

# Downtown Waterfront Municipal Harbor Plan

Proposed Zoning Amendments  
August 12, 2019



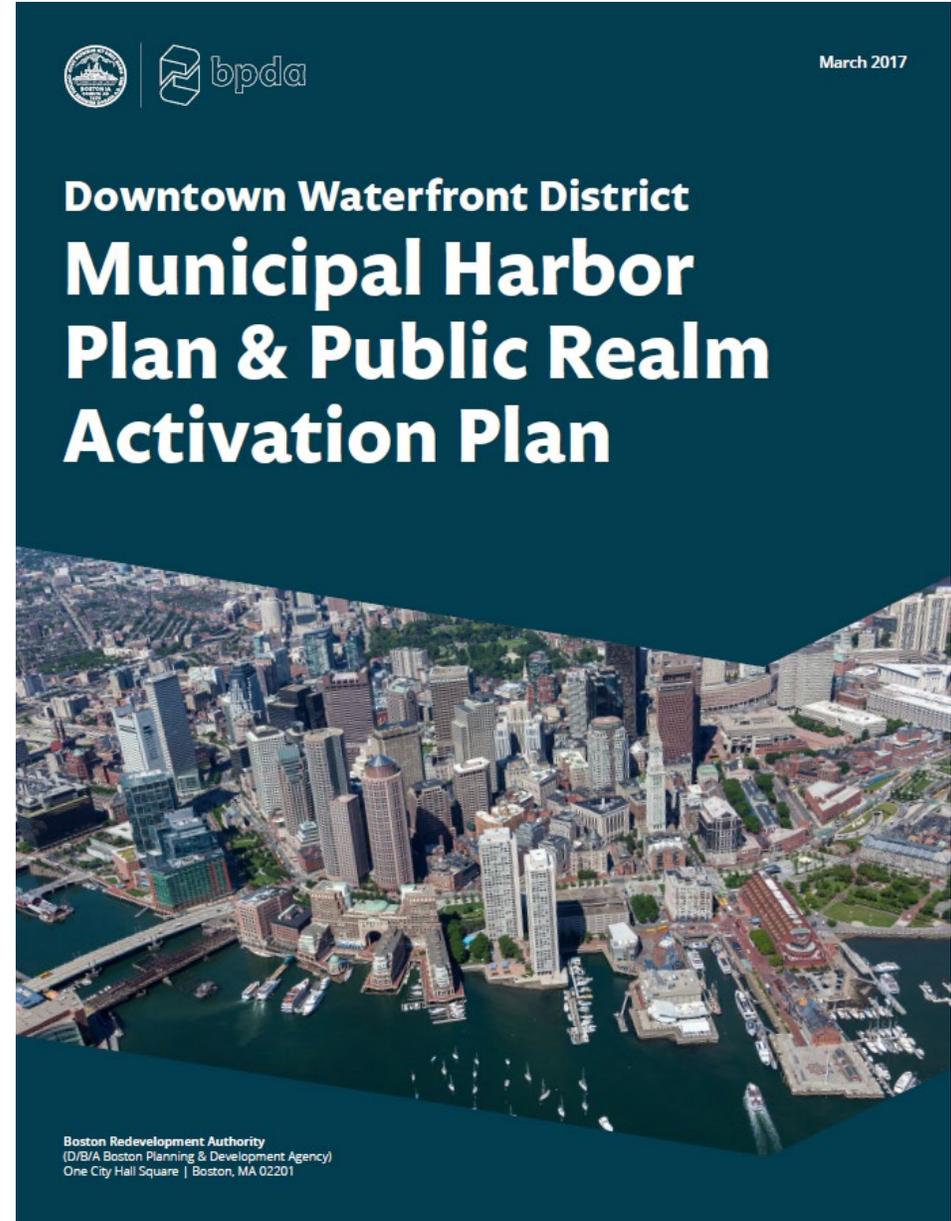
# Public Process to Date

Downtown Waterfront Public Realm and Watersheet Activation Plan

## A Vision for the Downtown Waterfront

The Downtown Waterfront is Boston's front door to the world. It should host a rich mix of uses that complement and support two of Boston's greatest open space resources, the Rose F. Kennedy Greenway and the Harbor, and that build on the decades of planning and design work in the area.

40 public meetings to date have resulted in a Public Realm Activation Plan and Municipal Harbor Plan which was approved by the Secretary in April 2018.



# Overview of Public Improvements

Publicly accessible open space increased by approximately 58,670 square feet.

\$14.4 towards public improvements to:

- **Long Wharf / Chart House parking lot**  
\$3.9m for planning and permitting a waterfront park and waterfront gateway
- **New England Aquarium Blueway**  
\$10m for public realm improvements
- **Fort Point Operations Fund**  
\$500,000 for open space and waterfront activation through programming



# Terms and Definitions

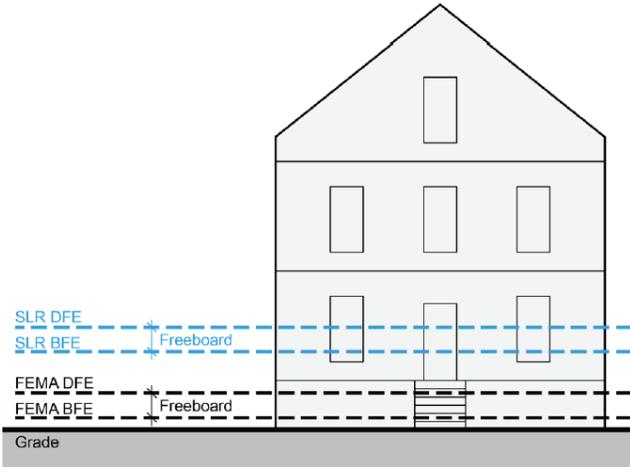
**Chapter 91:** The Massachusetts Public Waterfront Act or Chapter 91 of the Commonwealth's legislature promotes the protection and promotion of public use of its tidelands. It does this by ensuring that any private use of tidelands serves its proper public purpose by providing public access to waterways and prioritizing water-dependent uses on tidelands.

**Facilities of Public Accommodation (FPAs):** Areas and programs which are available for use by the public at large. These may include restaurants, hotels, cultural institutions, open spaces, retail, ferry terminals, etc.

**Planned Area Development (PDA):** A PDA is an overlay zoning district that establishes land use controls for large or complex projects.

**Substitutions:** Provisions within the MHP that are intended to substitute the minimum use limitations or standards set forth in Chapter 91 regulations.

# Terms and Definitions



## **Sea Level Rise–Design Flood Elevation (SLR-DFE):**

A BPDA term for the height of the lowest occupiable floor for buildings within the floodplain. This elevation is separated from the SLR-BFE by freeboard.

