

# Broad Canal Subdistrict Zoning Petition

# AGENDA

1. Team Introduction
2. Site Orientation
3. Context
4. Public Engagement
5. Zoning Petition
6. Public Benefits

# TEAM INTRODUCTION

## DWS

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Gerry Ianetta

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## Beals Associates

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Patrick Connolly

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## Margulies Perruzzi Architects

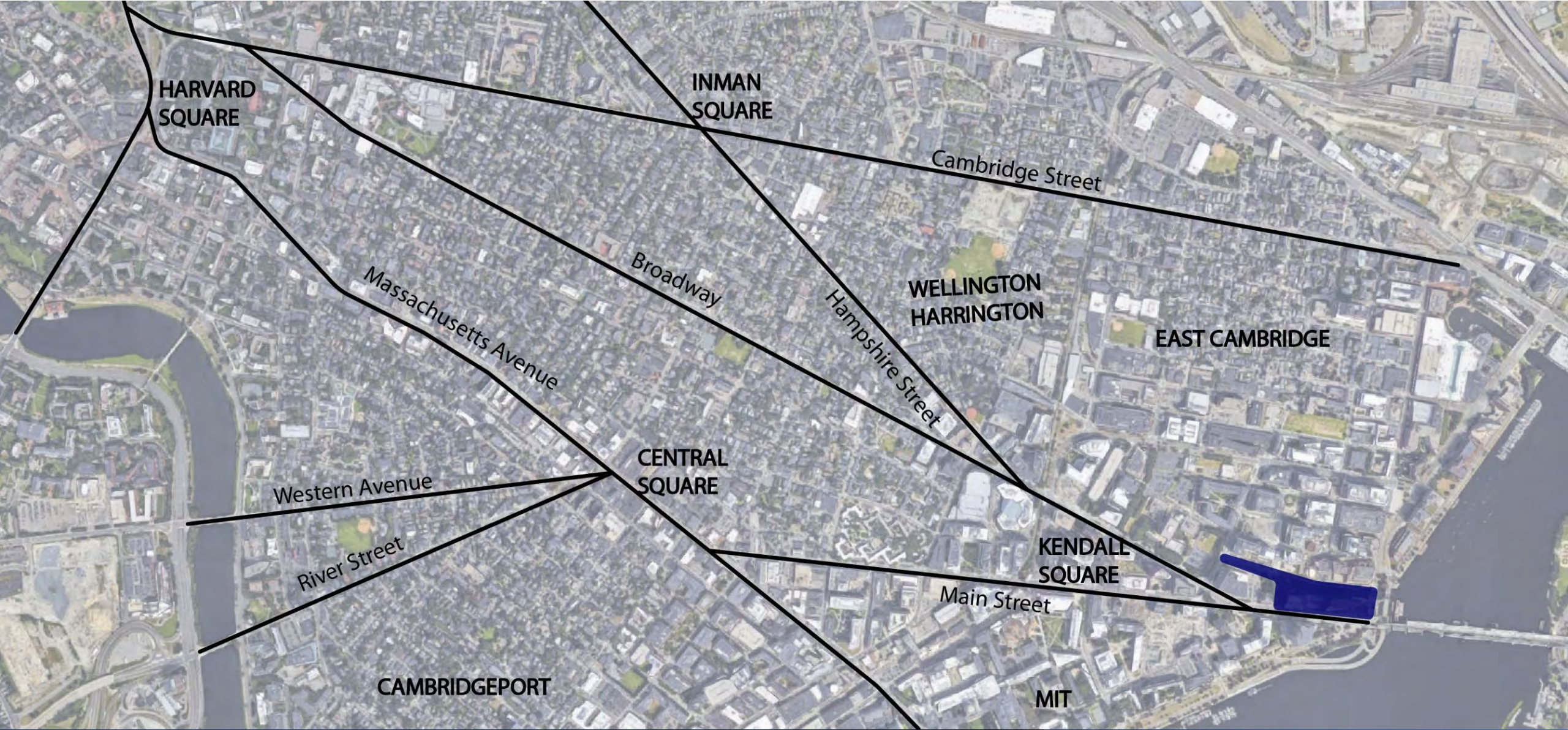
Marc Margulies

Paul McIntire

Jason Costello

# SITE ORIENTATION

# CONTEXT IN CAMBRIDGE



# BROAD CANAL SUBDISTRICT



- Bounded by:
- Third Street
  - Broad Canal
  - Land Boulevard
  - Main Street

# CONTEXT

# ONE & 101 MAIN STREET



- Gateway to Cambridge
- Built in 1985 under PUD Special Permit #1
- Zoning District: PUD-3
- Currently office space with some ground floor retail
- Waterfront property but has back turned on underutilized Broad Canal

