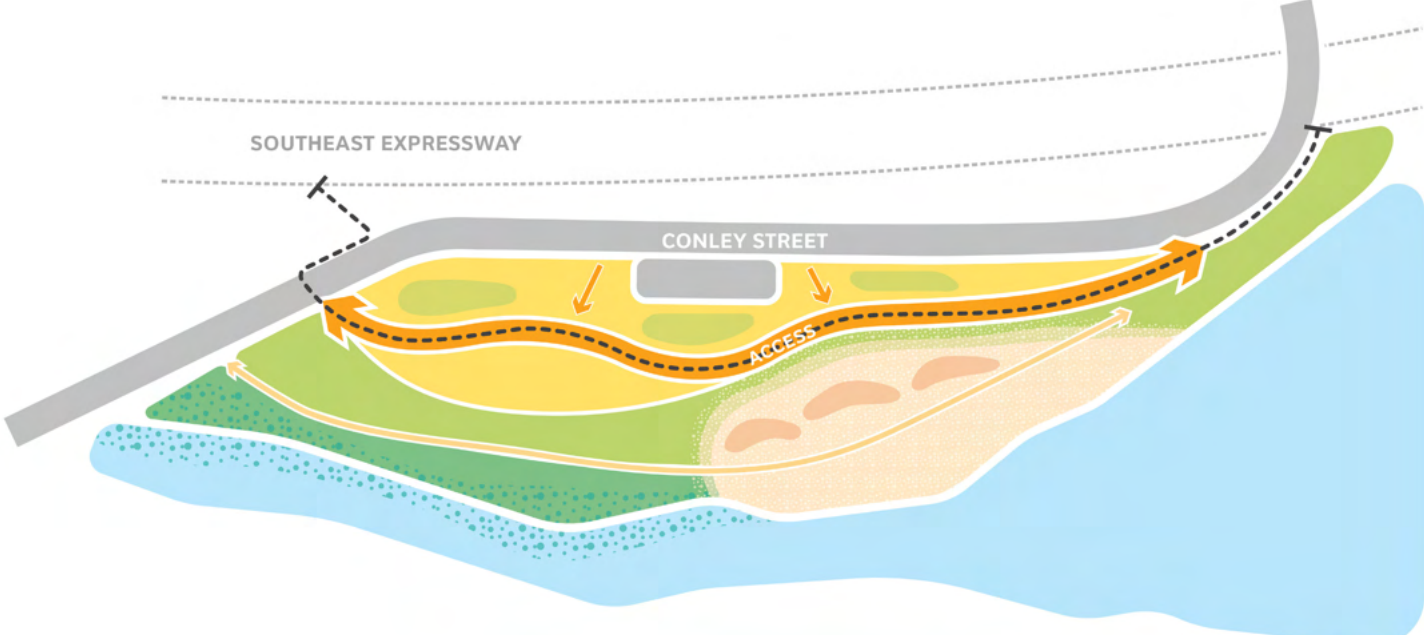
A. RE-NATURE

Maintain access through an elevated Conley Street and Harborwalk, and enhance natural resources over time.



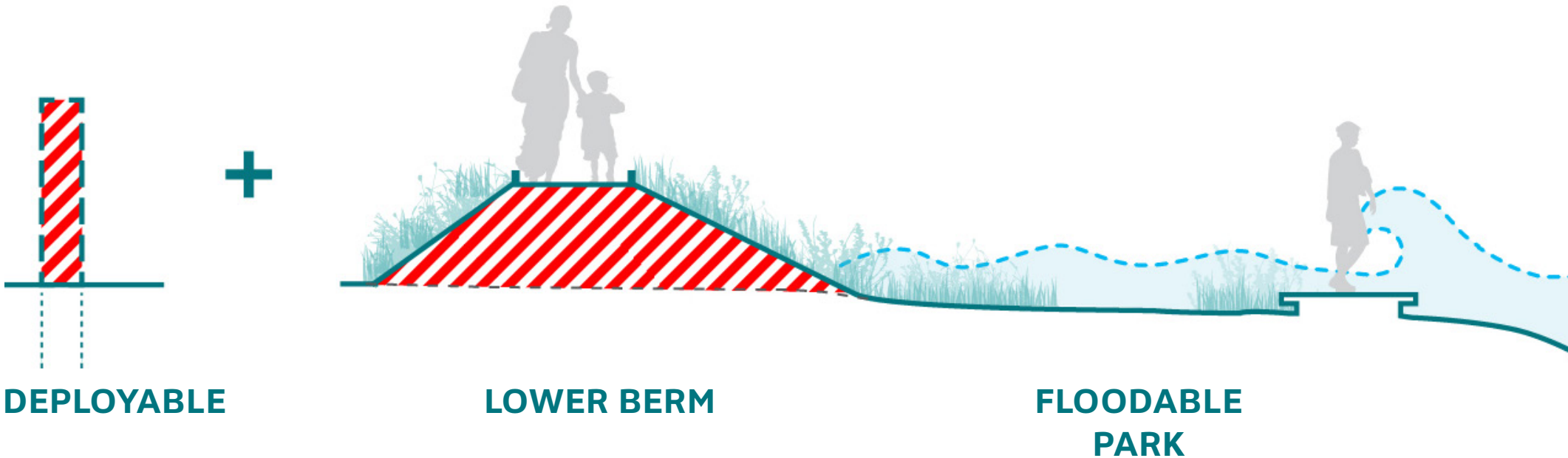
B. ELEVATE

Create a terraced park with elevated recreational amenities to extend use over time.



