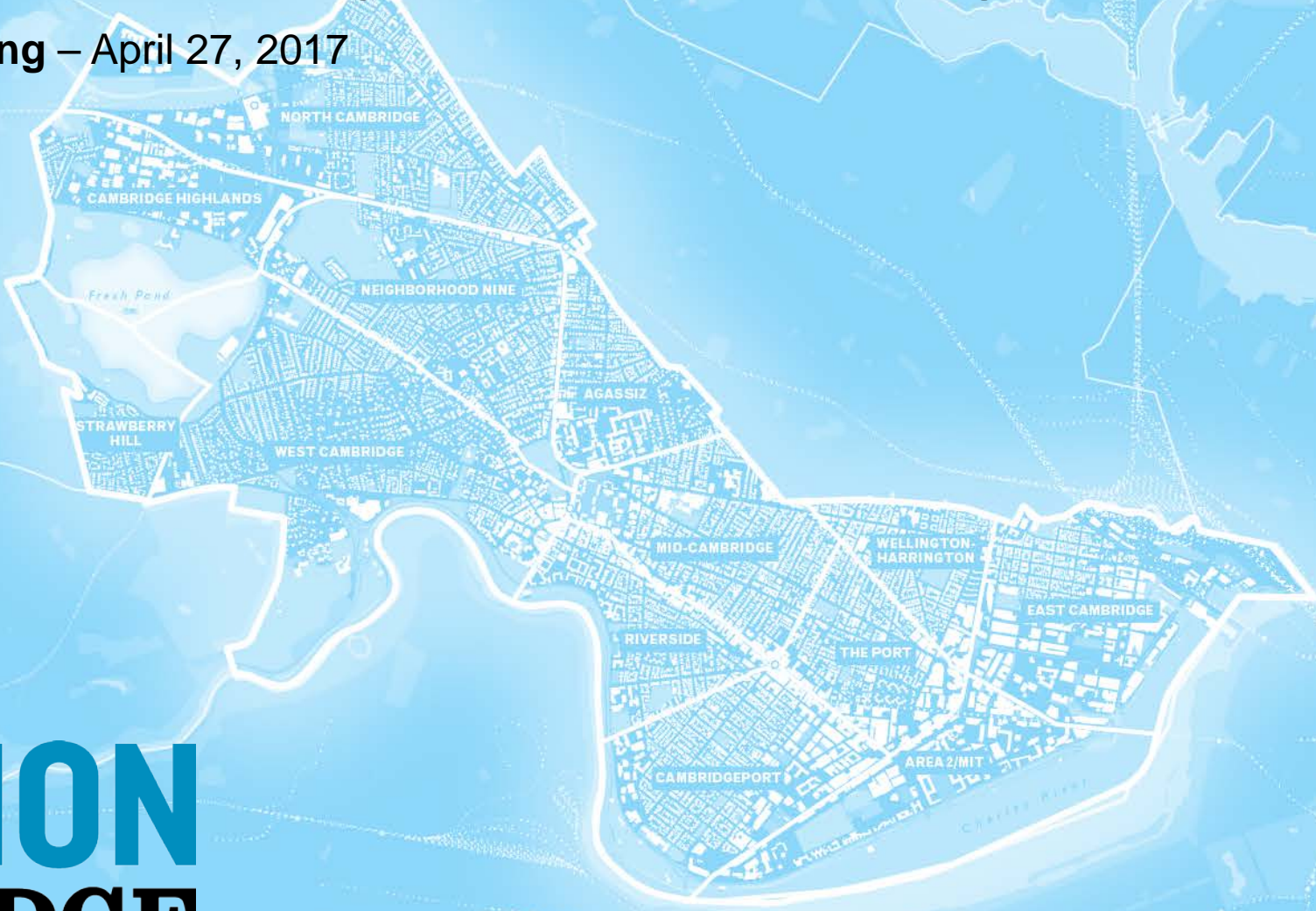


Alewife Scenario Planning: Revised Quadrangle Scenario

Working Group Meeting – April 27, 2017



**ENVISION
CAMBRIDGE**

Agenda

Vision and Goals

The Quadrangle

- Initial Draft Scenarios (presented February & March 2017)
- What we heard: Feedback on the initial scenarios
- Revised Scenario
 - Land Use and Urban Design Framework
- Analyses: Mobility, Housing, Economy impacts of the Quadrangle Scenario

Alewife District

Next Steps



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.”

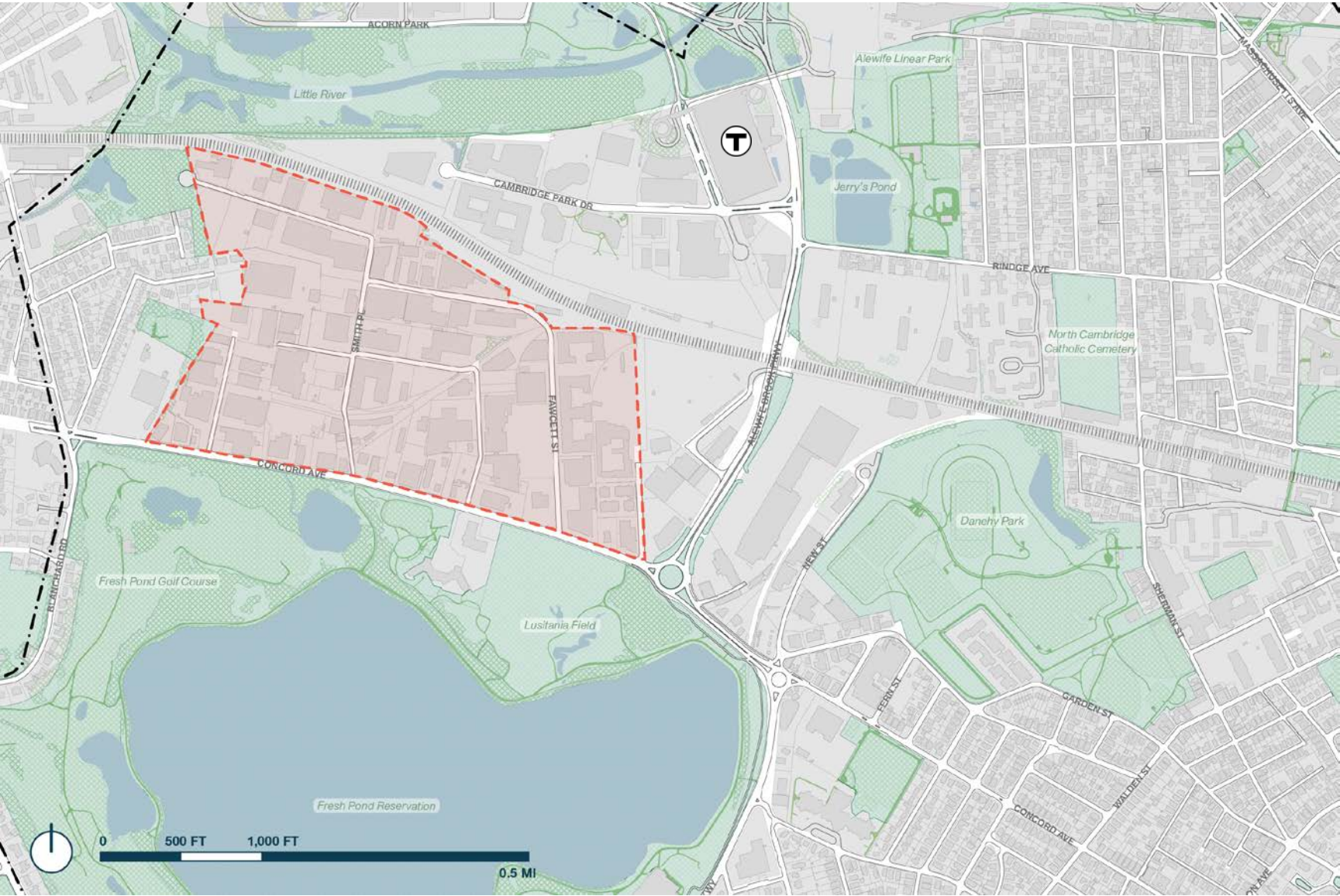
Note: Vision statement developed from public workshop feedback, comments from Alewife Working Group and EC Advisory Committee, and general feedback from the Mobile Engagement Station, online surveys, and other engagement activities and workshops.

Draft Goals for Alewife

Urban Form / Land Use	Enhance the neighborhood by creating a rich and inviting public realm, human-scaled development, and harmonious transitions to the surrounding communities.
Housing	Increase housing accessibility by creating a diverse range of housing options.
Mobility	Create a multimodal environment and improve access and safety across all modes.
Climate and Environment*	Harness the development process to improve the sustainability and resilience of Alewife and Cambridge.
Community Interaction	Promote that Alewife evolves into a distinct and welcoming neighborhood, that contributes to the life of nearby neighborhoods and the city as a whole.
Economy	Maintain and enhance Alewife as a place of economic opportunity for a diverse range of businesses and residents
Process / Implementation	Create strategies that are implementable/achievable in the short-term, and flexible and responsive for the medium and long-term

**these goals and objectives will be considered in the context of climate change since the conditions will continue to shift*

The Quadrangle



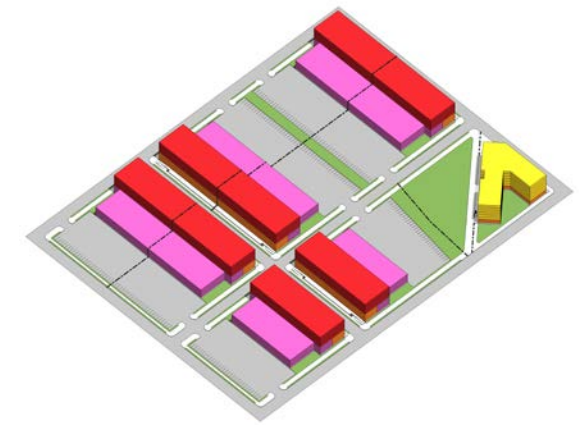
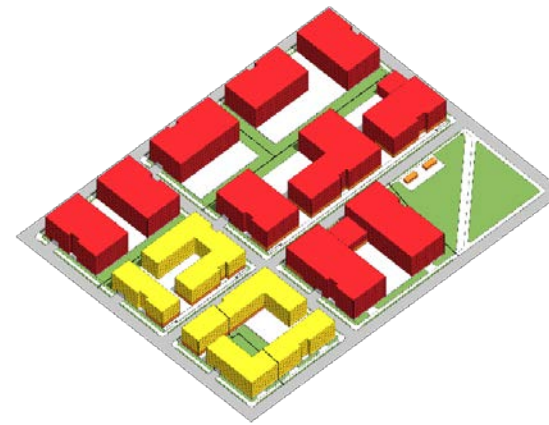
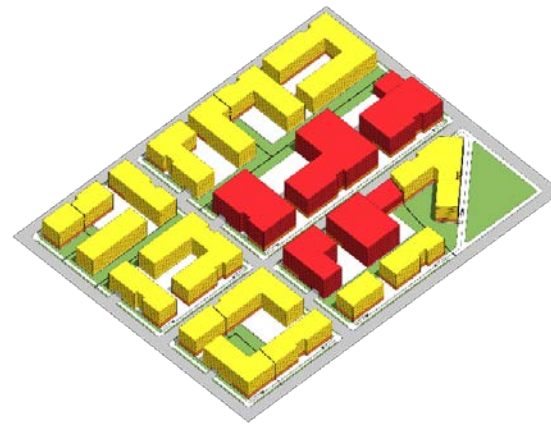
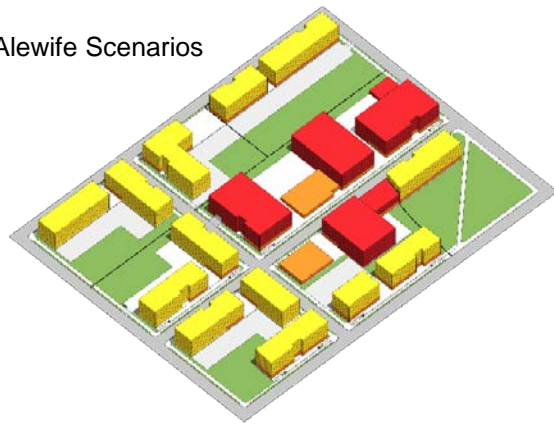
 Alewife Quadrangle

Existing Land Use



District FAR = 0.61

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



Optimized Baseline	Mixed-use Residential	Mixed-use Commercial	Mixed-use Industrial
<ul style="list-style-type: none"> • Same use-mix as the Baseline: 2/3 Residential and 1/3 Commercial • Revised setback requirements to improve the urbanism and increase flood resiliency 	<ul style="list-style-type: none"> • Same use-mix and urban design/resiliency approach as the Optimized Baseline • Increased densities • Increase the housing supply (market-rate and affordable) 	<ul style="list-style-type: none"> • Same urban design/resiliency approach and densities as the Mix-use Residential • Use-mix favors Commercial: 2/3 Commercial and 1/3 Residential • Increase commercial tax base and minimize residents in the flood plain. 	<ul style="list-style-type: none"> • Density same as Baseline • Same resiliency approach as other scenarios • Provide low-barrier-to-entry jobs for residents • Provide space for fabrication and maker businesses • Minimize residents in the floodplain

These scenarios for the Quadrangle were presented in February and March 2017.

