



Kendall Square's next chapter: from an innovation *district* to an innovation *community*

AGENDA

1. Why increase research capacity?
2. What is the vision?
3. How does the retail strategy work?
4. How does the public realm plan work?
5. Is there enough housing? Does zoning deliver what the plan promises?
6. Why does Kendall Square need taller, larger floorplate, commercial buildings? Are they a temporary phenomenon?
7. How can the City avoid blocky, banal buildings?



Question 1:

Why increase research capacity?



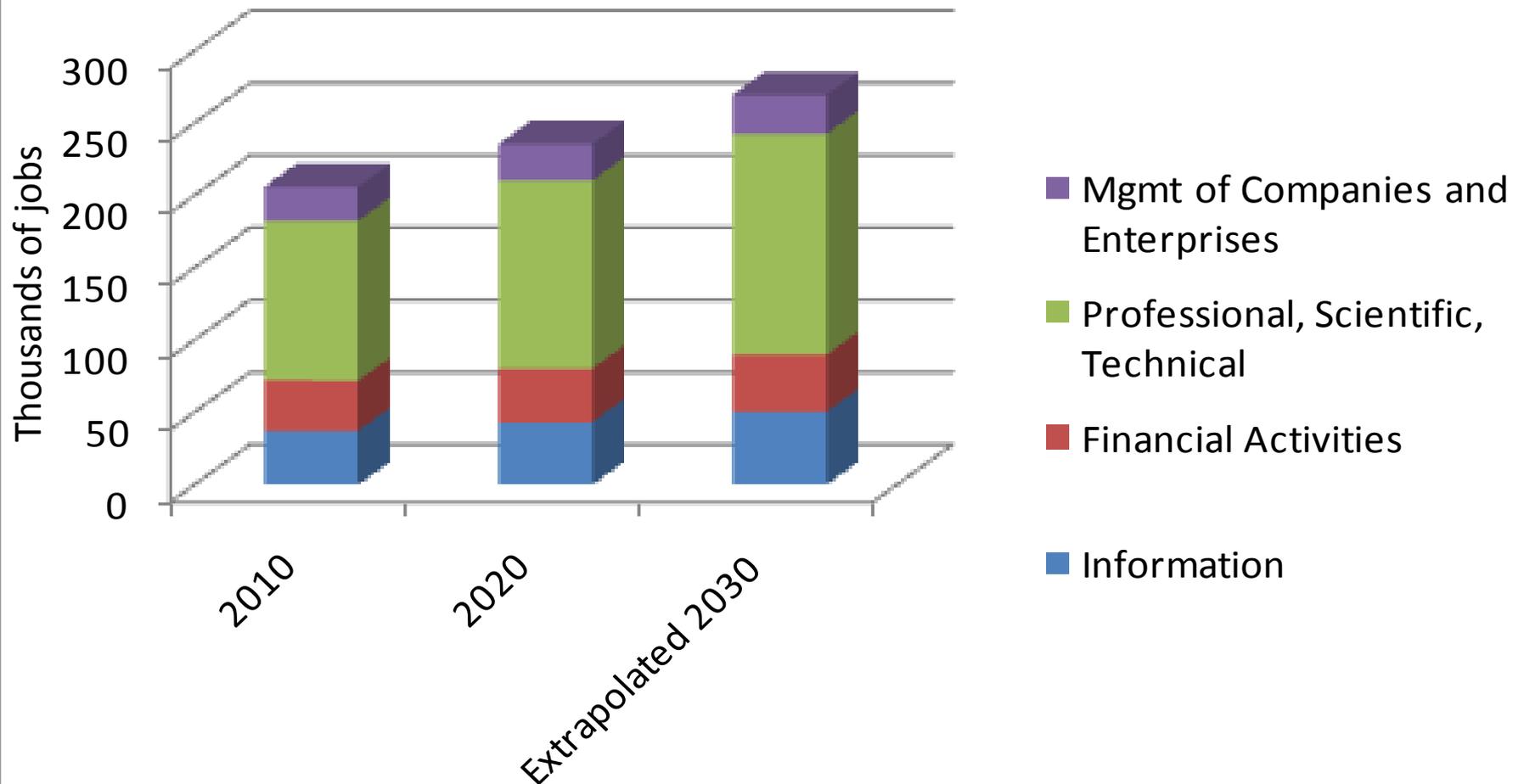
Why...and how...are other innovation districts growing?

- Companies need to locate where they can grow
- Proximity enhances productivity and innovation
- Trend toward even mix of biotech and “dry” research (IT, materials, nanotechnology)...and a more diverse mix of space needs
- Walkability...and critical mass of potential jobs...attract talent—companies follow talent
- UW: “...if we want talent start with the arts, cafés, and *housing*”



- South Lake Union (Seattle)
- Mission Bay (SF)
- Boston’s Innovation District
- 5M (SF)
- Research Triangle (NC)

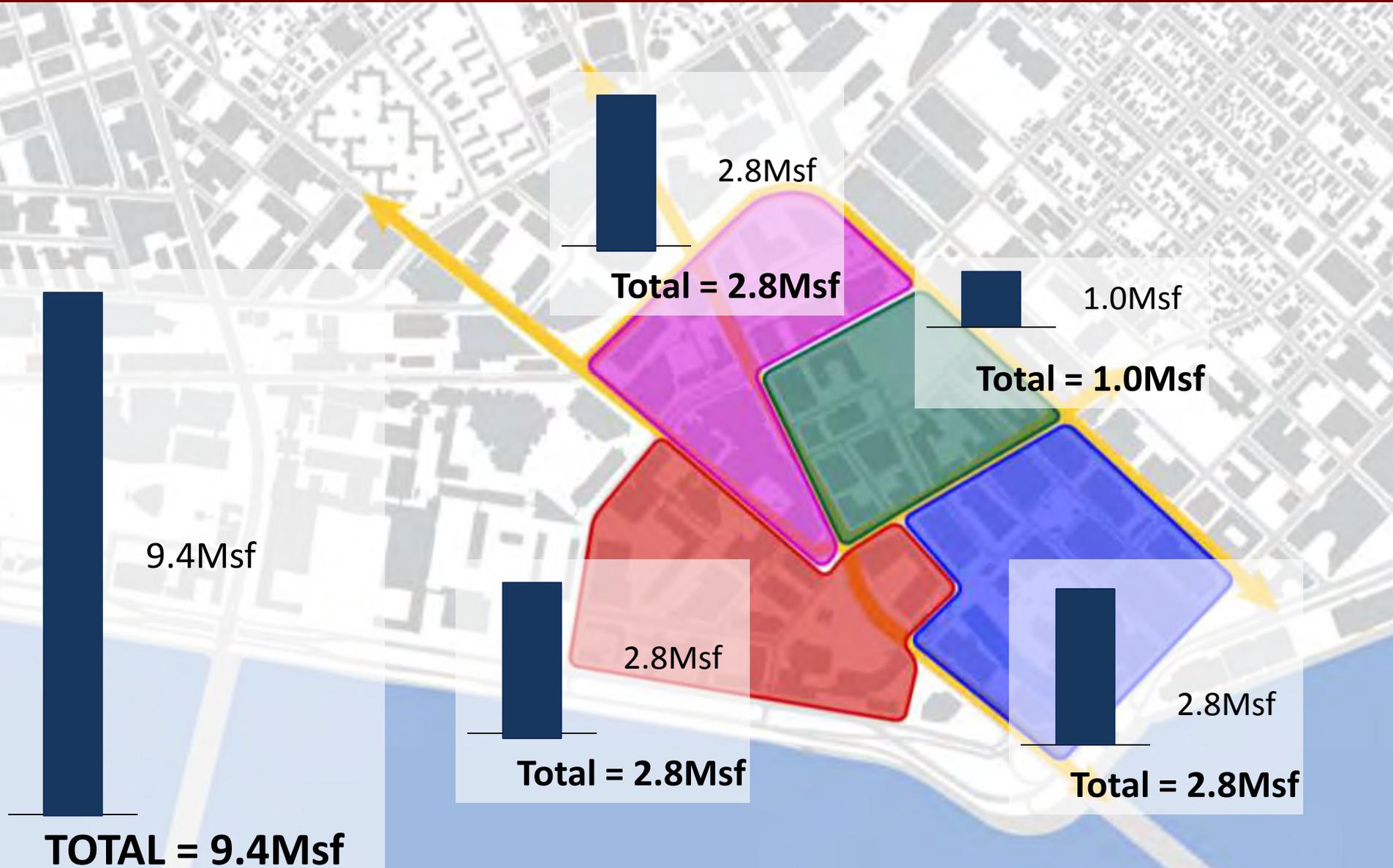
Research-related jobs dominate Boston's "knowledge industry" jobs