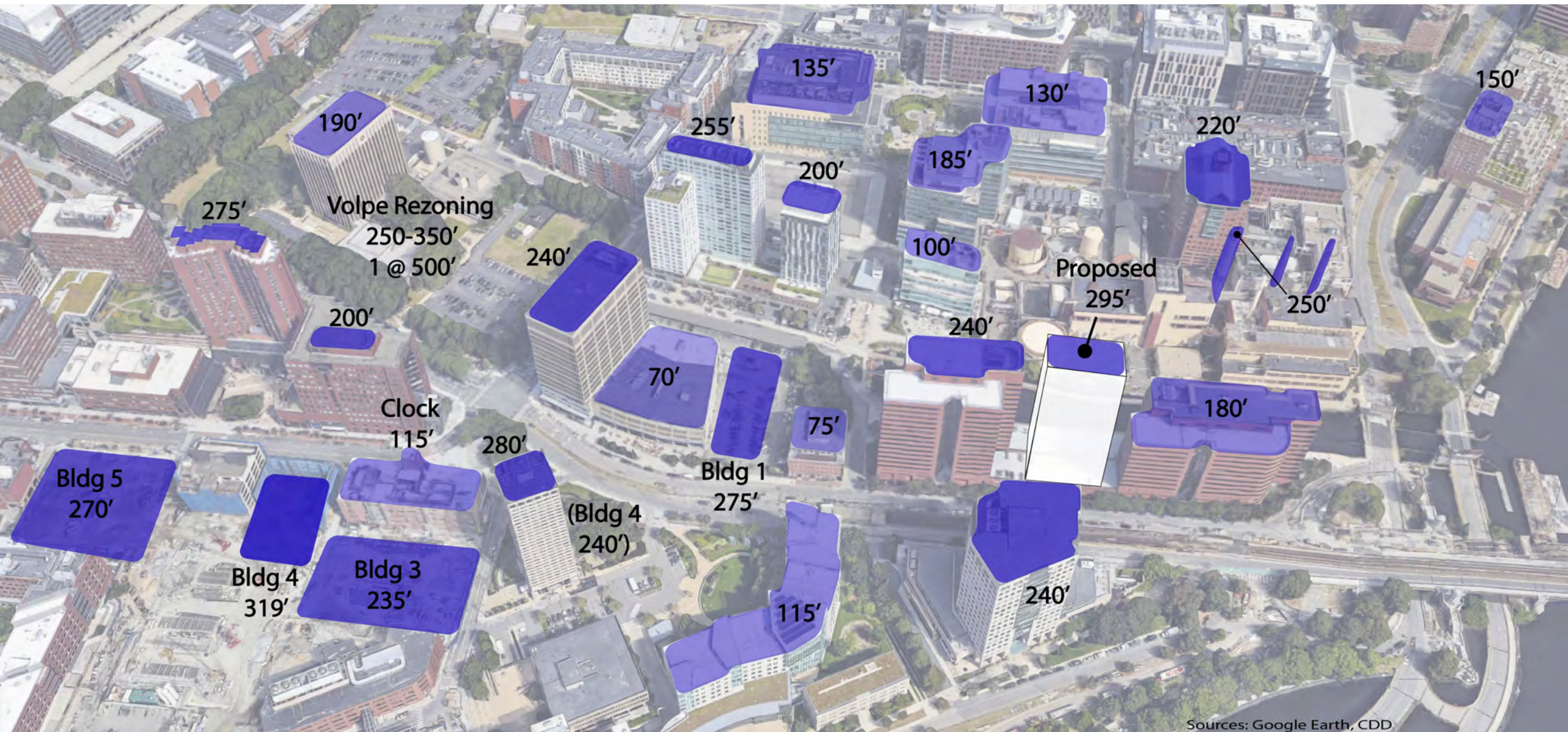


# REZONING CONTEXT



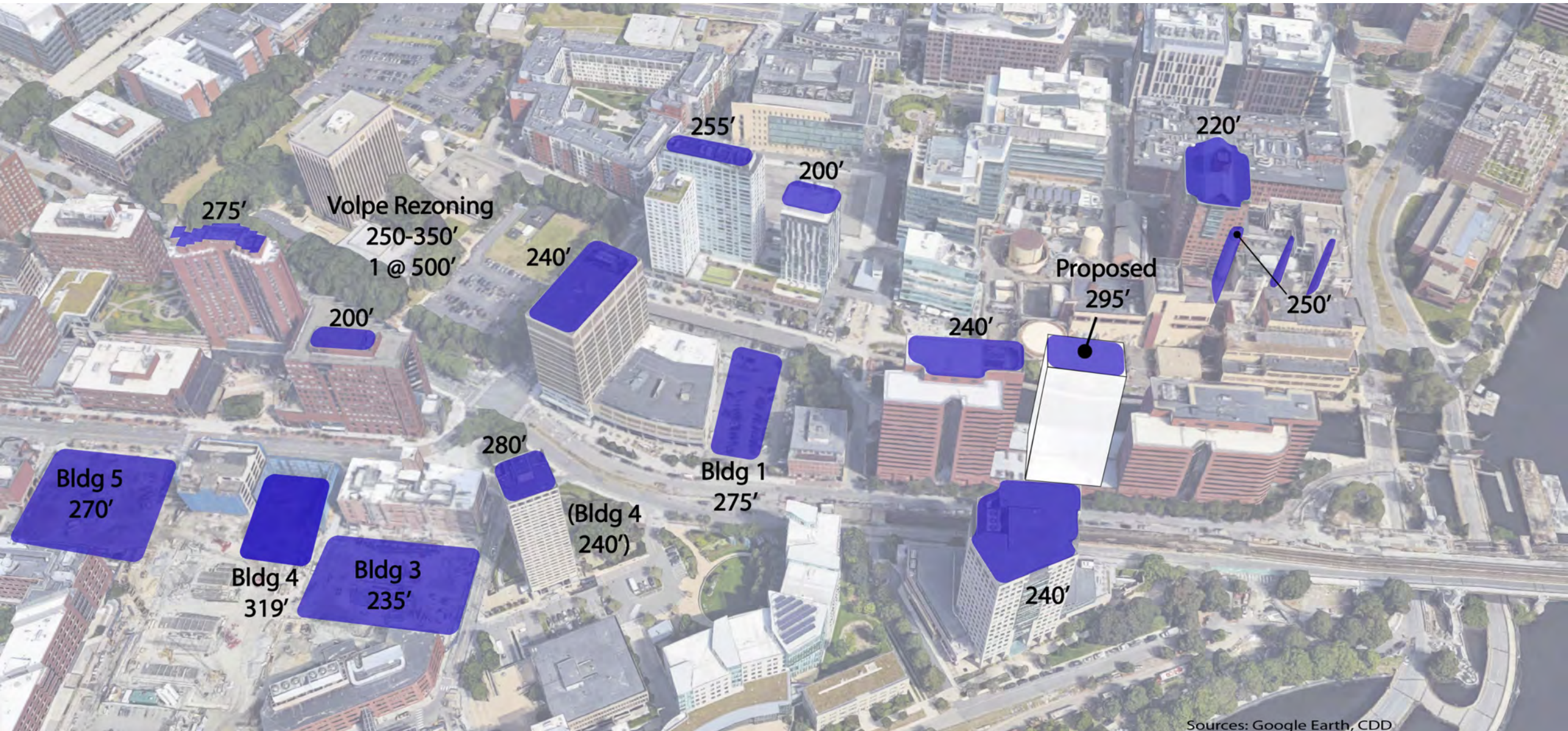
- Over the last decade, several PUDs have been updated or created, including:
  - PUD-5 (MIT) in 2013
  - PUD-MXD in 2015
  - PUD-7 (Volpe) in 2017
  - PUD-8 (Cambridgeside Galleria) in 2019
  - PUD-CDK (part of PUD-3) in 2020
  - PUD-MXD in 2021

# HEIGHT CONTEXT



Sources: Google Earth, CDD

# BUILDINGS GREATER THAN 200 FEET IN HEIGHT



Sources: Google Earth, CDD

# PUBLIC ENGAGEMENT

# ENGAGEMENT THROUGH PANDEMIC WITH COURBANIZE

Online Outreach Report | Generated on 04/23/21 by coUrbanize  
 Broad Canal Subdistrict Zoning & Development | [buildboradcanal.com](http://buildboradcanal.com)

## Audience Reached

1,434 Website Visitors      71 Followers      289 Total Comments

## Engagement Over Time

The cumulative number of comments and replies on coUrbanize over the project's online engagement period

Total Feedback and Replies



## Community Sentiment

coUrbanize's system analyzes key words and phrases in each comment to determine its overall sentiment

Sentiment



coUrbanize is the only **online community engagement solution** purpose-built for real estate developers and municipal planners.



coUrbanize is an online platform connecting real estate developers & municipal planners with the community.  
[courbanize.com](http://courbanize.com) | 33 Arch Street, Boston, MA 02110 | [support@courbanize.com](mailto:support@courbanize.com)



Main Street



Broad Canal

# STAKEHOLDER MEETINGS

- Public Outreach Meeting via coUrbanize (December 2020)
- East Cambridge Planning Team (January 2019 & December 2020)
- Individual City Councilor Meetings (April 2018 – April 2021)
- Community Development Dept. staff (January 2019 – March 2021)
- Executive Director, Historical Commission
- Conservation Commission
- Kendall Square Association
- MITIMCo
- BioMed Realty

