

WELCOME!

EAST BOSTON RESILIENT WATERFRONT PROJECT COMMUNITY WORKSHOP

May 4th, 2021



Weston & SampsonSM

IN ASSOCIATION WITH:
STOSS LANDSCAPE URBANISM
GEI CONSULTANTS
WOODS HOLE GROUP



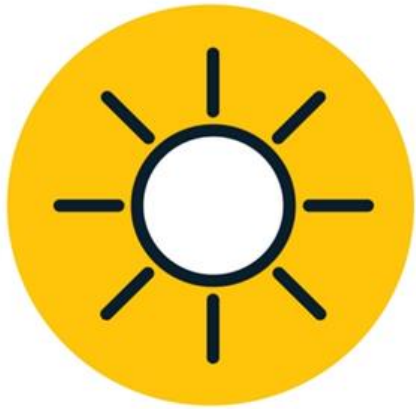
INTRODUCTION AND CLIMATE READY HISTORY

Climate Ready Boston is an initiative to develop resilient solutions to prepare Boston for climate change.



CLIMATE READY BOSTON

**EXTREME
TEMPERATURES**



HEAT

**EXTREME
PRECIPITATION**



**STORMWATER
FLOODING**

SEA LEVEL RISE

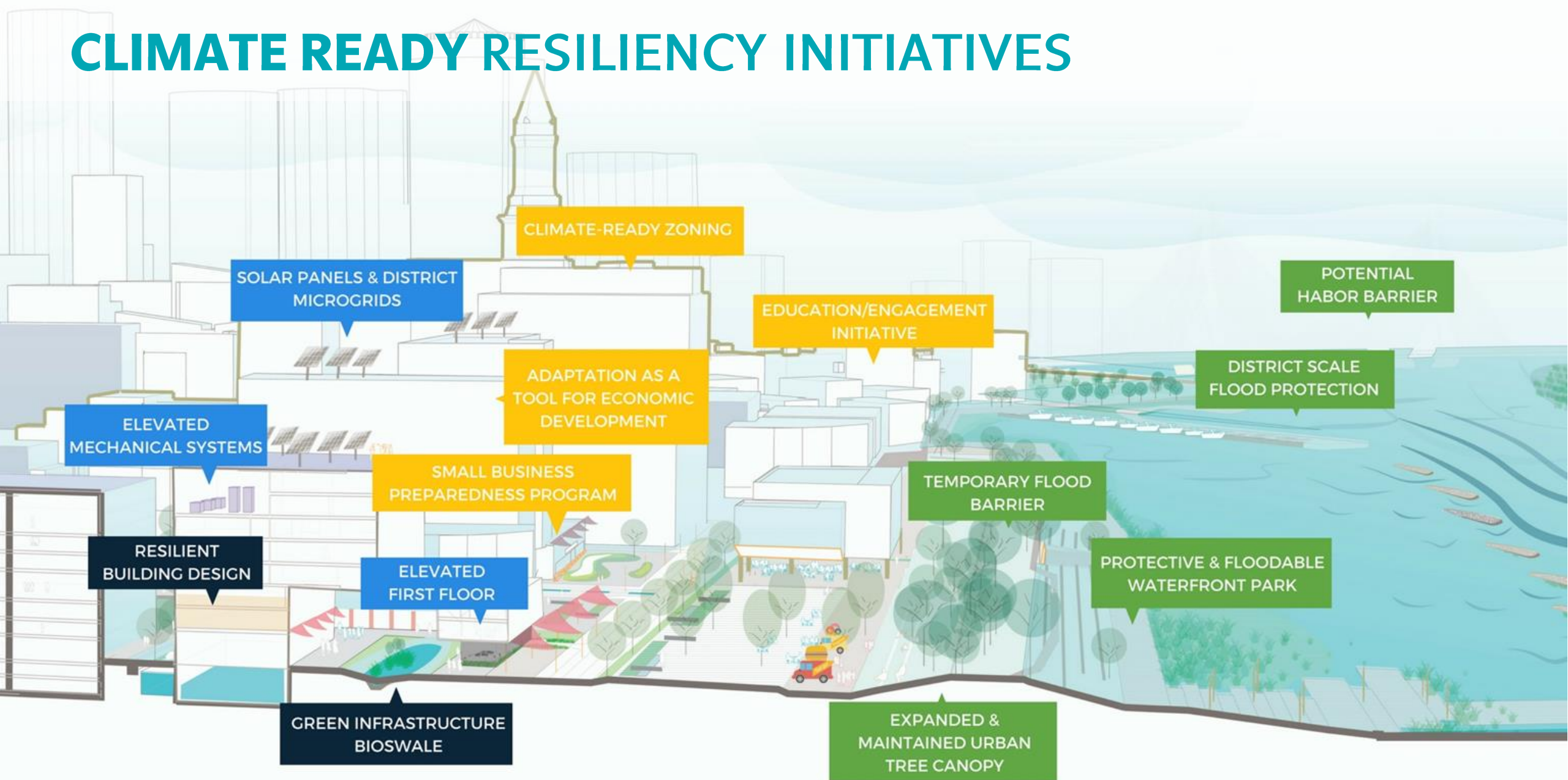


**COASTAL & RIVERINE
FLOODING**

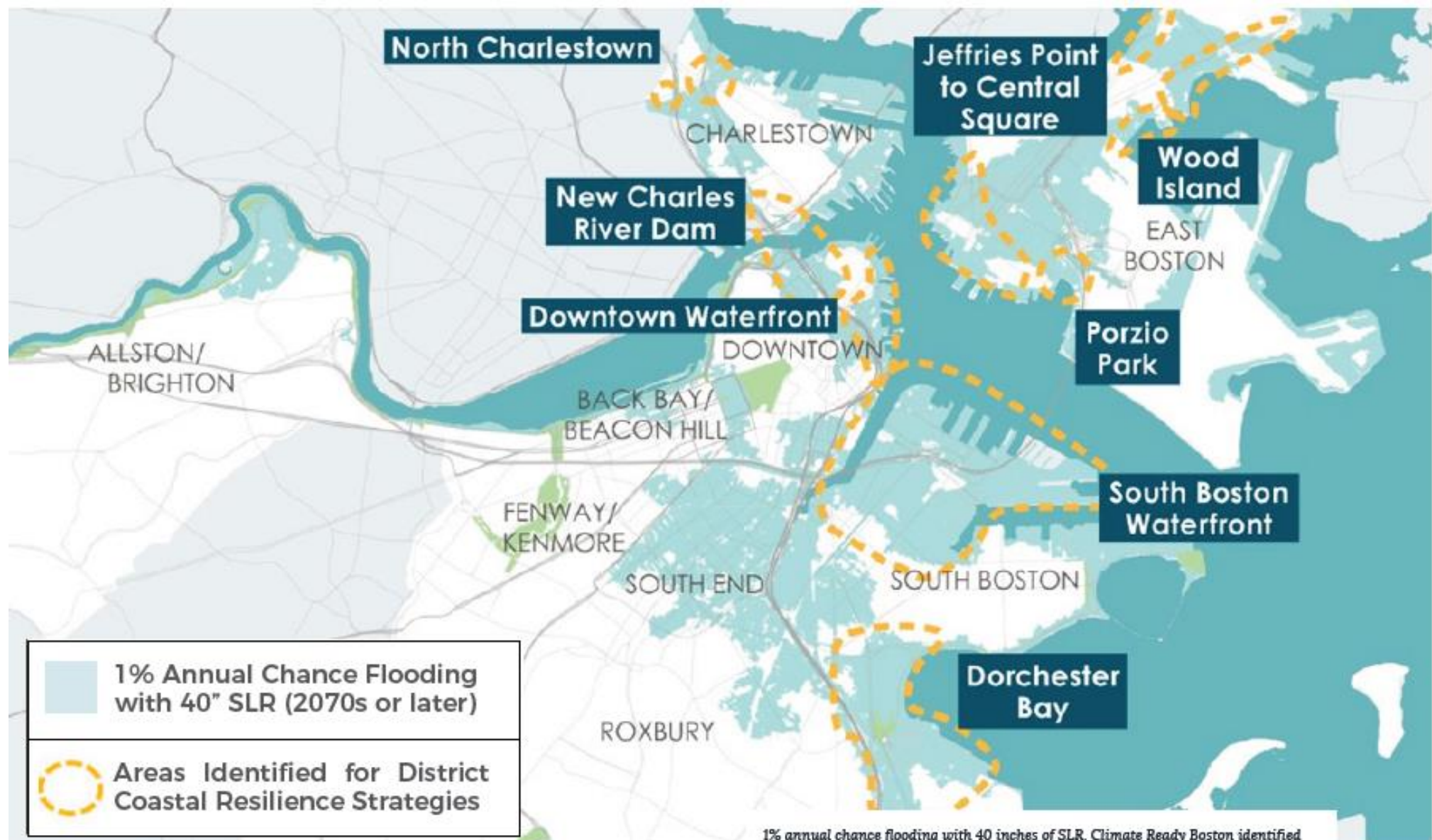
**COASTAL
STORMS**



CLIMATE READY RESILIENCY INITIATIVES



DISTRICT-SCALE FLOOD PROTECTION



1% annual chance flooding with 40 inches of SLR. Climate Ready Boston identified the need for district-scale flood protection strategies in Charlestown, East Boston, South Boston, Downtown, and Dorchester. Source: Climate Ready Boston

IDENTIFICATION OF FLOOD PATHWAYS



FLOOD PROTECTION DESIGN SOLUTIONS

Coastal Resilience Design Solutions Evaluated

ADAPT TO SEA-LEVEL RISE **A**
 PROTECT AGAINST STORM SURGE **P**
 MINIMIZE WAVE ACTION AND PREVENT EROSION **M**
 RETREAT **R**

A P

LANDSCAPE BERM



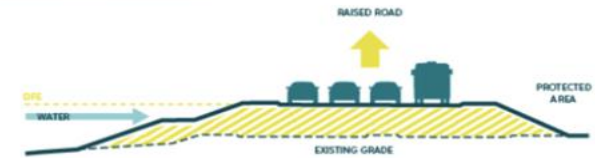
A P

RAISED HARBORWALK



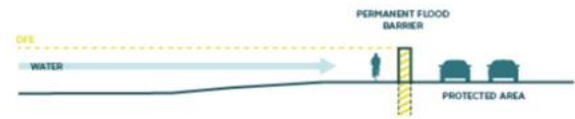
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RAISED ROADWAY



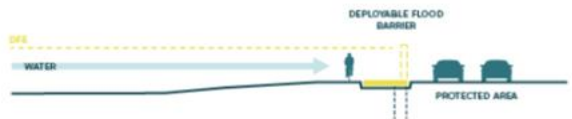
P

FLOODWALL



P

DEPLOYABLE BARRIER



A P

TIDE GATE



A M

NATURAL AND NATURE-BASED SOLUTIONS



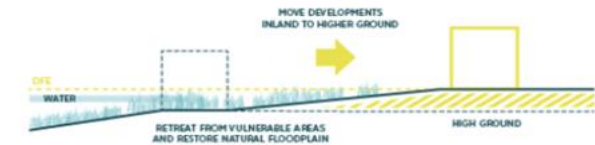
A P

BUILDING-LEVEL ADAPTATION



R

STRATEGIC ACQUISITION OR STRATEGIC RETREAT



EVALUATION CRITERIA



EFFECTIVENESS

Is the initiative effective at reducing the risk to residents, other stakeholders, and the assets they rely on from coastal flooding?



ENVIRONMENTAL & PUBLIC HEALTH BENEFITS

Does the initiative provide benefits to and minimize impacts on the “natural” environment?



FEASIBILITY

Can the initiative be reasonably implemented and maintain / sustain?



SOCIAL EQUITY & QUALITY OF LIFE

Does the initiative provide quality of life benefits to people [who live or work in Boston]? Are those benefits shared fairly by all?



DESIGN LIFE & ADAPTABILITY

Will the initiative be adaptable over time once it is implemented?