DESIGN OPTIONS | RESILIENCE

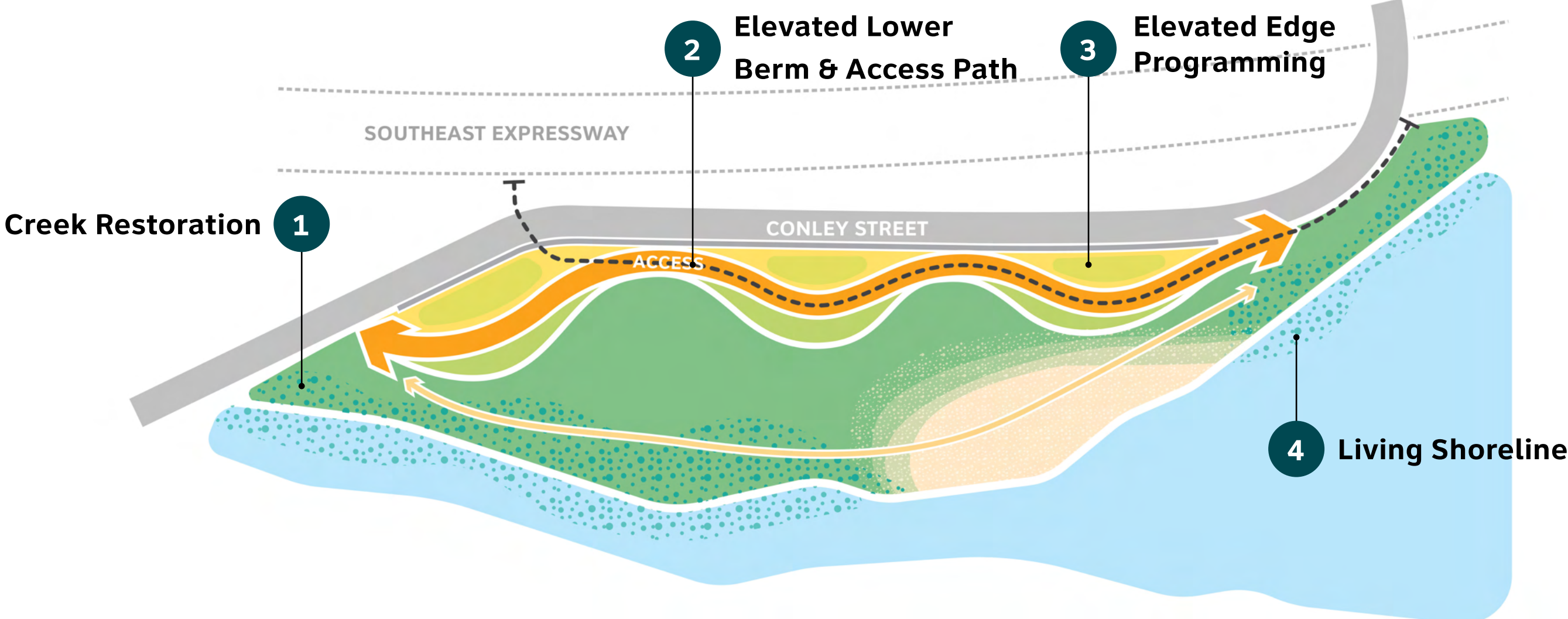
A. RE-NATURE