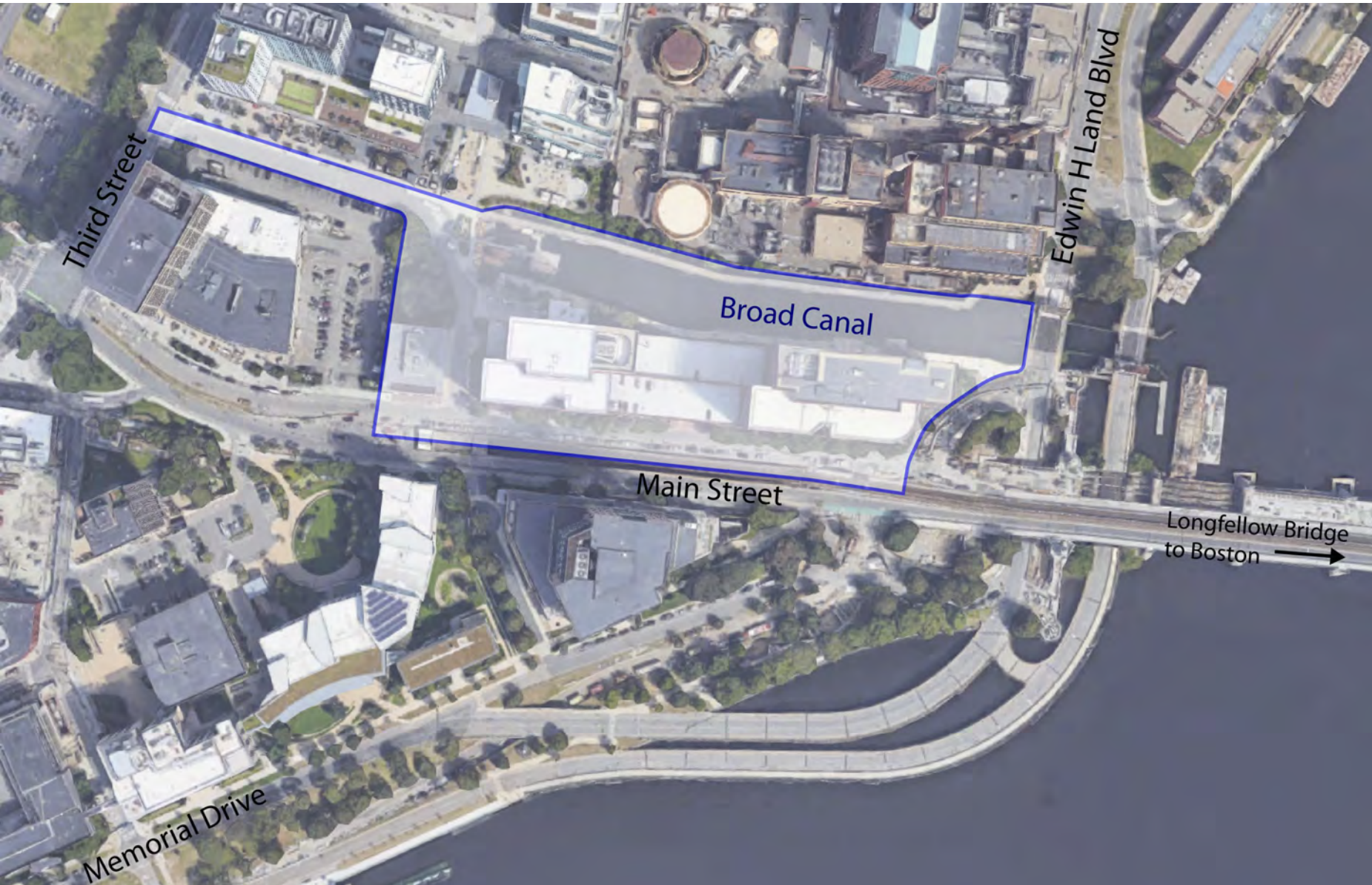
# WHAT WE HEARD

- Connect to plans to Volpe via Broad Canal Way
- Trees!
- Indoor office/restrooms, changing area, lockers for Paddle Boston
- Broad Canal experience underwhelming
- Housing in the area is important
- Better pedestrian flow and crossings
- Family-friendly area: playground, fencing, benches/tables, splash pad, dog park
- Preservation of habitat and environmentally sensitive areas
- More diverse retail: book shop, art gallery, arts & crafts workshops, clothing stores, sit-down restaurants, gift shop, indoor rowing
- Improved T wall with landscaping and art
- Outdoor Life: seating, performers, dance events, street fairs

# ZONING PETITION



# BROAD CANAL SUBDISTRICT



- Max height: 250 feet but not to exceed ~~350~~ feet 295 feet
- Density: maximum ~~1.4~~ million-1.175 million SF (818,000 SF existing)
- Add Clinic uses & Canal uses
- Implement parking maximums
- Require LEED Gold (or comparable)
- Makes a portion of PUD-3 comparable to surrounding PUDs

## ALIGNMENT WITH PUD-3 “PURPOSE”

“The PUD-3 districts are intended to provide for the creation of a high quality general and technical office environment which permits larger scale development and supporting commercial activities and which encourages strong linkages between new development at Kendall Square and along the East Cambridge riverfront.”