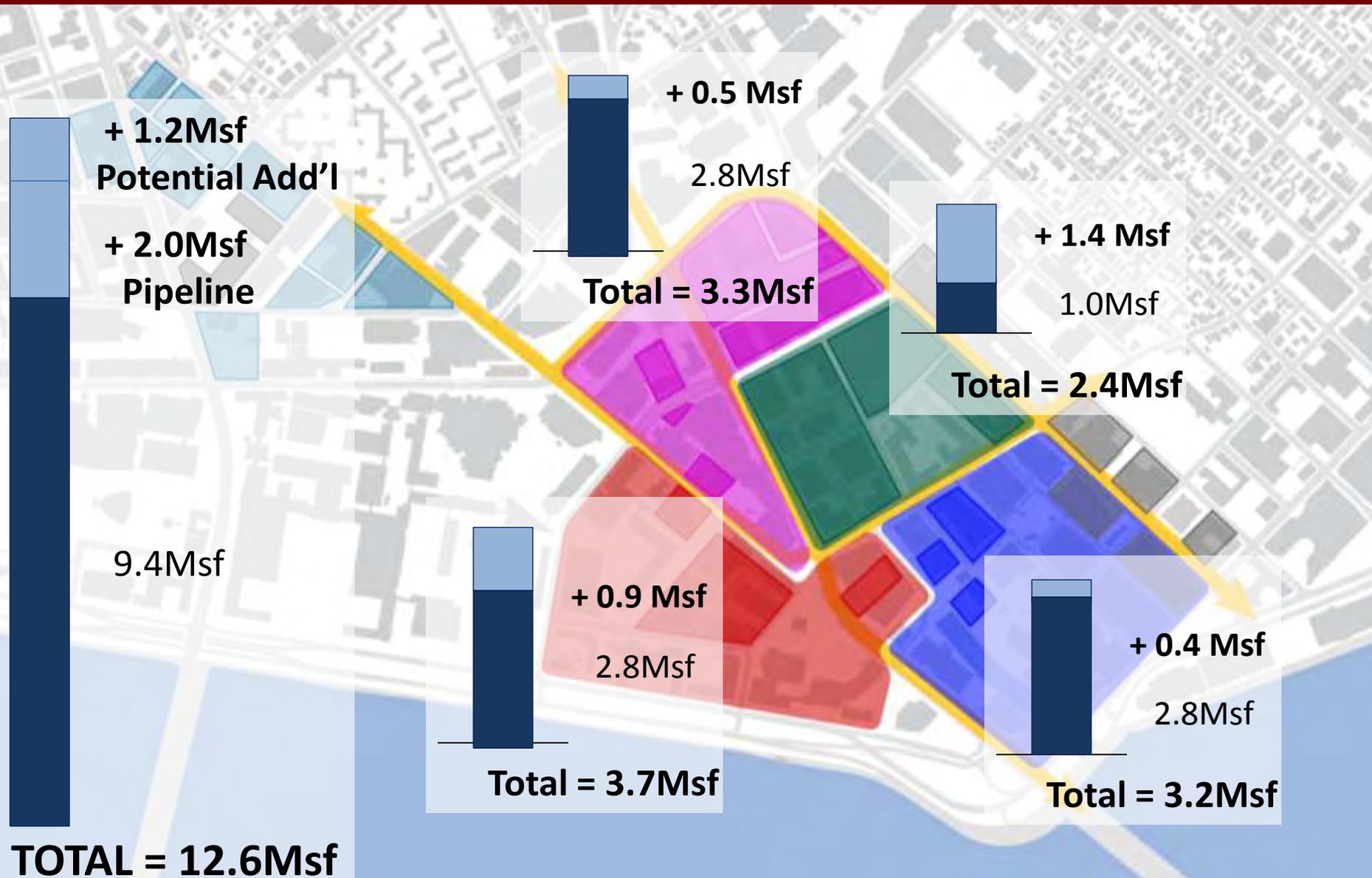
High value Cambridge development can support public benefits



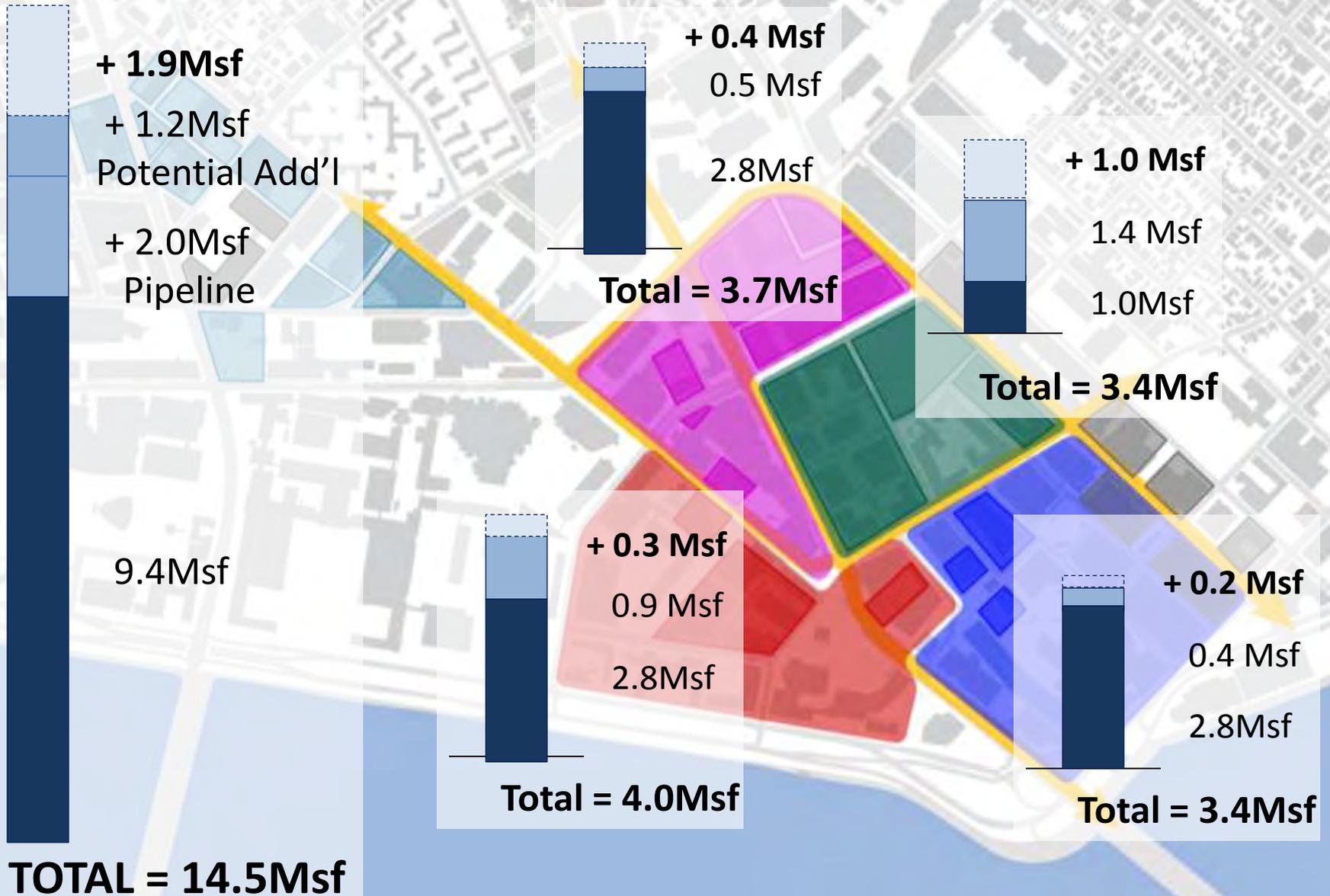
Existing development



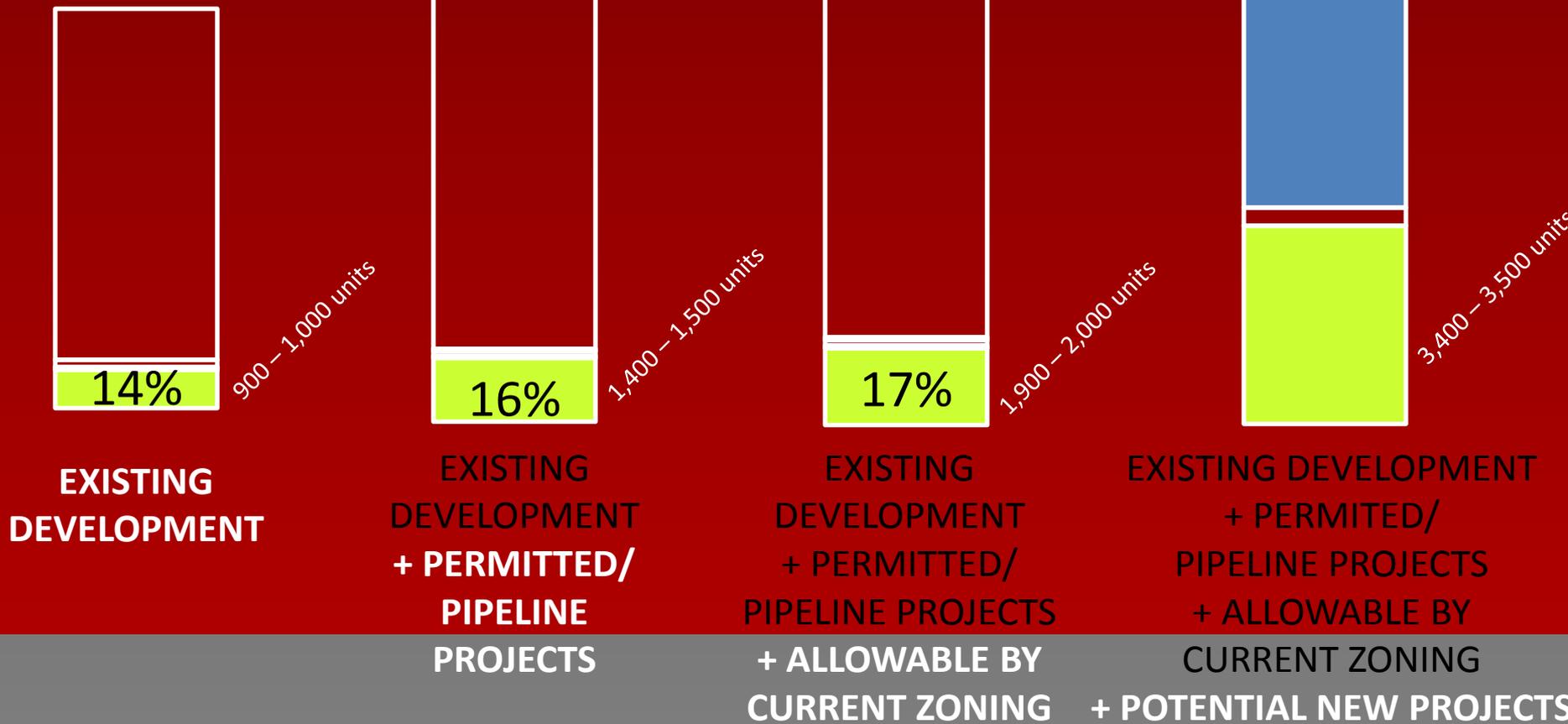
Potential for growth under current zoning (development over past five years: 1.2Msf)



Potential for growth under proposed Plan



Balanced growth



Question 2:
What is the vision?



1970s-2000s: Kendall Square evolving into a livelier, more mixed-use district



2012–2030: Kendall Square a thriving innovation community



KENDALL SQUARE VISION: shaped around people

- An enhanced commitment to community, livability, and sustainability will define Kendall Square's next chapter
- A newly dynamic public realm will connect diverse choices for living, working, learning and playing
- A spirit of partnership with MIT, the city and the surrounding neighborhoods will nurture an ever of shared benefit



...and connected socially as well as physically

Funds to support...