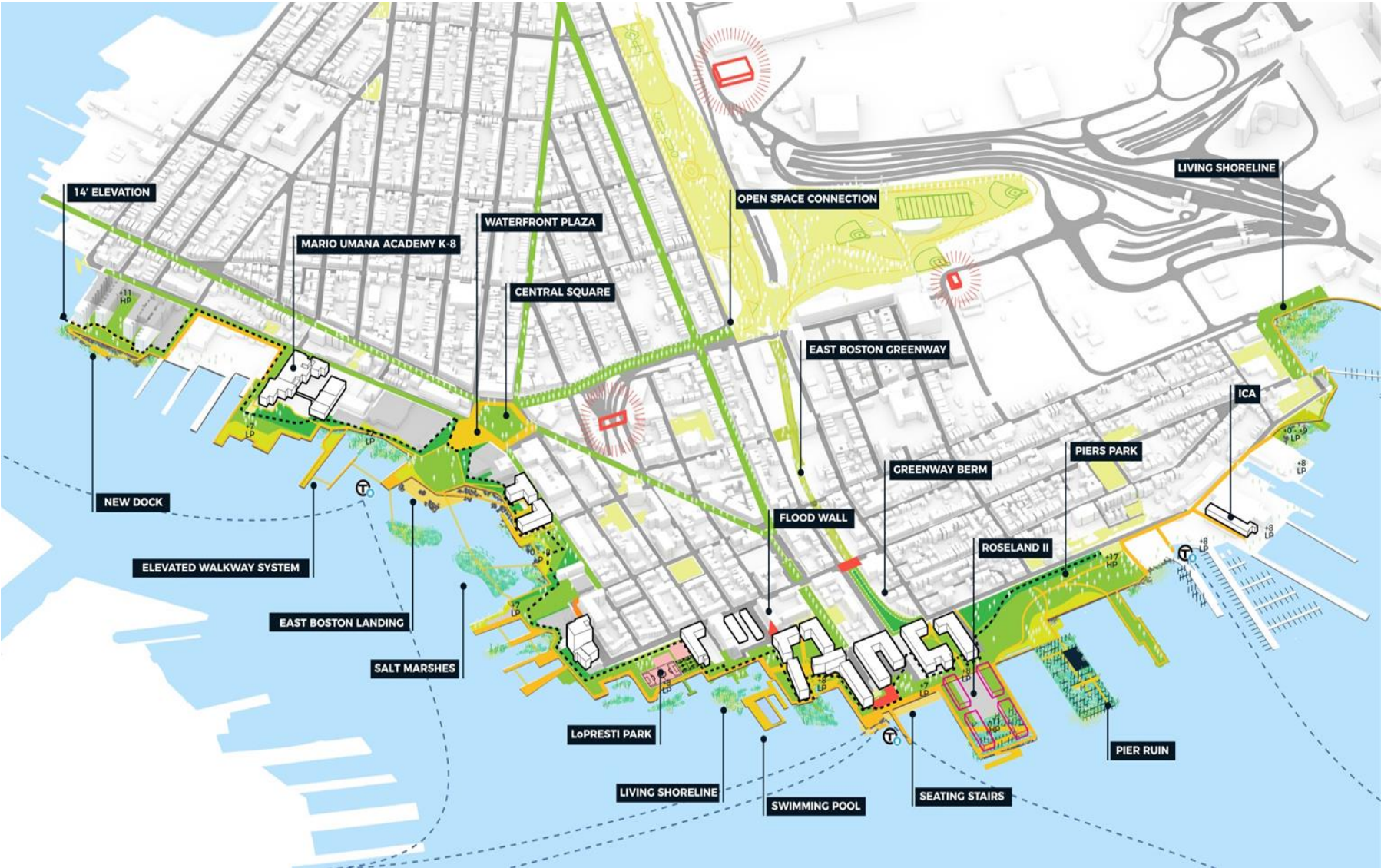
VALUE CREATION

Does the initiative increase the “value” of the land around it and ability to sustainably fund resilience into the future?

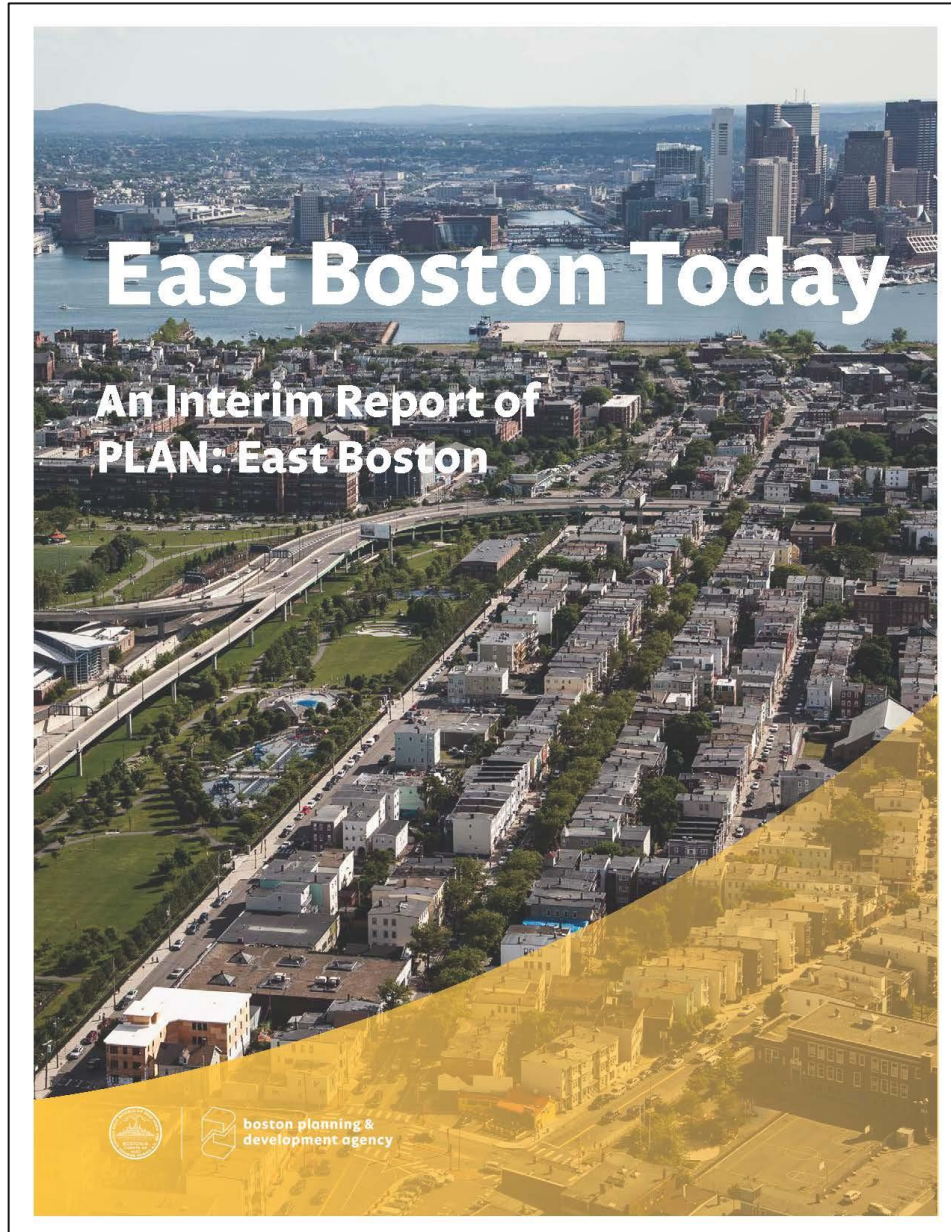
SHORT TERM ACTIONS



LONG TERM VISION



COORDINATING ONGOING EFFORTS



CITY of BOSTON

Coastal Resilience Solutions for East Boston and Charlestown (Phase II)

Task 1 Memo: Review & Synthesis of Existing
Information

February 2, 2021

 ARCADIS

SASAKI

WOODS HOLE
GROUP FOR EASTERN
SPACIAL

NOAH 

● one architecture

EXISTING CONDITIONS AND KEY TAKE-AWAYS FOR DESIGN

EXISTING CONDITIONS

TOPOGRAPHY

Carlton Wharf

Site

Lowest Elevation = 16.5 ft-BCB

Elevation Range = 16.5 – 18 ft-BCB

Lewis Mall

Site

Lowest Elevation = 14.1 ft-BCB

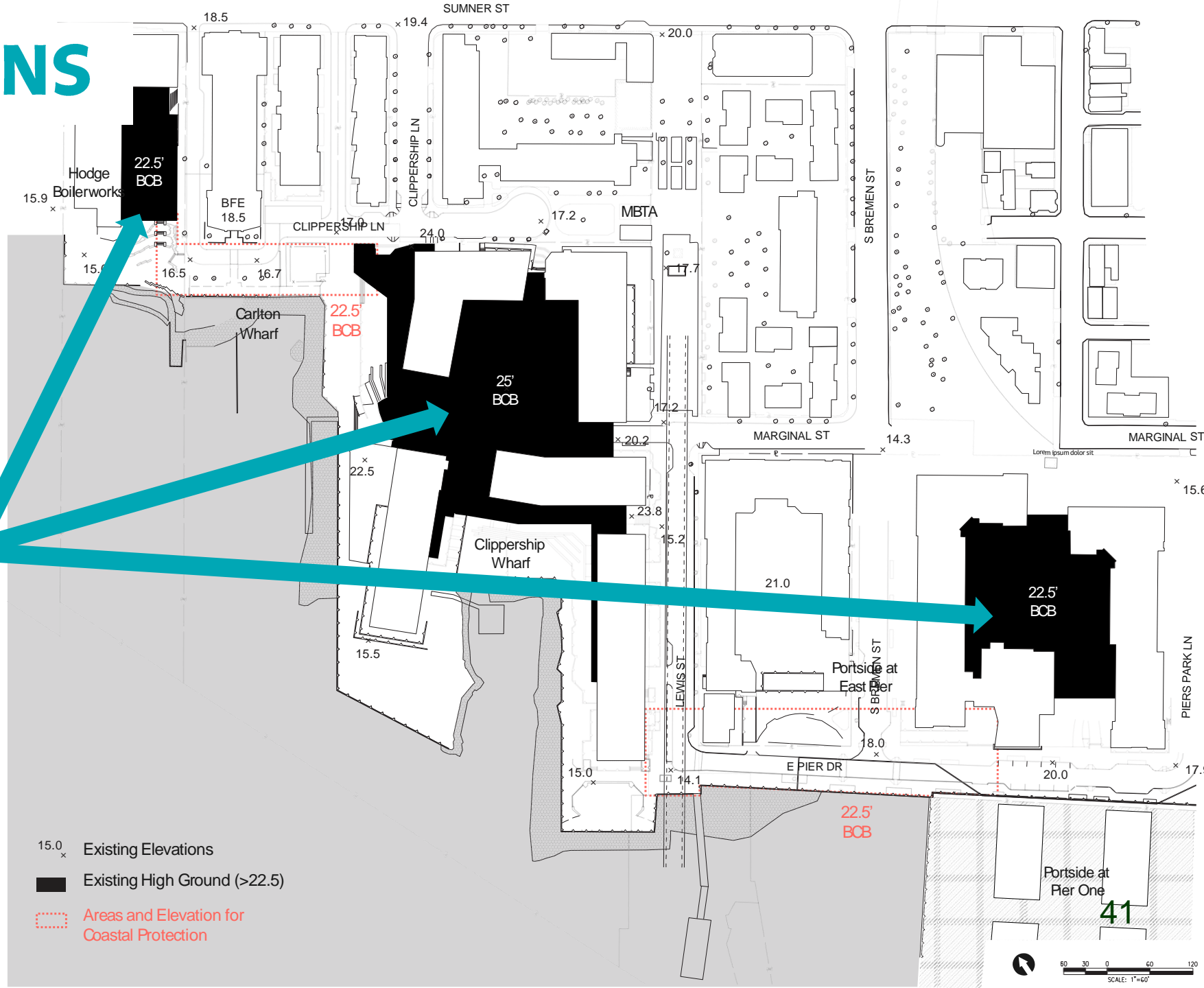
Elevation Range = 14.1 – 20 ft-BCB

Boston City Base Datum - BCB



CONSIDERATIONS

ELEVATIONS (TIE -
INS)



- 15.0 x Existing Elevations
- Existing High Ground (>22.5)
- Areas and Elevation for Coastal Protection

