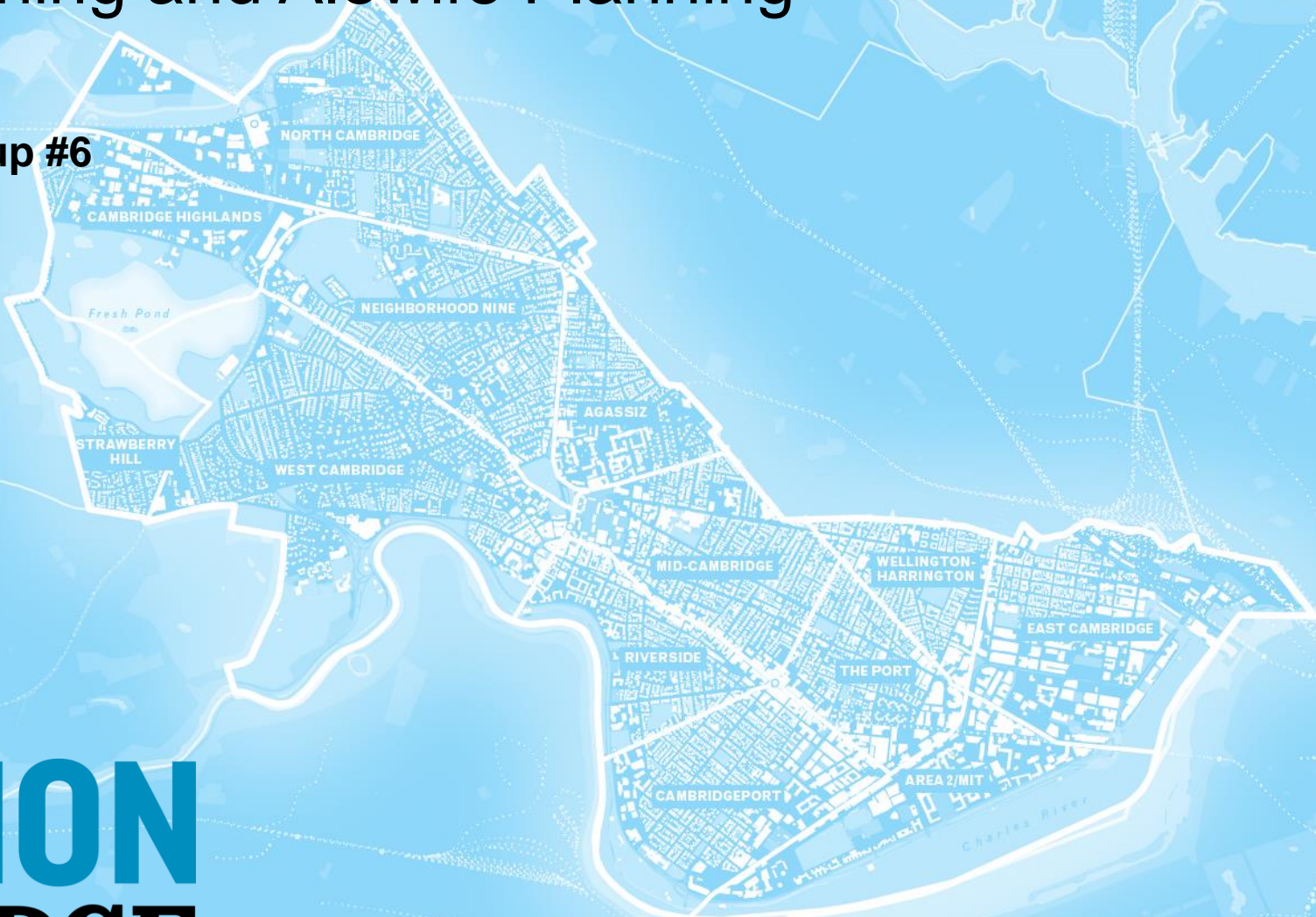


Citywide Planning and Alewife Planning

Alewife Working Group #6

January 26, 2017



**ENVISION
CAMBRIDGE**

Agenda

- **Core Values and Vision: Citywide and Alewife**
- **Why is Alewife an early focus of the citywide plan?**
- **Alewife Planning Scenarios**
 - What to consider when evaluating scenarios
 - The context in which we are planning
 - Urban design framework
- **Scenario development**
 - Baseline
 - Optimized Baseline
 - Mixed-use Residential
 - Mixed-use Commercial
 - Mixed-use Industrial
- **How the scenarios compare**
- **Next Steps**
- **Questions for Discussion**

The Core Values



Alewife Visioning Workshop, July 21, 2016



Citywide Vision and Alewife Vision

What we want to be

“Cambridge is a forward-thinking, welcoming, and diverse city. We enjoy a high quality of life and thrive in a sustainable, inclusive, and connected community.”

“Alewife should be a sustainable, resilient, mixed-used district with convenient and safe connections within the neighborhood and to the rest of the city along with amenities that support interaction and social ties among its residents.”

Note: Vision statement developed from public workshop feedback, comments from Alewife Working Group and EC Advisory Committee, and general feedback from the Mobile Engagement Station, online surveys, and other engagement activities and workshops

Why is Alewife an early focus of the Citywide Plan?

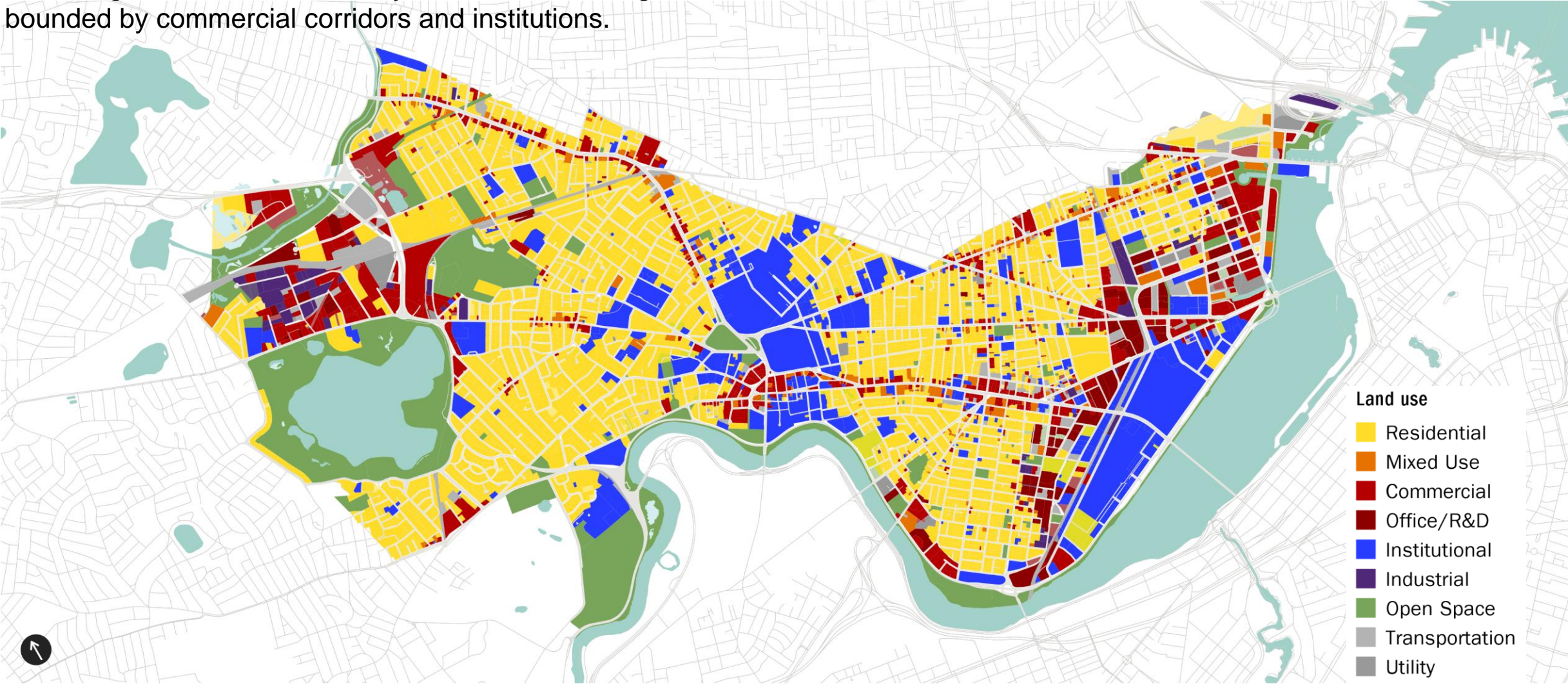
Community members agree that Alewife needs to be improved. Some of the concerns include the quality and appropriateness of the urban form, the lack of connectivity, and resilience from the impacts of climate change and other stresses.

Alewife, and in particular the Quadrangle, is one of the few areas in the city where significant change can be considered and supported.



Setting the Larger Context: Parcels by Land Use

Cambridge's diverse and socially-rich residential neighborhoods are bounded by commercial corridors and institutions.



Source: Cambridge CDD

Commercial and Mixed-used parcels

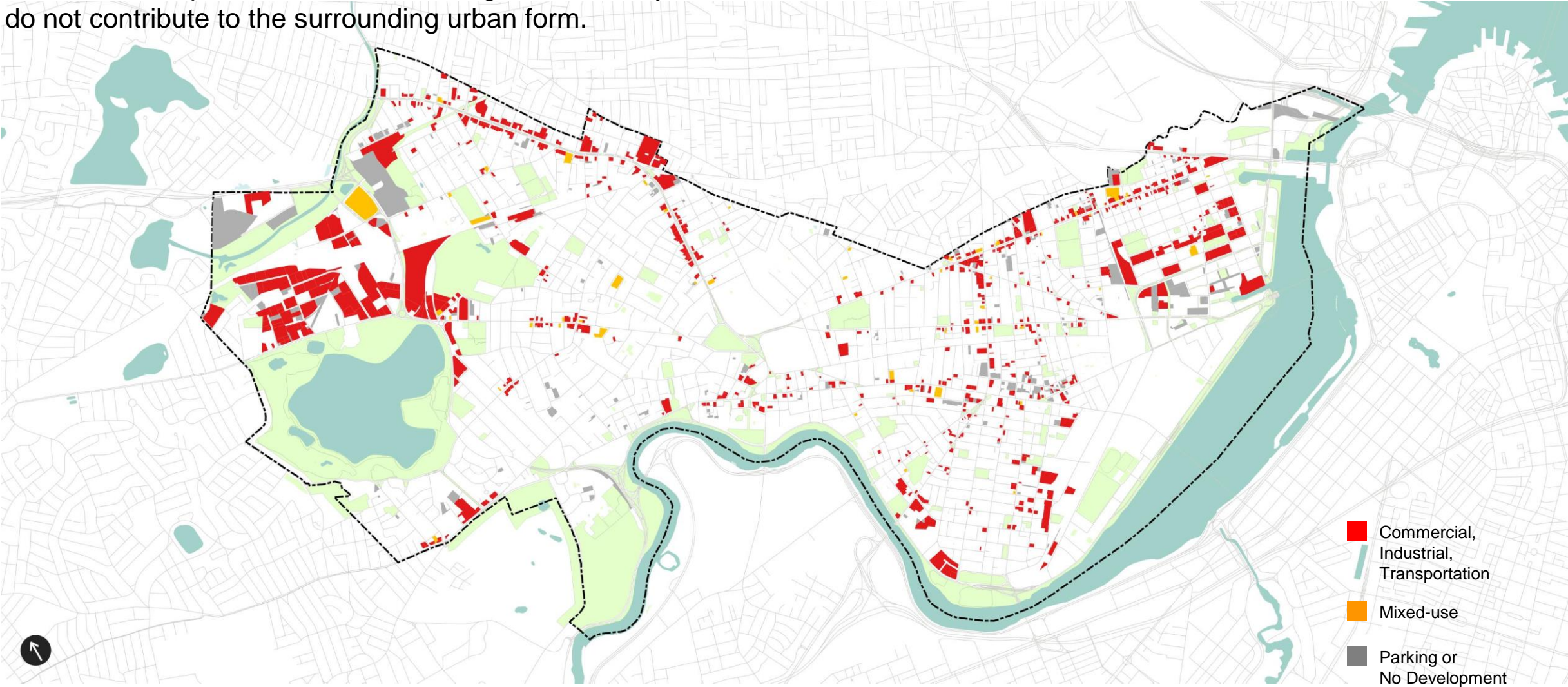
The commercial and mixed-use parcels are located along corridors or distinct pockets in East Cambridge, Kendall Square, and Alewife.



Source: Cambridge CDD and Assessing Department

Commercial and Mixed-use: FAR < 1.5 or Height < 40 ft.

Some of these parcels are built to a height and density that do not contribute to the surrounding urban form.



Source: Cambridge CDD and Assessing Department, excludes institutionally owned parcels

Corridors

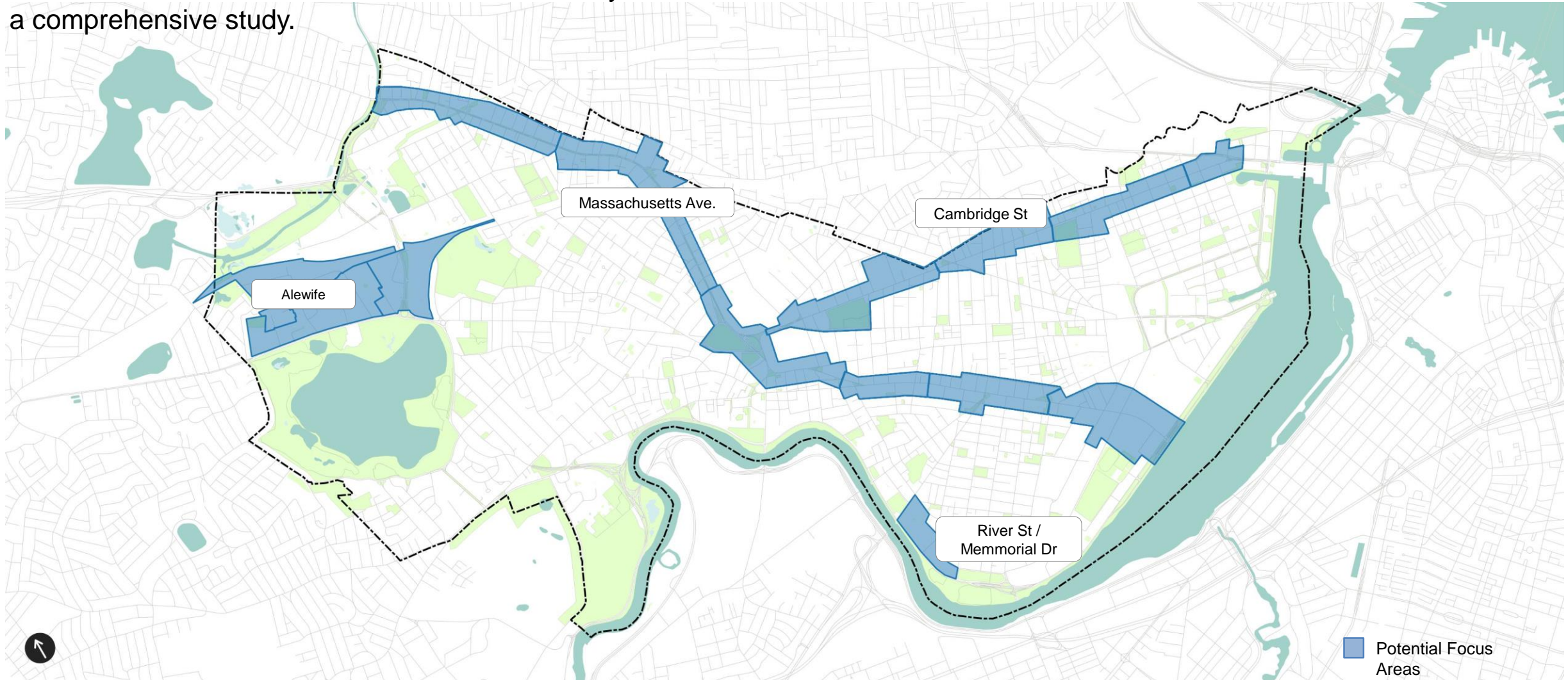


The Quadrangle, Alewife



Study Areas

The corridors and Alewife are two areas of the City that warrant a comprehensive study.



Alewife Planning

What is a scenario?

Planning scenarios are ways of envisioning multiple futures. Different inputs—such as density, land use, and the street network—can produce different outcomes. The scenarios will guide decisions about future land use, regulations, and economic development strategies.

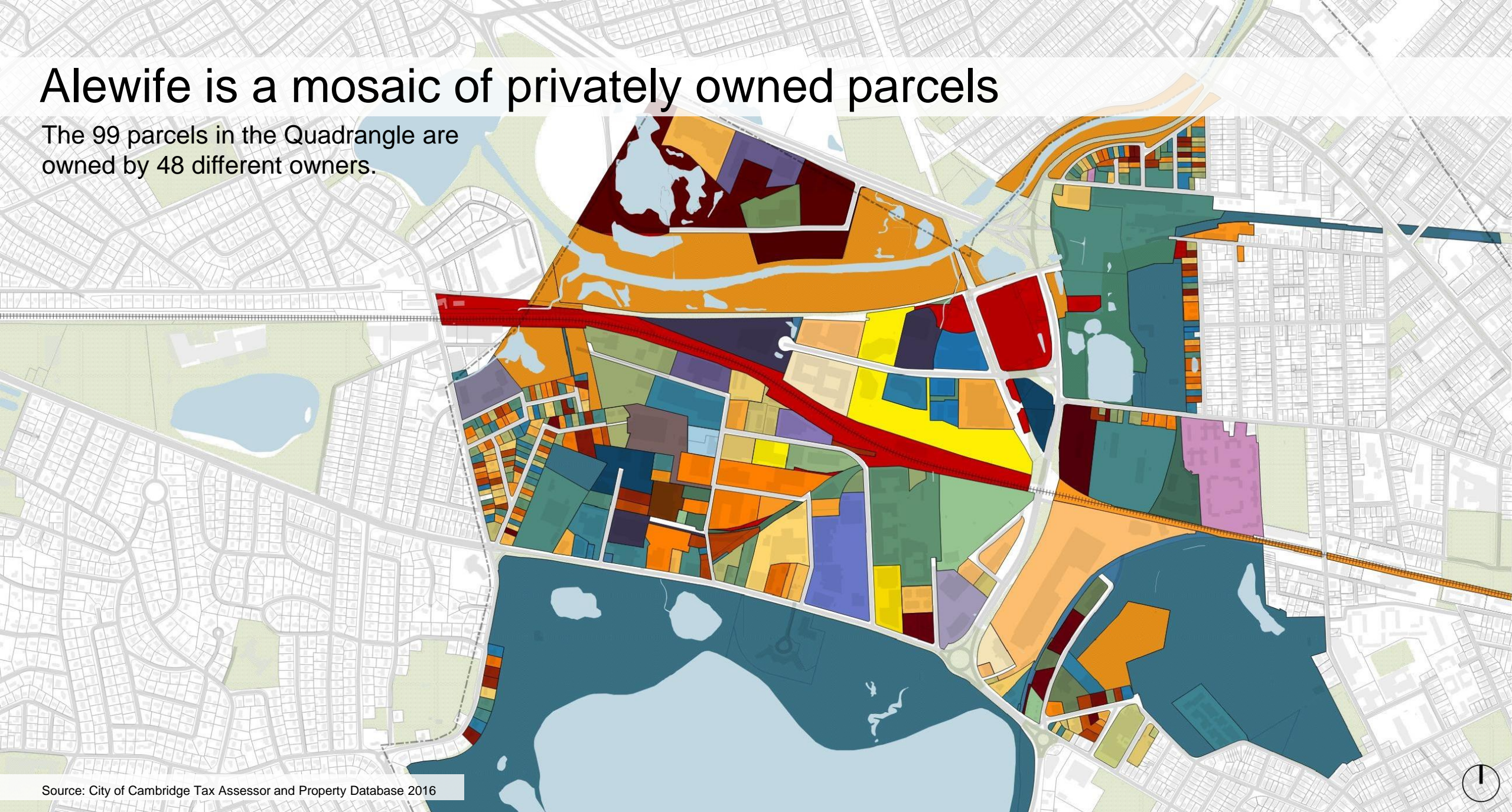
How will Alewife scenarios inform the citywide plan?

The Alewife scenarios will inform the planning for the rest of the city. For example, if industrial uses are deemed more desirable than housing in Alewife, then the citywide plan might encourage more housing along the corridors.