- Parks/public spaces (maintenance and programming)
- Workforce-readiness programs and education
- Housing for middle income families
- Expanded transportation alternatives and demand management



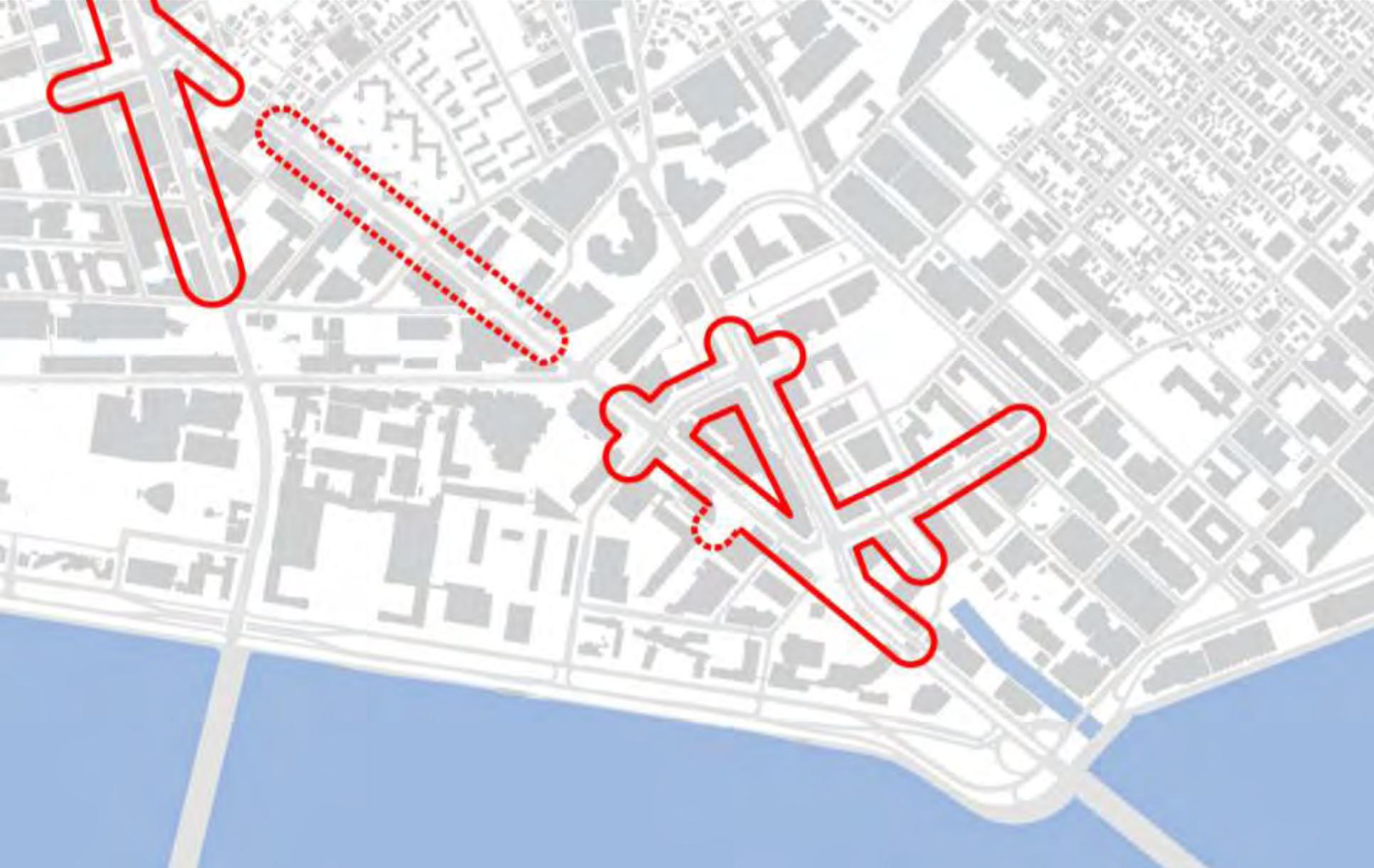
Core challenges

- Enable compact, more intensive growth
- Create an imageable “heart” to Kendall Square—a lively, walkable public realm
 - Roughly 100K SF of retail inadequate to animate streets
 - Too few, poorly connected, and unprogrammed public spaces
- ...and connect the benefits of a lively innovation to community to adjacent neighborhoods
- Expand housing, which can not compete with research for land
- Incubator space is disappearing

Major opportunities for growth



Focus vitality toward the heart of Kendall Square



Focus growth within a 5-10 minute walk



...and density within a 5-minute walk

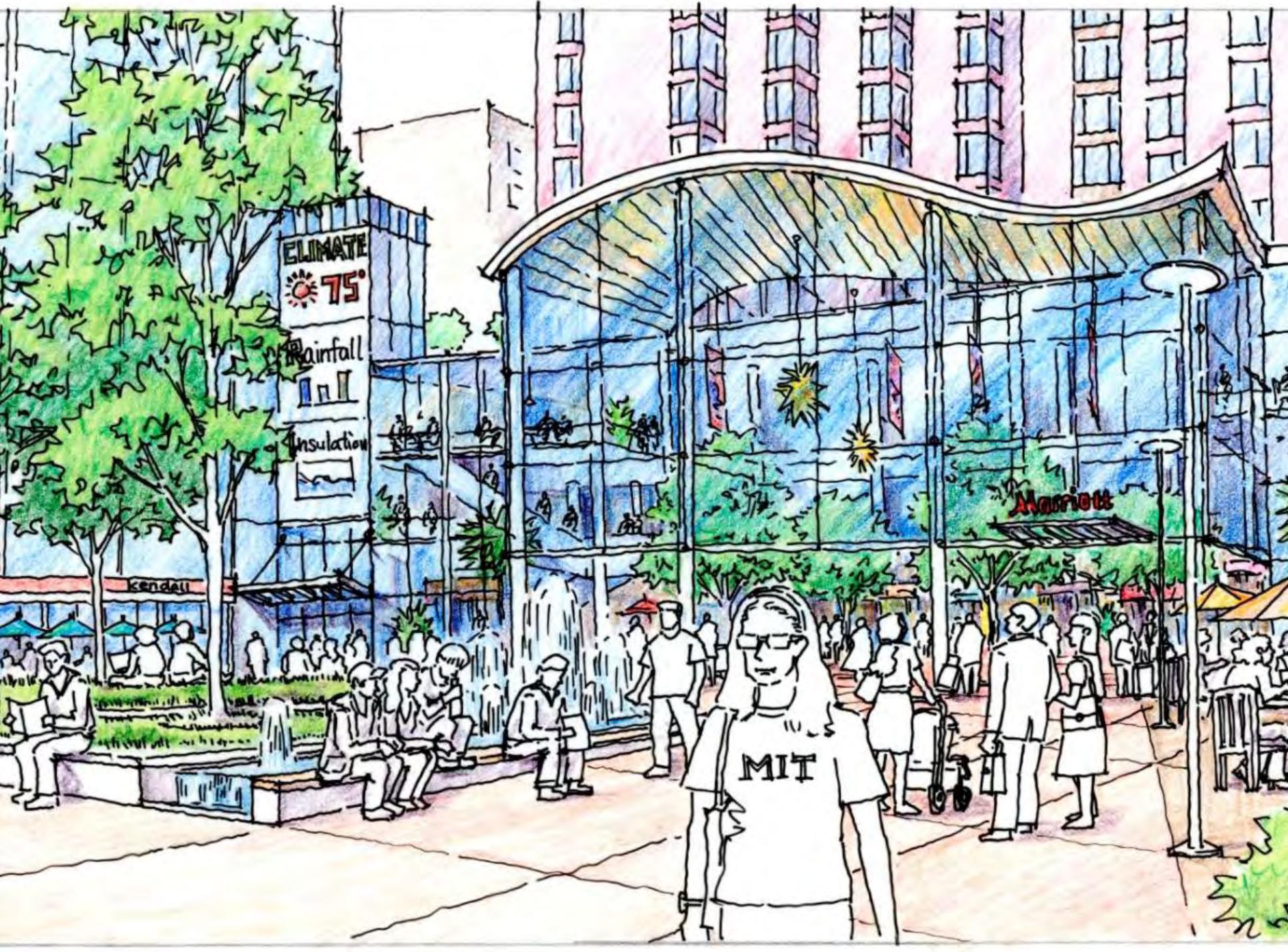


Create a lively “square” for Kendall Square where the community, transit, and MIT come together



