

T H E
PINNACLE
C E N T R A L W H A R F

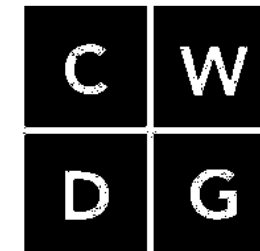
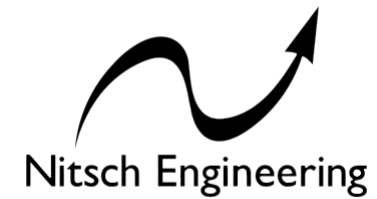


KPF
1

THE
PINNACLE
CENTRAL WHARF



KPF



GLOBAL WATERFRONT



Access & Activation



Climate Resiliency



Exceptional Design







onein3waterfrontworkshop.eventbrite.com

Downtown Waterfront Planning Initiative Workshop

Join us for a fast-paced interactive conversation with Boston's Urban Design team.

Positively shape the future of Boston's Downtown Waterfront.

Open to all of Boston's young creatives, entrepreneurs, and community leaders.

FRIDAY, MAY 17th
2:00-6:00 PM

2:00 PM WALKING TOUR

Marriott Long Wharf - 29% State Street (north entrance off Christopher Columbus Park) Begin with an inside look at the current state of Boston's Waterfront with Boston's Urban Planners.

3:30 PM VISIONING WORKSHOP

Atlantic Wharf, 290 Congress Street (meet in Fort Point Conference Room) Create, collaborate, and envision the future of Boston's Downtown Waterfront.

FOR MORE INFORMATION OR QUESTIONS

PLEASE CONTACT:
Chris Busch, Waterfront Planner
Boston Redevelopment Authority
1 City Hall Place, 9th Floor, Boston, MA 02210
617-918-4451, Chris.busch.bra@cityofboston.gov

Follow us on Twitter @BostonRedevelop

Join the conversation and tag #BusWaterfront #PlanBos

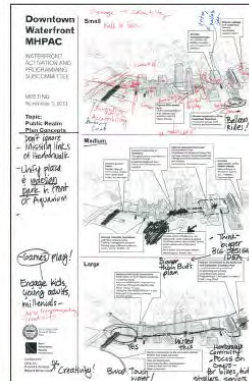
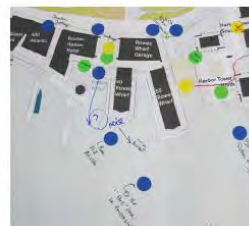
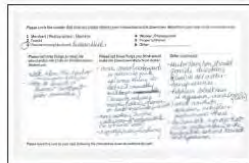
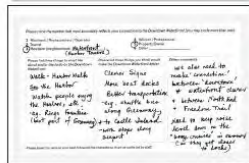
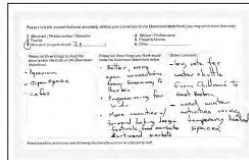
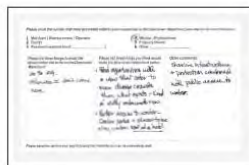
For translation and interpretation services please call no later than May 10th, 2013.



CITY OF BOSTON
Thomas M. Healey
Mayor



Boston
Redevelopment
Authority
Northwest Tower



March 15, 2013



May 17, 2013

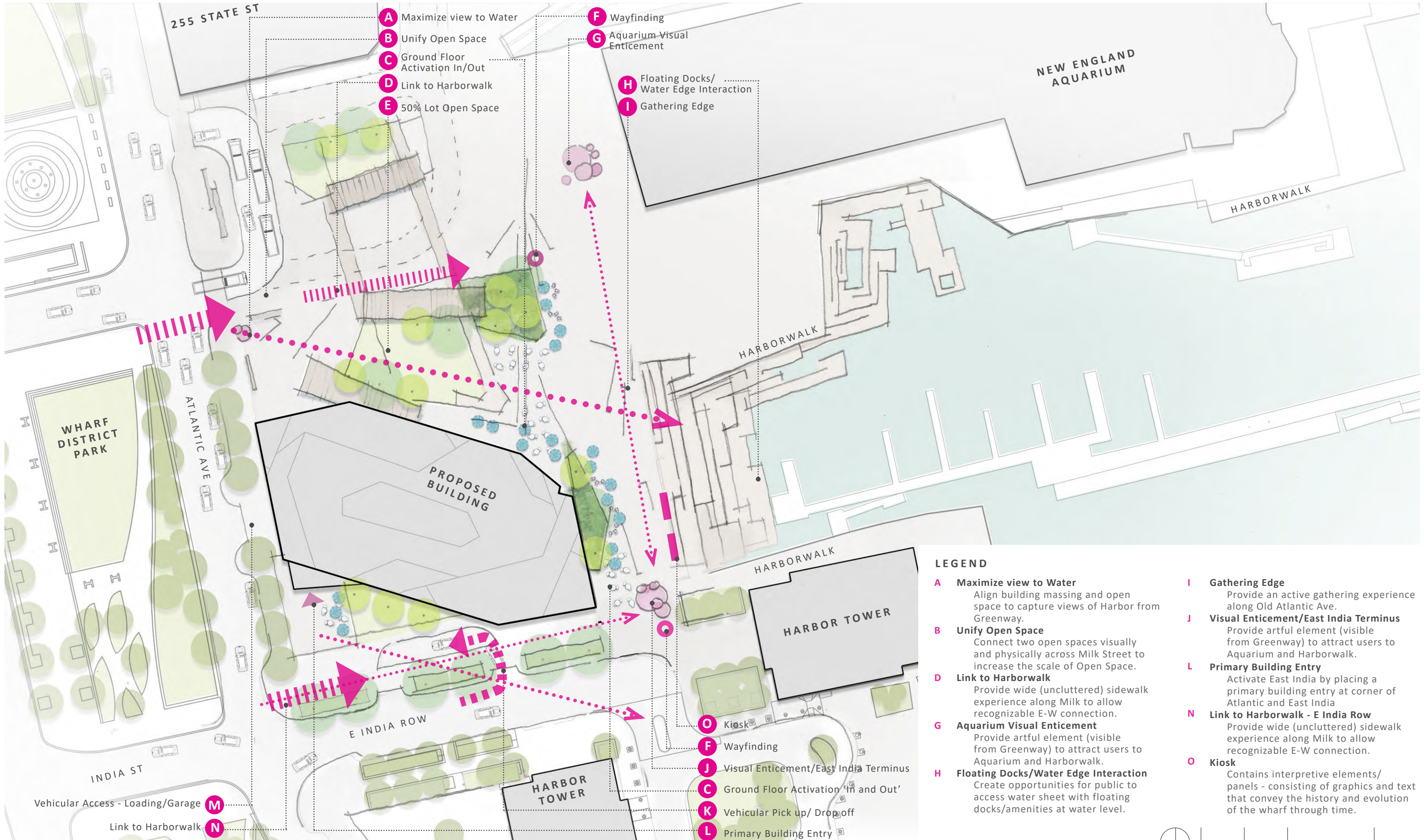


March 15, 2013



MHPAC MEETING
SEPTEMBER 28, 2016





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.

4

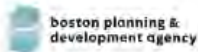


March 2017

Downtown Waterfront District Municipal Harbor Plan & Public Realm Activation Plan



Boston Redevelopment Authority
(D/B/A Boston Planning & Development Agency)
One City Hall Square | Boston, MA 02201



February 16, 2018

Secretary Matthew A. Beaton
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Re: 2017 Downtown Waterfront District Municipal Harbor Plan & Public Realm
Activation Plan

Dear Secretary Beaton:

On behalf of the City of Boston, I am submitting supplemental information regarding the Downtown Waterfront District Municipal Harbor Plan & Public Realm Activation Plan ("Downtown Waterfront MHP"), which was filed with your office on March 15, 2017 for your review and approval pursuant to 301 CMR 23.00.

The Downtown Waterfront MHP, which was developed over a four-year public process involving 40 public meetings, serves as the City's vision to guide future development in the district to ensure new projects promote public access, improve and activate the public realm and sustain important water dependent uses such as the New England Aquarium. The MHP includes substitutions to the MGL Chapter 91 dimensional standards for the Harbor Garage and Hook Wharf sites, and related offsets to enhance ground level exterior spaces and create new waterfront public open space. District-wide substitutions and amplifications are included to promote the activation of the public realm and climate resiliency, as well as protections to support the Aquarium.

Since last April we have been working with your staff during the consultation session to address comments received during the public review process and the interests of affected property owners and stakeholders. The feedback we have received from your staff has been greatly helpful in strengthening the goals of the MHP and the public benefits tied to the redevelopment of the Harbor Garage and Hook Wharf properties.

Based upon these discussions we have made modifications to the Downtown Waterfront MHP. We now offer supplemental information accompanying this letter, which includes information on changes to the MHP as originally submitted. Specifically, the proposed changes include:

Boston Redevelopment Authority and Economic Development Industrial Corporation (BDA Boston Planning & Development Agency)
One City Hall Square • Boston, MA 02201 • BostonPlans.org • T 617.722.4360 • F 617.248.1937
Mayor J. Walsh, Mayor • Brian F. Galvin, Director • Timothy J. Burke, Chairman

DECISION ON THE CITY OF BOSTON'S
REQUEST FOR APPROVAL
OF THE
DOWNTOWN WATERFRONT DISTRICT MUNICIPAL HARBOR PLAN
PURSUANT TO 301 CMR 23.00

April 30, 2018

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Matthew A. Beaton, Secretary

MHP Design Provisions

- 50% open to sky (28,673 sf)
 - 30% to the North
 - 10% to the South
 - 10% to the East
- Single Tower
- 600' to top of building, 585' to highest occupied floor
- 900,000 sf max area
- 10,500,000 cu ft max volume
- No one-hour net new shadow (October 23rd) seaward of the Long Wharf Marriott
- Active uses facing Central Wharf

Program

2014

Previous

Open Space	19,810 sf
Office	700,000 sf
Hotel	250-300 keys
Residential Units	120 units
Retail	3 Levels
Parking	1400 spaces

Total Square Feet 1.3M

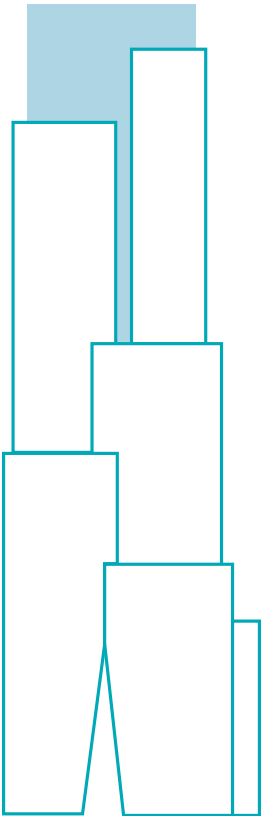
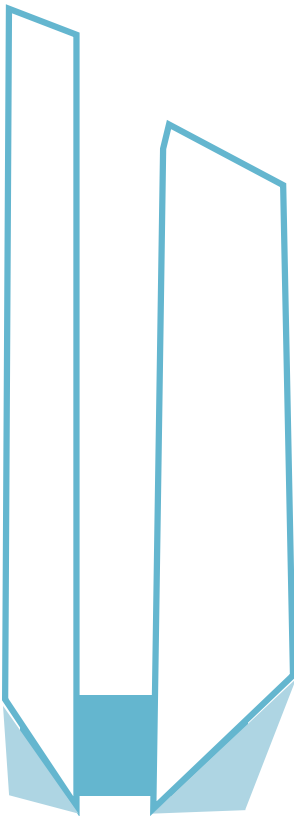
VS

2020

Current

Open Space	28,673 sf ↑
Office	535,000 sf ↓
Residential Units	200 units ↑
Retail	2 Levels ↓
Parking	1100 spaces ↓