What we heard

Existing businesses: There was general concern about existing businesses and how they fit into the long-term plan for Alewife.

Industrial uses: Several people stated that industrial uses are **an important part of Cambridge's history, job base, and identity**. However, there was also concern that industrial uses remaining would mean keeping the same urban form, traffic patterns, etc.

Public Improvements and Amenities: Several people asked about open space and want to understand the **proposed open space** in relation to other open spaces nearby and elsewhere in Cambridge.

Land Use: There was general interest in pursuing **a more complex mixed-use scenario, with 21st-century industrial and innovation uses** and maintaining **a balance of housing and jobs**.

Effects of new development: Members of the public asked about the need for new infrastructure and streets with new development, as well as new costs, such as schools and City services. Several people mentioned **traffic** and said that the surrounding streets (Concord Ave, Alewife-Brook Parkway) are already at a breaking point.

Urban Form: Several people expressed a **desire for building variety** and a stronger urban form, with similarly scaled buildings and **less monolithic facades**.

Surrounding neighborhoods: There were conflicting desires to **connect neighborhoods**, such as the Highlands to Alewife, and also for a **buffer**. Many wanted to understand how the scenarios would relate to the Highlands, Huron Village, and the rest of West Cambridge.

Vision: Alewife needs a **vision that goes beyond pragmatism** in these scenarios. It needs to become a **real neighborhood**.

Proposed land use



Guiding considerations:

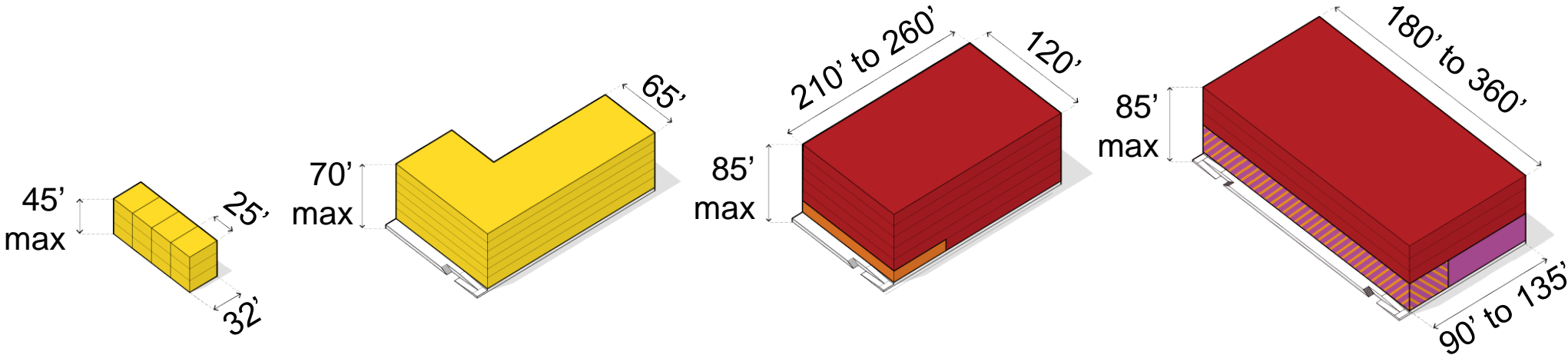
- Create a mixed-use district that has low barrier-to-entry jobs.
- Create a “Main Street” with active ground-floor uses.
- Achieve a scaled transition towards Cambridge Highlands.

- Open Space
- Residential
- Commercial
- Mixed-use
- Industrial
- Institutional
- Other

Scenario Building Prototypes

	Townhouse	Residential	Commercial	Mixed-use Industrial
Typical Floorplate	800 SF <i>per townhouse</i> 6,400 SF <i>per row</i>	14,000-20,000 SF	25,000-32,000 SF	24,300-48,600 SF <i>Ground Floor</i> 16,200-48,600 SF <i>Upper Floor</i>
Minimum Floorplate	800 SF	10,000 SF	20,000 SF	12,150 SF
Typical Building Width	25 Feet	65 Feet	120 Feet	135 Feet

All Prototypes:
First habitable floor
raised 4’ for flood
protection, with
parking below.
Continuous raised
walkway/porch along
“A Streets”



Ground-floor uses



Total GFA at 100% buildout	5.61m SF
District FAR	1.56

Total GFA at 60% buildout	4.52m SF
– New housing	1,080 units
– Office / lab space	1.78m SF
– Ground floor active uses	31,100 SF
– Industrial space	387,120 SF

-  Accessory Retail Zone (in Light Industrial Space)
-  Mixed-use Light Industrial with Commercial above
-  Ground-floor Active Uses (in Commercial building)
-  Commercial
-  Residential
-  Open Space

Existing Businesses as a Starting Point

Existing businesses provide:

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



Food Manufacturing

4% job growth nationally, 2011-2015

Only 38% of regional demand for beverage manufacturing is met by local companies



Manufacturing of baked goods (Pictured: Iggy's Bakery. Source: FreeFoodBoston.Wordpress.com.)



Fruit and Vegetable Preserving (Pictured: Tiptree Jam Factory in England. Source: BBC.com.)

Grain Milling

Confectionery Product Manufacturing

Dairy Product Manufacturing

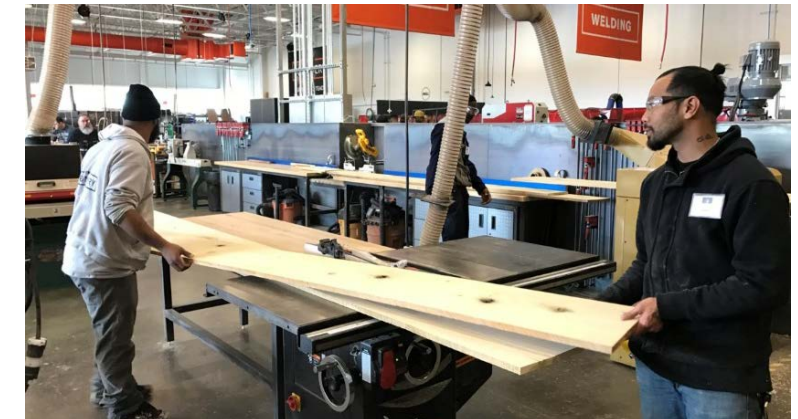
Fabricated Metal Product Manufacturing

2% job growth, 2011-2015

Only 53% of regional demand for fabricated metal manufacturing is met by local companies



Machine shops (Pictured: Student Machine Shop at UC Berkeley. Source: Physics@ Berkeley)



Makerspace (Pictured: The Foundry in Baltimore, which trains residents for manufacturing jobs. Source: Technically Baltimore)

Forging and Stamping

Architectural and Structural Metals Manufacturing

Data Sources: National job growth rates calculated from U.S. Census Bureau LEHD. All other stats are calculated using EMSI.

Beverage Manufacturing

4% job growth nationally, 2011-2015

Only 41% of regional demand for beverage manufacturing is met by local companies



Breweries (Pictured: Lamplighter Brewery. Source: Christopher Mark)



Wine manufacturing (Source: Manufacturing & Technology Enterprise Center)

Ice manufacturing

Soda or tea manufacturing

Medical Equipment and Supplies Manufacturing

Level employment nationally, 2011-2015

Only 37% of regional demand for medical manufacturing is met by local



Medical kit assembly (Source: iStock)

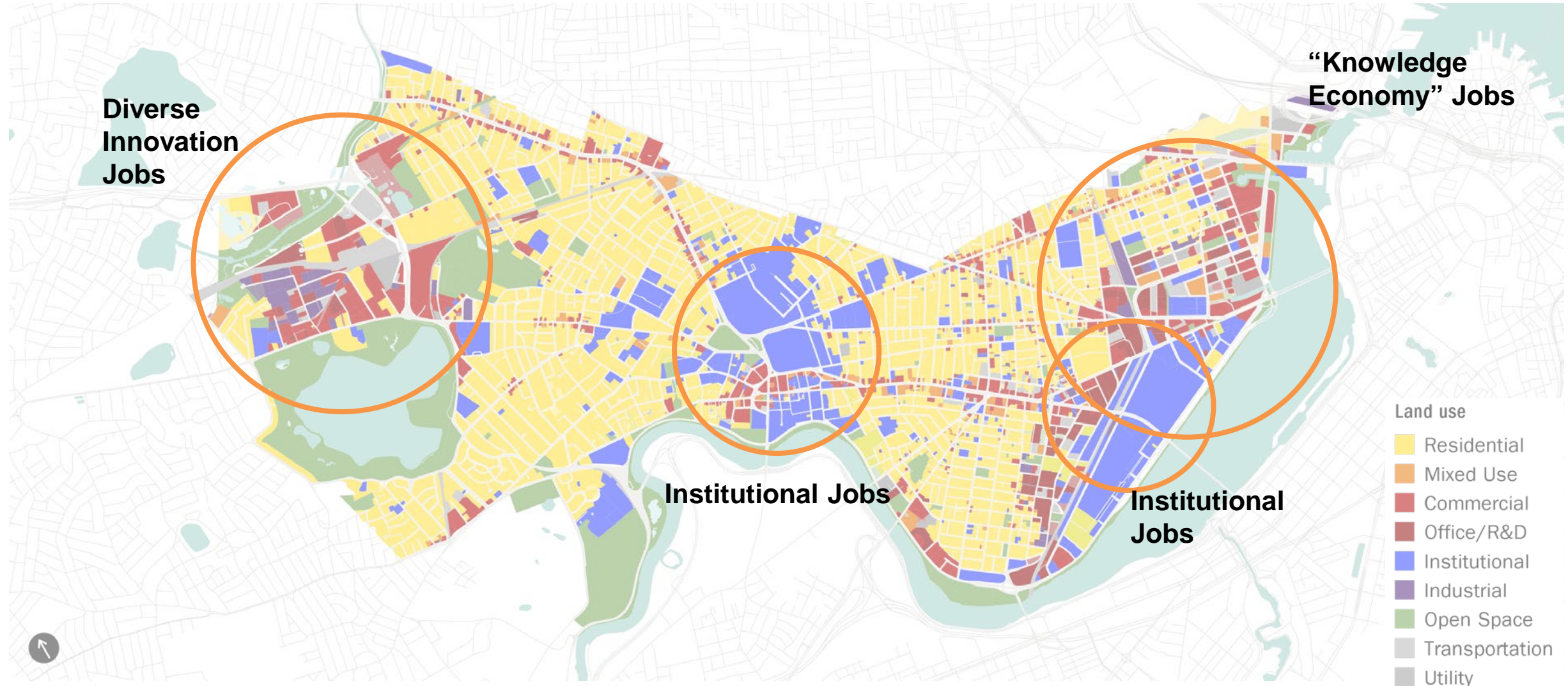


Manufacturing of surgical and medical instruments, appliances, and supplies (Source: TeluguOne News)

Dental equipment and supplies manufacturing

Data Sources: National job growth rates calculated from U.S. Census Bureau LEHD. All other stats are calculated using EMSI.