**Create two nodal destinations
to animate the square**





ELIMINATE
75°

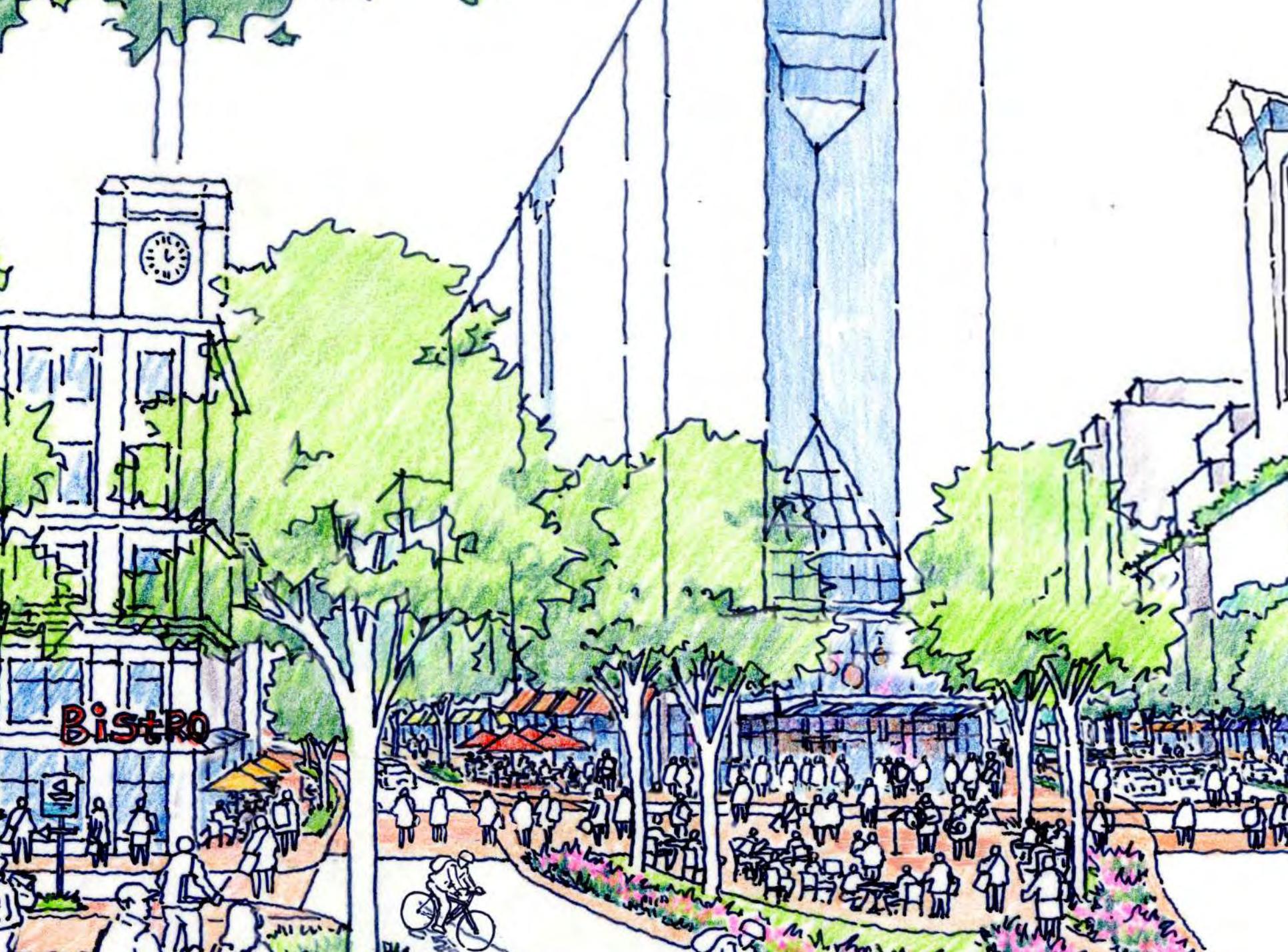
Rainfall

Insulation

Kendall

Marriott

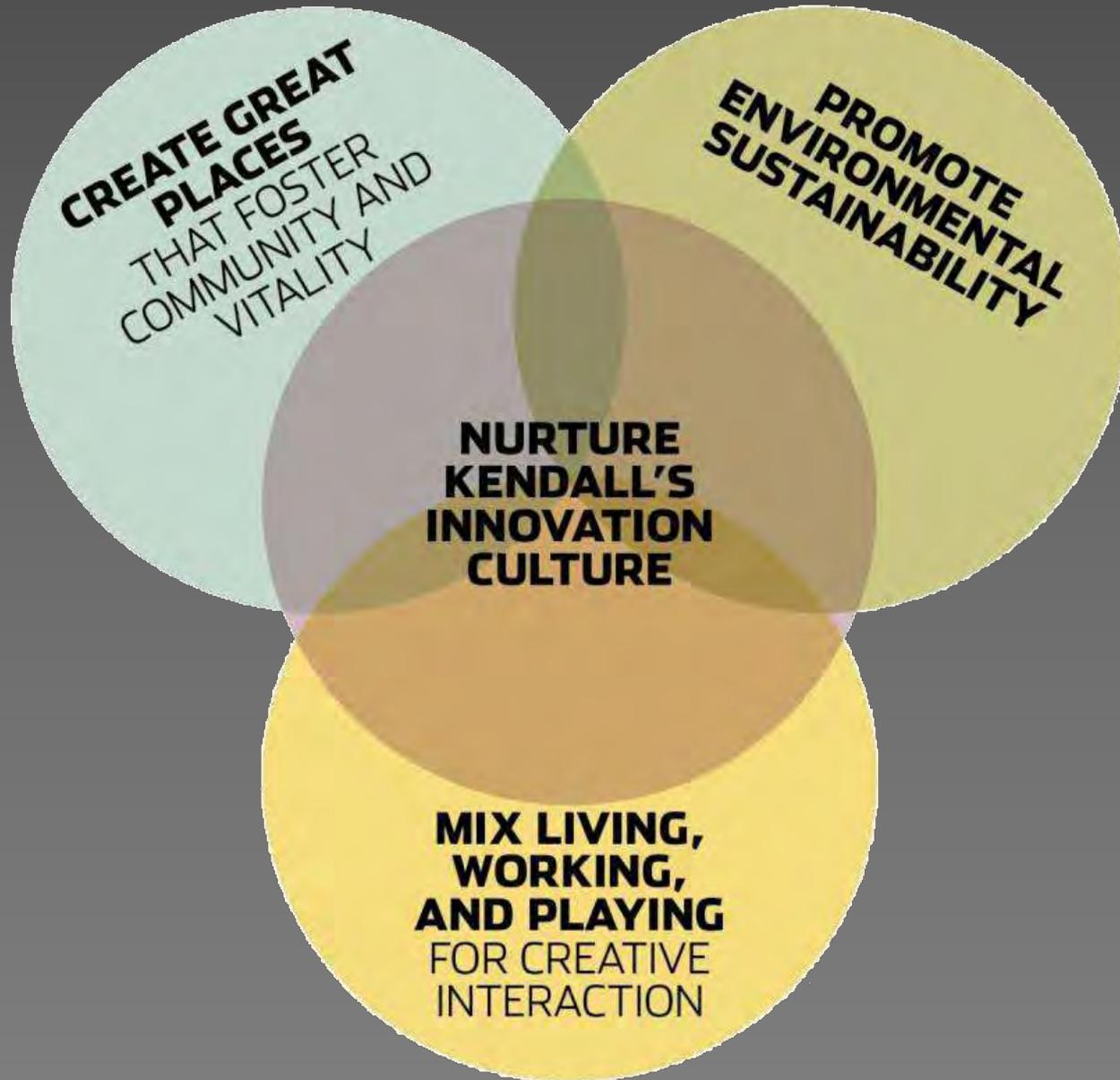
MIT



Connect the square to surrounding neighborhoods



Core ingredients for an innovation community



Question 3:
How does the retail strategy work?



How much additional retail is needed to enliven Main, Broadway, and Third Street

- About ~90-120K SF new retail needed to enliven Main, Broadway, and Third Street
- Another ~60-80K SF highly desirable to enliven additional streets
- Combined goal: ~150-200K SF



South Lake Union, Seattle

How much retail can Kendall Square support?

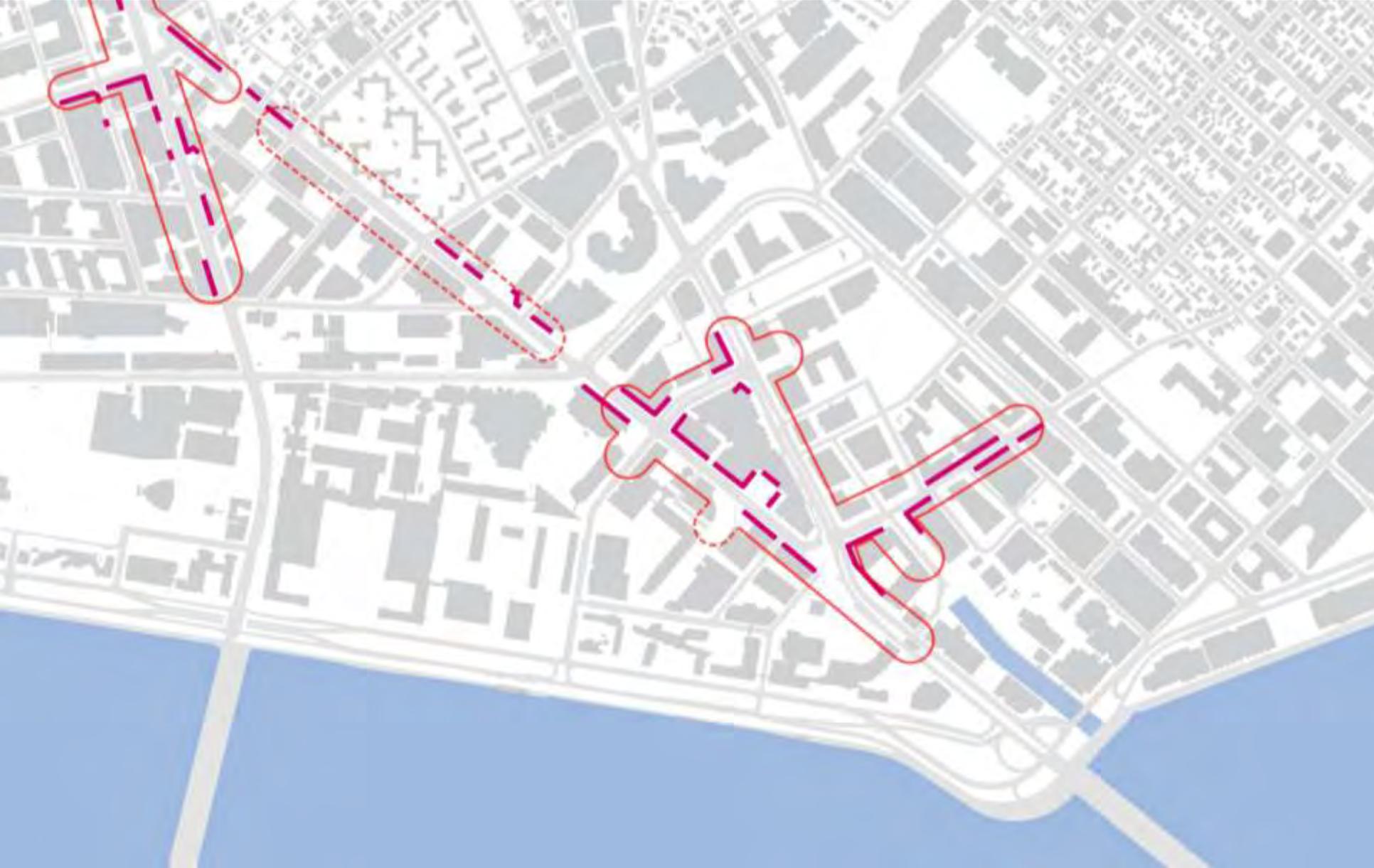
- Existing retail: ~100K SF
- Additional supportable space: ~75-75K SF
- Additional longer-term related to future growth:~ 100-125K SF
- Total potential retail: ~275-325K SF
- *Stronger markets:*
 - *Restaurants, cafés*
 - *Entertainment*
 - *Neighborhood services*
- *Weaker markets: comparison goods (furniture, clothing)*