Total Square Feet 865,000 sf ↓



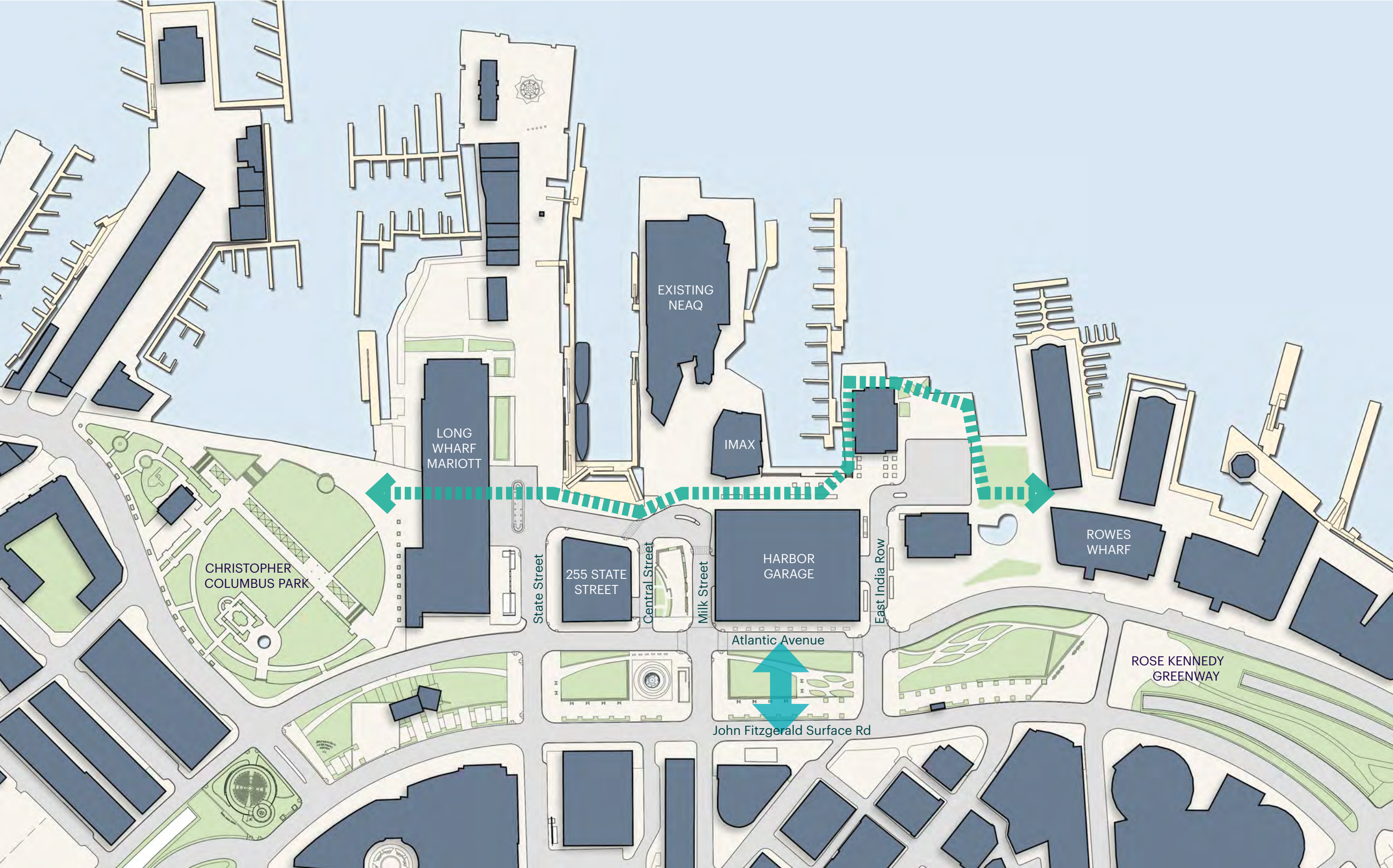
GROUND LEVEL PLANNING



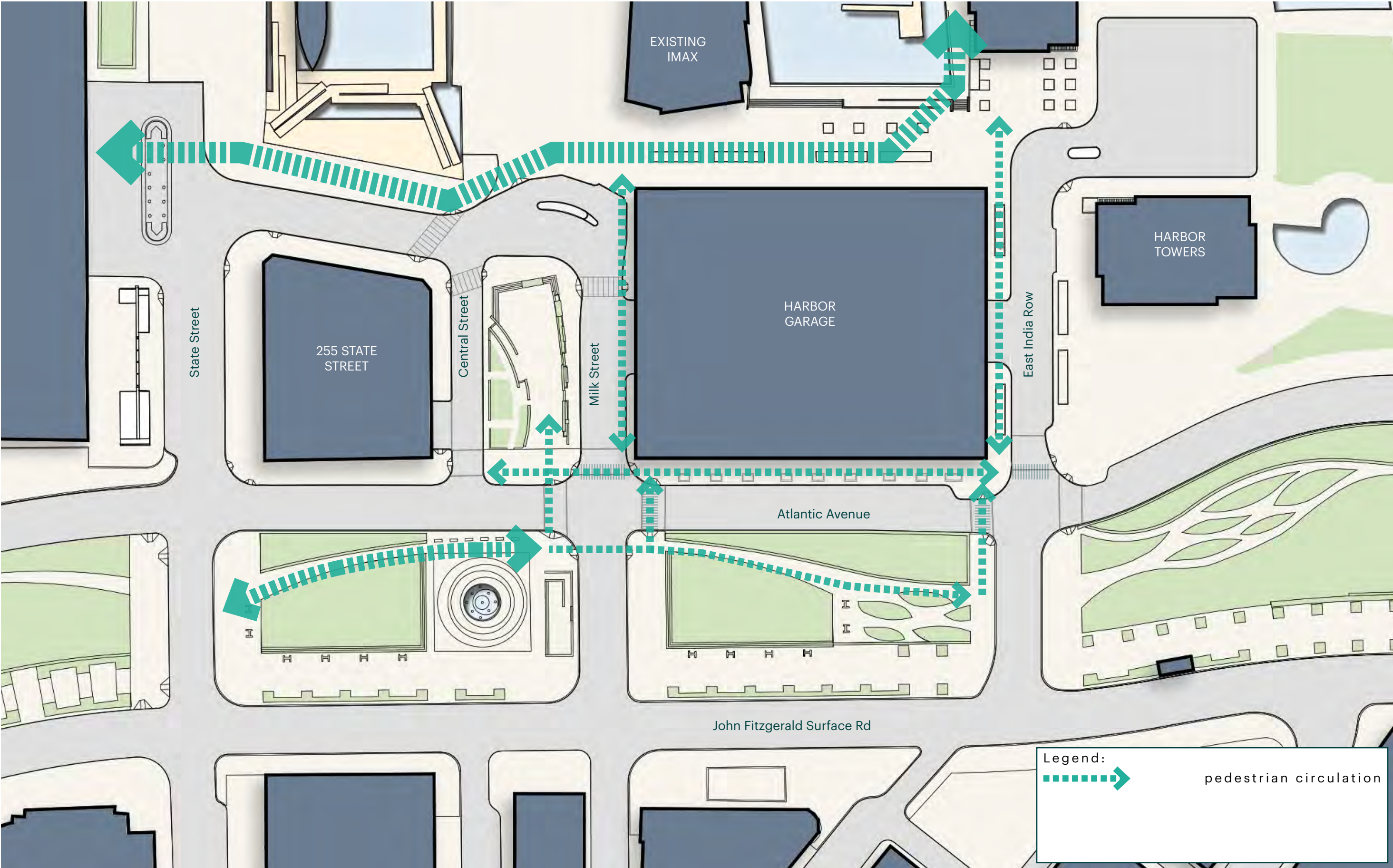




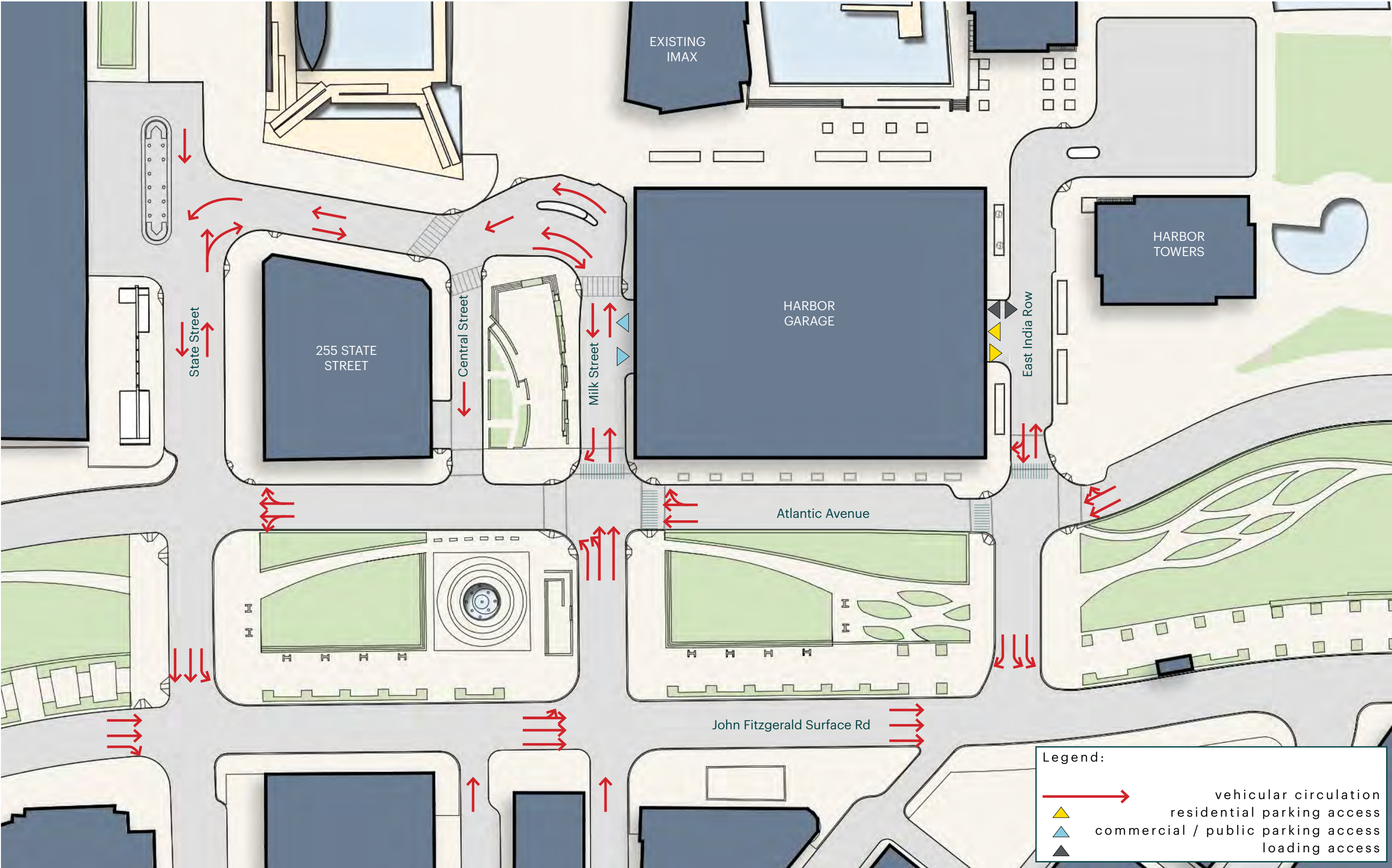
Existing Site Plan

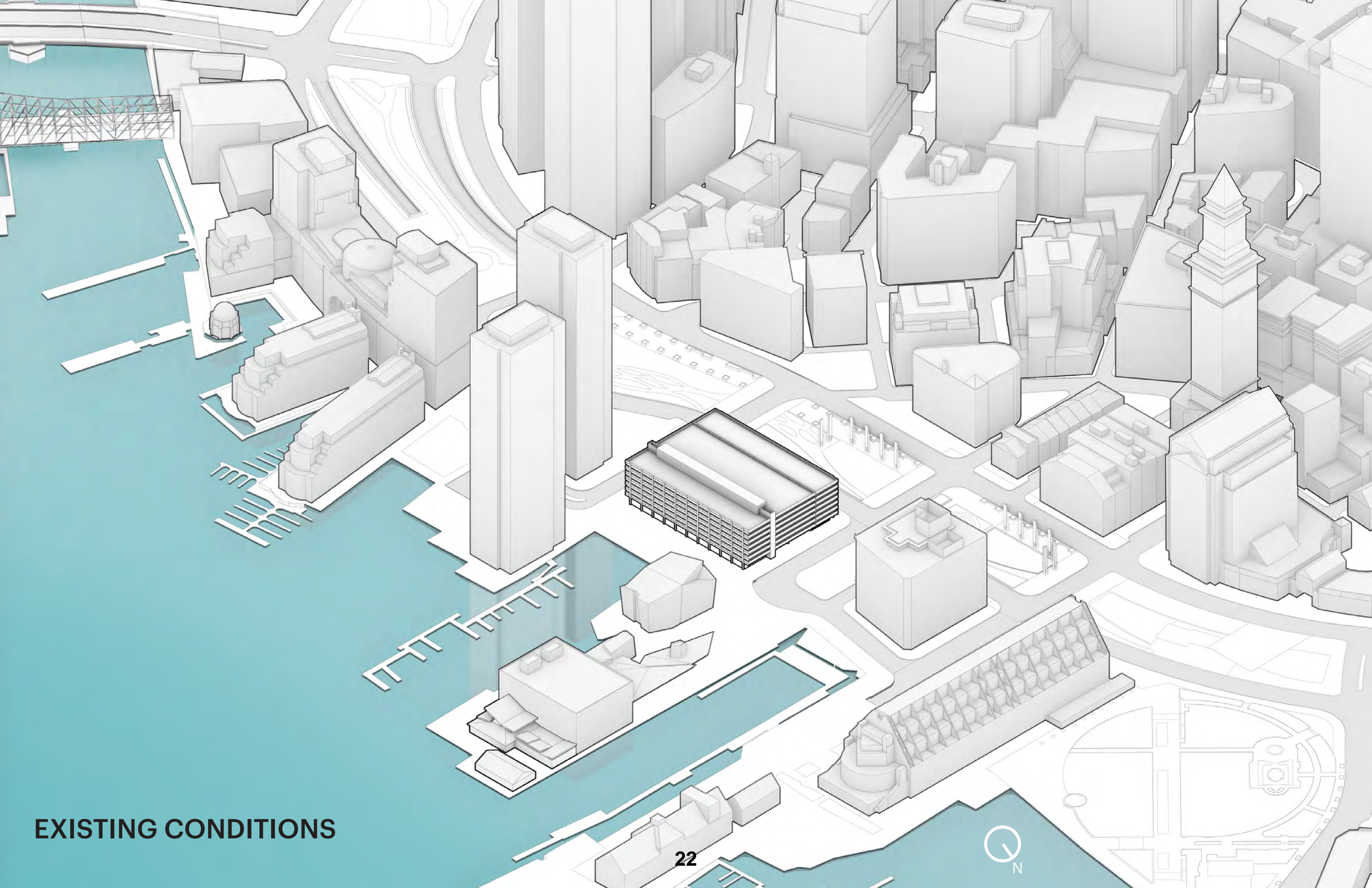


Existing Pedestrian Circulation



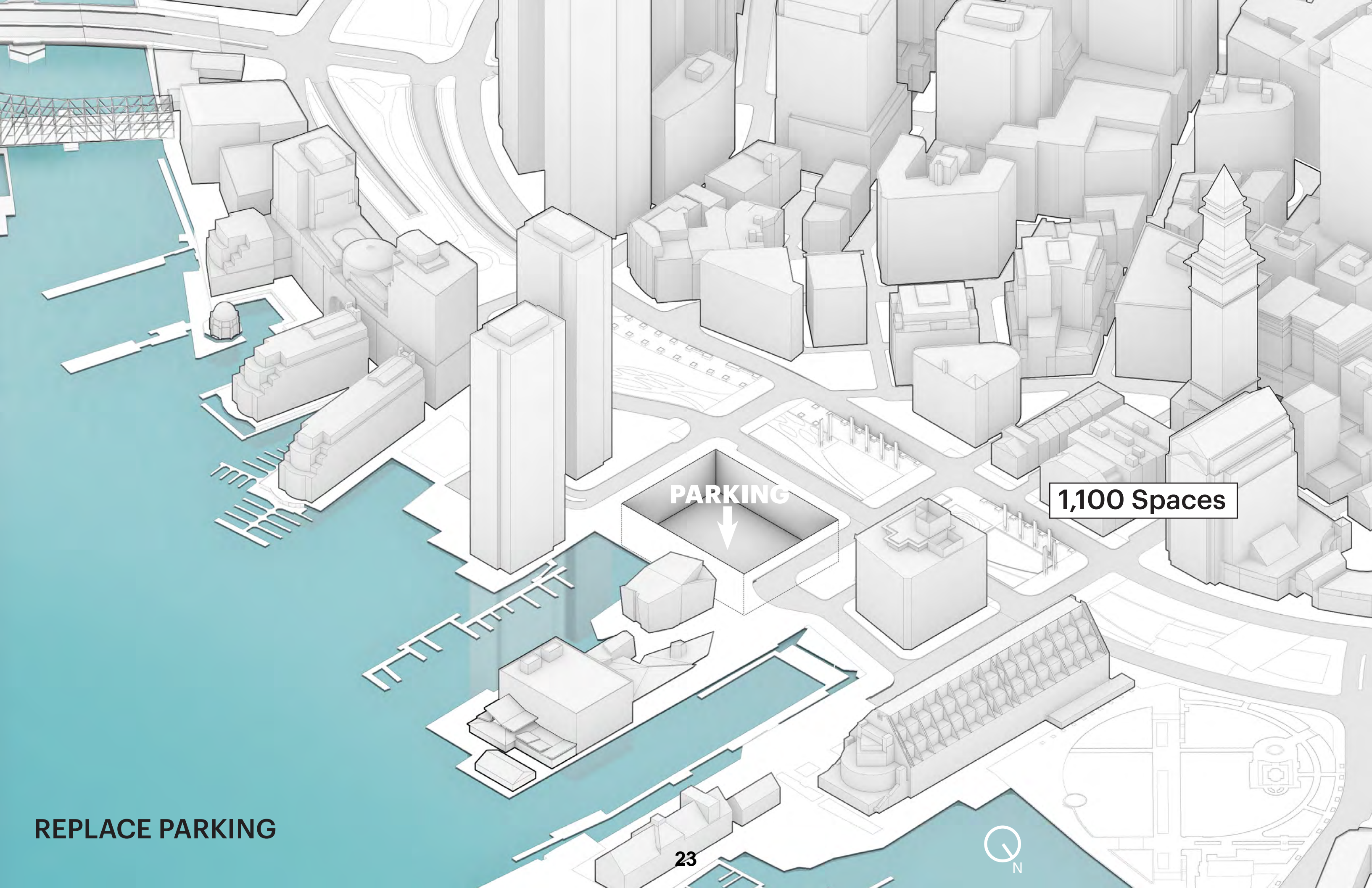
Existing Vehicular Circulation





EXISTING CONDITIONS





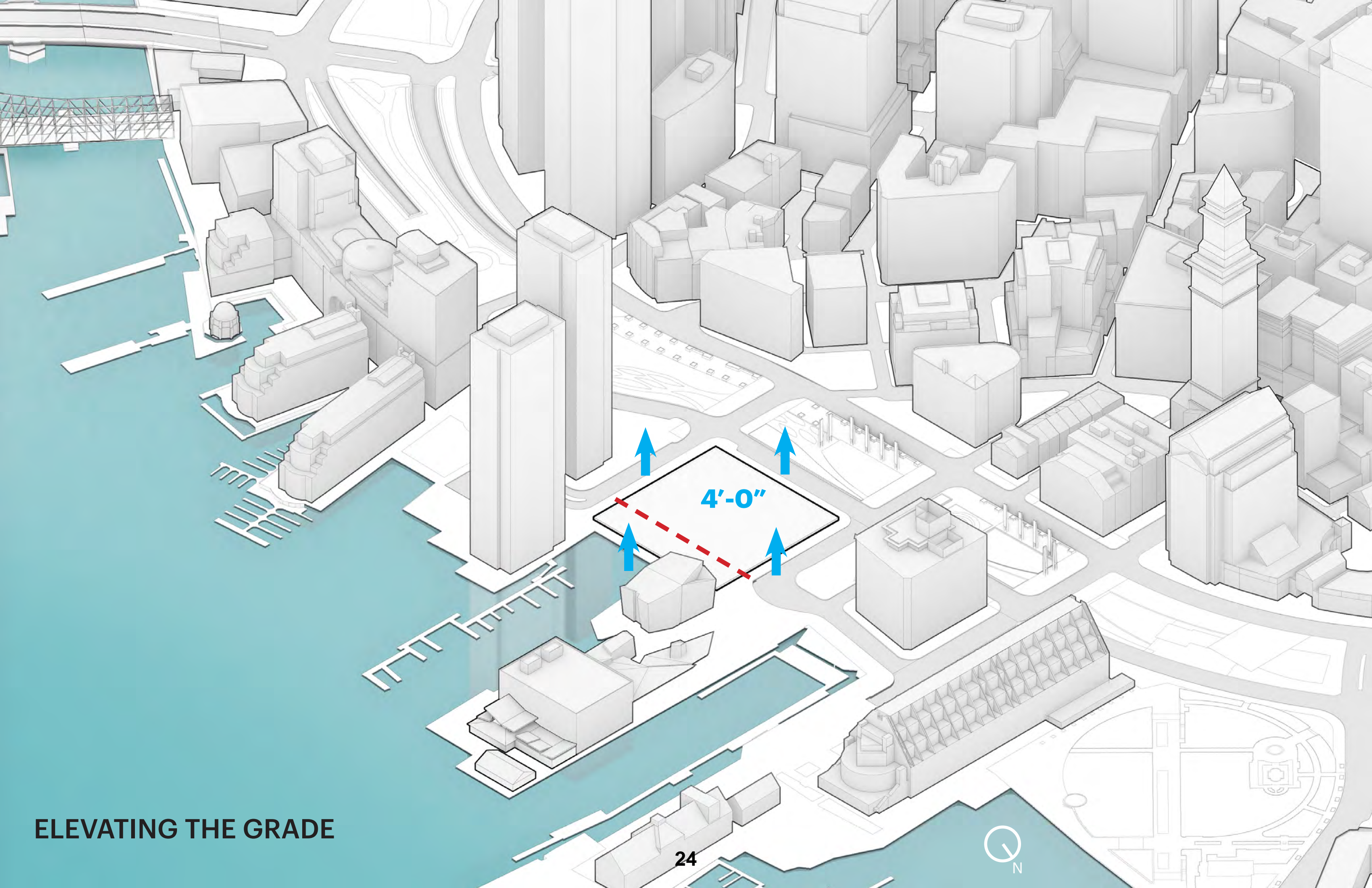
PARKING



1,100 Spaces

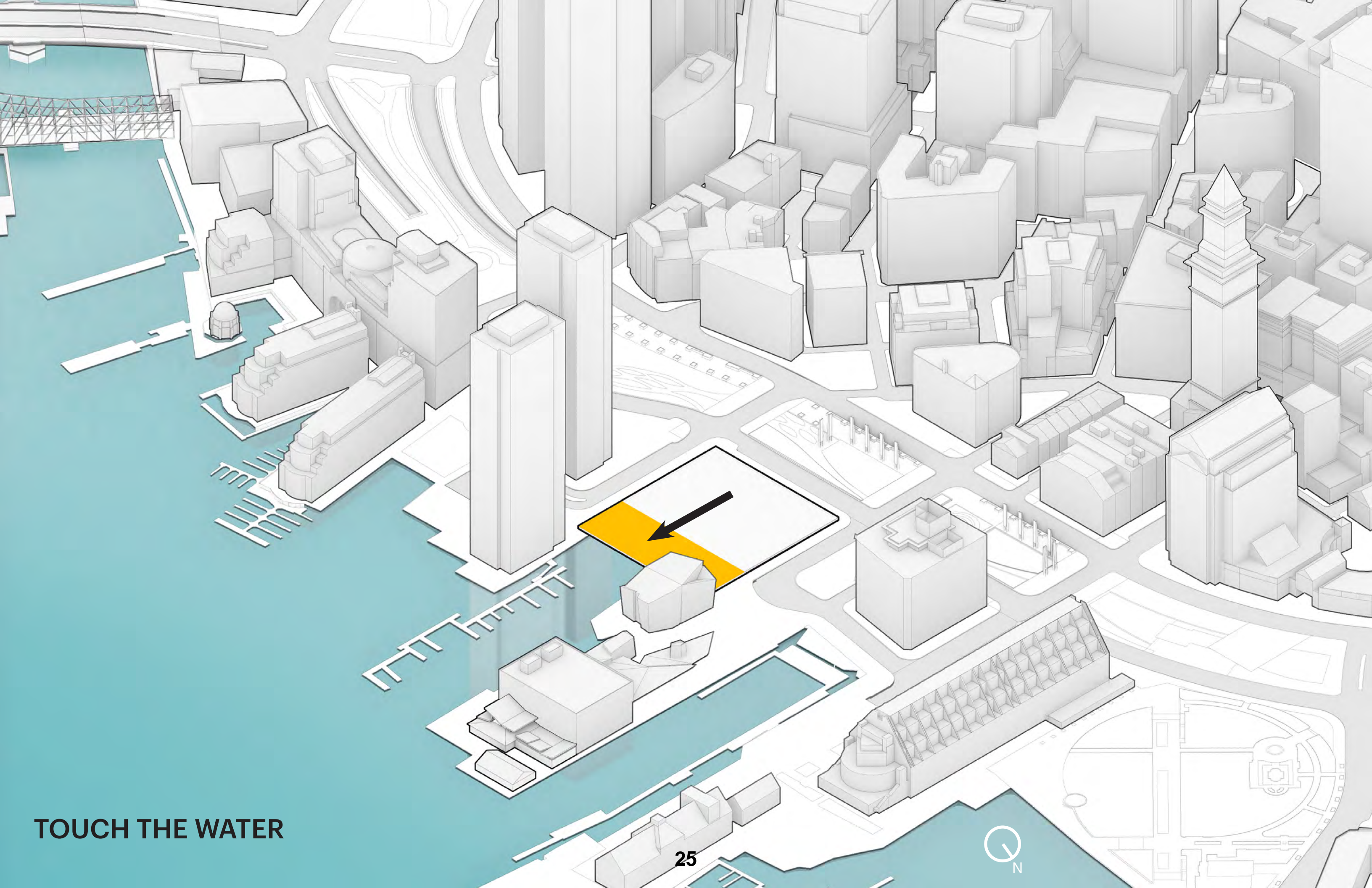
REPLACE PARKING





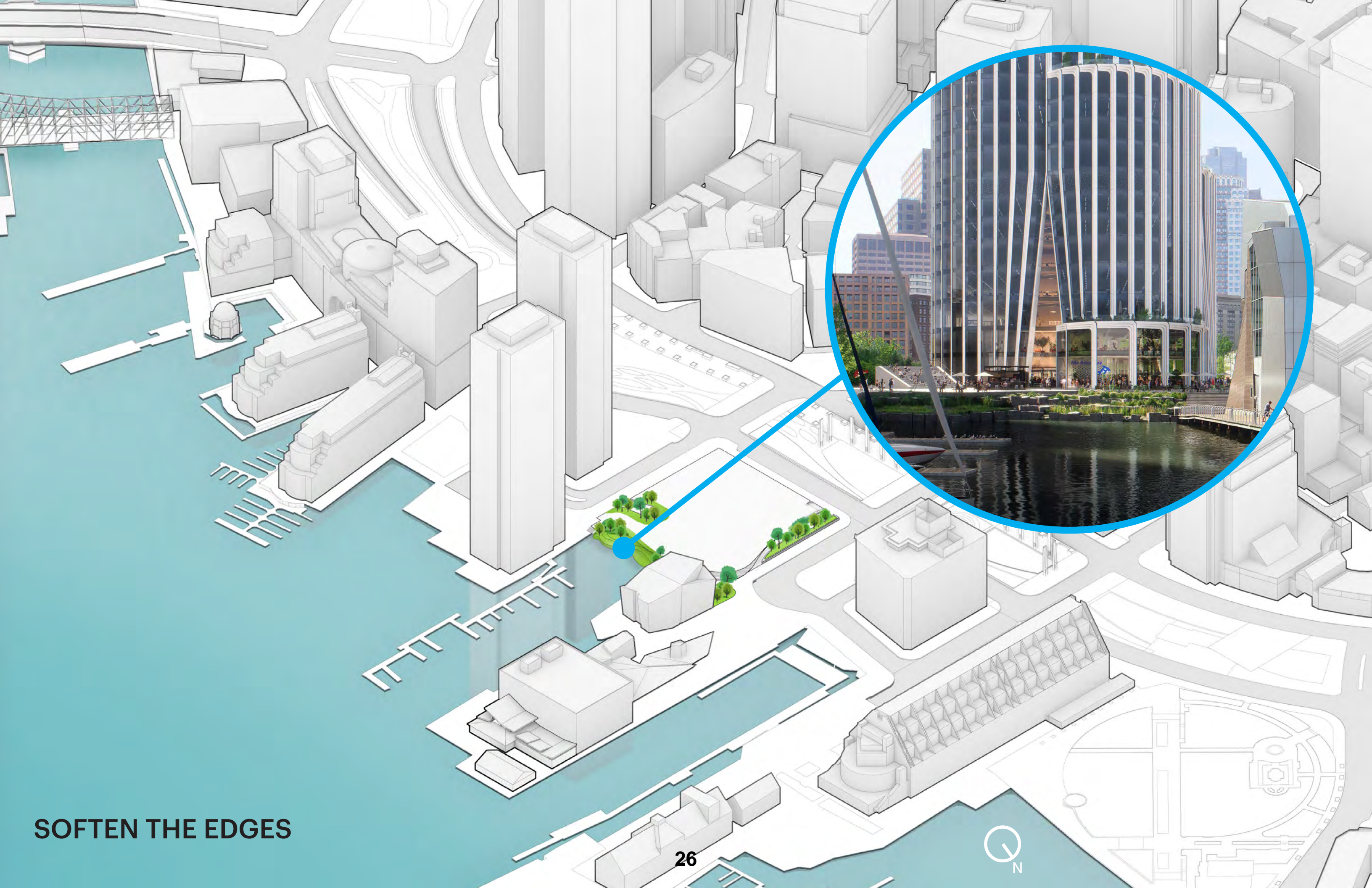
ELEVATING THE GRADE





TOUCH THE WATER



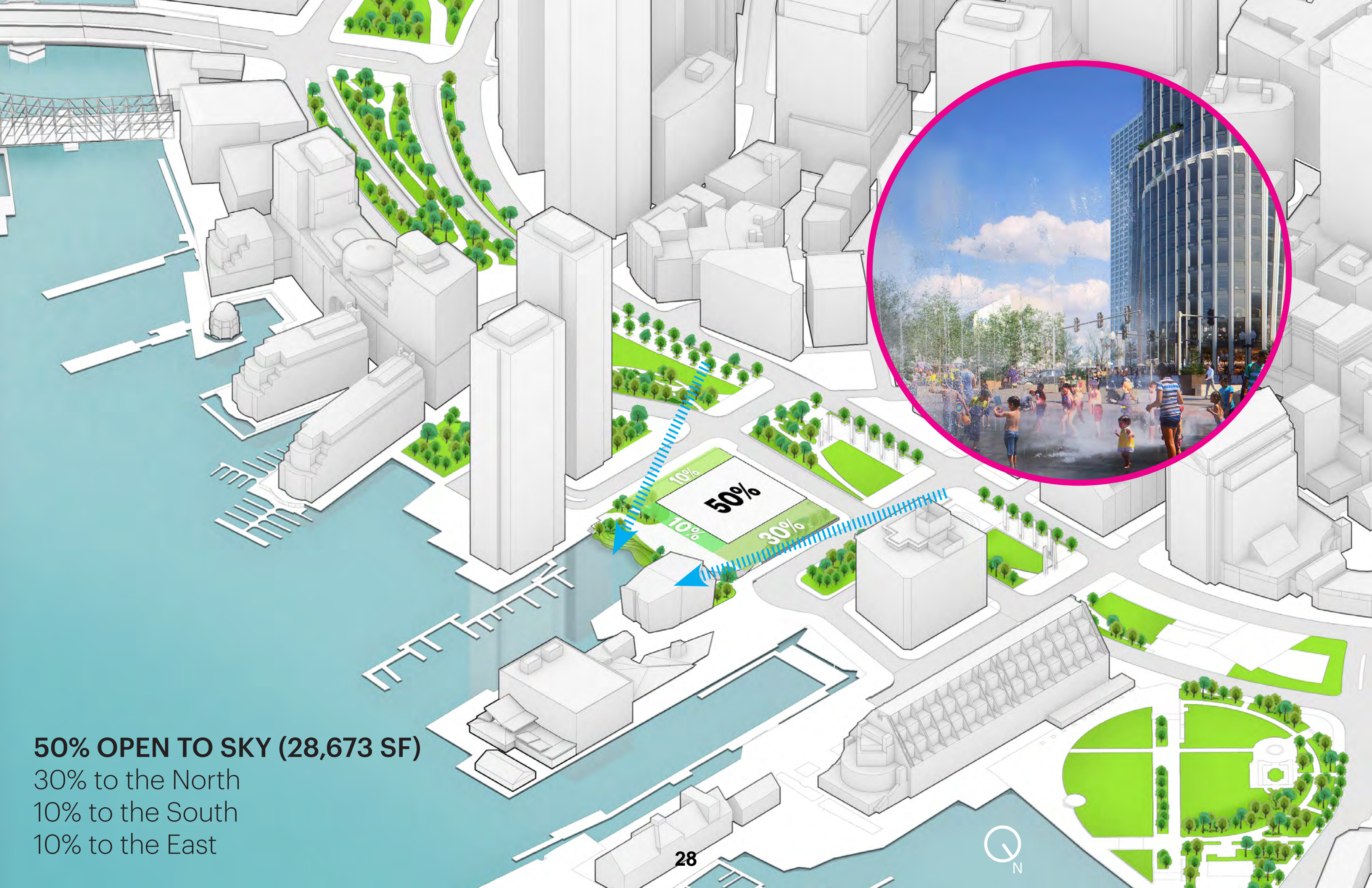


SOFTEN THE EDGES





STRENGTHEN HARBOR WALK



50% OPEN TO SKY (28,673 SF)

- 30% to the North
- 10% to the South
- 10% to the East



ROSE KENNEDY
GREENWAY

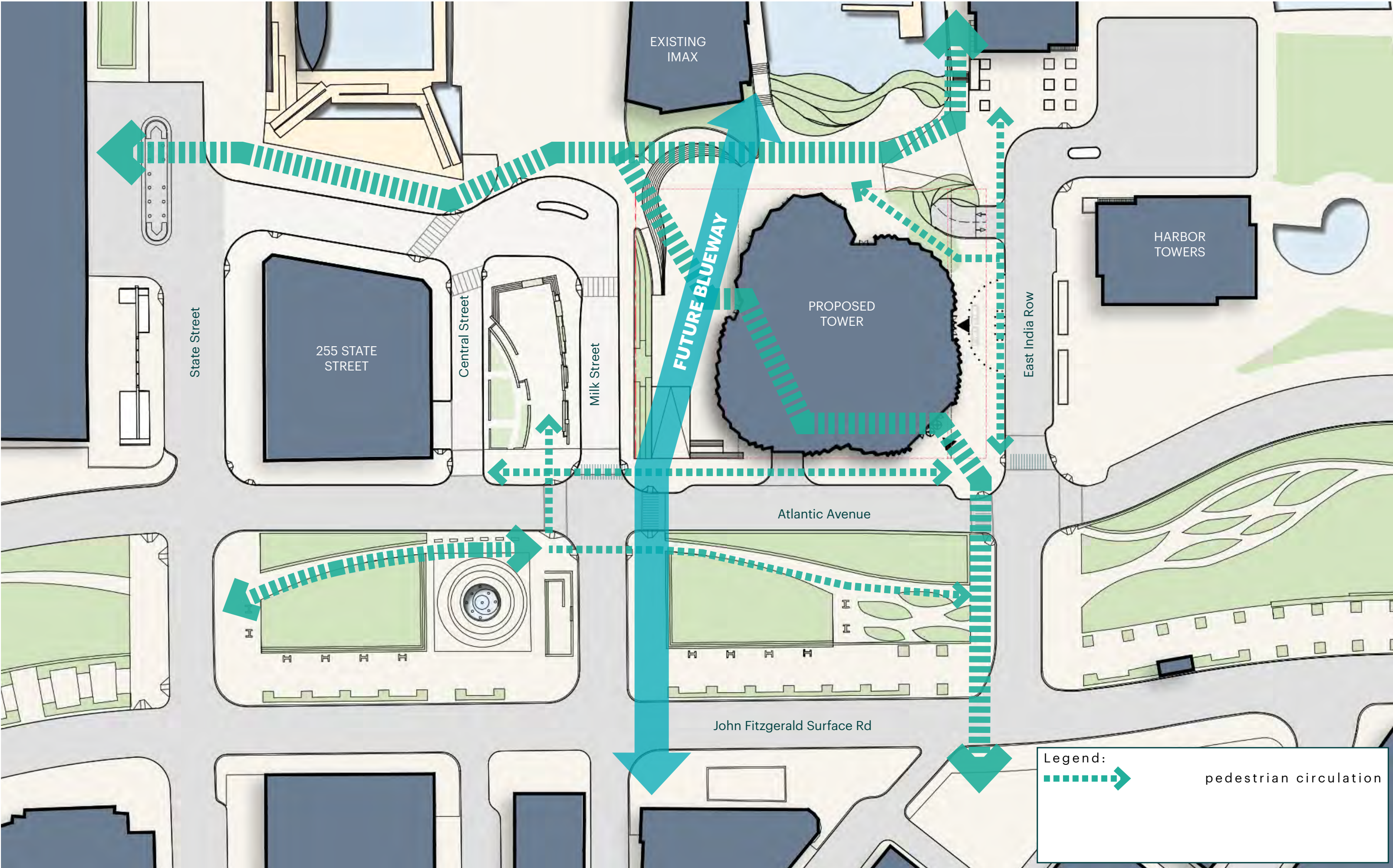
FUTURE BLUEWAY

CHRISTOPHER
COLUMBUS PARK

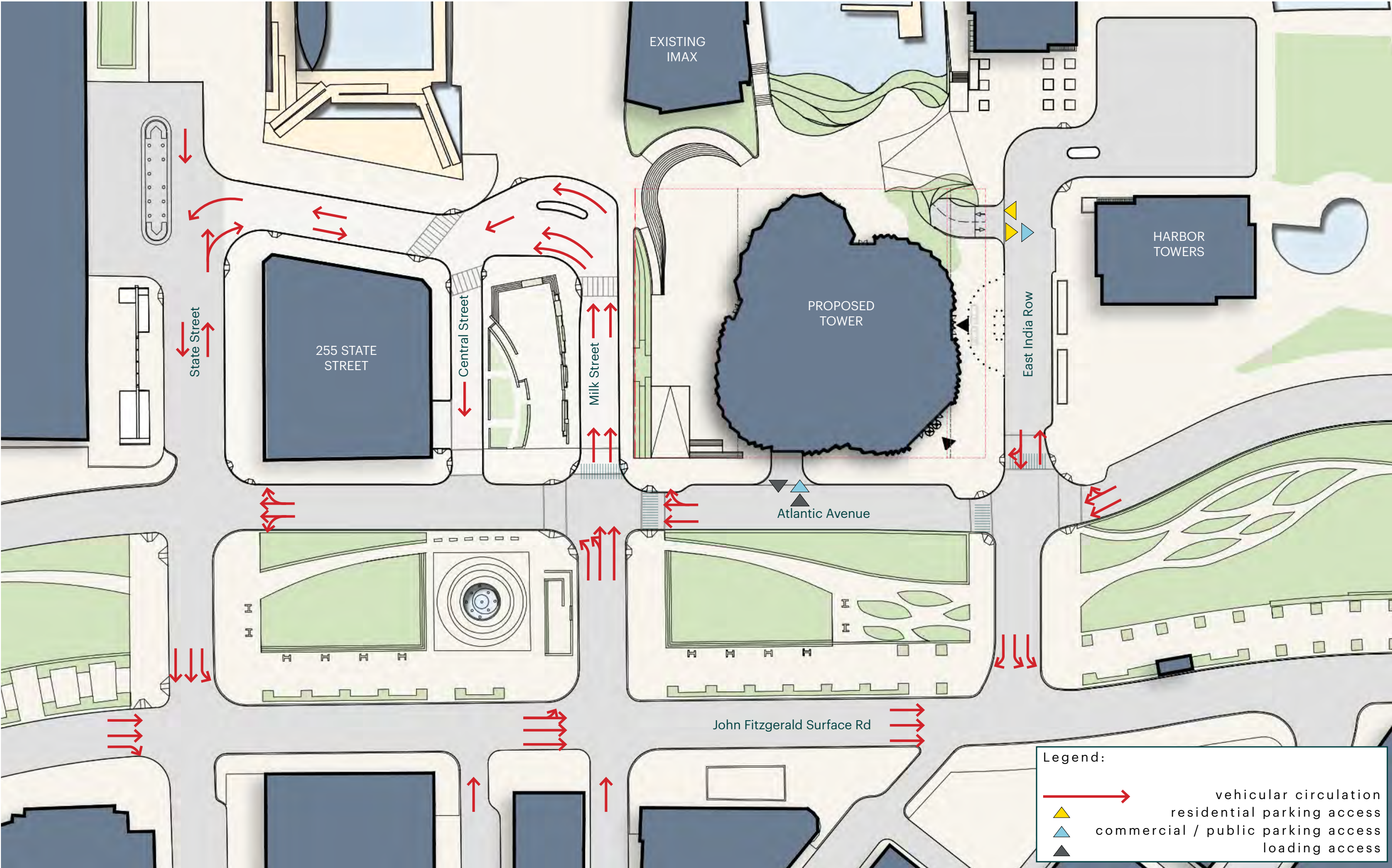
“BLUEWAY”