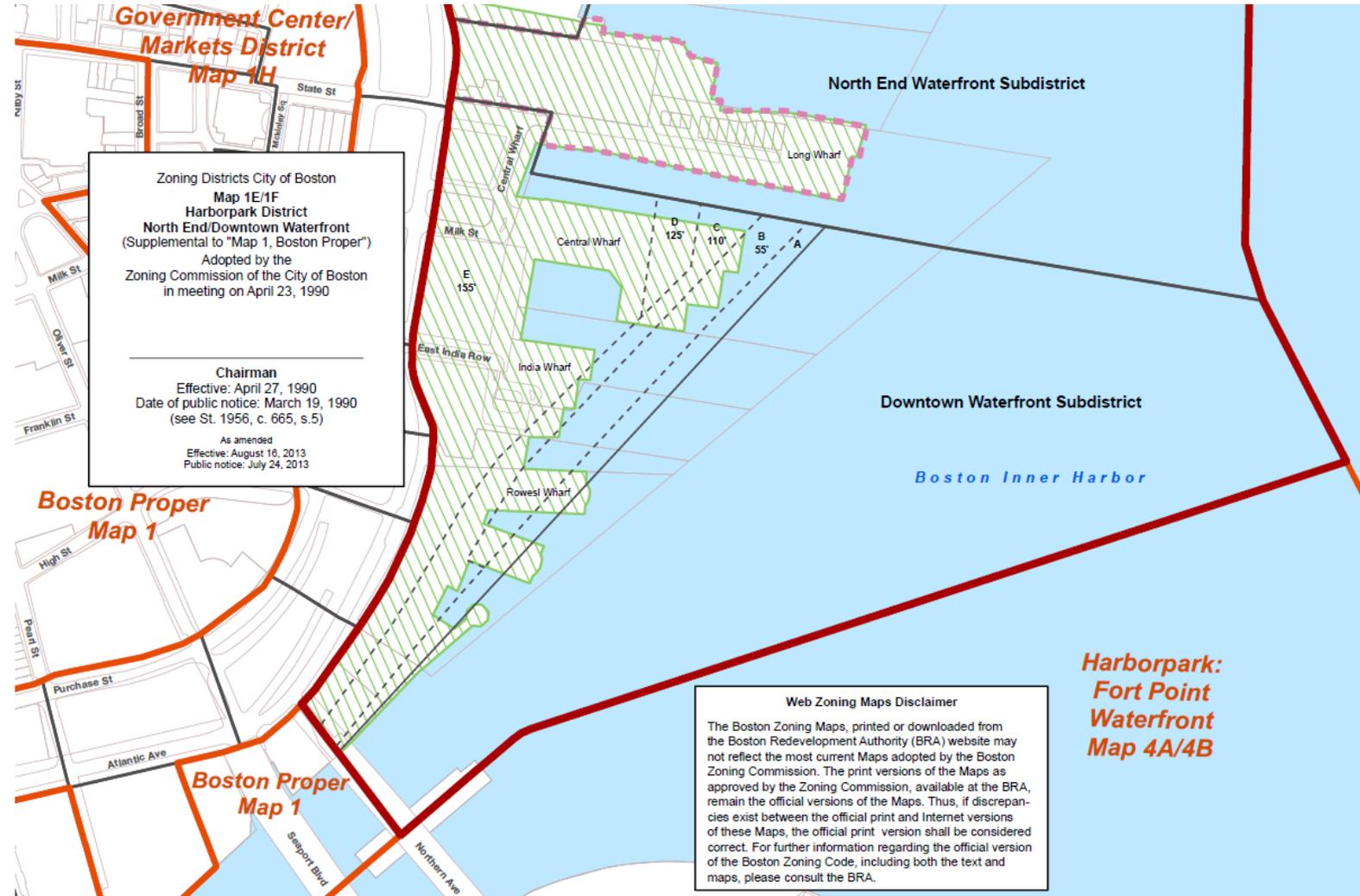
## **WDUZ (Water Dependent Use Zone):**

The area along a project shoreline (typically 100' wide) that is reserved for water dependent uses. Water-dependent uses are defined in the Chapter 91 regulations as uses that require direct access to tidal waters, and therefore cannot be located away from the shoreline.



# Approved Substitutions Applicable Area-wide

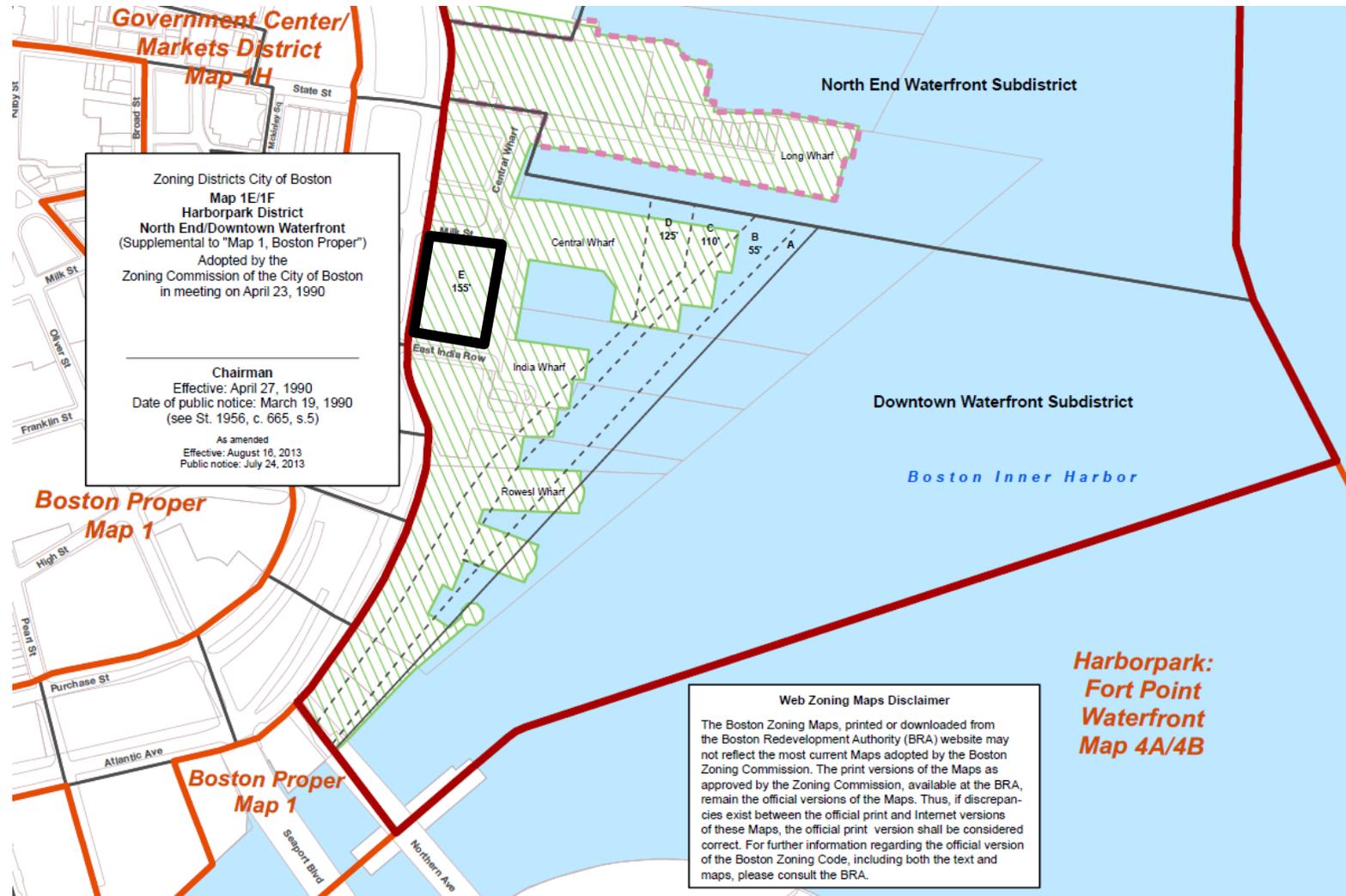
- Additional height allowance of 30' to accommodate relocated mechanicals if:
  - Restricted only to relocating mechanicals
  - Mechanicals are set back to minimize net new shadow
  - Avoid net new shadow on Long Wharf



Source: Decision on the City of Boston's request for approval of the Downtown Waterfront District Municipal Harbor Plan dated April 30, 2018

# Approved Substitutions Applicable to the Harbor Garage Site

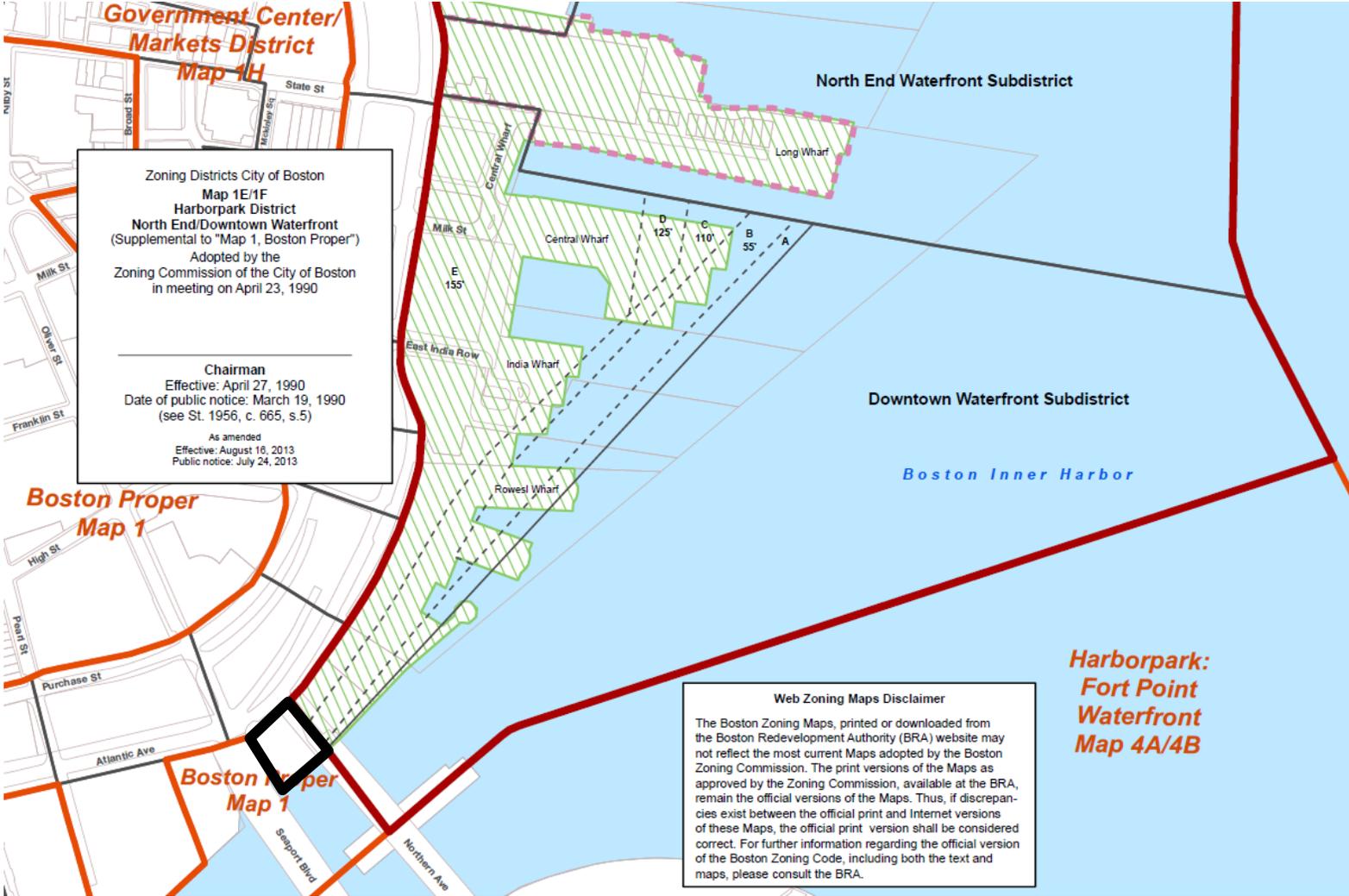
- Buildings for nonwater-dependent uses may be allowed up to a **maximum height of 585' to the highest occupiable floor** (i.e. a total of 600'.)
- **Open space to occupy at least 50% of site.**



