

USACE & Boston Coastal Storm Risk Management Study

South Boston Update
October 2025



City of Boston
Climate Resilience

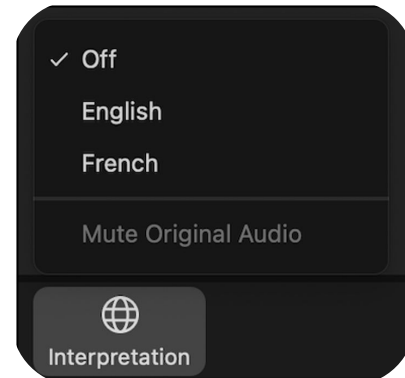
ZOOM TIPS - INTERPRETATION

Spanish interpretation is available for this meeting. Please select your preferred language option at the bottom of the screen by clicking on the globe symbol. Click “Mute Original Audio to silence other languages.”

NOTE: EVERYONE MUST SELECT A LANGUAGE. REMEMBER TO SPEAK SLOWLY!

Se dispone de interpretación en español para esta reunión. Seleccione la opción de idioma de preferencia en la parte inferior de la pantalla haciendo clic en el símbolo del globo terráqueo. Haga clic en “Silenciar audio original para silenciar otros idiomas”.

NOTA: TODOS DEBEN SELECCIONAR UN IDIOMA. ¡RECUERDE HABLAR LENTAMENTE!



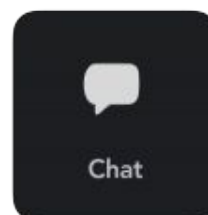
ZOOM TIPS - MEETING RECORDING

At the request of community members, this event will be recorded and posted on the project webpage for those who are unable to attend the Zoom event live:

www.boston.gov/usace-study

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.



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South Boston Update
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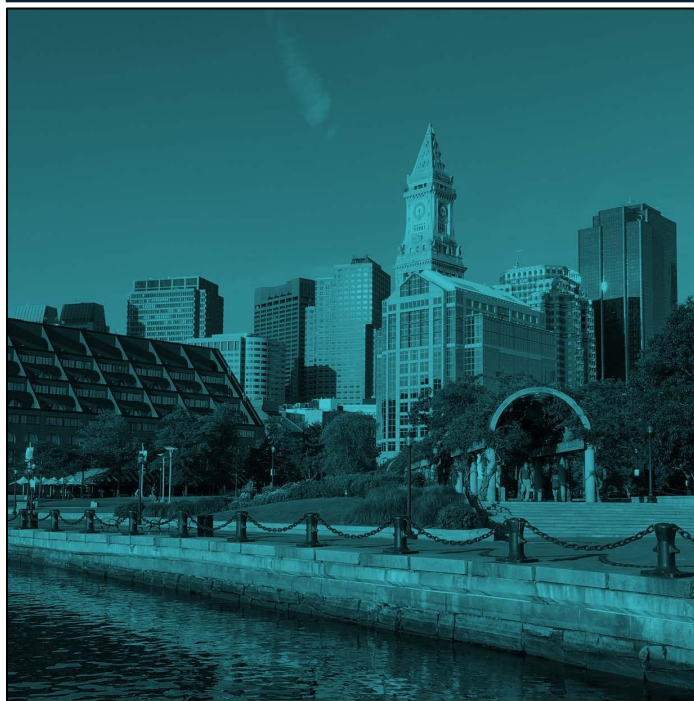
City of Boston
Climate Resilience

Goals

- *Find out what the City is doing to prepare for Today's Storms*
- *Find out what the City is doing to prepare for storms of the next decade and beyond*
- *Learn about how the USACE partnership align with the ongoing Boston and partner Projects*
- *Answer your questions*
- *Next steps on where you can provide feedback and contact us*



CLIMATE READY BOSTON



CLIMATE READY BOSTON EXECUTIVE SUMMARY

MAYOR MARTIN J. WALSH



DECEMBER 2014

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 TEMPERATURE



HEAT WAVES &
DROUGHT

EXTREME PRECIPITATION



STORMWATER
FLOODING

SEA LEVEL RISE



COASTAL & RIVERINE
FLOODING

COASTAL STORMS



COASTAL & RIVERINE
FLOODING

RESILIENT HARBOR VISION



DORCHESTER

SOUTH BOSTON

DOWNTOWN

EAST BOSTON



RESILIENT BOSTON HARBOR



= FLOOD ADAPTED BUILDINGS

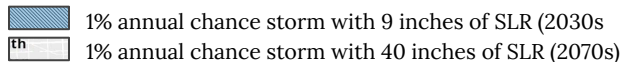
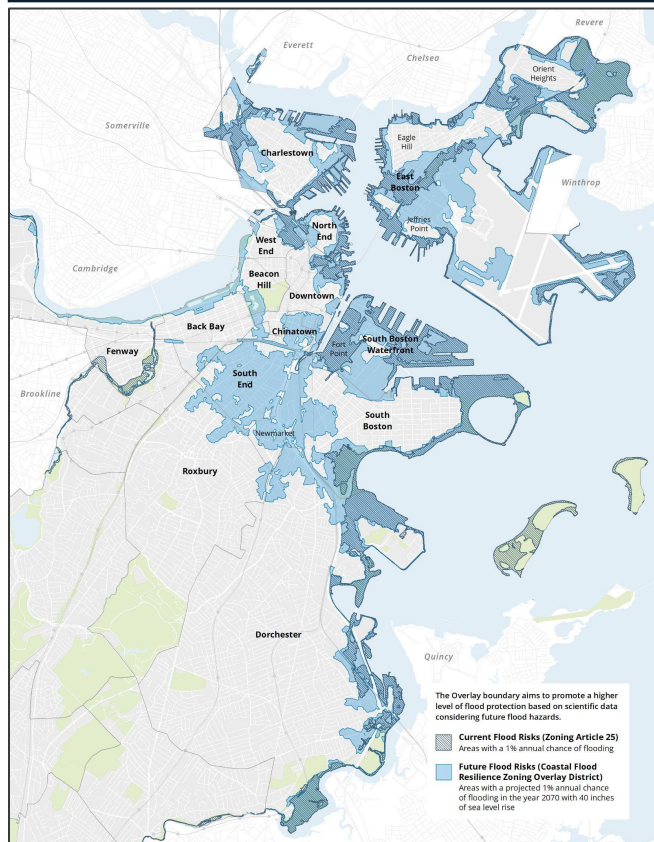


= ELEVATED LANDSCAPES



= CONNECTIONS AND ACCESS

NEIGHBORHOOD COASTAL RESILIENCE PLANS



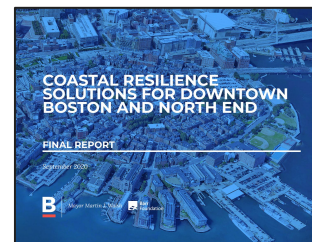
Between 2017-2022, the City completed neighborhood-level coastal resilience plans for all 47 miles of Boston's coastline.