Cambridge's Job Centers



Source: Cambridge CDD

Light Industrial Jobs and Wages

	National Salary	Regional Salary
Manufacturing	\$80,018	\$114,472
Food	\$56,300	\$62,105
Beverage	\$69,600	\$88,960
Medical Equipment	\$97,400	\$119,630
Fabricated Metal Product	\$65,800	\$86,865
Wholesale Trade	\$85,133	\$112,639
Accommodation and Food Services	\$22,868	\$28,128
Retail Trade	\$35,729	\$39,473

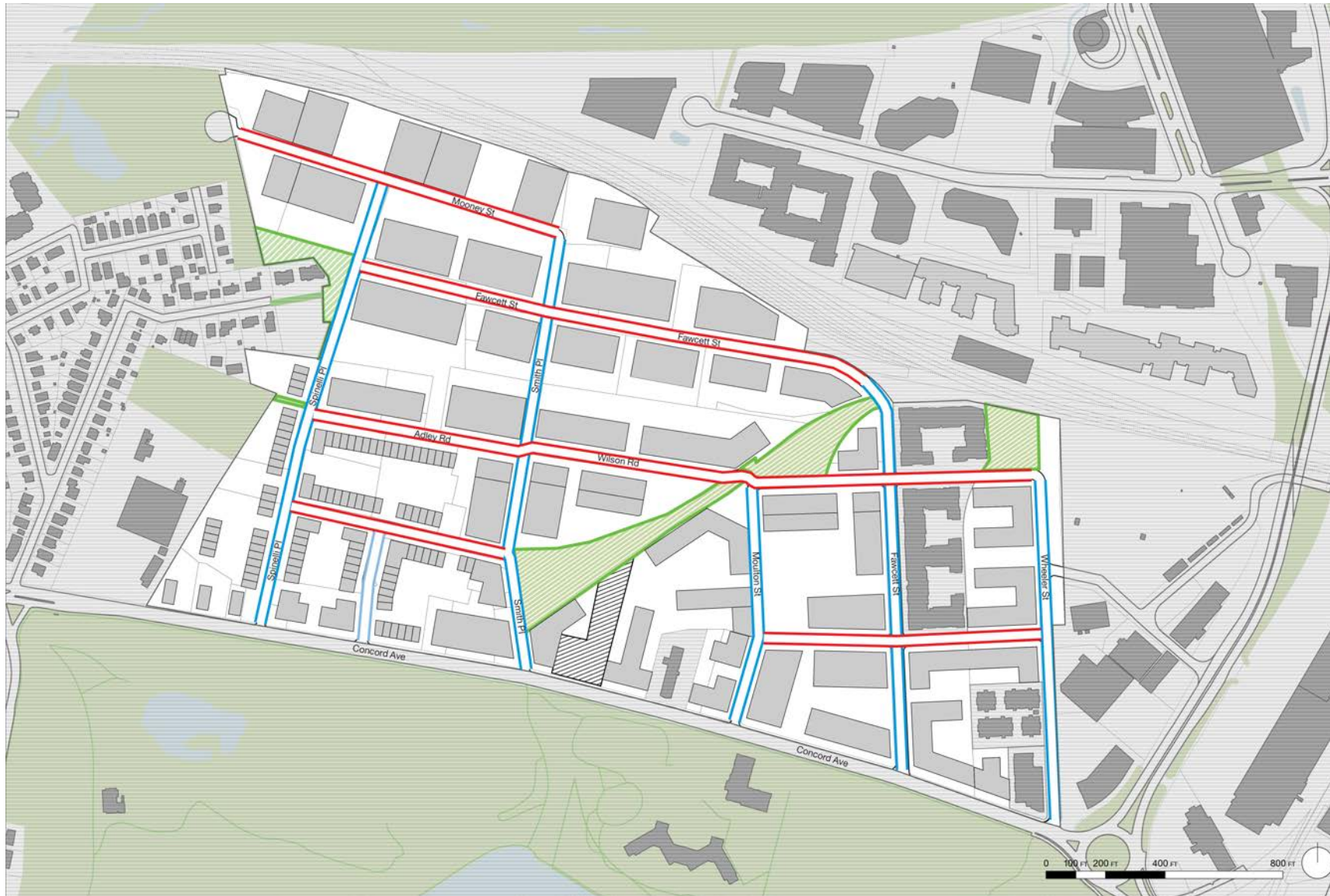
Source: EMSI, 2016

Ground-floor uses



- Accessory Retail Zone (in Light Industrial Space)
- Mixed-use Light Industrial with Commercial above
- Ground-floor Active Uses (in Commercial building)
- Commercial
- Residential
- Open Space

A and B streets



- A Streets
- B Streets
- Parcels not part of this analysis
- Recently completed (since 1995)
- Planned affordable housing (671 Concord Ave)

Raised Platform as Urban Realm



Open for business!



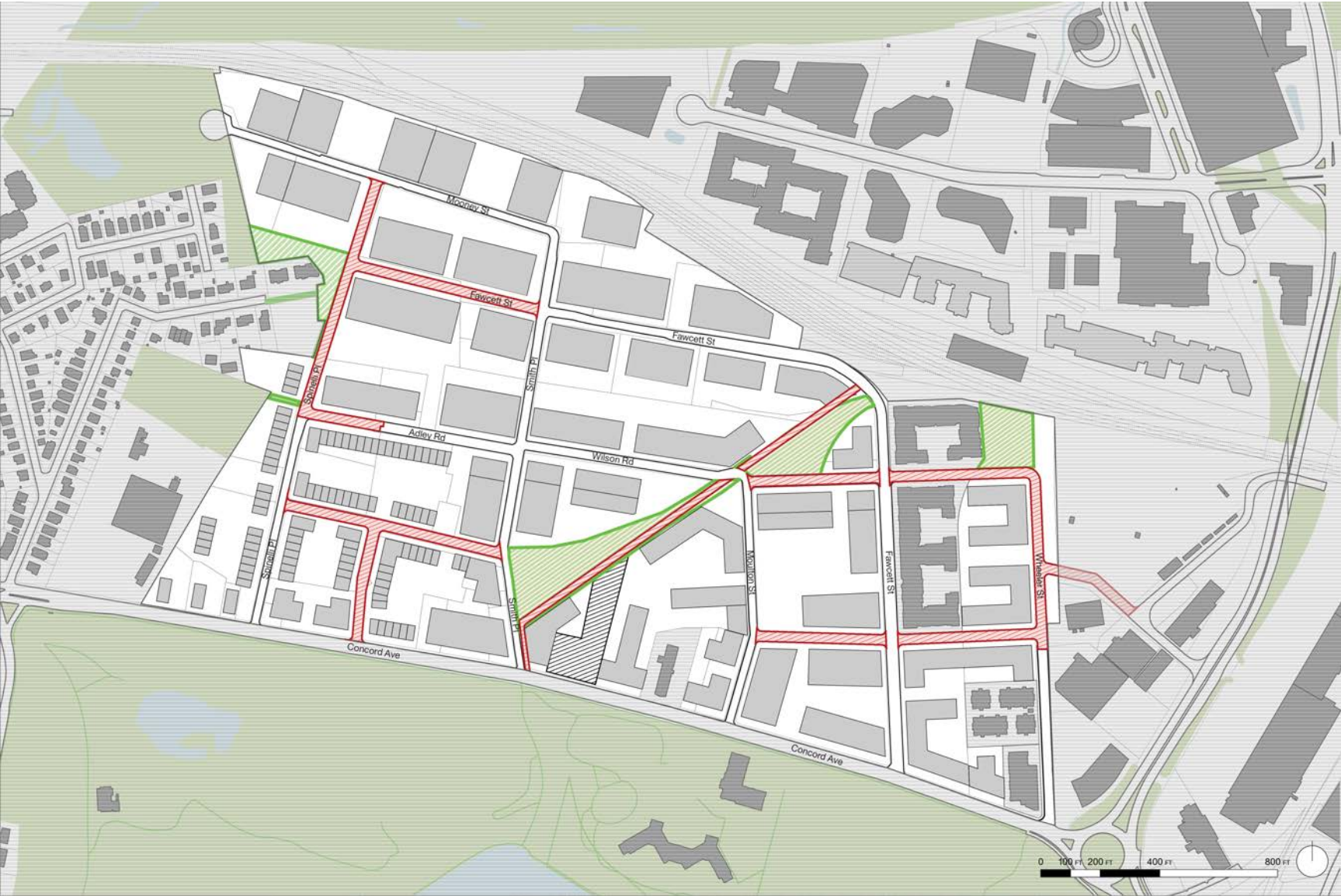


Existing Streets



- Proposed open space
- Proposed figure-ground
- Parcels not part of this analysis
- Existing Development
- Permitted Projects
- Planned affordable housing (671 Concord Ave)

Connected Street Grid

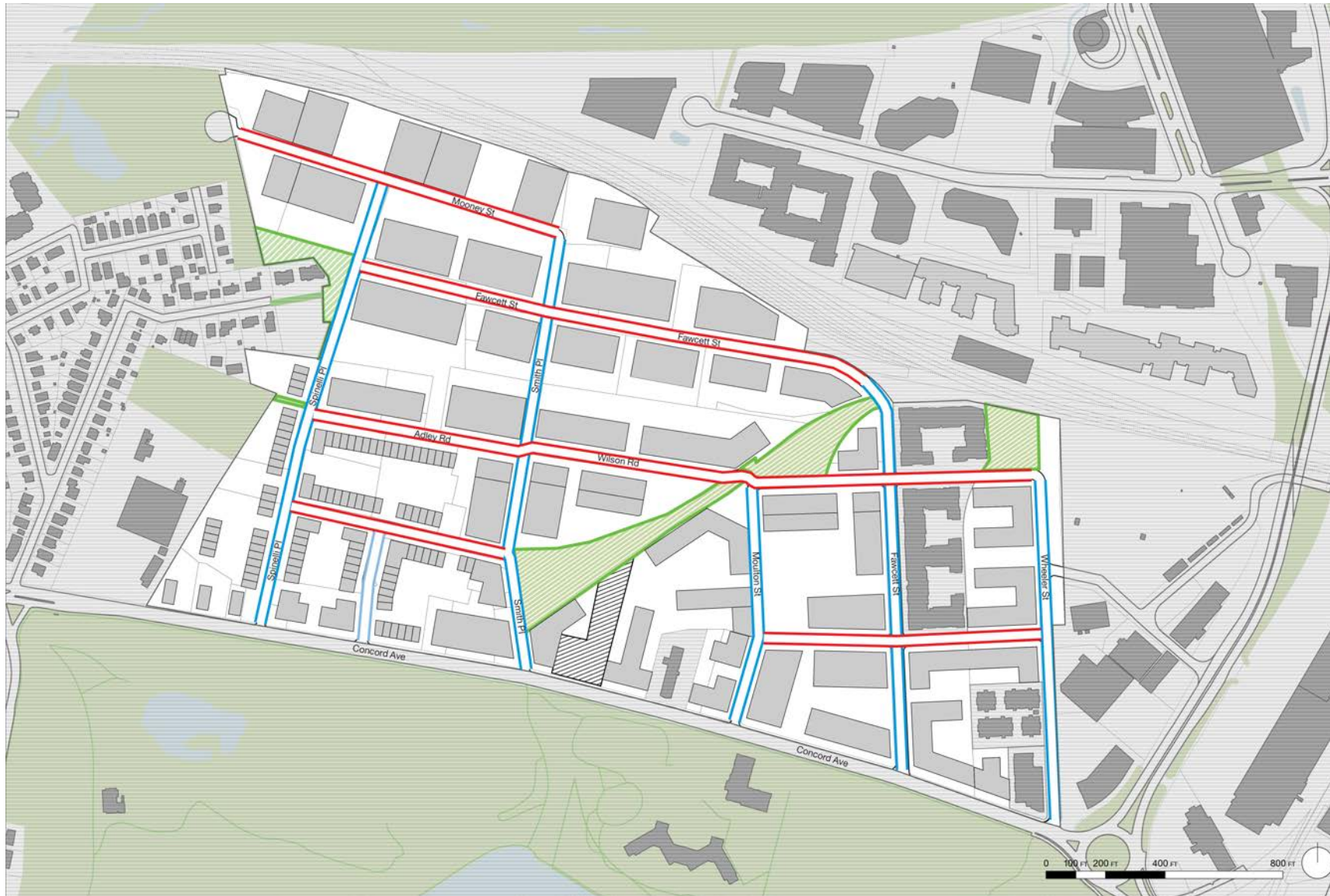


Guiding considerations:

- 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.
- Works largely with existing parcel lines to achieve desired street network.