Source: Decision on the City of Boston's request for approval of the Downtown Waterfront District Municipal Harbor Plan dated April 30, 2018

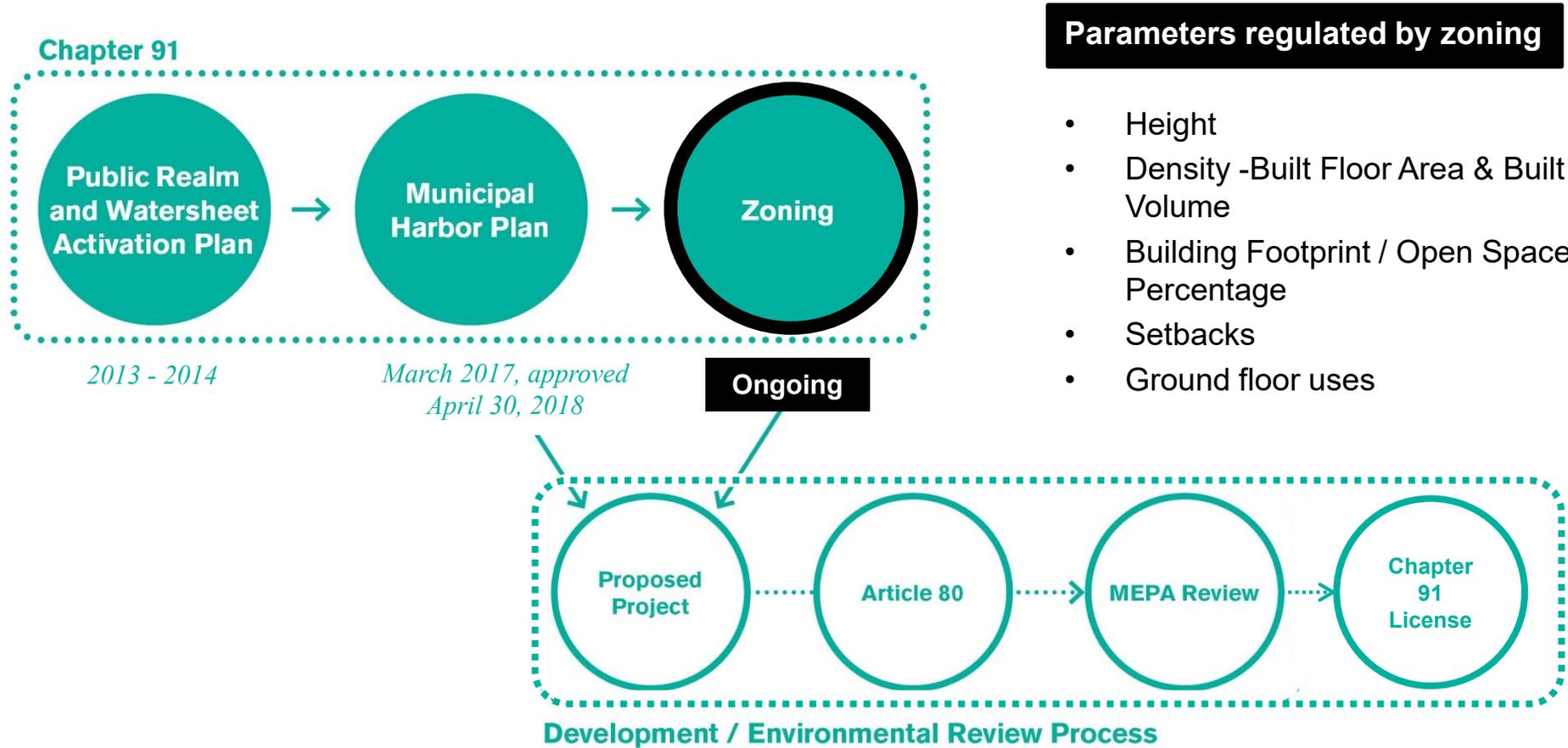
# Approved Substitutions Applicable to the Hook Wharf Site

- Buildings for nonwater-dependent uses may be allowed up to a **maximum height of 285'** to the highest occupiable floor
- **Open space to occupy at least 30%** of site.
- A Water Dependent Use Zone (WDUZ) shall have an area that is equal to or greater than a compliant WDUZ and **in no case shall it be less than 12-feet.**



Source: Decision on the City of Boston's request for approval of the Downtown Waterfront District Municipal Harbor Plan dated April 30, 2018

# Regulatory Framework



# Proposed Zoning Amendments

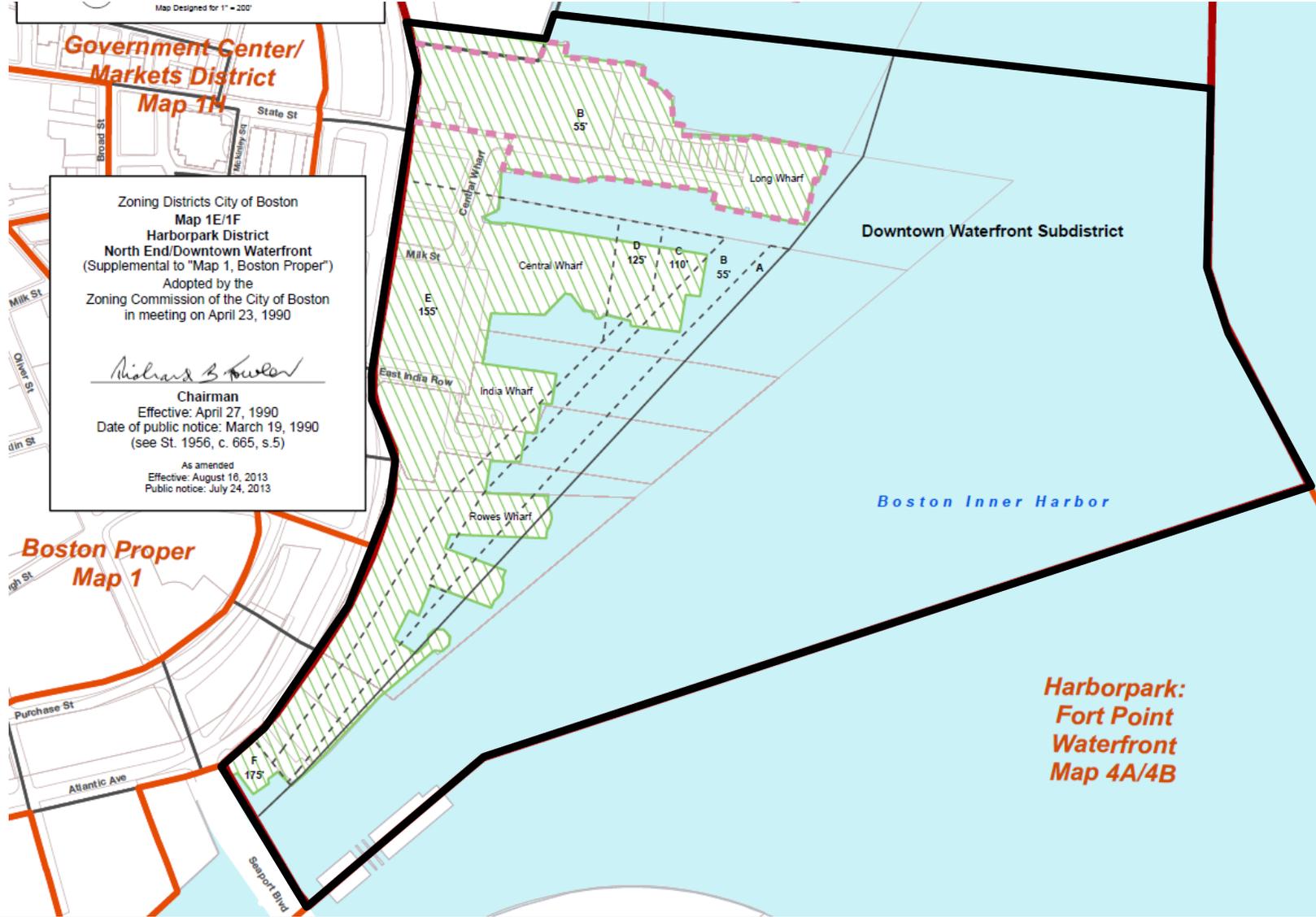
# 42A-1: Statement of Purpose, Goals, and Objectives