The draft of the Alewife plan is expected late spring/early summer 2017

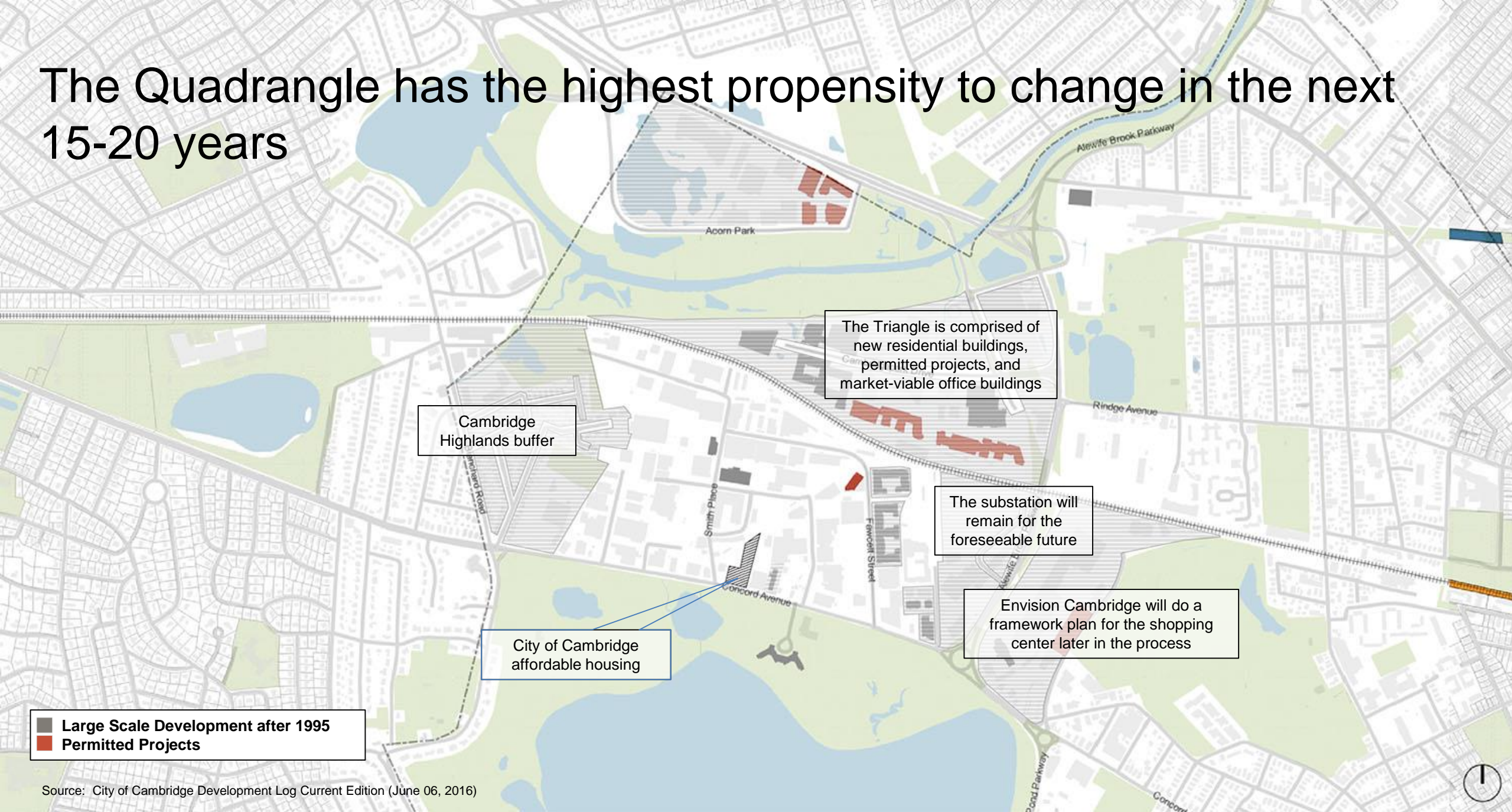
Alewife is a mosaic of privately owned parcels

The 99 parcels in the Quadrangle are owned by 48 different owners.



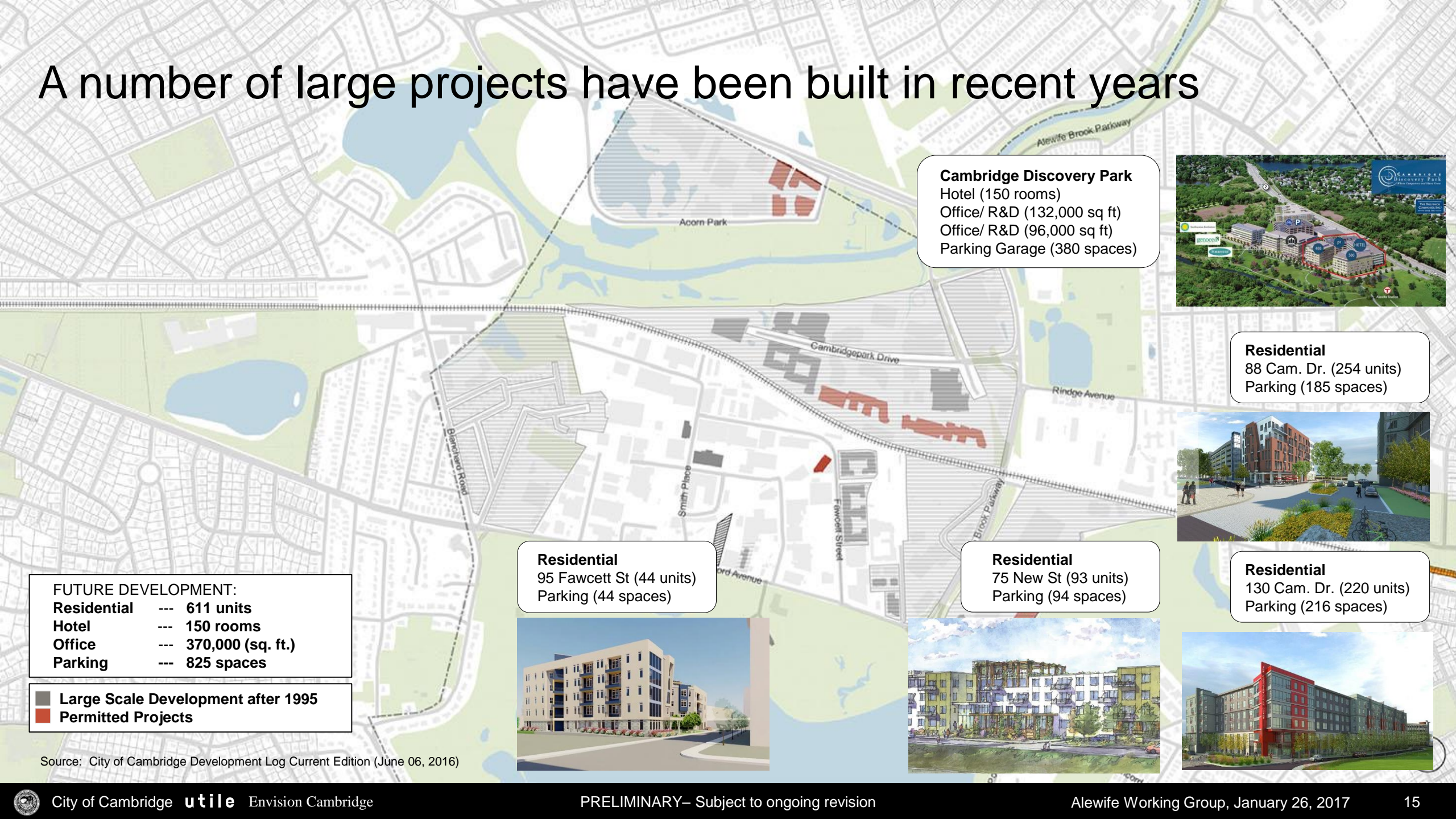
Source: City of Cambridge Tax Assessor and Property Database 2016

The Quadrangle has the highest propensity to change in the next 15-20 years



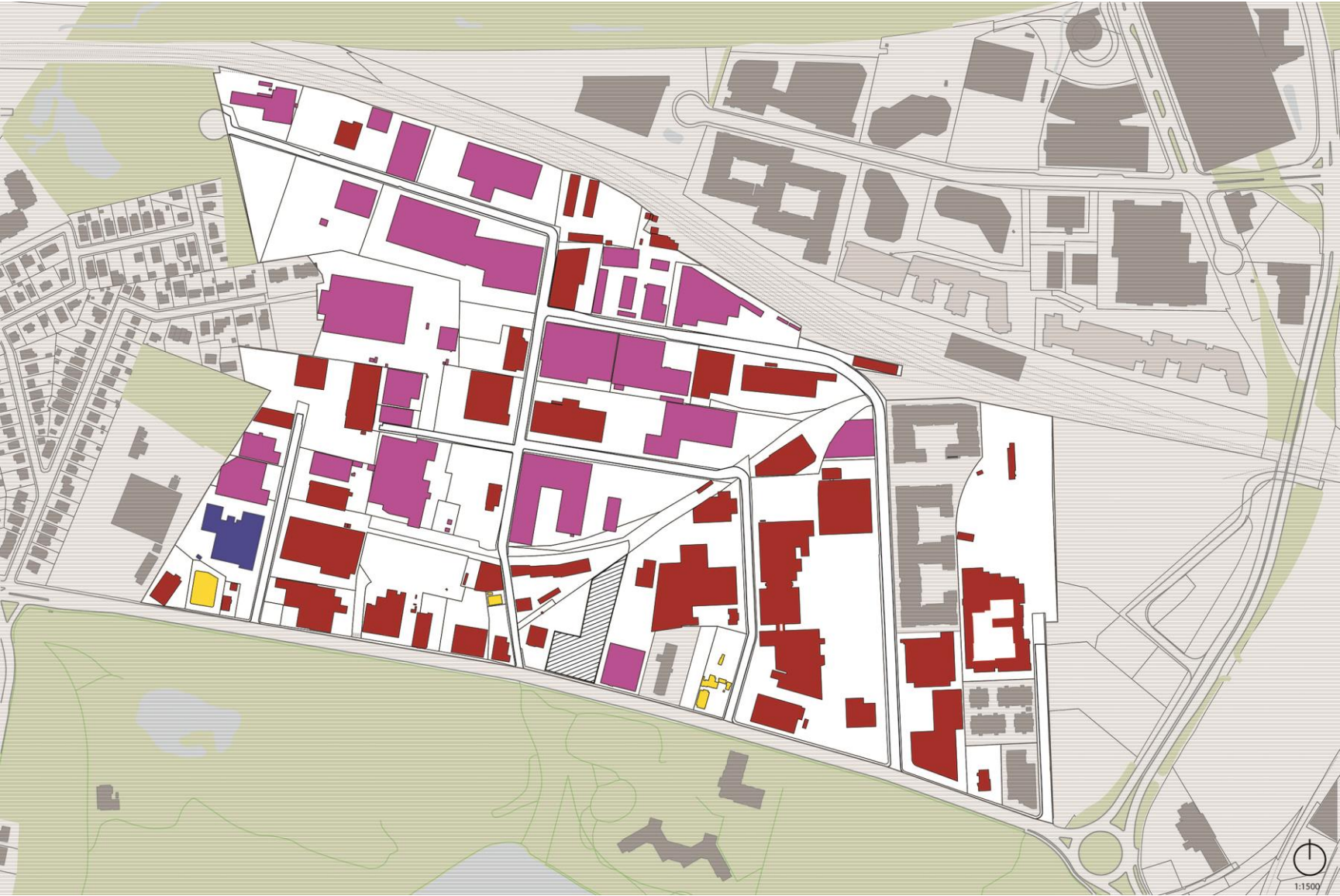
Source: City of Cambridge Development Log Current Edition (June 06, 2016)

A number of large projects have been built in recent years



Source: City of Cambridge Development Log Current Edition (June 06, 2016)

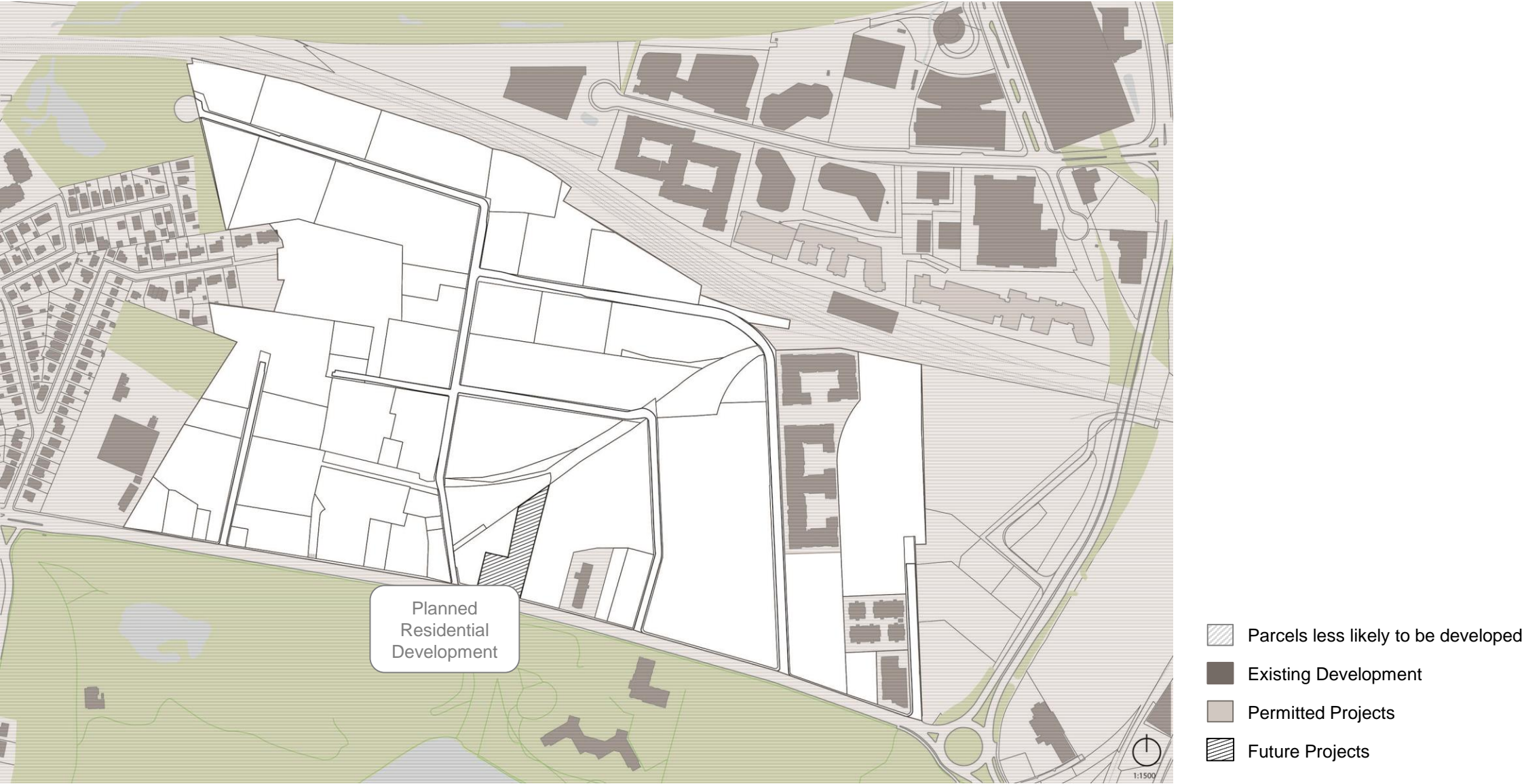
Existing Land Use



District FAR = 0.61

- Educational
- Industrial
- Commercial
- Residential
- Parcels less likely to be developed
- Existing Development
- Permitted Projects
- Future Projects

Scenarios focus on the Quadrangle



Alewife Visioning from Working Group and Workshops

Livability

- Enhance mobility while moving to/through the area
- Increase public amenities

Diversity and Equity

- Address equity in transportation costs
- Expand access to public space and amenities

Sustainability and Resilience

- Study what an appropriate mix of development might be, to address concerns about the current emphasis on housing
- Examine how well-designed density can improve sustainability
- Explore the best approach to building in a flood-prone area

Economic Opportunity

- Expand affordable neighborhood retail and workspaces availability for new businesses

Community Health and Well-being

- Foster a sense of community
- Provide community spaces for informal interaction
- Shift from auto-oriented to pedestrian-oriented design

Learning

- Emphasize non-school forms of learning
- Leverage important ecological spaces for learning

Note: This is a summary of feedback from the July 21 Visioning Workshop. Participants were asked to respond to opportunities and challenges in in Alewife through the core values in small groups.

What to consider when evaluating scenarios: Environment

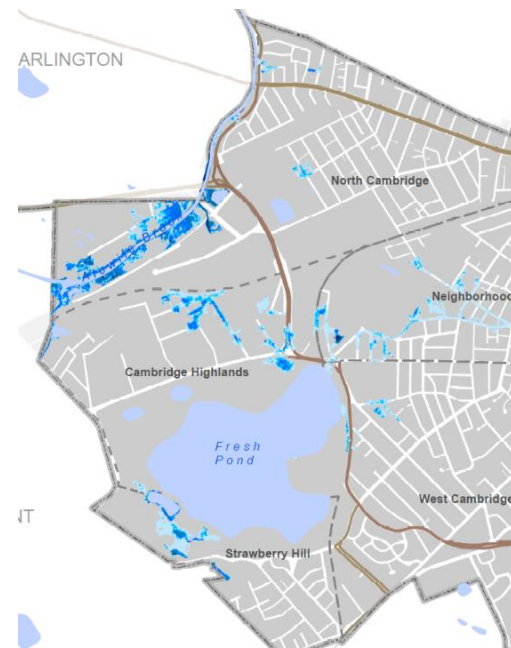


Resilience from sea level rise, storm surge, and precipitation:
Reduced vulnerability

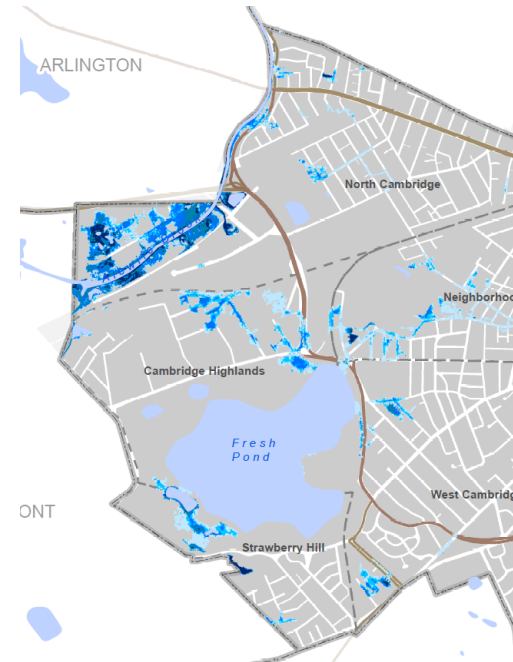
Energy: Reduced GHG emissions and enhanced resilience

Water: Water conservation, clean waterways, and reliable drinking supply

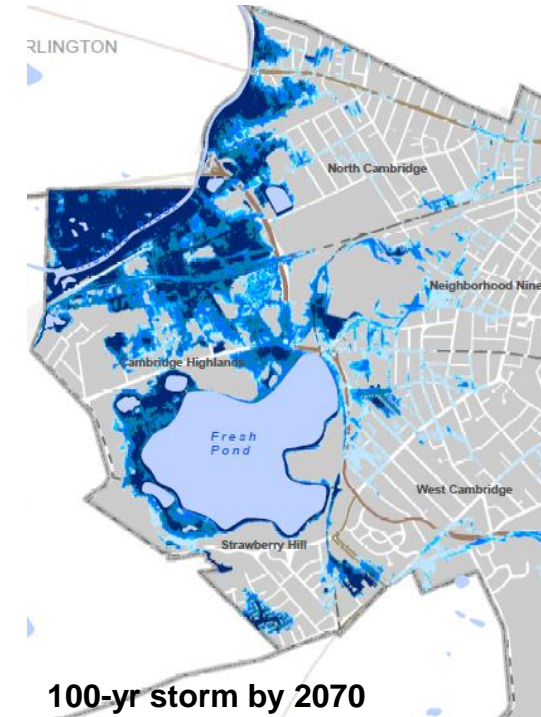
Materials and Waste: Soil remediation, zero waste goals, circular economy