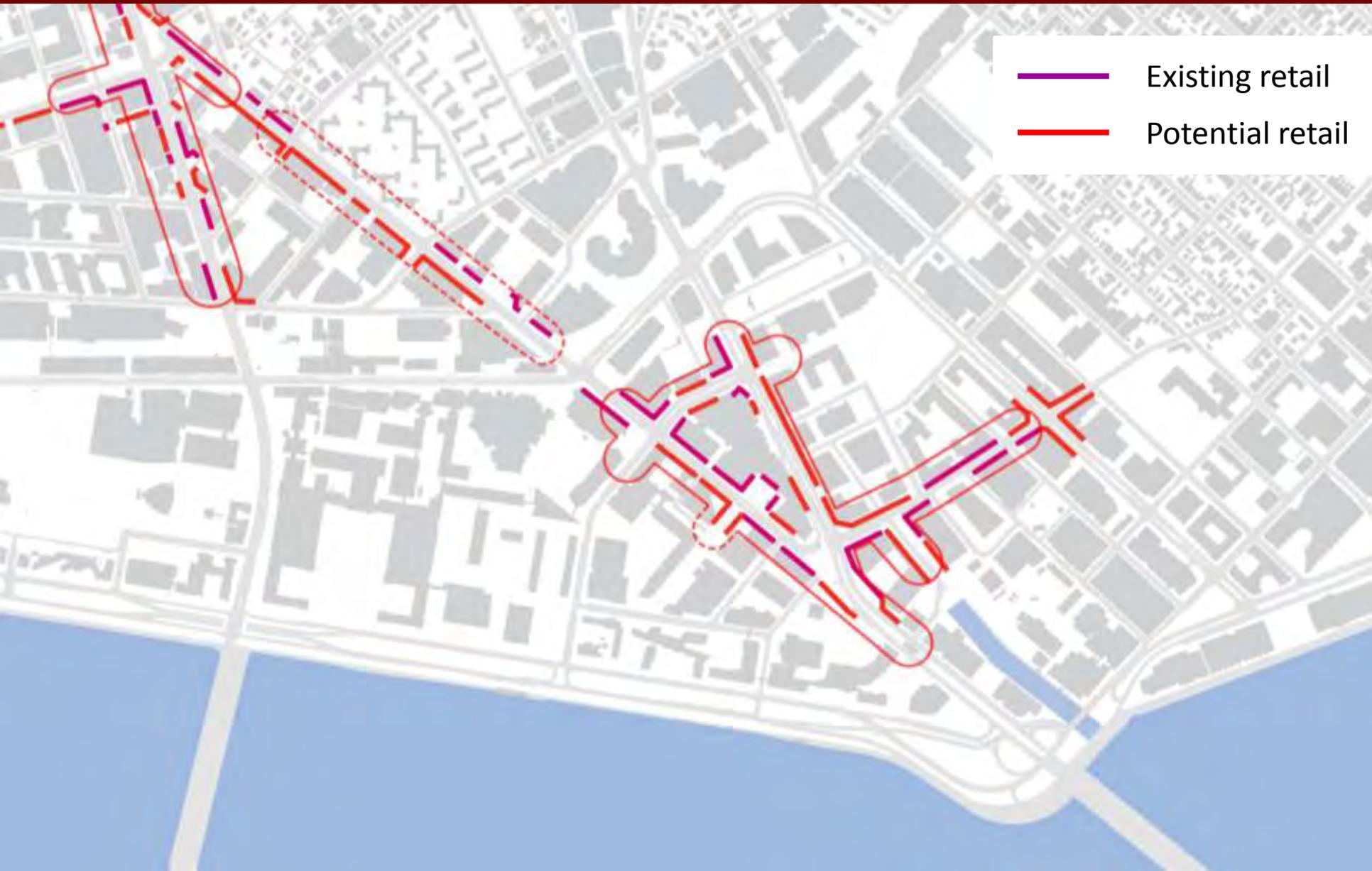
Supporting active street life

- 1,000 SF of new housing (1 unit) supports 20-40sf of new retail;
- 1,000SF of new research/office supports 16-24sf new retail
- 7,500 new workers supports about half the 120,000SF retail needed in key locations
- 2,000 new housing units supports the remaining half
- Additional housing would support retail in additional desirable locations

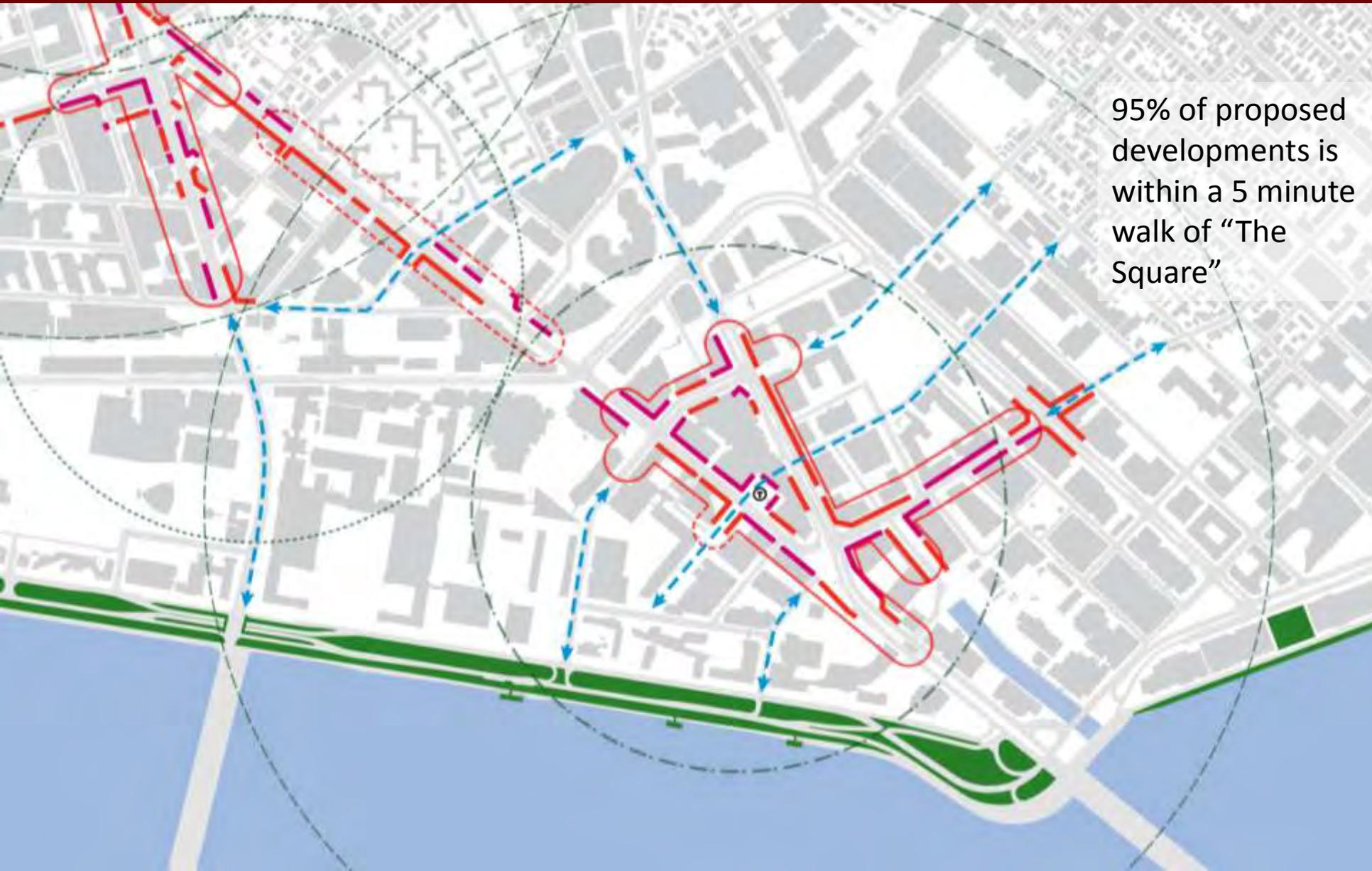
Existing retail



Focus potential retail to the square



Active street edges



95% of proposed developments is within a 5 minute walk of "The Square"