EXISTING CONDITIONS

BIG CONSIDERATIONS

 Adjacent property ownership

 MBTA tunnel runs under Lewis Mall

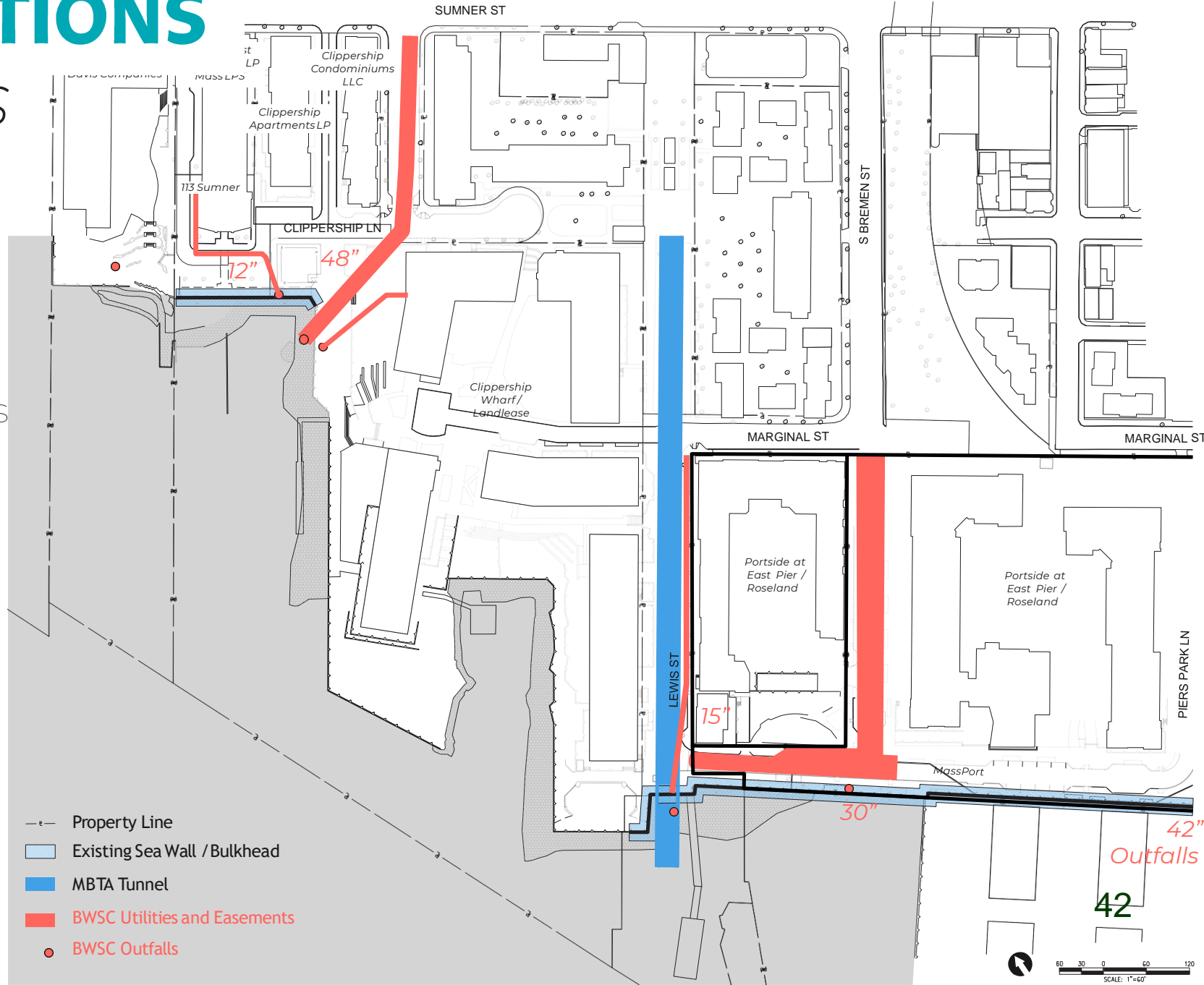
 BWSC easements and outfalls

 Condition of the existing seawall

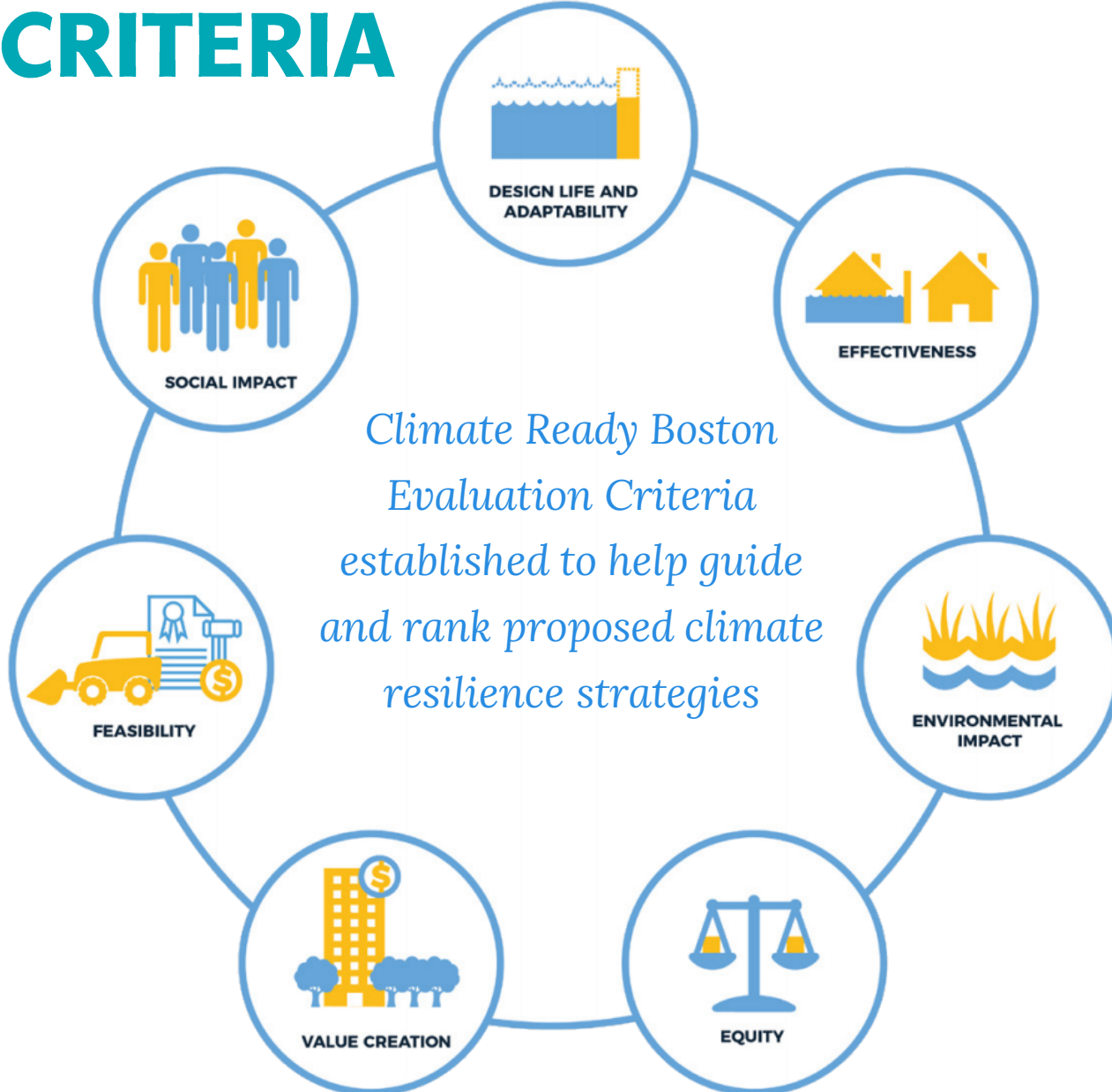
 Environmental conditions

 Water Taxi service at Lewis Mall

 Existing dog park at Carlton Wharf

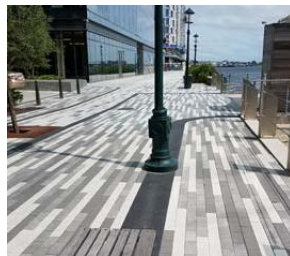
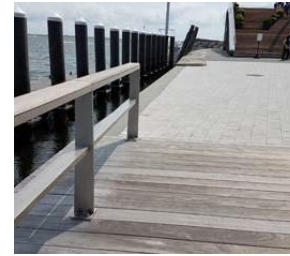
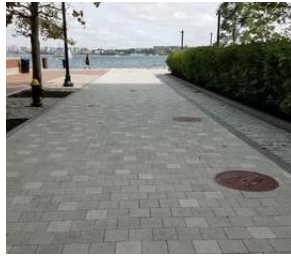
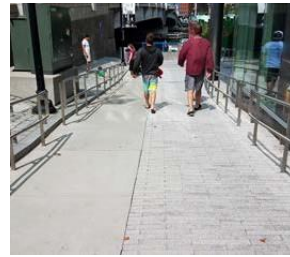
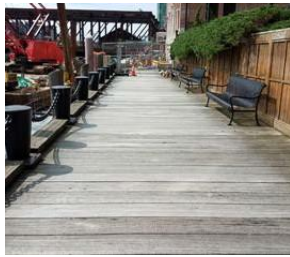


CRB EVALUATION CRITERIA



CATEGORY	CRITERIA
EFFECTIVENESS	<ul style="list-style-type: none"> Maximum level of protection (% annual chance / SLR scenario) Reduction in flood extent Avoided damage and loss Residents protected Critical assets protected
FEASIBILITY	<ul style="list-style-type: none"> Stakeholder acceptance Constructability Permitting Affordability: Cost of Construction + Cost of Maintenance Replicability
DESIGN LIFE + ADAPTABILITY	<ul style="list-style-type: none"> Design Life Performance Horizon Adaptability/Flexibility Phase-ability and Time to Implementation Maintenance Requirements
SOCIAL IMPACT	<ul style="list-style-type: none"> Recreational Cultural Aesthetic
EQUITY	<ul style="list-style-type: none"> New and Equitable Access to Waterfront Additional Benefits for Vulnerable Populations Community Partnerships Protection of Affordable Housing over the Long Term
VALUE CREATION	<ul style="list-style-type: none"> New Value Created on Sites or Adjacent Sites Capacity to Catalyze Future Funding and Investment
ENVIRONMENTAL IMPACT	<ul style="list-style-type: none"> Water and Air Quality Habitat Value Human Health Benefits Mitigation of Other Climate Hazards (Heat, Stormwater)

BOSTON'S HARBORWALK



DESIGN GOALS CHECKLIST

- Passive protection**– to design flood elevation
- Maintain equitable access**– to existing structures & waterfront
- Placemaking**– to meet Plan East Boston’s waterfront goals
- Existing Infrastructure**– minimize impact / changes and maintain access

Develop **buildable** solutions which meet resiliency goals despite site constraints