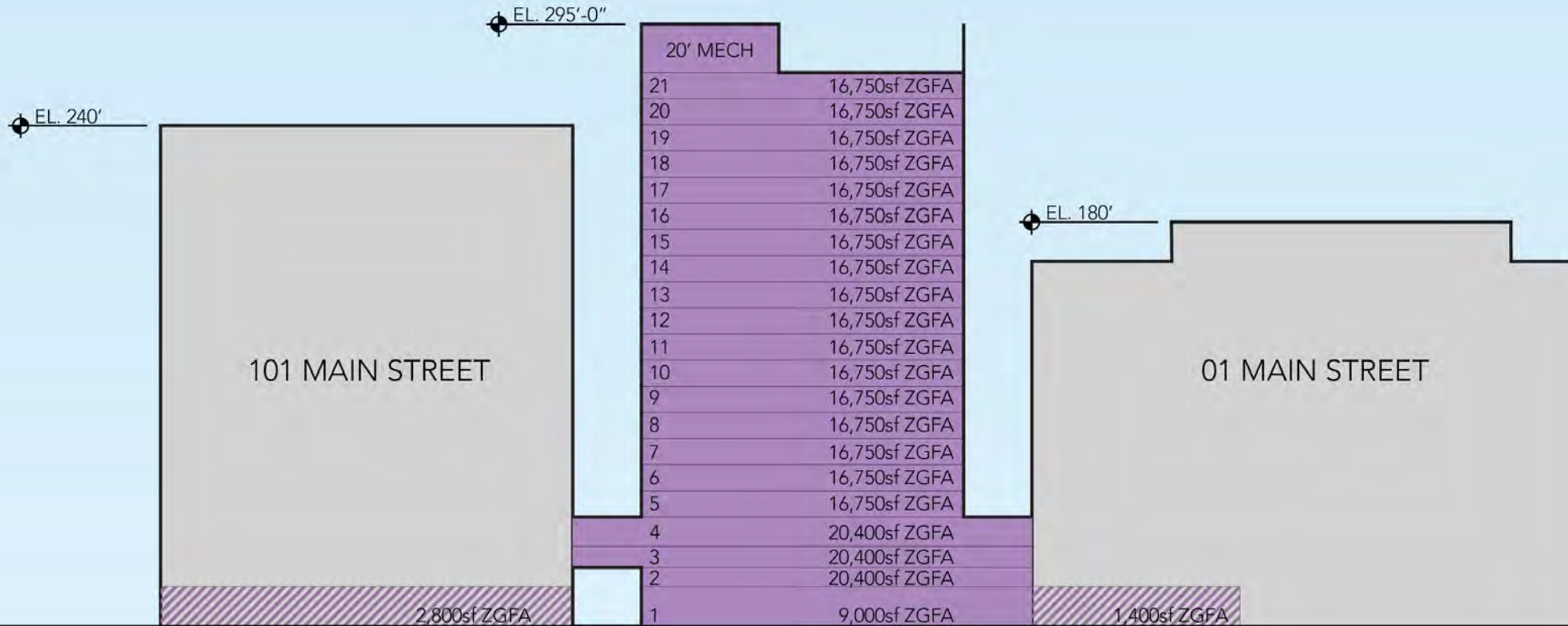
# ZONING COMPARISON

	Existing PUD-3	Proposed Broad Canal Subdistrict
Height	200 feet	295 feet
Density	FAR 2.0	1.175 million SF (+360,000 SF Total) 285,000 SF Office/Lab 61,500 SF Parking 13,500 SF Retail
Uses	Residential; Transportation, Communication, Utility & Institutional; Office & Lab; Retail Business & Consumer Service	All PUD-3 Uses + Institutional Uses such as Clinic Uses (Section 4.33(d)) and Canal Uses
Parking	<p><b>Minimums</b></p> Retail & Office: 1 per 900 SF ground floor 1 per 1,800 SF upper floor Institutional: 1 per 1,800 SF Residential: 1 per unit Public Assembly: 1 per 15 spaces	<p><b>Maximums</b></p> Office: 0.9 per 1,000 SF Lab: 0.8 per 1,000 SF Residential: 0.75 per unit Retail: 0.5 per 1,000 SF Hotel: 1 per 4 sleeping rooms
Loading	Conforms to Article 6.0	Allows Planning Board to waive requirements for amount, location, design of parking or loading facilities

# SITE PLAN



# BUILDING SECTION



# ARCHITECTURAL LANDMARK

Concepts that are still being worked on:

- Aesthetic connection between new and old at the street level
- Green rooftops
- Relative density of terra-cotta screening and color of glass
- Bridge over Broad Canal – to include or not?
- Difference in screening of North versus South façade
- Screening on underside of North side cantilever
- Banners/activation of retail in existing buildings

# SUSTAINABLE ELEMENTS



Green Roofs



Solar Glass



EV Chargers

# ARCHITECTURAL LANDMARK





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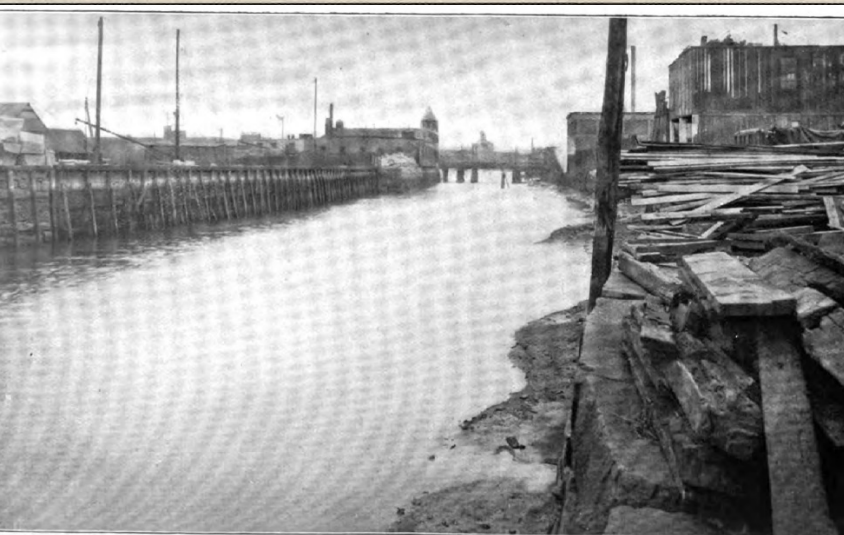
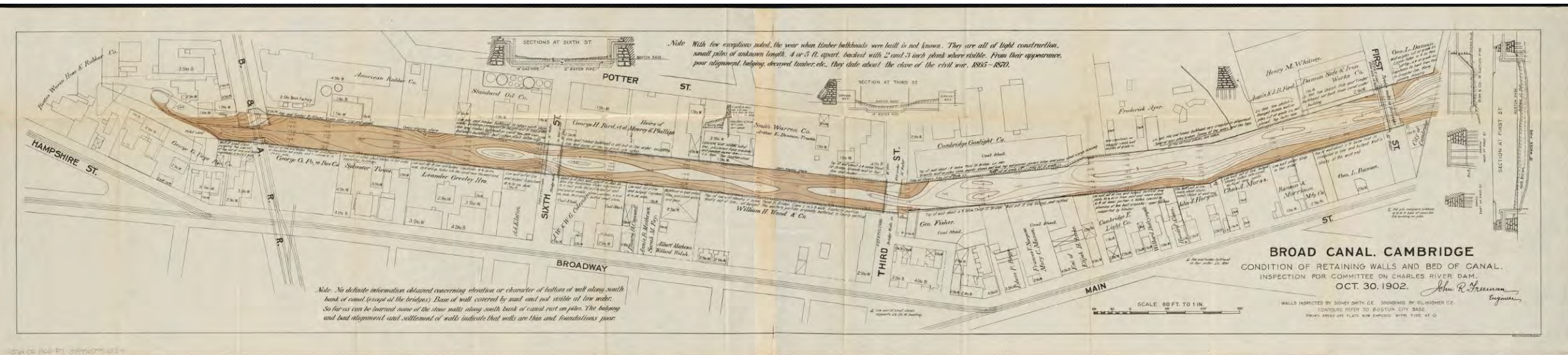


# ARCHITECTURAL LANDMARK





# PETITION ENLIVENS BROAD CANAL



Broad Canal, between Third and First Streets, Nov. 24, 1902. Low Tide at 12:10 P.M. Grade +.64, Boston Base.