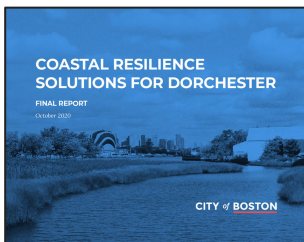
**East Boston
& Charlestown
Phase 1 (2017)**



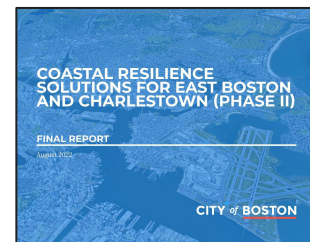
**South Boston
(2018)**



**North End &
Downtown
(2020)**

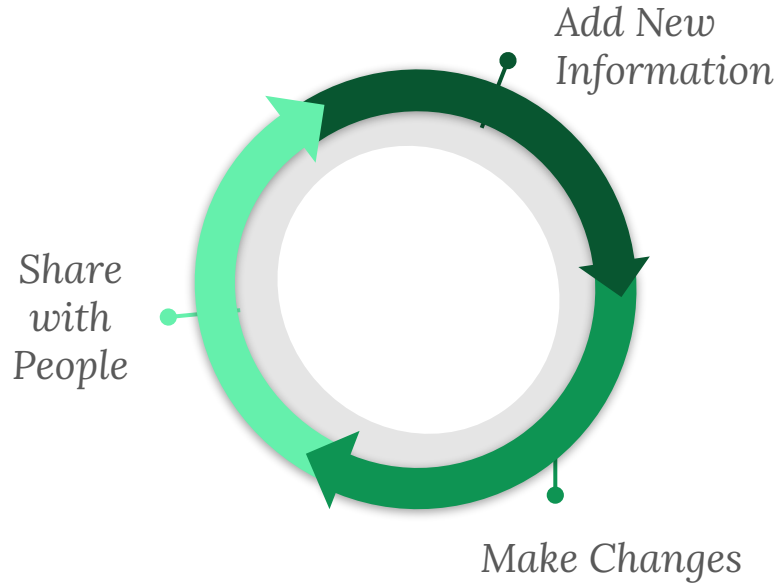


**Dorchester
(2020)**



**East Boston
& Charlestown
Phase 2 (2022)**

THE PROCESS CAN FEEL LIKE A SPIRAL STAIRCASE...



Construction,
Operation and
Maintenance

Final Design
and Permitting

Preliminary
Design

Conceptual Plan

Vision



COASTAL FLOODING IN BOSTON IN 2018 AND 2022



Flooding from during Winter Storm Riley in Boston's North End
(Source: Matt Conti, Winter, 2018)



Flooding along the Mary Ellen Welch Greenway in East Boston
(Source: Lisa A. DiFrisco, Winter 2018)



Flooding beneath the Evelyn Moakley Bridge in South Boston's Fort Point Channel
(Source: Alison Brizius, December 2022)



Man kayaks along surface streets near Lewis Mall in East Boston
(Source: Steve Holt, Winter 2018)



Flooding along the Harborwalk in the Charlestown Navy Yard
(Source: Gerry Angoff, Winter 2018)



Flooding along the Harborwalk in Downtown Boston
(Source: Alison Brizius, December 2022)

COASTAL RESILIENCE IMPLEMENTATION: THREE CONCURRENT STRATEGIES

TODAY'S STORMS

Key Goal:
Strengthen our response
to today's flooding

How?

Educate residents about emergency preparedness, strengthen protocols for preparing for and responding to extreme weather, and operationalize deployable barriers

Key City Agencies:

Office of Emergency Management
Office of Climate Resilience

THIS DECADE'S STORMS

Key Goal:
Address 2030 flood
pathways

How?

Advance near-term priority projects identified in coastal resilience plans from conceptual design to construction

Key City Agencies:

Office of Climate Resilience
Planning Department
Parks & Recreation Department

BEYOND 2030

Key Goal:
Transform our 47 miles
of coastline

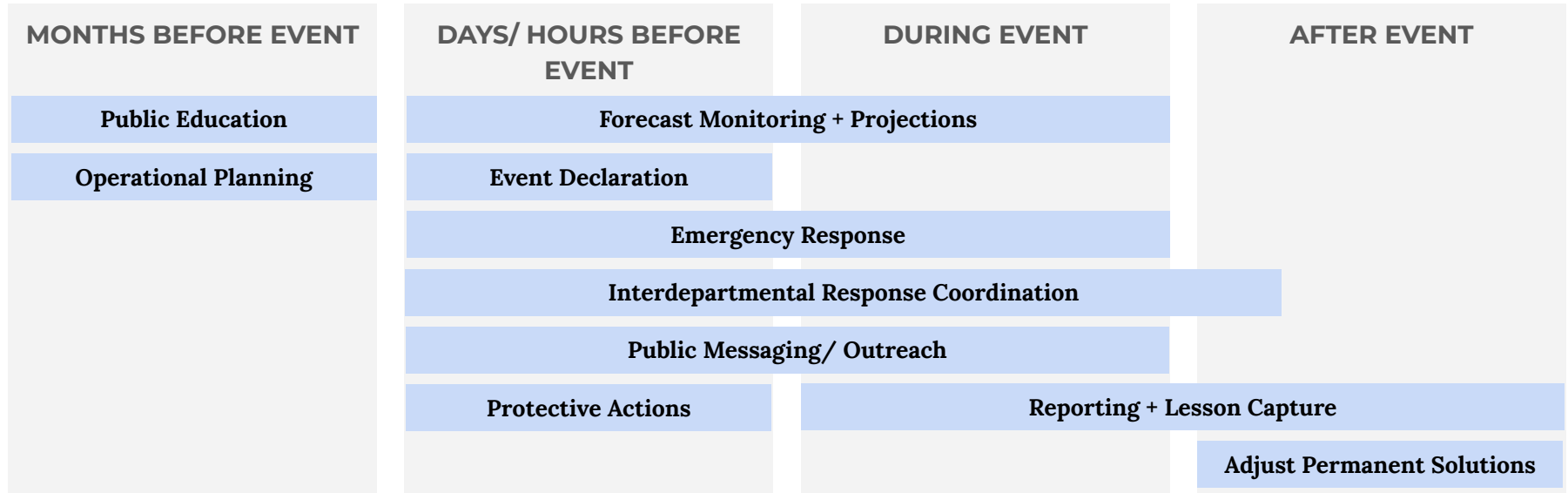
How?

Through an ongoing partnership with the U.S. Army Corps of Engineers, advance mid- and long-term priority projects from conceptual design to construction

Key City Agencies:

Office of Climate Resilience,
Planning Department,
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Commission, and many more!