DESIGN CONCEPTS

LEWIS MALL AND CARLTON WHARF

EAST BOSTON GREENWAY

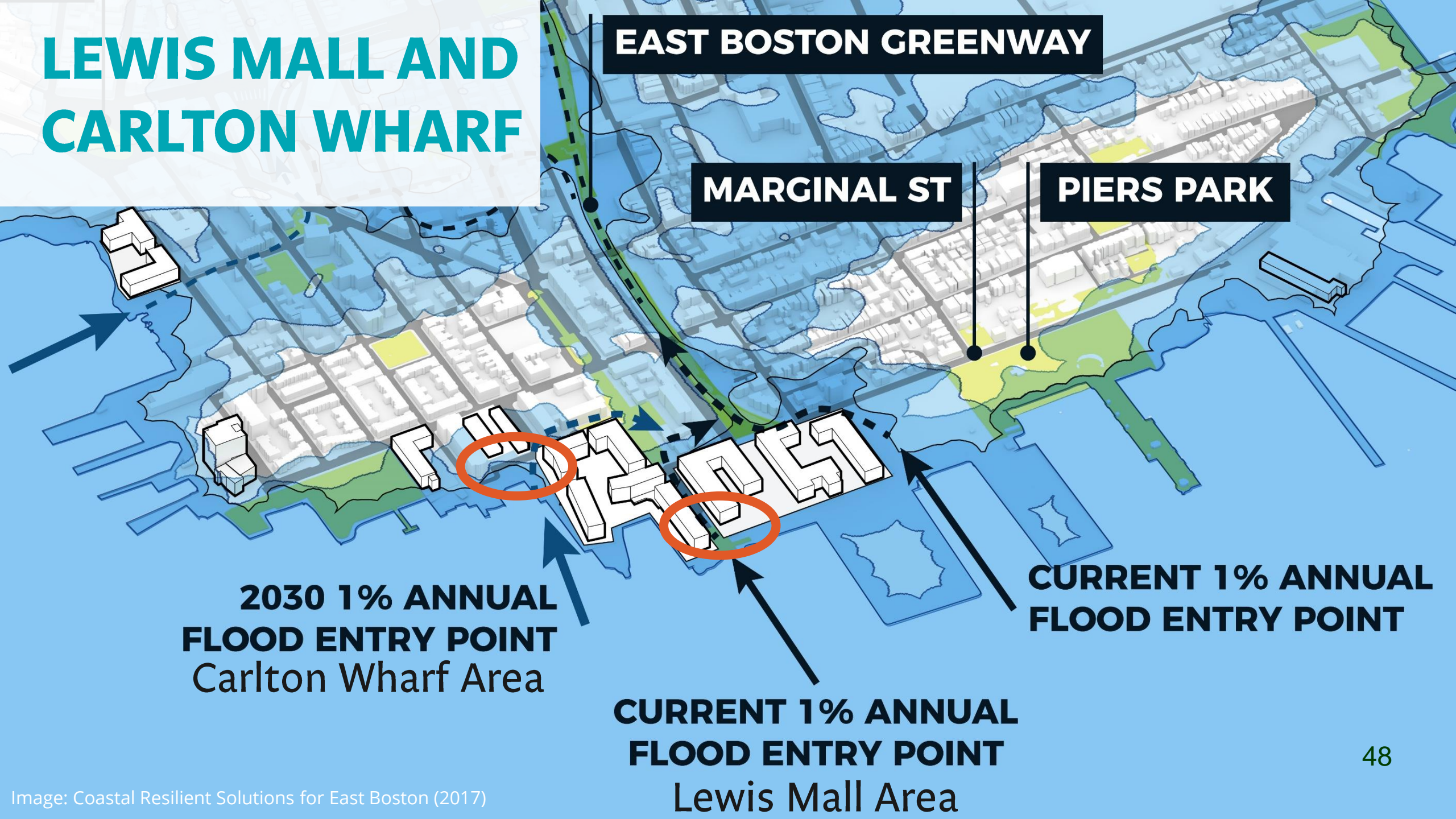
MARGINAL ST

PIERS PARK

**2030 1% ANNUAL
FLOOD ENTRY POINT
Carlton Wharf Area**

**CURRENT 1% ANNUAL
FLOOD ENTRY POINT**

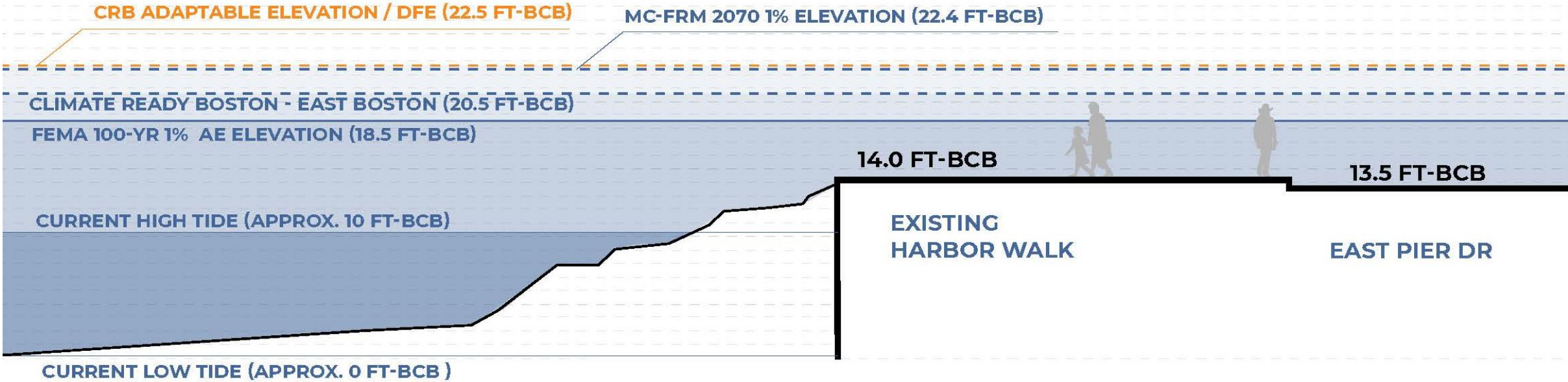
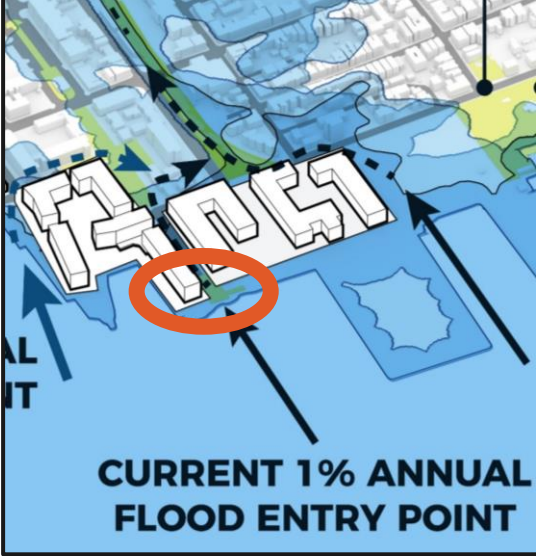
**CURRENT 1% ANNUAL
FLOOD ENTRY POINT
Lewis Mall Area**



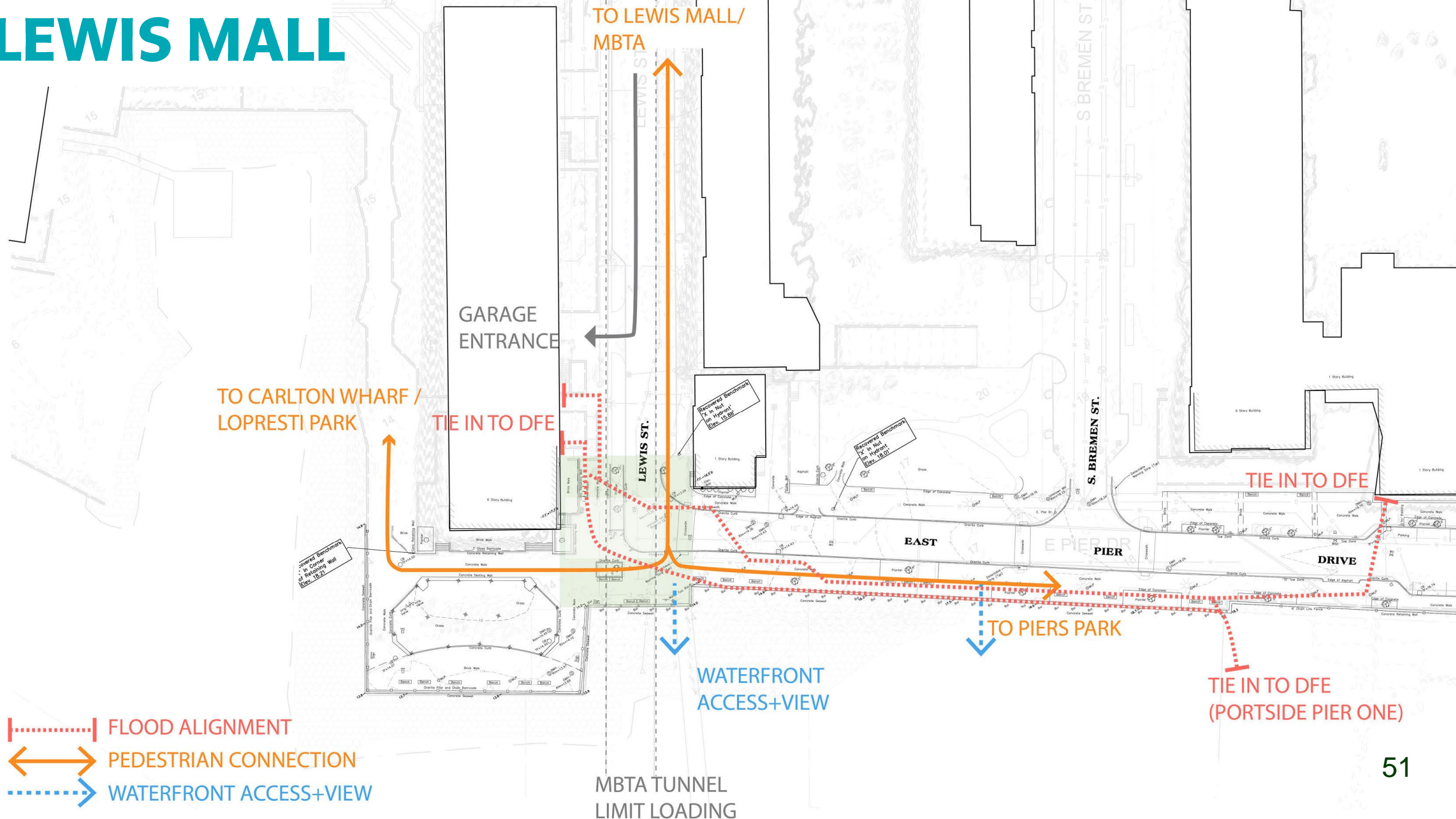
LEWIS MALL



PROJECT AREA FLOODING



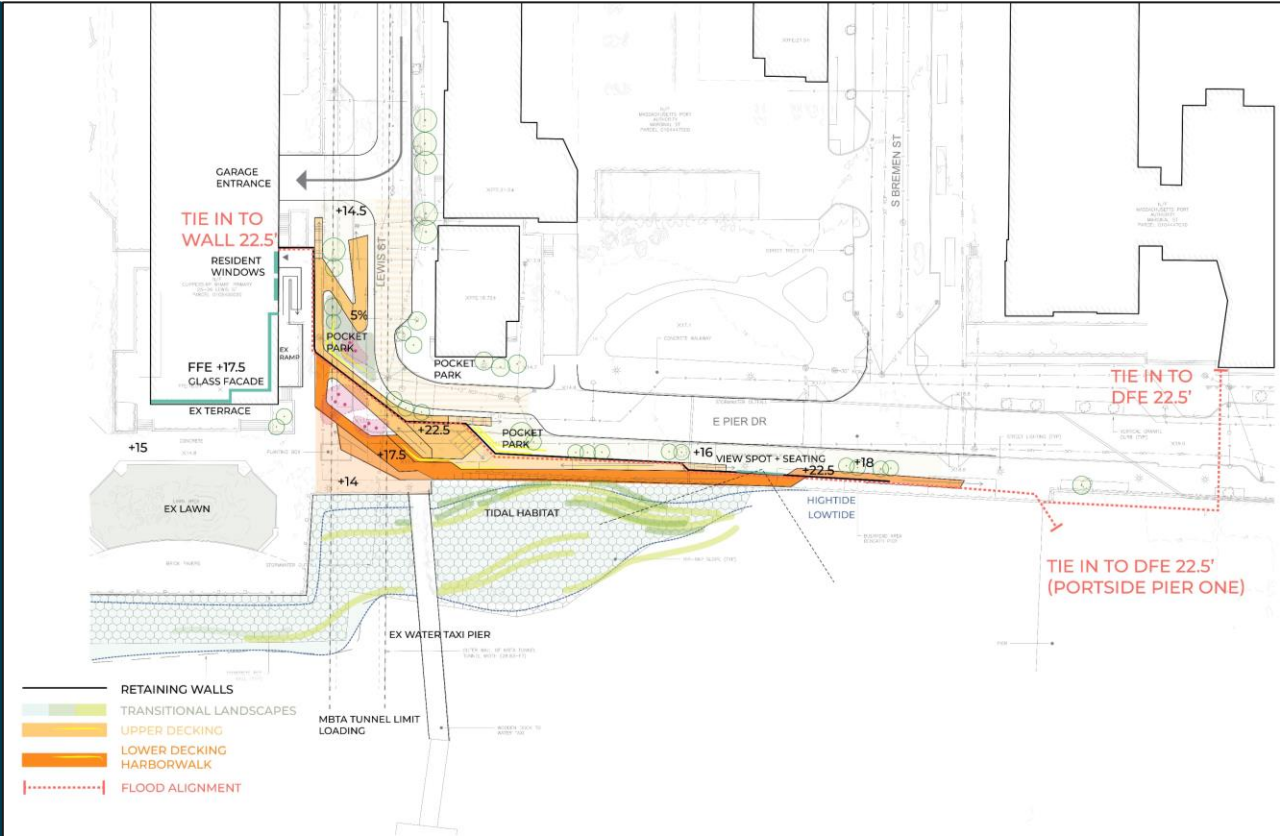
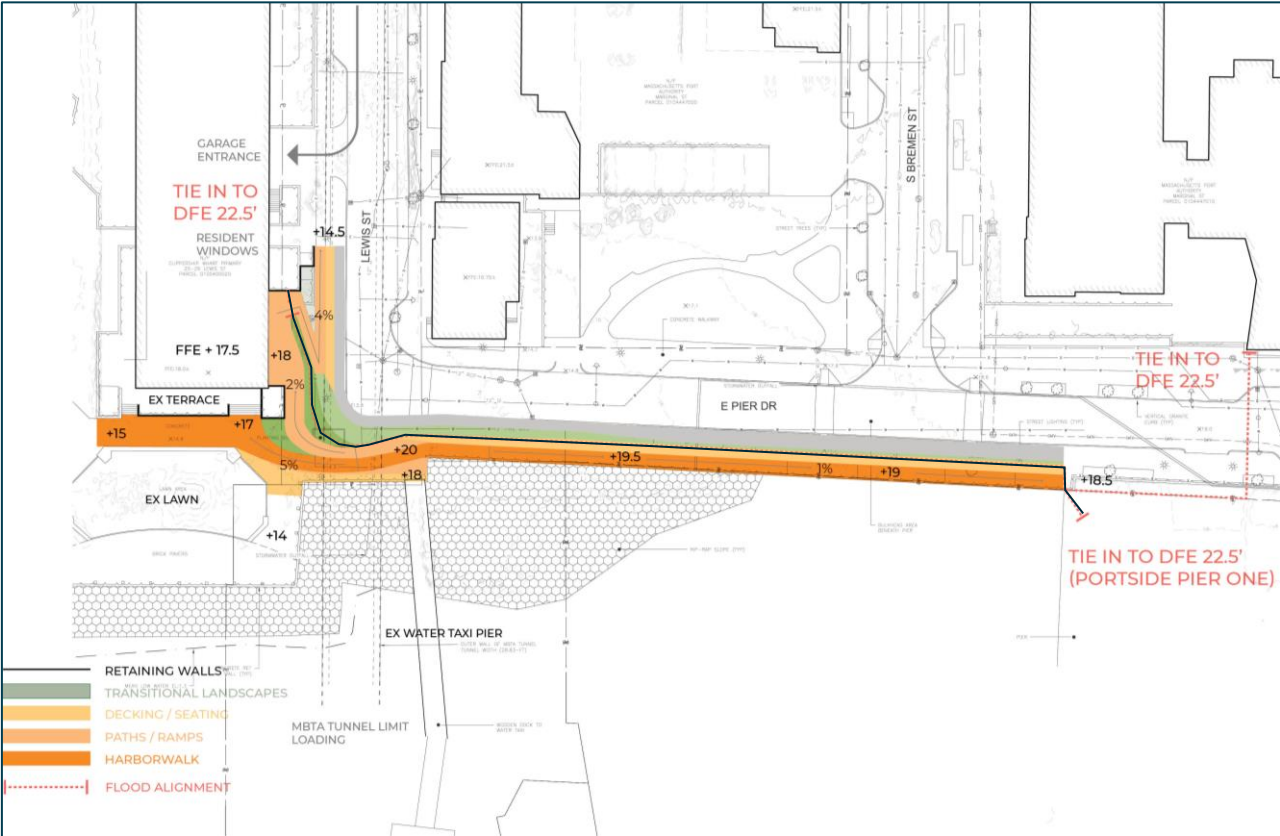
LEWIS MALL