Proposed Pedestrian Circulation



Proposed Vehicular Circulation

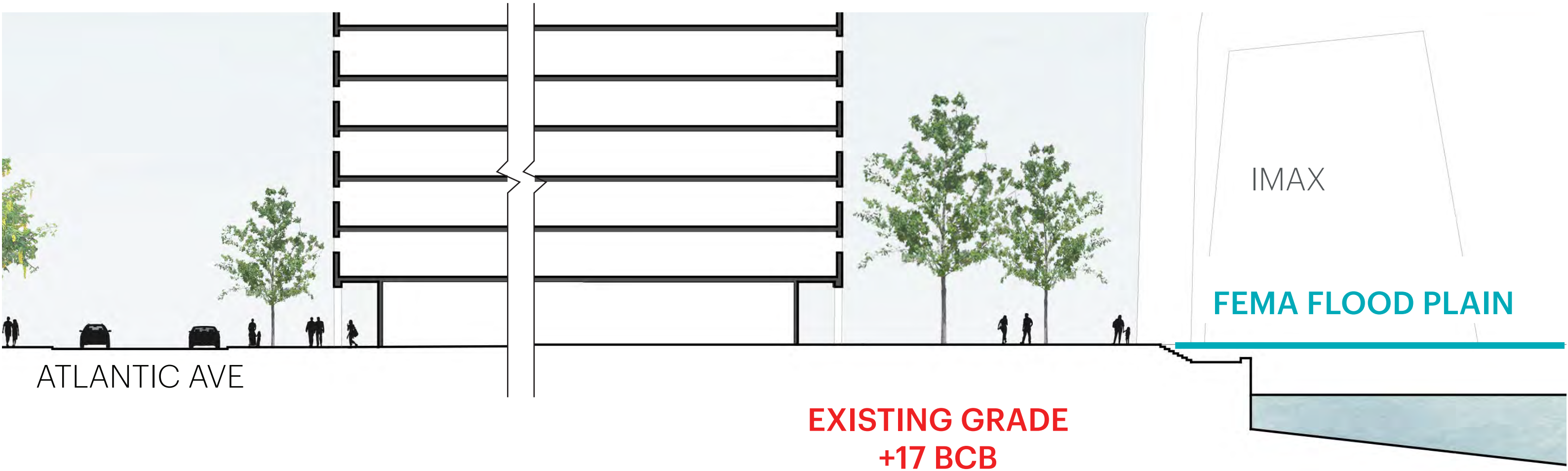




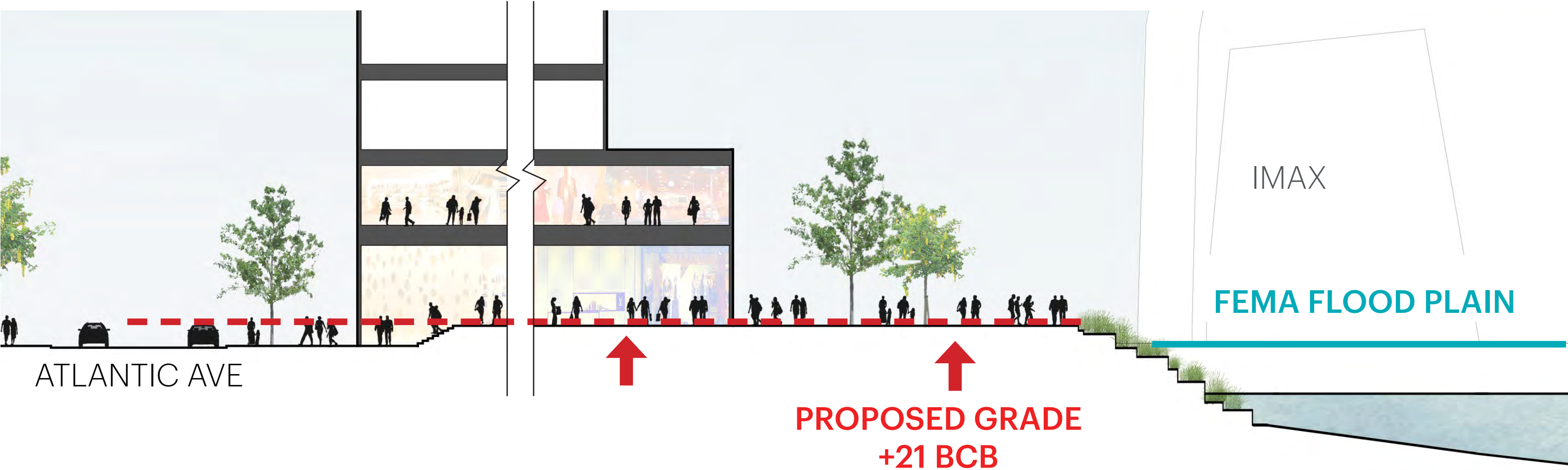
Area Flooding



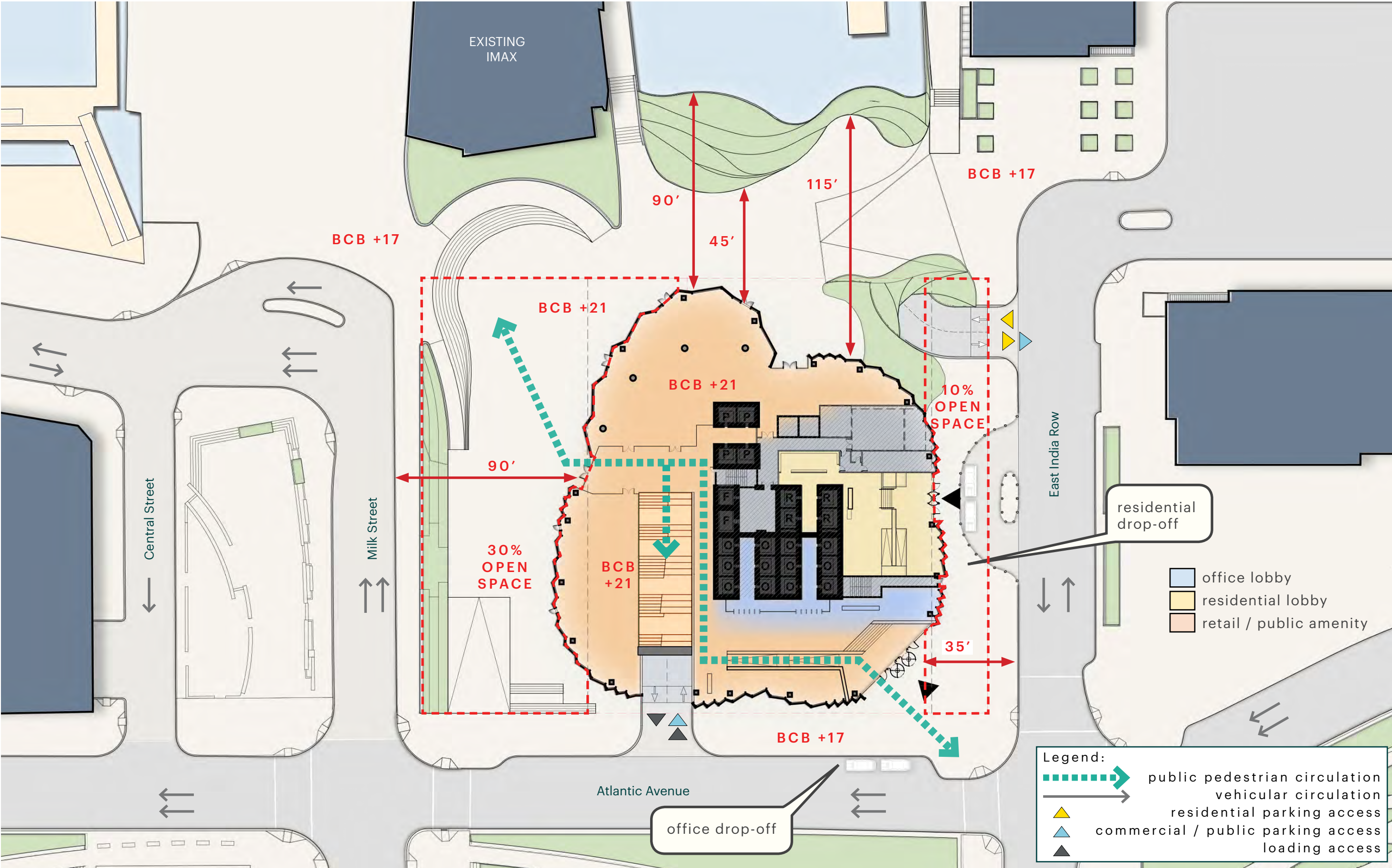
Existing Grade



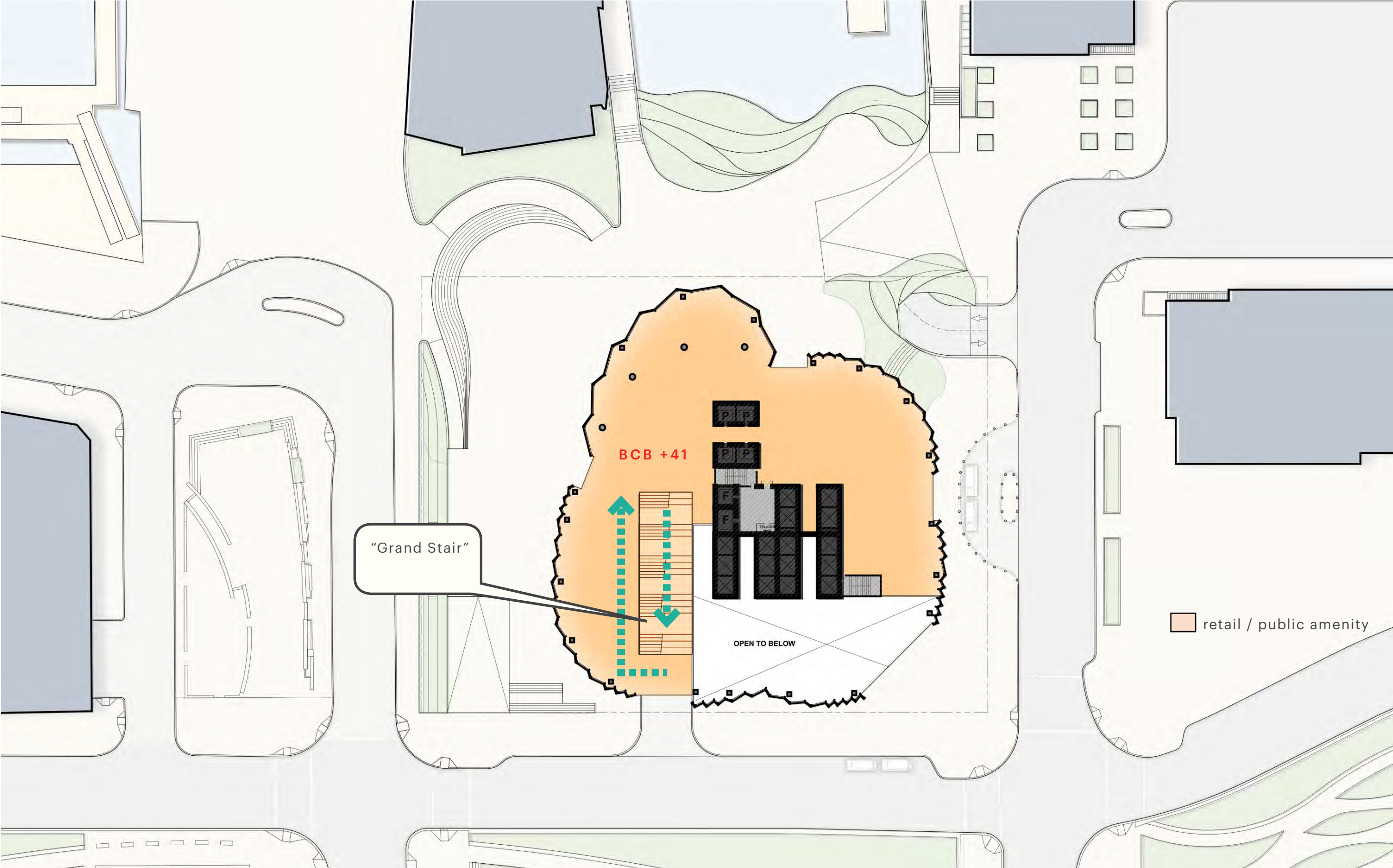
Raise Entire Site +4' for Sea Level Rise



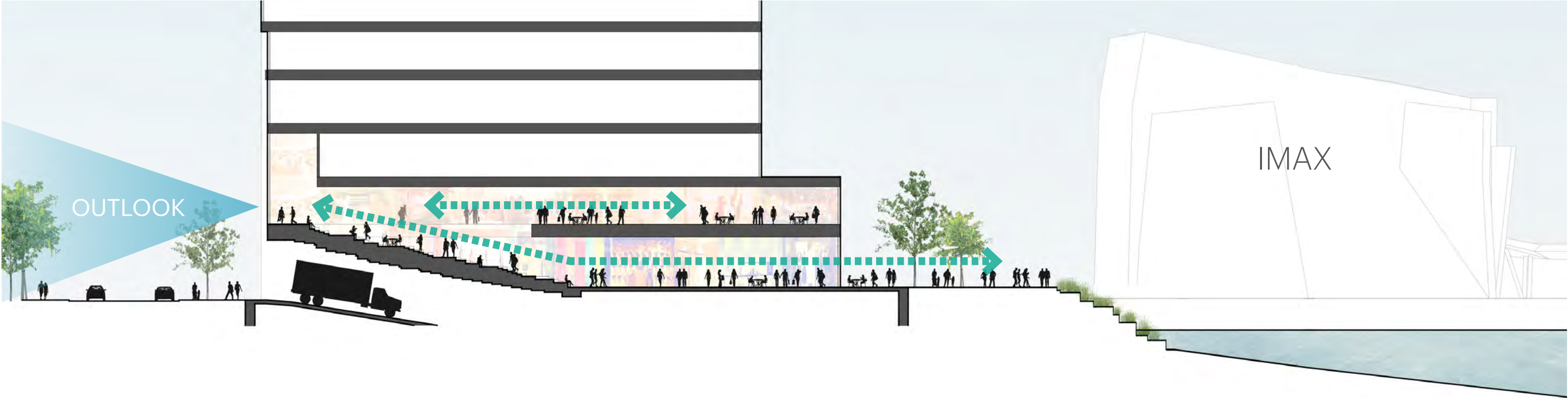
Ground Level Plan



Level 2 Plan



Public Seating & Grand Stair Above Garage Entry



Public Realm Vision



BLUE WAY



GREENWAY



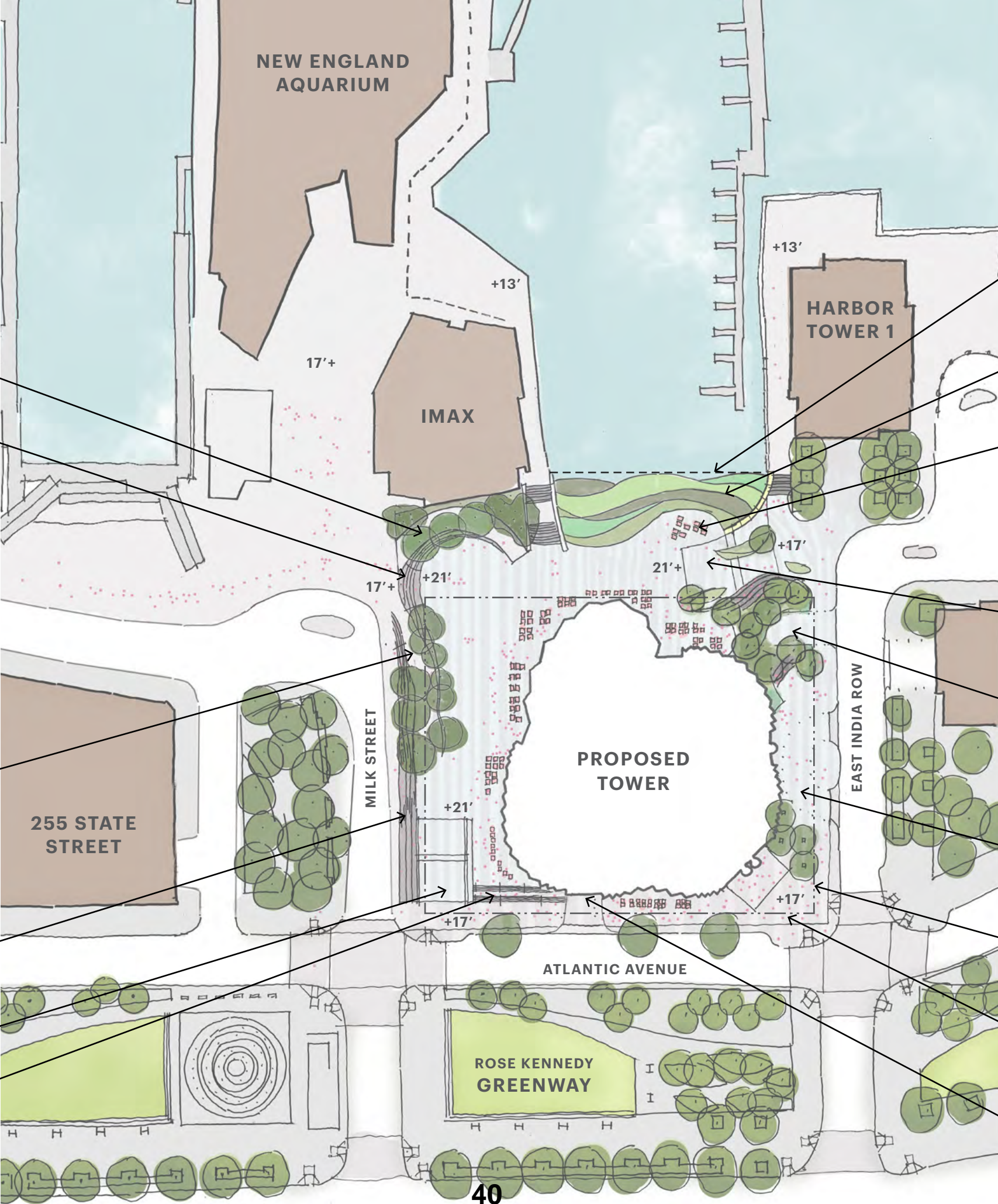
ORGANIC



ORTHOGONAL

Site Plan

EXISTING NEAQ



8% ADA ramp at
curvilinear steps

elevate grade from
17' to 21' for resiliency

8% ADA ramp at
curvilinear steps

public art
opportunities

8% ADA ramp

monumental stairs

existing seawall

organic
New England
rocky tidal ledges

overlook
cantilevered deck

8% ADA ramp

EAST INDIA
garage entrance

flush
residential dropoff

property line

orthogonal
city edge

ATLANTIC garage/
loading entrance



Site Plan

NEAQ MASTER PLAN (FUTURE)

existing IMAX and
CENTRAL WHARF edge
(red dashed line)

elevate grade from
17' to 21' for resiliency

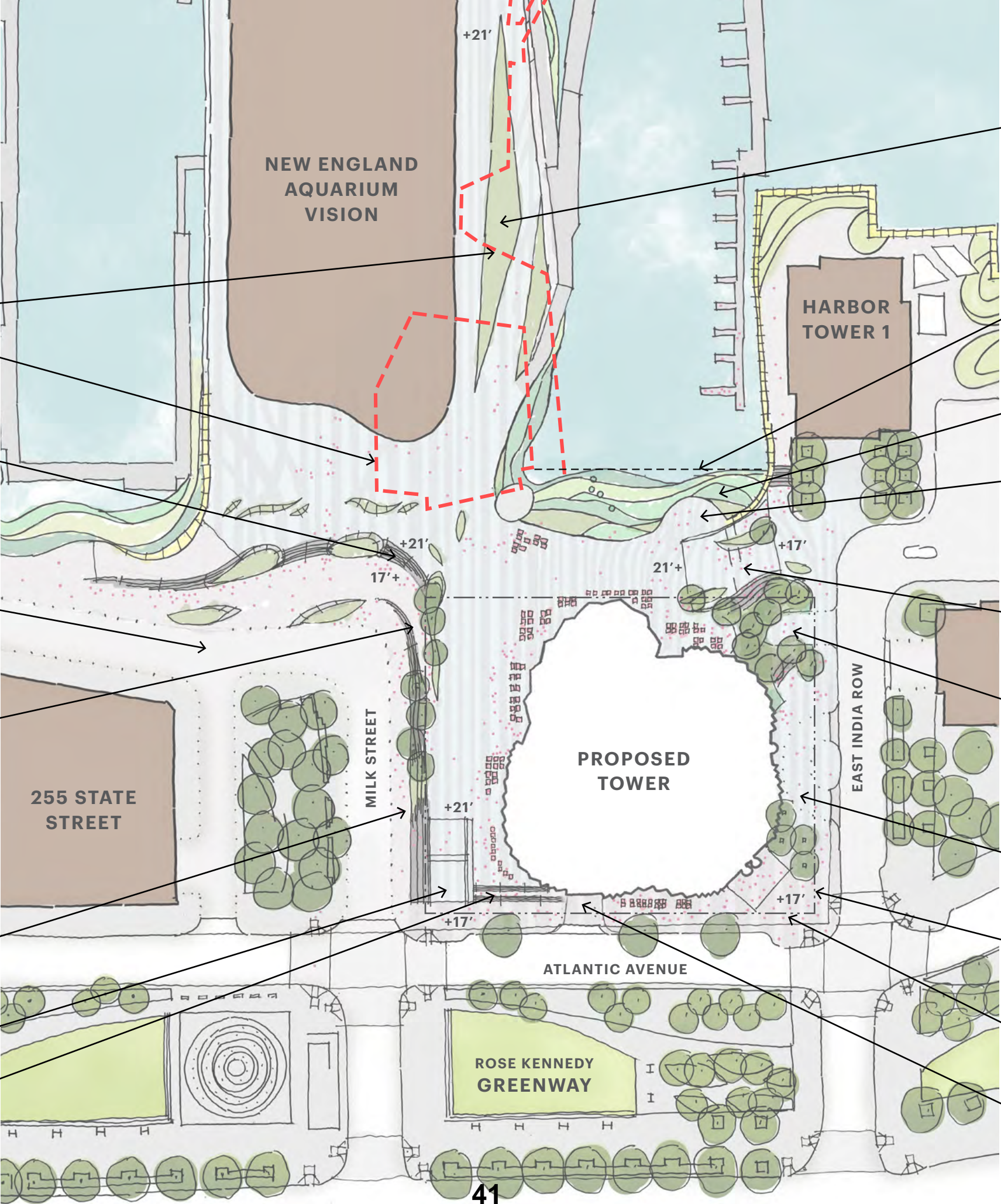
OLD ATLANTIC
and MILK as
flush streetscapes

8% ADA ramp at
curvilinear steps

public art
opportunities

8% ADA ramp

monumental stairs



extend BLUEWAY
to GREENWAY

existing seawall

organic
New England
rocky tidal ledges

overlook
cantilevered deck

8% ADA ramp

EAST INDIA
garage entrance

flush
residential dropoff

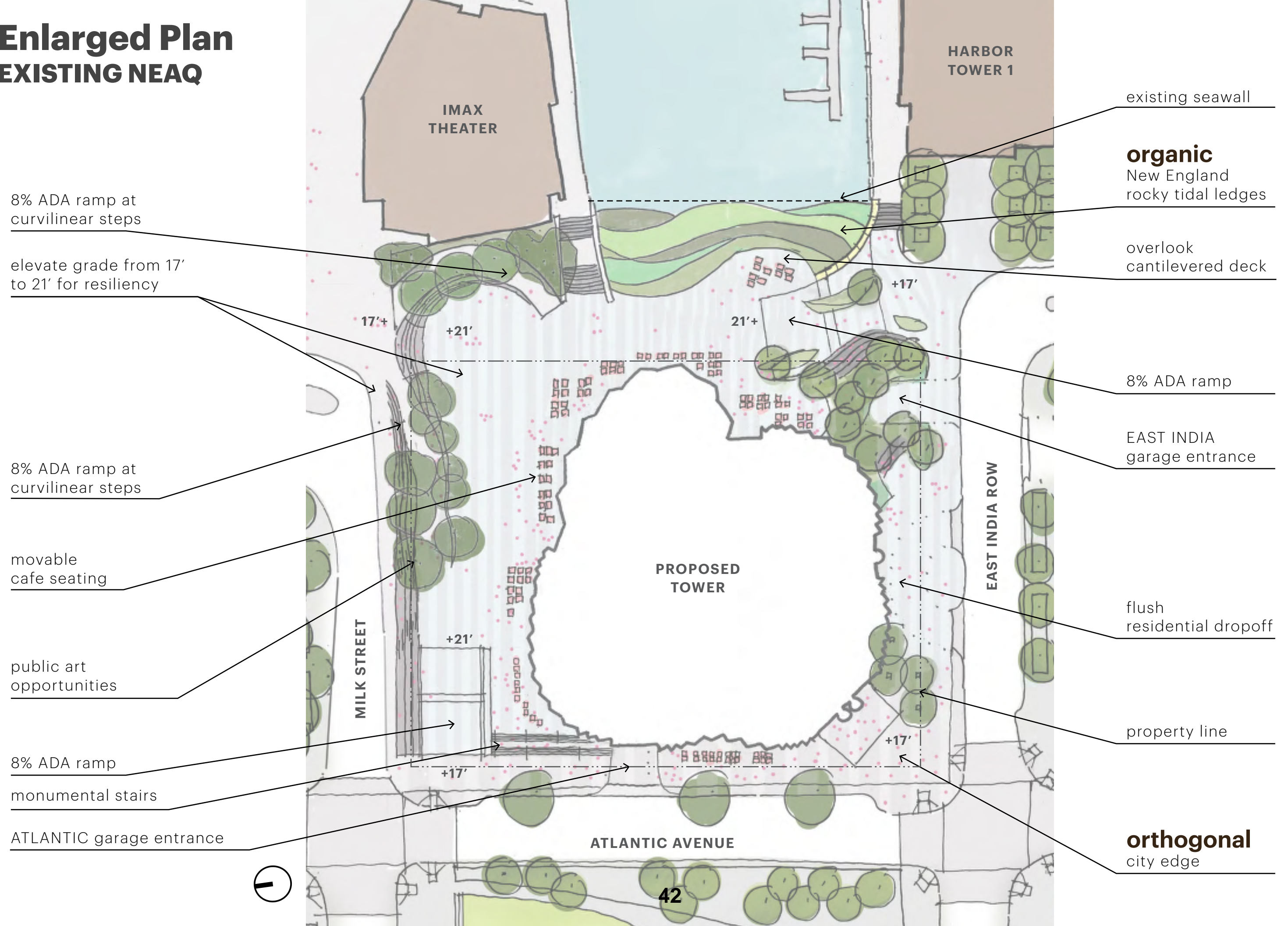
property line

orthogonal
city edge

ATLANTIC garage/
loading entrance

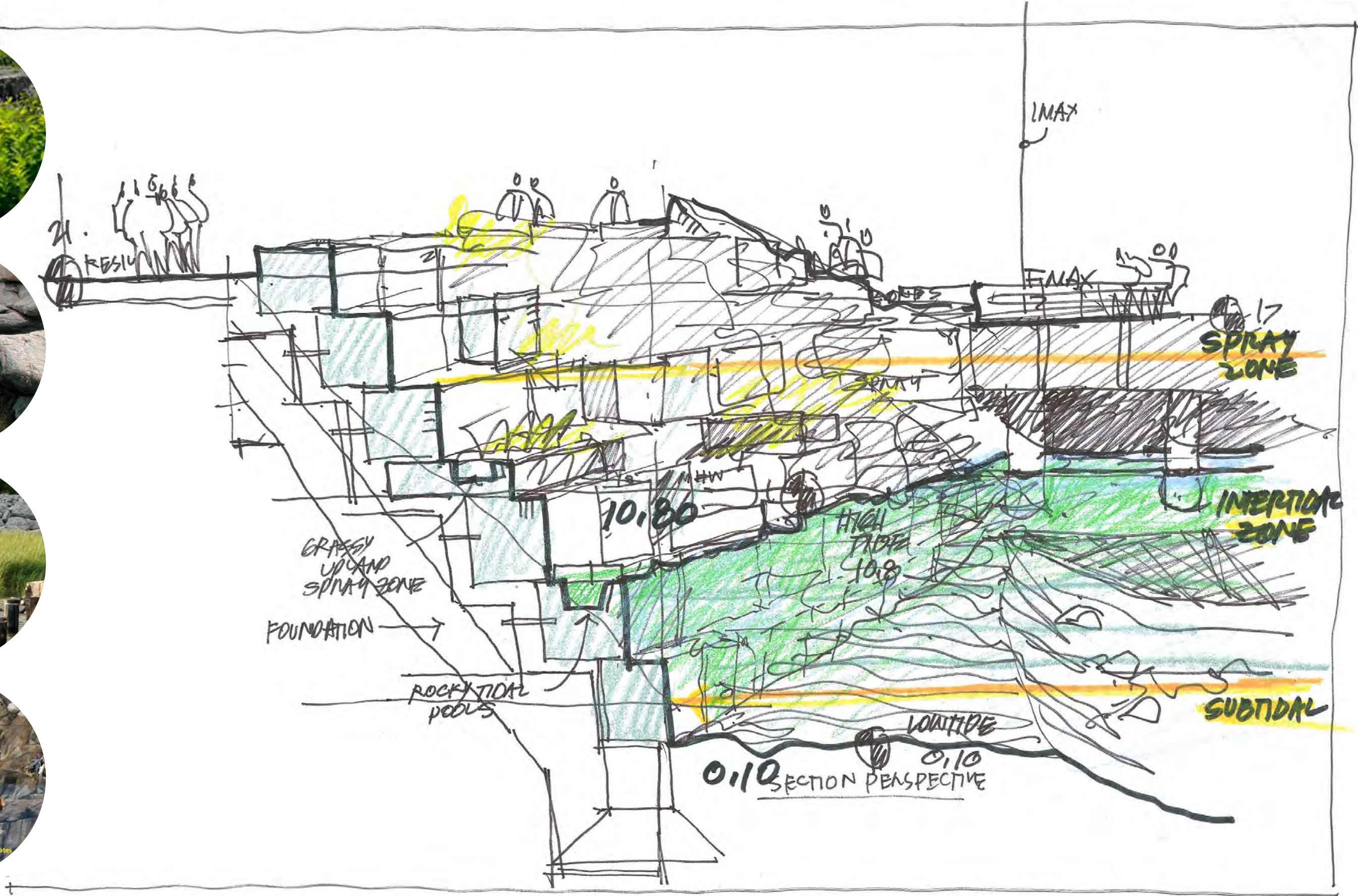
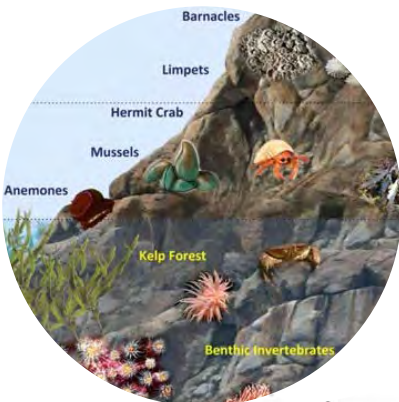
Enlarged Plan

EXISTING NEAQ



Harbor Edge

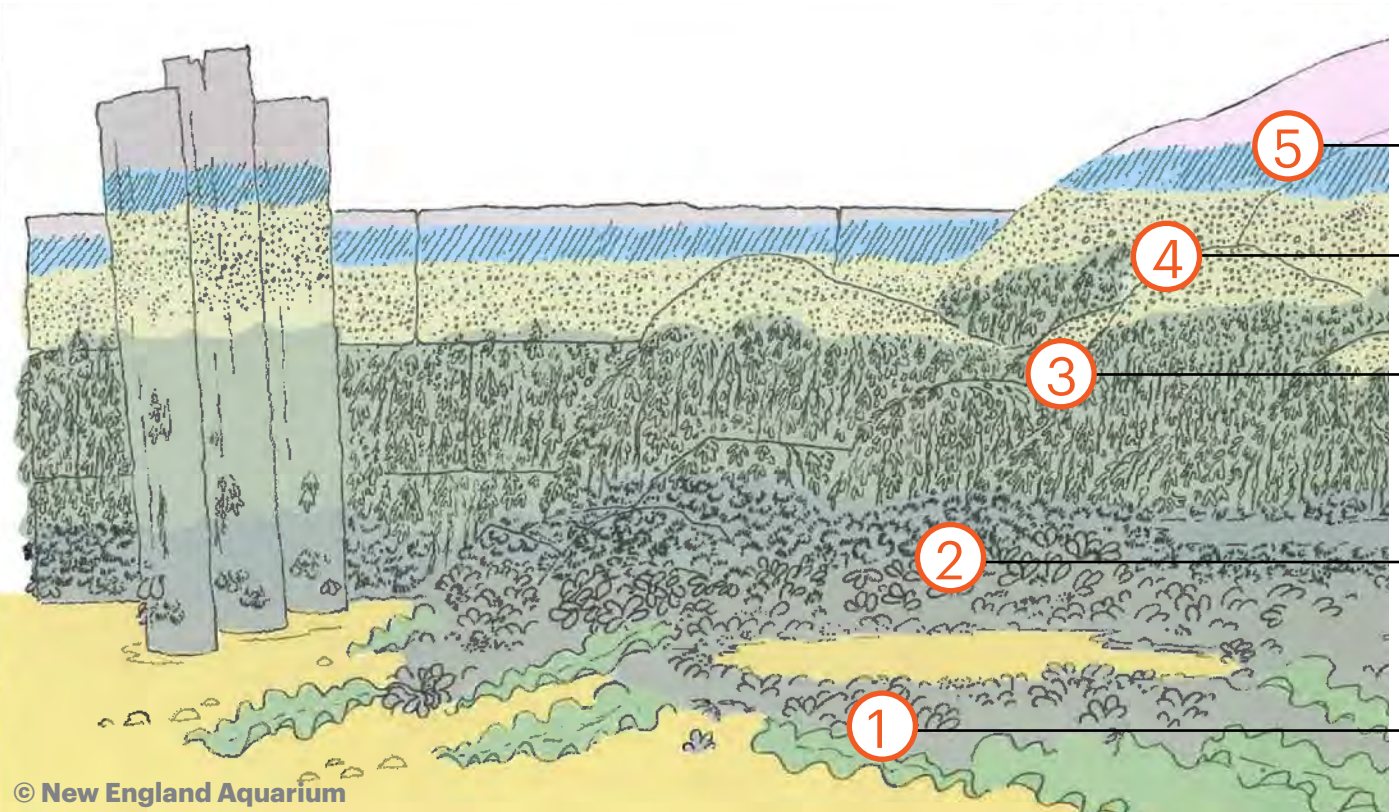
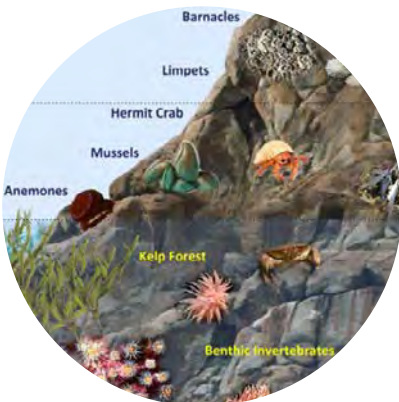
COASTAL UPLAND
SPRAY ZONE
INTERTIDAL ZONE
SUBTIDAL ZONE