B. ELEVATE

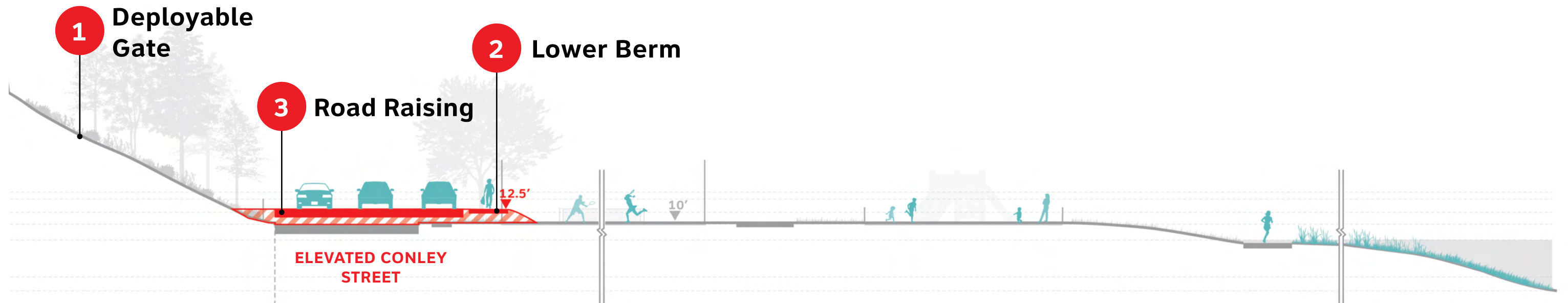
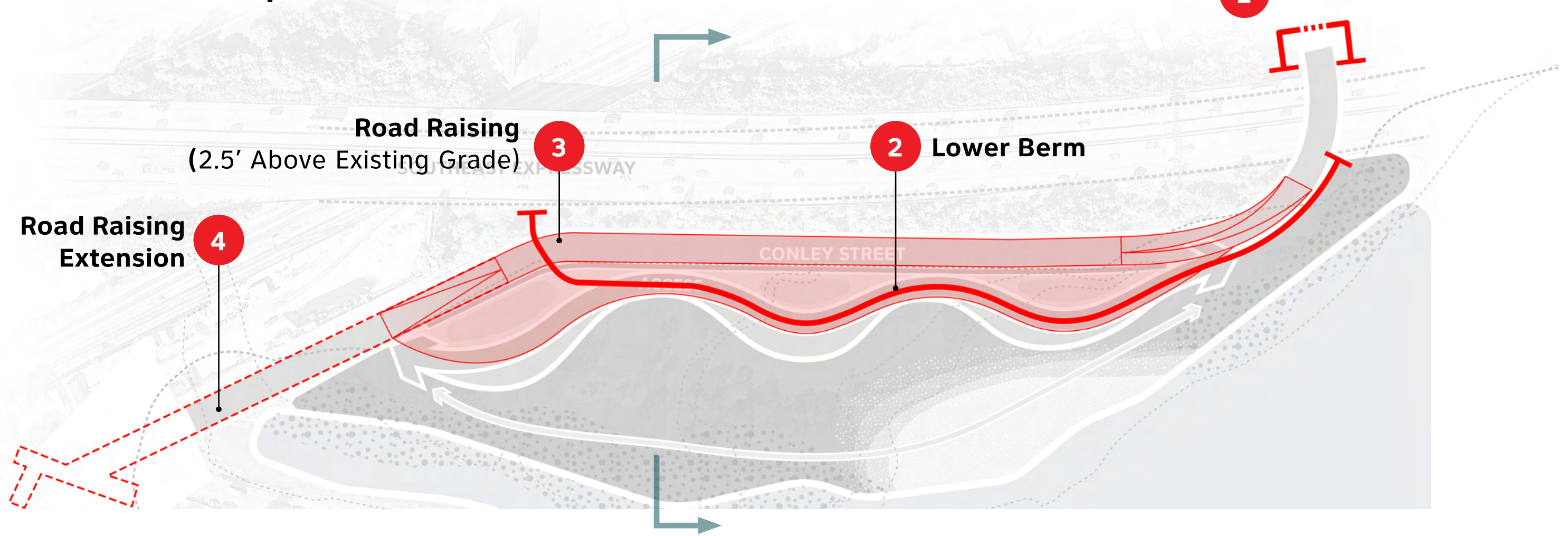


