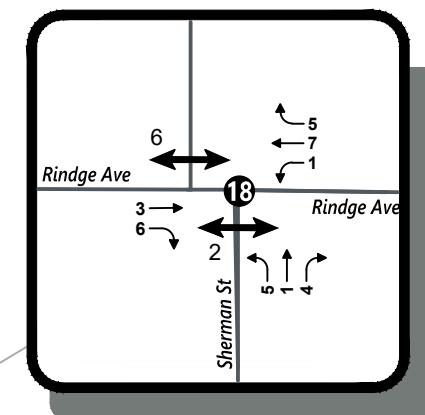


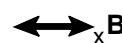


LEGEND

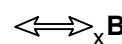


5

Future Development Area



Bicycle Movement Within Crosswalk



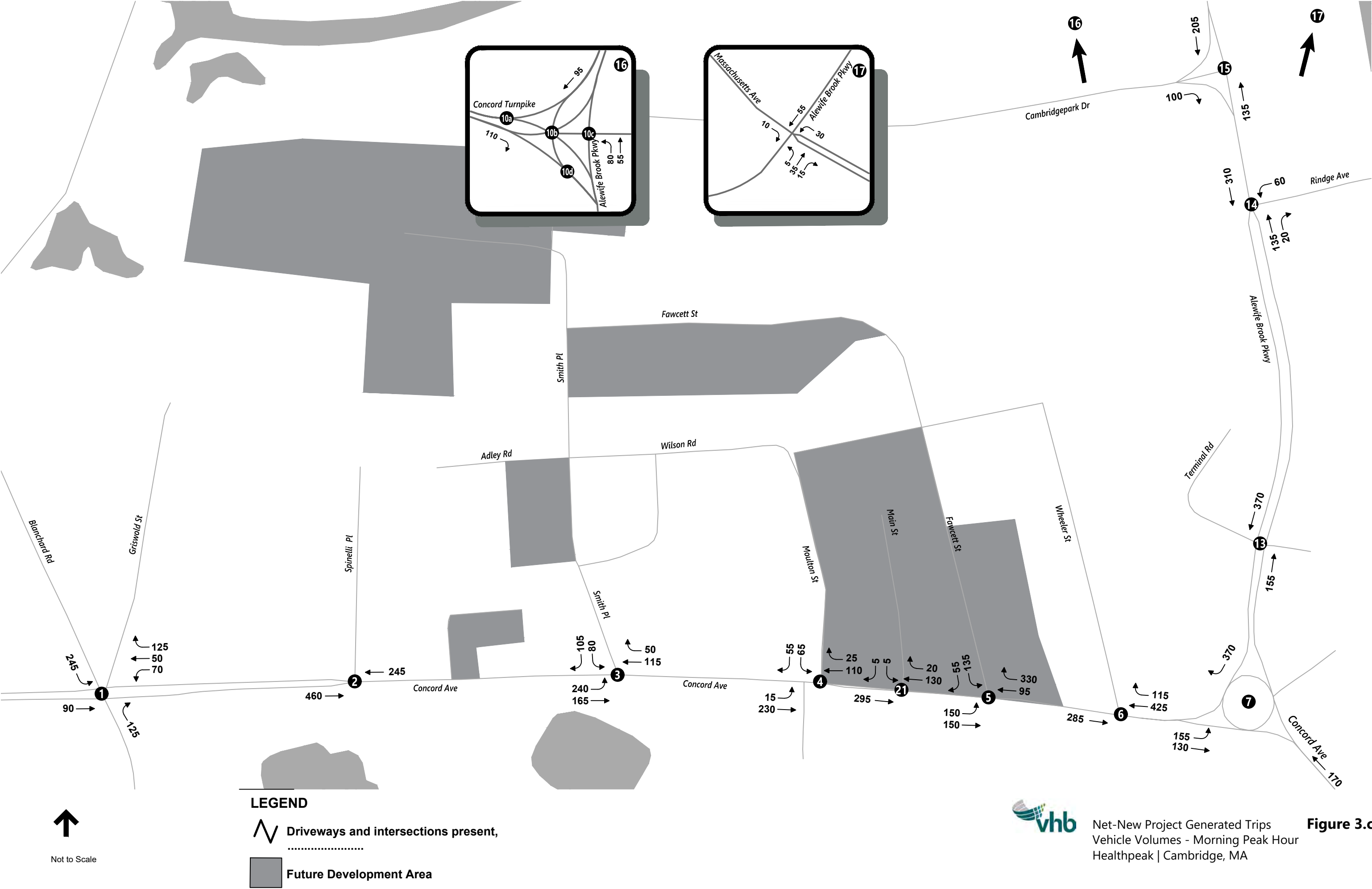
Bicycle Movement
(No Crosswalk Present)

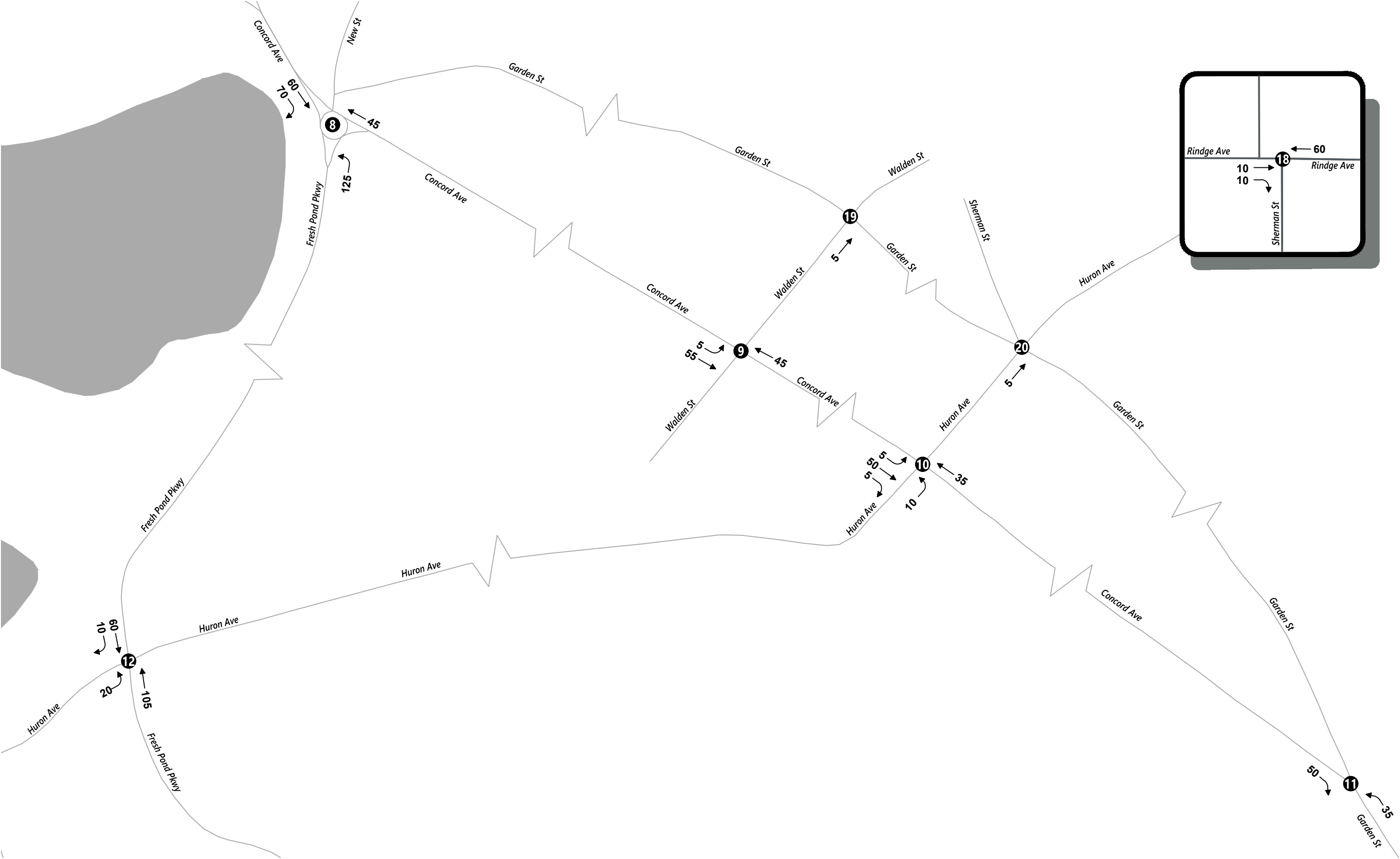
Wed, 10/23/2024 - 18, 19, 20



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

Figure 2.b.6.b





Not to Scale

LEGEND



Driveways and intersections present,

.....

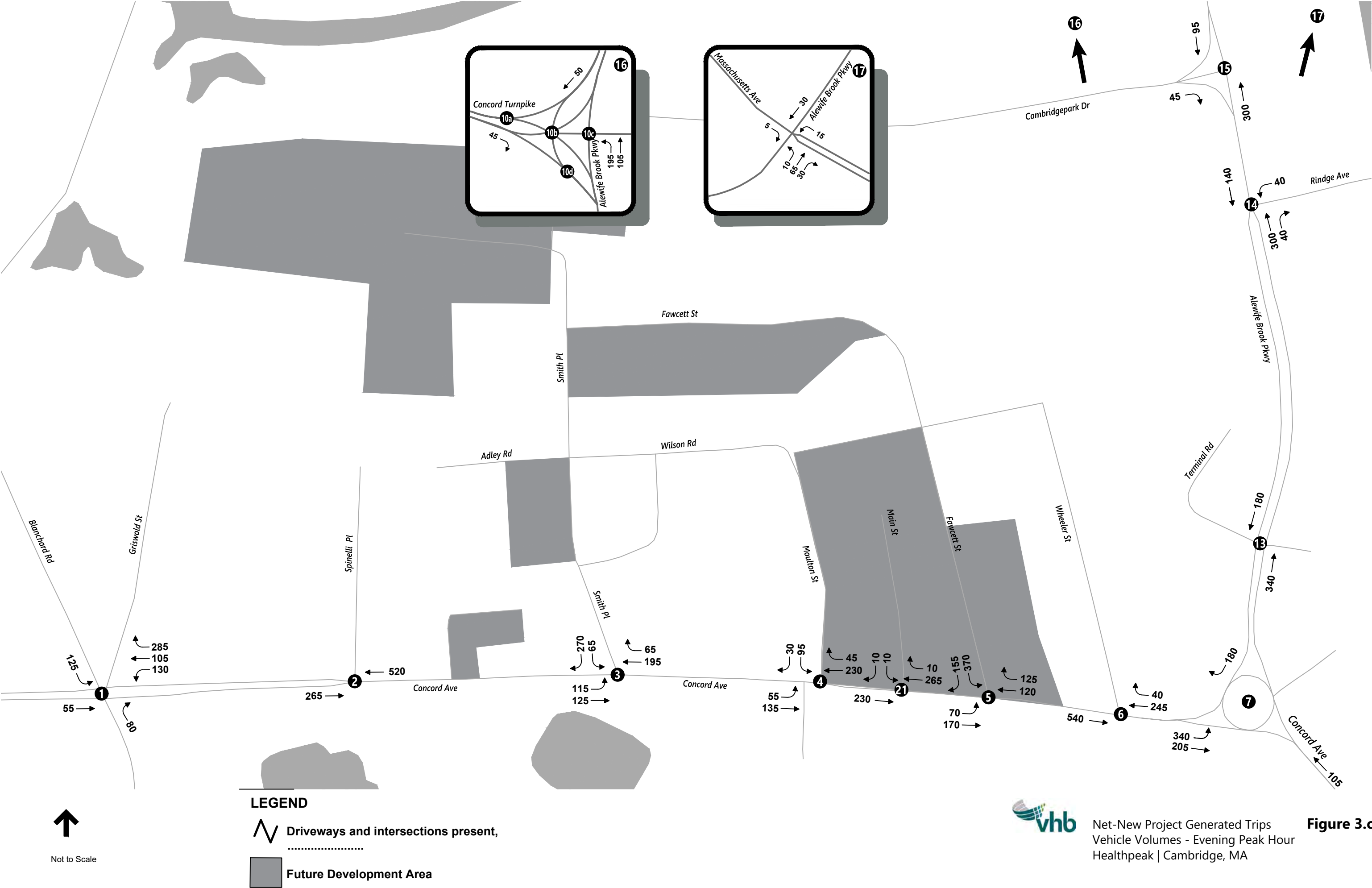


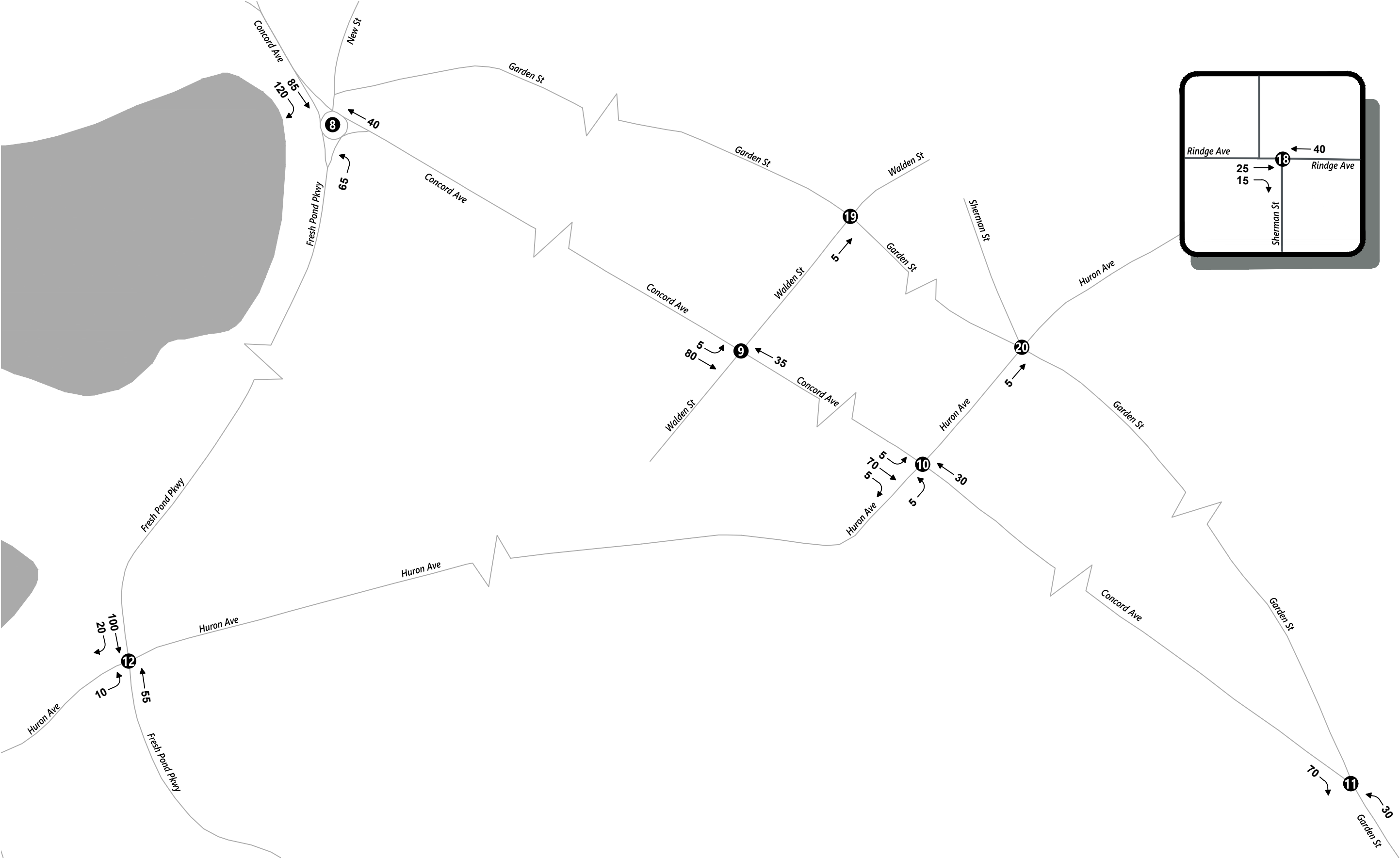
Future Development Area



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

Figure 3.c.7.b





Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance



Future Development Area

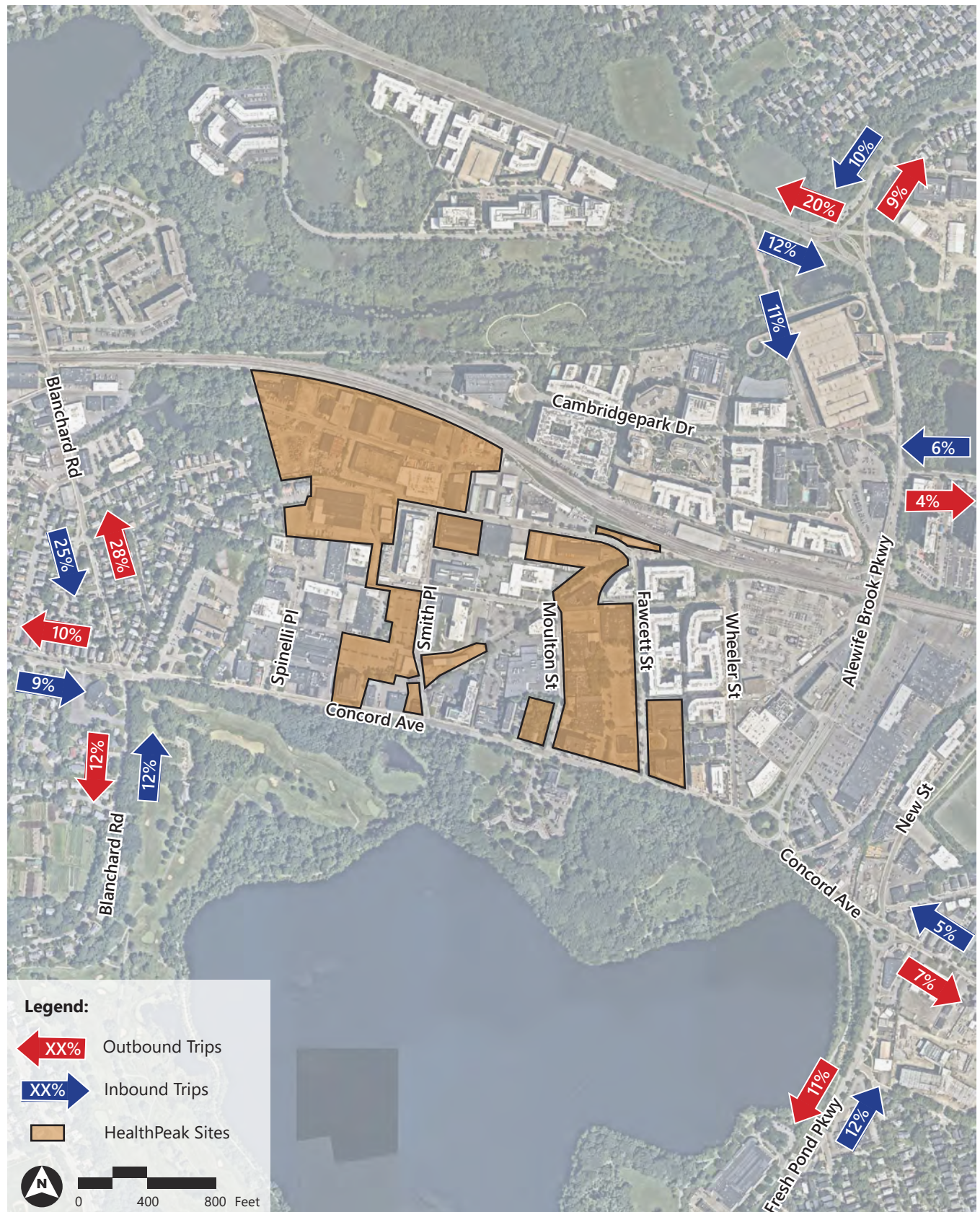


Net-New Project Generated Trips
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 3.c.8.b

Figure 3.d.1: Trip Assignment - Commercial

Healthpeak | Cambridge, MA



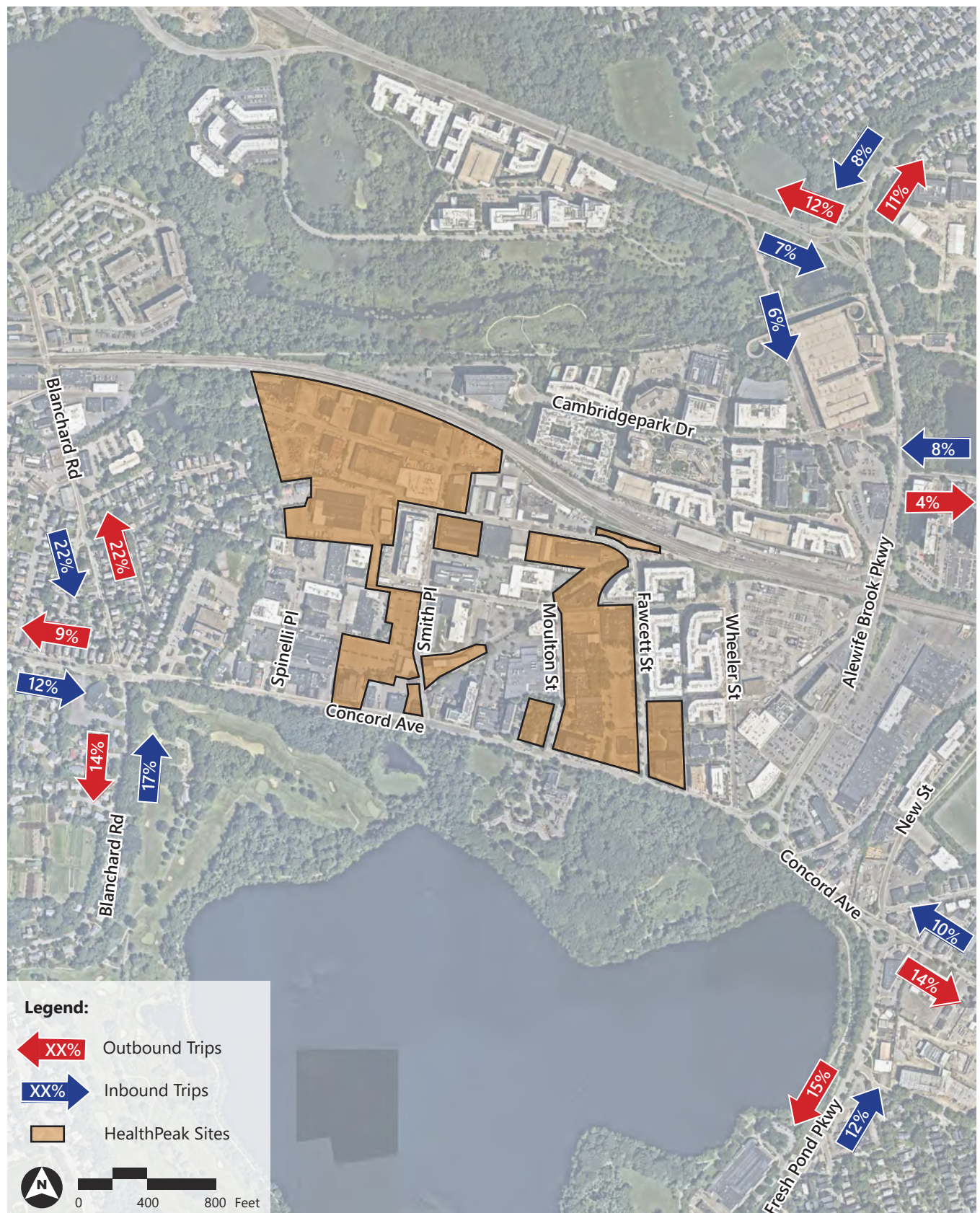
Source: Nearmap Aerial dated 10/29/2024.

Figure 3.d.2: Trip Assignment - Residential

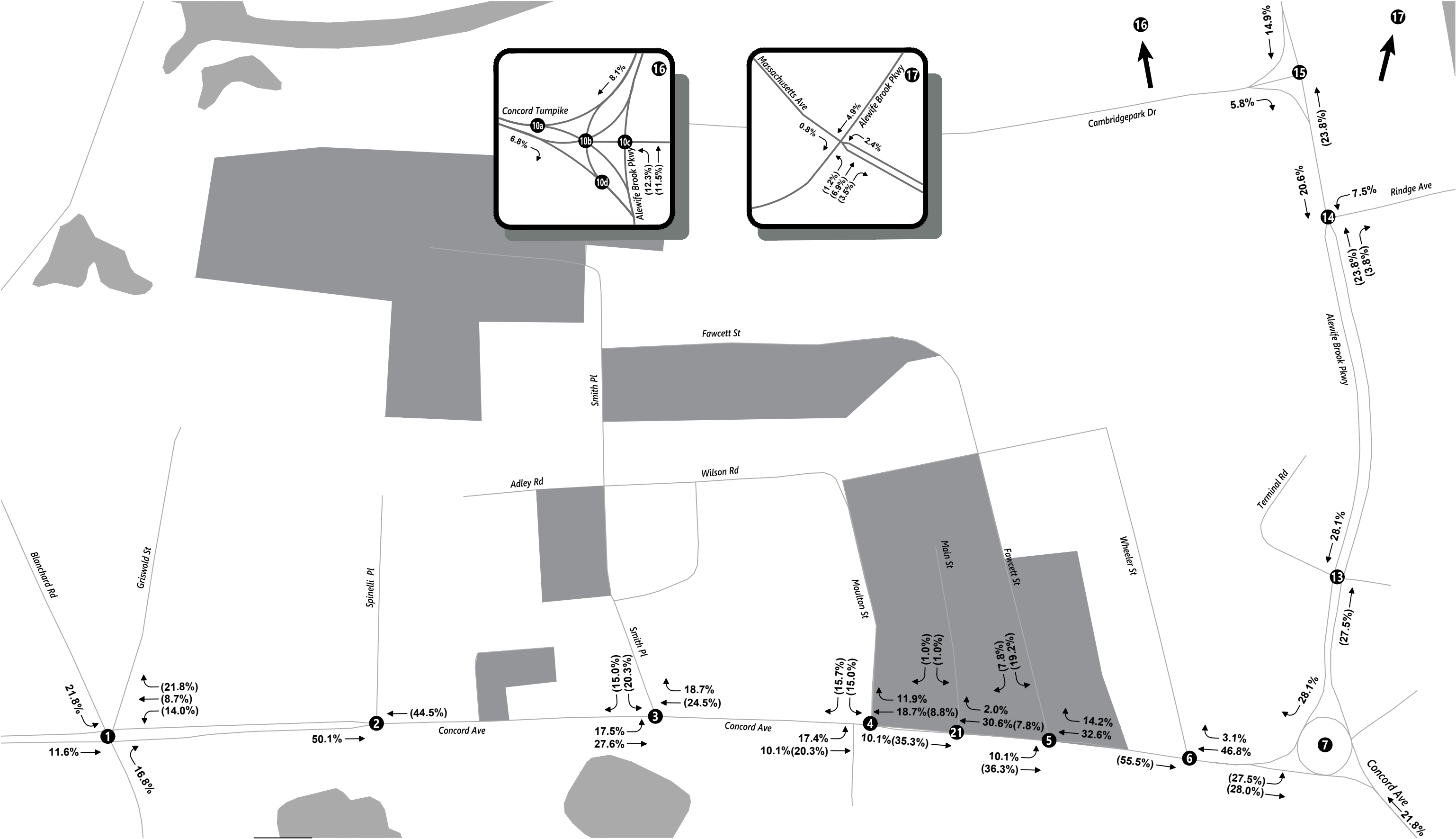
Healthpeak | Cambridge, MA



02/05/2026



Source: Nearmap Aerial dated 10/29/2024.



Not to Scale

LEGEND



Driveways and intersections present,
.....



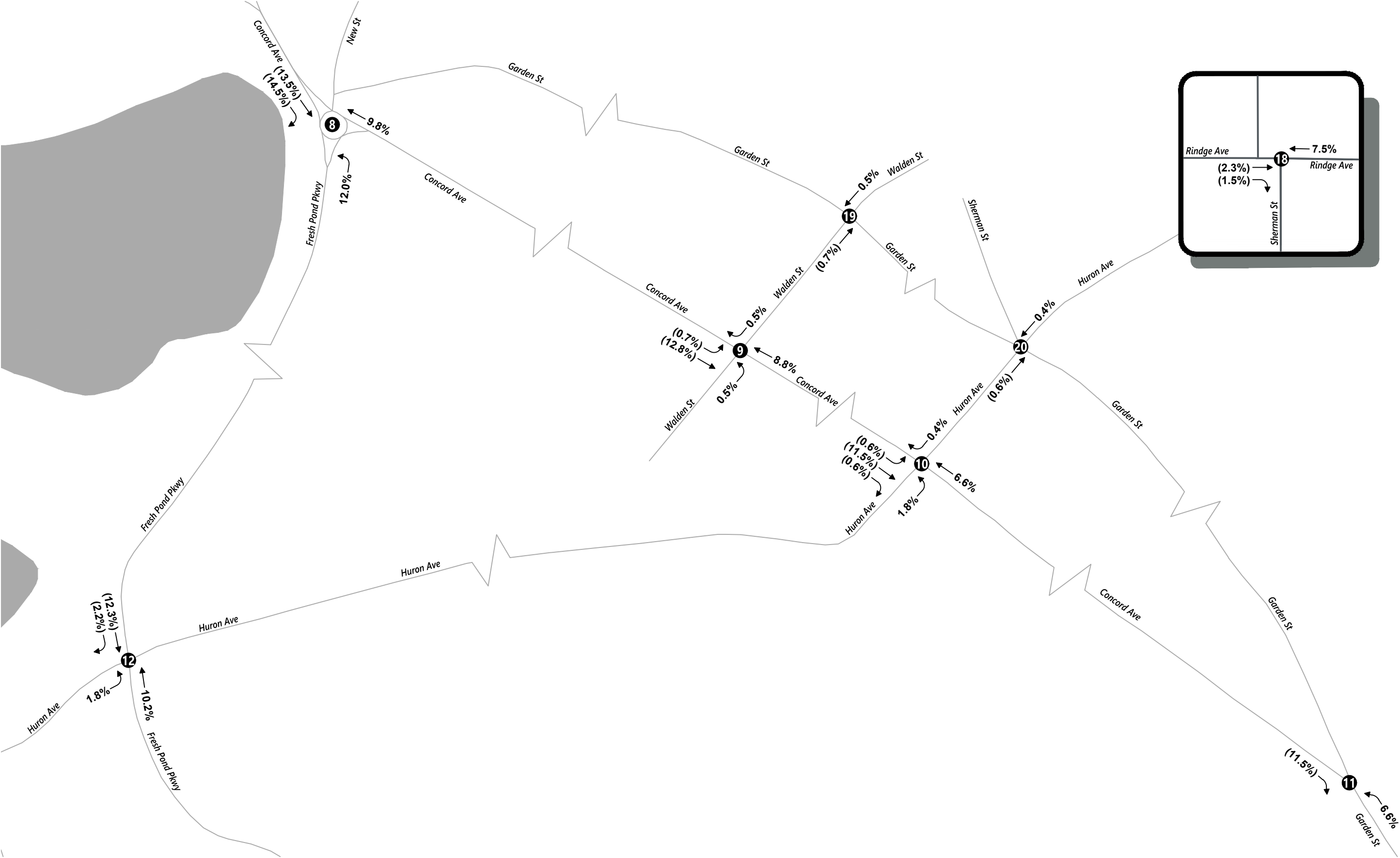
Future Development Area



Residential Trip Distribution

Healthpeak | Cambridge, MA

Figure 3.d.3.a



Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance



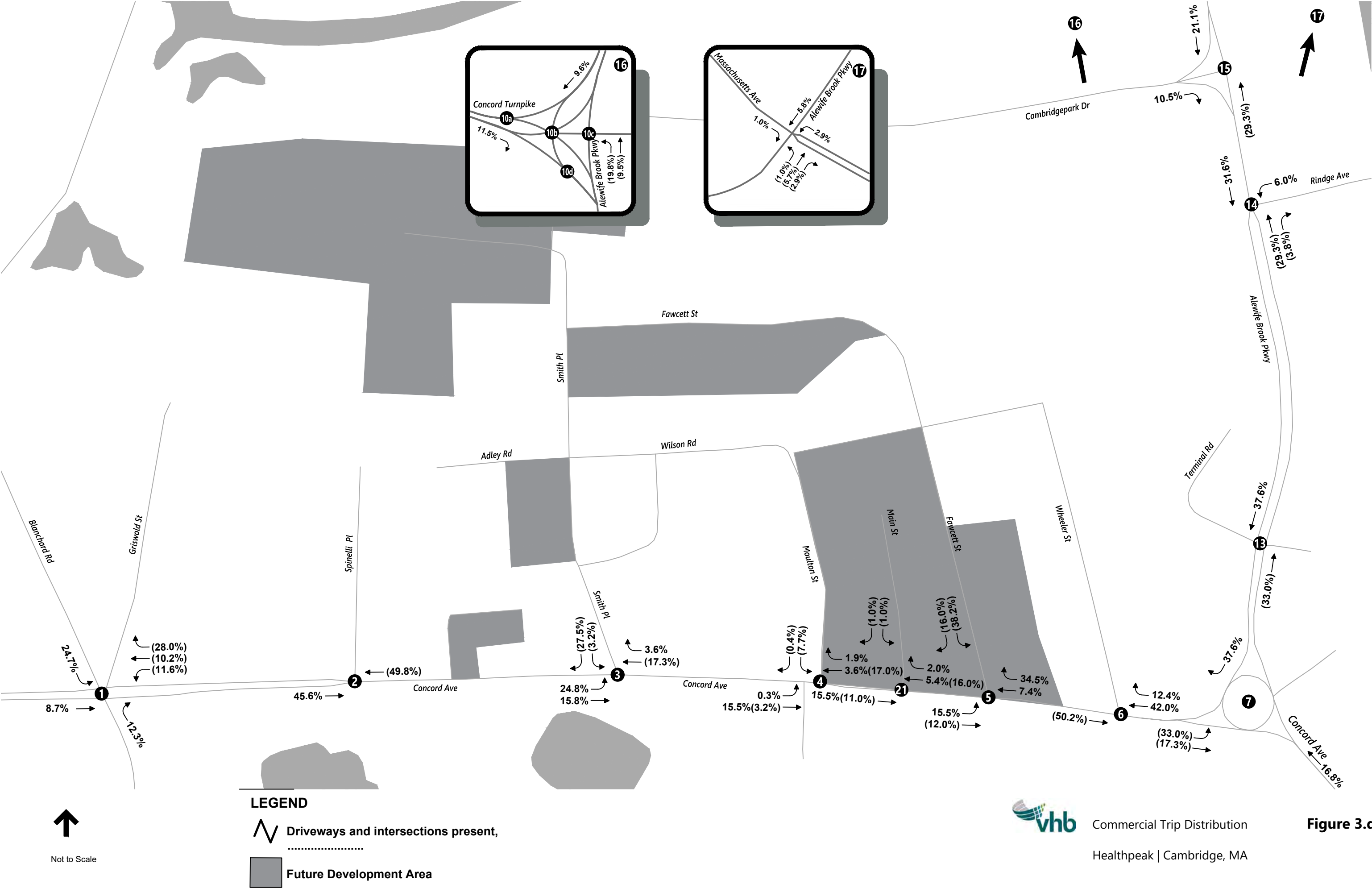
Future Development Area

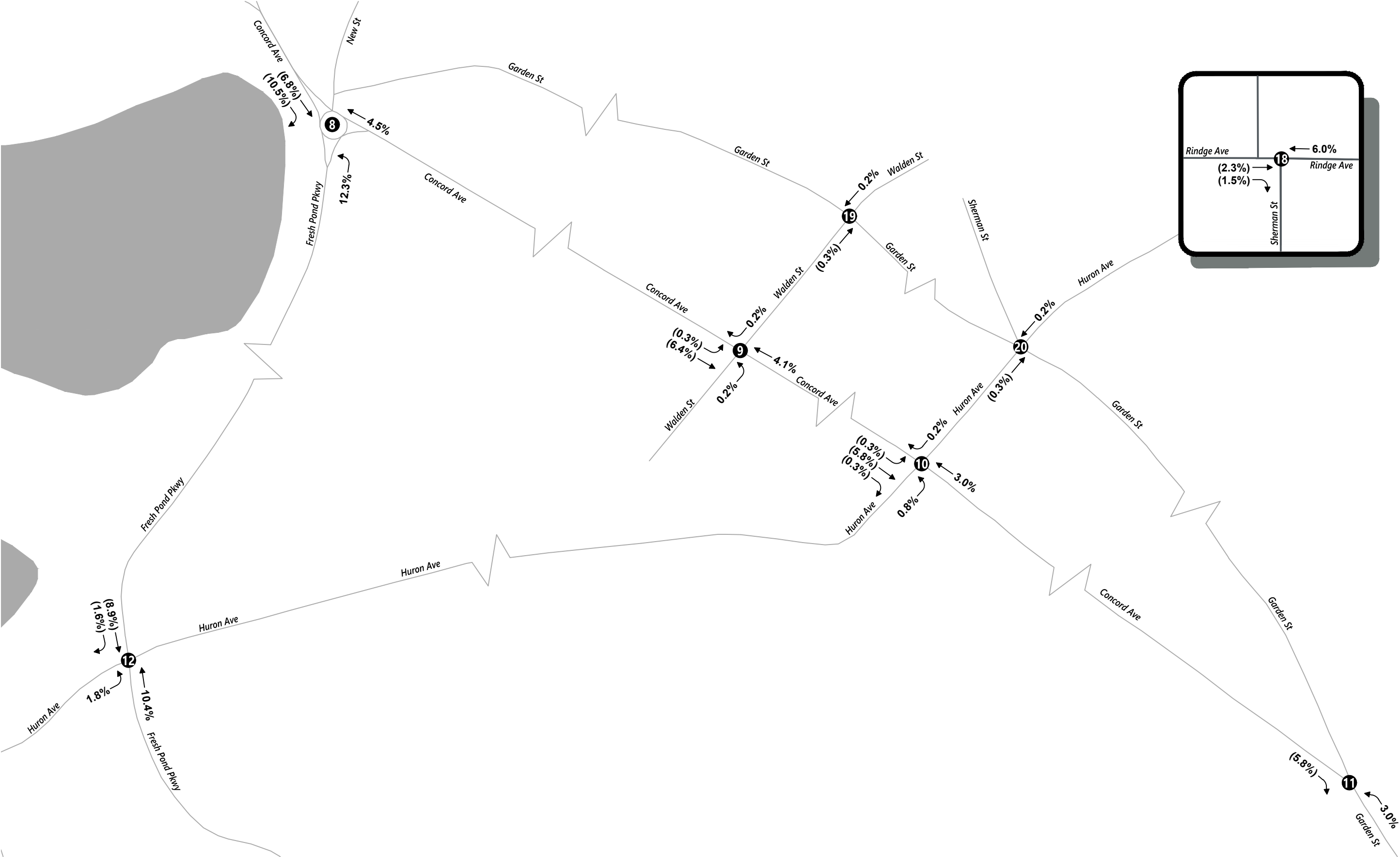


Residential Trip Distribution

Healthpeak | Cambridge, MA

Figure 3.d.3.b





Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance



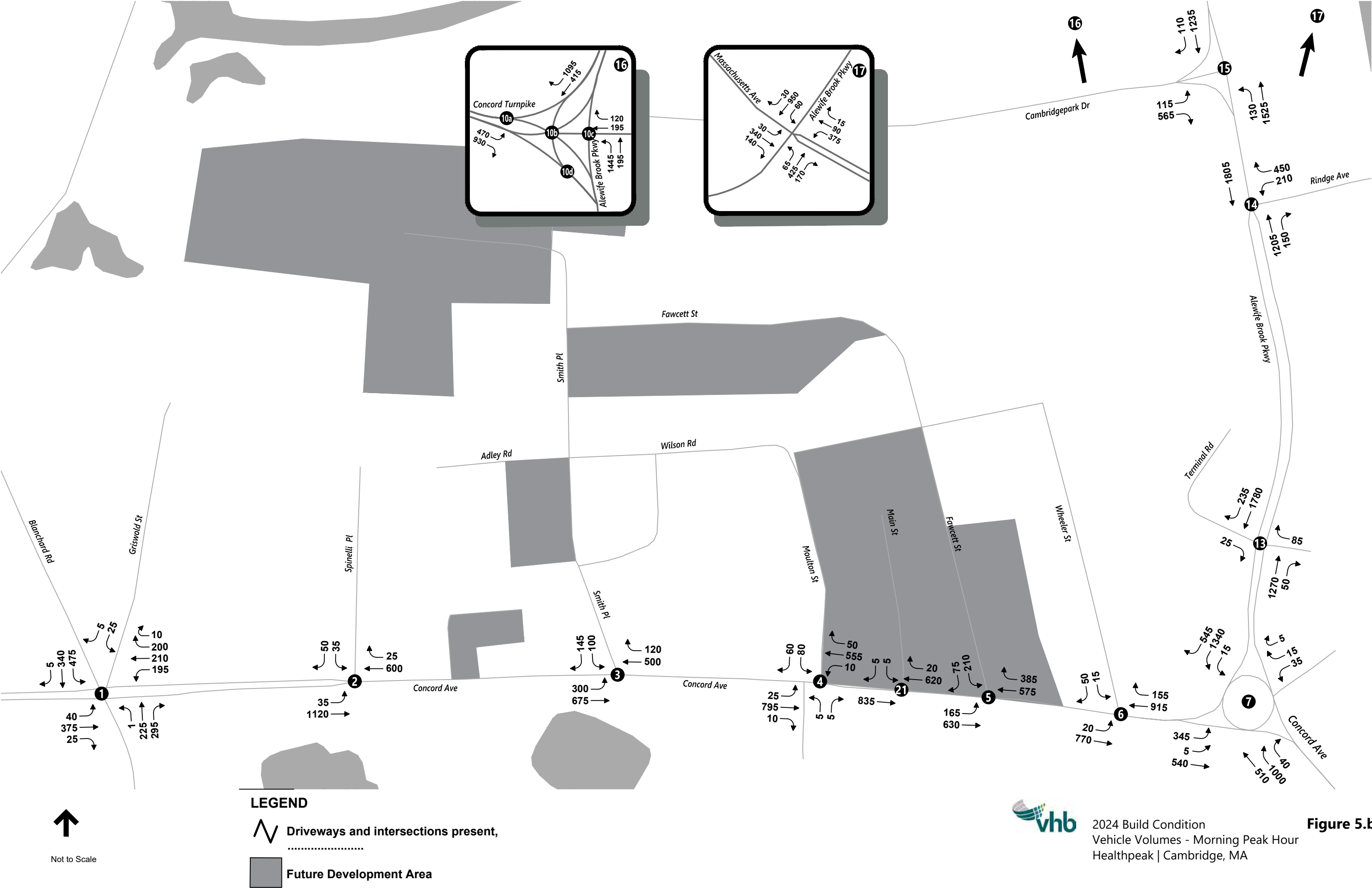
Future Development Area



Commercial Trip Distribution

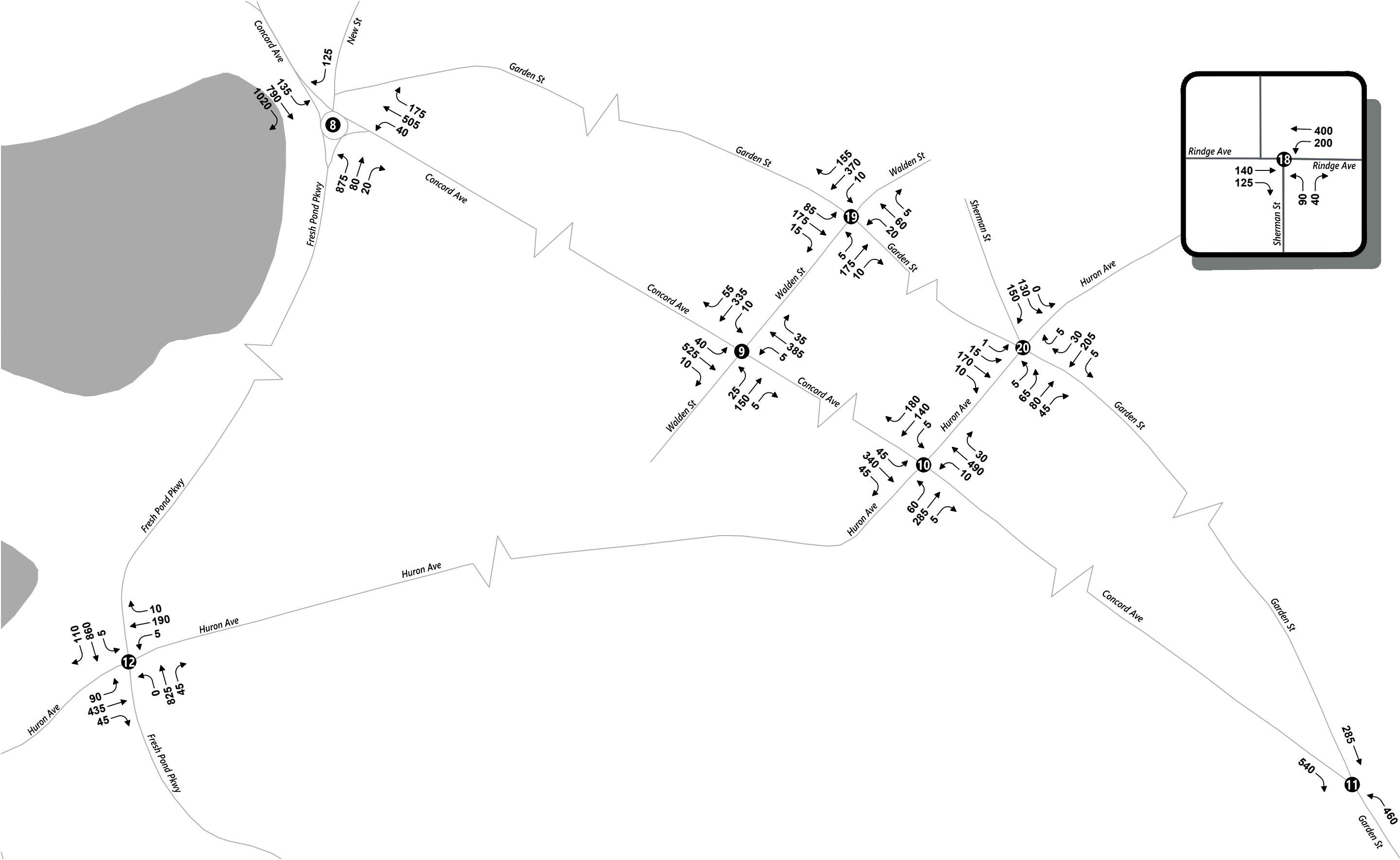
Healthpeak | Cambridge, MA

Figure 3.d.4.b



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

Figure 5.b.1.a



Not to Scale

LEGEND

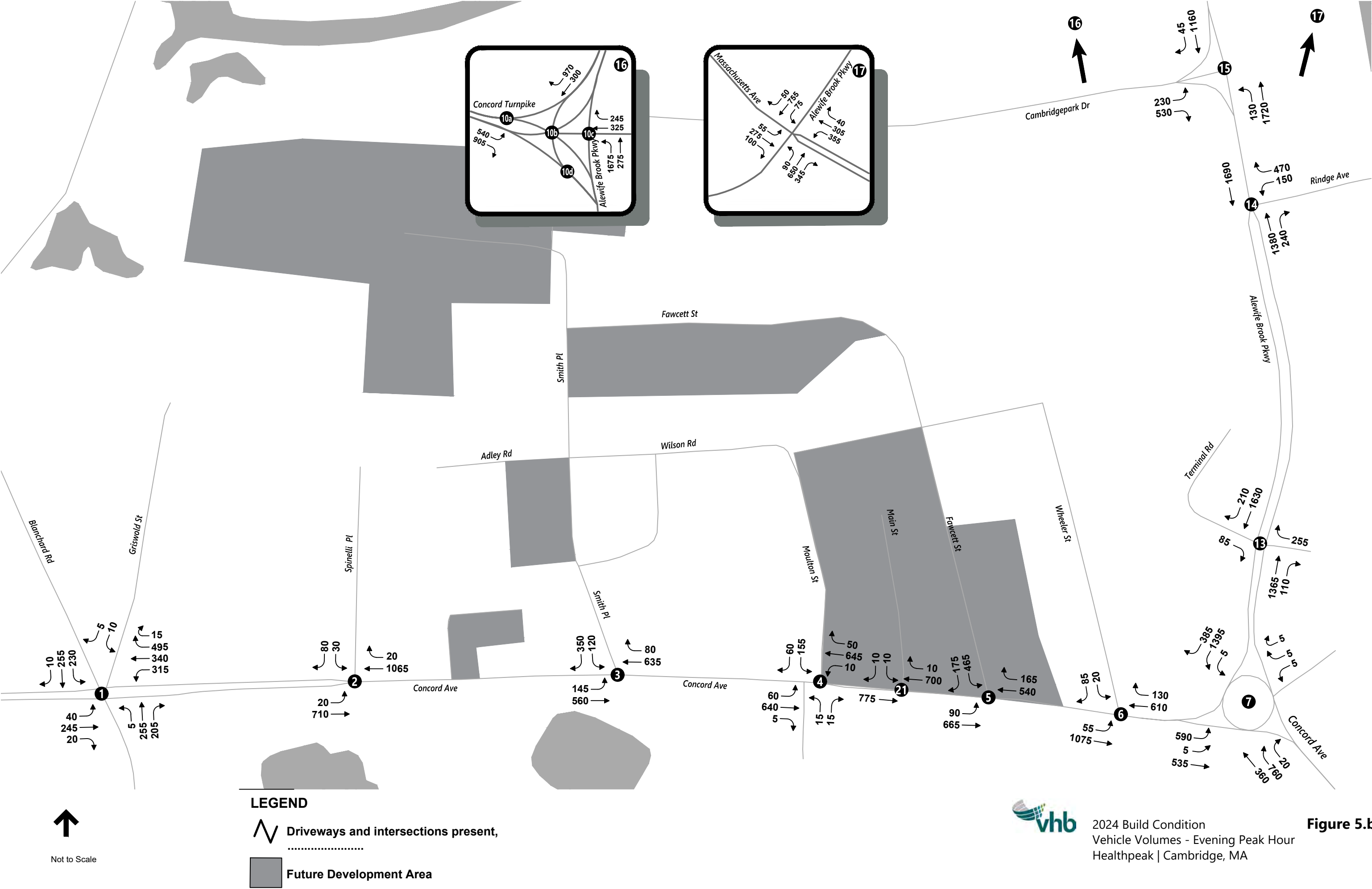
Driveways and intersections present,

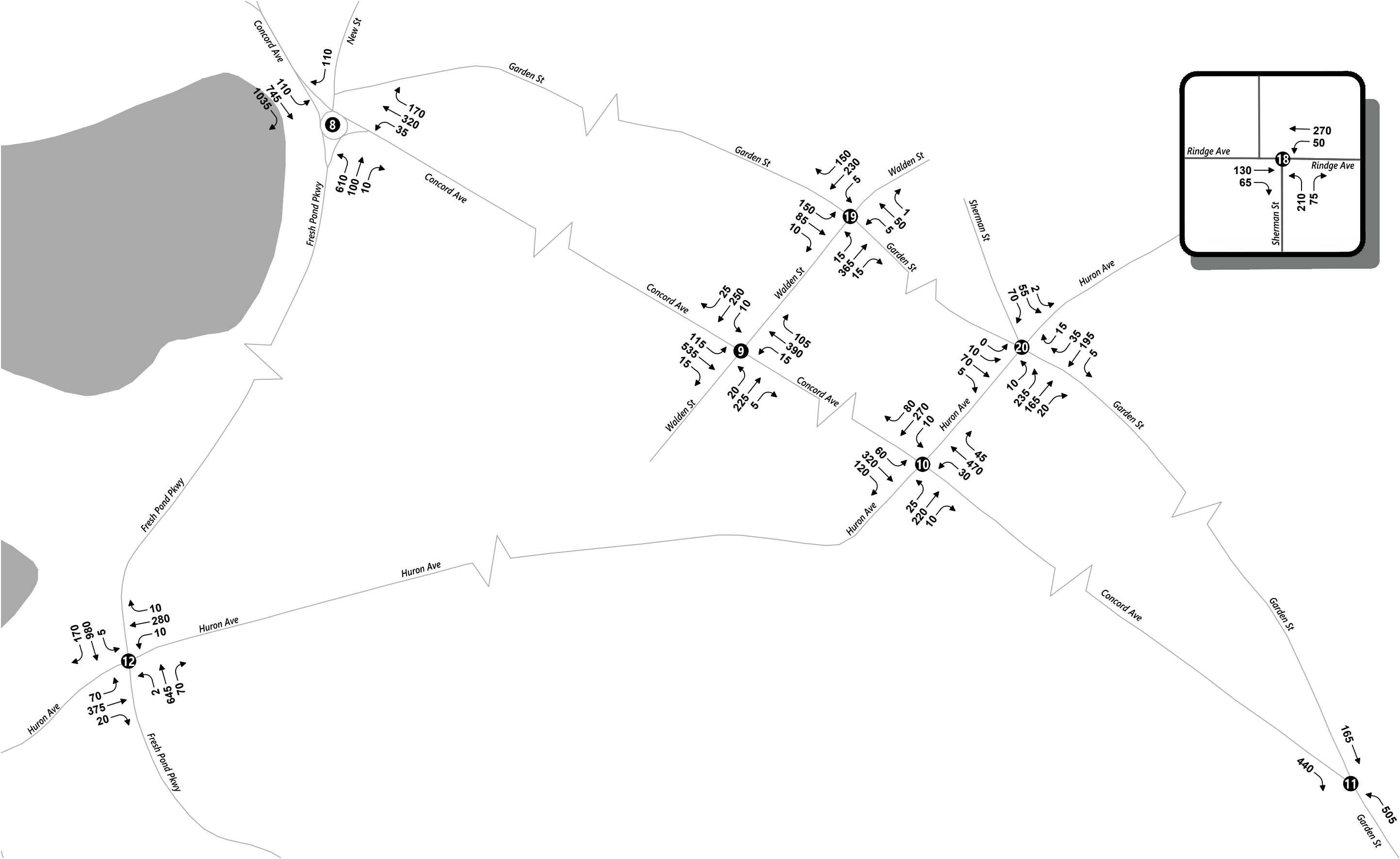
Future Development Area



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

Figure 5.b.1.b





Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance

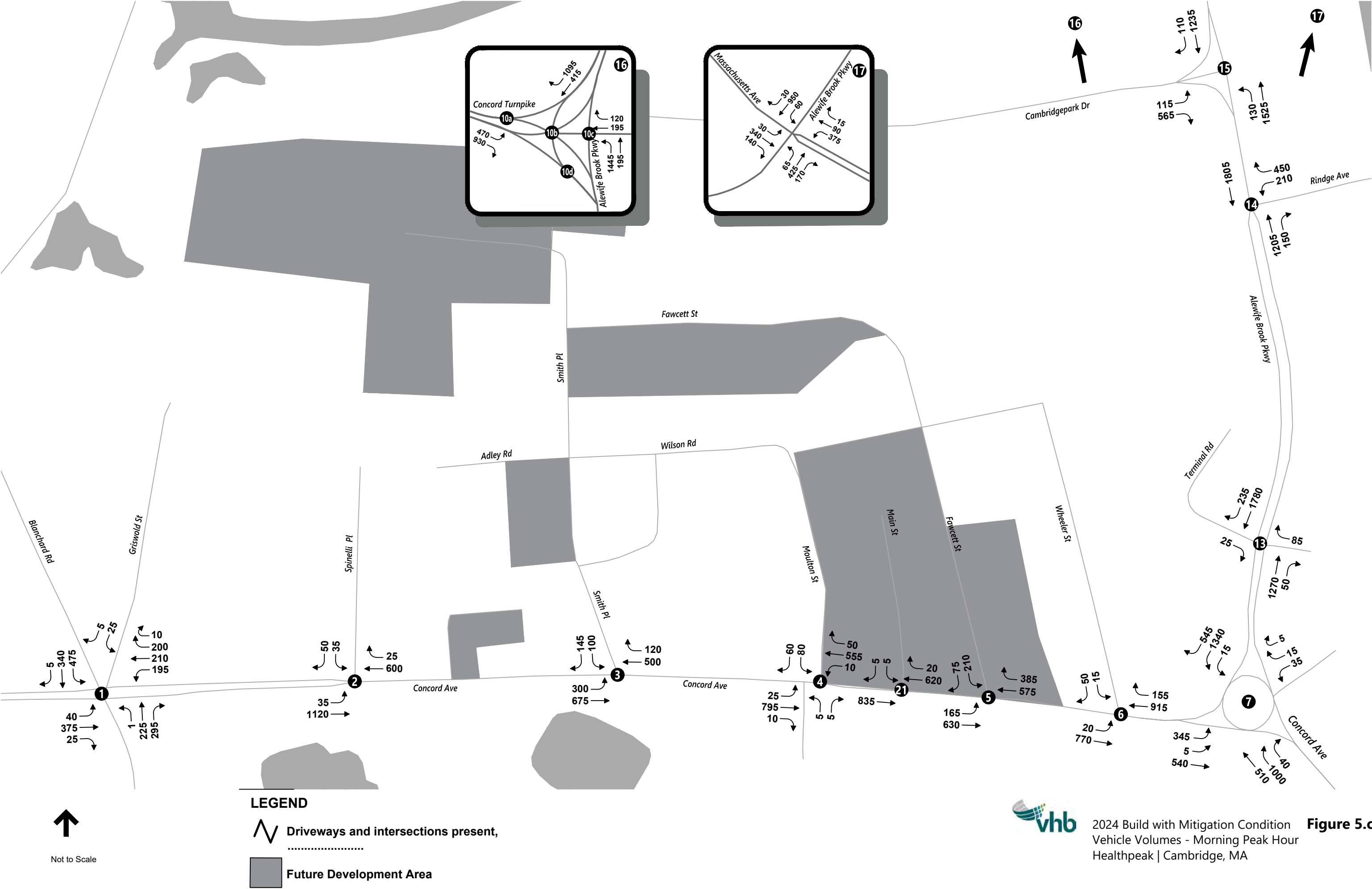


Future Development Area



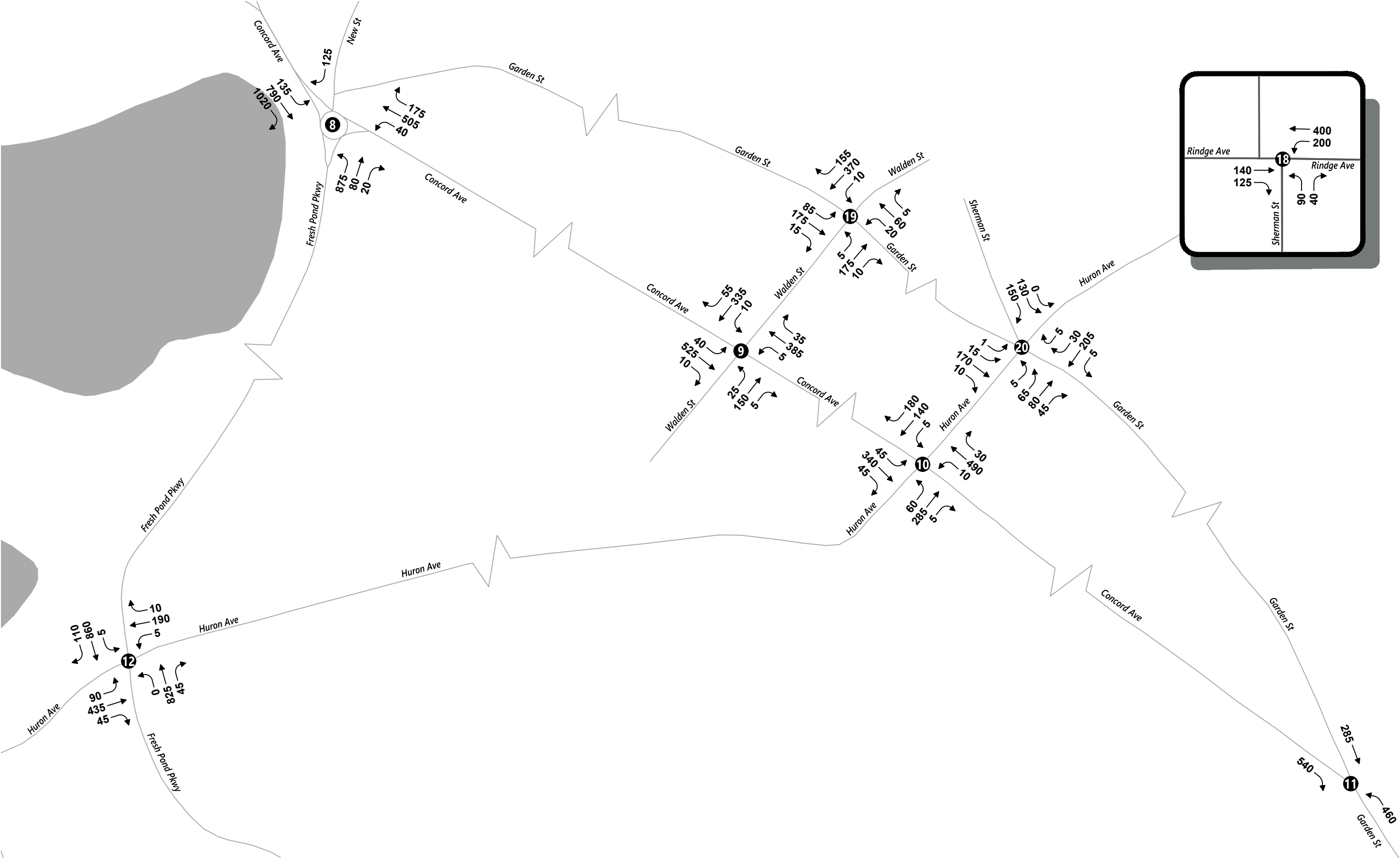
2024 Build Condition
Vehicle Volumes - Evening Peak Hour
Healthpeak | Cambridge, MA

Figure 5.b.2.b



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

Figure 5.c.1.a



Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance

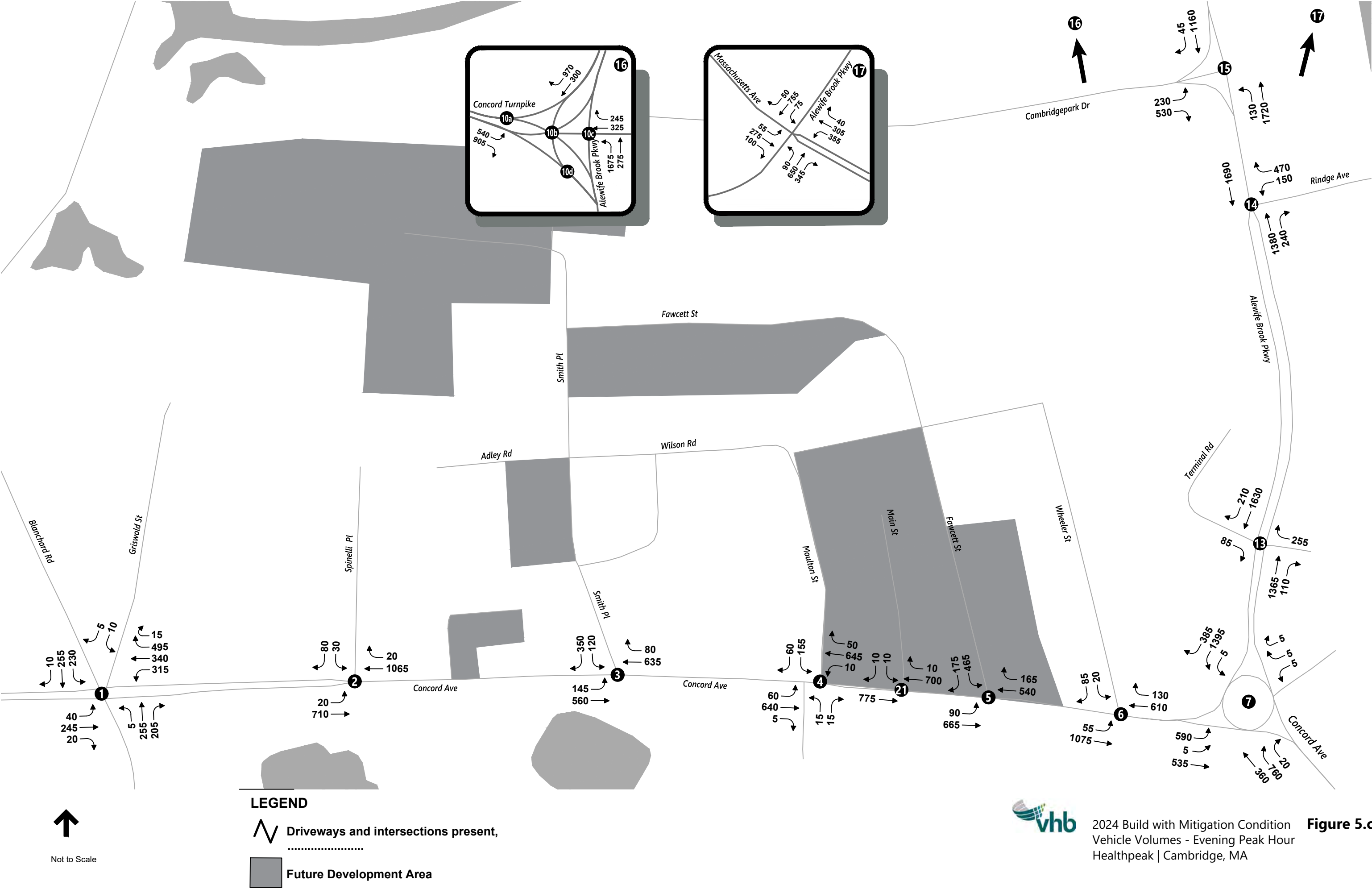


Future Development Area



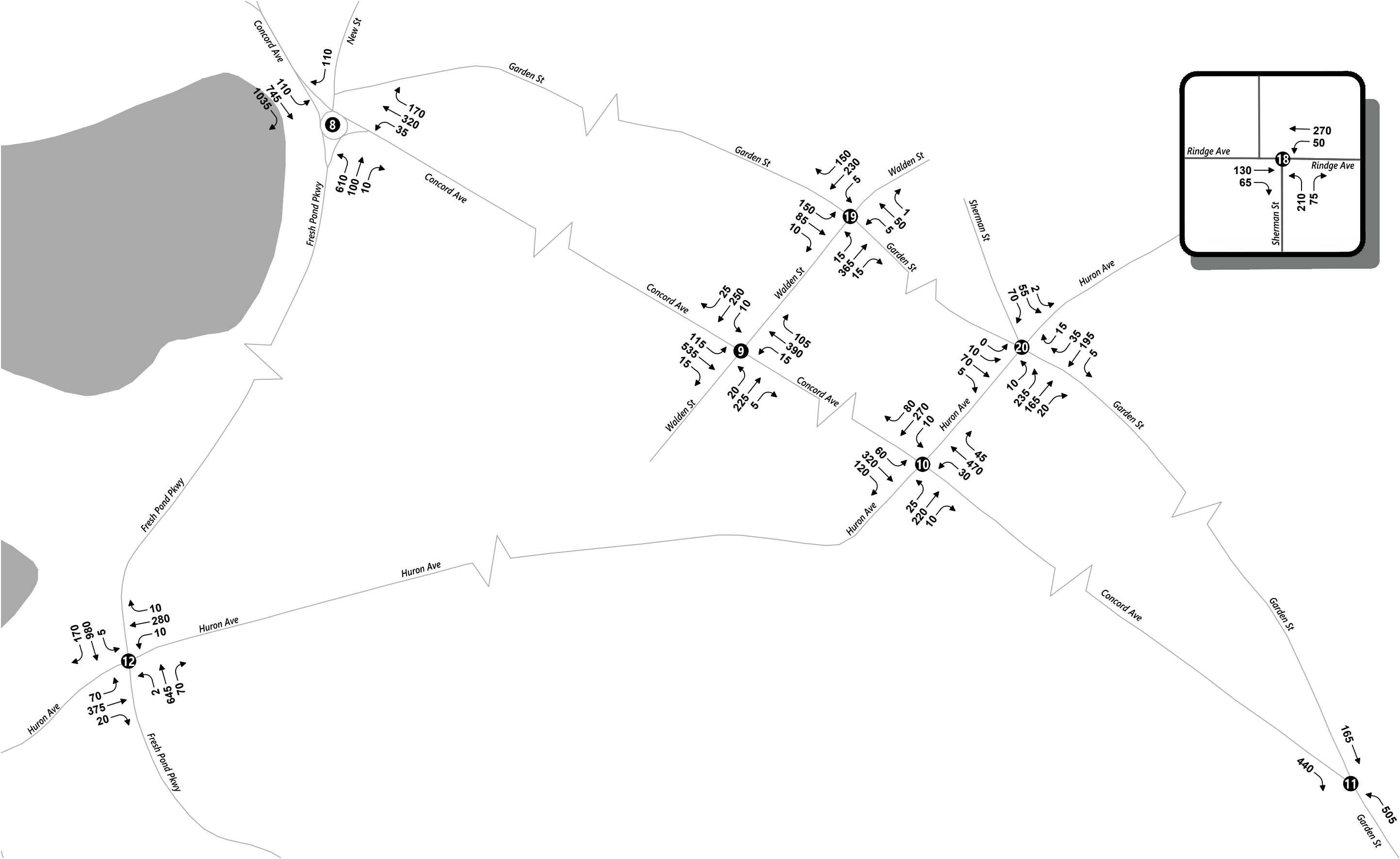
2024 Build with Mitigation Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.c.1.b