Present 10-yr storm



**10-yr storm by 2070
Additional 35 MG Flood Volume**



**100-yr storm by 2070
Additional 290 MG Flood Volume**

What to consider when evaluating scenarios: Mobility

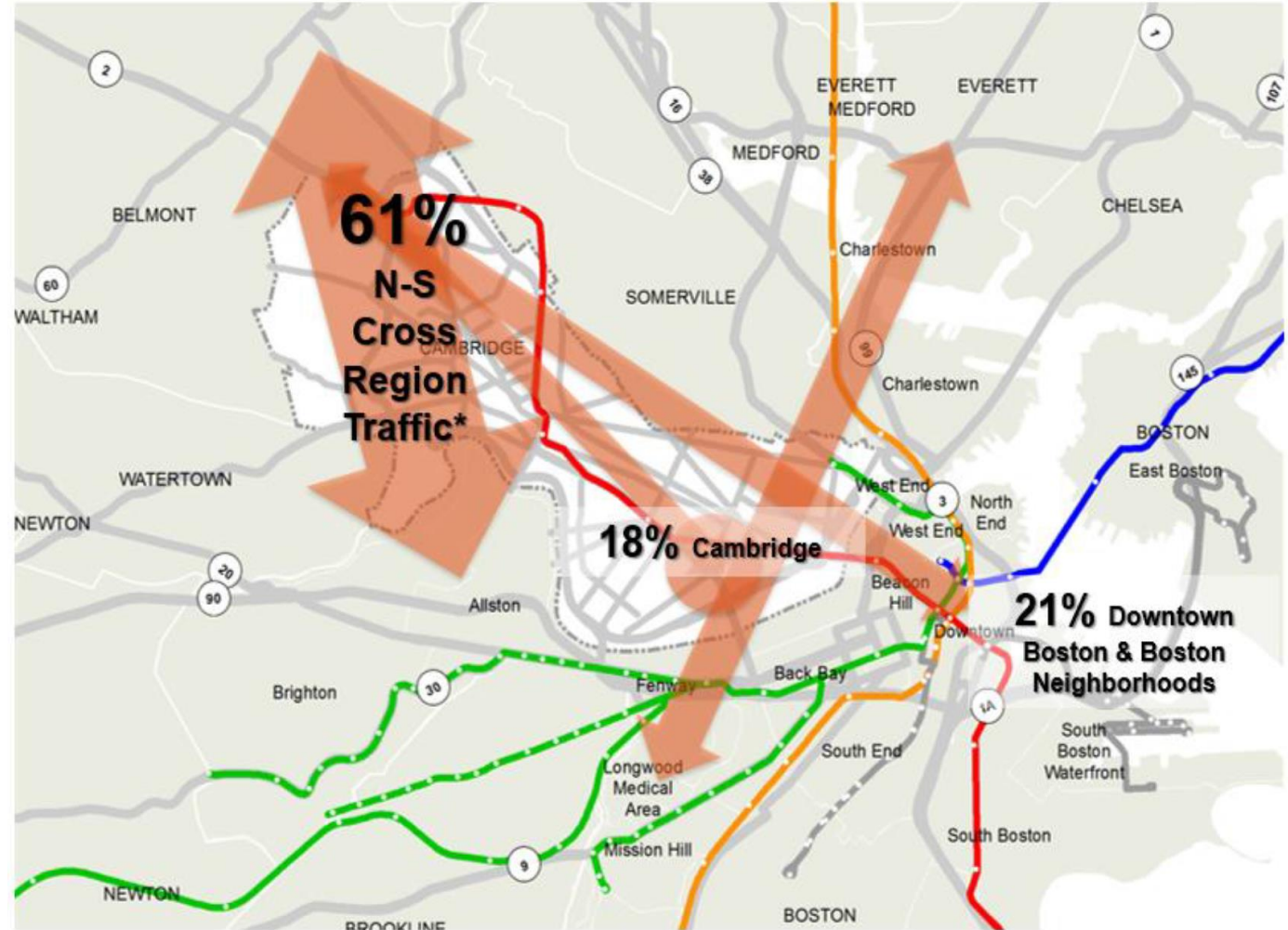


Vehicular trips: Managed number of auto of trips generated and/or vehicle trip reduction

Transit: Increased number of transit users and transit options

Active Transportation: Increased number of people biking and walking

Through Volumes



* Based on interpretation of 2010 CTPS regional travel demand model data

What to consider when evaluating scenarios: Housing



Housing units: Number of housing units created to meet citywide housing needs

Affordable units: Number and type (e.g., 3-bedroom) created

Housing market: Potential effect of new housing growth on the overall Cambridge housing market





What to consider when evaluating scenarios: Jobs

Commercial space and jobs:

Increased space for growing economic sectors

Access to jobs: Skill and education level needed for different economic sectors



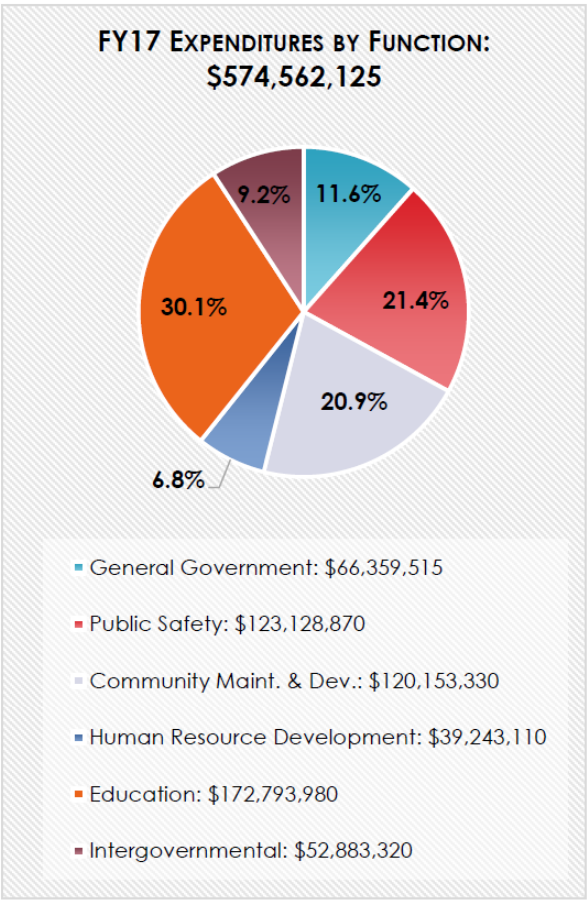
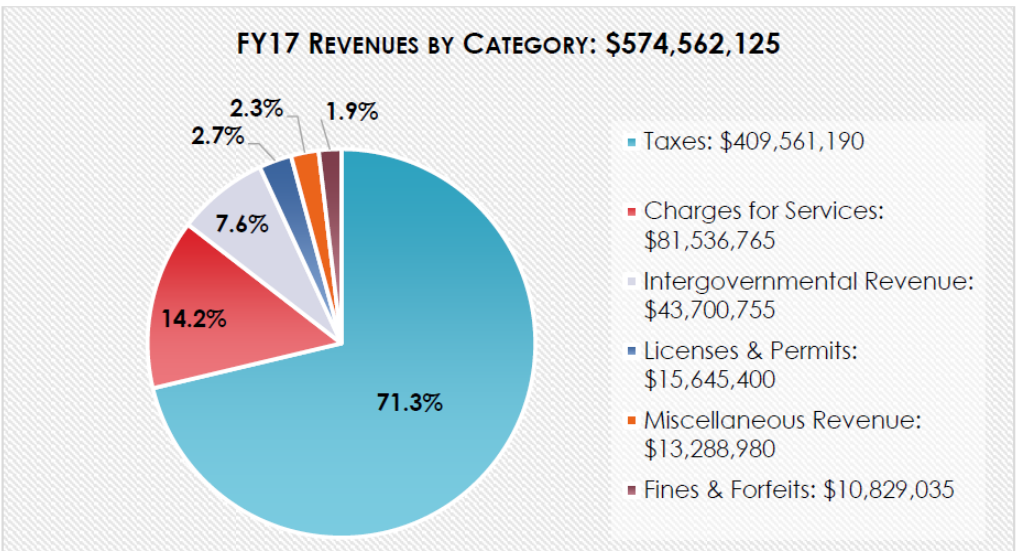
What to consider when evaluating scenarios: Revenue and Fiscal Impacts

Tax revenue: Increased commercial or residential tax base, which supports robust city services, schools, open space improvements, etc.

Fiscal Impacts of Development: Increased cost of service for new residents and workers

Funding of infrastructure: Adequate revenue from new development to contribute to the funding of critical infrastructure (e.g., bridge linking the Quadrangle to the Triangle, district energy plant, storm water infrastructure)

FINANCIAL SUMMARIES – FY17 OPERATING BUDGET



What to consider when evaluating scenarios: Existing Businesses

Existing businesses provide:

Important amenities for Cambridge residents

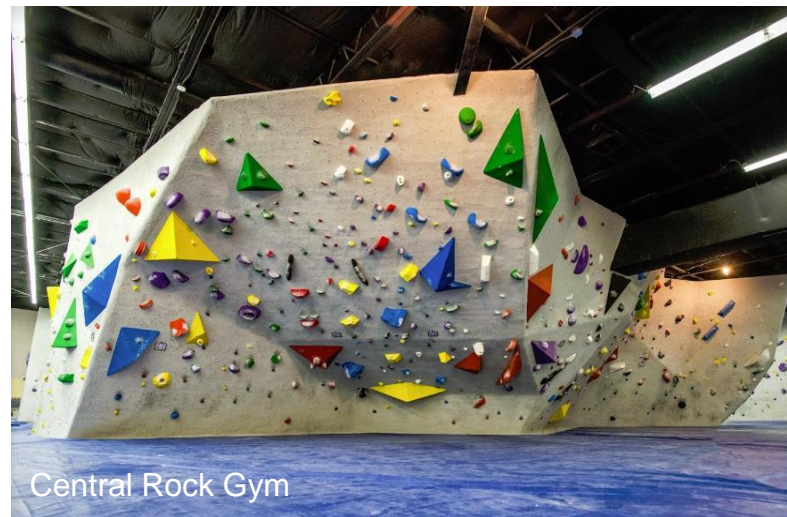
Diverse jobs for Cambridge residents that are different in profile than the jobs in Kendall Square



Iggy's Bread of the World



Anderson McQuaid



Central Rock Gym



Gymnastic Academy of Boston

What to consider when evaluating scenarios



Environment

- Resilience
- Energy, GHG
- Water
- Materials & Waste



Mobility

- Vehicular trips
- Transit trips
- Active Transportation



Housing

- Housing units
- Affordable units
- Housing market



Jobs

- Commercial space and jobs
- Access to jobs



Tax revenue and fiscal impacts

- Tax revenue of commercial vs residential development
- Fiscal impacts of growth
- Funding of infrastructure

Urbanism of recent developments

Projecting development trends under existing regulations up to full buildout → Baseline

Key assumptions

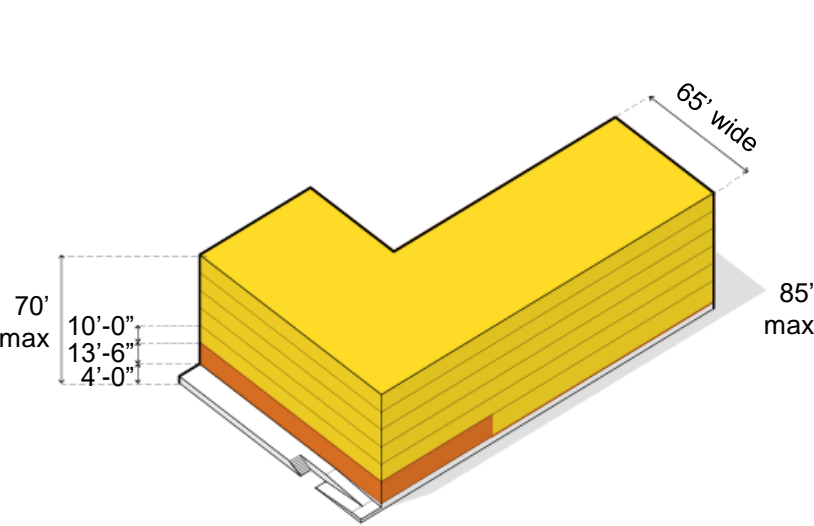
- Assume same development typologies (maxed-out stick-built residential and 85' life science / R&D commercial)
- Assume full build-out per special permit on all sites
- Projected use mix reflects trends in recent construction and pipeline development (i.e., approximately 65% residential development and 35% commercial development by built floor area)

Notes: Recent construction includes projects in the Triangle and Quadrangle built since 2005
Development pipeline derived from CDD development log as of Nov 2015



Scenario Building Prototypes

Residential Prototype



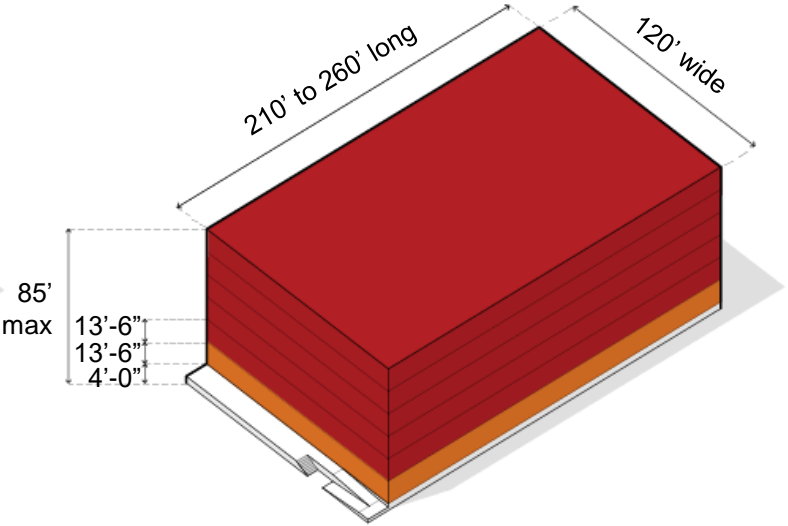
Typical Floorplate: 14,000-20,000 SF

Minimum Floorplate: 10,000 SF

Typical Building Width: 65 Feet

First habitable floor raised 4' for flood protection, with parking below

Commercial Prototype



Typical Floorplate: 25,000-32,000 SF

Minimum Floorplate: 20,000 SF

Typical Building Width: 120 Feet

First habitable floor raised 4' for flood protection, with parking below

- Active Uses
- Commercial
- Residential

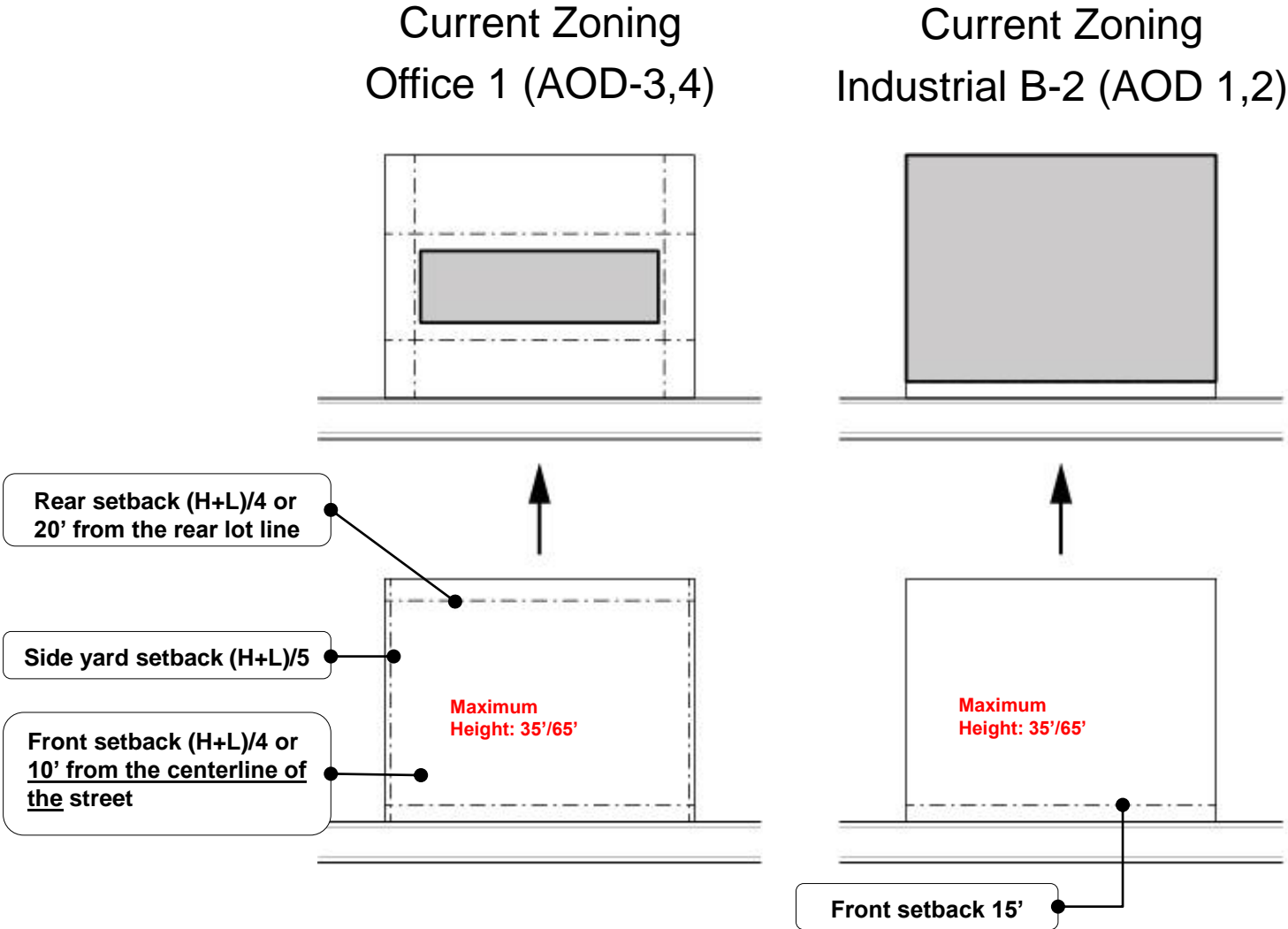


Cambridge Discovery Park
Hotel (150 rooms)
Office/ R&D (132,000 sq ft)
Office/ R&D (96,000 sq ft)
Parking Garage (380 spaces)

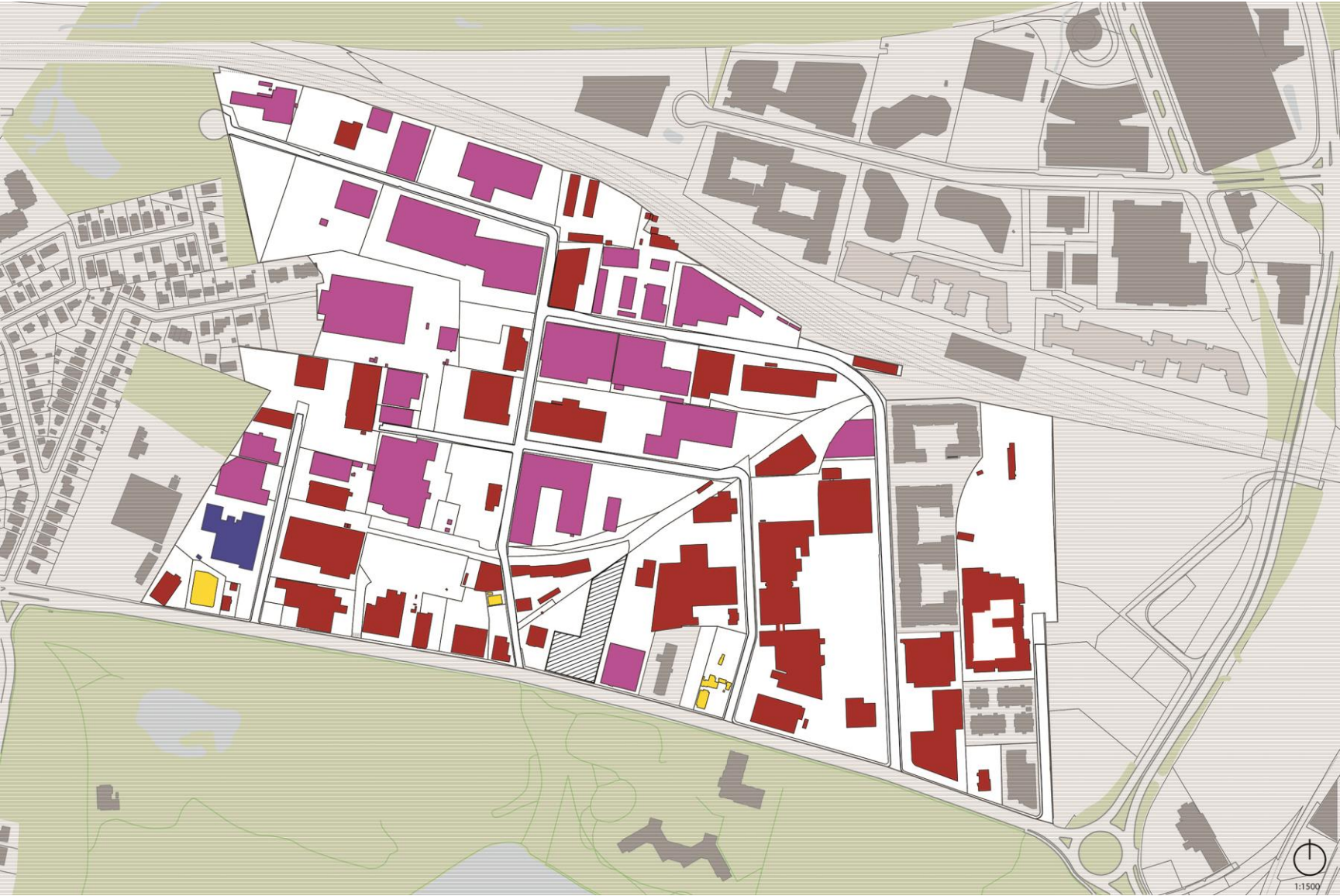


Residential
88 Cam. Dr. (254 units)
Parking (185 spaces)