A. RE-NATURE | PROGRAMMATIC OVERLAY

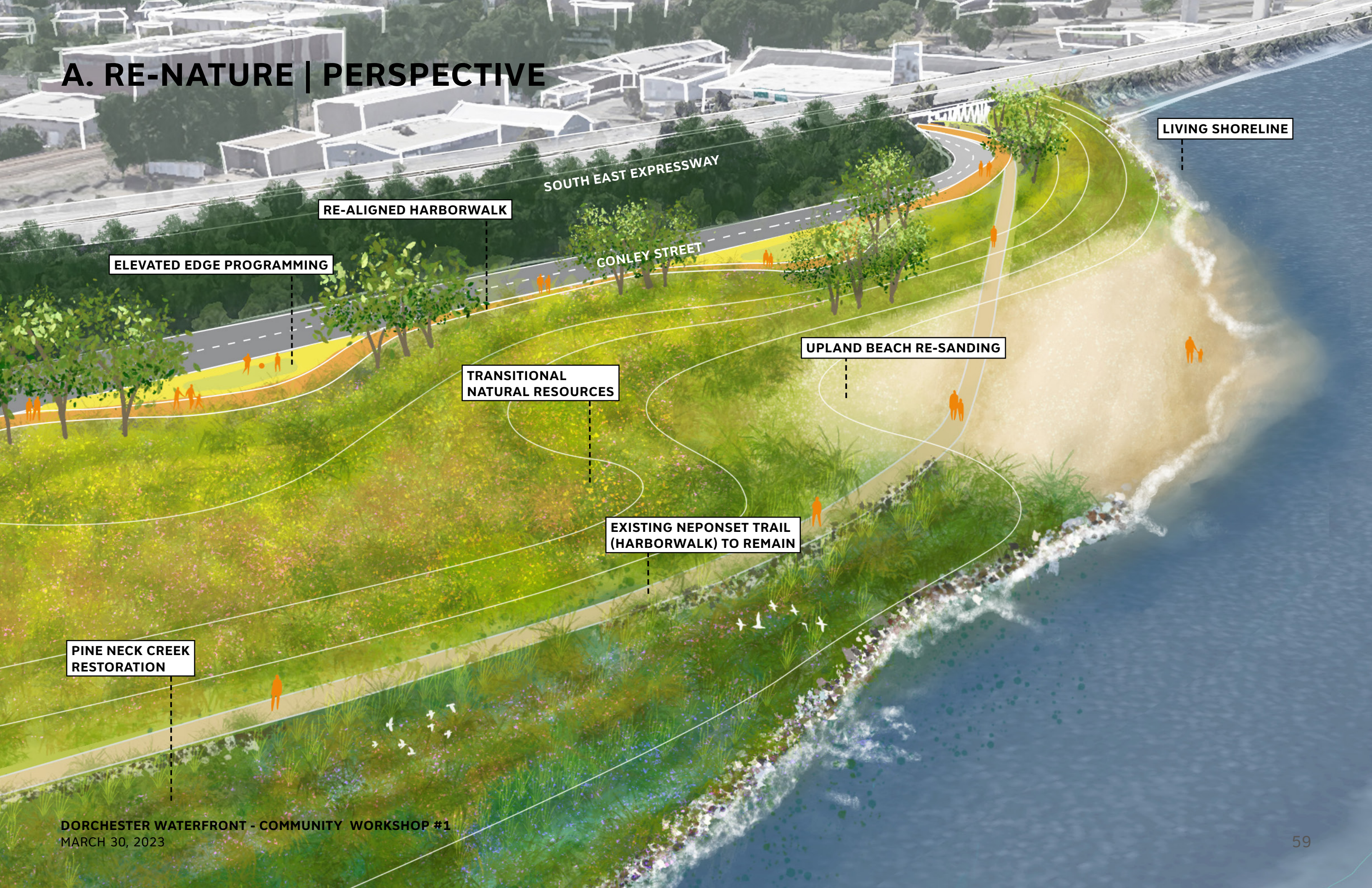


A. RE-NATURE | RESILIENCE OVERLAY

Deployable Gate **1**



A. RE-NATURE | PERSPECTIVE



LIVING SHORELINE

SOUTH EAST EXPRESSWAY

RE-ALIGNED HARBORWALK

CONLEY STREET