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

Figure 5.c.2.a



Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance

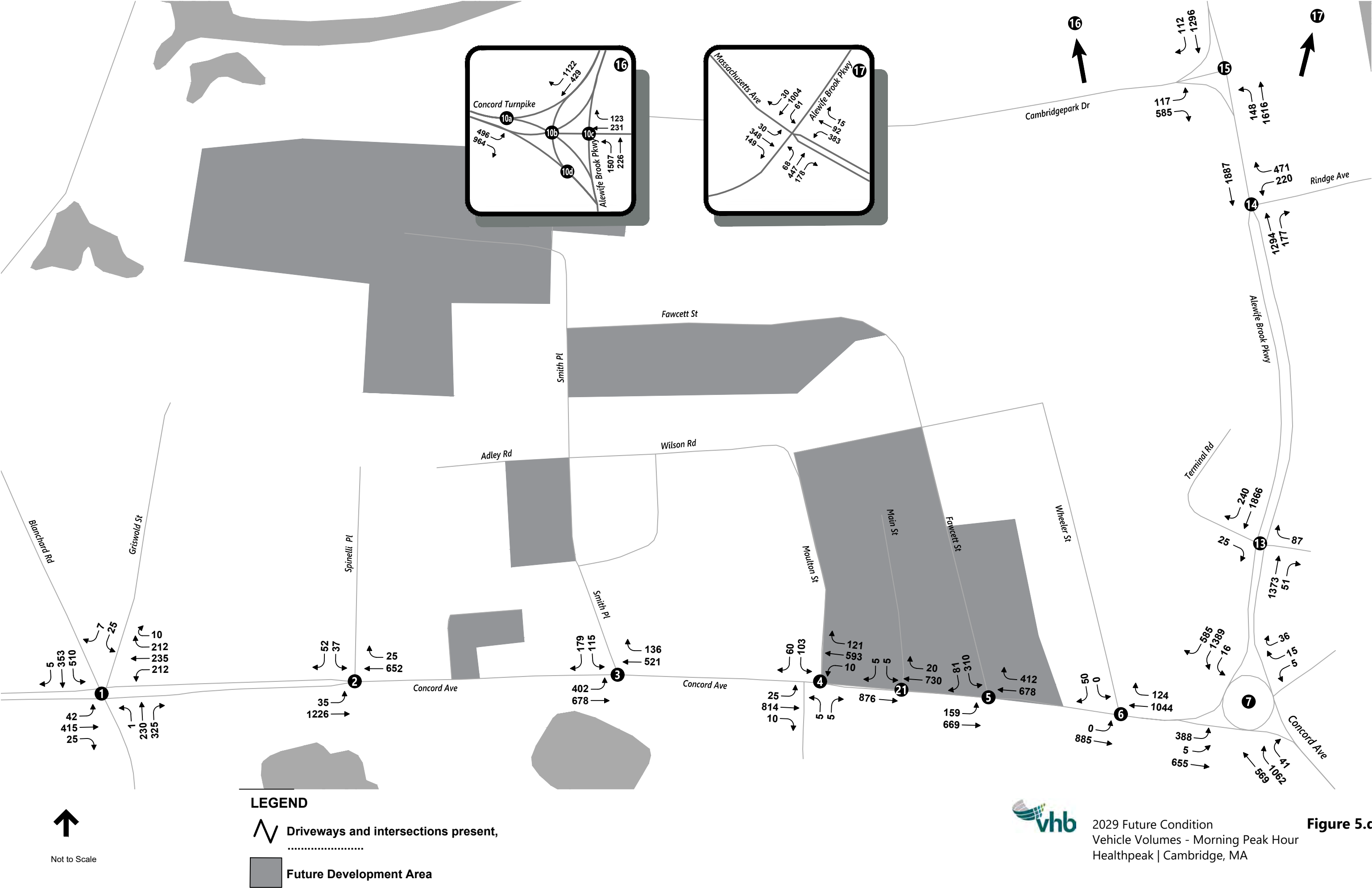


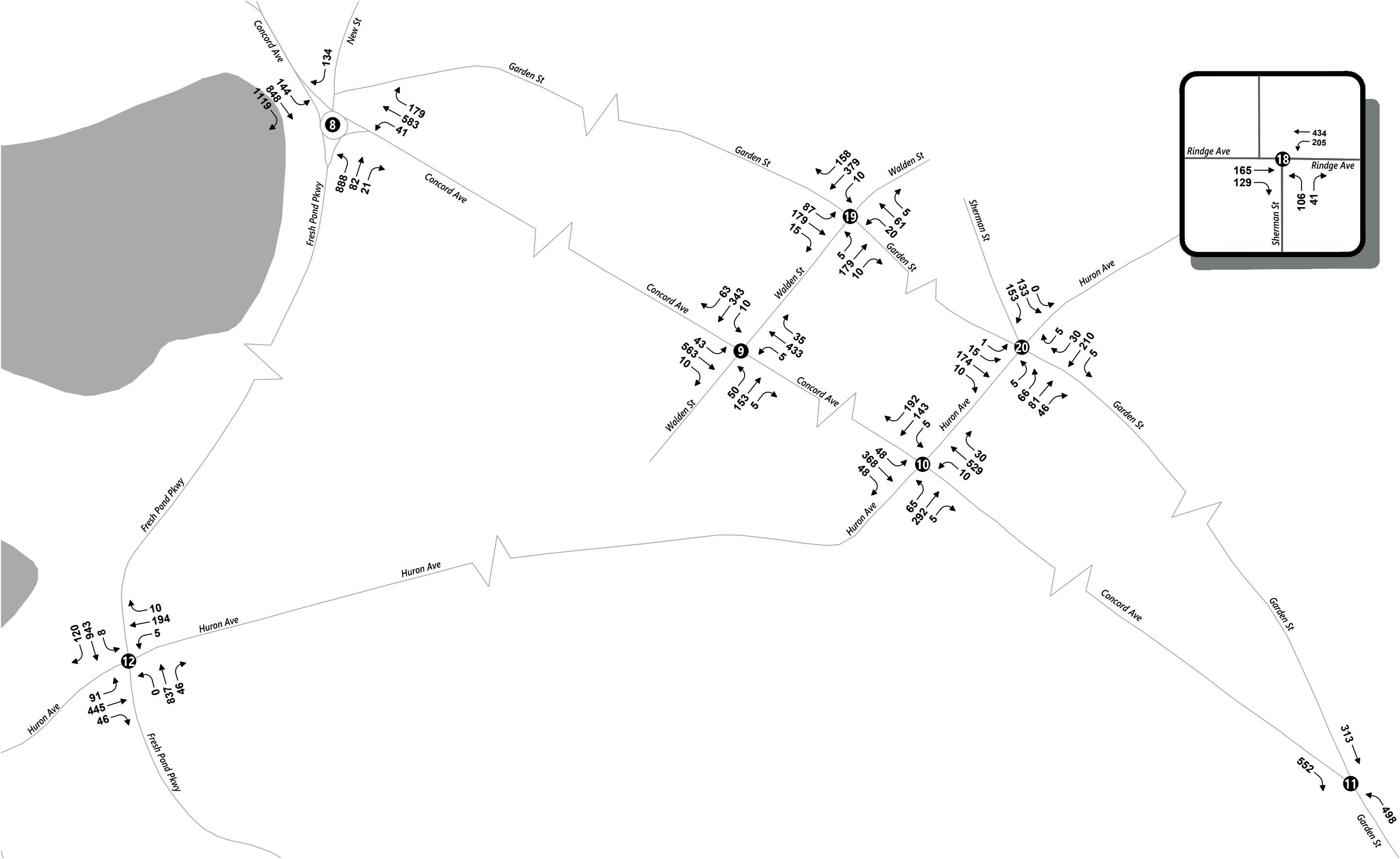
Future Development Area



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

Figure 5.c.2.b





Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance

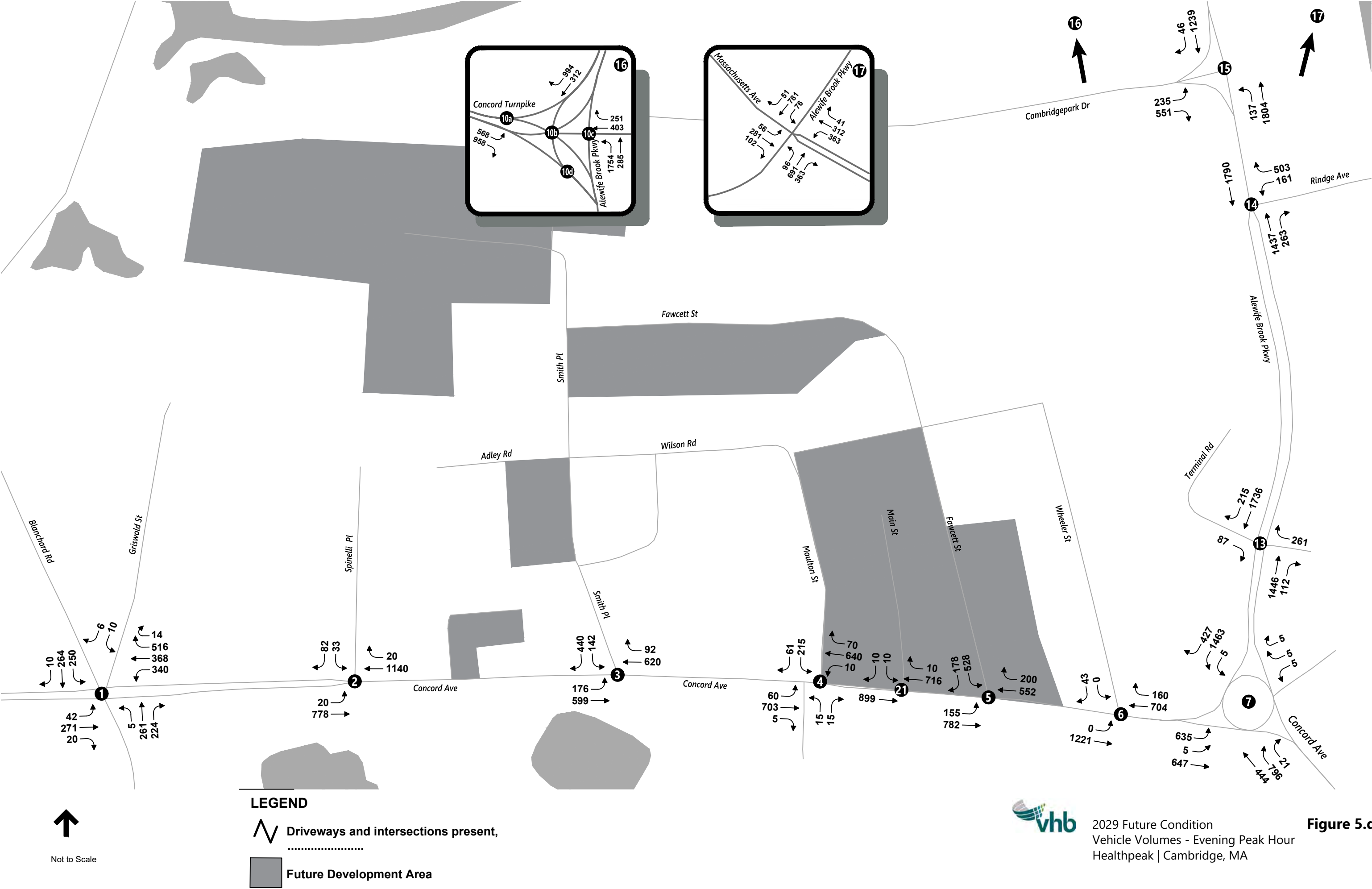


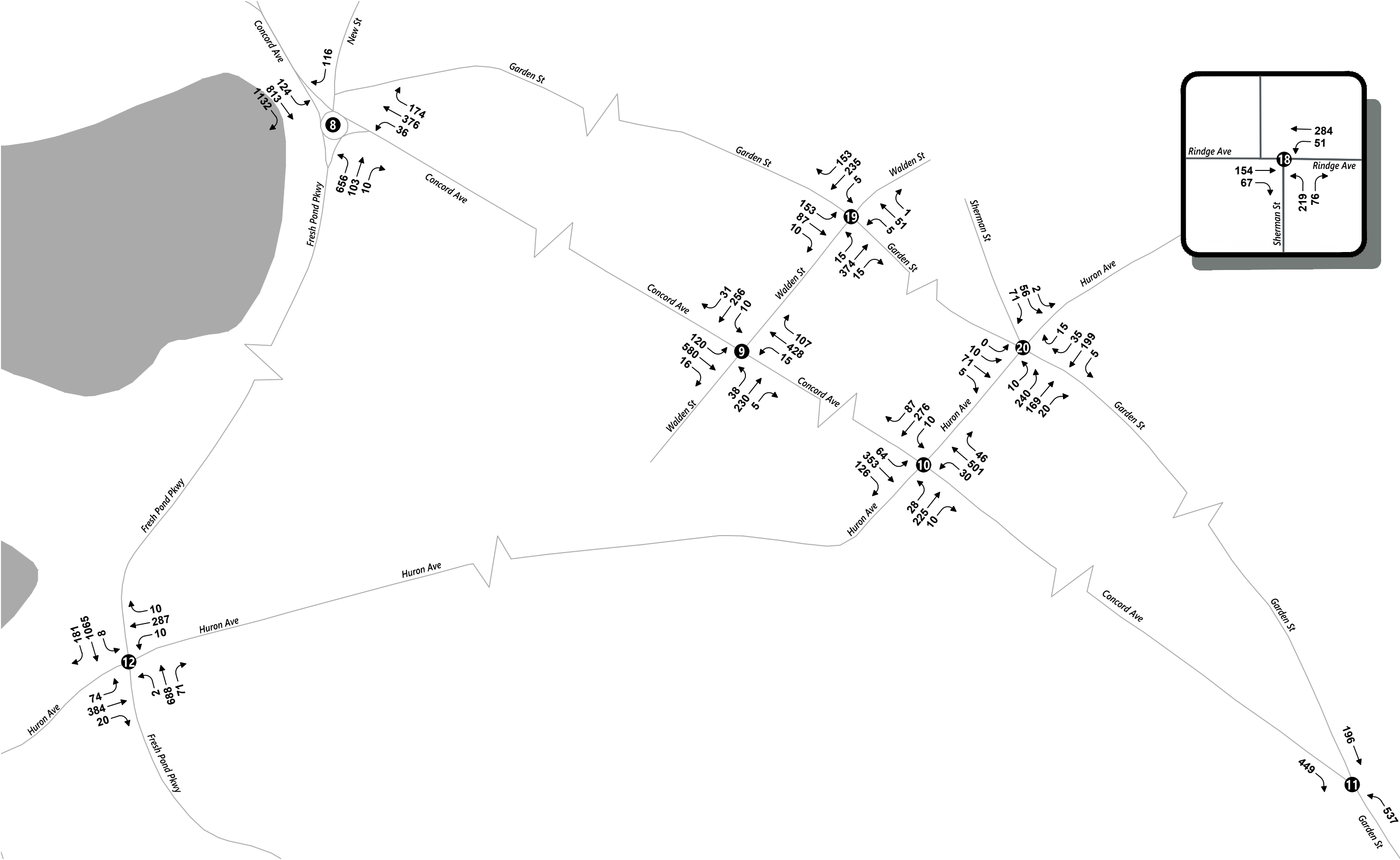
Future Development Area



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

Figure 5.d.1.b





Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance

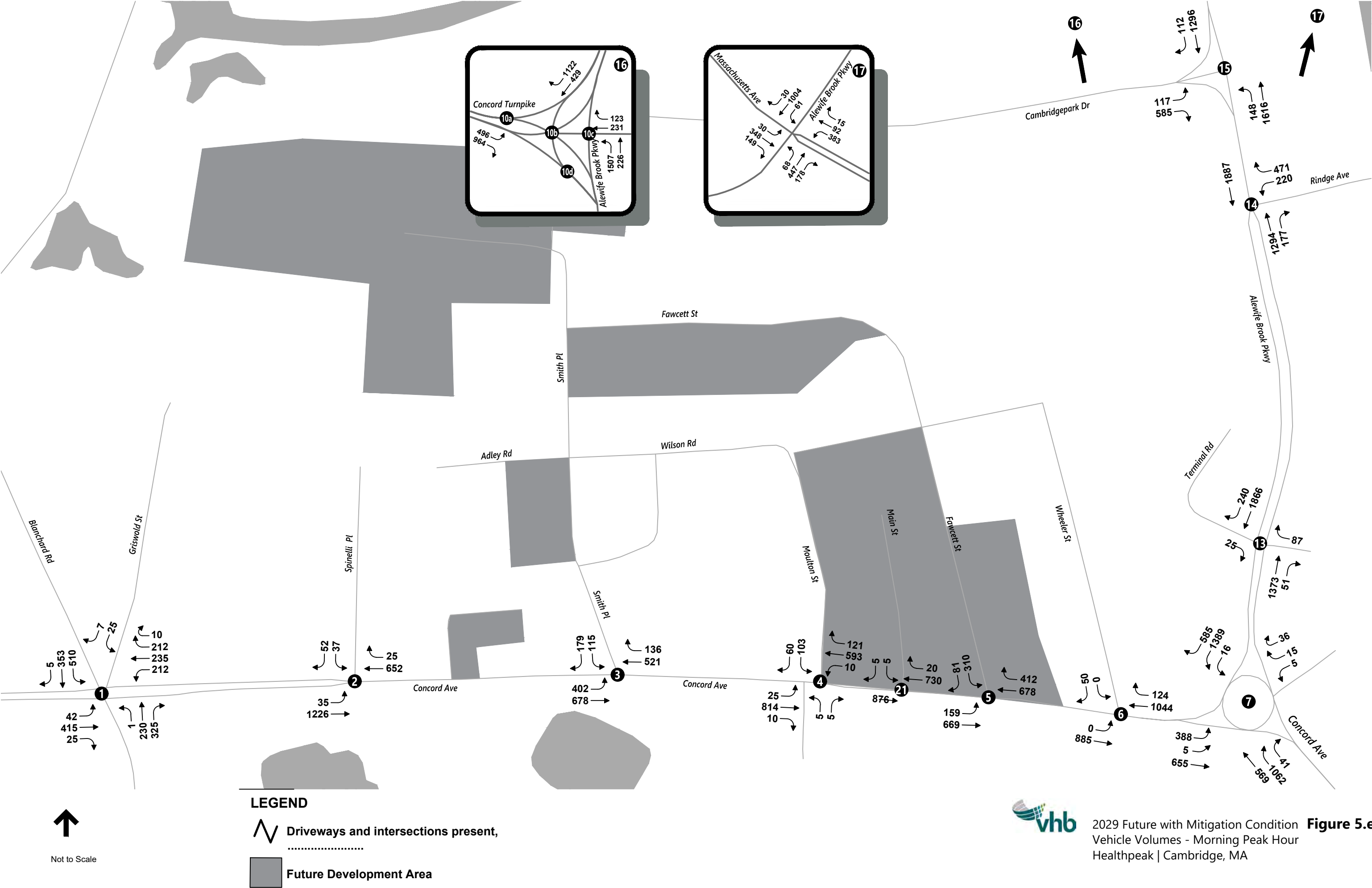


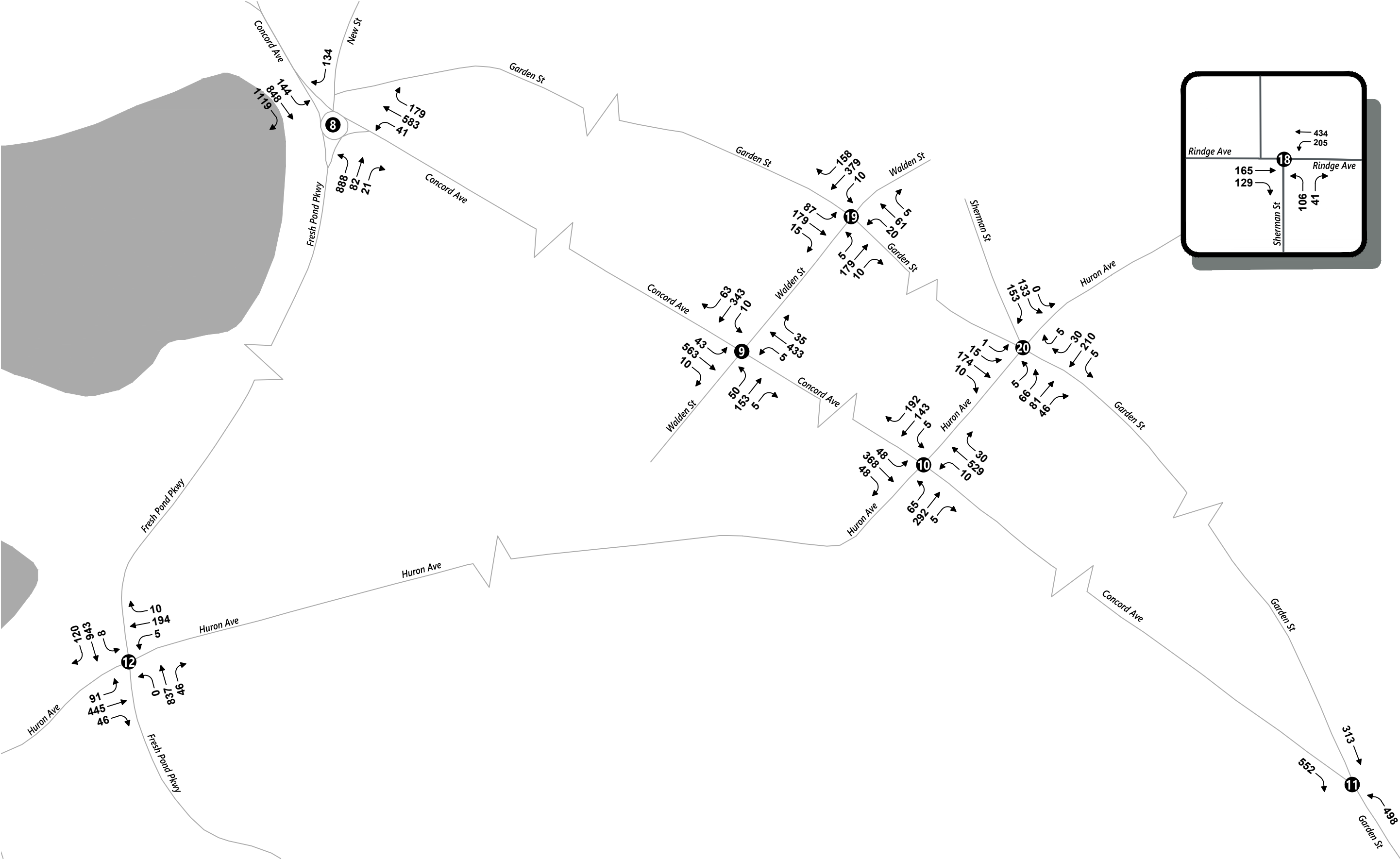
Future Development Area



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

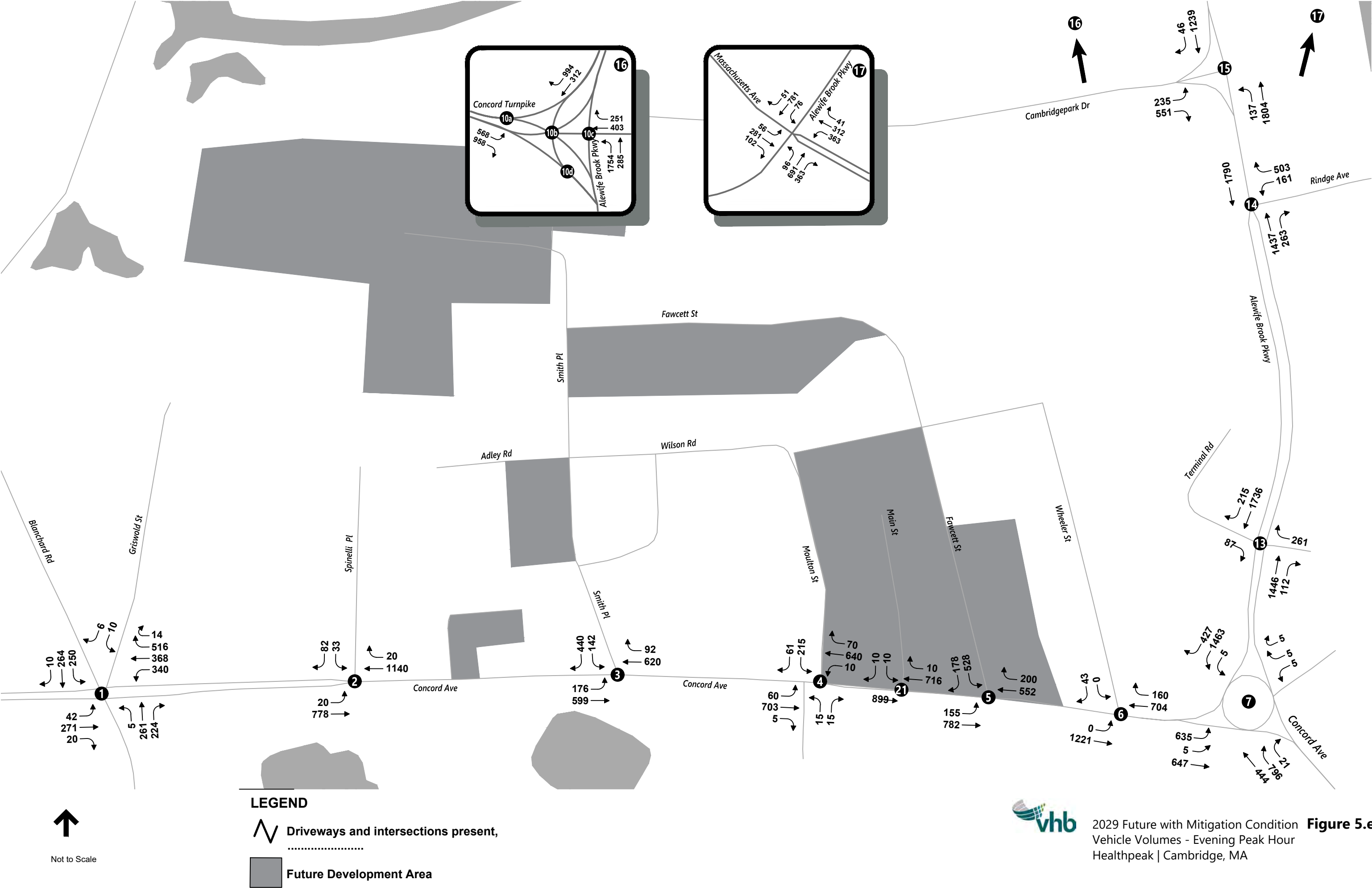
Figure 5.d.2.b

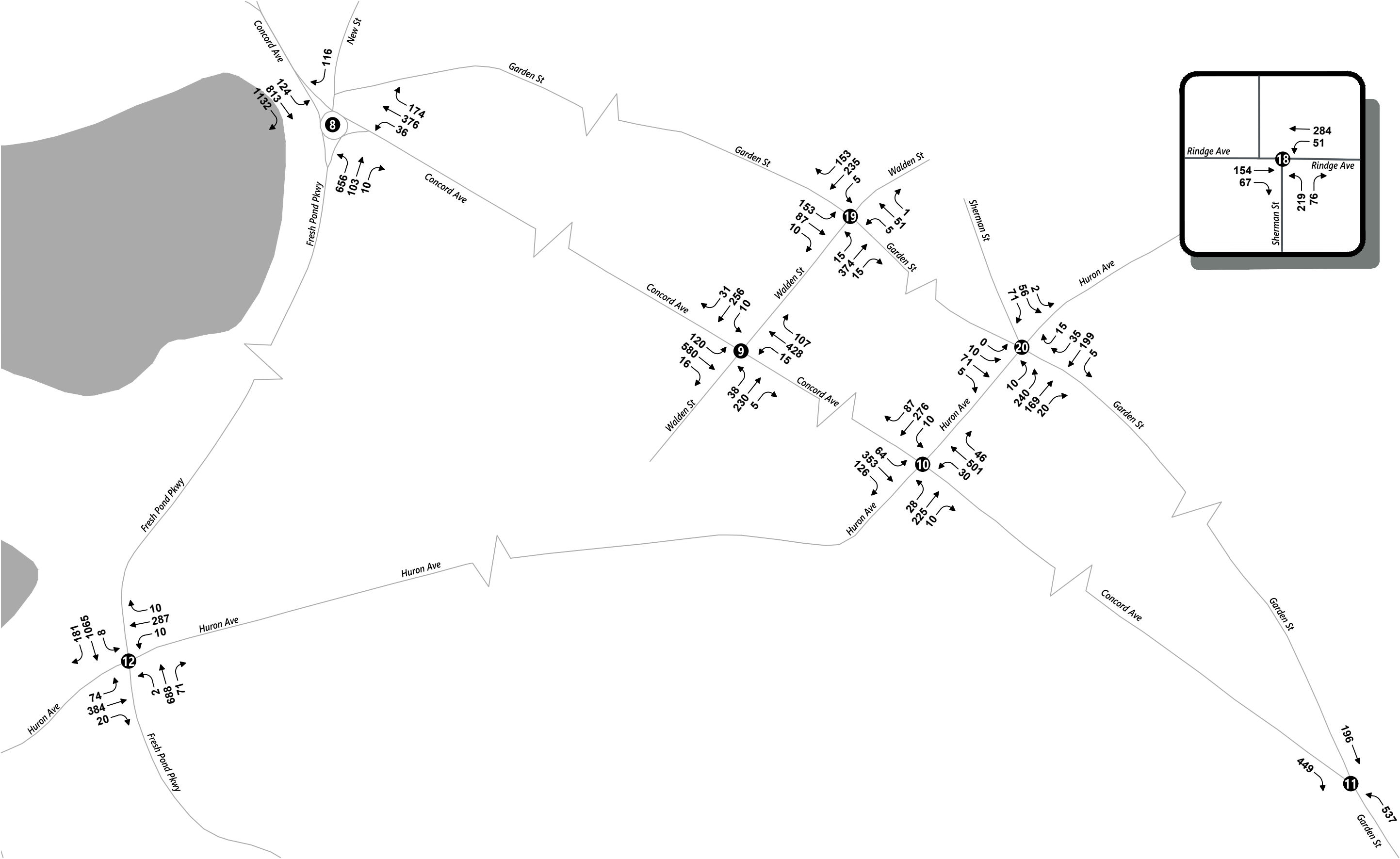




2029 Future with Mitigation Condition
Vehicle Volumes - Morning Peak Hour
Healthpeak | Cambridge, MA

Figure 5.e.1.b





Not to Scale

LEGEND



Driveways and intersections present, volumes may not balance



Future Development Area



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

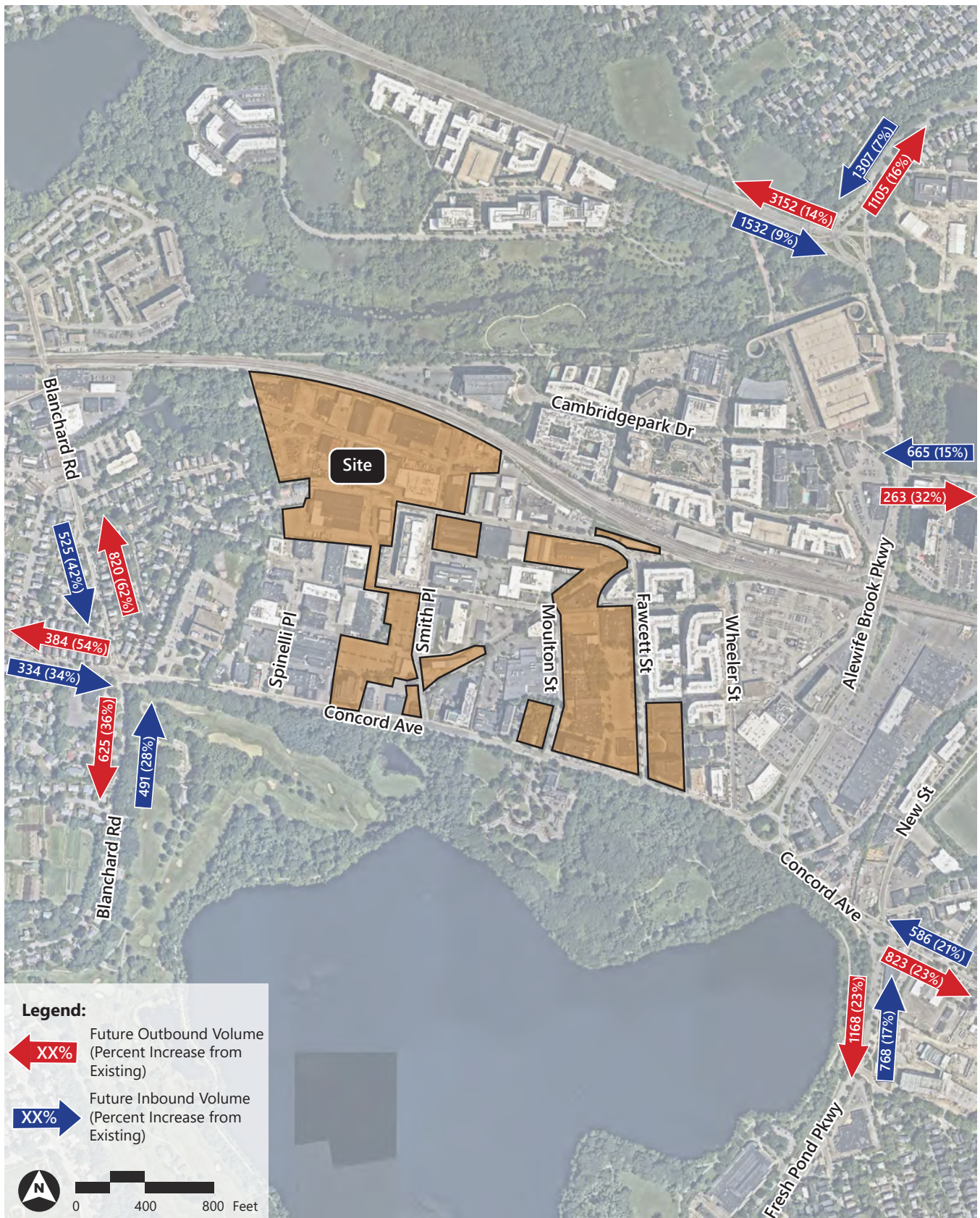
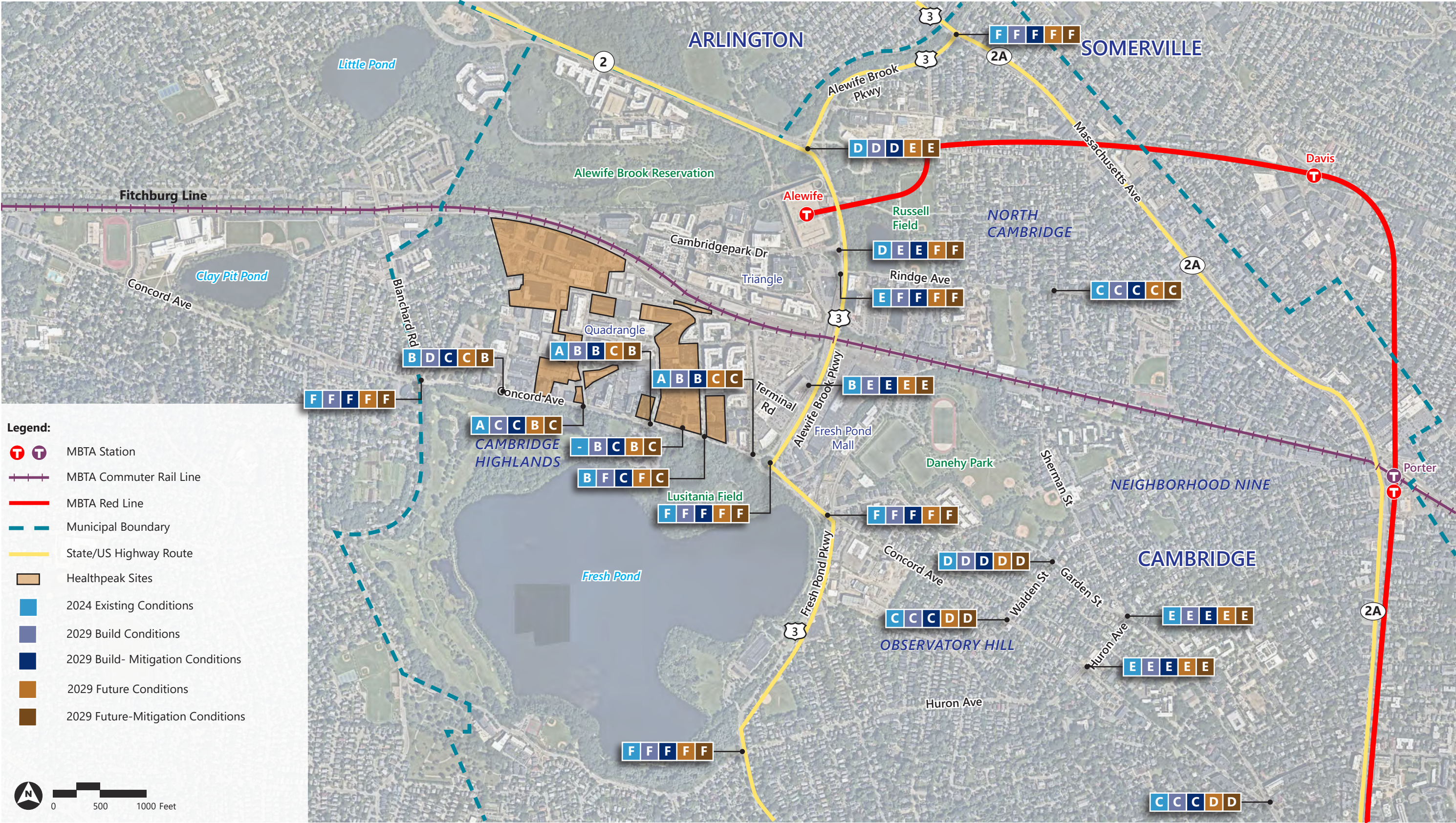


Figure 6.a.1: Vehicular Level of Service - Morning Peak Hour

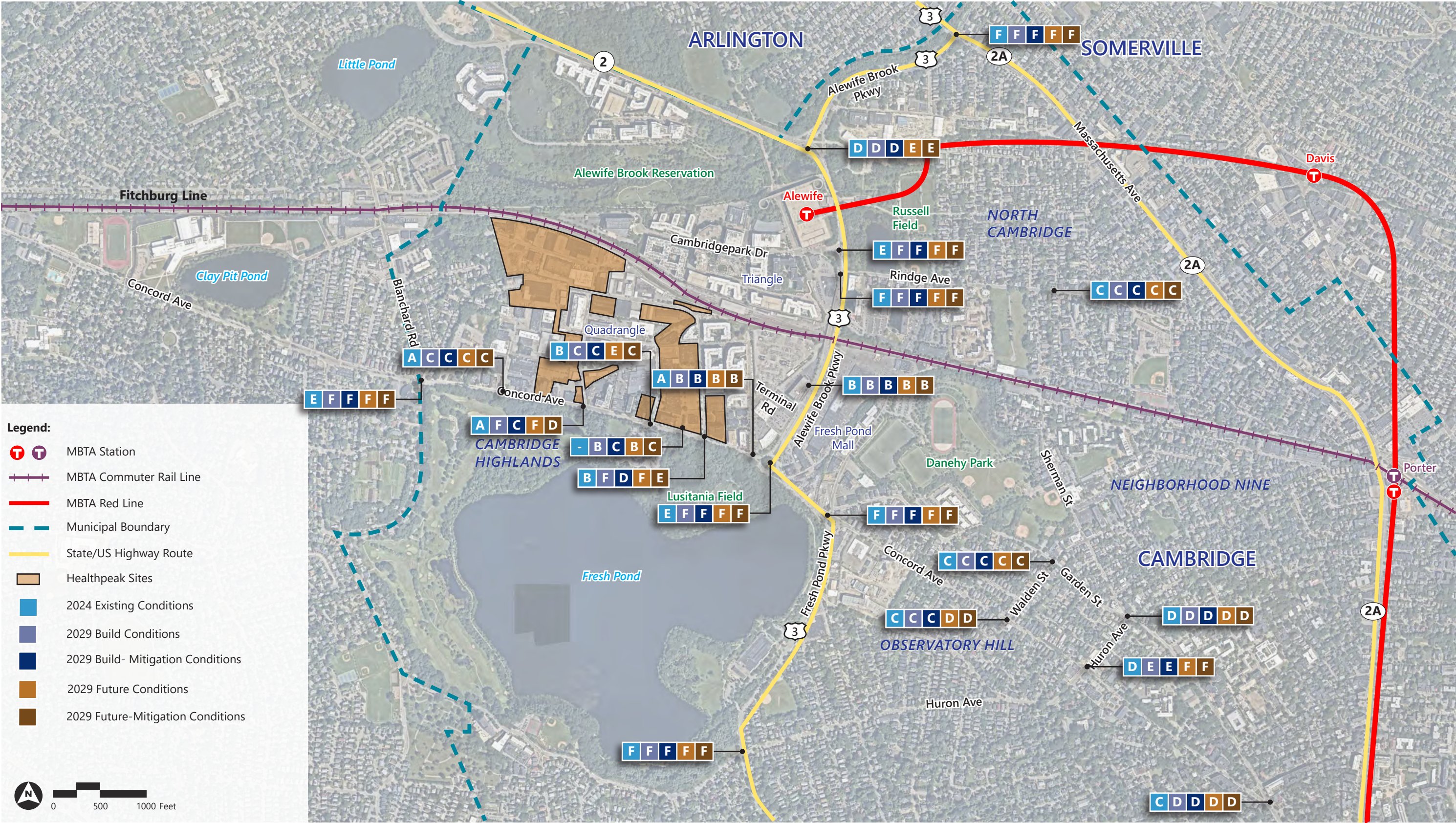
Healthpeak | Cambridge, MA



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



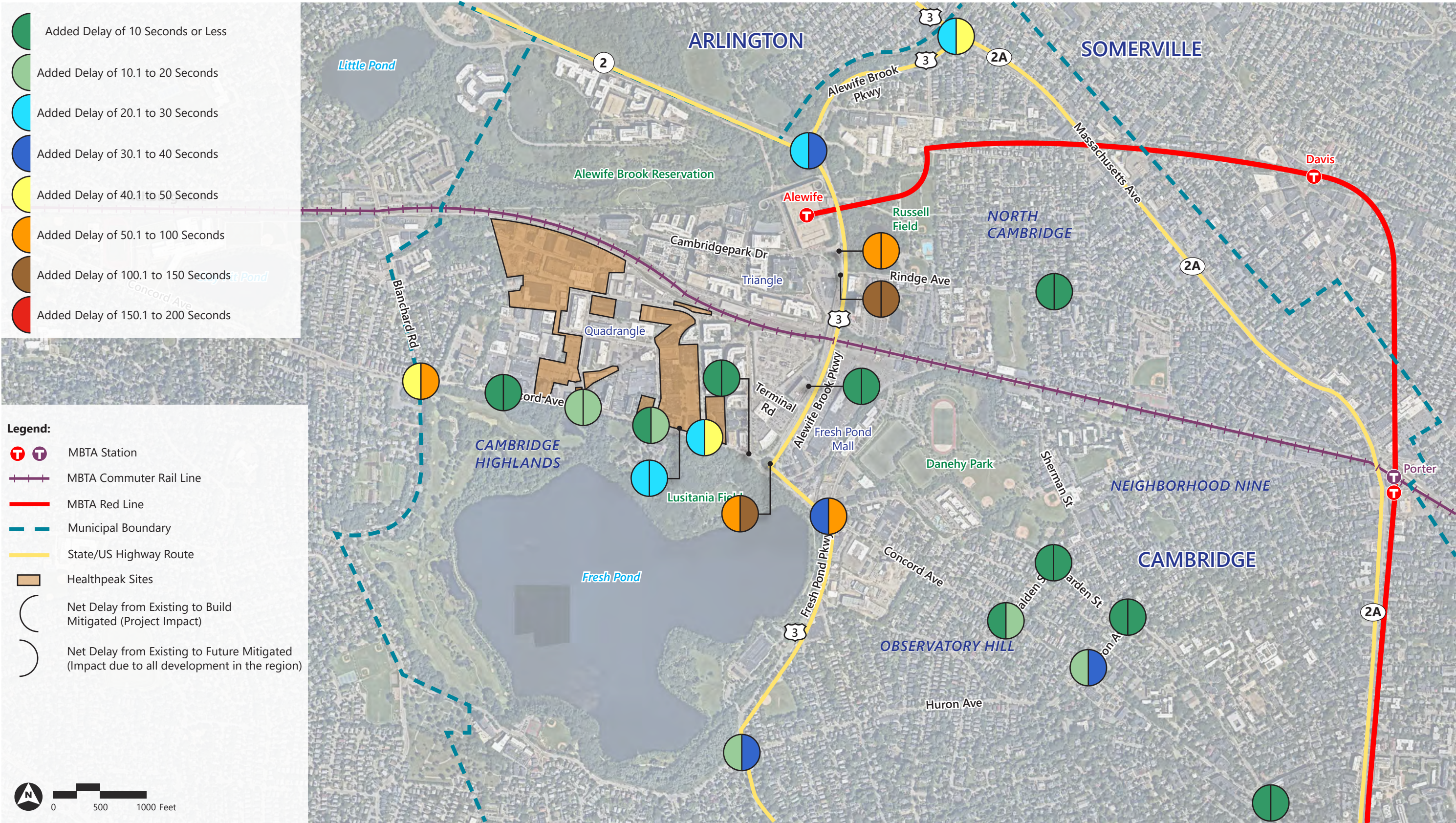
Source: Nearmap Aerial dated 10/19/2024; MBTA System Map 2025.

Healthpeak | Cambridge, MA

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

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

Healthpeak | Cambridge, MA



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

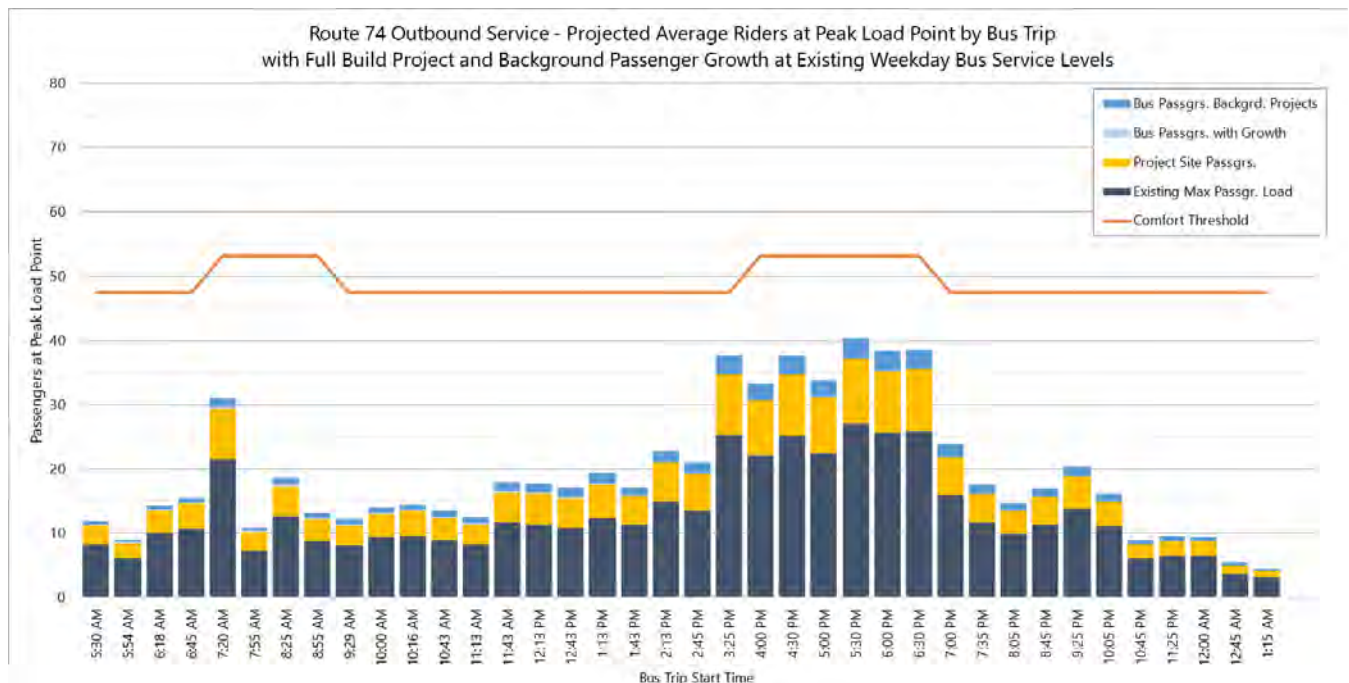
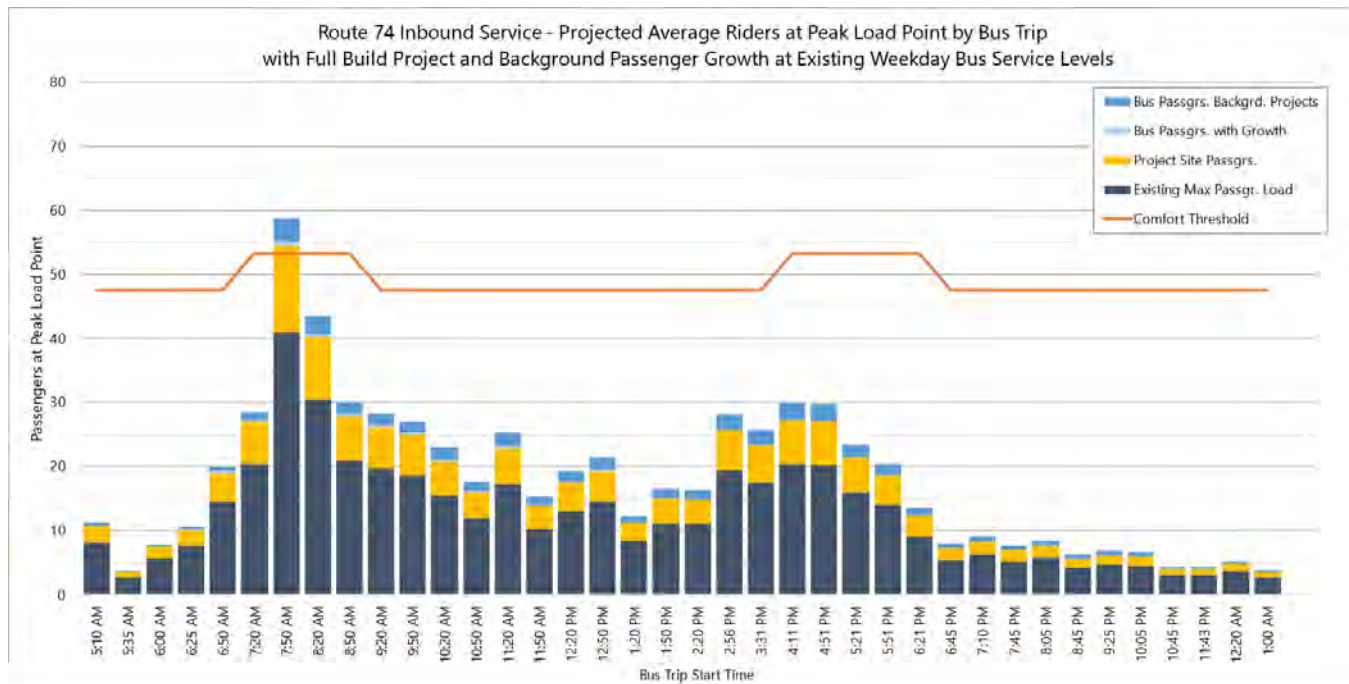


Figure 10.d.2: MBTA Bus Route 78 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026

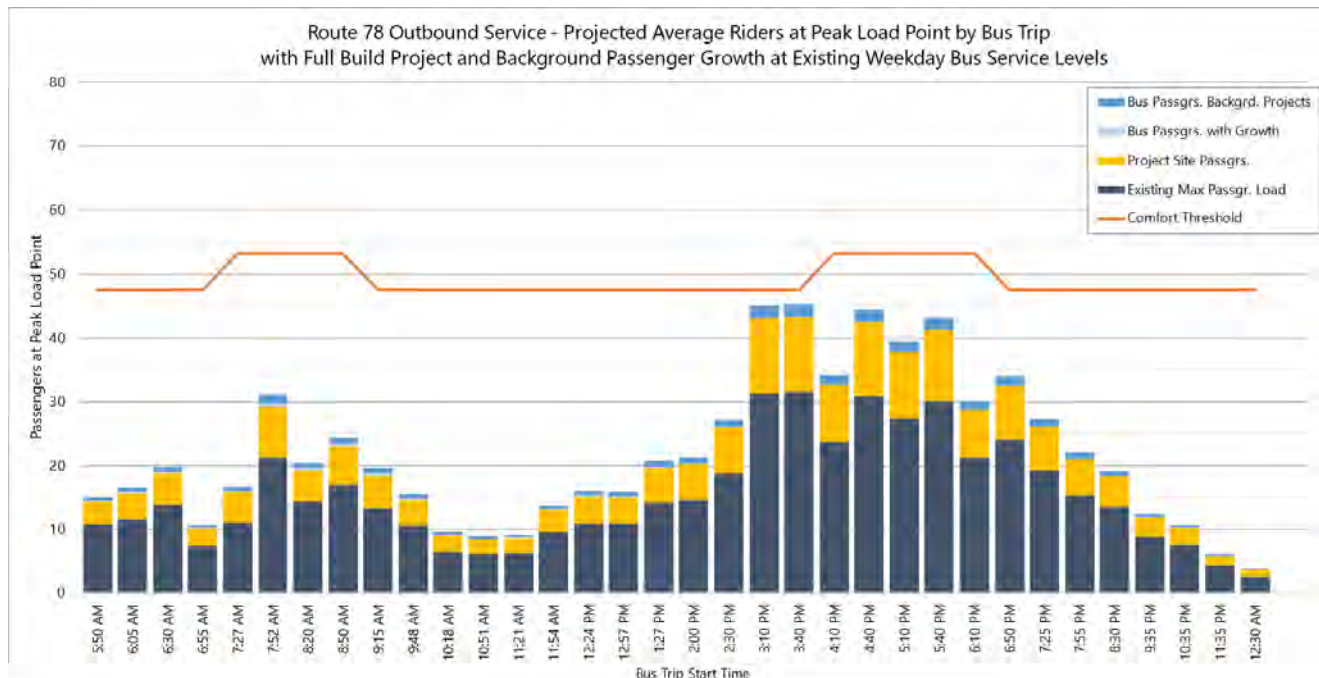
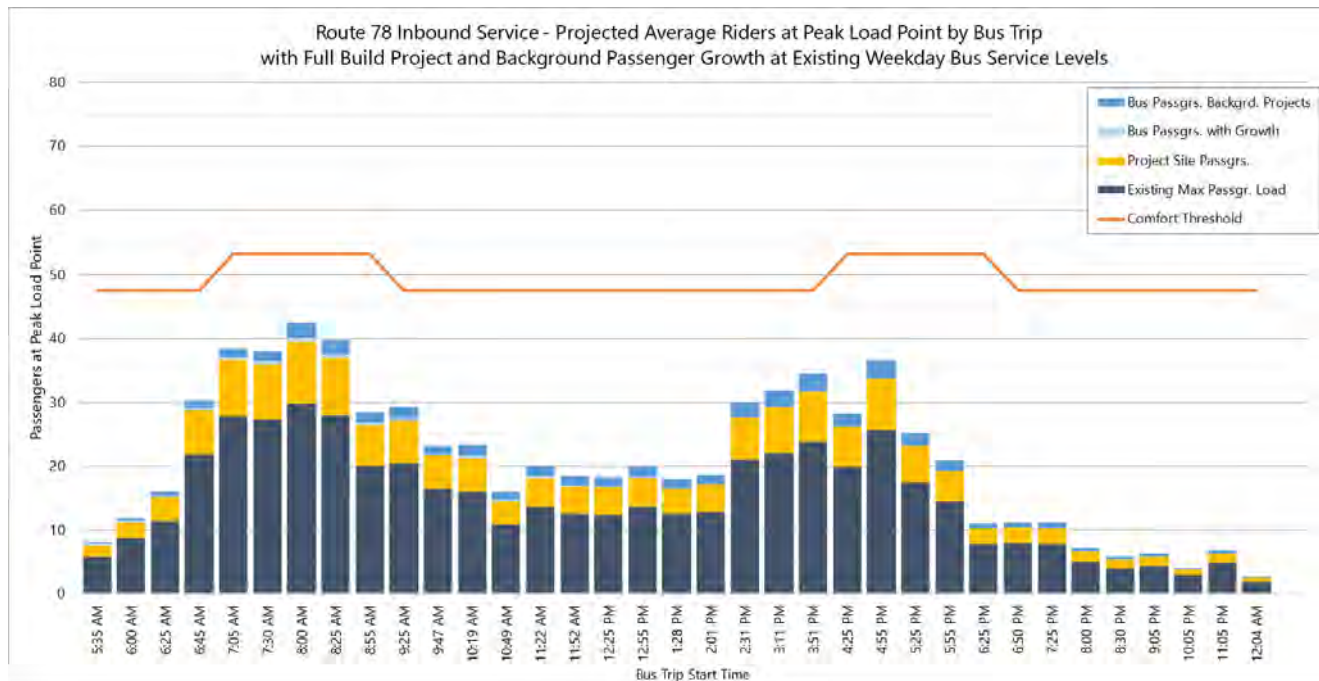


Figure 10.d.3: MBTA Bus Route 62 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA



02/05/2026

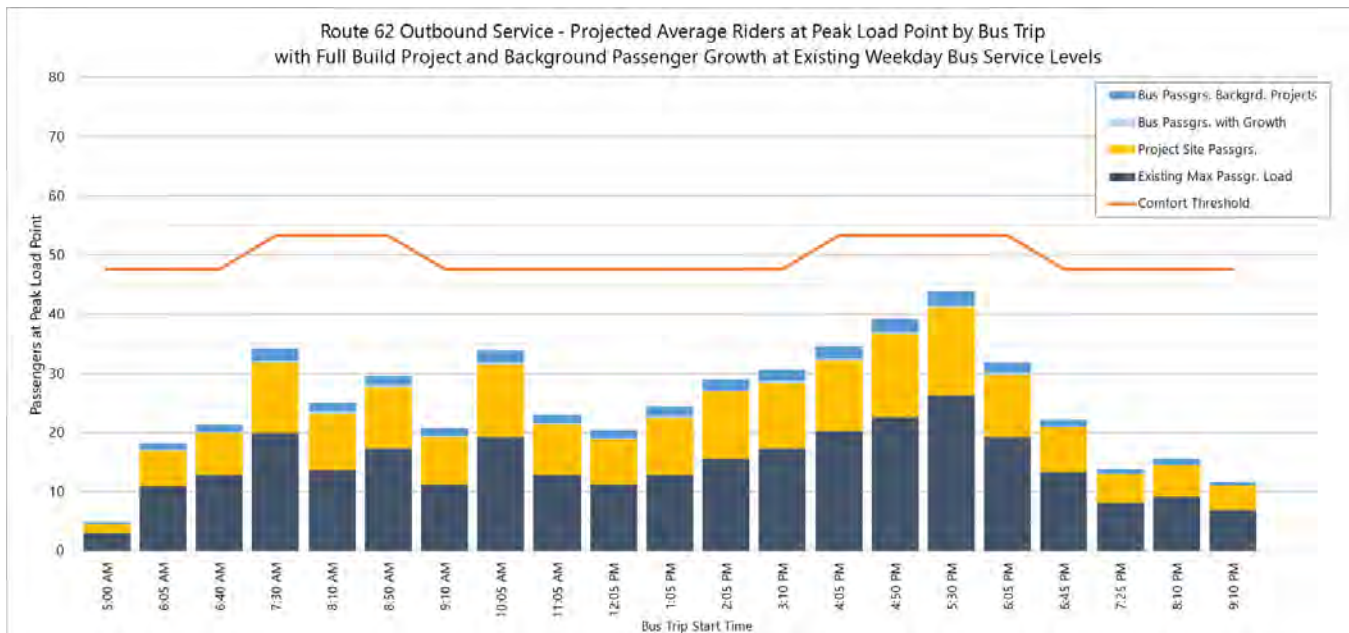
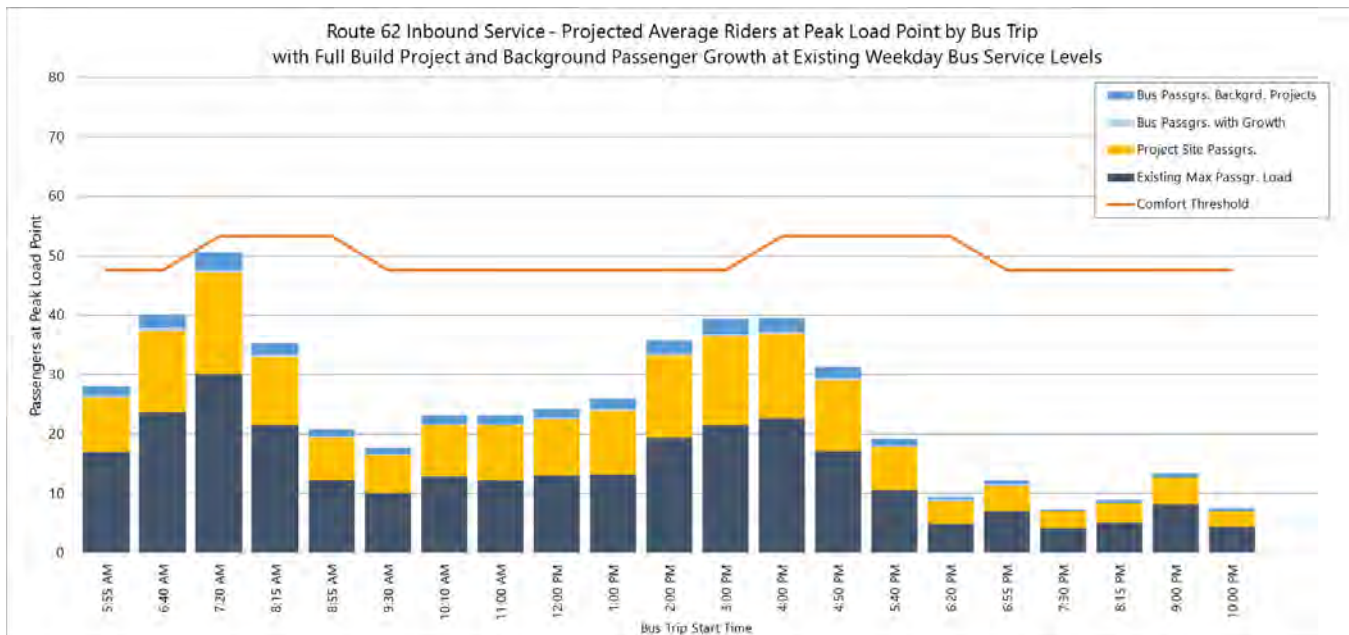


Figure 10.d.4: MBTA Bus Route 67 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA



02/05/2026

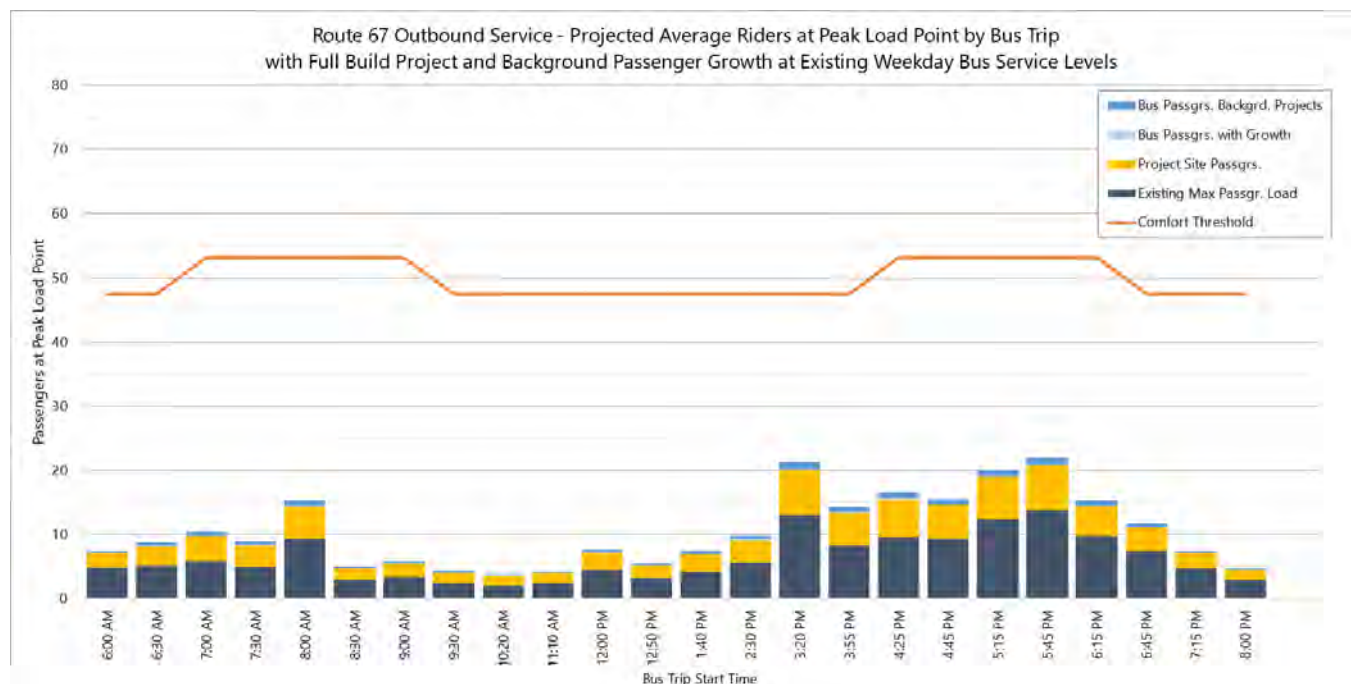
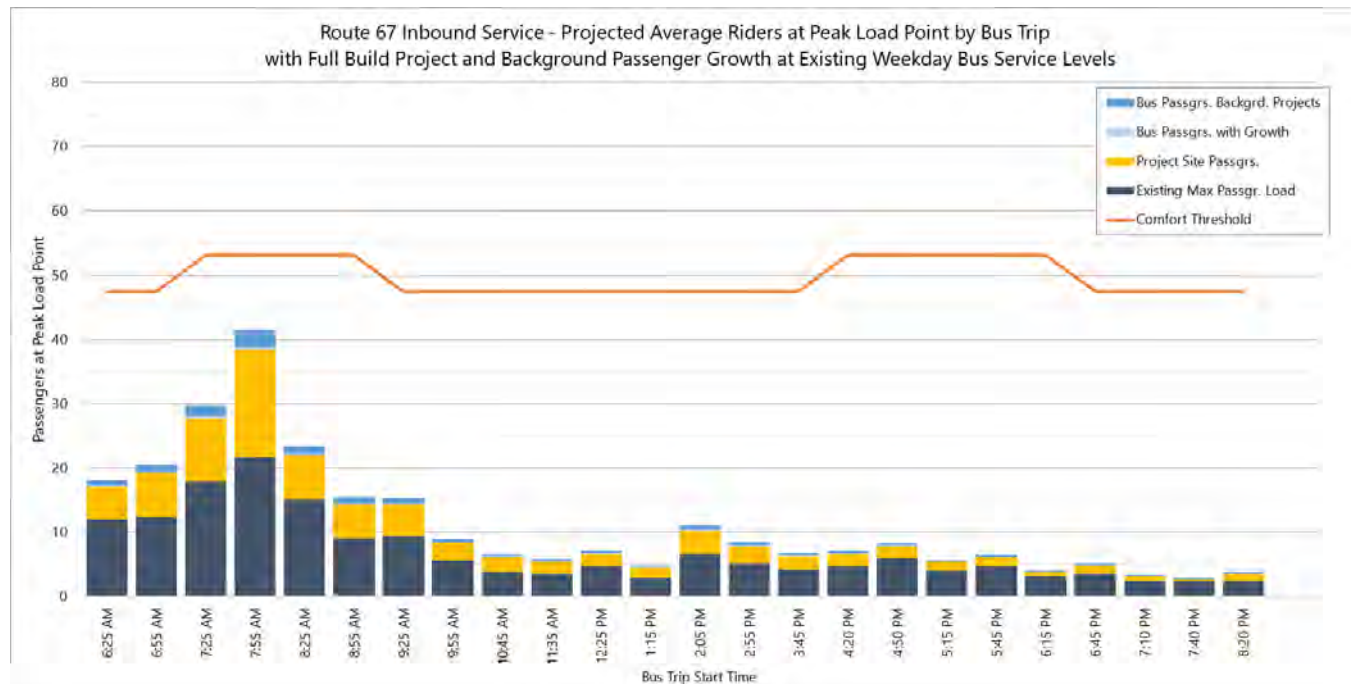


Figure 10.d.5: MBTA Bus Route 76 Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026

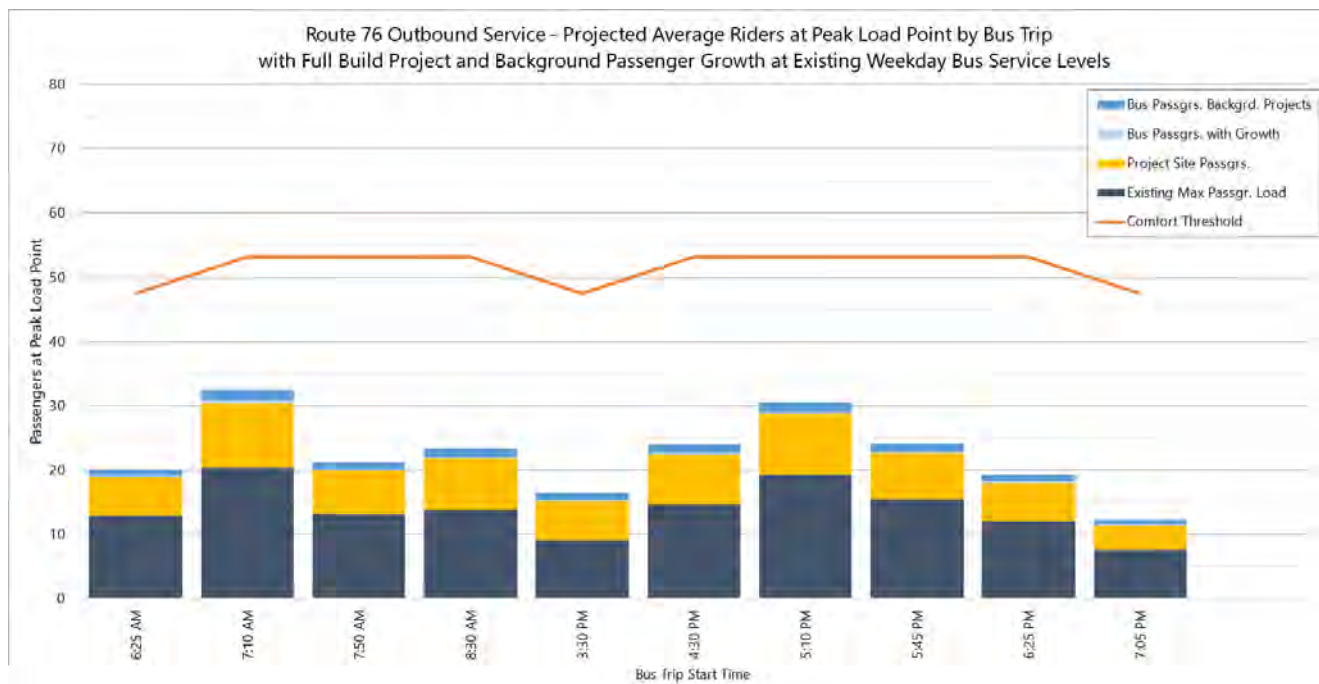
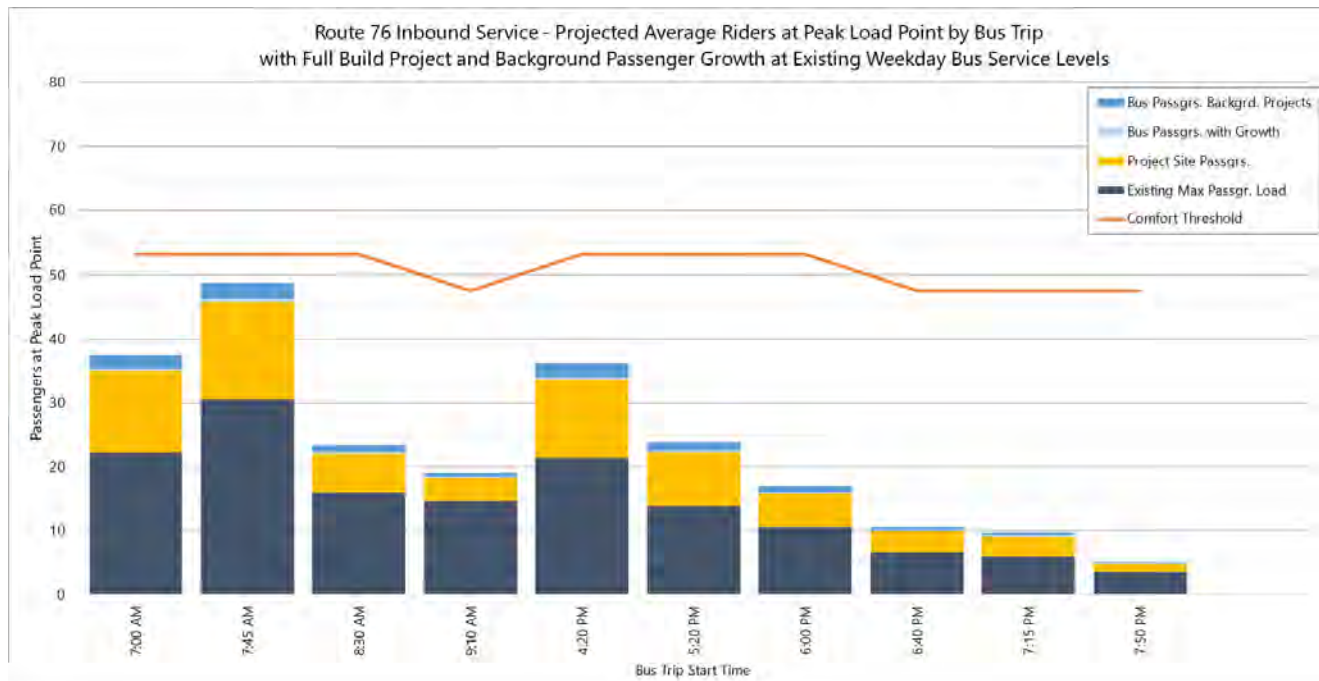


Figure 10.d.6: MBTA Red Line Passenger Capacity Analysis, Weekday

Healthpeak | Cambridge, MA

02/05/2026

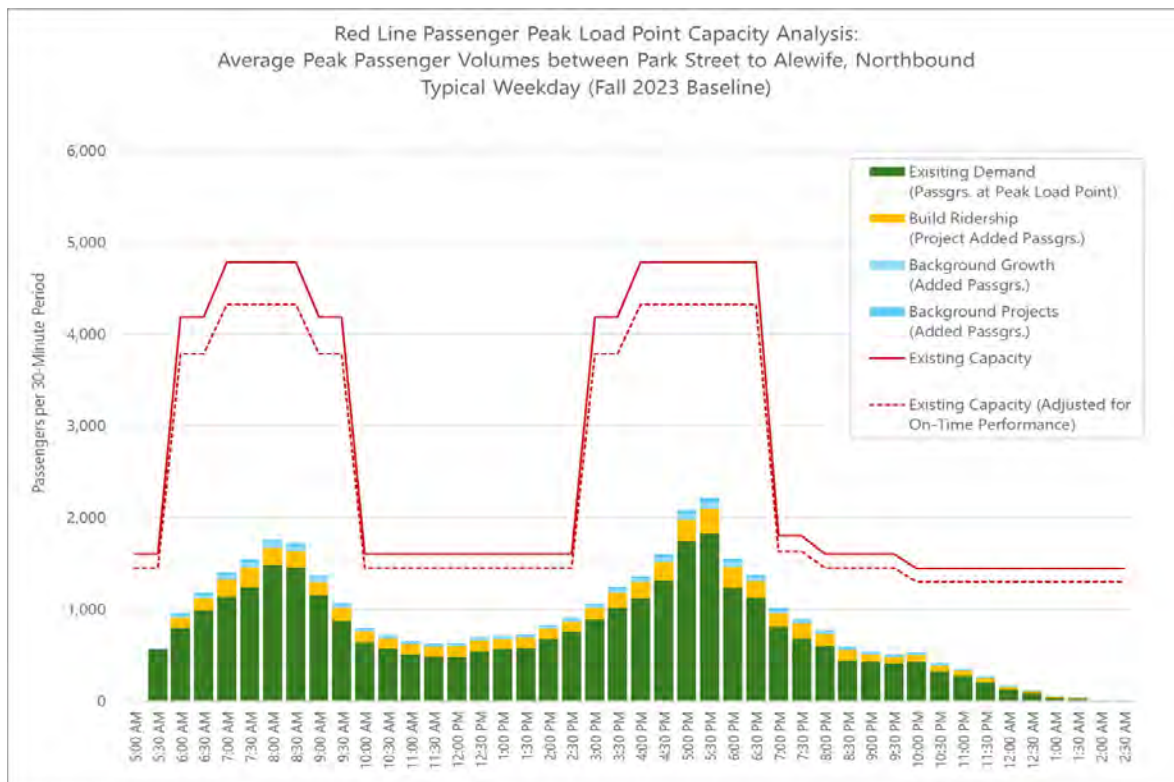
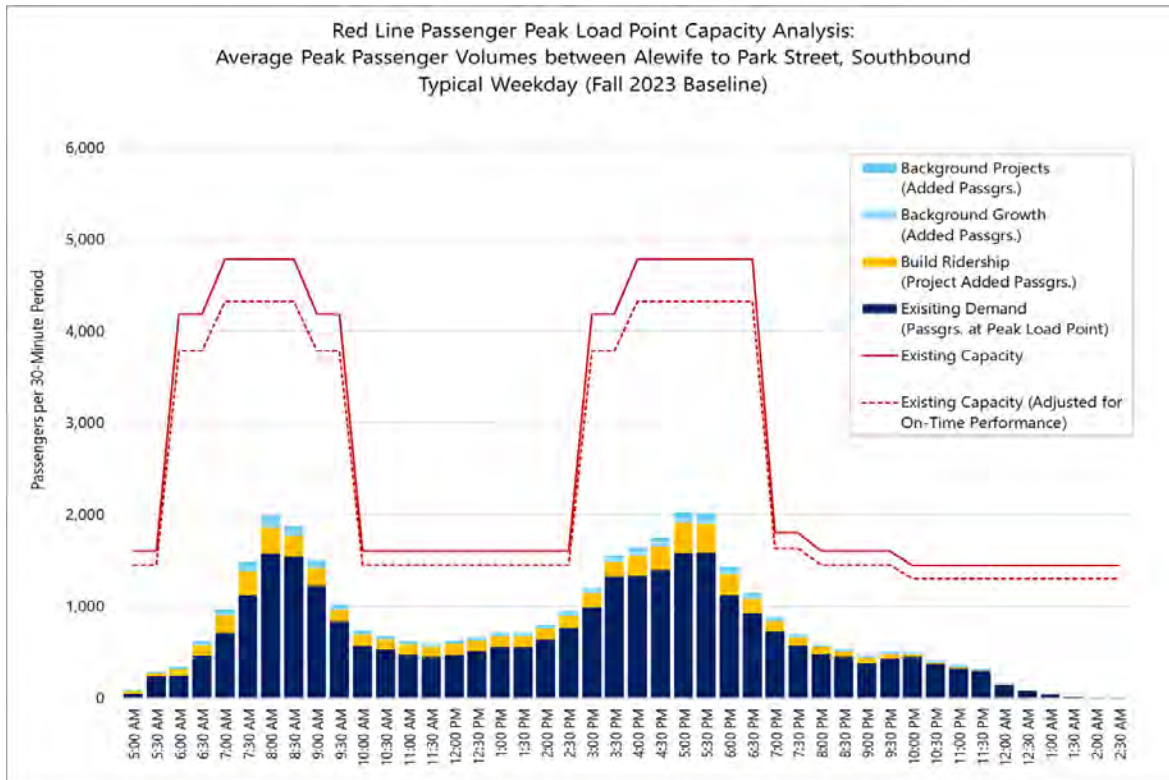


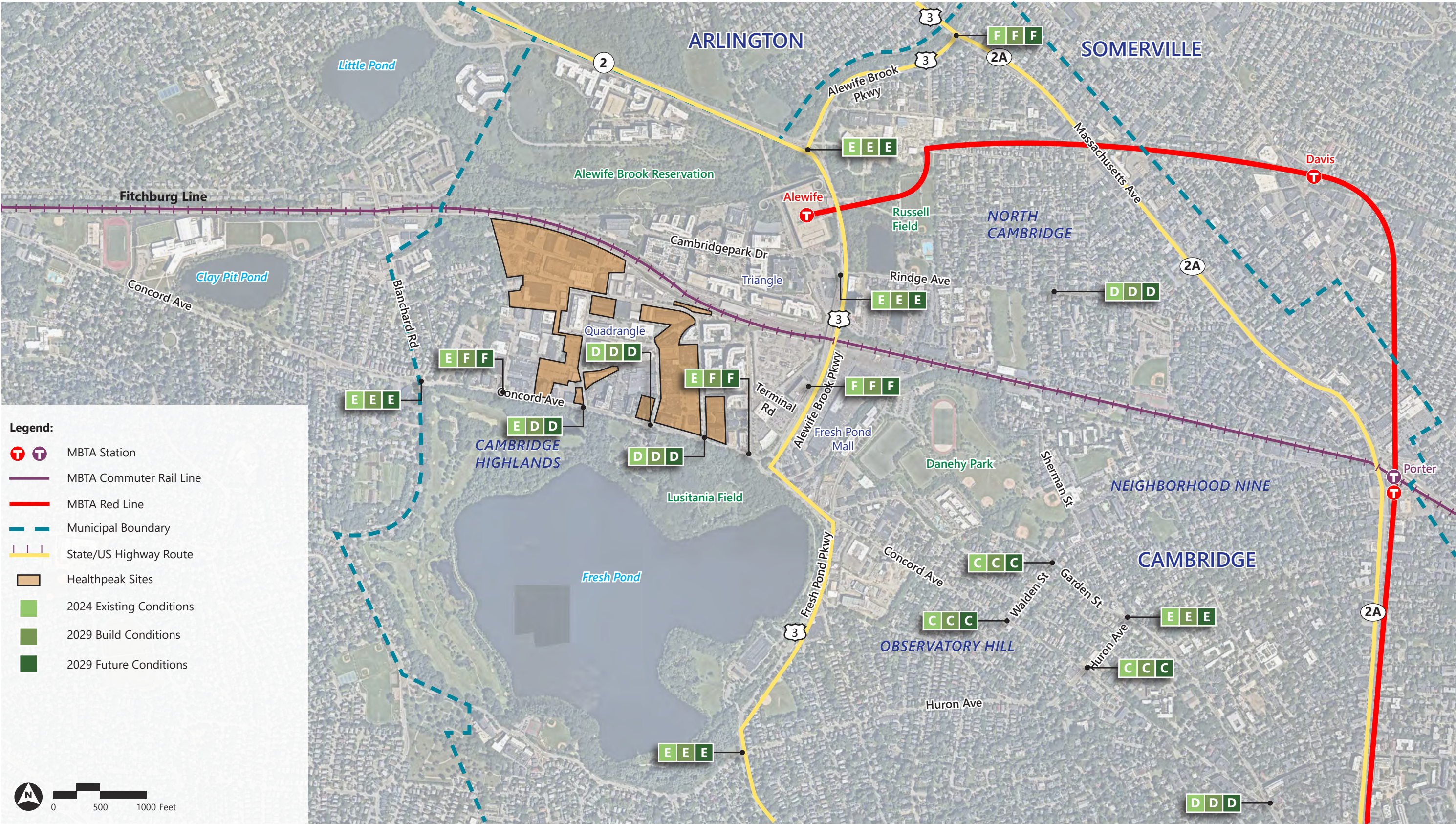
Figure 11.a.1: Pedestrian Level of Service - Morning Peak Hour

Healthpeak | Cambridge, MA



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



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 Building Report Certification
- Green Factor and Cool Score Materials
Dated March 2026
- Green Factor Standard Certification
- Green Factor and Cool Score Materials
Dated November 2025

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HEALTHPEAK PUD SPECIAL PERMIT SUSTAINABILITY PLAN REPORT APPENDIX

Revised: November 11th, 2025

Table of Contents

Project Introduction	3
Sustainability Executive Summary	5
Energy + Emissions	11
Water + Resilience	28
Site + Landscape	32
Transit	37
Regenerative Community Planning	40

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.

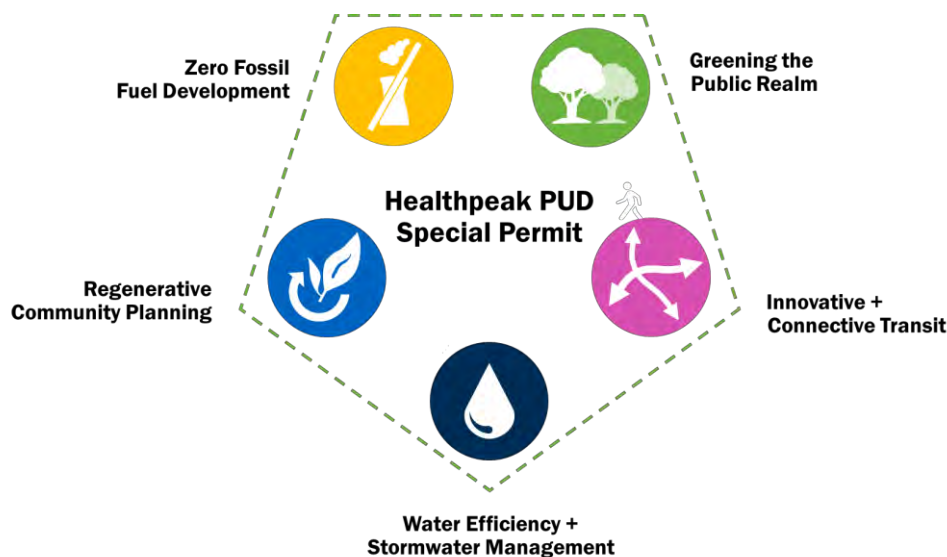
Table 1 Proposed Program by Parcel

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



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 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.

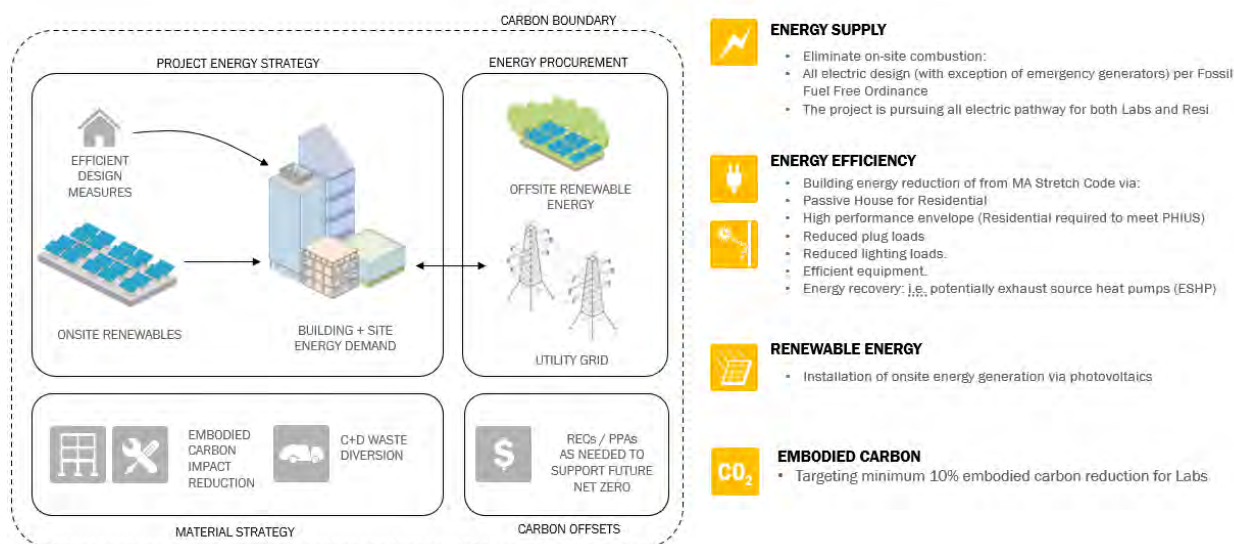


Figure 2 Energy efficiency strategy

Regenerative Community Planning

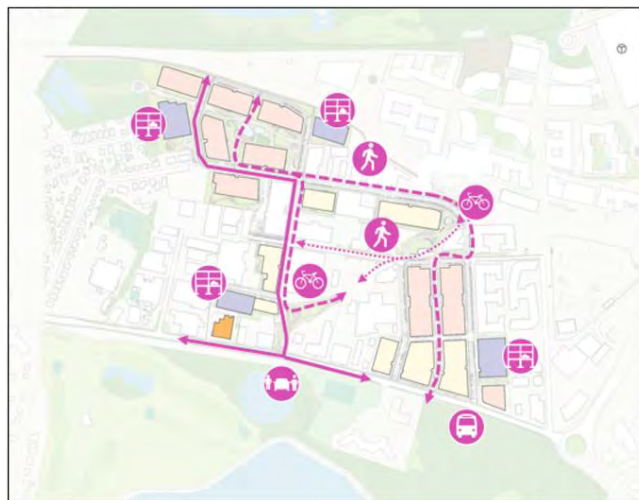
Healthpeak PUD Special Permit is a forward-looking master plan grounded in regenerative design, aimed at building a healthy, inclusive, and sustainable community. The project integrates public amenities and accessible open spaces to strengthen social connection and local identity, while a diverse retail 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.



PEDESTRIAN + BICYCLE BRIDGE

- Connection over the train tracks to MBTA Station.



ENHANCED PEDESTRIAN & CYCLE CONNECTIVITY

- Integrated bicycle path network.
- Shared bike facilities.
- Pedestrian priority and active urban layer.



FUTURE FORWARD PARKING

- Electric vehicle charging to encourage electric vehicle use.
- Shared commercial and residential parking to reduce total capacity.



NEXT GENERATION OF SHARED TRANSIT

- Care share facilities/locations.
- Designate rideshare pickup points for efficient street use.



ENHANCED CONNECTIVITY TO TRANSIT NETWORKS

- Shuttle buses to Green Line/North Station through CRTMA.
- Transit dashboards for increased convenience and ridership.

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, low-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.

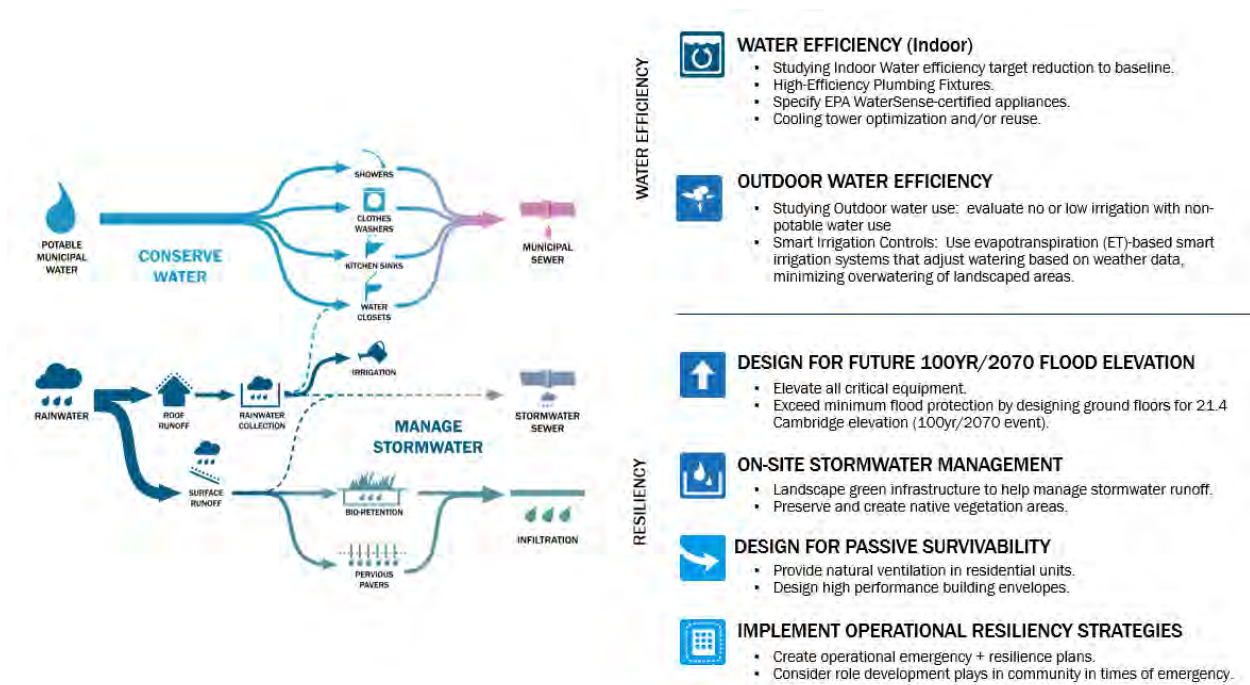


Figure 4 On-site water stewardship and resiliency

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.

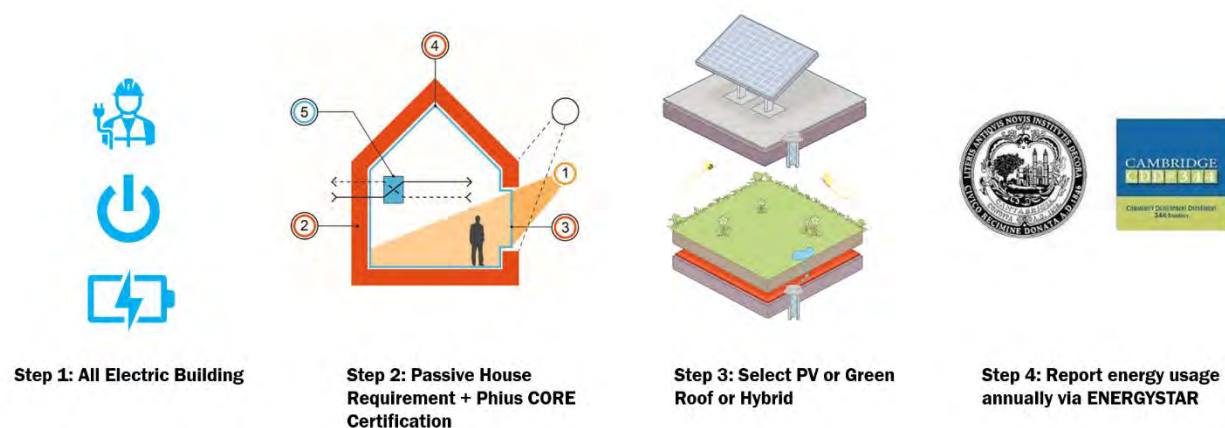


Figure 5 Residential energy strategy components

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/ ft²/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/ft²/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.

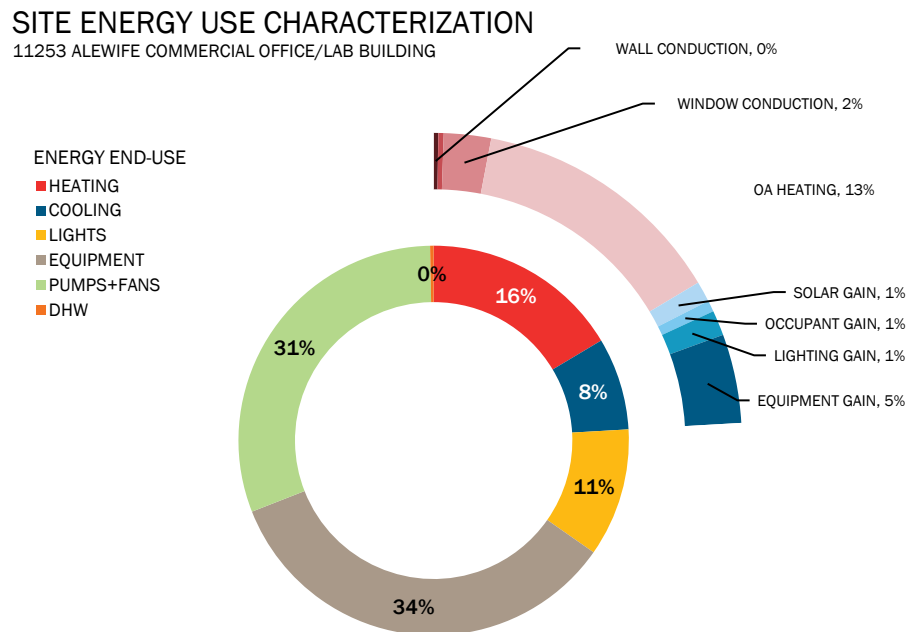


Figure 6 Commercial Lab Building Energy Characterization Graph

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.

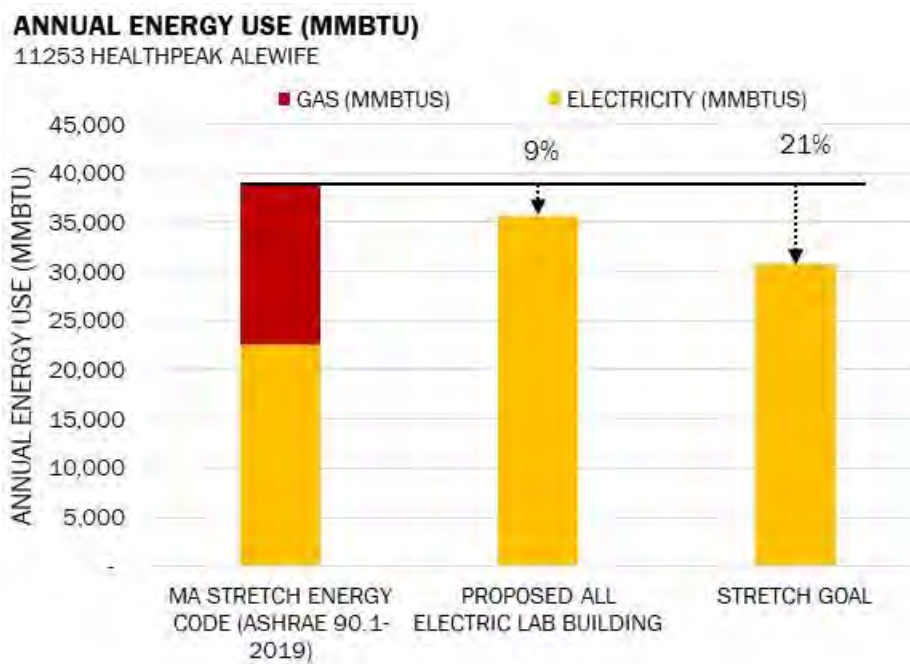


Figure 7 Commercial Lab/Office: Annual energy use reductions

ANNUAL GHG EMISSIONS (TONS)

11253 HEALTHPEAK ALEWIFE

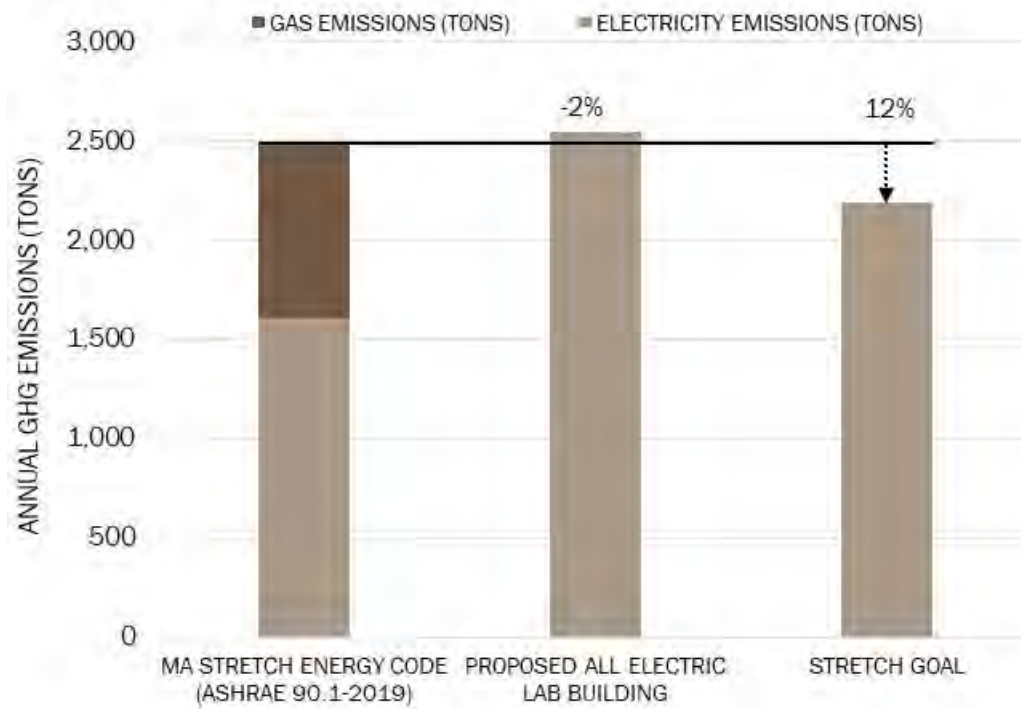


Figure 8 Commercial Lab/Office: Annual operational emissions reductions

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 CO₂e¹ with a development EUI of 87 kbtu/ft²/yr and annual anticipated GHG emissions of 6.2 kgCO₂e/ft²/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

ENERGY DISTRIBUTION BY BUILDING TYPOLOGY
11253 HEALTHPEAK ALEWIFE

■ LAB TOTAL (MWH) ■ RESI TOTAL (MWH)

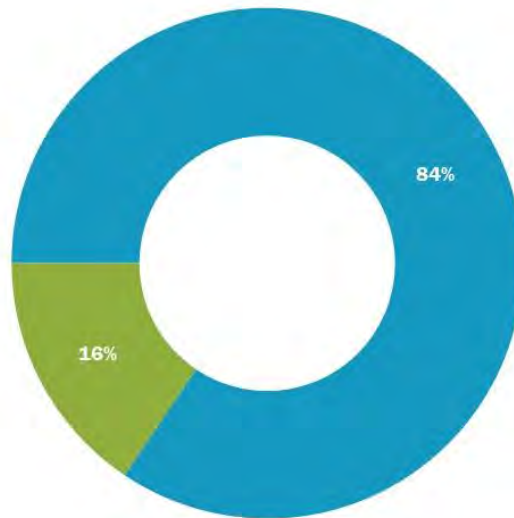


Figure 9 Energy distribution by building typology

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.

RESIDENTIAL: ENVELOPE SENSITIVITY

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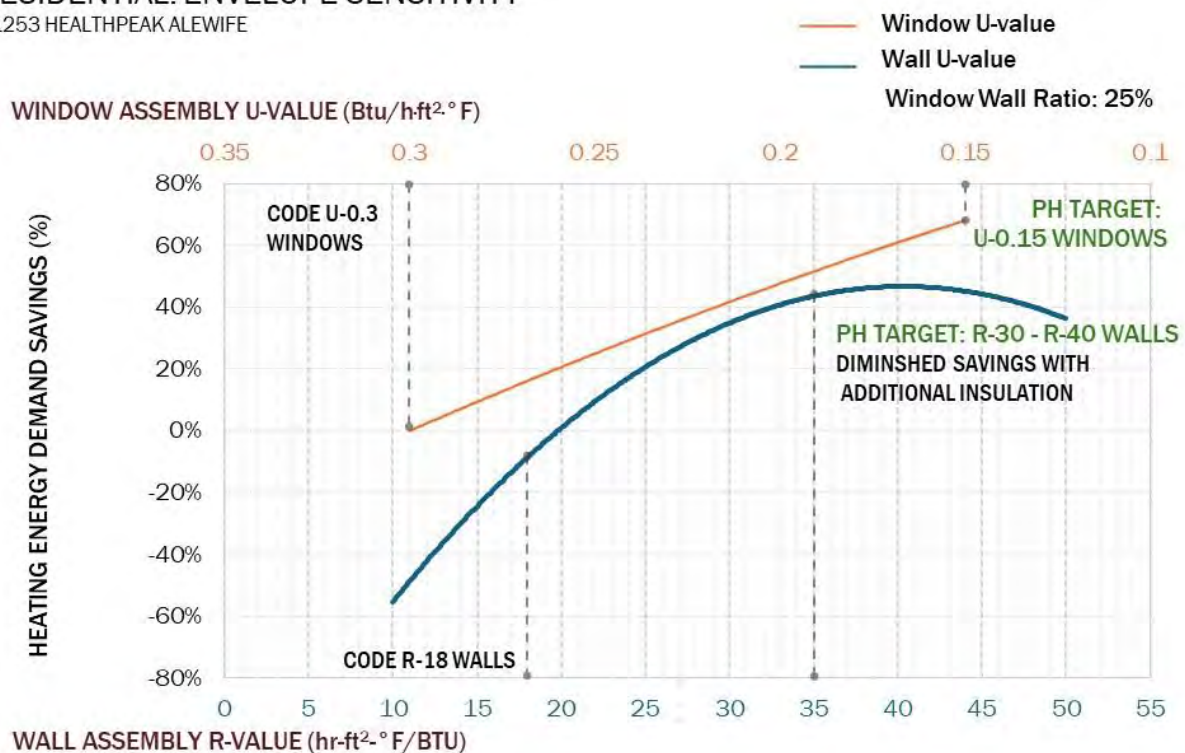


Figure 10 Residential building envelope sensitivity – proposed performance beyond code

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.

COMMERCIAL OFFICE/LAB: ENVELOPE SENSITIVITY

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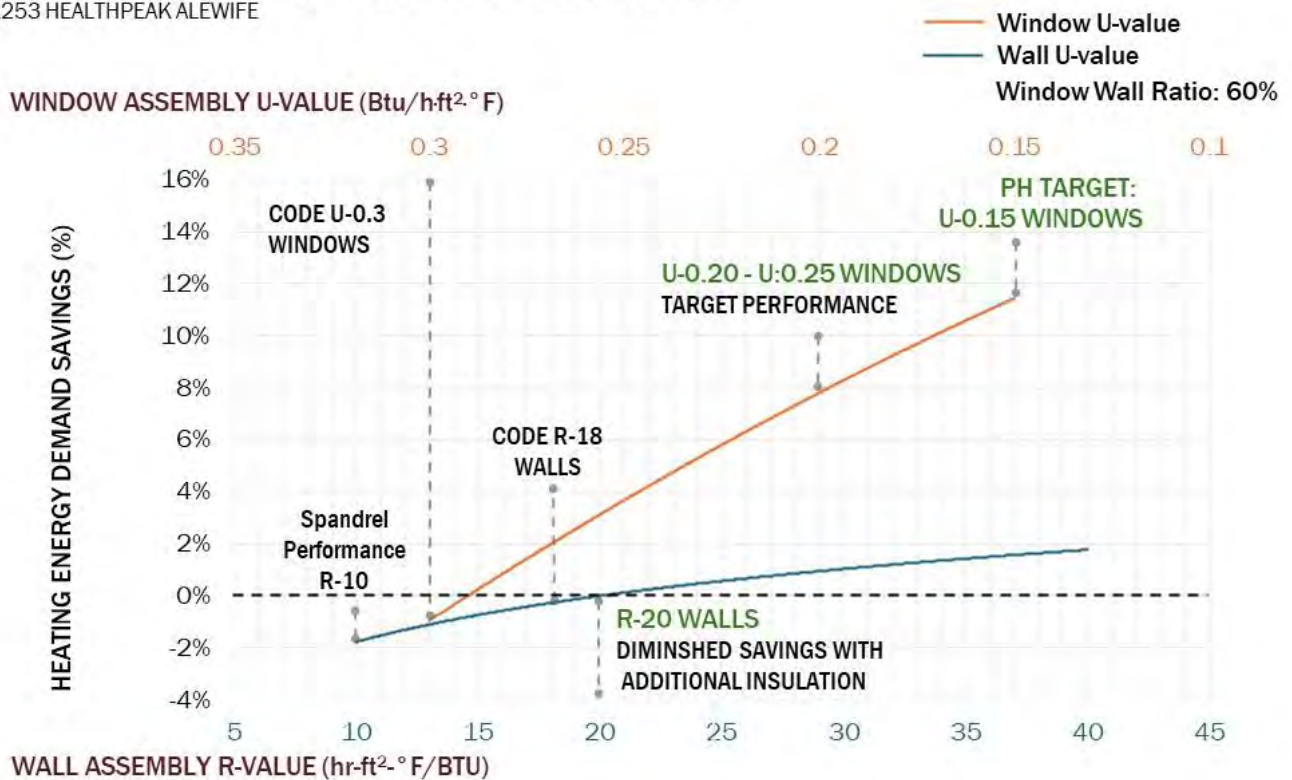


Figure 11 Commercial building envelope sensitivity – proposed performance beyond code

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.

ANNUAL GHG EMISSIONS (LABS+ RESIDENTIAL) (TONS)

11253 HEALTHPEAK ALEWIFE

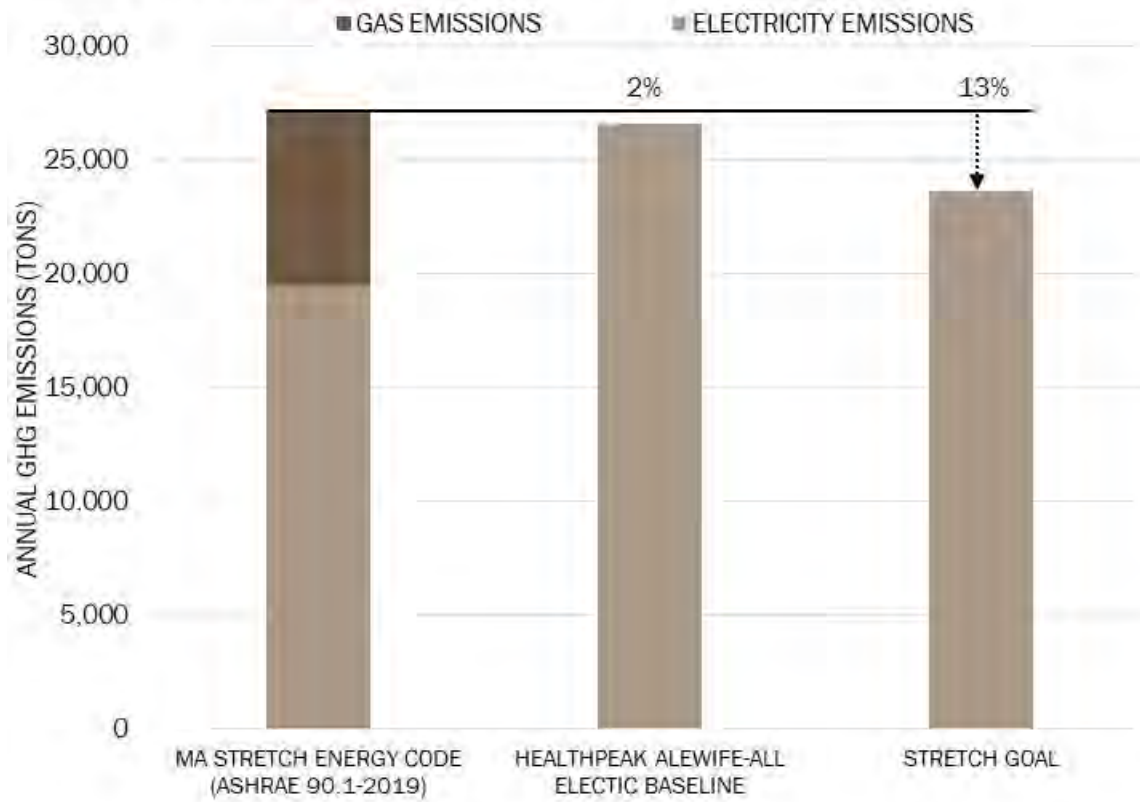


Figure 12 Estimated operational carbon reduction potential.

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

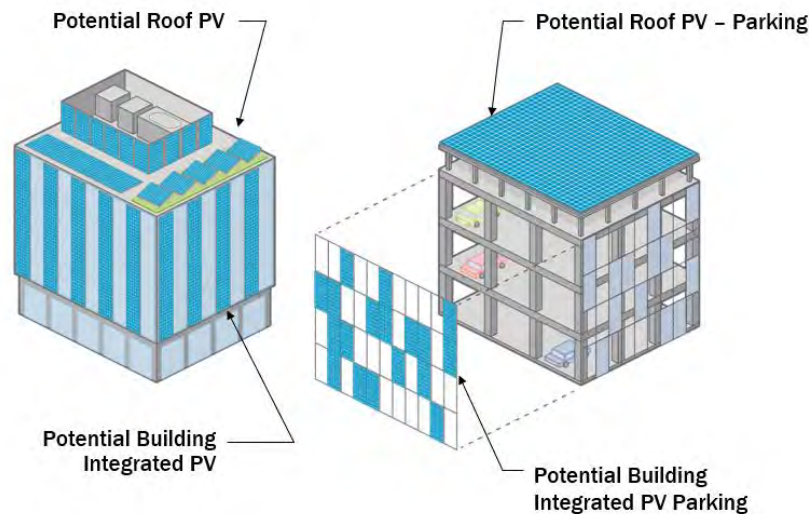


Figure 13 Rooftop solar photovoltaic panels (PV) and Building Integrated PV typical surfaces under study

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.

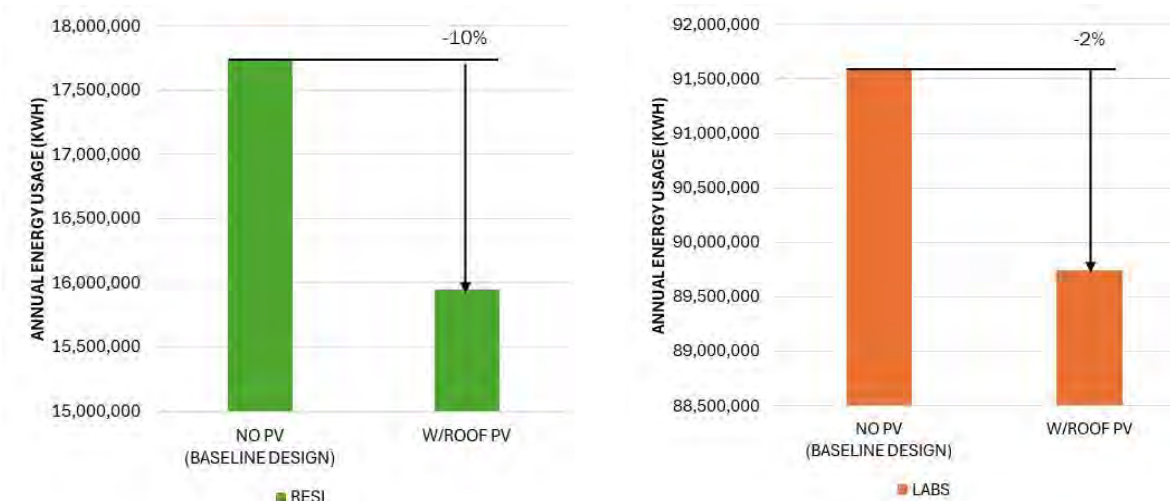


Figure 14 Residential (left) and Lab (right) Buildings On-site Photovoltaics Generation Potential

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.

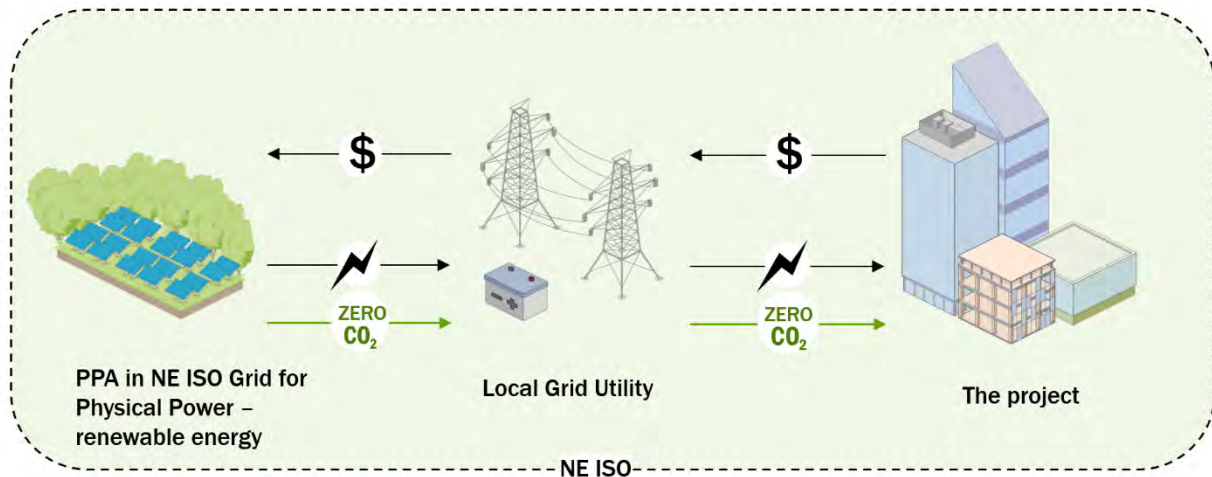


Figure 15 RECs + PPA strategy

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.

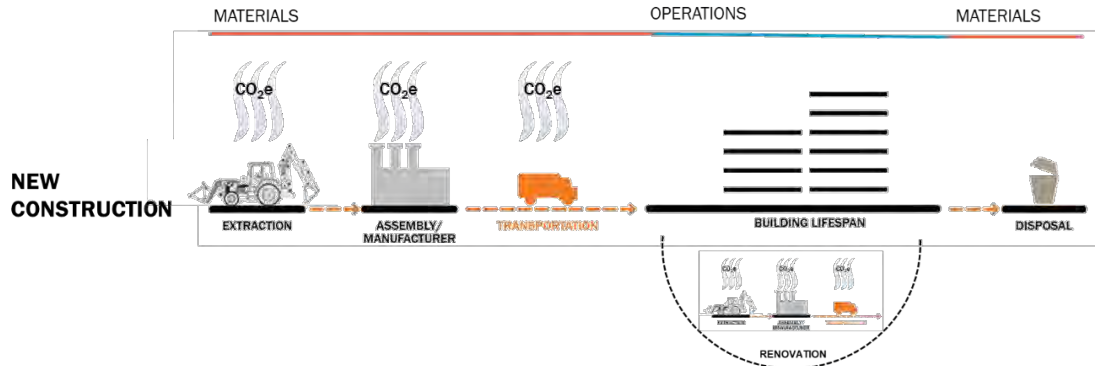


Figure 16 Embodied Carbon Emissions through a building's life cycle

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).

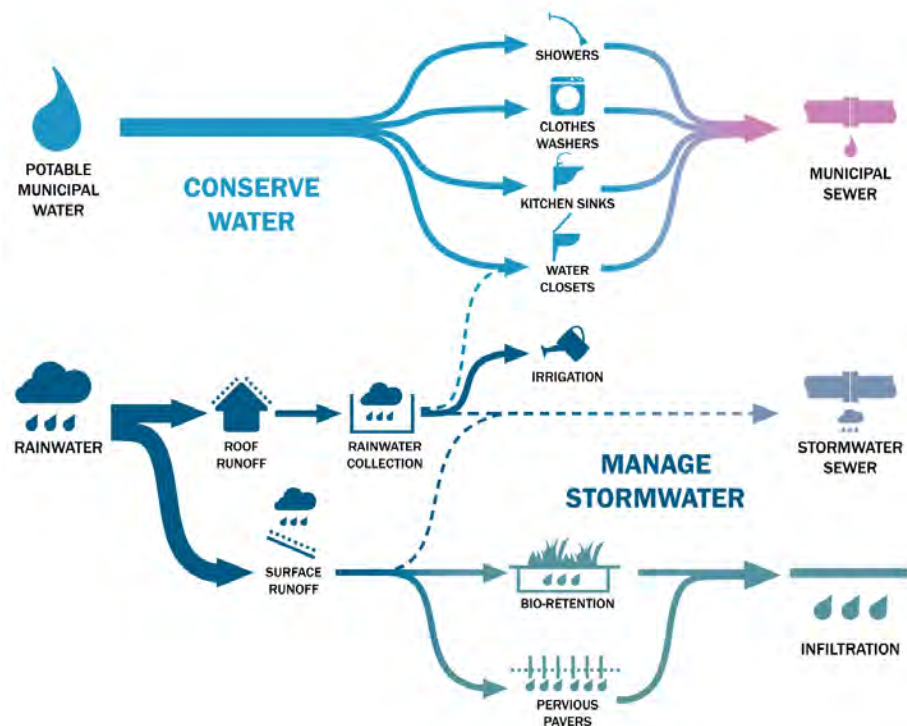


Figure 18 Site water flow diagram

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.

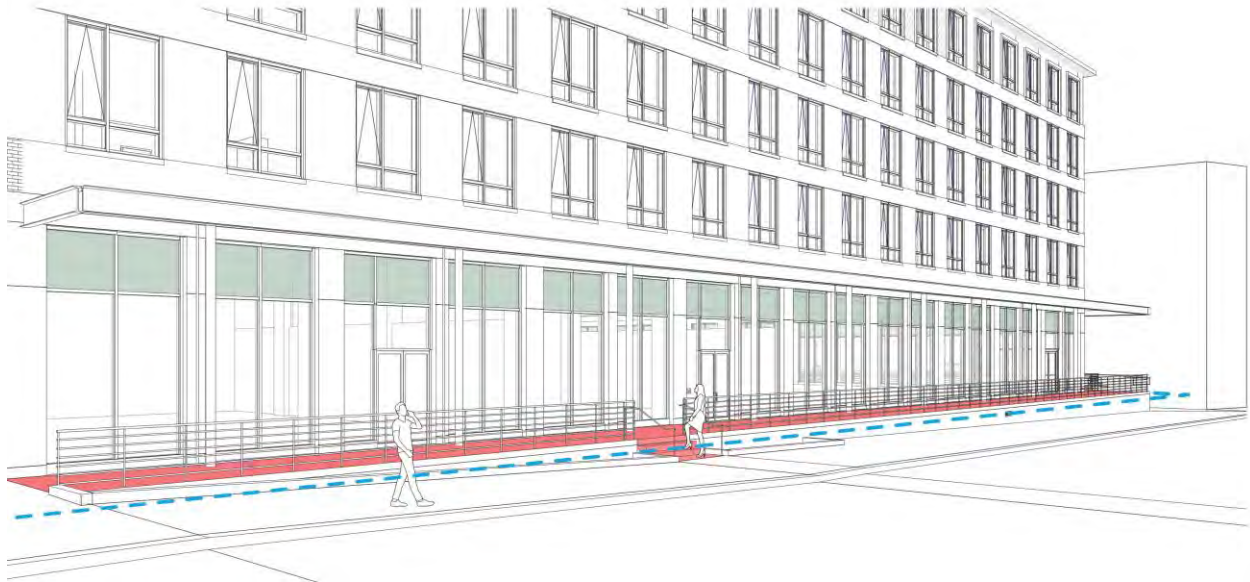


Figure 21 Typical building elevation approach flood elevation (Graphic courtesy EMA)

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).

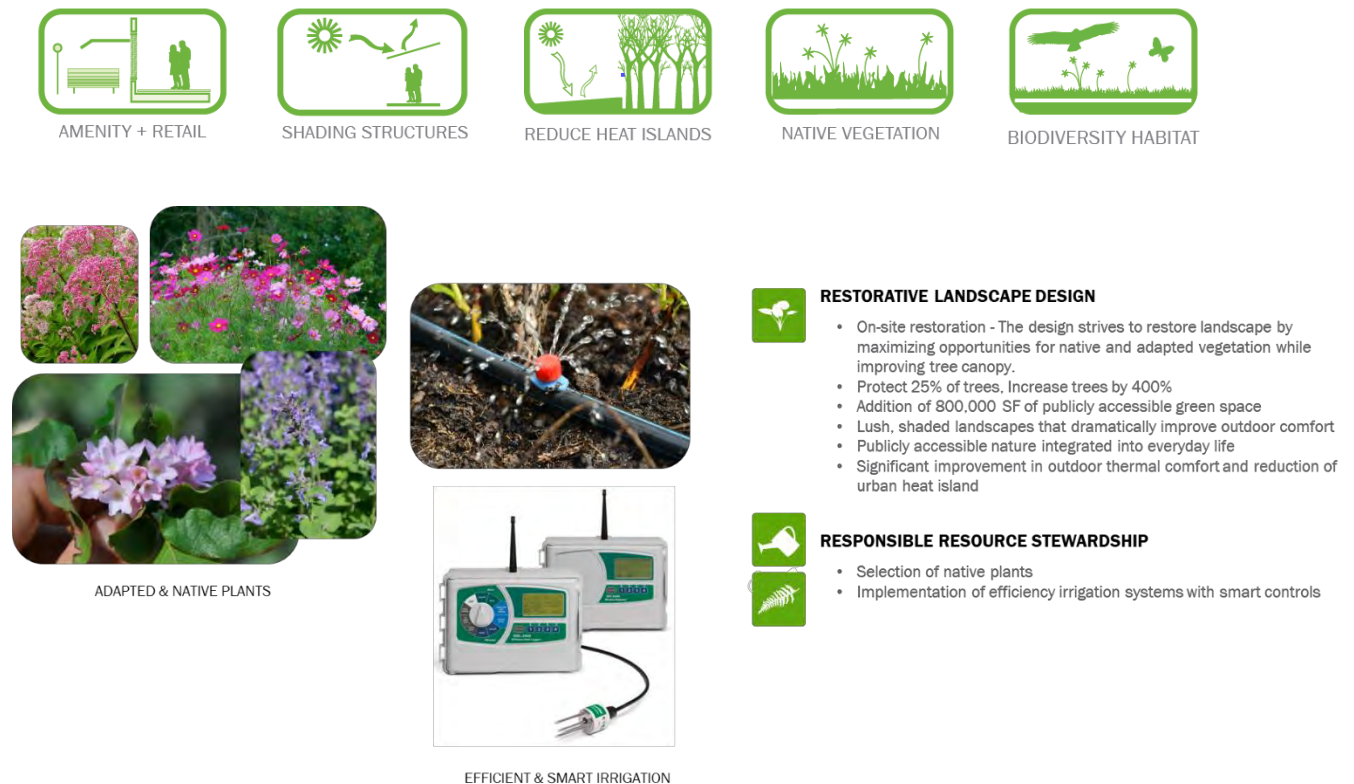


Figure 22 Landscape strategies

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).



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.



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

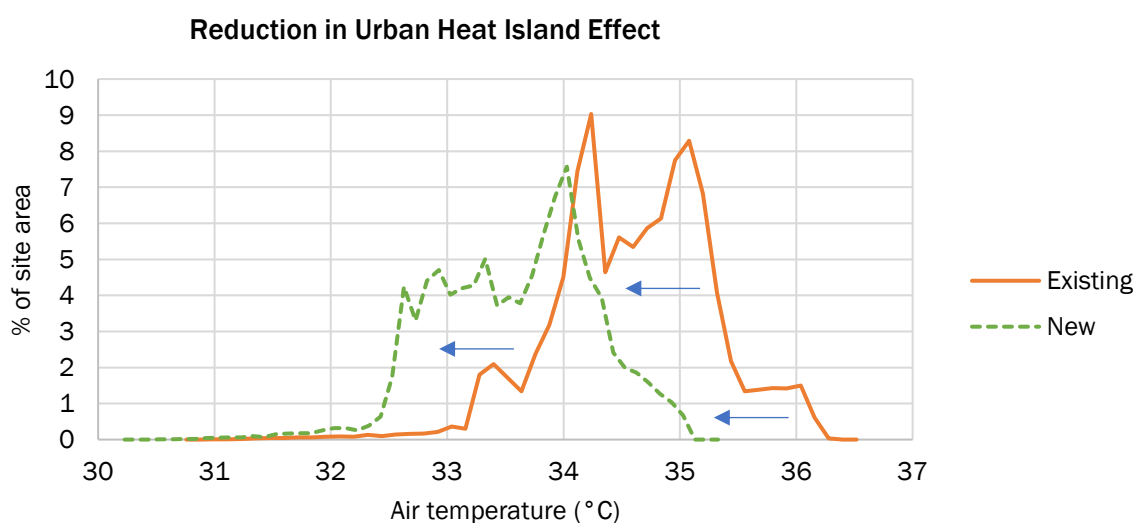
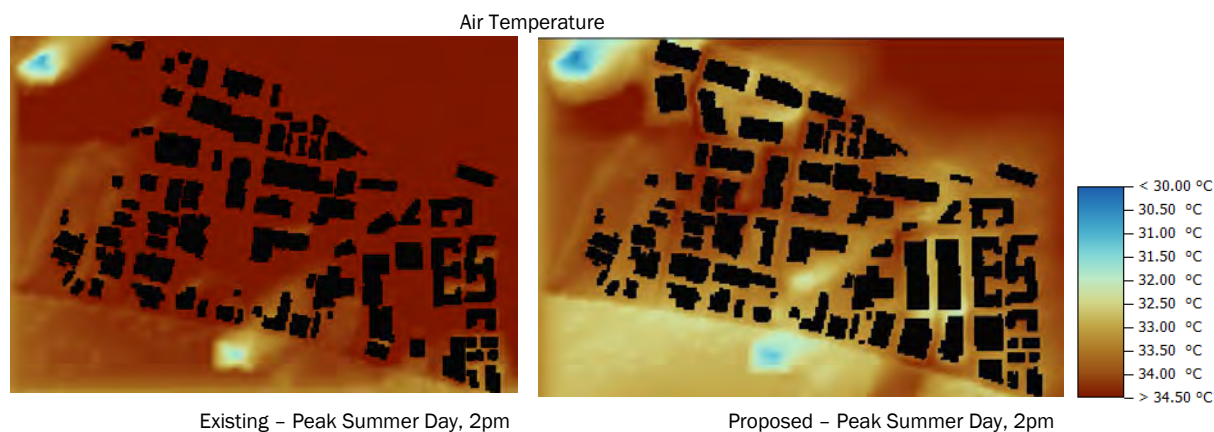


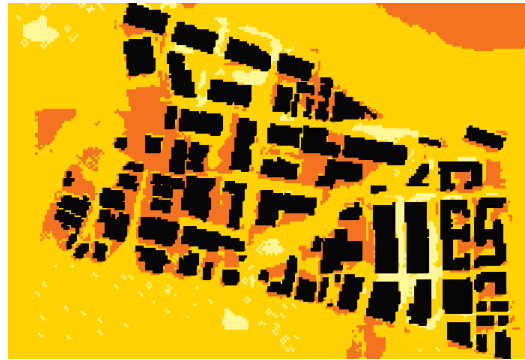
Figure 25 Reductions in urban heat island effect as indicated by analysis of proposed strategies.