LEWIS MALL

Scenario 1 Harborwalk Plaza

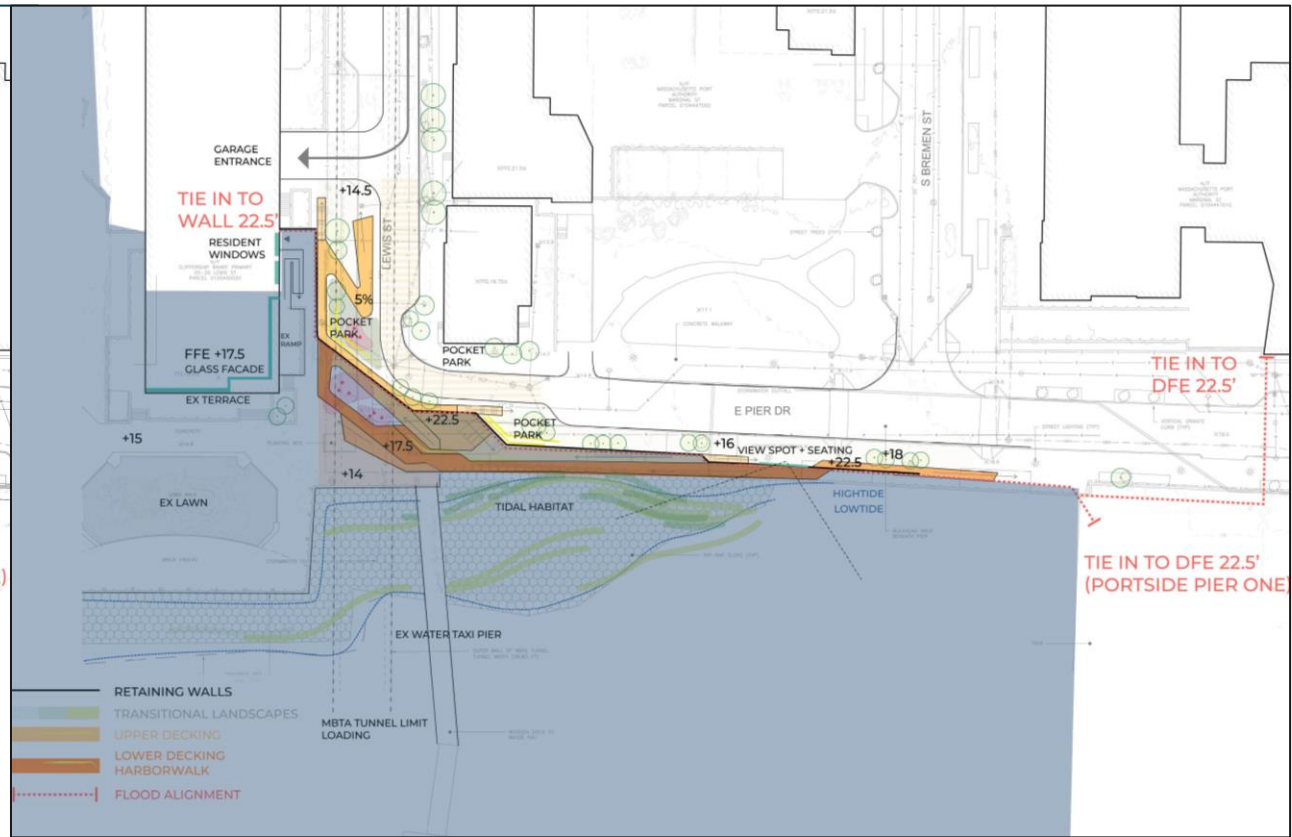
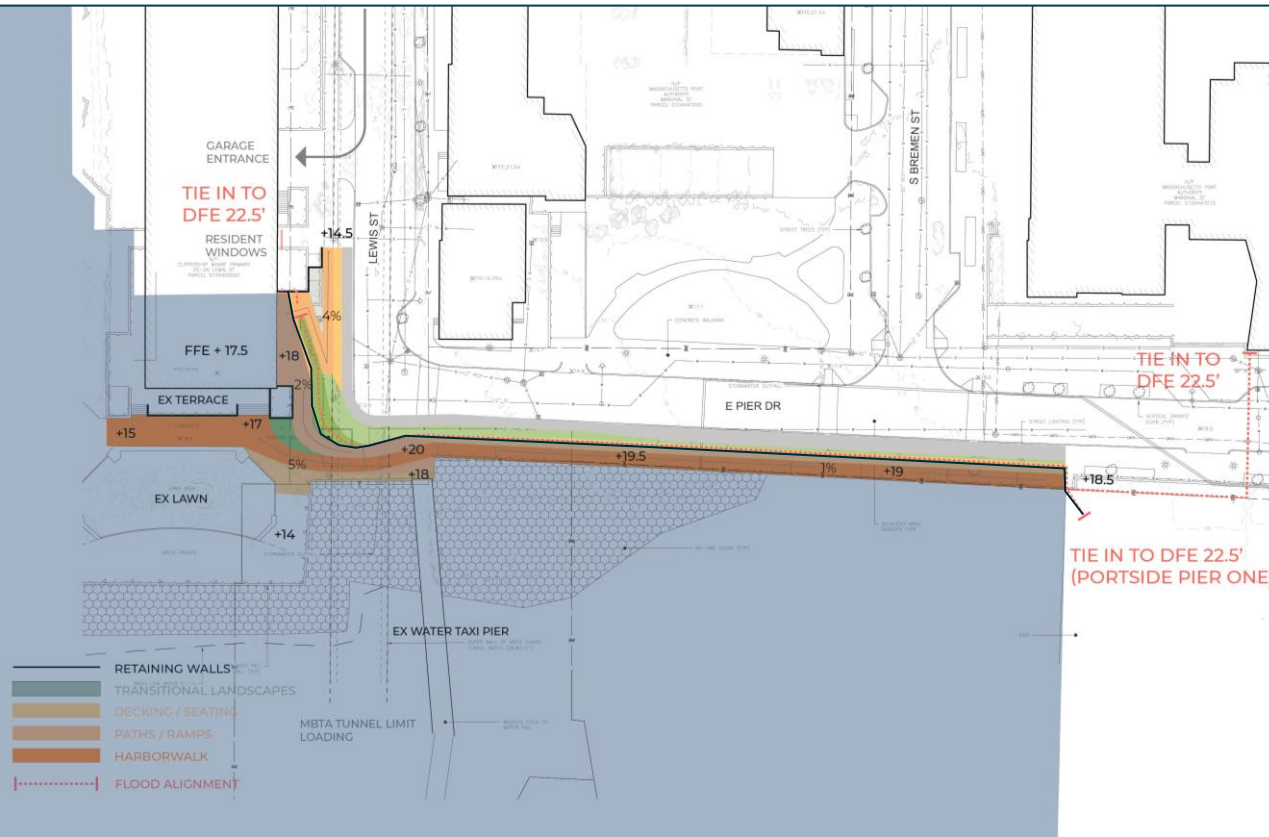
Scenario 2 Lewis Landing