Strategies for challenging edges

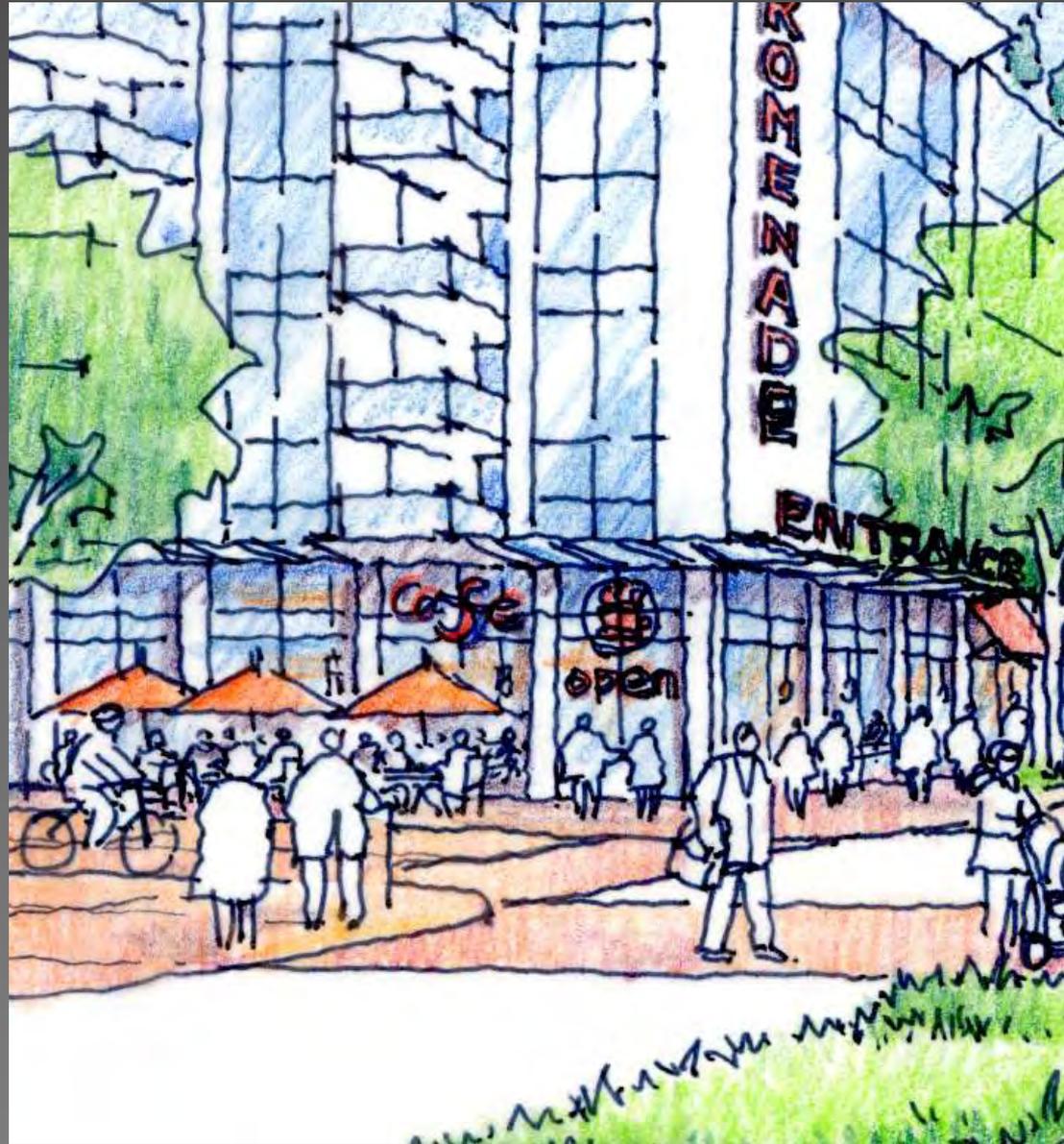
- Lobbies:
 - Add, re-orient retail (e.g. Marriott, 5 Cambridge Center, Broad Institute)
 - Rethink “museum” concept to interact with, engage pedestrians
- Blank walls
 - Retail veneer
 - Mobile retail (kiosks, food trucks)
 - Green wall or public art
- Vacant/Underutilized sites
 - Landscaping / temporary community gardens
 - Interim public art/display



Implementation: Active street frontage

Active ground-floor uses required in core areas:

- retail
- educational/cultural
- if no “active” tenant—city arts organization
- front doors/stoops required
- retail exempted from FAR calculation



Question 4:

How does the public realm work?



PLACEMAKING: A network of public places bringing greater community and vitality

MORE INTERACTIVE ◀ ☩ ▶ MORE PERSONAL

GARDENS/COURTYARDS

ROOF GARDENS

PARKS

PLAZAS

PROMENADES

RESIDENTIAL FRONT DOORS

EDUCATIONAL/CULTURAL VENUES

RETAIL

Existing open space



**Existing:
13.5 acres**

(Within
study area)

Potential new open space



Existing:
13.5 acres

**Potential:
10.3 acres**

Total:
23.8 acres

All open spaces



Total:
23.8 acres

Gardens and courtyards



Total:
6.6 acres

Roof gardens



Total:
4.7 acres

Public park



Total:
9.3 acres

Active plazas



Total:
3.2 acres

All open spaces



Total:
23.8 acres

Green public realm



Integrating green places and active street life... enlivening the landside next to the Broad Canal



Implementation strategies

- City parks and public space planning initiative
- Wayfinding system
- Connected green network
- Public realm operating funds
- Retail requirements and incentives



Question 5:

Is there enough housing? Does zoning deliver what the plan promises?



How much housing?

Improving jobs/housing balance

- Cambridge's citywide ratio: ~2.5 jobs per household
- Adding 2,000-2,500 units within convenient walking distance of Kendall could house a quarter to a third of the 7,500 new jobs expected to occupy 2.5-3 million sf of new research/office space
- Additional 2,000-3,500 units projected within walking distance (Central Sq, Main St., North Point, Eastern Cambridge)

Supporting active street life

- 1,000 SF of new housing (1 unit) supports 20-40sf of new retail;
- 1,000SF of new research/office supports 16-24sf new retail
- 7,500 new workers supports about half the 120,000SF retail needed in key locations
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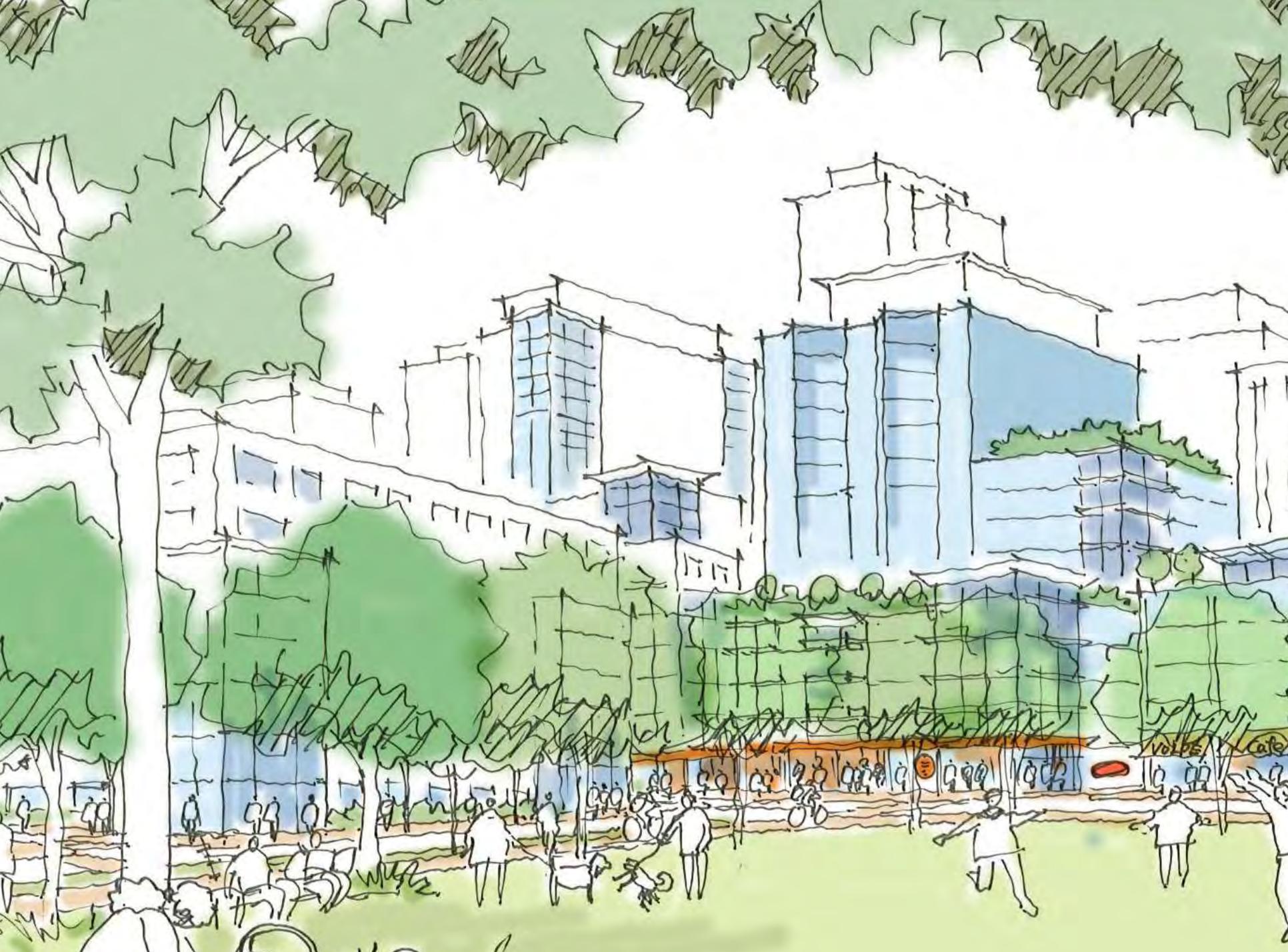
Finding an appropriate building envelope

- 2,000 to 2,500 new units could likely be accommodated within a 5-7 minute walking distance of the “square”
 - Protecting prime research/office sites
 - Avoiding significant shadow impacts on public spaces
 - Enhancing the skyline and view corridors
- Assumes some buildings @ 300' with small floorplates

