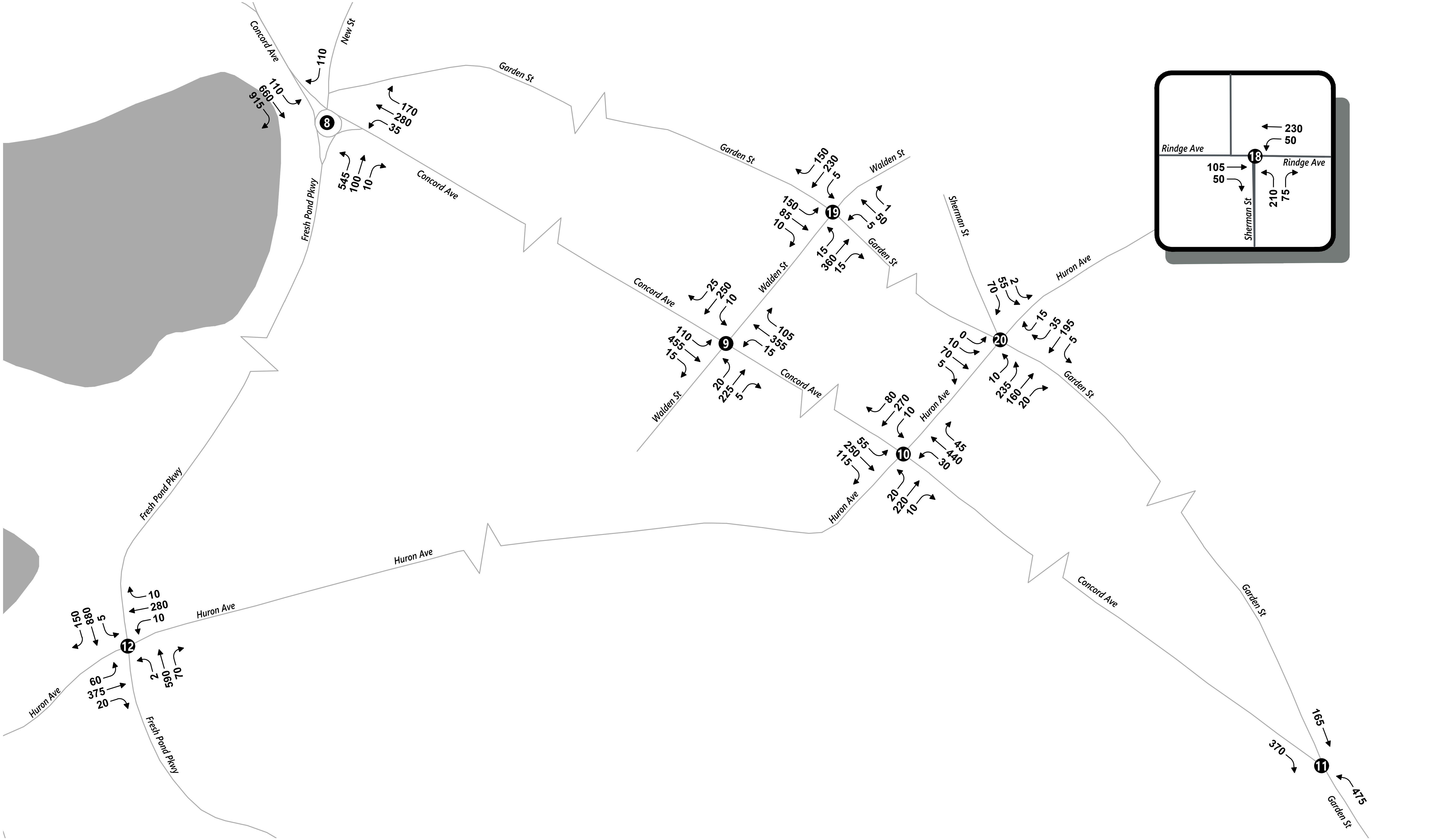
\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



Not to Scale

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

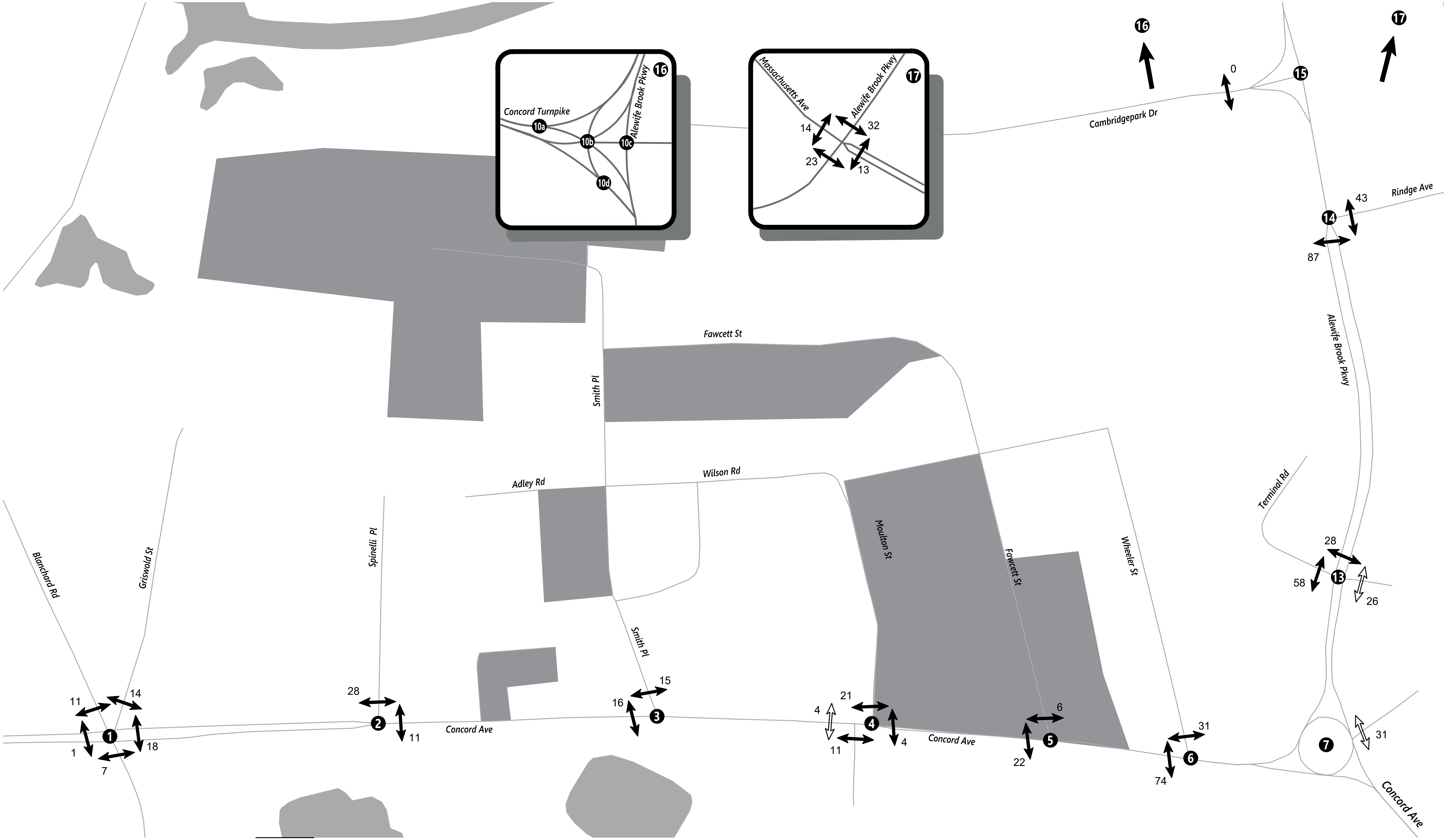
COUNT COLLECTION DATE BY INTERSECTION:

Wed, 10/25/2023 - 8, 9, 10, 11, 12,

Wed, 10/23/2024 - 18, 19, 20

2024 Existing Conditions
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.2.b



LEGEND

Not to Scale

Driveways and intersections present, volumes may not balance

Future Development Area

Pedestrian Movement

Pedestrian Movement *(No Crosswalk Present)*

COUNT COLLECTION DATE BY INTERSECTION:

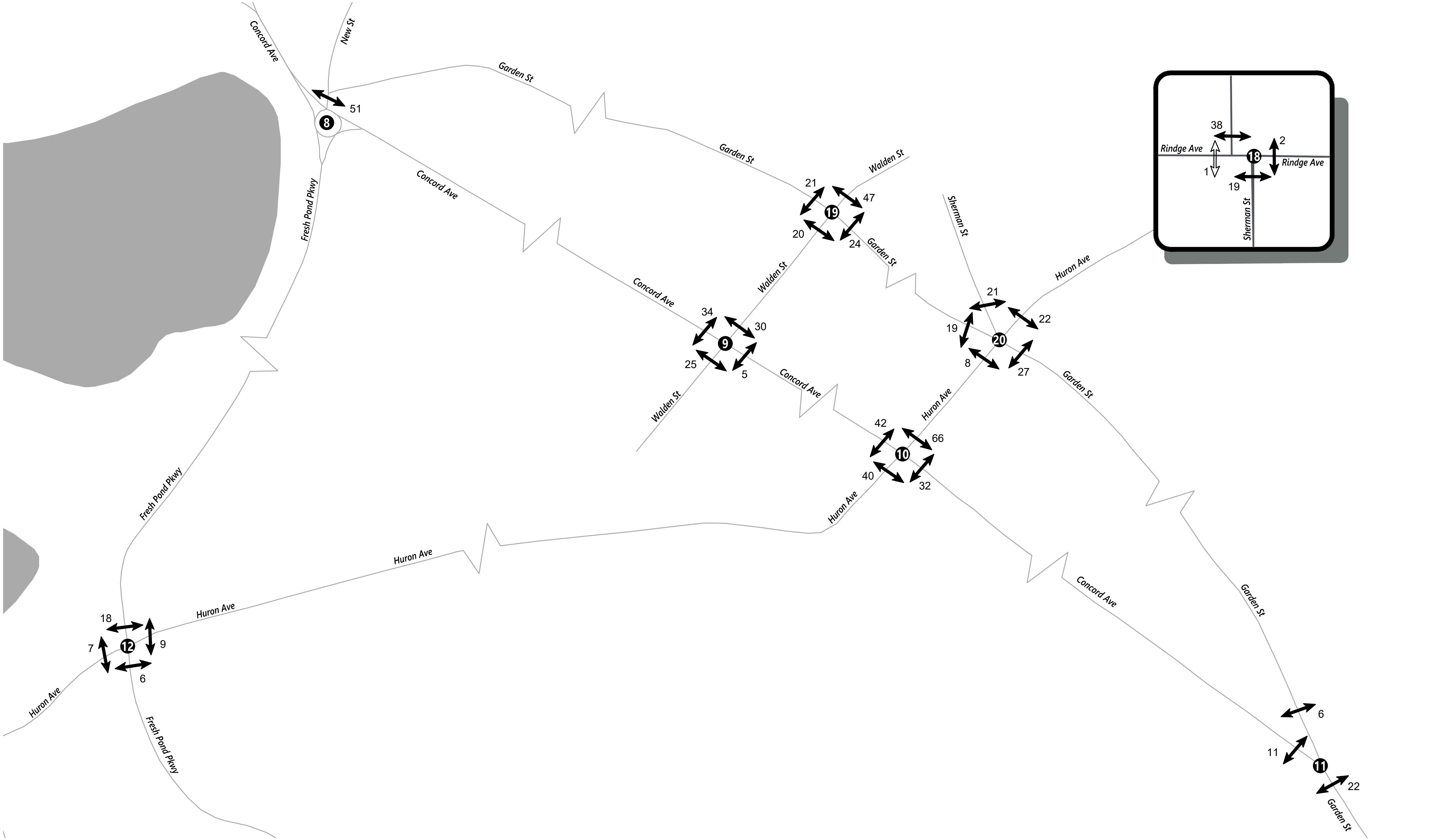
Wed, 10/25/2023 - 2, 4, 7, 13, 14, 15, 16, 17

Wed, 10/23/2024 - 1, 3, 5, 6

vhb

2024 Existing Condition
Pedestrian Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.3.a



Not to Scale

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Pedestrian Movement

Pedestrian Movement *(No Crosswalk Present)*

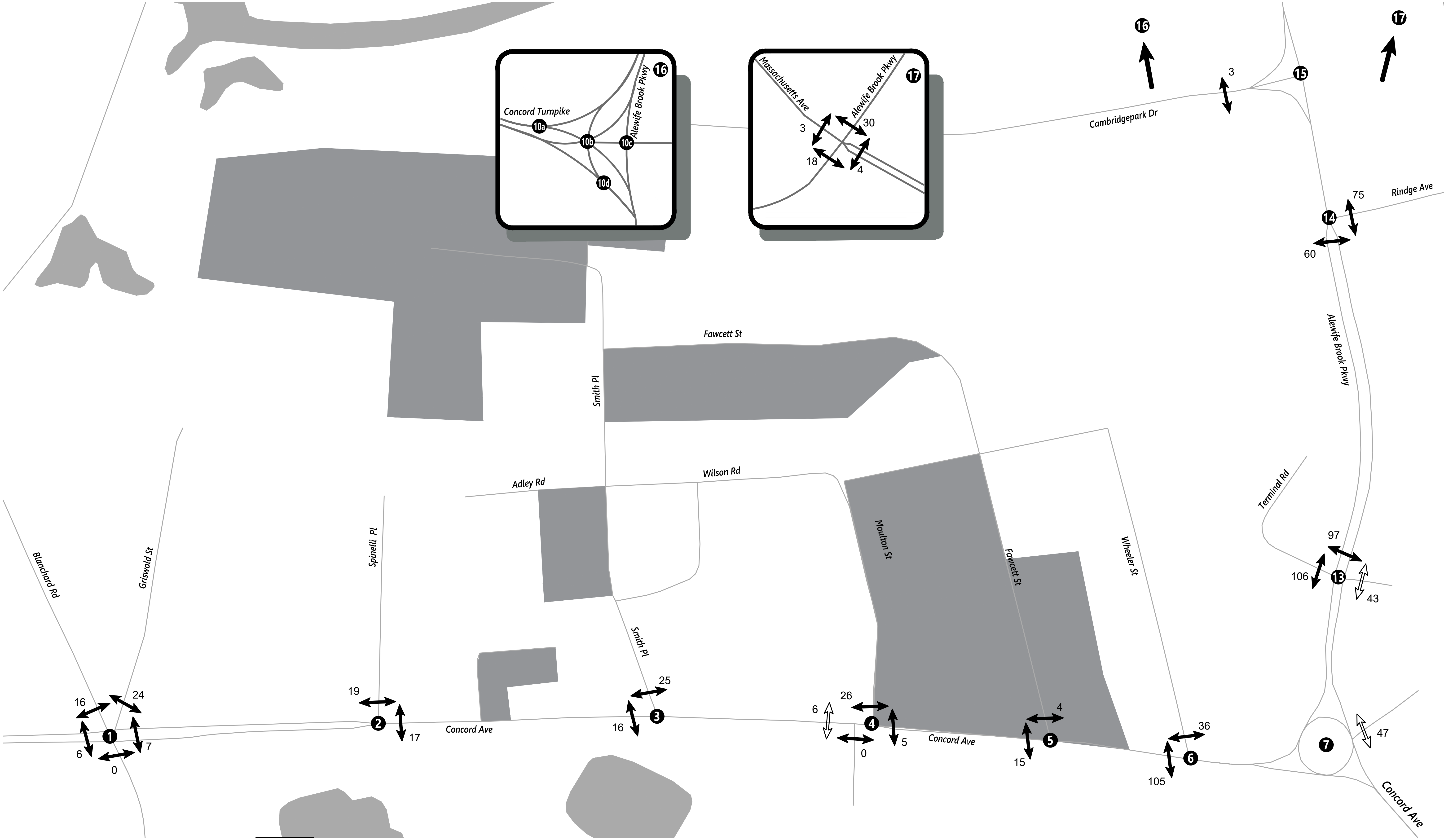
COUNT COLLECTION DATE BY INTERSECTION:

Wed, 10/25/2023 - 8, 9, 10, 11, 12,

Wed, 10/23/2024 - 18, 19, 20

2024 Existing Condition
Pedestrian Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.3.b



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Pedestrian Movement

Pedestrian Movement *(No Crosswalk Present)*

COUNT COLLECTION DATE BY INTERSECTION:

Wed, 10/25/2023 - 2, 4, 7, 13, 14, 15, 16, 17

Wed, 10/23/2024 - 1, 3, 5, 6

vhb

2024 Existing Condition
Pedestrian Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.4.a

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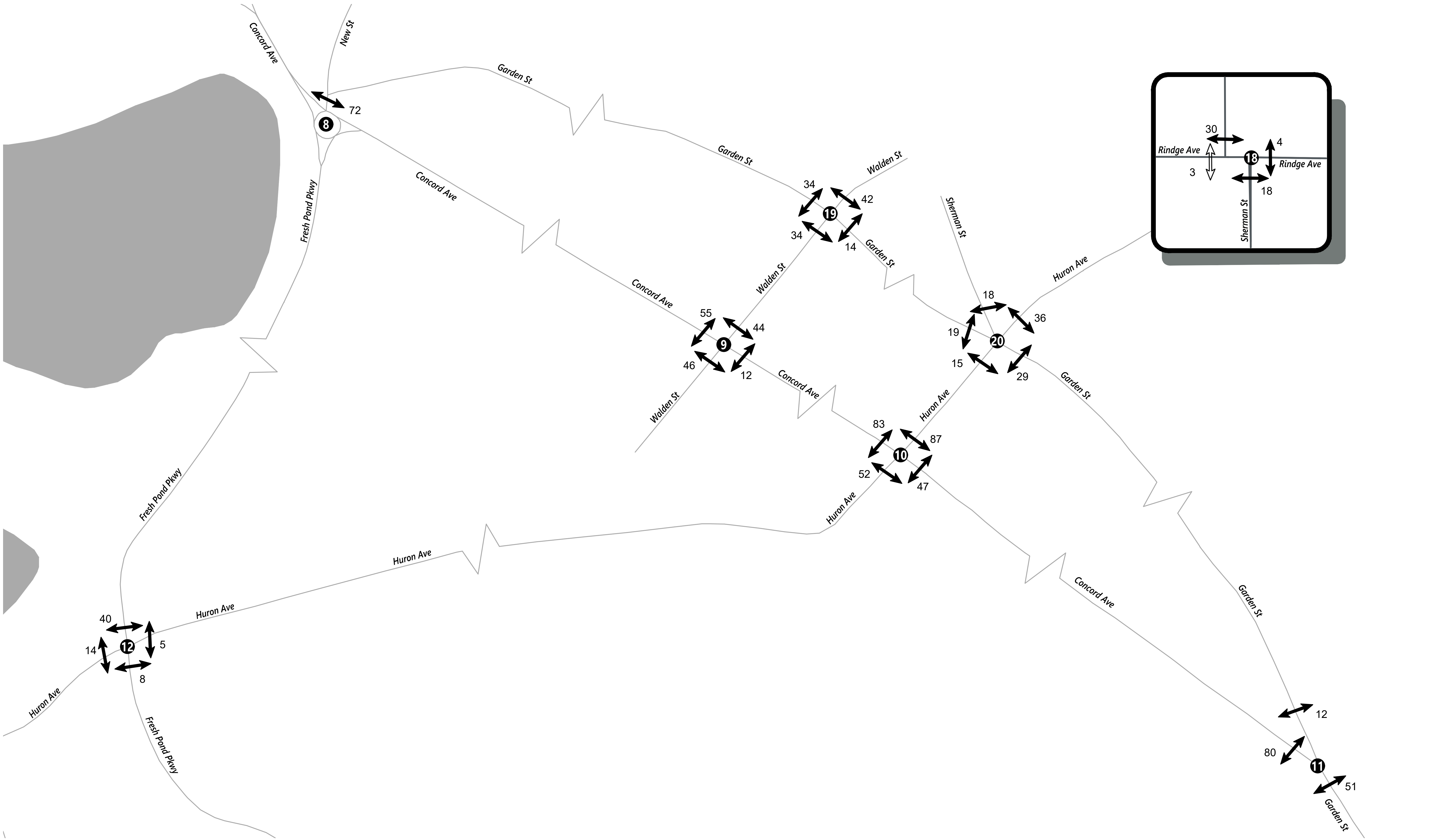


Not to Scale

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Pedestrian Movement

Pedestrian Movement *(No Crosswalk Present)*

COUNT COLLECTION DATE BY INTERSECTION:

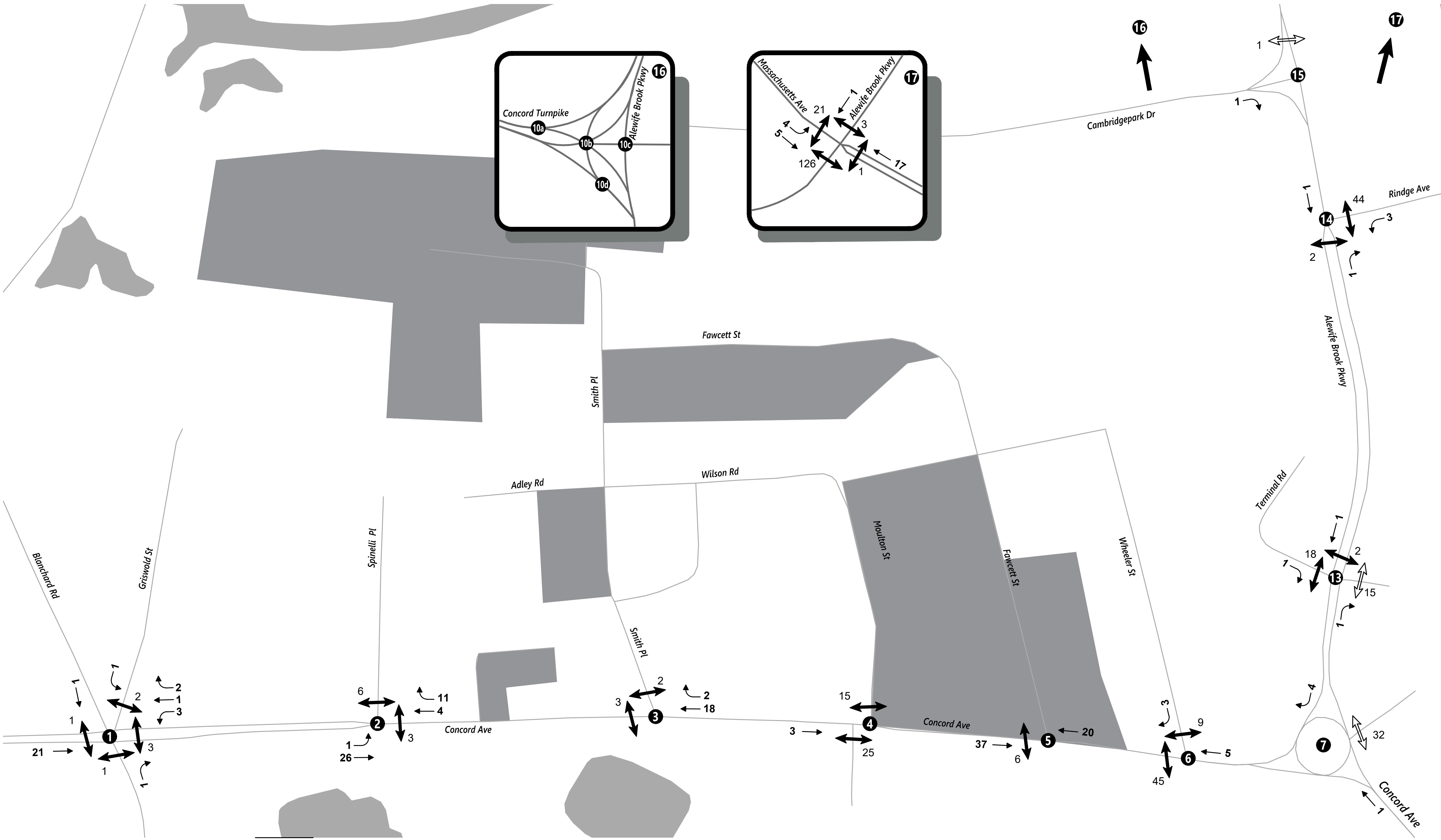
Wed, 10/25/2023 - 8, 9, 10, 11, 12,

Wed, 10/23/2024 - 18, 19, 20

2024 Existing Condition
Pedestrian Volumes - Evening Peak Hour
HealthPeak Alewife Quad

Figure 2.b.4.b

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



Not to Scale

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Bicycle Movement Within Crosswalk

Bicycle Movement
(No Crosswalk Present)

COUNT COLLECTION DATE BY INTERSECTION:

Wed, 10/25/2023 - 2, 4, 7, 13, 14, 15, 16, 17

Wed, 10/23/2024 - 1, 3, 5, 6

2024 Existing Condition
Bicycle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.5.a

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Bicycle Movement Within Crosswalk

Bicycle Movement *(No Crosswalk Present)*

Not to Scale

COUNT COLLECTION DATE BY INTERSECTION:

Wed, 10/25/2023 - 8, 9, 10, 11, 12

Wed, 10/23/2024 - 18, 19, 20

2024 Existing Condition
Bicycle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.5.b

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Bicycle Movement Within Crosswalk

Bicycle Movement
(No Crosswalk Present)

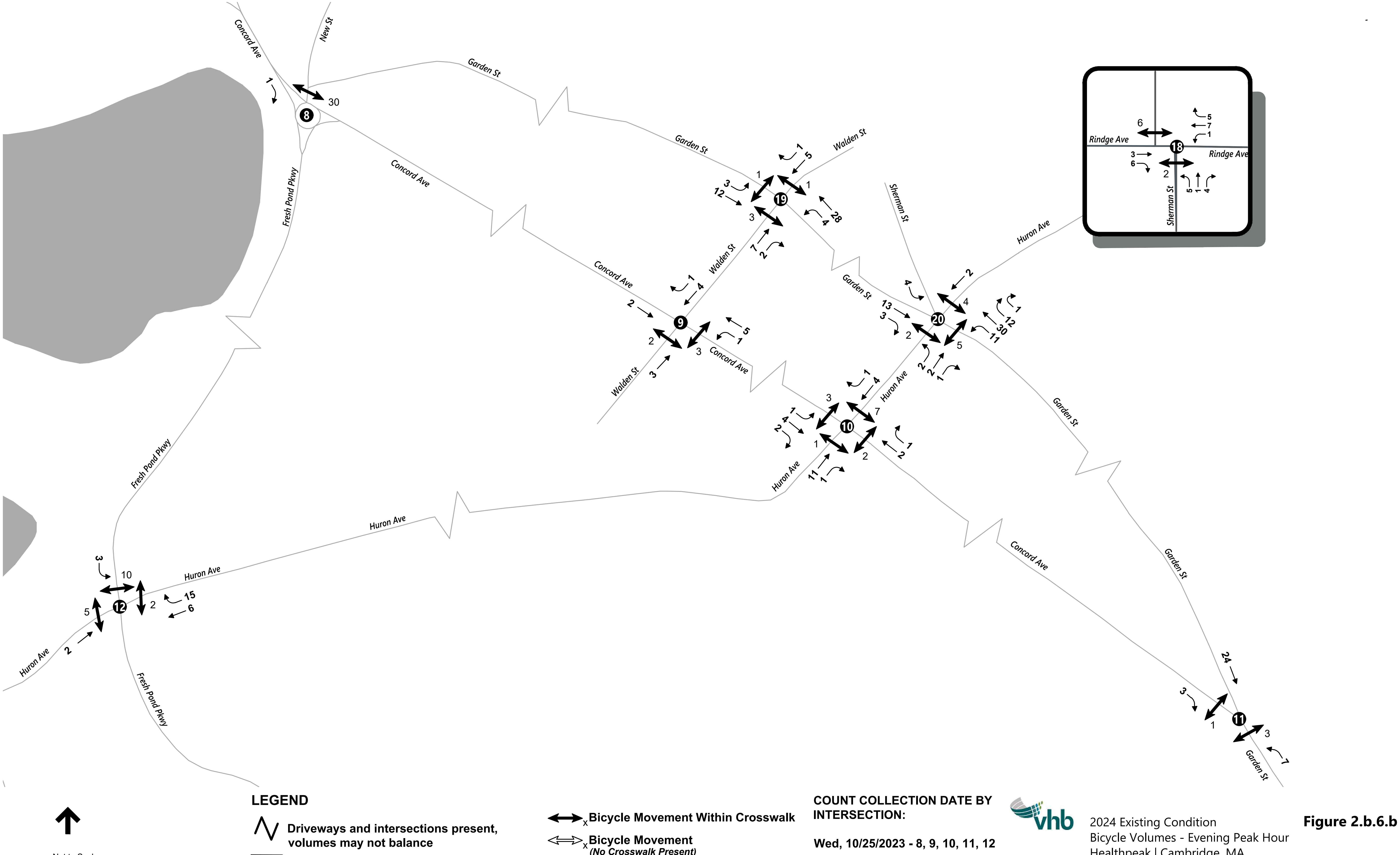
COUNT COLLECTION DATE BY INTERSECTION:

Wed, 10/25/2023 - 2, 4, 7, 13, 14, 15, 16, 17

Wed, 10/23/2024 - 1, 3, 5, 6

2024 Existing Condition
Bicycle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.6.a



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Bicycle Movement Within Crosswalk

Bicycle Movement *(No Crosswalk Present)*

COUNT COLLECTION DATE BY INTERSECTION:

Wed, 10/25/2023 - 8, 9, 10, 11, 12

Wed, 10/23/2024 - 18, 19, 20

2024 Existing Condition
Bicycle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 2.b.6.b

LEGEND

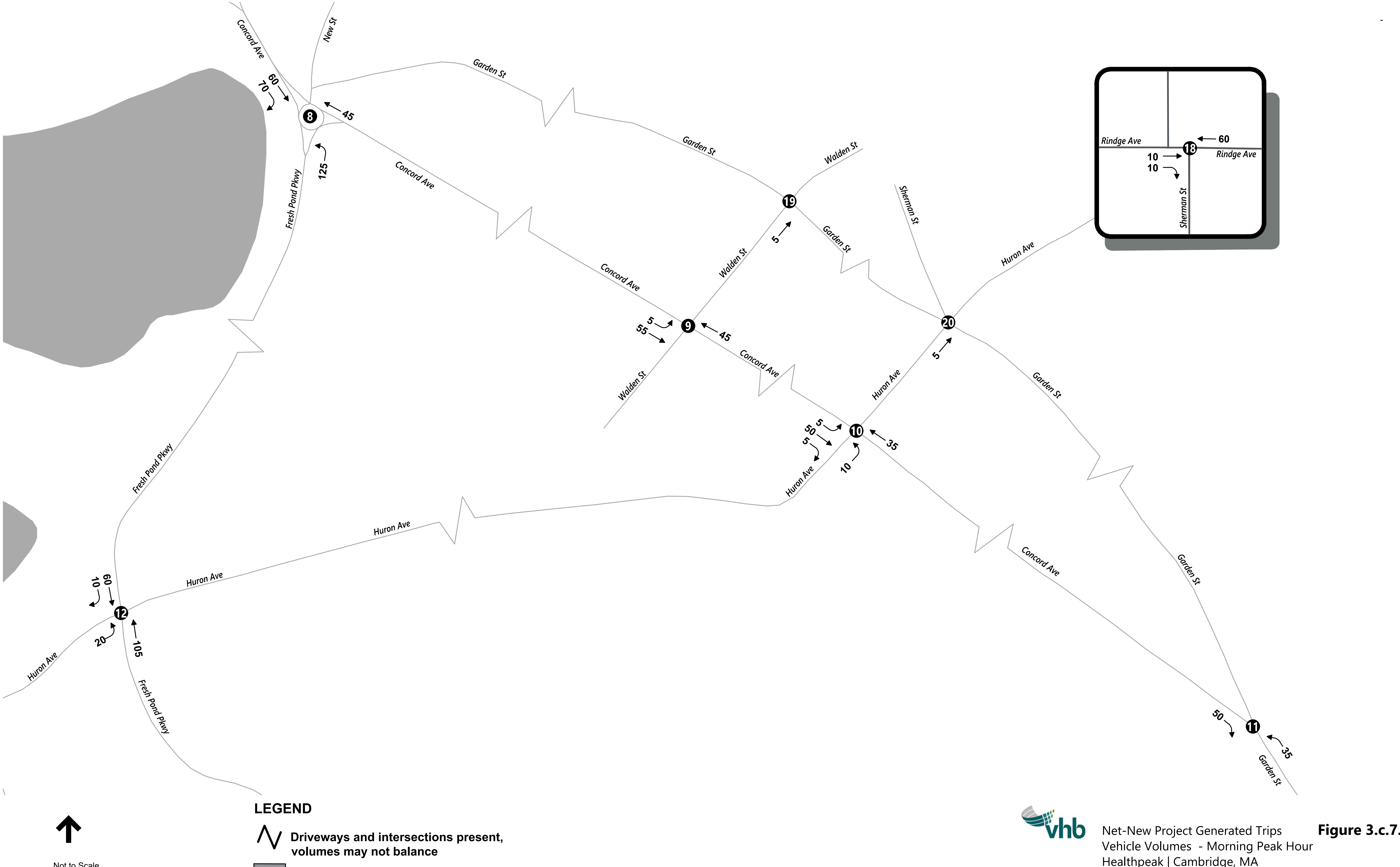
Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

Net-New Project Generated Trips
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 3.c.7.a



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Net-New Project Generated Trips
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 3.c.7.b

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LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

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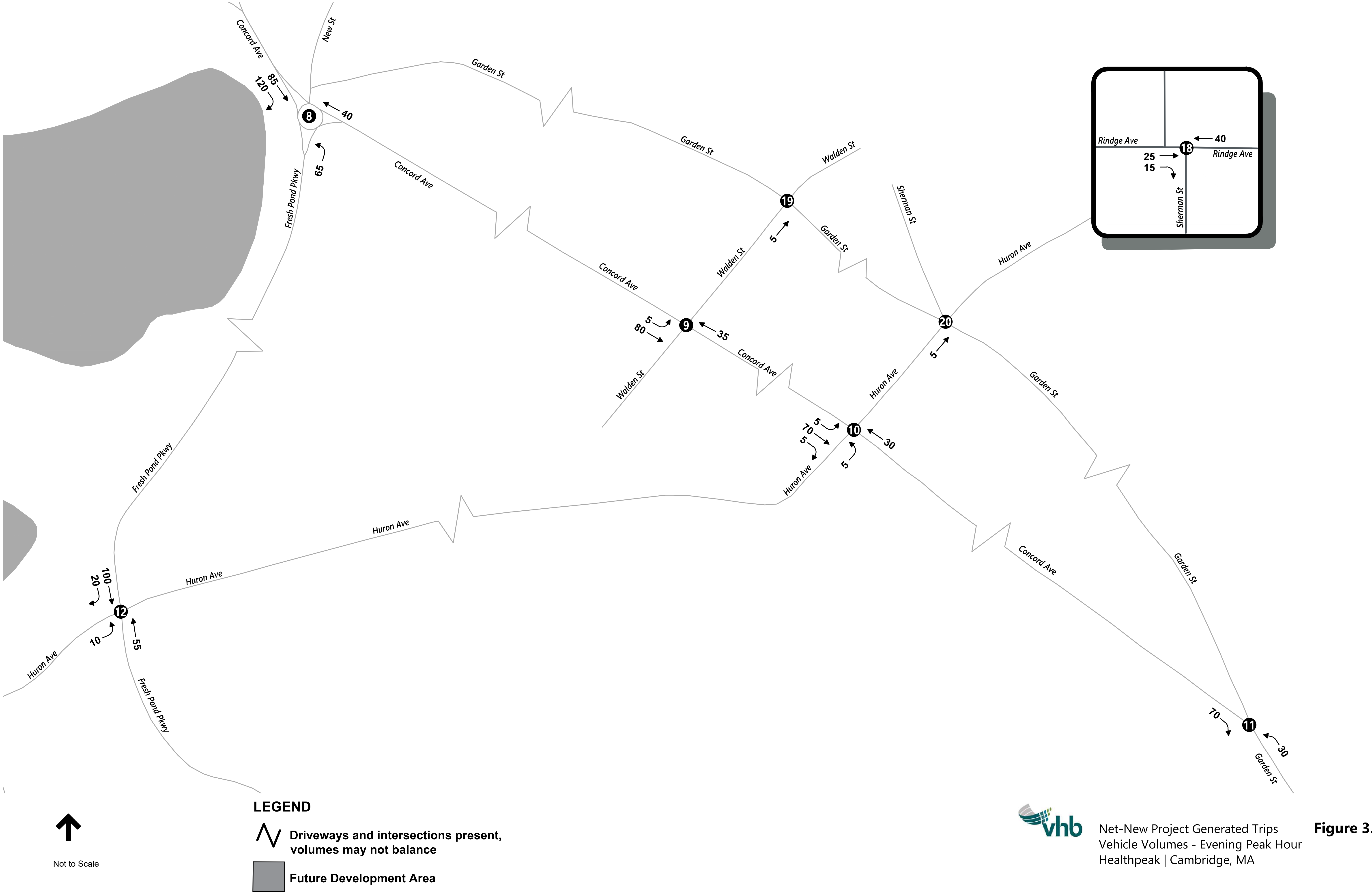
Net-New Project Generated Trips
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 3.c.8.a



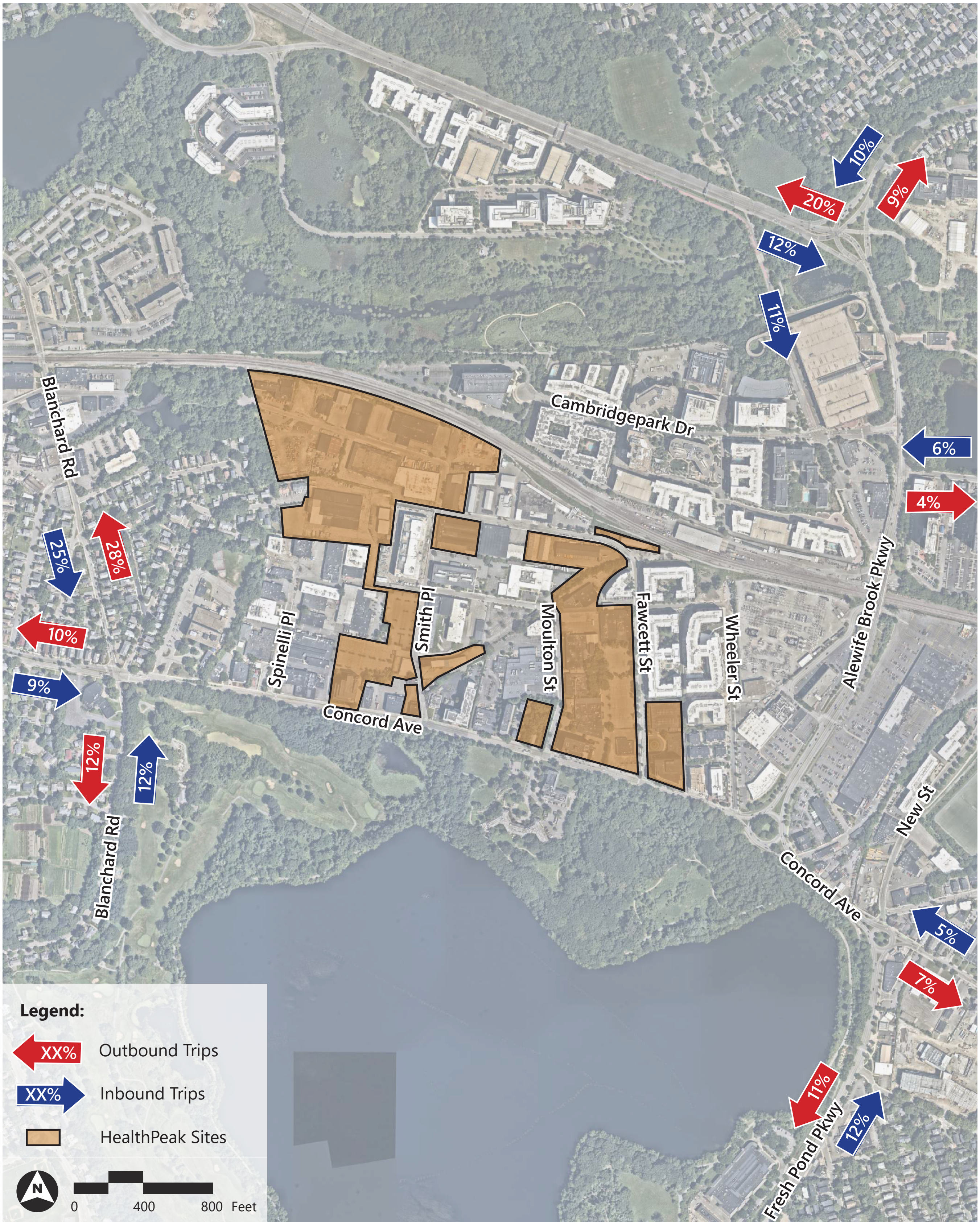
Net-New Project Generated Trips
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 3.c.8.b

Figure 3.d.1: Trip Assignment - Commercial

Healthpeak | Cambridge, MA

02/05/2026



Source: Nearmap Aerial dated 10/29/2024.