LEWIS MALL

Scenario 1 Harborwalk Plaza

Scenario 2 Lewis Landing



Scenario 1

Lewis Mall



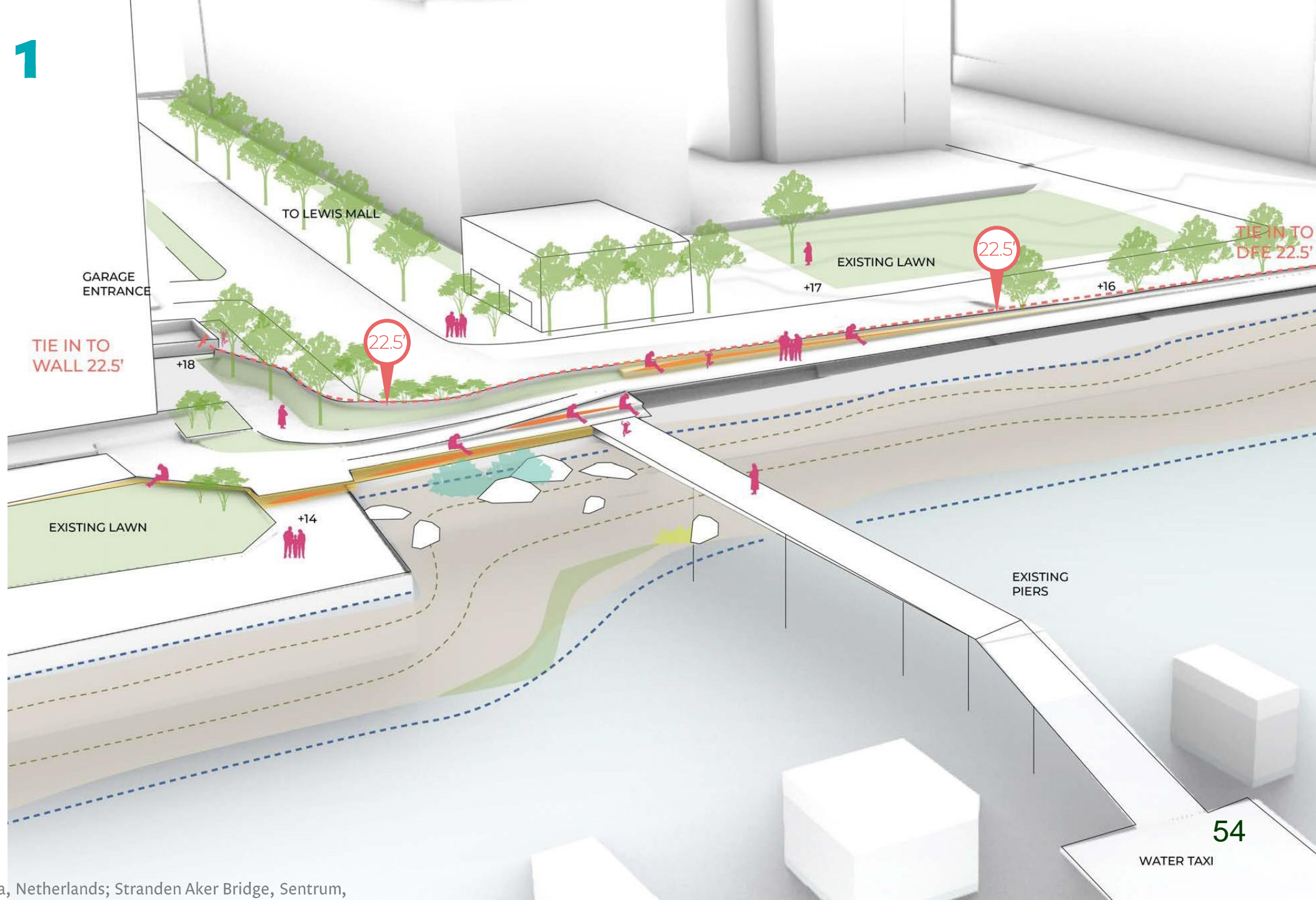
DECK



TERRACE



WATER FRONT SEAT



Scenario 2

Lewis Mall



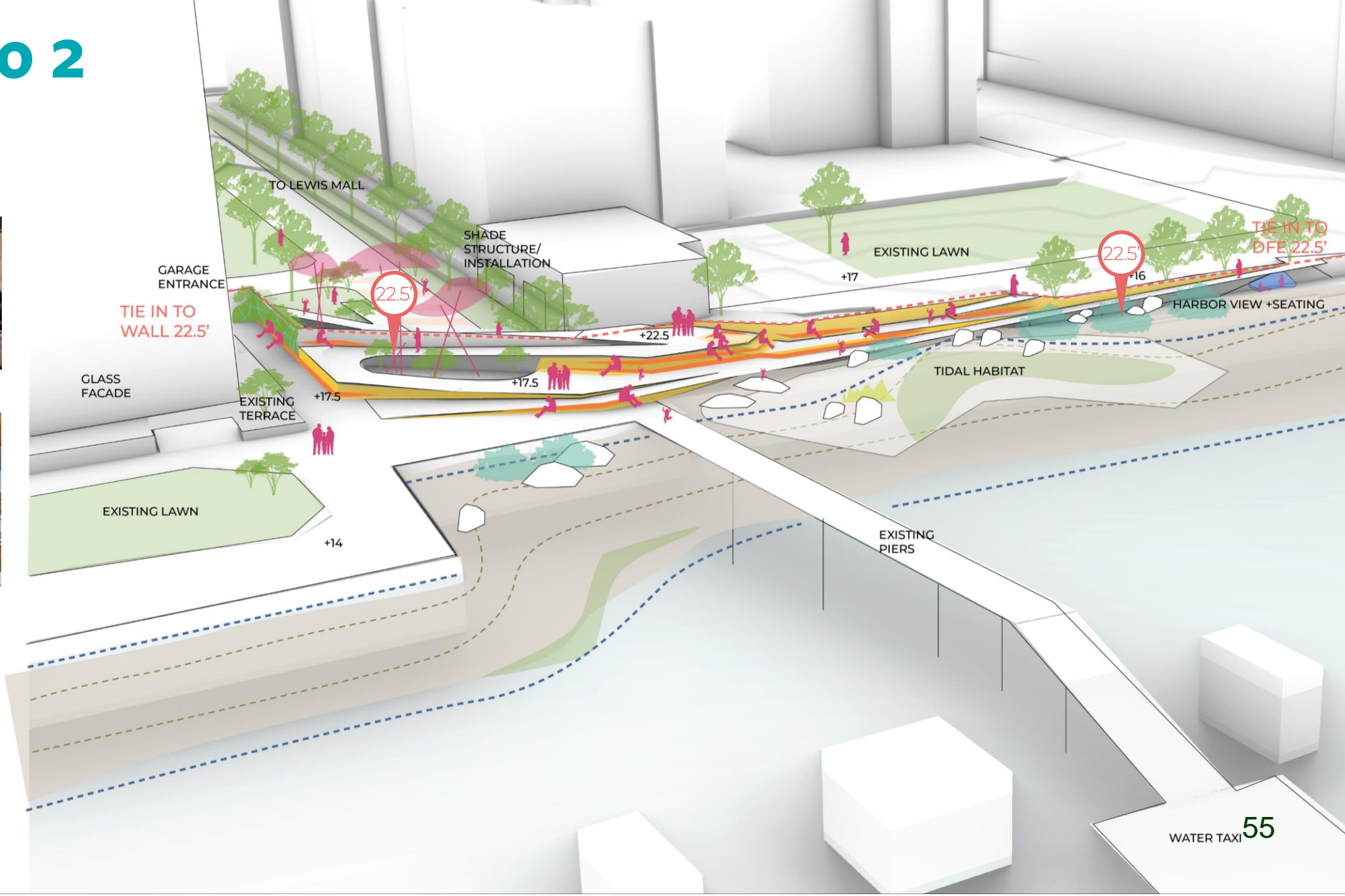
DECK + SEATING



SHADE STRUCTURE



VIEW SPOT + SEATING

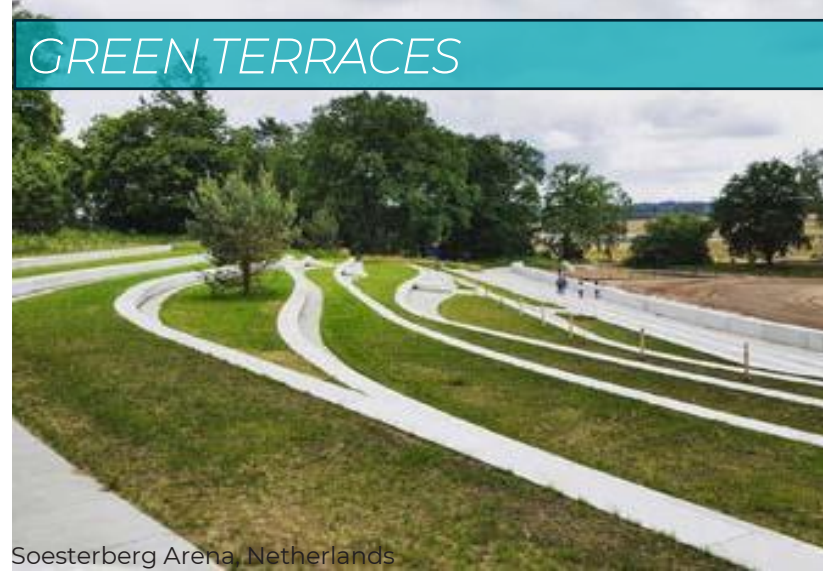


What do you like most about this design?

DECK & PLAZAS



GREEN TERRACES



WATER TAXI WAITING AREA



HARBORWALK SEATING



SHADING



VIEWING SPOTS & SEATING

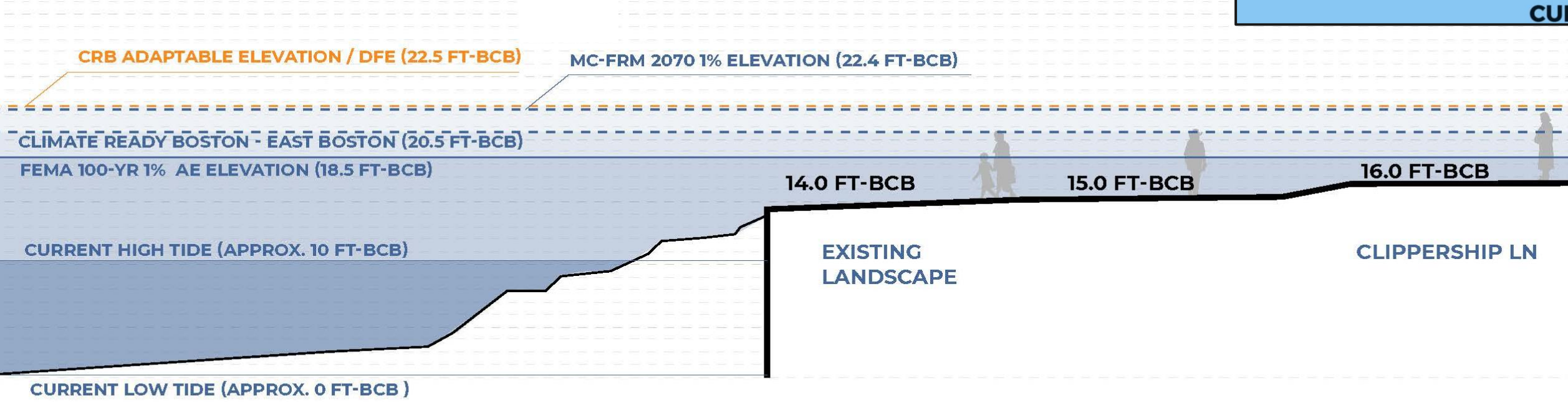
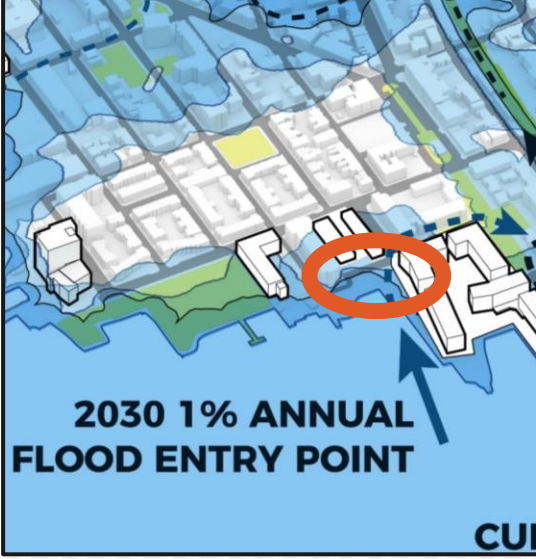


QUESTIONS ABOUT LEWIS MALL?