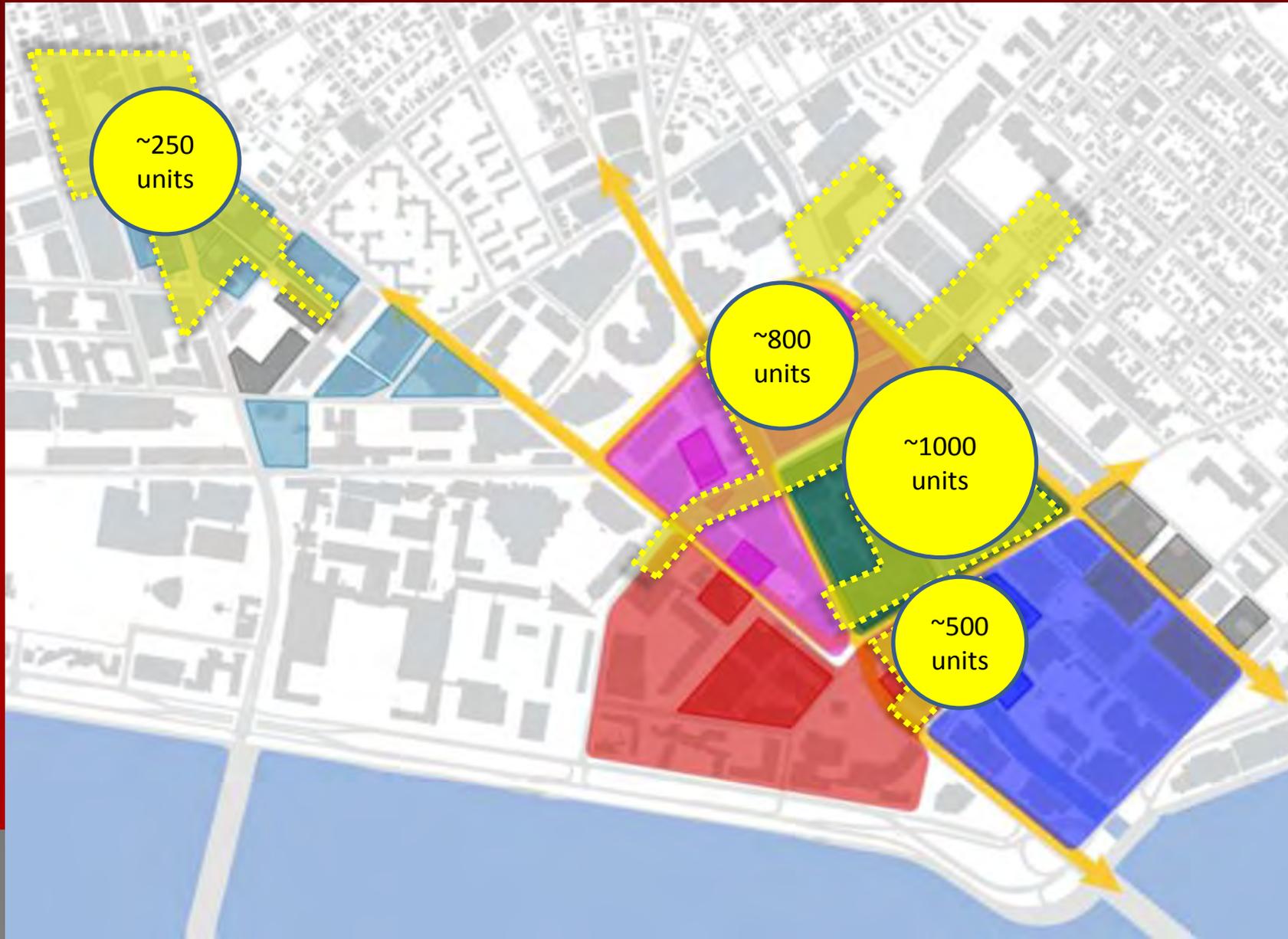
Criteria for locating housing...a Kendall Square neighborhood

- Concentrated along streets with other existing or new housing
- ...and that connect directly to adjacent neighborhoods
- Within a 5-7 minute walk (max 700') of...
 - Neighborhood retail
 - Parks
- A mix of incomes
- Where possible in mixed-use buildings with retail at street level
- If no retail or “active” use at street level, townhouse units with individual front doors required facing the street





Proposed housing



Housing: implementation

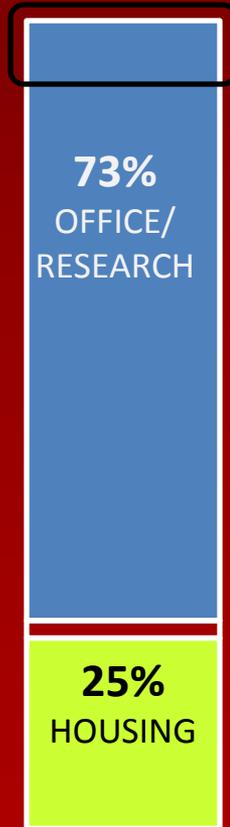
Minimum amount of housing development:

- Begin housing development by occupancy of 40% of associated office/ research.
- Complete housing by occupancy of 80% of associated office/ research.
- Current development proposals include 500-600 housing units.



Question 6:

Why does Kendall Square need taller, larger floorplate, commercial buildings? Are they a temporary market phenomenon?



1.0Msf of future commercial development would occur above 120' (over 50% of all future research/office development not already in the pipeline)



+ 1.9Msf Potential New
+ 1.2Msf Current Zoning
+ 2.0Msf Pipeline

9.4Msf Existing

EXISTING DEVELOPMENT
+ PERMITTED/PIPELINE PROJECTS
+ ALLOWABLE BY CURRENT ZONING
+ POTENTIAL NEW PROJECTS

Increased diversity of innovation requires increasing variety of space options

- Life sciences likely to represent half or less of new tenants over the next decade
- IT, materials technology, environmental sciences likely to represent roughly one-third
- Scientific associations, finance, services likely to represent the balance
- Sharp shift from last 20 years' pattern in Kendall and most innovation districts

Research Triangle (NC) projections:

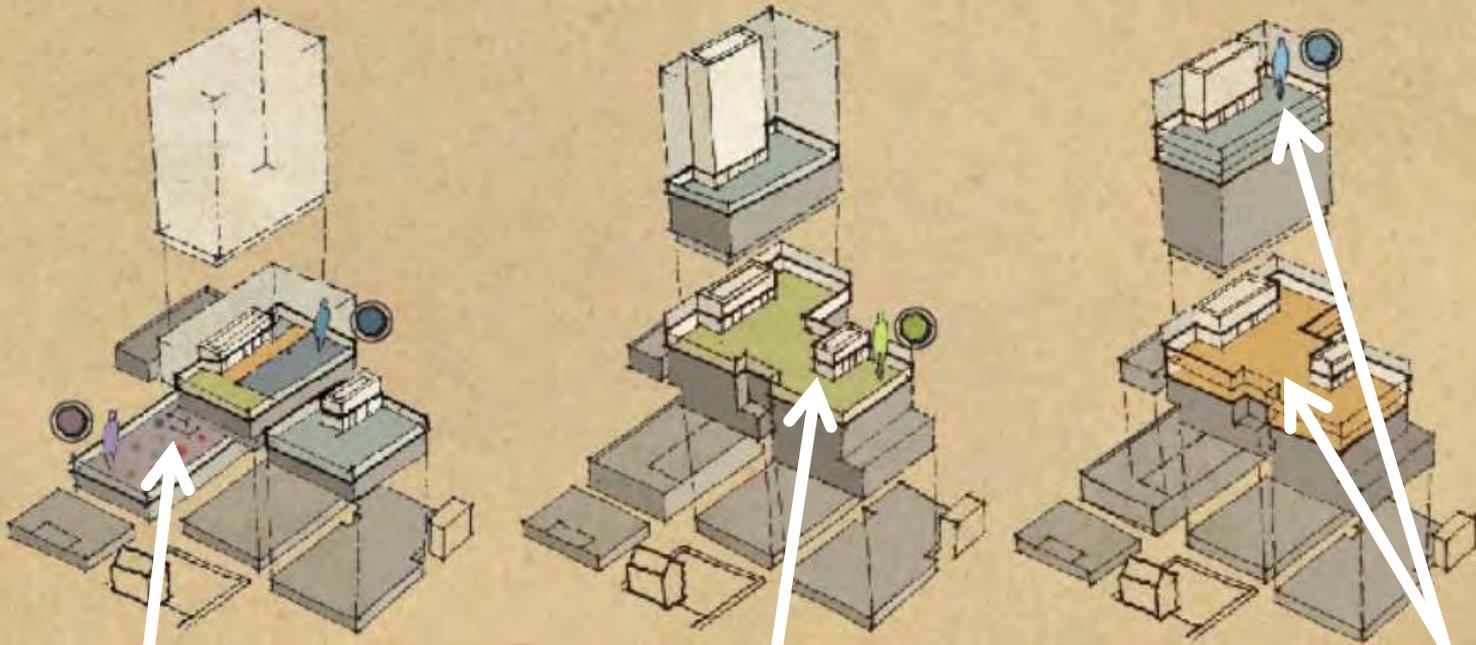


More diverse tenants require wider range of spaces

DESIGN A

RANGE OF DYNAMIC WORKSPACES

Establish a mix of spaces that provide flexibility for both large and small tenants and support a variety of community uses.