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Figure 3.d.2: Trip Assignment - Residental

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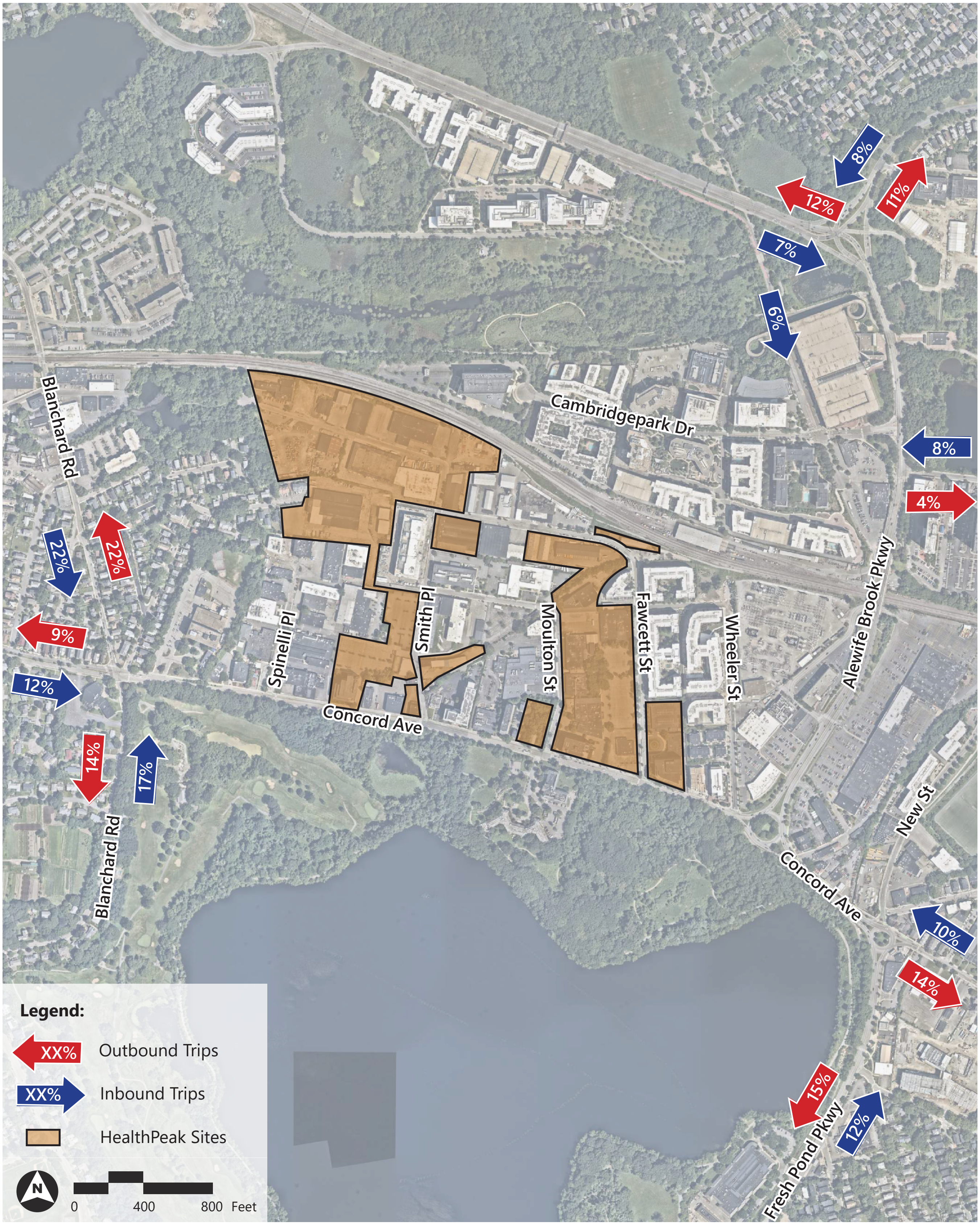
02/05/2026



Source: Nearmap Aerial dated 10/29/2024.

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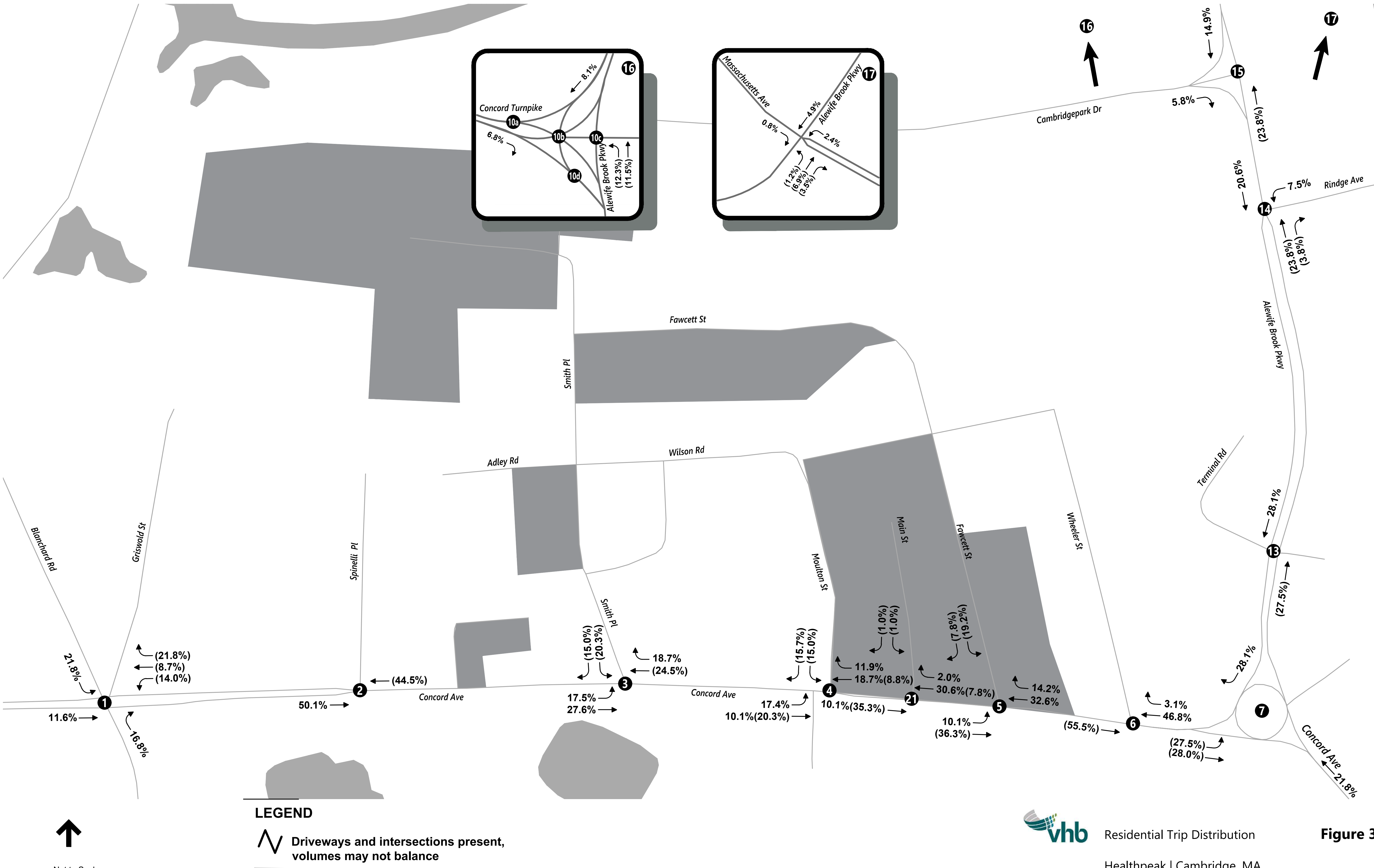


LEGEND

Driveways and intersections present, volumes may not balance

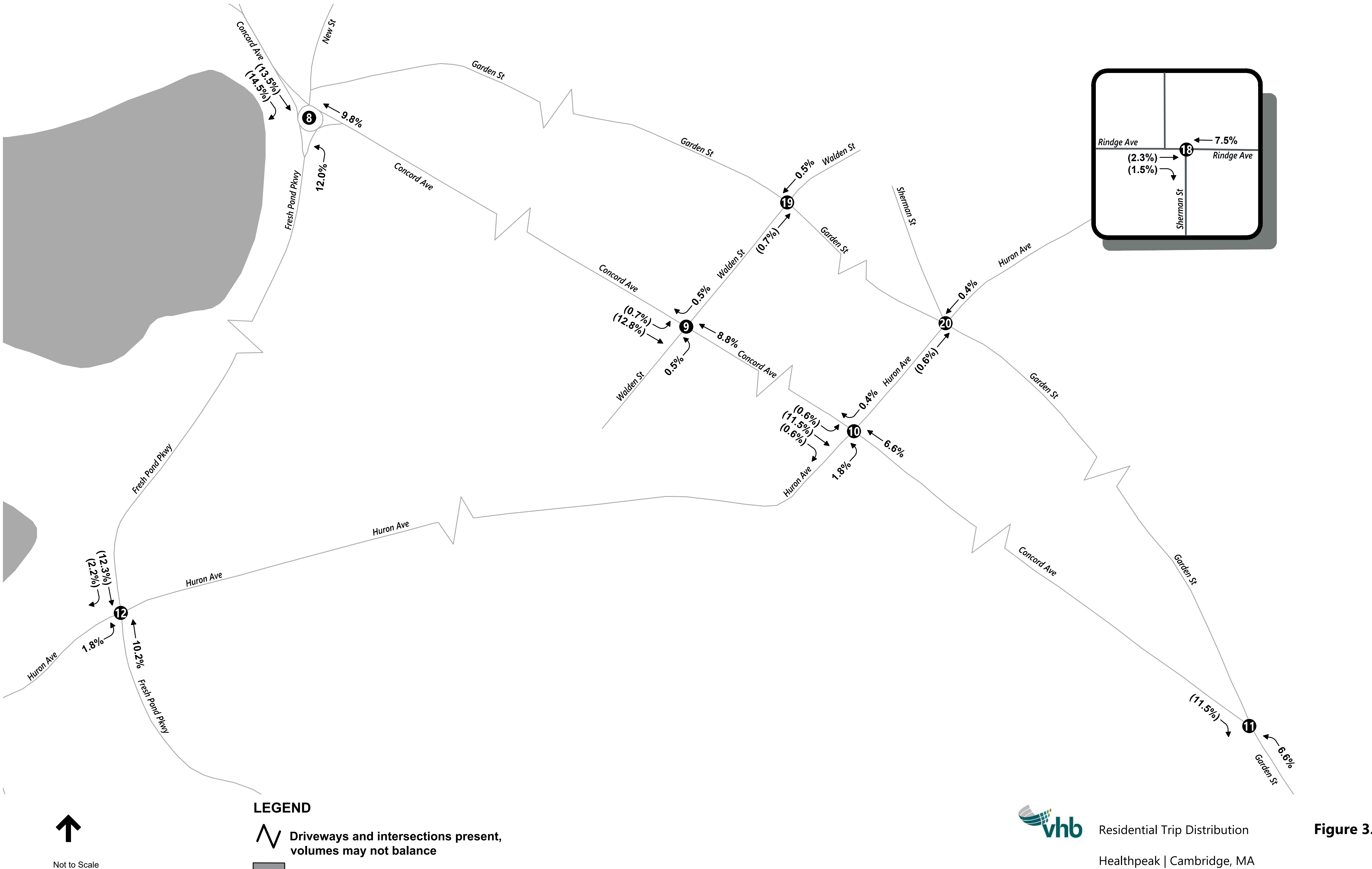
Future Development Area

Residential Trip Distribution

Healthpeak | Cambridge, MA

Figure 3.d.3.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

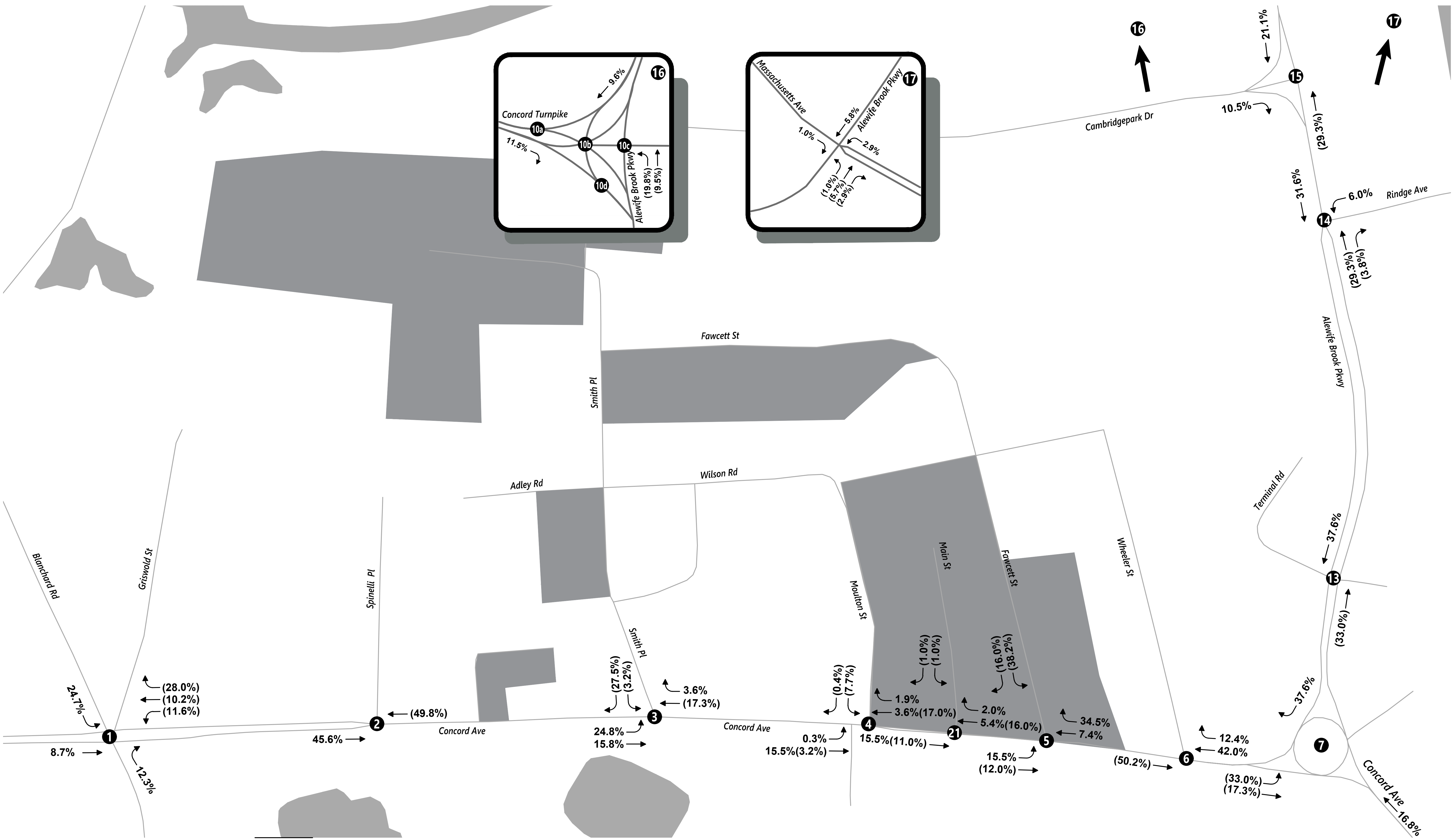
Future Development Area

vhb

Residential Trip Distribution

Healthpeak | Cambridge, MA

Figure 3.d.3.b



Not to Scale

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

vhb

Commercial Trip Distribution

Healthpeak | Cambridge, MA

Figure 3.d.4.a

Not to Scale

LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

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Commercial Trip Distribution

Healthpeak | Cambridge, MA

Figure 3.d.4.b

Not to Scale

LEGEND

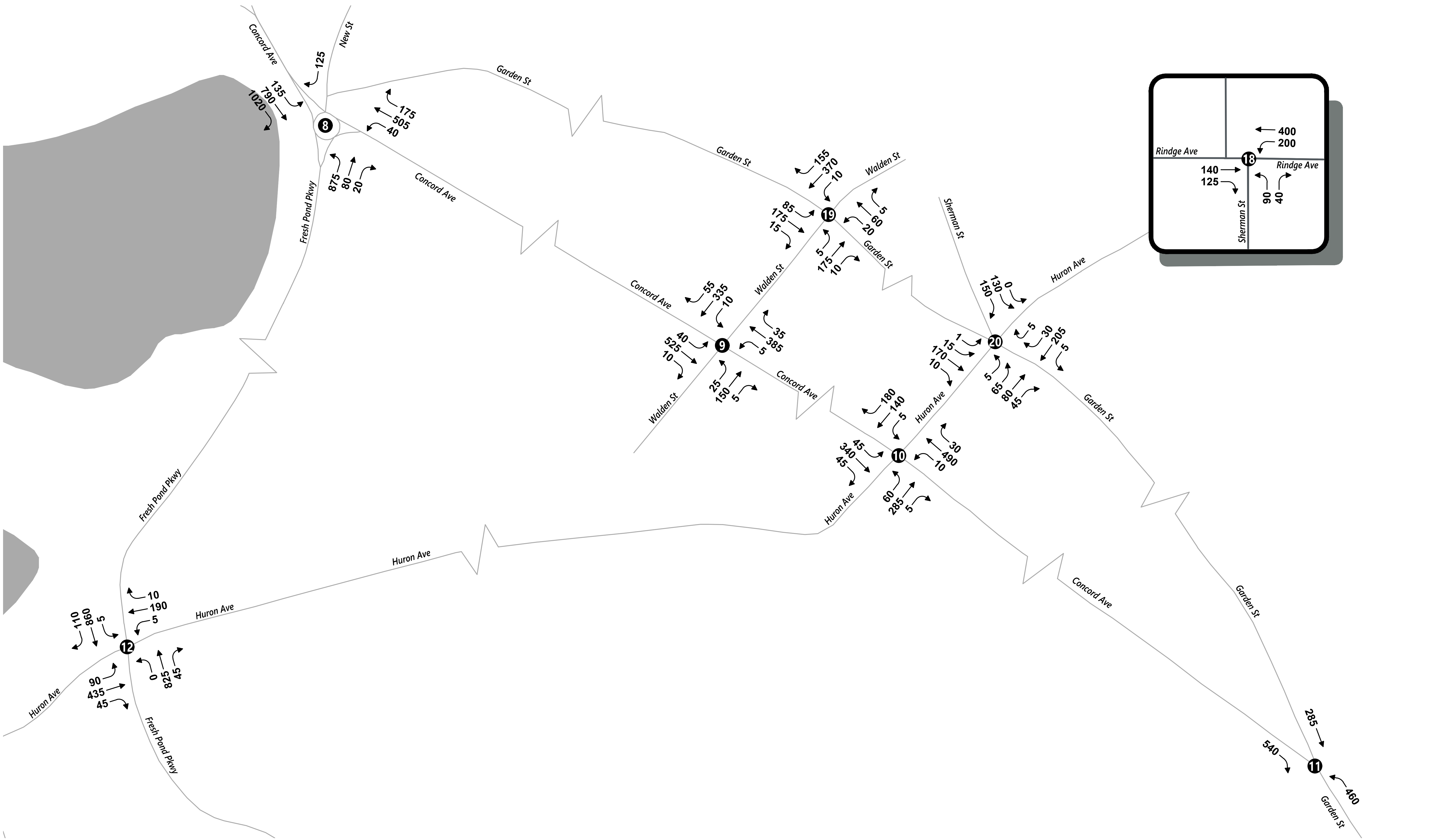
Driveways and intersections present, volumes may not balance

Future Development Area

2024 Build Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.b.1.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

2024 Build Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.b.1.b

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg

Not to Scale

LEGEND

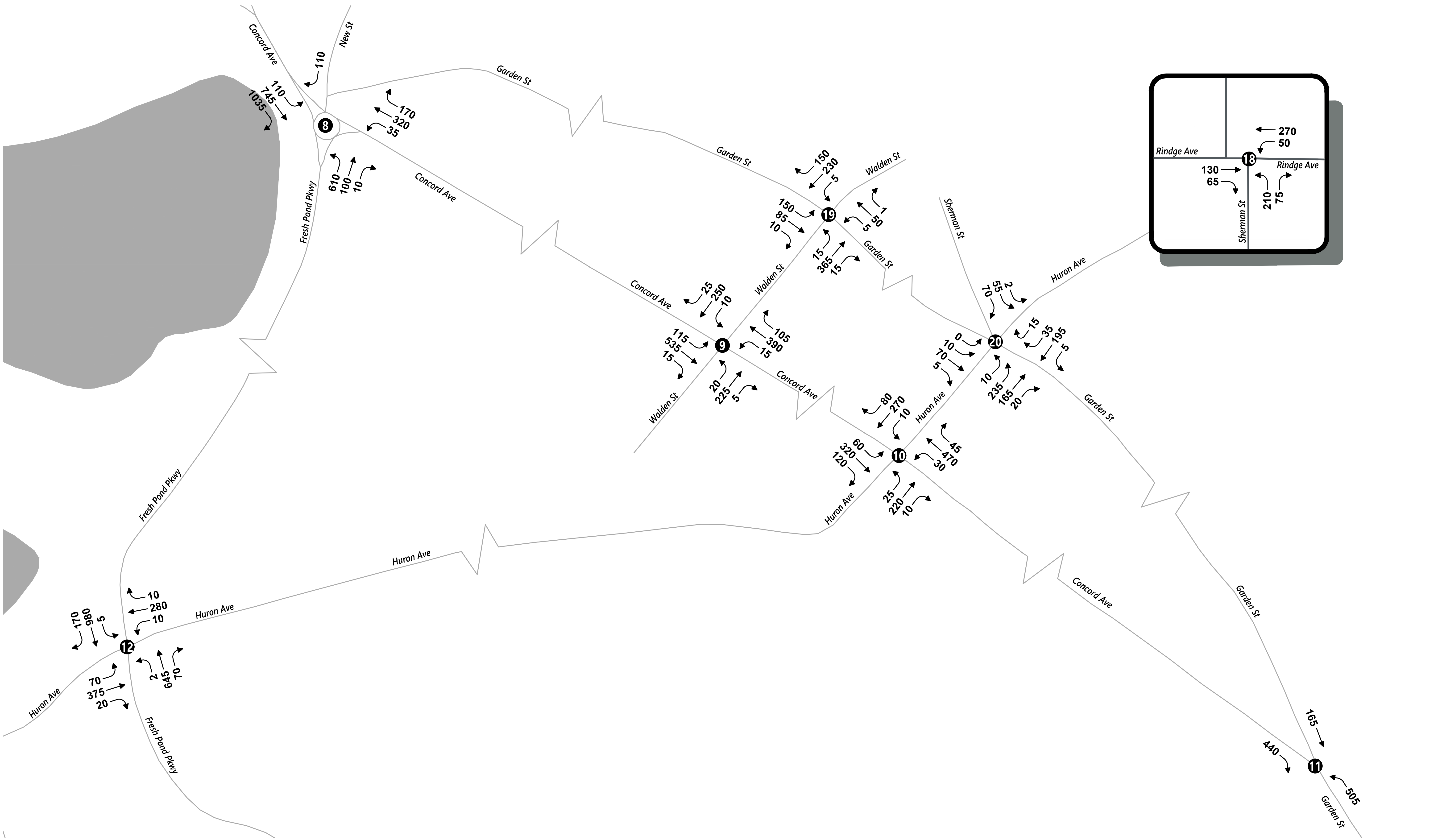
Driveways and intersections present, volumes may not balance

Future Development Area

2024 Build Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.b.2.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

vhb

2024 Build Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.b.2.b

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg

Not to Scale

LEGEND

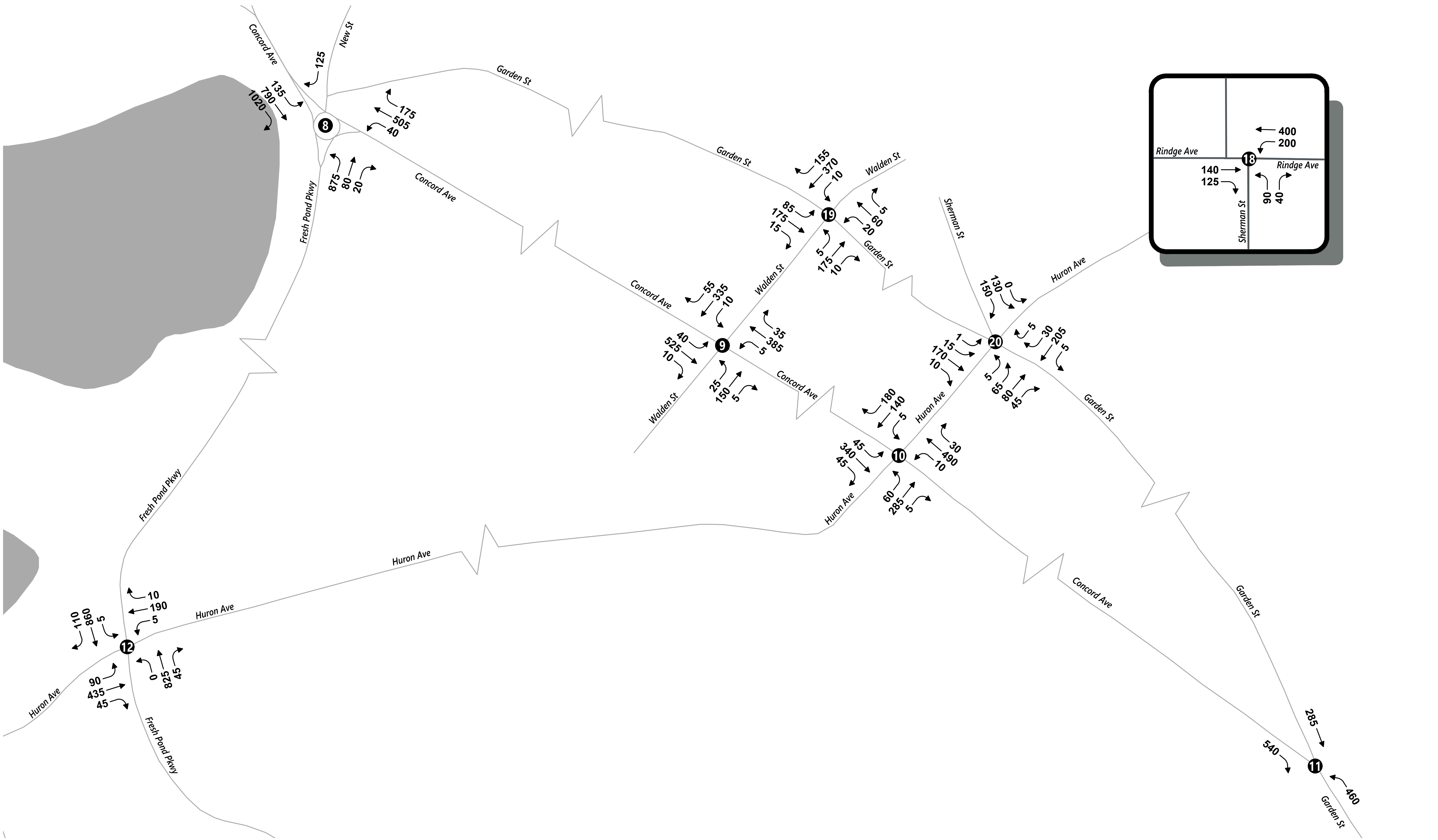
Driveways and intersections present, volumes may not balance

Future Development Area

2024 Build with Mitigation Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.c.1.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

2024 Build with Mitigation Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.c.1.b

LEGEND

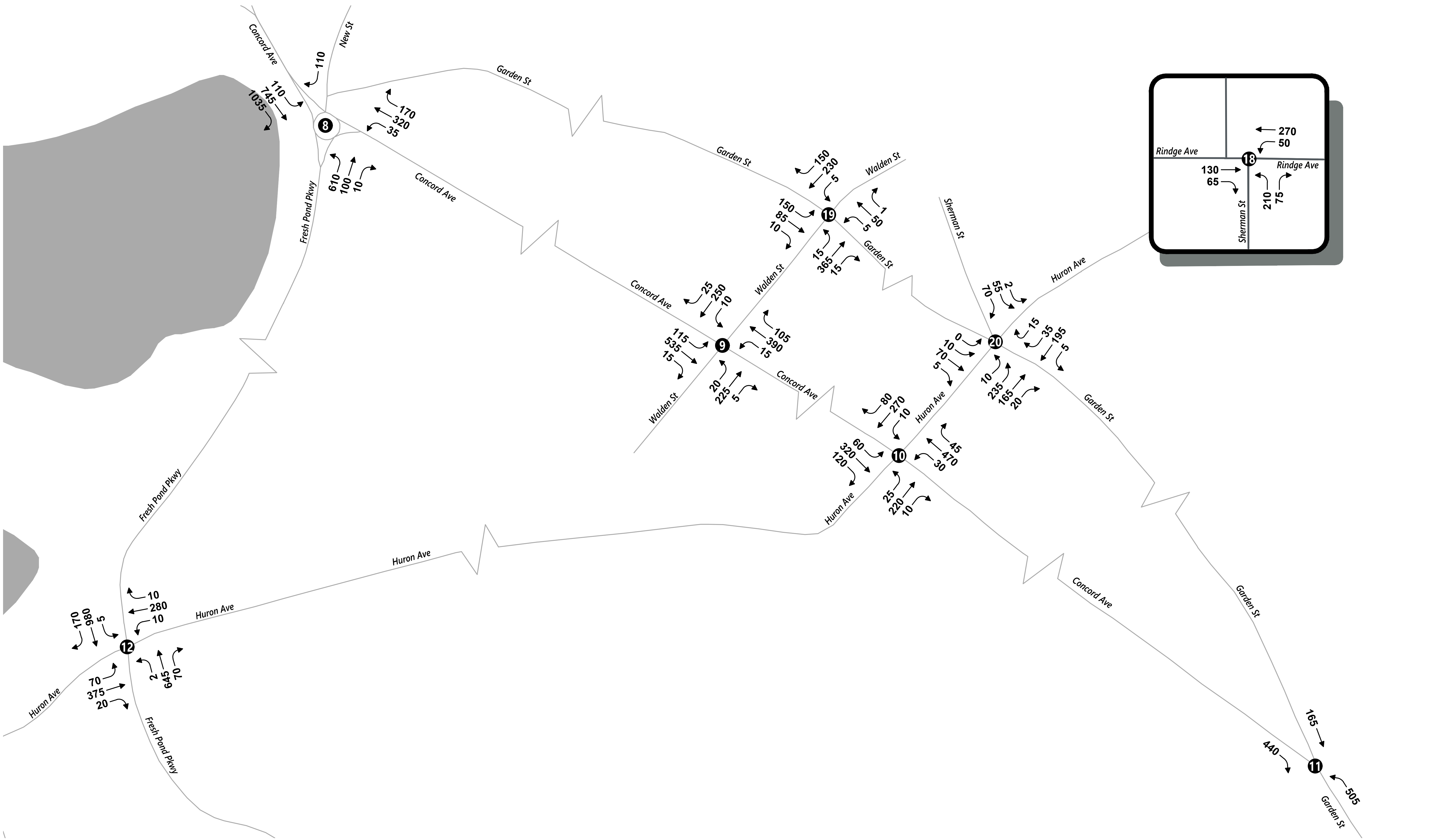
Driveways and intersections present, volumes may not balance