## ■ Petition seeks to:

- Incorporate the evolution and historical uses of the Broad Canal
- Create links to industrial legacy, factories, etc. and future project(s)
- Look to the 21<sup>st</sup> century and new uses of the canal

# ARCHITECTURAL LANDMARK



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# ARCHITECTURAL LANDMARK





# VOLPE DESIGN GUIDELINES COMPLIANCE

## Built Form

- Create rich and varied, humanly scaled building with continuous ground level pedestrian realm
- Create strong streetwalls to frame streets, parks, squares, and plazas
- Mitigate building bulk to minimize adverse impacts on the microclimate, including shadows, wind, and urban heat island effects
- Make positive contributions to the Cambridge skyline and important views
- Look for opportunities to enrich urban pattern by breaking or modulating it by responding to elements of adjoining buildings, spatial axes, views, significant corners, etc., or to elements of the building's own structure or program
- Differentiate massing and materials, color, fenestration, bay patterns, etc.
- Design four integrated zones: pedestrian frontage zone, streetwall, tower, and building top

## Pedestrian Frontage Zone

- Accommodate access needs of all users, and incorporate 'visitability' measures where possible
- Ground floor level flush with or easily accessible from sidewalks and readily convertible to retail storefronts
- Break up the scale of the pedestrian frontage zone, create variation in façade treatment at an intimate scale, distinguish from streetwall & tower
- Second-floor façade should be visually connected with ground floor façade, differentiated from Streetwall Zone above by its design, or serve as a mediating element linking the ground floor and the streetwall zone
- Building facades should maximize the visibility of ground floors containing retail, restaurant, and limited office space
- Where appropriate, retail awnings should be provided to offer an active, vital marketplace image, while protecting pedestrians

# VOLPE DESIGN GUIDELINES COMPLIANCE

## Streetwall Zone

- Streetwall facades should use rhythmic patterns, carefully considered bay dimensions, detail, proportion, color, materials, and other architectural elements to create a coherent and visually rich pedestrian experience
- The streetwall should be warm and inviting, and should include a variety of materials

## Building Towers

- Articulate tall buildings to avoid a monolithic appearance, and emphasize slender, vertically-oriented proportions. Changes in plane, material, fenestration pattern, color, etc. may be used to break up the bulk of building towers. Consider:
  - Emphasizing corners using taller elements such as towers, turrets, and bays.
  - Using at least two distinct finish materials and colors on each building.
  - Variation in forms to present different profiles to different vantage points.

## Building Tops

- The penthouse design and materials should be of equivalent quality to the rest of the building and enhance the overall building design.
- All mechanical penthouses and other projections should be architecturally integrated within the overall form and individual elevations of the building. The penthouse should enhance, not detract from, the overall building appearance and balance.

# VOLPE DESIGN GUIDELINES COMPLIANCE

## Building Massing

- Pedestrian frontages should align on the build-to line, with exceptions for recessed retail or other entrances and shopfronts.
- Streetwalls should align to the build-to line for 80% or more of the façade width.
- A taller streetwall may be appropriate on Broadway and Third Street and on wide streets
- In some cases, the direct extension of the tower's verticality through the streetwall to the ground plane may enhance the sense of place by creating a point of strong vertical emphasis.
- Reinforce distinction between building's streetwall and tower by the use of contrasting strategies of homogeneity and heterogeneity. Vary the design, scale, color, materials, massing, fenestration, etc. across the width of the streetwall or tower as vertical zones.
- Floorplates of the upper portions of tall buildings should be limited to create slender towers... Adequate separation should be maintained between tall buildings above the streetwall to allow for views of the sky.

## Community Spaces

- Community spaces should have their own distinct visual identities. Their main entrances should be directly accessible from streets and other public open spaces.

## Energy Performance and Embodied Energy

- Avoid excessive use of glass both for its poor thermal performance and high embodied energy.
- Incorporate passive design strategies such as building orientation, external shading, operable windows, and other approaches for natural ventilation/cooling.
- Maximize the thermal performance of building envelopes, such as use of thermal mass, high performance insulation, etc.
- Design roofs to be “solar ready,” employ green roofs where possible, otherwise use high-albedo “white roofs”.

# "K2" ZONING & URBAN DESIGN RECOMMENDATION COMPLIANCE

Quote from 2013 Kendal Square "K2" Report: Allowing some additional floor area could serve as a catalyst for improving ground floor retail, reworking the garage, and making a more substantial connection to the canal, which now has so much more activity than twenty years ago.  
(p. 26)

## Nurture Kendall's Innovation Culture

- ✓ Expand opportunities for Kendall Square knowledge economy to continue to grow
- ✓ Support a vibrant environment for creative interaction

## Create Great Places

- ✓ Support open space and recreation needs of a growing neighborhood
- ✓ Create lively, walkable streets
- ✓ Expand opportunities for Kendall's diverse community to interact
- ✓ Development and public place improvements must happen in tandem

# "K2" ZONING & URBAN DESIGN RECOMMENDATION COMPLIANCE

## Promote Environmental Sustainability

- ✓ Enhance streets as public places
- ✓ Create a healthier natural environment
- ✓ Reduce resource consumption, waste emissions
- ✓ Leverage the environmental and economic benefits of compact development

## Mix Living, Working, and Playing

- ✓ Leverage community and innovation benefits of mixed-use environment • Focus intensity around transit
- ✓ Minimize development pressures on traditional neighborhoods
- ✓ Continue to support city and state economic development