TODAY'S STORMS

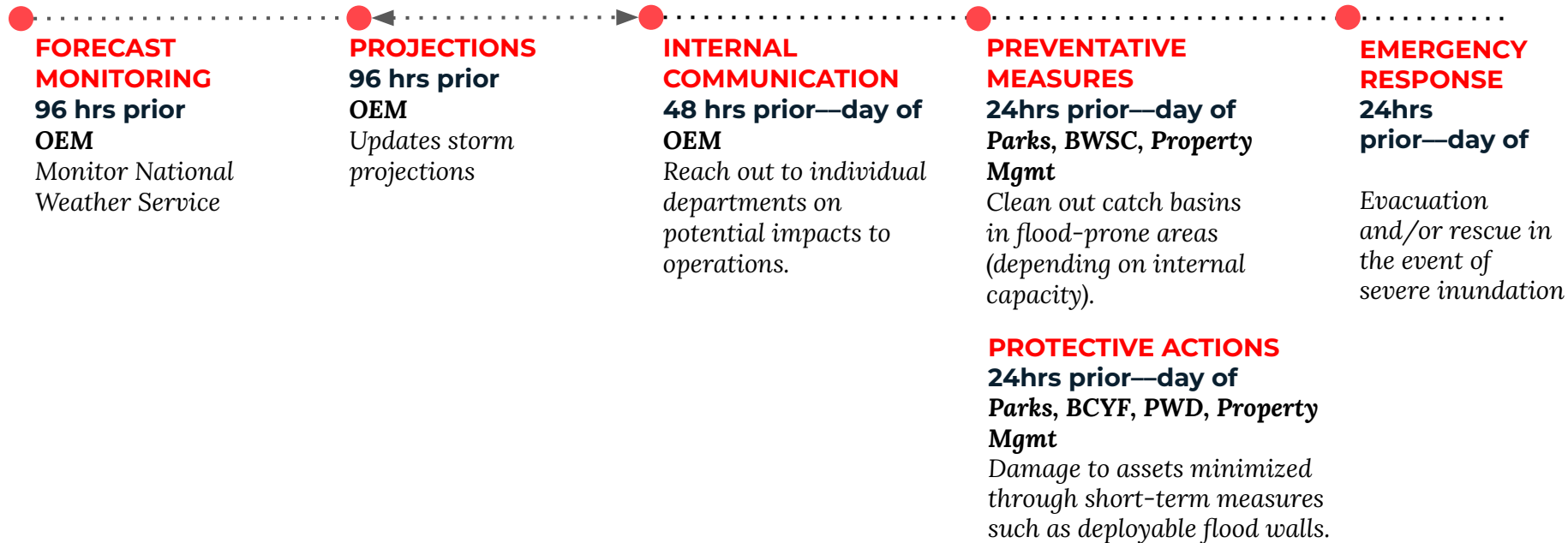


EDUCATION AND OUTREACH

- “Know Your Zone”
 - Raise awareness of evacuation zones
 - Inform residents of their specific hurricane evacuation routes
 - Encourage residents to plan and prepare for evacuation scenarios
- Deployables Day (Held October 9, 2025)
 - Free Demonstration and Resource Fair at City Hall Plaza
 - See Deployables in action (private + City deployables)

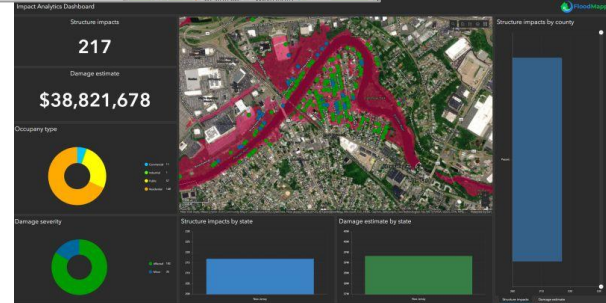
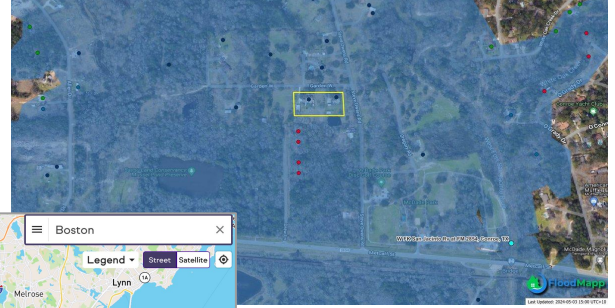
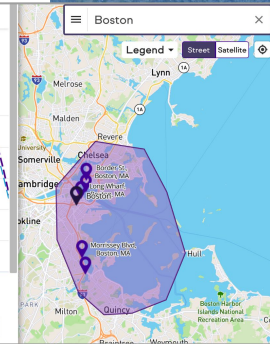
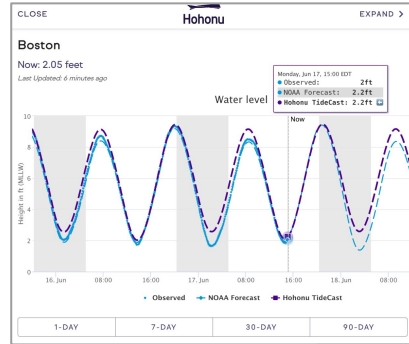


STORM RESPONSE



IMPROVING THE RESPONSE CYCLE

- Expanding the City's network of flood sensors
- Developing tools for:
 - Emergency response
 - Damage assessment
 - Recovery efforts



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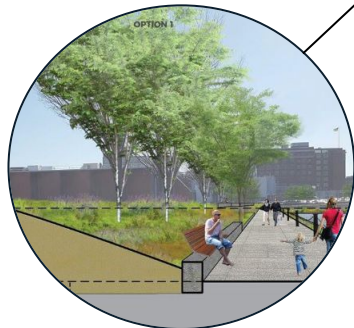
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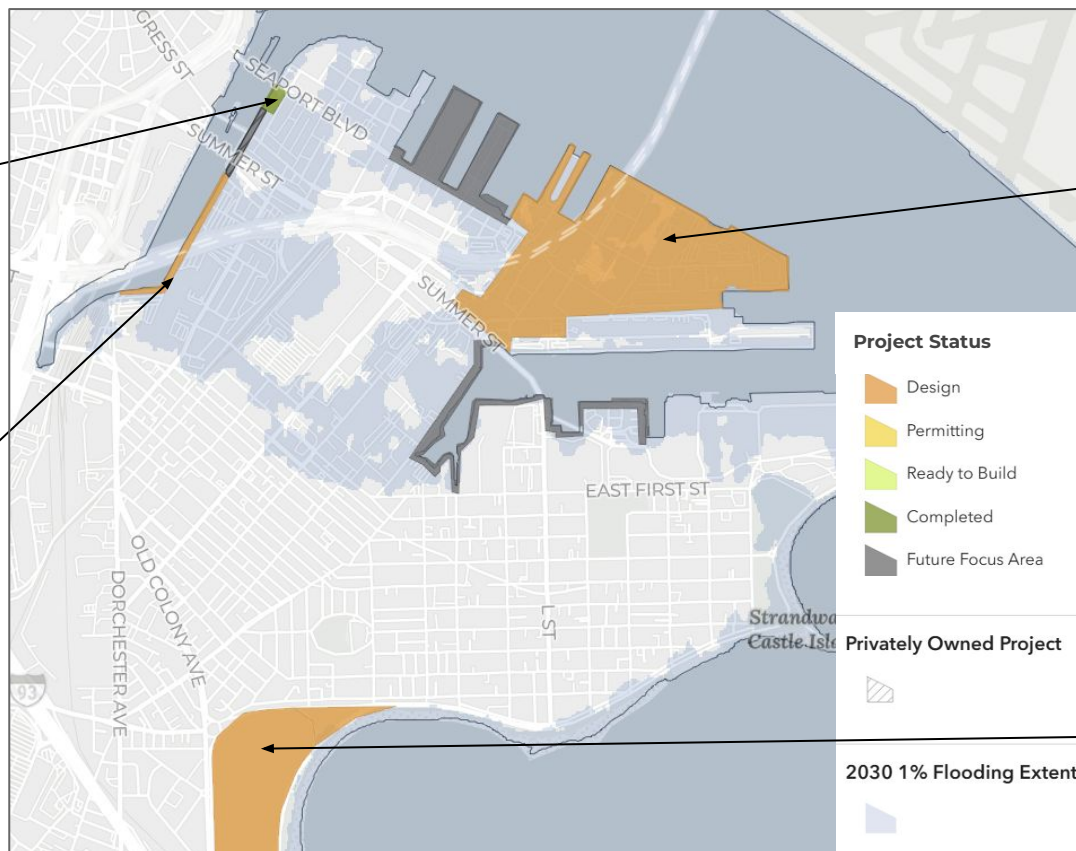
COASTAL RESILIENCE IMPLEMENTATION - SOUTH BOSTON