Current Zoning



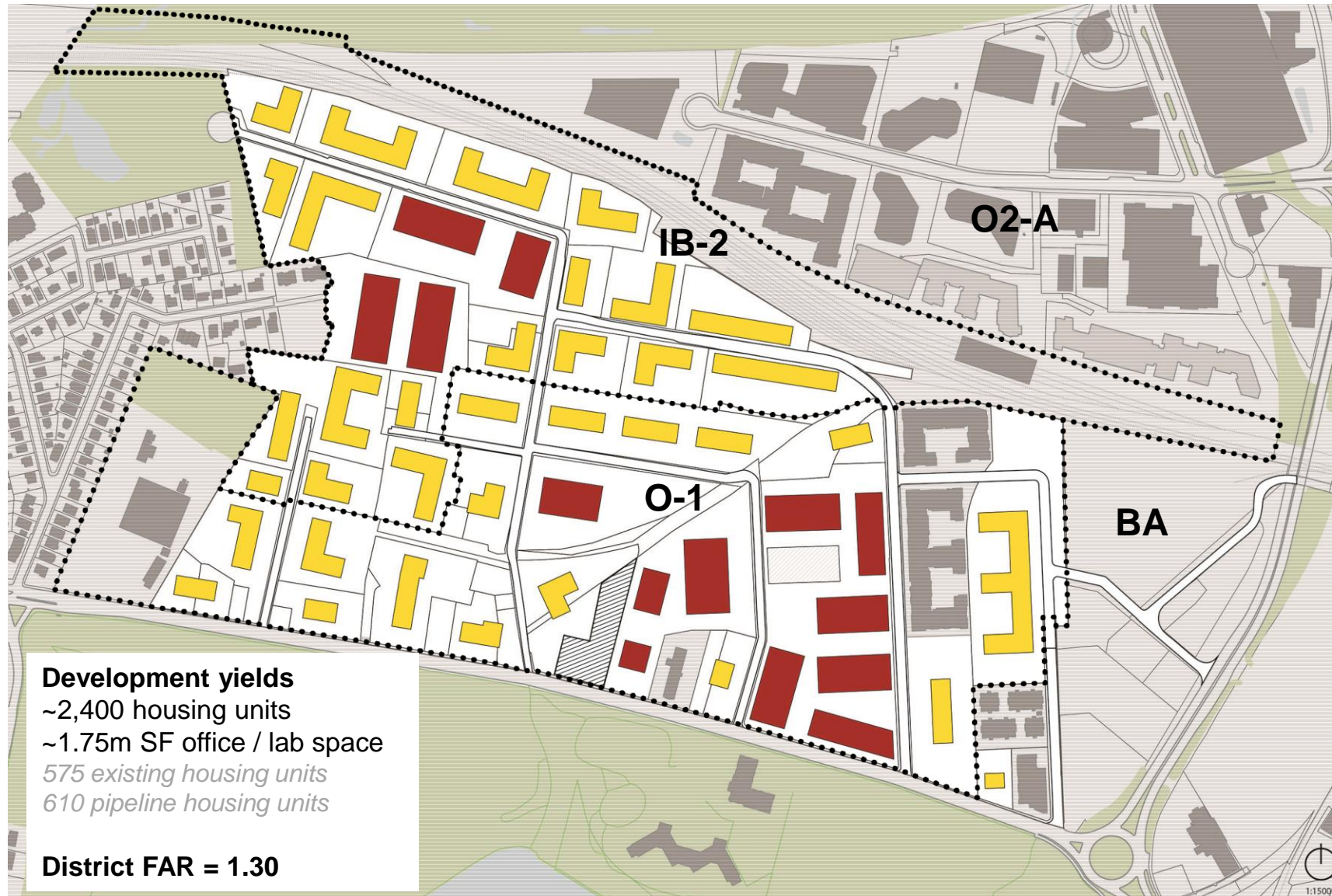
Existing Land Use



District FAR = 0.61

- Educational
- Industrial
- Commercial
- Residential
- Parcels less likely to be developed
- Existing Development
- Permitted Projects
- Future Projects

Baseline: Testing capacity and urbanism under current zoning



Zoning Summary

IB-2: 15' front setback with no required rear or sideyards. Under special permit:

- Max. FAR: 1.5
- Max. Height Non-residential: 55'
- Max. Height Residential: 65'

O-1: All setback determined by formula relating to the building's dimensions. Under special permit:

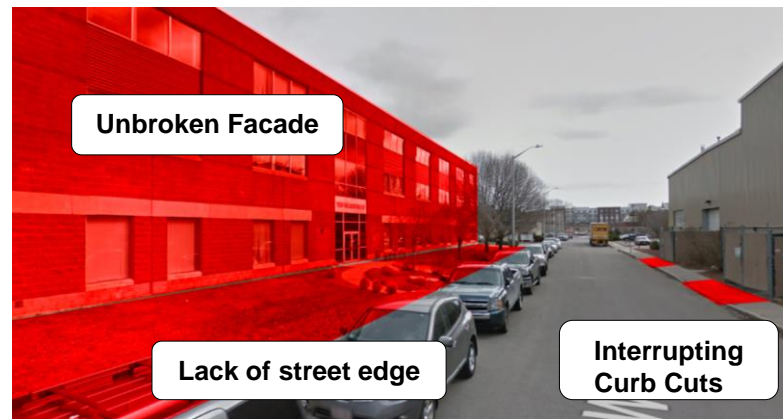
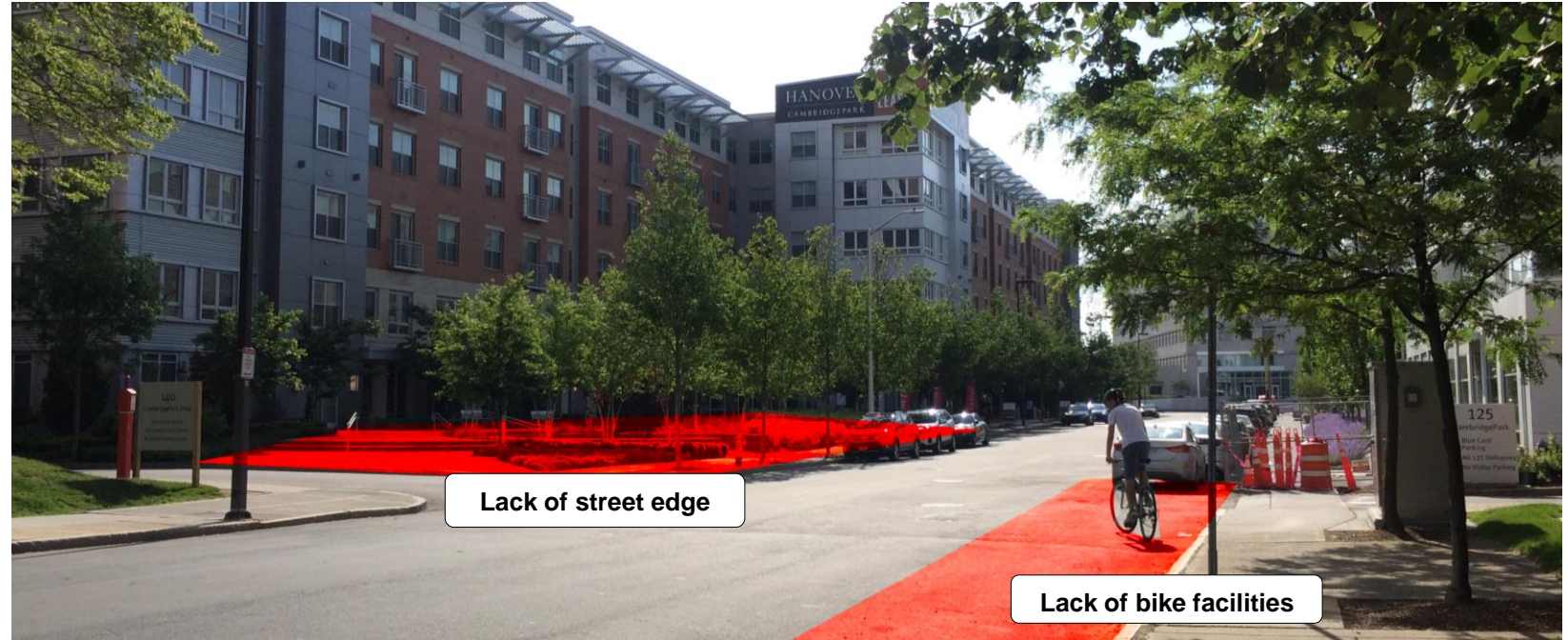
- Max. FAR Non-Residential: 1.5
- Max. FAR Residential: 2.0
- Max. Height Non-residential: 70'
- Max. Height Residential: 85'

- Commercial (Red)
- Residential (Yellow)
- Parcels less likely to be developed (Hatched)
- Existing Development (Dark Grey)
- Permitted Projects (Light Grey)
- Future Projects (Diagonal Lines)



Current conditions: Urbanism challenges

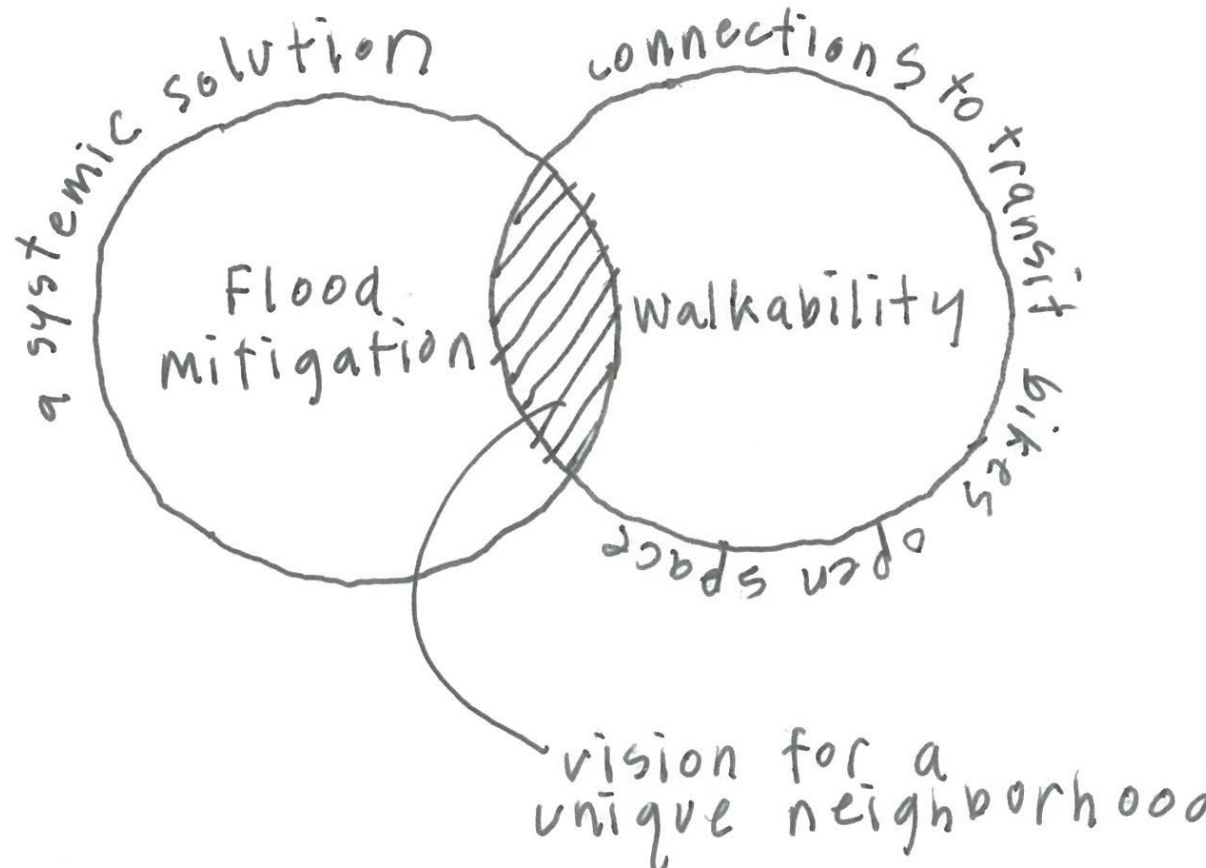
- Long and monotonous street facades
- Required elevated ground floor elevation limits access to buildings and further separates lobbies from the public realm
- Required front yards are suburban in character and separate ground floor uses from the public realm
- The existing side yard requirement breaks up the pedestrian experience with a no-man's land of service functions that make each development an independent enclave
- Lack of street hierarchy or accommodation of all transit modes.



Urban design framework: Developing scenarios

Find a systemic solution to the impacts of climate change by aligning with the preparedness planning process

- Build to an elevation of 4' or under for the first habitable floor level, which reduces flood risk from 2070 SLR/SS



Create a mixed-use walkable neighborhood that also promotes bicycles and transit

- Create a distributive multimodal transportation network by “completing the street grid” and making better connections to the T
- Create a “there there” for daytime and evening populations and to improve the “quality of address”
- Achieve a scaled transition of new development towards Cambridge Highlands






In order to realize our vision of transforming Alewife into a resilient neighborhood with strong amenities and sense of place, we need to retain a sufficient amount of value in order to encourage redevelopment.

Urban design framework: New street connections

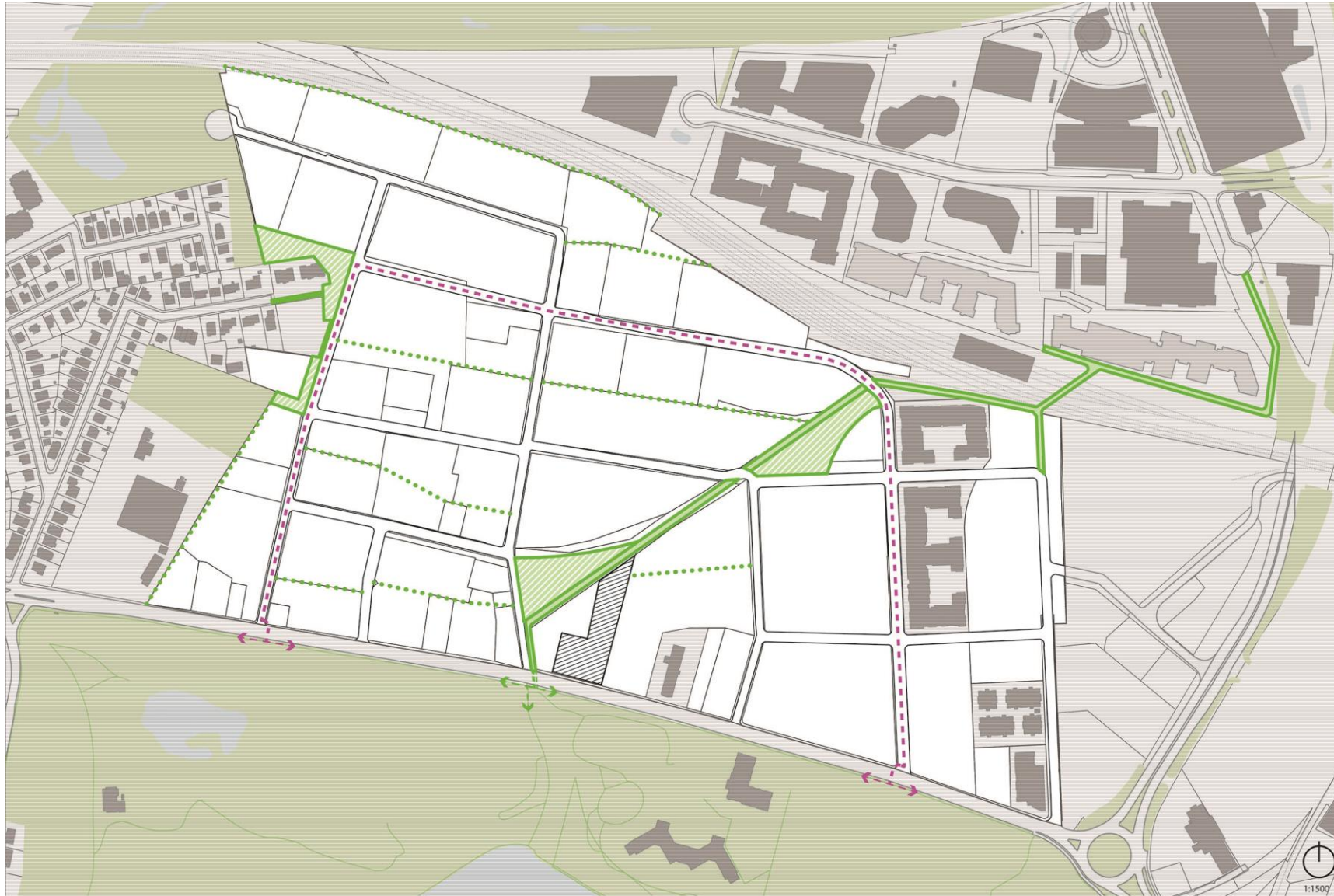


Guiding considerations:

- Build on the recommendations of the Alewife Concord Study (2005)
- Better service the neighborhood by creating a distributed network
- Improves the “quality of address” for future development.

-  New Streets
-  Parcels not part of this analysis
-  Recently completed (since 1995)
-  Permitted Projects
-  Future Projects

Urban design framework: A network of green infrastructure



- Proposed Green Link envisions a land-efficient open space network that links the Alewife T to Fresh Pond
- The path could link to the pedestrian/bike bridge to Alewife T station
- Further study will explore the potential to tie this to a district-wide storm water strategy

- ◀... Midblock Stormwater Gardens
- == Pedestrian/Bicycle Bridge
- Pedestrian/Bicycle Connections
- ... Bicycle Lanes
- Open Space
- Parcels not part of this analysis
- Existing Development
- Permitted Projects
- Future Projects

Urban design framework: A network of green infrastructure

Green Link and mid-block connection precedents



Bloomington Trail, Chicago



Urban design framework: Respond to scale of neighboring context



Street Types: The Urbanism of “A” streets








Zoning regulations

- First habitable floor at 4'
- All parking must be below 4' elevation and covered by a building or landscaped deck
- Continuous 12' wide raised platform at 4' elevation for all of the A Streets
- Car and service access only permitted from B Streets
- Zero lot lines required for the first 65' off of the front lot line, 30' side yard set back thereafter.
- 30' rear yard setback
- Opening between buildings of between 30-45' required for frontages longer than 250'

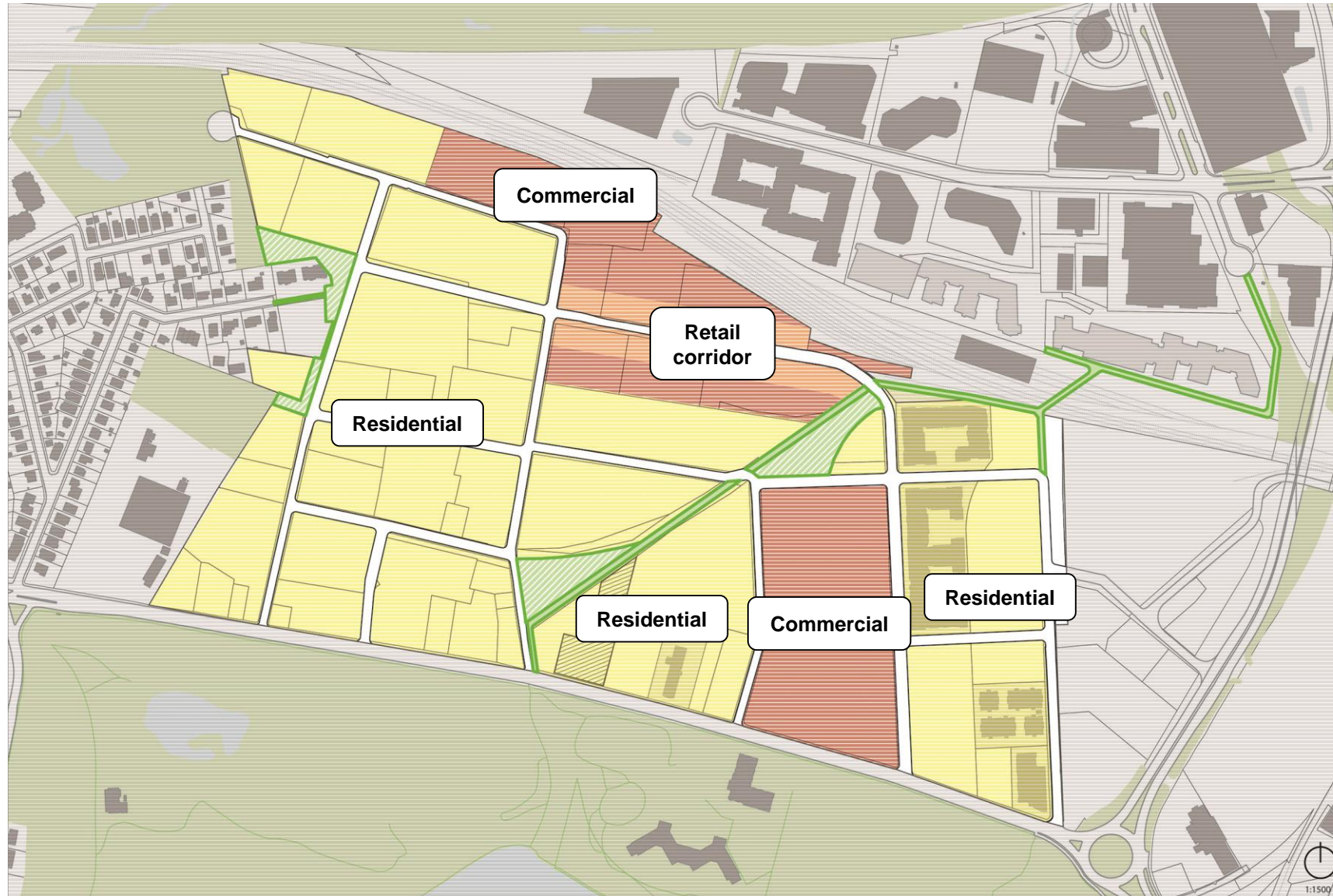
Scenario development

Goals: Test the implications of planning choices and enable a discussion about tradeoffs.

Methodology: Scenarios are structured “thought experiments” backed by data-driven assumptions and tested through analytical frameworks.