- New Streets
- ▨ Proposed open space
- ▭ Proposed figure-ground
- ▭ Parcels not part of this analysis
- Existing Development
- Permitted Projects
- ▨ Planned affordable housing (671 Concord Ave)

A and B Streets

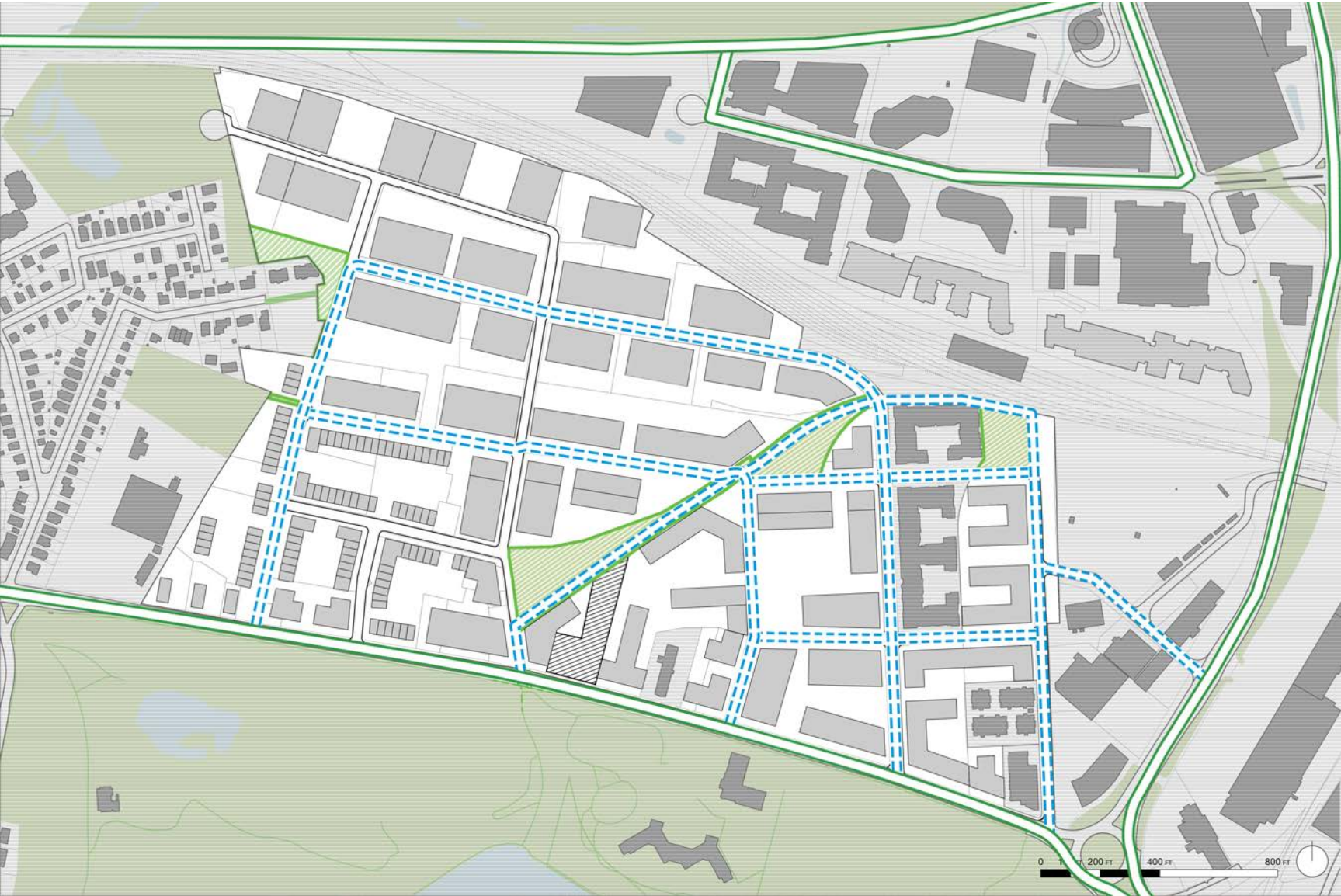


- = A Streets
- = B Streets
- = New Streets
- Proposed open space
- Proposed figure-ground
- Parcels not part of this analysis
- Existing Development
- Permitted Projects
- Planned affordable housing (671 Concord Ave)

Urban Realm: Active frontage along “A” streets

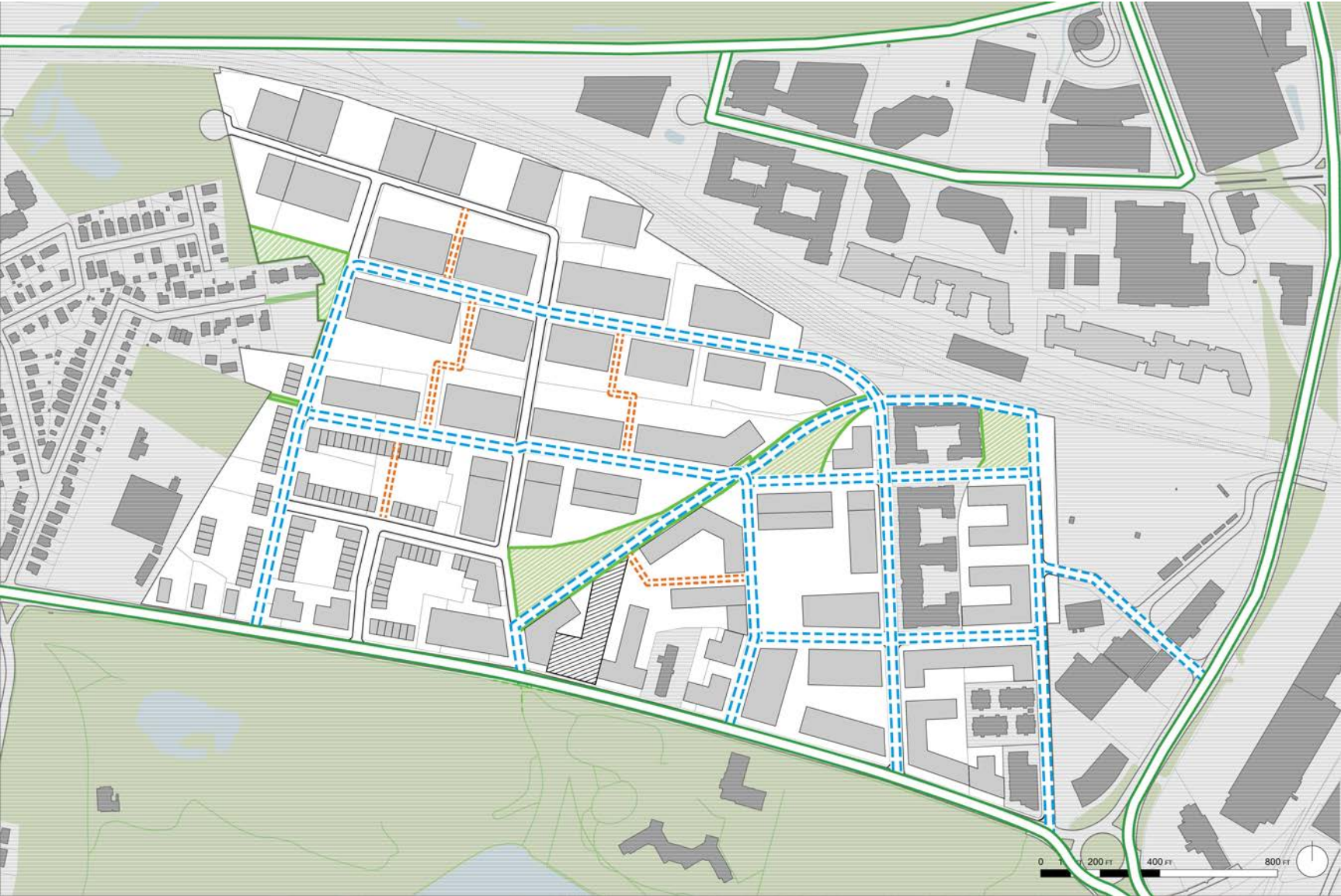


A network of bike and pedestrian connections



- : Proposed bike accommodations
- : Existing bike accommodations
- ▨ : Proposed open space
- : Proposed figure-ground
- ▨ : Parcels not part of this analysis
- : Existing Development
- : Permitted Projects
- ▨ : Planned affordable housing (671 Concord Ave)

A network of bike and pedestrian connections

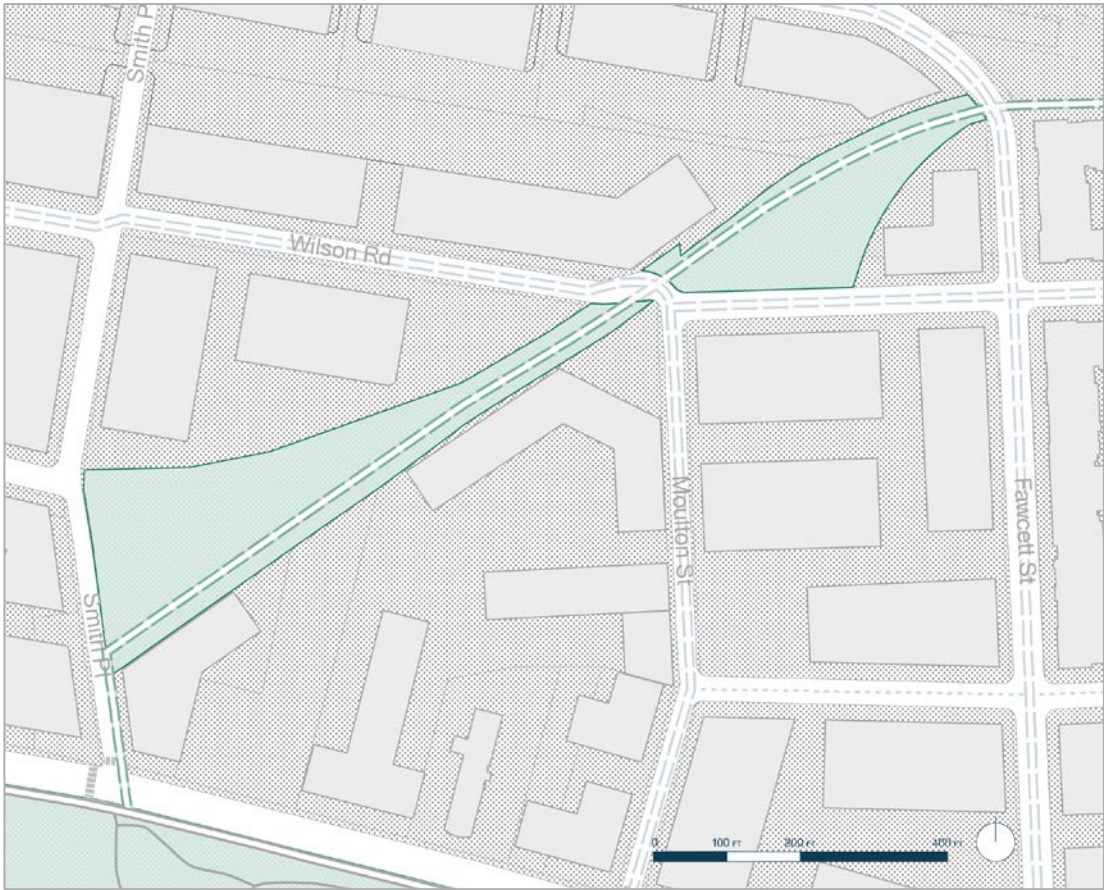


- : Proposed pedestrian walkways
- : Proposed bike accommodations
- Existing bike accommodations
- ▨ Proposed open space
- Proposed figure-ground
- ▨ Parcels not part of this analysis
- Existing Development
- Permitted Projects
- ▨ Planned affordable housing (671 Concord Ave)