# PUBLIC BENEFITS

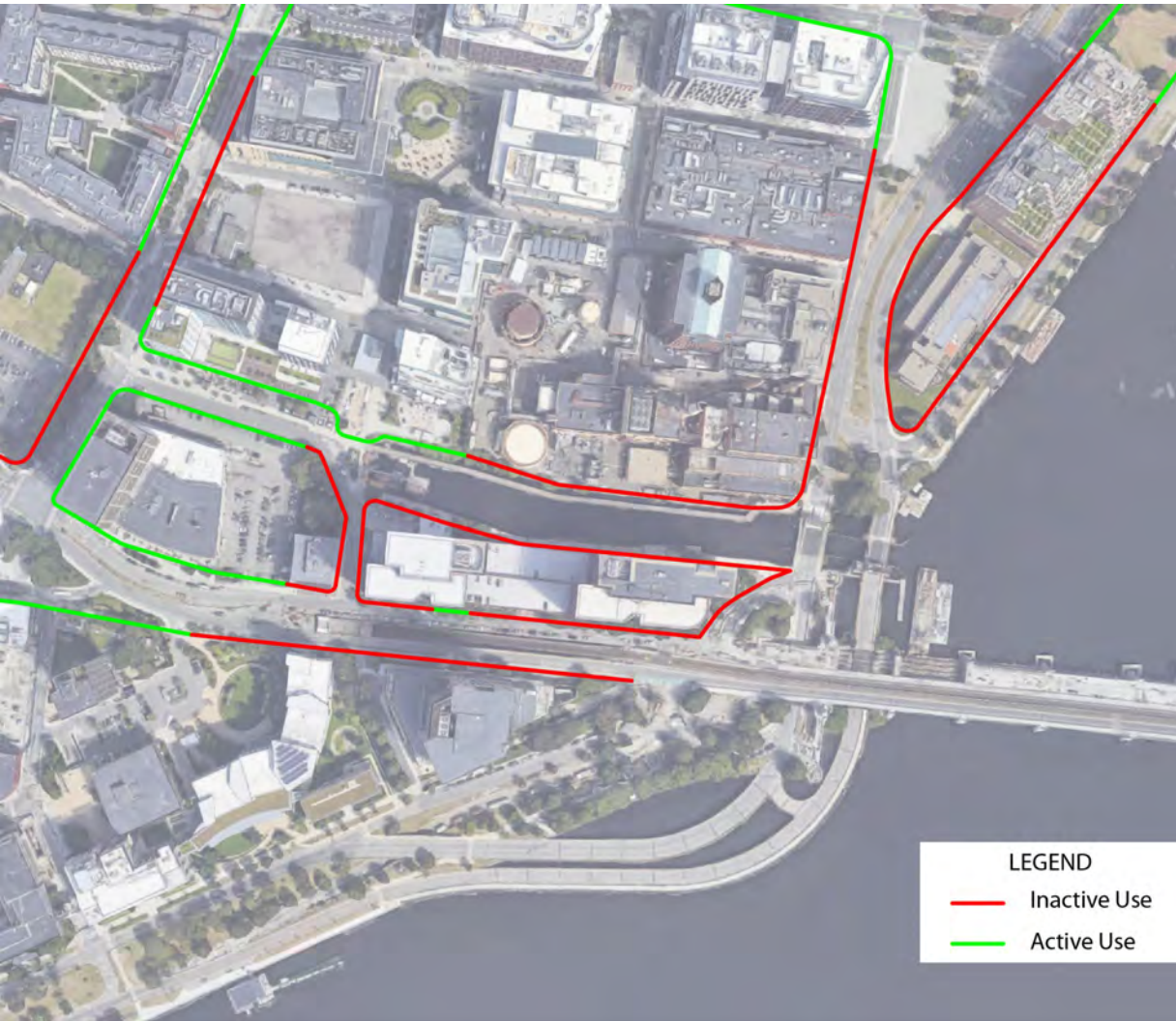


# PETITION CREATES PASS-THROUGH

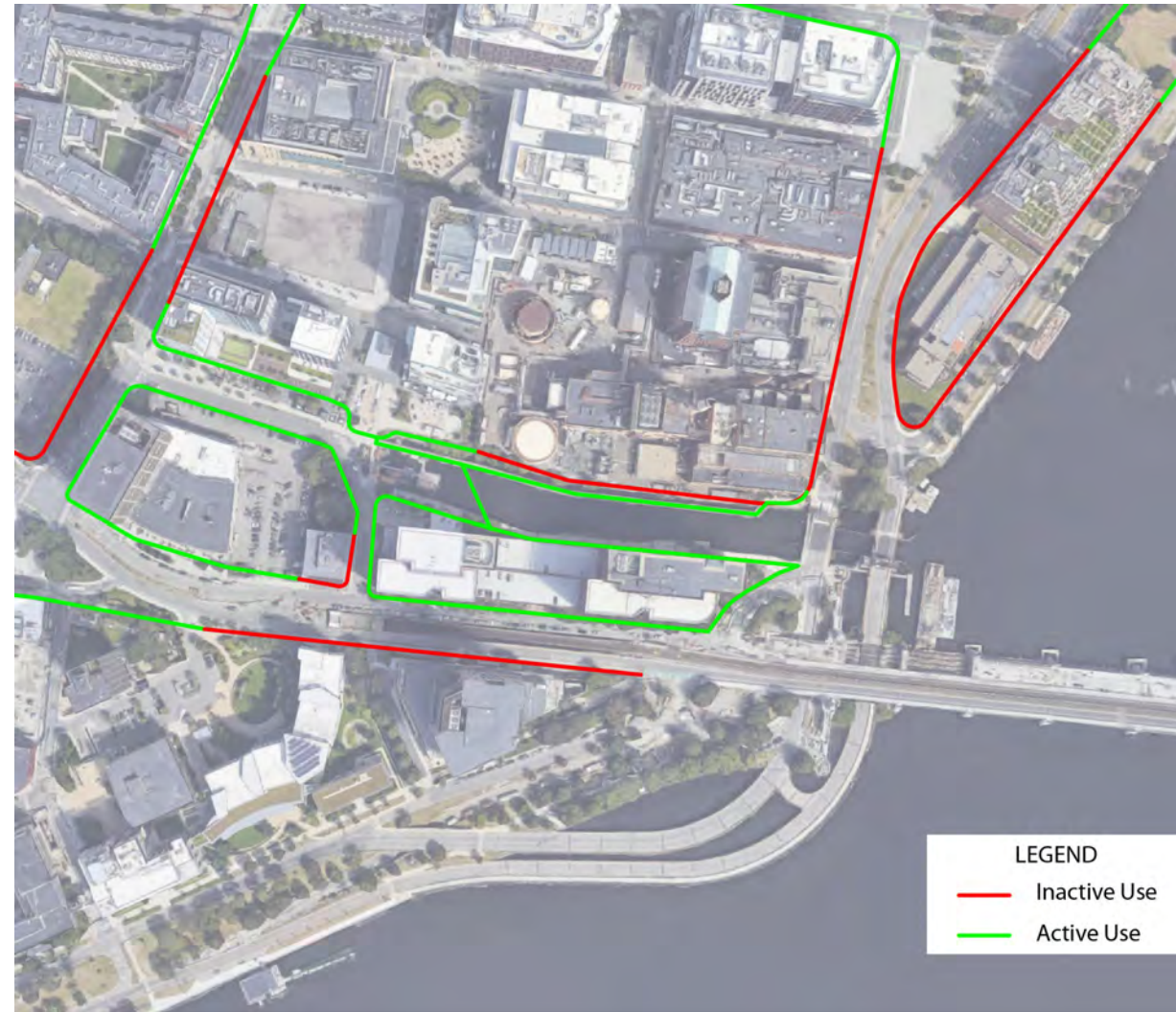




# PETITION ACTIVATES GROUND FLOOR

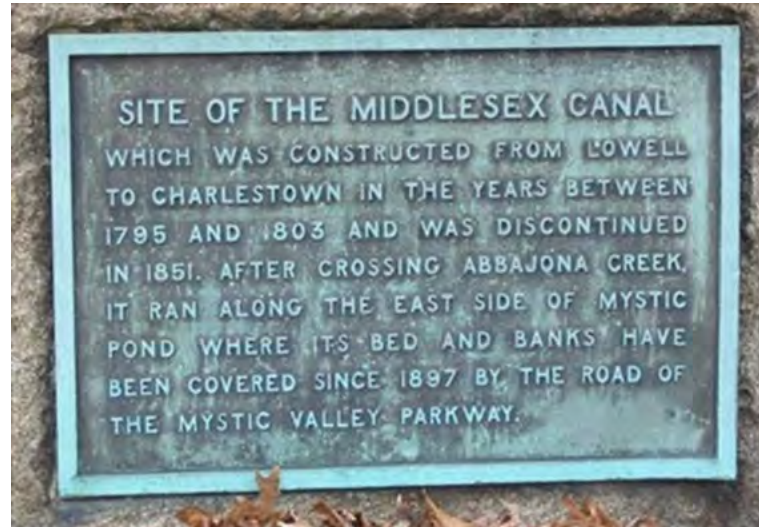


EXISTING



PROPOSED

# BRINGING THE BROAD CANAL TO LIFE



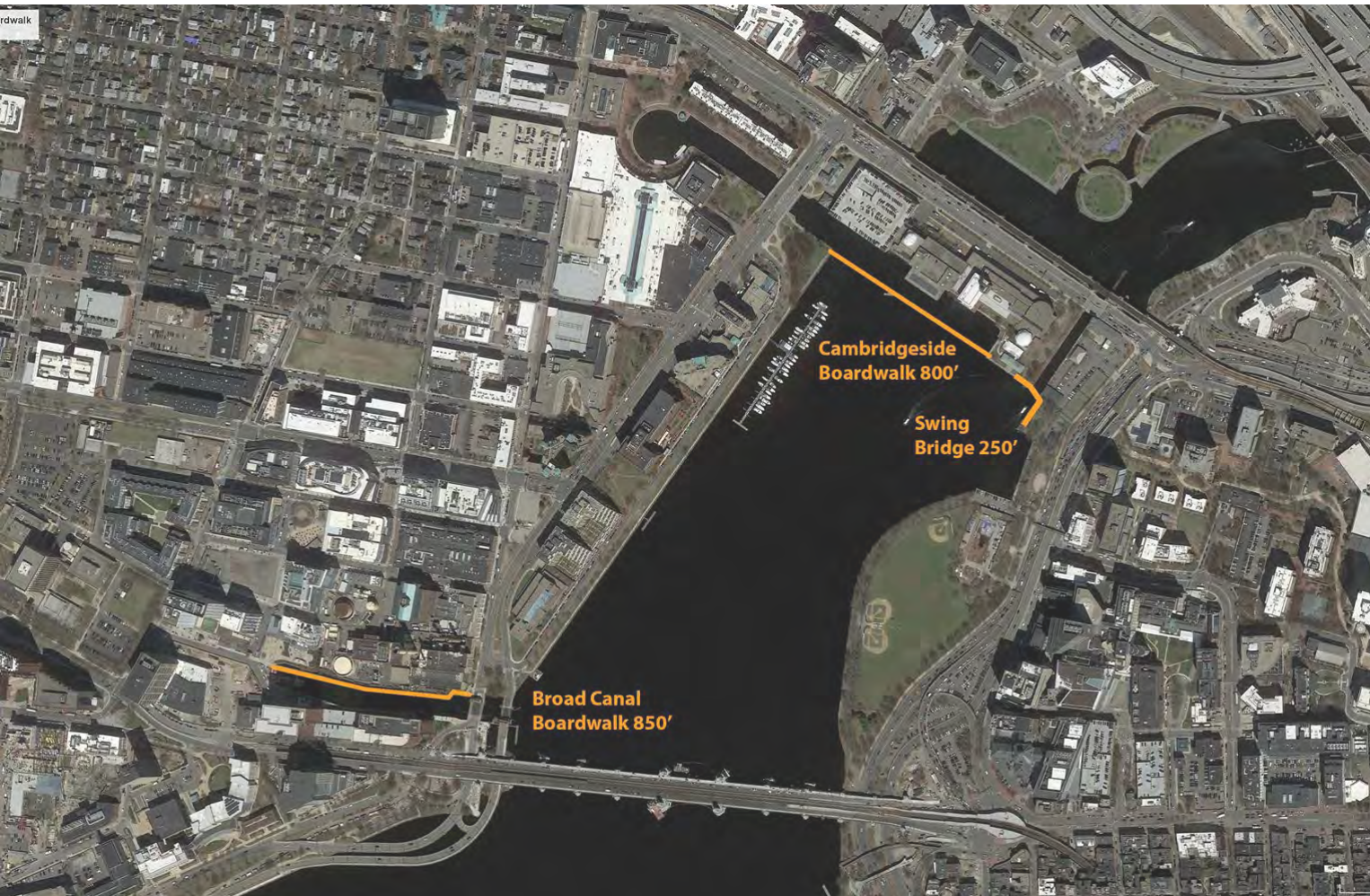
- Modeled after The Freedom Trail
- Provides historical foundation while the city continues to change
- Links neighborhoods together
- Creates an outdoor amenity for both residents and visitors that begins/ends at the Broad Canal and Charles River