ELEVATED EDGE PROGRAMMING

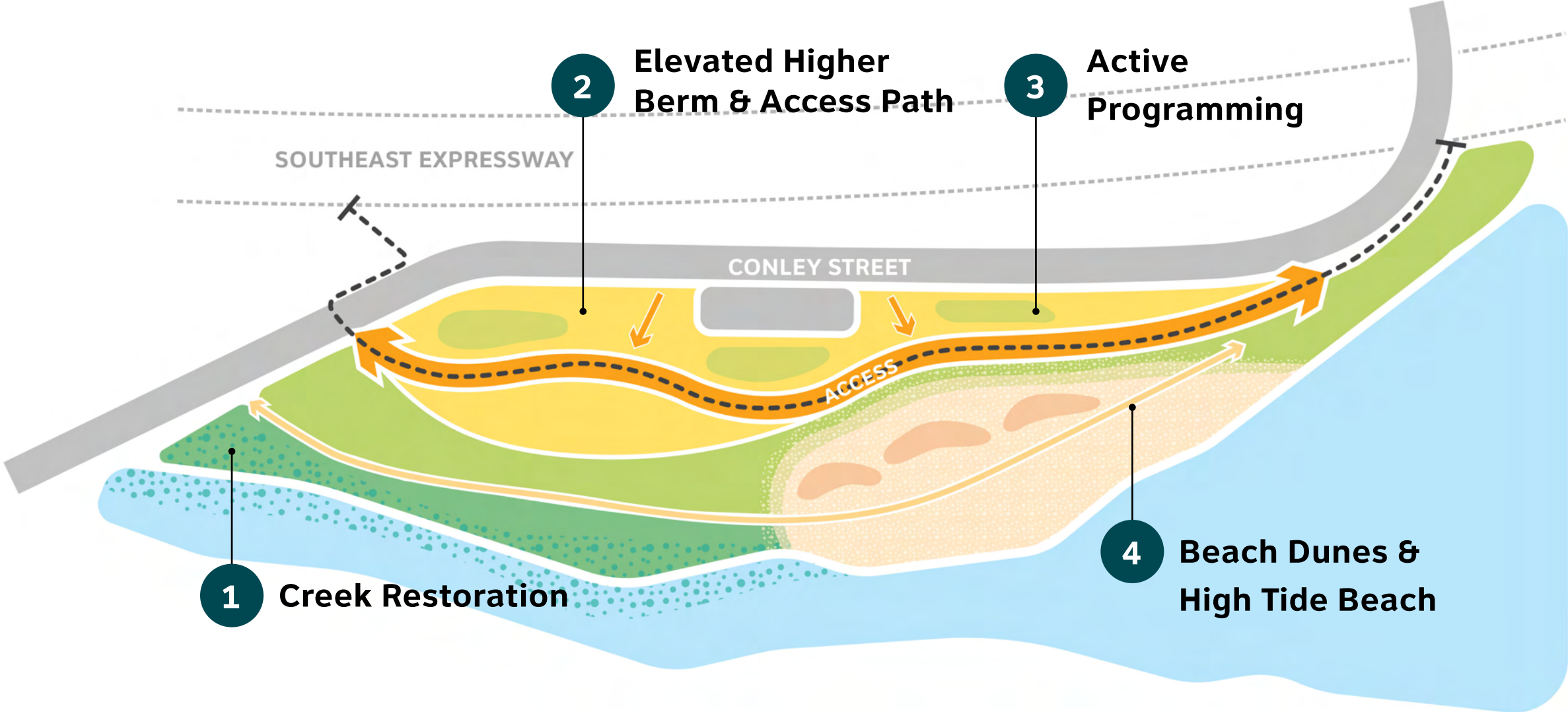
UPLAND BEACH RE-SANDING

TRANSITIONAL NATURAL RESOURCES

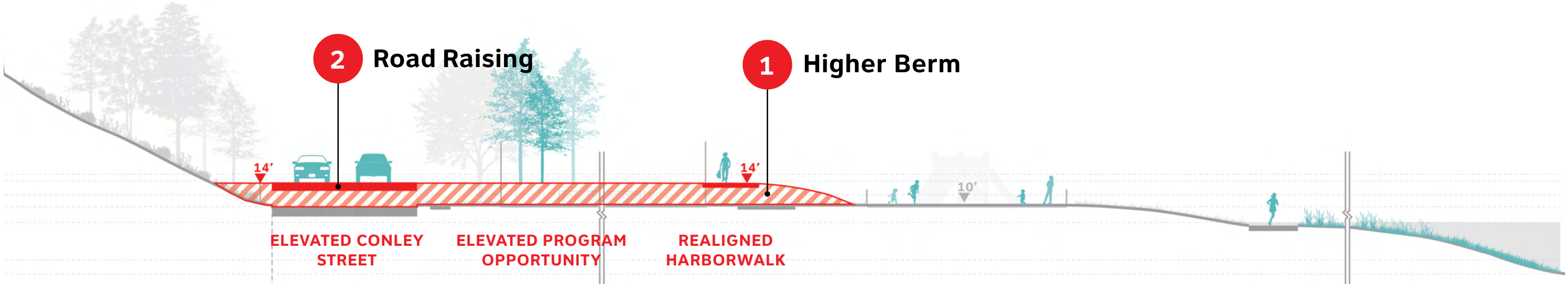
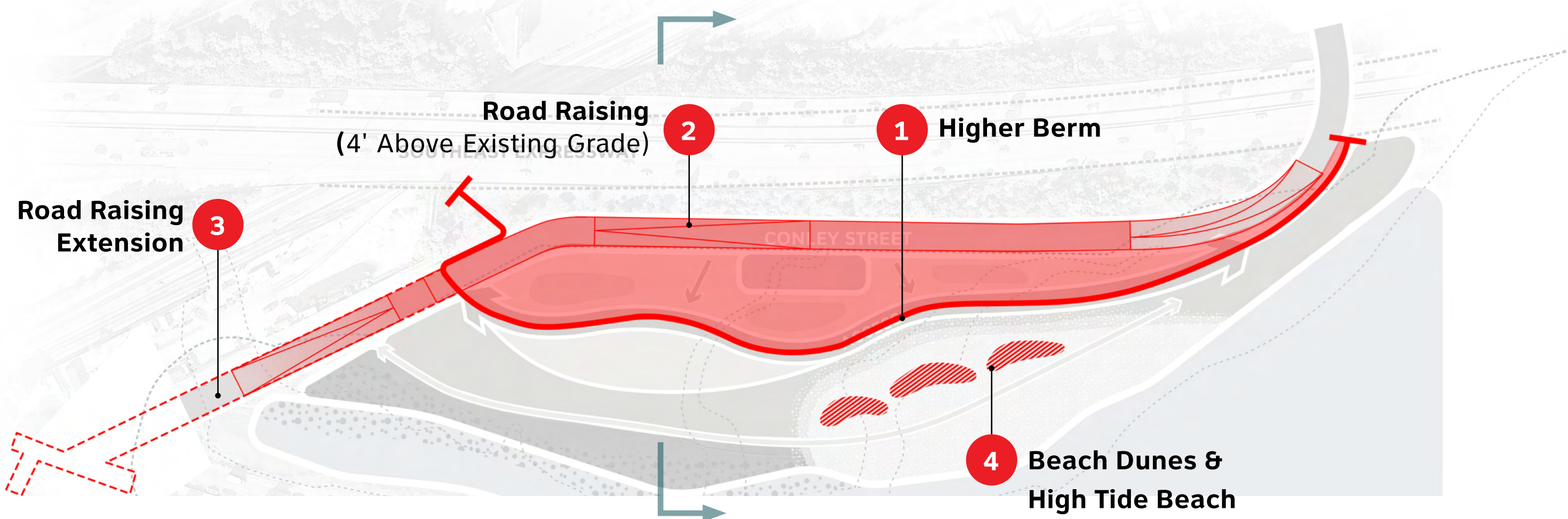
EXISTING NEPONSET TRAIL (HARBORWALK) TO REMAIN