Future Development Area

2024 Build with Mitigation Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.c.2.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

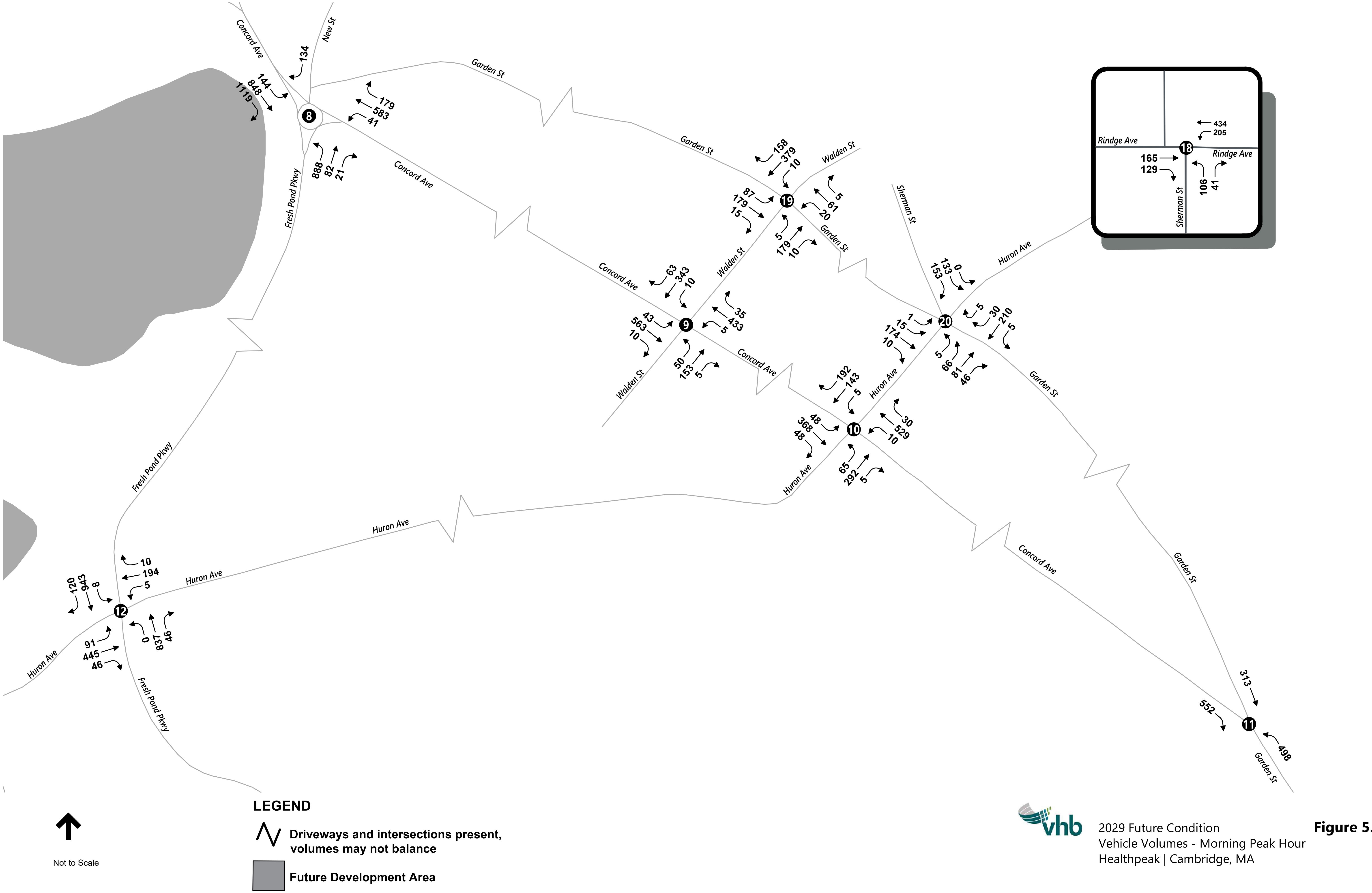
2024 Build with Mitigation Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.c.2.b

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg

2029 Future Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.d.1.a



2029 Future Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.d.1.b

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg

Not to Scale

LEGEND

Driveways and intersections present, volumes may not balance

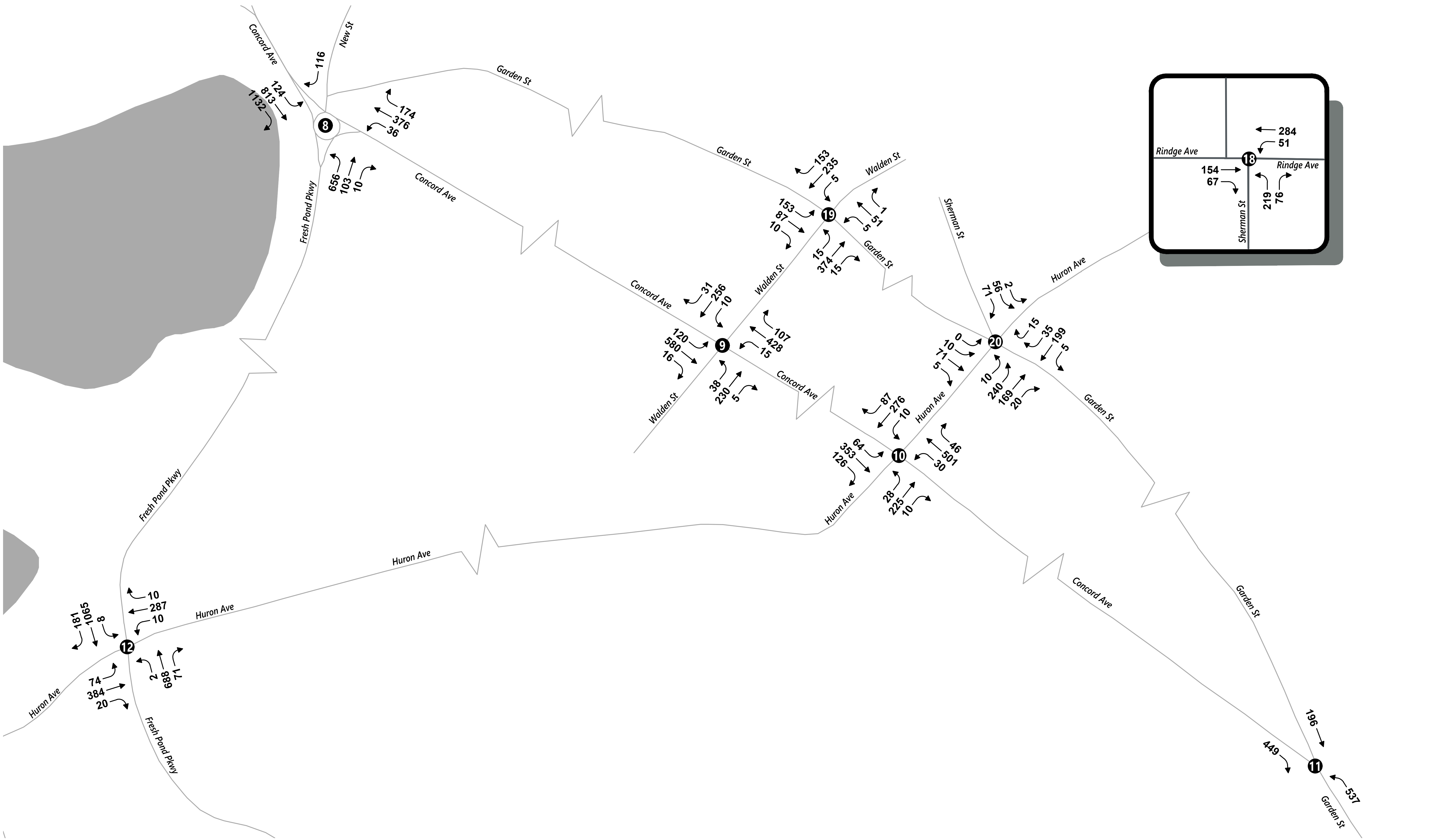
Future Development Area

vhb

2029 Future Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.d.2.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

vhb

2029 Future Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.d.2.b

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg

LEGEND

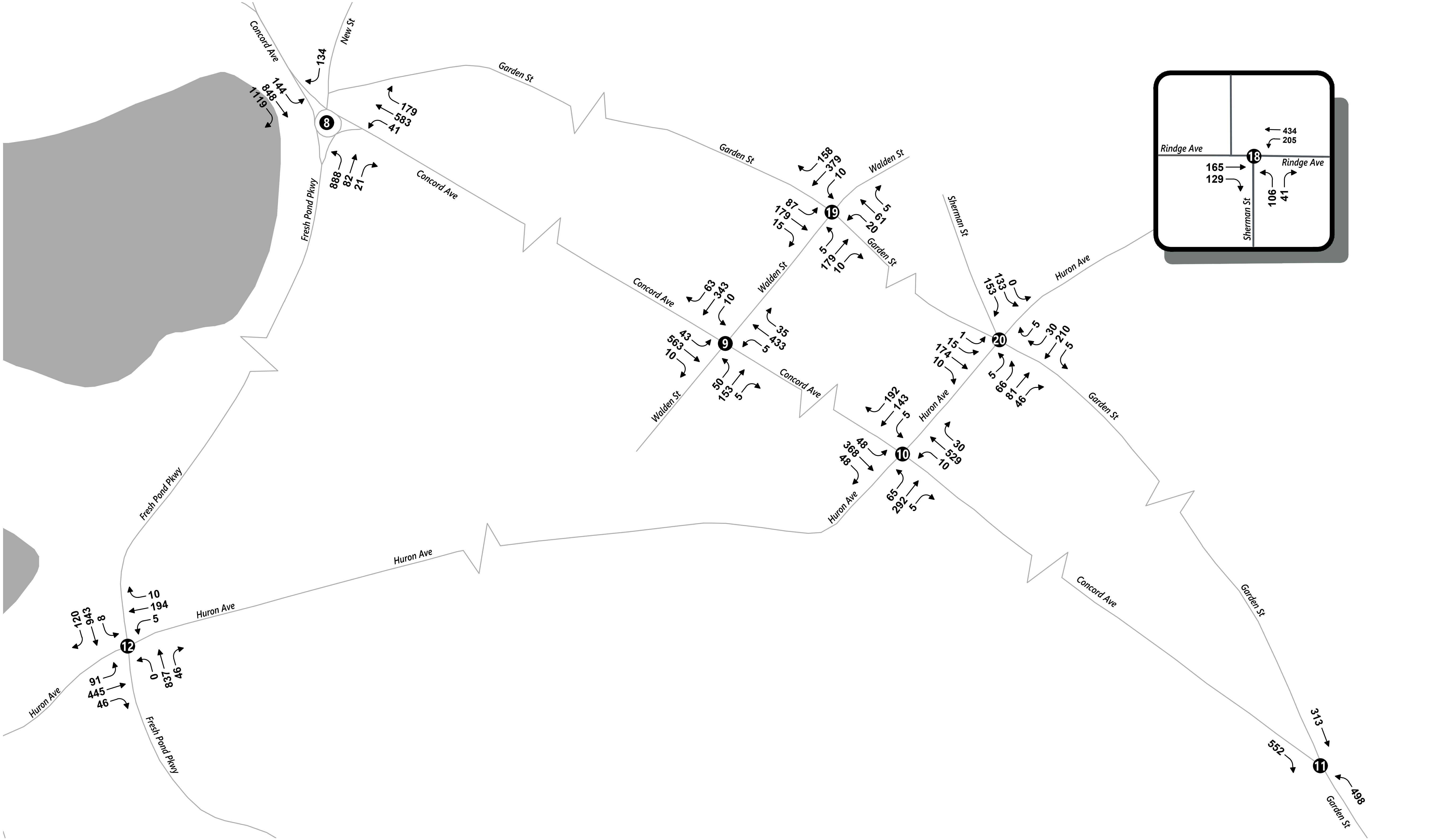
Driveways and intersections present, volumes may not balance

Future Development Area

2029 Future with Mitigation Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.e.1.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

2029 Future with Mitigation Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.e.1.b

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg

LEGEND

Driveways and intersections present, volumes may not balance

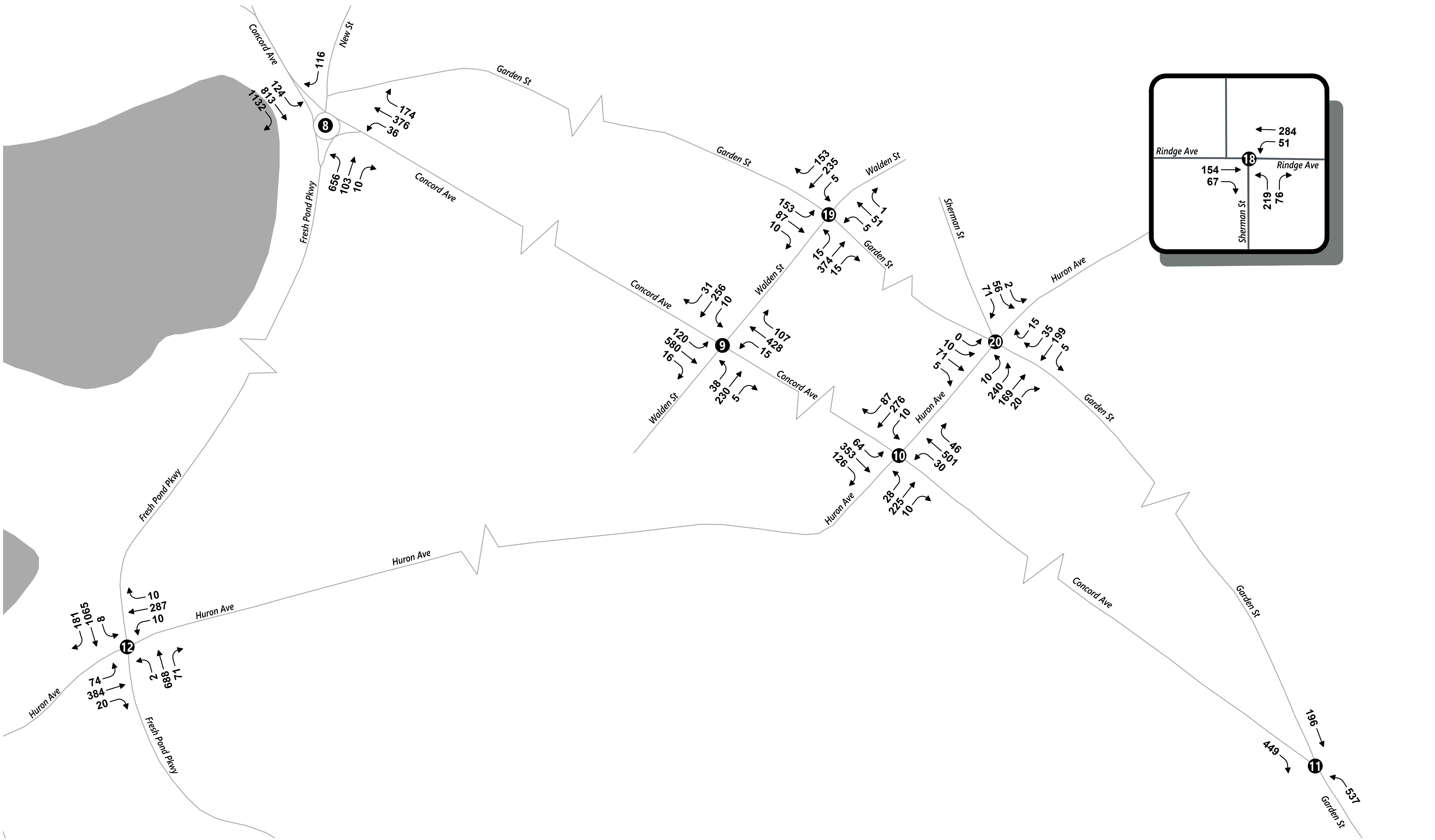
Future Development Area

Not to Scale

2029 Future with Mitigation Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.e.2.a

\\vhb.com\gbl\proj\Boston\15602.00\Graphics\FIGURES\TIS Comment Letter - Graphics Updates\CAD\Stick Network_Healthpeak_TDrev.dwg



LEGEND

Driveways and intersections present, volumes may not balance

Future Development Area

Not to Scale

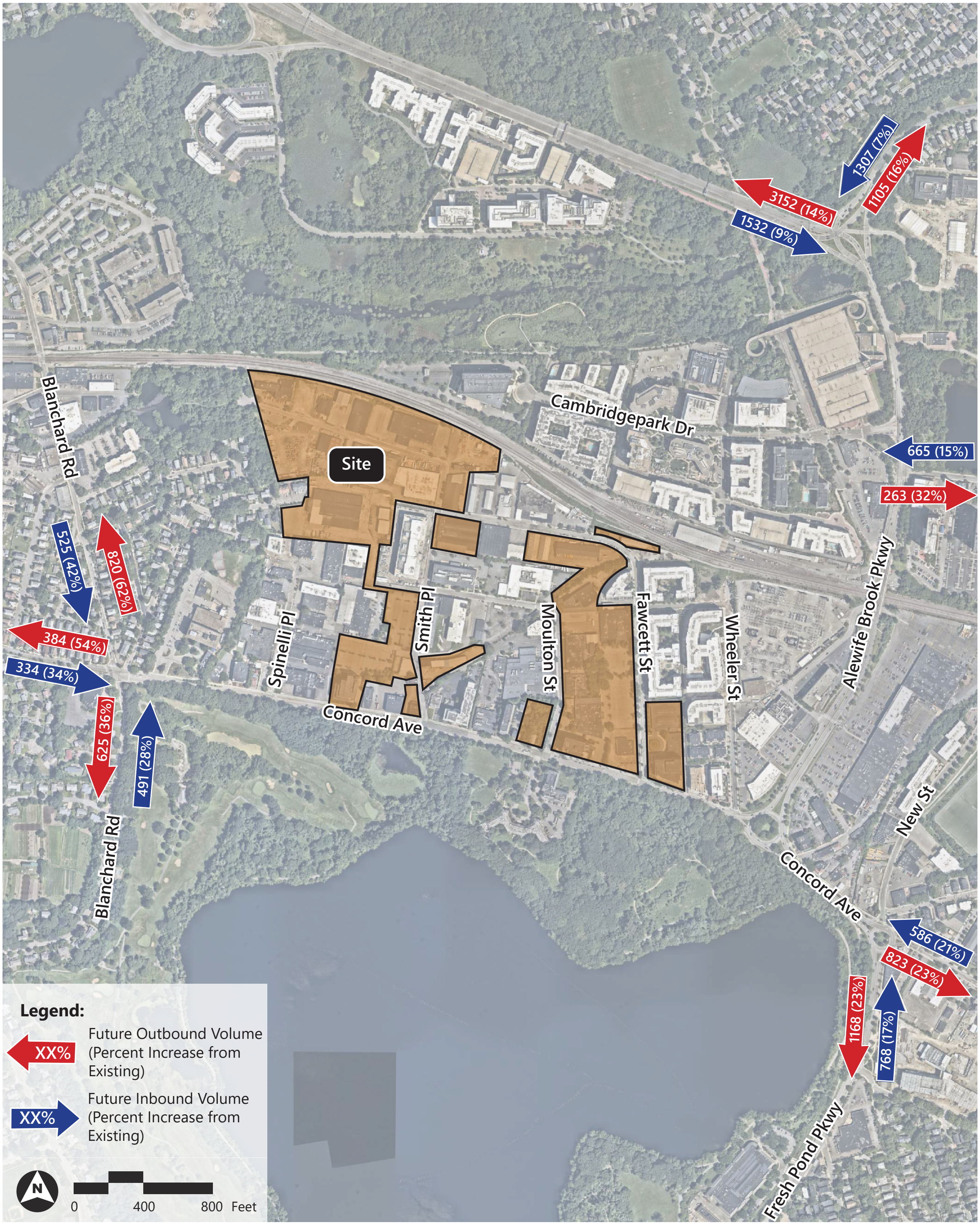
2029 Future with Mitigation Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.e.2.b

Figure 5.f.3: Cumulative Area Developments Impact - Evening Peak Hour

Healthpeak | Cambridge, MA

02/05/2026



Source: Nearmap Aerial dated 10/29/2024.

Figure 6.a.1: Vehicular Level of Service - Morning Peak Hour

Healthpeak | Cambridge, MA

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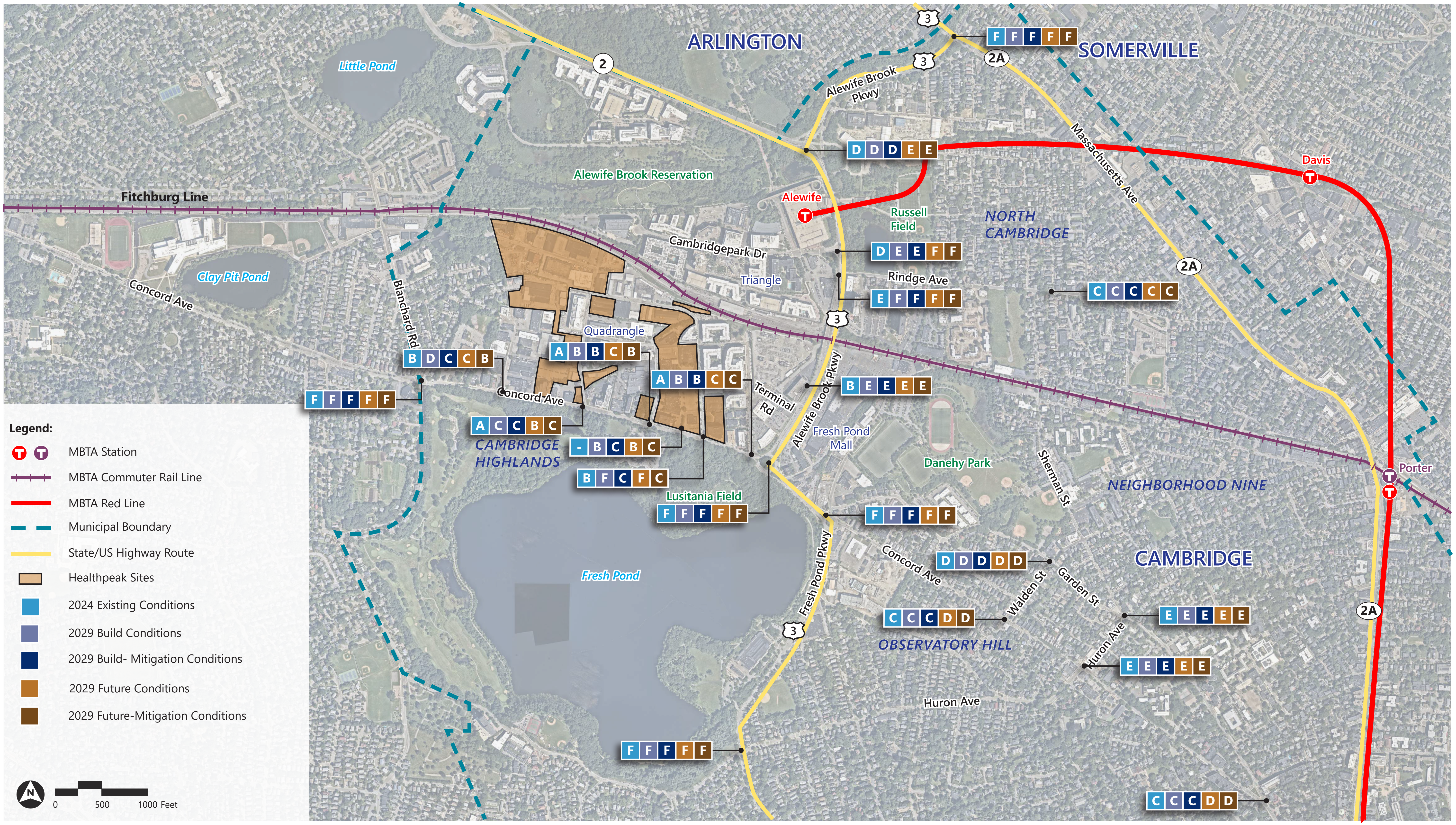
02/05/2026

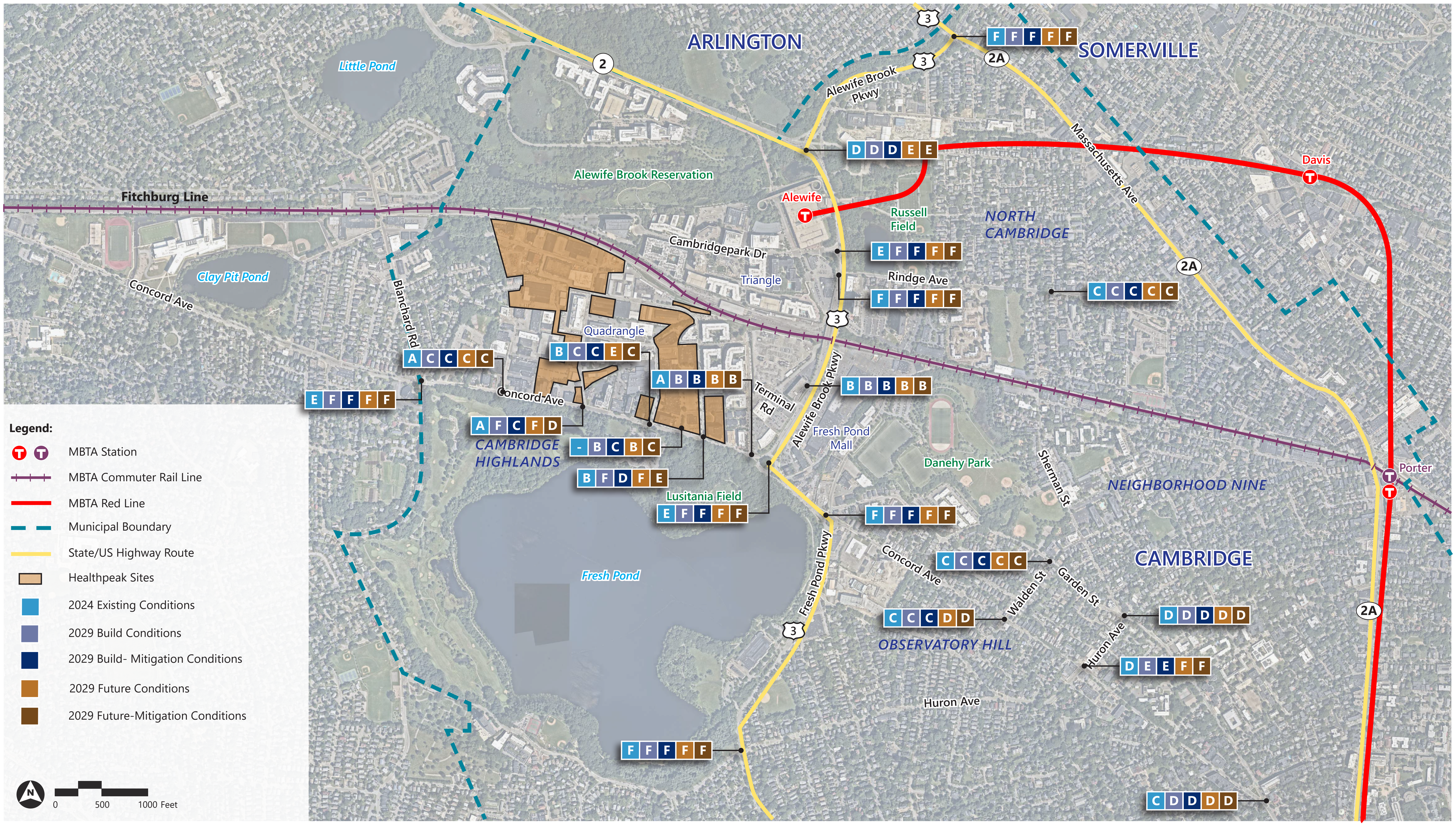


Source: Nearmap Aerial dated 10/19/2024; MBTA System Map 2025.

Figure 6.a.2: Vehicular Level of Service - Evening Peak Hour

Healthpeak | Cambridge, MA

02/05/2026

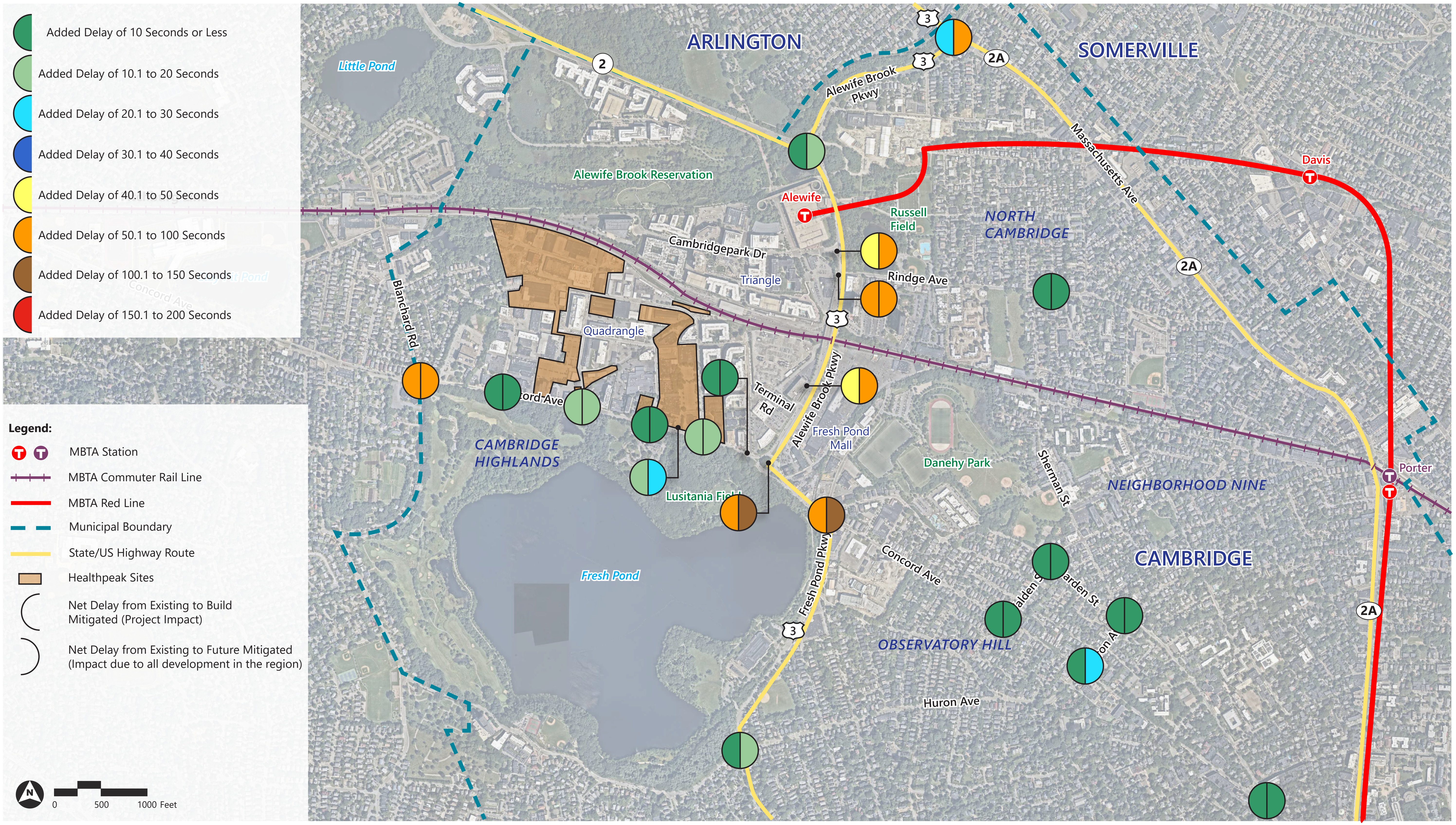


Source: Nearmap Aerial dated 10/19/2024; MBTA System Map 2025.

Figure 6.a.3: Net-Change in Vehicule Delay - Morning Peak Hour

Healthpeak | Cambridge, MA

02/05/2026



Source: Nearmap Aerial dated 10/19/2024; MBTA System Map 2025.

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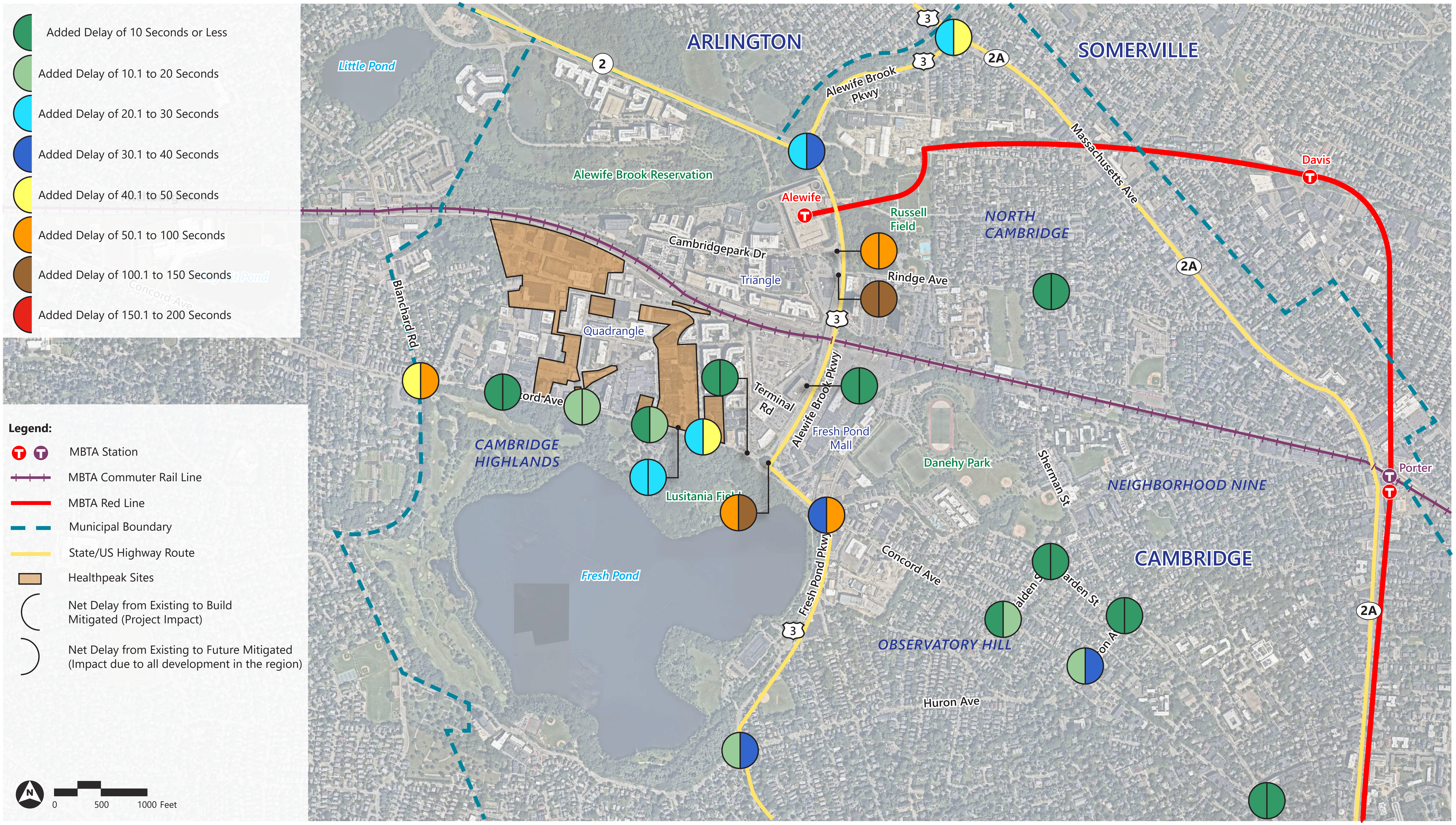
Figure 6.a.4: Net-Change in Vehicule Delay - Evening Peak Hour

Healthpeak | Cambridge, MA

02/05/2026



Source: Nearmap Aerial dated 10/19/2024; MBTA System Map 2025.