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.

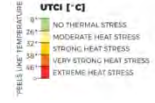


Figure 26 Universal Thermal Climate Index

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.

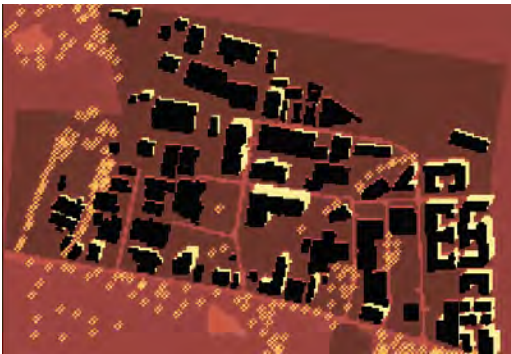
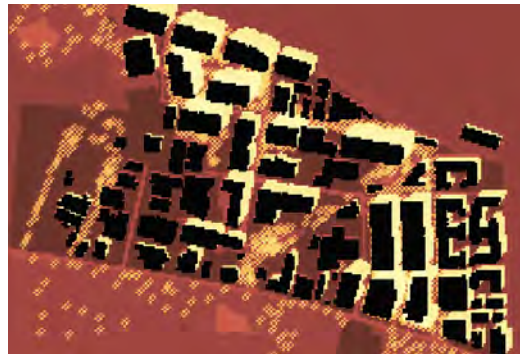
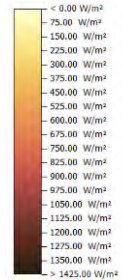


Figure 27 Solar Radiation

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.

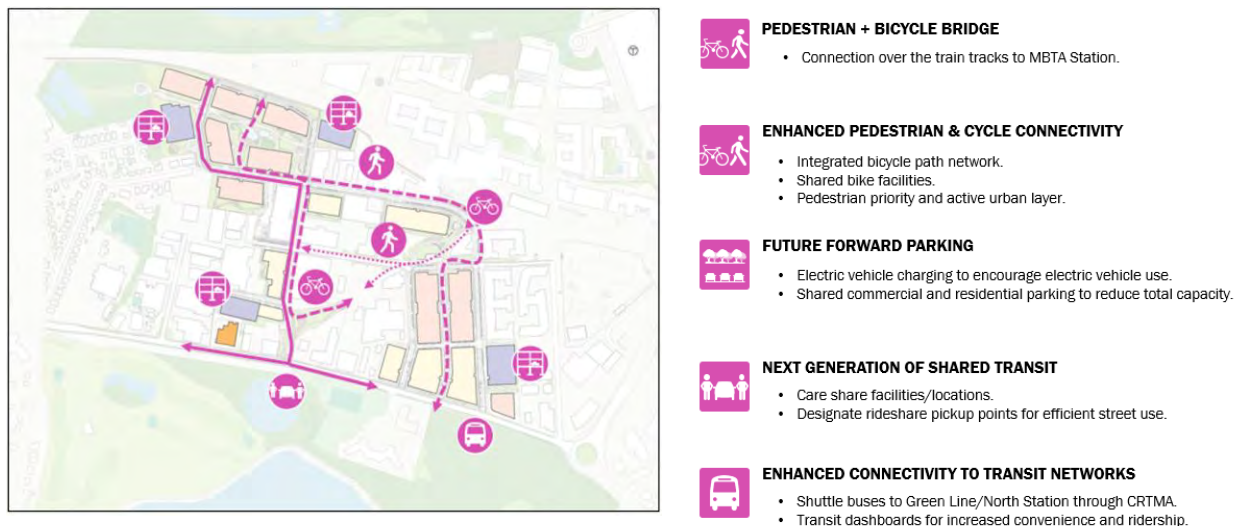


Figure 28 Transit strategies

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.

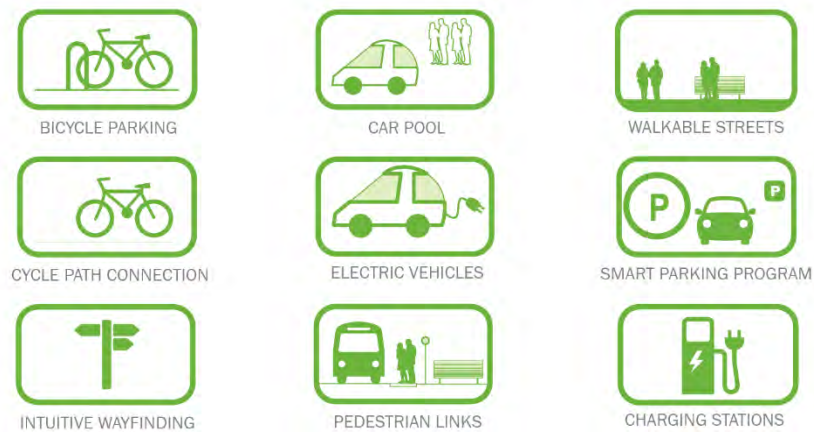


Figure 29 Transit strategies

- 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

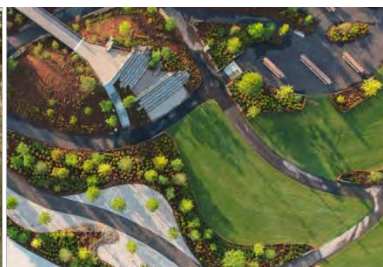
Mixed-use aspects of the Project further integrate social sustainability concepts to create a thriving community of lab employees, residents, and visitors. The development includes outdoor community spaces, publicly beneficial open space, and programming for public recreation, social functions, and educational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

Project Introduction	3
Sustainability Executive Summary	5
Green Building Checklist	12
Green Building Professional Affidavit	14
LEED Narratives	16
LEED Scorecard	21
Net Zero Narrative	26
Embodied Carbon Narrative	35

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.

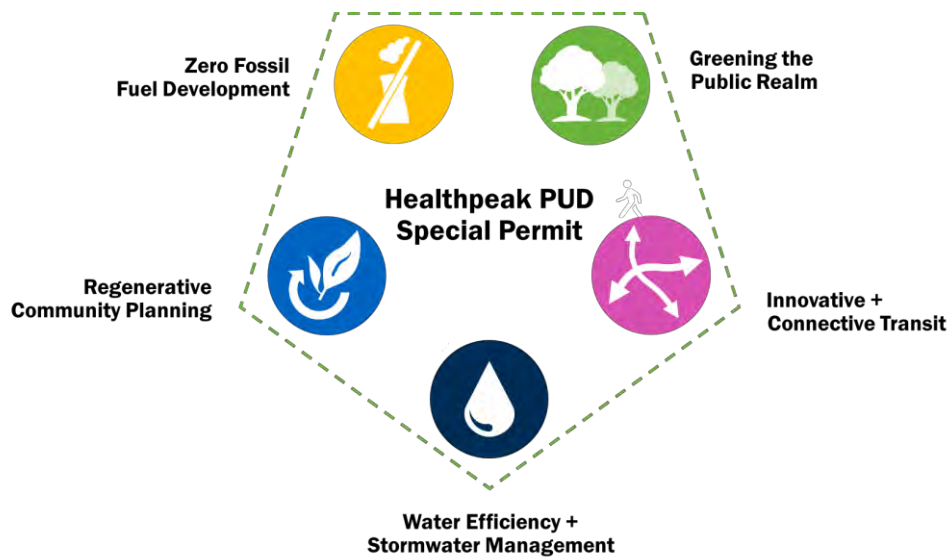
Table 1 Proposed Program by Parcel

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



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.

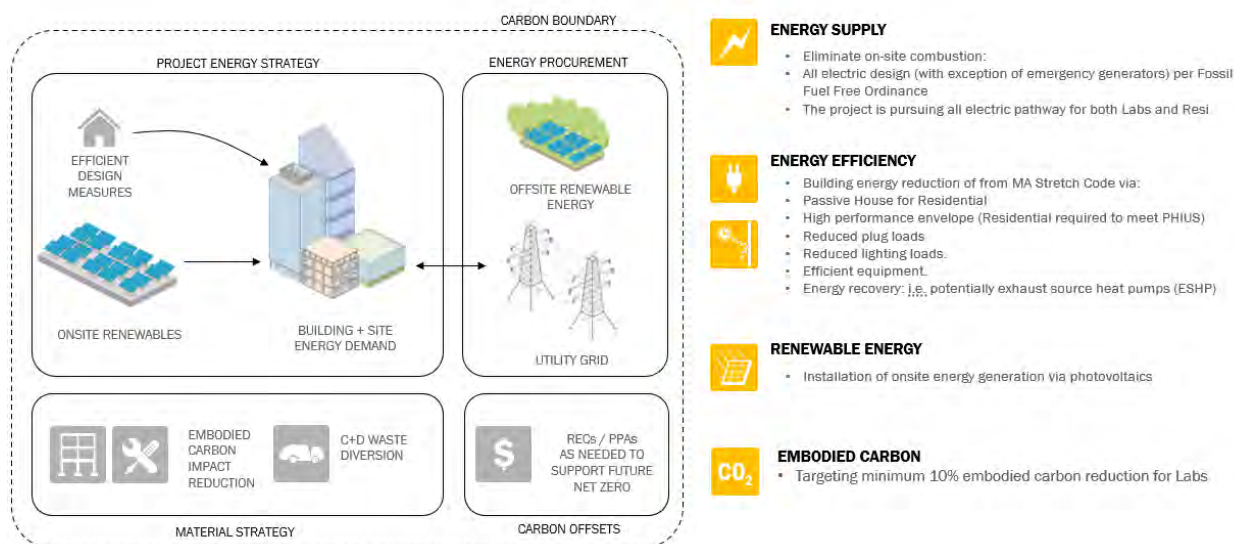


Figure 2 Energy efficiency strategy

Regenerative Community Planning

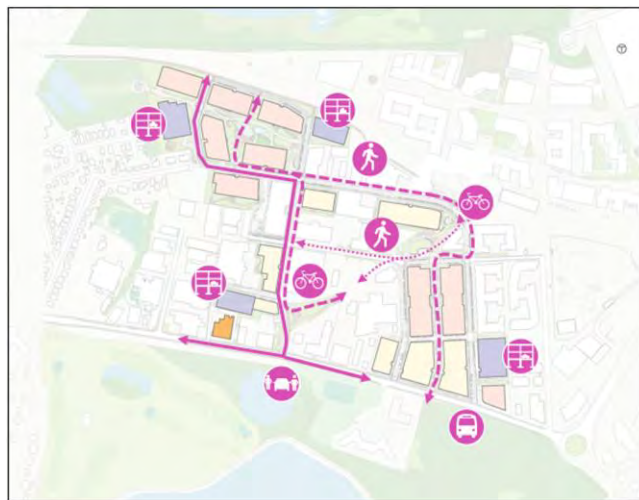
Healthpeak PUD Special Permit is a forward-looking master plan grounded in regenerative design, aimed at building a healthy, inclusive, and sustainable community. The project integrates public amenities and accessible open spaces to strengthen social connection and local identity, while a diverse retail 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.



PEDESTRIAN + BICYCLE BRIDGE

- Connection over the train tracks to MBTA Station.



ENHANCED PEDESTRIAN & CYCLE CONNECTIVITY

- Integrated bicycle path network.
- Shared bike facilities.
- Pedestrian priority and active urban layer.



FUTURE FORWARD PARKING

- Electric vehicle charging to encourage electric vehicle use.
- Shared commercial and residential parking to reduce total capacity.



NEXT GENERATION OF SHARED TRANSIT

- Care share facilities/locations.
- Designate rideshare pickup points for efficient street use.



ENHANCED CONNECTIVITY TO TRANSIT NETWORKS

- Shuttle buses to Green Line/North Station through CRTMA.
- Transit dashboards for increased convenience and ridership.

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.

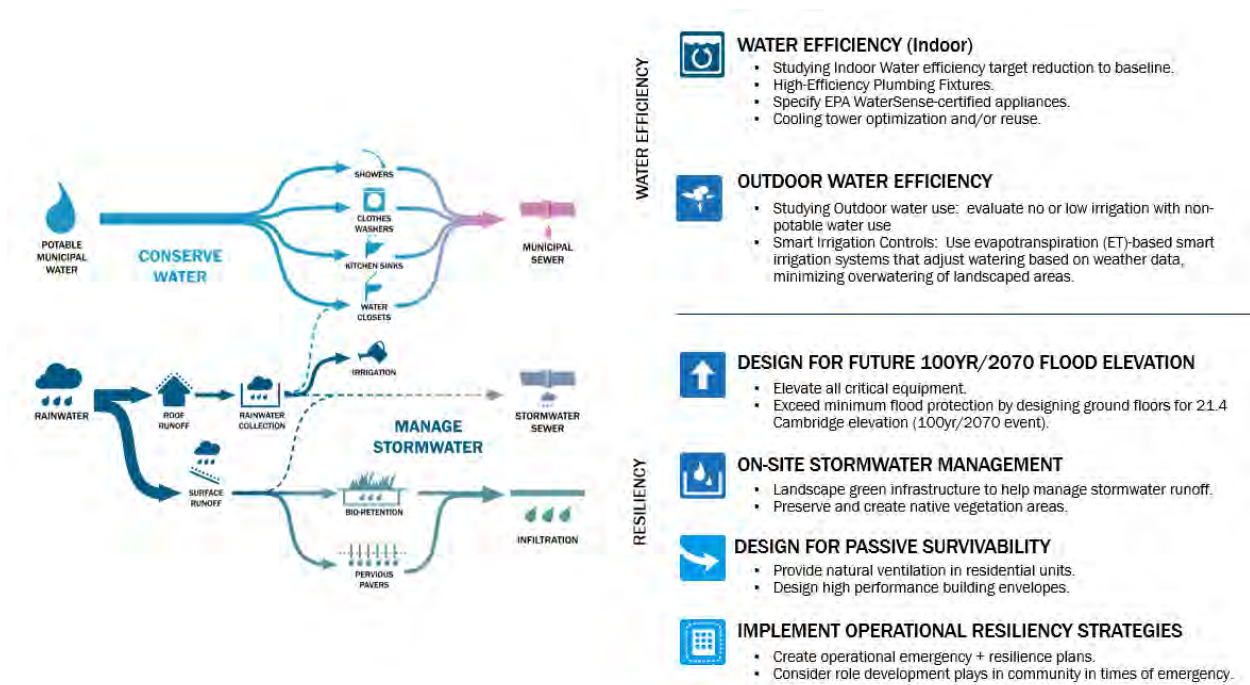


Figure 4 On-site water stewardship and resiliency

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 • ARTICLE 22.000 • GREEN BUILDING REQUIREMENTS

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:

rsquirrel@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:



City of Cambridge, MA

Last Updated: May, 2020

1

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)



City of Cambridge, MA

Last Updated: May, 2020

2

GREEN BUILDING PROFESSIONAL AFFIDAVIT

GREEN BUILDING PROJECT CHECKLIST • ARTICLE 22.000 • GREEN BUILDING REQUIREMENTS

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)

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.



City of Cambridge, MA

Last Updated: May, 2020

1

GREEN BUILDING PROFESSIONAL CREDENTIAL



November 4, 2020

Dear David Manfredi,

The Green Business Certification Institute's records indicate that you passed the LEED® Professional Exam™. Please see the details for your exam achievement, below:

Exam Track	Exam Date	Status
LEED AP Legacy	September 29, 2008	Active – No Expiration

In passing the LEED AP exam, you became recognized as a LEED AP by GBCI. For your reference, your GBCI # is 0010235886.

Thank you for your participation in the LEED® Professional Credentialing program. We wish you all the best in your work to create and sustain a thriving built environment.

Sincerely,

Green Business Certification Inc. (GBCI)

GREEN BUILDING RATING SYSTEM NARRATIVE + SCORECARD

In working with the City of Cambridge to shape the zoning requirements, Healthpeak established a minimum commitment to benchmark buildings according to Article 22 requirements. The district is being designed to incorporate sustainability principles of energy efficiency, environmental consciousness, and health for the occupants, visitors, and community.

Commercial lab buildings will pursue Leadership in Energy and Environmental Design (LEED) Gold certifications, at a minimum. Residential projects will pursue compliance with Article 22 under the Passive House pathway, in line with the MA Stretch Code requirements or under the LEED pathway for BD+C Midrise Multifamily.

The Alewife Master Plan will likely pursue building-by-building certification due to the staggered phasing of the buildings on-site. However, the project will consider registering an overall LEED Master Site, that will take advantage of combined site, landscape, and transportation strategies. It will be confirmed pending the final development timeline.

The buildings will be registered with the USGBC and target several credits which span the nine LEED version 5 categories (Integrative Process, Location & Transportation, Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials and Resources, Indoor Environmental Quality, Innovation in Design Process and the additional Regional Priority Credits) to enable the project to meet the zoning requirements. The project is committed to earn the buildings at least 60 credit points under the LEED v5 system, for LEED Gold ratings. Residential buildings might explore the LEED BD+C for Multifamily Midrise pathway rather than the BD+C New Construction pathway at the time of design. Note that this pathway only has version 4 available at this time. Alternatively, residential buildings might explore the MA Code Compliance PHIUS certification.

All LEED Minimum Program Requirements and Prerequisites will be met.

In addition to achieving the LEED project goals, measures will be taken to meet the guidelines outlined in the zoning requirements for Sustainability for the Development.

In addition, the site area will explore opportunities to align with credits in the Sustainable Sites Initiative program while the commercial buildings will explore components of WELL or Fitwel for Core + Shell projects.

LEED CREDIT SUMMARY - BUILDING DESIGN AND CONSTRUCTION CREDITS

The following LEED projections are made to achieve a LEED Gold rating for each building on the Alewife site. Depending on the program of the building, the project team will pursue either v5 Core and Shell (labs) or v5 New Construction or v4 Multifamily Midrise (residential) certification (where applicable, versus Passive House certification pathway).

The credits listed below are feasible based on understanding of the sustainability ambitions at the Master Plan level and aligned with Healthpeak's sustainability design guidelines:

Integrative Process

Credit 1: Integrative Design Process

- The design team will conduct a design charrette early in design and will develop project-specific LEED goals that will be documented in the buildings' OPR & BOD.

Credit 2: Green Leases (For Core and Shell – Labs)

- The team will develop a standard green lease establishing tenant fit-out standards that incorporate the requirements of the relevant LEED pre-requisites and credits, communicating the principles pursued by the project for sustainability.

Location & Transportation

Credit 1: Sensitive Land Protection

- The development parcels are located on a previously developed urban site in Cambridge.

Credit 2: Equitable Development

- The team will conduct a site assessment to evaluate whether brownfield remediation is needed.
- The team will evaluate the feasibility of workforce development pathways.

Credit 3: Compacted and Connected Development

- The site's surrounding community is replete with housing, restaurants, shops, grocery stores, educational and religious institutions, performance venues and other community amenities. In addition, the project itself will add residential, office, lab, retail and services to the community. The walkable location portion of this credit is achievable.
- The Alewife site is easily accessible from the Alewife Square MBTA. Also, local bus routes connect the location to other areas of the community and Boston. The access to transit portion of the credit is achievable.

Credit 4: Transportation Demand Management

- The project will conduct a transportation demand assessment in alignment with the credit requirements.
- The Alewife site is directly connected to a vast bicycle network. The project will target the provision of sufficient short-term and long-term bike parking in addition to a bicycle repair station in the long-term bike parking storage area.

Credit 5: Electric Vehicles

- The project will provide EVSE for 20% of on-site parking spaces as required under the Specialized Stretch Code.

Sustainable Sites

Credit 1: Biodiverse Habitat

- The project will target the restoration of at least 20% of the previously disturbed area and explore the installation of bird-friendly glass.

Credit 2: Accessible Outdoor Space

- The project will target the provision of sufficient outdoor and vegetated spaces for occupant's communal and recreational use.

Credit 3: Rainwater Management

- The project will target retaining runoff on-site for at least the 85th percentile.

Credit 4: Enhanced Resilient Site Design

- The project will conduct a Climate Resilience Assessment to identify the highest priority hazards and design the corresponding mitigation strategies.

Credit 5: Heat Island Reduction

- The project will pursue this credit through a combination of strategies, including high-reflectance roofing, planting, and paving materials, to help mitigate the urban heat island effect, consistent with the City of Cambridge Zoning 22.90 Green Factor Standard.

Credit 6: Light Pollution Reduction

- The project will target meeting the uplight, light trespass, and exterior signage luminance requirements.

Water Efficiency

Prerequisite 1 and Credit 1: Water Metering, Reporting, and Leak Detection

- The project will install water meters to measure and evaluate water consumption for each building. Beyond the whole building and site water metering, the project will study installing permanent water meters for the applicable subsystems and determine WE Credit 1 achievability.

Prerequisite 2 and Credit 2: Enhanced Water Efficiency

- The project will install efficient flow and flush fixtures not exceeding the LEED maximums rates, as well as compliant equipment to reduce building potable water consumption.
- The project will select native and adaptive plantings and install efficient irrigation systems if needed to minimize outdoor water use.

Energy and Atmosphere

The building systems shall be designed to optimize energy performance and will not use refrigerants that are harmful to the environment. Commissioning agents will be engaged to confirm the building systems are installed and function as intended and designed.

Credit 1: Electrification

- The project will pursue all electric service water heating and cooking and process loads. The district will be all electric except for backup power.

Credit 2: Reduce Peak Thermal Loads

- The project will target the design of ventilation energy recovery and compliance with thermal bridging requirements of ASHRAE 90.1-2022. The team will evaluate the feasibility of the other compliance paths in the credit as well.

Prerequisite 2 and Credit 3: Minimum/Enhanced Energy Efficiency

- Each building will establish energy performance target and be designed based on the stretch codes which would likely be more stringent than the LEED Baseline. The team will also explore additional energy efficiency measures through energy simulation to further reduce the energy consumption of the project. For Core and Shell, additional credit points will be achievable through tenant guidelines that outline lighting and equipment efficiencies for core and shell.

Credit 4: Renewable Energy Production (To be explored)

- Rooftop solar panels have the potential to generate electricity to be used by each building. The credit point will be eligible by percentages of the equivalent cost of usable energy produced by renewable energy to the total building energy cost. Team to explore during each building's design process.

Prerequisite 3 and Credit 5: Fundamental Commissioning / Enhanced and Ongoing Commissioning

- Buildings will engage a commissioning agent and develop and perform fundamental commissioning (if pursuing LEED BD+C for NC or C+S). EnergyStar compliant commissioning will be implemented under the LEED BD+C Multifamily Midrise system if applicable.
- Projects will pursue Enhanced Commissioning points as required under Article 22. Monitor-based commissioning to be encouraged, and teams will consider opportunities for envelope commissioning.

Credit 7: Enhanced Refrigerant Management

- The design team will select HVAC equipment with low global warming potential (GWP) refrigerants to minimize the emission of compounds that contribute to ozone depletion and climate change.

Materials and Resources

Healthy building objectives encourage each building design and construction to examine materials and avoid the use of hazardous chemicals. This will be aligned with credit requirements in the LEED Materials and Resources category.

Credit 2: Reduce Embodied Carbon

- The building design teams will conduct life-cycle assessments of the project building's structure and enclosure compared to the LEED baseline to optimize the environmental performance of products and materials, if applicable under the Emissions Accounting Ordinance.

Credit 3: Low-Emitting Materials

- The project will target specifying low VOC products for at least three LEED categories including but not limited to: paints and coatings, flooring, insulation, and ceilings.

Credit 4: Building Product Selection and Procurement

- The project will target specifying compliant products for at least the following material categories: ceilings, flooring, composite wood, insulation, and paints and coatings.

Credit 5: Construction & Demolition Waste Management

- The construction team will reduce waste disposed of in landfills by recovering, reusing, and recycling materials, targeting 75% diversion from landfill with 4 material streams, 25% of which to be source separated.

Indoor Environmental Quality

Prerequisite 2 and Credit 1: Fundamental/Enhanced Air Quality

- Each building will be designed following ASHRAE 62 requirements to supply enough ventilation air. In addition, indoor air should be maintained in high quality with proper filtration and monitoring strategies. The project will also pursue increased outdoor air ventilation rates to further enhance air quality.

Credit 2: Occupant Experience

- Each building will be designed to prioritize daylight availability, glare mitigation, and access to quality views. Credit feasibility to be explored by each building during the design phases.

Credit 3: Accessibility and Inclusion

- The team will target the inclusion of at least 10 accessibility and inclusion strategies across the projects.

NEXT STEPS

The above LEED credits will be reviewed during the individual building design process along with other LEED credits not currently listed as being pursued. Each building will achieve threshold for LEED Gold, 60 points at a minimum, but a range of 65-75 points is likely depending on the building type.

LEED SCORECARD – CORE AND SHELL (LABS)

LEED v5 Core and Shell																								
Healthpeak Alewife - Lab Buildings																								
Last Updated: September 17, 2025																								
<table><tr><th colspan="4">ACHIEVABILITY</th></tr><tr><th>HIGH</th><th>MED</th><th>LOW</th><th>NP</th></tr><tr><td>66</td><td>17</td><td>19</td><td>8</td></tr></table>				ACHIEVABILITY				HIGH	MED	LOW	NP	66	17	19	8	Certified 40-49 points Silver 50-59 points Gold 60-79 points Platinum 80+ points Achievability Rating: High = 90% Med = 60% Low = 10% NP = Not Possible.								
ACHIEVABILITY																								
HIGH	MED	LOW	NP																					
66	17	19	8																					
70 PROJECTED POINTS																								

2	1	1	LT Credit 4	v5	Transportation Demand Management	Transportation Demand Assessment - Assess the number of vehicle miles traveled and carbon emissions associated with the regular building occupant commuting trips to and from the project building. Projects located within a transit priority area, or within a walking distance of 0.5 miles (800 meters) to an existing or planned major transit stop, are exempt from this requirement. AND Implement one or more of the following strategies for one point each up to a total of 4 points. Option 1. Parking (1-3 pts) Path 1 Reduce Parking - Provide a reduction in parking capacity from base ratio; 30% (1pt), 60% (2pts), 100% (3pts) Path 2. Parking Fee - implement a parking fee at a cost equal to or greater than the local market rate for public or private parking (2pts) Option 2. Active Travel Facilities (1-3pts) Path 1 Bicycle Network and Storage - provide short term bike parking, long term bike parking, and access to a bicycle network. (1pt) Path 2. Shower and Changing Facilities - provide showers with changing facilities for 1% of all regular building occupants. Off-site showers are acceptable if within a 0.25 mile walking distance. (1pt) Path 3. Bicycle Maintenance - provide a bicycle repair station (tools and air pump) in the long-term bike parking storage area. (1pt)
2			LT Credit 5	v5	Electric Vehicles	Option 1. Electric Vehicle Supply Equipment (1-2pts) Install electric vehicle supply equipment (EVSE) for whichever is greater, 5% of commercial spaces or 2 spaces (1pt); 10% of commercial spaces or 4 spaces (2pts) Option 2. Electric Vehicle Readiness (1pt) Provide at least 10% or at least 10 spaces, whichever is greater, EV-ready parking spaces.
9	2		Sustainable Sites			Requirements Summary
Y			SS Prereq 1	v5	Minimize Site Disturbance	ESC Plan - Align with 2022 EPA CGP or local equivalent, plus some additional reqs for construction exclusion zones, site inspections, etc. AND Site Assessment - collect info in a pre-construction survey. - Special-status Vegetation: Conserve 100% of special status vegetation on site - Healthy Habitat: Identify healthy plant communities and implement strategies to minimize damage during construction onward - Invasive Vegetation: Indicate existing invasive vegetation species and address removal/control; and include native and adapted vegetation that is not invasive
1	1		SS Credit 1	v5	Biodiverse Habitat	Option 1: Preserve and Restore Habitat (1-2 pts) Preserve 40% of the greenfield area on site (if such area exist) AND Restore previously disturbed area, 20% (1pt), 40% (2pts) through soil and vegetation restoration. AND/OR Option 2. Bird-friendly Glass (1pt) Glass used below specified heights on the exterior of the building and site must have a maximum threat factor of 30 (glass at grade up to 50ft, up to 20ft from green roof, any distance from grade or roof for glass in guardrails and windshields)
1			SS Credit 2	v5	Accessible Outdoor Space	Sufficient Outdoor Space Area Provide barrier-free and physically accessible outdoor space for people with limited mobility for at least 30% of the total site area (including building footprint). At least 25% of the required outdoor space must be vegetate. AND Include one of the following Urban Outdoor Spaces - Biophilic Space, Garden, and/or Recreational area AND Include one of the following Community Outdoor Elements - Publicly accessible to the community during daylight hours - Provide at least two art installations or sculptures by local artist - Provide acoustical elements to provide a positive soundscape if near significant noise sources (i.e. subway)
2	1		SS Credit 3	v5	Rainwater Management	Manage runoff for the 80th percentile (1pt) or 85th percentile (2pts) or 90th percentile (3pts) using low-impact development (LID) and green infrastructure.
2			SS Credit 4	v5	Enhanced Resilient Site Design	Design and construct the site and site structures using at least 2 strategies for 2 of the highest priority hazards identified in the Prereq Climate Resilience Assessment. Credit notes drought, extreme heat, flooding, hail, hurricane/high wind, sea level rise, tsunami, wildfire, and winter storms, and accompanying best practice design criteria for each. Each hazard has potential strategies (e.g Flooding - locate critical utilities above design flood elevation (DFE) , ensure all major materials used below the DFE are flood resistant, etc.)
2			SS Credit 5	v5	Heat Island Reduction	Option 1: Nonroof and Roof Measures (1pt) Meet high albedo requirements for roof and site Option 2: Parking Under Cover (1pt) Place 100% of parking spaces under cover. This includes any existing off-street parking that is used by the project. Option 3: Tree Equity (1pt) Evaluate the American Forests Tree Equity score for the site location. For "High" or "Highest Priority" areas, use the results to inform an increase in on-site canopy cover from the existing condition. If no exterior work is included in the project, project is exempt
1			SS Credit 6	v5	Light Pollution Reduction	Meet uplight and light trespass requirements, and do not exceed exterior signage luminance requirements.
5	1	2	Water Efficiency			Requirements Summary
Y			WE Prereq 1	v5	Prerequisite: Water Metering and Reporting	Install permanent water meters to monitor, record and report the total water consumption for each water source for the building and associated grounds. Meter alternative water sources separately from municipally supplied potable water.
Y			WE Prereq 2	v5	Prerequisite: Minimum Water Efficiency	Option 1. Minimum Fixture and Fittings Efficiency Maximum Flush and Flow Rates; For all new and existing fixtures and fittings within the project boundary, do not exceed the maximum flush and flow rates provided by LEED. AND Option 2. Minimum Equipment Water Efficiency Newly installed appliances, equipment, and processes within the project boundary must meet the requirements listed for dishwashers, pre-rinse spray valves, clothes washers, ice machines, food steamers, and combination ovens. AND Option 3. Minimum Outdoor Water Use Efficiency Option 1: No Irrigation Option 2: Efficient Irrigation - 30% potable water reduction compared to the baseline theoretical irrigation requirement (TIR)

1				WE Credit 1	v5	Water Metering and Leak Detection	Option 1. Submeters (1 point) Install permanent water meters for each applicable subsystem - indoor plumbing fixtures/fittings (80%), irrigation, each makeup water system (DHW, CHW, process water), commercial kitchen, laundry. OR Option 2. Leak Detection (1 point) Install permanent water flow meter or sensors for each applicable subsystem - irrigation, flush fixtures (50%), each makeup water system.
4	1	2		WE Credit 2	v5	Enhanced Water Efficiency	Can attempt Whole Project Water Use Reduction or any combination of the options 2-6 below for a maximum of 8 points. Option 1. Whole Project Water Use (1-8pts): Develop a water use baseline and create a proposed use model for the whole project: 30% (1pt), 35% (2pts), 40% (3pts), 45% (4pts), 50% (5pts), 55% (6pts), 60% (7pts), 65% (8pts) OR Option 2. Fixture and Fittings – Calculated reduction (1-3pts) Reduce fixture and fitting water use from the calculated baseline in WEp2: 30% (1pt), 35% (2pts), 40% (3pts) Option 3. Appliance and Process Water (1-2 pts) - Refer to LEED tables for requirements Option 4. Outdoor Water Use (1-2pts) - Path 1: No irrigation (2 points), Path 2: Reduced Irrigation (1/2 points) Option 5. Process Water Reuse (1-2pts) : Use alternate water source for 20% (1pt), 30% (2pt) of process water Option 5. Water Reuse (1-2pts) : Install a water reuse system (1pt) that meets demand for at least one end use (2pts)
16	4	5	2	Energy & Atmosphere			Requirements Summary
Y				EA Prereq 1	v5	Operational Carbon Projection and Decarbonization Plan	To enable building stakeholders to visualize how their current design decisions will impact their project's long-term operational carbon emissions and to ensure that stakeholders are planning for low carbon outcomes from the project's inception. Develop a plan detailing how decarbonization could be achieved through a 25-year period.
Y				EA Prereq 2	v5	Minimum Energy Efficiency	Comply with ASHRAE 90.12019, ASHRAE 90.12022, or an approved equivalent standard.
Y				EA Prereq 3	v5	Fundamental Commissioning	To improve energy performance and limit GHG emissions by verifying that systems are operating as per their design intent. Comply with ASHRAE 90.12019 or ASHRAE 90.12022 commissioning requirements. Projects meeting Enhanced Commissioning Option 1 automatically comply with this Prerequisite.
Y				EA Prereq 4	v5	Energy Metering and Reporting	Install (or utilize existing) measurement devices to monitor, record, and report whole-building and tenant energy use for each type of energy supplied to the building, for each electrical end-use, and for equipment per ASHRAE 90.12019 or later. Commit to sharing metering data with USGBC for 5 years.
Y				EA Prereq 5	v5	Fundamental Refrigerant Management	Option 1: Do not use refrigerants in the project OR Option 2: Comply with the following: 1. Refrigerant inventory: Complete an inventory of the refrigerant-containing equipment installed within the project scope of work and any existing equipment owned by the building owner 2. No HCFCs for new equipment 3. GWP of refrigerants: Evaluate available alternatives during the design process for any refrigerants with GWP > 700 4. Leak check and repair: Prior to substantial completion, check both new and existing refrigerant-containing equipment for refrigerant leaks and repair all identified leaks.
4				EA Credit 1	v5	Electrification <i>Platinum Requires No Onsite Combustion</i>	Option 1: No Onsite Combustion (5pts) - Design and operate the project from start-up with no on-site combustion except for emergency support systems. Platinum Projects are not allowed to have on-site combustion. - No on-site combustion may be used in the district energy facility to generate heating, cooling, or electricity supplied to the project. - Combined weighted average equipment efficiency for space heating and service water heating (SWH) must be at least 18 coefficient of performance (COP). Option 2: No On-site Combustion Except at Low Temperatures (1-4pts) Path 1: Space Heating (2pts) - Design to be capable of operating without on-site combustion except in low temperature Path 2: Service Water Heating (1pt) - Design to be capable of operating without on-site combustion except at low temperature Path 3: Cooking and Other Process Loads (1pt) - Design cooking, laundry, process equipment, and on-site power generation except emergency support systems to be capable of operating without on-site combustion (projects that do not have these systems automatically earn this point).
2	1	2		EA Credit 2	v5	Reduce Peak Thermal Loads	Meet any combination of Options 1-4 for a maximum of 5pts. Option 1: Infiltration and Balanced Ventilation (2pts) - Design the ventilation and exhaust airflows within 10% of each other and include a test, adjusting, and balance (TAB) - AND - use an air leakage test to demonstrate a measured air leakage of envelope is less than 0.3cfm/sf at pressure difference of 50 Pascals / 0.8cfm/sf at pressure difference of 75 Pascals. Option 2: Ventilation Energy Recovery (1pt) - Each fan system supplying outdoor air must have an energy or heat recovery system with a minimum 70% enthalpy recovery ratio or a minimum of 75% sensible heat recovery ratio. Option 3: Thermal Bridging (1pt) - Comply with the prescriptive thermal bridging requirements of ASHRAE 90.12022, Section 5.5.5(a) Option 4: Peak Thermal Load Reductions (1-3pts) - Measure air leakage / ventilation rates in Option 1 in addition to one of the following pathways Path 1: Peak Load Intensity - Limit the sum of peak heating load and peak cooling load per unit of treated floor area (1-3pts) - OR - Path 2: ASHRAE 90.1 Trade off Methods - meet envelope and/or HVAC improvements as noted in LEED guide (1-3pts)
6		1		EA Credit 3	v5	Enhanced Energy Efficiency <i>Platinum Requires 8pts</i>	Either a Prescriptive Pathway or Energy Simulation can be done for (1-10pts). Platinum Projects are required to get 8pts. Option 1. Prescriptive Pathway (1-7pts) : for Regulated Loads (1-6pts) and Plug and Process Loads (1-3pts) Option 2: Energy Simulation (1-7pts) Demonstrate an improvement in future source energy calculated per ASHRAE Standard 90.12019 / 2022 Appendix G, Performance Rating Method: 2% (1pt), 5% (2pts), 8% (3pts), 11% (4pts), 14% (5pts), 17% (6pts), 20% (7pts).
	2	2		EA Credit 4	v5	Renewable Energy <i>Platinum Requires 100% Renewable from any Tier(s)</i>	Supply or procure renewable energy meeting Tier 1, Tier 2, and/or Tier 3 requirements for up to 5pts. A 10 year contract / commitment is required. Platinum Projects require 5pts. Percent of Site Energy Thresholds: Tier 1 (On-Site): 5% (1pt), 10% (2pts), 15% (3pts), 20% (4pts), 100% (5pts) Tier 2 (New Off-Site): 20% (1pt), 40% (2pts), 60% (3pts), 80% (4pts), 100% (5pts) Tier 3 (Green-e-Certified Off-Site): 50% (1pt), 100% (2pts)
3				EA Credit 5	v5	Enhanced and Ongoing Commissioning	Meet any combination for a total of 4pts. Option 1: Enhanced Commissioning (1-3pts) Path 1: Enhanced Commissioning for MEP systems (2pts) Path 2: Enhanced Commissioning for Building Enclosure (1pt) Option 2: Monitor Based Commissioning (MBCx) (1-2pts) Path 1: Commit to MBCx for at least 3yrs and provide a Energy Information System (EIS) for smart analytics and visually present all metered data. (1pt) Path 2: Meet Path 1 requirements and incorporate Fault Detection and Diagnostics system and additional functionalities for the EIS such as normalization of energy consumption and greenhouse gas emissions. (2pts)

				2	EA Credit 6	v5	Grid Interactive	Meet any combination of the following Options for a maximum of 2pts. Option 1: Energy Storage (1-2pts) - Provide on-site electric storage with a capacity of 0.2kWh/kW (1pt); 0.4kWh/kW (2pts) and/or thermal storage with a capacity of 10 kWh/kW (1pt); 2.0 kWh/kW (2pts) Option 2: Demand Response Program (1pt) - Enroll in a minimum one-year demand response (DR) contract with a qualified DR program provider, with the intention of multiyear renewal. Option 3: Automated Demand-side Management (1pt) - Provide automated demand response controls for two system OR - Develop a plan for shedding at least 10% of the project's peak electricity demand for a minimum of one hour Option 4: Power Resilience (1pt) - Design critical systems to operate independently from the grid for at least 3 days using renewables or energy storage.
1	1				EA Credit 7	v5	Enhanced Refrigerant Management	Meet any combination of the following Options for a maximum of 2pts. Option 1: No Refrigerants or Low GWP (1-2pts) - Do not use refrigerant-containing equipment in the project (1pt) - OR - The maximum total weighted average refrigerant GWP in all new refrigerant-containing equipment is less than or equal to 80% (1pt) or 50% (2pts) of the total weighted average GWP. Option 2: Limit Refrigerant Leakage (1pt) - Meet design, installation, and operational criteria such as including specifying an automatic leak detection system and implementing a refrigerant maintenance plan.
9	4	3	5	Materials & Resources				Requirements Summary
Y					MR Prereq 1	v5	Planning for Zero Waste Operations	Storage and Collection of Recyclables: Provide dedicated areas for recyclables (organics, paper, cardboard, glass, plastics, metals). Include space for organics even if service isn't available. Ensure safe collection and disposal of batteries, mercury-containing lamps, and electronic waste. Zero Waste Operations Planning: Include design details, maintenance manuals, or resources to help occupants meet high-performance waste goals post-occupancy.
Y					MR Prereq 2	v5	Quantify and Assess Embodied Carbon	Embodied Carbon: Quantify the embodied carbon impacts (GWP) of structure, enclosure, and hardscape materials. Minimum materials: asphalt, concrete, masonry, structural steel, insulation, aluminum extrusions, structural wood and composites, cladding, and glass. High-Priority Embodied Carbon Sources: Identify the top three sources of embodied carbon and describe strategies to reduce their impact.
				5	MR Credit 1	v5	Building and Materials Reuse	Option 1: Building Reuse (1-3pts) Maintain and reuse existing structure, floor decking, roof decking, and enclosure. Points awarded based on reuse percentage. Option 2: Materials Reuse (1-2pts) Reuse materials either from the site or salvaged from off-site sources. Conduct a salvage assessment if demolition is involved. Points awarded based on reuse percentage per material type: 15% (1pt), 30% (2pts).
4	2	2			MR Credit 2	v5	Reduce Embodied Carbon <i>Platinum Requires 20% Embodied Carbon Reduction</i>	Meet any combination of the following Options for a maximum of 6pts Option 1: Whole-Building Life-Cycle Assessment (1-6pts) Conduct cradle-to-grave LCA of structure, enclosure, and hardscape. Points awarded for achieving GWP reductions: Meet Industry Avg (2pt), 10% (3pt), 20% (4pts), 30% (5pts), 40% (6pts) Option 2: Environmental Product Declaration (EPD) Analysis (1-3pts) Show whole project embodied carbon reduction based on EPD data for procured materials: value; 1pt (meets baseline), 2pts (20%), 3pts (40%) - OR - Demonstrate lower embodied carbon for targeted materials; 3 materials (1pt), 5 materials (2pts). Option 3: Track Carbon Emissions from Construction Activities (1-2 points) Track all contractor fuel/utility usage (A5) (1pt); include subcontractor utility and fuel usage (2pts).
1					MR Credit 3	v5	Low-Emitting Materials	Reduce air contaminants and protect human health by using low-emitting paints, coatings, adhesives, sealants, flooring, walls, ceilings, insulation, furniture, and composite wood products. Points are awarded based on compliance with low-emitting material thresholds: Path 1 - Meet 90% threshold for paints, coatings, flooring, and ceilings (1pt). Path 2 - Meet Path 1 + 80% for two additional categories: adhesives, walls, insulation, or composite wood (2pts). Path 3 - Meet Path 1 + 80% of furniture category (2pts).
2	2	1			MR Credit 4	v5	Building Product Selection and Procurement	Select nonstructural building products that demonstrate achievement in one or more of five criteria areas: climate health, human health, ecosystem health, social health and equity, and circular economy (1-5pts). Measure product optimization contribution by evaluating single- or multi-attribute documentation across the 5 impact areas. Earn up to 5 points for selecting optimized products in multiple product categories (aligned with the Low-Emitting Materials product categories). Any single product category that includes more than 100% of optimized products earns 1pt.
2					MR Credit 5	v5	Construction and Demolition Waste Diversion	Develop and implement a CDWM plan. Divert at least 50% of the total construction and demolition material and at least 10% of diverted materials must be salvaged or source-separated and sent to single-materials recycler(s) (1pt) - OR - divert 75% of the construction and demolition material and at least 25% of the materials must be salvaged or source-separated (2pts)
5	2	4		Indoor Environmental Quality				Requirements Summary
Y					IEQ Prereq 1	v5	Construction Management Plan (Prerequisite)	Develop and implement a construction management plan for the construction and pre-occupancy phases of the building.
Y					IEQ Prereq 2	v5	Fundamental Air Quality (Prerequisite)	Meet all of the following requirements: 1. Document investigation of outdoor air quality using the ASHRAE 62.1-2022 Informative Appendix I1. 2. Meet the requirements of ASHRAE Standard 62.1-2022. 3. Install permanent entryway systems at regularly used exterior entrances 4. Develop Construction IAQ Plan
Y					IEQ Prereq 3	v5	No Smoking or Vehicle Idling (Prerequisite)	Prohibit smoking inside the building and within 25 feet of the building openings. Install signage. AND Prohibit vehicle idling on site. Provide signage.
1					IEQ Credit 1	v5	Enhanced Air Quality (credit 1 point)	Option 1: Increased Ventilation (1pt) - increase breathing zone outdoor air ventilation rates by at least 5% above the minimum rates (1pt) OR Option 2: Enhanced Indoor Air Quality Design (1pt) - design and verify enhanced IAQ limits for PM 2.5 (1ug/m3); Ozone (10ppb); and Formaldehyde (20ug/m3)
3	1	3			IEQ Credit 2	v5	Occupant Experience (1- 7 points)	Meet any combination of the following strategies for a maximum of 7pts Option 1: Biophilic Environment (1-4pts) Path 1: Indoor Biophilic Design - Integrate biophilic design strategies into the design (1pt) Path 2: Quality Views - Provide quality views for 75% (2pts) / 90% (3pts) of all regularly occupied floor area Option 2: Adaptable Environment (1pt) - Provide variability and/or optionality for thermal, sound, and lighting environments, include at least 1 quiet space, and one additional strategy (furniture control, height variety, etc.) Option 3: Thermal Environment (1pt) - Design indoor occupied spaces to meet the requirements of ASHRAE 55-2023 Option 4: Sound Environment (1-2pts) Path 1: Mapping Acoustical Expectations for Indoor and Outdoor Spaces (1pt) AND/OR Path 2: Acoustic Criteria for Indoor and Outdoor Spaces (1pt) Option 5: Lighting Environment (1-6pts) Path 1: Solar Glare (1pt) - provide glare control devices in all regularly occupied spaces Path 2: Quality Electric Lighting (1pt) - Meet glare control and color rendering requirements Path 3: Proximity to Windows for Daylight Access (1pt) - provide at least 30% of the regularly occupied area to be within a 20-foot (6 meters) horizontal distance of envelope glazing Path 4: Daylight Simulation (1-4pts) - perform daylight analysis to meet sDA thresholds for regularly occupies spaces; 40% (1pt), 55% (2pts), 65% (3pts), 75% (4pts)

1				IEQ Credit 3	v5	Accessibility and Inclusion	Include at least 10 accessibility and inclusion strategies most relevant to the project: Accessibility for Physical Diversity: Wave-to-open or vertical hand/foot press door operators Meeting spaces for 10% of occupants with mobility devices Accessible and inclusive equipment and activities in fitness facilities Alternate accessible route where stairs exist Adult changing station or table in accessible or family restroom. Accessibility for Safety and Aging: Non-slip flooring Fixed area rugs with transition strips Visual indication or railing at full-height glazing (except private residences) Audible and visual emergency alerts Closed risers in all stairs Visual contrast between walls, floors, doors, and casework Visual, tactile, contrasting, or photoluminescent warnings at floor level changes. Accessibility for Social Health: Lactation rooms or pods At least one accessible all-gender single-use restroom OR multi-use all-gender restroom on each floor Adult changing station or table in accessible or family restroom Signage in languages spoken by over 5% of the local population At least 1 point under EQc: Occupant Experience, Option 1 Biophilic Environments. Accessibility for Navigation: Wayfinding signage indicating exits, entrances, and major functions Non-text diagrams and symbols on signage Braille, visual, and auditory cues on travel paths Pattern and color blocking to identify key access spaces.
	1	1		IEQ Credit 4	v5	Resilient Spaces	Meet any combination of the following strategies for a maximum of 2pts Option 1 (1pt) Design systems with the capability to operate an episodic outdoor event management mode, should address varying outdoor conditions or events that could negatively influence indoor air quality such as wildfire smoke. Option 2. (1pt) Design occupied spaces with the capability to operate an Infection Risk Management mode - provides the minimum equivalent clean airflow rates outlined in ASHRAE 241:202 Option 3. (1-2 pts) Design the project with the capability to maintain habitable temperatures during a power outage. Path 1. Consider Extreme Heat (1pt) Path 2. Consider Extreme Cold (1pt) Option 4. Operable Windows (1pt) Design 75% of the regularly occupied spaces to have operable windows
8	2			Project Priorities & Innovation			Requirements Summary
1				IN Credit 1.1	v5	TBD	Achieve any combination of the following for a maximum of 9 points: Regional Priority: Achieve a regional priority credit from USGBC's Project Priority Library. Project-Type Credits: Achieve a project-type credit from USGBC's Project Priority Library. Exemplary Performance: Achieve an exemplary performance credit from USGBC's Project Priority Library. Pilot Credits: Achieve a pilot credit from USGBC's Project Priority Library. Innovative Strategies Achieve significant, measurable, environmental performance using a strategy not addressed in the LEED v5 green building rating system.
1				IN Credit 1.2	v5	TBD	
1				IN Credit 1.3	v5	TBD	
1				IN Credit 1.4	v5	TBD	
1				IN Credit 1.5	v5	TBD	
1				IN Credit 1.6	v5	TBD	
1				IN Credit 1.7	v5	TBD	
	1			IN Credit 1.8	v5	TBD	
	1			IN Credit 1.9	v5	TBD	
1				IN Credit 2	v5	LEED™ Accredited Professional	LEED Accredited Professional with BD+C Specialty on design team.

NET ZERO NARRATIVE

PROJECT PROFILE

The information included in this Special Permit Net Zero narrative submission is based on Master Plan level analysis of the Alewife development project. Likewise, information included in the Project Summary Table below in this draft submitted to the City sustainability group will be aligned with Alewife's Special Permit submission. Performance values and systems included in this documentation are subject to change through the individual design process; however, energy reduction targets against Stretch Code will be maintained. Updated Net Zero narrative tables will be included in each building's Design Review submission, more closely representing the projected building performance.

Development Characteristics

Lot Area (sq.ft.) of Development Parcel:	1,796,403 sq.ft.
Existing Land Use(s) and Gross Floor Area (sq.ft.), by Use:	Commercial: 750,455 sq.ft (includes Industrial/ Warehouse, Office, Medical Office Building, Retail Use) Residential: 2,916 sq.ft
Proposed Land Use(s) and Gross Floor Area (sq.ft.), by Use:	Mixed-use - Technical Office/Office Use: approx. 2,541,000] sq.ft. - Residential Use: approx. 1,765,000 sq.ft. - Retail/Neighborhood Uses: approx. 71,000 sq.ft.
Proposed Building Height(s) (ft. and stories): Approximate heights	Residential : 155 feet, 13 stories Commercial : 140 feet, 9 stories
Proposed Dwelling Units:	2,076 units
Proposed Open Space (acres):	19.7 acres
Proposed Parking Spaces:	4,413 spaces
Proposed Bicycle Parking Spaces (Long-Term and Short-Term):	3,262 spaces

Green Building Rating System

Choose the Rating System selected for this project:

LEED-Leadership in Energy & Environmental Design (U.S. Green Building Council)			
Rating System & Version:	LEED BD+C NC v5, LEED Core and Shell v5	Seeking Certification?*	Yes
Rating Level:	Gold	# of Points:	Likely 65-70

Enterprise Green Communities			
Rating System & Version:		Seeking Certification?*	No
Rating Level:		# of Points:	

Passive House Institute US (PHIUS) or Passivhaus Institute (PHI)			
Rating System & Version:	PHIUS (Residential only)	Seeking Certification?*	Yes

PROPOSED PROJECT DESIGN CHARACTERISTICS

Building Envelope

The following assumptions have been used in the Master Planning phase to determine energy drivers, opportunities for district energy, and efficiency opportunities on the building scale.

Assembly Descriptions:

Commercial:

Roof:	Code Baseline: Insulation entirely above roof deck with minimum R-30 c.i. Details TBD w/ Bldg Design
Foundation:	Code Baseline: Slab-on-grade floor with minimum insulation of R-10 for 24" below. Details TBD w/ Bldg Design
Exterior Walls:	R-20 walls Details TBD w/ Bldg Design
Windows:	Triple-pane glazing unit, Aluminum framing with thermal break SHGC 0.25 or lower for South, East and West facade Details TBD w/ Bldg Design
Window-to-Wall Ratio:	Targeting 30-60%
Other Components:	-

Residential:

Roof:	Code Baseline: Insulation entirely above roof deck with minimum R-50 c.i. Details TBD w/ Bldg Design
Foundation:	Code Baseline: Slab-on-grade floor with minimum insulation of R-10 for 24" below. Details TBD w/ Bldg Design
Exterior Walls:	R-40 Exterior walls could include masonry. Details TBD w/ Bldg Design
Windows:	High-performance triple-pane glazing unit, Aluminum framing with thermal break SHGC 0.25 or lower for South, East and West facade Details TBD w/ Bldg Design
Window-to-Wall Ratio:	Targeting 30-40%
Other Components:	-

Envelope Performance:

All values below are estimates. Building envelope performance to be confirmed in design review.

Commercial:

	Proposed		Baseline	
	Area (sf)	U-value	Area (sf)	U-value
Window	TBD w/ Bldg Design	0.20~0.25	TBD w/ Bldg Design	0.38
Wall (Spandrel)	TBD w/ Bldg Design	0.10~0.15	TBD w/ Bldg Design	0.064
Roof	TBD w/ Bldg Design	0.032	TBD w/ Bldg Design	0.032

Residential:

	Proposed		Baseline	
	Area (sf)	U-value	Area (sf)	U-value
Window	TBD w/ Bldg Design	0.15~0.20	TBD w/ Bldg Design	0.38
Wall (Metal-framed)	TBD w/ Bldg Design	0.025	TBD w/ Bldg Design	0.064
Roof	TBD w/ Bldg Design	0.02	TBD w/ Bldg Design	0.032

Envelope Commissioning Process:

HEALTHPEAK will pursue envelope commissioning in line with LEED v5 Enhanced Commissioning Requirements, potentially including Envelope Commissioning. To be determined at the time of each building's design.

Residential commissioning pathway to be determined, as required by PHIUS and/or LEED BD+C Multifamily Midrise.

Building Mechanical Systems

The following assumptions have been used in the Master Planning phase to determine energy drivers, opportunities for district energy, and efficiency opportunities on the building scale.

Note that further exploration of district energy systems such as a thermal energy network to be studied in collaboration with the City and their partners, including Eversource. Healthpeak will provide relevant development information to inform the city's study. Currently, a district energy system within Healthpeak holdings is not feasible based on upfront costs and ownership structure challenges.

Commercial Systems Descriptions:

Space Heating:	Space heating will be provided as all electric incorporating heat pumps. The projects will be utilizing a combination of air source heat pumps, exhaust source heat pumps, with electric boilers for peaking and back-up. The system will be designed to maximum energy recovery to reduce the heat load. Ground source heat pumps and district systems are being evaluated.
Space Cooling:	Space cooling will be provided by high efficient electric centrifugal chillers. This includes chilled water to AHUs and fan coil units. The system will be designed to include heat recovery chillers to provide heating and cooling needs.
Heat Rejection:	Rooftop cooling towers will supply condenser water to the chiller plant.

Pumps & Auxiliary:	All pumps will be variable speed pumps.
Ventilation:	The system will include dedicated outdoor air systems (DOAS) with energy recovery. For labs, high-performance runaround heat recovery coils will be incorporated to recover heat from the exhaust air stream and preheat incoming outside air.
Domestic Hot Water:	Heat pump water heaters will serve domestic hot water. Electric boilers will be provided for supplemental heating.
Interior Lighting:	In general, all lighting fixtures will be LED with advanced lighting control systems.
Exterior Lighting:	In general, all lighting fixtures will be LED. Exterior lighting will be scheduled and controlled to minimize light pollution, while not compromising safety.
Other Equipment:	-

Residential Systems Descriptions:

Space Heating:	The residential buildings will have high efficiency all-electric heat pumps for heating and cooling
Space Cooling:	The residential buildings will have high efficiency all-electric heat pumps for heating and cooling
Heat Rejection:	N/A
Pumps & Auxiliary:	All pumps will be variable speed pumps.
Ventilation:	Integrated with the heat pump systems
Domestic Hot Water:	Heat pump water heaters with storage will serve the domestic hot water loads.
Interior Lighting:	In general, all lighting fixtures will be LED with advanced lighting control systems in base building areas.
Exterior Lighting:	In general, all lighting fixtures will be LED. Exterior lighting will be scheduled and controlled to minimize light pollution, while not compromising safety.
Other Equipment:	-

Systems Commissioning Process:

Enhanced commissioning pathways to be explored in line with Article 22 requirements, pending the relevant benchmarking system.

Healthpeak will conduct commissioning in line with LEED v5 Enhanced Commissioning Requirements for C+S lab buildings.

Residential commissioning pathway to be determined, as required by PHIUS and/or LEED BD+C Multifamily Midrise.

BUILDING ENERGY PERFORMANCE MEASURES

Overview

Land Uses:	Commercial and residential district. Mixed-use development promoting walking and bicycling, including proximity and connectivity to the MBTA station, efficient arrangement of uses within a site.
Building Orientation and Massing:	See narrative. Building footprints defined by street grid, which has been designed to allow connectivity through a previous super-block site. From there, setbacks have been designed to maximize daylight to the street level, while park areas have been located to take advantage of the best solar exposures and daylight.

Envelope Systems:	Envelopes have not yet been designed, but systems will be designed to incorporate external shading, insulated areas, and natural ventilation where feasible while optimizing for energy performance, daylight, views, visual comfort, and thermal comfort for occupants near perimeter areas.
Mechanical Systems:	See energy efficiency narrative. Focus in masterplanning stage has been understanding loads of commercial and residential building programs to identify opportunities for load-sharing, and ultimately, concept design of systems that shift both residential and commercial buildings towards electrification.
Renewable Energy Systems:	The team has conducted Master Plan-level renewable energy studies, identifying the greatest potential for on-site energy generation and/or heating/cooling strategies with geothermal systems. The most viable on-site energy generation strategy is rooftop mounted PV. GSHPs will continue to be evaluated. See narrative.
District-Wide Energy Systems:	See narrative. District strategies will continue to be explored through design phases.
Other Systems:	Electric vehicle charging stations will be provided for at least 20% of parking spaces to meet the Specialized Stretch code requirement.

Integrative Design Process

Sustainability has been an integral part of the master planning process. Healthpeak specifically selected team members accustomed to working across disciplines to brainstorm strategies and collaborate on analysis to ensure the environmental performance goals of the project would be met. PMA, Atelier Ten, Elkus Manfredi, VHB, Haley & Alderich and BR+A engaged in robust conversations on sustainability, challenging concepts of what makes a development sustainable now and in the future. Design elements and concepts were continually evaluated through the lens of sustainability. Beyond the biweekly team discussions incorporating sustainability concepts, the design process included numerous workshops centered on sustainability.

- Healthpeak Sustainability kickoff workshop
- Energy Strategy introduction meeting
- Green Building Requirements in Cambridge + MA Educational Workshop
- Healthpeak LEED + Corporate Sustainability Overview
- Energy Strategy Development
- Energy Strategy Update to Hines + Team
- Green Building Reporting + Content Planning

Healthpeak will continue to employ an integrative team process through each building design to maintain focus on sustainability and building performance.

Green Building Incentive Program Assistance

The project team will continue to consider financial support opportunities available through Mass Save and at the federal level, as the incentive landscape continues to evolve. Applicable programs for the Master Plan include Residential High-Rise New Construction and Commercial New Construction and Major Renovations.

Residential Buildings are eligible for incentives and rebates for energy efficiency measures installed in-unit as well as common areas. Incentives are awarded based on annual site energy savings in comparison to a program-provided energy model baseline. Many of the energy efficiency measures that were evaluated aggregately at a Master Plan level for the residential buildings would be eligible for funding including lighting, HVAC, domestic hot water, building enclosure, and infiltration testing. Strategies and incentive funding will continue to be explored in the building design phases.

The Office and Lab Buildings are eligible for incentives under the Commercial New Construction and Major Renovations program which offers multiple pathways for achieving financial support. Path 2: Whole Buildings Energy Use Intensity (EUI) Reduction has been identified as the most applicable pathway for this project. The program provides financial incentives based on percent EUI reductions beyond the Mass Save Baseline and provides cost share for technical assistance (up to 75%) as well as financial incentives to help projects achieve the EUI goal. Projects begin earning incentives for a 10% EUI reduction relative to the Mass Save Baseline. In addition, an optional Verification Incentive will be explored in the building design phase which would provide financial support to assist projects in ensuring the EUI target set during design is achieved post occupancy.

Please note by participating in a Mass Save downstream program pathway, the project is not eligible to accept any upstream incentives for the project including: HVAC, domestic hot water, food service, or lighting. The project team will coordinate with a Mass Save Account Manager during Concept Phase to further explore these incentive opportunities and to ensure the project is eligible for the maximum cost savings possible.

The project team will also explore financial assistance for the installation of electric vehicle charging stations. Both Eversource and National Grid offer financial support for the electrical infrastructure required to support EV charging stations.

The team will continue to evaluate the applicable incentive programs for each project as the building design progresses and project construction timelines and phasing are determined.

NET ZERO SCENARIO TRANSITION

Describe the technical framework by which the project can be transitioned to net zero greenhouse gas emissions in the future, acknowledging that such a transition might not be economically feasible at first. This description should explain the future condition and the process of transitioning from the proposed design to the future condition.

	Net Zero Condition:	Transition Process:
Building Envelope:	Current Design/No Change	The current all electric design meets net zero requirements at the building level. The only anticipated emissions would be grid based.
HVAC Systems:	Residential: Current Design/No Change – All Electric Commercial: Current Design/No Change – All Electric	
Domestic Hot Water:	Hot water will be generated by electricity.	
Lighting:	Lighting will be All-LED, thus minimal additional energy savings anticipated from future upgrades.	
Renewable Energy Systems:	PV Installed on feasible rooftops: Current Design/No Change	
Other Strategies:	n/a	

For additional assessment of the pathway to a net-zero emissions future, see Energy + Emissions section of our Green Building Report.

SOLAR-READY ROOF ASSESSMENT

Total Roof Area (sq. ft.):	Lab: Approx. 388,100 sq. ft. Residential: Approx. 272,700 sq. ft.
Unshaded Roof Area (sq. ft.):	There is little to no overshadowing on all building rooftops on-site, therefore all roof area will have the highest solar exposure for PV generation.
Structural Support:	Structural systems will be designed at the building level. Current discussions include identifying future rooftop needs (additional mechanical equipment for electrified futures, etc) so that structural systems can be designed to accommodate these loads in the coming building design process.
Electrical Infrastructure:	Capacity of electrical panel to accommodate potential solar array capacity, pathway from solar-ready roof area to electrical panel, and location reserved for future inverters and other electrical equipment to be considered by individual building design process.
Other Roof Appurtenances:	Preliminary estimates include ~75% of lab rooftop area ~50% of residential rooftop area reserved for mechanical equipment or headhouses. In designing for all-electric buildings, rooftop space would be reserved for installation of air source heat pumps or other necessary technologies for the tenants. Likewise, there is benefit to installing green roof systems to help manage stormwater runoff and occupied terrace spaces for occupant and community benefit.
Solar-Ready Roof Area (sq. ft.):	Based on preliminary assumptions, the team estimates ~92,500 sq. ft. of lab rooftop area and ~89,500 sq. ft. of residential rooftop area could be considered for PVs across the development (excluding mechanical areas from the roof area total).
Capacity of Solar Array:	If the entire non-mechanical rooftop was utilized for PV, the district installed capacity would be ~ 1,850 kW for labs and ~1,790 for residential buildings (XX% of baseline development consumption).
Financial Incentives:	Given the timeline of development, Healthpeak will investigate financial opportunities available at the time of each building coming online to support PV installations.
Cost Feasibility:	Healthpeak has conducted preliminary pricing exercises to determine feasibility of solar renewables. Team will continue to evaluate solar renewables market as building designs progress.

Further study will be conducted to assess optimization of roof area for competing sustainability strategies with demands for roof space – either mechanical systems, PV for energy generation OR green roofs for stormwater management and reduction in urban heat island effects.

RESULTS

Briefly summarize the results of the analysis and how it has informed the design of the project. Also include figures for the “Non-Carbon-Fuel Scenario” in the concluding Summary Table at the end of the Net Zero Narrative. Attachments can be provided with more specific figures and metrics regarding installation, maintenance, and upkeep costs (exclusive of operating fuel expenses), but a full report is not necessary.

	Proposed Design		Non-Carbon Fuel Scenario	
	Installation Cost	Maintenance Cost	Installation Cost	Maintenance Cost
Space heating	Will be provided at building level Special Permit, not at the PUD stage.		N/A	
Space cooling				
Heat rejection				
Pumps & Aux				
Ventilation				
Domestic Hot Water				
Financial Incentives				
Total Building Energy System Cost	TBD	TBD	N/A	

ANTICIPATED ENERGY LOADS AND GREENHOUSE GAS EMISSIONS

Assumptions

Energy modeling through the masterplanning process has included modeling loads of commercial and residential buildings to compare heating and cooling loads and identify opportunities for load sharing. Studies were also conducted to understand building performance drivers and sensitivities of energy conservation measures. Models reflected baseline code compliance versus a high or exemplary performance design. These models were used mainly to size potential district energy strategies for comparison study. Likewise, the energy profile of the development was helpful to contextualize operational energy and emissions versus possible embodied energy or renewable energy potential. Overall GHG emissions were calculated and provided; however, since buildings have not entered the design phases yet, specific energy end-use breakdowns are not included in this submission. Ventilation and potential for energy recovery along with equipment loads will drive the performance of commercial buildings for office or lab spaces while internal loads and domestic hot water loads drive residential energy performance.