Harbor Edge

EXISTING NEAQ

COASTAL UPLAND
SPRAY ZONE
INTERTIDAL ZONE
SUBTIDAL ZONE



© New England Aquarium

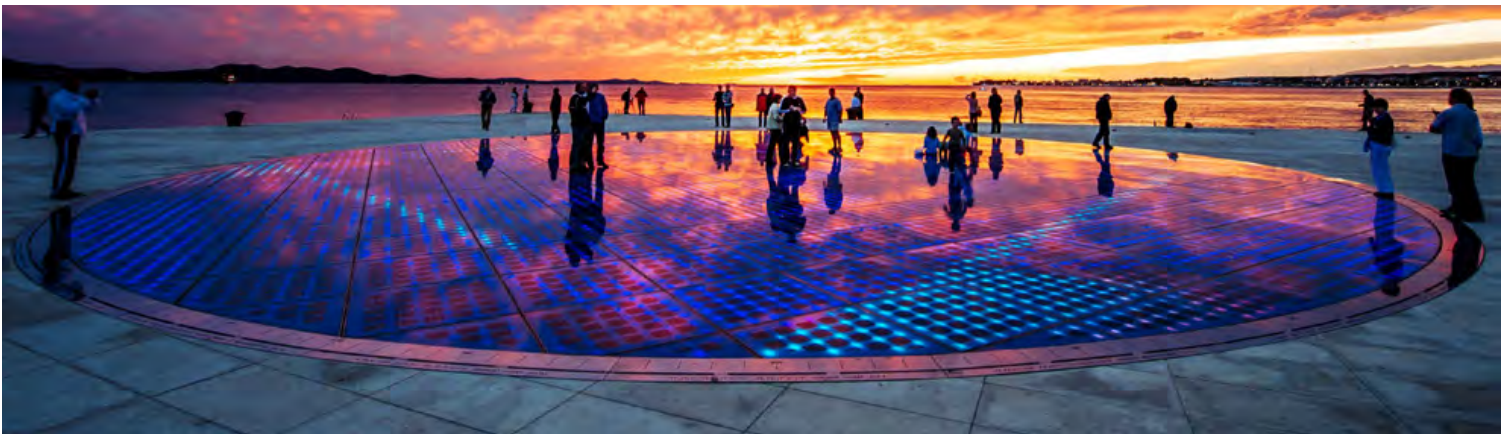
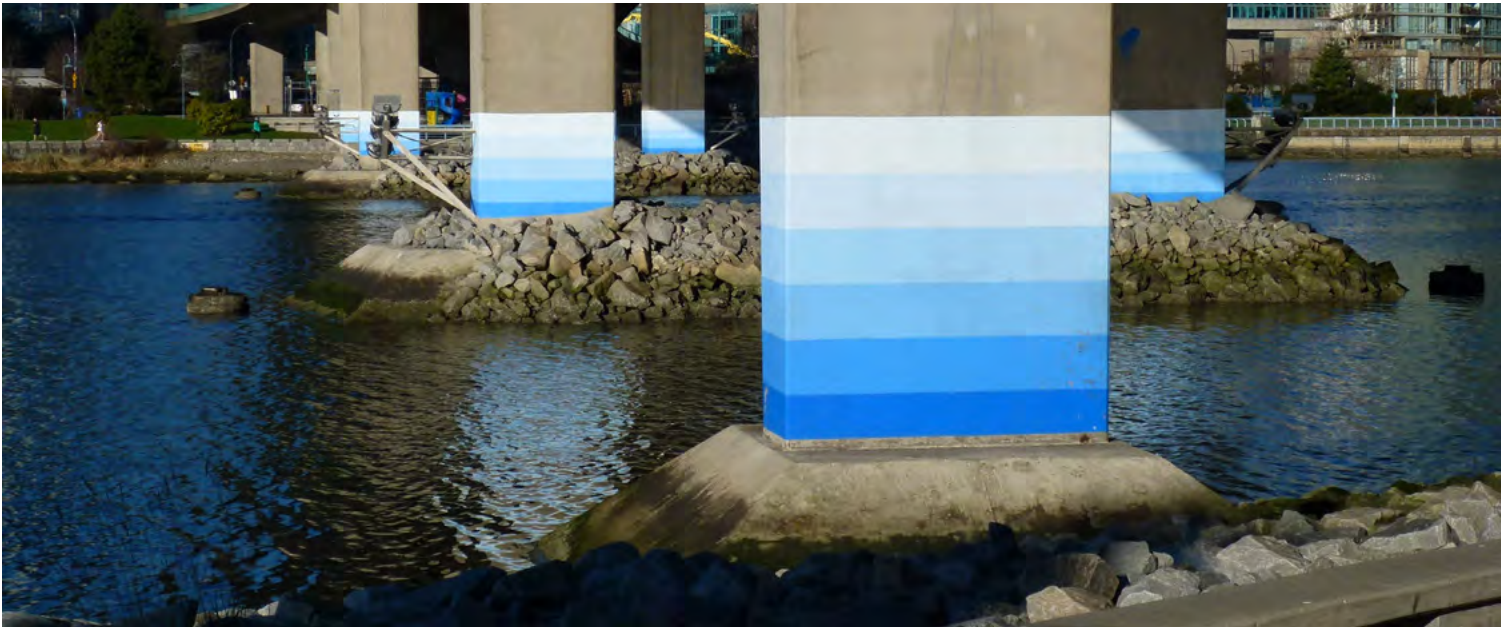
- 5 spray or black zone
- 4 upper intertidal or periwinkle zone
- 3 middle intertidal or barnacle/rockweed zone
- 2 lower intertidal or Irish moss zone
- 1 subtidal or kelp zone



- subtidal or kelp zone
- lower intertidal or Irish moss zone
- middle intertidal or barnacle/rockweed zone
- upper intertidal or periwinkle zone
- spray or black zone

1

Interactive + Educational Multimedia Public Art













ROCK GARAGE

EXIT ONLY

PARKING ENTRANCE

←P

←P

50



HARBOR GARAGE

EXIT ONLY

PARKING ENTRANCE

Welcome to the
Boston Harbor
Garage

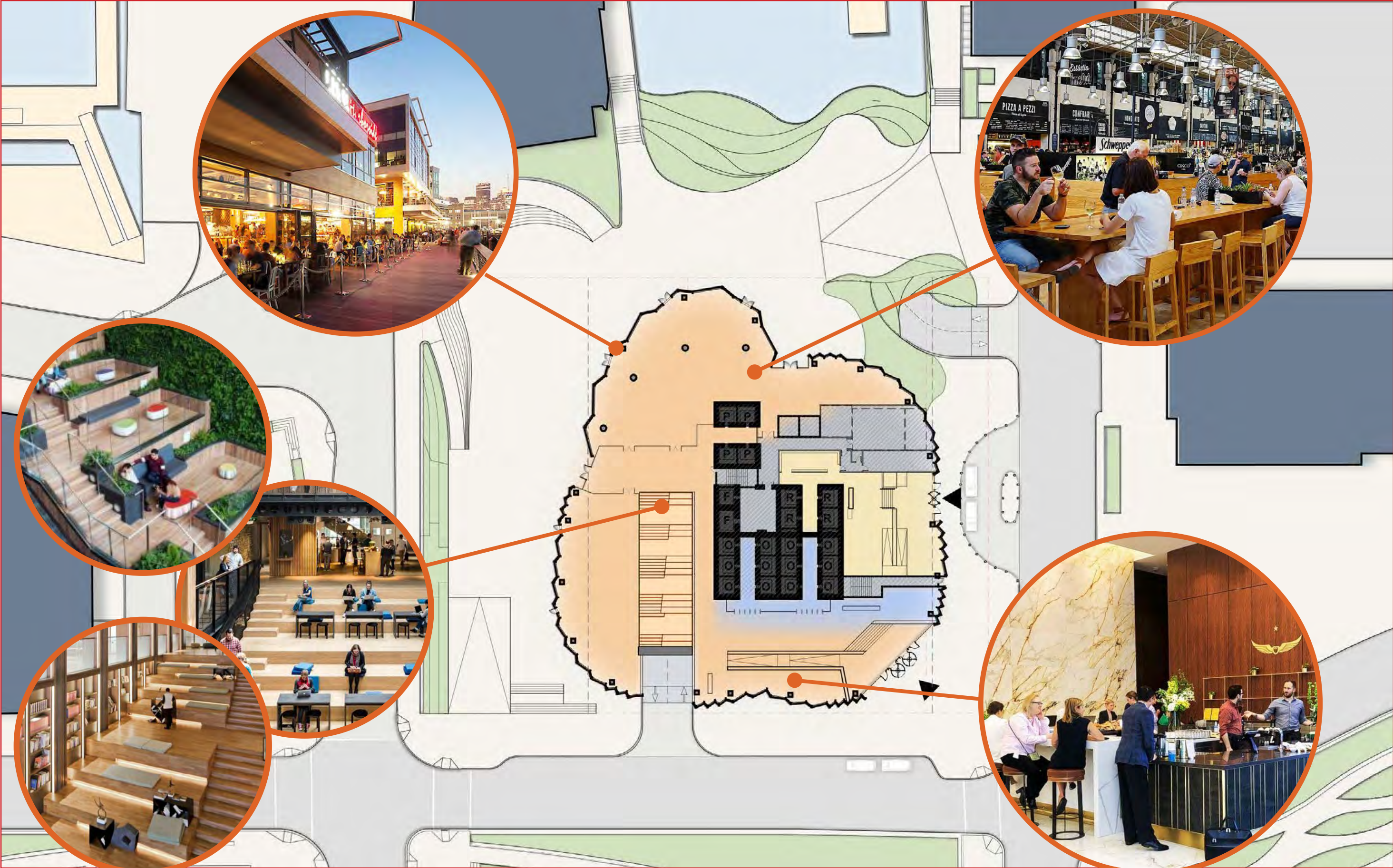
CLEARANCE 6'6"



bageriet
ROSTERIE

FRESH

Ground Level Plan





Street
Level
North

ELEVATORS
↑↓
[Person Icon]

ATM
MACHINE
AVAILABLE















TOWER

Program

2014

Previous

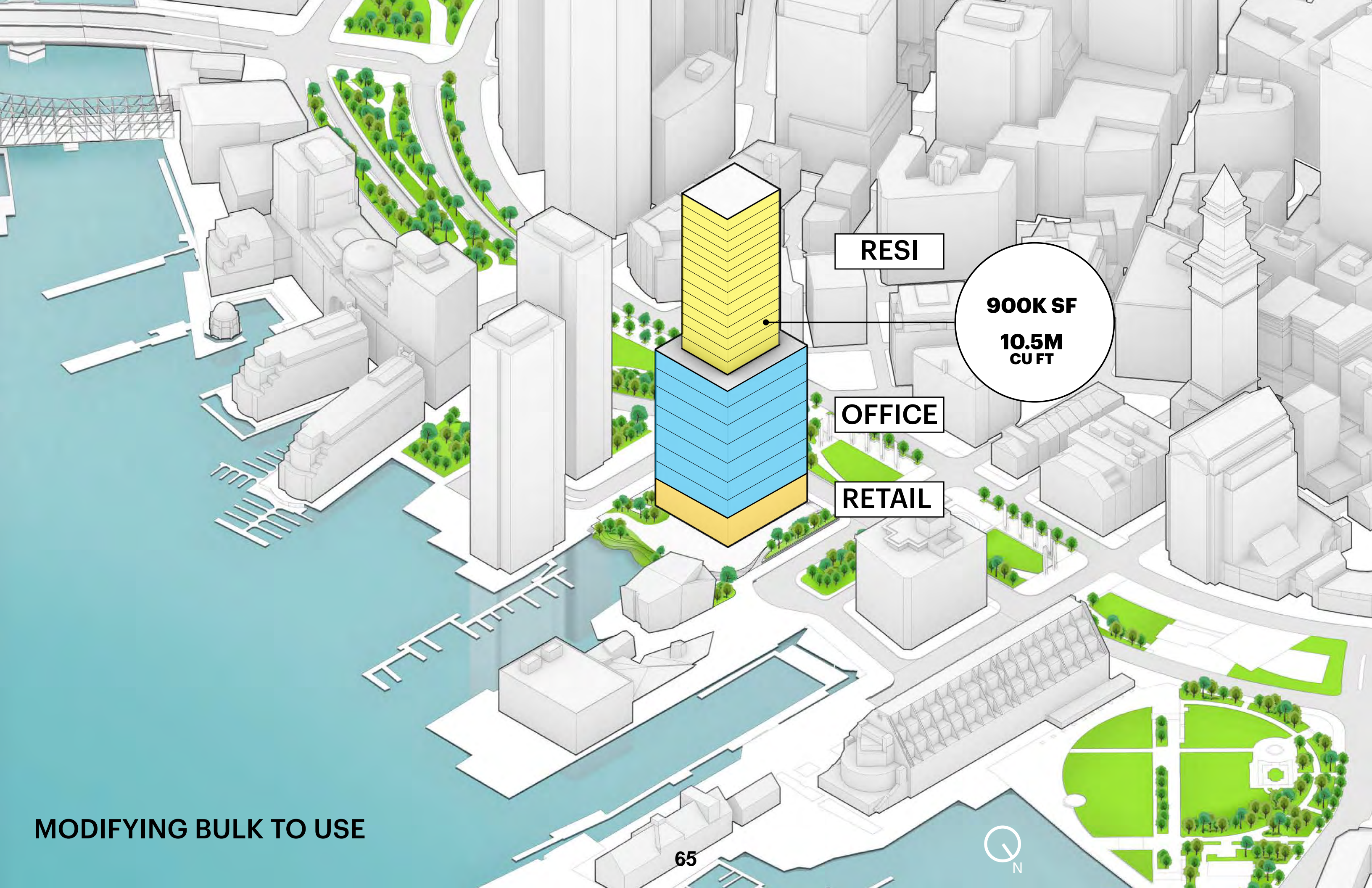
Open Space	19,810 sf
Office	700,000 sf
Hotel	250-300 keys
Residential Units	120 units
Retail	3 Levels
Parking	1400 spaces
Total Square Feet	1.3M

VS

2020

Current

Open Space	28,650 sf
Office	535,000 sf
Residential Units	200 units
Retail	2 Levels
Parking	1100 spaces
Total Square Feet	865,000 sf



RESI

900K SF
10.5M
CU FT

OFFICE

RETAIL

MODIFYING BULK TO USE

65





DOWNTOWN

BOSTON COMMON

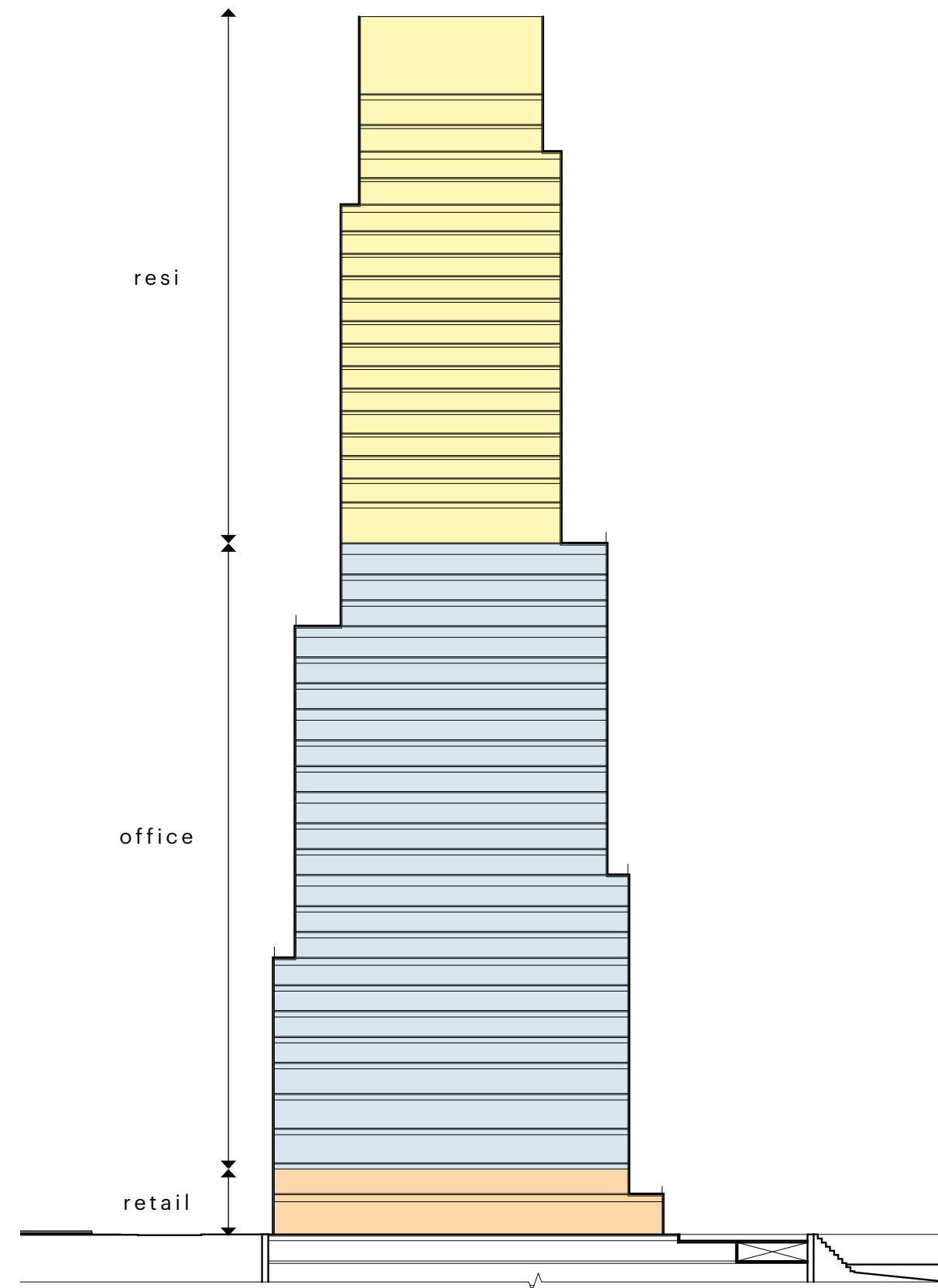
NORTH END

CHRISTOPHER COLUMBUS PARK

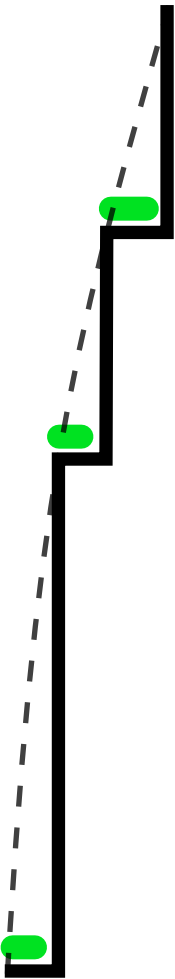
SARGENTS WHARF

LANGONE / PUOPOLLO PARK

Stepped Form



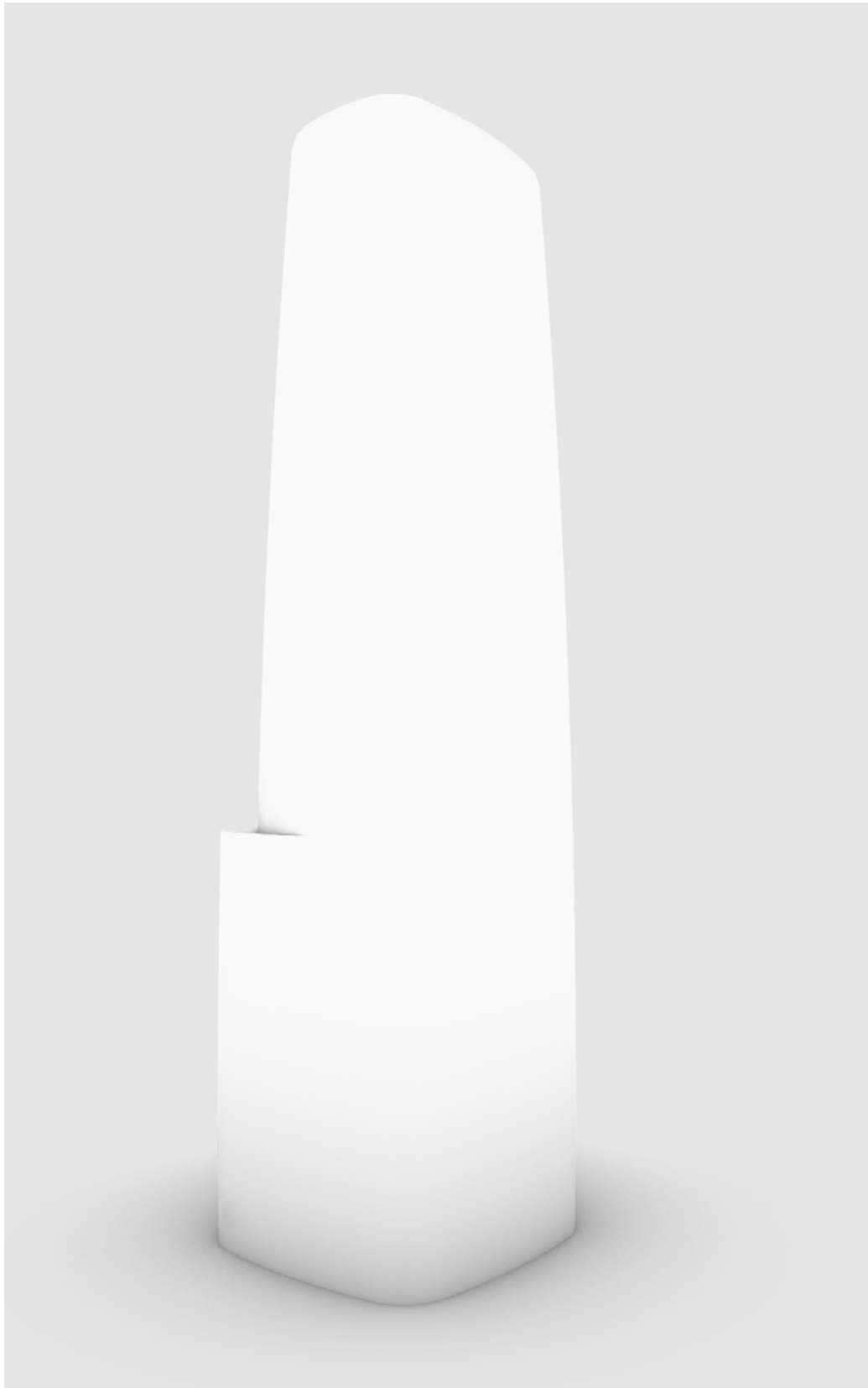
SETBACKS RESPOND TO PROGRAM



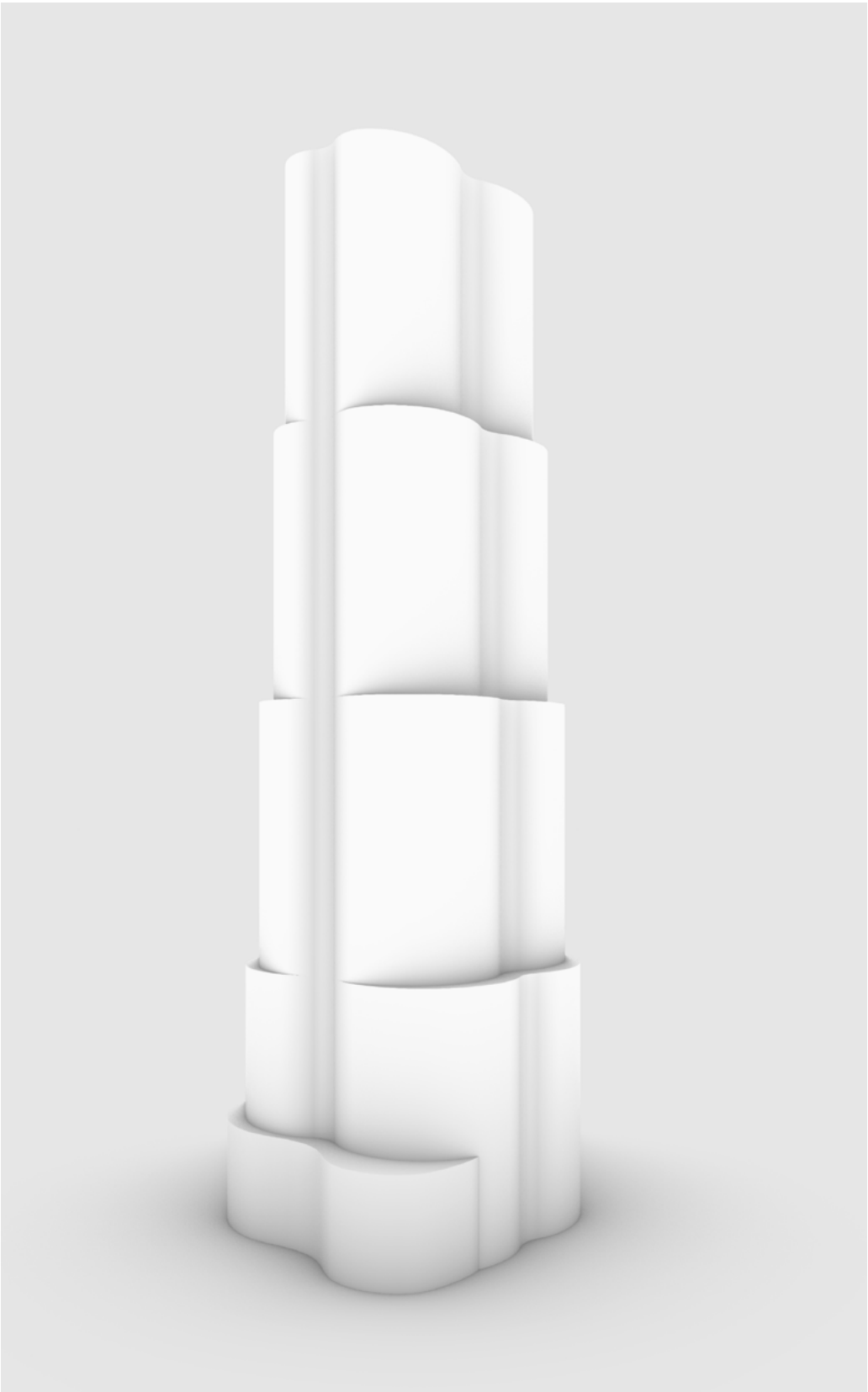
STEPPED FORM

- ✓ SETBACKS CAN RELATE TO SURROUNDING BUILDINGS
- ✓ EXTERIOR SPACE CAN BE PROVIDED FOR TENANTS FOR IMPROVED WORK / LIVE ENVIRONMENTS
- ✓ MORE USABLE AND RATIONAL INTERIOR PLANNING
- ✓ IMPROVED WIND MITIGATION