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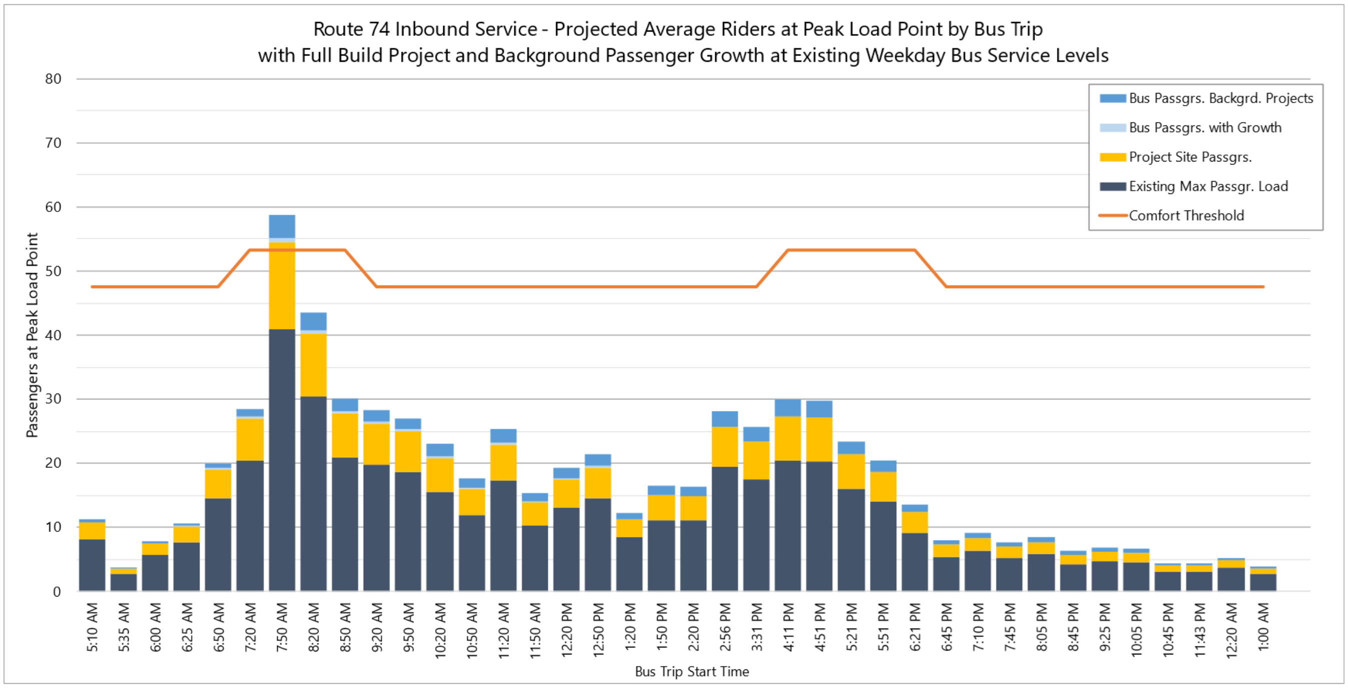
Figure 10.d.1: MBTA Bus Route 74 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026



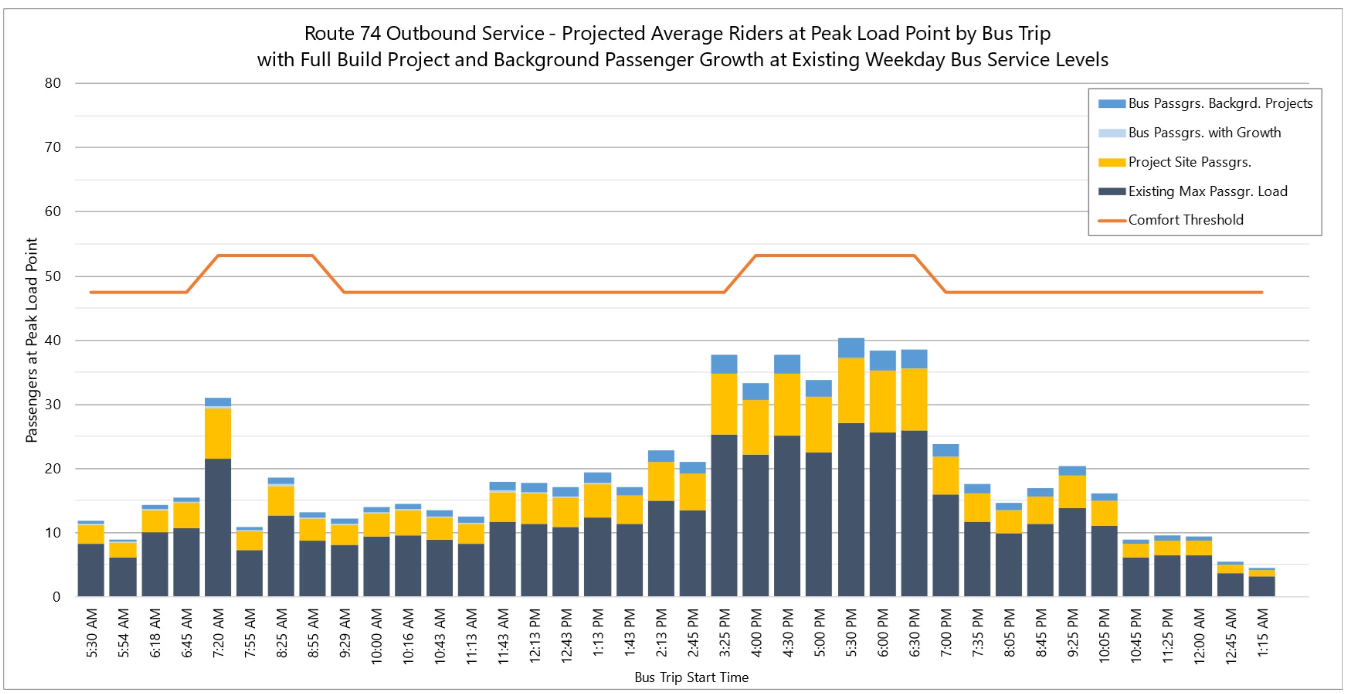
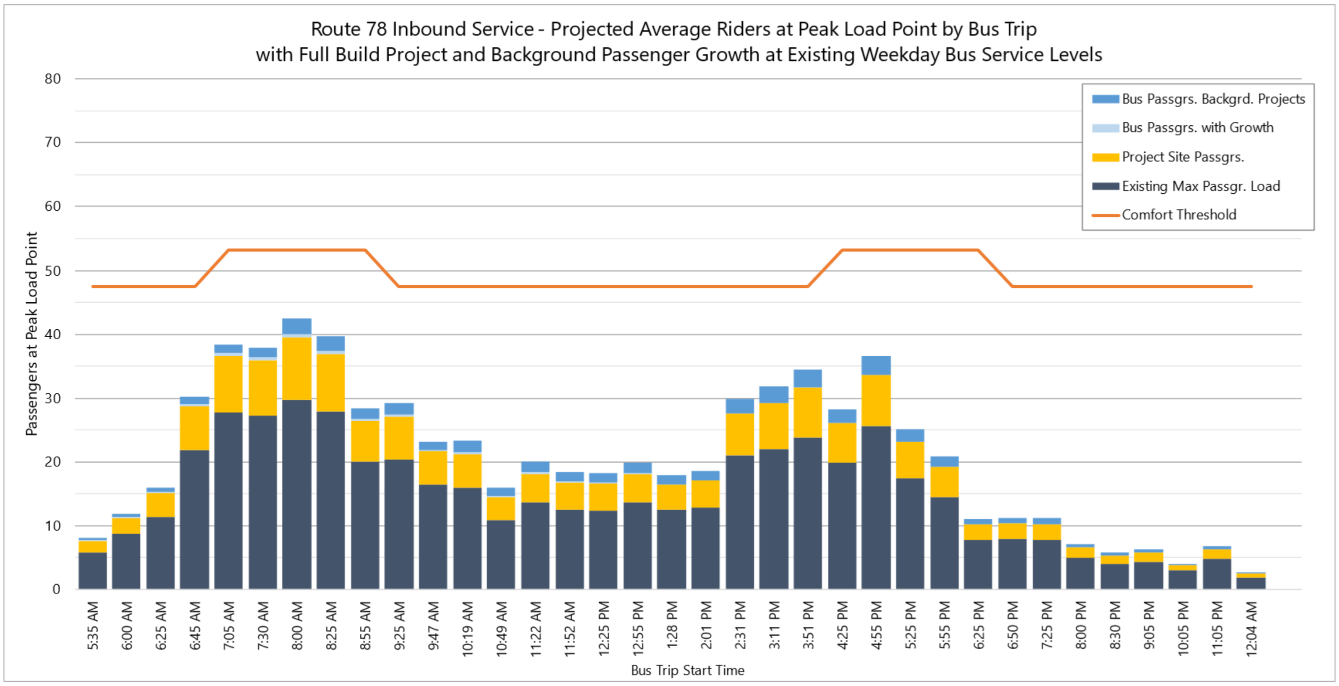


Figure 10.d.2: MBTA Bus Route 78 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026



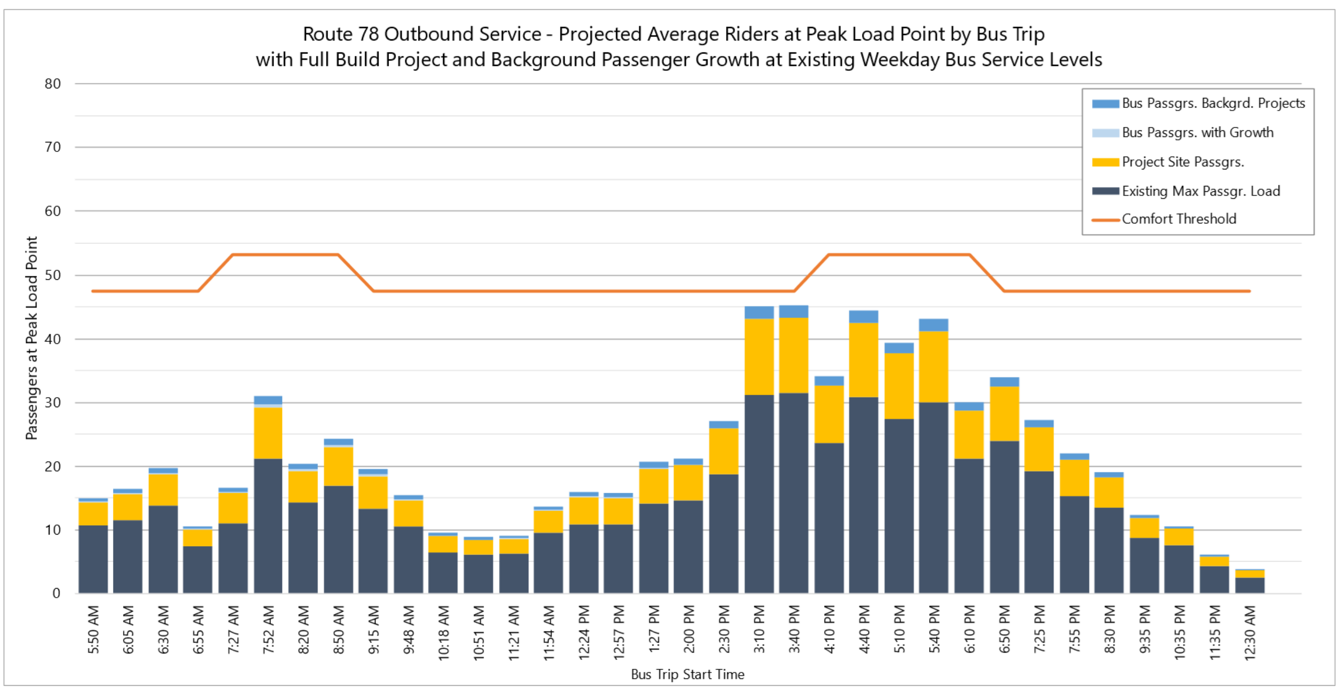
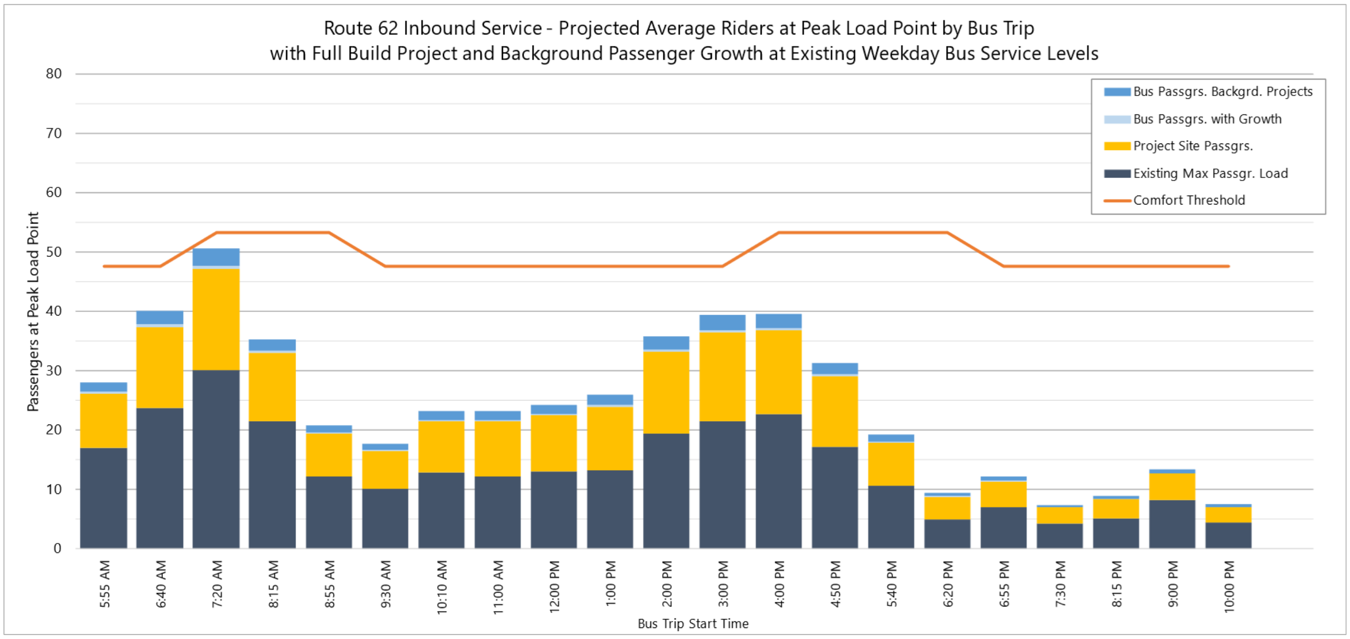


Figure 10.d.3: MBTA Bus Route 62 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026



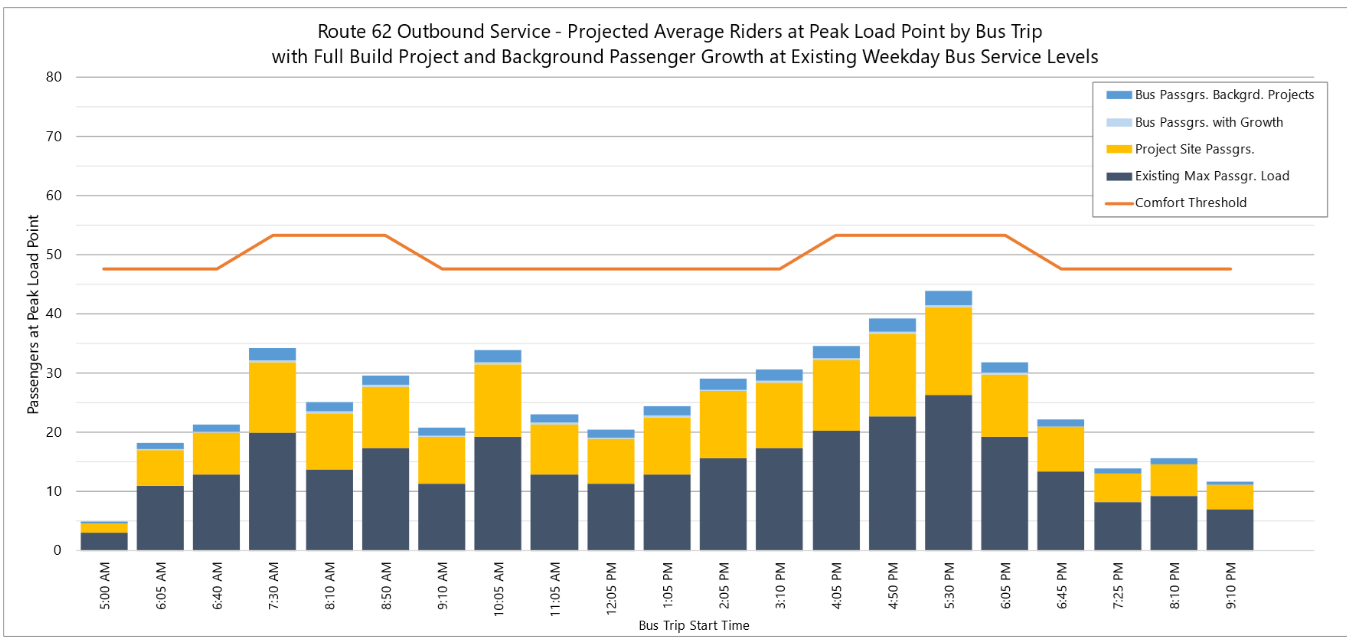
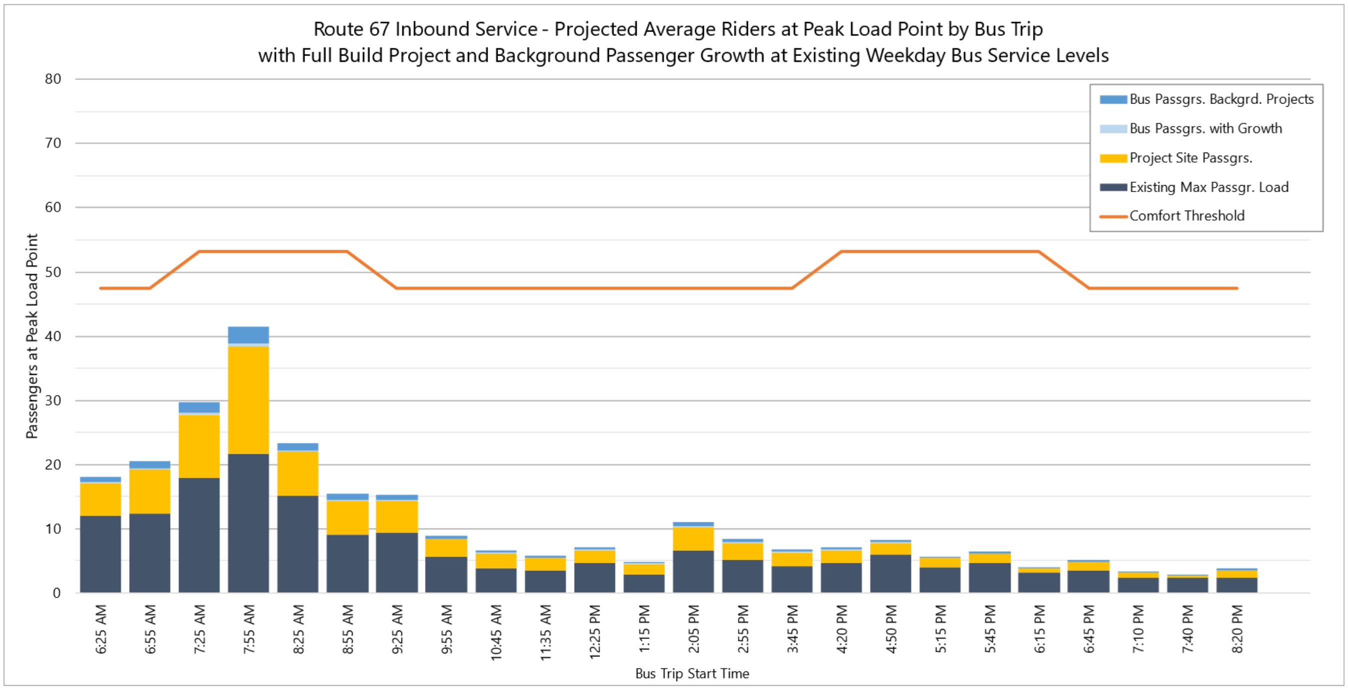


Figure 10.d.4: MBTA Bus Route 67 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026



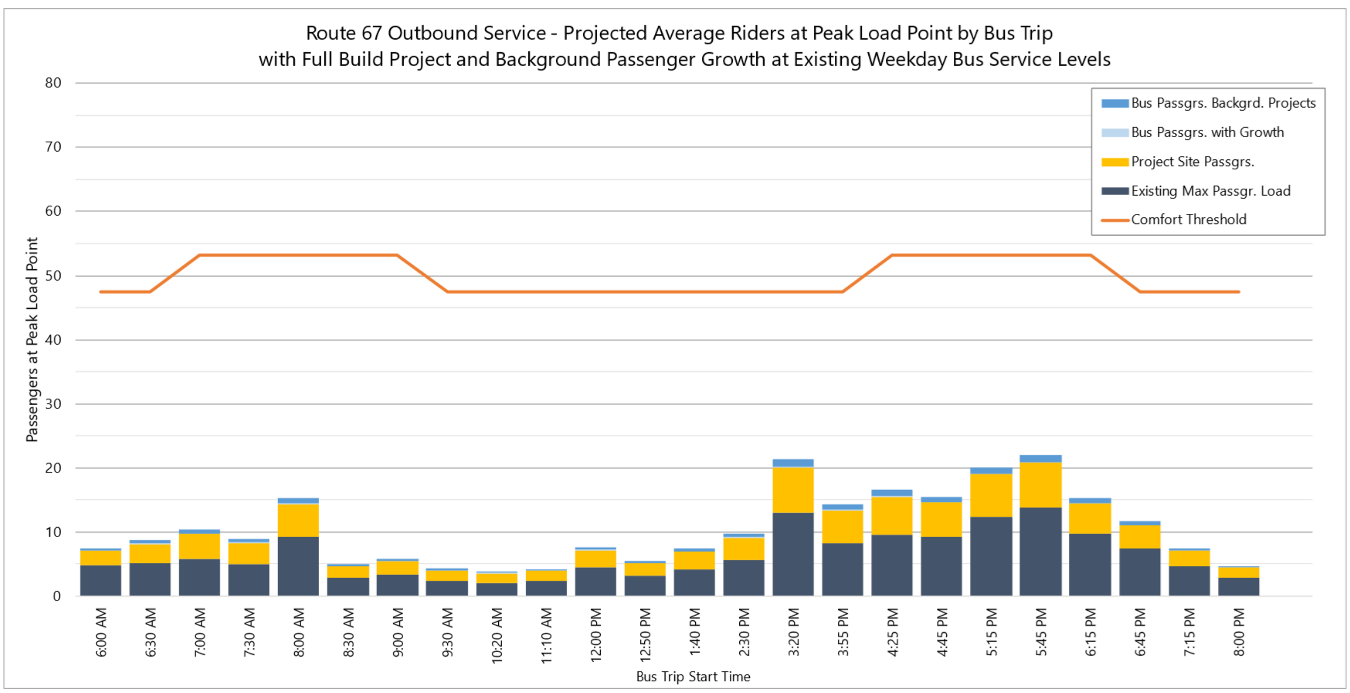
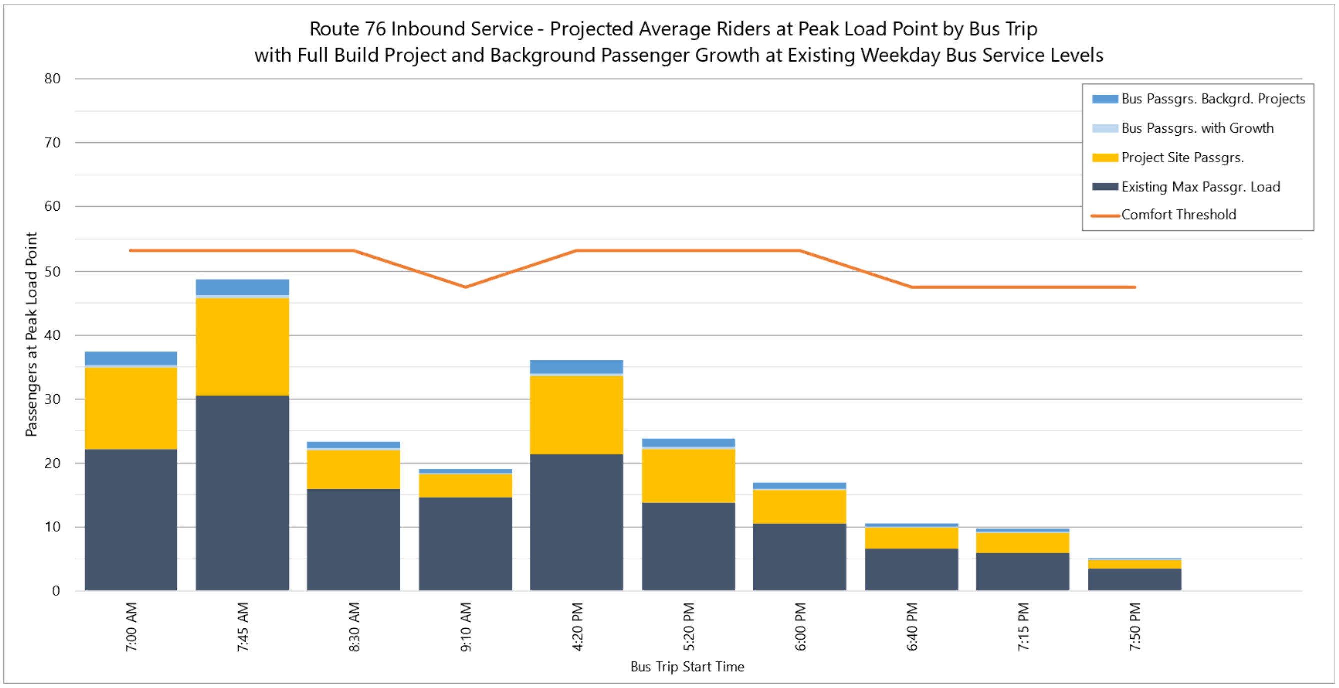


Figure 10.d.5: MBTA Bus Route 76 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA *02/05/2026*



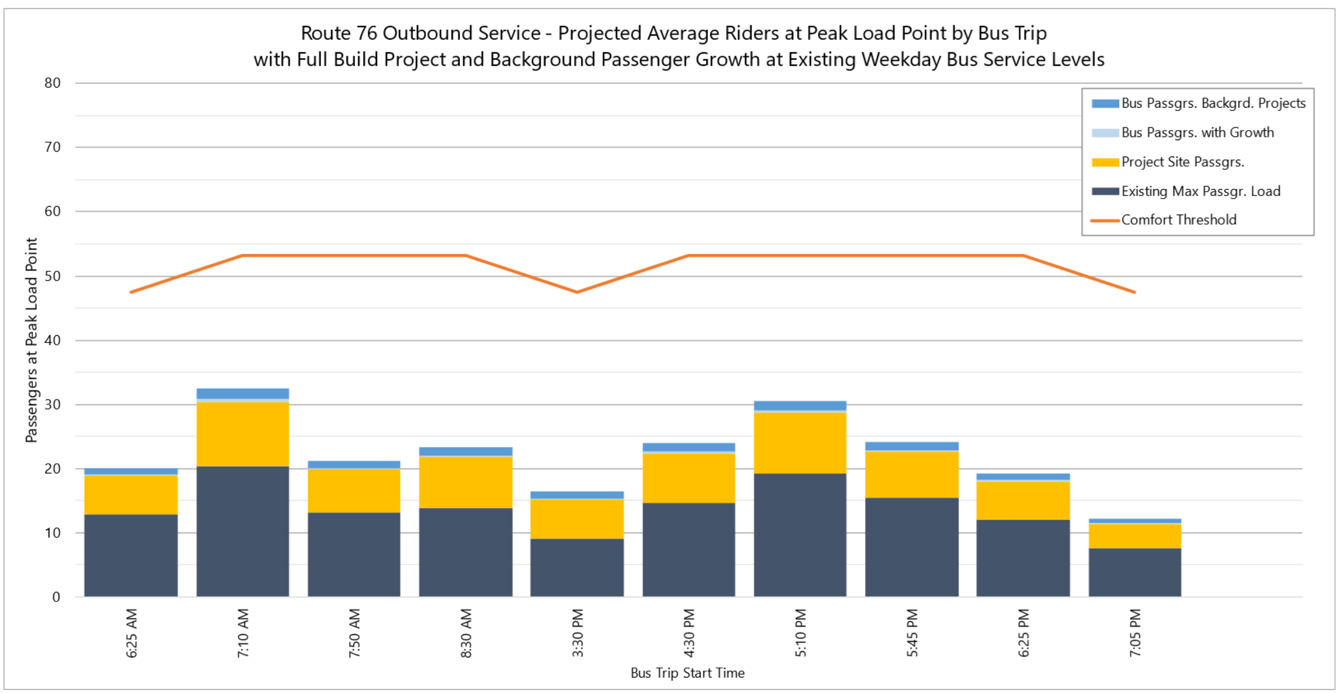
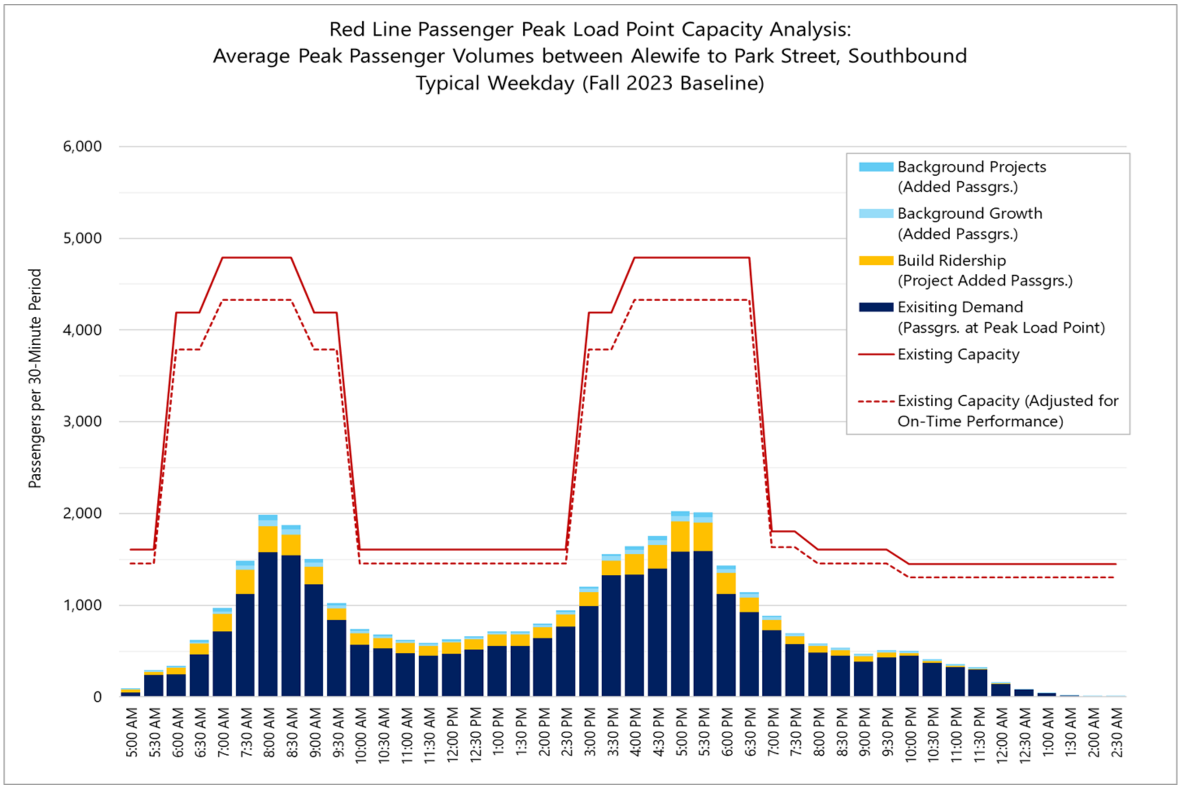


Figure 10.d.6: MBTA Red LinePassenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026