Martin's Park
Constructed in 2019



Fort Point Channel
Design in progress



The map displays extents of flooding produced from the Massachusetts Coast Flood Risk Model (MC-FRM), which is the Commonwealth of Massachusetts' adopted flood projection model. The flooding shown accounts a 1% annual chance storm with 2030 sea level rise projections.



**Raymond L. Flynn
Marine Park**
Design in progress



**Moakley Park &
Moakley Connectors**
Design in progress

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WHY NOW AND WHY USACE?

- USACE has a specific charge for proposing coastal resilience solutions that are **effective in mitigating risk to the Federal Interest**;
 - We have shared interest in **protecting homes, critical infrastructure, and evacuation corridors**;
- USACE **follows a specific process** in designing, evaluating and selecting projects.
 - They can provide **up to 65% of the cost** to build these structures.



WHERE ARE WE IN THE USACE PROCESS?



What We've Done (Before 2025)

Defined the risk of
inaction

Where We Are (2025 - 2027)

Define where and what
to build

What's Ahead (2028 & Beyond)

2028: Submit report to
Congress

2028+: Get Federal
funding for projects

2030+: Refine designs
and build



CSRM Process:

Coastal Storm Risk Analysis and Management 101



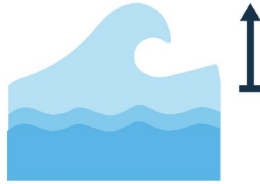
HOW DOES USACE DEFINE COASTAL STORM RISK?

COASTAL HAZARDS:



SEA LEVEL CHANGE

Permanent rise in ocean level relative to land



STORM SURGE

Temporary rise in ocean level during a storm event



WAVE ACTION & EROSION

Gradual reduction in the coastline as waves carry away sediment

CLOSING LONG-TERM FLOOD PATHWAYS:



FLOOD PATHWAY

Impacts inland areas when water enters through a low-lying area on the waterfront



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of Engineers



COASTAL STORM RISK MANAGEMENT: HOW IS THIS DIFFERENT FROM CLIMATE READY BOSTON?



LEGEND

CHS Inundation Layers

CHS 1% Inundation 2090 High SLC

Flood Pathways



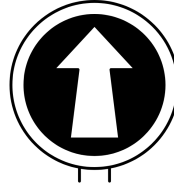
US Army Corps
of Engineers



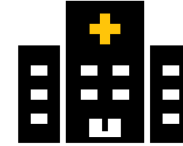
HOW DOES USACE DEFINE “FEDERAL INTEREST”?



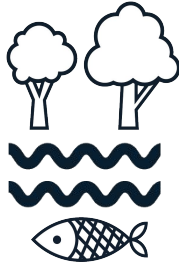
Protection of
Housing



Protection of
Evacuation Corridors



Protection of Critical
Infrastructure



Protection of Natural
Resources



Protection of the People



Protection of Critical
Transportation



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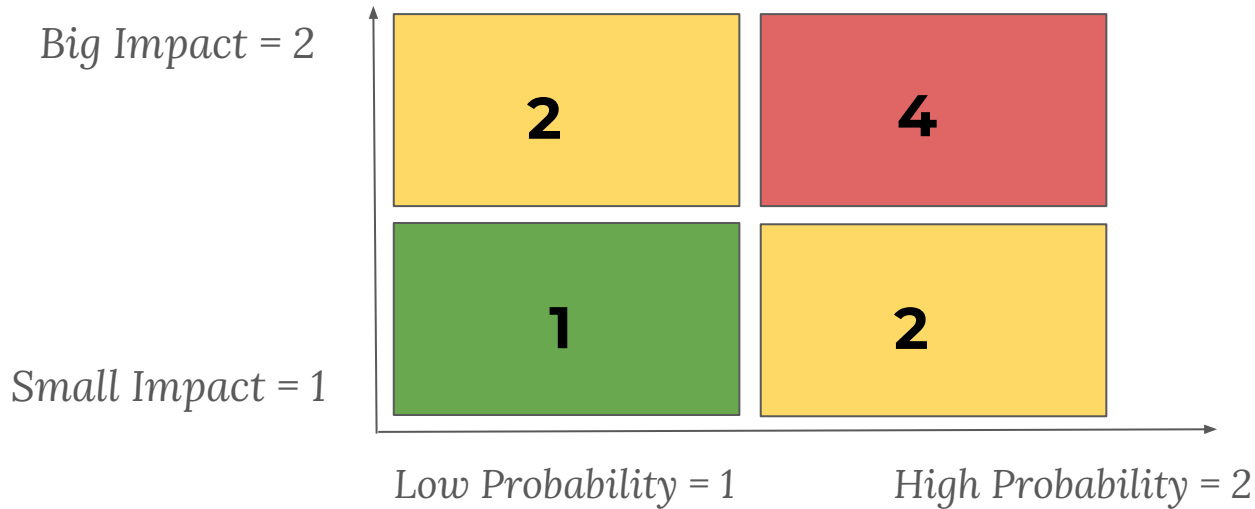


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of Engineers



HOW DOES USACE MANAGE STORM RISK?

- Storm Risk is the possibility of a bad storm happening in a specific area
 - Level of Probability multiplied by Level of Impact