Massing Progress



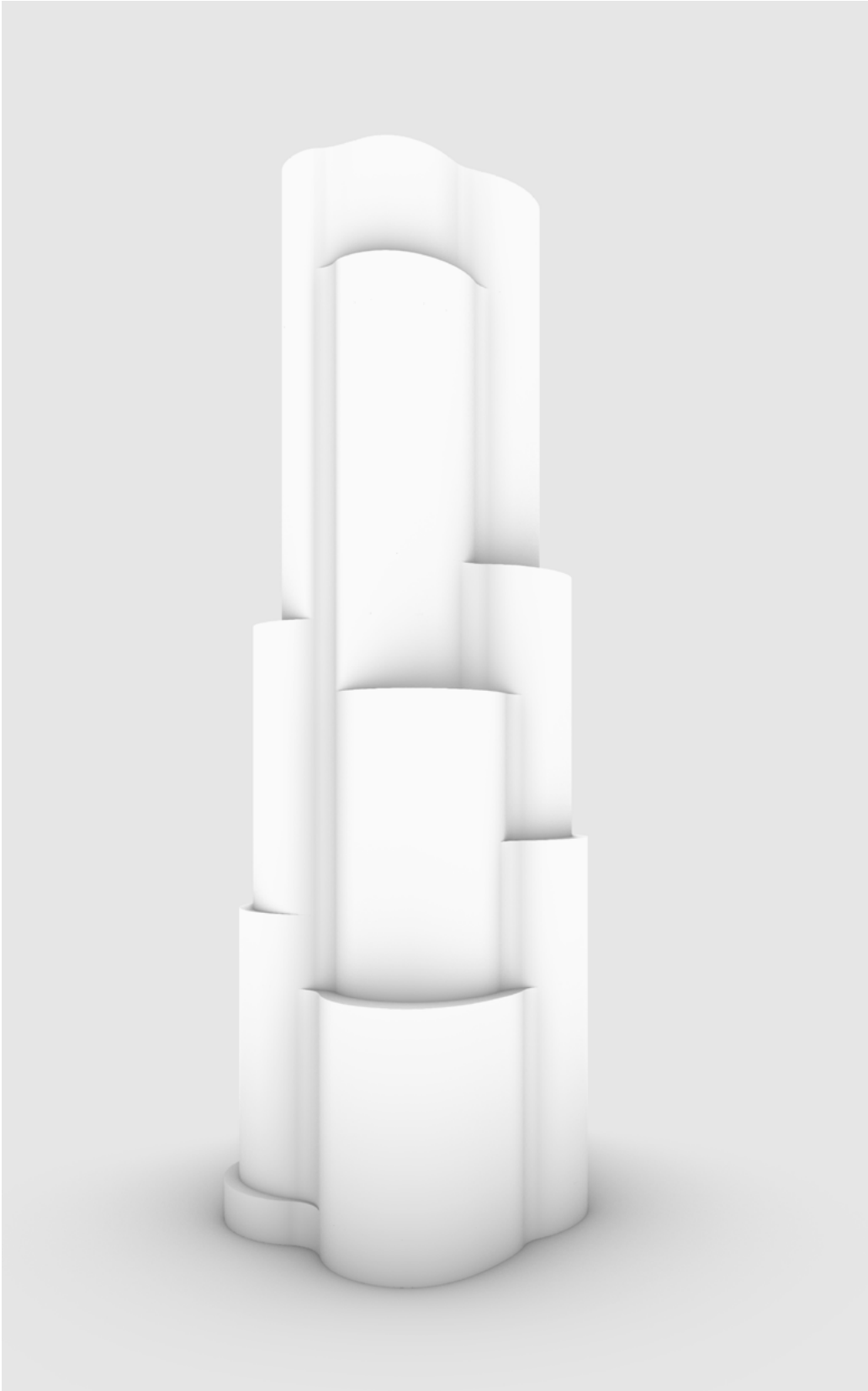
CLIMATE READY BOSTON MASSING



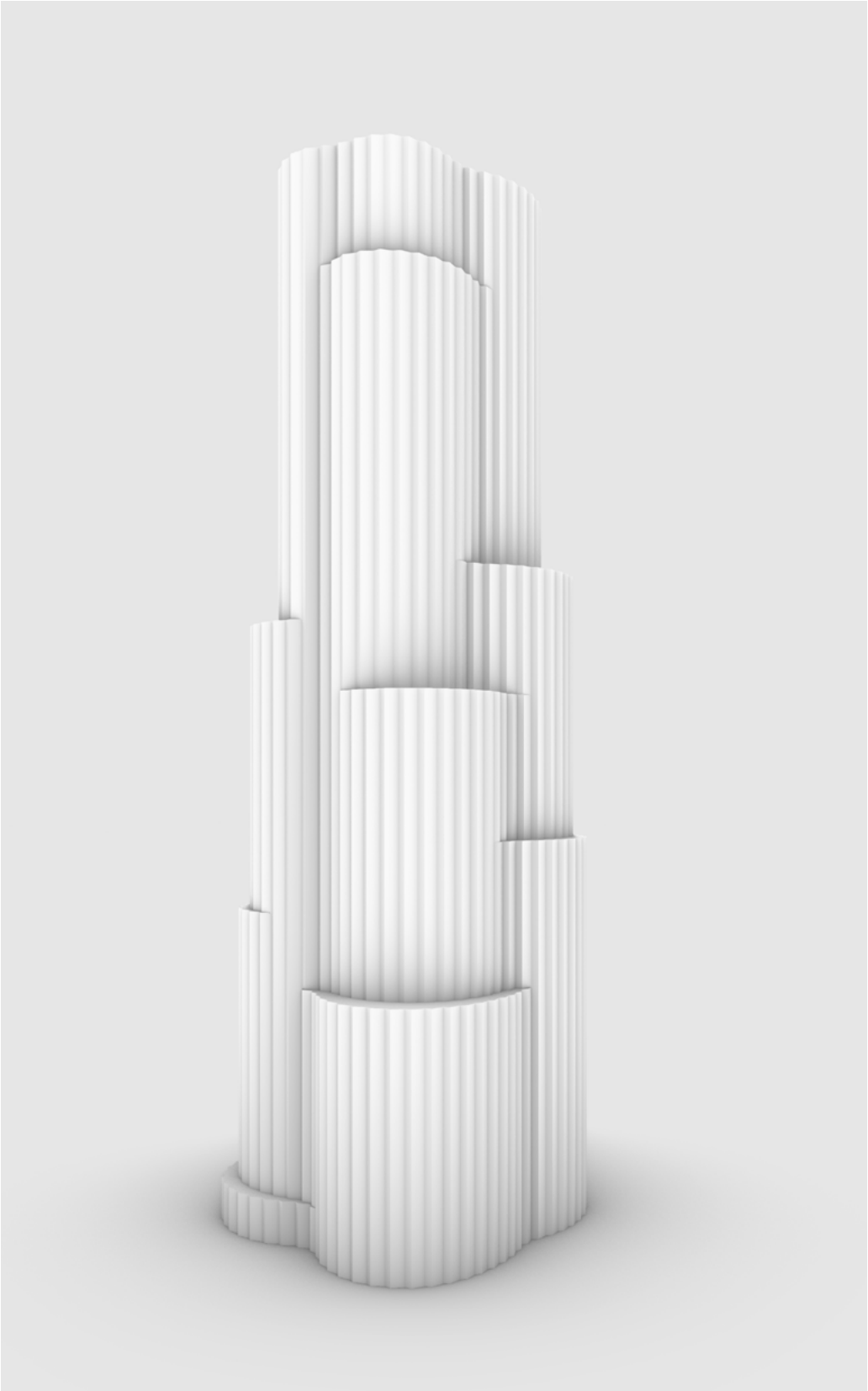
STEPPED EXTRUSIONS



Massing Progress

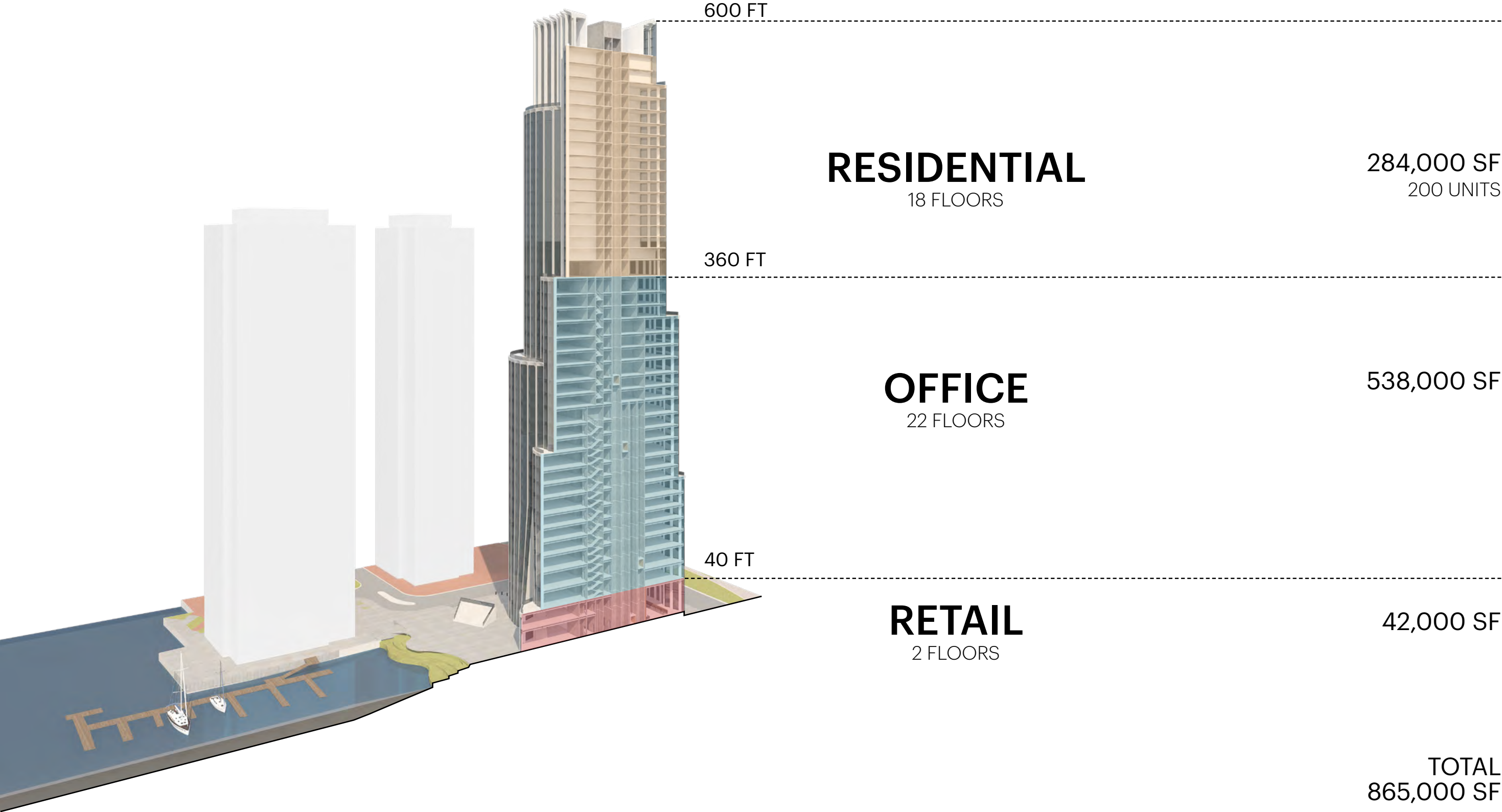


VARIED SETBACK HEIGHTS



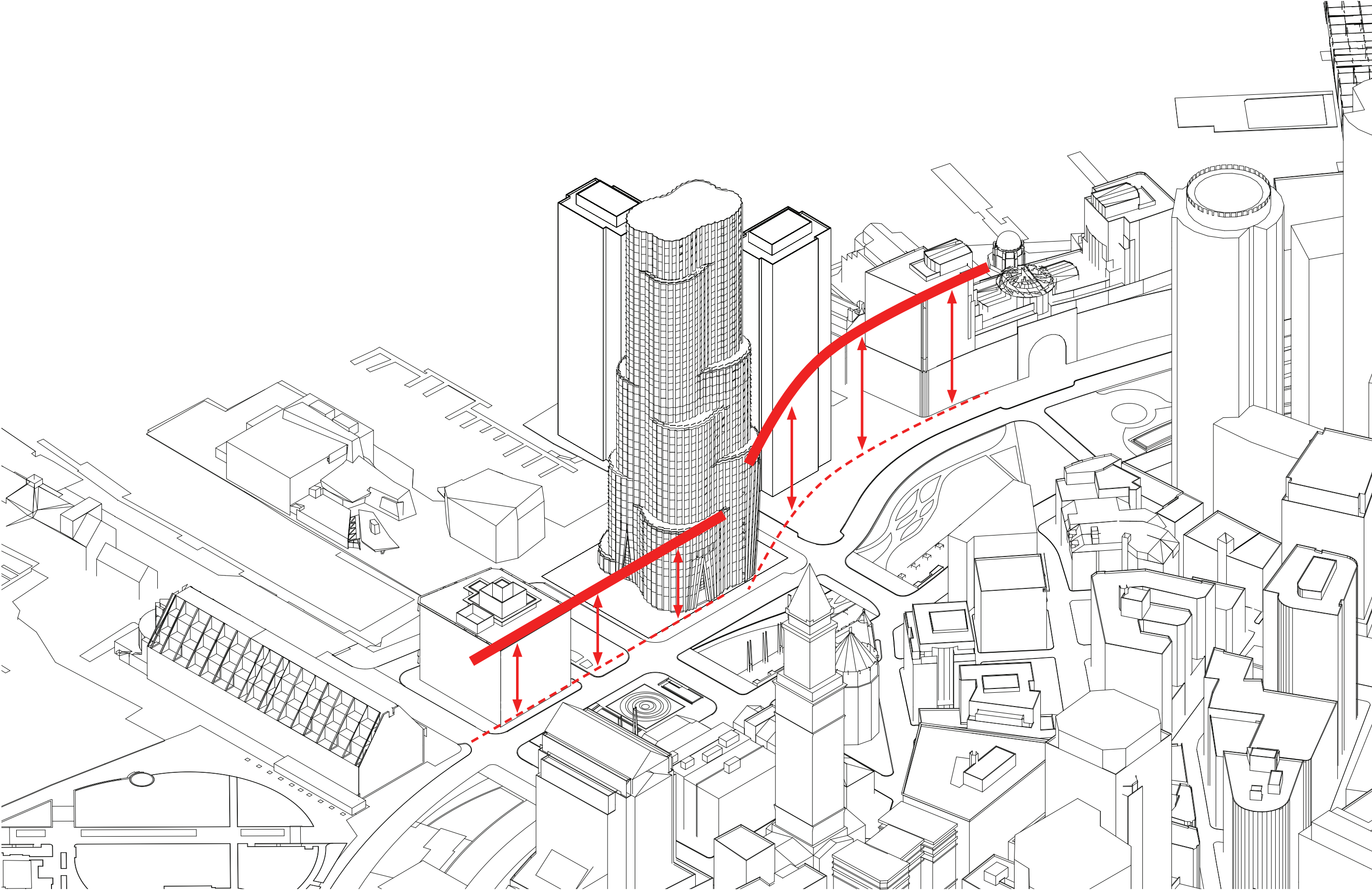
FOLDED PROFILE

Program

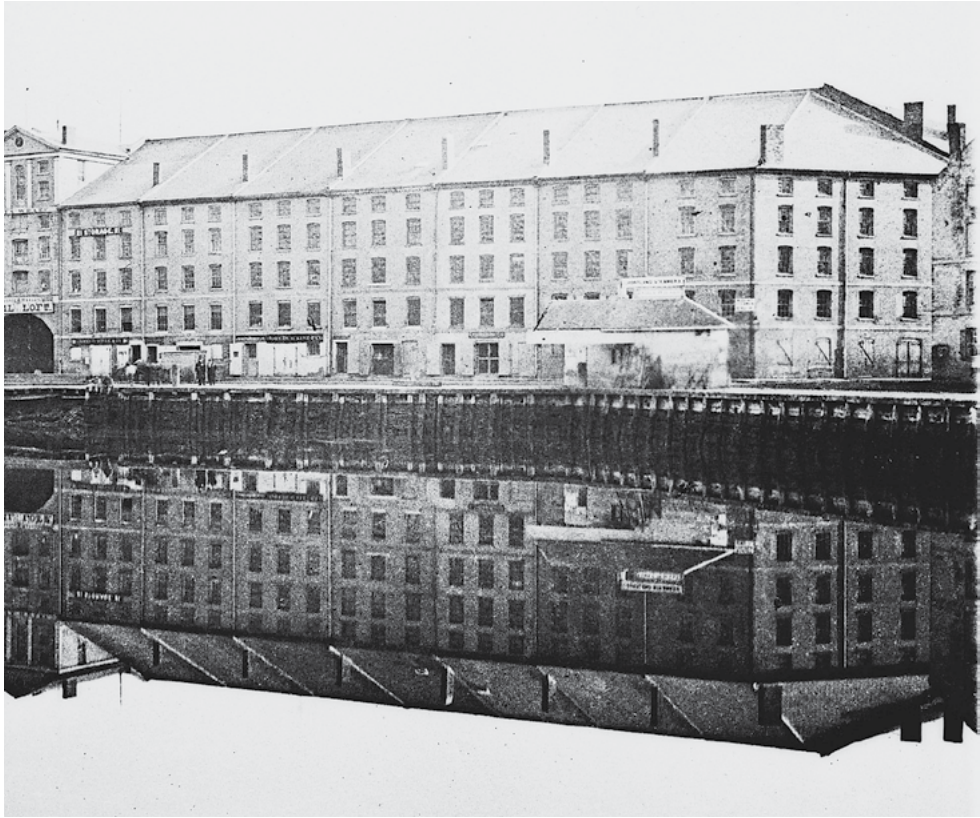




Height Continuity



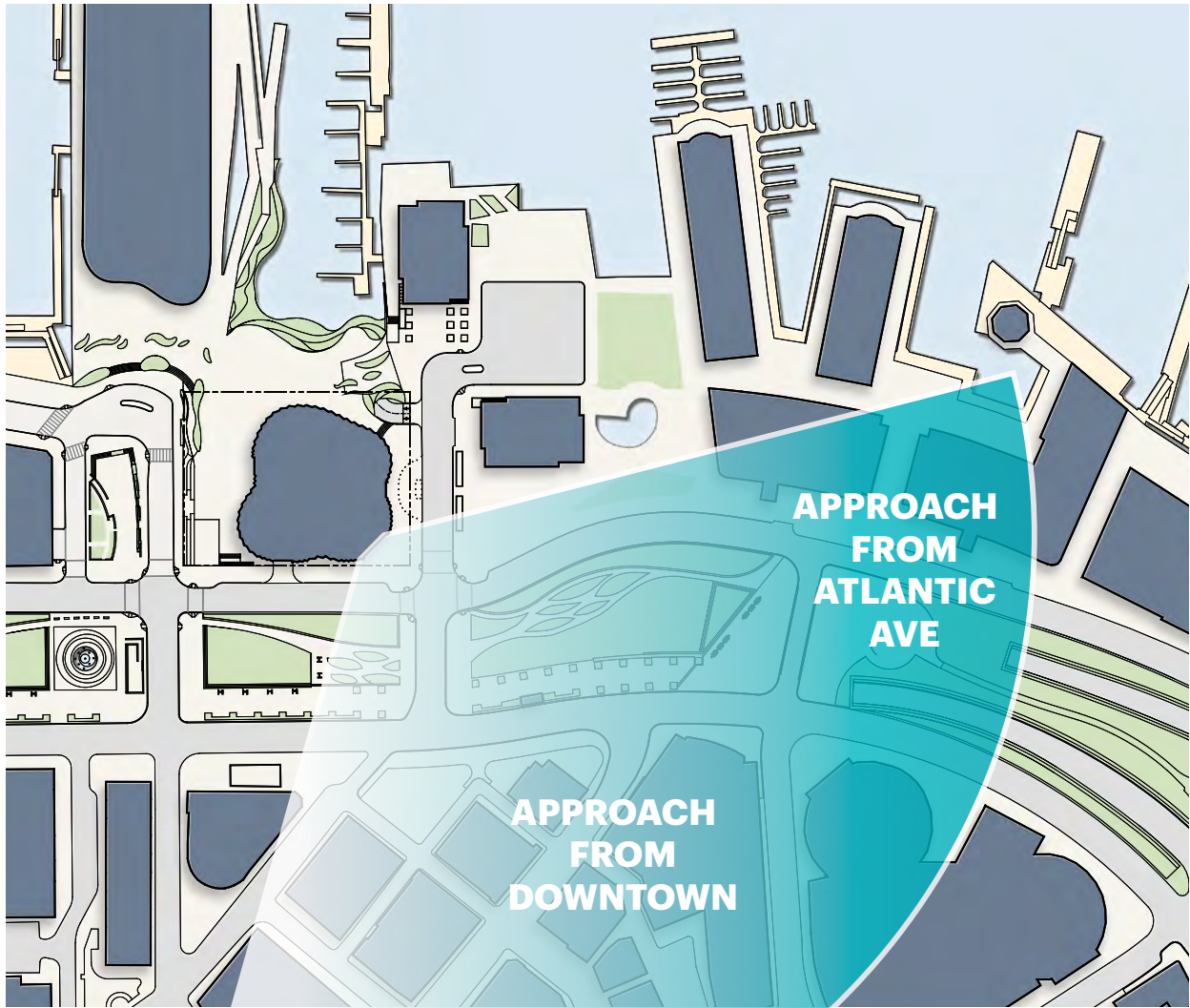
Special Window Facing Greenway



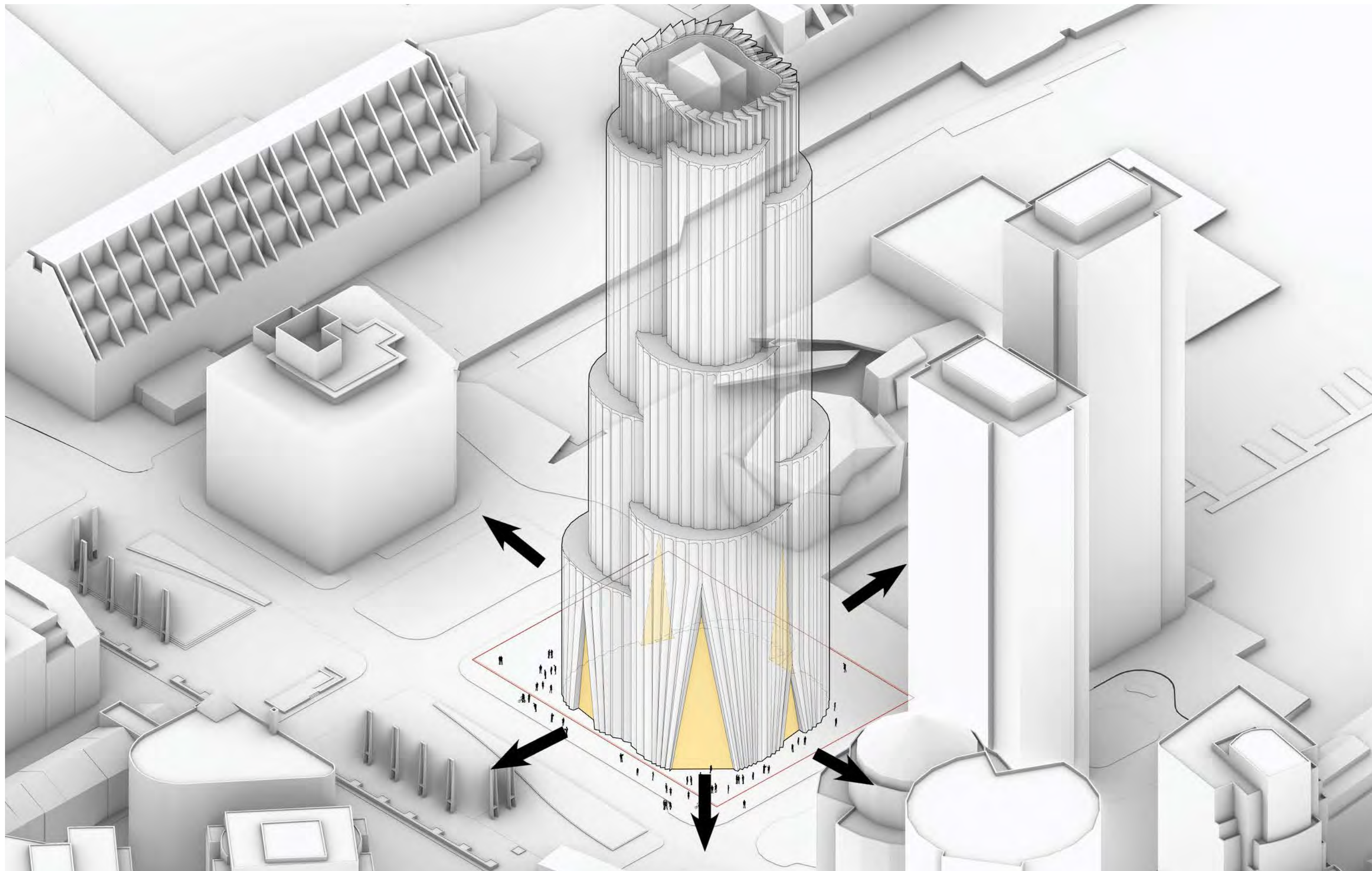
Original India Wharf



Factory Window







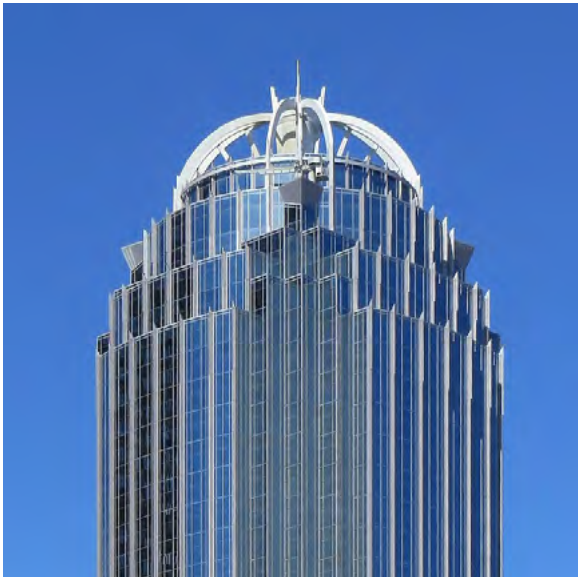
Boston Tops



Custom House Tower, 1915



28 State Street, 1970



111 Huntington Street, 2002



160 State Street, 1977



Berkeley Building, 1947



John Hancock Tower, 1976



Two International Place, 1992



Millenium Tower, 2016



One Boston Street, 1970



Prudential Tower, 1964



Federal Reserve Bank Building, 1976



One Dalton Street, 2019



76 Lincoln Street, 2003



One International Place, 1987



Exchange Place, 1984

Types of Top Expression



Flat



Step



Geometric

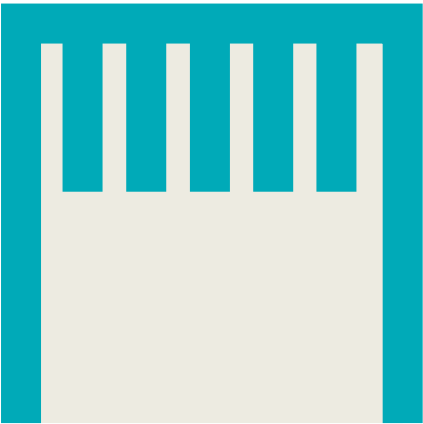


Crown

Types of Top Expression

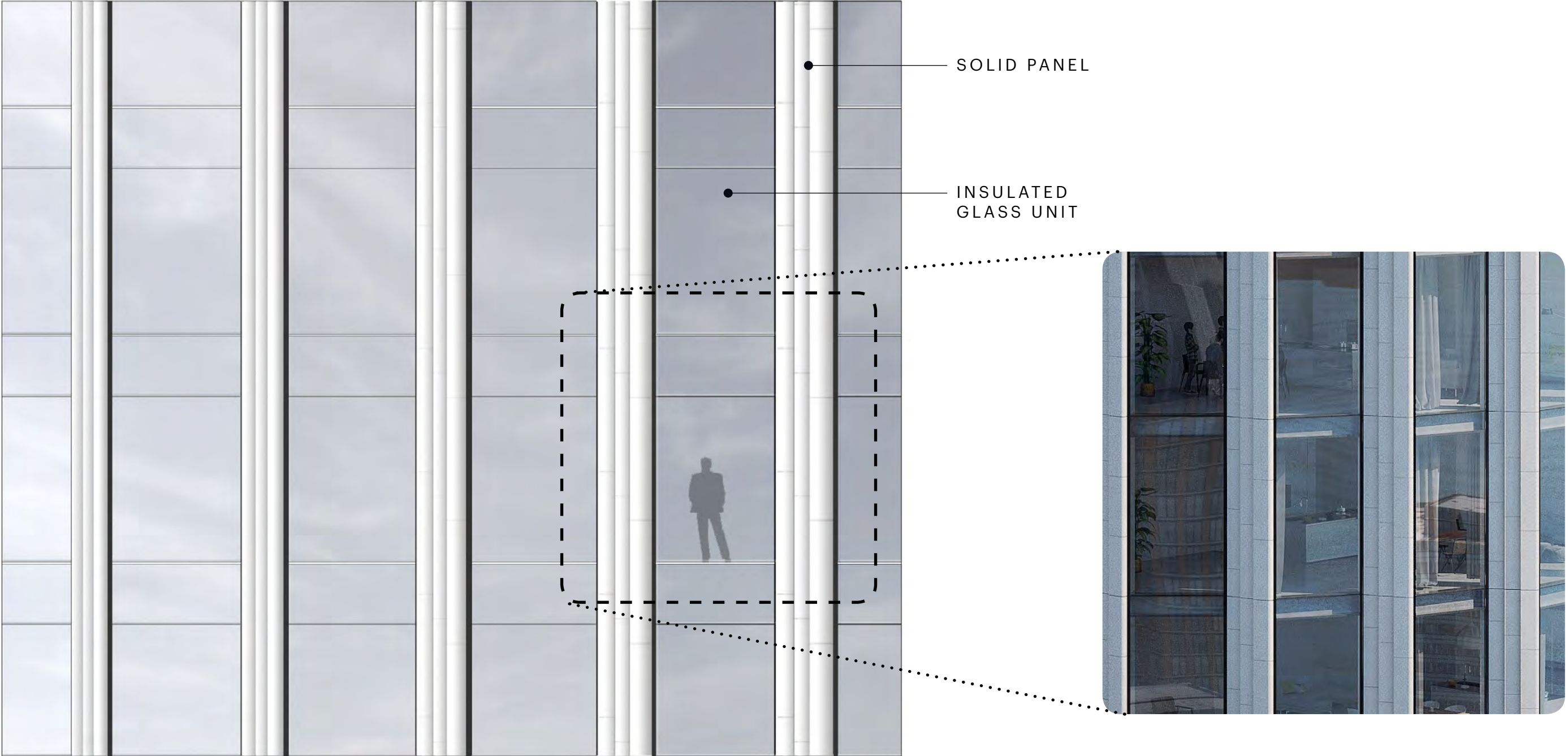


Stepped

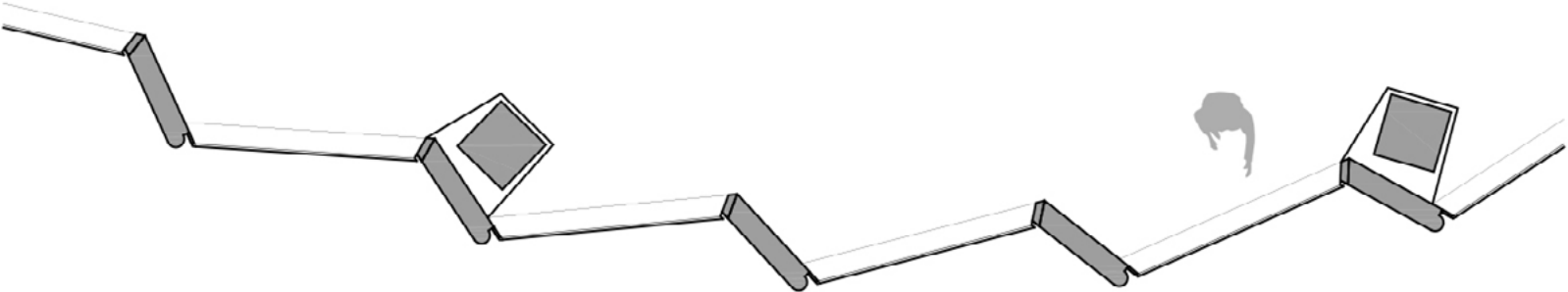


Crown





ELEVATION



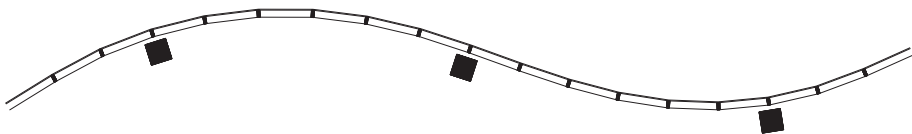
PLAN

Vertical Expression

- ✓ VERTICAL SOLIDITY BREAKS UP THE FACADE AND COMPLIMENTS THE FORM
- ✓ SHINGLED PIERS ALLOW FOR LARGER SPANS OF UNOBSTRUCTED GLASS, AND PROVIDE DEDICATED SPACE FOR THERMAL INSULATION