PINE NECK CREEK RESTORATION

B. ELEVATE | PROGRAMMATIC OVERLAY



B. ELEVATE | RESILIENCE OVERLAY



B. ELEVATE | PERSPECTIVE



ELEVATED PROGRAM OPPORTUNITIES

RE-ALIGNED HARBORWALK

TRANSITIONAL BERM LANDSCAPE

BEACH DUNES & HIGH TIDE BEACH

EXISTING NEPONSET TRAIL (HARBORWALK) TO REMAIN

PINE NECK CREEK RESTORATION

SOUTH EAST EXPRESSWAY

CONLEY STREET

SUMMARY

| | A. RE-NATURE | B. ELEVATE |
|---|--|---|
| | | |
| EFFECTIVENESS | <ul style="list-style-type: none"> ✓ Protects inland neighborhood + DCR's Morrissey Blvd — Relies on deployable flood barrier ✗ Doesn't preserve open space programming at Tenean | <ul style="list-style-type: none"> ✓ Protects inland neighborhood + DCR's Morrissey Blvd ✓ Relies on passive protection ✓ Preserves open space programming at Tenean |
| FEASIBILITY & MAINTENANCE | <ul style="list-style-type: none"> — Feasible, more maintenance of deployable and park assets in the future ✓ Less complex permitting | <ul style="list-style-type: none"> ✓ Feasible, less maintenance of park assets in the future — More complex permitting |
| DESIGN LIFE & ADAPTABILITY | <ul style="list-style-type: none"> ✓ Low berm can be adapted to higher elevation so that deployable can be removed — Park will transition to coastal wetland | <ul style="list-style-type: none"> ✓ High berm can be adapted with kneewall on top ✓ Park will adapt to sea-level rise |
| ENVIRONMENTAL & PUBLIC HEALTH BENEFITS | <ul style="list-style-type: none"> ✓ More ecological improvements ✓ More salt marsh restoration — Less coastal dune and high tide beach | <ul style="list-style-type: none"> — Less ecological improvements — Less salt marsh restoration ✓ More coastal dune and high tide beach |
| SOCIAL EQUITY & QUALITY OF LIFE | <ul style="list-style-type: none"> — Transitions recreation space to conservation space in the future | <ul style="list-style-type: none"> ✓ Maintains existing balance of recreation and conservation into the future |

*WHAT DO YOU LIKE ABOUT
OPTION A AND B?*

*WHAT WOULD YOU CHANGE
ABOUT EACH?*

QUESTIONS?



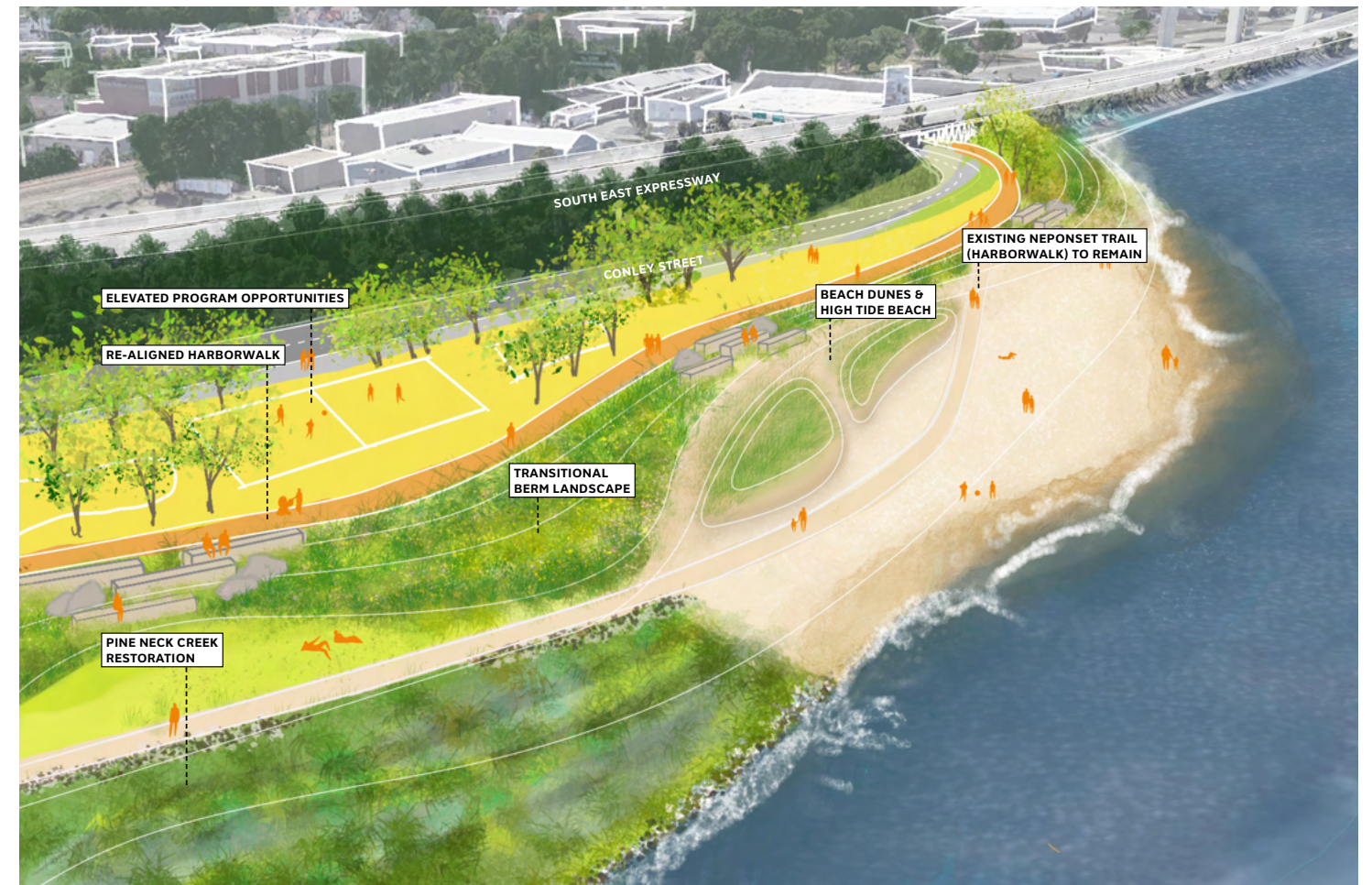
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A. RE-NATURE