HOW DOES USACE ADDRESS STORM RISK? PICK THE RIGHT TOOL



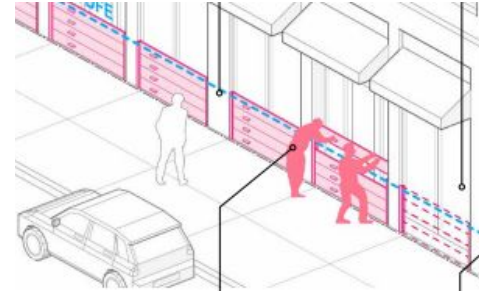
1st Drawer: PROTECT

Structural



2nd Drawer: ADAPT or ACCOMMODATE

Non-Structural, Physical



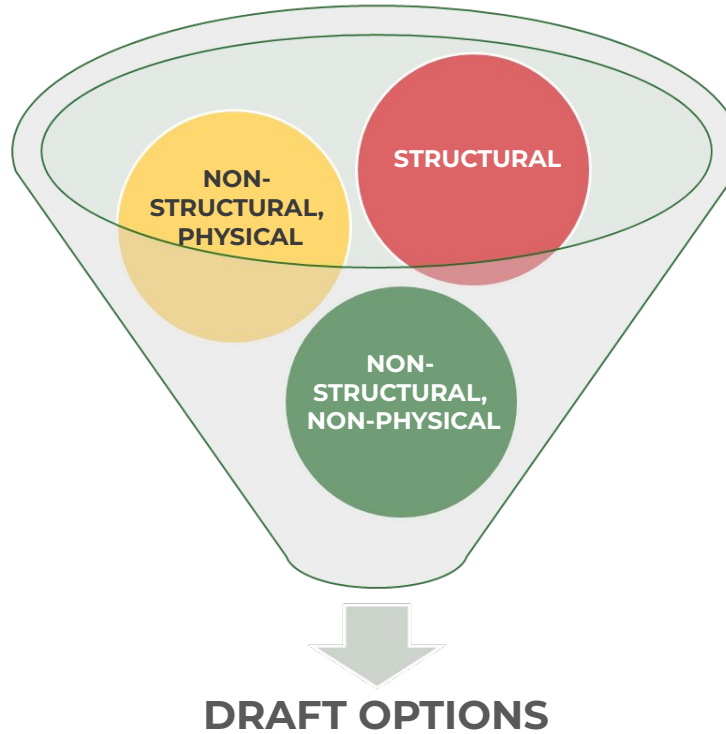
3rd Drawer: MANAGE

Non-Structural, Non-Physical



HOW DOES USACE SELECT TOOLS FOR BOSTON?

- *What provides maximum protection?*
- *What is possible to build?*
- *What is the best fit for South Boston?*



The Toolkit:

Coastal Storm Risk Analysis and Management 101



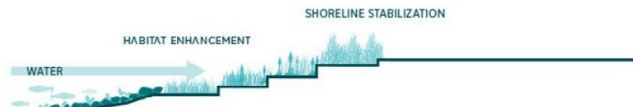
City of Boston
Climate Resilience

REFRESHER: CLIMATE READY BOSTON TOOLS

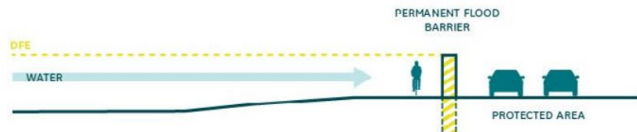
RAISED HARBORWALK / RAISED PARK SPACE



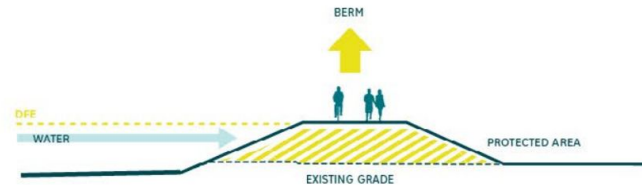
NATURE-BASED SOLUTIONS



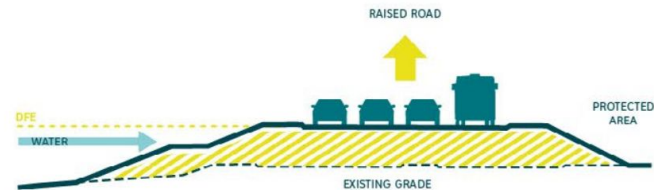
VERTICAL FLOODWALLS



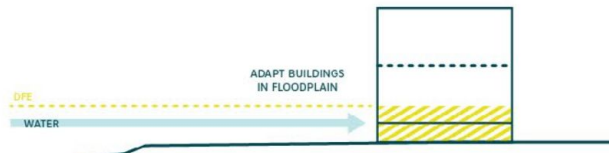
RAISED BERMS AND DUNES



RAISED ROADWAYS / MEDIAN FLOODWALLS



ADAPTED BUILDINGS AND STRUCTURES



SOUTH BOSTON EXAMPLES

RAISED HARBORWALK / RAISED PARK SPACE



Built: Martin's Park



Photo Credit: Robin Lubbock, WBUR News

RAISED BERMS AND DUNES



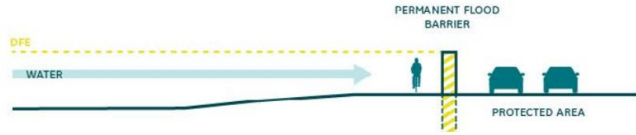
In Design: Moakley Park Flood Resilience Berm
Credit: Stoss + Weston & Sampson



Image Copyright Stoss, Inc.

SOUTH BOSTON EXAMPLES

VERTICAL FLOODWALLS



In Design: Raymond L. Flynn Marine Park

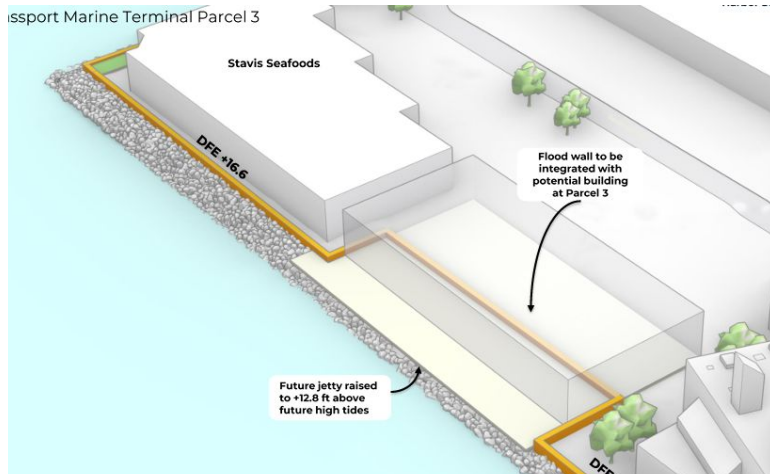


Image Credit: Arcadis

ADAPTED BUILDINGS AND STRUCTURES



Built: Curley Community Center

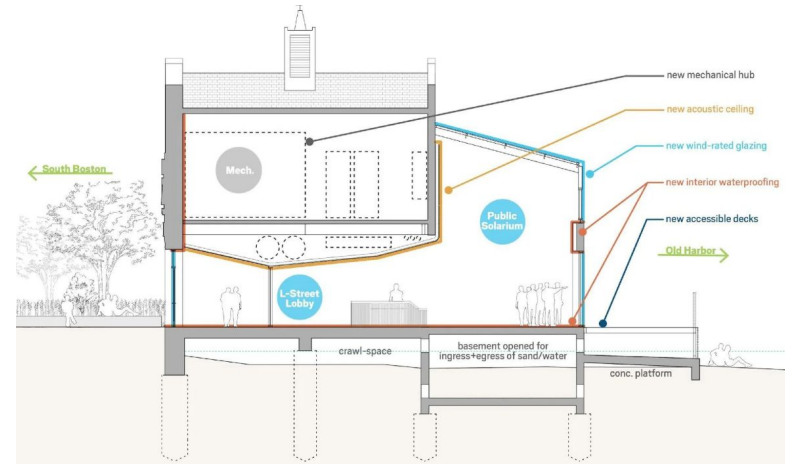


Image Credit: designLAB architects

Preliminary Locations:

Draft Alignments for South Boston



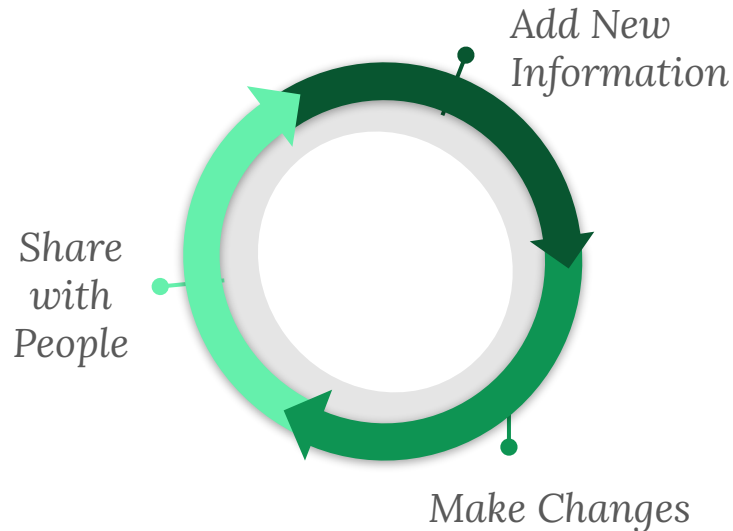
HOW YOU CAN HELP TODAY:

- *Ask us questions*
- *Share your concerns*
- *Help us answer these questions:*
 - *Did we miss any areas with coastal risk?*
 - *Did we miss any areas we need to protect?*
 - *What is important to you that we know about the tools or the locations for draft USACE structures?*
 - *How can we make the process more accessible to you?*



WHAT WE WILL DO NEXT:

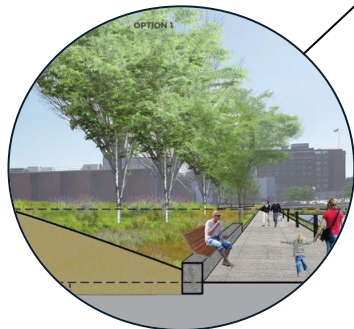
- Give you answers, as best as we can
- Send you these presentation slides
- Meet you in person to hear more about your concerns and questions
- Report back with a second presentation this year (November/December 2025)



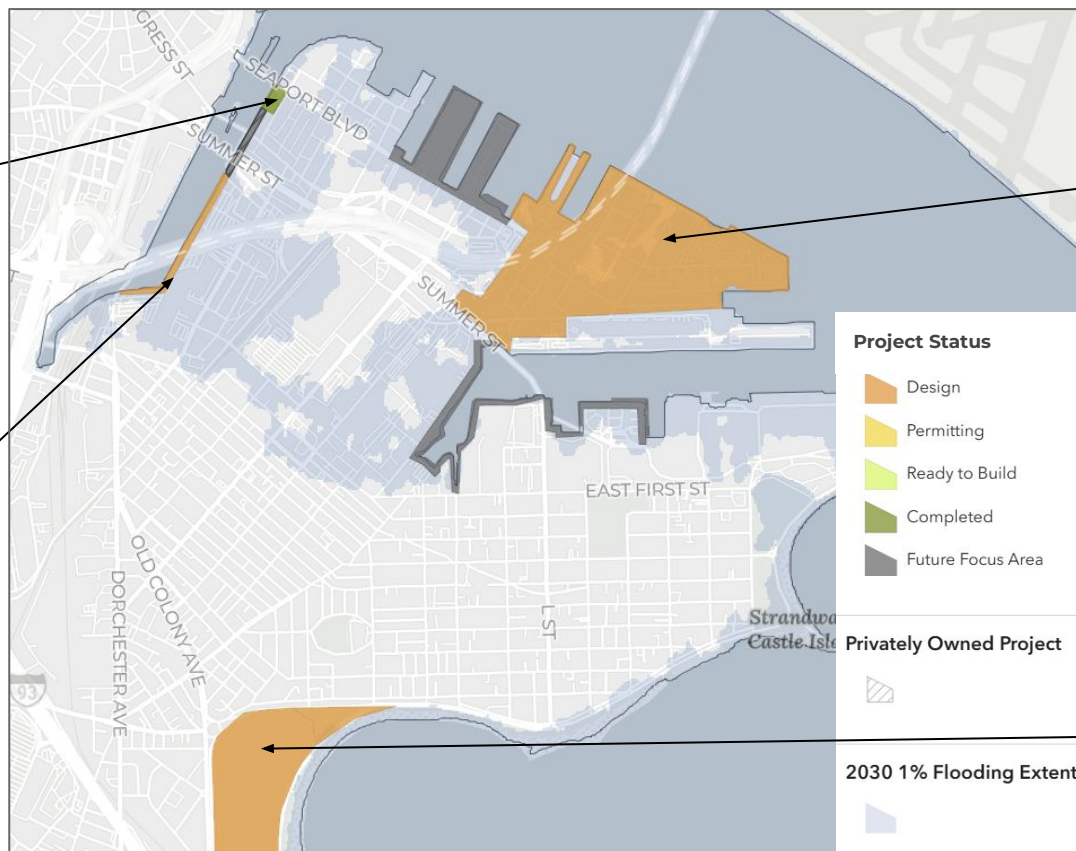
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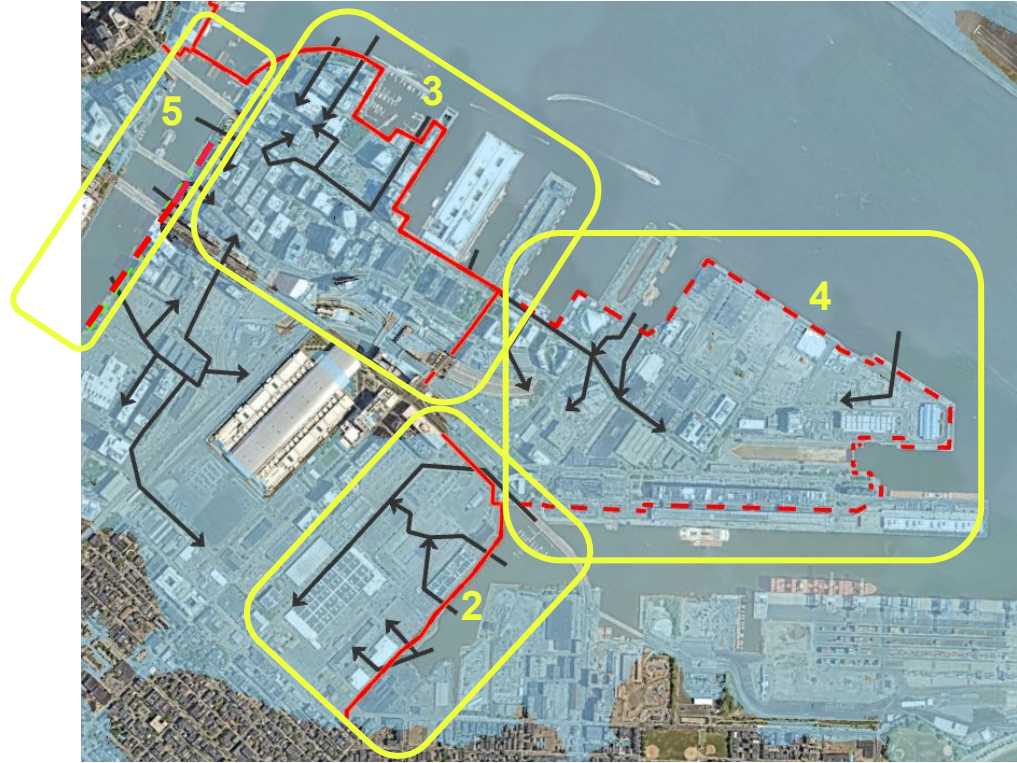