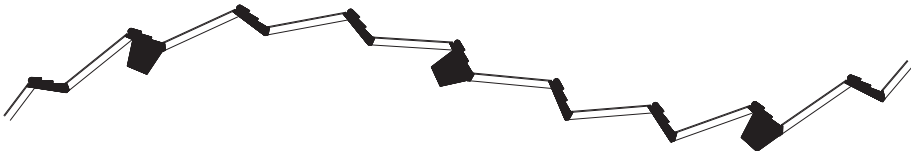
ELEVATION



PLAN



ELEVATION

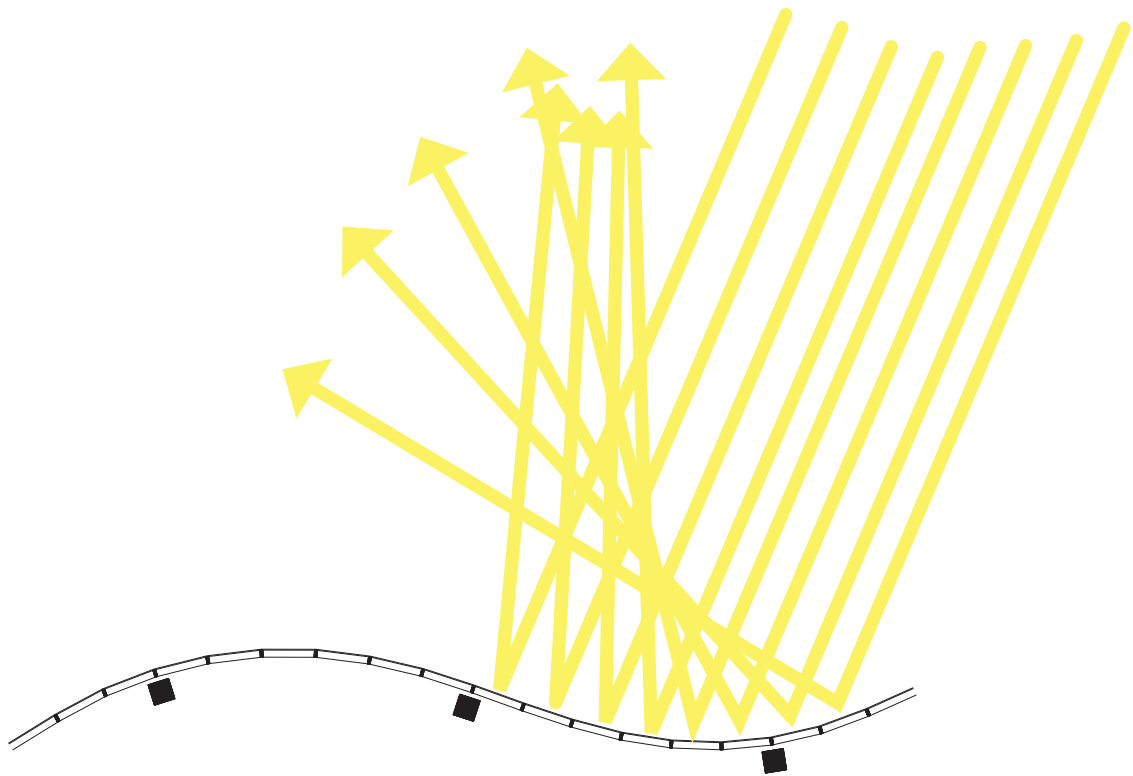


PLAN

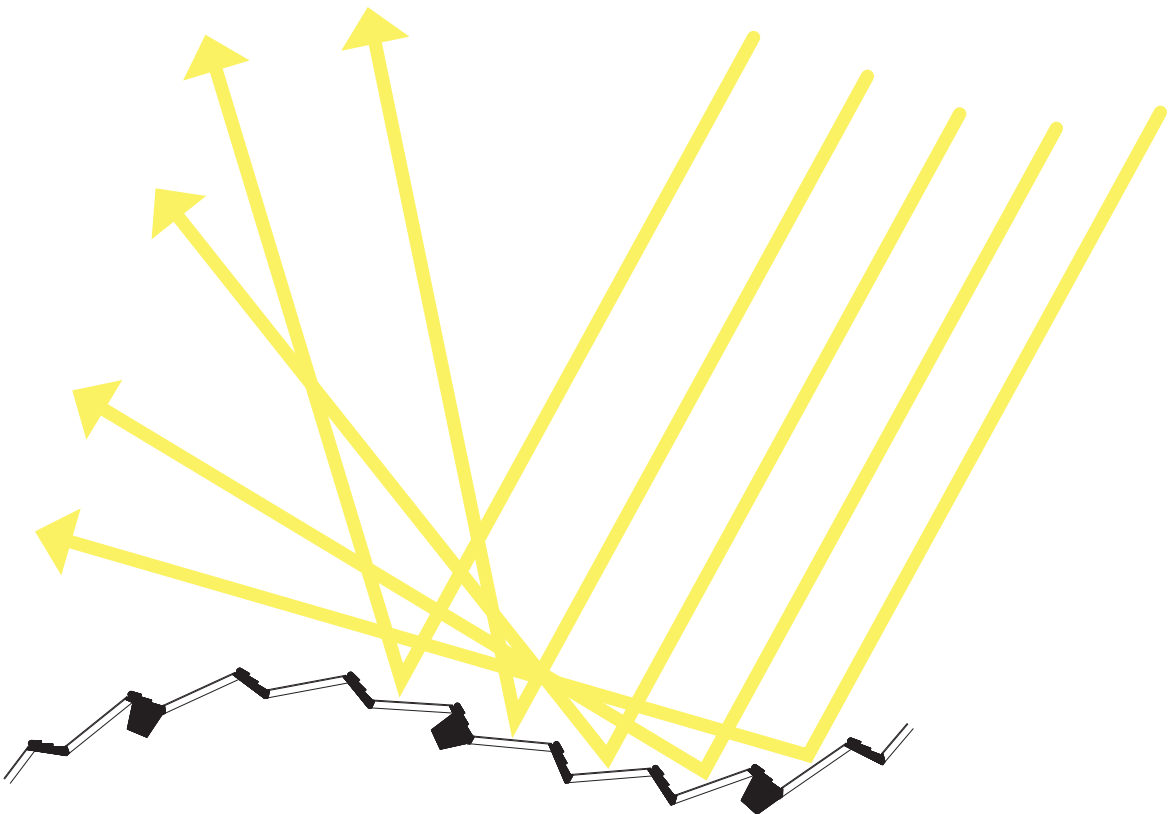
Glare



FOLDED FACADE PANELS DISPERSES
LIGHT GLARE REFRACTIONS, WHILE A
SMOOTH SURFACE FOCUS LIGHT GLARE
IN CONCENTRATED AREAS



PLAN



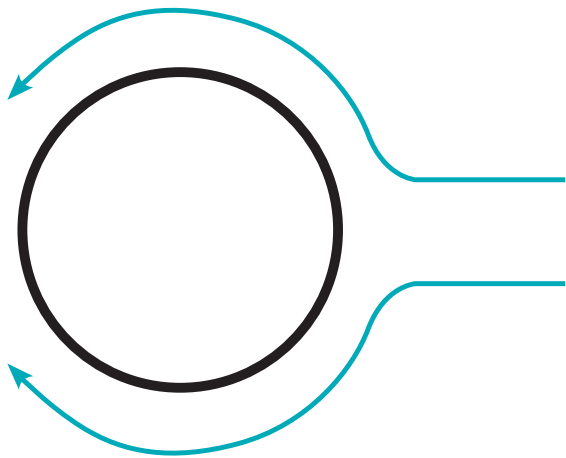
PLAN

Wind

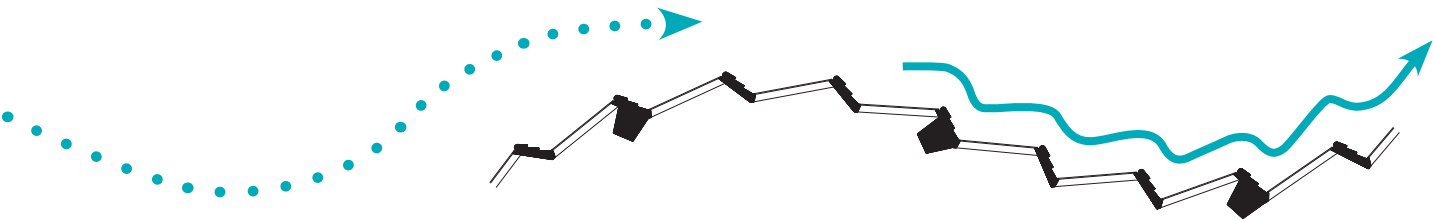
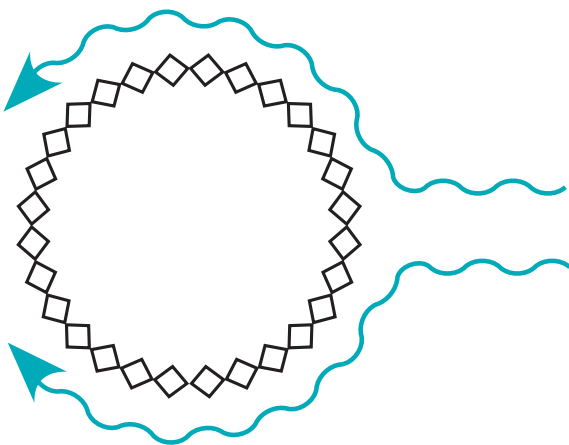


FOLDED FACADE CREATES SMALL POCKETS OF TURBULENCE WHICH ENCOURAGE THE AIR TO “STICK” TO THE FORM AND DELAY SEPARATION.

ROUND

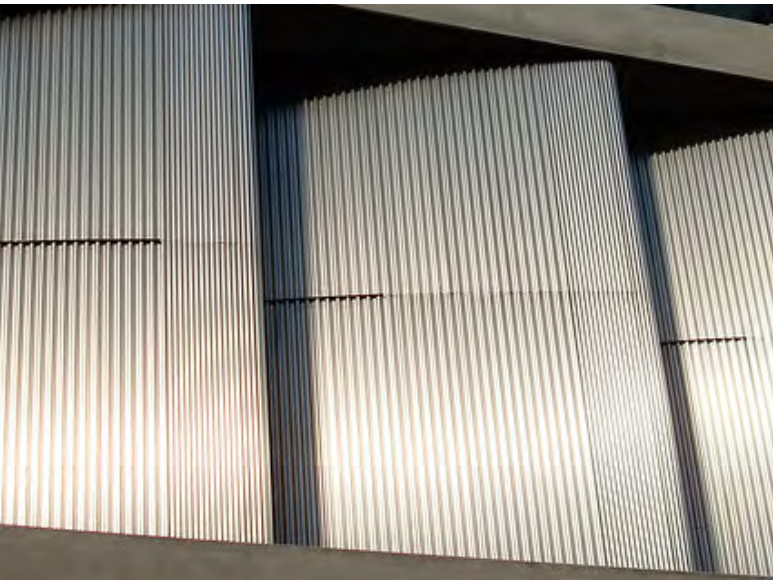
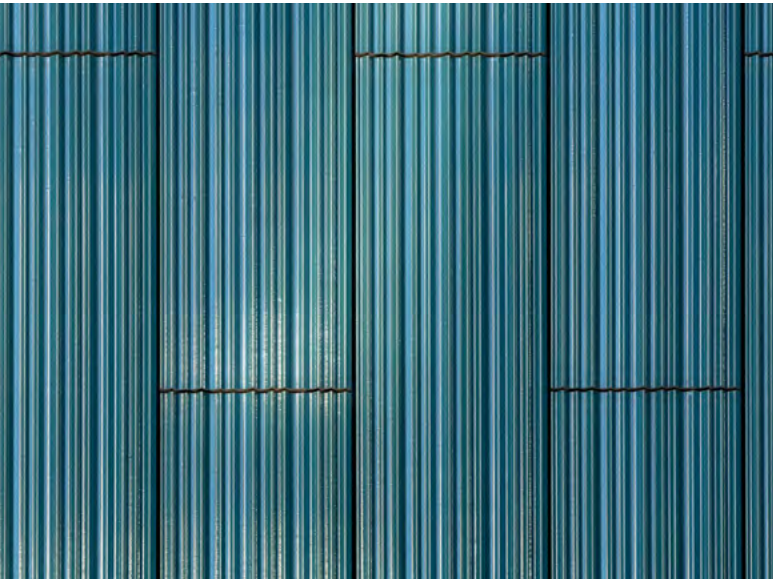
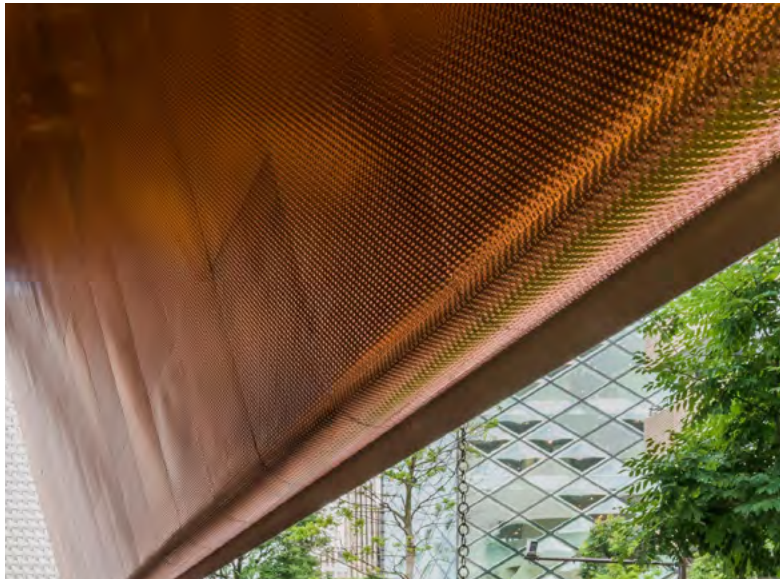