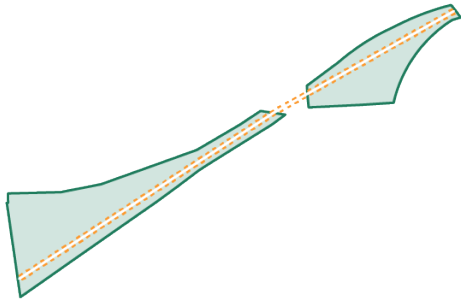
Industrial-scale Crosswalks



Proposed Open Space Network



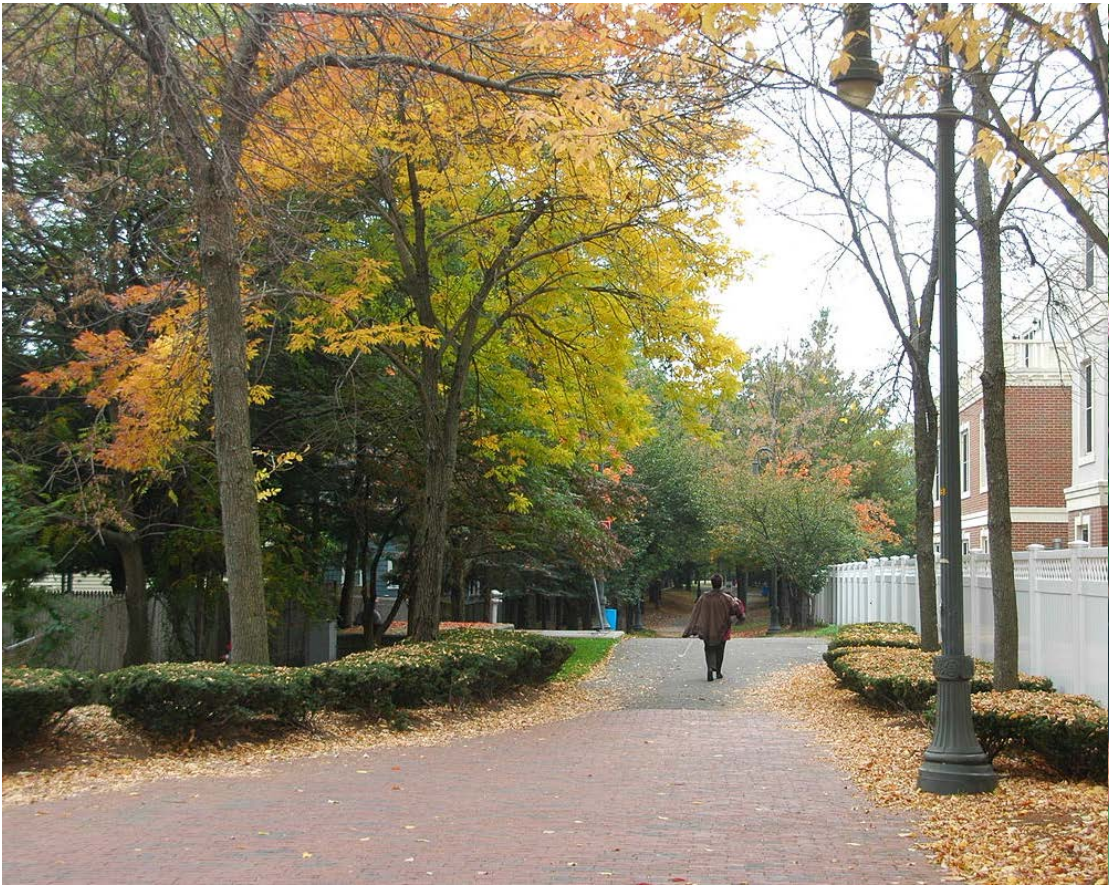
- Proposed Bike Accommodations
- Open Space



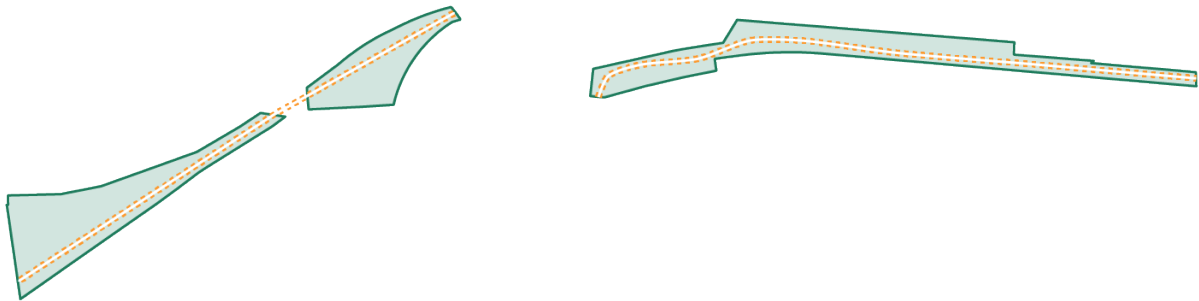
Proposed Open Space Network

Path Length	0.25 miles
Path Type	Protected Bike Lane with Separate Pedestrian Path
Area	3.3 acres
Important Features	Two adjacent triangular parks; storm water management swale; connects to Concord Avenue cycle track and Fresh Pond

Open Space Comparison: Alewife Linear Park

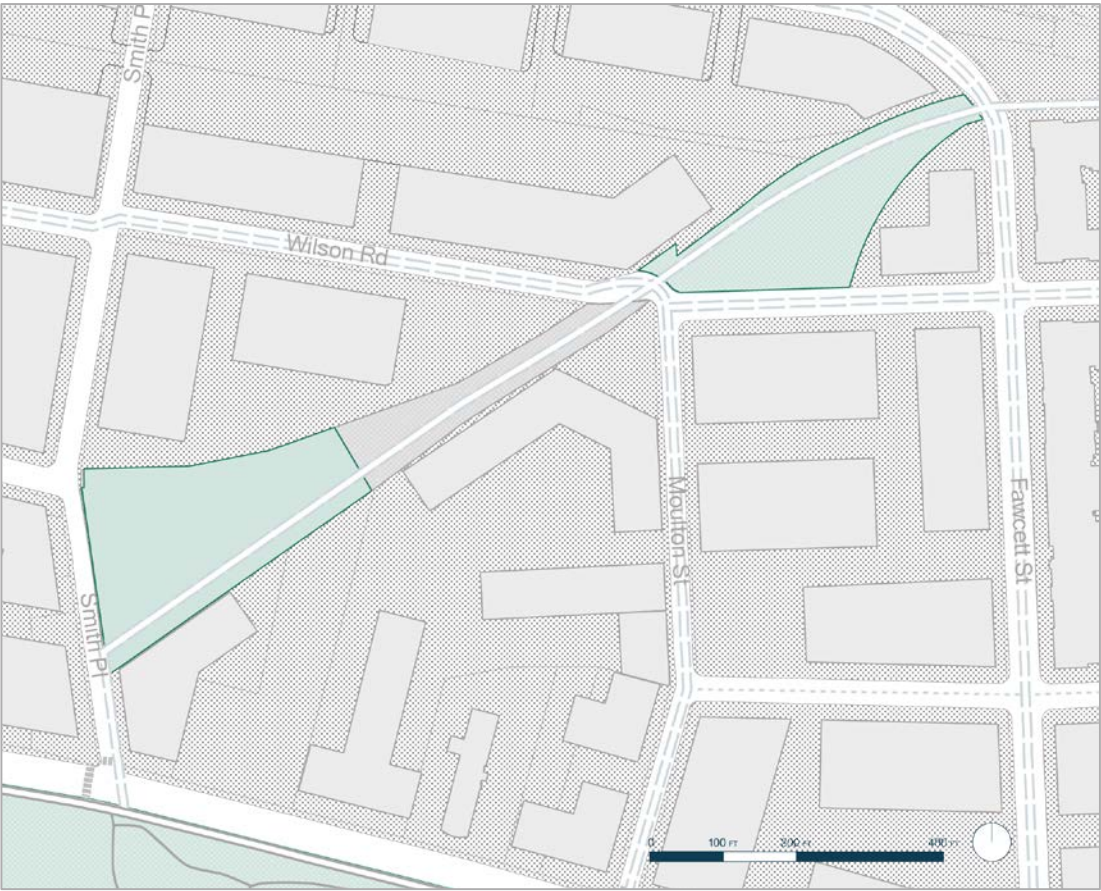


Alewife Linear Park

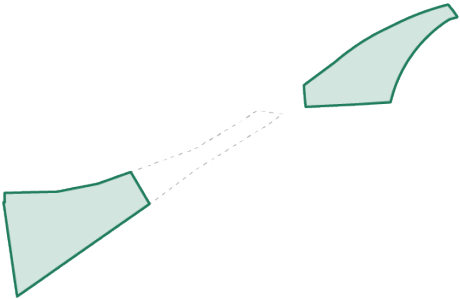


	Proposed Open Space Network	Alewife Linear Park
Path Length	0.25 miles	0.31 miles
Path Type	Cycle Track with Separate Pedestrian Path	Multi-Use Path
Area	3.3 acres	3.3 acres
Important Features	Two adjacent triangular parks; storm water management swale; connects to Concord Avenue cycle track and Fresh Pond	Connects to 1.3 mile long Somerville Path

Proposed Open Spaces



- Proposed Bike Accommodations
- Open Space

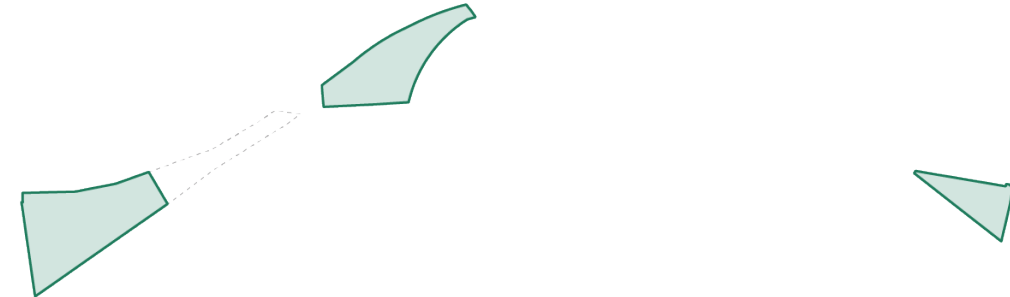


	Southwest Park	Northeast Park
Area	1.60 acres	1.10 acres
Important Features	Direct connection to Fresh Pond	Completes retail corridor with an active open space
Location	Smith Place	Wilson Road and Fawcett Street

Open Space Comparison: Lafayette Square



Lafayette Square

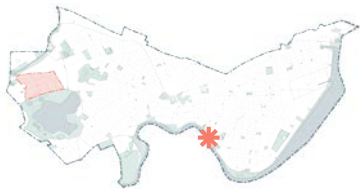


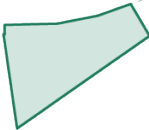


	Southwest Park	Northeast Park	Lafayette Square
Area	1.60 acres	1.10 acres	0.48 acres
Important Features	Direct connection to Fresh Pond	Completes retail corridor with an active open space	Plaza with seating and enhanced bike/ped safety
Location	Smith Place	Wilson Road and Fawcett Street	Central Square The Port

Open Space Comparison: Riverside Park



Riverside Park



			
	Southwest Park	Northeast Park	Riverside Park
<i>Area</i>	1.60 acres	1.10 acres	0.87 acres
<i>Important Features</i>	Direct connection to Fresh Pond	Completes retail corridor with an active open space	Spray park/play area, covered pavilion, and lawns
<i>Location</i>	Smith Place	Wilson Road and Fawcett Street	River Street and Memorial Drive <i>Riverside</i>

Ground floor uses



Total GFA at 100% buildout	5.61m SF
District FAR	1.56

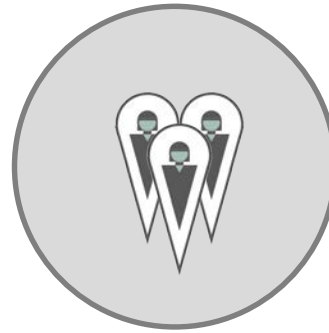
Total GFA at 60% buildout	4.52m SF
– New housing	1,080 units
– Office / lab space	1.78m SF
– Ground floor retail	31,100 SF
– Industrial space	387,120 SF

- Accessory Retail Zone (in Light Industrial Space)
- Mixed-use Light Industrial with Commercial above
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Housing, Employment, and Fiscal Impacts