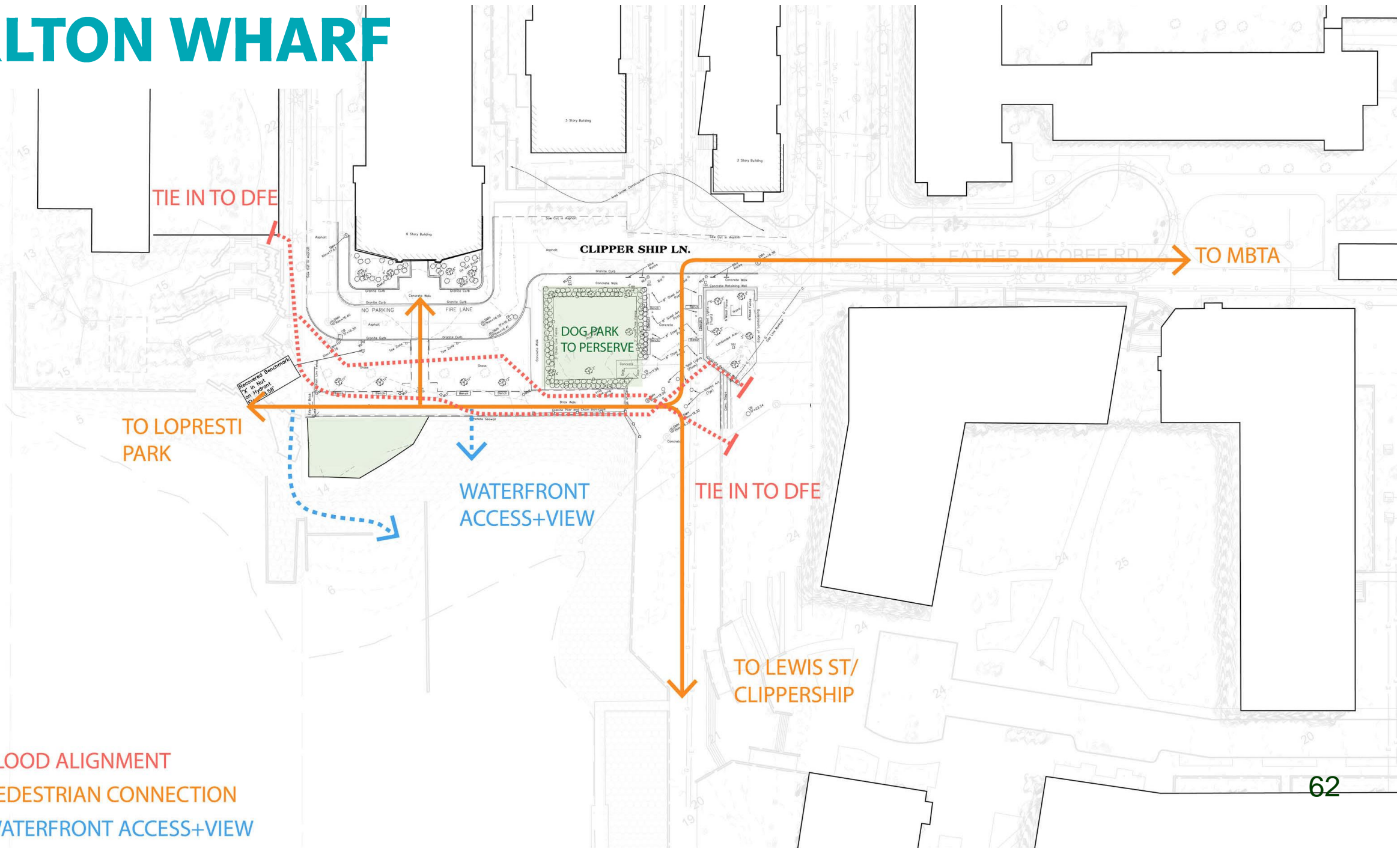
CARLTON WHARF



PROJECT AREA FLOODING



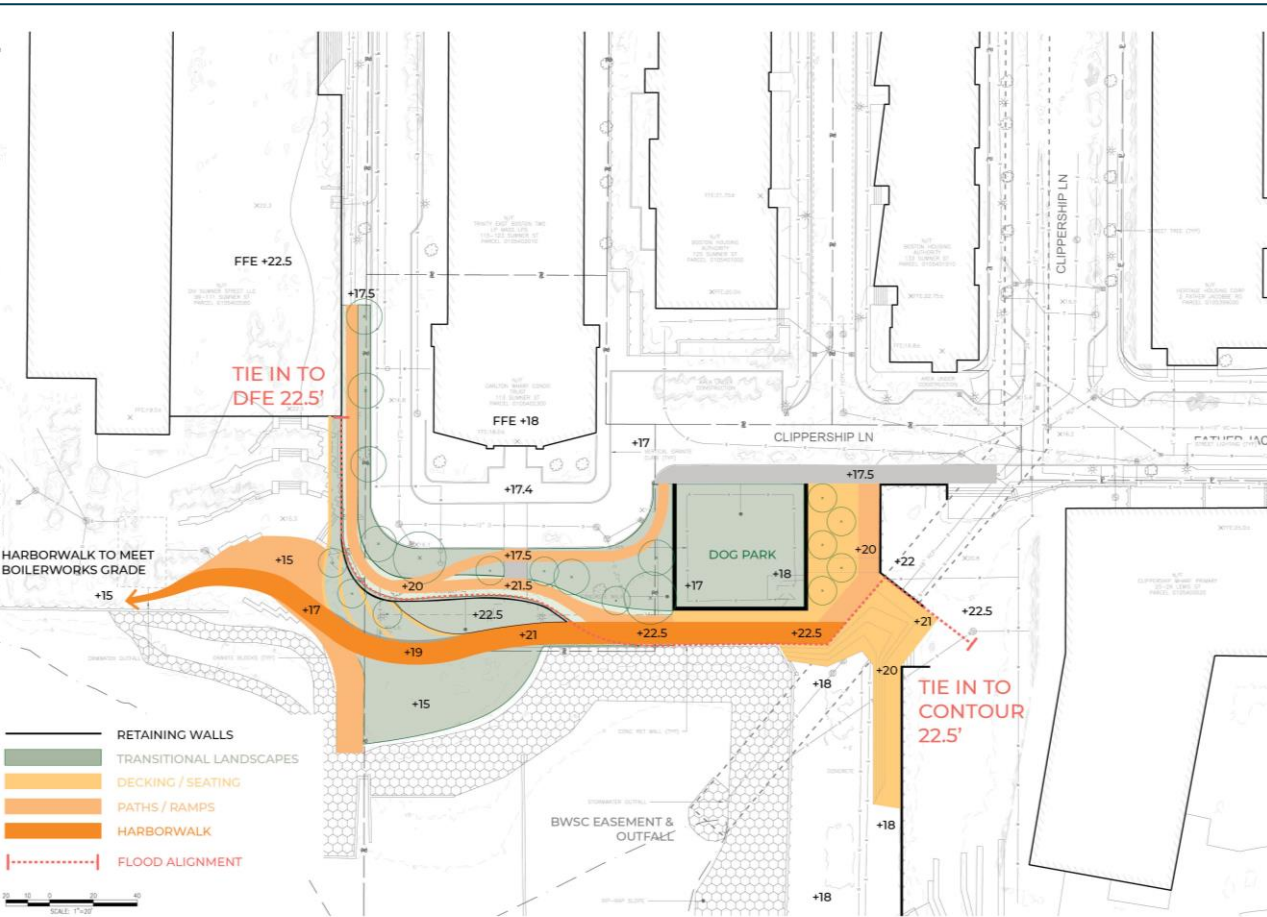
CARLTON WHARF



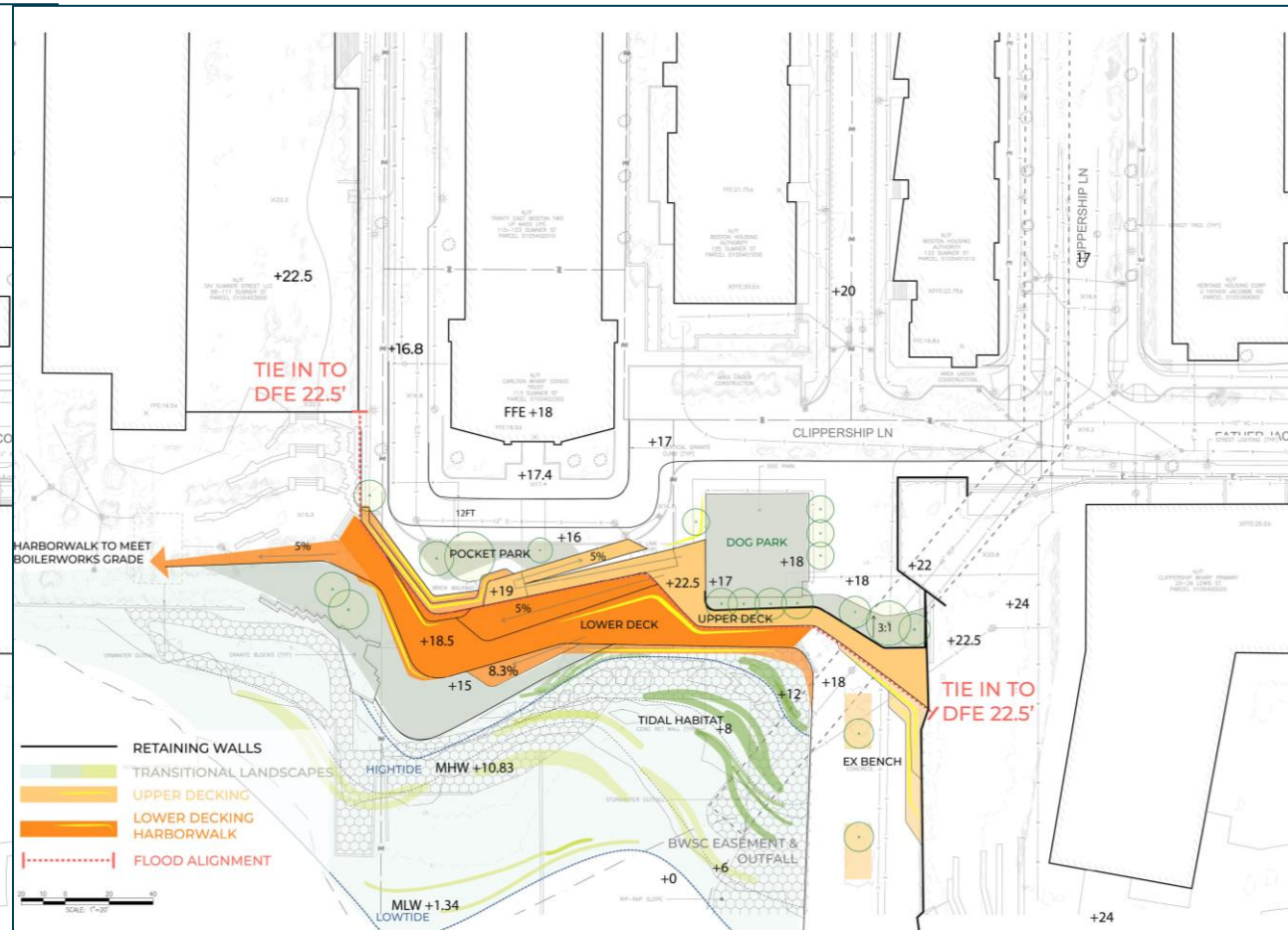
- FLOOD ALIGNMENT
- PEDESTRIAN CONNECTION
- WATERFRONT ACCESS+VIEW

CARLTON WHARF

Scenario 1 Green Spaces

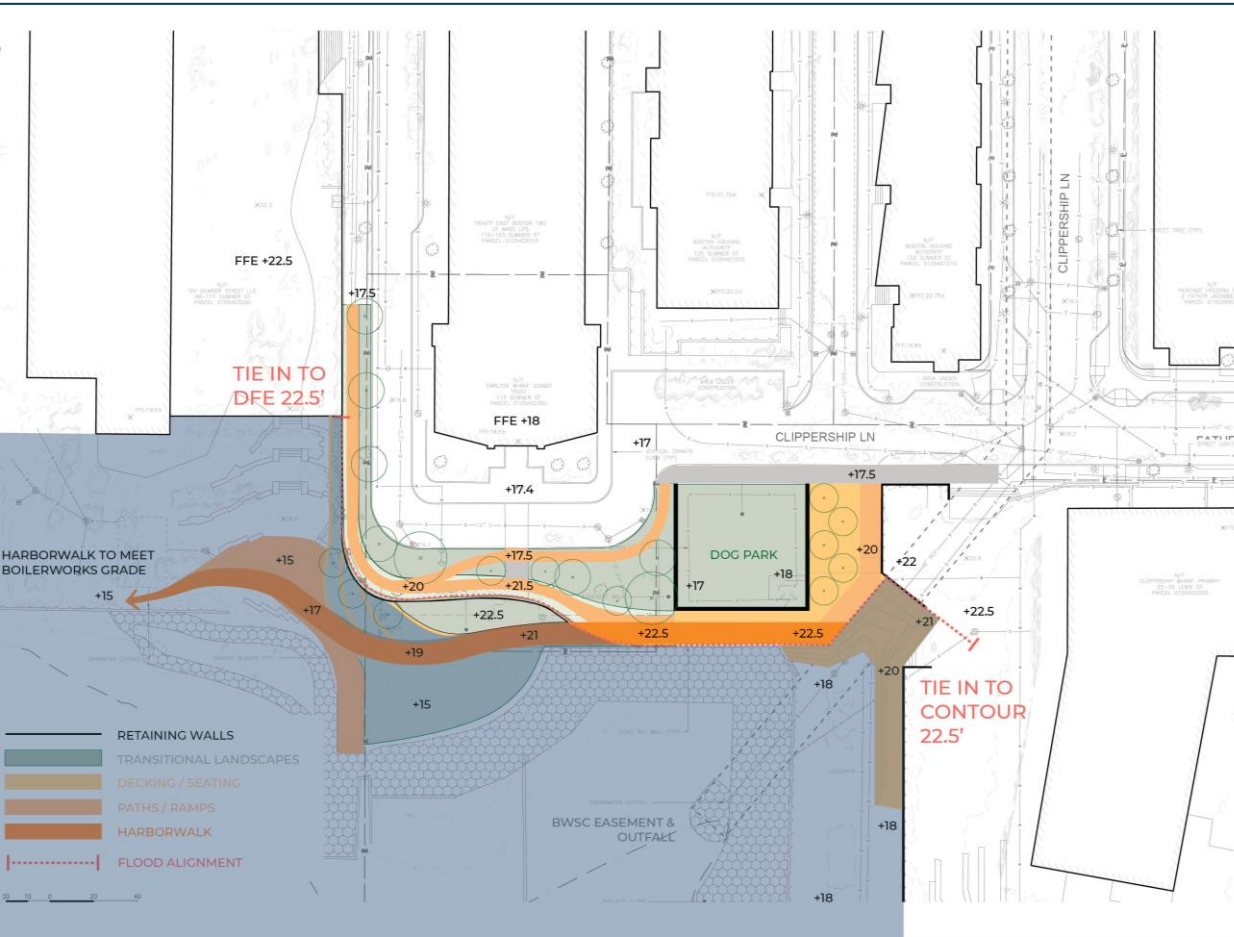


Scenario 2 Expanded Deck

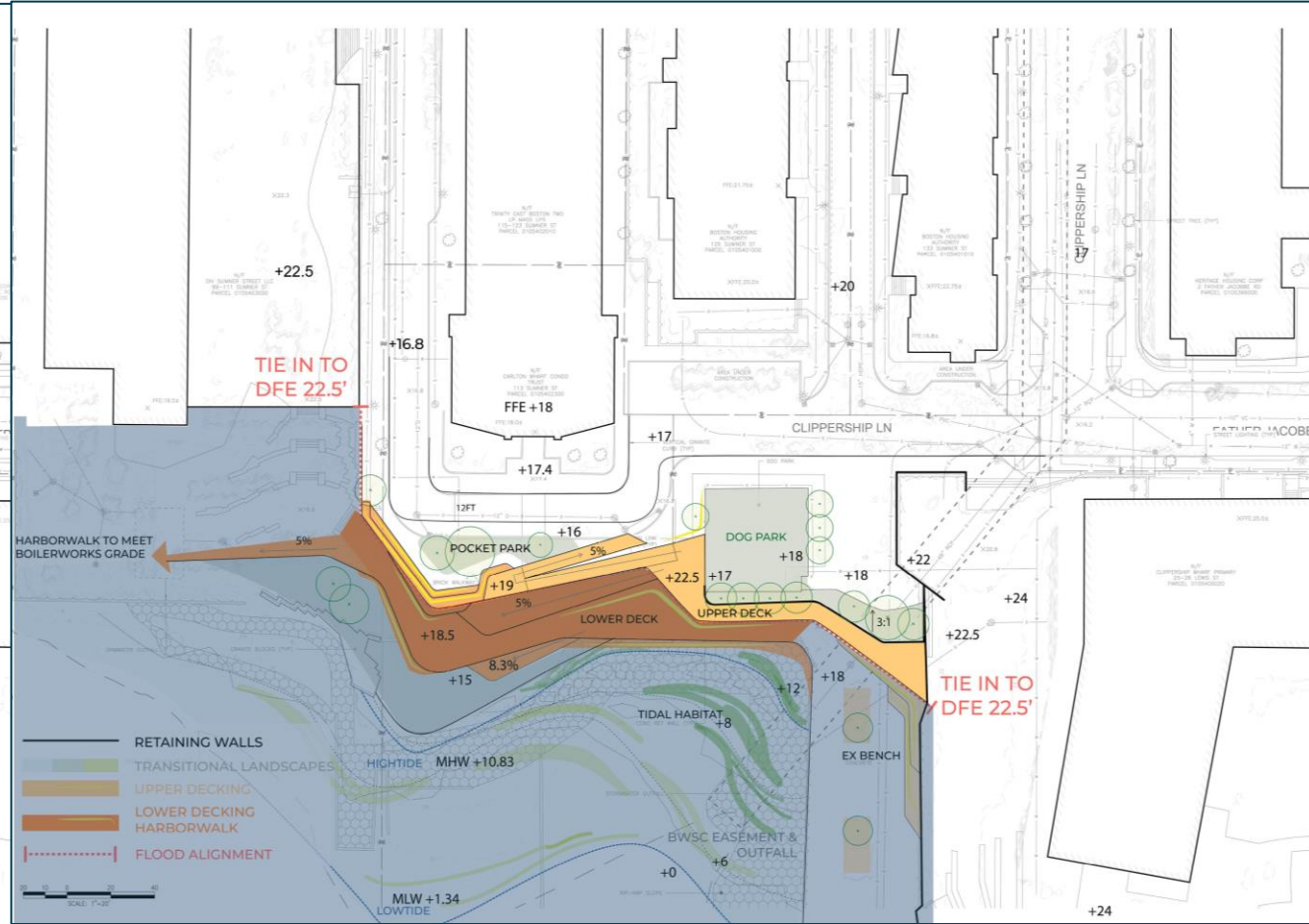


CARLTON WHARF

Scenario 1 Green Spaces



Scenario 2 Expanded Deck



Scenario 2 - Expanded Decks



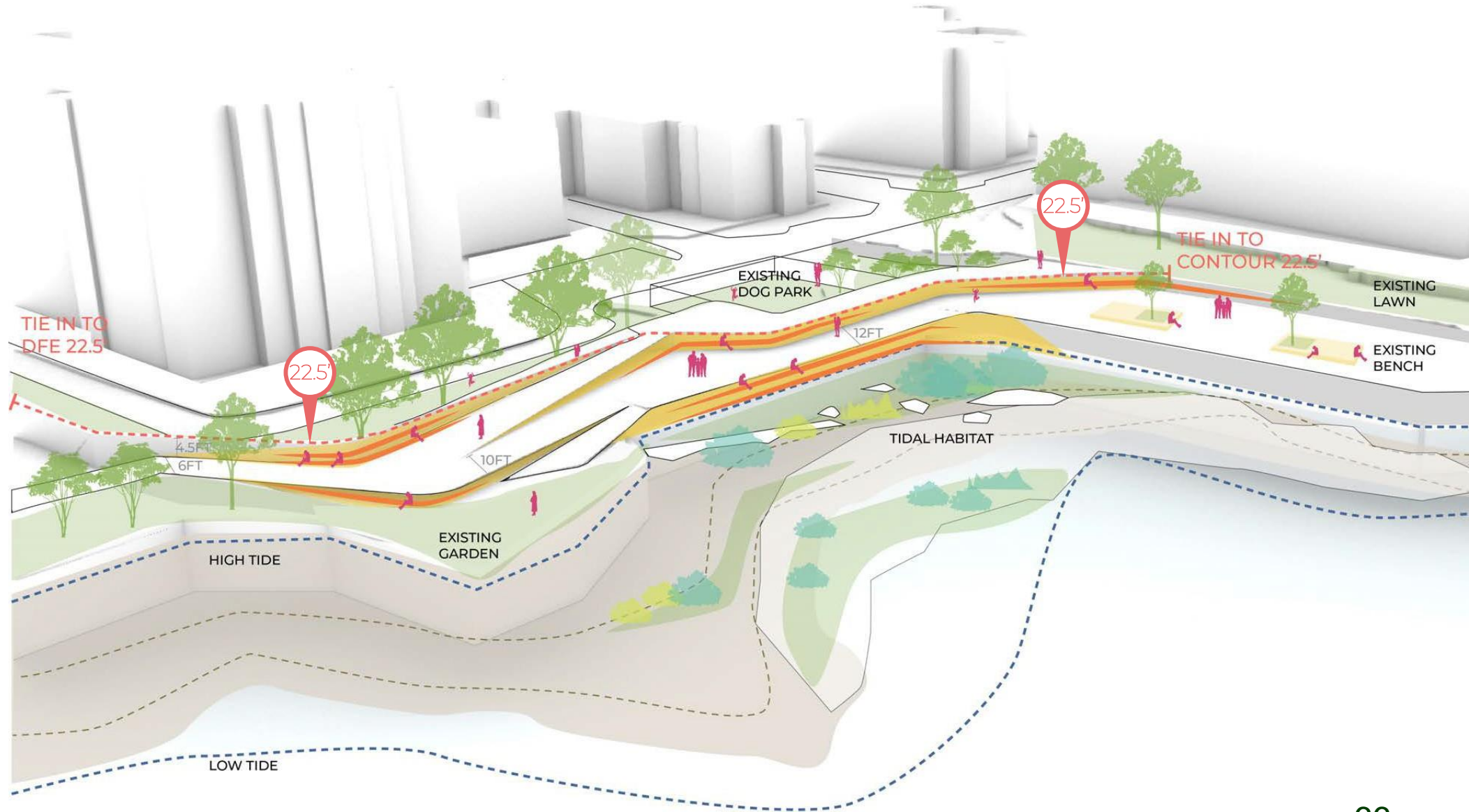
DECK + SEATING



ACCESS TO WATER

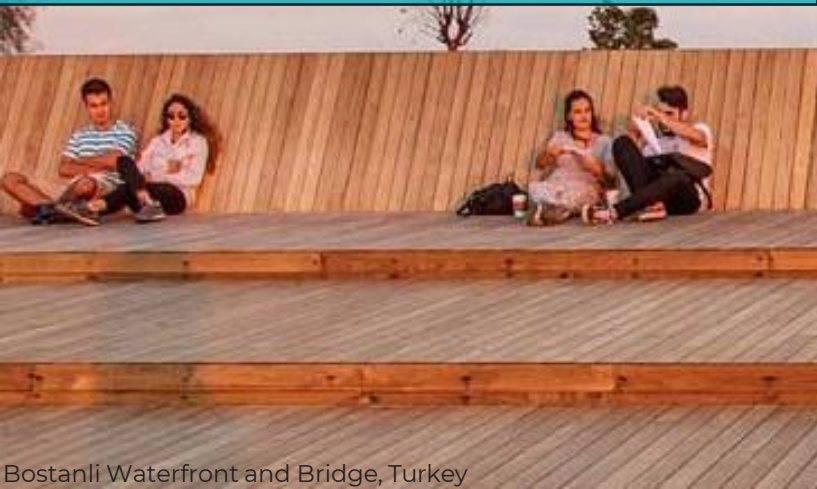


TIDAL HABITAT