The Statement of Purpose, Goals and Objectives for Article 42A has been expanded to include:

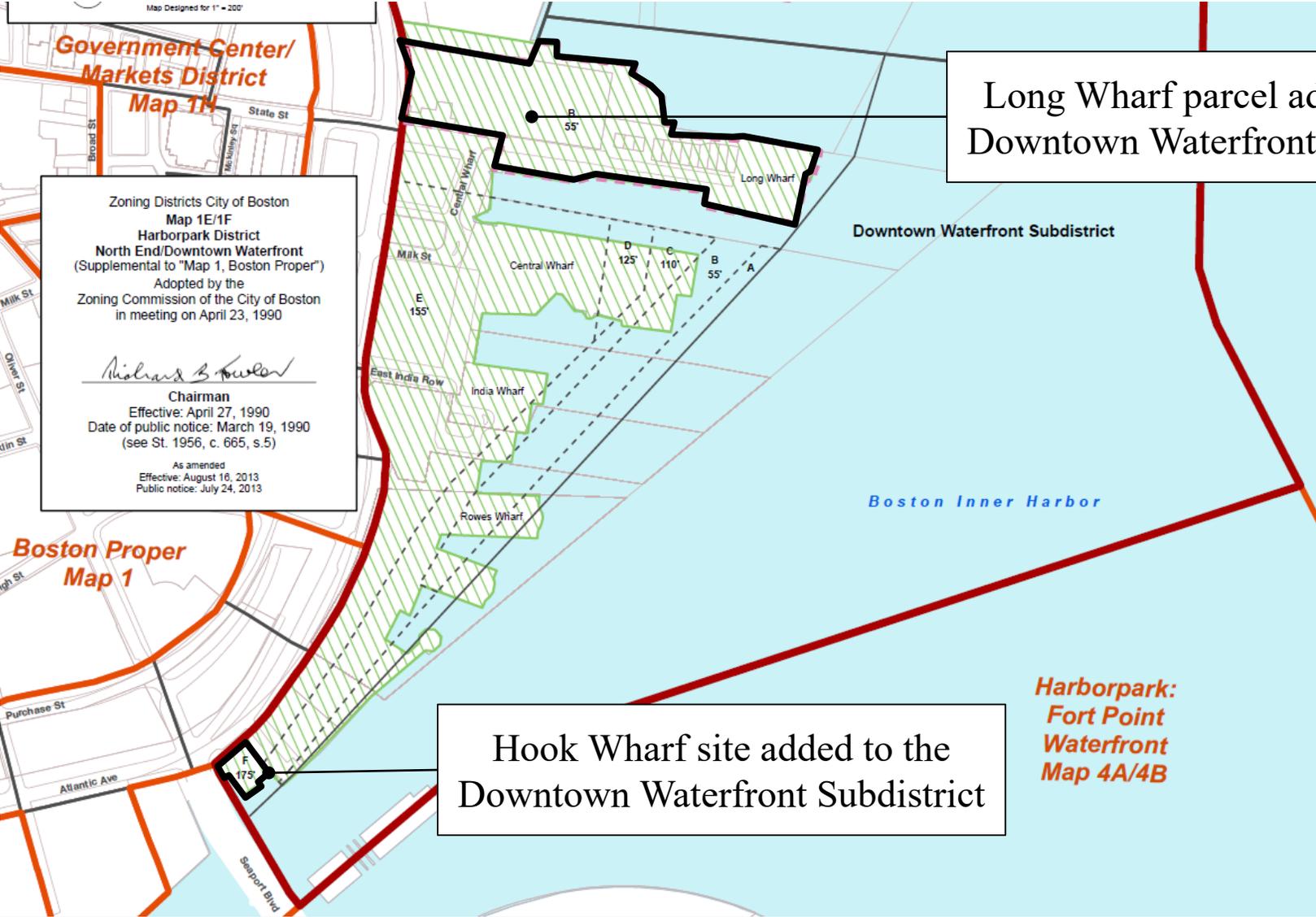
“ . . .[to] protect persons and structures from the adverse impacts associated with climate change by promoting resilient planning and design.”

# 42A-2: Recognition of the Harborpark District Plan

A reference has been added to the “Downtown Waterfront District Municipal Harbor Plan & Public Realm Activation Plan” (the MHP), defining the MHP as the portion of the general plan for the City of Boston applicable to the Subdistrict.



# 42A-3: Physical Boundaries



Long Wharf parcel added to the Downtown Waterfront Subdistrict

Zoning Districts City of Boston  
 Map 1E/1F  
 Harborpark District  
 North End/Downtown Waterfront  
 (Supplemental to "Map 1, Boston Proper")  
 Adopted by the  
 Zoning Commission of the City of Boston  
 in meeting on April 23, 1990

*Richard B. Fowler*  
 Chairman  
 Effective: April 27, 1990  
 Date of public notice: March 19, 1990  
 (see St. 1956, c. 665, s.5)

As amended  
 Effective: August 16, 2013  
 Public notice: July 24, 2013

Hook Wharf site added to the Downtown Waterfront Subdistrict

Harborpark:  
 Fort Point  
 Waterfront  
 Map 4A/4B

# 42A-5: Chapter 91 Requirements

- Requirements for the inclusion of affordable housing in proposed projects have been superseded by current City policies which are anticipated to undergo an ongoing process of evolution, in response to changing conditions.
- Therefore, the specific requirements from zoning have been modified or deleted, and references have been inserted to “the City’s Inclusionary Development Policy then in effect.”
- Subsection 7 of Section 42A-5 previously contained specific requirements for the inclusion of cultural uses in certain Proposed Projects located within the Downtown Waterfront Subdistrict.
- These requirements have been superseded by the Municipal Harbor Plan