Scenario	Optimized Baseline <i>Mixed-used residential at currently allowed density</i>	Mixed-use residential <i>(+ option with high-rise overlay)</i>	Mixed-use commercial <i>(+ option with high-rise overlay)</i>	Mixed-use industrial
Impetus	<ul style="list-style-type: none"> Create better urbanism at the same density and use-mix as currently allowed 	<ul style="list-style-type: none"> Significantly increase housing Incentivize less suburban development Fewer vehicular trips generated 	<ul style="list-style-type: none"> Create better urbanism with the same use-mix at a higher density Increase the commercial tax base Create jobs Minimize residents in the floodplain 	<ul style="list-style-type: none"> Provide low-barrier-to-entry jobs for residents Avoid building residential in floodplain Add minimal vehicular traffic (trade-off of higher percentage of truck traffic)
<p><i>All scenarios will be evaluated by considering:</i></p> <div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>				

Optimized Baseline: Same urbanism, ~existing FAR

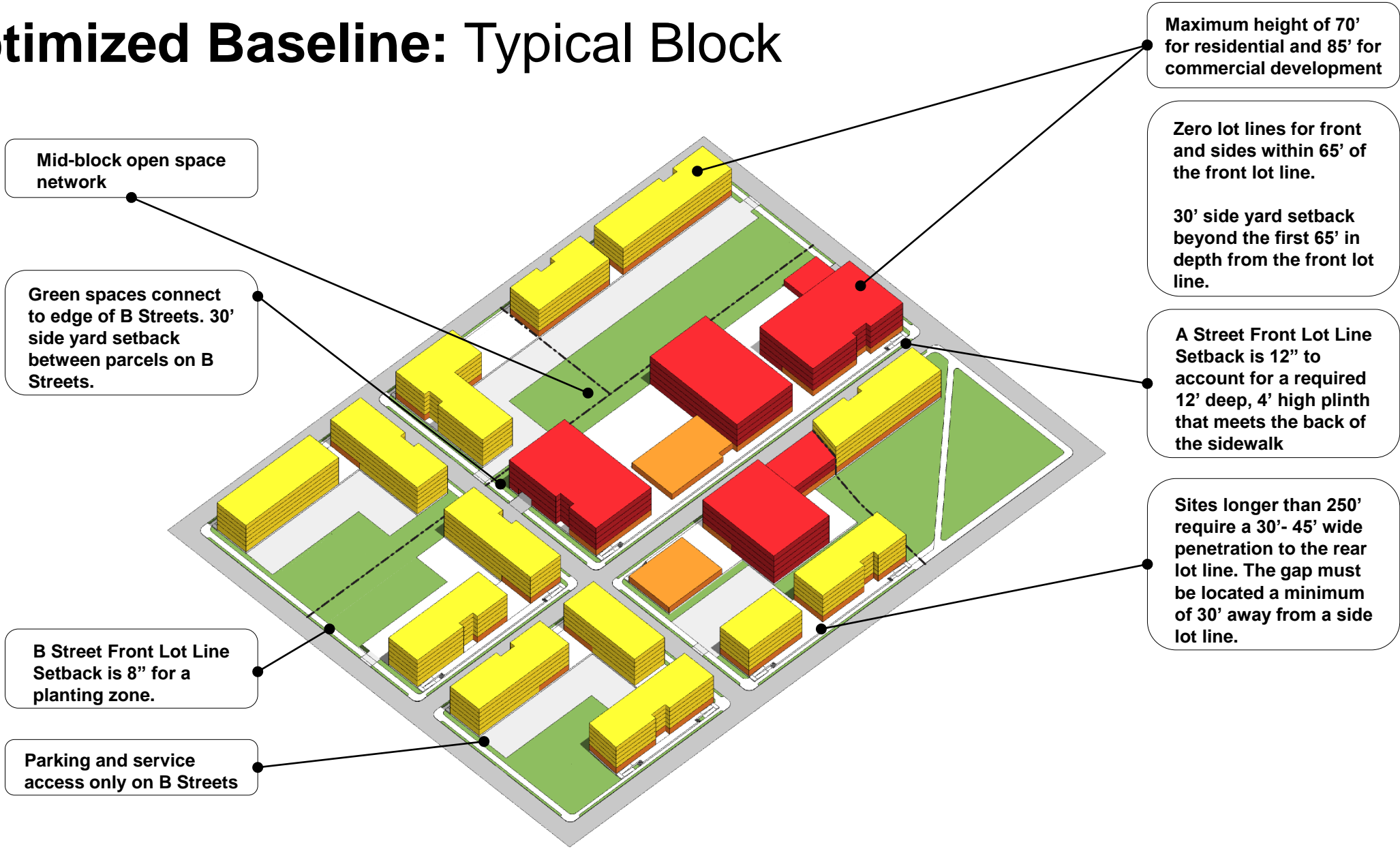


Guiding considerations

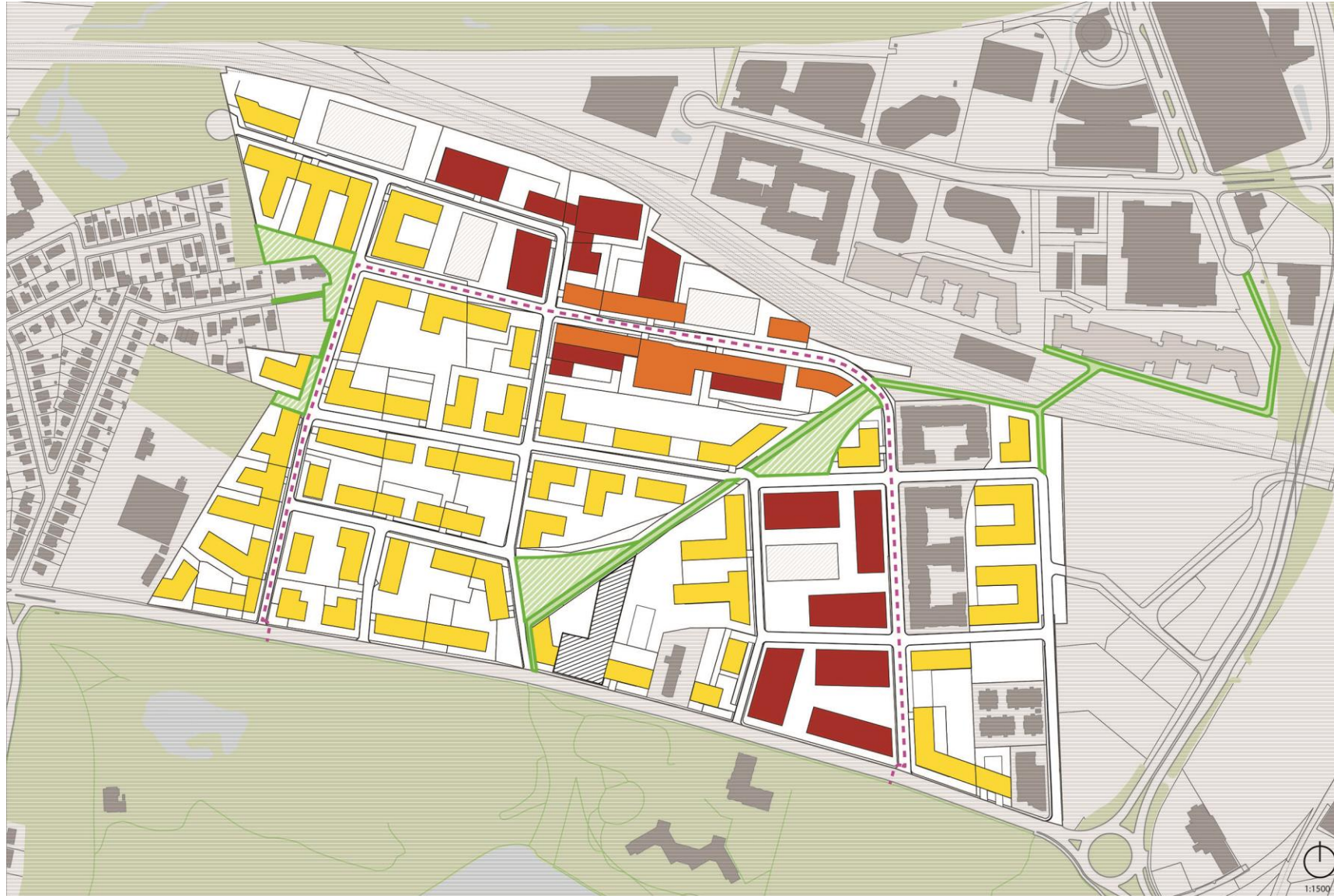
- Projected use mix reflects trends in recent construction and pipeline development
- Tests if better urbanism can be created by requiring zero lot lines and no side yards

- Retail (Mixed-use)
- Commercial
- Residential
- New Bicycle/Pedestrian Connections
- ... Bicycle Lanes
- ▨ Open Space

Optimized Baseline: Typical Block









Optimized Baseline: Ground-floor Program



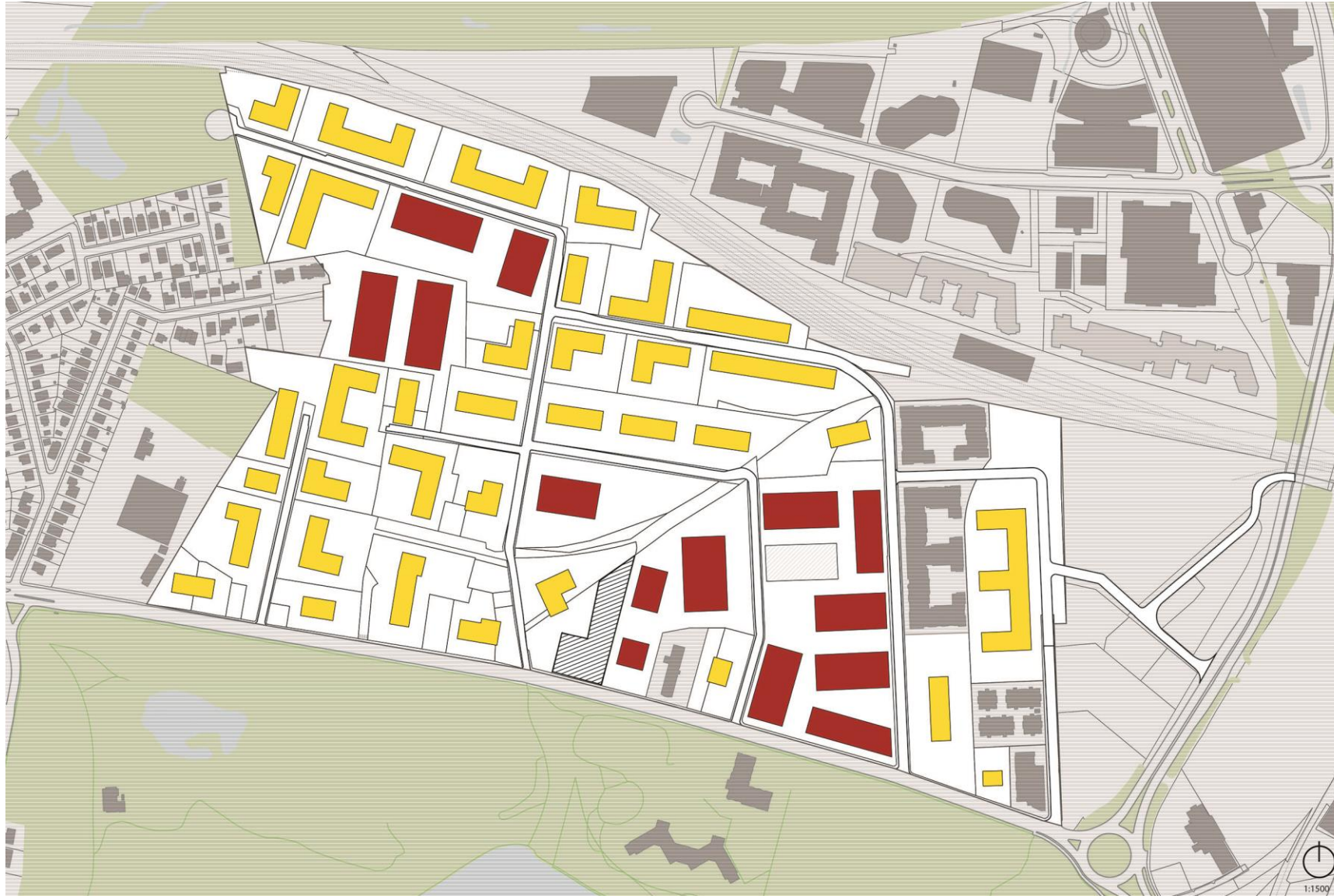
Development yields

- ~2,800 housing units
- ~1.51m SF office / lab space
- ~142,000 SF of ground floor retail
- *575 existing housing units*
- *610 pipeline housing units*

District FAR = 1.50

-  Retail (Mixed-use)
-  Commercial
-  Residential
-  New Bicycle/Pedestrian Connections
-  Bicycle Lanes
-  Open Space

Baseline: Test-fit Comparison



Development yields

- ~2,400 housing units
- ~1.75m SF office / lab space
- *575 existing housing units*
- *610 pipeline housing units*

District FAR = 1.30

- Commercial
- Residential
- Parcels less likely to be developed
- Existing Development
- Permitted Projects
- Future Projects

How does this compare to the baseline?

Optimized Baseline



Environment

- Closest to the baseline in terms of annual energy consumption, GHG emissions, and waste generation
- Greatest generation potential from solar PVs relative to annual consumption
- Center-of-block open space serves as potential storm water infrastructure



Mobility

- The high residential density in this scenario maximizes trip reductions compared to the baseline
- Creates clear hierarchy of A and B streets



Housing

- Generates approximately the same number of housing units as the baseline



Jobs

- Creates slightly fewer jobs than the baseline and the fewest total jobs than any scenario



Tax revenue and fiscal impacts

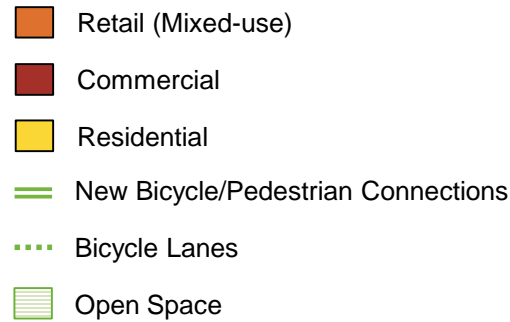
- Increases residential population and need for city services
- Increases tax base, not as much as commercial uses
- Could fund critical infrastructure, such as bridge

Mixed-use Residential

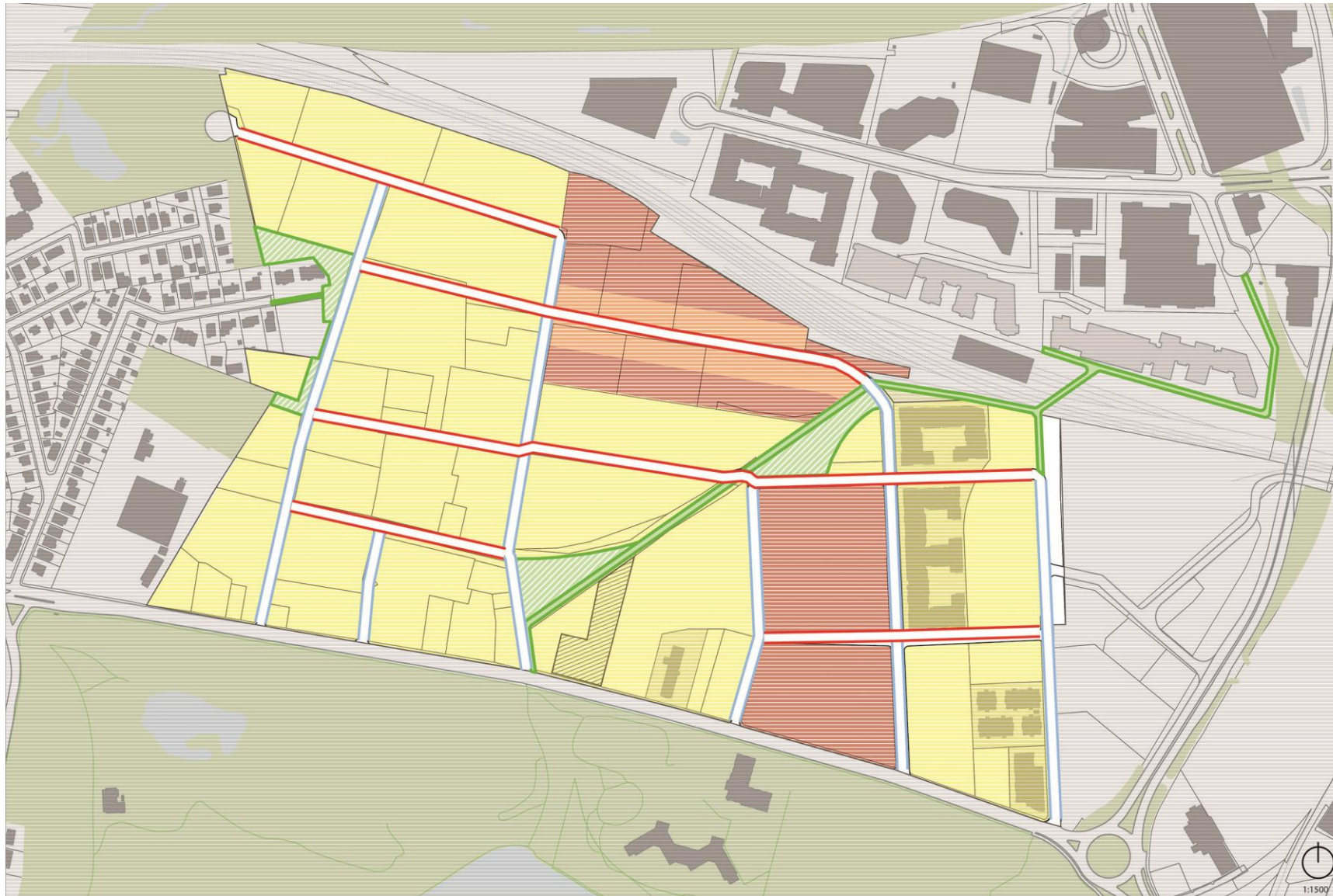


Guiding considerations








- Projected use mix reflects trends in recent construction and pipeline development
- Maximizes housing creation
- Minimizes impacts on mobility by as the primary land use is residential
- Creates a retail district to support residential uses along Fawcett Street (east-west) with the possibility of additional distributed ground floor retail in residential blocks.



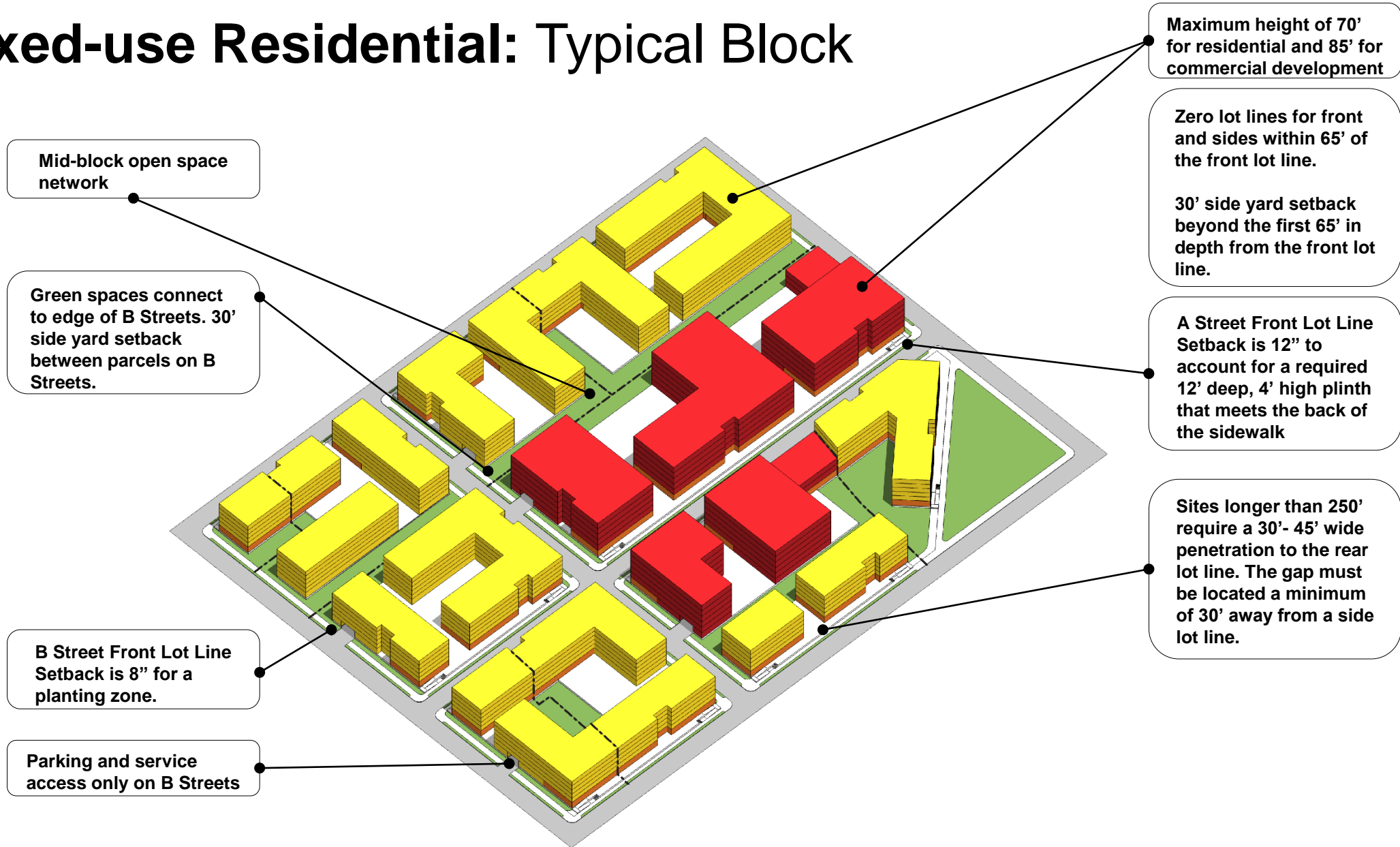
Mixed-use Residential: Street Types



A Streets

-  A Streets
-  B Streets
-  Recently completed (since 1995)
-  Permitted Projects
-  New Bicycle/Pedestrian Connections
-  Open Spaces
-  Setbacks