Annual Projected Energy Consumption and Greenhouse Gas (GHG) Emissions

The preliminary energy modeling results should be shown in a table format similar to what is shown below. It should compare the “baseline building” (Massachusetts Stretch Energy Code) to the proposed design, as well as the future “net zero” scenario described later in this narrative.

This Special Permit submission is for the Master Plan of the Healthpeak Alewife development. As each building design progresses and returns for Design Review, the following energy end-use breakdown will be provided accordingly.

Emissions and total energy use are estimated based on a preliminary split of lab and office program. Individual building designs will model performance and emissions based on current anticipated program ratios at the time of design. The below values are subject to change through the design process. A Future Scenario has not been provided, as all buildings will be electrified on Day-1.

The below table for reference estimates performance of a single commercial building for energy use reduction from the Stretch Code baseline and GHG emissions.

Commercial:

	Baseline Building		Proposed Design		Future Scenario	
	\$US, kBTU, kBTU/SF		\$US, kBTU, kBTU/SF	% Reduction from Baseline	\$US, kBTU, kBTU/SF	% Reduction from Baseline
Total Energy Cost						
Total Energy Use		-				
Site EUI		136	124	9%		Same as Proposed
Source EUI		280	347	-23%		Same as Proposed
	Tons CO2 [/SF]		Tons CO2 [/SF]	% Reduction from Baseline	Tons CO2 [/SF]	% Reduction from Baseline
GHG Emissions						
GHG Emissions per SF		8.6	8.8	-2%		Same as Proposed

The below table estimates performance of a single representative residential building for energy use reduction from the Stretch Code baseline and GHG emissions.

Residential:

	Baseline Building		Proposed Design		Future Scenario	
	\$US, kBTU, kBTU/SF		\$US, kBTU, kBTU/SF	% Reduction from Baseline	\$US, kBTU, kBTU/SF	% Reduction from Baseline
Total Energy Cost	N/A (PHIUS/PHI requirements)					
Total Energy Use						
Site EUI			PHIUS/PHI Requirements			
Source EUI						
	Tons CO2 [/SF]		Tons CO2 [/SF]	% Reduction from Baseline	Tons CO2 [/SF]	% Reduction from Baseline
GHG Emissions		-				
GHG Emissions per SF		-	TBD			

Charts provided for projected energy performance in the narrative/Green Building Report.

EMBODIED CARBON NARRATIVE

CITY OF CAMBRIDGE ZONING ORDINANCE AMENDMENT TO SECTION 22.25.1(C) OF ARTICLE 22, ENTITLED SUSTAINABLE DESIGN AND DEVELOPMENT (ORDINANCE NO. 2022-20), SECTION 7. EMBODIED EMISSIONS:

“A whole building lifecycle analysis of the estimated emissions generated by the construction of the Green Building Project. The Assistant City Manager for Community Development shall promulgate regulations for how these estimated emissions are to be reported. Such regulations shall include at minimum the required reporting of estimated lifecycle emissions generated by the use of major building materials, including but not limited to wood, concrete, steel, aluminum and glass, using embodied emissions modeling software and industry standards acceptable to CDD staff. This paragraph will become effective on the date of final promulgation of the regulations for Green Building Projects that have not yet completed the initial stage of administrative review by such date, and shall not impose a requirement on any building project that does not meet the standard threshold for project review special permit of 50,000 square feet or includes housing units.”

Commercial lab/office buildings will comply with the Emissions Accounting Ordinance to provide whole building life cycle cost analysis at milestone submissions to the City. Residential buildings are exempt from this required as noted above given they provide housing units, and will explore pathways to reduce embodied carbon according to their scale and project specific opportunities.

APPLICABILITY: FOR PROJECTS AFTER DATE OF FINAL PROMULGATION OF REGULATIONS (01/01/2024)

Is this project subject to Green Building Requirements (Section 22.20)?	☒ Yes ☐ No
Does this project meet the threshold for Project Review special permit (Section 19.23)?	☒ Yes ☐ No
Is the gross floor area of this project 50,000 square feet or more?	☒ Yes ☐ No
Does this project <u>exclude</u> dwelling units?	☐ Yes ☒ No

Complete this reporting template if the answer is “Yes” to ALL of the above.

Note, while the project includes Residential dwelling units, and therefore is technically eligible for exclusion of applicability, the below narrative is provided in support of the Lab/Commercial buildings.

EMBODIED CARBON REPORTING SUBMISSION PROCESS

Submission 1 – Special Permit Stage:

1. Submit all of the Required Narratives noted below and any of the applicable Optional Narratives.
2. A life cycle analysis (LCA) is not required at this submission stage.

Submission 2 - Building Permit Stage:

1. Submit revised Required Narratives and any applicable Optional Narratives to reflect the updated building design.
2. Complete a life cycle analysis (LCA) and complete all LCA-related fields included in this reporting template including:
 - Life Cycle Analysis Inputs
 - Life Cycle Analysis Results

Submission 3 – Certificate of Occupancy Stage:

1. No additional submission is required at this stage.

PROJECT INFORMATION INPUTS

Current Project Design Phase (% Complete SD/DD/CD/CA)	- Special Permit / GBR
# Stories Above Grade	- 9-13
# Stories Below Grade	- 0 stories below grade for buildings - 0-1 stories below grade for parking structures
Definitions: - Story. 'That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above.' - Story Above Grade. 'A Story whose highest point is more than 4 feet above the Grade.' - Story Below Grade. 'Any Story that is lower than the Ground Story of a building.'	

NARRATIVES

Required Narratives:

☐ Narrative description of the project structural system chosen, and any alternative systems studied related to embodied carbon:

Superstructure:

- Material Selection
 - Utilizing mass timber or light frame wood bearing walls (Residential buildings only)
 - Study the effect of LWC vs NWC (Lighter building benefits vs. higher embodied carbon content of LWC)
- Material Optimization
 - Encourage Performance-Based Specifications of concrete
 - Weigh the benefit of design live loading precision vs. future floor flexibility
 - Coordinate with owner on serviceability criteria to not be overly restrictive (ie. deflection requirements at façade, vibration criteria, etc.)
 - Consider wind tunnel testing to achieve lower design wind loads
 - Consider shored construction to reduce slab edge support and allow for increased composite slab spans
 - Study minimum topping slabs or gypcrete thickness on wood framing
 - Consider sloped columns rather than transfer beams
 - Consider braced frames in lieu of moment frame systems

- Detailing
 - Consider lighter façade systems to reduce perimeter structure requirements
 - Reduce slab edge detailing to reduce miscellaneous steel to support envelope
 - Consider larger façade soft joints to allow for less restrictive deflection requirements
 - Study sloping roof structure to reduce roof insulation quantity
- Concrete Mix Design
 - Encourage Performance-Based Specifications of concrete
 - Encourage the use of SCMs to reduce cement content in concrete
 - Explore burgeoning cement technologies (ie. Sublime Cement)
- Structural Steel and Rebar
 - Consider high strength rebar (80 ksi) to reduce quantity
 - Consider high strength structural steel (65 ksi) to reduce quantity
 - Consider hot-rolled steel shapes in lieu of plate girders or HSS when feasible since they have lower GWP values
 - Consider specifying source of structural steel to a mill that uses Electric Arc Furnaces

Substructure:

- Foundation System Choice
 - Explore use of piles or caissons in lieu of spread footings and mat foundations to reduce concrete quantity
 - If spread footings are used, consider ground improvement to increase allowable bearing values and reduce footing sizes
 - Explore embodied carbon cost/benefit of exporting contaminated soil vs. encapsulating in place and coordinate with foundation system selection
 - Explore benefit of above-grade parking vs. below-grade
- Concrete Mix Design
 - See above
 - Consider 56-day mix designs
- Structural Steel and Rebar

See above

□ Narrative description of the project enclosure system and materials chosen and any alternative systems/materials studied related to embodied carbon:

General Enclosure: The enclosure can make up 20-30% of the total embodied carbon of a building, with about half of that coming from aluminum. The largest façade components by GWP are insulation and metals (in façade structural framing, shading and cladding). The below high level strategies will be considered during the design phase:

Cladding & Curtainwall - Reduce supporting structure: Designing for a lightweight assembly is often the most effective strategy to reduce embodied carbon in the façade. A lighter assembly can reduce the structural material necessary in the façade framing itself, as well has potential have beneficial reductions in connections back to superstructure and potentially the super structure itself.

Optimize cladding material: Façade cladding materials can have a range of performances, and materials with low embodied carbon should be considered during the design phase. For example: Ultra-high-performance concrete tends to have a lower GWP, with terracotta, having a relatively high GWP. Zinc panels are the most light-weight option available, by virtue of being extremely thin. Zinc is also an abundant metal

which is not as energy-intensive to extract and process as other metals such as steel and aluminum and thus makes for a low embodied carbon option.

Minimize virgin aluminum: Designers are recommended to specify aluminum from hydro-powered grid regions, with high recycled content and anodized finishes. Most of the carbon impact of aluminum stems from the production of primary aluminum ingot (billet). Secondary aluminum, made from recycled scraps, has 10x lesser impact than primary ingot. Therefore, the proportion of these components (recycled content) plays a major role in the GWP of the extrusion.

Maximize recycled content: In many, but not all cases, materials with high recycled content should have a lower GWP due to less extraction and process energy. For example, recycled aluminum uses about 5% of the energy required to produce virgin aluminum. Recycled content should be considered carefully with all material selections.

Gypsum & Sheathing: Gypsum can have a high embodied carbon due to the raw material extraction and process emissions associated with grinding and pressing. GWPs have a wide range from 0.06 CO₂e / SF to 0.8 GWP/SF.

Waterproofing and vapor barrier membranes: Weather barriers are another primary embodied carbon driver for the building enclosure that can be reduced through selective procurement.

Exterior Wall & Roof Insulation: Insulation is often a significant driver of enclosure embodied carbon impact, and the impact of insulation can be drastically reduced through selective procurement. Minimize the use of HFC blower agents in XPS and spray foam insulation, blower agents have an extremely high use and end of life embodied carbon (Stages B1-C4).

Does the project include the adaptive reuse of an existing building (either all or a portion of a building)? Did the project include any reused or reclaimed materials? If yes to either, please describe:

The project does not include the adaptive reuse of any building.

The project has not yet identified any reused or reclaimed materials, but will include this in consideration during design phases.

Please describe your intended approach to performing an LCA for the second submission stage including the LCA tool to be used, materials and systems to be included, specific EPD's to be requested, etc.:

The LCA for the second submission stage will follow the LEED v4 or v5 LCA criteria as governed by the relevant Materials and Resources credits. Depending on the timing of LEED registration the relevant governing version might be LEED v5, anticipated to be the governing version by the end of 2025.

Credit 1: Building Life-Cycle Impact Reduction

The building design teams will conduct life-cycle assessments of the project building's structure and enclosure to optimize the environmental performance of products and materials per Path 1 at minimum.

Path 1: Conduct a life cycle assessment of the project's structure and enclosure (1 point)

The baseline and proposed buildings must be of comparable size, function, orientation, and operating energy performance as defined in EA Prerequisite Minimum Energy Performance. The service life of the baseline and proposed buildings must be the same and at least 60 years to fully account for maintenance and replacement. Baseline assumptions must be based on standard design and material selection for the project location and building type. Use the same life-cycle assessment software tools and data sets to

evaluate both the baseline building and the proposed building, and report all listed impact categories. Data sets must be compliant with ISO 14044.

The project team will select at least three of the following impact categories for reduction:

- global warming potential (greenhouse gases), in kg CO₂e;
- depletion of the stratospheric ozone layer, in kg CFC-11e;
- acidification of land and water sources, in moles H⁺ or kg SO₂e;
- eutrophication, in kg nitrogen eq or kg phosphate eq;
- formation of tropospheric ozone, in kg NO_x, kg O₃ eq, or kg ethene; and
- depletion of nonrenewable energy resources, in MJ using CML / depletion of fossil fuels in TRACI.

The project team will solicit material EPDs per Credit 2: Building Product Disclosure & Optimization: Environmental Product Declarations

The credit requires use of at least 20 different products (10 for core and shell) with environmental product declarations.

- Life-cycle assessment and environmental product declarations.
 - Products with a publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that have at least a cradle to gate scope are valued as one whole product for the purposes of credit achievement calculation.
 - Product-specific Type III EPD -- Internally Reviewed. Products with an internally critically reviewed LCA in accordance with ISO 14071. Products with product-specific internal EPDs which conform to ISO 14025, and EN 15804 or ISO 21930 and have at least a cradle to gate scope are valued as one whole product for the purposes of credit achievement calculation.
 - Industry-wide Type III EPD -- Products with third-party certification (Type III), including external verification, in which the manufacturer is explicitly recognized as a participant by the program operator. Products with industry-wide EPDs, which conform to ISO 14025, and EN 15804 or ISO 21930 and have at least a cradle to gate scope are valued as one whole product for the purposes of credit achievement calculation.

EPDs requested may consist of the following materials, this list is not to be considered exhaustive and additional materials may be requested.

Foundation

- Concrete
- Rebar
- Waterproofing membranes

Superstructure

- Concrete
- Rebar
- Steel
- Mass Timber + CLT
- Connection detail materials and/or hardware

Enclosure

- Curtainwall assembly and IGUs
- Glazing
- Aluminum, steel, and other metals

OPTIONAL NARRATIVES IF APPLICABLE:

Include any graphics that illustrate the LCA results

Did the project set an embodied carbon reduction target? If so, please describe the benchmark data used and the reduction target set:

TBD – LCA is not required at GBR stage for Masterplan special permit.

Did the project perform a whole building life cycle assessment (WBLCA) early in the design process to identify the largest opportunities ("hot spots") for embodied emissions reductions? If yes, please describe the results and decision-making process for materials choices:

TBD – LCA is not required at GBR stage for Masterplan special permit.

Did the project include in its specifications requests for Environmental Product Declarations (EPD's) and for what materials? Did the specifications include specific product or materials embodied carbon (GWP) targets? If yes, please describe:

TBD – LCA is not required at GBR stage for Masterplan special permit.

CDD Determination for Special Permit submission

The Community Development Department (CDD) received the final update of the Green Building Report (GBR) for the Special Permit stage of Healthpeak Planned Unit Development project pursuant to Section 22.25.1 of the Zoning Ordinance, on 10/6/2025. The Healthpeak PUD project, a mixed-use district, would consist of the following (approximately): 2,541,000 sf office/lab space; 1,765,000 sf of residential space (roughly 2,076 units); 71,000 sf of retail/neighborhood use space; four (4) parking garages; 202,300 sf of existing commercial/office space in three (3) buildings; 800,000 sf (approx. 18.36 acres) of open space; 1 proposed lot to for use by the Department of Public Works; and one pedestrian/bicycle bridge across the MBTA rail tracks to connect the Alewife Quadrangle to the Alewife Triangle. The overall master plan would consist of a total gross floor area (GFA) of approximately 4,377,000 square feet of new construction and 4,800 square feet of rehabilitation of an existing building on a 42-acre, non-contiguous site, plus the 18.36-acre open space and four (4) parking garages.

CDD staff have reviewed the Report and provide the following Determination and Summary of Compliance.

CDD Determination: The documentation provided by the Applicant is adequate and demonstrates compliance with the Green Building Requirements of Cambridge Zoning Ordinance 22.24 applicable to the Special Permit stage of review. Each building requires a separate Green Building Report, due at the design review stage.

Summary of Compliance:

- Due to the nature of the Special Permit, the information provided includes summary materials rather than the more detailed information often required for a Special Permit application.
- Rating Systems
 - The application states that buildings will be designed to be LEED Gold certifiable or to be certified as Passive House. Non-residential buildings will pursue LEED Gold certifiability and residential buildings will pursue either LEED Gold certifiability or Passive House certification.
 - Proposed Rating Systems:
 - Non-residential Buildings: LEED Gold (v5 BD+C, Core + Shell)
 - Residential Buildings: LEED Gold (v4 BD+C for Multifamily Midrise) OR Passive House
 - **Each building will be required to meet the most recent version of LEED or Passive House standards at the time of design review submission.**
- Green Building Professional Affidavit Certification
 - David P. Manfredi of Elkus Manfredi Architects has been identified as the Green Building Professional for the project. The affidavit states that this professional has reviewed all relevant documents for this project and confirms that those documents indicate that

Certification for Green Building Report – Special Permit Stage

Project: Healthpeak PUD

the project is designed to achieve the requirements of Section 22.24 under Article 22.000 of the Cambridge Zoning Ordinance.

- A copy of the professional's credentials from the LEED Program has been provided.
- If specific buildings pursue a non-LEED rating system during the design review stage, additional documentation, including a Professional Affidavit for the relevant rating system, will be required at that time.
- Additional documentation required at design review stage
 - Additional documentation that further demonstrates how each building will be compliant with Green Building requirements are required at the design review stage for each building. This documentation includes all submissions required for the Development Review phase as listed in the Green Building Project Checklist.
 - **As stated above, each building will be required to meet the most recent version of LEED or Passive House standards at the time of design review submission.**

Green Factor Certification Form

This is for projects that are subject to the Green Factor Standard in Section 22.90 of the Cambridge Zoning Ordinance, which requires site and landscape design features that reduce urban heat.

Review Section 22.90 of the Cambridge Zoning Ordinance and the Cambridge Cool Score Information and Guidelines before completing this form. When submitting a completed form, attach the supporting materials listed in the Green Factor Checklist.

Project Address/Location: Multiple addresses within the Alewife Quadrangle neighborhood.

Planning Board (PB) and/or Board of Zoning Appeal (BZA) case number (if applicable): Not Currently Available.

Developer Name and Contact Information

Name: Healthpeak OP, LLC

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

Email Address: rsquirrel@healthpeak.com

Telephone #: (949) 407-0700

Applicability: Section 22.92 & Section 5.22.5

Is this project subject to Green Building Requirements (Section 22.20)?	☒ Yes ☐ No
Does this project involve the construction of a new building?	☒ Yes ☐ No
Does this project enlarge an existing building's footprint by at least 50%?	☐ Yes ☒ No
Does this project involve the creation of new surface parking area?	☒ Yes ☐ No

Answer the questions below if the answer is "Yes" to any of the above

Requirements

Cool Roof Requirement

Does this project involve the construction of a new building roof or replacement of more than 50% of an existing roof?	☒ Yes ☐ No
Has this project received a Certificate of Appropriateness from the Cambridge Historical Commission or a Neighborhood Conservation District Commission, or a determination of adverse effect by the Executive Director of the Cambridge Historical Commission? [if "Yes," attach the document to your submission]	☐ Yes ☐ No ☒ N/A

Last Updated: March 2024

How much of the new or replaced roof area (in sq. ft.) has a slope (rise:run) of less than 2:12? [Cool Roof Requirement is not applicable to roof area with a 2:12 or steeper slope]	Phase 1 = 360,500 SF Phase 1+2 = 844,700 SF
What is the initial Solar Reflectance Index (SRI) of the proposed roof surface material for the area described above, excluding any solar energy systems or green roof area? [Minimum is 82]	82

Cool Score – Base information on the attached Cool Score Sheet and Site/Roof Plan

What is the Cool Score of the proposed site design? [Minimum is 1.0 except per below]	Phase 1 = 1.72 Phase 1+2 = 1.63
What is the Cool Score of the existing site? [Only answer if the project does not involve a new building or enlargement of a building footprint. The proposed Cool Score must not be less than the Cool Score of the existing site]	na

Modifications to Requirements

Has the project received, or will the project seek, a special permit from the Planning Board to modify the Green Factor Standard for this proposal?	☐ Received SP (date: _____) ☐ Seeking SP ☒ No modification
---	--


Signature of Applicant


Date

Last Updated: March 2024

Green Factor Checklist

Project Phase	Required Submissions
☒ Special Permit/Design Review (if applicable)	☒ Green Factor Certification Form ☒ Cool Score Sheet ☒ Site and Roof Plans
☐ Building Permit Not applicable this stage.	☐ Green Factor Certification Form (updated from prior version) ☐ Cool Score Sheet (updated from prior version) ☐ Site and Roof Plans (updated from prior version) ☐ Catalog of plant species including height and canopy spread of trees and height and soil depth of high and low planting areas ☐ Specifications of roof surface material including initial Solar Reflectivity Index (SRI) ☐ Specifications of paving material including SRI (if applicable) ☐ Specifications of green roof installation with operations and maintenance plan (if applicable)
☐ Certificate of Occupancy Not applicable this stage.	<i>All materials updated based on as-built conditions:</i> ☐ Green Factor Certification Form (updated from prior version) ☐ Cool Score Sheet (based on as-built conditions) ☐ Site and Roof Plans (based on as-built conditions) ☐ Catalog of plant species including height and canopy spread of trees and height and soil depth of high and low planting areas ☐ Specifications of roof surface material including initial Solar Reflectivity Index (SRI) ☐ Specifications of paving material including SRI (if applicable) ☐ Specifications of green roof installation with operations and maintenance plan (if applicable)

Last Updated: March 2024

Project Address	Special Permit Number	Total Lot Area (SF)
Healthpeak PUD Special Permit - multiple addresses within the Alewife Quadrangle	Not Yet Available	680,266
Applicant Name	Phone Number	Open Space Requirement (%)
Healthpeak OP, LLC	(949) 407-0700	20%
Applicant Contact / Address	Email Address	Zoning District
1900 Main Street, Suite 500, Irvine, CA 92614	zsquirrel@healthpeak.com	Alewife Overlay District - Quadrangle
Project Description		Result
Healthpeak OP, LLC has proposed a master plan development in the Alewife Overlay District Quadrangle (PUD) Zoning District, the Project), that will transform approximately 42 acres into a dynamic mixed-use district featuring Class A lab and office facilities, residential buildings, retail and neighborhood uses, and community amenities. Named "Healthpeak PUD Special Permit," the Project emphasizes open spaces		Pass

Enter minimum required open space ratio. If the ratio is less than 20%, enter 20 here.

		Outside 20' of Street	Value Factor		Within 20' of Street	Value Factor	Contributing Area
Trees	Preserved Existing Trees						
Enter the number of trees in each category. Count each tree only once on this form.	A1 Understory tree currently <10' canopy spread	0	0.80	+	0	1.60	-
	A2 Understory tree currently >10' canopy spread	0	1.00	+	0	2.00	-
	3 Canopy tree currently <15' canopy spread	0	0.80	+	4	1.60	4,480
	4 Canopy tree currently between 15' and 25' canopy spread	0	1.00	+	0	2.00	-
	5 Canopy tree currently >25' canopy spread	4	1.20	+	2	2.40	6,720
	New or Transplanted Trees						
	6 Understory tree	124	0.60	+	22	1.20	15,120
	7 Canopy tree	190	0.70	+	29	1.40	121,520
Planting Areas							
Enter area in square feet of each component in the box provided	B1 Lawn Area	52,145	0.30	+	2,777	0.60	17,310
	B2 Low Planting Area	64,031	0.40	+	7,808	0.80	31,859
	B3 High Planting Area	42,687	0.50	+	5,205	1.00	26,549
Green Roofs & Facades							
For definitions, see reference document.	C1 Green Façade	0	0.10	+	0	0.20	-
	C2 Living Wall	0	0.30	+	0	0.60	-
	C3 Green Roof Area	0	0.30	+	0	0.60	-
	C4 Short Intensive Green Roof Area	0	0.50	+	0	1.00	-
	C5 Intensive Green Roof Area	0	0.60	+	0	1.20	-
Paving & Structures							
	D1 Low Slope Roof	360,200	N/A				
	D2 High-SRI Paving	106,340	0.1				10,634
	D3 Shaded Area	2,419	0.2	+	0	0.40	484
Project Summary							
	Portion of lot area utilizing green strategies	33%			Total Contributing Area		234,675
	Portion of score from green strategies	95%			Total Area Goal		136,053
	Portion of score from trees	63%			COOL FACTOR SCORE		1.72
	Portion of score contributing to public realm cooling	23%					

When entering strategies that are within 20' of the street (including sidewalks), do not also enter

High-SRI Paving areas within 20' of a Street do not count towards the Cool Score

If your project scores 1 or above, you have successfully met the requirements of the Cool

Project Address	Special Permit Number	Total Lot Area (SF)
Healthpeak PUD Special Permit - multiple addresses within the Alewife Quadrangle	Not Yet Available	1,528,823
Applicant Name	Phone Number	Open Space Requirement (%)
Healthpeak OP, LLC	(949) 407-0700	20%
Applicant Contact / Address	Email Address	Zoning District
1900 Main Street, Suite 500, Irvine, CA 92614	zsquirrell@healthpeak.com	Alewife Overlay District - Quadrangle (A100)
Project Description		Result
Healthpeak OP, LLC has proposed a master plan development in the Alewife Quadrangle (A100) Zoning District, the Project", that will transform approximately 42 acres into a dynamic mixed-use district featuring Class A lab and office facilities, residential buildings, retail and neighborhood uses, and community amenities. Named "Healthpeak PUD Special Permit," the Project emphasizes open spaces		Pass

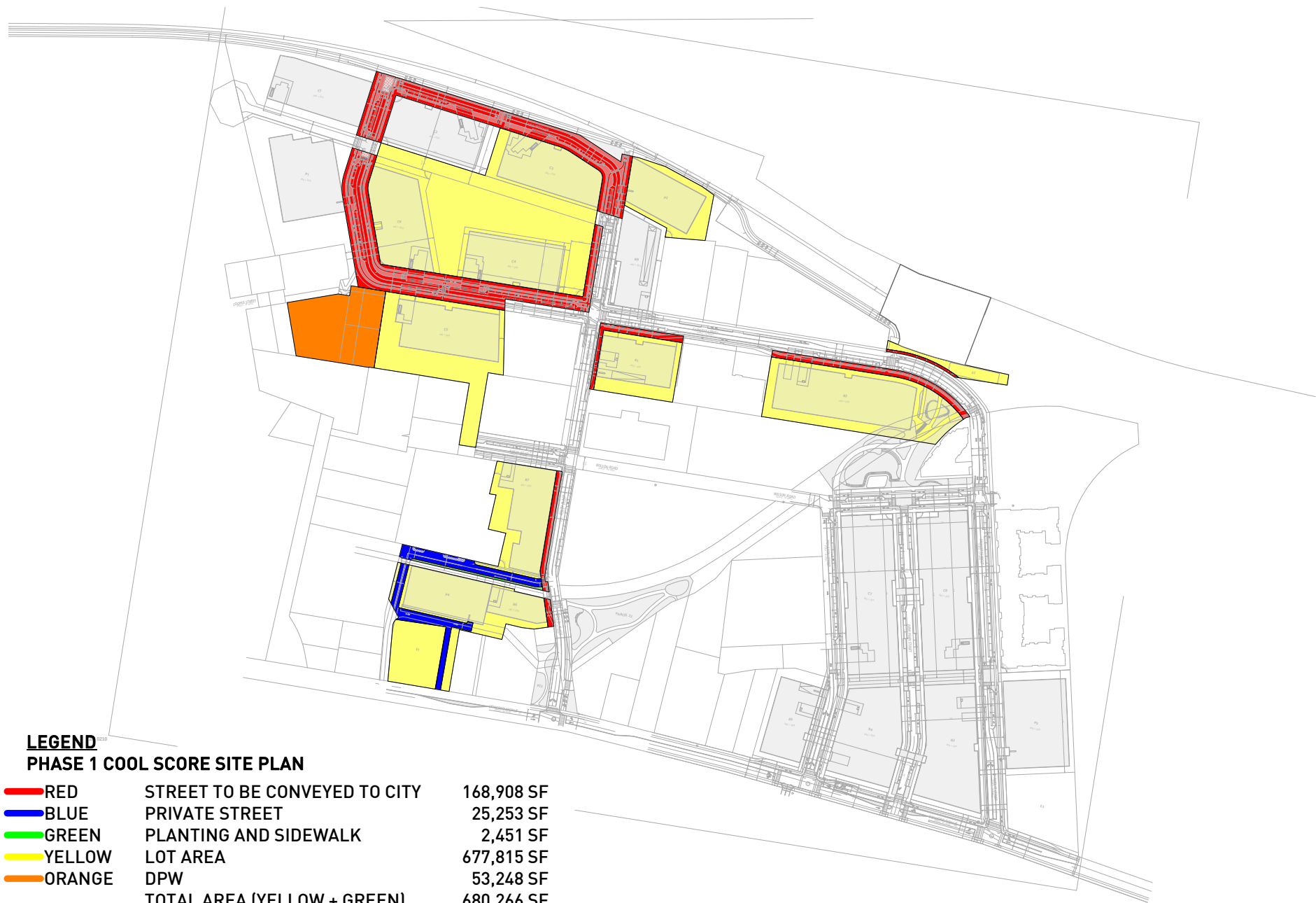
Enter minimum required open space ratio. If the ratio is less than 20%, enter 20 here.

		Outside 20' of Street	Value Factor		Within 20' of Street	Value Factor	Contributing Area
Trees	Preserved Existing Trees						
Enter the number of trees in each category. Count each tree only once on this form.	A1 Understory tree currently <10' canopy spread	1	0.80	+	0	1.60	120
	A2 Understory tree currently >10' canopy spread	0	1.00	+	0	2.00	-
	3 Canopy tree currently <15' canopy spread	2	0.80	+	4	1.60	5,600
	4 Canopy tree currently between 15' and 25' canopy spread	4	1.00	+	0	2.00	2,800
	5 Canopy tree currently >25' canopy spread	8	1.20	+	10	2.40	23,520
	New or Transplanted Trees						
	6 Understory tree	330	0.60	+	58	1.20	40,140
	7 Canopy tree	384	0.70	+	71	1.40	257,740
Planting Areas							
Enter area in square feet of each component in the box provided	B1 Lawn Area	145,433	0.30	+	8,066	0.60	48,470
	B2 Low Planting Area	102,498	0.40	+	15,688	0.80	53,550
	B3 High Planting Area	68,331	0.50	+	10,459	1.00	44,625
Green Roofs & Facades							
For definitions, see reference document.	C1 Green Façade	0	0.10	+	0	0.20	-
	C2 Living Wall	0	0.30	+	0	0.60	-
	C3 Green Roof Area	0	0.30	+	0	0.60	-
	C4 Short Intensive Green Roof Area	0	0.50	+	0	1.00	-
	C5 Intensive Green Roof Area	0	0.60	+	0	1.20	-
Paving & Structures							
	D1 Low Slope Roof	844,700	N/A				
	D2 High-SRI Paving	225,087	0.1				22,509
	D3 Shaded Area	4,163	0.2	+	0	0.40	833
Project Summary							
	Portion of lot area utilizing green strategies	31%			Total Contributing Area		499,905
	Portion of score from green strategies	95%			Total Area Goal		305,765
	Portion of score from trees	66%			COOL FACTOR SCORE		1.63
	Portion of score contributing to public realm cooling	26%					

When entering strategies that are within 20' of the street (including sidewalks), do not also enter

High-SRI Paving areas within 20' of a Street do not count towards the Cool Score

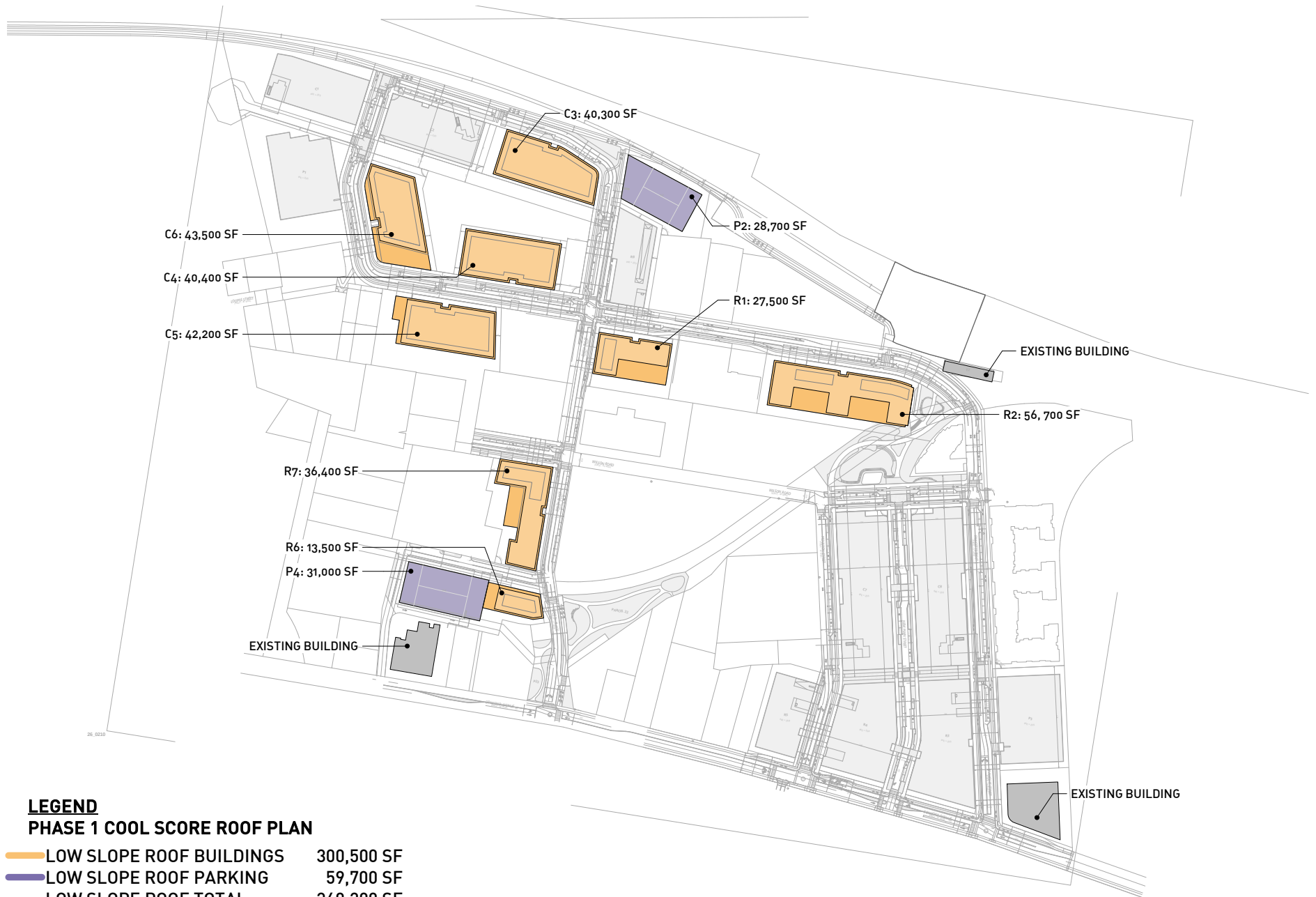
If your project scores 1 or above, you have successfully met the requirements of the Cool



LEGEND

PHASE 1 COOL SCORE SITE PLAN

RED	STREET TO BE CONVEYED TO CITY	168,908 SF
BLUE	PRIVATE STREET	25,253 SF
GREEN	PLANTING AND SIDEWALK	2,451 SF
YELLOW	LOT AREA	677,815 SF
ORANGE	DPW	53,248 SF
TOTAL AREA (YELLOW + GREEN)		680,266 SF



LEGEND

PHASE 1 COOL SCORE ROOF PLAN

LOW SLOPE ROOF BUILDINGS	300,500 SF
LOW SLOPE ROOF PARKING	59,700 SF
LOW SLOPE ROOF TOTAL	360,200 SF



Cool Calculations: Phase 1 - Outside 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA

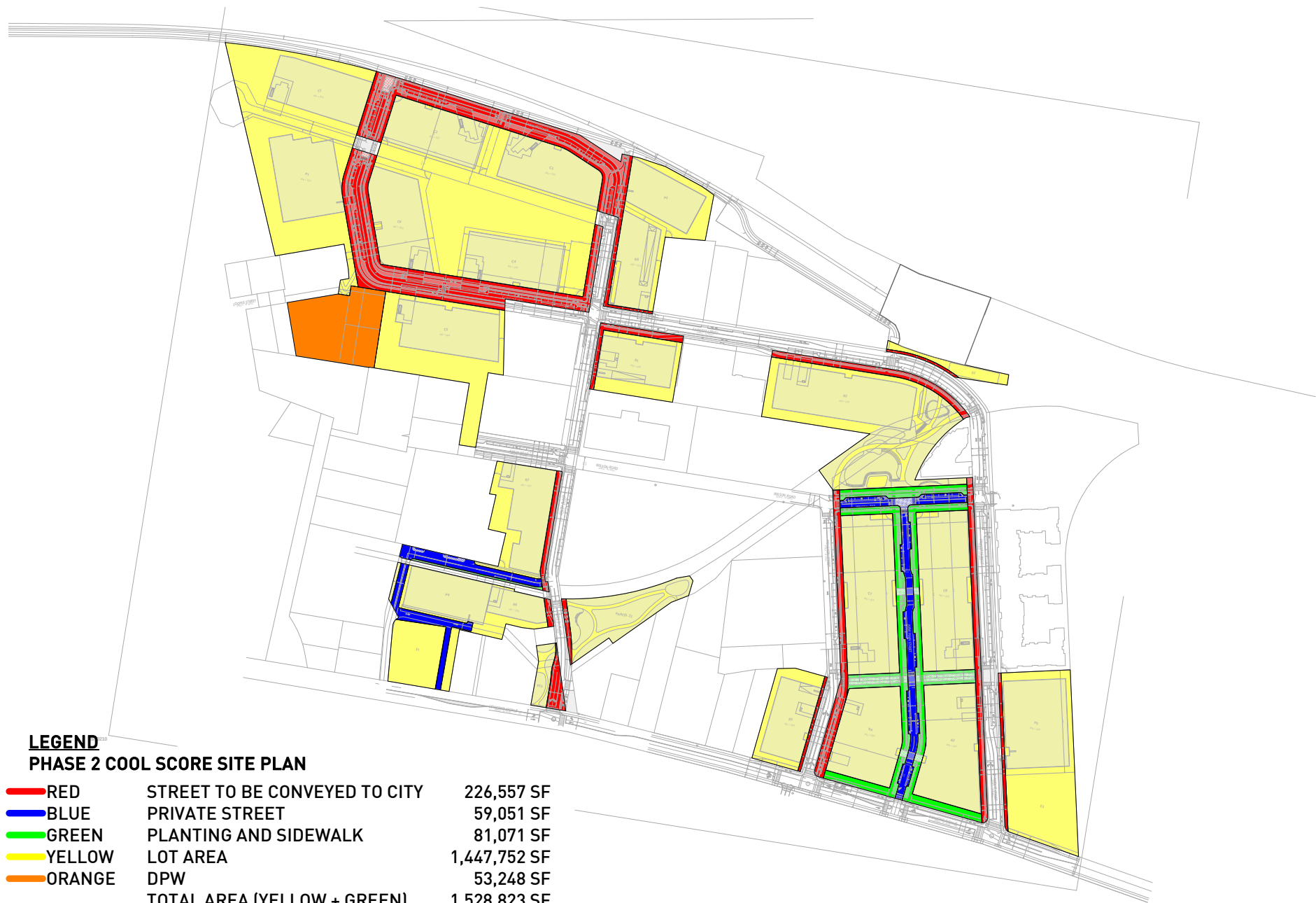




Cool Calculations: Phase 1 - Within 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA





LEGEND

PHASE 2 COOL SCORE SITE PLAN

RED	STREET TO BE CONVEYED TO CITY	226,557 SF
BLUE	PRIVATE STREET	59,051 SF
GREEN	PLANTING AND SIDEWALK	81,071 SF
YELLOW	LOT AREA	1,447,752 SF
ORANGE	DPW	53,248 SF
TOTAL AREA (YELLOW + GREEN)		1,528,823 SF



LEGEND

PHASE 2 COOL SCORE ROOF PLAN

LOW SLOPE ROOF BUILDINGS	691,300 SF
LOW SLOPE ROOF PARKING	153,400 SF
LOW SLOPE ROOF TOTAL	844,700 SF



Cool Calculations: Phase 1 and 2 Combined - Outside 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA

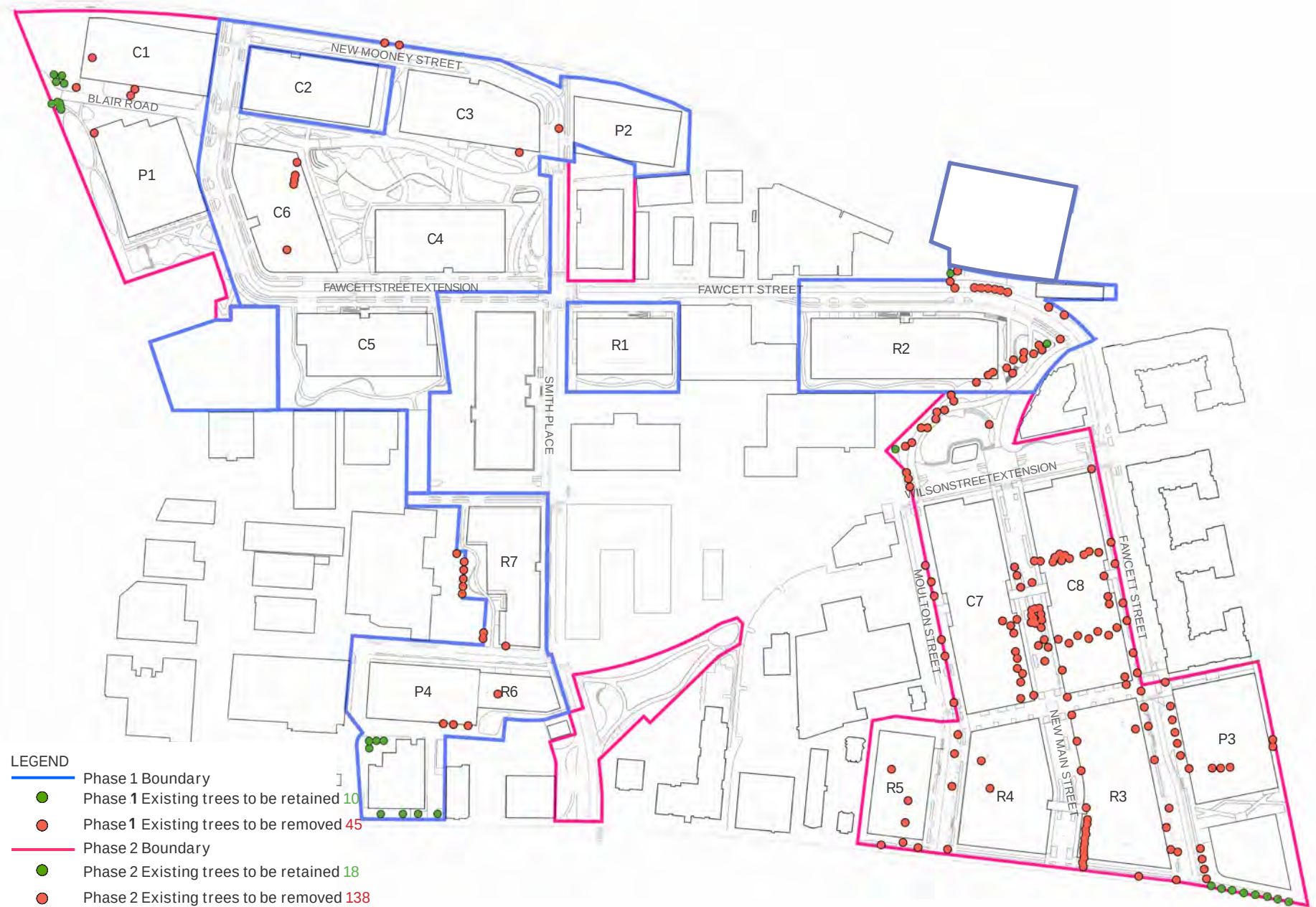




Cool Calculations: Phase 1 and 2 Combined - Within 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA





LEGEND

- Phase 1 Boundary
- Phase 1 Existing trees to be retained 10
- Phase 1 Existing trees to be removed 45
- Phase 2 Boundary
- Phase 2 Existing trees to be retained 18
- Phase 2 Existing trees to be removed 138

TOTAL EXISTING TREES 211

Existing Trees Plan

Healthpeak PUD Master Plan | Cambridge, MA





Preserved and New Tree Plan

Healthpeak PUD Master Plan | Cambridge, MA



Healthpeak PUD Draft Application (Preliminary Development Plan): Healthpeak Responses to City Comments

3/3/26

ID	Topic	City Comment (Received 1/26/26)	Response
10a	Green Factor Standards (§ 22.90)	Much of New Main Street, specifically the sidewalk and street trees, currently appear to be included in Cool Score calculations. This may be appropriate for the cross street, which appears pedestrianized, but is not the standard for private streets. New Main Street may be treated as an open space – with primarily non- vehicular modes of travel – where trees, planting areas, and high-SRI paving may contribute toward the Cool Score, or as a street, under which circumstances the area will need to comply with street tree planting and other design requirements.	Noted.
10b	Green Factor Standards (§ 22.90)	Team responses in Volume III, page 94, states that no low-slope roofs are proposed. However, all roofs appear to be low-slope (flat) roofs, and total square footage is provided, including for parking decks. Please confirm this information. All low-slope roofs must meet high-SRI requirements.	The team response in Volume III, page 94 from November 2025, incorrectly states that no low-slope roofs are proposed. This reference has been removed. All roofs are low-slope, with total square footage provided on site plans and meet high-SRI requirements.
10c	Green Factor Standards (§ 22.90)	Please include Cool Score plans for different phases, to demonstrate what will be completed in earlier phase(s) and what amount of contributing landscape will be installed later.	Cool Score plans and Cool Factor score have been provided for each phase to demonstrate the amount of qualifying landscape and site elements installed at each stage of the project. Please refer to the updated Site and Roof Plans for Phase 1 and Phase 2 in the Appendix. The Phase 2 plans represent the cumulative build-out of Phases 1 and 2 combined, capturing the total contributing landscape and hardscape areas that will be in place at the completion of Phase 2.

CDD Determination for Special Permit submission

The Community Development Department (CDD) received the Green Factor (GF) documentation for the Special Permit stage. Pursuant to Section 22.96 of the Zoning Ordinance, CDD staff have reviewed the project's GF documentation and provide the following Determination and Summary of Compliance.

CDD Determination: The documentation provided by the Applicant is adequate and demonstrates compliance with the Green Factor Standard applicable to the Special Permit stage.

Summary of Compliance:

- Solar Reflectance Index of Roof – ≥ 82
- Solar Reflectance Index of Paving – ≥ 33
- Cool Score – 1.63

Green Factor Certification Form

This is for projects that are subject to the Green Factor Standard in Section 22.90 of the Cambridge Zoning Ordinance, which requires site and landscape design features that reduce urban heat.

Review Section 22.90 of the Cambridge Zoning Ordinance and the Cambridge Cool Score Information and Guidelines before completing this form. When submitting a completed form, attach the supporting materials listed in the Green Factor Checklist.

Project Address/Location: Multiple addresses within the Alewife Quadrangle neighborhood.

Planning Board (PB) and/or Board of Zoning Appeal (BZA) case number (if applicable): Not Currently Available.

Developer Name and Contact Information

Name: Healthpeak OP, LLC

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

Email Address: rsquirrel@healthpeak.com

Telephone #: (949) 407-0700

Applicability: Section 22.92 & Section 5.22.5

Is this project subject to Green Building Requirements (Section 22.20)?	☒ Yes ☐ No
Does this project involve the construction of a new building?	☒ Yes ☐ No
Does this project enlarge an existing building's footprint by at least 50%?	☐ Yes ☒ No
Does this project involve the creation of new surface parking area?	☒ Yes ☐ No

Answer the questions below if the answer is "Yes" to any of the above

Requirements

Cool Roof Requirement

Does this project involve the construction of a new building roof or replacement of more than 50% of an existing roof?	☒ Yes ☐ No
Has this project received a Certificate of Appropriateness from the Cambridge Historical Commission or a Neighborhood Conservation District Commission, or a determination of adverse effect by the Executive Director of the Cambridge Historical Commission? [if "Yes," attach the document to your submission]	☐ Yes ☐ No ☒ N/A

Last Updated: March 2024

How much of the new or replaced roof area (in sq. ft.) has a slope (rise:run) of less than 2:12? [Cool Roof Requirement is not applicable to roof area with a 2:12 or steeper slope]	Phase 1 = 360,500 SF Phase 1+2 = 844,700 SF
What is the initial Solar Reflectance Index (SRI) of the proposed roof surface material for the area described above, excluding any solar energy systems or green roof area? [Minimum is 82]	82

Cool Score – Base information on the attached Cool Score Sheet and Site/Roof Plan

What is the Cool Score of the proposed site design? [Minimum is 1.0 except per below]	Phase 1 = 1.72 Phase 1+2 = 1.63
What is the Cool Score of the existing site? [Only answer if the project does not involve a new building or enlargement of a building footprint. The proposed Cool Score must not be less than the Cool Score of the existing site]	na

Modifications to Requirements

Has the project received, or will the project seek, a special permit from the Planning Board to modify the Green Factor Standard for this proposal?	☐ Received SP (date: _____) ☐ Seeking SP ☒ No modification
---	--


Signature of Applicant

2.25.24
Date

Last Updated: March 2024

Green Factor Checklist

Project Phase	Required Submissions
☒ Special Permit/Design Review (if applicable)	☒ Green Factor Certification Form ☒ Cool Score Sheet ☒ Site and Roof Plans
☐ Building Permit Not applicable this stage.	☐ Green Factor Certification Form (updated from prior version) ☐ Cool Score Sheet (updated from prior version) ☐ Site and Roof Plans (updated from prior version) ☐ Catalog of plant species including height and canopy spread of trees and height and soil depth of high and low planting areas ☐ Specifications of roof surface material including initial Solar Reflectivity Index (SRI) ☐ Specifications of paving material including SRI (if applicable) ☐ Specifications of green roof installation with operations and maintenance plan (if applicable)
☐ Certificate of Occupancy Not applicable this stage.	<i>All materials updated based on as-built conditions:</i> ☐ Green Factor Certification Form (updated from prior version) ☐ Cool Score Sheet (based on as-built conditions) ☐ Site and Roof Plans (based on as-built conditions) ☐ Catalog of plant species including height and canopy spread of trees and height and soil depth of high and low planting areas ☐ Specifications of roof surface material including initial Solar Reflectivity Index (SRI) ☐ Specifications of paving material including SRI (if applicable) ☐ Specifications of green roof installation with operations and maintenance plan (if applicable)

Last Updated: March 2024

Project Address	Special Permit Number	Total Lot Area (SF)
Healthpeak PUD Special Permit - multiple addresses within the Alewife Quadrangle	Not Yet Available	680,266
Applicant Name	Phone Number	Open Space Requirement (%)
Healthpeak OP, LLC	(949) 407-0700	20%
Applicant Contact / Address	Email Address	Zoning District
1900 Main Street, Suite 500, Irvine, CA 92614	zsquirrell@healthpeak.com	Alewife Overlay District - Quadrangle (PUD)
Project Description		Result
Healthpeak OP, LLC has proposed a master plan development in the Alewife Overlay District - Quadrangle (PUD) Zoning District, the Project", that will transform approximately 42 acres into a dynamic mixed-use district featuring Class A lab and office facilities, residential buildings, retail and neighborhood uses, and community amenities. Named "Healthpeak PUD Special Permit," the Project emphasizes open spaces		Pass

Enter minimum required open space ratio. If the ratio is less than 20%, enter 20 here.

		Outside 20' of Street	Value Factor		Within 20' of Street	Value Factor	Contributing Area
Trees	Preserved Existing Trees						
Enter the number of trees in each category. Count each tree only once on this form.	A1 Understory tree currently <10' canopy spread	0	0.80	+	0	1.60	-
	A2 Understory tree currently >10' canopy spread	0	1.00	+	0	2.00	-
	3 Canopy tree currently <15' canopy spread	0	0.80	+	4	1.60	4,480
	4 Canopy tree currently between 15' and 25' canopy spread	0	1.00	+	0	2.00	-
	5 Canopy tree currently >25' canopy spread	4	1.20	+	2	2.40	6,720
	New or Transplanted Trees						
	6 Understory tree	124	0.60	+	22	1.20	15,120
7 Canopy tree	190	0.70	+	29	1.40	121,520	
Planting Areas							
Enter area in square feet of each component in the box provided	B1 Lawn Area	52,145	0.30	+	2,777	0.60	17,310
	B2 Low Planting Area	64,031	0.40	+	7,808	0.80	31,859
	B3 High Planting Area	42,687	0.50	+	5,205	1.00	26,549
Green Roofs & Facades							
For definitions, see reference document.	C1 Green Façade	0	0.10	+	0	0.20	-
	C2 Living Wall	0	0.30	+	0	0.60	-
	C3 Green Roof Area	0	0.30	+	0	0.60	-
	C4 Short Intensive Green Roof Area	0	0.50	+	0	1.00	-
	C5 Intensive Green Roof Area	0	0.60	+	0	1.20	-
Paving & Structures							
	D1 Low Slope Roof	360,200	N/A				
	D2 High-SRI Paving	106,340	0.1				10,634
	D3 Shaded Area	2,419	0.2	+	0	0.40	484
Project Summary							
	Portion of lot area utilizing green strategies	33%			Total Contributing Area		234,675
	Portion of score from green strategies	95%			Total Area Goal		136,053
	Portion of score from trees	63%			COOL FACTOR SCORE		1.72
	Portion of score contributing to public realm cooling	23%					

When entering strategies that are within 20' of the street (including sidewalks), do not also enter

High-SRI Paving areas within 20' of a Street do not count towards the Cool Score

If your project scores 1 or above, you have successfully met the requirements of the Cool

Project Address	Special Permit Number	Total Lot Area (SF)
Healthpeak PUD Special Permit - multiple addresses within the Alewife Quadrangle	Not Yet Available	1,528,823
Applicant Name	Phone Number	Open Space Requirement (%)
Healthpeak OP, LLC	(949) 407-0700	20%
Applicant Contact / Address	Email Address	Zoning District
1900 Main Street, Suite 500, Irvine, CA 92614	zsquirrell@healthpeak.com	Alewife Overlay District - Quadrangle (A-100)
Project Description		Result
Healthpeak OP, LLC has proposed a master plan development in the Alewife Quadrangle (A-100) Zoning District, the Project", that will transform approximately 42 acres into a dynamic mixed-use district featuring Class A lab and office facilities, residential buildings, retail and neighborhood uses, and community amenities. Named "Healthpeak PUD Special Permit," the Project emphasizes open spaces		Pass

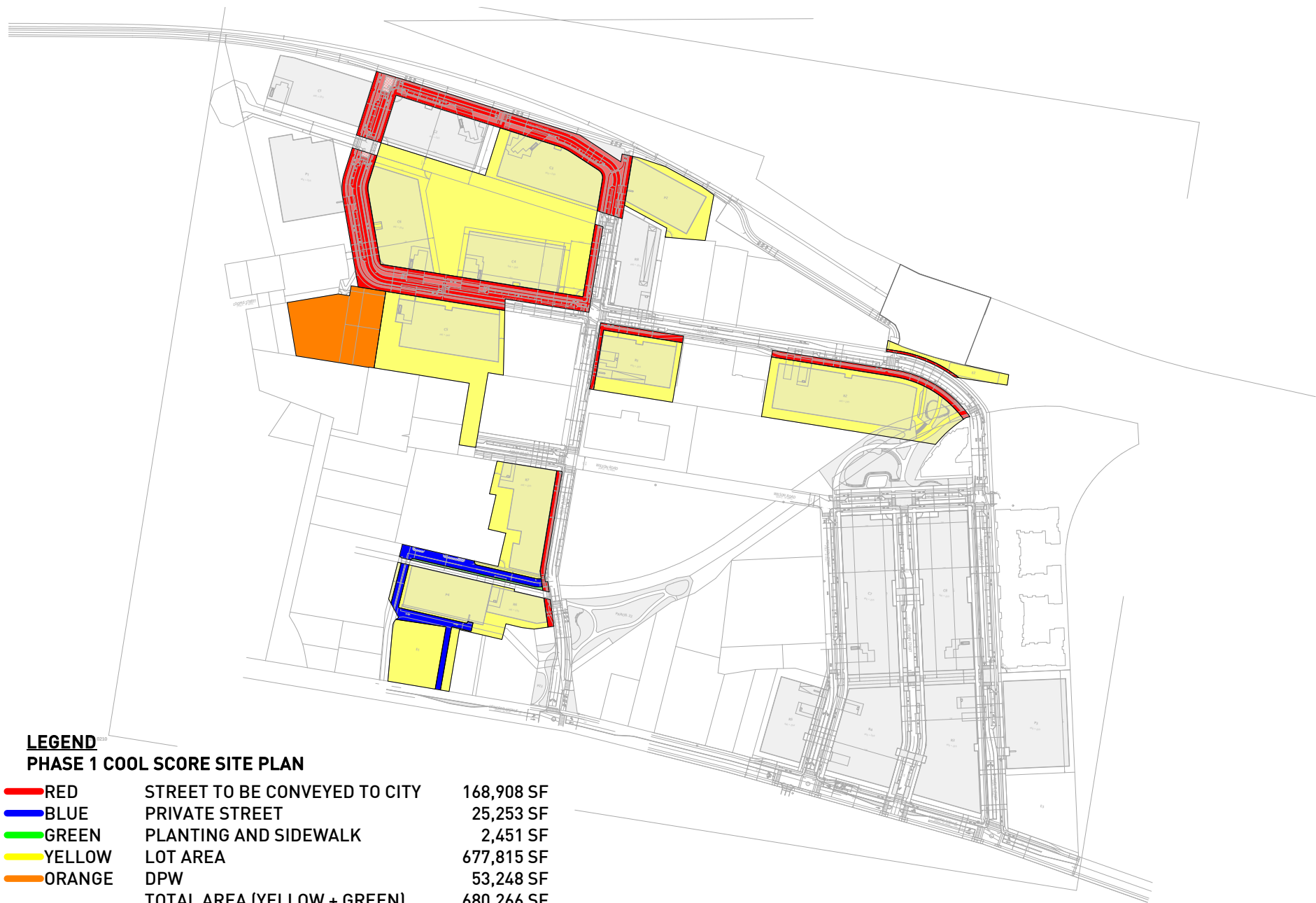
Enter minimum required open space ratio. If the ratio is less than 20%, enter 20 here.