**Raymond L. Flynn
Marine Park**
Design in progress

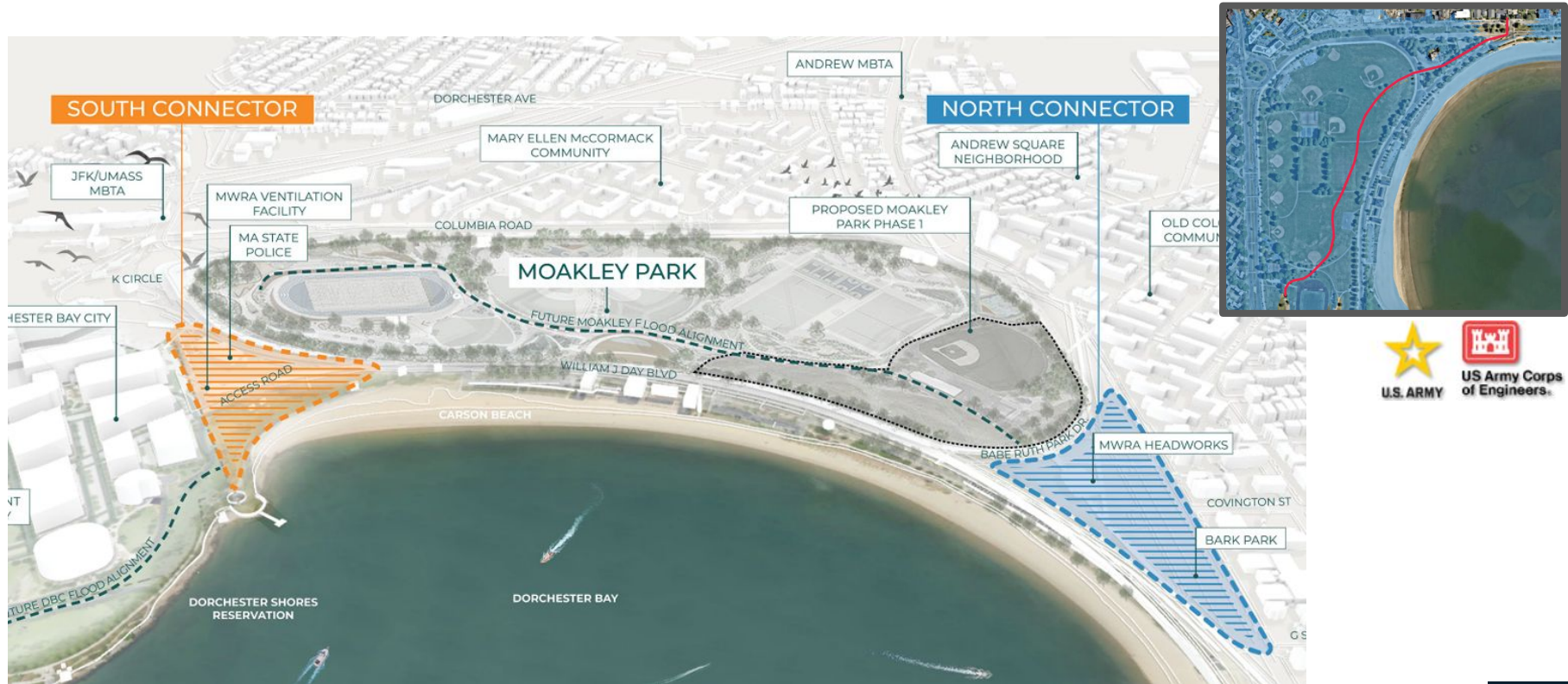


**Moakley Park &
Moakley Connectors**
Design in progress

SOUTH BOSTON STRUCTURAL LOCATIONS OVERVIEW



#1. - MOAKLEY PARK



Moakley Park and Connectors Project, Stoss + Weston & Sampson, Image Copyright Stoss, Inc.



#2. - RESERVED CHANNEL/PAPPAS WAY



With Marine Park perimeter



Without Marine Park perimeter

LEGEND

CHS Inundation Layers

CHS 1% Inundation 2090 High SLC



Flood Pathways



#3. - FAN PIER & SEAPORT BOULEVARD



With Marine Park perimeter



Without Marine Park perimeter

LEGEND

CHS Inundation Layers

CHS 1% Inundation 2090 High SLC



Flood Pathways



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#4. - RAYMOND L. FLYNN MARINE PARK