- Builds on and connects existing historical buildings and landmarks
- Opportunity to include technology to engage wider audience

# DCR BOATHOUSE RENOVATIONS



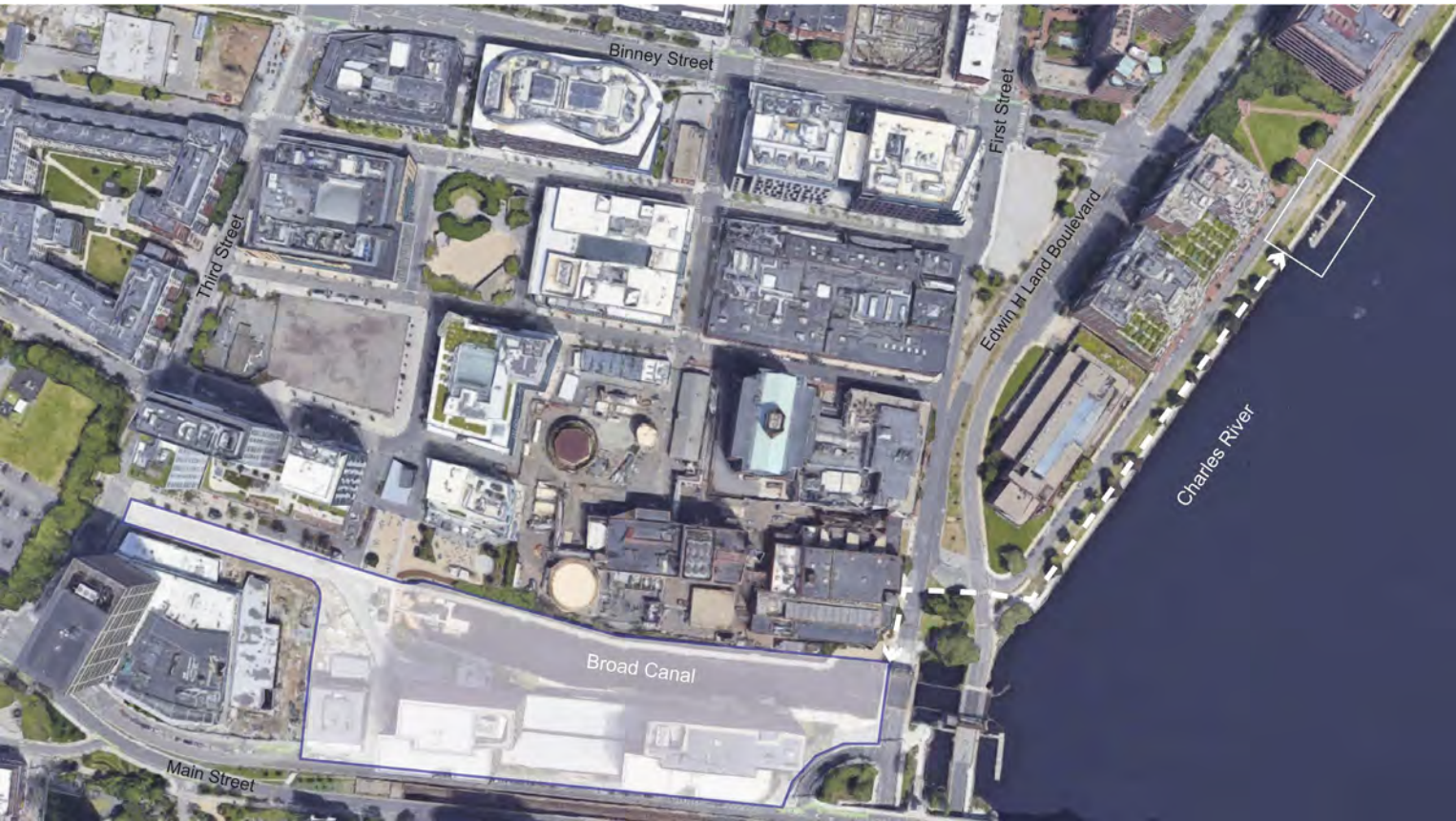
- Suggestion from East Cambridge Planning Team
- Former MDC Boathouse for police boats
- Now owned by DCR and falling into disrepair
- Follow-through on prior commitment by New England Development
- Aligns with Zoning Petition goal of improving public access to the water