TEXTURED

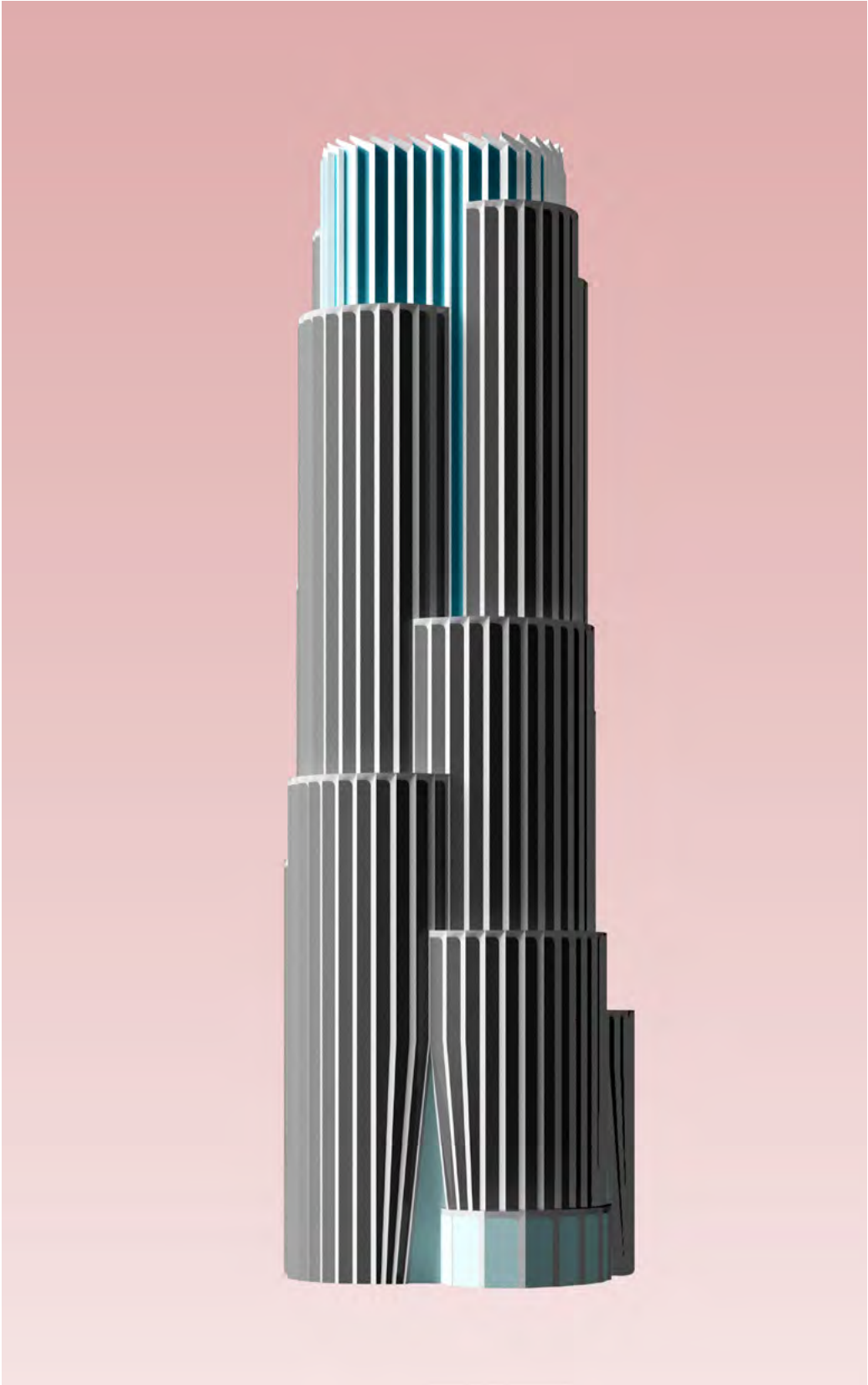


PLAN

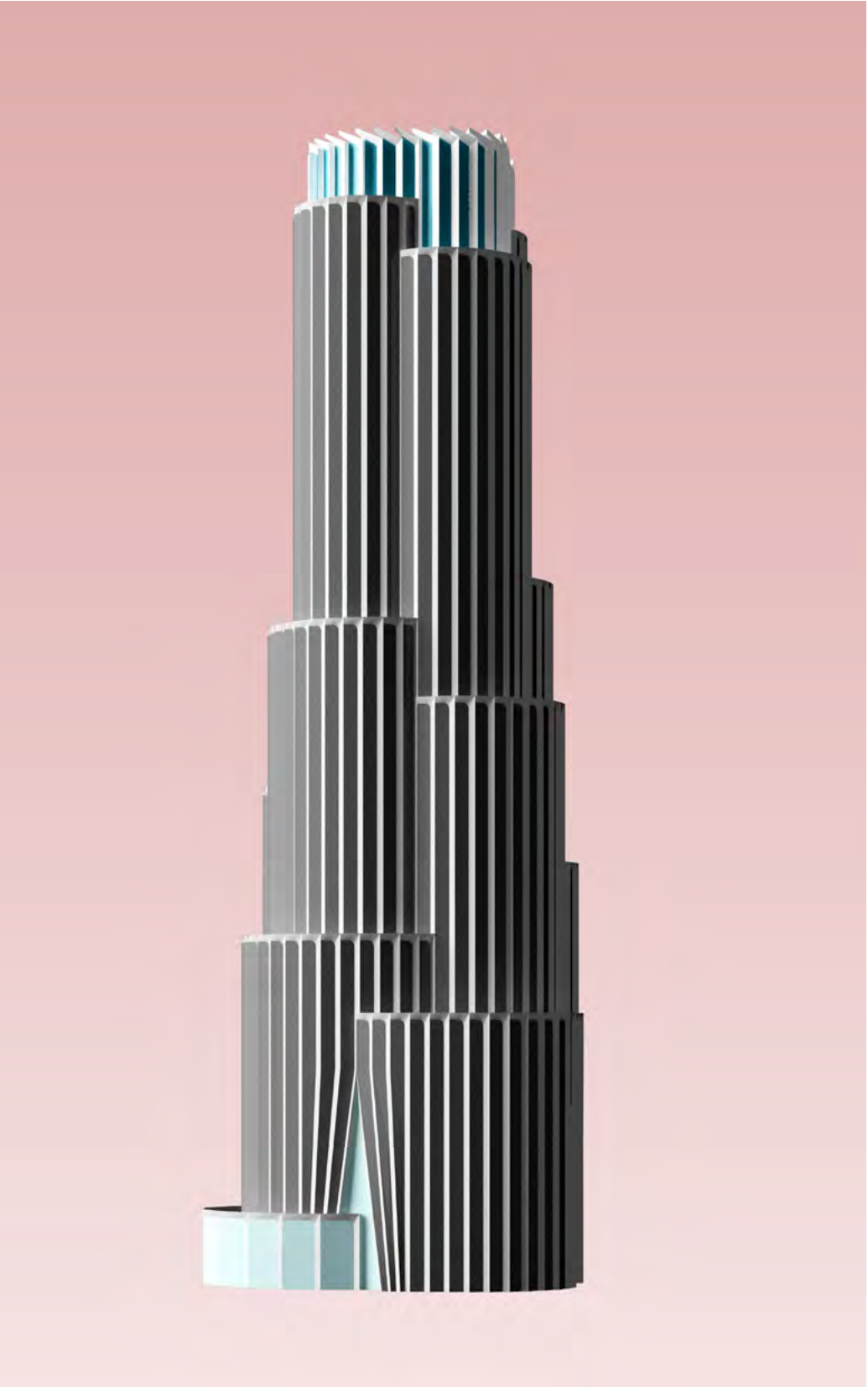
Terracotta & textured metals



Elevations

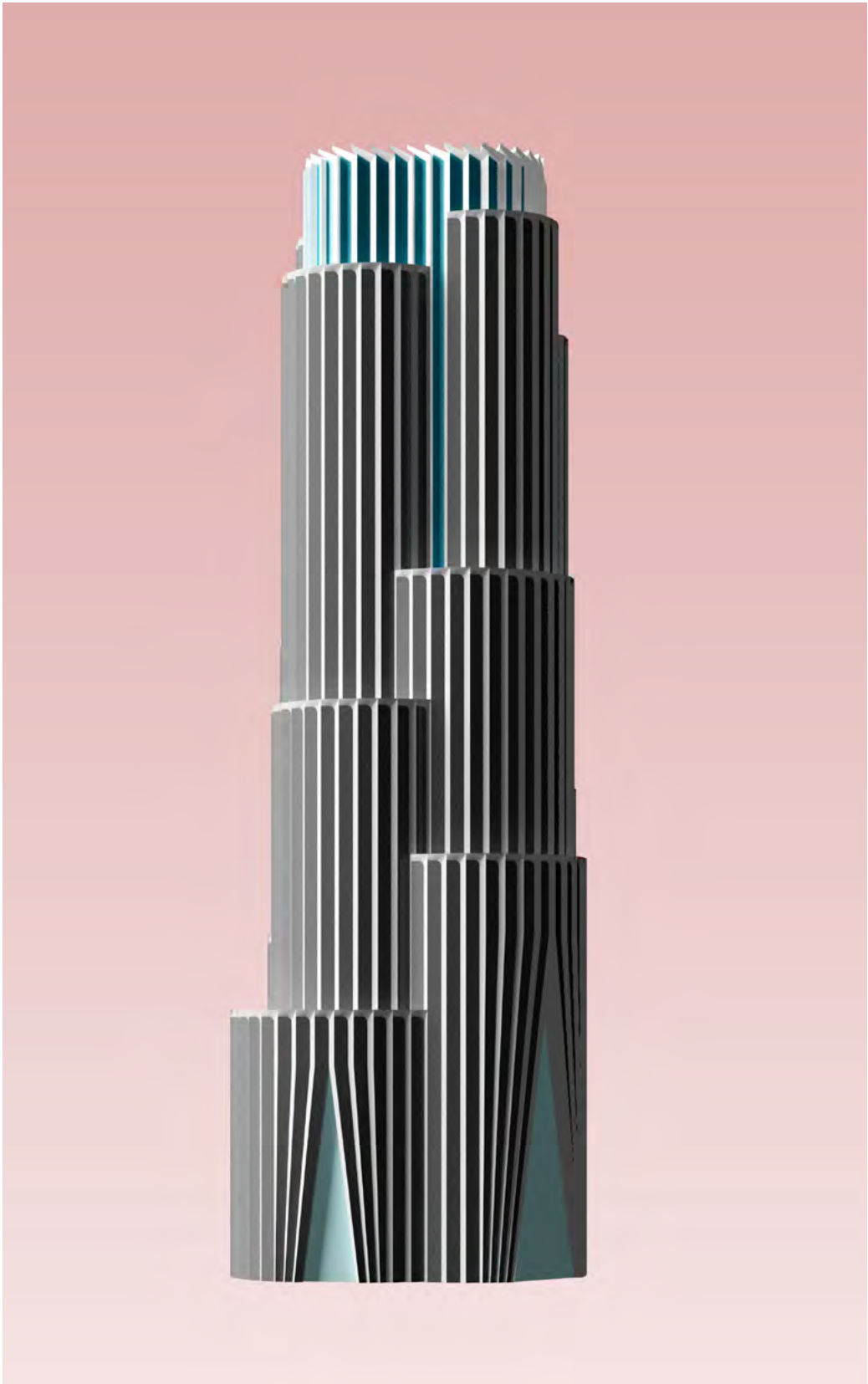


HARBOR



MILK STREET

Elevations



ATLANTIC AVE



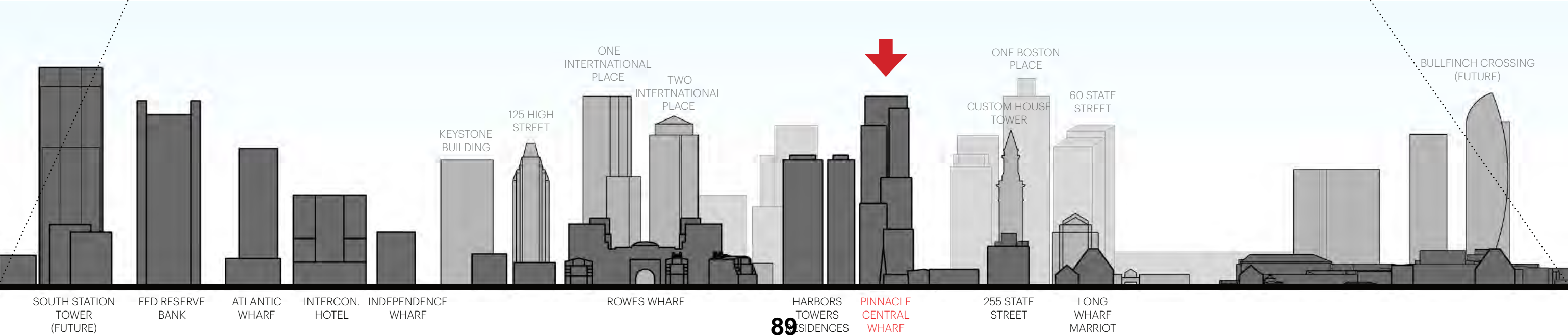
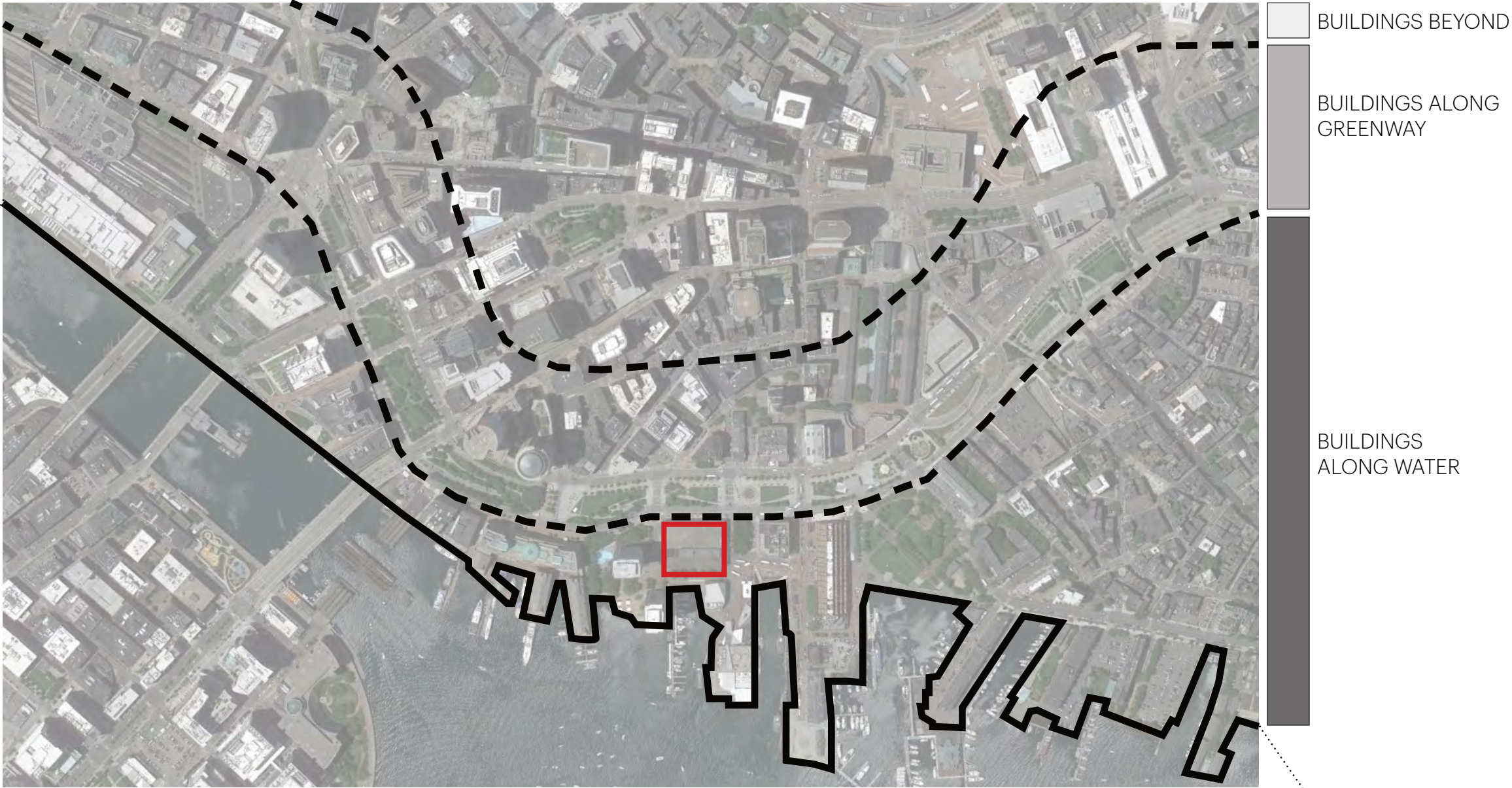
EAST INDIA ROW







Elevation Along Waterfront



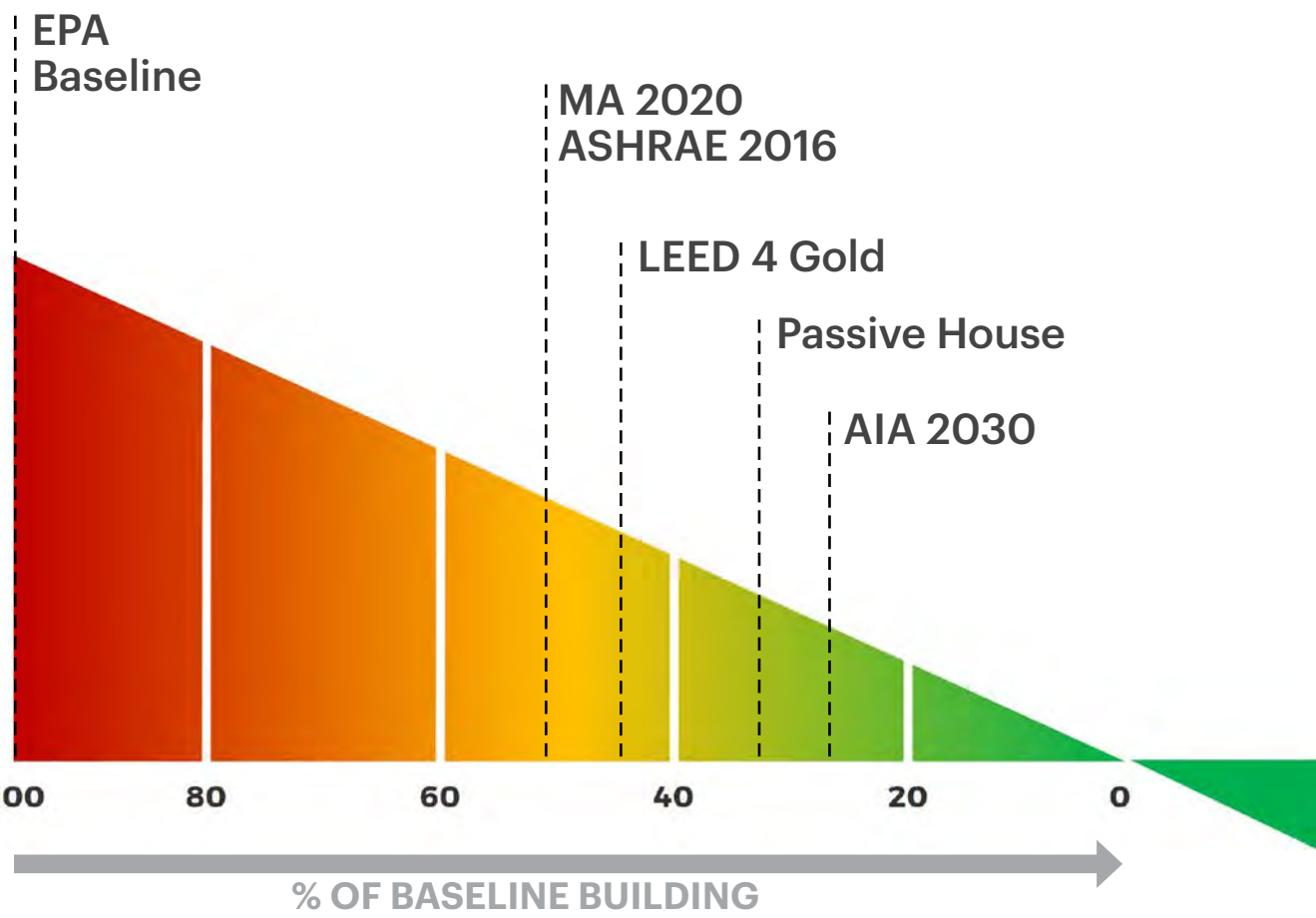
SUSTAINABILITY & RESILIENCY

Emission and energy goals in Boston

Boston aspires to carbon neutrality by 2050, reducing building and grid emissions

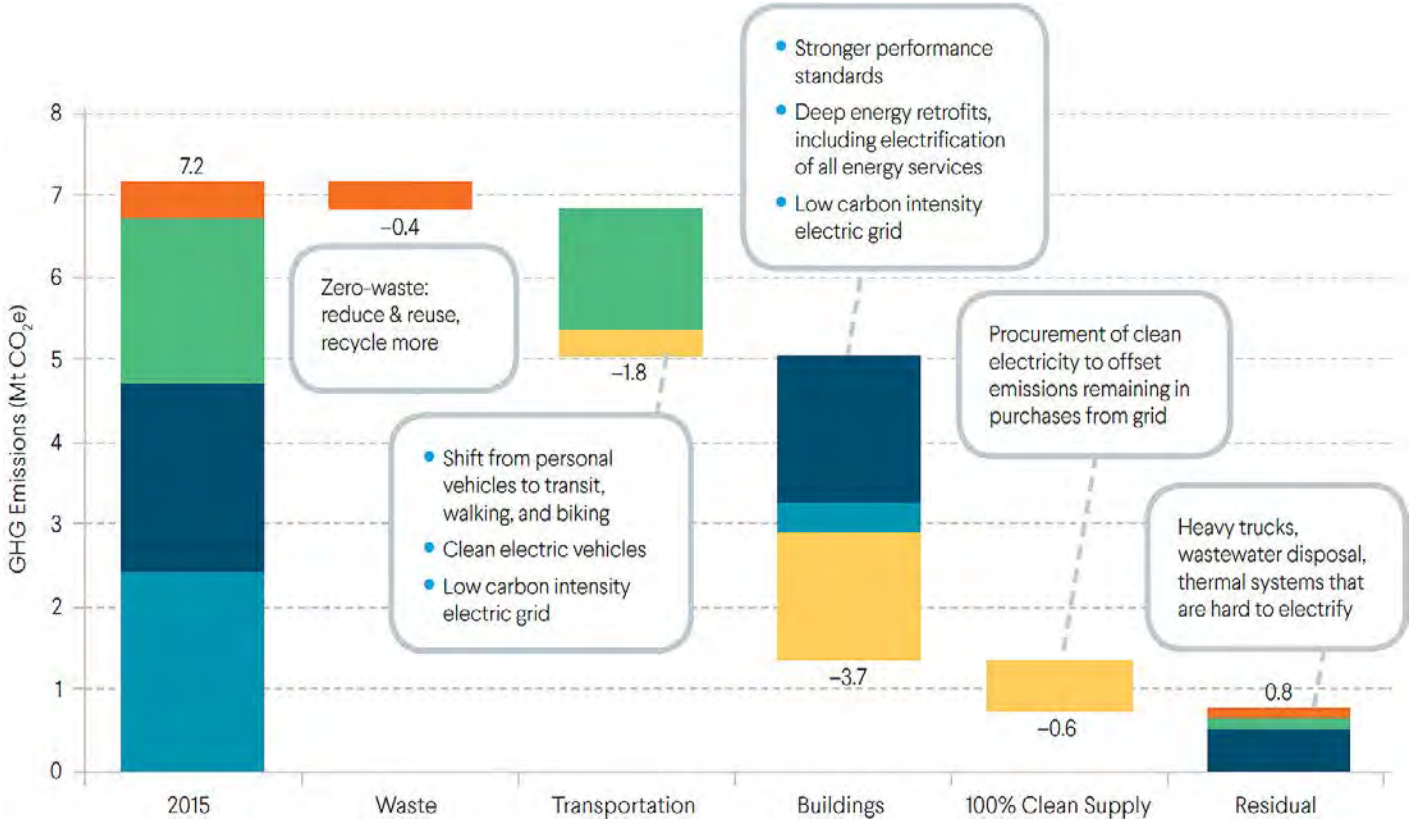
Design to be better than 2020 Stretch Code. Multiple targets will be considered: LEED 4 Gold, Passive House, AIA 2030 Challenge.

Priority to study NetZero feasibility and District Energy per Smart Utilities Project



- Waste
- Transport Fuels
- Buildings Fuels
- Buildings Electricity
- Electricity Supply

Boston's path to carbon neutrality
Source: Carbon Free Boston 2019

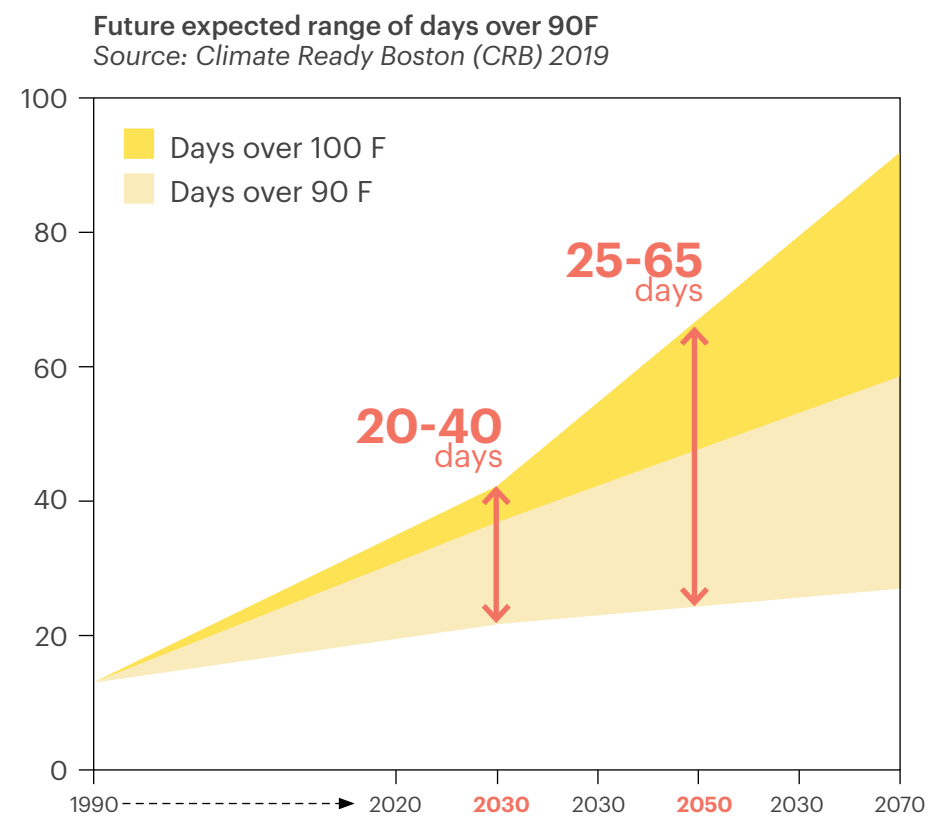


Resiliency challenges on site

Downtown waterfront is a high risk flood area with property losses of \$ 500M by 2030

Site at critical flood entry point with 21” tidal floods by 2050 and 40” by 2070

EverSource identifies a medium risk of power outage in the area, combined with 20-40 additional days over 90°F by 2030



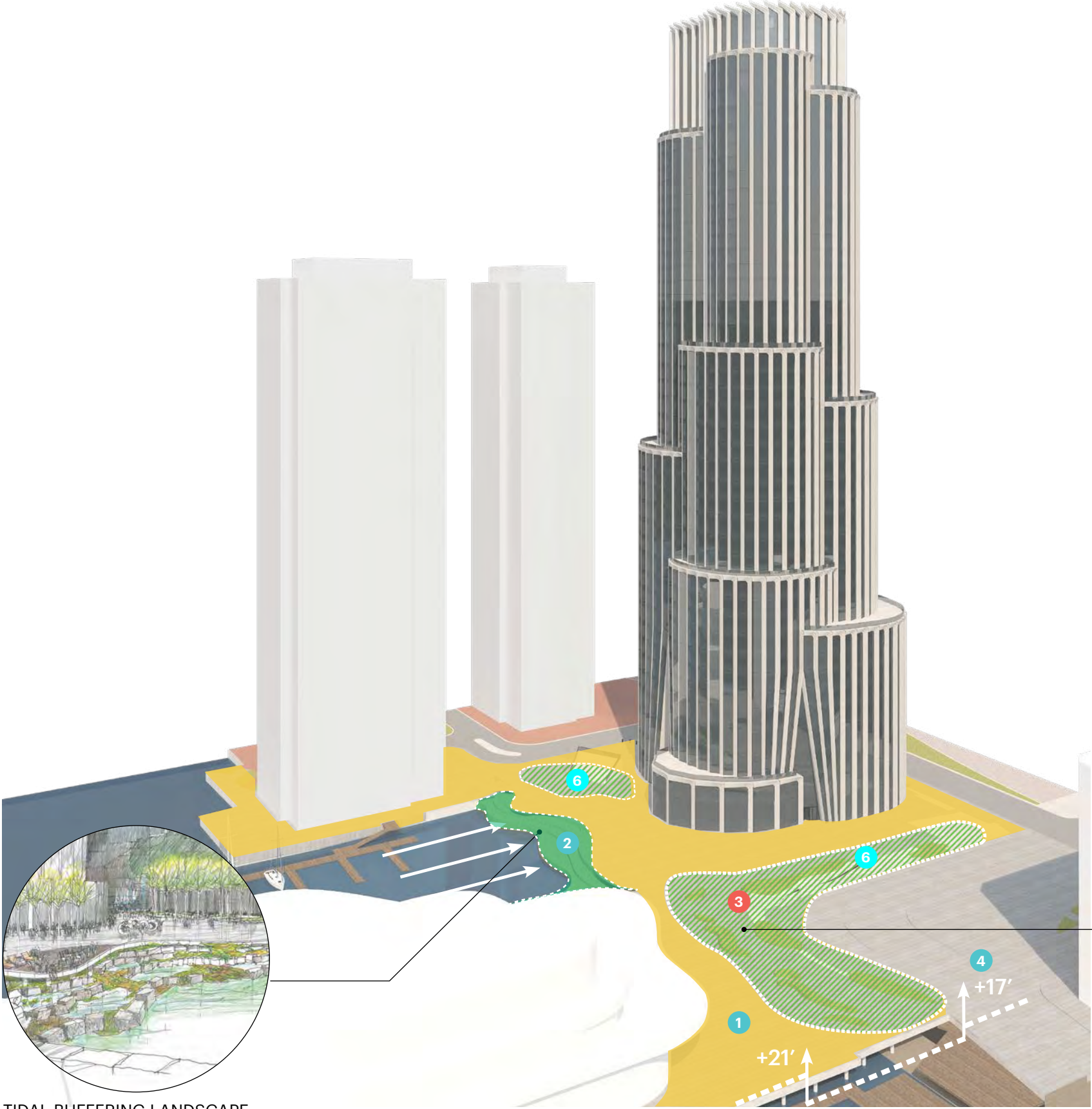
Future storm flood scenarios Downtown Boston
Source: Climate Ready Boston (CRB) 2019

Environmental Goals

- 1 Integral flood protection as part of waterfront
- 2 Passive heat survivability during blackouts



Resilience, Comfort and Community



TIDAL BUFFERING LANDSCAPE

- 1 ELEVATED SITE**
FOR FLOOD PROTECTION, ALSO IMPROVING ACCESS TO THE WATERFRONT AND INTEGRATING WITHIN LARGER DOWNTOWN PUBLIC SPACE NETWORK
- 2 HARBOR TIDAL EDGE**
TO CREATE A BUFFER FOR PEAK STORM TIDE FLOODING
- 3 STORM WATER MANAGEMENT SYSTEM**
INCORPORATING ON-SITE RAINWATER STORAGE AND GROUND LEVEL SURFACE RETENTION, EXCEEDING THE RUNOFF CONTROL CAPACITY DEFINED BY THE CITY
- 4 NEIGHBORING SITES ENGAGEMENT**
INTEGRATION WITHIN THE JOINT DISTRICT RESILIENCY STRATEGY OUTLINED BY CLIMATE READY BOSTON
- 5 PASSIVE SURVIVABILITY**
INTEGRATION WITHIN THE JOINT DISTRICT RESILIENCY STRATEGY OUTLINED BY CLIMATE READY BOSTON
- 6 URBAN HEAT ISLAND REDUCTION**
EXTREME HEAT ADAPTATION, THROUGH A COMBINATION OF HIGH ALBEDO PAVEMENT AND FLOOR MATERIALS AND VEGETATED SHADED CANOPY.



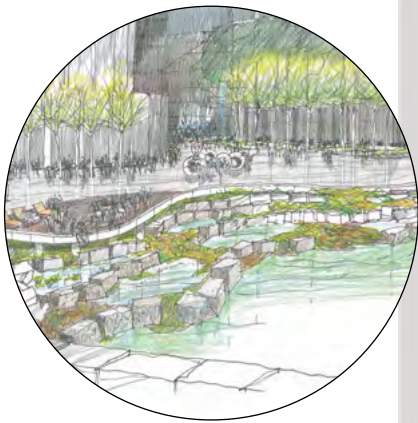
POROUS HIGH ALBEDO PAVEMENT
FOR REDUCED HEAT ISLAND



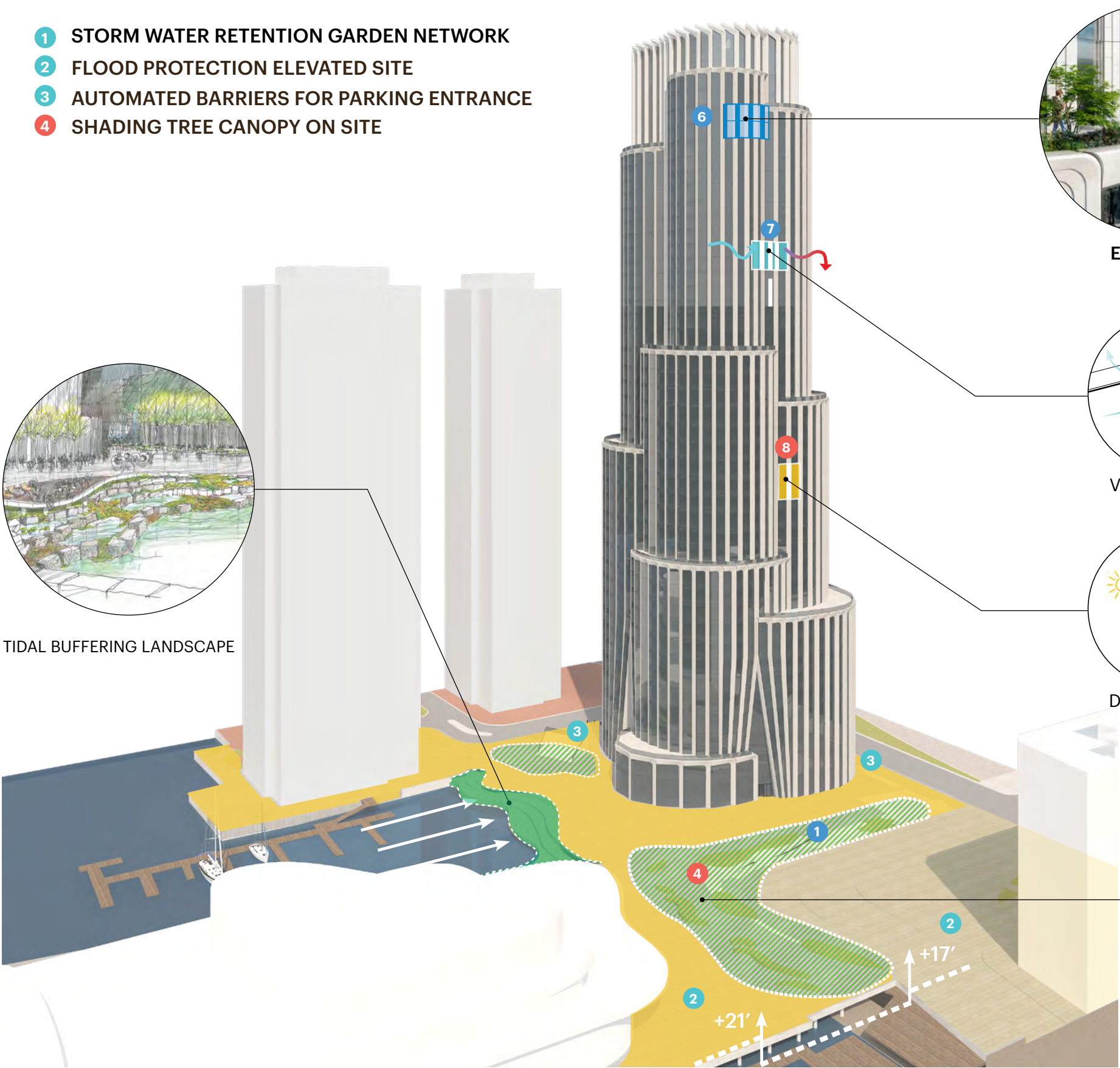
STORM WATER MANAGEMENT
GARDENS

Resilience, Comfort and Community

- 1 STORM WATER RETENTION GARDEN NETWORK
- 2 FLOOD PROTECTION ELEVATED SITE
- 3 AUTOMATED BARRIERS FOR PARKING ENTRANCE
- 4 SHADING TREE CANOPY ON SITE



TIDAL BUFFERING LANDSCAPE



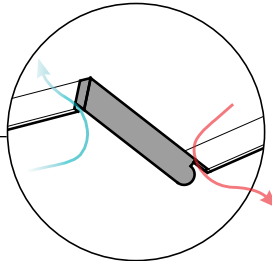
EXTERIOR



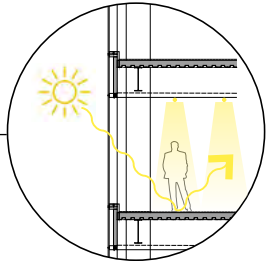
INTERIOR



DOUBLE HEIGHT OFFICE SPACES



VENTILATION



DAYLIGHTING

- 6 **HIGH PERFORMANCE FACADE**
 - REDUCED WWR THROUGH SUPER INSULATED SOLID PANELS
 - REDUCED ENERGY USE THROUGH LOW-E COATED DOUBLE GLAZING AND HORIZONTAL SHADING
 - REDUCED HARMFUL RADIATION ON THE EAST AND WEST FACADES
- 7 **NATURAL VENTILATION**
 - CREATE NATURAL VENTILATION OPPORTUNITIES THROUGH THE USE OF FACADE FOLD IN RESIDENTIAL FLOORS
 - PROVIDE PASSIVE SURVIVABILITY DURING POWER OUTAGE
- 8 **DAYLIGHT DESIGN**
 - REDUCED GLARE THROUGH OPAQUE FACADE PANELS AND SHADING
 - REDUCED ELECTRICITY USE THROUGH DAYLIGHT DIMMING CONTROL, OCCUPANCY LIGHTING CONTROL, AND LOW POWER LED LIGHTING