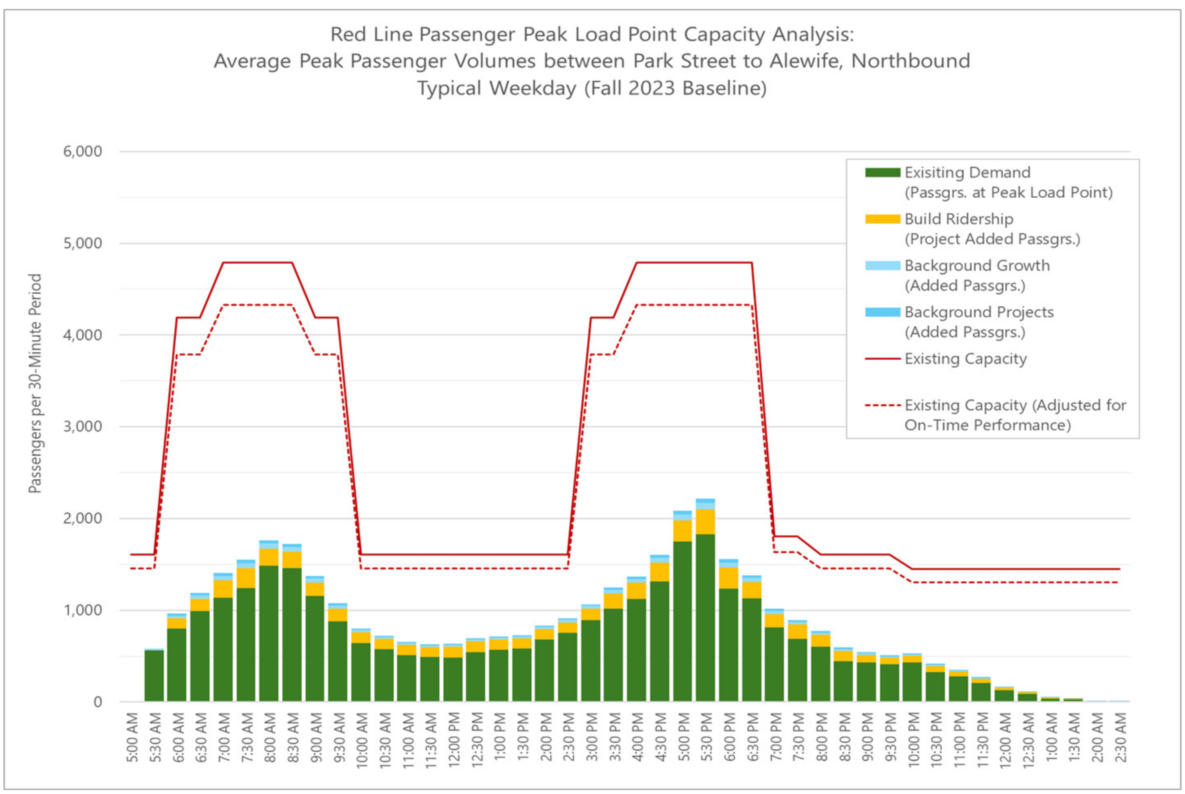
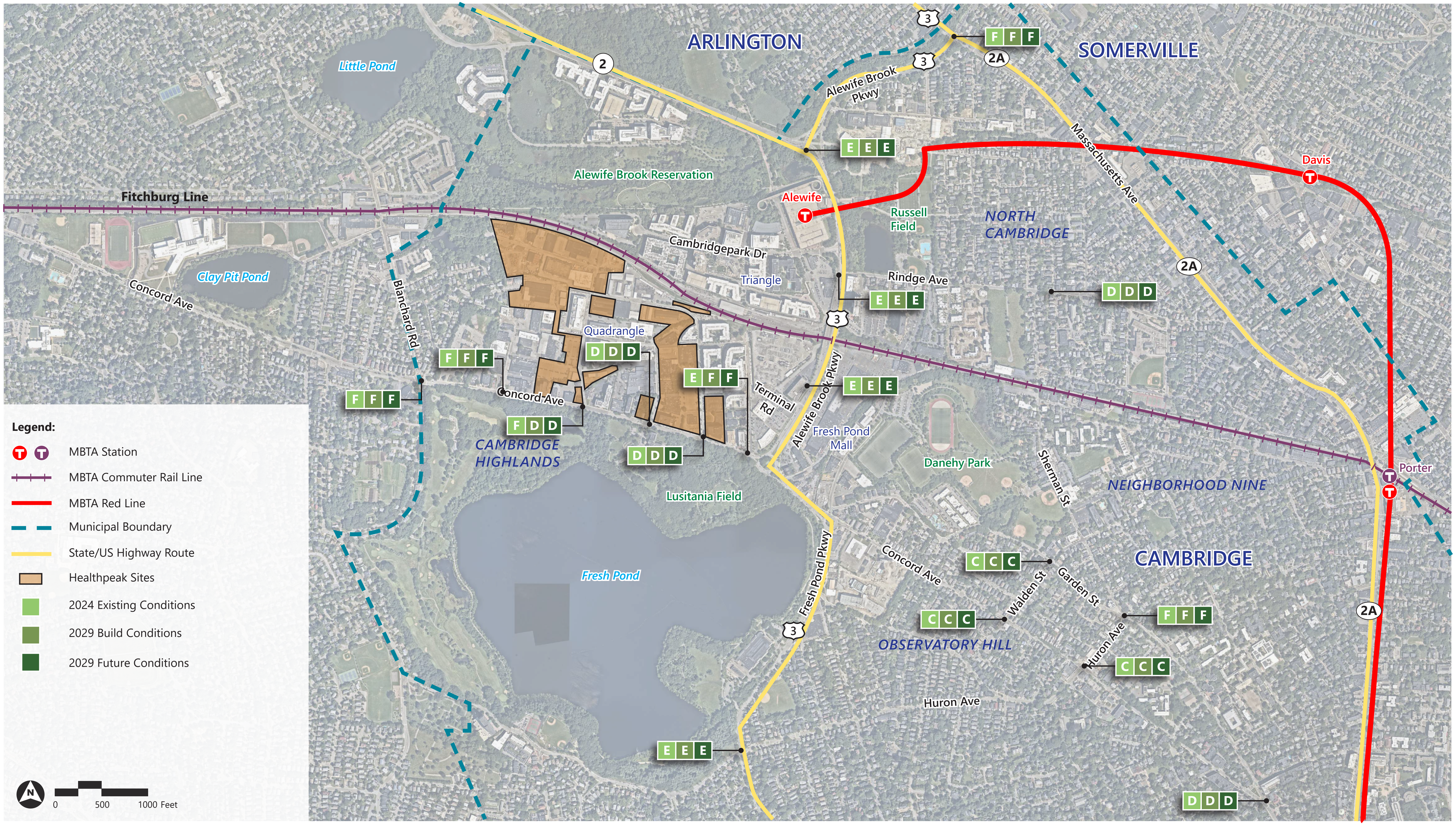


Figure 11.a.1: Pedestrian Level of Service - Morning Peak Hour

Healthpeak | Cambridge, MA

02/05/2026

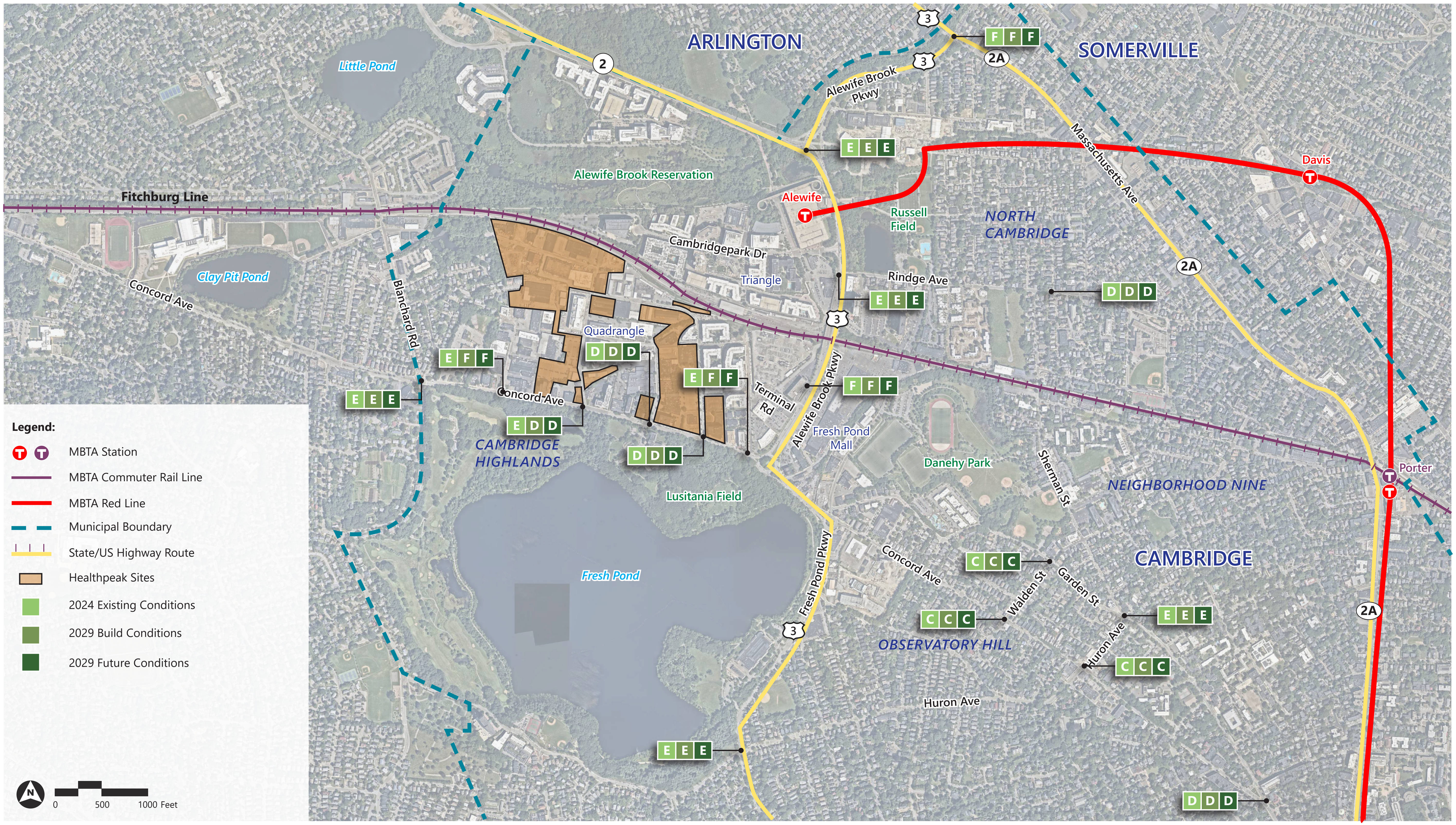


Source: Nearmap Aerial dated 10/19/2024; MBTA System Map 2025.

Figure 11.a.2: Pedestrian Level of Service - Evening Peak Hour

Healthpeak | Cambridge, MA

02/05/2026



Source: Nearmap Aerial dated 10/19/2024; MBTA System Map 2025.

Appendix B

Sustainability Plan and Green Building Report

- Sustainability Plan Report
- Green Building Report
- Green Factor Materials
- Cool Score Materials
- Green Building Report Certification

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HEALTHPEAK PUD SPECIAL PERMIT SUSTAINABILITY PLAN REPORT APPENDIX

Revised: November 11th, 2025

Table of Contents

HEALTHPEAK PUD SPECIAL PERMIT - PROJECT INTRODUCTION

Healthpeak OP, LLC has proposed a Master Plan development in the Alewife Overlay District – Quadrangle,(AOD-Q zoning. hereafter, “the Project”), that will transform approximately 42 acres into a dynamic mixed-use district featuring Class A lab and office facilities, multifamily residential buildings, retail and neighborhood uses, and community amenities. Named “Healthpeak PUD Special Permit,” the project emphasizes open spaces and dedicated areas to foster vibrancy and resilience, enhancing connectivity between the Alewife neighborhood, greater Cambridge, and Boston.

This project offers a unique opportunity to create a multi-use neighborhood that harmonizes urban and natural spaces, encouraging gathering, recreation, and a strong sense of community. It will provide various housing options, complementary retail, and next-generation commercial spaces, all interconnected by robust infrastructure and multi-modal transit options.

At its core, the redevelopment features community spaces and extensive public open space, positioning the district as a vibrant civic hub for Alewife and its surroundings. This open space aims to foster community spirit, support social interaction, stimulate economic growth, and advance environmental sustainability.

The plan includes approximately 2,541,000 square feet of office and lab space, 1,765,000 square feet of residential areas with around 2,076 housing units, 71,000 square feet for neighborhood uses, as well as community focused outdoors spaces of approximately ~800,000 square feet and 202,300 of existing use for Mount Auburn Medical Office Building, 10 Fawcett Street, and 110 Fawcett Street. A table showing area (zoning gross square feet) by parcel and use has been included on the following page.

Sustainability has been foundational to the development’s vision and planning.

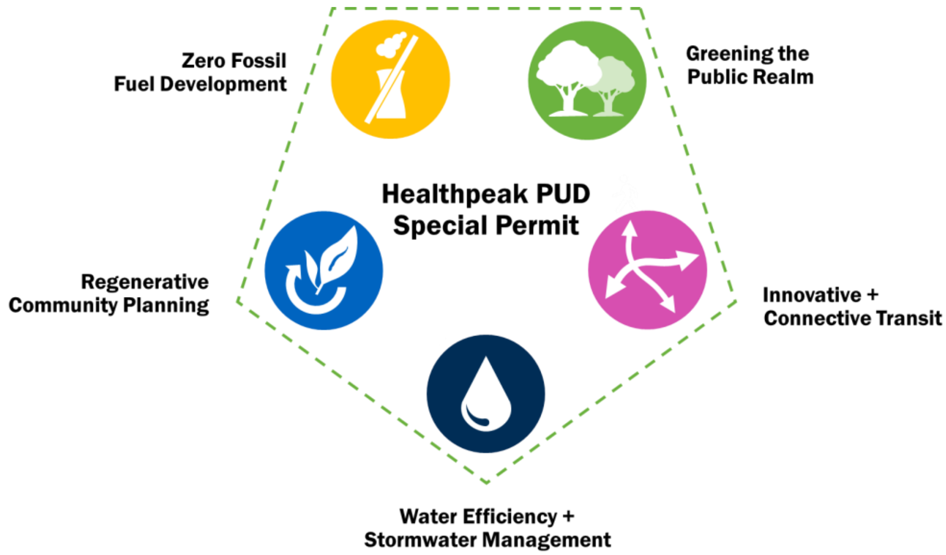
Table 1 Proposed Program by Parcel

BLDG #	EXISTING USE TO REMAIN SF	RESIDENTIAL USE SF (UNITS)*	TECHNICAL OFFICE/ OFFICE USE SF	RETAIL/ NEIGHBORHOOD USE SF	VEHICLE PARKING SPACES PROPOSED SUPPLY	VEHICLE PARKING SPACES PROPOSED LOCATION	MIN. LONG-TERM BIKE PARKING SPACES[1]	MIN. SHORT-TERM BIKE PARKING SPACES[1]	*NOTES:*
C1			294,000			P1/P2	76	18	
C2			294,000			P1/P2	76	18	
C3			294,000			P1/P2	76	18	
C4			288,000	7,000		P1/P2	76	23	
C5			292,000			P1/P2	76	18	
C6			301,000			P1/P2	78	18	
C7			380,000	9,000		P3	100	30	
C8			378,000	9,000		P3	100	30	
R1		171,000 (201)			160 spaces	R1	210	20	
R2		379,000 (446)		7,000	330 spaces	R2	468	50	
R3		339,000 (399)		25,000	320 spaces	R3	422	60	
R4		311,000 (366)		14,000	300 spaces	R4	385	48	
R5		211,000 (248)			170 spaces	R5	259	25	
R6		52,000 (61)				P4	63	6	
R7		302,000 (355)				P4	372	36	
R8		220,000 (220)			165 spaces	R8	232	25	
P1					620 spaces	P1	-	-	*Parking Garage*
P2					859 spaces	P2	-	-	*Parking Garage*
P3					996 spaces	P3	-	-	*Parking Garage*
P4					630 spaces	P4	-	-	*Parking Garage*
E1	84,500					P4	Existing	Existing	*Existing Medical Bldg.*
E2	4,500				8 spaces	E2	Existing	Existing	*Existing Retail*
E3	109,000					P3	Existing	Existing	*Existing Office Bldg.*
Future DPW Office			50,000		20 spaces	DPW Parcel	6	1	*DPW Yard Project*
Total	**198,000**	**1,985,000 (2,296)**	**2,571,000**	**71,000**	**4,578 spaces**		**3,076**	**442**	

* Assuming average of approximately 850 SF per residential unit

1 Bicycle Parking Guide 2013 (cambridgema.gov). For bike parking, retail/neighborhood uses assume a 50/50 split between standard retail and restaurant uses.

SUSTAINABILITY EXECUTIVE SUMMARY



Healthpeak PUD Special Permit sets a new standard in sustainable urban development through a holistic approach that integrates zero-fossil fuel development, energy and water efficiency, community planning, the greening of the public realm, and advanced transportation. This initiative will showcase Healthpeak's commitment to sustainability by pursuing efficient and strategic solutions that address environmental challenges on both local and regional levels.

EXEMPLARY MASTER PLAN

Zero Fossil Fuel Development

All-electric buildings — no fossil fuels on-site (except emergency generators)

Efficient passive and active systems

Powered in part by renewable energy generated on-site

Embodied carbon reductions via responsible sourcing

Regenerative Community Planning

Urban design that enhances social connectivity

Ground Floor Activation - varied storefronts, entry points, and pop-up spaces to encourage walking and exploration.

Support local businesses, including local goods and services that reinforce the community and circular economy.

Water Efficiency & Stormwater Management

Manage stormwater through site elements and reduce potable water consumption through efficiency measures.

Greening the Public Realm

Lush, shaded landscapes that dramatically improve outdoor comfort

Publicly accessible nature integrated into everyday life

Significant improvement in outdoor thermal comfort and reduction of urban heat island

Innovative Connective Transit

Pedestrian + bicycle bridge connection over the train tracks to Alewife Station

Pedestrian connections through enhanced walkability and location of diverse uses at ground level.

Significant bike lane capacity and connections to an expanded bicycle network

Figure 1 Key sustainability goals

Key sustainability goals for the project:

Zero Fossil Fuel Development: This all-electric development will eliminate onsite fossil fuel emissions (except for emergency generators), supported by efficient approaches to building energy design. Future renewable energy procurement opportunities will contribute to a net-zero carbon future in alignment with BEUDO requirements.

Regenerative Community Planning: The district will feature urban design that boosts social connection through active ground floors, diverse storefronts, and support for local businesses and the circular economy.

Greening the Public Realm: Lush, shaded, and publicly accessible landscapes bring nature into daily life while significantly improving outdoor comfort and reducing the urban heat island effect.

Innovative Connective Transit: The project promotes innovative, connective transit with integrated bike, pedestrian, and multimodal links that prioritize accessibility, reduce car dependence, and strengthen regional mobility.

Water Efficiency: The project will implement efficient indoor and outdoor water systems to achieve optimal on-site water reuse, minimizing the development's impact on municipal water systems, while also incorporating site strategies to reduce stormwater runoff and improving runoff quality management and infiltration.

In addition to the five key overarching goals described above, the following factors have also been an important part of the project's development, and are described within the GBR in greater detail:

Climate Resilient Design: Studying the incorporation of advanced stormwater management with green roofs and green infrastructure, the project aims to exceed standard requirements for flood resilience. Critical functions will be supported by resilient energy storage, as well as operational programs for resilience planning to provide information during emergencies.

Embodied Carbon Reduction: The development targets a 10% reduction in labs building embodied carbon. The project will study material quantity and selections optimization to reduce embodied carbon.

These strategies position the project as a benchmark for sustainable urban development, exemplifying Healthpeak's dedication to forward-thinking environmental design at the building and community scale.

Zero Fossil Fuel Development

The Project is designed to target energy efficiency and will achieve net zero operational carbon via compliance with Cambridge's Building Energy Use Disclosure Ordinance (hereafter, BEUDO) over time as development progresses. All residential and commercial buildings will be fully electric (with the exception of emergency power generation), aligning with the vision for a low-carbon New England power grid. The project team anticipates that Massachusetts's electrical power grid will decarbonize as renewable energy generation projects come online. Healthpeak is investing in design solutions that will be able to take advantage of decarbonization as the grid progresses. Figure 2 shows the energy strategy for the project.

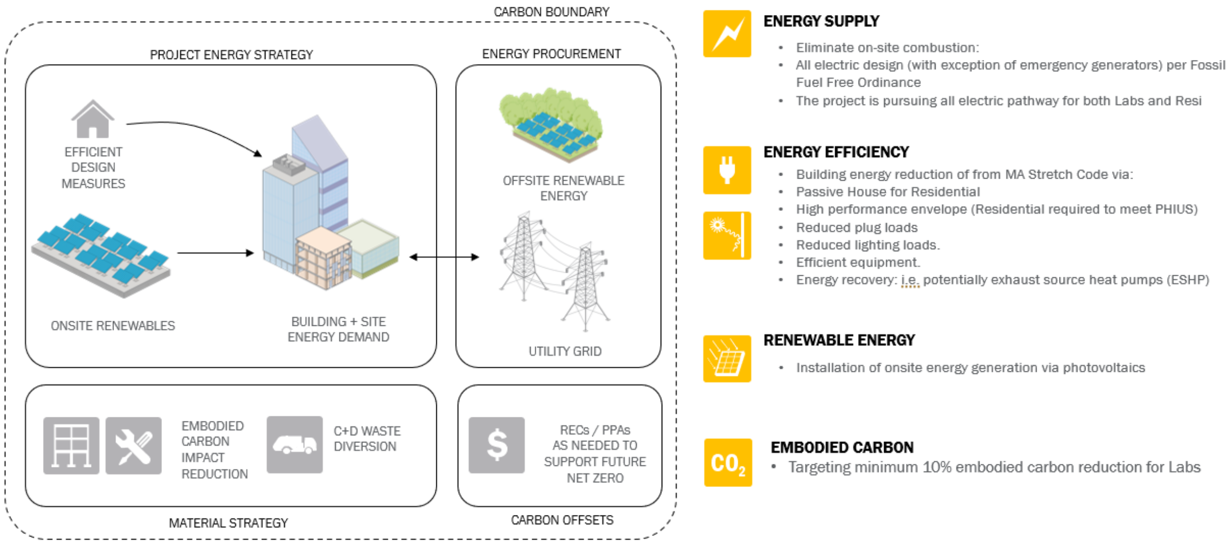


Figure 2 Energy efficiency strategy

Regenerative Community Planning

Healthpeak PUD Special Permit is a forward-looking master plan grounded in regenerative design, aimed at building a healthy, inclusive, and sustainable community. The project integrates public amenities and accessible open spaces to strengthen social connection and local identity, while a diverse retail mix supports small businesses and vibrant street life. Health and wellbeing are central, with outdoor areas designed for thermal comfort, active living, and universal accessibility. Materials are chosen for occupant health and transparency. Together, these strategies position the project as a resilient, people-first neighborhood that restores ecological value and fosters long-term community vitality.

Greening the Public Realm

The project focuses on integrating nature into the everyday urban experience through lush, shaded, and publicly accessible landscapes. The project will add approximately 800,000 sf of green space, and 1,084 new trees to the community. These green spaces are thoughtfully designed to provide both ecological and human benefits—offering visual and physical respite, enhancing biodiversity, and significantly improving outdoor thermal comfort. By prioritizing tree canopy, native plantings, and green infrastructure, the plan reduces the urban heat island effect while creating vibrant, welcoming environments that support social interaction, recreation, and overall community well-being.

Innovative Connective Transit

Healthpeak's transportation and mobility strategy for the Alewife development focuses on creating a low-carbon, accessible, and adaptable environment that aligns with the City's goals. Key strategies include transportation demand management (TDM) programs that promote and support alternative transportation modes, as well as a critical pedestrian and bicycle bridge which connects the development to the Alewife MBTA Station over the railway, improving connectivity not just within the district but by providing walkable connections to adjacent communities. The development's design breaks up the existing site to improve permeability, connectivity, and ease of movement, with plans to evolve and accommodate future transportation technologies and needs. Figure 3 shows the district scale transportation concepts for the project.

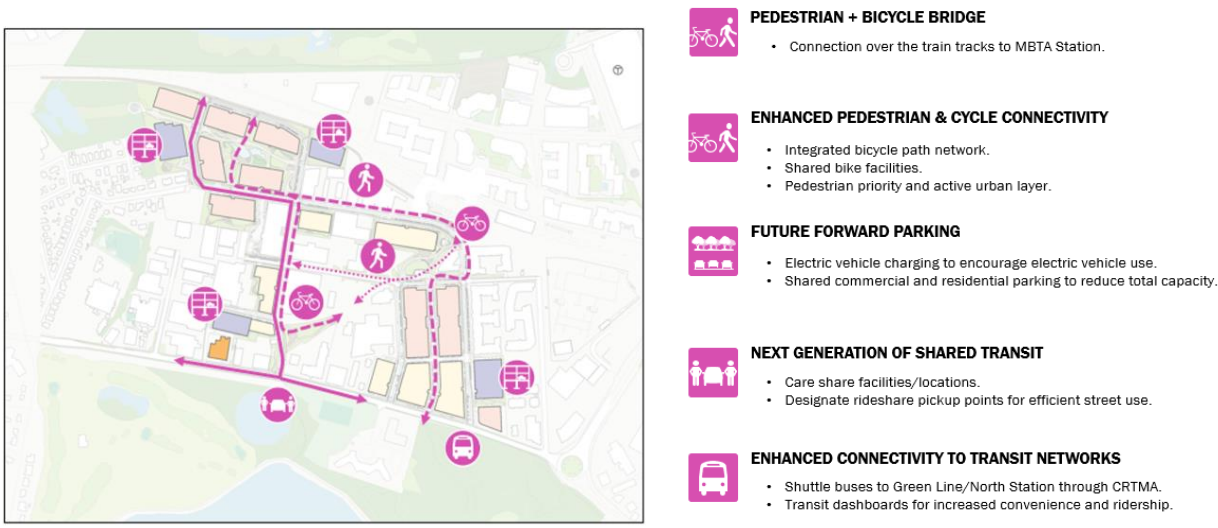


Figure 3 Transportation and walkable site strategies

Water Efficiency

Water Efficiency is a core sustainability priority, with strategies that reduce potable water use, manage stormwater responsibly, and promote long-term resource conservation. The projects will incorporate high-efficiency plumbing fixtures, lab-grade low-flow systems, and cooling tower optimizations to significantly cut indoor water demand. Outdoors, the landscape is designed for low or no irrigation, potentially utilizing non-potable sources such as harvested rainwater and smart, weather-responsive irrigation controls. The use of indigenous vegetation further reduces water needs, while water submetering across building systems ensures ongoing monitoring and performance. These integrated approaches support both environmental stewardship and operational resilience. Figure 4 shows the project's water strategy.

Climate Resilient Design

In preparation for anticipated increases in precipitation, the project will incorporate resilient design strategies. These include elevating critical equipment, residential units, and all building ground floors above the 100-year flood level. Additionally, stormwater mitigation measures will be integrated throughout each development phase, and standby power will be provided for essential equipment, ensuring resilience remains central to the design. The typical private site design requirements are:

> Quantity: Reduce the post-construction 2070 25-year 24-hour storm event to the pre-existing 2070 2-year 24-hour storm event. (for example, from "25 to 2"). This is a local Cambridge DPW requirement, which will need to be met on-site.
>
> Quality: Reduce the total phosphorus load by a minimum of 65%. This is a MassDEP/EPA requirement, that is enforced locally by Cambridge DPW.

Urban Heat Island

To reduce risks associated with rising temperatures, the development will mitigate the urban heat island effect with high-albedo roofing and paving, while minimizing cooling demands through insulated and shaded building facades. The existing site is a former industrial and light manufacturing district, which currently consists mostly of asphalt surfaces and lack of trees and greenspace. Taken together, the urban heat island reduction strategies are expected to reduce ambient temperature by approximately -3° to -5° F, according to preliminary analysis. Reference the Urban Heat Island Reduction section for more information.

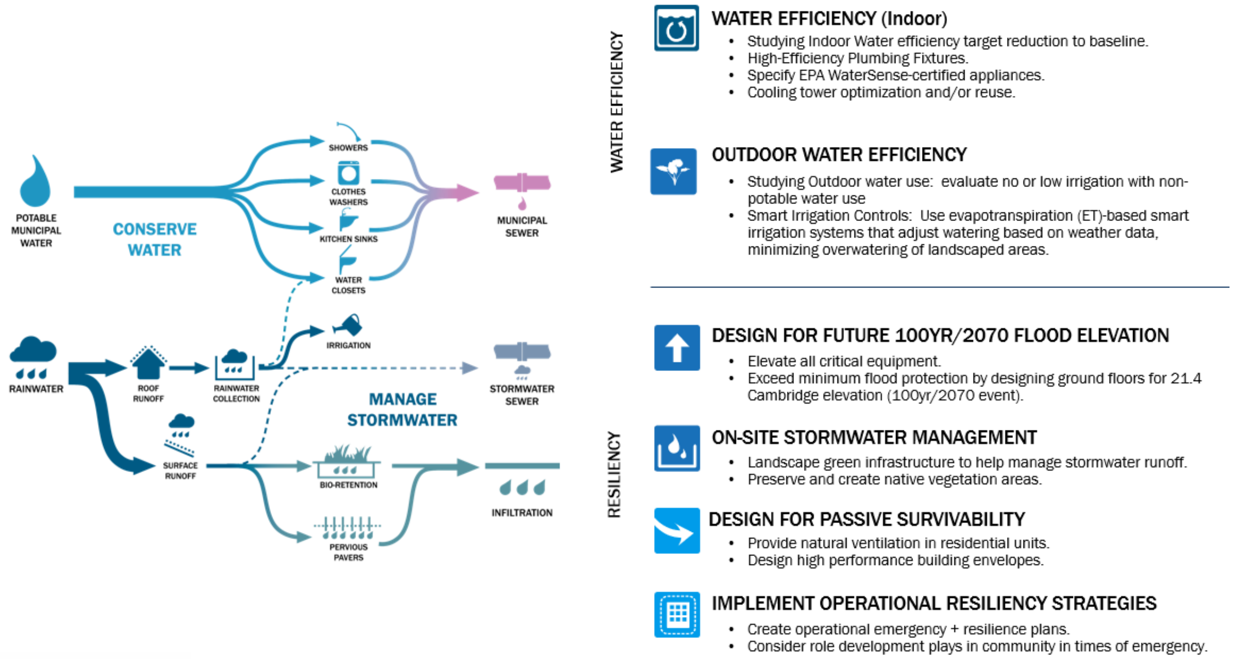


Figure 4 On-site water stewardship and resiliency

Benchmarking to Measure Performance
Healthpeak's commitment to sustainable development in the Alewife district will establish one of the largest LEED-certified projects in the Cambridge and Boston areas. Each building is designed to meet at least LEED Gold certification under the LEED version 5 system (or v4 if latest version applicable such as LEED for Multifamily Midrise), showcasing Healthpeak's dedication to adopting sustainable building standards. Based on project timelines, each parcel will individually submit for LEED certification and the team will determine the applicable version of LEED at the time of each parcel's design. (Refer to the Green Building Checklist, LEED narratives, and Green Building Professional Affidavit for compliance details.)

Note that Residential projects may select to document compliance with the Green Building Certification requirements of Article 22 through the PHIUS pathway, rather than LEED. The development will aim to create healthy multifamily buildings and spaces and study opportunities for improving resident wellness.

Healthpeak also uses GRESB as the portfolio tracking certification system for operational sustainability benchmarking.

INTEGRATED DESIGN PROCESS

Sustainability is central to the Alewife master planning process. Healthpeak is dedicated to creating buildings that are energy-efficient, environmentally responsible, adaptable to new technologies, and healthy for occupants and visitors.

To achieve these goals, Healthpeak assembled a multidisciplinary team experienced in collaborative, sustainability-focused design. Early on, team members from Atelier Ten, Elkus Manfredi Architects, VHB, BR+A, and Haley & Aldrich engaged in in-depth discussions, challenging conventional ideas of sustainable development for both present and future needs. Design concepts and elements were continuously evaluated through a sustainability lens.

In addition to integrated design team weekly meetings inclusive of sustainability, the design process included numerous specialized workshops.

- Healthpeak Sustainability Kickoff Workshop 10/04/2025
- Energy Strategy Introduction Meeting 03/11/2025
- Green Building Requirements in Cambridge + MA Educational Workshop 01/16/2025
- Healthpeak LEED + Corporate Sustainability Overview 04/01/2025
- Energy Strategy Development 05/15/25
- Energy Strategy Update to Hines + Team 06/17/25
- Green Building Reporting + Content Planning 07/16/25

Each building in the Project will follow an integrated design approach, employing best practices to meet sustainability targets.

GREEN BUILDING REPORT

This document provides an overview of the sustainability efforts and decisions guiding the planning of Healthpeak PUD Special Permit. The design team has incorporated the City of Cambridge's sustainability requirements, including Article 22 Sustainability Guidelines, throughout the design process.

The project aims to meet its sustainability targets through the strategies outlined in this document. Additionally, some of the development's sustainability priorities targeted for study —such as energy efficiency measures, and healthy building design—are included in the Green Building Report to reflect the project's holistic approach to sustainability and will continue to be evaluated as each building proceeds into design.

The following sections offer a detailed breakdown of the primary sustainability guidelines, including how the design team explored and incorporated these strategies or identified more efficient alternatives. This submission covers all buildings proposed in the project, with further details on sustainability performance to be provided in individual buildings' future Design Review submissions

ZONING COMPLIANCE

This section outlines the project team's comprehensive approach to environmental performance, highlighting the sustainability priorities and strategies designed to meet or exceed the City of Cambridge's requirements and initiatives.

Aligned with Cambridge zoning and sustainability goals, the project is developed in compliance with Article 22 of the Cambridge Zoning Ordinance and will meet or exceed the standards. As required, the buildings will be designed to be LEED Gold certifiable, at a minimum, or certify as Passive House as a potential pathway for Article 22 compliance for residential buildings. Healthpeak is exploring energy conservation measures at both the building and site levels. This analysis includes evaluating optimal on-site energy generation strategies within the Project.

Healthpeak remains deeply involved in the City's ongoing sustainability initiatives, including the Net Zero Action Plan, ensuring that the project's energy and resilience strategies align with Cambridge's goals. Healthpeak employs an integrated, whole-systems approach and continually reexamines design strategies to stay at the forefront of environmental performance.

Energy efficiency and resource conservation are central to the Project site's sustainability framework and will continue to guide the project as it progresses. Furthermore, the project will meet the standards for flood resiliency in compliance with Section 22.80.

ENERGY + EMISSIONS

ENERGY STRATEGY APPROACH

The development team is committed to reducing greenhouse gas emissions, and collectively, they have studied a wide range of design strategies. As the project evolves, the project team will continue to study energy system opportunities, including district energy systems, shared heating and cooling systems, and peak load reductions through energy storage. District energy opportunities studied to date, such as on-site geothermal, air-source heat pumps, exhaust air-source heat pumps, waste energy transfer systems, and ambient/condenser water loops, were evaluated at a high level against the following criteria: efficiency improvements, carbon emissions, feasibility, flexibility for potential parcel ownership changes, availability of financial incentives, construction, and first cost and operating costs. The team will continue to consider all viable strategies for carbon reduction in energy supply and investigate, including technological advances that may provide district solutions.

The team's approach at this planning stage focused on shared solutions while also considering building strategies and resulting efficiencies realized through each building's design process (inclusive of massing, envelope, and systems strategies), and opportunities for energy generation on-site.

Pursuing energy strategies at the master plan scale may unlock efficiencies and emissions reductions that are not achievable at the individual building level. Shared systems can reduce redundant infrastructure, balance loads across building types, and lower peak demand—leading to greater energy efficiency and deeper GHG reductions. District solutions also allow for phased integration of low-carbon technologies as they become viable over time.

At the building scale, strategies such as exhaust air-source heat pumps recover waste energy to boost efficiency, while high-performance thermal envelopes—facilitating meeting Passive House design for residential buildings—significantly reduce heating and cooling loads. Together, these approaches lower energy demand and contribute to net-zero readiness.

DISTRICT ENERGY

As part of the Healthpeak PUD Special Permit master-planning design phase, the project team has conducted a preliminary study of district-scale thermal energy systems. The study evaluated a range of potential approaches to shared heating, cooling, and peak load reduction, with a focus on identifying strategies that align with Cambridge's net zero goals.

District energy systems assessed to date include:

- Ground source heat pumps (GSHPs)

- Thermal energy network
- All-electric configurations

Each option was evaluated against a consistent set of criteria, including energy efficiency, carbon emissions reduction, feasibility across multiple parcels, construction and operating costs, and regulatory considerations.

One strategy was geothermal, or ground source heat pumps (GSHPs). These systems allow buildings to reject heat to the ground during the summer and extract heat during the winter via a field of vertical wells. While GSHPs offer significant operational energy and emissions benefits, the Alewife site presents several physical and environmental constraints that limit their feasibility.

The master plan prioritizes converting surface parking into a more walkable public realm. This commitment to large-scale tree planting, active open spaces, and enhanced stormwater management (including phosphorous removal and groundwater recharge), competes with the substantial space demands required for geothermal well fields.

Additionally, GSHP wells require ample separation to maintain performance and must remain accessible for long-term maintenance—making placement beneath buildings or parking structures impractical. Site areas not occupied by buildings or garages are reserved for critical environmental functions and community amenities, which makes large-scale geothermal difficult to implement at this time.

Thermal Energy Networks (TENs) link buildings together via a thermal loop and help provide greater efficiencies via load balancing. TENs were also studied at a conceptual level, and the associated energy savings seem to be positive, however these findings need to be substantiated at building design level. Additionally, due to development phasing complexity, it is apparent that a utility provider (such as Eversource) may be best placed to facilitate development of a TENs project.

Healthpeak is open to advancing collaborative solutions and is committed to working with the City of Cambridge and Eversource to explore the feasibility of a future thermal energy network that could serve multiple buildings on site and across the Alewife development district both to the east and west of Healthpeak's holdings and potentially support future growth in the surrounding area.

The team will continue to explore viable district energy solutions that complement the site's design priorities and sustainability commitments, with the potential for future implementation through phased development or evolving City partnerships.

Refer to Appendix A for more information regarding geothermal and thermal energy networks.