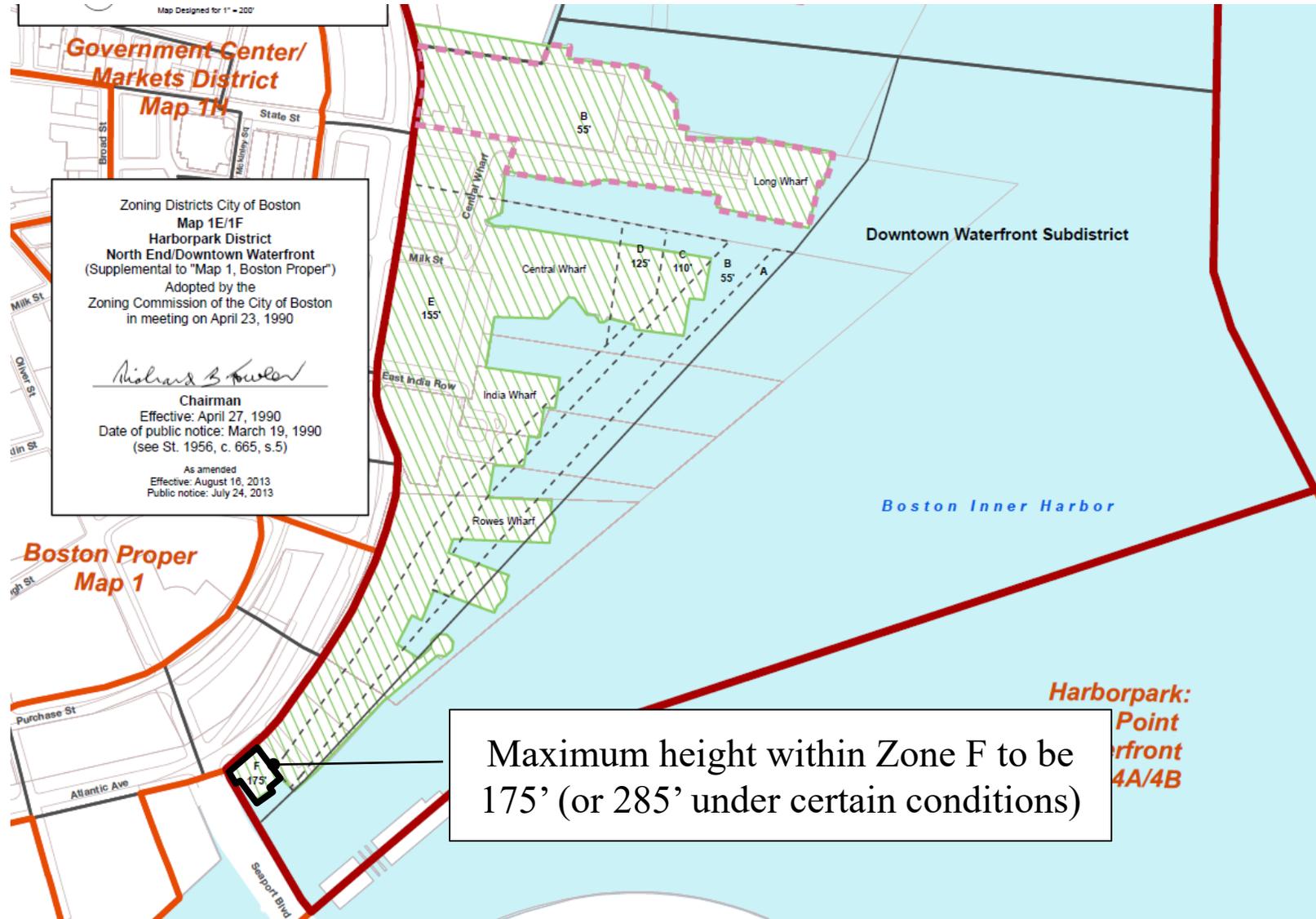
## 42A-6: Open Space Requirements

- The definition of Open Space has been expanded to include any area deemed to constitute Open Space pursuant to M.G.L. chapter 91 or an applicable Municipal Harbor Plan.

## 42A-8: Urban Design Guidelines

- To implement the goals of the MHP, as discussed under Section 42A-1 above, subsection 14 has been modified, to ensure that reviews of Proposed Projects will be consistent with the MHP.
- A new subsection 15 has been added, specifically relating to resiliency. It states that any resilient design feature of a Proposed Project shall be designed in a manner consistent with the other urban design guidelines of Section 42A-8.

# 42A-12: Downtown Waterfront Subdistrict



## Within Height Zone F:

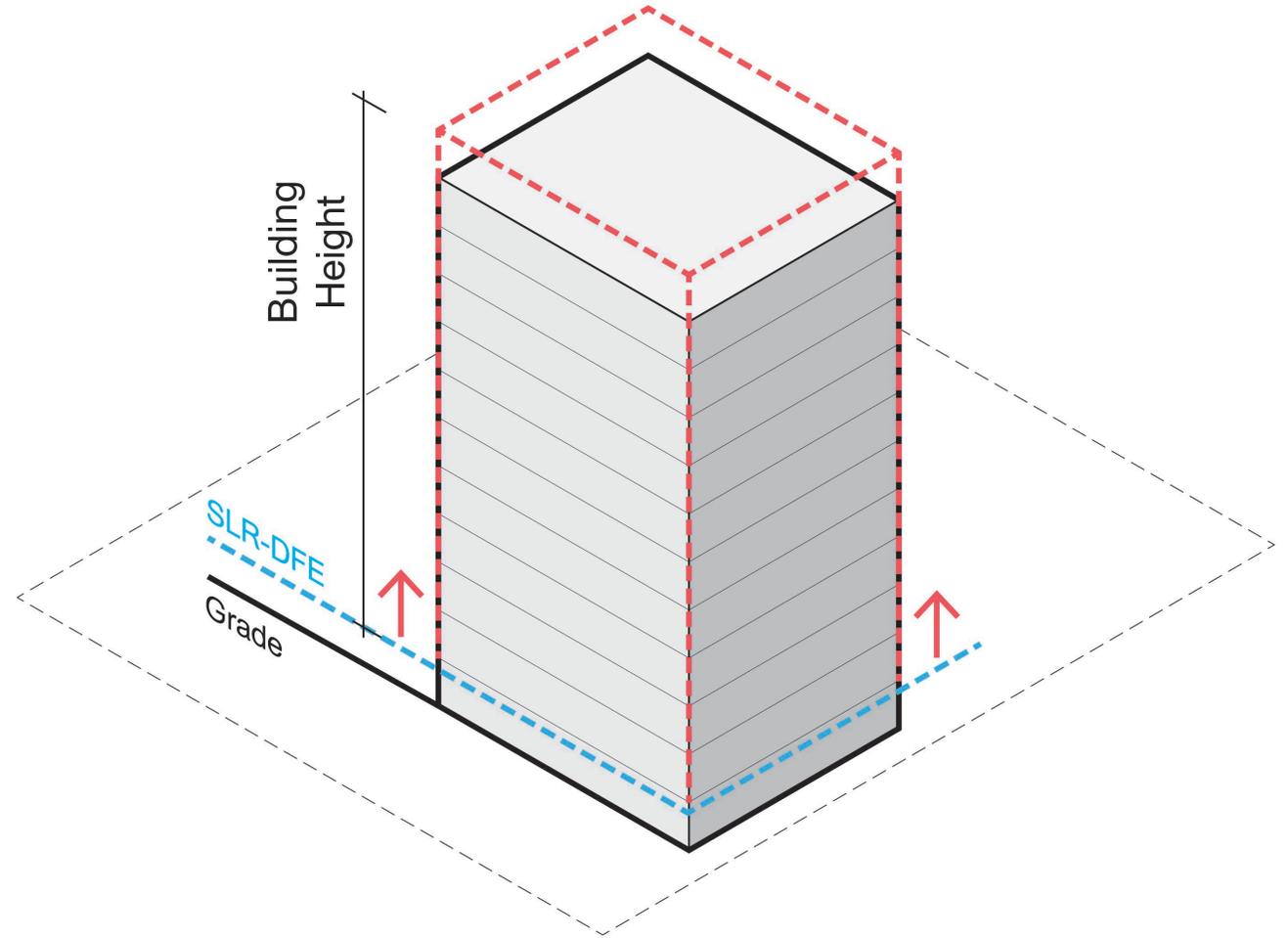
- Maximum allowable building height will be 175 feet (285 ft under certain conditions)
- Maximum allowable FAR will be 15
- 30% of the lot area will be open space
- Minimum waterfront yard setback will be 12 feet

# 42A-12: Downtown Waterfront Subdistrict

## Definition of building height

The Building Height shall be measured from the higher of:

- (a) the SLR-DFE, or
- (b) the surrounding grade elevation, provided that in no case shall the base floor elevation be more than 5' higher than the SLR-DFE



# Planned Development Areas

## **What is a Planned Development Area (PDA)?**

A PDA is an overlay zoning district that establishes land use controls for large or complex projects.

## **Where can a PDA be established?**

A PDA may be established for an area containing at least one acre and where they are not explicitly forbidden by the underlying zoning.

## **How is a PDA established?**

A PDA Development Plan or Master Plan must be reviewed and approved by the BPDA. The Boston Zoning Commission must then review and vote to adopt the PDA.

# 42A-16: Prohibition of Planned Development Areas and Restriction of Urban Renewal Areas

- This section has been modified, to permit the approval of PDAs, in accordance with the standards and procedures of review set forth in Article 80, solely within the Downtown Waterfront Subdistrict for projects that are consistent with the general plan for the Downtown Waterfront Subdistrict and the approved Municipal Harbor Plan.