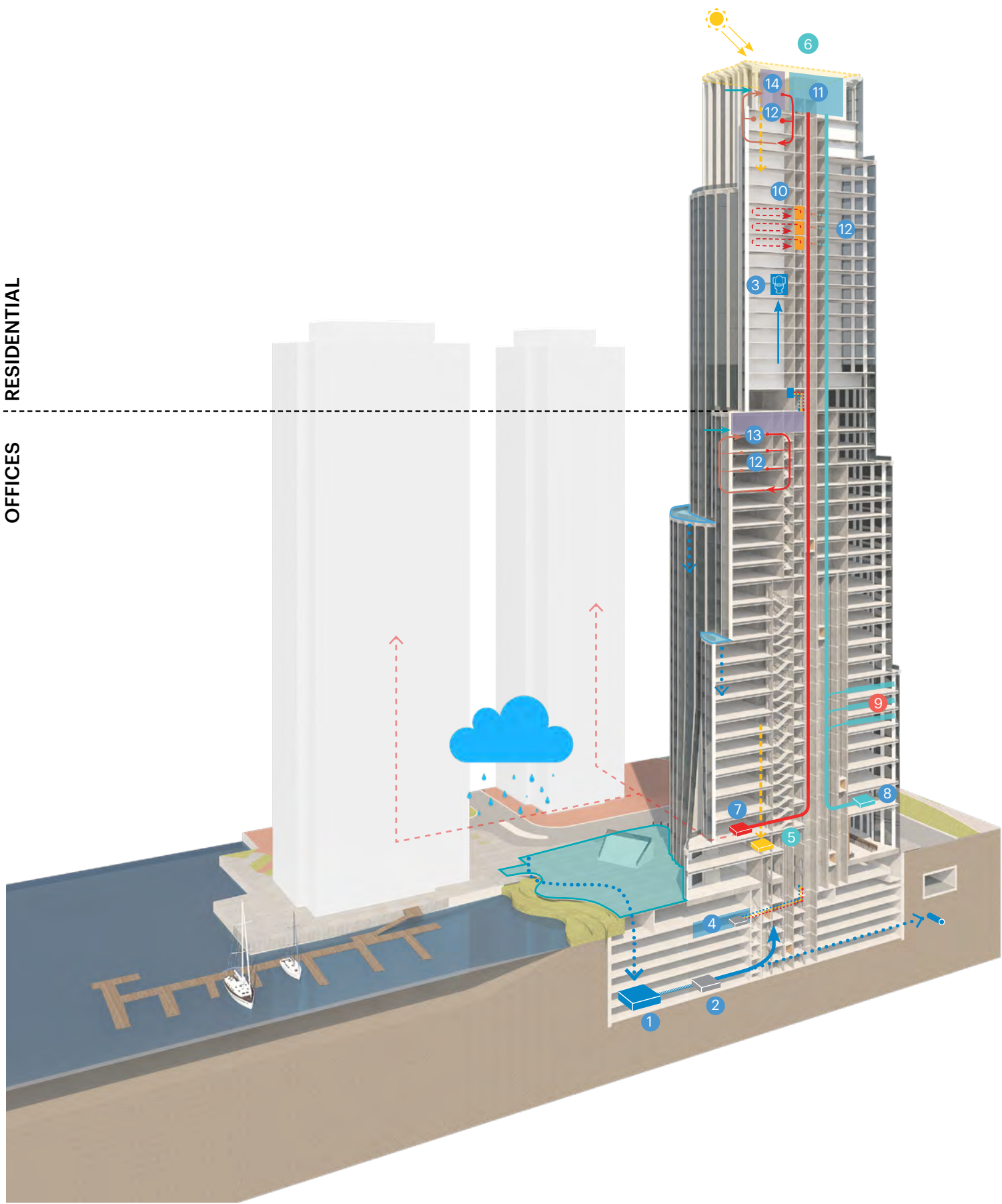


POROUS HIGH ALBEDO PAVEMENT FOR REDUCED HEAT ISLAND



STORM WATER MANAGEMENT GARDENS

Low Impact Environmental Systems



WATER & WASTE

- 1 STORM WATER STORAGE
- 2 STORM WATER TREATMENT
- 3 WATER USE EFFICIENCY
 - GREY WATER TREATMENT PLANT FOR REUSE
 - LOW FLOW FIXTURES
 - LOW IRRIGATION LANDSCAPE
- 4 WASTE MANAGEMENT
 - COLLECTION CHUTES
 - RECYCLING CENTER & COMPACTOR

GENERATION

- 5 EMERGENCY GENERATOR
- 6 SOLAR PHOTOVOLTAIC GENERATION

HEATING & COOLING

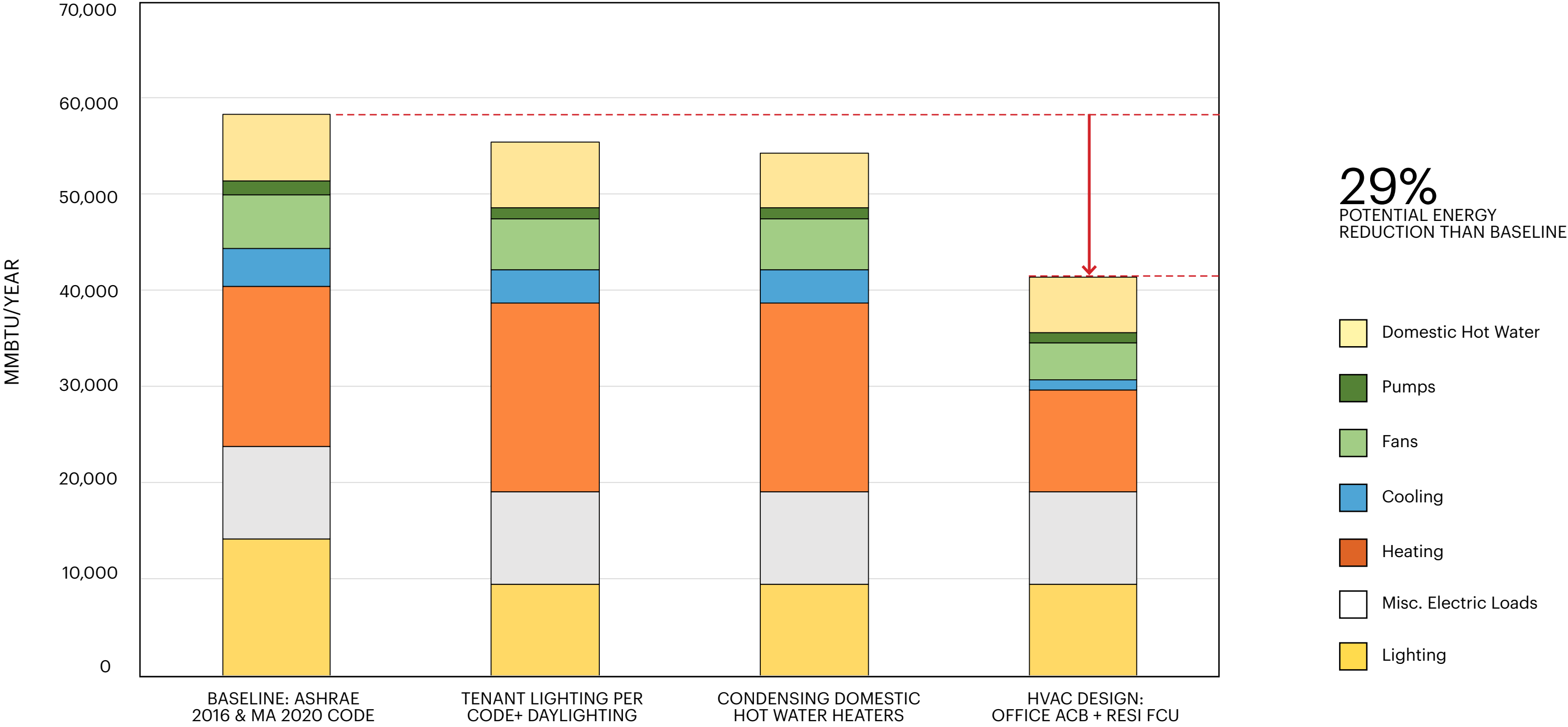
- 7 COGENERATION & HOT WATER PLANT
- 8 CHILLED WATER PLANT
- 9 HIGH EFFICIENCY ACTIVE CHILLED BEAM
- 10 WATER COOLED VRF SYSTEM
- 11 HIGH EFFICIENCY COOLING TOWERS
- 12 HEAT RECOVERY
 - WATER FROM OFFICE TO RESIDENTIAL

VENTILATION

- 13 OFFICE VENTILATION ENERGY RECOVERY
- 14 RESIDENTIAL VENTILATION ENERGY RECOVERY

Path to Low Carbon

IMPACT OF POTENTIAL ENERGY REDUCTION STRATEGIES







ROCK GARAGE

EXIT ONLY

PARKING ENTRANCE

←P

←P





NO
TRESPASSING
NO
SOLICITING
POLICE
TAKE NOTICE





EARLY MORNING SPECIAL \$19.00
In Advance \$19.00 to 7:00 AM
Get into the office early - from the
comfort of your car.



Harbor Edge

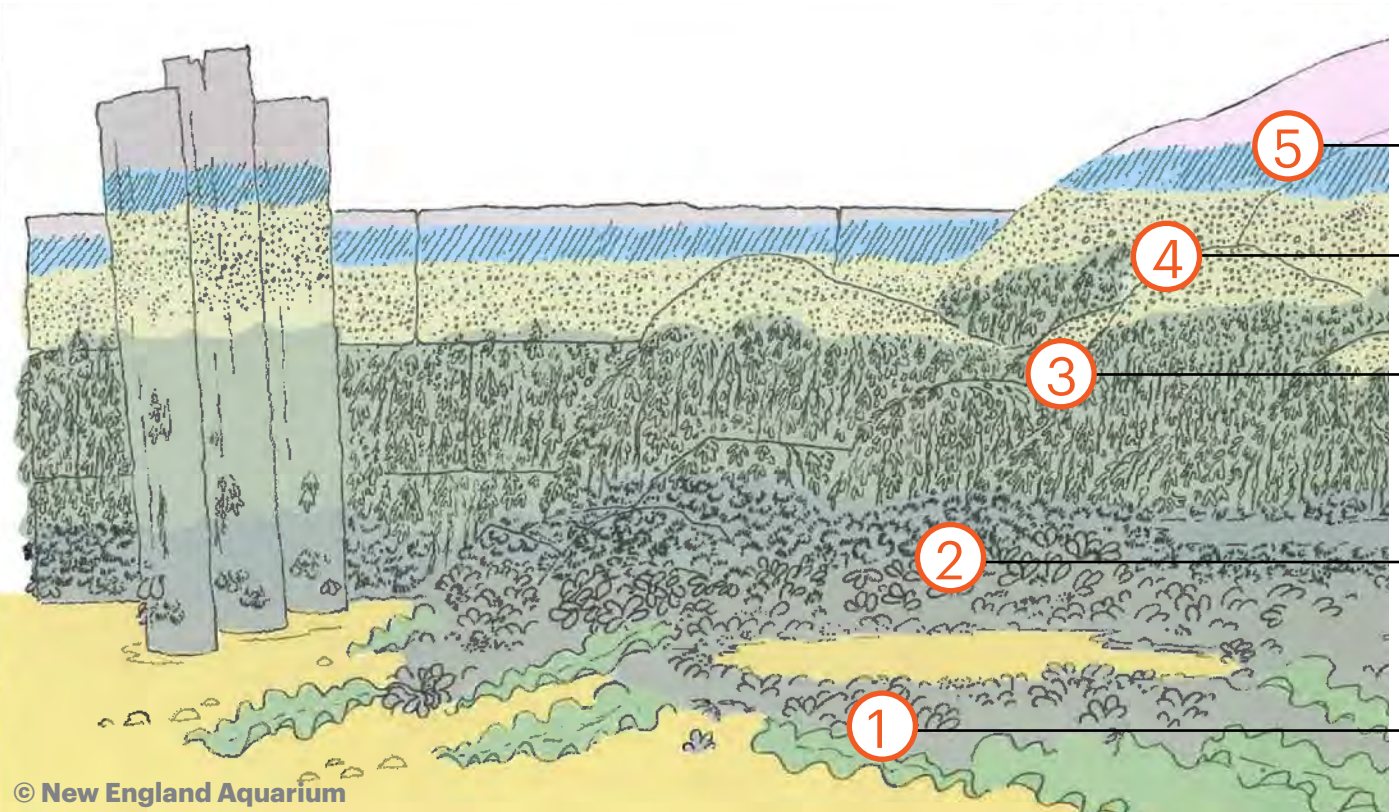
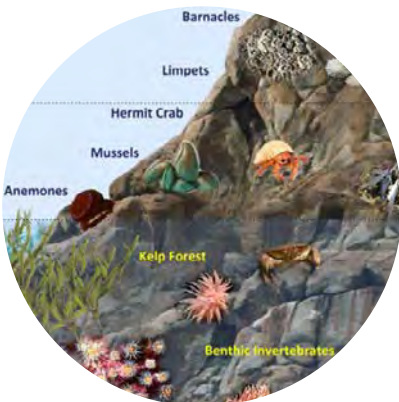
EXISTING NEAQ

COASTAL UPLAND

SPRAY ZONE

INTERTIDAL ZONE

SUBTIDAL ZONE



- 5 spray or black zone
- 4 upper intertidal or periwinkle zone
- 3 middle intertidal or barnacle/rockweed zone
- 2 lower intertidal or Irish moss zone
- 1 subtidal or kelp zone



- subtidal or kelp zone
- lower intertidal or Irish moss zone
- middle intertidal or barnacle/rockweed zone
- upper intertidal or periwinkle zone
- spray or black zone

1



bageriet
ROSTERIE

FRESH



T H E
PINNACLE
C E N T R A L W H A R F



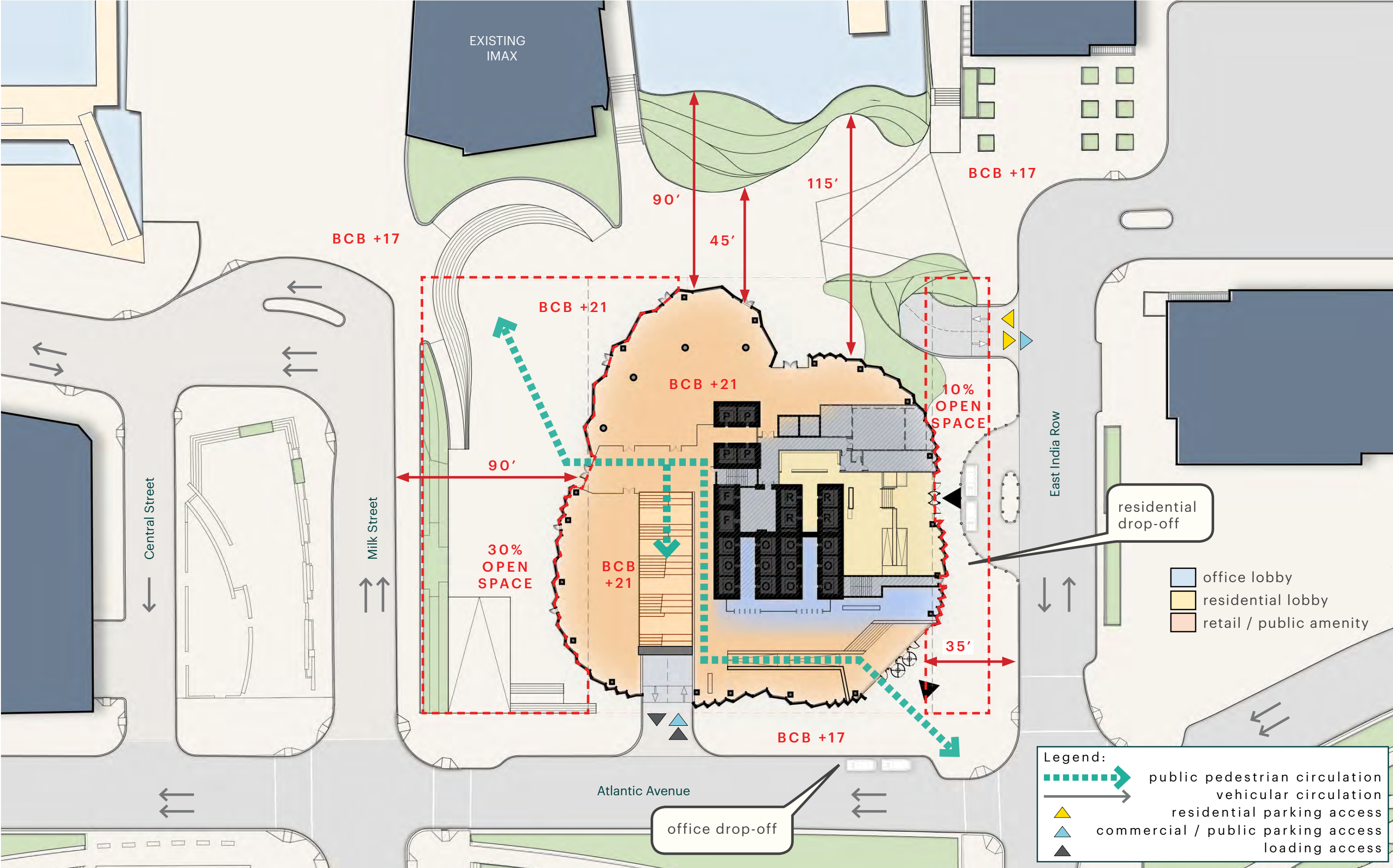
KPF
108

Representative Project Benefits



- 30% of project site dedicated for integration into NEAq's proposed Blueway vision
- \$10 Million contribution toward NEAq resiliency improvements associated with Blueway (largest offset in history of MHP regime)
- Guaranteed parking for NEAq patrons, through construction period and afterward, in modern, flood-resistant garage (250 spaces M-F, 9-6; 500 spaces at all other times)
- \$30 Million indemnity to NEAq against construction period revenue losses
- Removal of all garage and project-related traffic from Central Wharf
- Expansive new visibility to NEAq campus
- Highly activated and amenitized interior spaces concentrated along Central Wharf
- Opportunities for NEAq programming partnerships
- Initial link of district-wide protective network against sea level rise (*Climate Ready Boston*)
 - 4' elevation of project site and adjacent Harborwalk
 - Creation of living shoreline on behalf of abutters
- Removal of block-long barrier of existing garage
- 28,000+ sf of new open space
- 42,000+ sf of public interior amenity space
- Reimagination & activation of Harborwalk
- \$300,000 toward design and engineering of park and water transportation hub at Chart House parking lot
- 7 day/4 season activation via mixed-use programming
- Expansive new view corridors and pedestrian access to harbor edge
- Significant new revenue streams through value capture (e.g., real estate taxes and bonding capacity)

Ground Level Plan



SHADOW ANALYSIS

The MHP design provisions requires no one-hour net new shadow seaward of the Long Wharf Marriott (October 23rd)

Approximate one-hour shadow for proposed scheme

Ch 91 Jurisdiction

Ch. 91 one-hour shadow

Existing Harbor Garage one-hour shadow



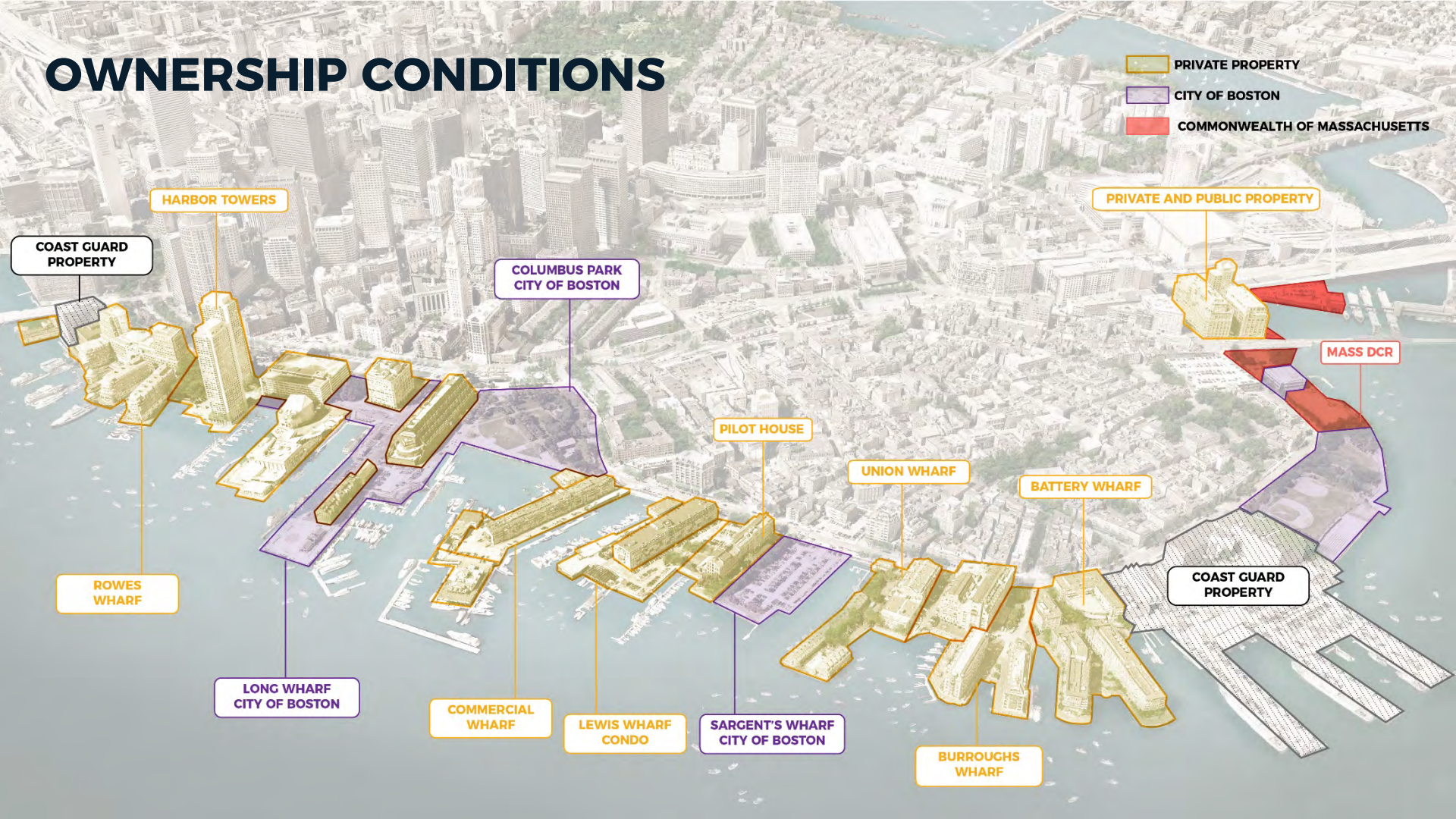
Net New Shadow over public realm sidewalks / plaza



Net New Shadow over watersheet

October 23rd
8:00 am - 5:00 pm

OWNERSHIP CONDITIONS



PRIVATE PROPERTY

CITY OF BOSTON

COMMONWEALTH OF MASSACHUSETTS

HARBOR TOWERS

COAST GUARD
PROPERTY

COLUMBUS PARK
CITY OF BOSTON

PRIVATE AND PUBLIC PROPERTY

MASS DCR

ROWES
WHARF

PILOT HOUSE

UNION WHARF

BATTERY WHARF

COAST GUARD
PROPERTY

LONG WHARF
CITY OF BOSTON

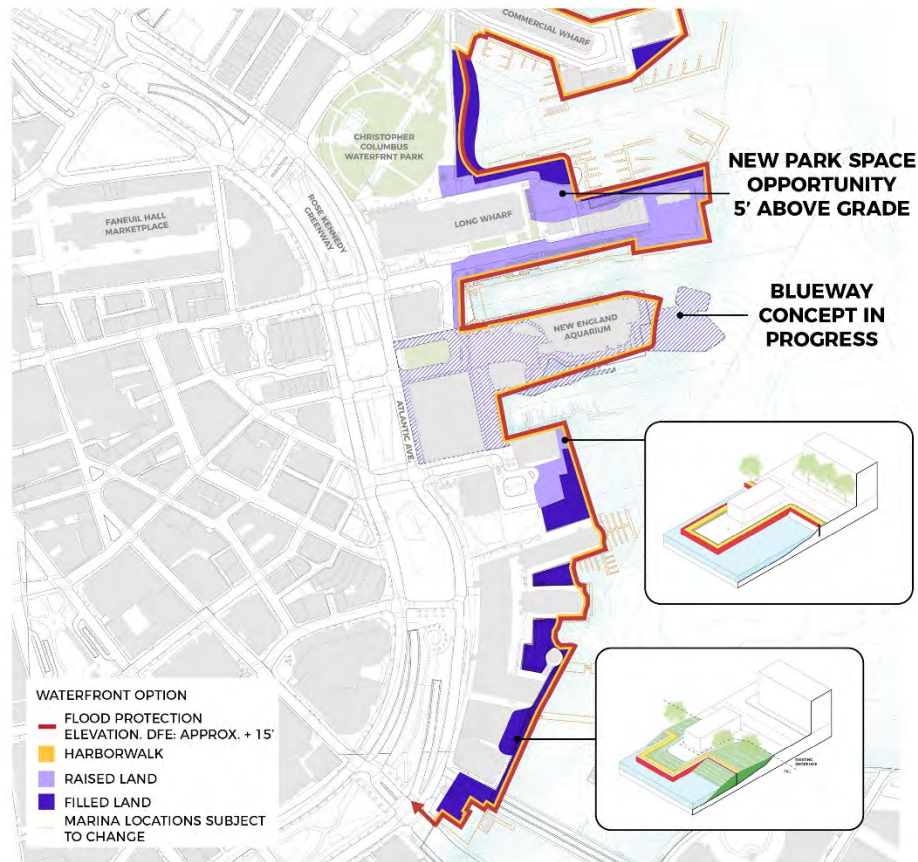
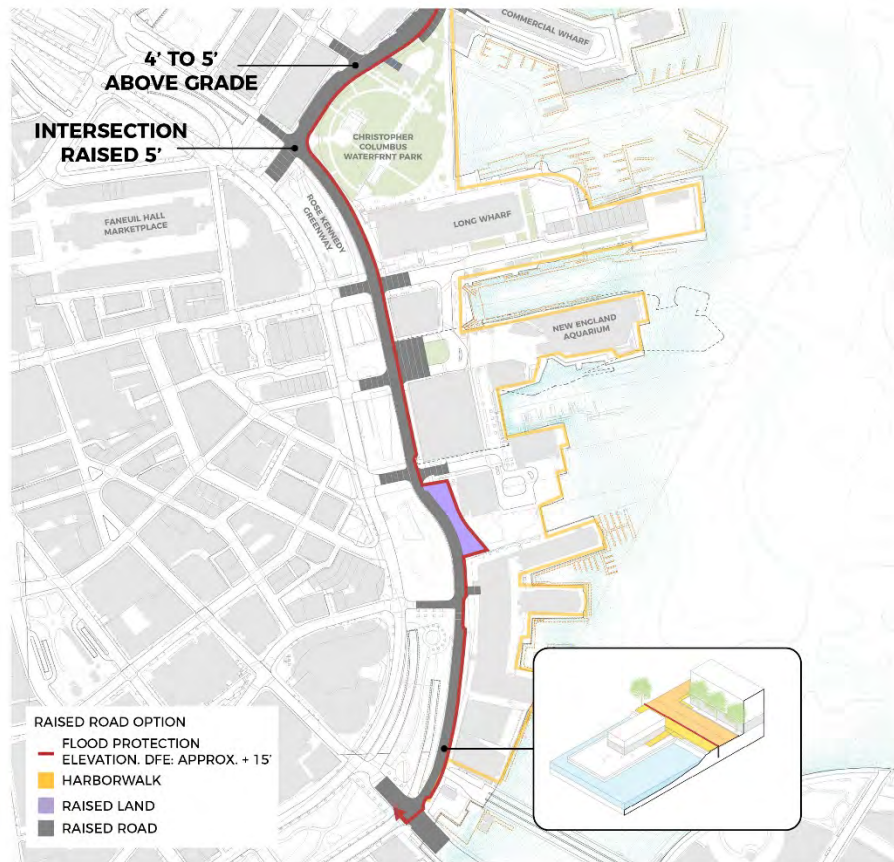
COMMERCIAL
WHARF

LEWIS WHARF
CONDO

SARGENT'S WHARF
CITY OF BOSTON

BURROUGHS
WHARF

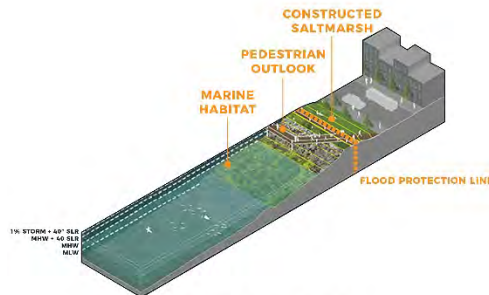
DOWNTOWN + WHARF DISTRICT



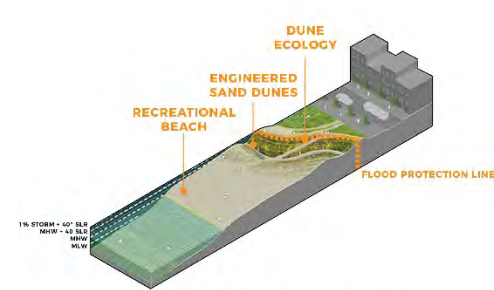
FLOOD PROTECTION TOOLKIT (Resilient Boston Harbor)



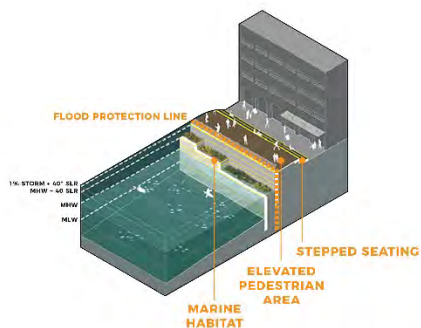
WATERFRONT GATEWAYS



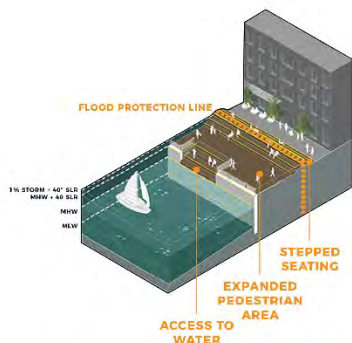
LIVING EDGES



NEIGHBORHOOD BEACHES



HABITAT HARBORWALK



STEPPED HARBORWALK



ELEVATED HARBORWALK

*Axons from Resilient Boston Harbor. Orange annotations have been added.