ELECTRIFICATION

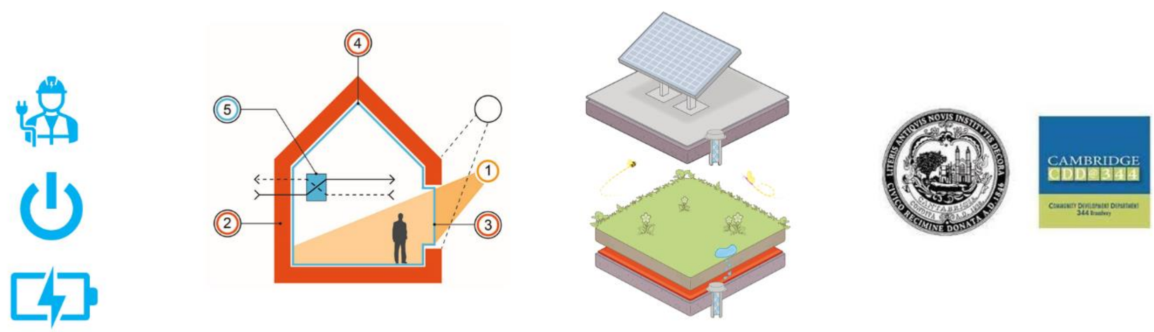
Healthpeak will develop buildings with systems that can take advantage of the anticipated reduced grid emissions through electrification. In demonstrating Healthpeak's alignment with the City of Cambridge's vision for all-electric buildings, the design team is exploring district and building-level strategies involving all-electric-based systems.

Approach

The team explored future scenarios with respect to energy supply and decarbonization, particularly with anticipated improvements from the grid electricity sources. The makeup of the Massachusetts energy grid is anticipated to shift more toward renewable energy sources in the coming decades. Thus, the emissions associated with the site's electricity consumption would reduce as the emissions factors improve, setting a path for future decarbonization.

To be aligned with the City of Cambridge's Fossil Fuel Free vision, the Healthpeak Alewife Master Plan has committed to a Day-1 all-electric approach for both commercial and residential buildings. Both energy resilience and redundancy are critical factors when determining systems that best serve residential and commercial programs. With the available technologies, Healthpeak is committed to take on a significant first step towards districtwide electrification. With concerns about electric grid reliability, especially during peak heating conditions, the design team is evaluating solutions to ensure the project is resilient to power outages and can manage cold stress with a high-performance envelope and an appropriately sized backup generators to power critical infrastructure.

Since the buildings will be designed with guidelines for Day-1 electrification, it is essential to ensure that building-level efficiency is maximized to reduce the load on the grid. The building design will also include allowance for penthouse and mechanical spaces to house mechanical equipment such as air-handlers, exhaust source heat pumps, and electric resistance boilers, and planned rooftop equipment such as cooling towers and all-electric heating systems such as air source heat pumps which would have to be roof-mounted. The Alewife Master Plan development leads the market in anticipating the shift towards electrification with an approach that combines high-performance building design with advanced, highly efficient all-electric systems for both commercial and residential buildings on Day 1. Figure 5 shows the residential energy strategy.



Step 1: All Electric Building

Step 2: Passive House Requirement + Phius CORE Certification

Step 3: Select PV or Green Roof or Hybrid

Step 4: Report energy usage annually via ENERGYSTAR

Figure 5 Residential energy strategy components

BUILDING EFFICIENCY + CODE PATHWAY

The design team recognizes that reducing building energy consumption and associated climate emissions is critical to mitigate climate change. The team has and will continue to evaluate collective strategies to enhance building performance and reduce energy consumption. The buildings, when designed, will include high performance strategies for envelopes, mechanical systems, and internal heat recovery. During building design, the team will identify opportunities to employ potential building load sharing and the latest technologies to mitigate energy use. The projects will employ strategies to reduce energy consumption, greenhouse gas emissions, and buildings' impact on the grid.

Building Energy Benchmarking

The Project is being planned when the MA State energy code and City regulations have accelerated the requirements to reduce energy consumption, minimize peak heating and cooling loads, incorporate all-electric heating systems, and integrate renewables for new construction projects. In addition, the City also requires the projects continue to minimize and offset their carbon emissions well after construction. These requirements and regulations result in several energy efficiency measures in the Healthpeak Alewife buildings. Energy efficiency measures being considered for commercial lab/office and residential buildings are provided below.

Commercial Lab/Office:

- High efficiency envelope performance meeting the stringent MA Stretch Energy Code requirements
  - (Design Target: R-20; Win U:0.2; SHGC:0.3, WWR: 30%; air leakage: 0.25 cfm75/sf of envelope area)
- Low lighting power density in lab and office spaces
- Wind responsive lab exhaust controls
- Night-time setbacks in temperature and air change rates
- Indoor air quality sensor-based airflow controls
- 100% Dedicated outdoor air systems (DOAS) with high efficiency air-side heat recovery systems with 60% effectiveness
- Provisions for 4-pipe fan coil units and chilled beams in tenant spaces
- Low-flow fixtures
- All-electric heating systems with geothermal well-fields, water to water heat pumps, air-source heat pumps, exhaust-source heat pumps and electric boilers for peak shaving
- High efficiency chilled water plant with electric centrifugal chillers and cooling towers
- Rooftop PV (included in study, but not committed to for design)

Residential Buildings

- Passive house level envelope performance meeting the stringent MA Specialized Opt-in Code requirement (R-40 (after accounting for thermal bridges); Win U:0.15; SHGC: 0.25, WWR:25%; air leakage: 0.11 cfm75/sf of envelope area
- Low lighting power density
- High efficiency packaged heat pump systems with integrated energy recovery (effectiveness > 70%)
- Low-flow fixtures
- High efficiency heat pump water heaters for domestic hot water
- Rooftop PV (included in study, but not committed to for design)

Parking Structures

- Above grade parking structures are being considered to support the needs of the development
- PV canopy for the top-most floor of the parking structure is being explored to meet the energy demands of the development
- Electric vehicle ready parking spaces for 20% of the parking spaces with installed wiring

As per the MA Stretch Energy Code 2023 and MA Municipal Opt-in Specialized Energy Code 2023, all commercial lab / office high ventilation buildings will achieve energy use lower than that of ASHRAE 90.1-2019 Baseline Appendix G with revised building performance factors. The commercial lab buildings will potentially elect to meet the requirements of Opt-in Specialized Energy Code 2023, Section CC 104: All Electric Pathway. Similarly, as per Section CC101.2 under the Opt-in Specialized Energy Code 2023, all residential buildings will be designed to meet Passive House Certification.

Additionally, all buildings in the Project will be designed to meet Net Zero Carbon by 2035, as per the City of Cambridge's amendments to the Building Energy Use Disclosure Ordinance in June 2023.

Furthermore, to meet the Green Building requirements put forth in Article 22, the commercial lab/office buildings will be individually evaluated in accordance with the LEED v4 Energy Performance prerequisite and credit based on ASHRAE 90.1-2010 to achieve LEED "Gold" rating equivalency, when in the design phase.

Healthpeak will continue to track potential upcoming code changes and ensure building designs respond to the rising bar in performance at time of building permit and, most importantly, are on track to achieve Healthpeak's path to net zero goals.

Preliminary assessments in the Master Plan development phase anticipate the following performance against MA Stretch Energy Code 2023 (based on MA amendments to IECC 2021) and MA Municipal Opt-in Specialized Energy Code 2023. All buildings will continue to comply with all current applicable building codes and the feasibility to exceed the Stretch Code will be determined by individual building designs with opportunities and technologies available at that time. Likewise, energy efficiency measures factored into the baseline and proposed building designs will be determined individually by building to comply with code requirements.

Initial studies indicate that a core and shell lab/office building in the northeast climate with an energy use intensity (EUI) of 135-140 kbtu/ ft^2/yr meets the energy code requirements. With an all-electric design incorporating heat pumps and heat recovery chillers, air-side heat recovery, and embedding additional sensor-based controls, the commercial lab/office building with an EUI of 120-125 kbtu/ft^2/yr could potentially result in approximately 9% savings in energy use against the Stretch Code Baseline. Figure 6 shows the energy use characterization graph of an all-electric commercial lab building.

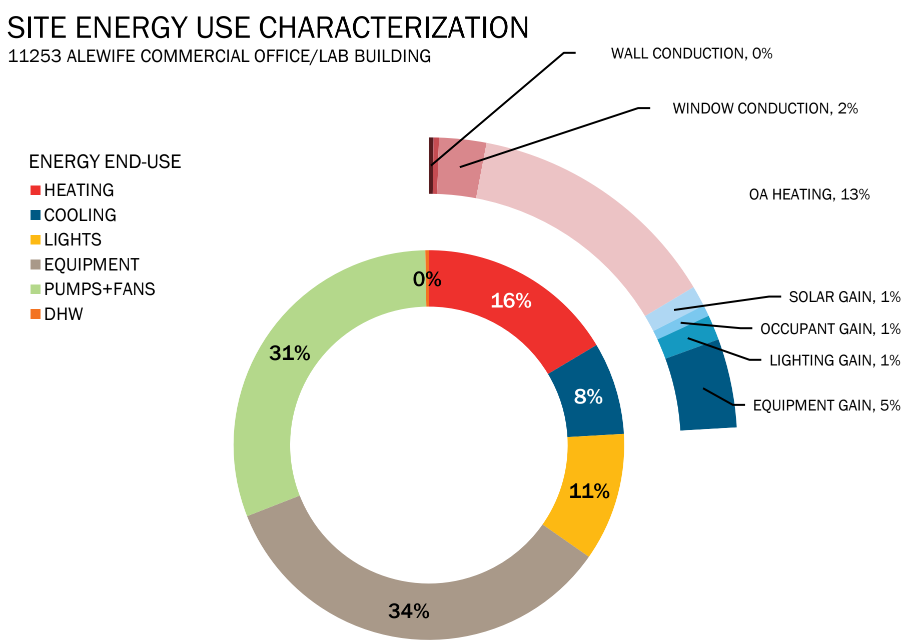


Figure 6 Commercial Lab Building Energy Characterization Graph

Figure 7 below shows the energy savings potential for a typical commercial office/lab building that compares the all-electric meeting energy code option, and the Stretch Goal option to the MA Stretch Energy Code Baseline.

The all-electric meeting energy code option consists of a typical curtainwall envelope with double IGU vision glazing and 60% window to wall ratio, MA stretch energy code lighting power densities, decoupled ventilation with Konvekta energy recovery coil, air source heat pumps designed to meet 25% of the peak heating capacity, high-efficiency water cooled chillers, heat recovery chillers and cooling towers.

The Stretch Goal option was tested for sensitivity to enhanced energy efficiency measures. This option includes higher performing envelope systems (R-20 walls, triple pane fenestration, 30% WWR), decoupled ventilation with Konvekta energy recovery, wind-driven lab exhaust controls, source and exhaust source heat pumps sized to meet 50% of the peak heating capacity along with water-cooled chillers with cooling towers.

Currently, the proposed all-electric building has higher Day-1 emissions than the code baseline mixed-fuel building; however, emissions of the all-electric building will reduce over time as the ISO NE grid gets greener.

As each lab building progresses in design, envelope performance impact on energy performance and operational carbon emissions will be evaluated and carefully considered against the potential increase or offset in embodied carbon emissions for the materials to optimize for the minimum lifetime carbon emissions.

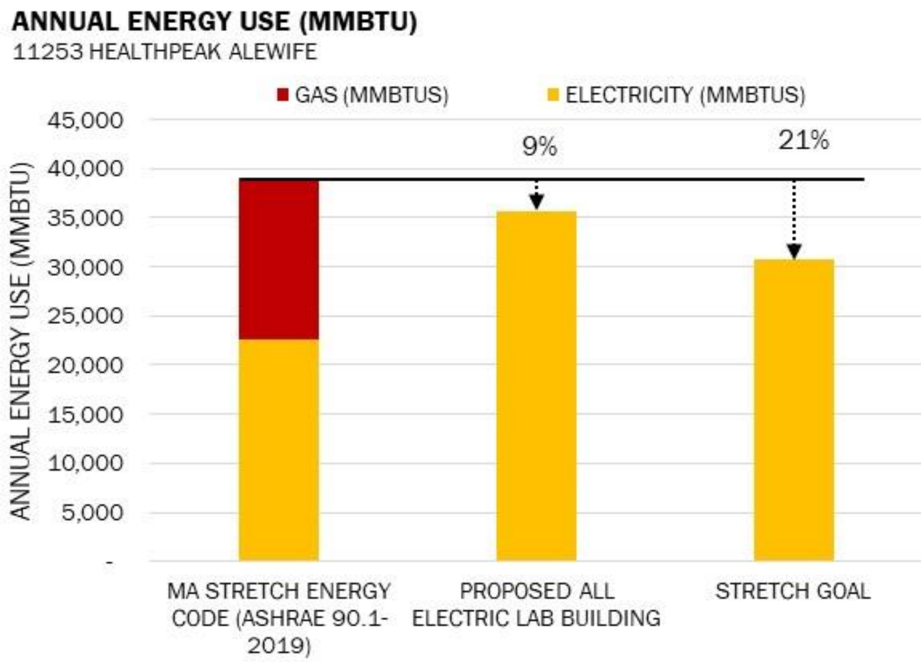


Figure 7 Commercial Lab/Office: Annual energy use reductions

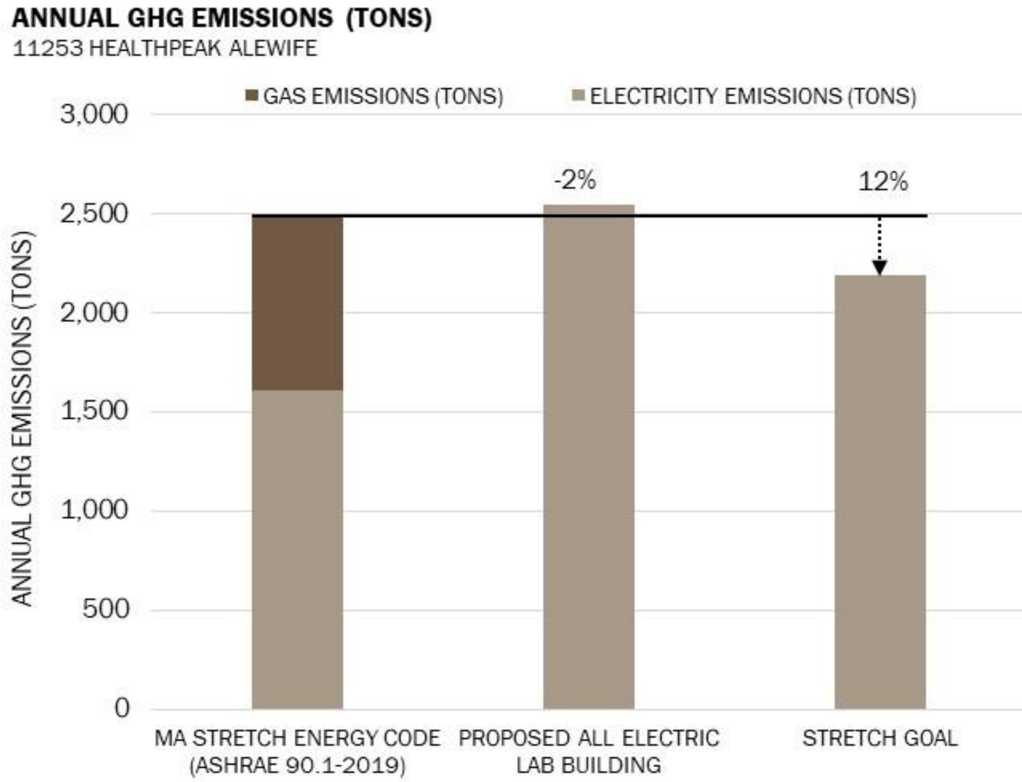


Figure 8 Commercial Lab/Office: Annual operational emissions reductions

The Residential buildings have to meet the stringent Passive House performance thresholds as provided in the Table below. Detailed analysis will be conducted during the design of each residential building to ensure that the buildings meet the required performance thresholds. See Table 1 below for PHIUS performance requirements.

	PHIUS*	PHI
Air tightness	0.06 cfm50/sf of gross enclosure area	0.6 ACH at 50 PA
Annual Heating Demand (kBtu/sf/yr)	5.2	N/A
Cooling TEDI (kBtu/sf/yr)	8.4	N/A
Peak Heating (Btu/sf/yr)	4.4	3.17
Peak cooling (Btu/sf/yr)	3.4	Roughly equal to peak heating with additional allowance for dehumidification (climate dependent)
Source Energy Criteria	5500 KWH/person/year	38 kBtu/sf/yr

Table 1: Residential Building Requirements

*Estimated PHIUS targets for a new construction residential building with as assumed dwelling unit count of 223 units, envelope area of 96,000 sf and iCFA of 200,000 sf for a project located in climate similar to Boston. The PHIUS certification targets will change as individual buildings are in the design phase and more information about the building becomes available.

With the proposed commercial office/lab GSF development of 2.52M sf and proposed residential GSF of 1.765M sf, the all-electric Healthpeak Alewife development will consume 109,350 MWH and emit 26,600 tons of CO2e[1]with a development EUI of 87 kbtu/ft^2/yr and annual anticipated GHG emissions of 6.2 kgCO2e/ft^2/yr. The graph below shows the energy consumption breakdown between the residential and commercial office/lab development.

[1] Assumes EPA Electricity emissions for NEWE: 71.31 kgCO2e/MMBTU; gas emissions: 53.11 kgCO2e/MMBTU

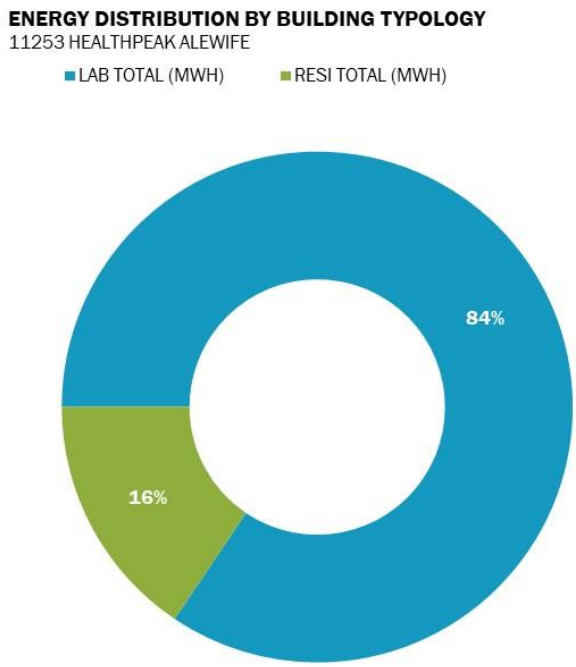


Figure 9 Energy distribution by building typology

Envelope

While the specific buildings on the Alewife site have not been designed, preliminary energy studies provide a direction for their development. When designed, building envelopes will be optimized for energy performance, thermal comfort, daylight, and visual comfort. Sensitivity studies of envelope performance and impact on heating and cooling thermal loads were conducted for a representative residential building and a commercial building. These studies helped identify the recommended performance values to exceed code and maximize energy savings to meet Healthpeak's energy goals.

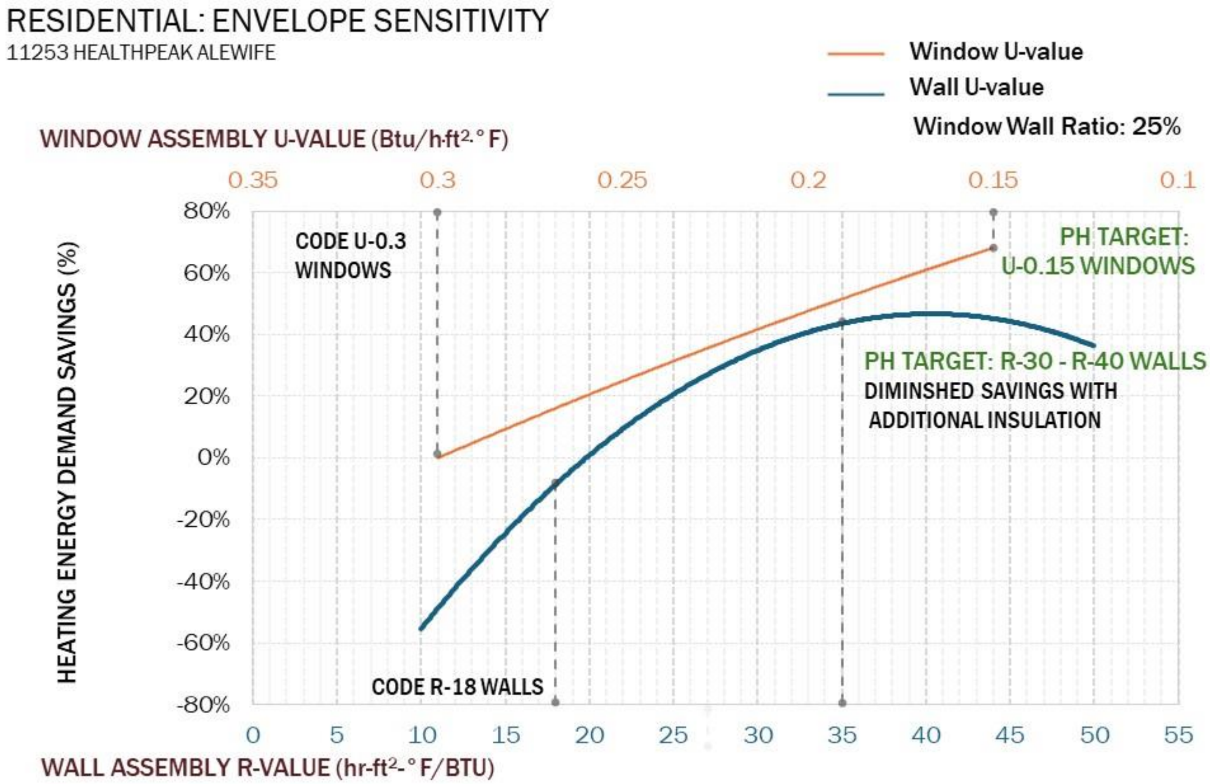


Figure 10 Residential building envelope sensitivity – proposed performance beyond code

Figure 10 illustrates the sensitivity in annual heating loads to the wall assembly R-value and window assembly U-factor for a residential building. The study shows minimal additional performance benefits for a residential building beyond R-40 walls. Triple pane glazing will be explored to maximize energy savings, in contrast to the tradeoff in embodied carbon emissions. During the individual building design process, other envelope performance criteria such as infiltration rate, frame assembly design, and window-to-wall ratio (WWR) will be studied for enhanced energy performance.

Building envelopes will be designed for reduced energy consumption, aligning with Passive House envelope initiatives.

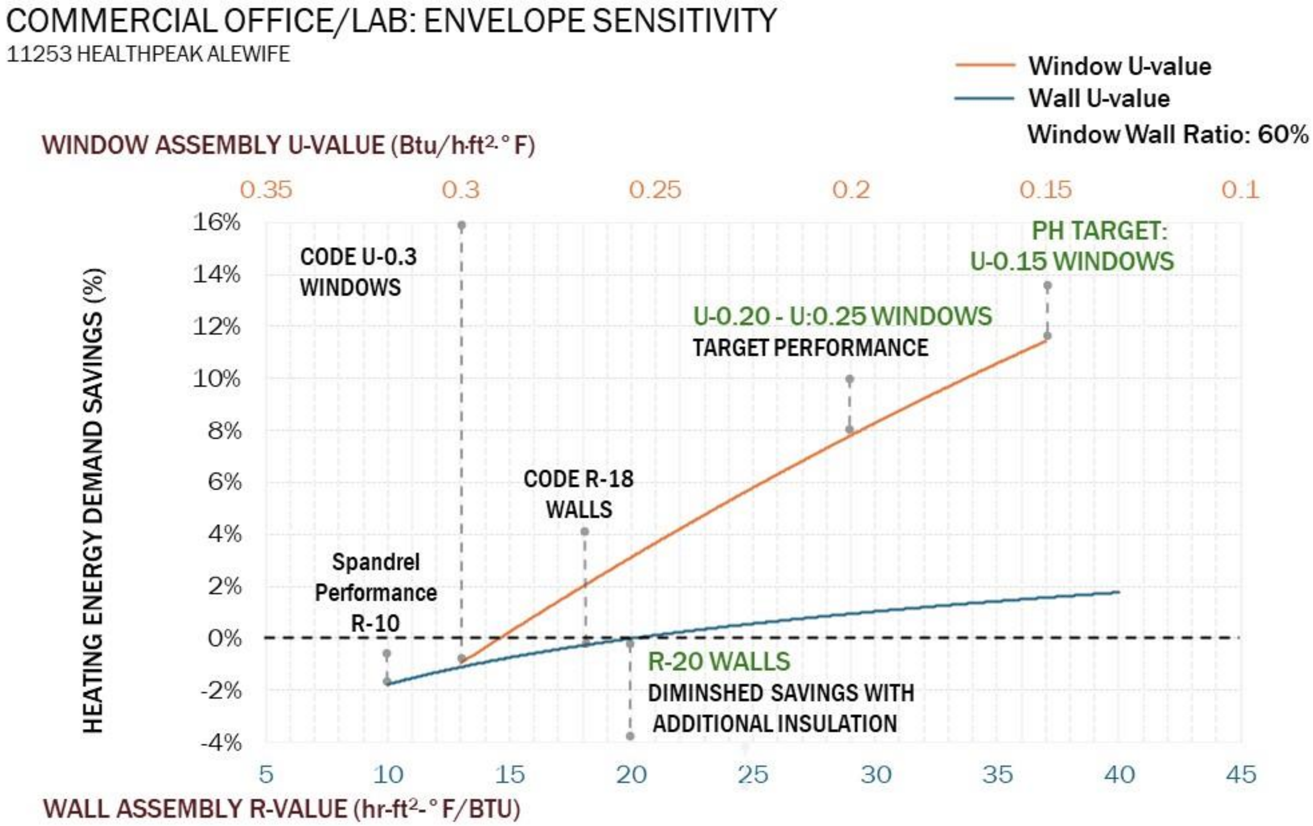


Figure 11 Commercial building envelope sensitivity – proposed performance beyond code

Energy efficiency for the commercial buildings is most sensitive to glazing performance and less driven by wall assembly insulation. This is primarily because of the high window to wall ratio which is typical of a commercial building. The flattened red curve in Figure 11 shows less than 2% additional heating load reduction between the typical spandrel wall performance and a conventionally insulated wall assembly. Furthermore, the range of proposed glazing performance for a typical commercial building shows up to 6-8% savings in heating load while glazing that meets the Passive House standard shows up to 12% overall annual heating load savings.

The above preliminary envelope sensitivity studies will inform early design studies for individual buildings as the architecture evolves.

Based on the analysis of all criteria, the team has established envelope performance targets for individual building's overall R-value, minimum glazing performance, and WWR targets in order to benchmark and study impacts of envelope, systems, and district strategies on energy performance. A summary of these baseline values and target performance ranges can be found in the Net Zero narrative template.

Passive Strategies

Residential buildings will benefit from improved daylight availability, access to views, and enhanced thermal comfort. In Cambridge, residential buildings are required to have Passive House standard envelopes. These insulated envelopes can significantly reduce heating and cooling loads from heat gains or losses, as well as control thermal comfort in perimeter spaces. Glazed areas can then be used strategically for daylighting, views, and connections to the outdoors. In terms of massing, buildings to the south of the site will benefit from lower heights to allow for daylight to extend to the remaining buildings, as well as extend the view of the buildings to the north to the existing Fresh Pond Reservation. Furthermore, designing open vegetated areas around residential buildings will help improve the connection to the outdoors whilst providing a buffer between buildings for daylight penetration improvement. Finally, operable windows in residential spaces can provide natural ventilation and is also critical to resiliency during power outages.

Lab buildings will benefit significantly from a high-performance envelope to reduce heating and cooling loads. Although daylight availability improvement is important for labs, glare mitigation is more crucial in comparison to residential buildings due to strict task lighting requirements for the program. Prioritizing programming lab spaces to face north and south will allow for better opportunities for glare control through external shading, in comparison to the low angle direct sun at the east and west facades.

Both building types can benefit from external shading designed to reduce excessive summer solar gains while allowing passive heating in winter months. Horizontal louvers or overhangs are typically optimal on all facades to block late morning or early afternoon heat gains on east or west facades and provide glare and solar gain control at the south. One consideration with shading is that the resultant embodied carbon from the shading design will likely outweigh its operational energy benefits, especially in the short term when reducing carbon emissions is the most crucial. Therefore, shading strategies for visual comfort and other passive strategies will be developed further through each building's design process with the fundamental argument of carbon emissions in mind.

Lighting, Equipment, + Tenant Operations

The project will establish targets for lighting power reduction and equipment efficiencies for base building design while encouraging tenants to reduce energy consumption through tenant guidelines.

Commercial building tenants will be encouraged through tenant guidelines to achieve reductions in energy consumption for lighting and equipment (printers/copiers, IT equipment, misc. equipment). Office tenants will be encouraged to achieve reductions in lighting and reductions for equipment while lab tenants will be encouraged to target a reductions in lighting energy.

Efficiency Improvements - As equipment efficiency and controls continuously improve, a reduction in energy use of the future fit-out for tenant energy use beyond even today's best performing buildings is expected at the time of occupancy.

FUTURE OPPORTUNITIES

In the future, as the advanced technologies become available, further reductions could be targeted by including advanced controls for ventilation fans, lab exhaust, equipment and process loads. Additional savings are possible by including the benefits from geothermal well fields which could be made available to some of the commercial lab buildings via any potential thermal energy network development by the City and/or Eversource. As the grid decarbonizes, it will become increasingly important that operational energy performance, and operational carbon reductions, are measured and weighed against embodied carbon impacts, for both facade improvements and building systems.

EMISSIONS

Operational Carbon

The Stretch Goal option reduces emissions on Day-1 by 13% (Figure 12) from a code compliant development (commercial labs/office and residential buildings), with a reduction of 3,532 metric tons of greenhouse gas emissions per year. The annual carbon savings equates to removing approximately 824 ICE cars from the road each year. High performance building systems and envelopes, and meaningful construction material selections for low embodied energy contribute to reducing emissions at the development scale.

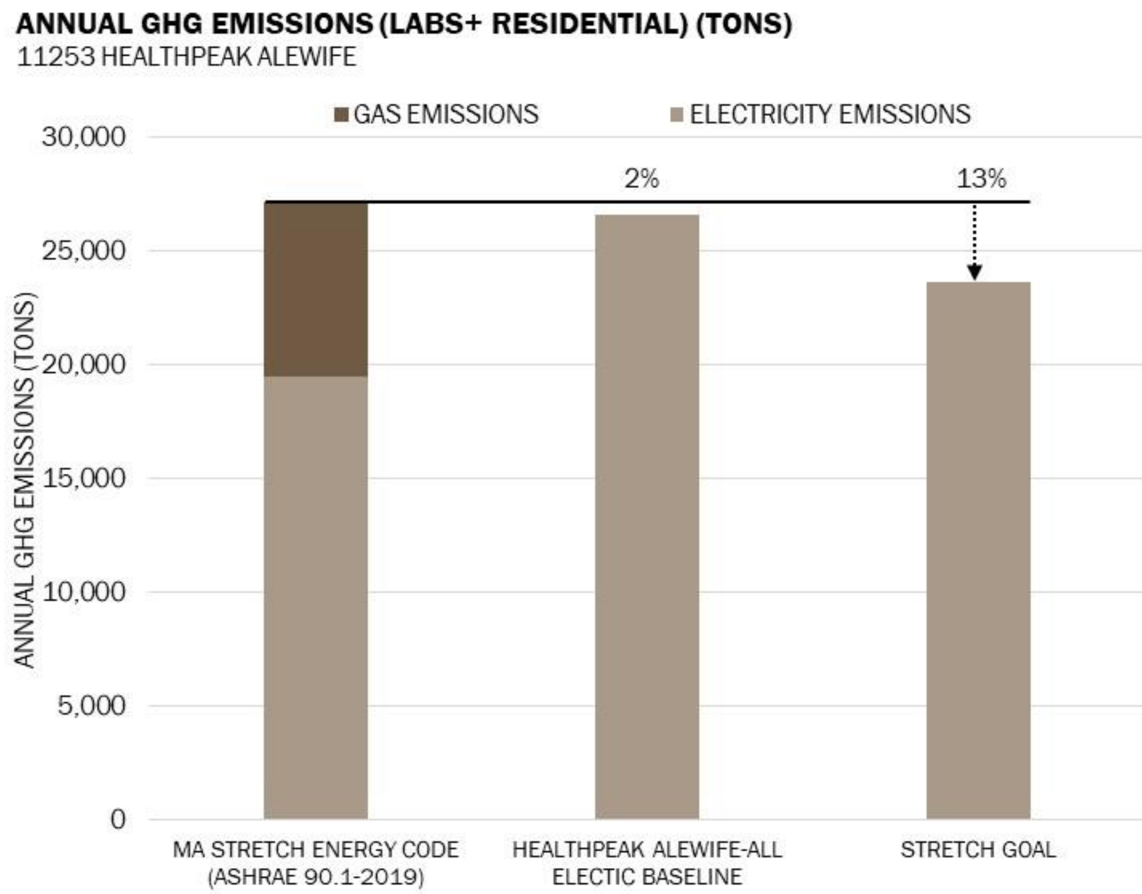


Figure 12 Estimated operational carbon reduction potential.

RENEWABLE ENERGY

Renewable energy is a critical component of net-zero carbon design to make up for energy consumed as part of the development. However, it can be challenging to generate significant energy on-site in an urban environment, and limited generation potential combined with the absence of Federal incentives, may present financial challenges for development of significant solar photovoltaic arrays. A successful path to net-zero carbon should include some component of on-site renewables, where feasible, along with off-site strategies, such as Power Purchase Agreements (PPAs). Demonstration opportunities will be considered for their educational benefits.

On-Site Photovoltaics

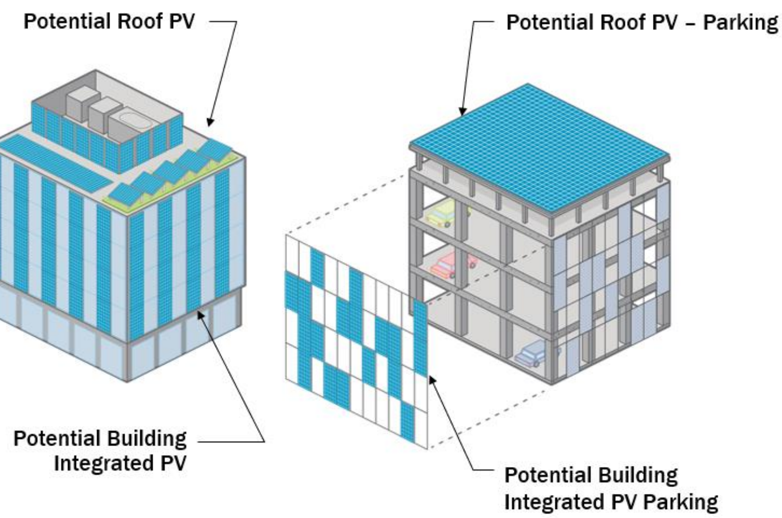


Figure 13 Rooftop solar photovoltaic panels (PV) and Building Integrated PV typical surfaces under study

The design team is actively evaluating a range of on-site solar strategies, including rooftop PV, parking canopy PV, and building-integrated photovoltaics (BIPV) (Figure 13). Rooftop PV will be prioritized where feasible; however, available space is limited due to rooftop mechanical systems—especially for all-electric labs and offices requiring significant equipment.

BIPV was explored as a potential strategy to increase PV surface area on building facades. However, due to its lower efficiency, higher cost, increased embodied carbon, and susceptibility to shading, the project will not pursue BIPV at this time. The team will continue to monitor advancements in the technology for future applicability.

Parking canopy PV remains a promising strategy to supplement renewable generation. It offers efficiency benefits, reduces heat island effect, and provides weather protection, though it introduces additional structural and embodied carbon considerations.

Initial modeling suggests that rooftop PV could offset an order of magnitude of up to 2% of annual energy use for labs and 5-10% for residential buildings (Figure 14). Including parking canopy PV increases total project offset potential to around 7%. The team will refine these strategies as design advances and pursue scalable off-site renewable energy solutions to support broader carbon reduction goals.