# IMPROVING NEIGHBORHOOD CONNECTIONS – MUSEUM OF SCIENCE



- Suggestion from East Cambridge Planning Team
- Follow-through on prior commitment by New England Development
- Aligns with Zoning Petition goal of improving public access to the water

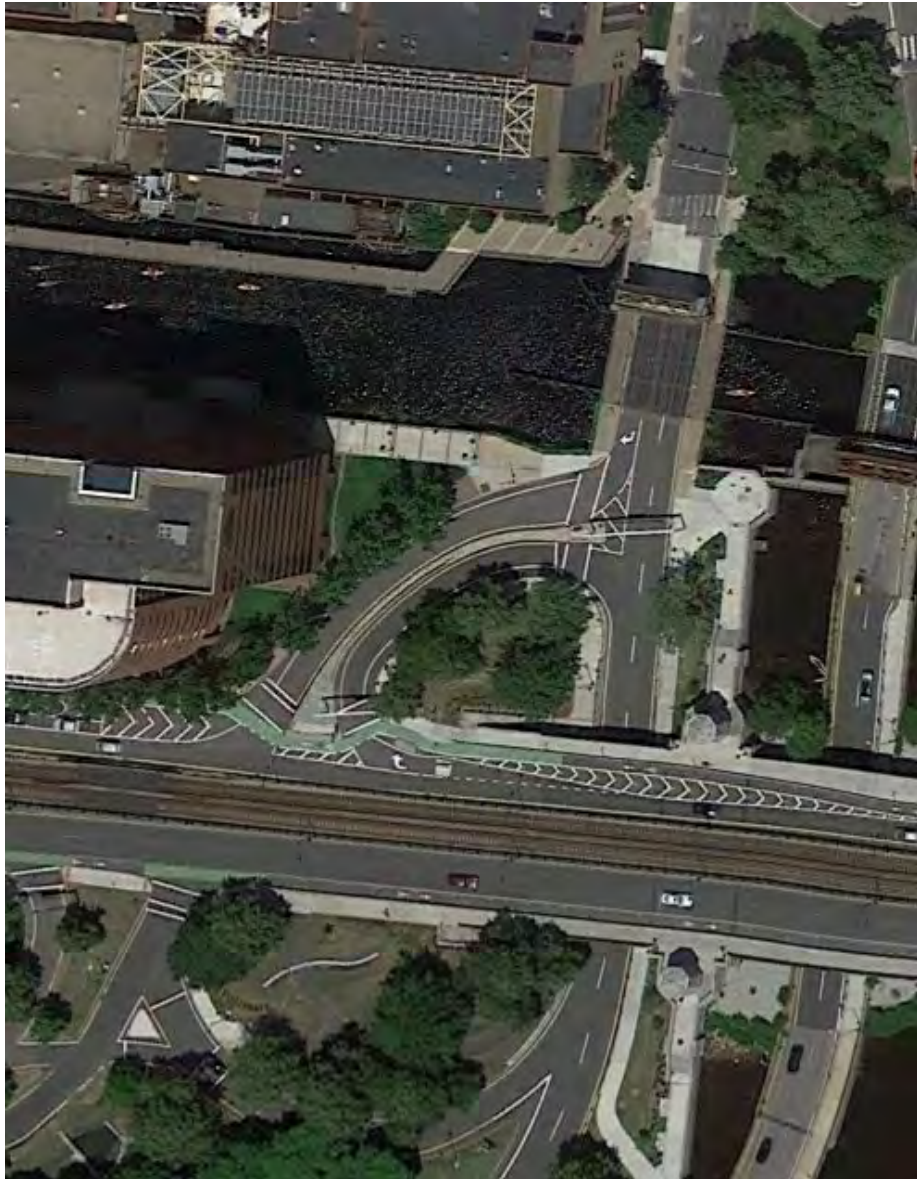
# IMPROVING NEIGHBORHOOD CONNECTIONS – POOR MAN’S LANDING



- Underutilized small fixed dock owned and maintained by DCR
- Currently in disrepair
- Neighborhood group “Friends of Poor Man’s Landing” looking for support
- Aligns with Zoning Petition goal of improving public access to the water



# IMPROVING NEIGHBORHOOD CONNECTIONS – BICYCLES



- Work with City Departments to redesign bike lane for greater safety
- Extend cycletrack from 139 Main Street to Longfellow Bridge
- Opportunity to incorporate green stormwater infrastructure

# AFFORDABLE HOUSING CONTRIBUTION

In lieu of providing housing directly between two existing office towers, a contribution will be made to support local affordable housing initiatives. This contribution can be made to local organizations providing for those in need that may include:

- Cambridge Affordable Housing Trust
- Cambridge Housing Authority
- East End House
- Margaret Fuller House
- Cambridge Community Center
- Cambridge Non-Profit Coalition

# ASKS AND BENEFITS SUMMARY

## Asks

- Addition of Clinic Uses and Canal Uses
- Increase in height to 295 feet (+45 feet more than existing PUD-3)
- Additional Square Footage up to 360,000 SF
- Establish parking maximums instead of minimums
- Provide parking and loading flexibility, including shared loading within the subdistrict

## Benefits

- Pedestrian pass-through connecting Main Street and Broad Canal
- Activation of Main Street and Broad Canal that attracts all demographics and ages
- Affordable housing contribution
- Floating restaurant in Broad Canal
- Broad Canal restoration and maintenance
- Establish Cambridge Historical Trail
- Poor Man's Landing upgrades
- Restoration of the DCR Boathouse near Museum of Science
- Pedestrian traffic and safety improvements
- Tighten on-site parking to incentivize transit, bicycling, and walking
- Sustainable elements: solar glass, green roof, EV charging stations



# PERMITTING PROCESS

1. Broad Canal Subdistrict Zoning Petition
  - *Ordinance Committee*
  - *Planning Board*
  - *Full City Council*
2. Chapter 91
  - *Municipal Harbor Plan*
  - *Chapter 91 License*
3. PUD Special Permit
  - *Initial Development Development Proposal*
  - *Final Development Proposal*

# QUESTIONS AND COMMENTS