What do you like most about this design?

DECK & SEATING



TERRACE & SEATING



TIDAL HABITAT



HARBOR PATH



TERRACE & LANDFORM



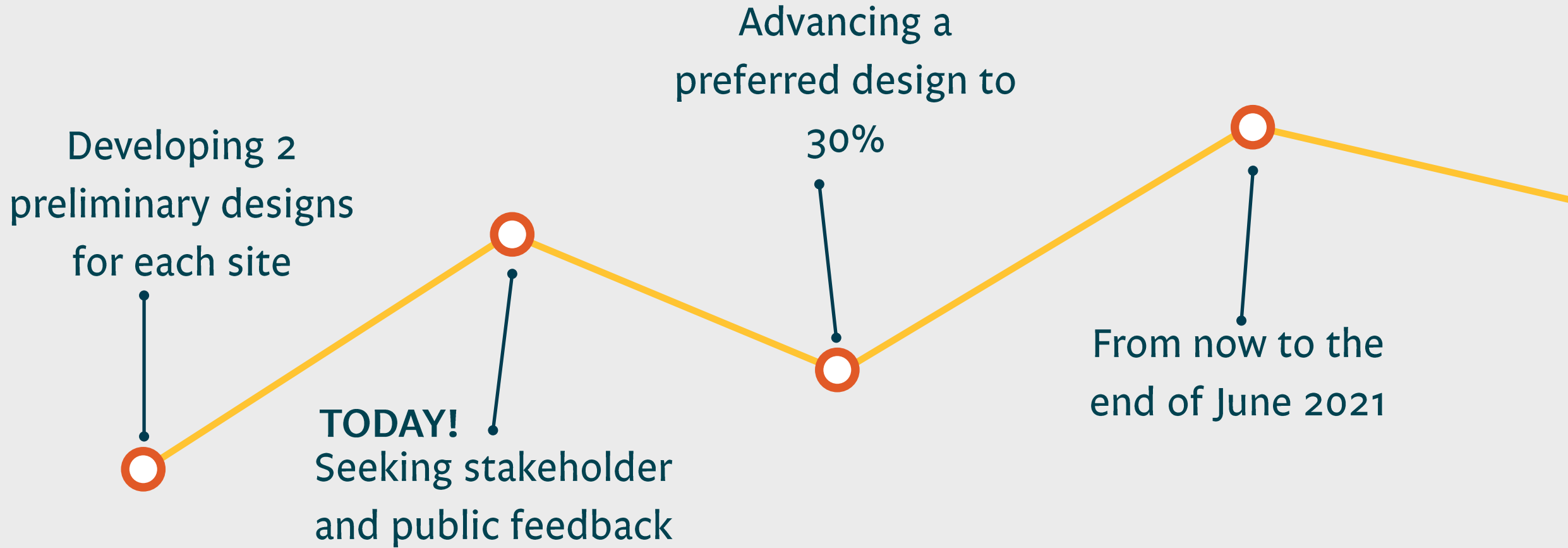
ACCESS TO WATER



QUESTIONS ABOUT CARLTON?

NEXT STEPS

PROCESS & SCHEDULE



WAYS TO ENGAGE

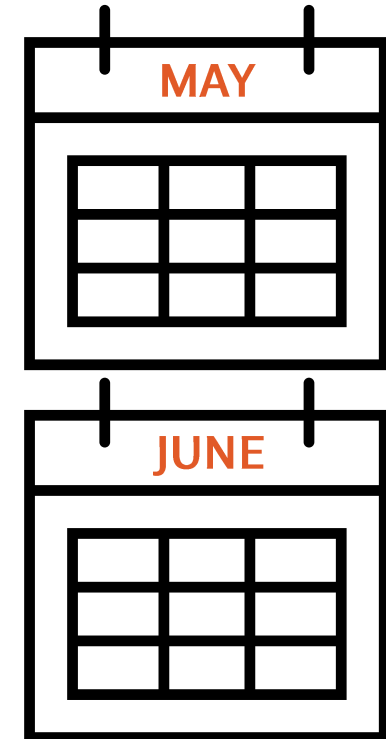
FOLLOW ALONG ON
SOCIAL MEDIA



FOR UPDATES CHECK
OUR WEBSITE



ATTEND 2 VIRTUAL
WORKSHOPS



TELL YOUR FAMILY, FRIENDS, AND NEIGHBORS TO DO THE SAME

GENERAL Q & A



THANKS FOR PARTICIPATING!

STOSS

WOODS HOLE GROUP
A GEI COMPANY



boston planning & development agency

Weston & SampsonSM

GEI
Consultants