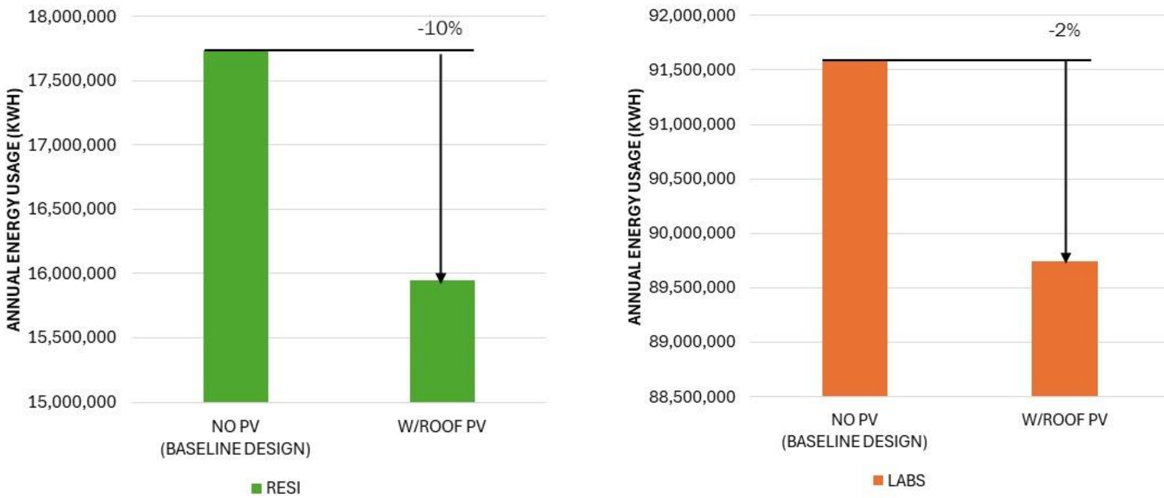


Figure 14 Residential (left) and Lab (right) Buildings On-site Photovoltaics Generation Potential

OFF-SITE RENEWABLE ENERGY PROCUREMENT

The path to net-zero carbon includes the purchases of Renewable Energy Certificates (RECs) to account for grid-based emissions. Healthpeak has studied current available mechanisms to incorporate off-site renewable energy, including unbundled RECs, utility supplied green energy purchases, community choice aggregation (potential to participate in Cambridge's Community Electricity program), and direct purchase options, such as power purchase agreements.

The main BEUDO requirement to consider is that the off-site renewable energy procurement must support a new renewable energy project. Healthpeak must therefore draw up a contract with a renewable energy project that is not operational at the time of execution and is newly installed. Power Purchase Agreements (PPAs) are more suitable for long-term agreements in comparison to Renewable Energy Certificates (RECs) as they have a fixed price for the duration of the contract, as opposed to the fluctuating annual prices of RECs based on market demand and supply. However, it may be difficult to engage in a new large renewable energy project locally given the scale of this project and the resultant offset that is required. BEUDO does allow for the renewable energy projects to be located anywhere in the country, allowing for the use of Virtual Purchase Power Agreements (VPPAs) which is more suitable for the scale of this project.

The team will coordinate with vendors on potential PPA and other off-site renewable energy procurement options and will ensure the approach taken is in alignment with the BEUDO requirements. The renewable energy marketplace will continue to evolve through the time the Alewife buildings come online. With the ever-changing RECs and PPA markets and potential for local regulatory impacts on green energy purchase requirements as they apply to net-zero targets, the Project will continue to evaluate how best to incorporate a green energy strategy in long term operations. See Figure 15 for a diagram of a RECs & PPA process flow.

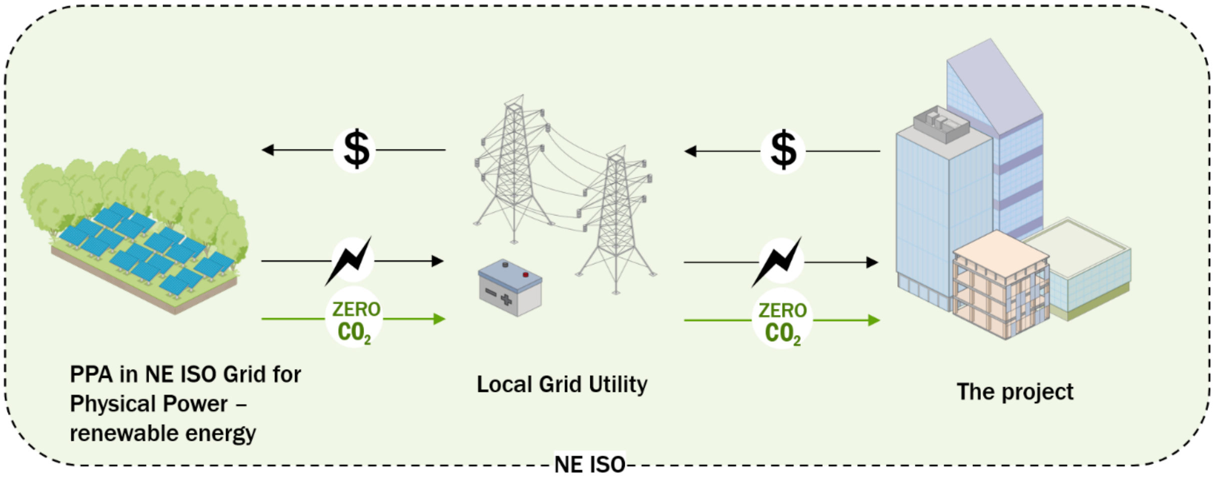


Figure 15 RECs + PPA strategy

ENERGY STORAGE + RESILIENCE

The team is studying options for emergency energy storage for feasibility and will evaluate suitable strategies as the design progresses.

Potential for thermal energy storage (for example via ice thermal energy storage solutions) will continue to be explored as part of the building design, including how they may be incorporated in an holistic all-electric system. Energy storage systems, especially battery type storage, could be phased into excess parking spaces in the above ground parking structures as the demand for automobile parking decreases. As energy storage technologies improve, opportunities may arise as program needs and uses change in buildings or within the site.

Ideally, incorporating energy storage could also pair with advancements in solar renewable technologies to generate clean energy to be stored.

Embodied Carbon

Throughout the Master Plan development stage of the Alewife project, the team has acknowledged the importance of embodied carbon emissions expended through the construction and manufacturing of building and site materials (Figure 16). During the project's design process, the team will identify opportunities to reduce embodied carbon impacts through specification of low-embodied carbon materials – evaluating local procurement options where feasible.

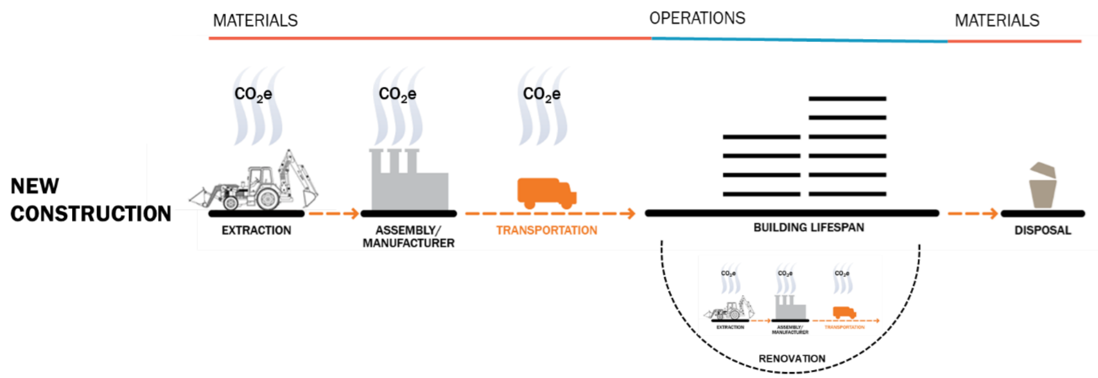


Figure 16 Embodied Carbon Emissions though a building's life cycle

To understand the embodied carbon impact of the project, the team will conduct a Whole Building Life Cycle Assessment (WBLCA) for commercial buildings and associated siteworks at the time of building permit. This has been included as a part of the project specific goals for Healthpeak Special Permit and aligns with the embodied carbon tracking requirements for the City of Cambridge. The buildings that are required to submit an embodied carbon approach will submit via the Net Zero Narrative, refer to Net Zero Narrative in the appendices for more information.

The team is working on establishing an embodied carbon reduction target through studying other project precedents in the area with similar construction. This will align with the overall reduction goals Healthpeak is working on establishing for their portfolio. Some opportunities that the team has explored to achieve embodied carbon reductions across the project include:

- Prioritizing above-grade parking over below-grade given that the latter has a higher embodied carbon impact on the project. This is due to the groundwork (shoring and excavation) required, the below grade concrete mix designs, and the greater amount of material (specifically concrete) required to construct below-grade.
- Prioritizing concrete plants from Cambridge/Boston that manufacture low carbon concrete mixes, when specifying concrete mixes for the project.

Figure 17 below shows an example best practice range for the region of embodied carbon reduction opportunities and their overall anticipated reduction impact and estimated cost premium. Specific strategies will be further explored during the design phases.

Figure 17 Embodied carbon reduction strategies and potential order of magnitude possible savings per material stream

Healthpeak is committed to holistically reducing the embodied carbon emissions of the project throughout its entire life cycle and will develop reduction and tracking requirements to ensure the goal's achievement.

WATER + RESILIENCE

WATER EFFICIENCY

Beyond energy efficiency, water resource management remains a critical pillar of sustainability and cost optimization. Efficient flow and flush fixtures will be studied to contribute to potable water use reductions (per LEED credits affording Gold certification).

For commercial buildings, guidelines will specify low flow/flush fixture requirements for indoor water use tenant guidelines. Reuse strategies for process water may further reduce potable water consumption. Additionally, using heat recovery chillers in commercial buildings can reduce the cooling tower usage, therefore, minimizing the cooling tower make-up water demand. LEED v4 takes a holistic approach to building water consumption, including not just building fixtures but also process water. Ice machines, pre-rinse spray valves, and washing machines will all meet the EnergyStar or minimum flow rate requirements respectively.

The landscape plan includes utilizing indigenous or adapted vegetation to reduce irrigation demands. With efficient irrigation systems, outdoor potable water use will be reduced significantly.

The water strategy for the project incorporates a comprehensive approach to maximize water efficiency and stewardship (Figure 18).

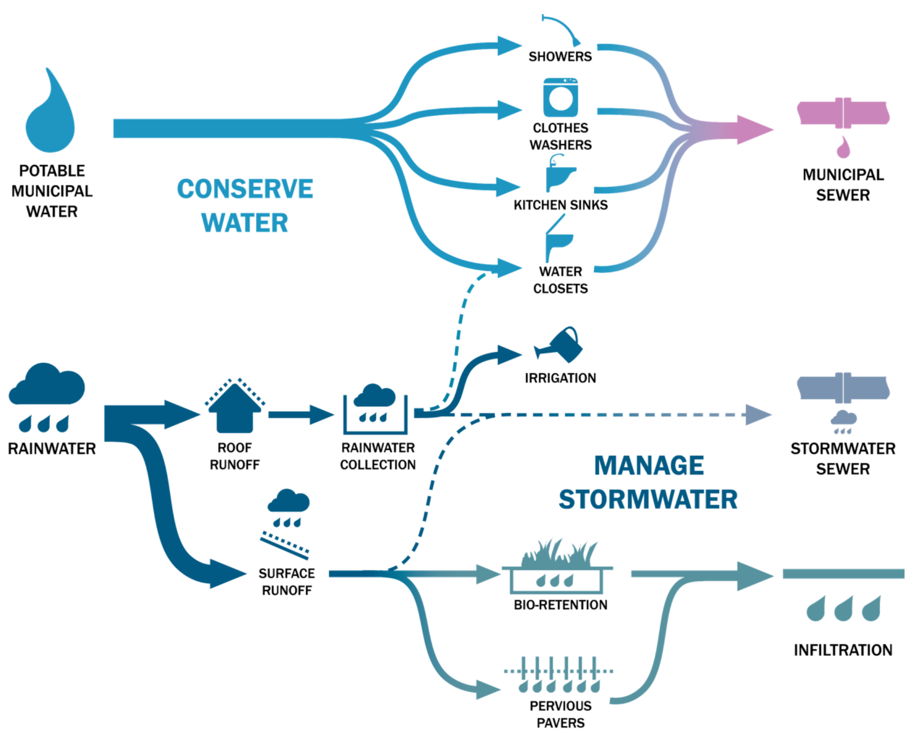


Figure 18 Site water flow diagram

The project team is studying a multifaceted approach to water resilience, leveraging building, roof, hardscape, and vegetation areas to develop a comprehensive approach. Healthpeak PUD Special Permit will pursue significant reductions in both indoor and outdoor water use, aligning with Healthpeak's sustainability goals and required LEED credits.

Indoor water use will be reduced through high-efficiency design, including EPA WaterSense-certified fixtures and lab-grade low-flow systems such as aerators, dual-flush toilets, and sensor-based faucets across both residential and laboratory spaces. Cooling towers will be optimized through conductivity-based blowdown control and side-stream filtration, with condensate reuse to minimize waste—especially important for lab buildings with high cooling demand.

Outdoor water use will target no or low irrigation needs. Where irrigation is necessary, the team will explore non-potable water sources and smart irrigation controls that respond to weather data to prevent overwatering. Landscapes will prioritize indigenous and climate-adapted plantings to reduce demand.

The project commits to studying opportunities for:
(i) further potable water use reduction strategies,
(ii) stormwater management using open space networks,
(iii) the integration of indigenous vegetation, and
(iv) the reuse of stormwater for irrigation.

In addition, rainwater harvesting systems will be evaluated to capture rooftop and site runoff for potential use in irrigation, flushing, or cooling tower supply, subject to treatment and code requirements.

Water submetering will be installed across residential units, lab areas, and mechanical systems to support ongoing performance monitoring and water conservation efforts.

STORMWATER MANAGEMENT

The project site will incorporate landscape strategies and green infrastructure to reduce rainwater runoff. Each building will be designed to collect and store stormwater for filtration and infiltration. Stormwater will be captured from roof areas and directed to infiltration systems, enabling groundwater recharge through gravity-driven processes.

The project will meet the City's 65% Phosphorus load reduction requirements and will be designed for at least the projected 100-year 2070 flood elevation. The most effective way to reduce the Phosphorous load is through significant below-grade infiltration of site stormwater runoff.

The rainwater management approach achieves a reduction in site runoff, and the design explores opportunities for site-wide stormwater reuse for irrigation and infiltration. Roadway surface runoff will be treated via porous pavement and/or infiltration catch basins according to the City of Cambridge's standards.

Green roofs are being explored to further support district stormwater strategies, and each building will explore means to comply with Cambridge's Green Roof ordinance at time of building permit.

FLOOD RISK RESILIENCE

The project will embrace climate resilient strategies including elevating critical equipment and residential units above flood elevation, incorporating stormwater mitigation strategies, and providing standby power for critical equipment. The team will continue to evaluate feasibility of strategies for enhanced resilience (Figure 19).

Figure 19 Stormwater mitigation strategies

The Alewife site is vulnerable to increasing flood elevations, increasing heat for site and buildings, and potential for grid disruptions. To evaluate the potential for future flood risk, the team studied the projected extent of future flooding in the region utilizing the Cambridge Flood Viewer Tool (2022, Figure 20). The tool assesses 10% and 1% Probability Long-Term Flood Elevation (10%-LTFE and 1%-LTFE) based on 2070 projections of annual flood risk. The analysis shows that 10%-LTFE doesn't reach the project site, which makes the project naturally meet the minimum City requirement.

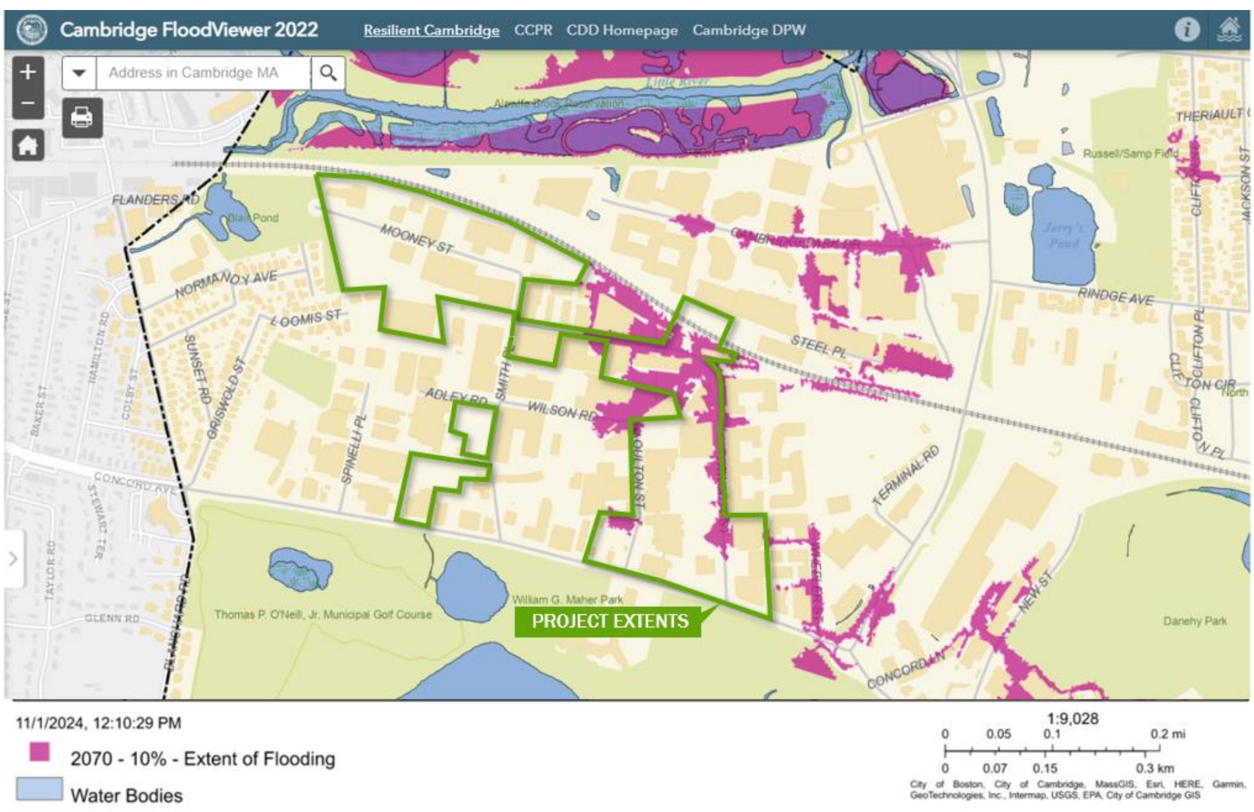


Figure 20 Cambridge Flood Viewer - 2070-100 Year SLR/SS and Precipitation Flooding

The project team is designing all buildings in the Alewife site to be elevated above the 1%-LTFE to achieve an even higher level of resiliency. In that way, all buildings will be protected such that flood waters cannot penetrate to occupied and critical areas. Figure 21 shows a typical approach to raising building above the anticipated flood plane.

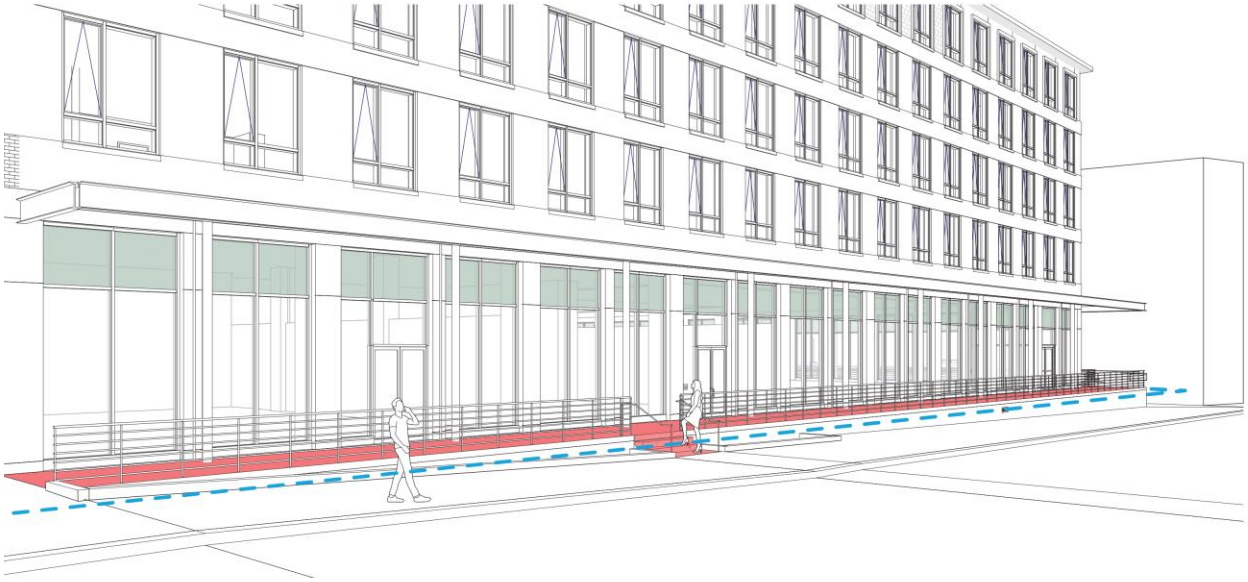


Figure 21 Typical building elevation approach flood elevation (Graphic courtesy EMA)

In addition to the human-made stormwater management systems (gray infrastructure), green infrastructure such as bioswales and green roofs, will be used where possible to manage stormwater on-site. The design team will evaluate surface flows through the open space to maximize the runoff capture potential for peak rain events seen recently with short, high volume rain events. The primary design goal is to capture stormwater and rainwater on-site and avoid shedding water on the neighbouring streets.

HEAT RISK RESILIENCE

Residential buildings will be designed to adapt to the warming climate and potential disruptions in standard operations. Operable windows combined with improved insulation in building envelopes enhances occupant comfort in the event of power outages. By designing resilient envelopes to minimize impact of temperature swings on residences, these buildings will be occupiable and resilient. The passive resilience strategies will produce co-benefits with other environmental benefits, such as reducing energy demand and greenhouse gas emissions.

OPERATIONAL RESILIENCE STRATEGIES

The project will meet Cambridge requirements for climate risk resiliency by integrating the following strategies:

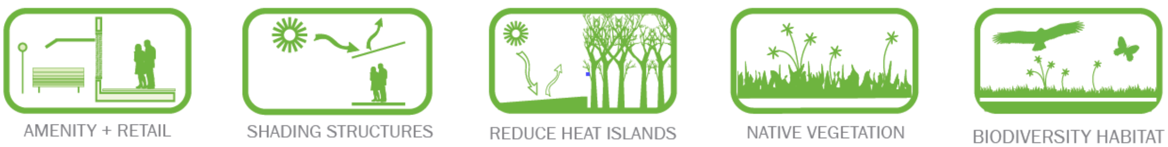
- Providing information to building occupants about flood risk at initial occupancy
- Creating protocols for alerting occupants when an extreme flood or heat event is likely;
- Crafting response plans for maintaining occupant safety if occupants need to shelter in place temporarily, which may include measures to maintain emergency access/egress and to help occupants maintain access to water, food, medications, and means of communication;
- Recovery plans for restoring habitability of spaces that may be damaged during an extreme weather event;
- Participation in coordinated areawide programs and resources to promote social resilience

SITE + LANDSCAPE

PUBLIC SPACE + VEGETATION

The Alewife site will revitalize both private and publicly beneficial open space and create a landscape that provides habitat and pedestrian tree canopy cover, active outdoor recreation areas, incorporating stormwater management and reuse strategies.

The landscape vision increases the amount of publicly beneficial open space. The landscape plan utilizes native or adapted species to create a vibrant and engaging urban landscape and canopy, increasing plantings at establishment over the existing conditions, creating comfortable microclimates and shaded spaces to encourage outdoor activities throughout the seasons (Figure 22).



ADAPTED & NATIVE PLANTS

EFFICIENT & SMART IRRIGATION

RESTORATIVE LANDSCAPE DESIGN

- On-site restoration - The design strives to restore landscape by maximizing opportunities for native and adapted vegetation while improving tree canopy.
- Protect 25% of trees, Increase trees by 400%
- Addition of 800,000 SF of publicly accessible green space
- Lush, shaded landscapes that dramatically improve outdoor comfort
- Publicly accessible nature integrated into everyday life
- Significant improvement in outdoor thermal comfort and reduction of urban heat island

RESPONSIBLE RESOURCE STEWARDSHIP

- Selection of native plants
- Implementation of efficiency irrigation systems with smart controls

Figure 22 Landscape strategies

By coordinating site design over a Master Plan scale, the team identified a more efficient use of outdoor space to create more functional experiences in the landscape. The location of the open space allows the greatest access to daylight and activation of the largest designated open space area. The open space plan adds ~800,000 SF of green space (Figure 24).

Existing Green Space: ~58,000 sf

Proposed Green Space: ~859,000 sf

14x additional green space

Figure 23 Landscape plan showing 14 times the current green space (Image courtesy: Arcadis)

Beyond the programming in the open space, the streetscape in between buildings has been reimagined to include areas for stormwater management, infiltration, enhanced transportation connectivity, and pedestrian amenities.

Current Tree Caliper: 2,700 Cal.inch
Total Existing Trees: 219
- **Existing Trees to be Retained:** 54
- **Existing Trees to be Removed:** 165

Proposed Tree Caliper: 2,798 Cal.inch
Total Proposed Trees: 1,138
- 54 existing trees
- 1,084 new proposed trees

+400% increase in trees

Figure 24 Proposed tree plan (Plan courtesy: Arcadis)

The design will incorporate native/tolerant vegetation which reduces water consumption for irrigation and promotes biodiversity. The landscape design includes a projected net increase of 919 trees, creating a more diverse and resilient tree canopy (Figure 24).

GREEN ROOFS

The project will seek to utilize green roofs where possible, given the constraints of substantial space requirements of anticipated mechanical equipment at rooftops, especially for labs. Section 22.35.3 provides that the Planning Board may grant a special permit to reduce the required Green Roof Area below the area required by Section 22.35.2, provided that each square foot so reduced be compensated by a unit price contribution to the Cambridge Affordable Housing Trust. Because the rooftop mechanical design will continue to be refined Project plans progress, and in light of the limited area to provide any additional green roof area, in abundance of caution, the Applicant is prospectively seeking a Planning Board exemption pursuant to Section 22.35.3 in the event that the Project is ultimately unable to satisfy the 80% roof area requirement of 22.35.2. The applicant will make the required unit price contribution to the Cambridge Affordable Housing Trust in the event that the Project falls short of full compliance with the Green Roof requirements.

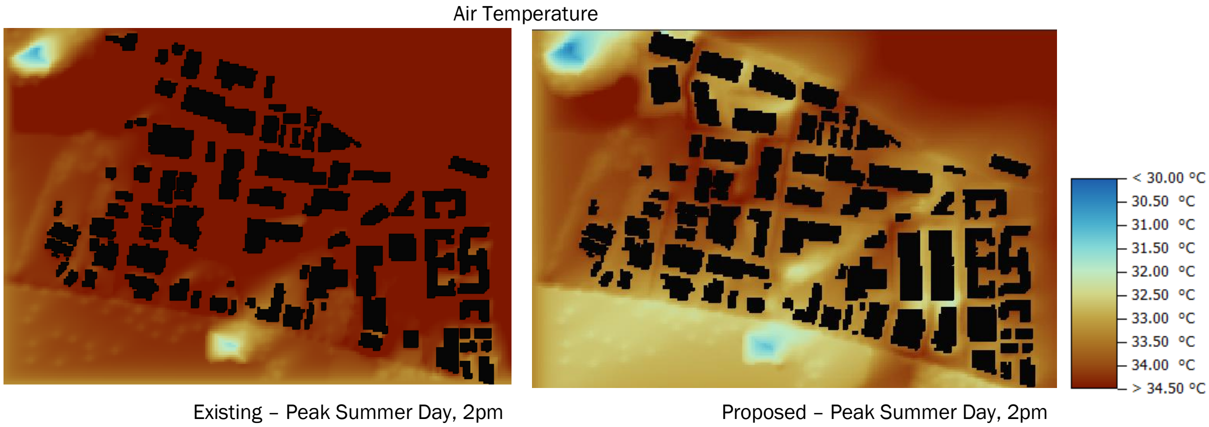
URBAN HEAT ISLAND MITIGATION

By increasing vegetation and light colored surfaces across the district, the Project takes a proactive approach to improving urban heat island effects. Expanding on the radiation studies, urban heat island effect of the existing and future condition show a meaningful reduction in average air temperature across the site at a peak summer condition. Utilizing state of the art microclimate simulation software, an average temperature reduction on the site of 2.2°F is realized as a result of additional green space, and redevelopment of paved hardscape and low rise industrial buildings with the proposed development. In areas that have been modified from paved hardscape to greenspace, the reductions are 4 - 5°F.

Site Conditions

Existing site condition

Proposed future condition



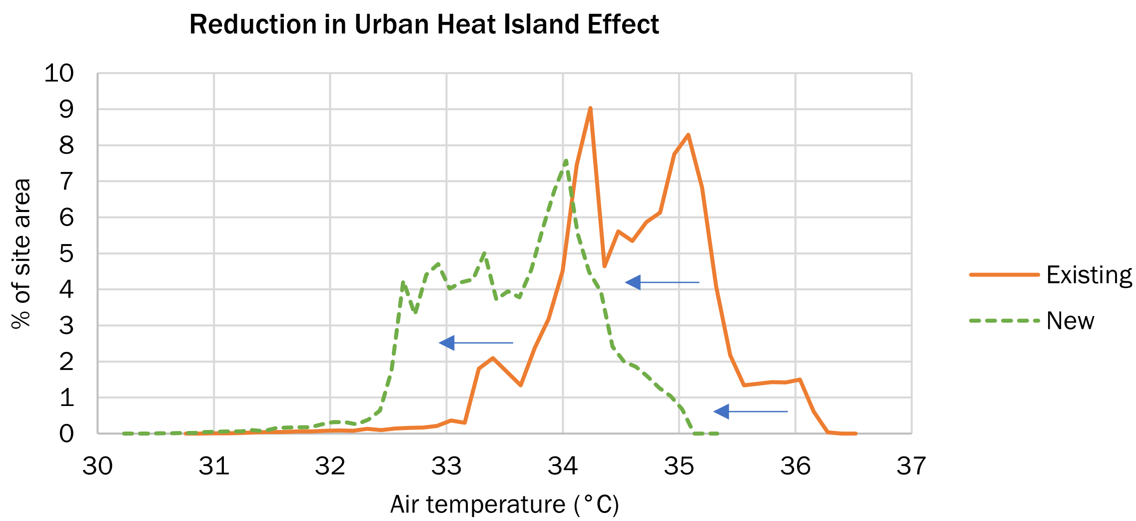


Figure 25 Reductions in urban heat island effect as indicated by analysis of proposed strategies.

The effects of development on potential thermal stress has been calculated using the same analysis. The metric used to describe the potential for thermal stress is Universal Thermal Climate Index (UTCI). This is effectively a “feels like” temperature, that accounts for the effects of radiation, humidity and wind speed along with the air temperature, and classifications of thermal stress from extreme cold stress to extreme heat stress are determined based on the UTCI. At a peak time, significant reductions in UTCI are realized across the site, in some instances in green spaces the condition is transformed from “Very Strong Heat Stress” to “Moderate Heat Stress.” Figure 25 shows the reductions in urban heat island.

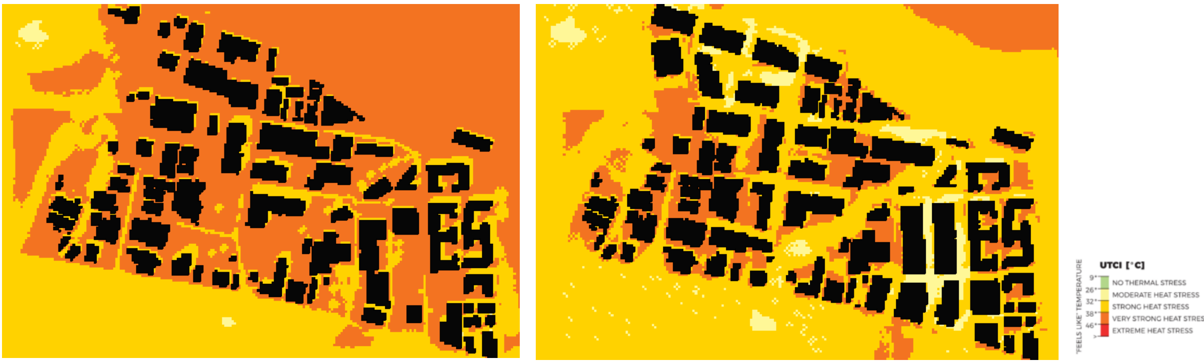


Figure 26 Universal Thermal Climate Index

Existing – Peak Summer Day, 2pm

Proposed – Peak Summer Day, 2pm

The proposed development increases tree canopy coverage and increases the height of buildings on the site. As a result, significantly less radiation falls on the ground plane. This assists in improving the thermal comfort for people and reduces urban heat island effect.

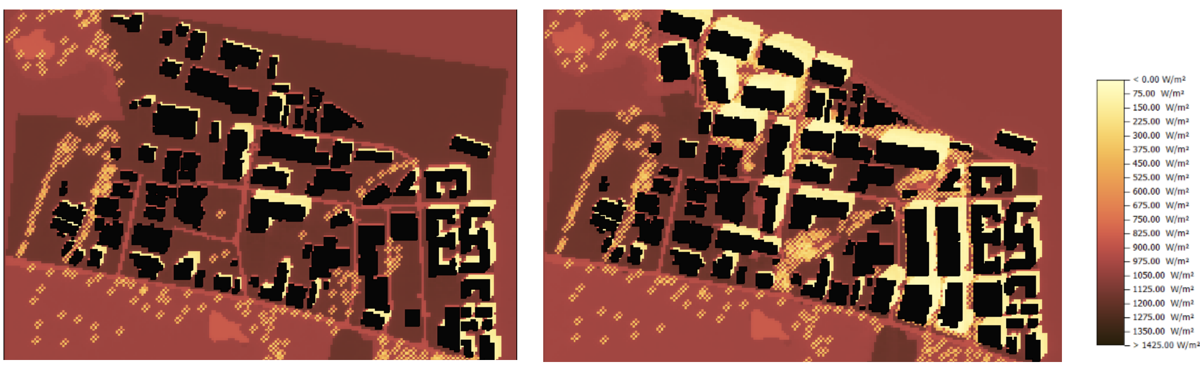


Figure 27 Solar Radiation

Existing – Peak Summer Day, 2pm

Proposed – Peak Summer Day, 2pm

TRANSIT

Located within a dense urban area, the Project reduces traffic impact on the community while accommodating alternative transportation strategies to reduce effective emissions associated with this new destination. Healthpeak encourages alternative transportation by enhancing bicycle networks, supporting carpool/carshare, and improving pedestrian connectivity to public transit stations. The design team has initiated a Transportation Impact Study and evaluated shared parking through sharing of parking spaces by multiple uses and a Transportation Demand Management and Mitigation program. Figures 28 and 29 shows the project's transportation strategies.

Building parking areas will include electric charging stations and preferred parking for low-emitting vehicles and carpools to reduce the emissions from vehicles on the road.