		Outside 20' of Street	Value Factor		Within 20' of Street	Value Factor	Contributing Area
Trees	Preserved Existing Trees						
Enter the number of trees in each category. Count each tree only once on this form.	A1 Understory tree currently <10' canopy spread	1	0.80	+	0	1.60	120
	A2 Understory tree currently >10' canopy spread	0	1.00	+	0	2.00	-
	3 Canopy tree currently <15' canopy spread	2	0.80	+	4	1.60	5,600
	4 Canopy tree currently between 15' and 25' canopy spread	4	1.00	+	0	2.00	2,800
	5 Canopy tree currently >25' canopy spread	8	1.20	+	10	2.40	23,520
	New or Transplanted Trees						
	6 Understory tree	330	0.60	+	58	1.20	40,140
	7 Canopy tree	384	0.70	+	71	1.40	257,740
Planting Areas							
Enter area in square feet of each component in the box provided	B1 Lawn Area	145,433	0.30	+	8,066	0.60	48,470
	B2 Low Planting Area	102,498	0.40	+	15,688	0.80	53,550
	B3 High Planting Area	68,331	0.50	+	10,459	1.00	44,625
Green Roofs & Facades							
For definitions, see reference document.	C1 Green Façade	0	0.10	+	0	0.20	-
	C2 Living Wall	0	0.30	+	0	0.60	-
	C3 Green Roof Area	0	0.30	+	0	0.60	-
	C4 Short Intensive Green Roof Area	0	0.50	+	0	1.00	-
	C5 Intensive Green Roof Area	0	0.60	+	0	1.20	-
Paving & Structures							
	D1 Low Slope Roof	844,700	N/A				
	D2 High-SRI Paving	225,087	0.1				22,509
	D3 Shaded Area	4,163	0.2	+	0	0.40	833
Project Summary							
	Portion of lot area utilizing green strategies	31%			Total Contributing Area		499,905
	Portion of score from green strategies	95%			Total Area Goal		305,765
	Portion of score from trees	66%			COOL FACTOR SCORE		1.63
	Portion of score contributing to public realm cooling	26%					

When entering strategies that are within 20' of the street (including sidewalks), do not also enter

High-SRI Paving areas within 20' of a Street do not count towards the Cool Score

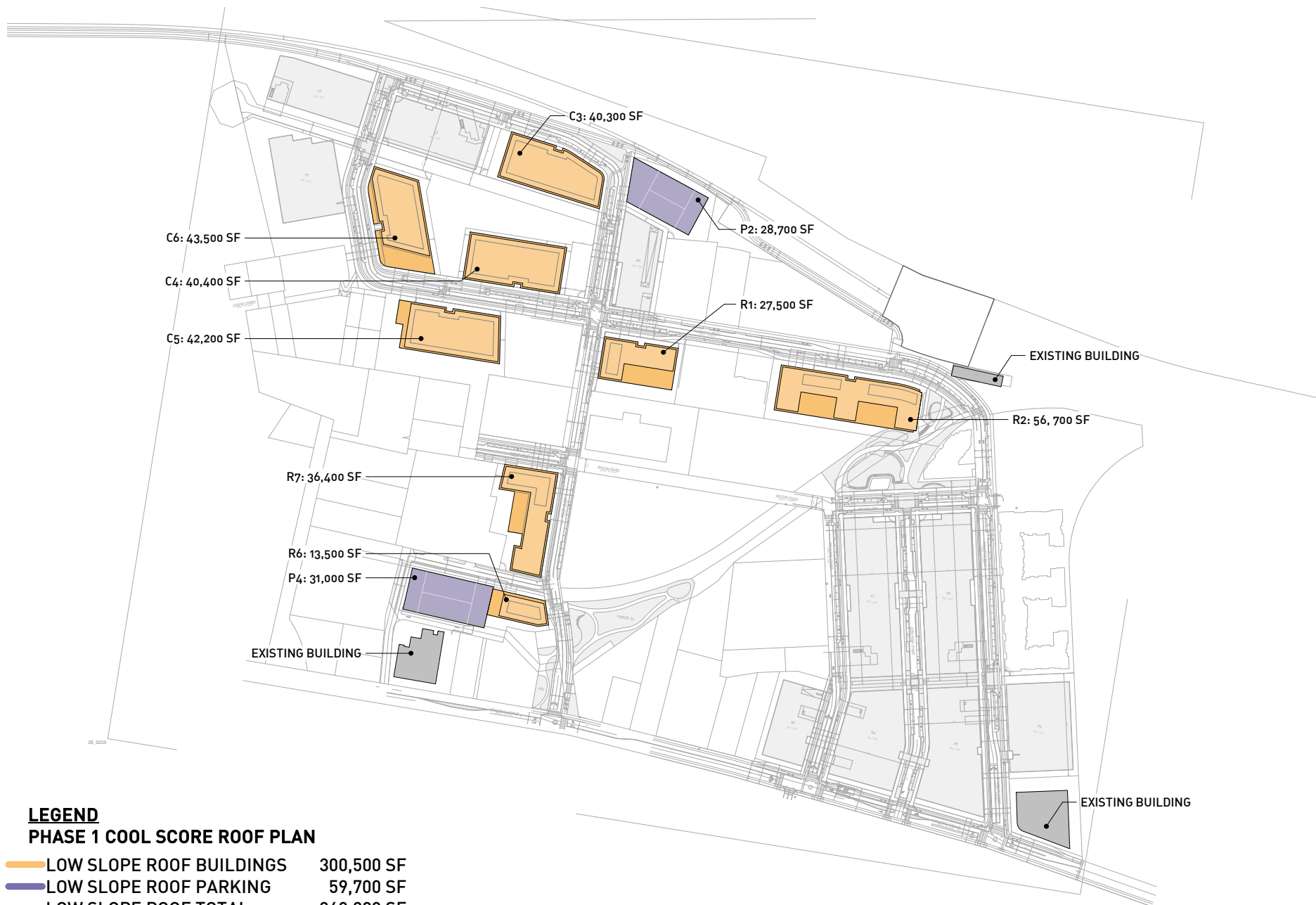
If your project scores 1 or above, you have successfully met the requirements of the Cool



LEGEND

PHASE 1 COOL SCORE SITE PLAN

RED	STREET TO BE CONVEYED TO CITY	168,908 SF
BLUE	PRIVATE STREET	25,253 SF
GREEN	PLANTING AND SIDEWALK	2,451 SF
YELLOW	LOT AREA	677,815 SF
ORANGE	DPW	53,248 SF
TOTAL AREA (YELLOW + GREEN)		680,266 SF



LEGEND

PHASE 1 COOL SCORE ROOF PLAN

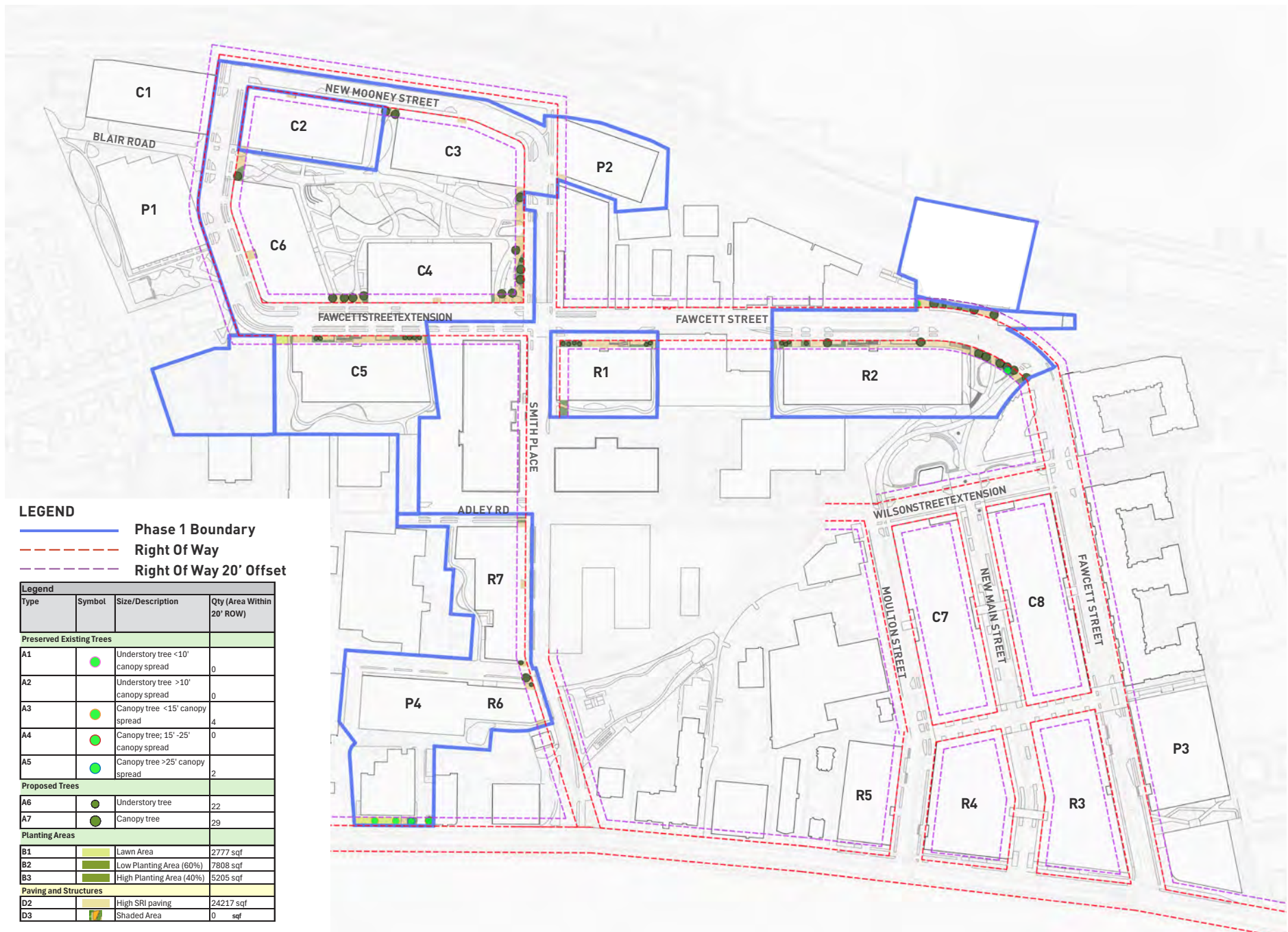
LOW SLOPE ROOF BUILDINGS	300,500 SF
LOW SLOPE ROOF PARKING	59,700 SF
LOW SLOPE ROOF TOTAL	360,200 SF



Cool Calculations: Phase 1 - Outside 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA

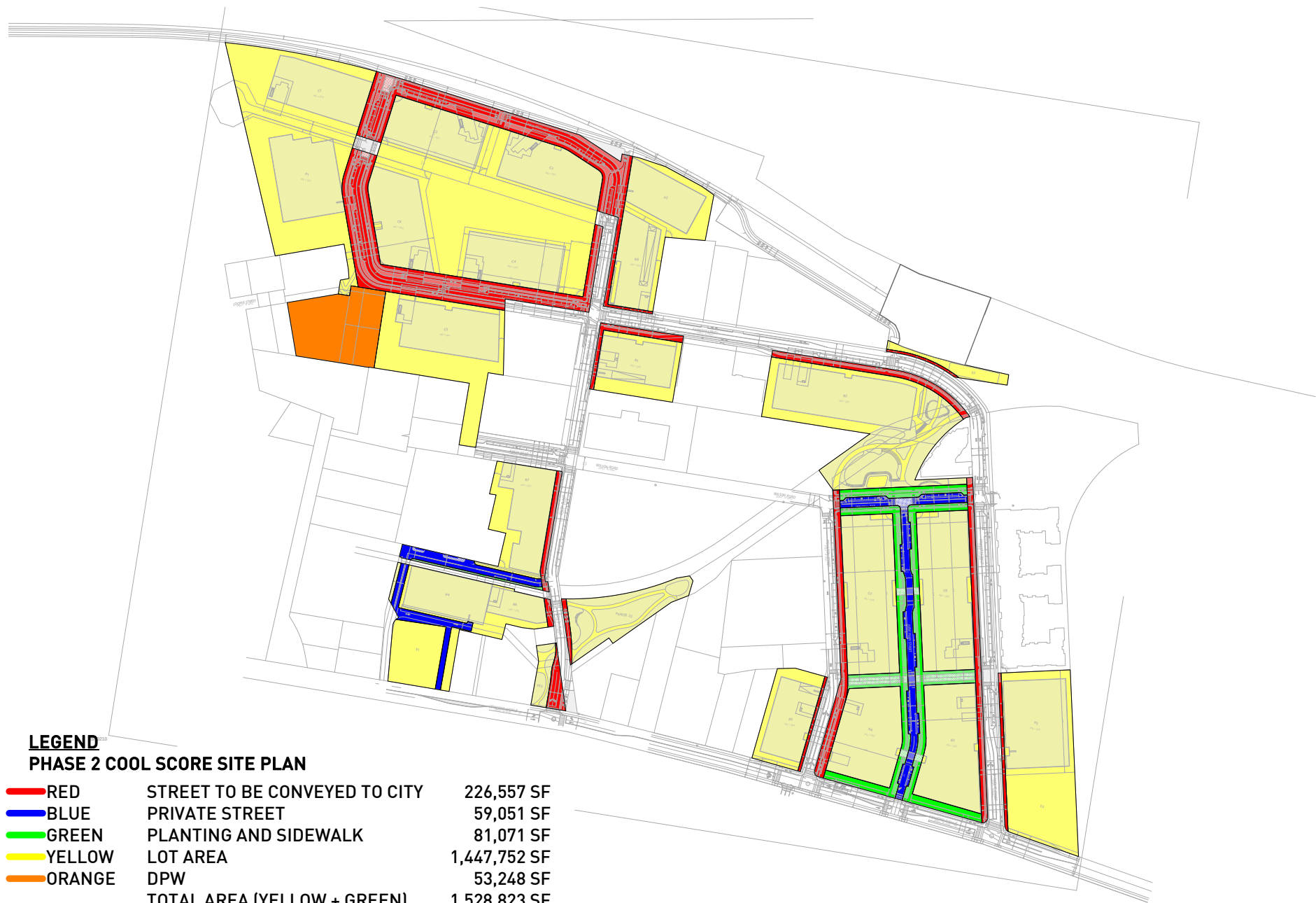




Cool Calculations: Phase 1 - Within 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA

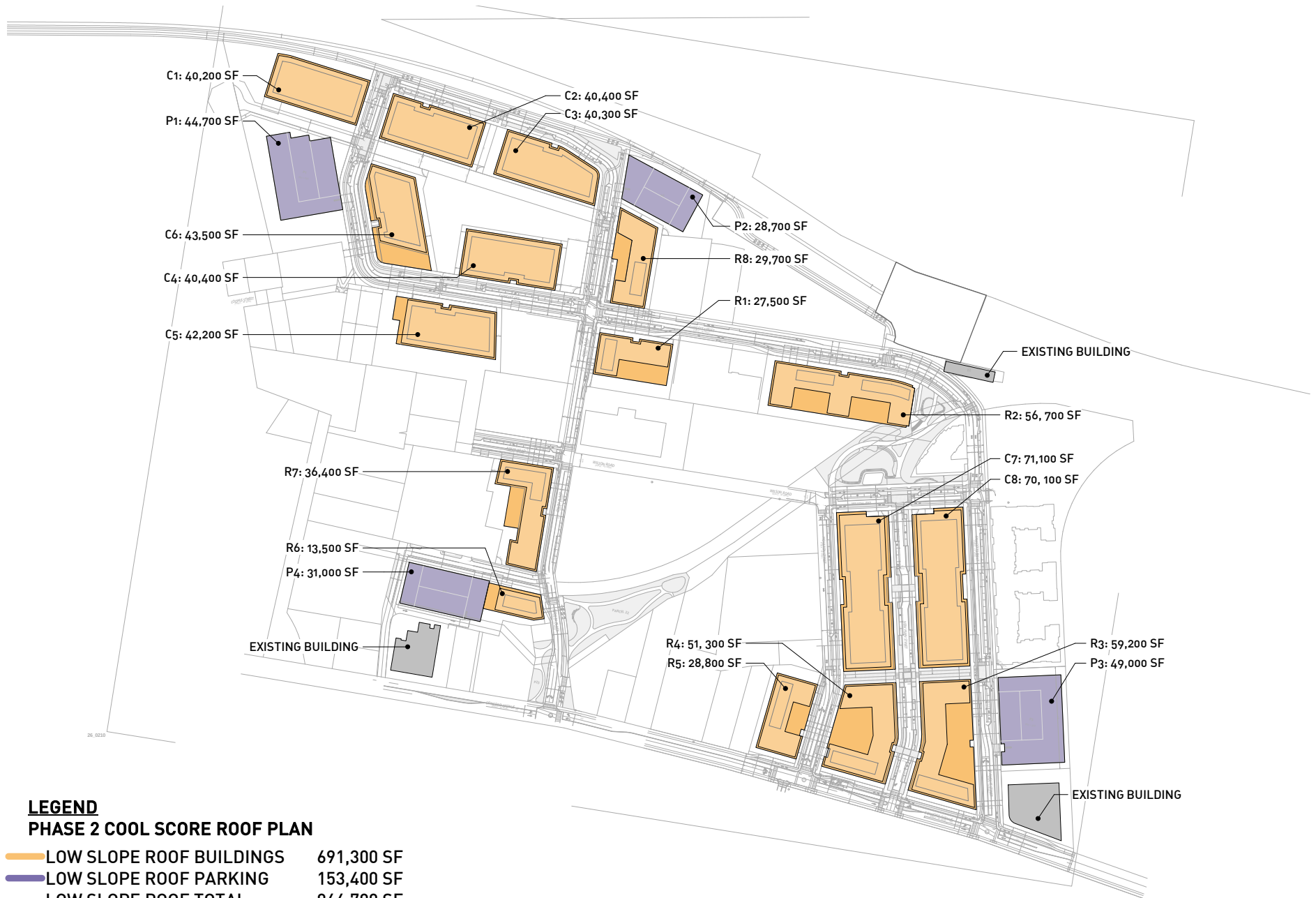




LEGEND

PHASE 2 COOL SCORE SITE PLAN

RED	STREET TO BE CONVEYED TO CITY	226,557 SF
BLUE	PRIVATE STREET	59,051 SF
GREEN	PLANTING AND SIDEWALK	81,071 SF
YELLOW	LOT AREA	1,447,752 SF
ORANGE	DPW	53,248 SF
	TOTAL AREA (YELLOW + GREEN)	1,528,823 SF



LEGEND

- Phase 2 Boundary
- - - Right Of Way
- - - Right Of Way 20' Offset

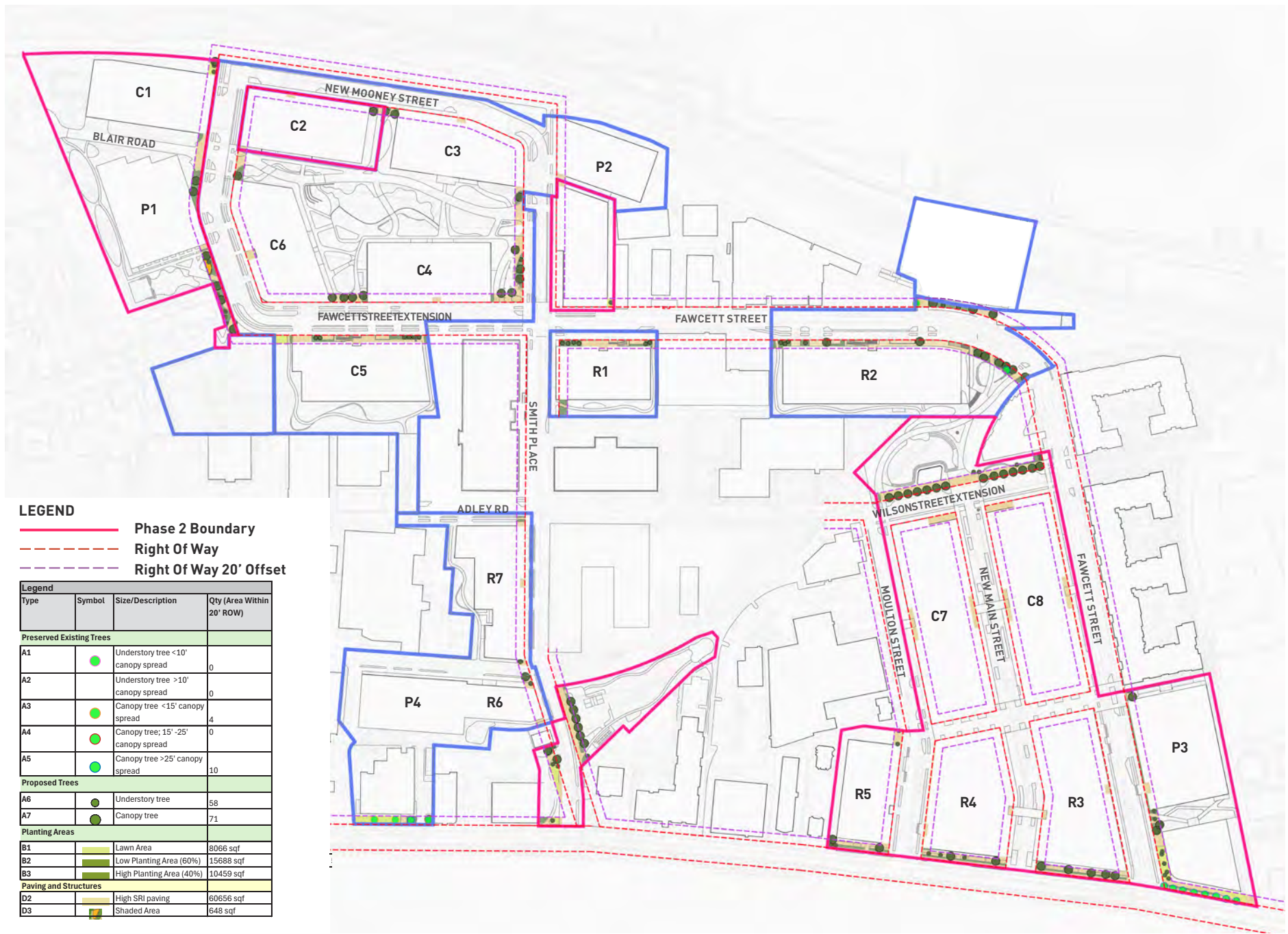
Legend			
Type	Symbol	Size/Description	Qty (Area Outside 20' ROW)
Preserved Existing Trees			
A1		Understory tree <10' canopy spread	1
A2		Understory tree >10' canopy spread	0
A3		Canopy tree <15' canopy spread	2
A4		Canopy tree; 15' - 25' canopy spread	4
A5		Canopy tree >25' canopy spread	8
Proposed Trees			
A6		Understory tree	330
A7		Canopy tree	384
Planting Areas			
B1		Lawn Area	145433 sqf
B2		Low Planting Area (60%)	102498 sqf
B3		High Planting Area (40%)	68331 sqf
Paving and Structures			
D2		High SRI paving	225087 sqf
D3		Shaded Area	4163 sqf



Cool Calculations: Phase 1 and 2 Combined - Outside 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA

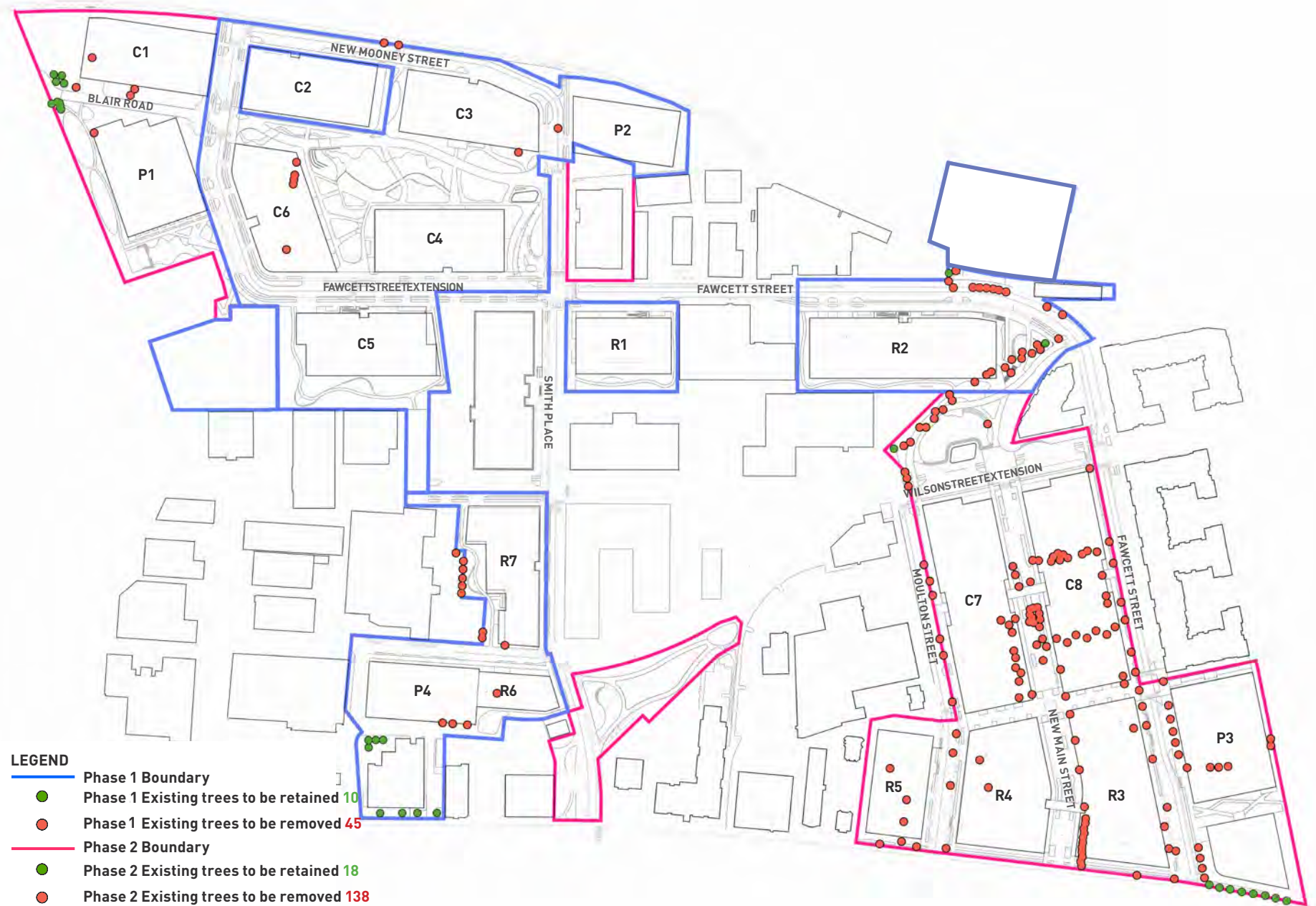




Cool Calculations: Phase 1 and 2 Combined - Within 20' ROW Offset

Healthpeak PUD Master Plan | Cambridge, MA





Existing Trees Plan

Healthpeak PUD Master Plan | Cambridge, MA





Preserved and New Tree Plan

Healthpeak PUD Master Plan | Cambridge, MA



Appendix C

Flood Resilience
Compliance Documentation

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Healthpeak PUD Special Permit: Parcel List

APN	PID	Address - Existing	City	State	Zip Code	Owner	Book	Title Reference		Recorded/Registered	Status	Acreage	Current Use	Proposed Use	Proposed Building ID
								Page	Certificate No.						
267F-293	16403	625 Concord Ave	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	1.1	Office	Residential	R3/R4
267F-274	16394	617 Concord Ave	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	1.2	Land	Residential	R3
267F-391	16410	12 Moulton St	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	0.4	Office	Residential	R3/R4
267F-279	16396	24 Moulton St	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	0.8	Office	Residential	R4
267F-281	16397	36 Moulton St	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	4.0	Office	Residential/Commercial	R3/C7/C8
267F-283	16398	77 Fawcett St	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	1.2	Office	Commercial	C8
267F-291	16404	60 Moulton St	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	0.2	Office	Commercial	C7
267F-295	16402	62 Moulton St	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	0.3	Office	Commercial	C7
267E-17	16345	645 Concord Ave	Cambridge	MA	02138	LS Alewife I, LLC	78662	275		Recorded	Owned	0.3	Land	Residential	R5
267F-301	16409	591 Concord Ave	Cambridge	MA	02138	LS Alewife II, LLC	78845	506		Recorded	Owned	2.5	Office	Existing - Office/Parking	E3/P3
267F-296	16405	68 Moulton St	Cambridge	MA	02138	LS Alewife V, LLC	79043	468		Recorded	Owned	1.1	Office	Residential/Open Space	R2/Open Space
267.4-321	267.4-321	78R Cambridgepark Dr	Cambridge	MA	02138	LS Alewife V, LLC	82964	548		Recorded	Owned	0.4	Land	Residential/Open Space	R2/Open Space
267.4-209, 267.4-210	16149, 267.4-210	125 Fawcett St	Cambridge	MA	02138	LS Alewife VII, LLC	79297	460		Recorded	Owned	2.1	Industrial	Residential	R2
267.4-247	16152	110 Fawcett St	Cambridge	MA	02138	LS Alewife VI, LLC	79402	92		Recorded	Owned	0.3	Retail	Existing - Neighborhood Uses	E2
267.3-226	16131	13 Mooney St	Cambridge	MA	02138	LS Alewife III, LLC	79001	63		Recorded	Owned	2.2	Industrial	Commercial	C2/C3
267.3-228	16132	127 Smith Pl	Cambridge	MA	02138	LS Alewife III, LLC	79001	56		Recorded	Owned	3.5	Industrial	Commercial/Open Space	C4/C6/Open Space
267.3-279	16143	45 Mooney St	Cambridge	MA	02138	LS Alewife III, LLC	79001	47		Recorded	Owned	1.1	Industrial	Commercial/Open Space	C2/Open Space
267.3-280	16145	50 Mooney St	Cambridge	MA	02138	LS Alewife III, LLC	79001	47		Recorded	Owned	0.8	Industrial	Commercial/Open Space	C6/Open Space
267.3-278	16142	67 Mooney St	Cambridge	MA	02138	LS Alewife III, LLC	79001	47		Recorded	Owned	1.1	Industrial	Commercial	C1
267.3-268	16139	52 Mooney St	Cambridge	MA	02138	LS Alewife III, LLC	79001	47		Recorded	Owned	1.3	Land	Commercial	P1
267.3-277	16141	54 Mooney St	Cambridge	MA	02138	LS Alewife III, LLC	79001	47		Recorded	Owned	1.1	Land	Commercial	P1
267.3-276	16140	61 Mooney St	Cambridge	MA	02138	LS Alewife III, LLC	79001	47		Recorded	Owned	1.1	Industrial	Commercial	C1
267C-95	16299	61-67 Smith Pl	Cambridge	MA	02138	LS Alewife VIII, LLC	79499 80144	134 113		Recorded (Previously Deregistered)	Owned	4.2	Industrial	Future DPW/Commercial	Future DPW/C4/C5/C6
267C-91	267C-91	60 Loomis St	Cambridge	MA	02138	LS Alewife VIII, LLC	81158	174		Recorded	Owned	0.6	Land	DPW	Future DPW
267D-293	16325	59 Smith Pl	Cambridge	MA	02138	LS 725 Concord LLC	1581 83369	71 428	277843	Deregistered	Owned	0.5	Parking	Residential	R7
267D-325	16339	49 Smith Pl	Cambridge	MA	02138	LS 725 Concord LLC	1581 83369	71 428	277843	Deregistered	Owned	0.5	Parking	Residential	R7
267D-313	16335	35 Smith Pl	Cambridge	MA	02138	LS 725 Concord LLC	1581 83369	71 428	277843	Deregistered	Owned	0.4	Parking	Residential	R7
267D-285	16322	725 Concord Ave	Cambridge	MA	02138	LS 725 Concord LLC	1581 83369	71 428	277843	Deregistered	Owned	2.5	Medical	Existing - Medical Office/Parking/Residential	E1/P4/R6
267D-256	16302	25 Smith Pl	Cambridge	MA	02138	LS Alewife IX, LLC	1598	5	281139	Registered	Owned	0.3	Industrial	Residential	R6
267D-258	16304	11 Smith Pl	Cambridge	MA	02138	LS Alewife IX, LLC	1598	6	281140	Registered	Owned	0.1	Land	Open Space	Open Space
267E-294	16349	26 Smith Pl	Cambridge	MA	02138	LS Alewife IX, LLC	1598 81125	3 199	281138	Partially Registered, Partially Recorded	Owned	1.0	Land	Open Space	Open Space
267D-311	16333	689 Concord Ave	Cambridge	MA	02138	LS Alewife IX, LLC	1598	6	281140	Registered	Owned	0.3	Office	Open Space	Open Space

Healthpeak PUD Special Permit: Parcel List

APN	PID	Address - Existing	City	State	Zip Code	Owner	Book	Title Reference			Current		Proposed	Proposed	
								Page	Certificate No.	Recorded/Registered	Status	Acreage	Use	Use	Building ID
267.4-254	16153	100 Smith Pl	Cambridge	MA	02138	LS Alewife III, LLC	83810	156		Recorded	Owned	1.2	Industrial	Residential	R1
267.4-295	16159	180A Fawcett St	Cambridge	MA	02138	LS Alewife III, LLC	85182	18		Recorded	Owned	1.3	Land	Parking	P2
267E-242	16347	641 Concord Ave	Cambridge	MA	02138	Thomas P. Jackivicz, Jr.	83853	117		Recorded	Negotiations	0.7	Single Family	Residential	R5
267.4-284	16155	160 Fawcett Street	Cambridge	MA	02138	Hines CP 180 Fawcett LLC	85107	87		Recorded	Negotiations	0.8	Office/Retail	Residential	R8
Total												42.3			



Figure 11.1: LTFE Cross - Section
 Healthpeak PUD Master Plan | Cambridge, MA

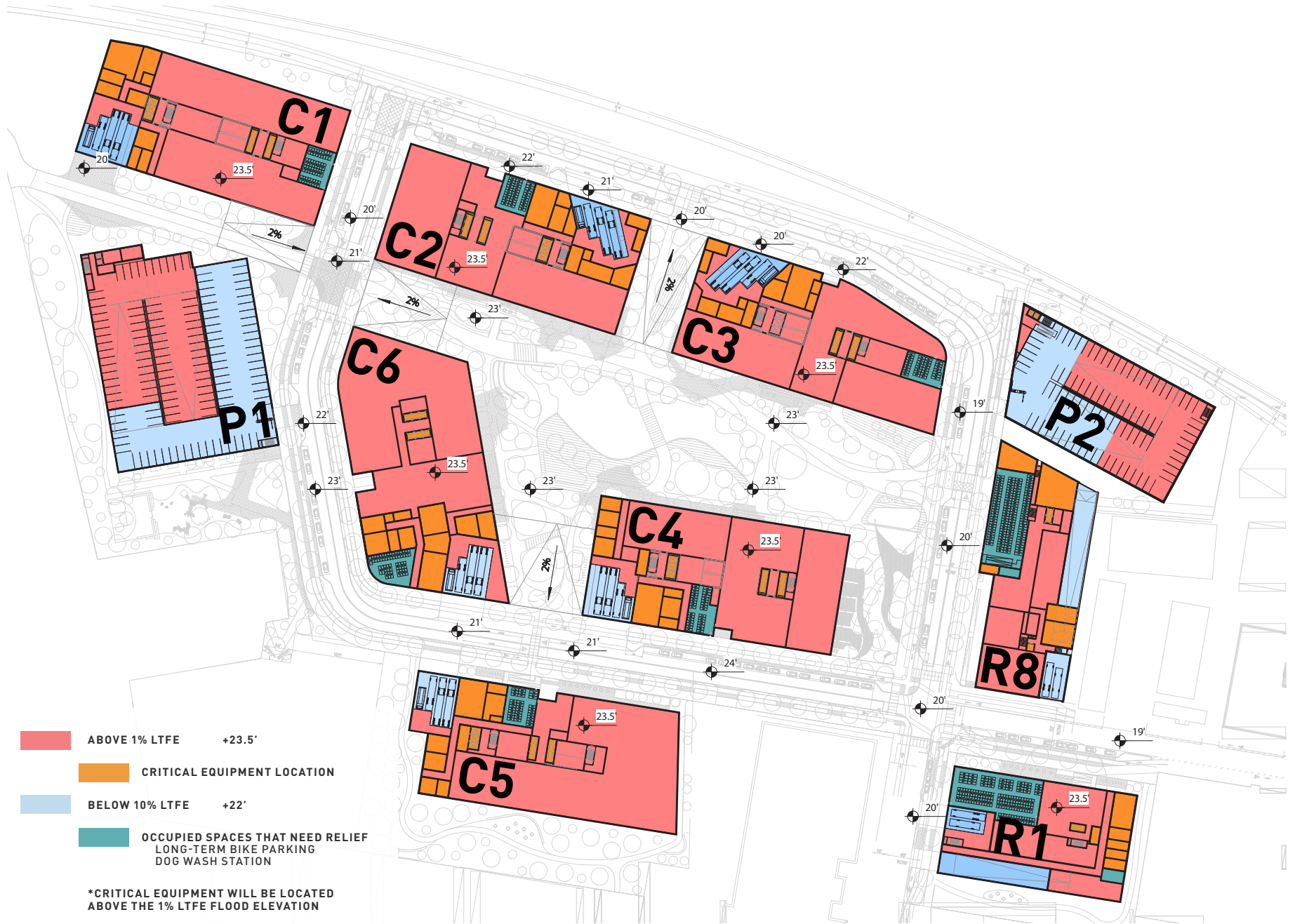


Figure 11.2: LTFE Cross - Mooney Quad
 Healthpeak PUD Master Plan | Cambridge, MA

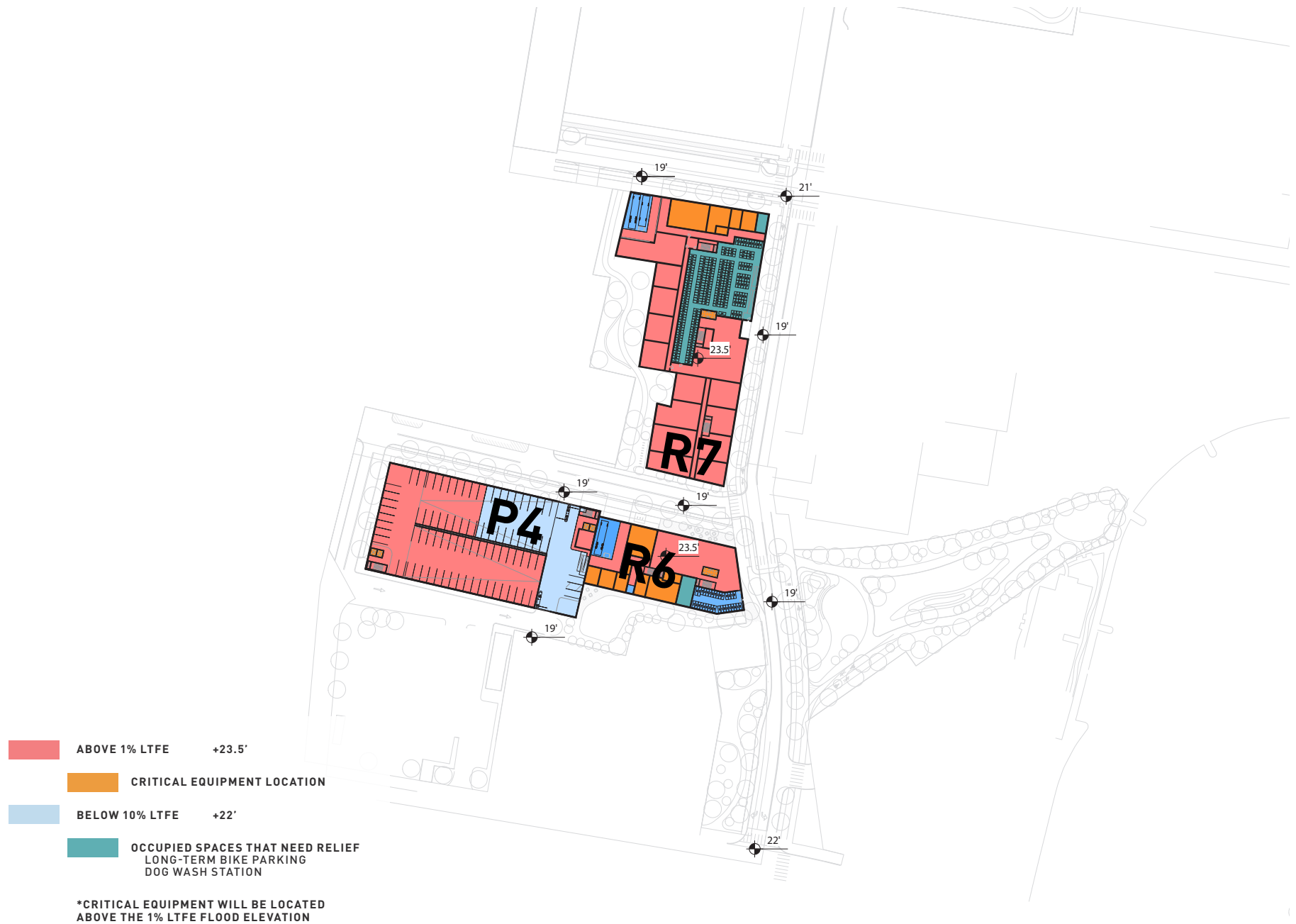
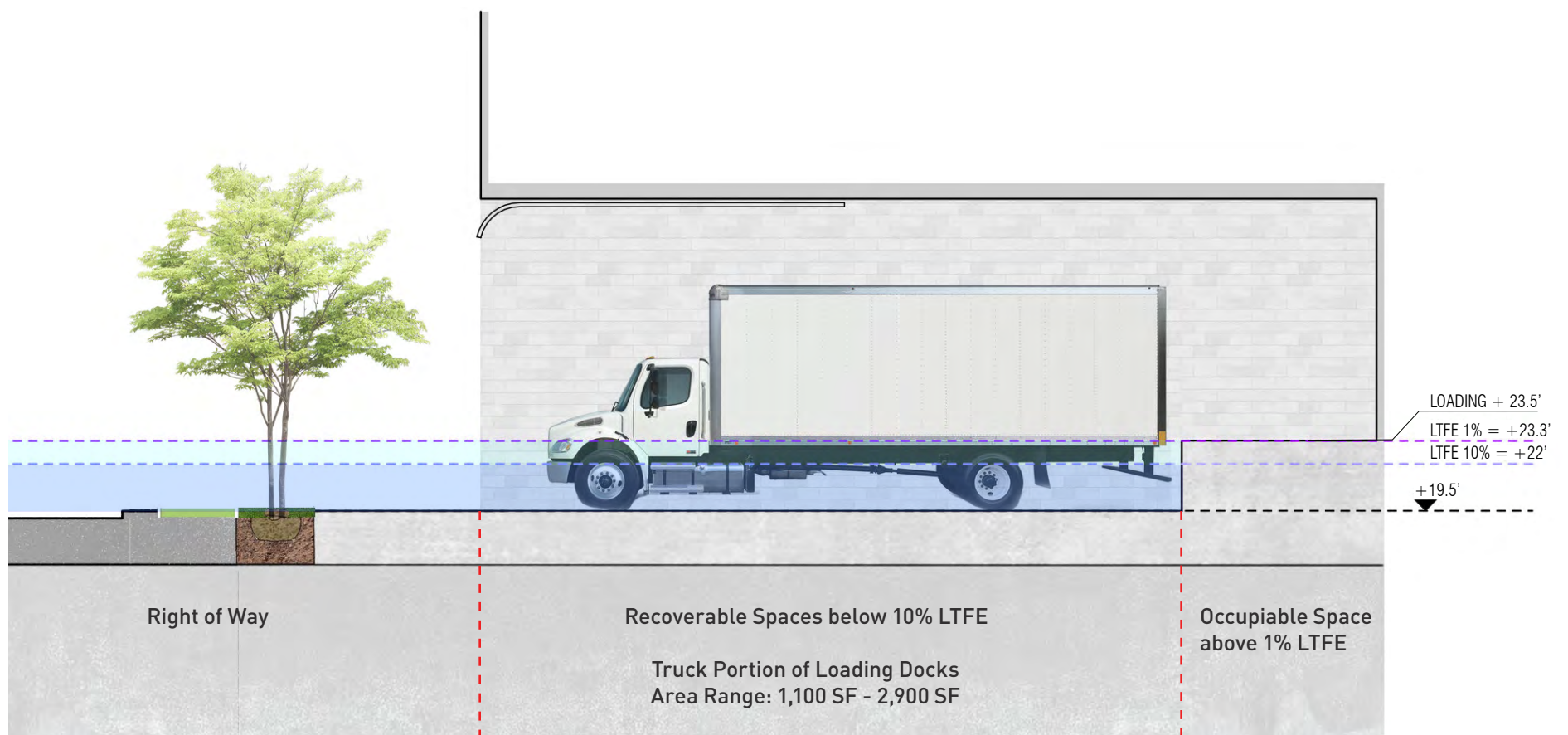


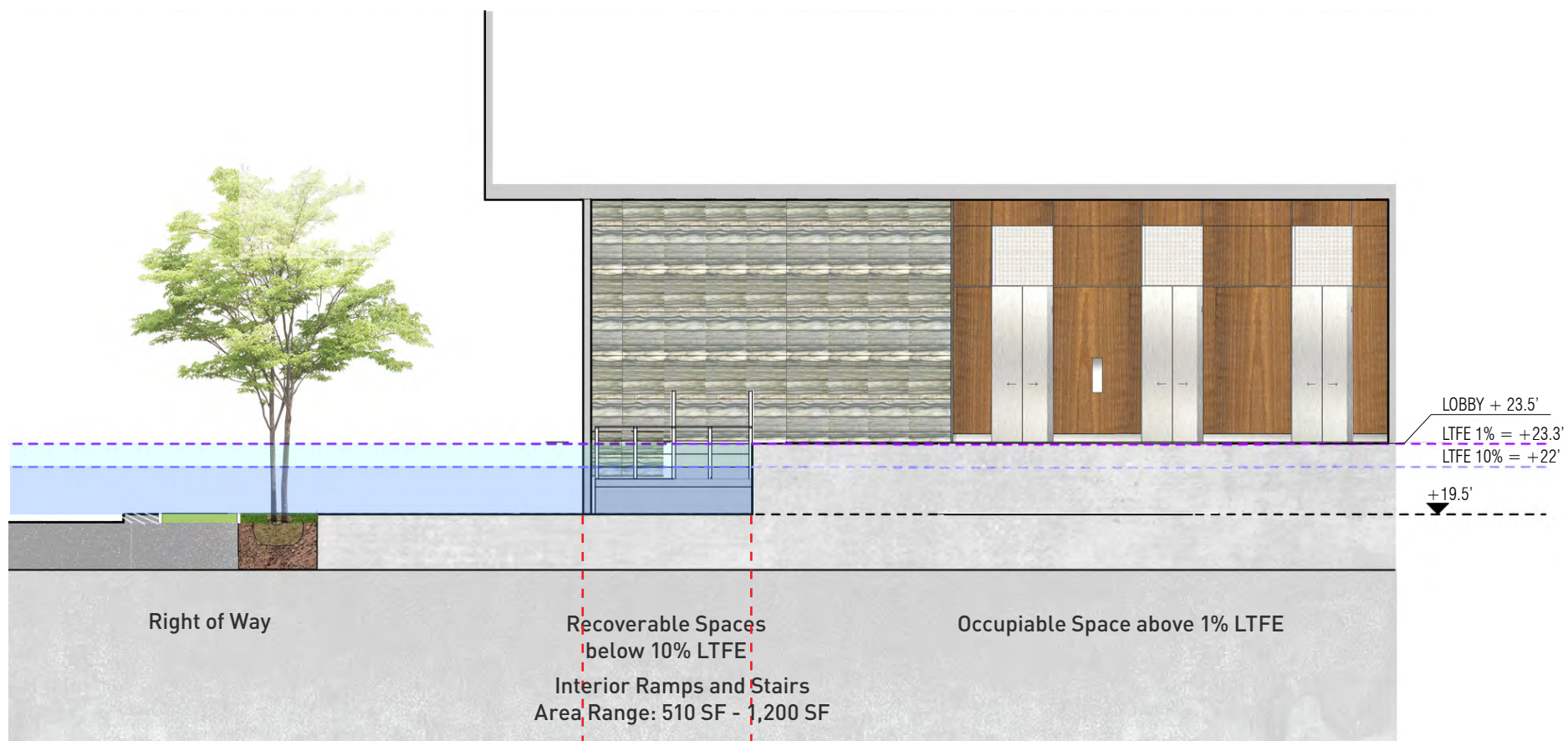
Figure 11.3: LTFE Cross - Smith Pl
Healthpeak PUD Master Plan | Cambridge, MA



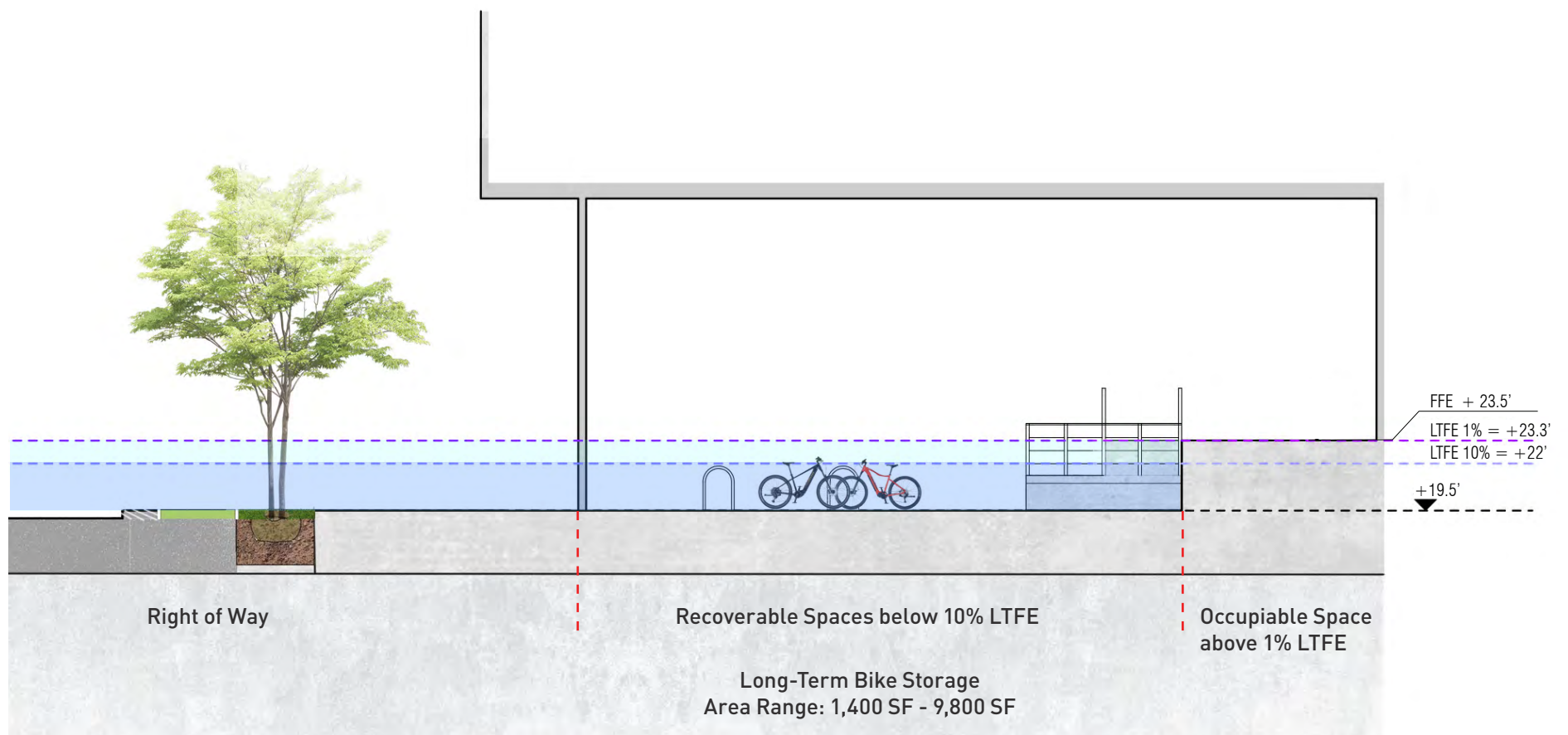
Figure 11.4: LTFE Cross - Raytheon
 Healthpeak PUD Master Plan | Cambridge, MA



LTFE Cross - Typical Building Sections - Loading Dock



LTFE Cross - Typical Building Sections - Main Lobby



LTFE Cross - Typical Building Sections - Bike Storage

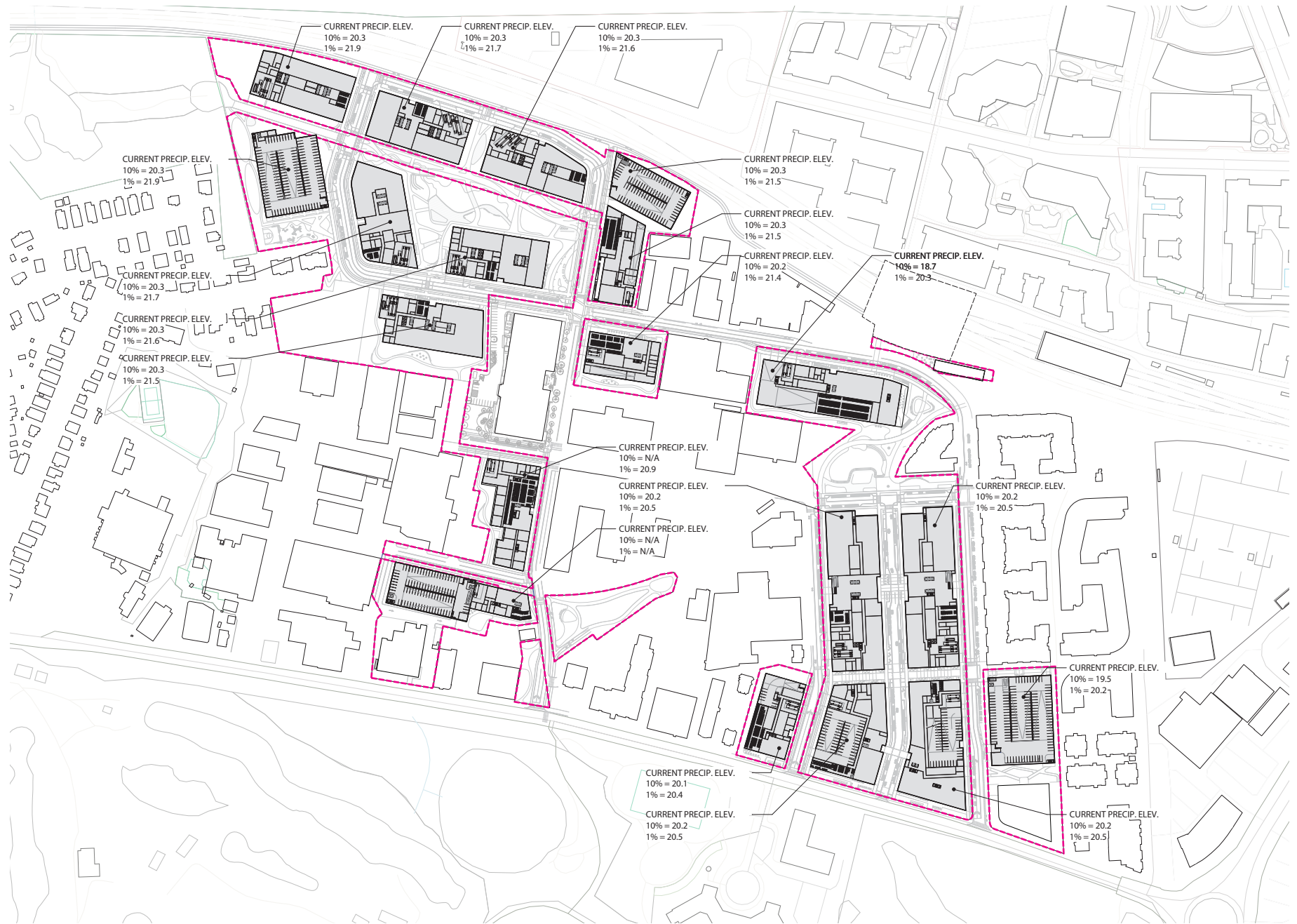


Figure 11.8: FloodViewer 2025 Precipitation Elevations

Healthpeak PUD Master Plan | Cambridge, MA



Appendix D

Tree Study

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From: Putnam, Andrew <aputnam@cambridgema.gov>
Sent: Friday, October 24, 2025 10:02 AM
To: Joseph, Swaathi <sjoseph@cambridgema.gov>
Cc: Falise, Kara <kfalise@cambridgema.gov>; Mitchell, John <jmitchell@elkus-manfredi.com>
Subject: Certification of Tree Study for HealthPeak Alewife

Hi Swaathi,

I have reviewed the Tree Study for the HealthPeak project. It is complete and meets all the requirements needed for certification by the City Arborist as defined in 8.66.030.

Thanks,

Andrew Putnam

Superintendent of Urban Forestry & Landscapes
MCA | TRAQ | NOFA Accredited Organic Land Care Professional
City of Cambridge
(617)-349-6722

Figure 1.0: Site Existing Tree Plan
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

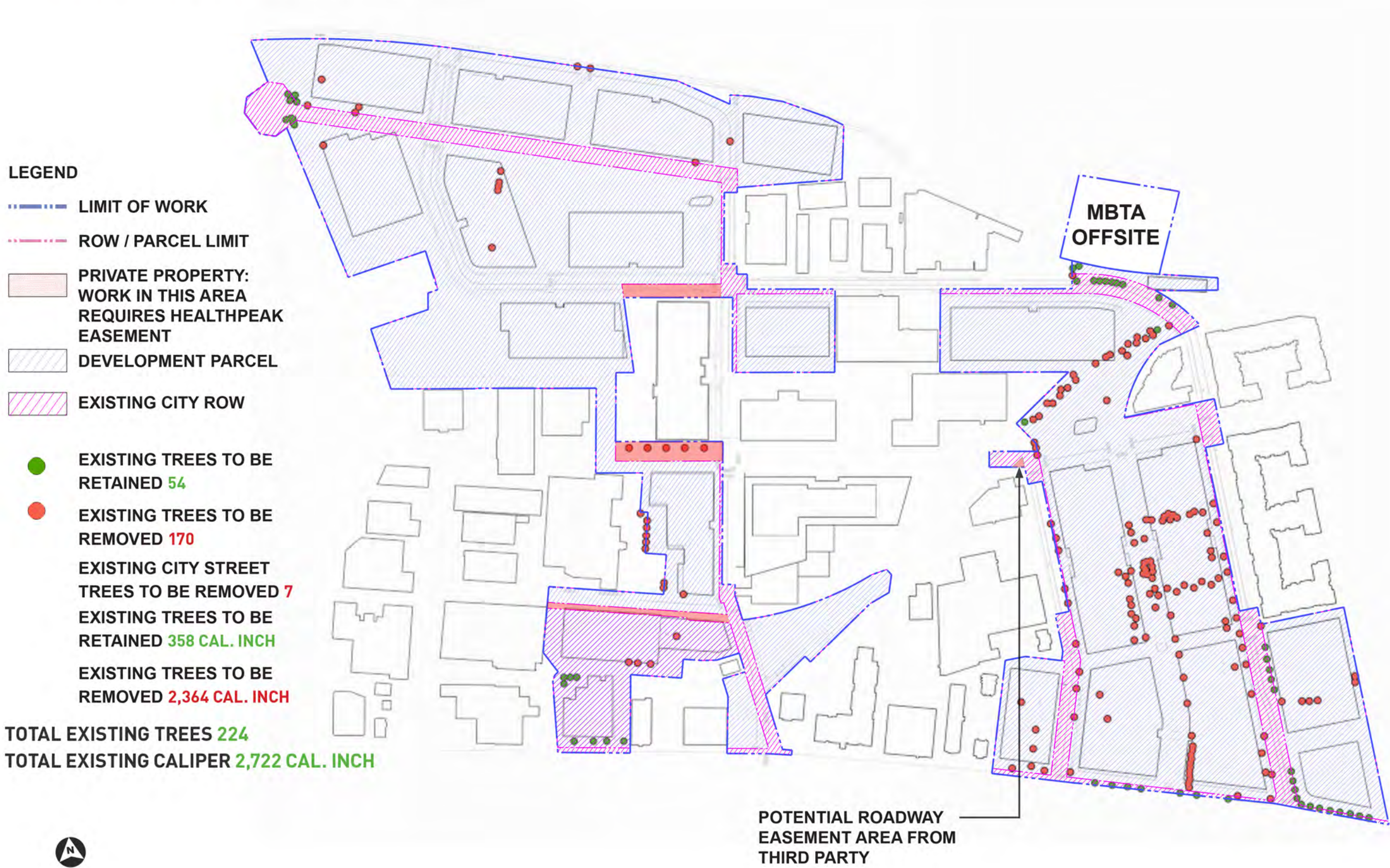


Figure 1.1: Site Proposed Tree Plan
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

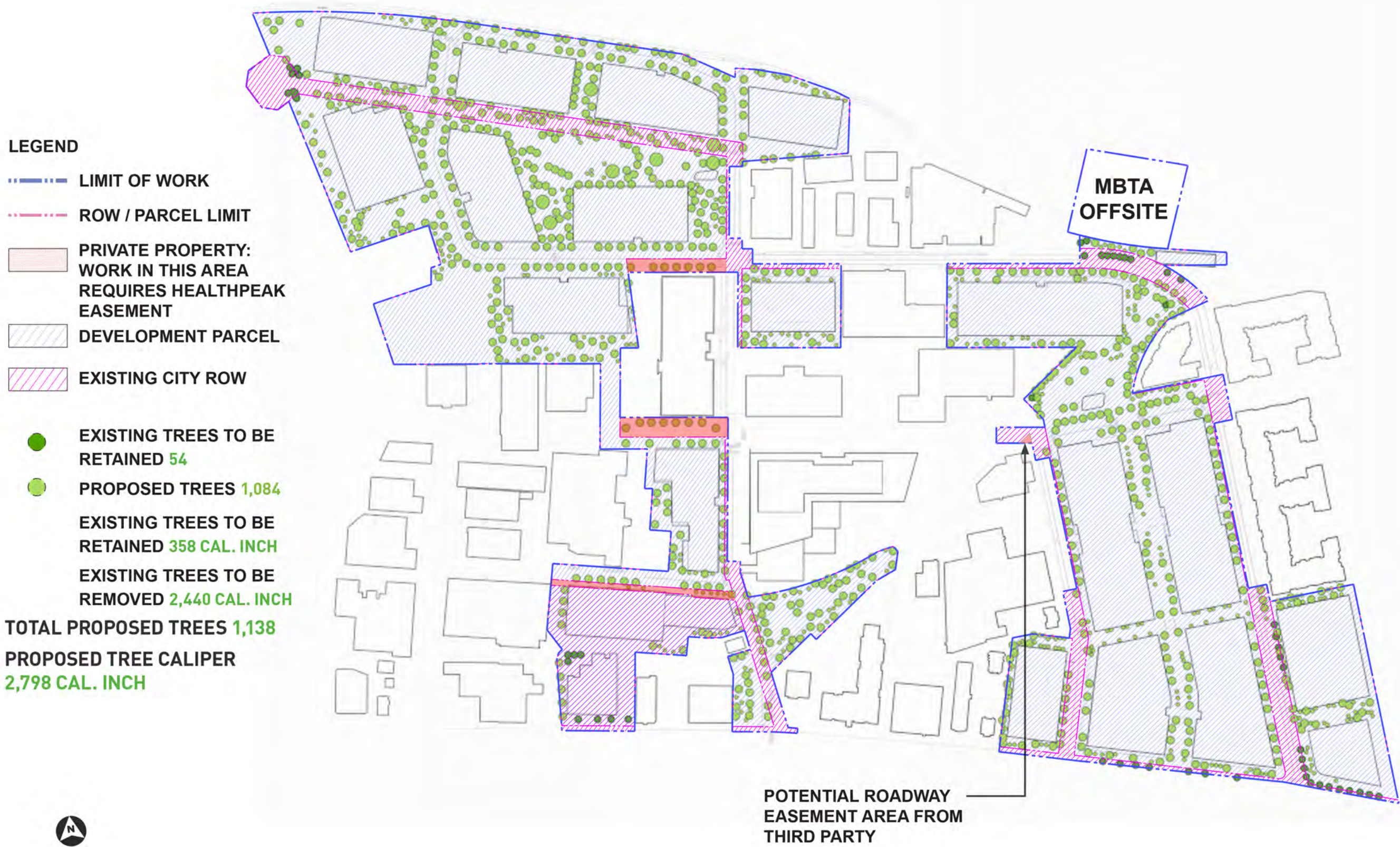


Figure 2.0: Key Plan
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

- LEGEND
- LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - PRIVATE PROPERTY:
WORK IN THIS AREA
REQUIRES HEALTHPEAK
EASEMENT
 - DEVELOPMENT PARCEL
 - EXISTING CITY ROW

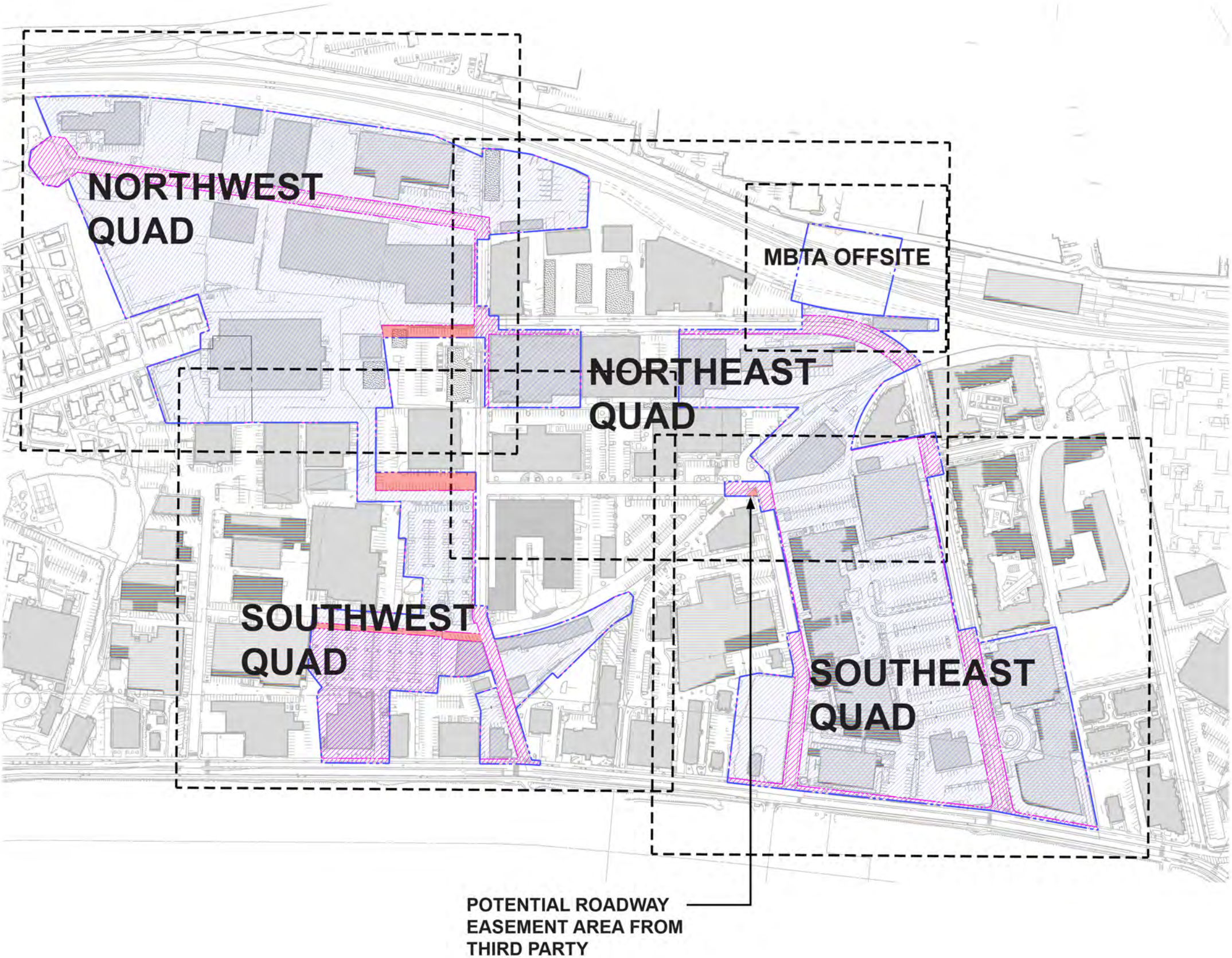
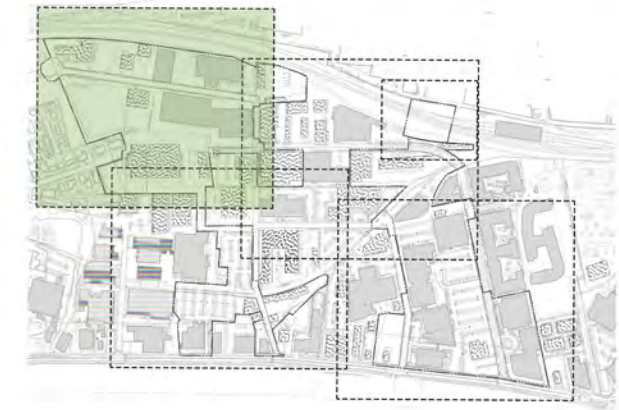


Figure 3.1: Existing Tree Assessment; Species and Health Assessment Northwest Quad

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



- LEGEND**
- EVERGREEN TREE
 - DECIDUOUS TREE
 - MULTISTEM TREE
 - DYING TREE
 - DEAD TREE
- LIMIT OF WORK
- ROW / PARCEL LIMIT
- PRIVATE PROPERTY:
WORK IN THIS AREA
REQUIRES HEALTHPEAK
EASEMENT
- DEVELOPMENT PARCEL
- EXISTING CITY ROW

City of Cambridge Tree Protection Ordinance (TPO), Title 8, Chapter 8.66, of the City's Municipal Code.

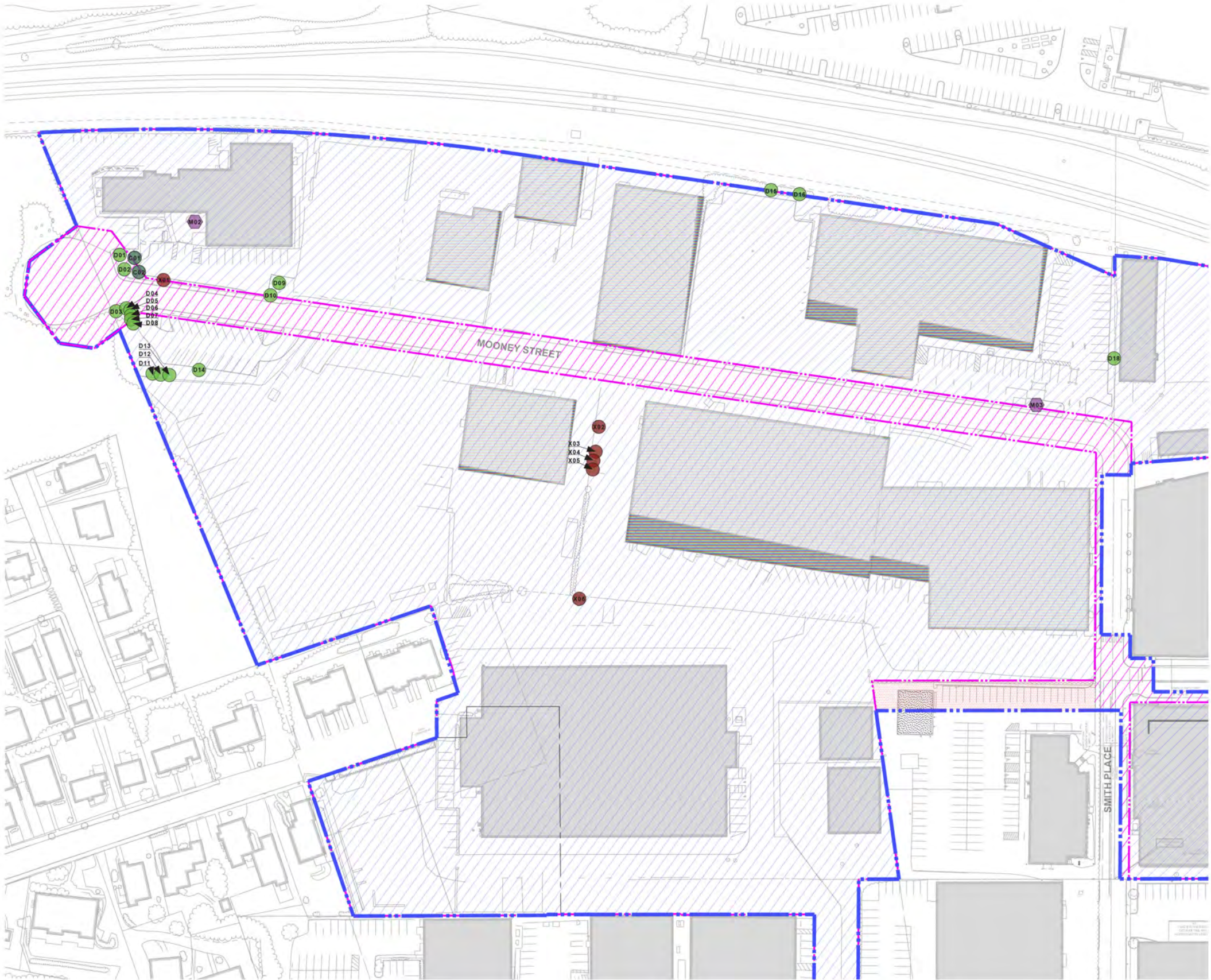
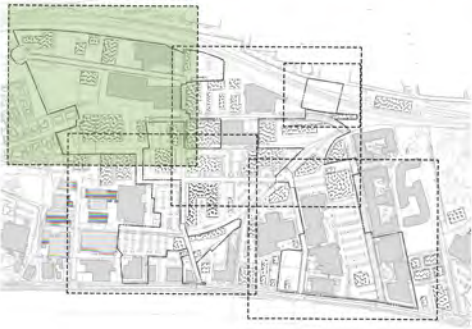


Figure 3.2: Tree Protection + Removal

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



- LEGEND**
- SIGNIFICANT TREE TO PROTECT: 6" OR GREATER
 - SIGNIFICANT TREE FOR REMOVAL: 6" OR GREATER
 - NON-SIGNIFICANT TREE FOR REMOVAL
 - NON-SIGNIFICANT TREE TO PROTECT
 - EXCEPTIONAL TREE TO PROTECT: 30" OR GREATER
 - EXCEPTIONAL TREE FOR REMOVAL: 30" OR GREATER
 - LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - PRIVATE PROPERTY: WORK IN THIS AREA REQUIRES HEALTHPEAK EASEMENT
 - DEVELOPMENT PARCEL
 - EXISTING CITY ROW

City of Cambridge Tree Protection Ordinance (TPO), Title 8, Chapter 8.66, of the City's Municipal Code.