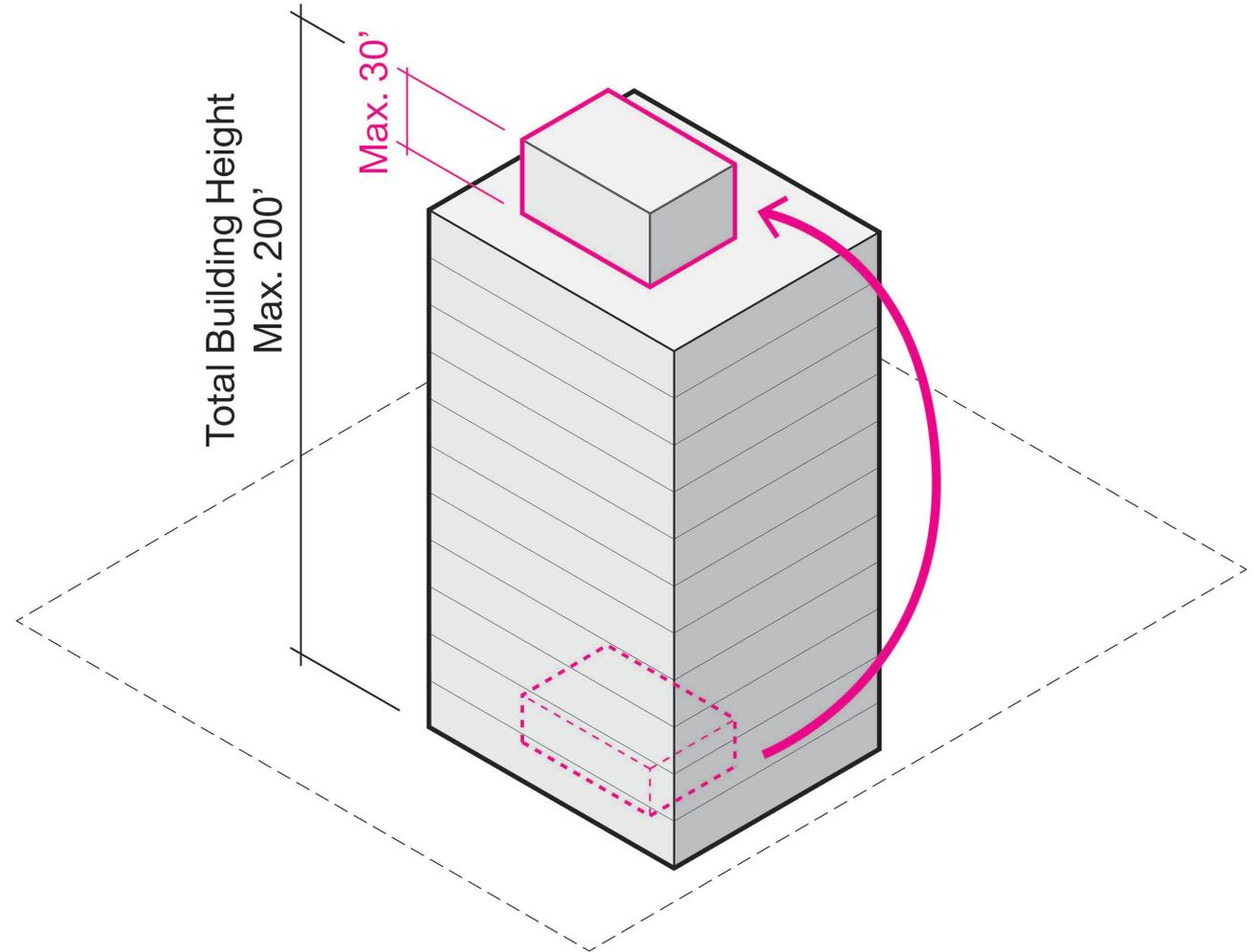
# 42A-17: Rooftop Additions

Additional height for the relocation of mechanical systems

An existing building within the Downtown Waterfront Subdistrict may erect a new or expanded rooftop structure up to an additional 30' and not to exceed 200' subject to:

- (a) the rooftop structure shall be occupied solely by mechanical equipment;
- (b) all mechanical equipment that is currently located at or below ground level shall be relocated to an upper floor, or flood-proofed;

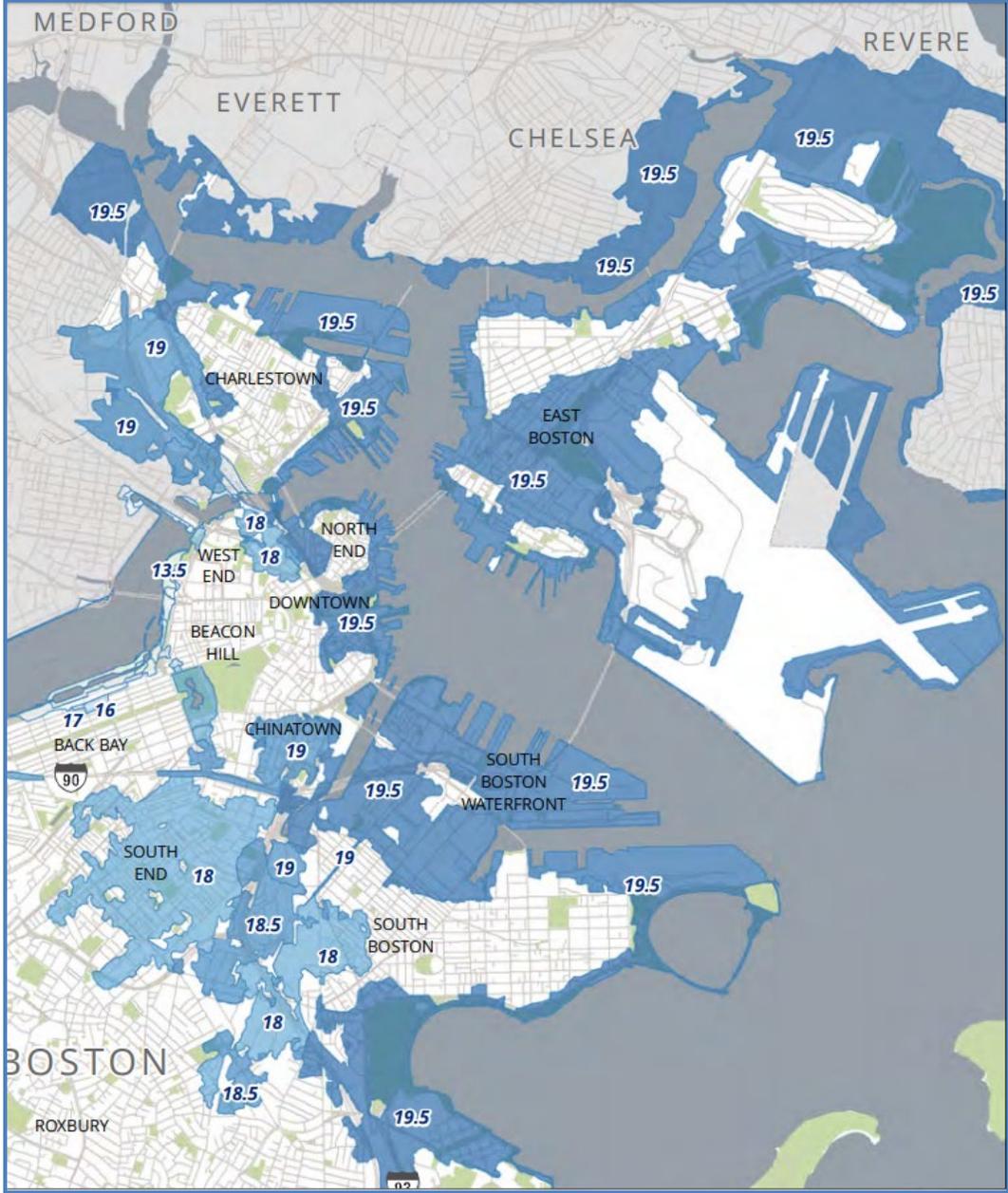
Additionally, the rooftop structure shall be configured and set back to avoid or minimize net new shadow to the extent feasible.



# 42A-18: Use Regulations Applicable in the North End Waterfront Subdistrict and Downtown Waterfront Subdistrict

- A project may be consistent with the intent of the MHP and the DEP Waterways Regulations, if the entire ground floor is occupied by a combination of Water-Dependent Uses and Facilities of Public Accommodation (FPAs), even if the FPAs occupy less than 40% of the ground floor.
- The list of allowed Water-Dependent Uses has been expanded to include any use area deemed to constitute a Water-Dependent Use pursuant to M.G.L. chapter 91 or an applicable Municipal Harbor Plan. In Section 42A-18.6(i), the list of allowed Restaurant Uses has been expanded to include take-out restaurants less than 2,500 square feet.

# Ongoing Planning



## Coastal Flood Resilience Zoning Overlay District and Design Guidelines

The project was completed in July 2019; Design Guidelines and Zoning Recommendations have been submitted to the State.