Mixed-use Residential: Typical Block



Mixed-use Residential: Ground-floor Program









Development yields

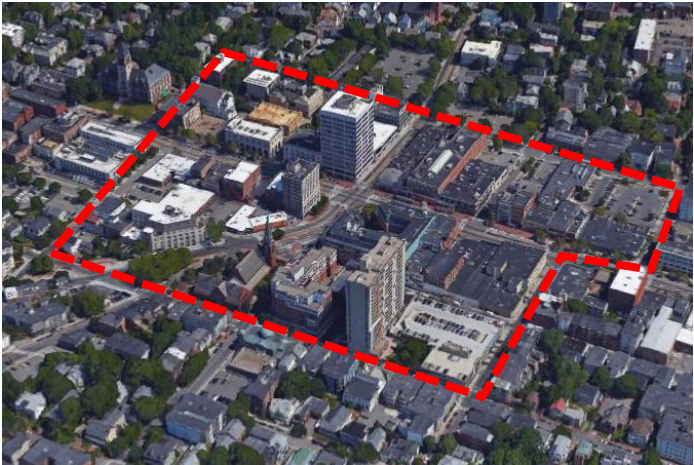
- ~4,000 housing units
- ~2.61m SF office / lab space
- + 390,000 SF office / lab (with HRO)
- 126,000 SF of ground floor retail
- 575 existing housing units
- 610 pipeline housing units

District FAR = 2.05

District FAR = 2.37 (with HRO)

-  Retail (Mixed-use)
-  Commercial
-  Residential
-  New Bicycle/Pedestrian Connections
-  Bicycle Lanes
-  Open Space

Mixed-use Residential: Ground-floor Program



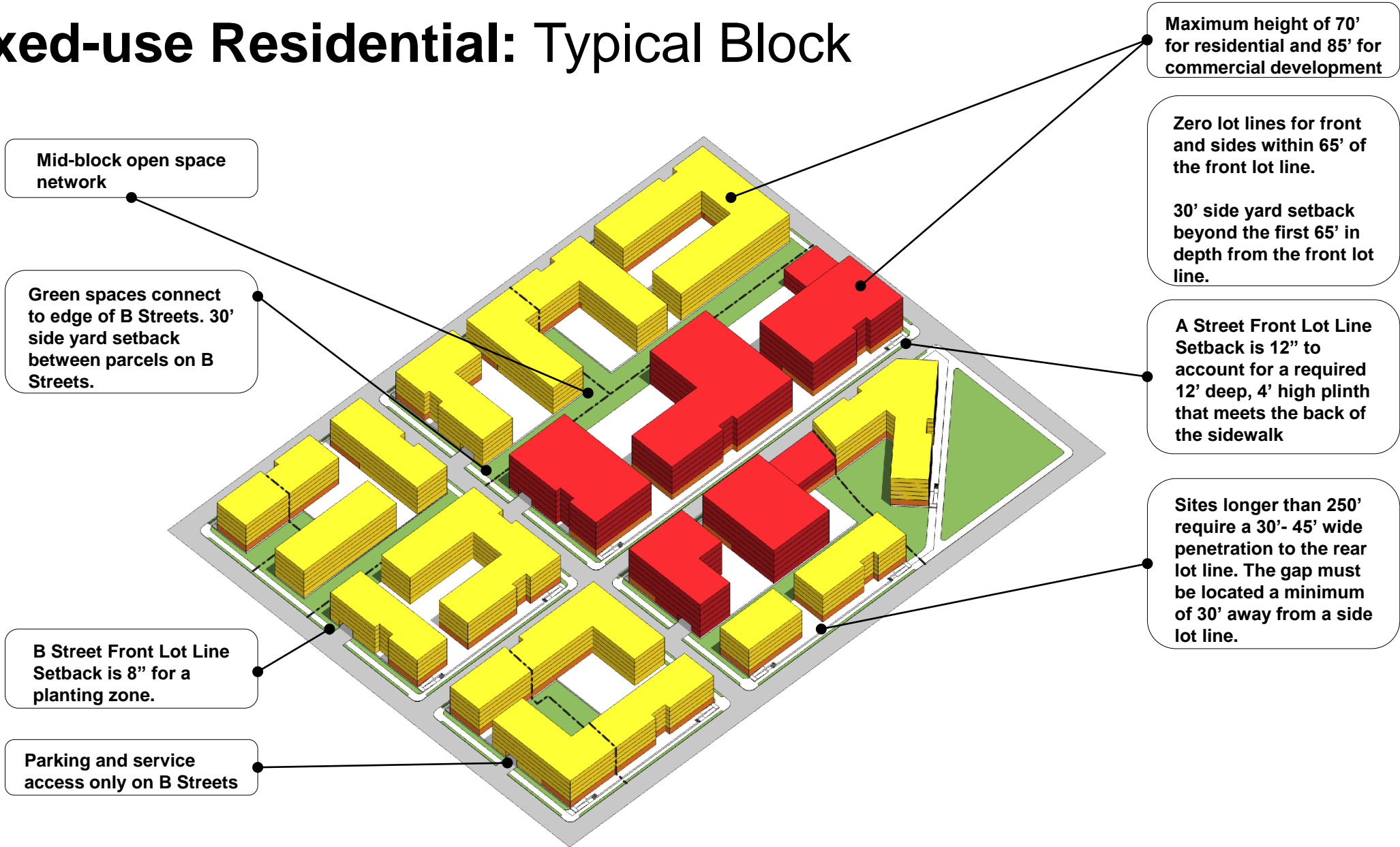
Central Square District FAR = 2.20

Benchmark neighborhoods	Estimated average FAR
Central Square, Cambridge	2.20 ¹
North Point, Cambridge	2.66 ²
Assembly Row, Somerville	2.90 ³

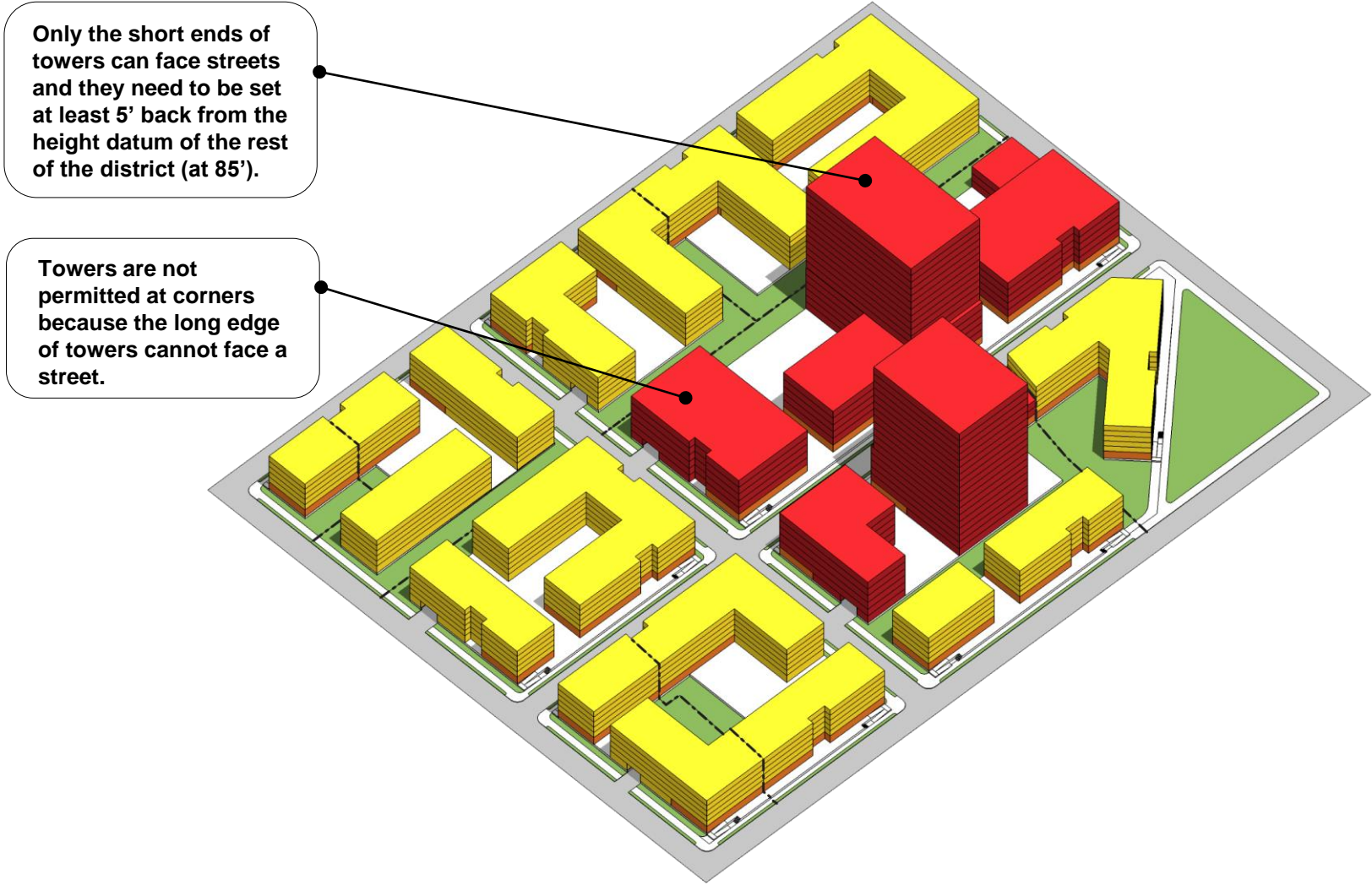
- Retail (Mixed-use)
- Commercial
- Residential
- New Bicycle/Pedestrian Connections
- Bicycle Lanes
- Open Space

Source: ¹ City of Cambridge 2015 Tax Assessor and Parcel Data, ² Request for Special Permit Amendments Final Development Proposal NorthPoint (PB #179), ³ <http://bostinno.streetwise.co/2014/11/21/what-is-assembly-row-somerville/>

Mixed-use Residential: Typical Block



Mixed-use Residential: Typical Block - High-rise Overlay (200')



Only the short ends of towers can face streets and they need to be set at least 5' back from the height datum of the rest of the district (at 85').

Towers are not permitted at corners because the long edge of towers cannot face a street.

How does this compare to the baseline?

Mixed-use Residential

And Mixed-use Residential with High-rise Overlay



Environment

- These scenarios have the highest water demand due to a higher proportion of residential land uses



Mobility

- The high residential density in this scenario maximizes trip reductions compared to the baseline
- Creates a clear hierarchy on A and B streets



Housing

- Generates the highest number of residential units



Jobs

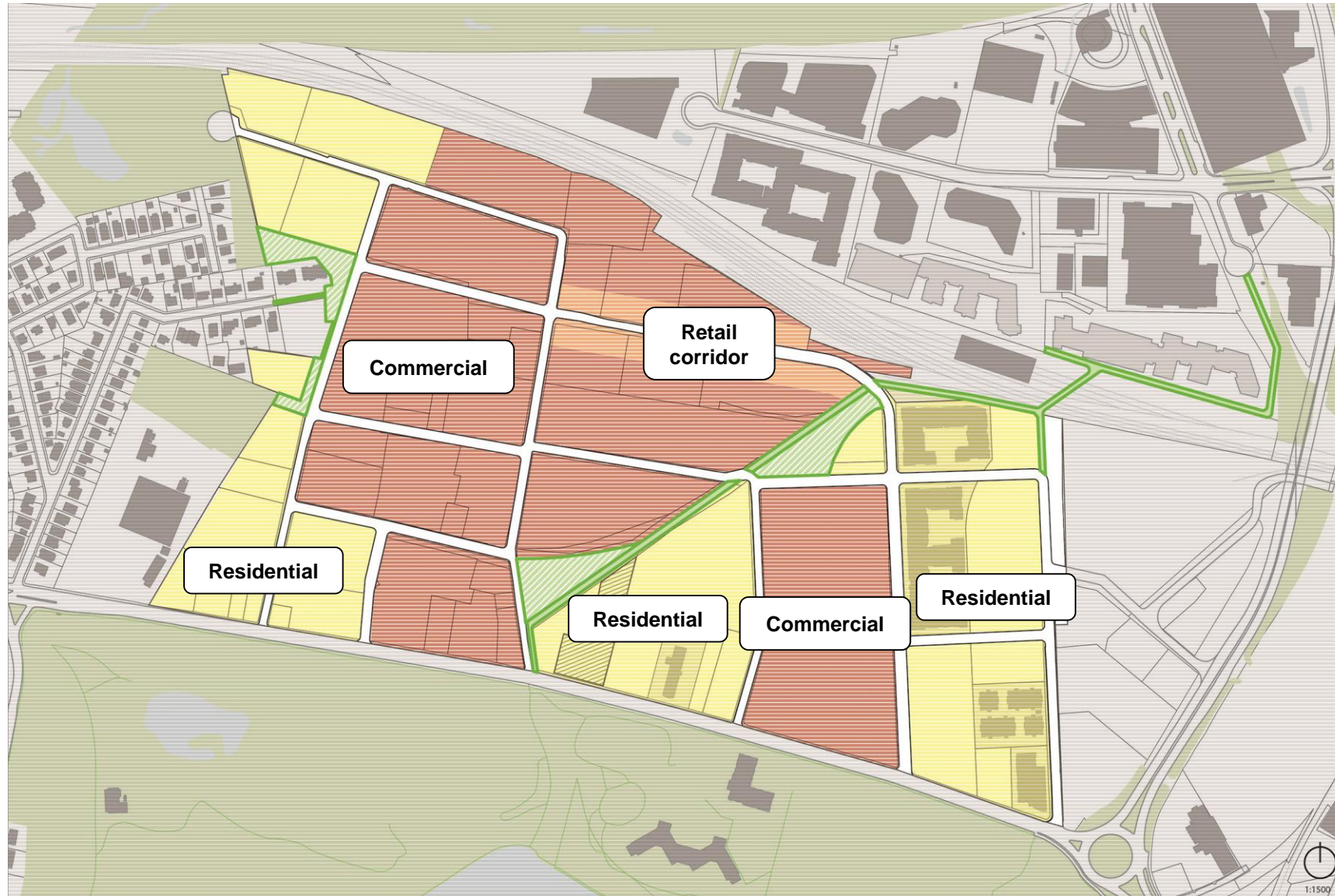
- Creates more jobs than the baseline



Tax revenue and fiscal impacts







- Increases residential population and need for city services
- Increases tax base, but not as much as commercial uses
- Could fund critical infrastructure, such as bridge

Mixed-use Commercial: Same urbanism, commercial emphasis

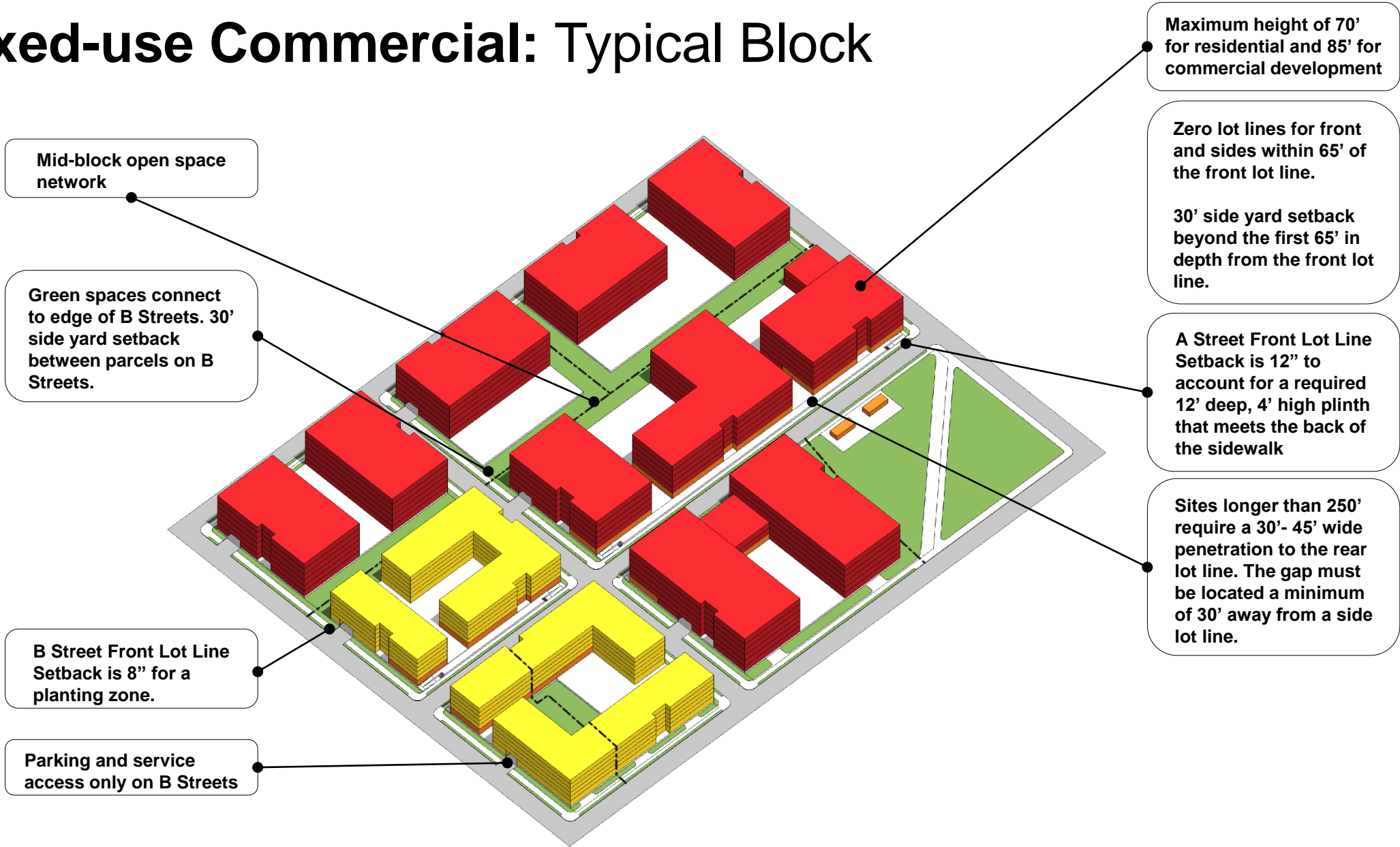


Guiding considerations

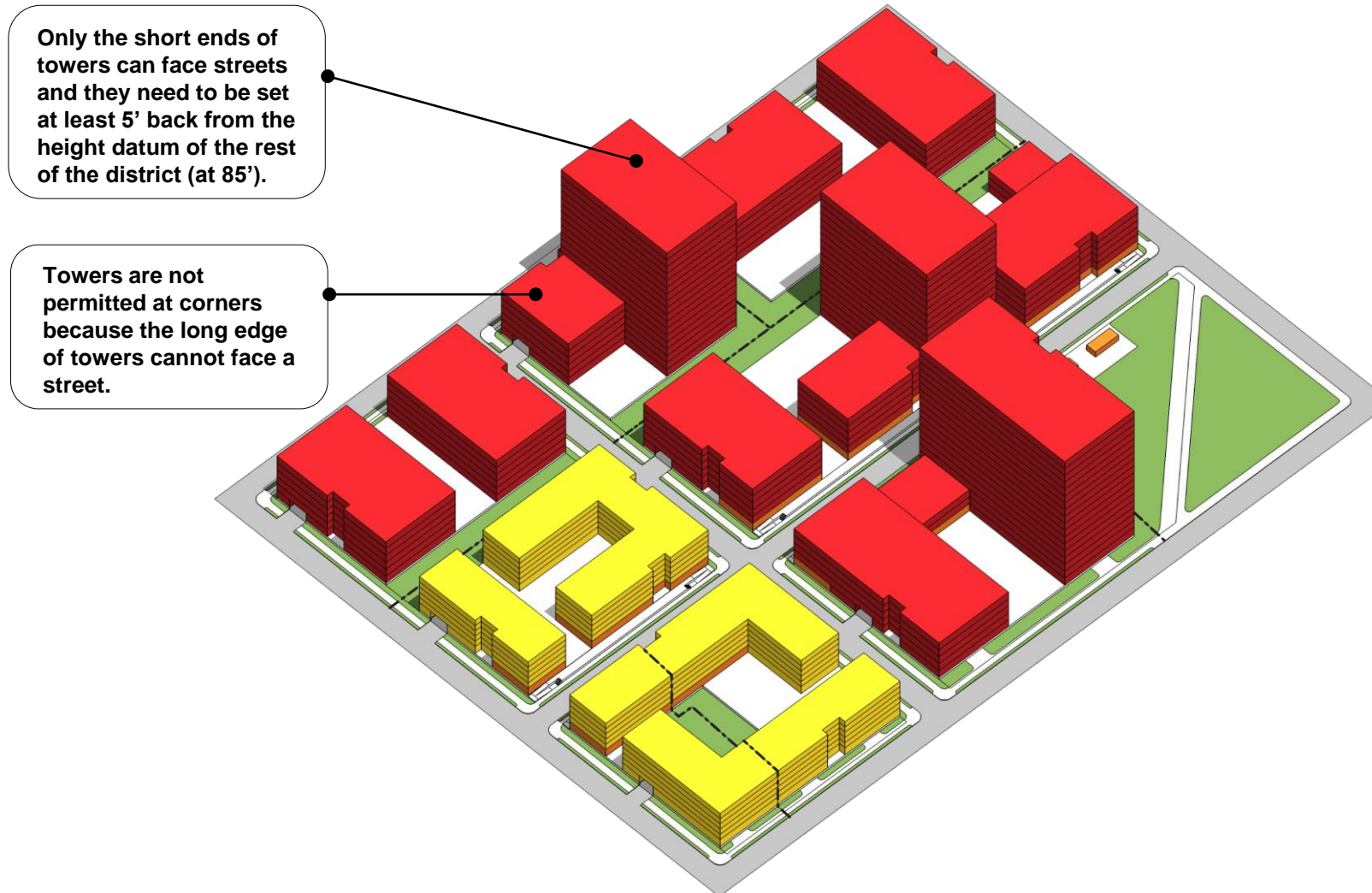
- Maximize fiscal revenue by increasing the commercial tax base
- Promotes high “energy-density” uses that could support a co-gen plant