Housing



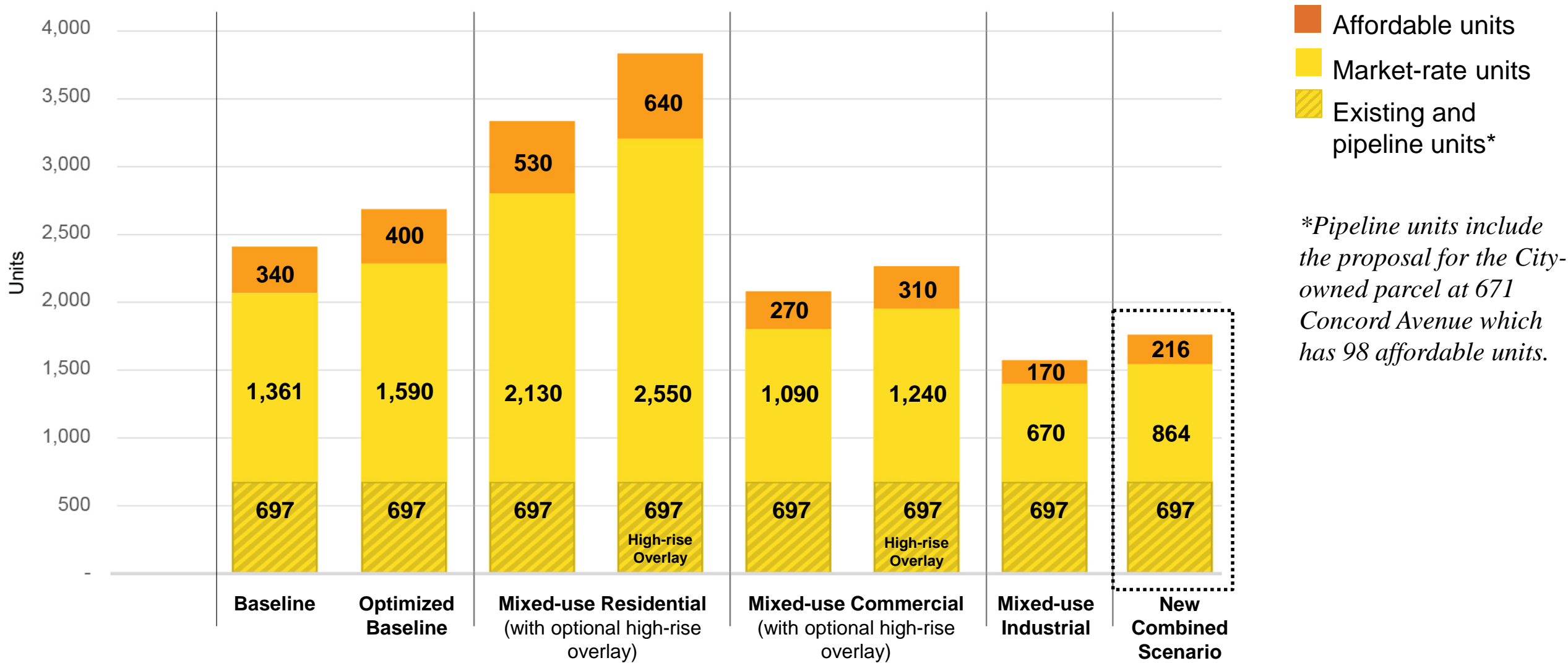
Jobs



**Tax revenue and
fiscal impacts**

Represents a 60% Build-Out

Housing Units



Housing Units – Existing and Pipeline

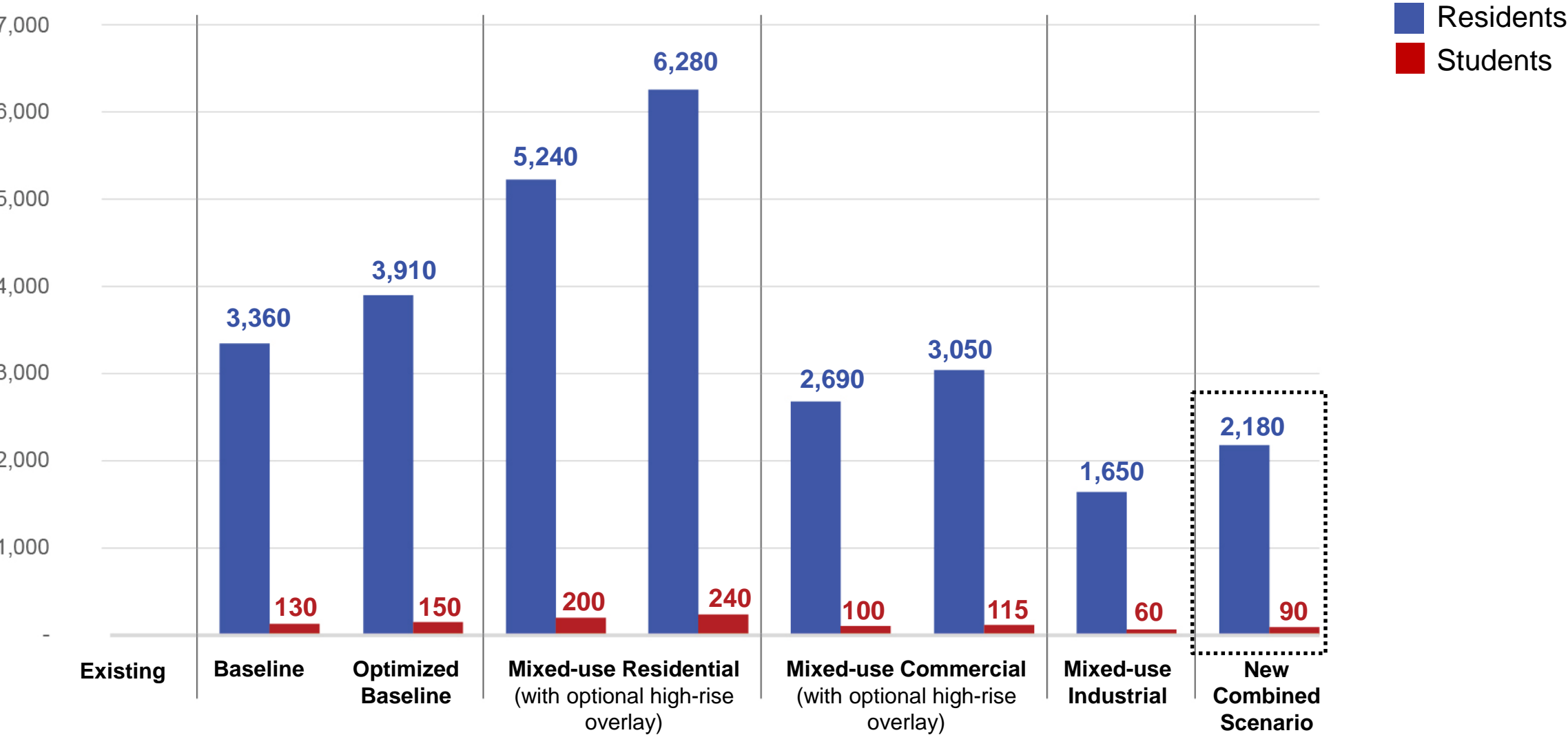


Proposed scenario generates 864 market-rate and 216 affordable housing units (at 60% buildout)

- # Existing or permitted housing units
- Accessory Retail Zone (in Light Industrial Space)
- Mixed-use Light Industrial with Commercial above
- Ground-floor Active Uses (in Commercial building)
- Commercial
- Residential
- Open Space

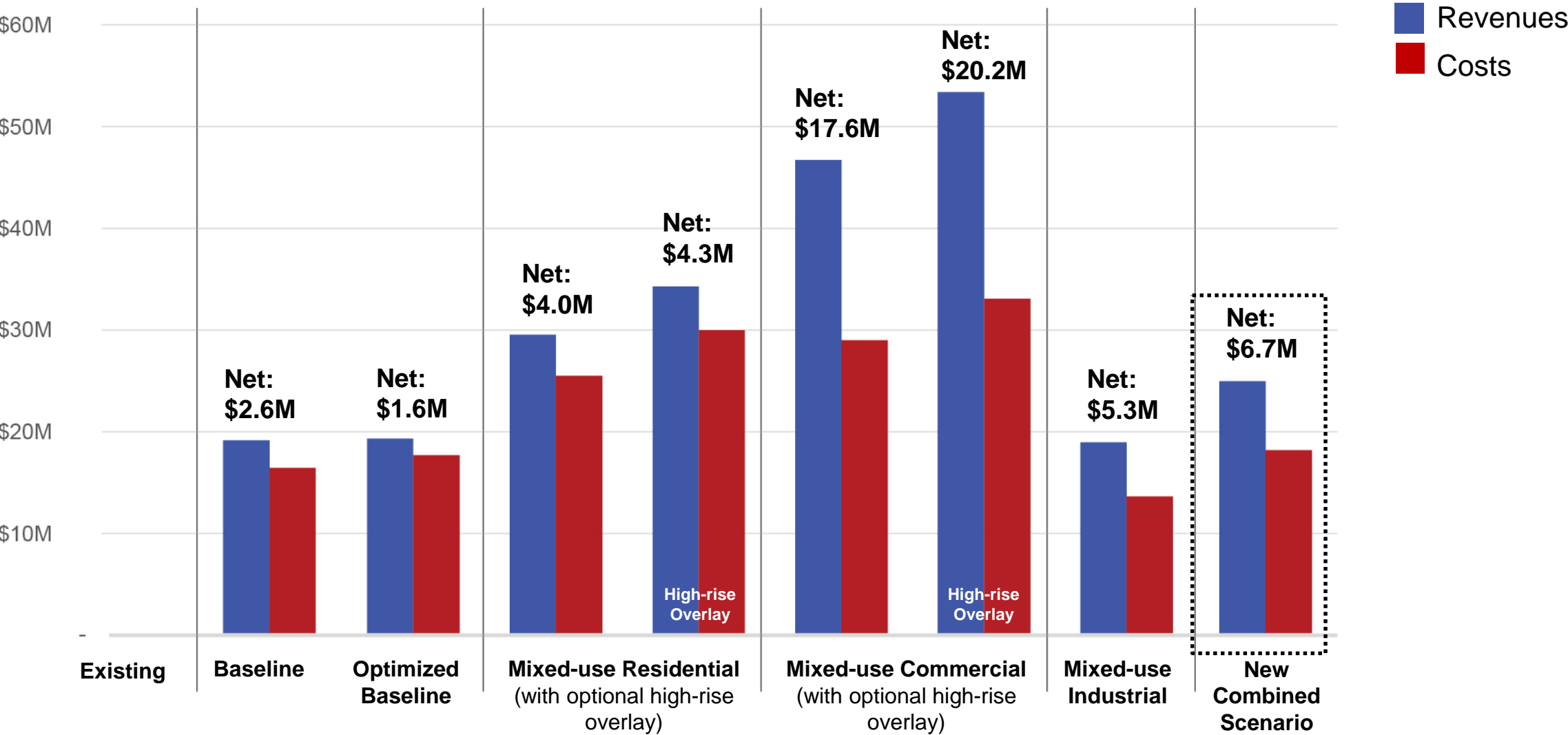
Represents a 60% Build-Out

Public School Students



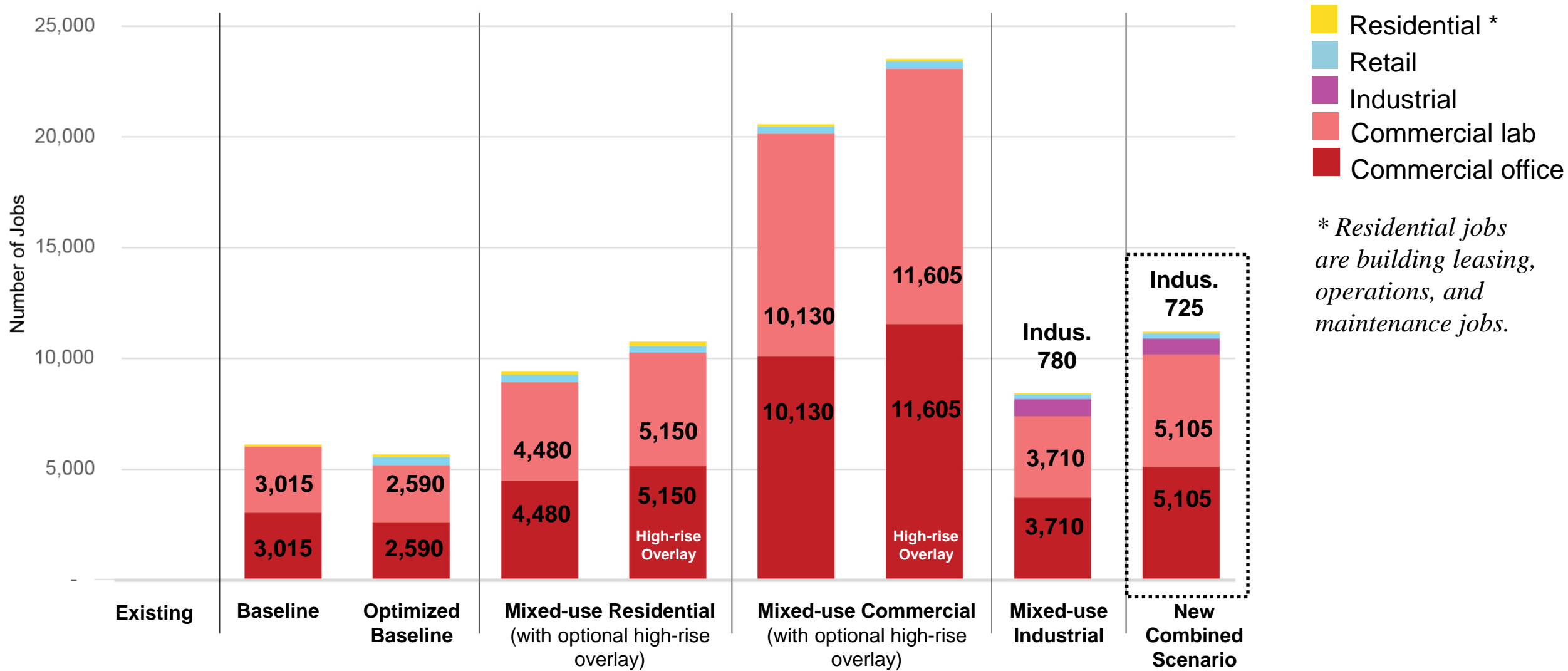
Represents a 60% Build-Out

Annual Fiscal Revenues and Costs



Represents a 60% Build-Out

Jobs



Represents a 60% Build-Out

Jobs

	<i>Total</i>	<i>Office (A & B)</i>	<i>Lab (A & B)</i>	<i>Retail</i>	<i>Residential</i>	<i>Industrial</i>
Baseline	6,130	3,015	3,015	0	100	0
Optimized Baseline	5,680	2,590	2,590	380	120	0
Mixed-use Residential	9,460	4,480	4,480	340	160	0
<i>w/ High-Rise Overlay</i>	10,800	5,150	5,150	310	190	0
Mixed-use Commercial	20,670	10,130	10,125	335	80	0
<i>w/ High-Rise Overlay</i>	23,640	11,605	11,605	335	95	0
Mixed-use Industrial	8,460	3,710	3,710	210	50	780
New Combined Scenario	11,240	5,105	5,105	245	60	725