# Ongoing Planning

III. Case Studies

Alterations and Renovations

New Construction

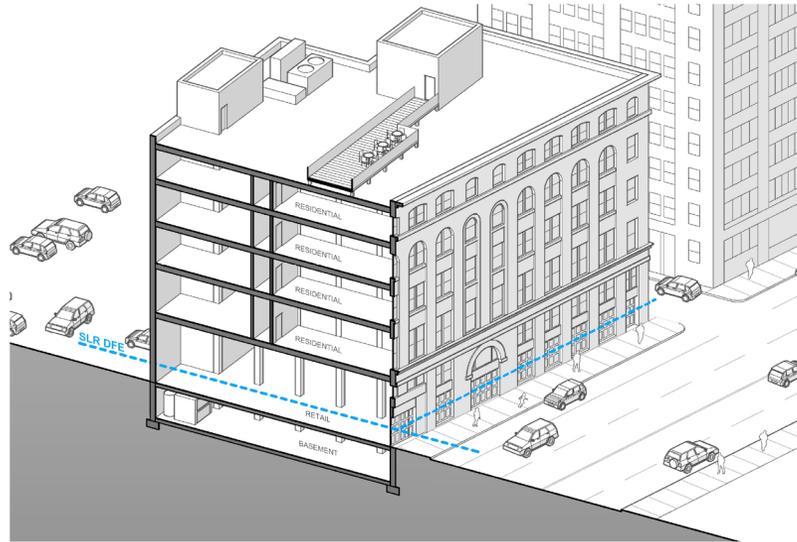
City of Boston Flood Resilience Design Guidelines

## Pre-war Mixed-use

### Existing Conditions

Pre-war mixed use buildings are historic multi-story structures commonly found in Downtown, Fort Point, North End and the South End. While structural systems vary, they typically include solid masonry walls with heavy

timber post and beam framing or concrete slab and post construction. Ground floor levels often have high ceilings, making it feasible to accommodate resilience adaptations require greater floor-to-floor height on the first floor.



### Case Study Location



### Sea Level Rise Conditions

SLR-BFE	19.50' BCB
SLR-DFE	20.50' BCB
FEMA BFE	16.46' BCB

### Other Neighborhoods

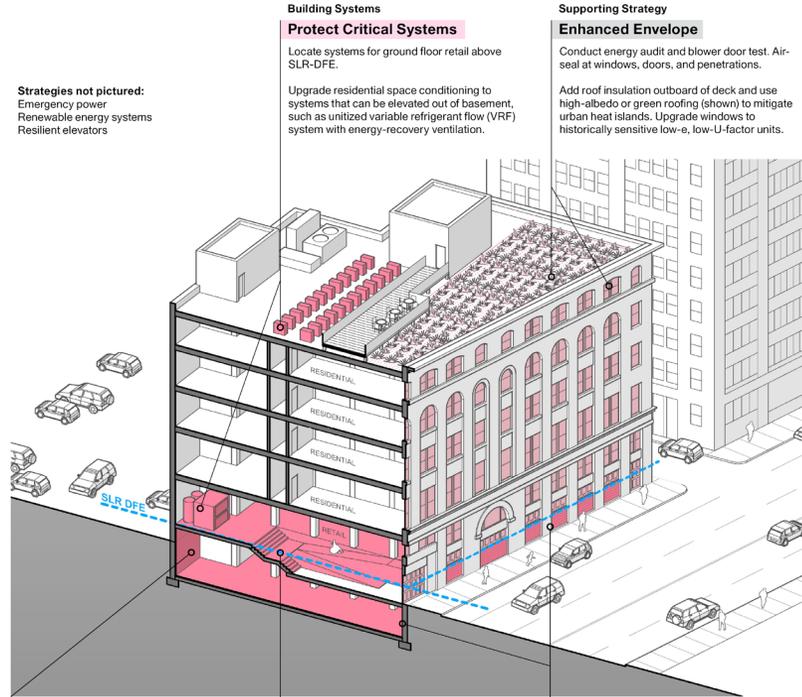
South Boston, Downtown, Charlestown

### Building Characteristics

Grade elevation	approx. 15.00' BCB
Lowest occupiable floor	approx. 15.00' BCB
Cellar elevation	Unknown
Critical systems location	Basement / Roof
Construction type	Brick masonry, timber
Year built	Late 19th-early 20th century
Stories	5
Units	45
Sidewalk width	10'
Zoning district	South Boston M-4

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### Long-term Strategy



**Strategies not pictured:**  
Emergency power  
Renewable energy systems  
Resilient elevators

#### Building Systems

**Protect Critical Systems**  
Locate systems for ground floor retail above SLR-DFE.

Upgrade residential space conditioning to systems that can be elevated out of basement, such as unitized variable refrigerant flow (VRF) system with energy-recovery ventilation.

#### Supporting Strategy

**Enhanced Envelope**

Conduct energy audit and blower door test. Air-seal at windows, doors, and penetrations.

Add roof insulation outboard of deck and use high-albedo or green roofing (shown) to mitigate urban heat islands. Upgrade windows to historically sensitive low-e, low-U-factor units.

#### Building Systems

**Backup Systems**

Protect sub-grade areas from the backflow of municipal wastewater by installing backwater valve(s) or flow preventer(s).

#### Building Envelope and Access

**Elevate Lowest Interior Floor + Provide Interior Circulation to DFE**

Ramps and stairs mediate an at-grade entry area with an elevated main floor. High ceilings in the existing ground floor can accommodate this adaptation.

#### Building Envelope and Access

**Dry floodproofing**

Install historically sensitive brackets for temporary shields at windows and doors below the SLR-DFE.

Parge and structurally reinforce stone foundation to resist hydrostatic forces. Historic and older buildings may require fortifying or replacing materials designed to breath and flex.

Install sump pumps for backup drainage.

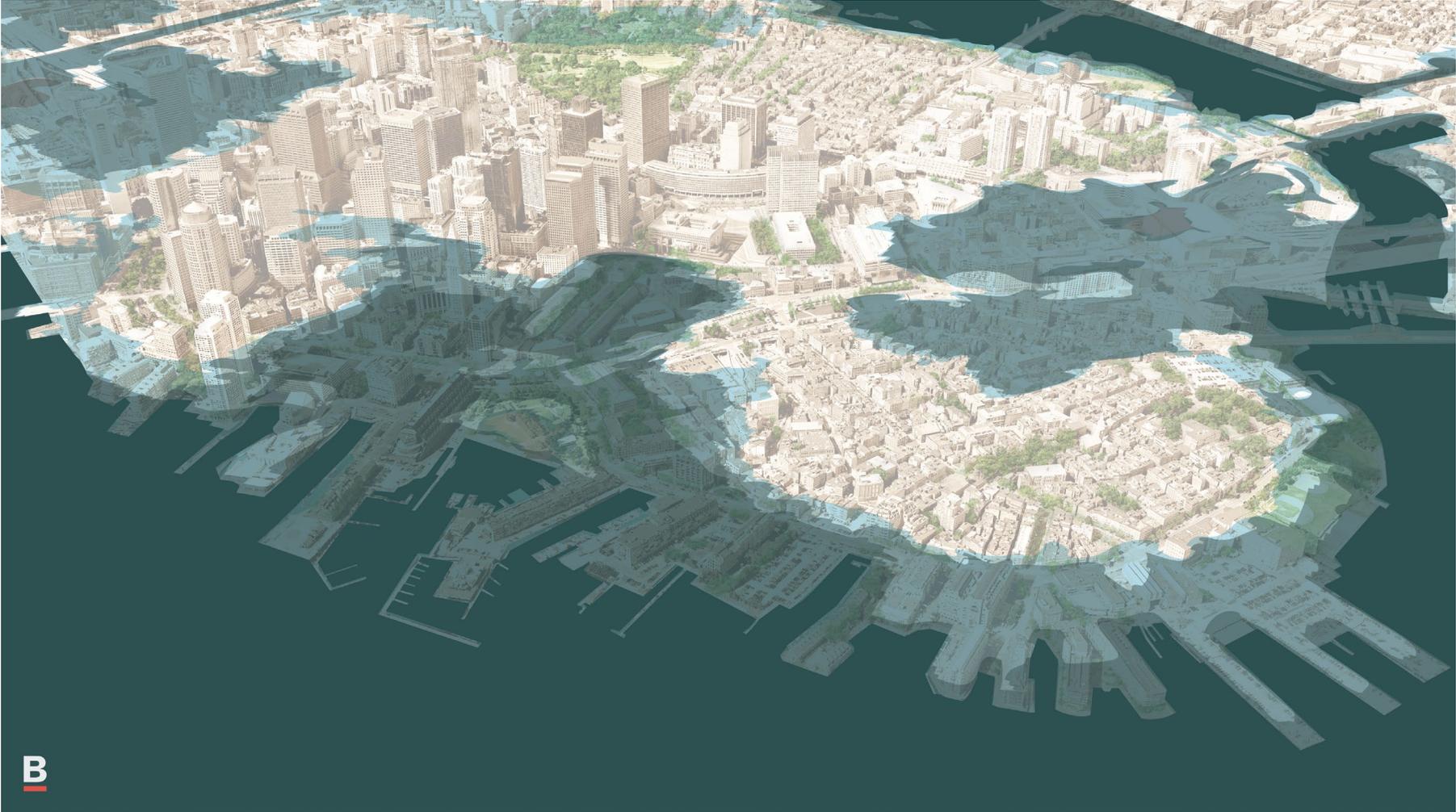
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## Coastal Flood Resilience Zoning Overlay District and Design Guidelines