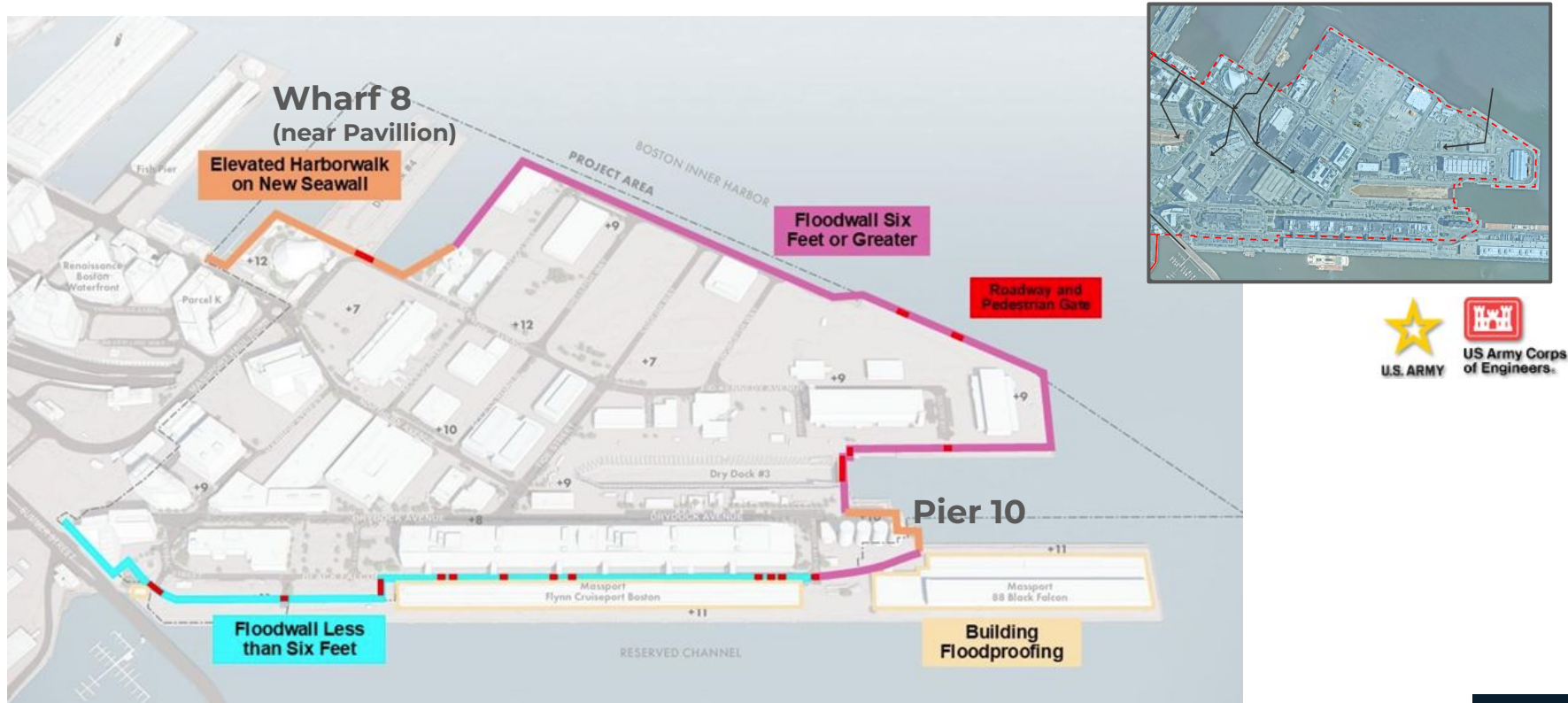


Image Source: Arcadis, Boston Planning Department

#5. - FORT POINT CHANNEL - THE COASTAL FLOOD RISK



LEGEND

CHS Inundation Layers

CHS 1% Inundation 2090 High SLC



Flood Pathways



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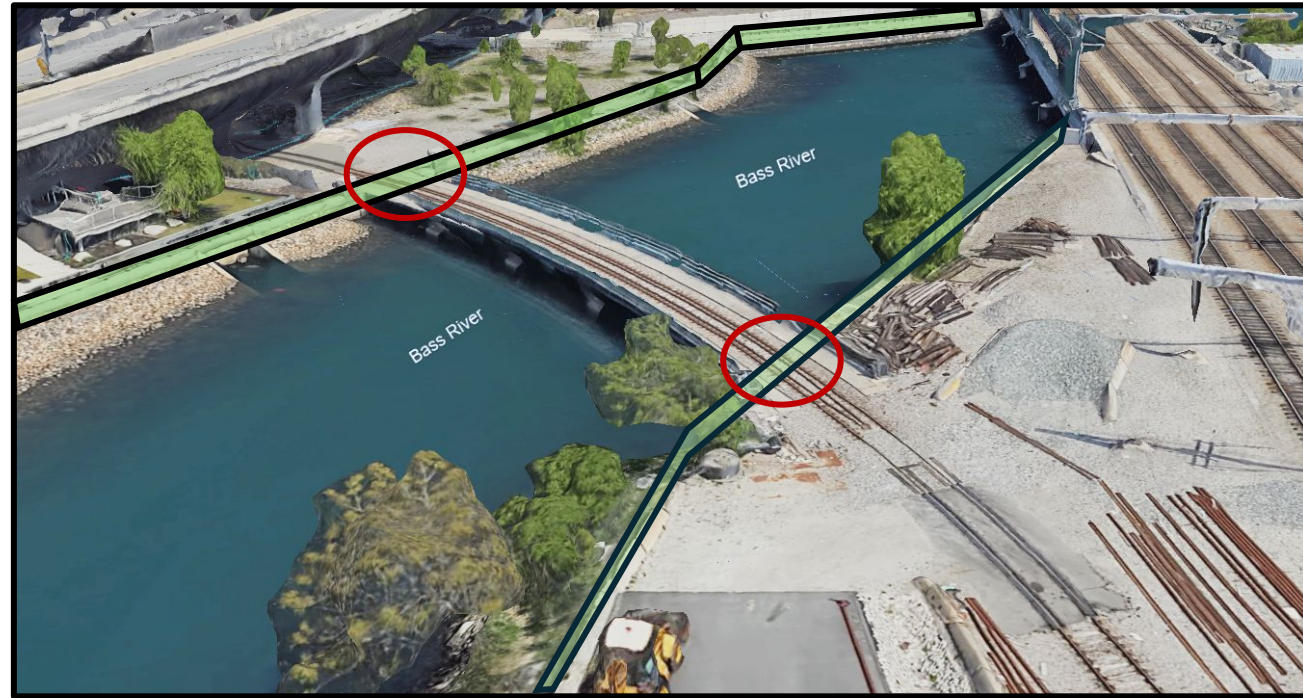
#5. - FORT POINT CHANNEL - DESIGN CHALLENGES



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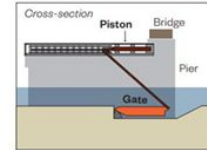


#5. - FORT POINT CHANNEL - STORM SURGE BARRIER

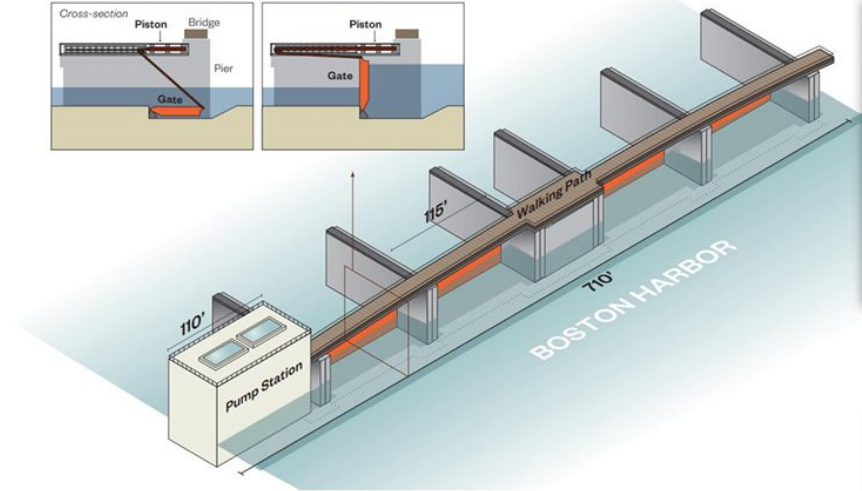
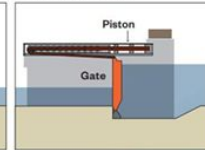


Fox Point Hurricane Barrier, Providence, RI
Image source: USACE, New England District

NORMAL CONDITIONS
Gates stored on bottom of channel



MAJOR STORM EVENT
Gates hoisted in place



BWSC Fort Point Storm Surge Barrier Concept, 2023
Image source: Hazen & Sawyer, Boston Water & Sewer Commission



Summary

- *Long Term Projects to Address Long Term Risk*
- *Current Focus on Getting Questions on Process and Areas of Focus*
- *Subsequent Feedback on Designs (and construction alternatives)*



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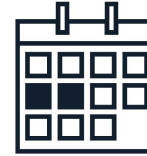


How to Provide Feedback:

boston.gov/usace-study



Submit Comments Online



Book an Appointment with us



U.S. ARMY



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Question and Answer Session



City of Boston
Climate Resilience

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