-  Retail (Mixed-use)
-  Commercial
-  Residential
-  New Bicycle/Pedestrian Connections
-  Bicycle Lanes
-  Open Space

Mixed-use Commercial: Typical Block



Mixed-use Commercial: Typical Block – High-rise Overlay (200')



Mixed-use Commercial: Ground-floor Program









Note: HRO refers to high rise overlay

Development yields

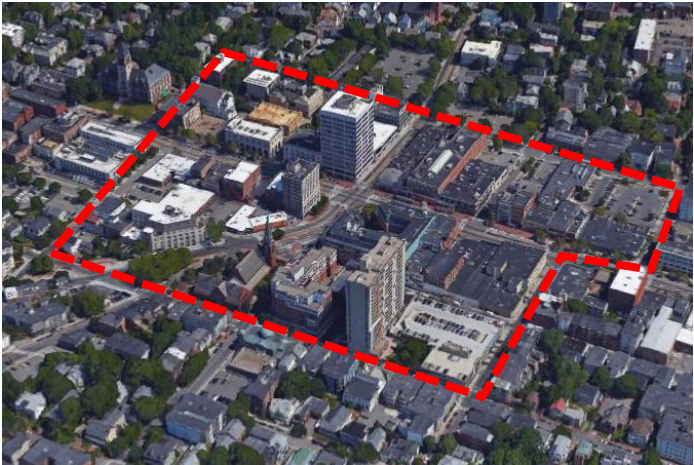
- ~1,800 housing units
- ~5.9m SF office / lab space
- + 860,000 SF office / lab (with HRO)
- 126,000 SF of ground floor retail
- 575 existing housing units
- 610 pipeline housing units

District FAR = 2.34

District FAR = 2.64 (with HRO)

-  Retail (Mixed-use)
-  Commercial
-  Residential
-  New Bicycle/Pedestrian Connections
-  Bicycle Lanes
-  Open Space

Mixed-use Commercial: Ground-floor Program



Central Square
District FAR = 2.20

District FAR similar to Central Square

- Retail (Mixed-use)
- Commercial
- Residential
- New Bicycle/Pedestrian Connections
- Bicycle Lanes
- Open Space

How does this compare to the baseline?

Mixed-use Commercial

And Mixed-use Commercial with High-rise Overlay



Environment

- “Business case” for district heating is strongest, given the high density of commercial and lab uses
- Have the highest energy consumption, waste generation, and GHG emissions



Mobility

- Gains no reductions from the jobs-housing balance and generates the highest number of trips



Housing

- Creates fewer housing units than the baseline



Jobs

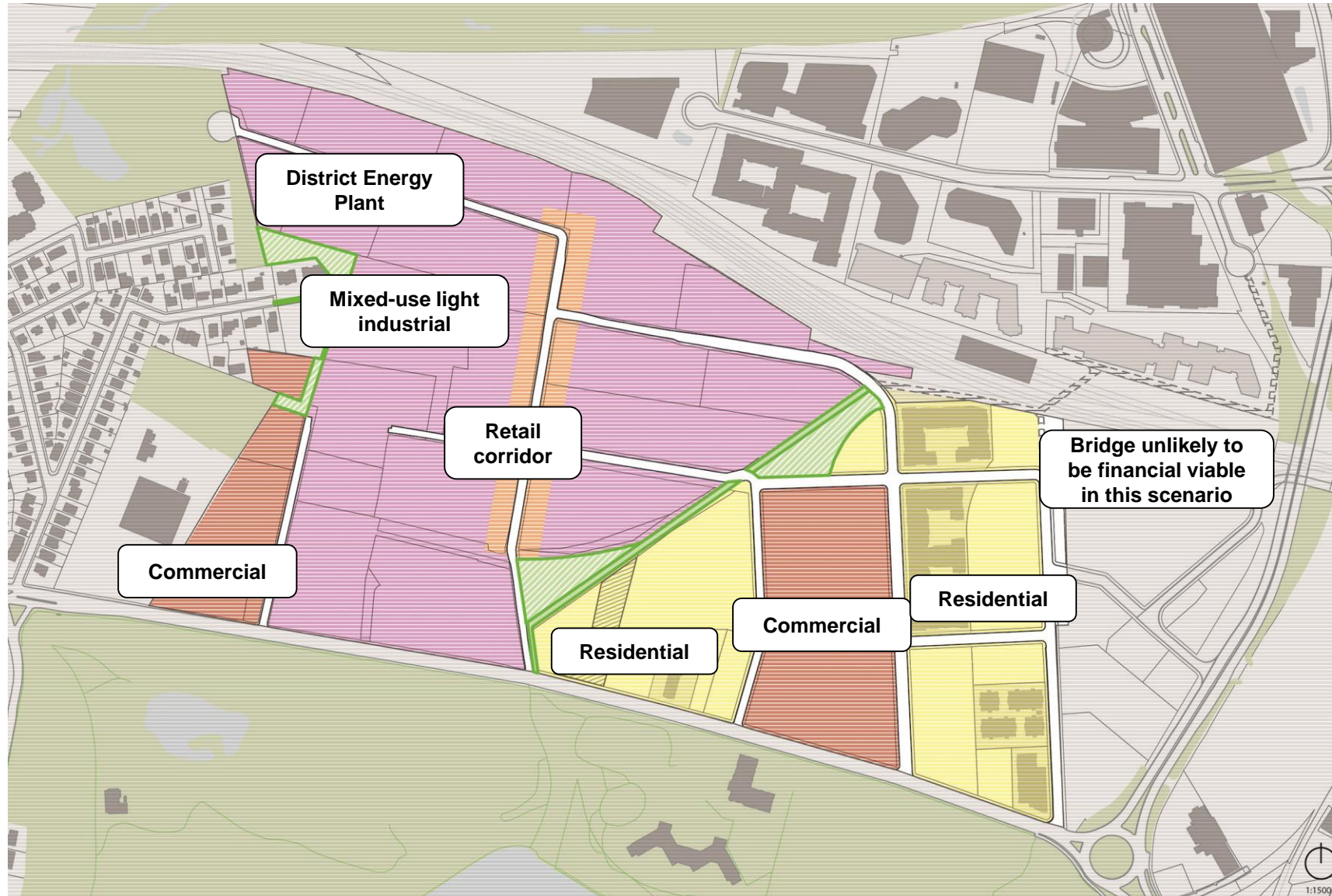
- Creates the most jobs



Tax revenue and fiscal impacts

- Most likely to fund pedestrian/bike bridge over the tracks
- There may be further potential to leverage the revenue//value for the implementation other large-scale resilience or energy infrastructure

Mixed-use Industrial: Light industrial/commercial emphasis



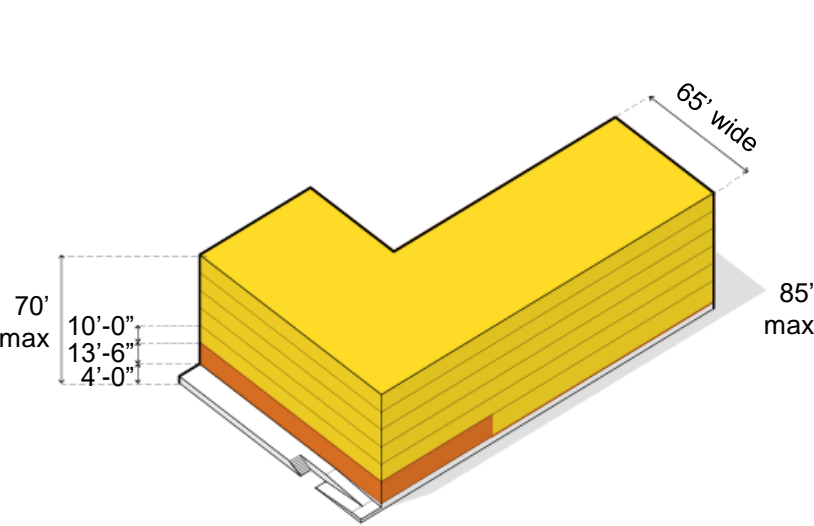
Guiding considerations

- Minimize residential development in the floodplain
- Optimizes land uses to best suit the 4' plinth elevation
- Creates jobs with a low barrier to entry

- Mixed use light industrial, commercial above
- Retail (Mixed-use)
- Commercial
- Residential
- New Bicycle/Pedestrian Connections
- ... Bicycle Lanes
- Open Space

Scenario Building Prototypes

Residential Prototype



Typical Floorplate: 14,000-20,000 SF

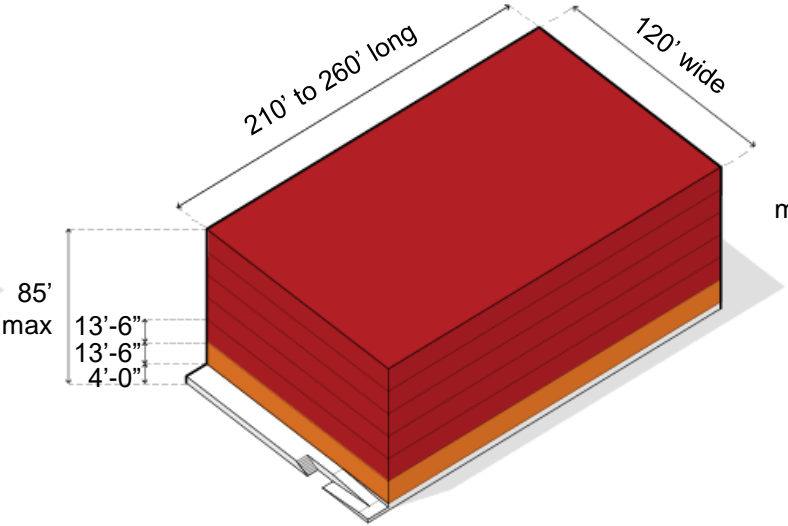
Minimum Floorplate: 10,000 SF

Typical Building Width: 65 Feet

First habitable floor raised 4' for flood protection, with parking below

Continuous raised walkway/porch along "A Streets"

Commercial Prototype



Typical Floorplate: 25,000-32,000 SF

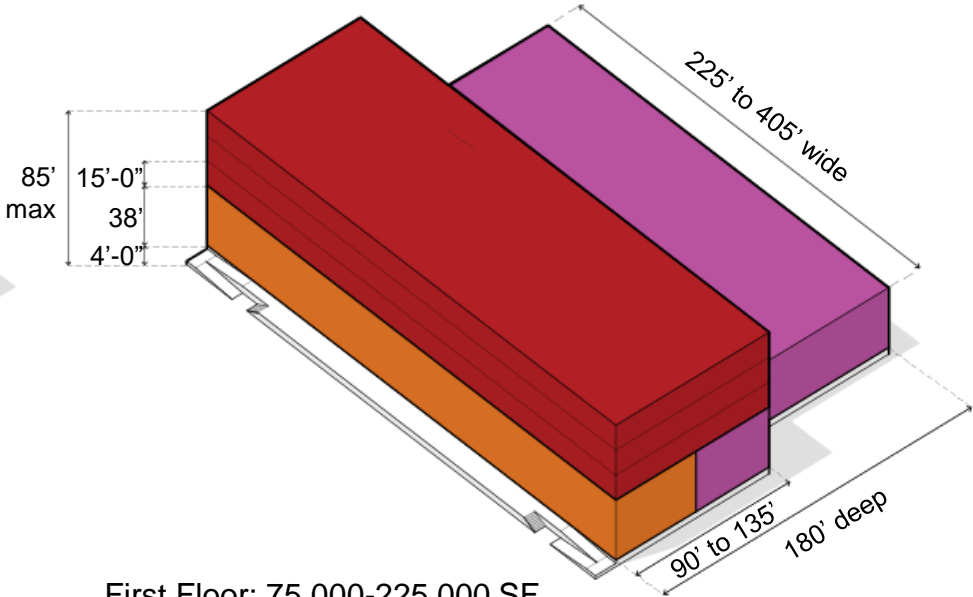
Minimum Floorplate: 20,000 SF

Typical Building Width: 120 Feet

First habitable floor raised 4' for flood protection, with parking below

Continuous raised walkway/porch along "A Streets"

Mixed-Use Industrial Prototype



First Floor: 75,000-225,000 SF

Typical Upper Floor: 25,000-40,000 SF

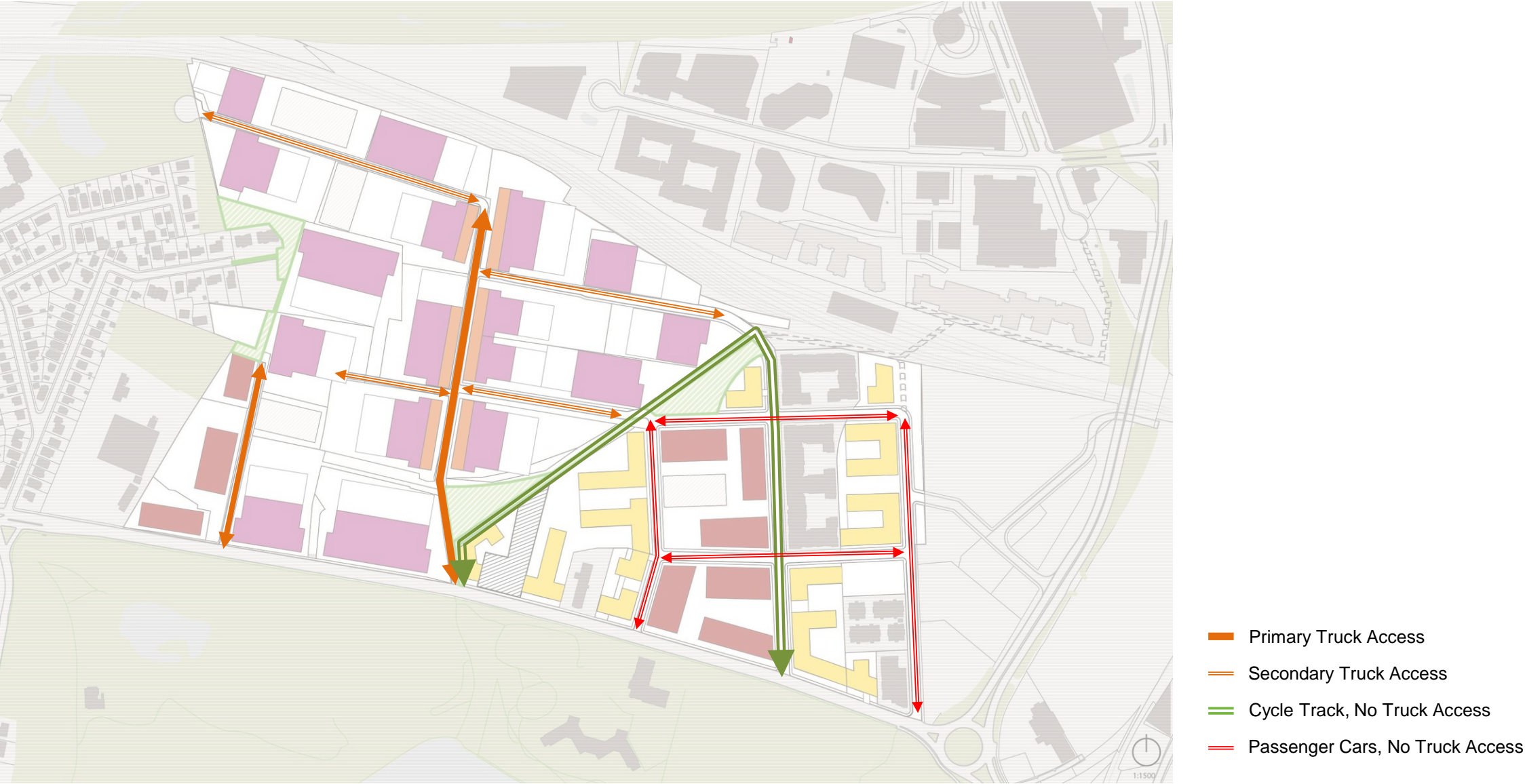
Typical Building Width: 180 Feet

First habitable floor raised 4' for flood protection, with parking below

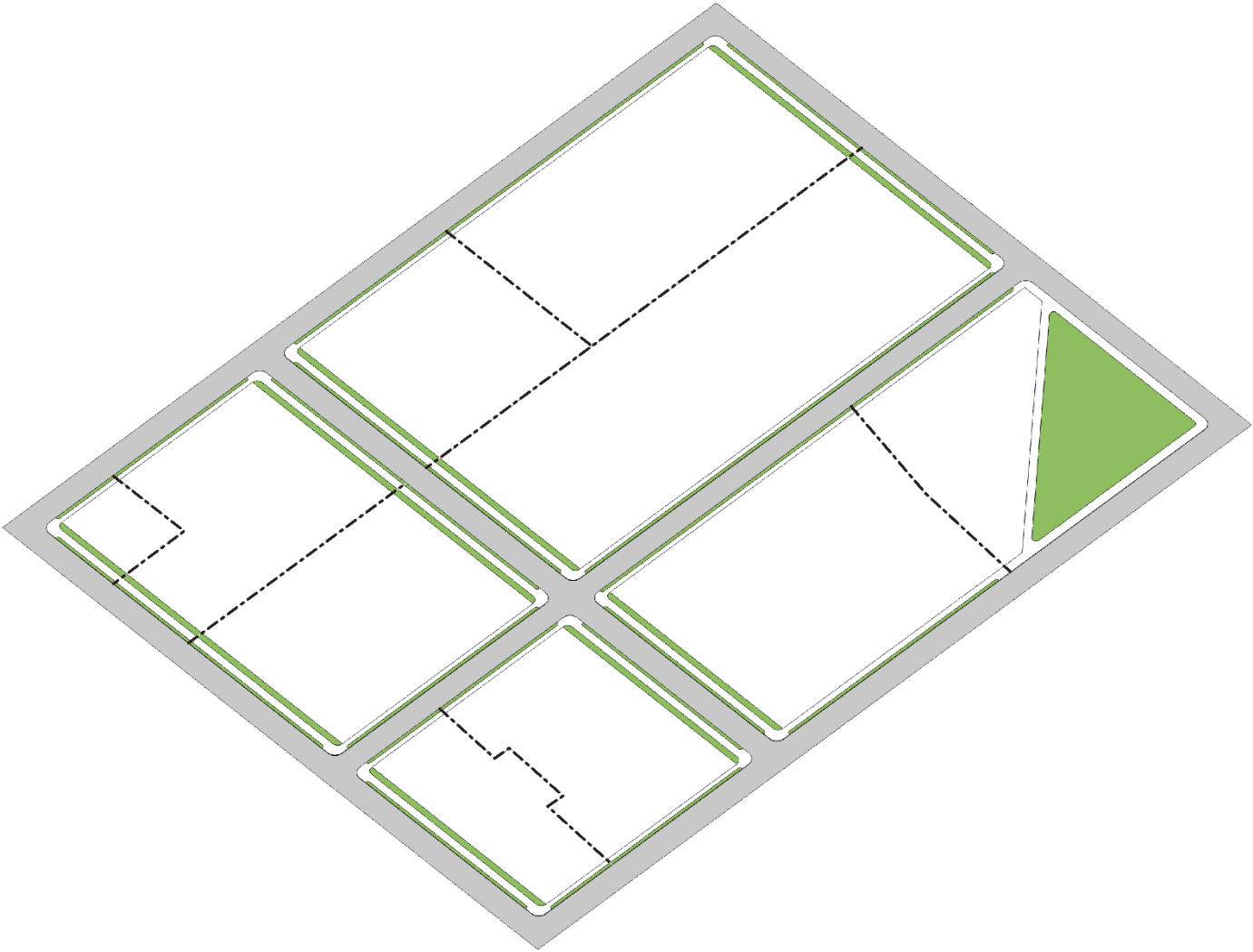
Continuous raised walkway/porch along "A Streets"