B. ELEVATE



NEXT STEPS

COMMUNITY CLEAN-UP AT TENEAN
BEACH FOR ONE BOSTON DAY
APRIL 15TH
DETAILS TO COME



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THANK YOU!

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APPENDIX



**boston planning &
development agency**



ENGAGEMENT FOR THE WORKSHOP

March 9, 2023 BPDA posts workshop to calendar and sends out in an email blast

March 16, 2023 Ad placed in the Dorchester Reporter for the event

March 17, 2023 BPDA/Environment staff attend the Dorchester coffee hour to hand out one-pagers/speak with community

March 23, 2023 Front Page story in the Dorchester Reporter about the project and the event

BPDA resends out the calendar invitation to the event

Dorchester ONS rep tweets out one-pager with workshop information

Dorchester Reporter tweets out story and workshop information

Neponset River Greenway Council tweets out workshop information

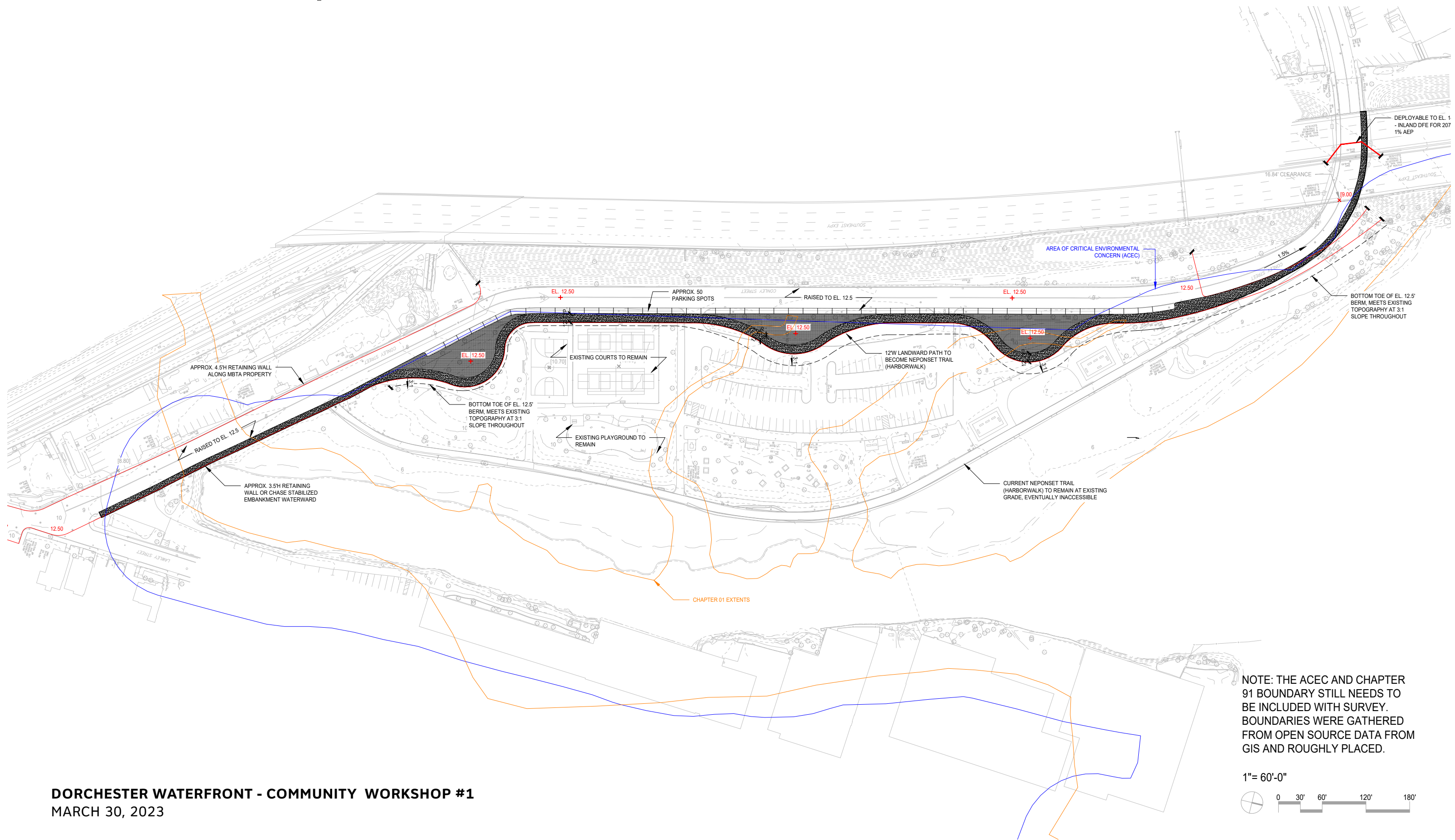
March 24, 2023 Environment Department posts on Instagram workshop information