Mobility Impacts

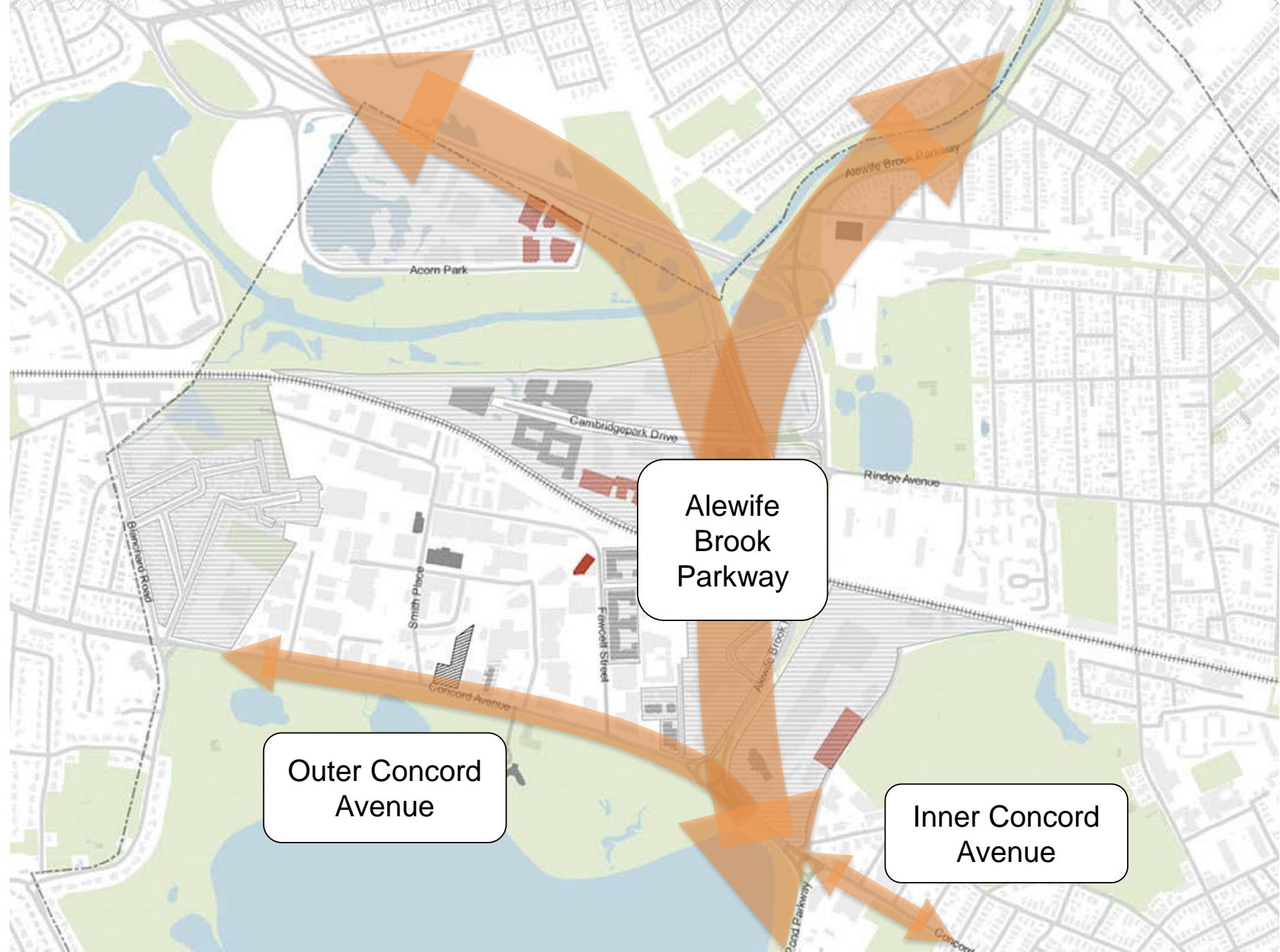


Mobility

Mobility Impacts

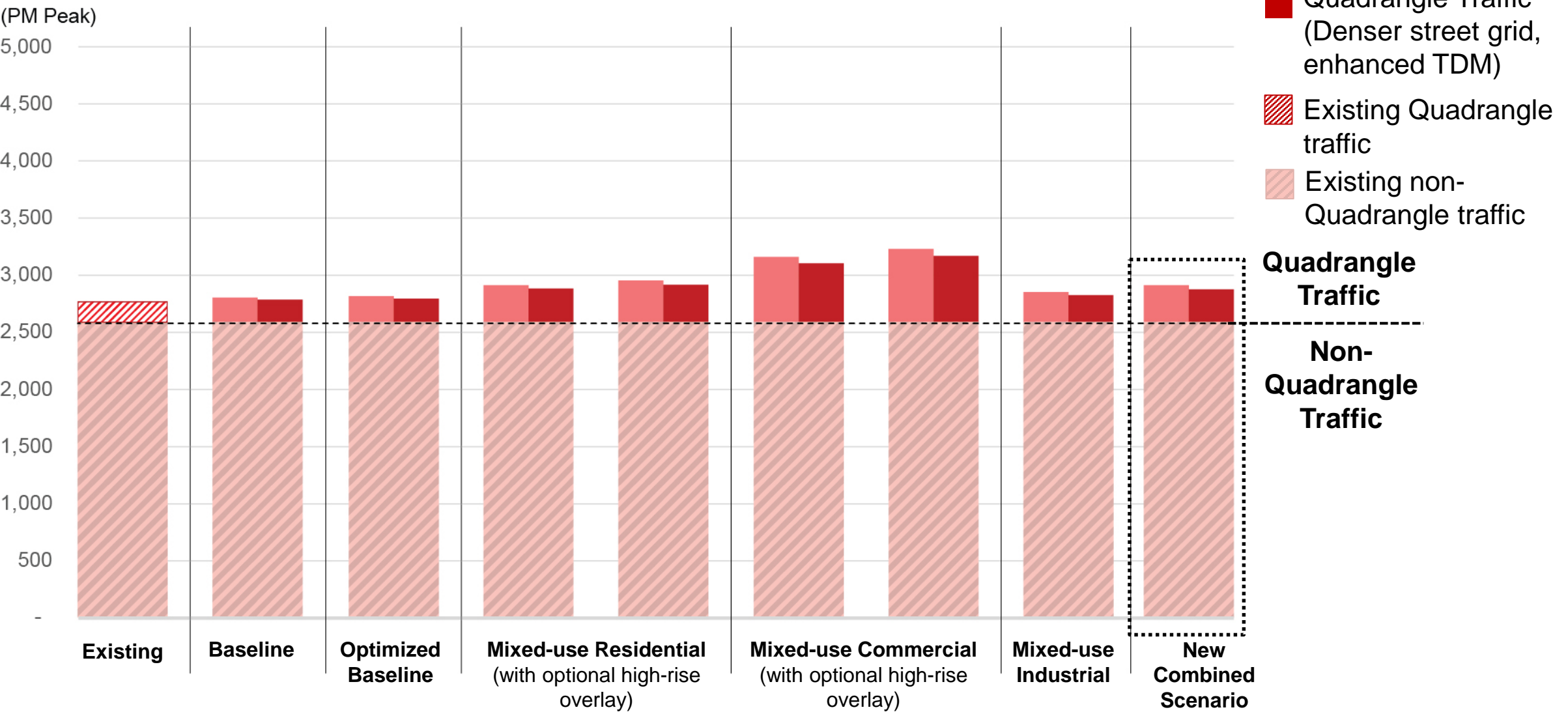
Regional through traffic will continue to dominate Alewife

- 82% is Regional Through Volume
- Only 18% is To/From Cambridge



Represents a 60% Build-Out

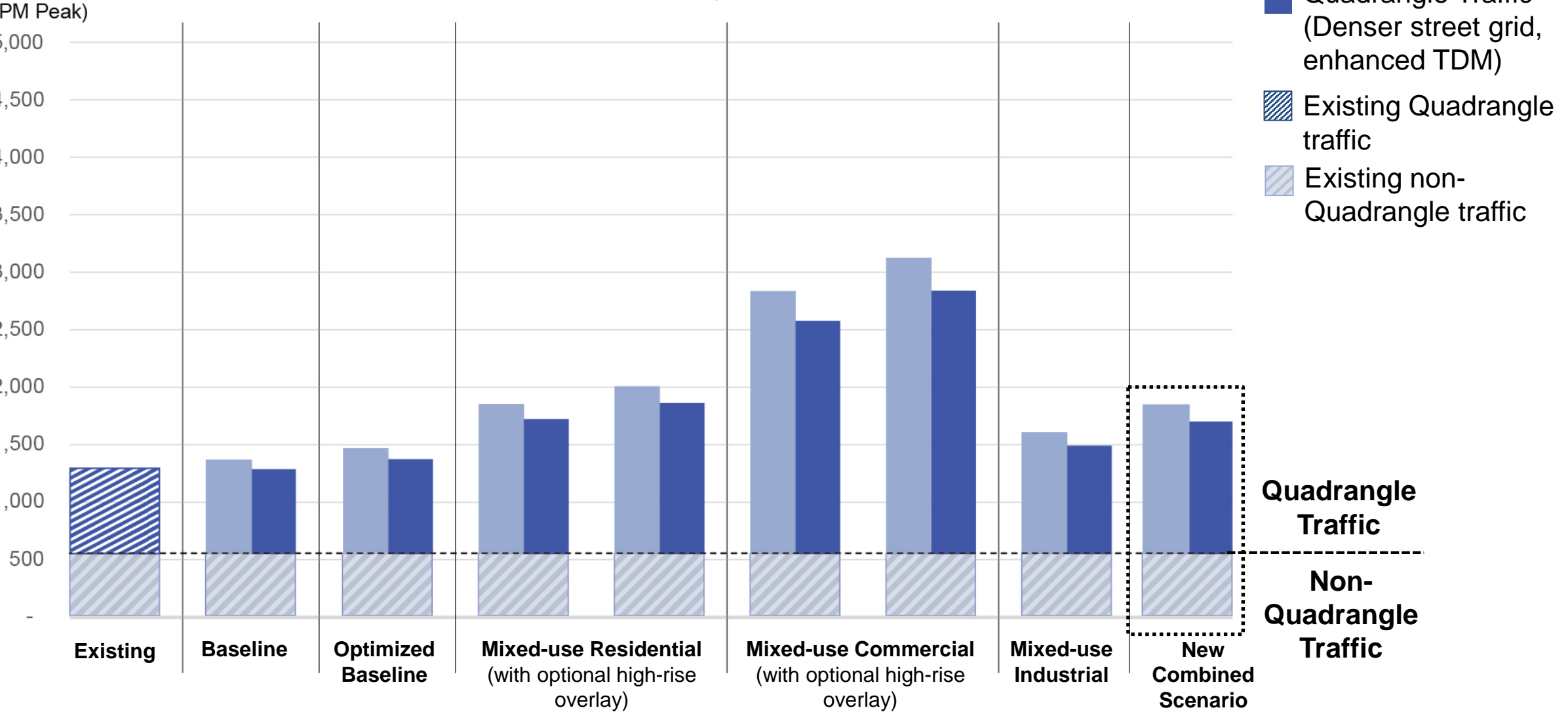
Estimated Auto Trips on Alewife Brook Parkway