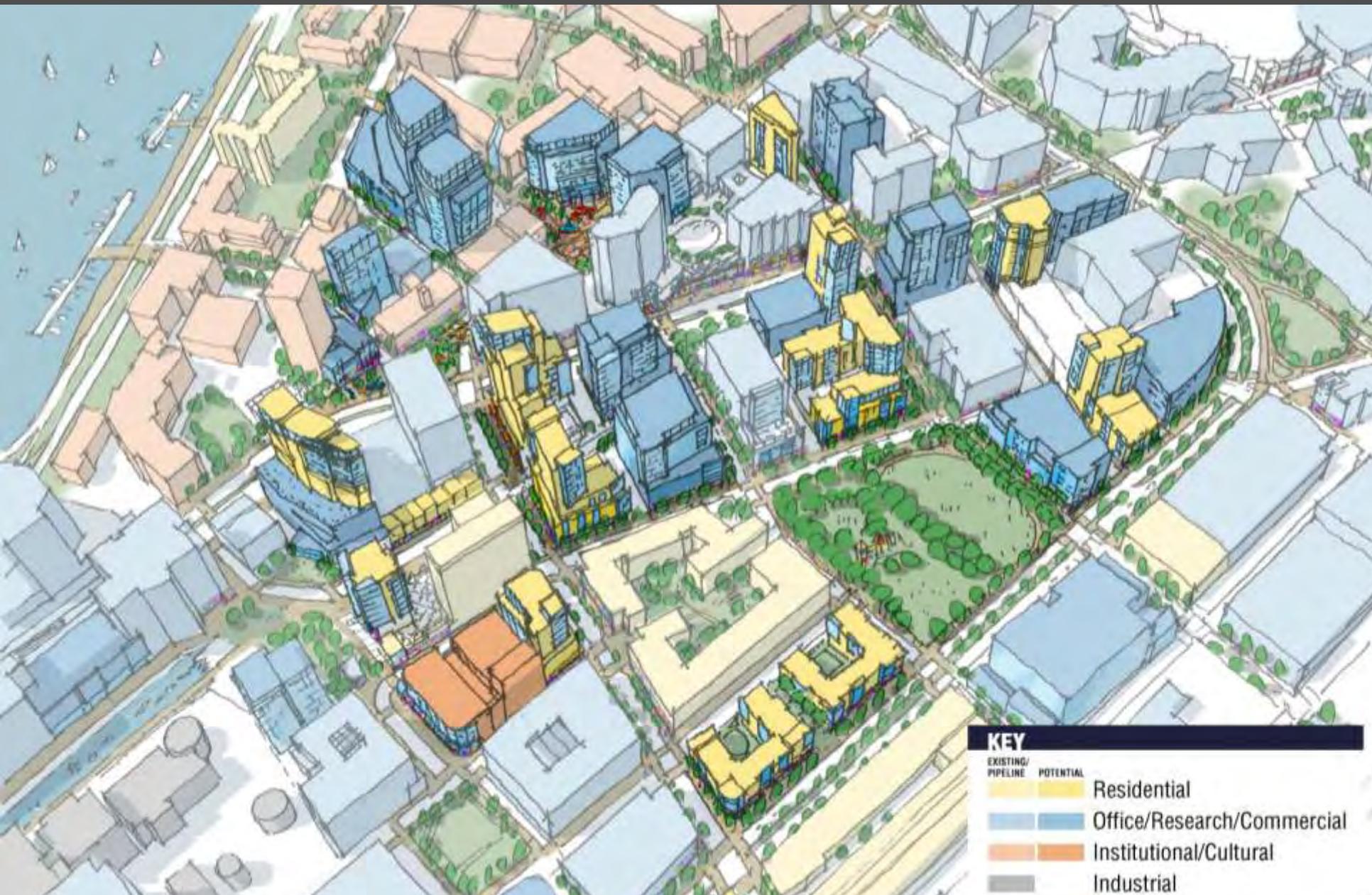


Flexible lease sizes on smaller upper floors for small and growing companies

Businesses that need collaborative work environment occupy the larger lower floors

Businesses that need both focused and collaborative work environments use both large and small floors

Illustrative build-out...



KEY

EXISTING/
PIPELINE

POTENTIAL

- Residential
- Office/Research/Commercial
- Institutional/Cultural
- Industrial

The PUD process will further define planning



...a green bridge from East Cambridge to Kendall "Square"



...expand the 6th Street promenade



Question 7:

How can the City avoid blocky, banal buildings?



Implementation: Built form...framing streets

HEIGHT RANGE	PRIORITY USES	MAXIMUM LENGTH OF PERPENDICULAR FACADES*	POTENTIAL FLOOR PLATE (APPROX. SF)	MINIMUM BUILDING SEPARATION
250' to 300'	Housing only	160' x 65'** or 90' x 90'**	10,400	200'
200' to 250'		175' x 175'**	30,600	100'
120' to 200'		175' x 175'	30,600	20-40'
85' to 120'		240' x 175'	42,000	15-25'
Streetwall (ground to 85')	Active uses required on ground floor along major public streets; encouraged elsewhere	None	Full block	None

* At least one major vertical break – splitting the façade into distinct volumes – is required per 100' of façade length.

** Subject to additional design guidelines addressing façade articulation

Framing the street and defining the public realm: 85' streetwall datum

- Active ground floor uses
- Façade elements scaled to people
- New streets and promenades reduce block length to approx. 400' or less

Third Street

Approx. 85'



Creating options and flexibility: Smaller buildings...and 70k floor plates

Upper level connections:

- Distinguish from building volume with setbacks, transparency
- Public connections remain at street level



Alexandria REIT development

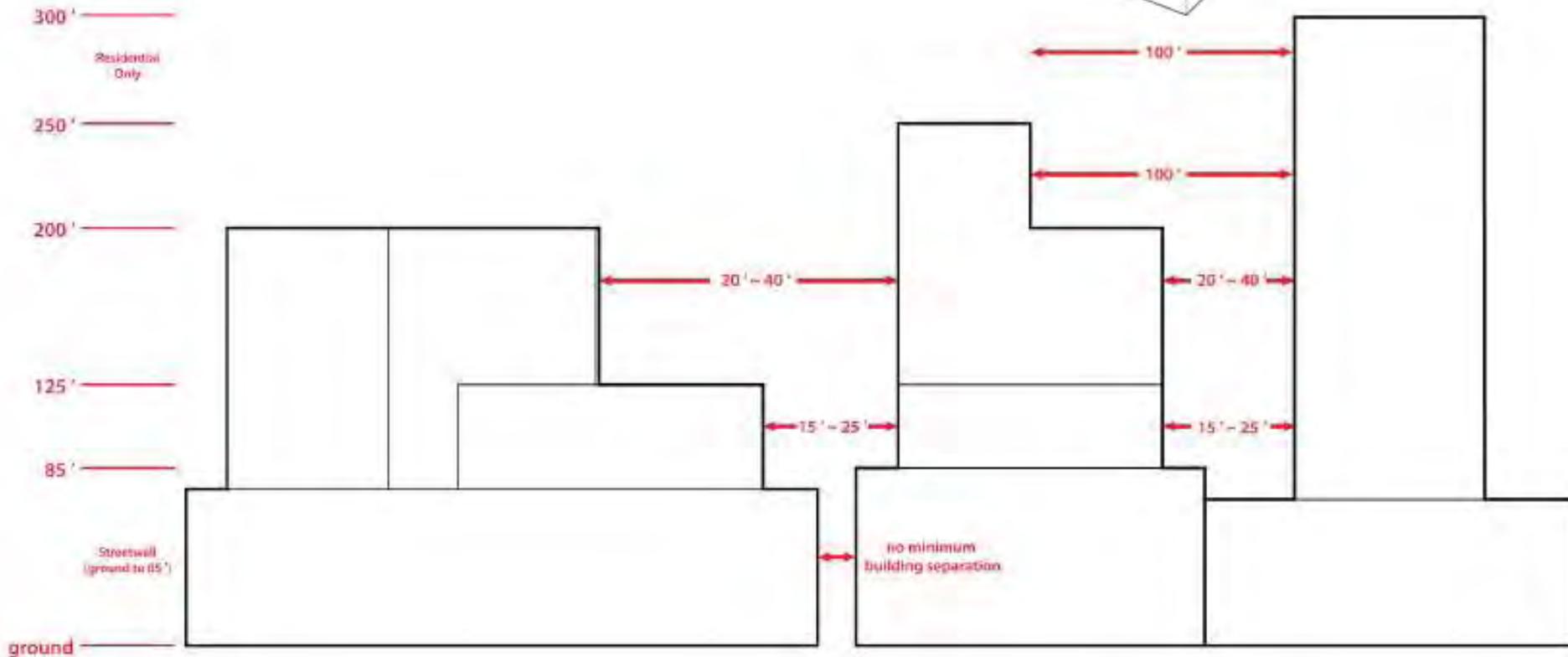
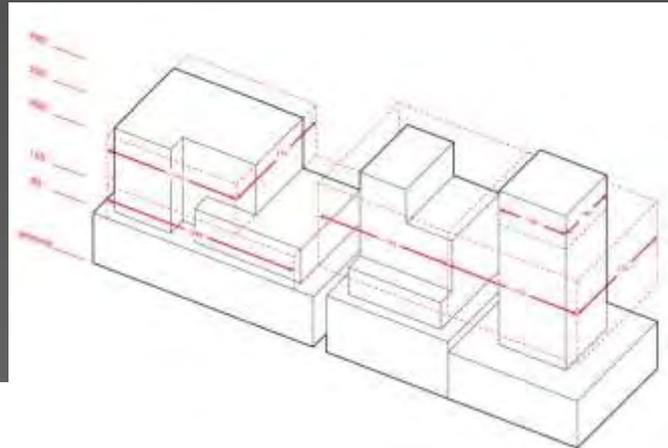
Implementation: Built form...mid zone

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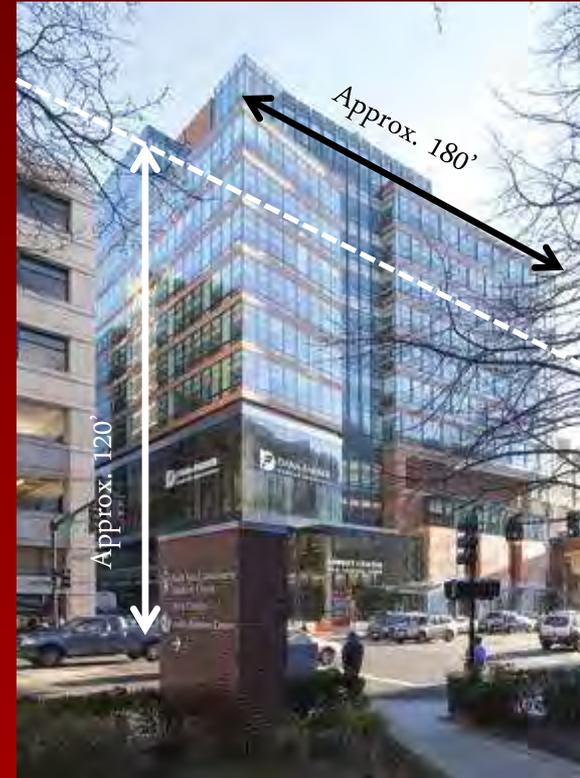
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Design guidelines



Mid level: 85' to 200

- Vertical breaks
- Horizontal volume lengths limited to 240' below 120' height, and 175' above 120' height
- Diversity of scale among façade bays/volumes



Dana Farber Yawkey Center
Floorplate approx. 27,500sf
Height approx. 200'
Horizontal length approx. 180'

Mid level: 85' to 200'

- Vertical breaks
- Horizontal volume lengths limited to 240' below 120' height, and 175' above 120' height
- Diversity of scale among façade bays/volumes



40 Landsdowne Street
Floorplate approx. 27,500sf
Height approx. 150'
Horizontal length approx. 175'

Implementation: Built form...upper zone

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Taller: 200'-300'

Research and office (250' tall max.)

- Multiple forms and materials
- Composed with consideration of appearance from major public spaces
- Nighttime and daytime presence
- Horizontal volume lengths limited to 175'



Taller: 200'-300'

Housing (up to 300' tall)

- Multiple forms and materials
- Composed with consideration of appearance from major public spaces
- Nighttime and daytime presence
- Horizontal volume lengths limited to 175' below 250' height, and 90' x 90' or 160' x 65' above 250' height