March 27, 2023 Neponset River tweets out workshop information

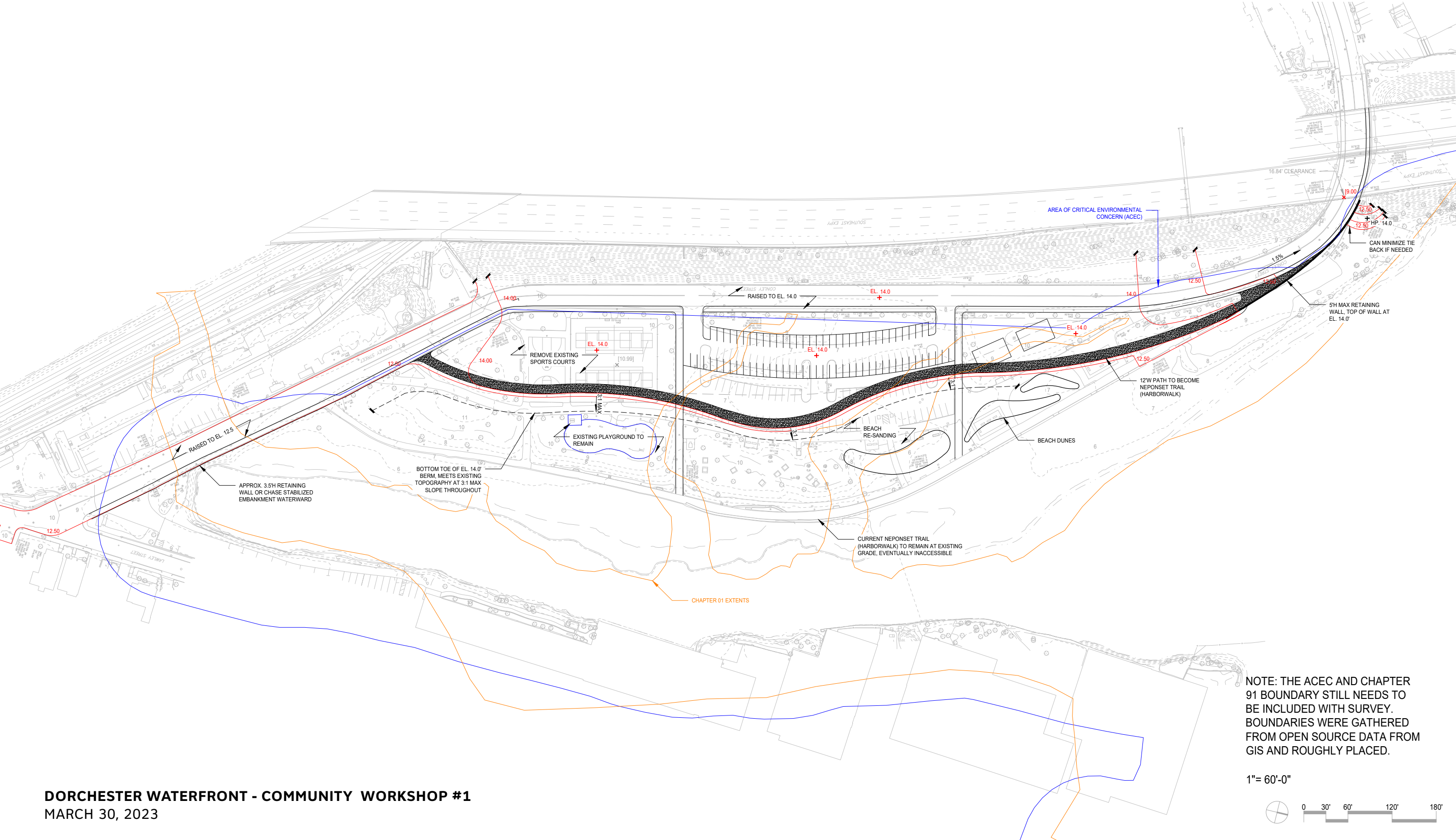
Various other social media engagements from organizations / community members

Various stakeholders were engaged one on one to extend the invitation to participate at the workshop

A. RE-NATURE | TECHNICAL OVERLAY



B. ELEVATE | TECHNICAL OVERLAY



NOTE: THE ACEC AND CHAPTER 91 BOUNDARY STILL NEEDS TO BE INCLUDED WITH SURVEY. BOUNDARIES WERE GATHERED FROM OPEN SOURCE DATA FROM GIS AND ROUGHLY PLACED.