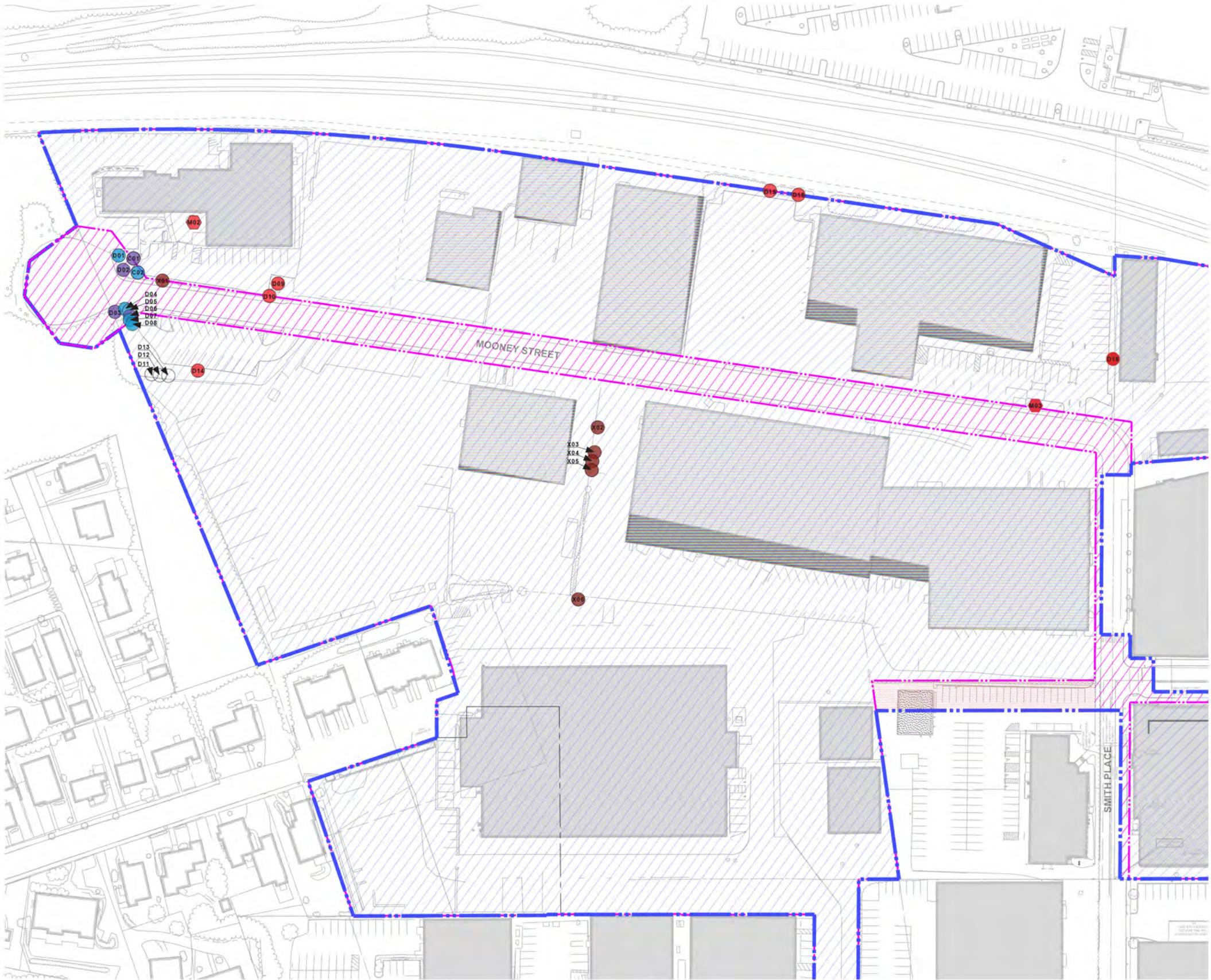


Figure 3.3: Proposed Trees
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



Figure 4.1: Existing Tree Assessment; Species and Health Assessment Southwest Quad

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

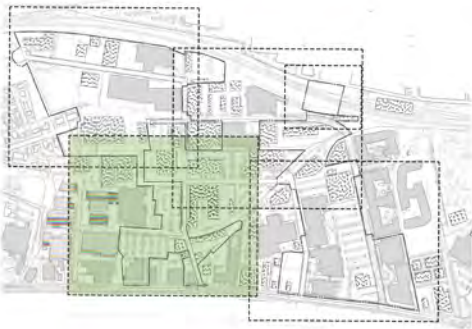


Figure 4.2: Tree Protection + Removal

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



Figure 4.3: Proposed Trees
 Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



- LEGEND**
- PROPOSED STREET TREE
 - PROPOSED OPEN SPACE TREE
 - LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - PRIVATE PROPERTY: WORK IN THIS AREA REQUIRES HEALTHPEAK EASEMENT
 - DEVELOPMENT PARCEL
 - EXISTING CITY ROW

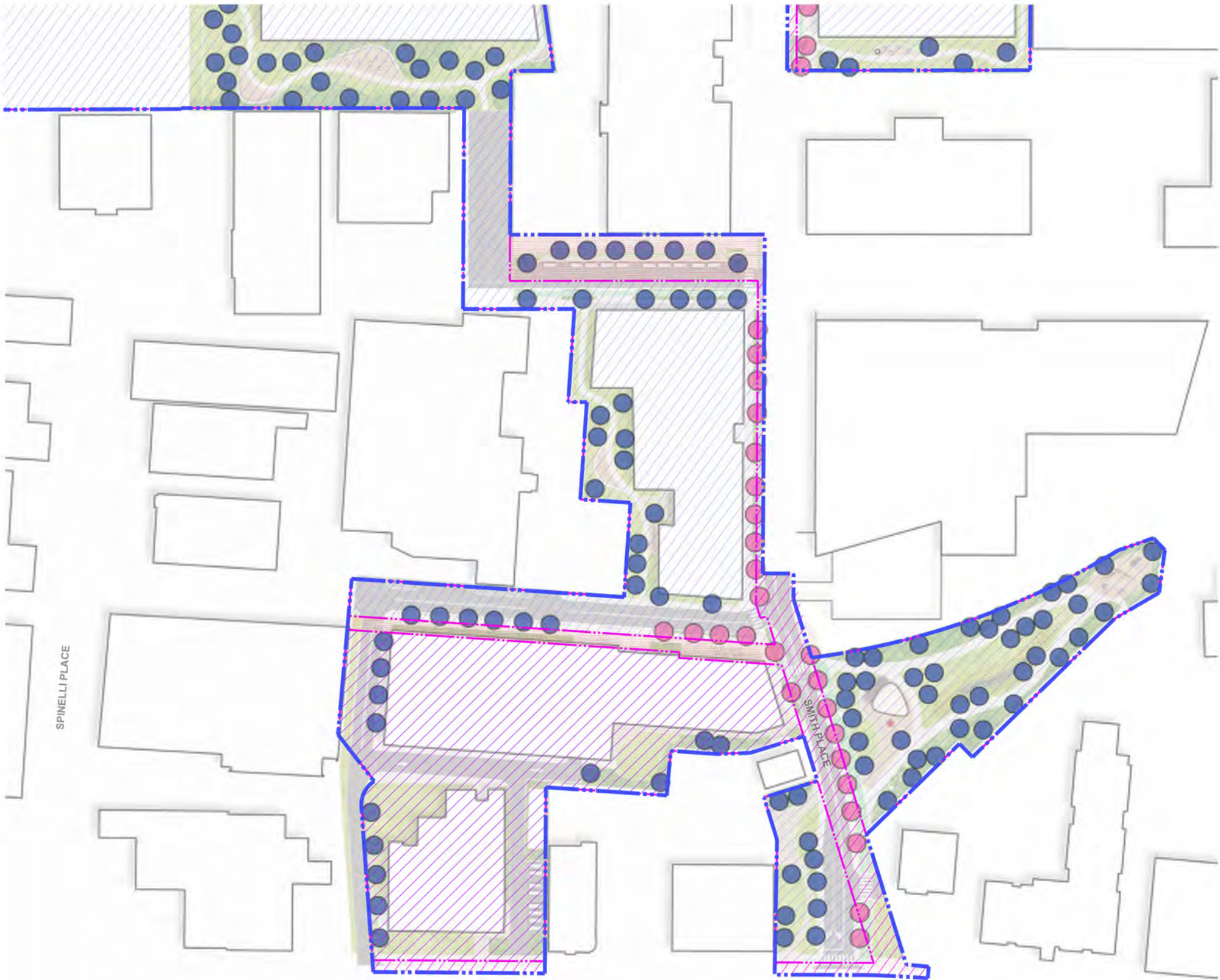


Figure 5.1: Existing Tree Assessment; Species and Health Assessment Northeast Quad

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

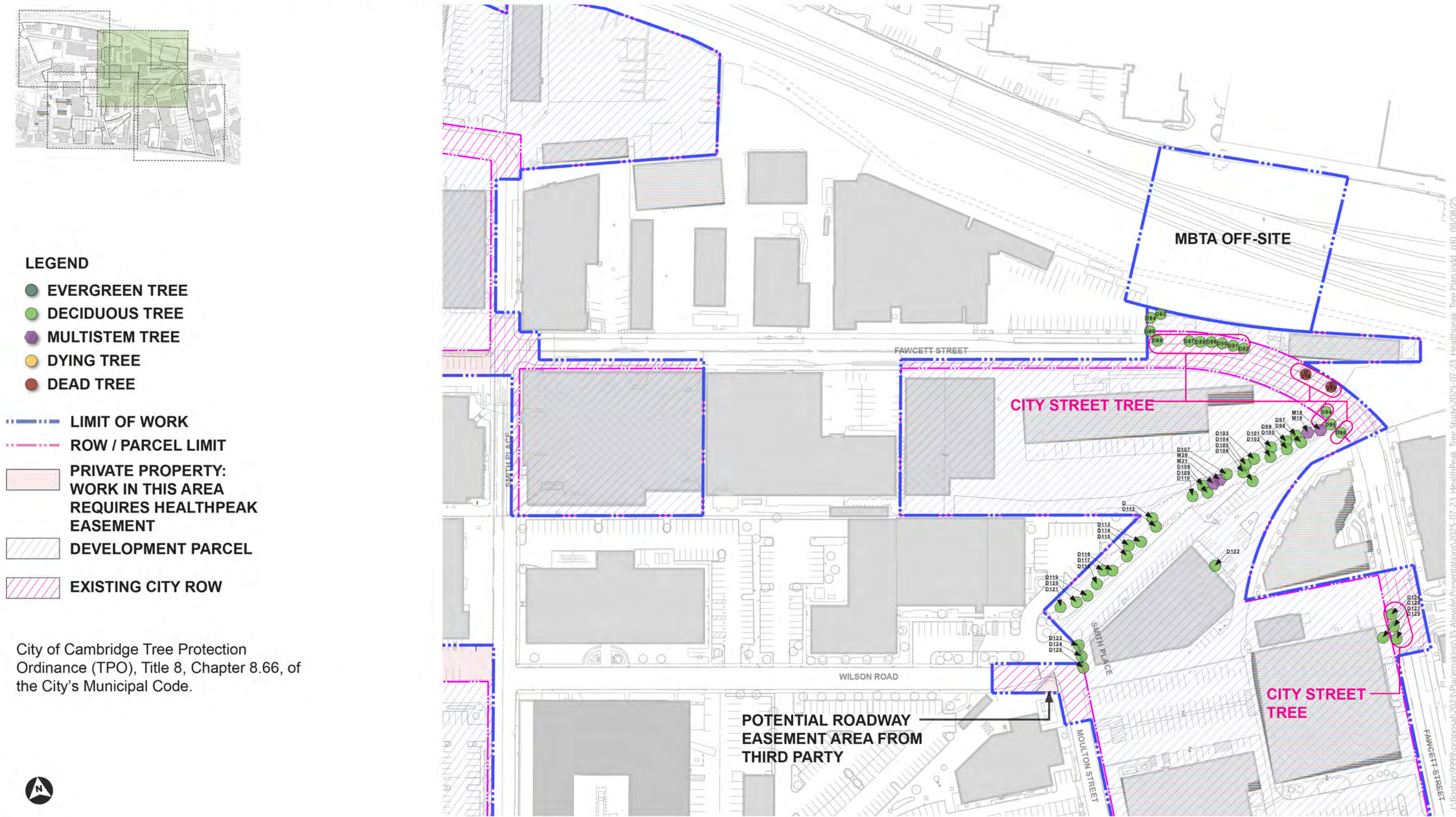


Figure 5.2: Tree Protection + Removal

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

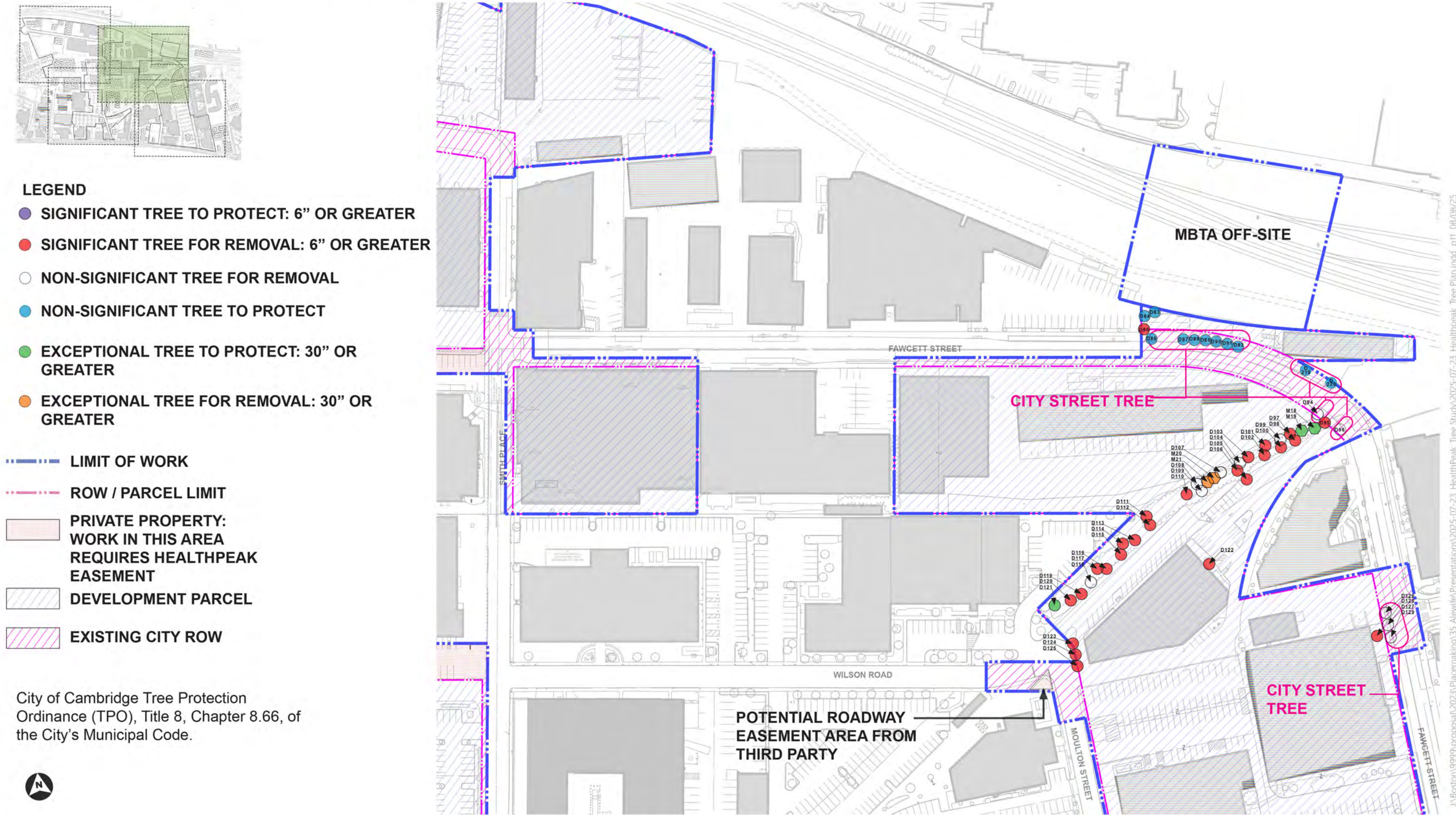
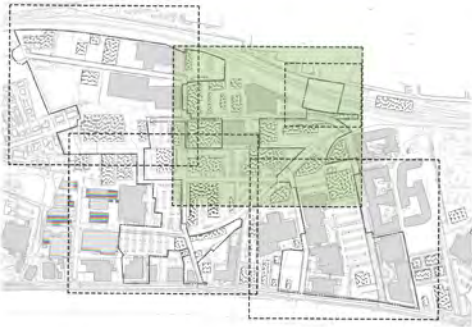


Figure 5.3: Proposed Trees
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



- LEGEND**
- PROPOSED STREET TREE
 - PROPOSED OPEN SPACE TREE
 - LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - PRIVATE PROPERTY:
WORK IN THIS AREA
REQUIRES HEALTHPEAK
EASEMENT
 - DEVELOPMENT PARCEL
 - EXISTING CITY ROW

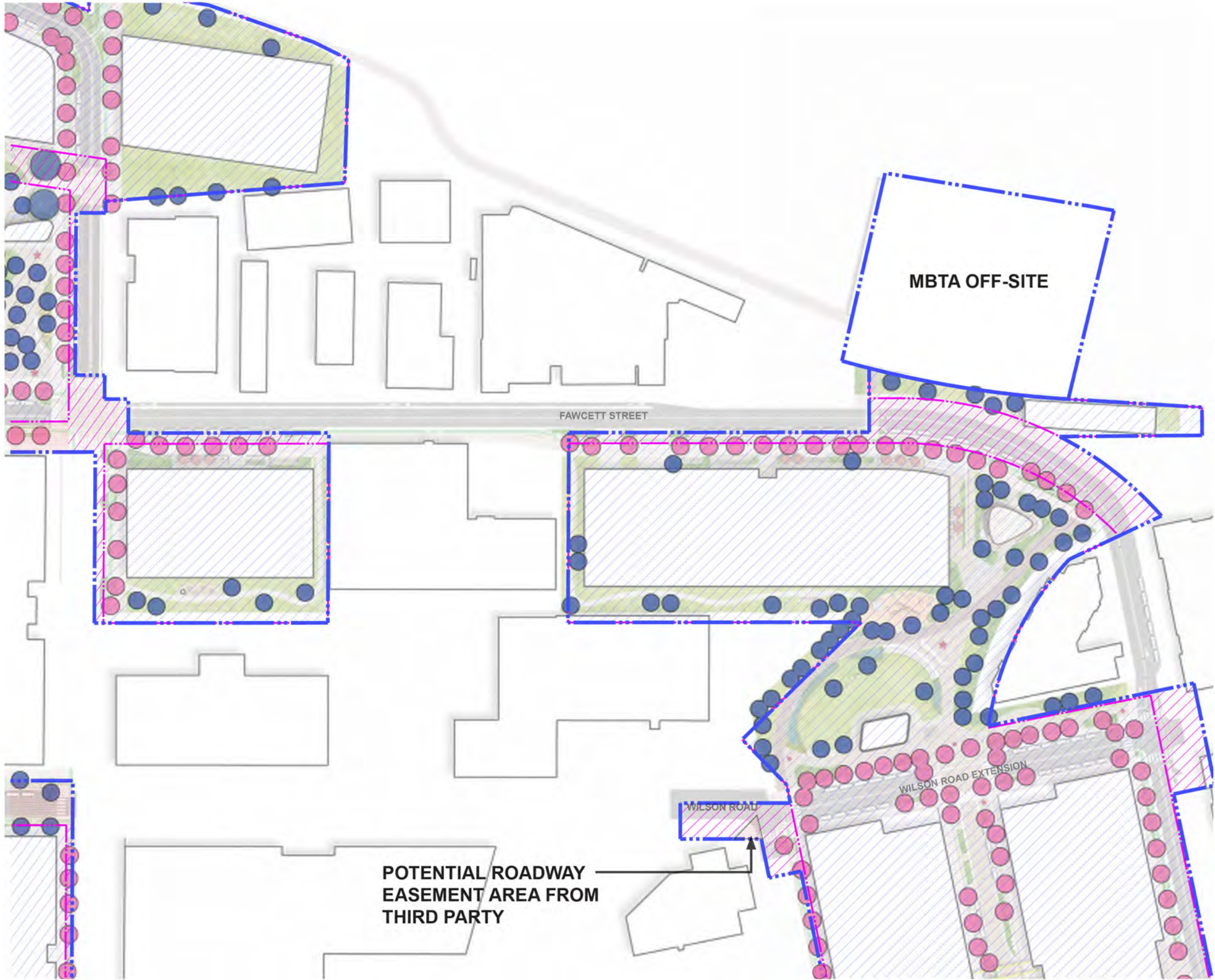
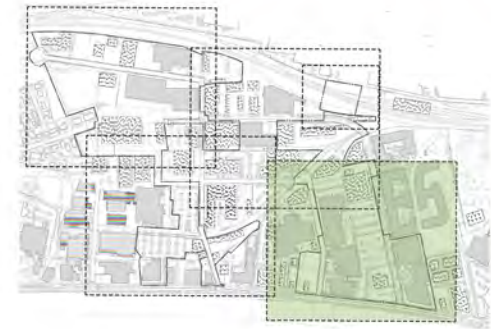


Figure 6.1: Existing Tree Assessment; Species and Health Assessment Southeast Quad

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

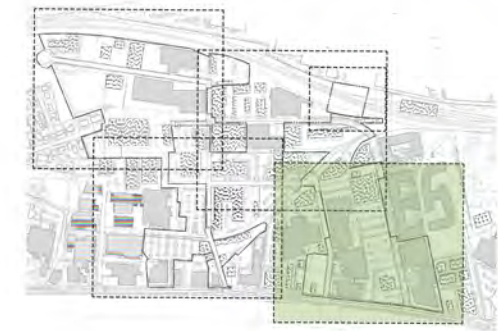


- LEGEND**
- EVERGREEN TREE
 - DECIDUOUS TREE
 - MULTISTEM TREE
 - DYING TREE
 - DEAD TREE
- LIMIT OF WORK
- ROW / PARCEL LIMIT
- PRIVATE PROPERTY:
WORK IN THIS AREA
REQUIRES HEALTHPEAK
EASEMENT
- DEVELOPMENT PARCEL
- EXISTING CITY ROW

City of Cambridge Tree Protection Ordinance (TPO), Title 8, Chapter 8.66, of the City's Municipal Code.



Figure 6.2: Tree Protection + Removal
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



- LEGEND**
- SIGNIFICANT TREE TO PROTECT: 6" OR GREATER
 - SIGNIFICANT TREE FOR REMOVAL: 6" OR GREATER
 - NON-SIGNIFICANT TREE FOR REMOVAL
 - NON-SIGNIFICANT TREE TO PROTECT
 - EXCEPTIONAL TREE TO PROTECT: 30" OR GREATER
 - EXCEPTIONAL TREE FOR REMOVAL: 30" OR GREATER
 - LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - PRIVATE PROPERTY: WORK IN THIS AREA REQUIRES HEALTHPEAK EASEMENT
 - DEVELOPMENT PARCEL
 - EXISTING CITY ROW

City of Cambridge Tree Protection Ordinance (TPO), Title 8, Chapter 8.66, of the City's Municipal Code.

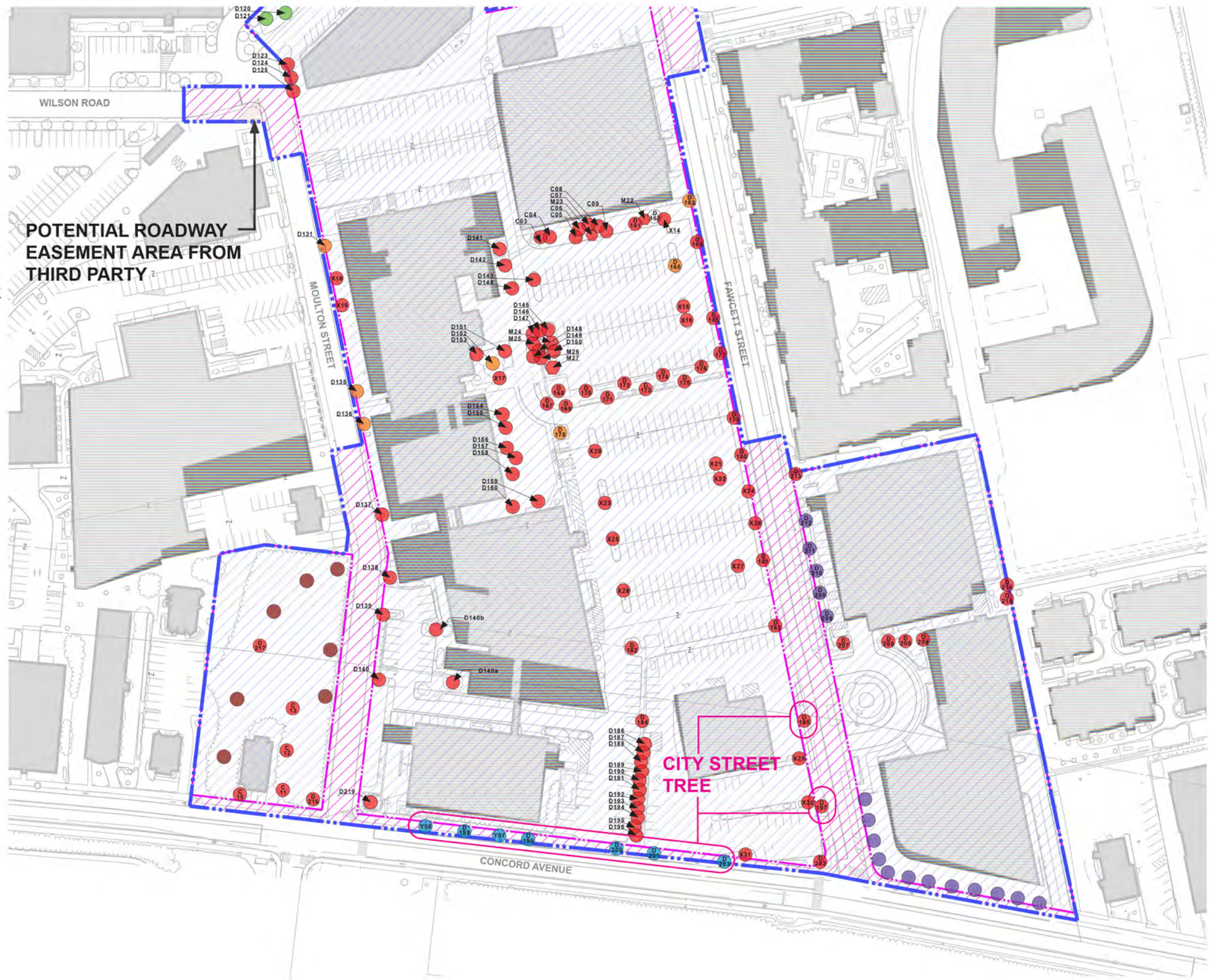
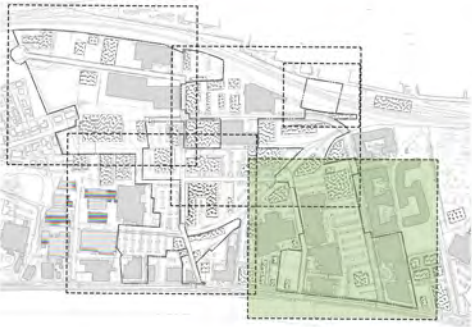


Figure 6.3: Proposed Trees
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



- LEGEND**
- PROPOSED STREET TREE
 - PROPOSED OPEN SPACE TREE
 - LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - PRIVATE PROPERTY: WORK IN THIS AREA REQUIRES HEALTHPEAK EASEMENT
 - DEVELOPMENT PARCEL
 - EXISTING CITY ROW

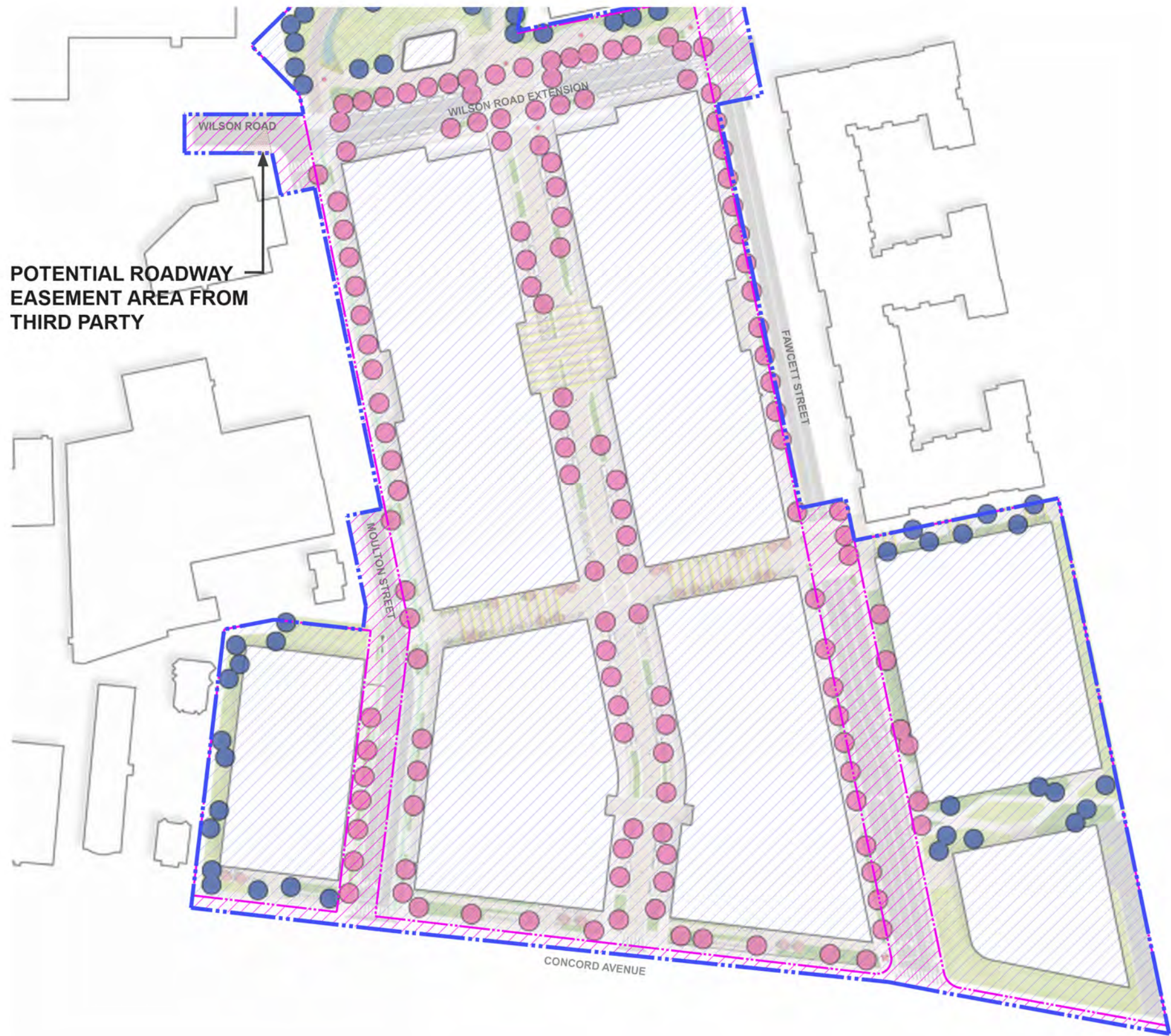
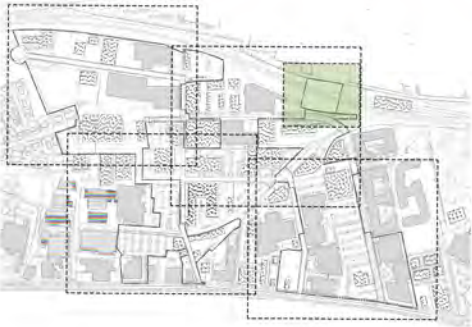


Figure 7.1: Existing Tree Assessment; Species and Health Assessment Offsite MBTA Area

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



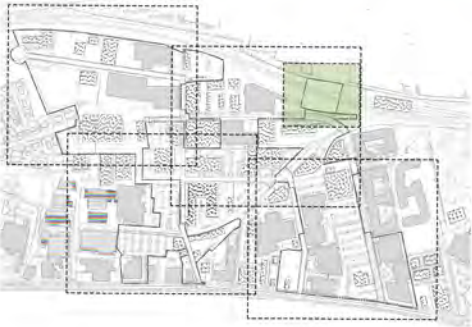
- LEGEND**
- LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - WORK IN THIS AREA REQUIRES HEALTHPEAK EASEMENT
 - DEVELOPMENT PARCEL
 - DEVELOPMENT PARCEL - POTENTIALLY TO BE CONVEYED TO CITY

City of Cambridge Tree Protection Ordinance (TPO), Title 8, Chapter 8.66, of the City's Municipal Code.



Figure 7.2: Tree Protection + Removal

Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025

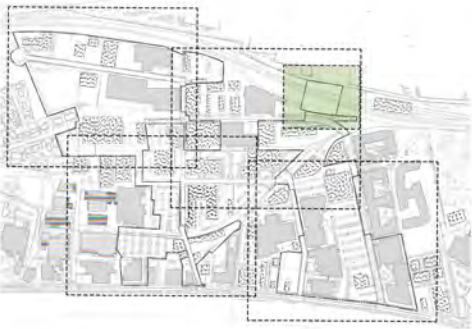


- LEGEND**
- LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - WORK IN THIS AREA REQUIRES HEALTHPEAK EASEMENT
 - DEVELOPMENT PARCEL
 - DEVELOPMENT PARCEL - POTENTIALLY TO BE CONVEYED TO CITY

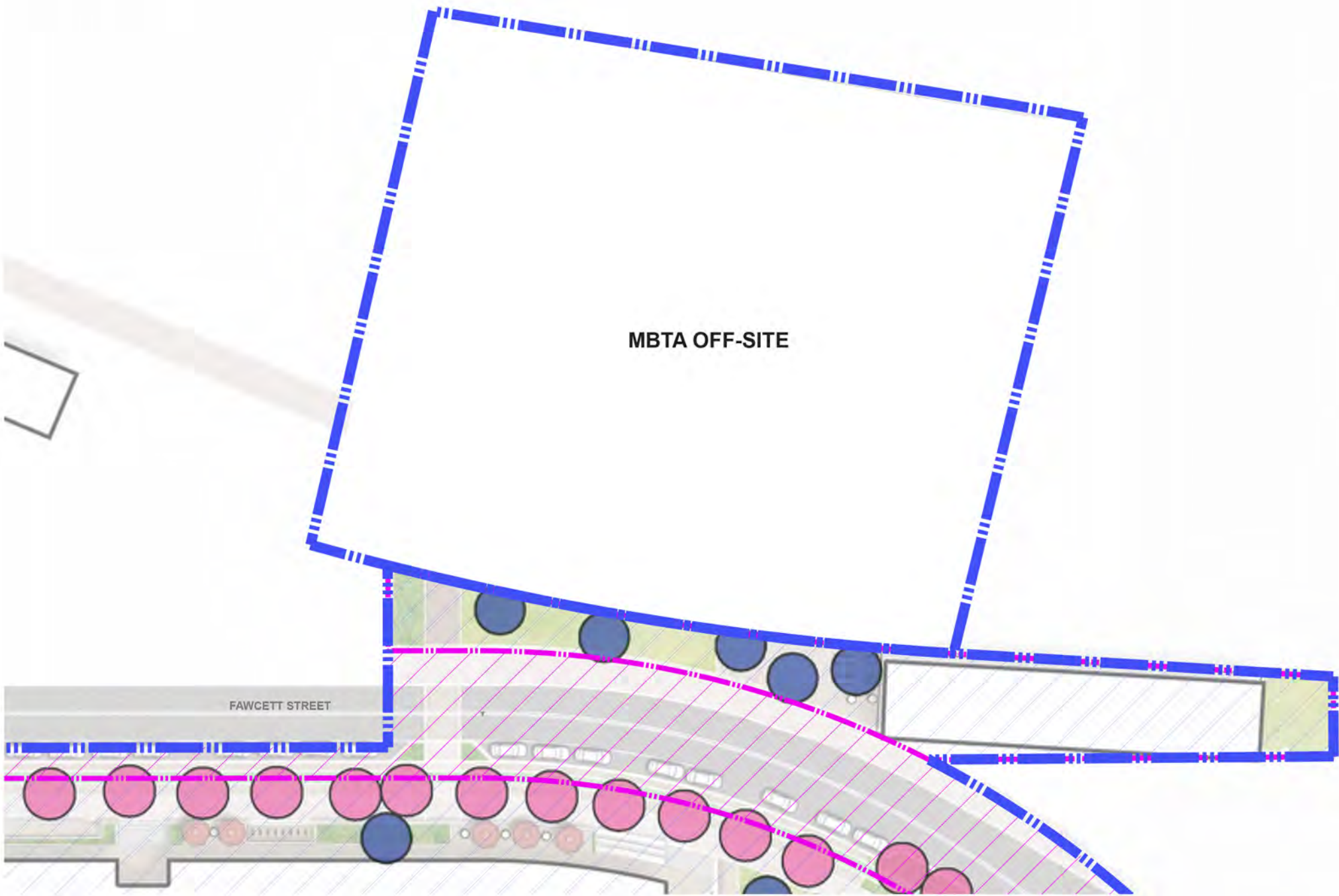
City of Cambridge Tree Protection Ordinance (TPO), Title 8, Chapter 8.66, of the City's Municipal Code.



Figure 7.3: Proposed Trees
Healthpeak PUD Special Permit | Cambridge, MA | August 14, 2025



- LEGEND**
- LIMIT OF WORK
 - ROW / PARCEL LIMIT
 - PRIVATE PROPERTY:
WORK IN THIS AREA
REQUIRES HEALTHPEAK
EASEMENT
 - DEVELOPMENT PARCEL
 - EXISTING CITY ROW



Appendix E

Pedestrian Wind Study

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ALEWIFE MASTERPLAN

CAMBRIDGE, MA

PEDESTRIAN WIND STUDY

RWDI # 2506863

July 25, 2025

SUBMITTED BY

ELKUS MANFREDI ARCHITECTS

25 Drydock Avenue
Boston, MA 02210

SUBMITTED BY

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RWDI

600 Southgate Drive
Guelph, ON N1G 4P6



EXECUTIVE SUMMARY

RWDI was retained to conduct a pedestrian wind comfort assessment for the proposed masterplan project in the Alewife area of Cambridge, MA. The assessment was based on the wind-tunnel testing conducted for the proposed development under the Existing and Proposed configurations of the site and surroundings. The results were analysed using the regional wind climate records and evaluated against the RWDI Pedestrian Wind Criteria for pedestrian comfort (pertaining to common wind speeds conducive to different levels of human activity) and pedestrian safety (pertaining to infrequent but strong gusts that could affect a person's footing). The predicted wind conditions are presented in Figures 1A through 2B and Table 1, and are summarized as follows:

- Existing conditions are predicted to be generally comfortable for passive activities in the summer and suitable for pedestrian use in the winter, despite increased seasonal wind activity.
- Wind speeds are expected to increase in the Proposed configuration due to the introduction of taller buildings and the spacing between them; however, resulting conditions would remain appropriate for pedestrian use in most areas.
- Uncomfortable wind conditions are predicted locally around Building P1 during the summer, and in additional areas during the winter, particularly between tall buildings and at corners exposed to the critical wind directions.
- The wind safety criterion is predicted to be met at all grade-level locations.
- Recommendations for mitigation measures are provided to address uncomfortable conditions and strong wind gusts.



TABLE OF CONTENTS

EXECUTIVE SUMMARY

1	INTRODUCTION	1
1.1	Project Description.....	1
1.2	Objectives	1
2	BACKGROUND AND APPROACH.....	2
2.1	Wind Tunnel Study Model.....	2
2.2	Wind Climate Data.....	5
2.3	RWDI Pedestrian Wind Criteria	6
2.4	General Wind Flow Mechanisms.....	7
3	RESULTS AND DISCUSSION	8
3.1	Existing Configuration.....	8
3.2	Proposed Configuration.....	8
3.3	Wind Control Strategies.....	9
4	STATEMENT OF LIMITATIONS	11
5	REFERENCES	13



LIST OF FIGURES

- Figure 1A: Pedestrian Wind Comfort Conditions – Existing Configuration – Summer
Figure 1B: Pedestrian Wind Comfort Conditions – Proposed Configuration – Summer

Figure 2A: Pedestrian Wind Comfort Conditions – Existing Configuration – Winter
Figure 2B: Pedestrian Wind Comfort Conditions – Proposed Configuration – Winter

LIST OF TABLES

- Table 1: Pedestrian Wind Comfort and Safety Conditions

1 INTRODUCTION

RWDI was retained to conduct a pedestrian wind comfort assessment for the proposed masterplan project in the Alewife area of Cambridge, MA. This report presents the project objectives, approach and the main results from RWDI's assessment and provides conceptual wind control measures, where necessary. Our Statement of Limitations as it pertains to this study can be found in Section 4 of this report.

1.1 Project Description

The proposed development site covers several blocks located west of Alewife Brook Parkway between Concord Avenue and the Fitchburg heavy rail line (Image 1). The project is a large, multi-building masterplan. Entrance placement, footprint and massing are subject to change throughout the early stages of the project.

1.2 Objectives

The objective of the study was to assess the effect of the proposed development on local conditions in pedestrian areas around the study site and provide recommendations for minimizing adverse effects, if needed. This quantitative assessment was based on wind speed measurements on a scale model of the project and its surroundings in one of RWDI's boundary-layer wind tunnels. These measurements were combined with the local wind records and compared to appropriate criteria for gauging wind comfort and safety in pedestrian areas. The focus of this assessment is to attain a preliminary understanding of the wind conditions around the buildings in the project site.

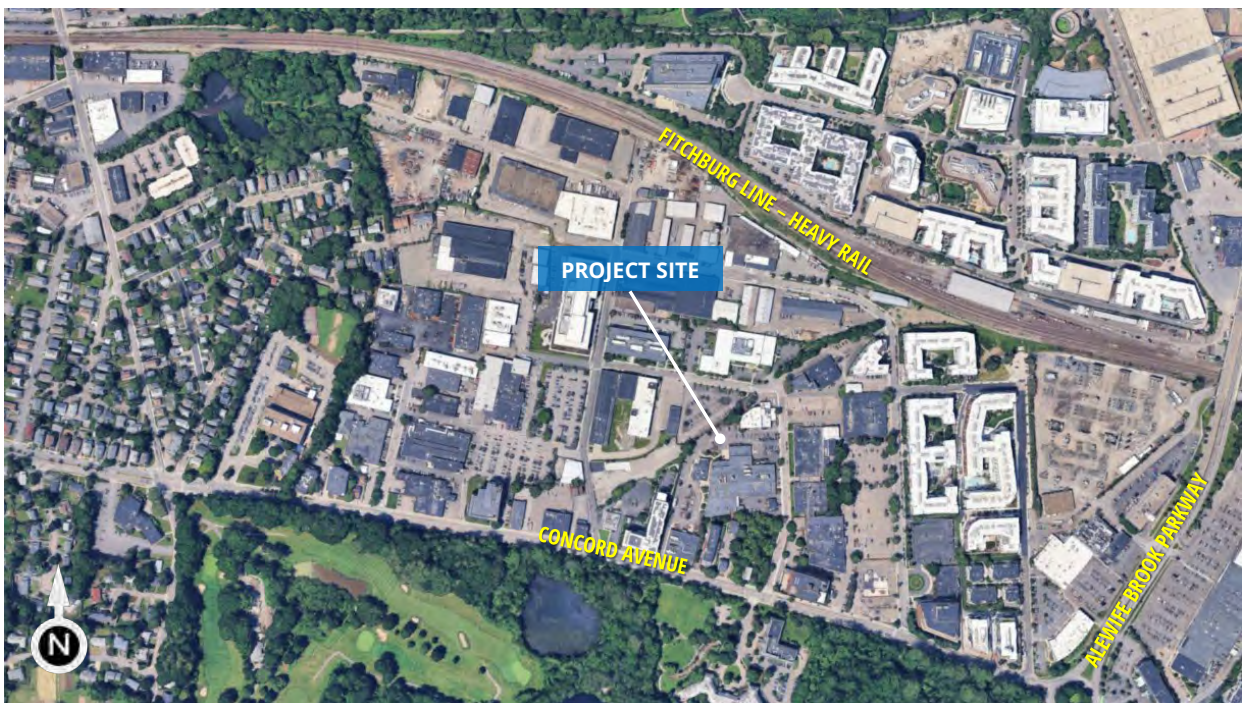


Image 1: Aerial View of Site and Surroundings (Photo Credit: Google™ Earth)



2 BACKGROUND AND APPROACH

2.1 Wind Tunnel Study Model

To assess the wind environment around the proposed project, a 1:400 scale model of the project site and surroundings was constructed for the wind tunnel tests of the following configurations:

A - Existing: Existing site with existing surroundings (Image 2A), and

B - Proposed: Proposed project with existing surroundings (Image 2B).

The wind tunnel model included all relevant surrounding buildings and topography within an approximate 2200 ft radius around the study site. The wind and turbulence profiles in the atmospheric boundary layer beyond the modeled area were also simulated in RWDI's wind tunnel. The wind tunnel model was instrumented with 250 specially designed wind speed sensors to measure mean and gust speeds at a full-scale height of approximately 5 ft above local grade in pedestrian areas throughout the study site. The placement of wind measurement locations was based on our experience and understanding of the pedestrian usage for this site. Wind speeds were measured for 36 directions in 10-degree increments. The measurements at each sensor location were recorded in the form of ratios of local mean and gust speeds to the mean wind speed at a reference height above the model.

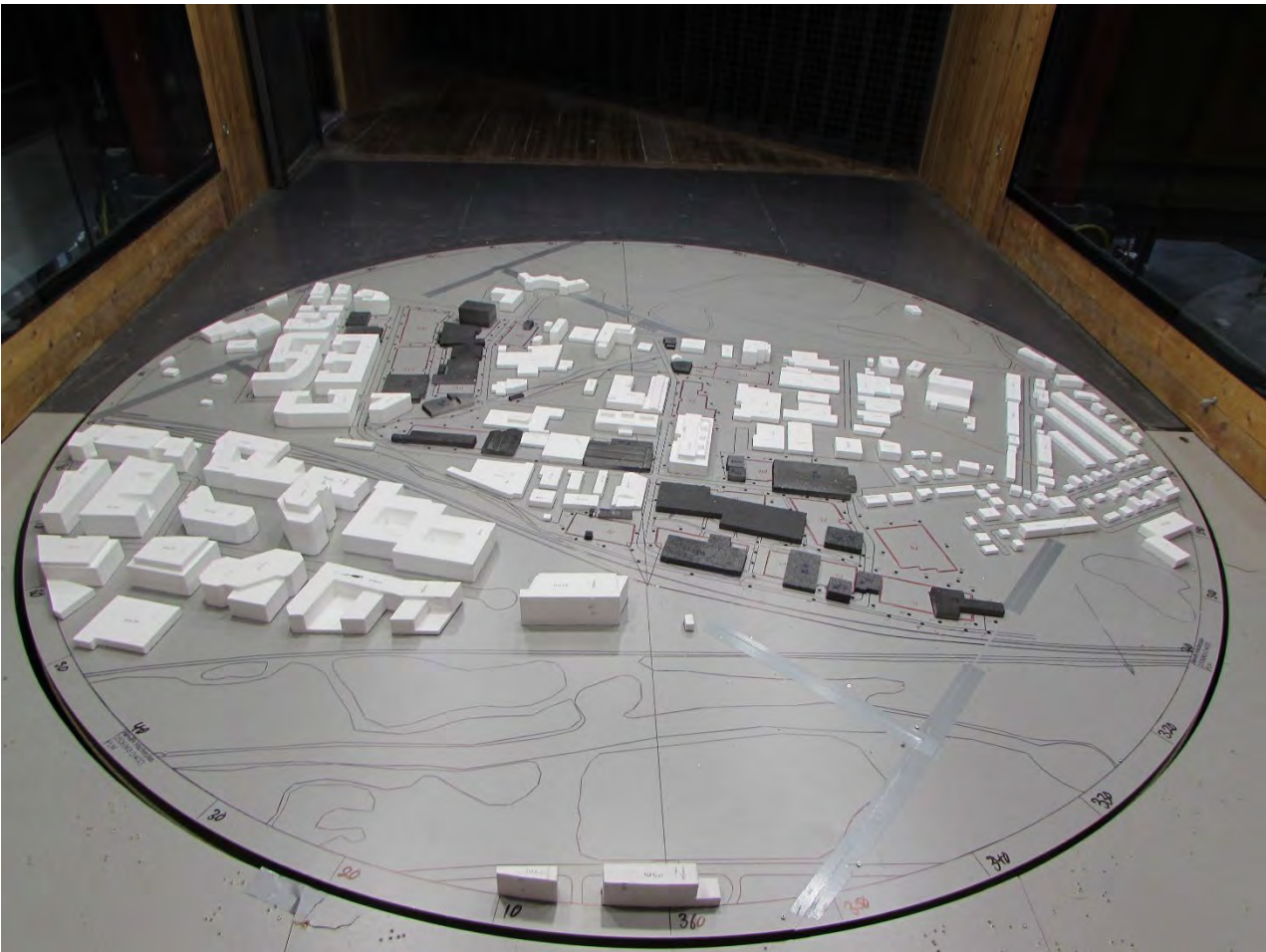


Image 2A: Wind Tunnel Study Model – Existing Configuration

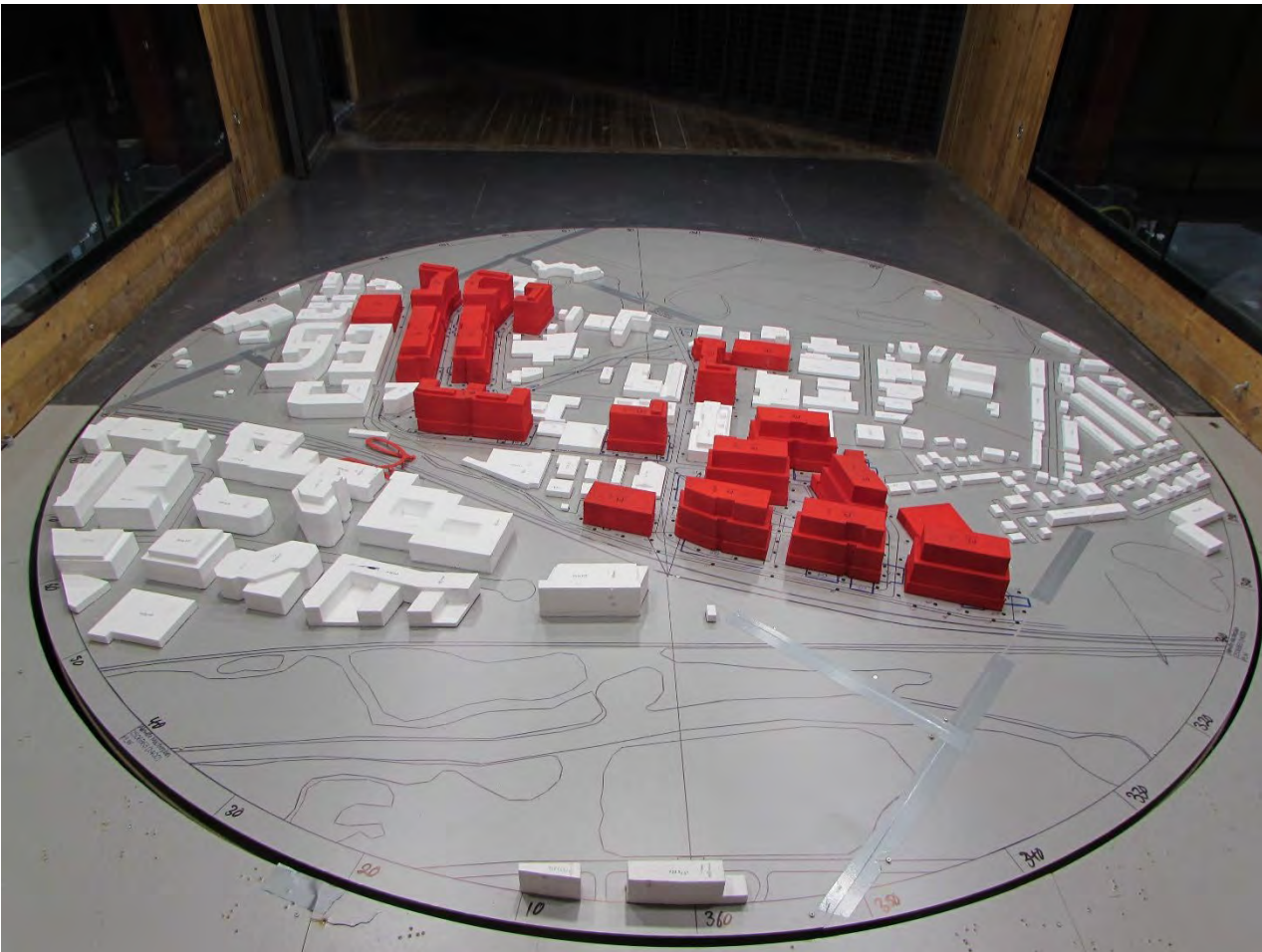
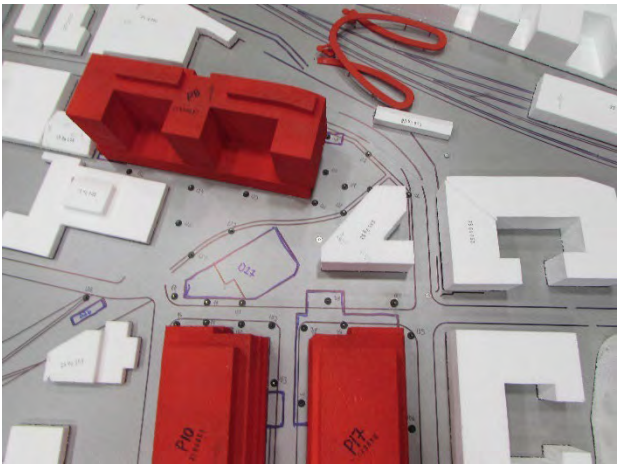


Image 2B: Wind Tunnel Study Model – Proposed Configuration



2.2 Wind Climate Data

Wind statistics recorded at Boston Logan International Airport between 2000 and 2024, inclusive, were analyzed for the Summer (May through October) and Winter (November through April) seasons. Image 3 graphically depicts the directional distributions of wind frequencies and speeds for these two seasons. The most common wind directions are those between north-northwest and south-southwest. Winds from the east-northeast to the east-southeast are also relatively common in the summer. Strong winds of a mean speed greater than 20 mph measured at the airport (at an anemometer height of 30 ft) occur for 3.1% and 9.2% of the time during the summer and winter seasons, respectively, and they are primarily from west-northwest, northwest, west and northeast directions.

Wind statistics were combined with the wind tunnel data to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared with the wind criteria for pedestrian comfort and safety.

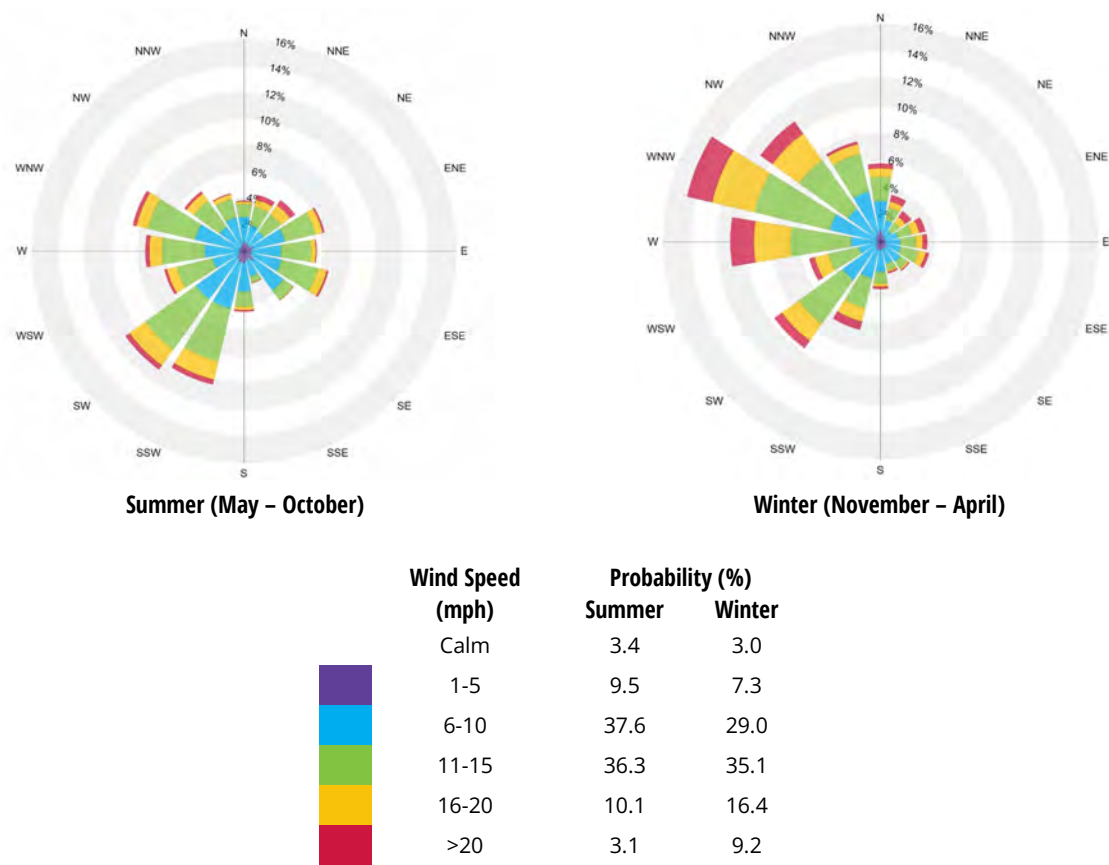


Image 3: Directional Distribution of Winds Approaching Boston Logan International Airport between 2000 and 2024.

2.3 RWDI Pedestrian Wind Criteria

The RWDI pedestrian wind criteria, which have been developed by RWDI through research and consulting practice since 1974, are used in the current study. These criteria have been widely accepted by municipal authorities as well as by the building design and city planning community. Regional differences in wind climate and thermal conditions as well as variations in age, health, clothing, etc. can affect a person's perception of the wind climate. Therefore, comparisons of wind speeds for the existing and proposed building configurations are the most objective way in assessing local pedestrian wind conditions. In general, the combined effect of mean and gust speeds on pedestrian comfort can be quantified by a Gust Equivalent Mean (GEM).

Comfort Category	GEM Speed (mph)	Description
Sitting	≤ 6	Calm or light breezes desired for outdoor restaurants and seating areas where one can read a paper without having it blown away
Standing	≤ 8	Gentle breezes suitable for main building entrances, bus stops, and other places where pedestrians may linger
Strolling	≤ 10	Moderate winds that would be appropriate for window shopping and strolling along a downtown street, plaza or park
Walking	≤ 12	Relatively high speeds that can be tolerated if one's objective is to walk, run or cycle without lingering
Uncomfortable	> 12	Strong winds of this magnitude are considered a nuisance for all pedestrian activities, and wind mitigation is typically recommended

Notes:

- (1) $GEM\ Speed = \max(\text{Mean Speed}, \text{Gust Speed}/1.85)$ and $Gust\ Speed = \text{Mean Speed} + 3 \cdot RMS\ Speed$.
- (2) A wind comfort category is applicable if the predicted GEM speeds are within the respective threshold for at least 80% of the time in the season assessed.
- (3) The comfort assessment was conducted for two seasonal periods, summer (May to October) and winter (November to April), because in a cold climate such as that found in Cambridge, there are distinct differences in pedestrian outdoor behaviors between these two-time periods.
- (4) The assessment considers winds occurring between 6 AM and midnight. Limited usage of outdoor spaces is anticipated in the excluded period.

Safety Criterion	Gust Speed (mph)	Description
Exceeded	> 56	Excessive gust speeds that can adversely affect a pedestrian's balance and footing. Wind mitigation is typically required.

Notes:

- (1) Based on an annual exceedance of 9 hours or 0.1% of the time for 24 hours a day; and,
- (2) Only gust speeds need to be considered in the wind safety criterion. These are usually rare events but deserve special attention in city planning and building design due to their potential safety impact on pedestrians.

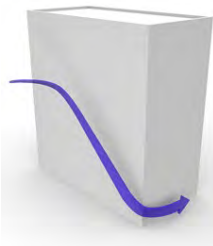
2.4 General Wind Flow Mechanisms

In the discussion of wind conditions, reference is made to the following wind flow mechanisms (Image 4):



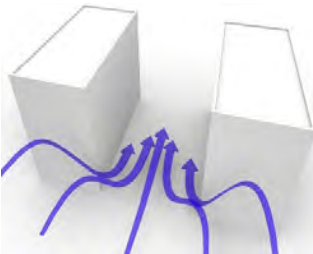
DOWNWASHING

Tall buildings tend to intercept the stronger winds at higher elevations and redirect them to the ground level. This is often the main cause for wind accelerations around large buildings at the pedestrian level.



CORNER ACCELERATION

When wind moves around the buildings a localized increase in the wind activity or corner acceleration can be expected around the exposed building corners at pedestrian level. The effect is intensified when the wind approaches at an oblique angle to a tall façade and are deflected down and around the exposed corners.



CHANNELING EFFECT

Wind flow tends to accelerate through the space between buildings, under bridges or in passages through buildings due to channeling effect caused by the narrow gap. The effect is intensified if the channel is aligned with the predominant wind direction.

Image 4: General Wind Flow Mechanisms

If these building/wind combinations occur for prevailing winds, there is a greater potential for increased wind activity. Design details such as setting back a tall tower from the edges of a podium, deep canopies close to ground level, wind screens, tall trees with dense landscaping, etc. (Image 5) can help reduce wind speeds. The choice and effectiveness of these measures would depend on the exposure and orientation of the site with respect to the prevailing wind directions and the size and massing of the proposed buildings.

Podium/tower setback, canopy, landscaping and wind screens (left to right)

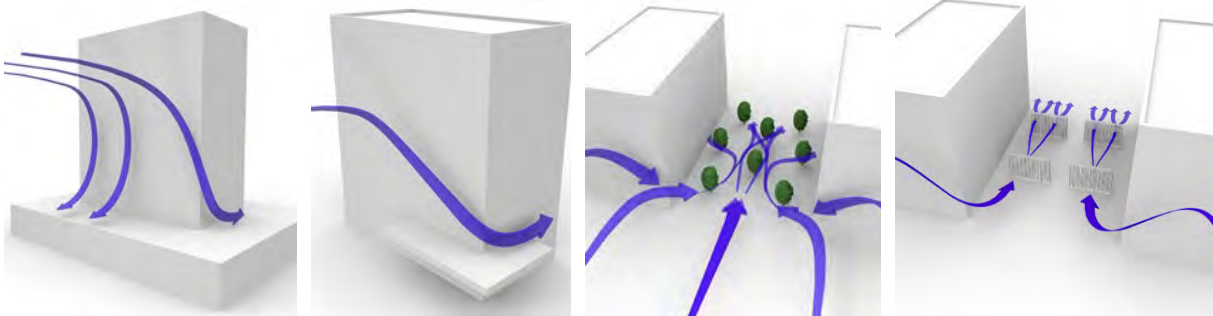


Image 5: Common Wind Control Measures

3 RESULTS AND DISCUSSION

The predicted wind conditions are shown on site plans in Figures 1A through 3B located in the “Figures” section of this report and the associated wind speeds are presented in Table 1, located in the “Tables” section of this report.

Wind conditions comfortable for walking or strolling are appropriate for sidewalks and walkways as pedestrians will be active and less likely to remain in one area for prolonged periods of time. Lower wind speeds conducive to standing are preferred at main entrances where pedestrians are apt to linger. The following is a detailed discussion of the suitability of the predicted wind conditions for the anticipated pedestrian use of each area of interest.

3.1 Existing Configuration

Wind speeds on and around the existing site are comfortable for sitting, standing, or strolling during the summer (Figure 1A) and for standing, strolling or walking during the winter (Figure 2A). The wind safety criterion is met in all areas assessed on and around the existing site. These wind conditions are appropriate for the intended use of pedestrian areas.

3.2 Proposed Configuration

The introduction of relatively tall buildings in a low-rise context will result in an increase in wind speeds around them as wind is redirected around the new structures, creating notable downwashing and corner accelerating flows. With proposed buildings being situated close to each other, the resulting channeling effects may potentially elevate local wind activity in the narrow passages as well.

The wind speeds at most areas in the proposed masterplan are expected to be comfortable for standing or strolling in the summer, and for strolling or walking in the winter (Images 1B and 2B). These conditions are appropriate for sidewalk use.

Uncomfortable wind conditions are predicted around building P1 during the summer season (Figure 1B). During the winter months, prevailing winds from the southwest through northwest are seasonally stronger. As these winds interact with the proposed massing, they are redirected and intensified due to corner acceleration and channeling between closely spaced buildings, leading to higher-than-desired wind speeds that may result in uncomfortable wind conditions at more locations (Image 2B). Winds conditions are predicted to meet the safety criterion.

It is to be noted that areas where uncomfortable conditions are predicted are also associated with gusts that are at the higher end of the acceptable range (see annual wind safety speeds in Table 1 and the safety criterion in Section 2.3). Wind gusts are predicted to be strong in the high-speed areas to the northwest of building P1 and between the proposed buildings such as the street between buildings P1 and P2, Fawcett Street between P5, P6, P16 and P20, and between buildings P9 and P21. These areas require particular attention with regard to wind control strategies in order to achieve conditions that would be pleasant for patron uses like seating, leisurely walking, dining, etc.