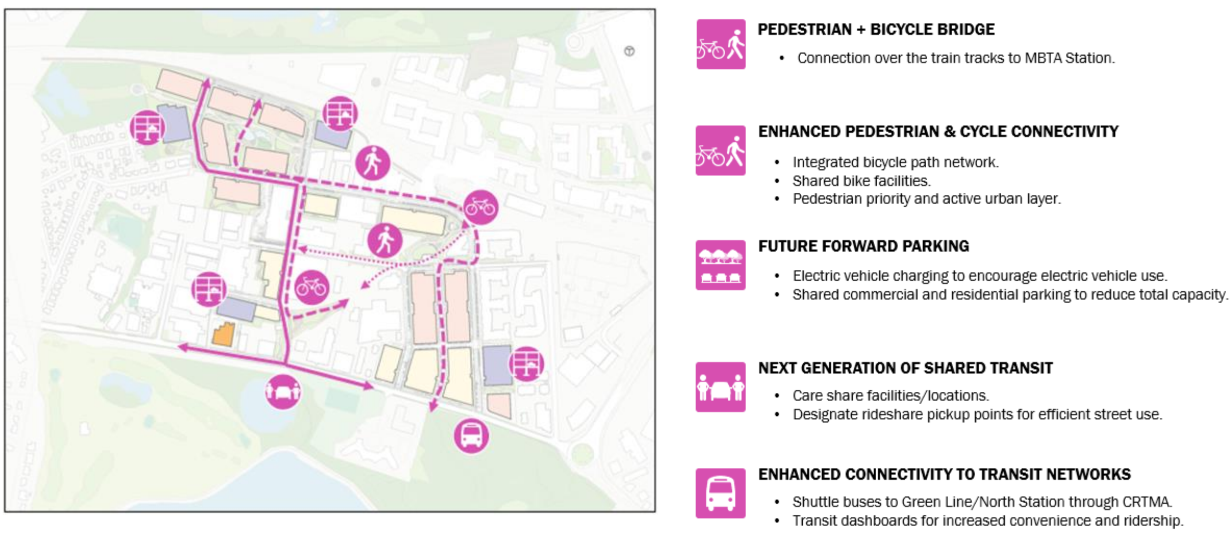


Figure 28 Transit strategies

INNOVATIVE TRANSIT

Easy access to buses and nearby connection to the MBTA will amplify the use of public transportation. Attractive pathways and amenities will further enhance the public transportation experience. The project will include real-time screens that provide transit information to users, such as when the next bus will arrive and where the nearest bike station is located, to enhance passenger experience.

The team continues to explore the future of mobility and servicing of the site. Considerations have been made for shuttles or last-mile scale of mobility that will be at the forefront of reducing reliance on personal vehicles. The following strategies are being pursued as part of the Master Plan design, refer to the TIS report for more information.

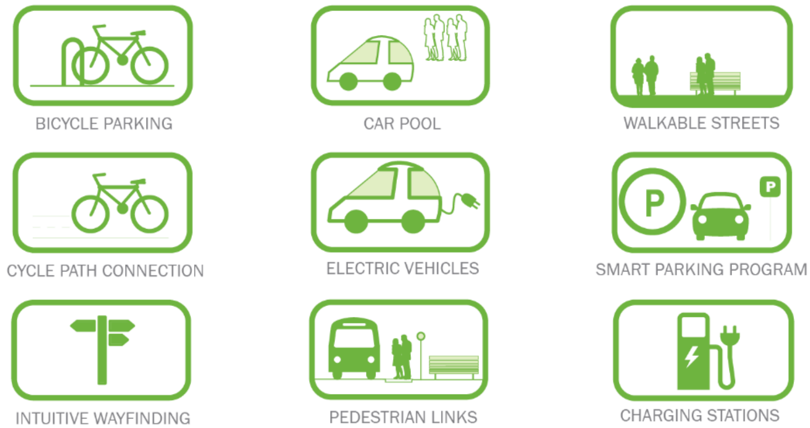


Figure 29 Transit strategies

- Pedestrian + bicycle bridge connecting over the train tracks to Alewife Station
- Mode Share and Parking: Anticipated transportation usage metrics are being assessed, with provided parking for residential, lab, and retail spaces, as modeled in the Transportation Impact Study (TIS). Projections will explore potential reductions in parking over time.
- Carpooling parking (garages to provide preferential and designated parking for carpools/vanpools)
- Carsharing parking (garages to provide spaces, if warranted by demand, for carshare vehicle providers such as Zipcar)
- Parking infrastructure driven by anticipated demand - aligning with Envision (shared parking analysis) and aggressive parking ratios
- Pedestrian Walkability: The development prioritizes increased pedestrian traffic through enhanced walkability and location of diverse uses at ground level.
- Pedestrian and Bicycle Bridge to connect to Alewife T Station over the train tracks, as well as a multi-use trail to run along side of the tracks.
- Electric Vehicle Charging: A percentage of parking spaces will be EV-ready, supporting a transition to electric mobility.
- Bike Infrastructure: Significant bike lane capacity and connections to an expanded bicycle network will be added, promoting sustainable and accessible transportation. Bike lanes that achieve high-level of bicycle comfort. Bike parking, showers, and lockers. Bike fix-it stations inside bike rooms.
- Bluebikes stations: Add stations within a 2.5-minute walk to buildings, phased with development.

BICYCLE CONNECTIVITY

To reduce reliance on personal vehicles, Healthpeak will support and extend the successful bicycle infrastructure and connectivity of the Cambridge and Boston metro areas through improved bicycle infrastructure – including on the pedestrian and cycle bridge over the railway. Bicycle parking is provided in designated areas in the garage dedicated to each building including the residences while street level bicycle facilities will provide highly visible and accessible parking for visitors. Alewife will support bike share programs for the occupants to improve access to bicycles.

PARKING INFRASTRUCTURE

Preferred parking locations will be provided in the above grade garage(s) for low emitting /fuel-efficient vehicles and carpools. Building parking areas will include electric charging stations to reduce the emissions from vehicles on the road. Healthpeak is committed to championing the transition to electric vehicles and will design electric vehicle ready parking spaces for 20% of the parking spaces with installed wiring as required by the City, in continuation of significant allocation of EVSE charging stations at Alewife.

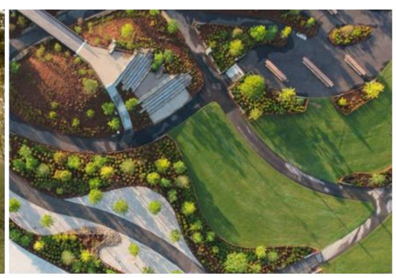
REGENERATIVE COMMUNITY PLANNING

Mixed-use aspects of the Project further integrate social sustainability concepts to create a thriving community of lab employees, residents, and visitors. The development includes outdoor community spaces, publicly beneficial open space, and programming for public recreation, social functions, and educational programs.

HEALTHY BUILDINGS + WELLNESS

Building and site design will integrate healthy building approaches to active design, healthy material selection, and promotion of wellness. Providing healthy living and working environments is a further defining factor of high-performance buildings. The site area with well-balanced hardscape paving and softscape vegetation encourages activities such as outdoor classes. This increase in physical activities will be encouraged by well-designed pedestrian pathways and amenities. The project will prohibit smoking near building entrances, air intakes, and central site gathering areas.

Enhanced stormwater swale & landscape feature



Large open spaces which also serve as stormwater storage in large storm events

Native and adaptive plant materials and grasses reducing water demand and assisting biodiversity

SUPPORT A THRIVING COMMUNITY

- Provide community amenities and facilities, including outdoor public spaces.
- Invite community participation in programming.
- Create a retail mix that supports local business.

DESIGN FOR HEALTH & WELLBEING

- Meet Cambridge Cool Score requirements for outdoor thermal comfort.
- Studying exceptional outdoor thermal comfort backed by thermal comfort studies for key areas.
- Design for green spaces of respite with visual connections to vegetation.
- Select materials for health and transparency in manufacturing .
- Universal design and active design to promote physical mobility.
- Promote healthy and active lifestyles via active integrated urban design: running, exercise and play spaces.

PROMOTE SUSTAINABILITY AWARENESS

- LEED Gold v4 buildings.
- Encourage community programming for sustainable living.

Figure 30 Regenerative community planning strategies

Healthpeak PUD Special Permit is rooted in principles of regenerative design, with a focus on fostering community vitality, health, and environmental stewardship.

Supporting a Thriving Community
The plan provides a network of community amenities and inclusive outdoor public spaces designed to foster social connection and a sense of belonging. It encourages active community participation in site programming and events, ensuring that the development evolves in response to local needs and interests. A curated retail mix prioritizes local goods and services to support small businesses, reinforce the local economy, and contribute to a vibrant street life.

Designing for Health and Wellbeing
Outdoor spaces are designed to meet or exceed Cambridge's Cool Score standards for thermal comfort, supported by targeted thermal modeling studies for key public areas. Green spaces offer visual and physical respite, with strong biophilic connections that promote mental wellness. Active and universal design principles are embedded throughout the site to encourage movement, physical accessibility, and equitable use — including walking trails, fitness areas, and inclusive play spaces. All materials are selected with a focus on occupant health and transparency in manufacturing, contributing to improved indoor air quality and reduced exposure to harmful substances.

Promoting Sustainability Awareness
All buildings are designed to meet LEED v4 Gold standards, supporting high performance across energy, water, and materials. In parallel, the project will foster community-wide sustainability engagement through education, events, and lifestyle programming that empowers residents, workers, and visitors to live more sustainably.

Together, these strategies aim to create a neighborhood that is not only livable and inclusive, but also regenerative — restoring ecological health, supporting human wellness, and strengthening community resilience for years to come.

END OF REPORT NARRATIVE

HEALTHPEAK PUD SPECIAL PERMIT
GREEN BUILDING REPORT

Revised: October 06, 2025

Table of Contents

HEALTHPEAK PUD SPECIAL PERMIT - PROJECT INTRODUCTION

Healthpeak OP, LLC has proposed a Master Plan development in the Alewife Overlay District – Quadrangle,(AOD-Q zoning. hereafter, "the Project"), that will transform approximately 42 acres into a dynamic mixed-use district featuring Class A lab and office facilities, multifamily residential buildings, retail and neighborhood uses, and community amenities. Named "Healthpeak PUD Special Permit," the project emphasizes open spaces and dedicated areas to foster vibrancy and resilience, enhancing connectivity between the Alewife neighborhood, greater Cambridge, and Boston.

This project offers a unique opportunity to create a multi-use neighborhood that harmonizes urban and natural spaces, encouraging gathering, recreation, and a strong sense of community. It will provide various housing options, complementary retail, and next-generation commercial spaces, all interconnected by robust infrastructure and multi-modal transit options.

At its core, the redevelopment features community spaces and extensive public open space, positioning the district as a vibrant civic hub for Alewife and its surroundings. This open space aims to foster community spirit, support social interaction, stimulate economic growth, and advance environmental sustainability.

The plan includes approximately 2,541,000 square feet of office and lab space, 1,765,000 square feet of residential areas with around 2,076 housing units, 71,000 square feet for neighborhood uses, as well as community focused outdoors spaces of approximately ~800,000 square feet and 202,300 of existing use for Mount Auburn Medical Office Building, 10 Fawcett Street, and 110 Fawcett Street. A table showing area (zoning gross square feet) by parcel and use has been included on the following page.

Sustainability has been foundational to the development's vision and planning.

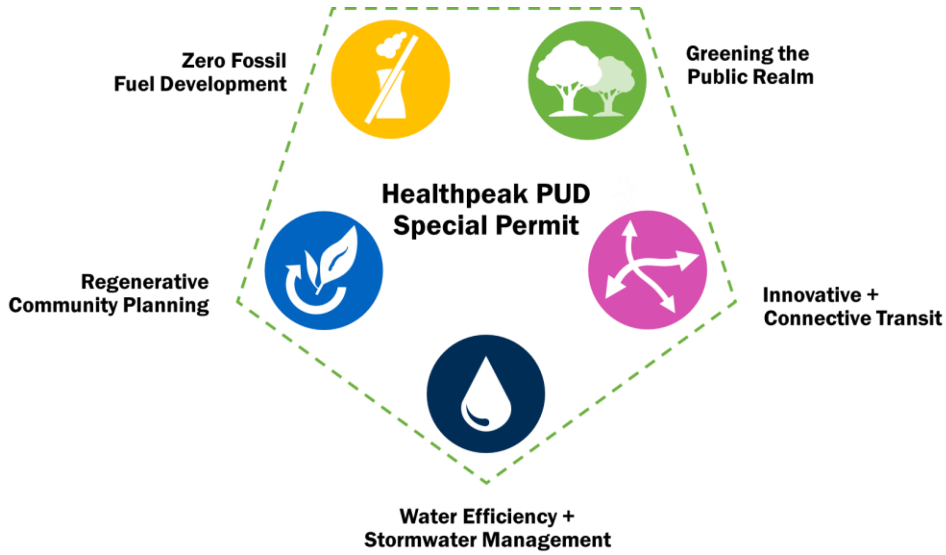
Table 1 Development Proposal - Zoning GSF

BLDG #	EXISTING USE TO REMAIN SF	RESIDENTIAL USE SF (UNITS)*	TECHNICAL OFFICE/ OFFICE USE SF	RETAIL/ NEIGHBORHOOD USE SF	VEHICLE PARKING SPACES PROPOSED SUPPLY	VEHICLE PARKING SPACES PROPOSED LOCATION	MIN. LONG-TERM BIKE PARKING SPACES[1]	MIN. SHORT-TERM BIKE PARKING SPACES[1]	*NOTES:*
C1			294,000			P1/P2	76	18	
C2			294,000			P1/P2	76	18	
C3			294,000			P1/P2	76	18	
C4			288,000	7,000		P1/P2	76	23	
C5			292,000			P1/P2	76	18	
C6			301,000			P1/P2	78	18	
C7			380,000	9,000		P3	100	30	
C8			378,000	9,000		P3	100	30	
R1		171,000 (201)			160 spaces	R1	210	20	
R2		379,000 (446)		7,000	330 spaces	R2	468	50	
R3		339,000 (399)		25,000	320 spaces	R3	422	60	
R4		311,000 (366)		14,000	300 spaces	R4	385	48	
R5		211,000 (248)			170 spaces	R5	259	25	
R6		52,000 (61)				P4	63	6	
R7		302,000 (355)				P4	372	36	
R8		220,000 (220)			165 spaces	R8	232	25	
P1					620 spaces	P1	-	-	*Parking Garage*
P2					859 spaces	P2	-	-	*Parking Garage*
P3					996 spaces	P3	-	-	*Parking Garage*
P4					630 spaces	P4	-	-	*Parking Garage*
E1	84,500					P4	Existing	Existing	*Existing Medical Bldg.*
E2	4,500				8 spaces	E2	Existing	Existing	*Existing Retail*
E3	109,000					P3	Existing	Existing	*Existing Office Bldg.*
Future DPW Office			50,000		20 spaces	DPW Parcel	6	1	*DPW Yard Project*
Total	**198,000**	**1,985,000 (2,296)**	**2,571,000**	**71,000**	**4,578 spaces**		**3,076**	**442**	

* Assuming average of approximately 850 SF per residential unit

1 Bicycle Parking Guide 2013 (cambridgema.gov). For bike parking, retail/neighborhood uses assume a 50/50 split between standard retail and restaurant uses.

SUSTAINABILITY EXECUTIVE SUMMARY



Healthpeak PUD Special Permit sets a new standard in sustainable urban development through a holistic approach that integrates zero-fossil fuel development, energy and water efficiency, community planning, the greening of the public realm, and advanced transportation. This initiative will showcase Healthpeak's commitment to sustainability by pursuing efficient and strategic solutions that address environmental challenges on both local and regional levels.

EXEMPLARY MASTER PLAN

Zero Fossil Fuel Development

All-electric buildings — no fossil fuels on-site (except emergency generators)

Efficient passive and active systems

Powered in part by renewable energy generated on-site

Embodied carbon reductions via responsible sourcing

Regenerative Community Planning

Urban design that enhances social connectivity

Ground Floor Activation - varied storefronts, entry points, and pop-up spaces to encourage walking and exploration.

Support local businesses, including local goods and services that reinforce the community and circular economy.

Water Efficiency & Stormwater Management

Manage stormwater through site elements and reduce potable water consumption through efficiency measures.

Greening the Public Realm

Lush, shaded landscapes that dramatically improve outdoor comfort

Publicly accessible nature integrated into everyday life

Significant improvement in outdoor thermal comfort and reduction of urban heat island

Innovative Connective Transit

Pedestrian + bicycle bridge connection over the train tracks to Alewife Station

Pedestrian connections through enhanced walkability and location of diverse uses at ground level.

Significant bike lane capacity and connections to an expanded bicycle network

Figure 1 Key sustainability goals

Key sustainability goals for the project:

Zero Fossil Fuel Development: This all-electric development will eliminate onsite fossil fuel emissions (except for emergency generators), supported by efficient approaches to building energy design. Future renewable energy procurement opportunities will contribute to a net-zero carbon future in alignment with BEUDO requirements.

Regenerative Community Planning: The district will feature urban design that boosts social connection through active ground floors, diverse storefronts, and support for local businesses and the circular economy.

Greening the Public Realm: Lush, shaded, and publicly accessible landscapes bring nature into daily life while significantly improving outdoor comfort and reducing the urban heat island effect.

Innovative Connective Transit: The project promotes innovative, connective transit with integrated bike, pedestrian, and multimodal links that prioritize accessibility, reduce car dependence, and strengthen regional mobility.

Water Efficiency: The project will implement efficient indoor and outdoor water systems to achieve optimal on-site water reuse, minimizing the development's impact on municipal water systems, while also incorporating site strategies to reduce stormwater runoff and improving runoff quality management and infiltration.

In addition to the five key overarching goals described above, the following factors have also been an important part of the project's development, and are described within the GBR in greater detail:

Climate Resilient Design: Studying the incorporation of advanced stormwater management with green roofs and green infrastructure, the project aims to exceed standard requirements for flood resilience. Critical functions will be supported by resilient energy storage, as well as operational programs for resilience planning to provide information during emergencies.

Embodied Carbon Reduction: The development targets a 10% reduction in labs building embodied carbon. The project will study material quantity and selections optimization to reduce embodied carbon.

These strategies position the project as a benchmark for sustainable urban development, exemplifying Healthpeak's dedication to forward-thinking environmental design at the building and community scale.

Zero Fossil Fuel Development

The Project is designed to target energy efficiency and will achieve net zero operational carbon via compliance with Cambridge's Building Energy Use Disclosure Ordinance (hereafter, BEUDO) over time as development progresses. All residential and commercial buildings will be fully electric (with the exception of emergency power generation), aligning with the vision for a low-carbon New England power grid. The project team anticipates that Massachusetts's electrical power grid will decarbonize as renewable energy generation projects come online. Healthpeak is investing in design solutions that will be able to take advantage of decarbonization as the grid progresses. Figure 2 shows the energy strategy for the project.

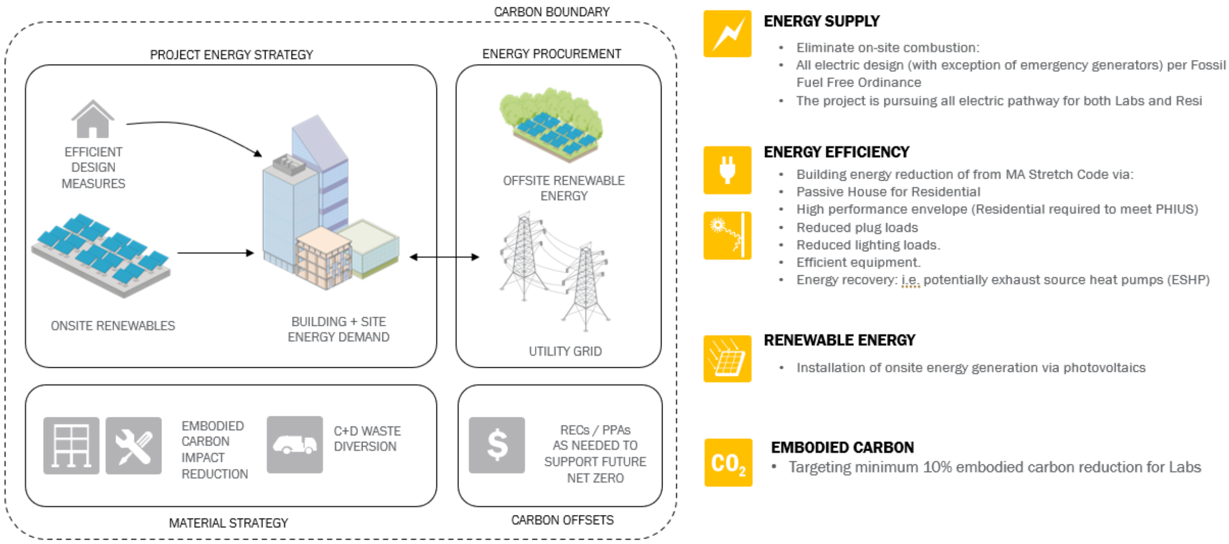


Figure 2 Energy efficiency strategy

Regenerative Community Planning

Healthpeak PUD Special Permit is a forward-looking master plan grounded in regenerative design, aimed at building a healthy, inclusive, and sustainable community. The project integrates public amenities and accessible open spaces to strengthen social connection and local identity, while a diverse retail mix supports small businesses and vibrant street life. Health and wellbeing are central, with outdoor areas designed for thermal comfort, active living, and universal accessibility. Materials are chosen for occupant health and transparency. Together, these strategies position the project as a resilient, people-first neighborhood that restores ecological value and fosters long-term community vitality.

Greening the Public Realm

The project focuses on integrating nature into the everyday urban experience through lush, shaded, and publicly accessible landscapes. The project will add approximately 800,000 sf of green space, and 1,084 new trees to the community. These green spaces are thoughtfully designed to provide both ecological and human benefits—offering visual and physical respite, enhancing biodiversity, and significantly improving outdoor thermal comfort. By prioritizing tree canopy, native plantings, and green infrastructure, the plan reduces the urban heat island effect while creating vibrant, welcoming environments that support social interaction, recreation, and overall community well-being.

Innovative Connective Transit

Healthpeak's transportation and mobility strategy for the Alewife development focuses on creating a low-carbon, accessible, and adaptable environment that aligns with the City's goals. Key strategies include transportation demand management (TDM) programs that promote and support alternative transportation modes, as well as a critical pedestrian and bicycle bridge which connects the development to the Alewife MBTA Station over the railway, improving connectivity not just within the district but by providing walkable connections to adjacent communities. The development's design breaks up the existing site to improve permeability, connectivity, and ease of movement, with plans to evolve and accommodate future transportation technologies and needs. Figure 3 shows the district scale transportation concepts for the project.

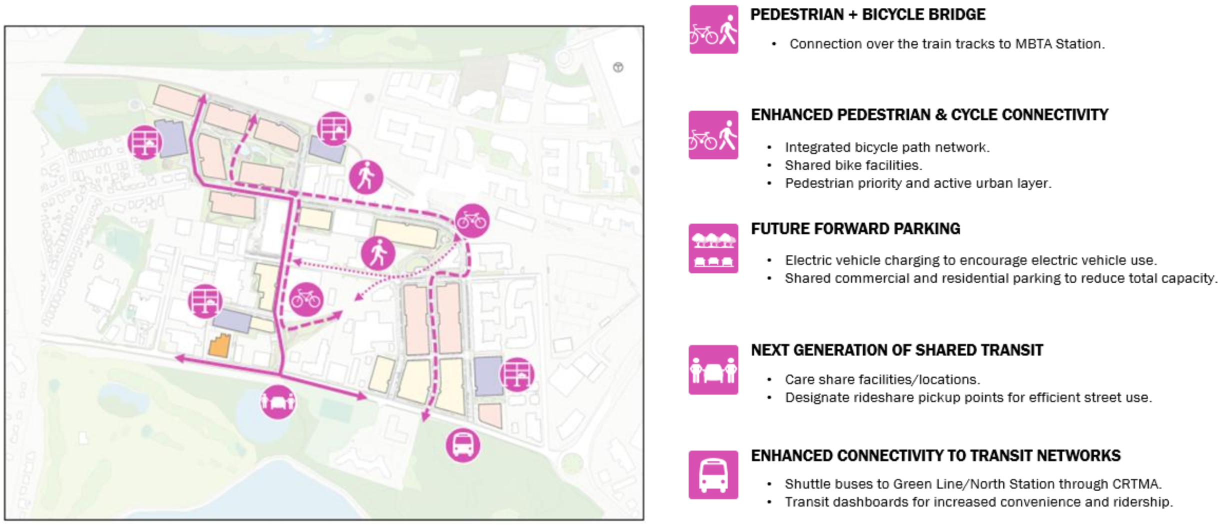


Figure 3 Transportation and walkable site strategies

Water Efficiency

Water Efficiency is a core sustainability priority, with strategies that reduce potable water use, manage stormwater responsibly, and promote long-term resource conservation. The projects will incorporate high-efficiency plumbing fixtures, lab-grade low-flow systems, and cooling tower optimizations to significantly cut indoor water demand. Outdoors, the landscape is designed for low or no irrigation, potentially utilizing non-potable sources such as harvested rainwater and smart, weather-responsive irrigation controls. The use of indigenous vegetation further reduces water needs, while water submetering across building systems ensures ongoing monitoring and performance. These integrated approaches support both environmental stewardship and operational resilience. Figure 4 shows the project's water strategy.

Climate Resilient Design

In preparation for anticipated increases in precipitation, the project will incorporate resilient design strategies. These include elevating critical equipment, residential units, and all building ground floors above the 100-year flood level. Additionally, stormwater mitigation measures will be integrated throughout each development phase, and standby power will be provided for essential equipment, ensuring resilience remains central to the design. The typical private site design requirements are:

> Quantity: Reduce the post-construction 2070 25-year 24-hour storm event to the pre-existing 2070 2-year 24-hour storm event. (for example, from "25 to 2"). This is a local Cambridge DPW requirement, which will need to be met on-site.
>
> Quality: Reduce the total phosphorus load by a minimum of 65%. This is a MassDEP/EPA requirement, that is enforced locally by Cambridge DPW.

Urban Heat Island

To reduce risks associated with rising temperatures, the development will mitigate the urban heat island effect with high-albedo roofing and paving, while minimizing cooling demands through insulated and shaded building facades. The existing site is a former industrial and light manufacturing district, which currently consists mostly of asphalt surfaces and lack of trees and greenspace. Taken together, the urban heat island reduction strategies are expected to reduce ambient temperature by approximately –3° to -5° F, according to preliminary analysis. Reference the Urban Heat Island Reduction section for more information.

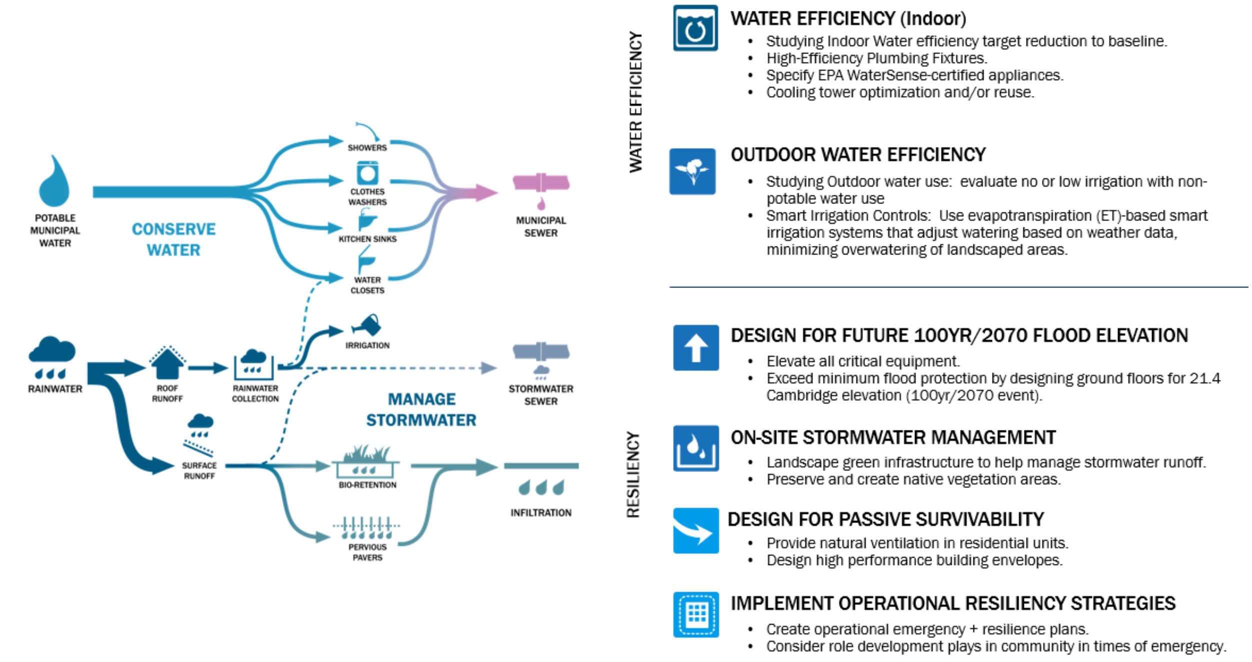


Figure 4 On-site water stewardship and resiliency

Benchmarking to Measure Performance
Healthpeak's commitment to sustainable development in the Alewife district will establish one of the largest LEED-certified projects in the Cambridge and Boston areas. Each building is designed to meet at least LEED Gold certification under the LEED version 5 system (or v4 if latest version applicable such as LEED for Multifamily Midrise), showcasing Healthpeak's dedication to adopting sustainable building standards. Based on project timelines, each parcel will individually submit for LEED certification and the team will determine the applicable version of LEED at the time of each parcel's design. (Refer to the Green Building Checklist, LEED narratives, and Green Building Professional Affidavit for compliance details.)

Note that Residential projects may select to document compliance with the Green Building Certification requirements of Article 22 through the PHIUS pathway, rather than LEED. The development will aim to create healthy multifamily buildings and spaces and study opportunities for improving resident wellness.

Healthpeak also uses GRESB as the portfolio tracking certification system for operational sustainability benchmarking.

INTEGRATED DESIGN PROCESS

Sustainability is central to the Alewife master planning process. Healthpeak is dedicated to creating buildings that are energy-efficient, environmentally responsible, adaptable to new technologies, and healthy for occupants and visitors.

To achieve these goals, Healthpeak assembled a multidisciplinary team experienced in collaborative, sustainability-focused design. Early on, team members from Atelier Ten, Elkus Manfredi Architects, VHB, BR+A, and Haley & Aldrich engaged in in-depth discussions, challenging conventional ideas of sustainable development for both present and future needs. Design concepts and elements were continuously evaluated through a sustainability lens.

In addition to integrated design team weekly meetings inclusive of sustainability, the design process included numerous specialized workshops.

- Healthpeak Sustainability Kickoff Workshop 10/04/2025
- Energy Strategy Introduction Meeting 03/11/2025
- Green Building Requirements in Cambridge + MA Educational Workshop 01/16/2025
- Healthpeak LEED + Corporate Sustainability Overview 04/01/2025
- Energy Strategy Development 05/15/25
- Energy Strategy Update to Hines + Team 06/17/25
- Green Building Reporting + Content Planning 07/16/25

Each building in the Project will follow an integrated design approach, employing best practices to meet sustainability targets.

GREEN BUILDING REPORT

This document provides an overview of the sustainability efforts and decisions guiding the planning of Healthpeak PUD Special Permit. The design team has incorporated the City of Cambridge's sustainability requirements, including Article 22 Sustainability Guidelines, throughout the design process.

The project aims to meet its sustainability targets through the strategies outlined in this document. Additionally, some of the development's sustainability priorities targeted for study —such as energy efficiency measures, and healthy building design—are included in the Green Building Report to reflect the project's holistic approach to sustainability and will continue to be evaluated as each building proceeds into design.

The following sections offer a detailed breakdown of the primary sustainability guidelines, including how the design team explored and incorporated these strategies or identified more efficient alternatives. This submission covers all buildings proposed in the project, with further details on sustainability performance to be provided in individual buildings' future Design Review submissions

ZONING COMPLIANCE

This section outlines the project team's comprehensive approach to environmental performance, highlighting the sustainability priorities and strategies designed to meet or exceed the City of Cambridge's requirements and initiatives.

Aligned with Cambridge zoning and sustainability goals, the project is developed in compliance with Article 22 of the Cambridge Zoning Ordinance and will meet or exceed the standards. As required, the buildings will be designed to be LEED Gold certifiable, at a minimum, or certify as Passive House as a potential pathway for Article 22 compliance for residential buildings. Healthpeak is exploring energy conservation measures at both the building and site levels. This analysis includes evaluating optimal on-site energy generation strategies within the Project.

Healthpeak remains deeply involved in the City's ongoing sustainability initiatives, including the Net Zero Action Plan, ensuring that the project's energy and resilience strategies align with Cambridge's goals. Healthpeak employs an integrated, whole-systems approach and continually reexamines design strategies to stay at the forefront of environmental performance.

Energy efficiency and resource conservation are central to the Project site's sustainability framework and will continue to guide the project as it progresses. Furthermore, the project will meet the standards for flood resiliency in compliance with Section 22.80.

GREEN BUILDING CHECKLIST

Green Building Project Checklist

Green Building Project Location: Alewife PUD Special Permit - multiple addresses

Applicant

Name: Healthpeak OP, LLC

Address: 1900 Main Street, Suite 500, Irvine CA 92614

Contact Information

Email Address: rsquirrell@healthpeak.com

Telephone #: (949) 407-0700

Project Information (select all that apply):

- ☑ New Construction – GFA: 4,377,000 SF
- ☐ Addition – GFA of Addition: 0
- ☑ Rehabilitation of Existing Building – GFA of Rehabilitated Area: 4,800 SF
  - ☐ Existing Use(s) of Rehabilitated Area: Commercial office
  - ☐ Proposed Use(s) of Rehabilitated Area: Commercial office
- ☑ Requires Planning Board Special Permit approval Yes
- ☑ Subject to Section 19.50 Building and Site Plan Requirements
- ☑ Site was previously subject to Green Building Requirements

*Portions of the site contain buildings that predate the passage of Green Building requirements

Green Building Rating Program/System:

- ☑ Leadership in Energy and Environmental Design (LEED) – Version: v5
  - ☑ Building Design + Construction (BD+C) – Subcategory: Core + Shell
  - ☑ Residential BD+C – Subcategory: "TBD/Potential" LEED Residential BD+C for Multifamily Midrise OR LEED BD+C NC
  - ☐ Interior Design + Construction (ID+C) – Subcategory:
  - ☐ Other:
- ☑ Passive House – Version: 2021 or 2024, depending on project construction timeline
  - ☐ PHIUS+
  - ☐ Passivhaus Institut (PHI)
  - ☐ Other:
- ☐ Enterprise Green Communities – Version:

Project Phase

☑ **SPECIAL PERMIT**

Before applying for a building permit, submit this documentation to CDD for review and approval.

Required Submissions

All rating programs:

- ☑ Rating system checklist
- ☑ Rating system narrative
- ☑ Net zero narrative (see example template for guidance)
- ☑ Affidavit signed by Green Building Professional with attached credentials – use City form provided (Special Permit)

GREEN BUILDING PROFESSIONAL AFFIDAVIT

Affidavit Form for Green Building Professional Special Permit

Green Building Project Location: Alewife PUD Special Permit

Green Building Professional

Name: David Manfredi, FAIA, LEED AP

☑ Architect

☐ Engineer

License Number: #5553

Company: Elkus Manfredi Architects

Address: 25 Drydock Avenue Boston, Massachusetts 02210

Contact Information

Email Address: info@elkus-manfredi.com

Telephone Number: 617.426.1300

I, David P. Manfredi, as the Green Building Professional for this Green Building Project, have reviewed all relevant documents for this project and confirm to the best of my knowledge that those documents indicate that the project is being designed to achieve the requirements of Section 22.24 under Article 22.20 of the Cambridge Zoning Ordinance.

(Signature) [signature] 9.23.25 (Date)

Attach either:

☐ Credential from the applicable Green Building Rating Program indicating advanced knowledge and experience in environmentally sustainable development in general as well as the applicable Green Building Rating System for this Green Building Project.

☐ If the Green Building Rating Program does not offer such a credential, evidence of experience as a project architect or engineer, or as a consultant providing third-party review, on at least three (3) projects that have been certified using the applicable Green Building Rating Program.