- Industrial
- Active Uses
- Commercial
- Residential

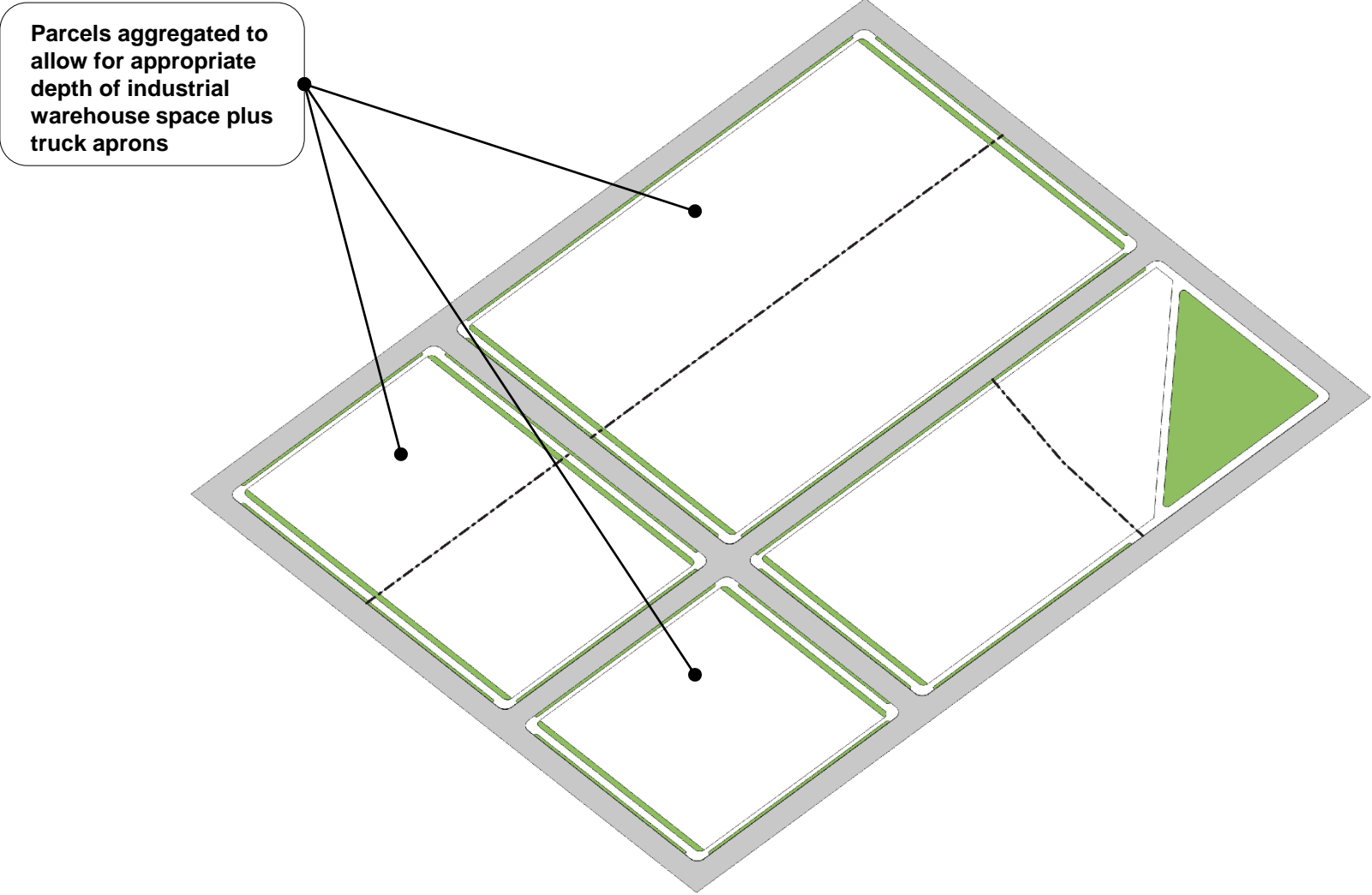
Mixed-use Industrial: Mobility and circulation



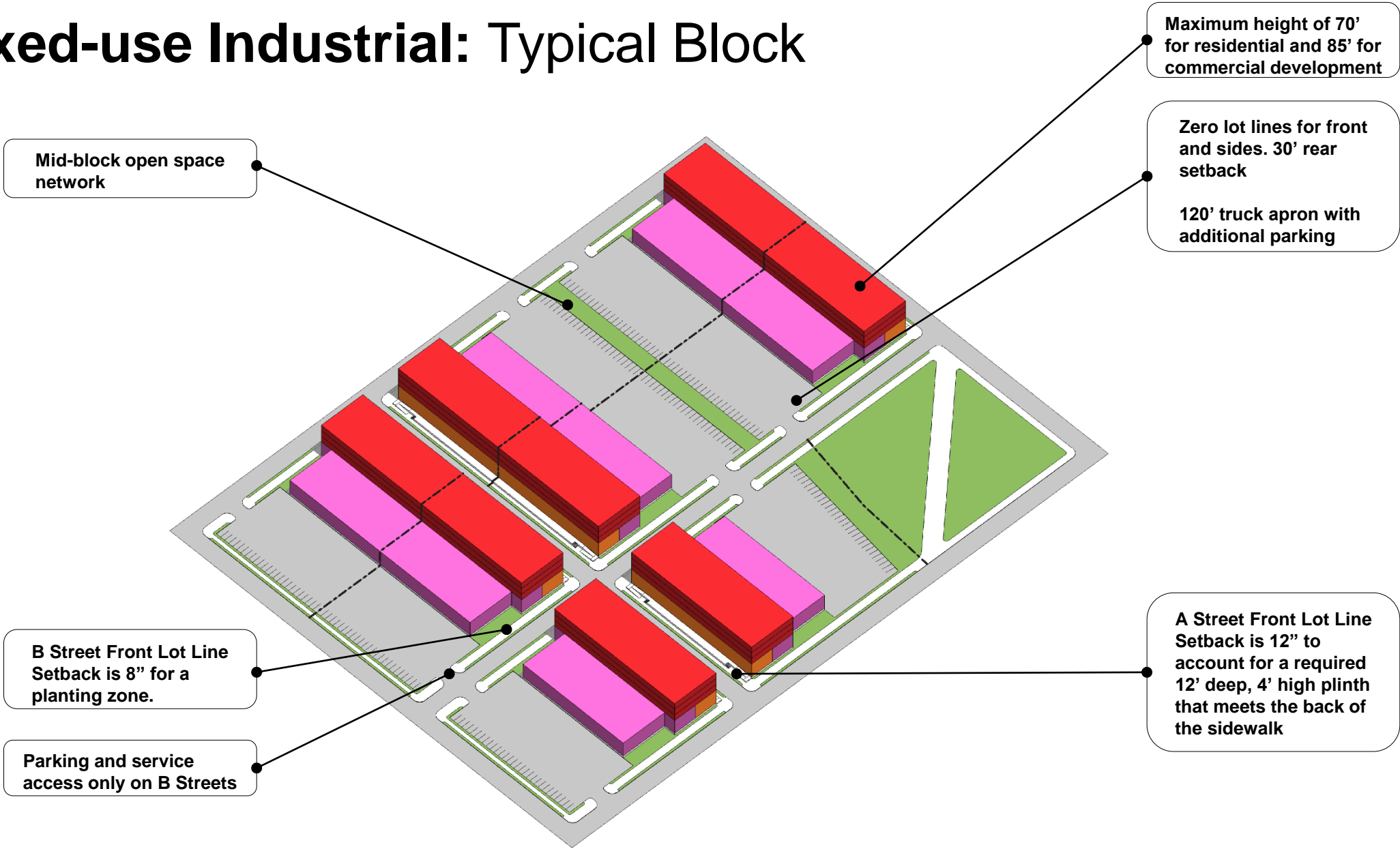
Mixed-use Industrial: Typical Block — Parcels



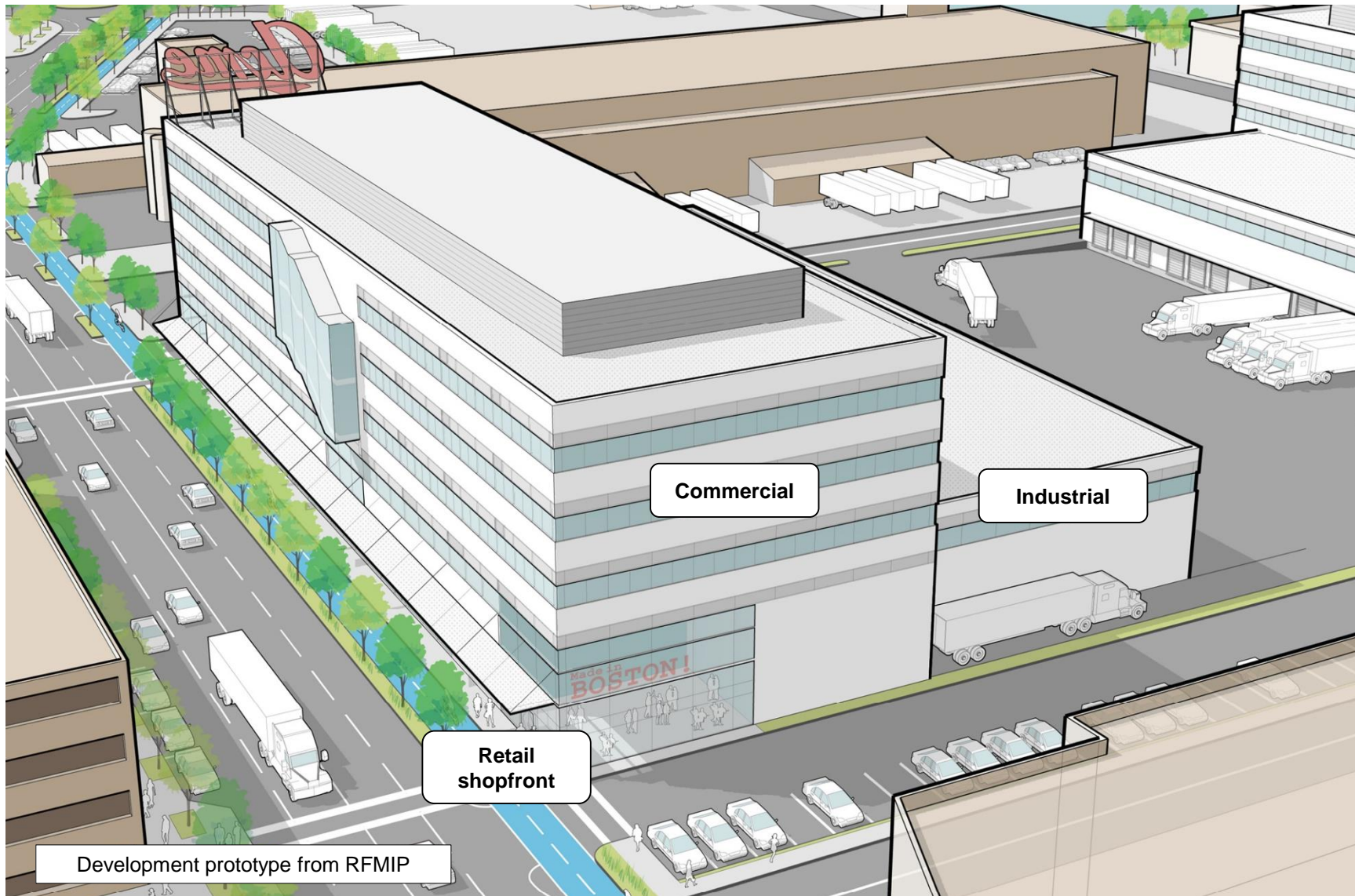
Mixed-use Industrial: Typical Block — Aggregated Parcels



Mixed-use Industrial: Typical Block



Mixed-use Industrial: Building Prototype



- Industrial / warehouse uses on ground floor with 3 floors of commercial office space above
- First habitable floor elevated to 4' above street-level (not shown in image). Total building height up to 85'
- Option to add ground floor retail in front of industrial / warehouse space along primary streets
- Floor area ranges from 36,000 SF to 68,500 SF (per floor)
- Flexible floor plate depth on upper floors accommodates a variety of commercial uses - office R&D, fabrication, etc.
- Floor to floor height of industrial, retail spaces is 31'
- Floor to floor height of commercial spaces is 13'- 6"

Mixed-use Industrial Districts



Mixed-use Industrial: Ground-floor Program



Development yields

- ~1,000 housing units
- ~2.16m SF office / lab space
- ~79,000 SF of ground floor retail
- ~648,000 SF of industrial space
- ~1,300 industrial jobs
- *575 existing housing units*
- *610 pipeline housing units*

District FAR = 1.27

- Mixed use light industrial, commercial above
- Retail (Mixed-use)
- Commercial
- Residential
- New Bicycle/Pedestrian Connections
- ... Bicycle Lanes
- ▨ Open Space

How does this compare to the baseline?

Mixed-use Industrial



Environment

- Land use and low density lead to least energy demands
- Significant solar potential (when compared to consumption) given the large flat roofs
- Places fewest residents in the floodplain



Mobility

- Does not achieve a distributed street network as the value captured from new development will not be sufficient to fund this
- Need for truck access on primary roads further detracts from the walkability in this district



Housing

- Creates fewest housing units



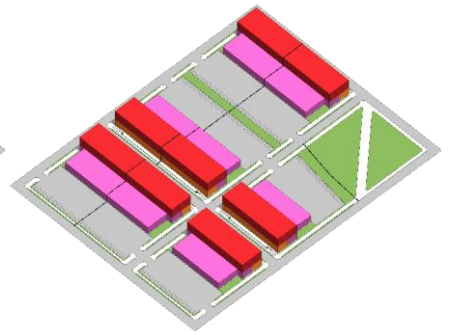
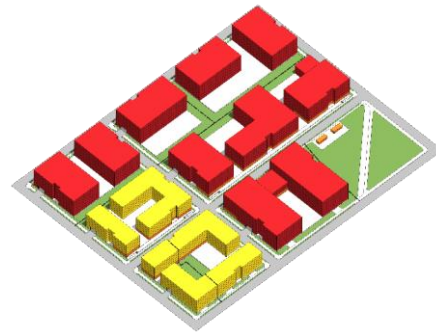
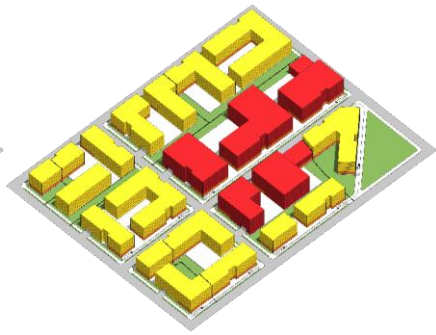
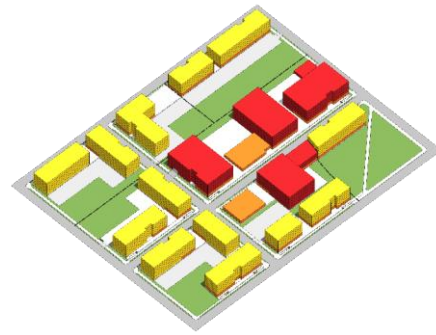
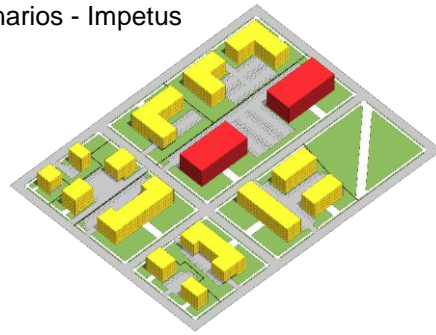
Jobs

- Creates jobs with a lower barrier to entry
- Creates more jobs than the baseline



Tax revenue and fiscal impacts

- Challenge from the real estate market perspective and pointing to the need for a City mandate to develop these uses in Alewife
- Least likely to fund critical infrastructure (e.g., ped/bike bridge or new stormwater infrastructure)



Impetus

Baseline

- Understand the potential buildout under current zoning, consistent with recent projects
- Evaluate the resulting urbanism in terms of urban form, walkability, and contribution to a comprehensive environmental agenda
- Compare to alternative scenarios

Optimized Baseline

- Create better urbanism at the same allowed density and use-mix as currently allowed
- Complete the street grid
- Introduce a bike-ped path with a stormwater function and associated open spaces along it

Mixed-use Residential (+ option with high-rise overlay)

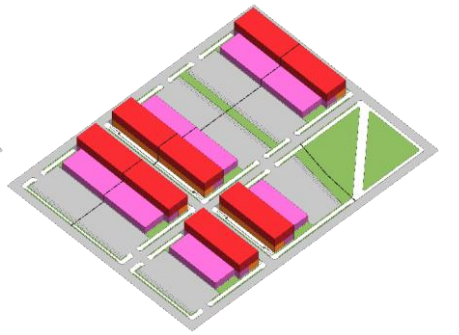
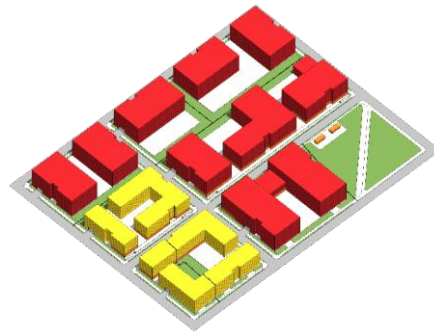
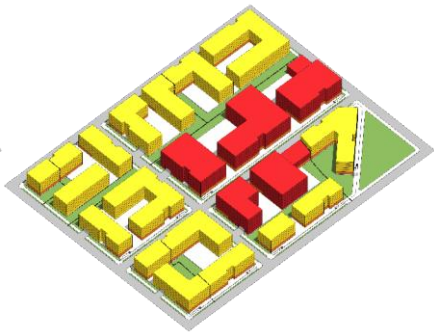
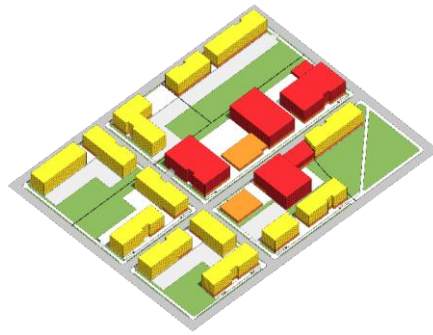
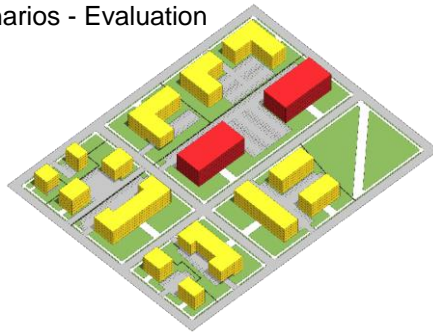
- Create better urbanism, but with an increase in density skewed to residential. Incentivize less suburban development
- Significantly increase housing
- Other urban design features the same as the Optimized Baseline
- Generate more RE revenue to help defray the costs of infrastructure improvements

Mixed-use Commercial (+ option with high-rise overlay)

- Create better urbanism with the same use-mix, but with an increase in density skewed to commercial development
- Provides jobs to residents
- Other urban design features the same as the Optimized Baseline
- Generate more RE and tax revenue to help defray the costs of infrastructure improvements
- Increase commercial tax base
- Minimize residents in the floodplain

Mixed-use Industrial

- Provides low-barrier to entry jobs to residents
- Provides space for fabricators and start-ups
- Avoids building residential in floodplain
- Increases truck traffic in the area
- Truck servicing requirements will make it challenging to make the district pedestrian and bicycle-friendly



	Baseline	Optimized Baseline	Mixed-use Residential (+ option with high-rise overlay)	Mixed-use Commercial (+ option with high-rise overlay)	Mixed-use Industrial
Environment	Lacking in district-wide strategy for flood mitigation	Improved block structure allows for a systemic stormwater solution	Same as Optimized Baseline, but less pervious surface will require more aggressive strategies on building roofs	Most likely to work for a district energy	Best PV potential given the consumption to production ratio
Mobility	Lack of street connectivity and hierarchy thwarts alternative modes	Minimal difference in density and use, but improved urbanism will encourage biking and walking	High percentage of residential use means that trip generation is not as significant as commercial scenario	High percentage of commercial uses means the most trips of the scenarios	Requires truck access Least likely to produce multimodal environment
Housing	<i>Baseline for comparison (~2,400 new housing units)</i>	Slightly more than baseline because more of the allowable FAR can be used with new setback rules (~2,800 units)	Most housing units, including affordable units → most residents in floodplain (~4,000 units)	Less housing than residential, but more than other scenarios (~1,800 units)	Fewest housing units and fewest residents in the floodplain (1,000 units)
Jobs	<i>Baseline for comparison (~10,000 jobs)</i>	Slightly more than baseline because more of the allowed FAR can be used with new setback rules (~9,200 jobs)	More jobs than the Optimized Baseline, because of the increase in density (~15,500 jobs, +2,200 w/HRO)	Generates the most jobs, skewed to R&D and Life Science (~34,300 jobs, +4,900 w/HRO)	Creates diversity of jobs and provides commercial space for start-ups and other businesses that can't afford Class A office space (1,300 industrial jobs, 12,700 commercial jobs)
Revenue/ Fiscal Impacts	<i>Baseline for comparison</i>	Not enough RE revenue to pay for district-wide infrastructure, including the bike/ped bridge	Generates just enough RE revenue to pay for new streets and bike/ped bridge	Maximum RE revenue for the bike/ped bridge and new streets, maximizes commercial tax revenue	Not enough RE revenue to pay for district-wide infrastructure, including the bike/ped bridge

Next Steps for Alewife Planning

Feedback from

- Alewife Public Workshop (Feb 8)
- Online Survey (launching in Feb)

Refine the scenarios, then more feedback

Draft plan (late spring/early summer 2017)

Danehy Park Family Day, September 17, 2016



Discussion Questions

Having seen the scenarios and their potential pros and cons:

- What types and mix of new development is most appropriate in the Quadrangle?
- Do you have suggestions for how to approach other areas and issues in Alewife?
- What role should Alewife play in meeting the City's overall goals?