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# Ongoing Planning

## Climate Ready Downtown and North End



**B**

# Ongoing Planning

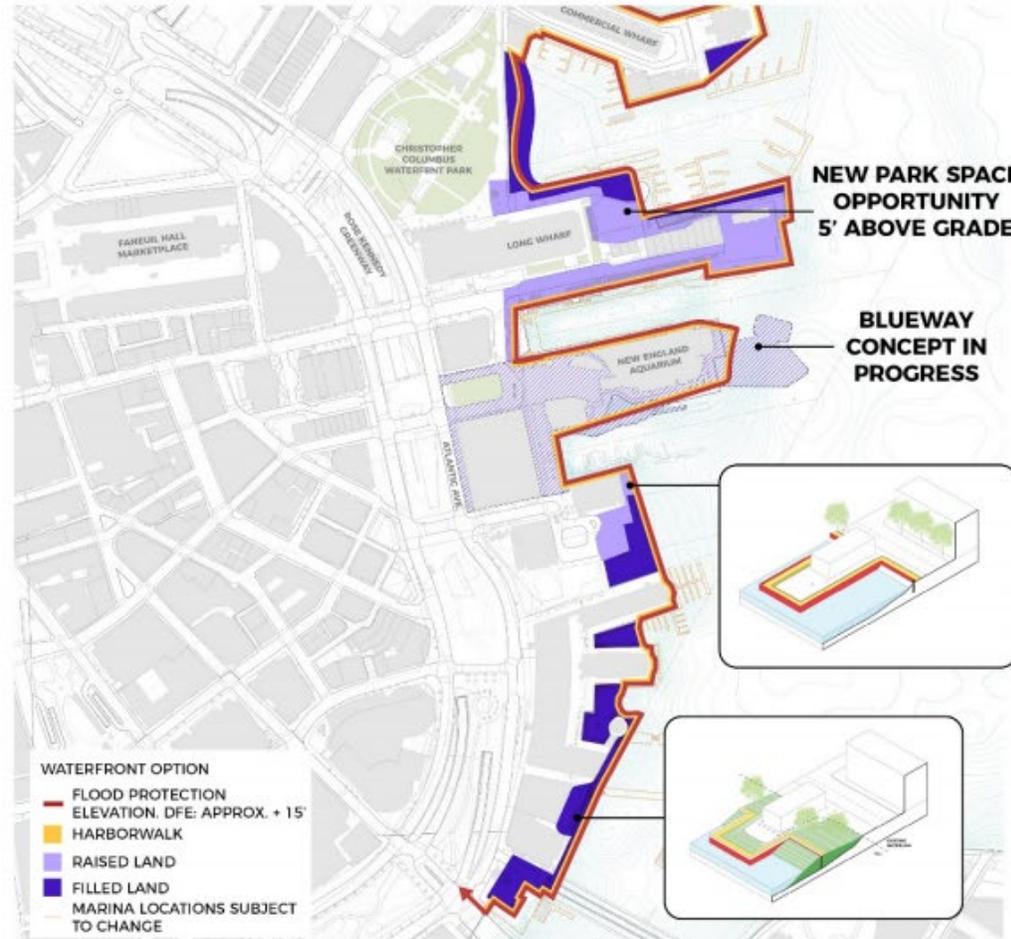
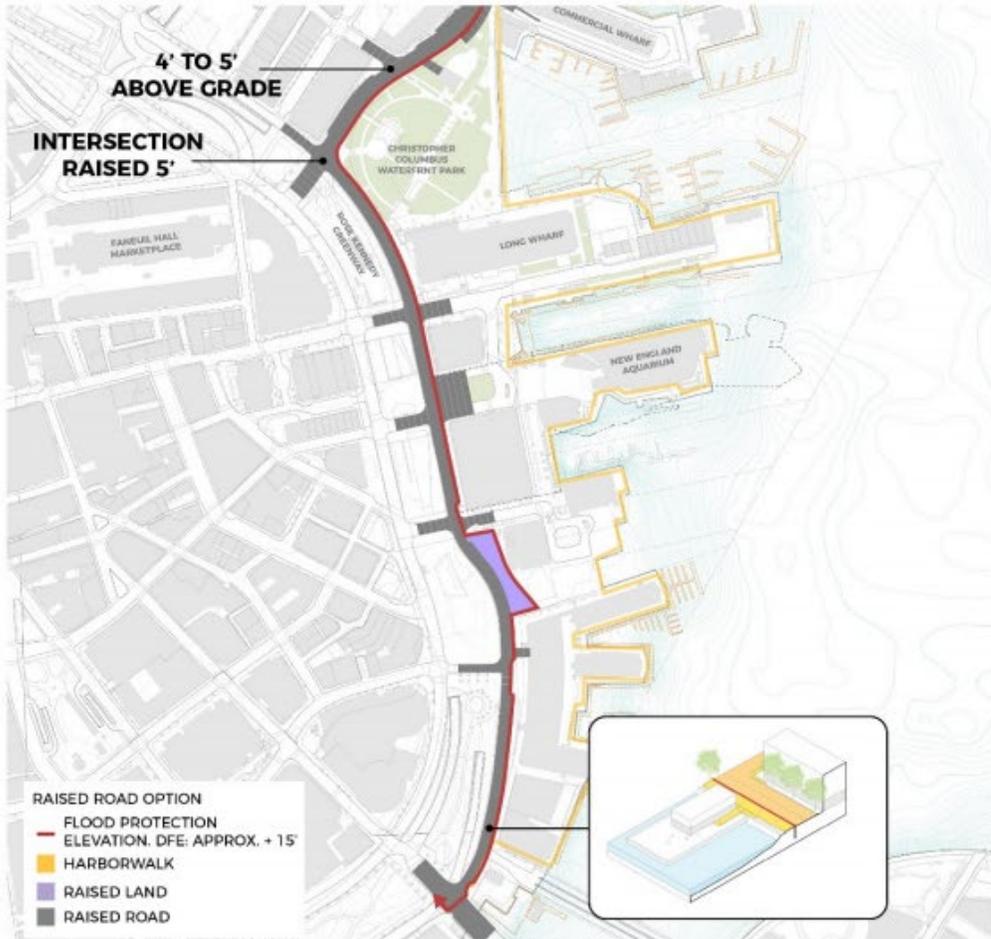
## Climate Ready Downtown and North End



# Ongoing Planning

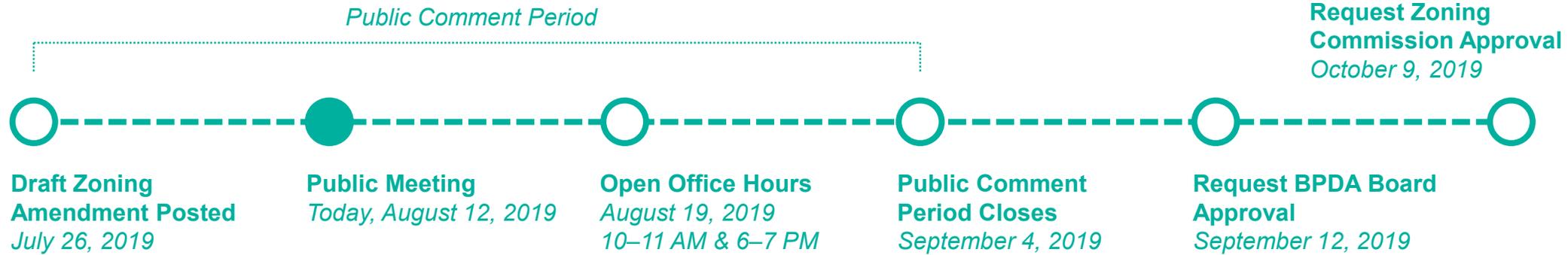
## Climate Ready Downtown and North End

Second public meeting in July 2019 included a discussion of coastal protection concepts and coastal resiliency toolkit.



# Next Steps

Zoning Amendment  
Drafted based on  
Secretary Beaton's  
Approval of the MHP



## Submit Your Comments to Chris Busch

Deadline: September 4, 2019 at 5 PM

[Chris.Busch@boston.gov](mailto:Chris.Busch@boston.gov)