Represents a 60% Build-Out

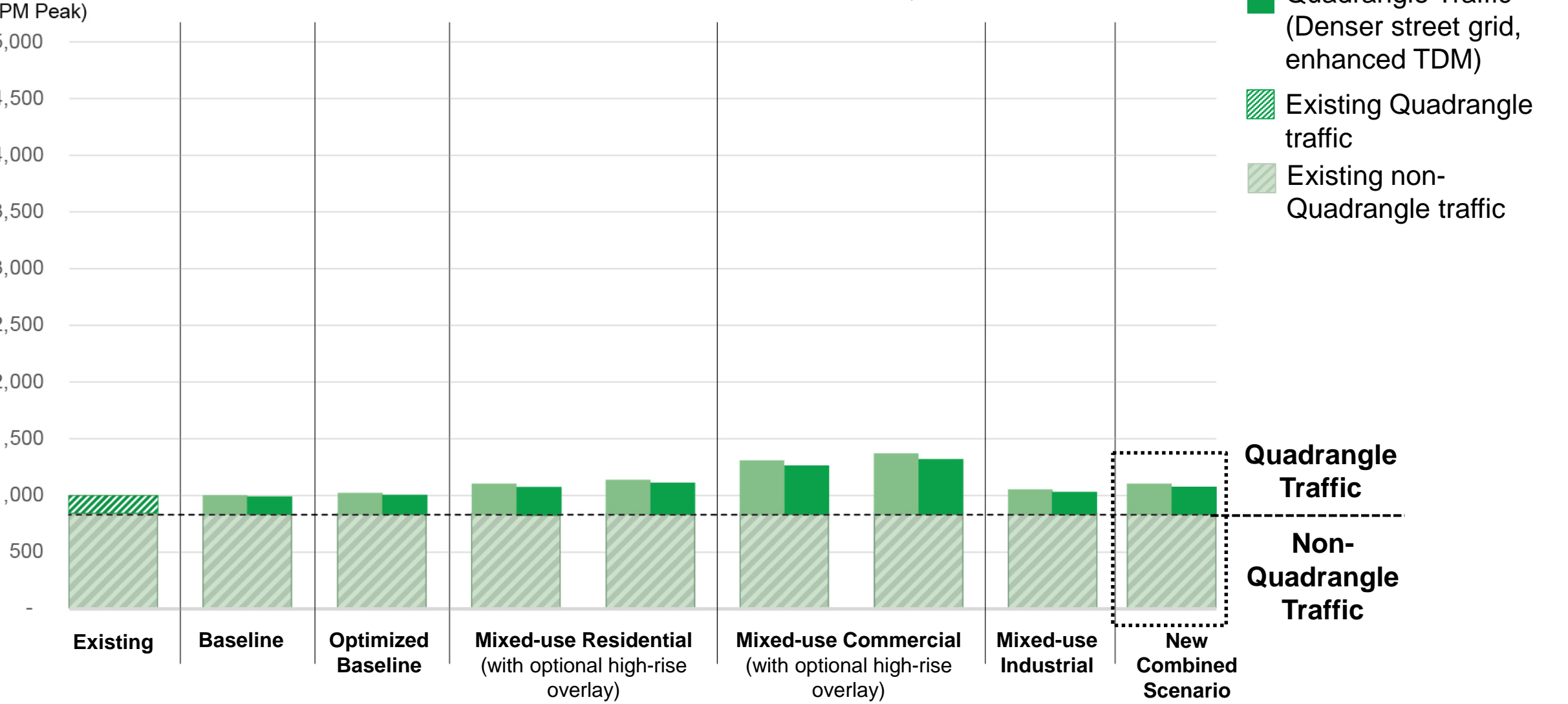
Estimated Auto Trips on Outer Concord Avenue

(from rotary to the Belmont line)



Represents a 60% Build-Out

Estimated Auto Trips on Inner Concord Avenue (eastbound from the rotary)



How does this scenario achieve our goals?

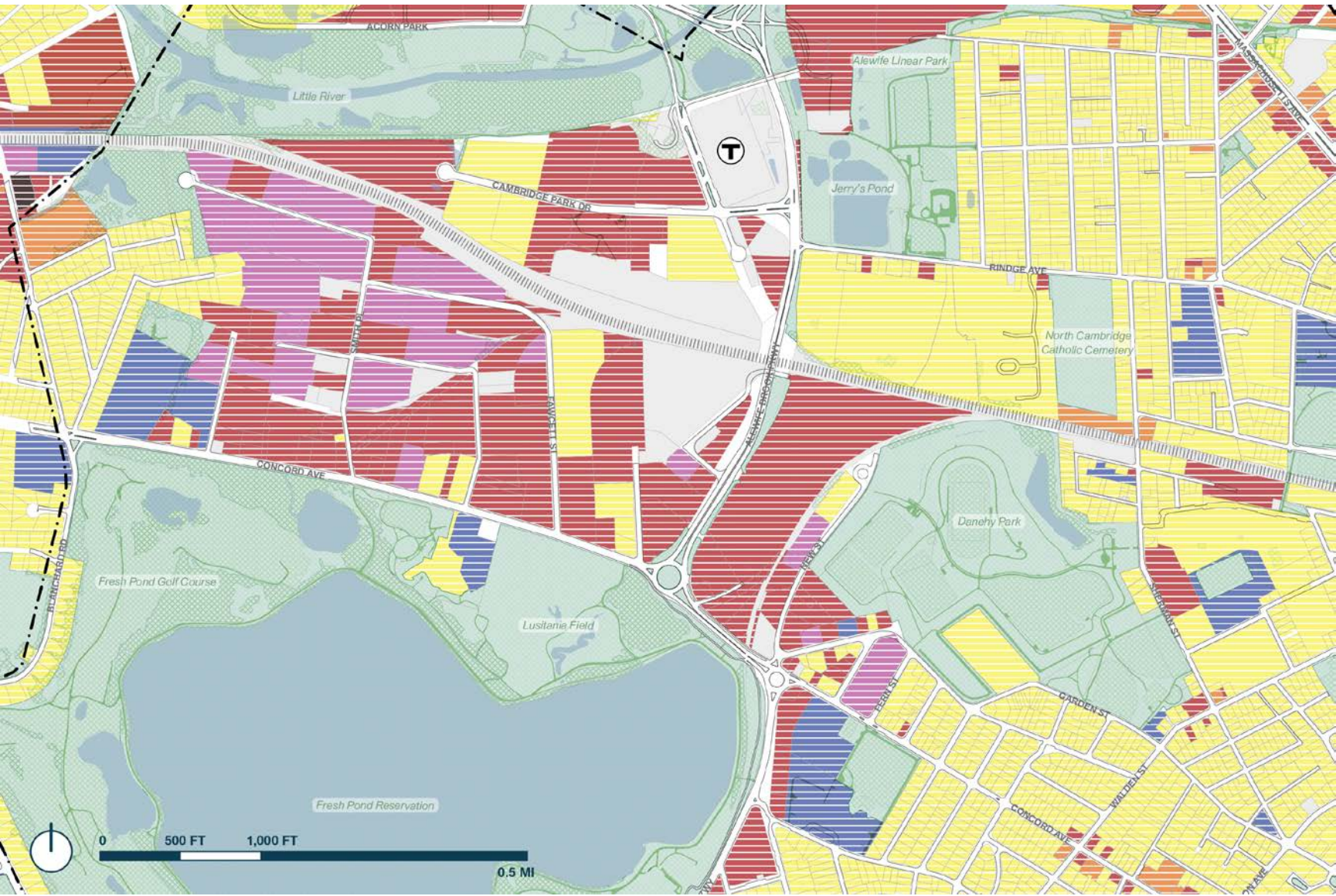
Urban Form / Land Use	Enhance the neighborhood by creating a rich and inviting public realm, human-scaled development, and harmonious transitions to the surrounding communities.
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Climate and Environment*	Harness the development process to improve the sustainability and resilience of Alewife and Cambridge.
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Process / Implementation	Create strategies that are implementable/achievable in the short-term, and flexible and responsive for the medium and long-term

**these goals and objectives will be considered in the context of climate change since the conditions will continue to shift*

Urban Design Framework



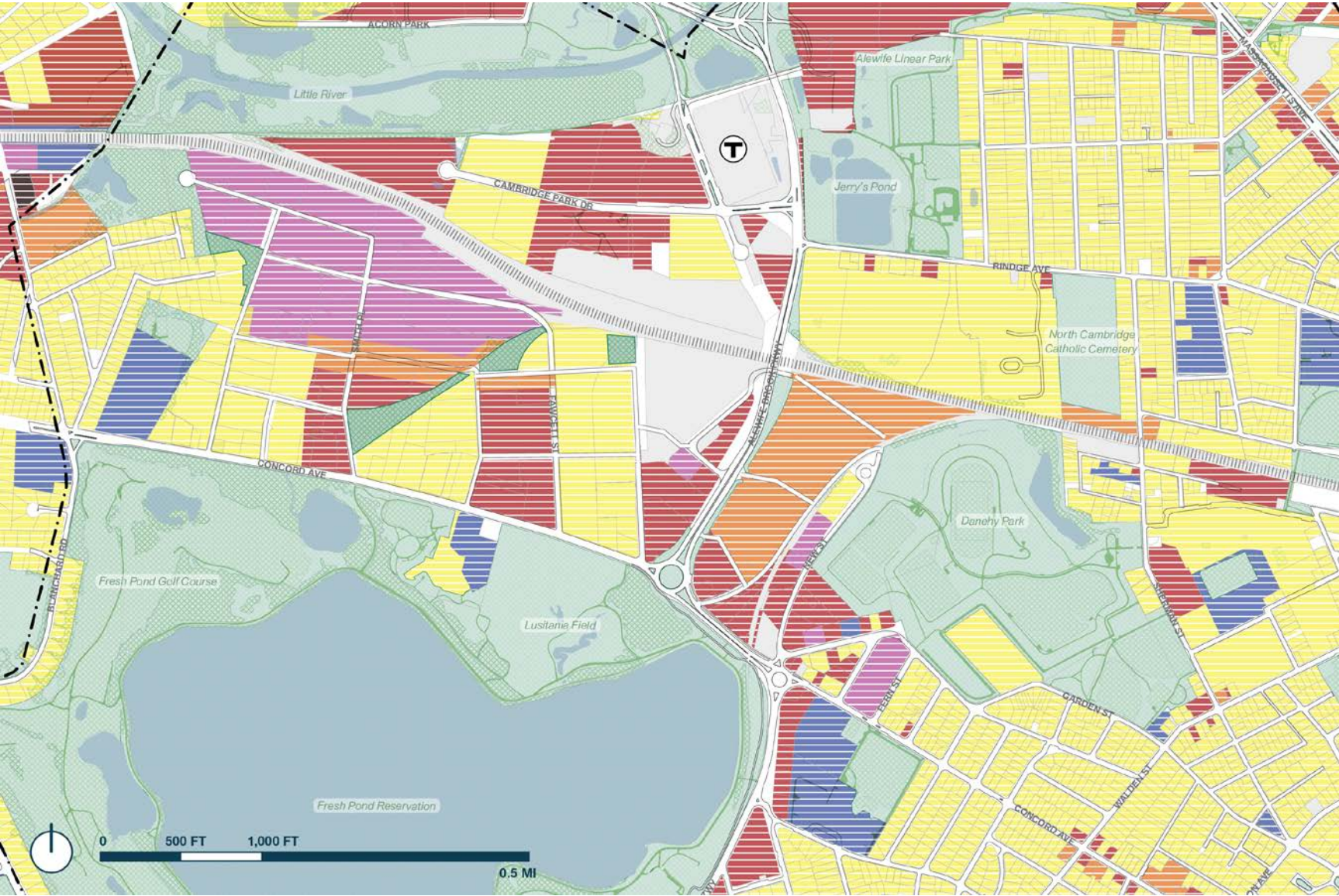
Existing land use



- Open Space
- Residential
- Commercial
- Mixed-use
- Industrial
- Institutional
- Other

Source: City of Cambridge land use and tax assessor's data

Proposed Land Use



- Open Space
- Residential
- Commercial
- Mixed-use
- Industrial
- Institutional
- Other



Existing Streets



Existing streets

Source: City of Cambridge Open Data

Proposed Streets



- Existing streets
- Proposed streets

Source: City of Cambridge Open Data

Next Steps

Date	Who	Agenda
April 27	Alewife Working Group	Revised Quadrangle Scenario
June 8	Alewife Working Group	Alewife District (including the shopping mall)
June 27	Alewife Working Group	Alewife District: Discussion of strategies
Mid-July (date TBD)	Public Meeting	Public meeting to review district plan, <i>with revisions based on previous feedback</i>
July 27	Alewife Working Group	Alewife District: Discuss implementation strategies
<i>July – Aug: Write draft plan</i>		
September		send plan document to Alewife Working Group / public for review; collect public comment
Date TBD	Alewife Working Group	Discuss plan, <i>including revisions based on public comment</i>