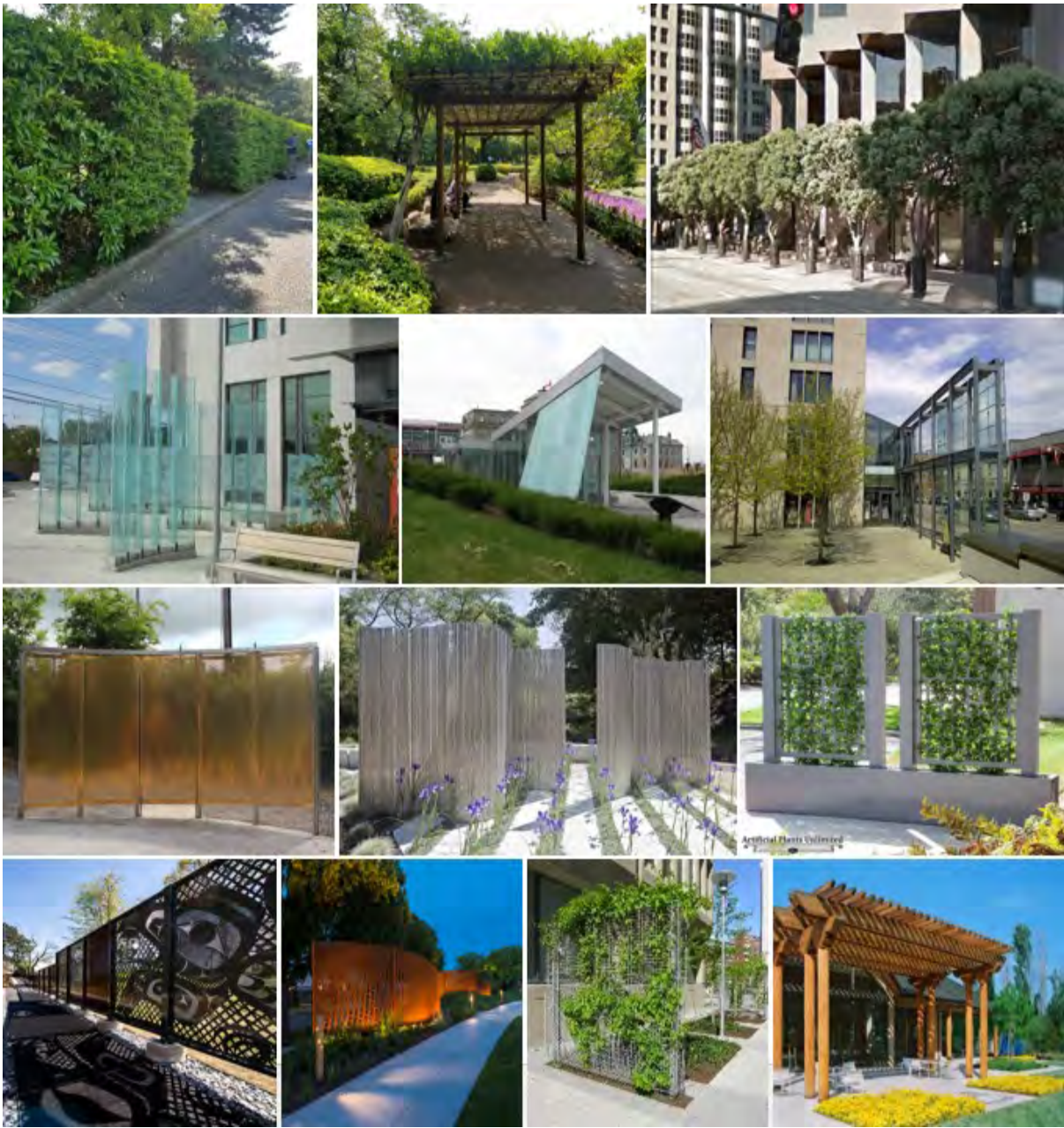
3.3 Wind Control Strategies

Buildings may be reshaped to include articulated corners and deeper steps on the westerly facades to disrupt downwashing flows and encourage horizontal winds. Podiums or tower setbacks can also be considered to reduce the wind impact on the ground level. Arcades or colonnades can provide alternate walkways around windy buildings. These changes to the built form are considered large scale modifications that would influence wind conditions in a large area around a site. Smaller, area-focused measures include the use of canopies, covered walkways, strategic placement of landscaping, dense trees and wind screens. Canopies, overhead trellises and trees with wide crowns protect against downwashing winds by redirecting or dispersing flows. Tall screening elements including solid architectural screens and landscaping with large bodies (e.g. trees, large plants, hedges, etc.) can be used to reduce the impact of wind acceleration around buildings.

Wind screens may be placed along sidewalks and other open spaces to create localized low wind areas. It is recommended that wind screens be at least 6 ft tall and approximately 20 to 30% open/porous for high wind control efficacy. Street Trees aid in reducing wind speeds in areas immediately around them. They are the most effective in their fully leafed phase. In order for effective wind control in the winter, coniferous and other wind-tolerant trees must be considered. Examples of the wind control features discussed in this section are shown in Images 6 and 7. RWDI can guide the strategic massing modifications and the selection of wind control features as the design progresses to achieve a wind-responsive design.



Images 6: Examples of large-scale wind control strategies - Stepped massing, Arcades/Colonnades



Images 7: Examples of wind screens and landscaping for wind control

4 STATEMENT OF LIMITATIONS

Limitations

This report entitled Alewife Masterplan was prepared by Rowan Williams Davies & Irwin, Inc. ("RWDI") for Elkus Manfredi Architects ("Client"). The findings and conclusions presented in this report have been prepared for the Client and are specific to the project described herein ("Project"). The conclusions and recommendations contained in this report are based on the information available to RWDI when this report was prepared.

The conclusions and recommendations contained in this report have also been made for the specific purpose(s) set out herein. Should the Client or any other third party utilize the report and/or implement the conclusions and recommendations contained therein for any other purpose or project without the involvement of RWDI, the Client or such third party assumes any and all risk of any and all consequences arising from such use and RWDI accepts no responsibility for any liability, loss, or damage of any kind suffered by Client or any other third party arising therefrom.

Finally, it is imperative that the Client and/or any party relying on the conclusions and recommendations in this report carefully review the stated assumptions contained herein and to understand the different factors which may impact the conclusions and recommendations provided.

Design Assumptions

RWDI confirms that the pedestrian wind assessment (the "**Assessment**") discussed herein was performed by RWDI in accordance with generally accepted professional standards at the time when the Assessment was performed and in the location of the Project. No other representations, warranties, or guarantees are made with respect to the accuracy or completeness of the information, findings, recommendations, or conclusions contained in this Report. This report is not a legal opinion regarding compliance with applicable laws.

The findings and recommendations set out in this report are based on the following information disclosed to RWDI. Drawings and information listed below were received from Elkus Manfredi Architects and used to construct the scale model of the ALEWIFE MASTERPLAN ("**Project Data**")

File Name	File Type	Date Received (dd/mm/yyyy)
HEALTHPEAK_CAMBRIDGE- MP_v22_Option_WW_5.dwg	AutoCAD	10/3/2025



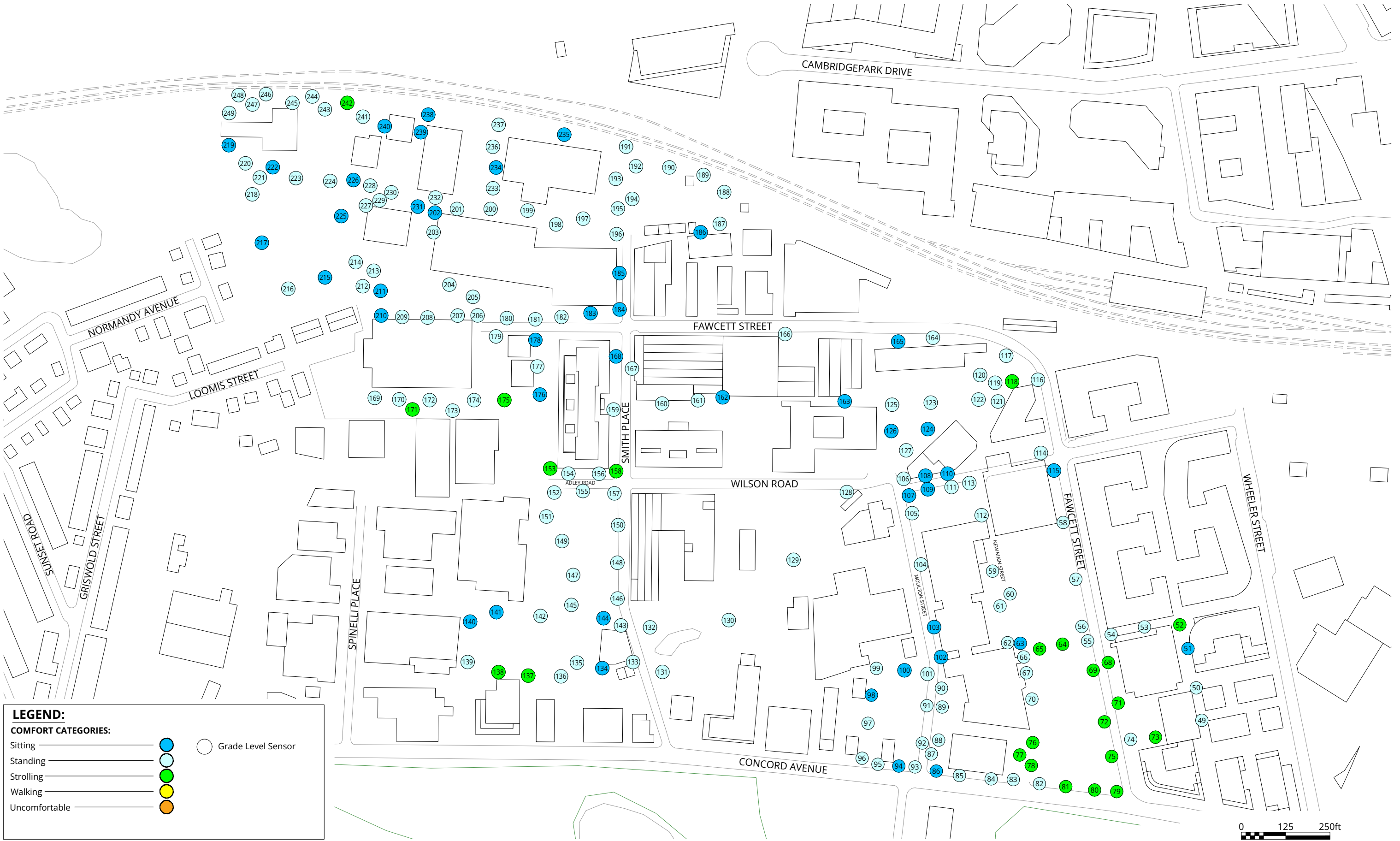
The recommendations and conclusions are based on the assumption that the Project Data and Climate Data are accurate and complete. RWDI assumes no responsibility for any inaccuracy or deficiency in information it has received from others. In addition, the recommendations and conclusions in this report are partially based on historical data and can be affected by a number of external factors, including but not limited to Project design, quality of materials and construction, site conditions, meteorological events, and climate change. As such, the conclusions and recommendations contained in this report do not list every possible outcome.

The opinions in this report can only be relied upon to the extent that the Project Data and Project Specific Conditions have not changed. Any change in the Project Data or Project Specific Conditions not reflected in this report can impact and/or alter the recommendations and conclusions in this report. Therefore, it is incumbent upon the Client and/or any other third party reviewing the recommendations and conclusions in this report to contact RWDI in the event of any change in the Project Data and Project Specific Conditions in order to determine whether any such change(s) may impact the assumptions upon which the recommendations and conclusions were made.

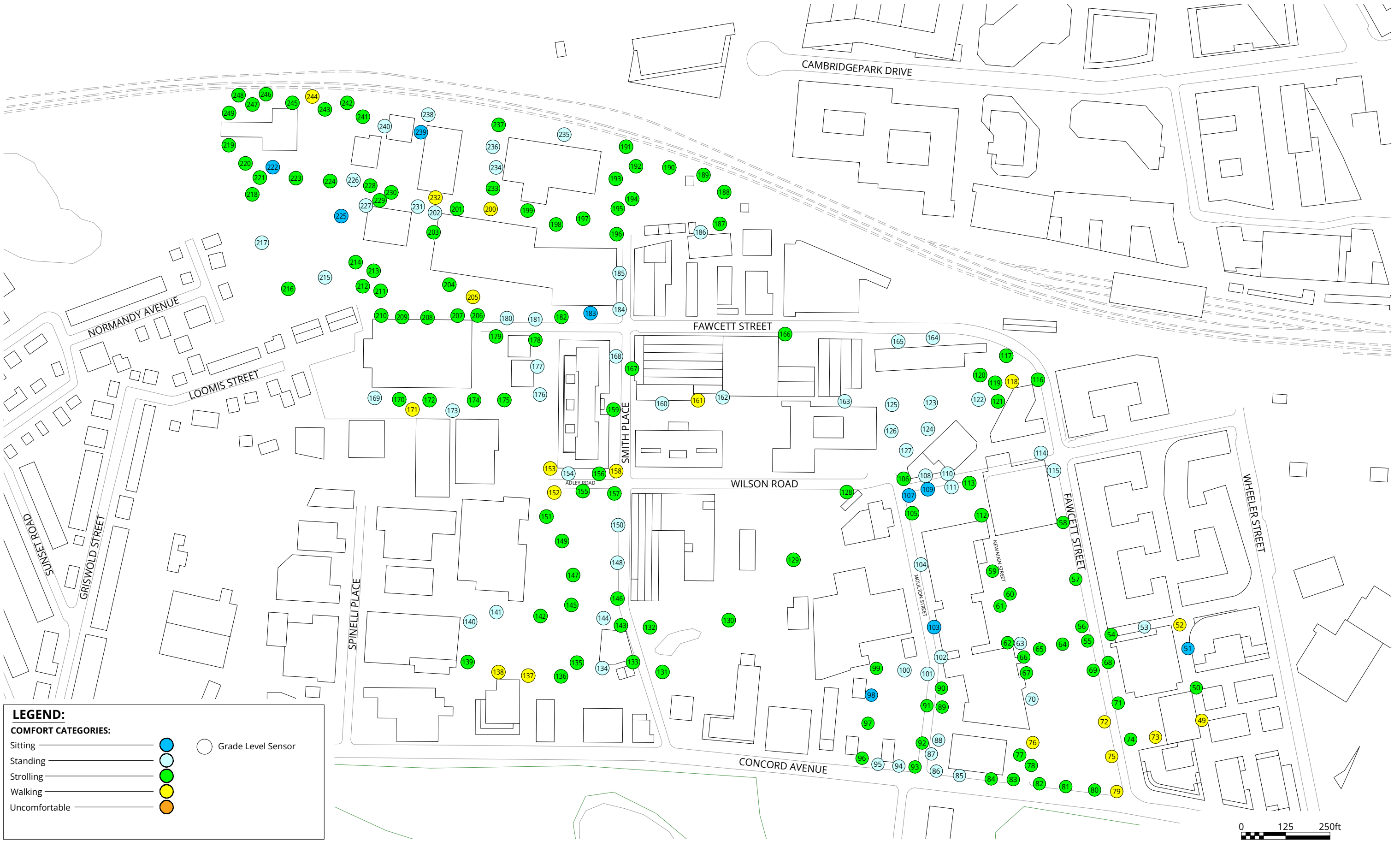
5 REFERENCES

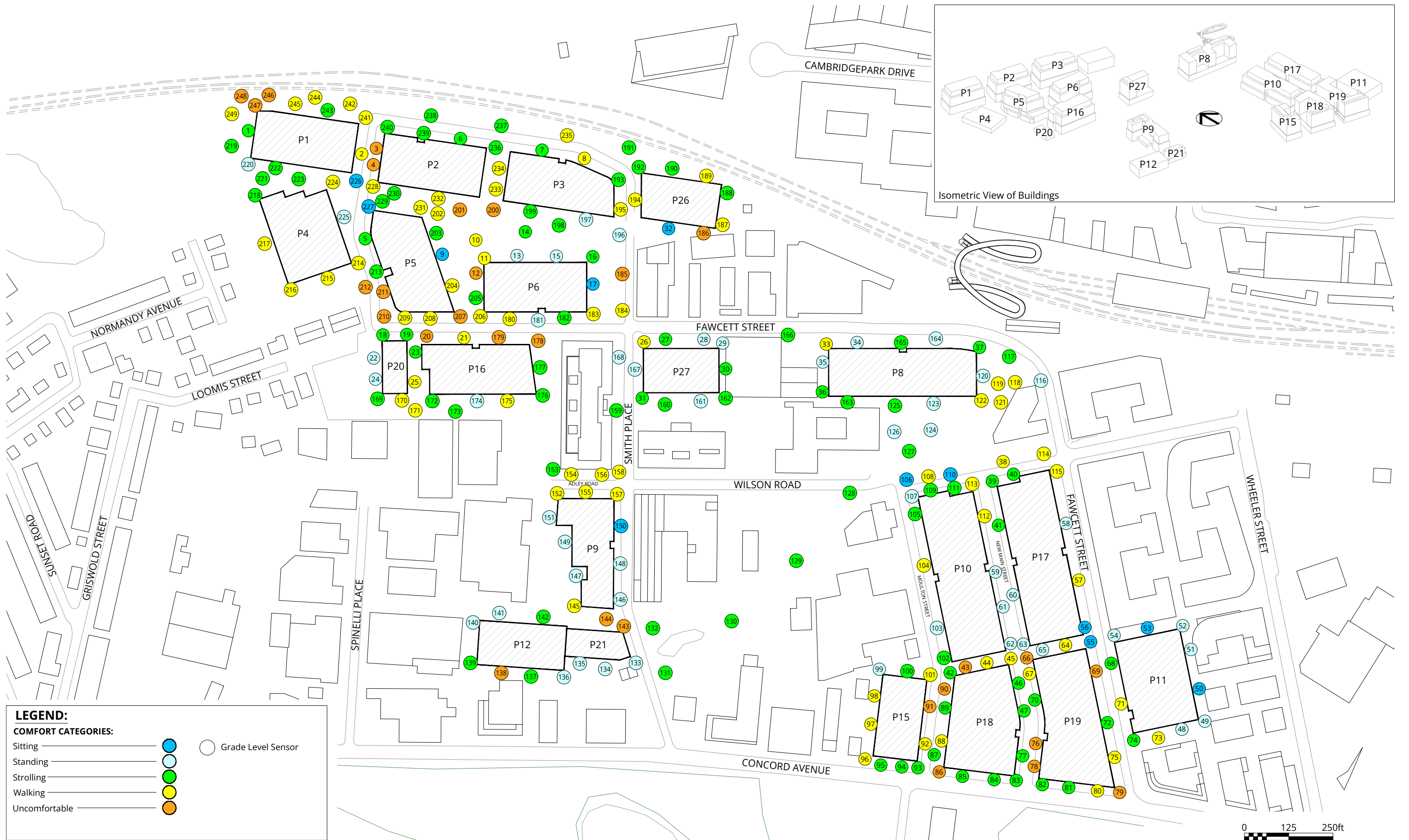
1. ASCE Task Committee on Outdoor Human Comfort (2004). *Outdoor Human Comfort and Its Assessment*, 68 pages, American Society of Civil Engineers, Reston, Virginia, USA.
2. Williams, C.J., Hunter, M.A. and Waechter, W.F. (1990). "Criteria for Assessing the Pedestrian Wind Environment," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.36, pp.811-815.
3. Williams, C.J., Soligo M.J. and Cote, J. (1992). "A Discussion of the Components for a Comprehensive Pedestrian Level Comfort Criteria," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.41-44, pp.2389-2390.
4. Soligo, M.J., Irwin, P.A., and Williams, C.J. (1993). "Pedestrian Comfort Including Wind and Thermal Effects," *Third Asia-Pacific Symposium on Wind Engineering*, Hong Kong.
5. Soligo, M.J., Irwin, P.A., Williams, C.J. and Schuyler, G.D. (1998). "A Comprehensive Assessment of Pedestrian Comfort Including Thermal Effects," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.77&78, pp.753-766.
6. Williams, C.J., Wu, H., Waechter, W.F. and Baker, H.A. (1999). "Experiences with Remedial Solutions to Control Pedestrian Wind Problems," *Tenth International Conference on Wind Engineering*, Copenhagen, Denmark.
7. Lawson, T.V. (1973). "Wind Environment of Buildings: A Logical Approach to the Establishment of Criteria", *Report No. TVL 7321*, Department of Aeronautic Engineering, University of Bristol, Bristol, England.
8. Durgin, F. H. (1997). "Pedestrian Level Wind Criteria Using the Equivalent average", *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 66, pp.215-226.
9. Wu, H. and Kriksic, F. (2012). "Designing for Pedestrian Comfort in Response to Local Climate", *Journal of Wind Engineering and Industrial Aerodynamics*, Vol.104-106, pp.397-407.
10. Wu, H., Williams, C.J., Baker, H.A. and Waechter, W.F. (2004), "Knowledge-based Desk-Top Analysis of Pedestrian Wind Conditions", *ASCE Structure Congress 2004*, Nashville, Tennessee.

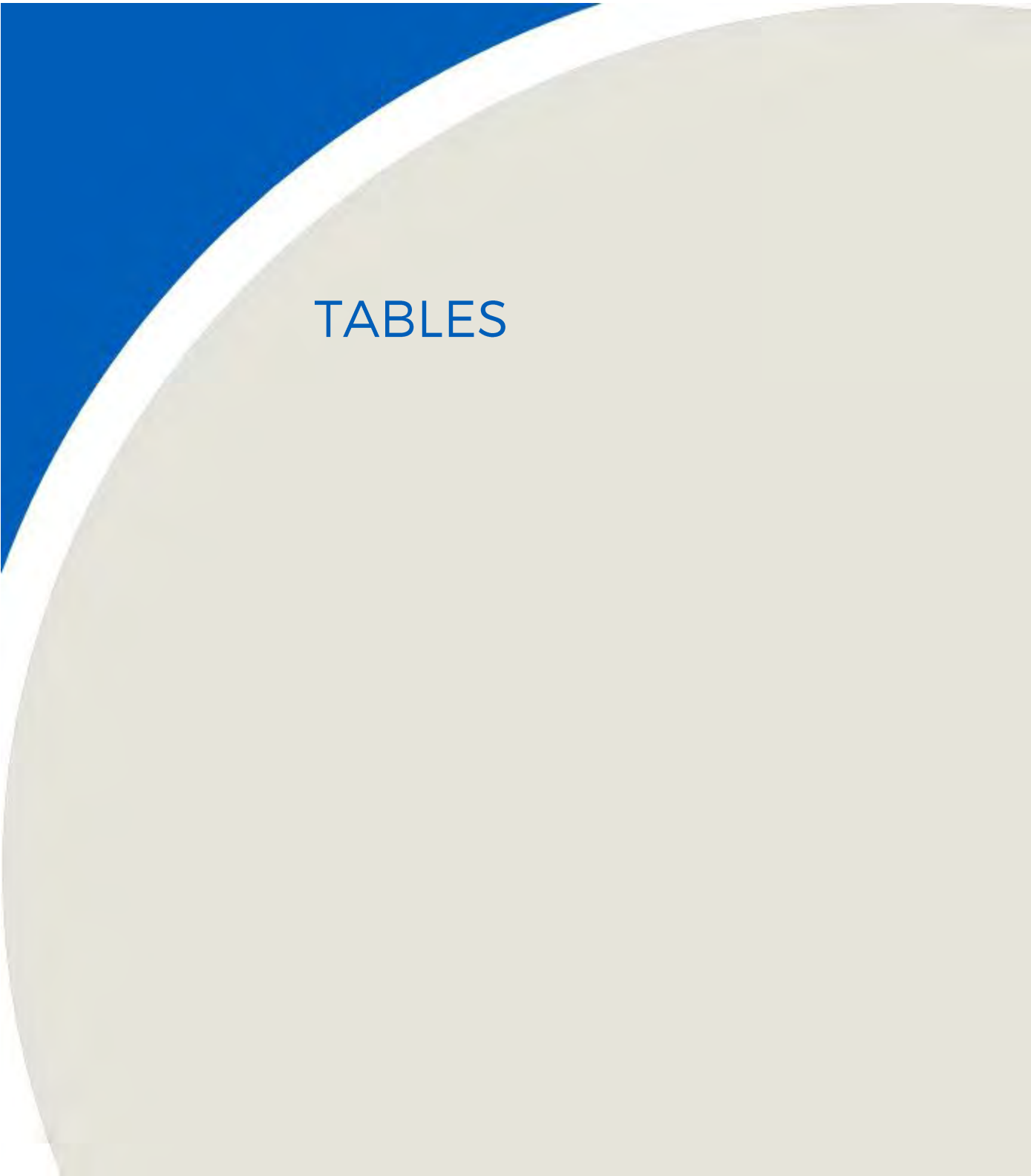
FIGURES











TABLES

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
1	Existing Proposed	- 8	- Standing	- 9	- Strolling	- 41	- Pass
2	Existing Proposed	- 12	- Walking	- 12	- Walking	- 54	- Pass
3	Existing Proposed	- 13	- Uncomfortable	- 15	- Uncomfortable	- 54	- Pass
4	Existing Proposed	- 13	- Uncomfortable	- 15	- Uncomfortable	- 52	- Pass
5	Existing Proposed	- 9	- Strolling	- 10	- Strolling	- 41	- Pass
6	Existing Proposed	- 7	- Standing	- 9	- Strolling	- 41	- Pass
7	Existing Proposed	- 7	- Standing	- 10	- Strolling	- 41	- Pass
8	Existing Proposed	- 8	- Standing	- 11	- Walking	- 44	- Pass
9	Existing Proposed	- 6	- Sitting	- 6	- Sitting	- 25	- Pass
10	Existing Proposed	- 11	- Walking	- 12	- Walking	- 49	- Pass
11	Existing Proposed	- 9	- Strolling	- 11	- Walking	- 44	- Pass
12	Existing Proposed	- 11	- Walking	- 13	- Uncomfortable	- 50	- Pass
13	Existing Proposed	- 7	- Standing	- 8	- Standing	- 39	- Pass
14	Existing Proposed	- 8	- Standing	- 9	- Strolling	- 35	- Pass
15	Existing Proposed	- 7	- Standing	- 8	- Standing	- 38	- Pass
16	Existing Proposed	- 8	- Standing	- 9	- Strolling	- 39	- Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
17	Existing Proposed	- 6	- Sitting	- 6	- Sitting	- 32	- Pass
18	Existing Proposed	- 7	- Standing	- 9	- Strolling	- 32	- Pass
19	Existing Proposed	- 8	- Standing	- 10	- Strolling	- 39	- Pass
20	Existing Proposed	- 12	- Walking	- 14	- Uncomfortable	- 48	- Pass
21	Existing Proposed	- 9	- Strolling	- 11	- Walking	- 44	- Pass
22	Existing Proposed	- 6	- Sitting	- 8	- Standing	- 32	- Pass
23	Existing Proposed	- 9	- Strolling	- 10	- Strolling	- 42	- Pass
24	Existing Proposed	- 6	- Sitting	- 7	- Standing	- 29	- Pass
25	Existing Proposed	- 10	- Strolling	- 12	- Walking	- 45	- Pass
26	Existing Proposed	- 10	- Strolling	- 11	- Walking	- 44	- Pass
27	Existing Proposed	- 7	- Standing	- 9	- Strolling	- 37	- Pass
28	Existing Proposed	- 7	- Standing	- 8	- Standing	- 31	- Pass
29	Existing Proposed	- 7	- Standing	- 7	- Standing	- 36	- Pass
30	Existing Proposed	- 9	- Strolling	- 9	- Strolling	- 46	- Pass
31	Existing Proposed	- 7	- Standing	- 9	- Strolling	- 37	- Pass
32	Existing Proposed	- 6	- Sitting	- 6	- Sitting	- 27	- Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
33	Existing Proposed	- 10	- Strolling	- 11	- Walking	- 43	- Pass
34	Existing Proposed	- 7	- Standing	- 7	- Standing	- 37	- Pass
35	Existing Proposed	- 8	- Standing	- 8	- Standing	- 39	- Pass
36	Existing Proposed	- 9	- Strolling	- 10	- Strolling	- 44	- Pass
37	Existing Proposed	- 8	- Standing	- 10	- Strolling	- 44	- Pass
38	Existing Proposed	- 9	- Strolling	- 11	- Walking	- 40	- Pass
39	Existing Proposed	- 7	- Standing	- 9	- Strolling	- 33	- Pass
40	Existing Proposed	- 8	- Standing	- 10	- Strolling	- 39	- Pass
41	Existing Proposed	- 8	- Standing	- 10	- Strolling	- 42	- Pass
42	Existing Proposed	- 9	- Strolling	- 10	- Strolling	- 39	- Pass
43	Existing Proposed	- 10	- Strolling	- 14	- Uncomfortable	- 50	- Pass
44	Existing Proposed	- 9	- Strolling	- 12	- Walking	- 44	- Pass
45	Existing Proposed	- 8	- Standing	- 11	- Walking	- 45	- Pass
46	Existing Proposed	- 8	- Standing	- 9	- Strolling	- 36	- Pass
47	Existing Proposed	- 8	- Standing	- 9	- Strolling	- 38	- Pass
48	Existing Proposed	- 7	- Standing	- 7	- Standing	- 34	- Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
49	Existing	7	Standing	11	Walking	44	Pass
	Proposed	7	Standing	8	Standing	34	Pass
50	Existing	7	Standing	9	Strolling	39	Pass
	Proposed	5	Sitting	6	Sitting	28	Pass
51	Existing	5	Sitting	6	Sitting	24	Pass
	Proposed	6	Sitting	7	Standing	30	Pass
52	Existing	9	Strolling	11	Walking	43	Pass
	Proposed	5	Sitting	7	Standing	30	Pass
53	Existing	7	Standing	7	Standing	33	Pass
	Proposed	5	Sitting	6	Sitting	26	Pass
54	Existing	8	Standing	10	Strolling	39	Pass
	Proposed	6	Sitting	7	Standing	30	Pass
55	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	5	Sitting	6	Sitting	28	Pass
56	Existing	8	Standing	10	Strolling	36	Pass
	Proposed	5	Sitting	5	Sitting	34	Pass
57	Existing	8	Standing	9	Strolling	34	Pass
	Proposed	9	Strolling	11	Walking	39	Pass
58	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	7	Standing	8	Standing	33	Pass
59	Existing	7	Standing	9	Strolling	35	Pass
	Proposed	7	Standing	8	Standing	32	Pass
60	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	7	Standing	7	Standing	34	Pass
61	Existing	8	Standing	10	Strolling	36	Pass
	Proposed	7	Standing	8	Standing	39	Pass
62	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	8	Standing	8	Standing	37	Pass
63	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	6	Sitting	7	Standing	30	Pass
64	Existing	9	Strolling	10	Strolling	41	Pass
	Proposed	10	Strolling	11	Walking	46	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
65	Existing	9	Strolling	10	Strolling	38	Pass
	Proposed	7	Standing	8	Standing	40	Pass
66	Existing	8	Standing	10	Strolling	36	Pass
	Proposed	12	Walking	13	Uncomfortable	48	Pass
67	Existing	8	Standing	10	Strolling	36	Pass
	Proposed	9	Strolling	11	Walking	46	Pass
68	Existing	9	Strolling	10	Strolling	36	Pass
	Proposed	8	Standing	9	Strolling	40	Pass
69	Existing	9	Strolling	10	Strolling	41	Pass
	Proposed	11	Walking	13	Uncomfortable	54	Pass
70	Existing	8	Standing	8	Standing	41	Pass
	Proposed	9	Strolling	9	Strolling	46	Pass
71	Existing	9	Strolling	9	Strolling	39	Pass
	Proposed	10	Strolling	11	Walking	44	Pass
72	Existing	9	Strolling	11	Walking	40	Pass
	Proposed	9	Strolling	10	Strolling	41	Pass
73	Existing	10	Strolling	12	Walking	44	Pass
	Proposed	10	Strolling	11	Walking	45	Pass
74	Existing	8	Standing	10	Strolling	41	Pass
	Proposed	8	Standing	10	Strolling	43	Pass
75	Existing	9	Strolling	11	Walking	44	Pass
	Proposed	9	Strolling	11	Walking	45	Pass
76	Existing	9	Strolling	11	Walking	44	Pass
	Proposed	12	Walking	14	Uncomfortable	52	Pass
77	Existing	9	Strolling	9	Strolling	42	Pass
	Proposed	9	Strolling	9	Strolling	47	Pass
78	Existing	9	Strolling	10	Strolling	44	Pass
	Proposed	12	Walking	13	Uncomfortable	52	Pass
79	Existing	10	Strolling	12	Walking	44	Pass
	Proposed	10	Strolling	13	Uncomfortable	45	Pass
80	Existing	9	Strolling	10	Strolling	41	Pass
	Proposed	10	Strolling	12	Walking	43	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
81	Existing	9	Strolling	10	Strolling	38	Pass
	Proposed	8	Standing	10	Strolling	37	Pass
82	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	8	Standing	10	Strolling	41	Pass
83	Existing	8	Standing	10	Strolling	30	Pass
	Proposed	9	Strolling	10	Strolling	36	Pass
84	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	8	Standing	9	Strolling	42	Pass
85	Existing	7	Standing	8	Standing	33	Pass
	Proposed	9	Strolling	10	Strolling	39	Pass
86	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	10	Strolling	13	Uncomfortable	52	Pass
87	Existing	7	Standing	8	Standing	29	Pass
	Proposed	7	Standing	9	Strolling	37	Pass
88	Existing	7	Standing	8	Standing	32	Pass
	Proposed	9	Strolling	12	Walking	41	Pass
89	Existing	8	Standing	9	Strolling	35	Pass
	Proposed	8	Standing	9	Strolling	40	Pass
90	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	11	Walking	14	Uncomfortable	47	Pass
91	Existing	7	Standing	9	Strolling	31	Pass
	Proposed	11	Walking	13	Uncomfortable	46	Pass
92	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	9	Strolling	11	Walking	43	Pass
93	Existing	8	Standing	9	Strolling	35	Pass
	Proposed	8	Standing	10	Strolling	41	Pass
94	Existing	6	Sitting	7	Standing	27	Pass
	Proposed	7	Standing	9	Strolling	34	Pass
95	Existing	7	Standing	8	Standing	30	Pass
	Proposed	7	Standing	9	Strolling	41	Pass
96	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	9	Strolling	12	Walking	44	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
97	Existing	8	Standing	9	Strolling	35	Pass
	Proposed	9	Strolling	12	Walking	43	Pass
98	Existing	6	Sitting	6	Sitting	28	Pass
	Proposed	9	Strolling	12	Walking	44	Pass
99	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	6	Sitting	8	Standing	33	Pass
100	Existing	6	Sitting	7	Standing	29	Pass
	Proposed	7	Standing	9	Strolling	38	Pass
101	Existing	7	Standing	8	Standing	34	Pass
	Proposed	8	Standing	11	Walking	40	Pass
102	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	7	Standing	10	Strolling	39	Pass
103	Existing	4	Sitting	6	Sitting	24	Pass
	Proposed	7	Standing	8	Standing	40	Pass
104	Existing	7	Standing	8	Standing	33	Pass
	Proposed	8	Standing	11	Walking	40	Pass
105	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	7	Standing	10	Strolling	36	Pass
106	Existing	8	Standing	9	Strolling	34	Pass
	Proposed	5	Sitting	6	Sitting	26	Pass
107	Existing	5	Sitting	6	Sitting	27	Pass
	Proposed	7	Standing	8	Standing	32	Pass
108	Existing	6	Sitting	7	Standing	29	Pass
	Proposed	9	Strolling	11	Walking	41	Pass
109	Existing	6	Sitting	6	Sitting	29	Pass
	Proposed	7	Standing	9	Strolling	37	Pass
110	Existing	5	Sitting	7	Standing	28	Pass
	Proposed	6	Sitting	6	Sitting	28	Pass
111	Existing	7	Standing	8	Standing	30	Pass
	Proposed	8	Standing	10	Strolling	35	Pass
112	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	10	Strolling	12	Walking	46	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
113	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	9	Strolling	11	Walking	38	Pass
114	Existing	7	Standing	8	Standing	33	Pass
	Proposed	9	Strolling	12	Walking	42	Pass
115	Existing	6	Sitting	7	Standing	30	Pass
	Proposed	10	Strolling	12	Walking	45	Pass
116	Existing	8	Standing	10	Strolling	40	Pass
	Proposed	7	Standing	8	Standing	34	Pass
117	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	9	Strolling	10	Strolling	44	Pass
118	Existing	9	Strolling	12	Walking	46	Pass
	Proposed	11	Walking	12	Walking	45	Pass
119	Existing	8	Standing	9	Strolling	38	Pass
	Proposed	10	Strolling	11	Walking	43	Pass
120	Existing	8	Standing	9	Strolling	35	Pass
	Proposed	6	Sitting	7	Standing	32	Pass
121	Existing	8	Standing	10	Strolling	40	Pass
	Proposed	10	Strolling	11	Walking	39	Pass
122	Existing	7	Standing	8	Standing	35	Pass
	Proposed	11	Walking	12	Walking	47	Pass
123	Existing	7	Standing	8	Standing	31	Pass
	Proposed	8	Standing	8	Standing	37	Pass
124	Existing	6	Sitting	7	Standing	29	Pass
	Proposed	7	Standing	8	Standing	32	Pass
125	Existing	7	Standing	8	Standing	31	Pass
	Proposed	9	Strolling	10	Strolling	37	Pass
126	Existing	6	Sitting	7	Standing	30	Pass
	Proposed	7	Standing	7	Standing	31	Pass
127	Existing	7	Standing	8	Standing	34	Pass
	Proposed	8	Standing	10	Strolling	38	Pass
128	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	8	Standing	9	Strolling	37	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
129	Existing	8	Standing	9	Strolling	33	Pass
	Proposed	7	Standing	9	Strolling	33	Pass
130	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	9	Strolling	10	Strolling	39	Pass
131	Existing	8	Standing	9	Strolling	34	Pass
	Proposed	9	Strolling	10	Strolling	38	Pass
132	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	8	Standing	10	Strolling	40	Pass
133	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	8	Standing	8	Standing	38	Pass
134	Existing	6	Sitting	8	Standing	30	Pass
	Proposed	8	Standing	8	Standing	40	Pass
135	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	6	Sitting	7	Standing	31	Pass
136	Existing	8	Standing	10	Strolling	38	Pass
	Proposed	7	Standing	8	Standing	33	Pass
137	Existing	9	Strolling	11	Walking	44	Pass
	Proposed	9	Strolling	10	Strolling	40	Pass
138	Existing	9	Strolling	11	Walking	43	Pass
	Proposed	10	Strolling	13	Uncomfortable	42	Pass
139	Existing	8	Standing	9	Strolling	35	Pass
	Proposed	8	Standing	10	Strolling	38	Pass
140	Existing	6	Sitting	7	Standing	27	Pass
	Proposed	6	Sitting	7	Standing	30	Pass
141	Existing	6	Sitting	8	Standing	28	Pass
	Proposed	6	Sitting	8	Standing	31	Pass
142	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	7	Standing	9	Strolling	40	Pass
143	Existing	8	Standing	9	Strolling	34	Pass
	Proposed	11	Walking	15	Uncomfortable	50	Pass
144	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	10	Strolling	13	Uncomfortable	50	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
145	Existing	8	Standing	9	Strolling	33	Pass
	Proposed	9	Strolling	12	Walking	44	Pass
146	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	8	Standing	8	Standing	40	Pass
147	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	6	Sitting	8	Standing	30	Pass
148	Existing	7	Standing	8	Standing	30	Pass
	Proposed	6	Sitting	7	Standing	30	Pass
149	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	7	Standing	8	Standing	32	Pass
150	Existing	7	Standing	8	Standing	30	Pass
	Proposed	5	Sitting	6	Sitting	27	Pass
151	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	6	Sitting	7	Standing	34	Pass
152	Existing	8	Standing	11	Walking	42	Pass
	Proposed	10	Strolling	12	Walking	43	Pass
153	Existing	10	Strolling	12	Walking	44	Pass
	Proposed	8	Standing	9	Strolling	35	Pass
154	Existing	7	Standing	8	Standing	32	Pass
	Proposed	9	Strolling	12	Walking	42	Pass
155	Existing	7	Standing	9	Strolling	36	Pass
	Proposed	9	Strolling	12	Walking	47	Pass
156	Existing	8	Standing	9	Strolling	37	Pass
	Proposed	10	Strolling	12	Walking	42	Pass
157	Existing	8	Standing	9	Strolling	33	Pass
	Proposed	8	Standing	11	Walking	43	Pass
158	Existing	10	Strolling	12	Walking	43	Pass
	Proposed	8	Standing	11	Walking	38	Pass
159	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	7	Standing	9	Strolling	45	Pass
160	Existing	7	Standing	7	Standing	31	Pass
	Proposed	9	Strolling	9	Strolling	39	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
161	Existing	7	Standing	11	Walking	41	Pass
	Proposed	8	Standing	8	Standing	43	Pass
162	Existing	6	Sitting	7	Standing	27	Pass
	Proposed	7	Standing	9	Strolling	36	Pass
163	Existing	6	Sitting	7	Standing	29	Pass
	Proposed	8	Standing	9	Strolling	34	Pass
164	Existing	7	Standing	8	Standing	30	Pass
	Proposed	7	Standing	7	Standing	35	Pass
165	Existing	6	Sitting	7	Standing	29	Pass
	Proposed	7	Standing	9	Strolling	35	Pass
166	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	7	Standing	9	Strolling	36	Pass
167	Existing	7	Standing	9	Strolling	36	Pass
	Proposed	6	Sitting	8	Standing	35	Pass
168	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	7	Standing	8	Standing	33	Pass
169	Existing	7	Standing	8	Standing	30	Pass
	Proposed	8	Standing	9	Strolling	35	Pass
170	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	9	Strolling	11	Walking	40	Pass
171	Existing	9	Strolling	11	Walking	40	Pass
	Proposed	9	Strolling	11	Walking	39	Pass
172	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	8	Standing	10	Strolling	40	Pass
173	Existing	7	Standing	8	Standing	31	Pass
	Proposed	8	Standing	10	Strolling	41	Pass
174	Existing	8	Standing	9	Strolling	36	Pass
	Proposed	7	Standing	8	Standing	35	Pass
175	Existing	9	Strolling	10	Strolling	38	Pass
	Proposed	10	Strolling	12	Walking	44	Pass
176	Existing	6	Sitting	8	Standing	28	Pass
	Proposed	8	Standing	9	Strolling	35	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
177	Existing	7	Standing	8	Standing	30	Pass
	Proposed	7	Standing	9	Strolling	37	Pass
178	Existing	6	Sitting	9	Strolling	33	Pass
	Proposed	10	Strolling	13	Uncomfortable	51	Pass
179	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	9	Strolling	13	Uncomfortable	46	Pass
180	Existing	7	Standing	8	Standing	33	Pass
	Proposed	8	Standing	11	Walking	42	Pass
181	Existing	7	Standing	8	Standing	30	Pass
	Proposed	7	Standing	7	Standing	41	Pass
182	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	7	Standing	9	Strolling	34	Pass
183	Existing	5	Sitting	6	Sitting	29	Pass
	Proposed	8	Standing	12	Walking	46	Pass
184	Existing	5	Sitting	7	Standing	31	Pass
	Proposed	8	Standing	12	Walking	51	Pass
185	Existing	6	Sitting	8	Standing	30	Pass
	Proposed	10	Strolling	13	Uncomfortable	46	Pass
186	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	11	Walking	13	Uncomfortable	47	Pass
187	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	9	Strolling	11	Walking	42	Pass
188	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	8	Standing	10	Strolling	43	Pass
189	Existing	7	Standing	9	Strolling	33	Pass
	Proposed	8	Standing	11	Walking	41	Pass
190	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	7	Standing	9	Strolling	35	Pass
191	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	9	Strolling	10	Strolling	40	Pass
192	Existing	7	Standing	10	Strolling	35	Pass
	Proposed	7	Standing	9	Strolling	39	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
193	Existing	7	Standing	10	Strolling	34	Pass
	Proposed	7	Standing	9	Strolling	34	Pass
194	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	8	Standing	11	Walking	42	Pass
195	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	9	Strolling	12	Walking	45	Pass
196	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	6	Sitting	8	Standing	35	Pass
197	Existing	8	Standing	9	Strolling	33	Pass
	Proposed	6	Sitting	8	Standing	31	Pass
198	Existing	8	Standing	9	Strolling	34	Pass
	Proposed	7	Standing	9	Strolling	35	Pass
199	Existing	8	Standing	10	Strolling	36	Pass
	Proposed	8	Standing	10	Strolling	38	Pass
200	Existing	8	Standing	11	Walking	37	Pass
	Proposed	10	Strolling	13	Uncomfortable	50	Pass
201	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	11	Walking	14	Uncomfortable	49	Pass
202	Existing	6	Sitting	8	Standing	30	Pass
	Proposed	11	Walking	12	Walking	51	Pass
203	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	7	Standing	10	Strolling	43	Pass
204	Existing	8	Standing	10	Strolling	36	Pass
	Proposed	9	Strolling	12	Walking	47	Pass
205	Existing	8	Standing	11	Walking	36	Pass
	Proposed	9	Strolling	10	Strolling	39	Pass
206	Existing	8	Standing	9	Strolling	33	Pass
	Proposed	8	Standing	11	Walking	40	Pass
207	Existing	8	Standing	10	Strolling	33	Pass
	Proposed	11	Walking	13	Uncomfortable	45	Pass
208	Existing	7	Standing	10	Strolling	35	Pass
	Proposed	11	Walking	12	Walking	51	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
209	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	9	Strolling	12	Walking	47	Pass
210	Existing	6	Sitting	9	Strolling	36	Pass
	Proposed	11	Walking	14	Uncomfortable	51	Pass
211	Existing	6	Sitting	9	Strolling	33	Pass
	Proposed	11	Walking	14	Uncomfortable	46	Pass
212	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	11	Walking	13	Uncomfortable	48	Pass
213	Existing	7	Standing	9	Strolling	31	Pass
	Proposed	7	Standing	9	Strolling	37	Pass
214	Existing	8	Standing	9	Strolling	35	Pass
	Proposed	9	Strolling	12	Walking	45	Pass
215	Existing	6	Sitting	8	Standing	30	Pass
	Proposed	9	Strolling	11	Walking	45	Pass
216	Existing	8	Standing	9	Strolling	35	Pass
	Proposed	9	Strolling	11	Walking	42	Pass
217	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	10	Strolling	12	Walking	46	Pass
218	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	7	Standing	9	Strolling	35	Pass
219	Existing	6	Sitting	9	Strolling	32	Pass
	Proposed	8	Standing	9	Strolling	34	Pass
220	Existing	7	Standing	9	Strolling	31	Pass
	Proposed	7	Standing	7	Standing	30	Pass
221	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	8	Standing	10	Strolling	46	Pass
222	Existing	6	Sitting	6	Sitting	27	Pass
	Proposed	8	Standing	9	Strolling	40	Pass
223	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	8	Standing	9	Strolling	46	Pass
224	Existing	7	Standing	9	Strolling	31	Pass
	Proposed	9	Strolling	12	Walking	43	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
225	Existing	4	Sitting	5	Sitting	20	Pass
	Proposed	7	Standing	7	Standing	33	Pass
226	Existing	5	Sitting	7	Standing	26	Pass
	Proposed	5	Sitting	5	Sitting	27	Pass
227	Existing	7	Standing	8	Standing	31	Pass
	Proposed	5	Sitting	5	Sitting	37	Pass
228	Existing	7	Standing	9	Strolling	36	Pass
	Proposed	8	Standing	11	Walking	41	Pass
229	Existing	7	Standing	10	Strolling	37	Pass
	Proposed	7	Standing	10	Strolling	40	Pass
230	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	7	Standing	9	Strolling	41	Pass
231	Existing	6	Sitting	7	Standing	29	Pass
	Proposed	9	Strolling	11	Walking	48	Pass
232	Existing	8	Standing	11	Walking	38	Pass
	Proposed	8	Standing	11	Walking	40	Pass
233	Existing	7	Standing	9	Strolling	34	Pass
	Proposed	8	Standing	11	Walking	42	Pass
234	Existing	6	Sitting	8	Standing	29	Pass
	Proposed	10	Strolling	12	Walking	48	Pass
235	Existing	6	Sitting	7	Standing	28	Pass
	Proposed	9	Strolling	11	Walking	52	Pass
236	Existing	7	Standing	8	Standing	31	Pass
	Proposed	8	Standing	10	Strolling	42	Pass
237	Existing	8	Standing	9	Strolling	33	Pass
	Proposed	8	Standing	10	Strolling	39	Pass
238	Existing	6	Sitting	8	Standing	31	Pass
	Proposed	8	Standing	10	Strolling	41	Pass
239	Existing	5	Sitting	5	Sitting	35	Pass
	Proposed	7	Standing	9	Strolling	40	Pass
240	Existing	6	Sitting	8	Standing	29	Pass
	Proposed	8	Standing	10	Strolling	44	Pass

Table 1: Pedestrian Wind Comfort and Safety Conditions

Location	Configuration	Wind Comfort				Wind Safety	
		Summer		Winter		Annual	
		Speed (mph)	Rating	Speed (mph)	Rating	Speed (mph)	Rating
241	Existing	8	Standing	9	Strolling	34	Pass
	Proposed	11	Walking	12	Walking	47	Pass
242	Existing	9	Strolling	10	Strolling	36	Pass
	Proposed	8	Standing	11	Walking	45	Pass
243	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	8	Standing	10	Strolling	41	Pass
244	Existing	8	Standing	11	Walking	37	Pass
	Proposed	9	Strolling	11	Walking	44	Pass
245	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	8	Standing	11	Walking	45	Pass
246	Existing	8	Standing	10	Strolling	35	Pass
	Proposed	10	Strolling	14	Uncomfortable	52	Pass
247	Existing	8	Standing	10	Strolling	34	Pass
	Proposed	11	Walking	13	Uncomfortable	48	Pass
248	Existing	7	Standing	9	Strolling	31	Pass
	Proposed	13	Uncomfortable	16	Uncomfortable	56	Pass
249	Existing	7	Standing	9	Strolling	32	Pass
	Proposed	11	Walking	12	Walking	53	Pass

Season	Months	Hours	Comfort Speed (mph)		Safety Speed (mph)
Summer	May - October	6:00 - 23:00 for comfort	(20% Seasonal Exceedance)		(0.1% Annual Exceedance)
Winter	November - April	6:00 - 23:00 for comfort	≤ 6	Sitting	≤ 56 Pass
Annual	January - December	0:00 - 23:00 for safety	7 - 8	Standing	> 56 Exceeded
Configurations			9 - 10	Strolling	
Existing	Existing site and surroundings		11 - 12	Walking	
Proposed	Project with existing surroundings		> 12	Uncomfortable	

Appendix F

Retail Plan

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Retail Plan

Of Place LLC (“OP”) has been engaged by Healthpeak Properties, Inc. to develop a ground-floor activation and retail leasing strategy that enhances “the character, vitality, resilience, and livability” of the Alewife Overlay District - Quadrangle (“the Project” or “the Site” or “Alewife”). This strategy aligns with the Envision Alewife District Plan (2019) and the design principles outlined by the City’s Alewife Zoning Working Group (2023), which emphasize:

- *Sense of Place: Create meaningful and memorable streets, parks, and squares, scaled to the pedestrian experience and walkable urban blocks.*
- *Elements of Design: Demonstrate excellence in architectural design and the design of the public realm.*
- *Pedestrian Friendly Streets: Create pedestrian streets that are rich with visual interest and activity.*
- *Parks and Squares: Foster well-connected, programmatically diverse, and environmentally beneficial parks and squares.*
- *Sustainability and Resilience: Integrate sustainability and resilience into the design of buildings, parcels, and public open spaces.*
- *Large Development Sites: Integrate large development sites into the surrounding community.*

To fulfill these district-wide objectives, the Alewife development and leasing team has crafted a strategic and intentional approach to retail and active-use leasing. This memo outlines the retail strategy, including its integration into the broader master plan and leasing approach.

I. Master Planning Summary: Retail Approach

The Alewife Master Plan embodies a contemporary interpretation of Cambridge’s “City of Squares,” establishing a network of neighborhood nodes that concentrate ground-floor activation throughout the Quadrangle. This structure fosters a dynamic, connected, and resilient mixed-use environment.

Key Retail and Activation Nodes:

1. New Main Street Retail Corridor

- Serves as the central retail hub, positioned along a pedestrian-friendly high street.
- Benefits from proximity to Fresh Pond Mall and connectivity to Concord Avenue and Fresh Pond Reserve.
- Incorporates a mix of uses, including retail, commercial, residential, cultural, and community-oriented spaces, that can support the pressures of transit-oriented development.
- Features an intersecting East-West plaza, creating a protected pedestrian passage to parking and a venue for community events.

2. Fawcett Street Crossroads

- Located at the intersection of the North-South and East-West Fawcett corridors and adjacent to Iggy’s Bakery, a beloved neighborhood icon.
- Serves as a key gathering point between the pedestrian and cyclist greenway, multi-modal bridge, and adjacent green spaces.
- Provides retail spaces suited for neighborhood-serving businesses such as fitness centers, commuter services, maker spaces, and other experiential uses.
- Incorporates adaptive reuse of existing buildings, such as 110 Fawcett Street.

3. Smith Place & Fawcett Street Community Hub

- A smaller, yet integral, neighborhood node.
- Designed as a community gathering space for nearby commercial offerings and the broader neighborhood.

Together, these interconnected hubs establish a rhythmic flow of activity, bridging Cambridge Highlands to the west, Alewife Triangle to the north, Concord Avenue and Fresh Pond to the south, and Fresh Pond Mall to the east. The MBTA Alewife Red Line Station to the north and the Alewife Brook Parkway to the east enable connectivity from the project to the broader Cambridge community.

II. Recruitment & Leasing Tactics

In alignment with the Alewife Zoning Petition (2023), the leasing strategy prioritizes neighborhood-serving retail that reinforces the district’s self-sufficiency while complementing existing workspaces and residential communities.

The Project’s retail viability is enhanced by its proximity to established regional anchors—including Whole Foods and Trader Joe’s—and natural amenities such as Fresh Pond Reservation and Alewife Brook Reservation, which draw significant foot traffic.

Targeted Leasing Tactics:

- Curating Neighborhood-Centric Retail – Pursuing tenants that provide essential goods and services currently absent in the area (e.g., gyms, salons, childcare). The strategy emphasizes diversity, equity, and inclusivity in tenant selection, prioritizing deals with small, local, independent businesses.
- Supporting Local Entrepreneurship – Designing flex spaces to accommodate light industrial uses and makers, fostering opportunities for local businesses and job creation.
- Enhancing Leasing Flexibility – Offering varied retail footprints to accommodate a diverse mix of tenants.
- Lowering Barriers for Startups – Exploring creative lease structures, including shorter lease terms and increased landlord investment in tenant improvements, to facilitate faster retail activation.
- Expanding Activation Beyond Traditional Retail – Investing in community programming, cultural partnerships, and public-facing experiences to reinforce a dynamic, mixed-use environment.

This strategic approach to retail leasing and activation ensures that Alewife evolves into a well-balanced, walkable district that meets the needs of residents, workers, and visitors alike.

III. Conclusion

Of Place LLC fully endorses the Alewife retail strategy as a thoughtful and forward-thinking approach to ground-floor activation that will enhance the district’s character, livability, and resilience. The plan’s strategic clustering of retail activity around key hubs—New Main Street, Fawcett Street Crossroads, and Smith Place—creates a walkable, neighborhood-centric ecosystem that encourages foot traffic and fosters community engagement. Its proximity to regional anchors like Whole Foods and Trader Joe’s, along with natural amenities such as Fresh Pond Reservation, further strengthens its market viability and appeal.

The strategy’s emphasis on diversity, flexibility, and local entrepreneurship makes it particularly compelling. By curating neighborhood-serving retail, supporting emerging makers, and lowering barriers for startups, the plan ensures an inclusive and adaptable tenant mix and leasing strategy. The integration of public-facing experiences and cultural programming adds vibrancy beyond traditional retail, fostering a true sense of place. This dynamic and sustainable approach will transform Alewife into a thriving, pedestrian-friendly district that meets the needs of residents, workers, and visitors alike.

Appendix G

Community Meeting Notes

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MEETING MINUTES

CLIENT: Healthpeak

PROJECT: Healthpeak PUD Special Permit

MEETING: Pre-Application Community Meeting

DATE: 11/12/25

Attendee	Distribution	Name	Email	Affiliation
☐	☐	Kelvin Moses	Kmoses@healthpeak.com	Healthpeak
☐	☐	Scott Bohn	Sbohn@healthpeak.com	Healthpeak
☒	☒	Tracy Porter	Tporter@healthpeak.com	Healthpeak
☒	☒	Heidi Taliaferro	Htaliaferro@healthpeak.com	Healthpeak
☒	☒	Claire Brown	Cbrown@healthpeak.com	Healthpeak
☒	☒	Matt Herb	Mherb@healthpeak.com	Healthpeak
☒	☒	Rylan Squirrell	Rsquirrell@healthpeak.com	Healthpeak
☒	☒	Grant Jaber	Grant.jaber@hines.com	Hines
☒	☒	Ben Wiggins	Ben.wiggins@hines.com	Hines
☒	☒	David Manfredi	Dmanfredi@elkus-manfredi.com	Elkus Manfredi Architects
☒	☒	John Mitchell	Jmitchell@elkus-manfredi.com	Elkus Manfredi Architects
☒	☒	James Rafferty	Jrafferty@adamsrafferty.com	Adams & Rafferty
☒	☒	Anthony Galluccio	Anthony@gallucciowatsonlaw.com	Galluccio & Watson
☒	☒	Darren Baird	Dbaird@goulstonstorrs.com	Goulston & Storrs
☐	☒	Yari Sanchez	Ysanchez@goulstonstorrs.com	Goulston & Storrs
☒	☒	Tom Shaw	Toms@pmainc.com	PMA
☒	☒	Michele Niaki	Michelen@pmainc.com	PMA
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☒	☒	Selma Mandzo-Predzic	Smandzo@vhb.com	VHB
☒	☒	Sara Yasin	Syasin@vhb.com	VHB
☒	☒	Brian Fairbanks	Bfairbanks@vhb.com	VHB
☐	☒	Bryan Walsh	Bwalsh@vhb.com	VHB
☒	☒	Lauren DeVoe	Ldevoe@vhb.com	VHB
☐	☒	Rucha Ragalwar	Rragalwar@vhb.com	VHB
☒	☒	Jessica Zofchak	Jessica.zofchak@atelierten.com	Atelier Ten
☐	☒	Liz Lessig	Liz.lessing@atelierten.com	Atelier Ten
☒	☒	Chris Jones	Chris.jones@arcadis.com	Arcadis
☒	☒	Carl Frushour	Carl.frushout@arcadis.com	Arcadis
☒	☐	Douglas Brown	Douglas_p_brown@yahoo.com	Virtual Attendee
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☒	☐	Amber Fisher	Abifolck@gmail.com	Virtual Attendee
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☒	☐	Hom Sack	Hom.sack@gmail.com	Virtual Attendee
☒	☐	Jonathan Agger	Aggerj@gmail.com	Virtual Attendee

☒	☐	Ranu Boppana	Ranuboppana@gmail.com	Virtual Attendee
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☒	☐	Steve Owens	Steven.owens@mahouse.gov	Virtual Attendee
☒	☐	Sergio Brosio	Sergiobrosio@gmail.com	Virtual Attendee
☒	☐	Magda Brosio	Magdabrosio@gmail.com	Virtual Attendee
☒	☐	Lizzie Feigenbaum	Lizziefeigenbaum@gmail.com	In-person Attendee
☒	☐	Joseph Sultan	Joesultan@mac.com	In-person Attendee
☒	☐	John Holland	solisortis@comcast.net	In-person Attendee
☒	☐	Susan Holland	solisortis@comcast.net	In-person Attendee
☒	☐	Mary Verhage	n/a	In-person Attendee
☒	☐	David Kale	Davidjkale99@gmail.com	In-person Attendee
☒	☐	Praveen Prasanna	Praveen.prasanna@me.com	In-person Attendee
☒	☐	Neil Rohr	Neilrohr@comcast.net	In-person Attendee

The following minutes reflect our understanding of the discussion during the above described meeting. Please review and report to PMA any comments or discrepancies within two (2) days of issuance.

Topic	Meeting Notes (Action Items will be noted in BOLD .)
Meeting Overview	The development plan represents a long-term, phased approach to transforming the area into a vibrant, mixed-use, sustainable, and well-connected neighborhood. The plan aligns with the community's vision and the zoning framework established through the collaborative Working Group process. The project team is committed to delivering key infrastructure improvements, such as the pedestrian bridge, open spaces, and street upgrades, as the development progresses. Sustainability and environmental considerations are central to the plan, with strategies to reduce carbon emissions, manage stormwater, and enhance the urban environment. The transportation plan emphasizes multimodal access, with a goal of reducing reliance on private vehicles and supporting alternative modes of transportation.
Welcome & Block Party Recap	Anthony G. opened the meeting by welcoming the attendees and thanking them for participating in the Community Block Party. It was explained that the project survey is still open for public input.
PUD Process & Zoning	Anthony G. provided a brief overview of the rezoning completed by the City and the Working Group, and a timeline of Healthpeak's PUD application process.
Healthpeak Overview	Rylan S. provided a brief background on Healthpeak and the vision for a mixed-use neighborhood, introducing Hines as their residential partner. He highlighted that even though there are economic challenges, Healthpeak has a long-term view. The project is contemplated to be phased over 10-20 years.

Master Plan Overview	David M. highlighted the key planning principles of the development. He demonstrated the project is creating new connections between the Minuteman Trail and Fresh Pond via the planned pedestrian/bike bridge over the MBTA tracks, as intended in the Alewife Envision Plan. Other highlights of the site include new open space, improved sidewalks, and mixed-use density creating a cohesive, vibrant, walkable community. Part of the site is reserved for expanded DPW facilities. The first building considered for Design Review is residential, near the bend in Fawcett Street.
Open Space	Chris J. presented the proposed open space plan. He highlighted numerous opportunities for parks, emphasizing flexibility of uses and public benefits (connectivity, shade, heat-island mitigation, and family-friendly spaces).
Neighborhood Uses	Alison W. presented the Neighborhood Uses methodology noting that locations are appropriately scaled and are not intended to replace Fresh Pond Mall. They are intended to create a sense of place, are within walking or biking distance, and are strategically located in places that are considered likely to thrive over time. She explained the primary community gathering nodes and the strong desire to integrate and celebrate Iggy's Bakery. Community feedback was referenced to inform the plan.
Transportation & Mitigation Overview	Selma M. provided the results of the full-build traffic model for permitting, but emphasized that the real impacts will be phased incrementally. She explained the parking strategy, including the TDM strategies that will aid in reducing the number of vehicles coming to/from the site. She also showed the proposed infrastructure improvements which include Smtih Place realignment, Concord Avenue upgrades, a Terminal Road bike and pedestrian connection, and the pedestrian and bicycle bridge. Finally, she noted the team's commitment to advocating for a commuter rail stop.
Sustainability Goals and Priorities	Jessica Z. demonstrated the team's commitment to all-electric buildings from day-one (excluding emergency backup) which provides a major reduction in operational carbon and other energy efficient measures. She explained how the 14x increase in green/open space will reduce heat island effect in the neighborhood. The project is built on a holistic perspective on health, wellbeing, and the environment.
Public Comments & Questions	Public Comment: Thanks for reviewing Terminal Road and one that was not vehicular. Question: Is there a drawing that shows the phasing over the next 25 years? Healthpeak: The phasing is still being studied and is dependent on future market conditions. Both the residential and commercial are highly challenged. Currently, residential is planned to be constructed first and is in design, but it will likely not begin construction for

a few years. The design process allows us to evaluate costs and determine if the project is feasible.

Question: Are you considering, or is there supposed to be bike path to the south of the railway as you're moving Mooney Street and making other connections? Is that shown on the plans?

Healthpeak Team: We are excited about the multiuse path. We know how important it is to that edge of the New Mooney Street. Since it involves the MBTA, we will need their support. We need the community to reiterate the need for their support as well. We think they are supportive. Also, our plan does show that section of the multiuse path.

Public Comment: I liked seeing in the plan that there are at least 2,000 units of housing and there will be inclusionary requirements. Good to see that a lot of the housing is in the first phase and early on, which the need is great. And it helps to, of course, build the community and people living there.

Question: How was the parking number determined and is there a way to reduce?

Healthpeak: Parking numbers were calculated to ensure that the area remains competitive with Watertown and Waltham and can support development. The numbers also reflect a full build out that would occur gradually over time. Additionally, the supply may be adjusted as mode splits change and demand ideally decreases.

Question: Will DPW be combining the existing space with their Hampshire place?

Healthpeak: Healthpeak does not want to speak for DPW, but they do not expect this to be a replacement facility.

Question: What is the timing on the bridge?

Healthpeak: The zoning requires it to begin construction after 50% of your commercial square footage is occupied. It is highly dependent on the market.

Question: How many housing units are anticipated and what is the breakdown?

Healthpeak: Approximately 2,000-units are anticipated at full build-out with the first phase including a majority of the these units. There will be a higher share of 2 and 3 bedroom units compared to others in the market. If the developer proposes a certain number of 3-bedroom units, there be a proportional inclusionary requirement.

Public Comment: Where you are showing a new residential building is currently parking for Mount Auburn.

Healthpeak: Yes, we are very protective of Mount Auburn as many of us get medical care there. We will need to ensure there is appropriate parking before we build that residential building.

Question: Can the bridge get done sooner?

Healthpeak: Economically, we need some commercial development first in order to support the bridge.

Question: Has there been any thought to having recreational uses on-top of parking decks?

Healthpeak: Healthpeak will look into this possibility.

Question: What is the plan with Iggy's bakery? How will the road changes impact them?

Healthpeak: Healthpeak reaffirmed their strong commitment to keeping Iggy's as is and hopes to explore ways to connect Iggy's into the adjacent retail and park spaces. Road improvements should help them.

Comment: I'd really like for us to think collectively about how we advocate the MBTA for a rail stop.

Healthpeak: The MBTA has indicated that there is an advanced study that's currently being conducted on this topic. I think we can make a really good case that this is a perfect spot for a commuter rail station, because you'll have people getting off here from the outer suburbs. However, those are decisions that are made regionally.

Question: With downgrading the Charles River designation there is concern for runoff into the Charles and Mystic River. What are the projections and what will happen to Sewer overflow?

Healthpeak: As part of application, Cambridge requires a 4:1 inflow and infiltration mitigation, meaning for every gallon of new sewer flow created, four gallons of water must be removed from the regional sewer system.

Question: What is being done about light pollution in the area?

Healthpeak: Healthpeak noted the lighting concerned and emphasized there will be no all glass buildings and all lighting design will have the community in mind.

END OF MINUTES

Appendix H

Future Roadway Studies

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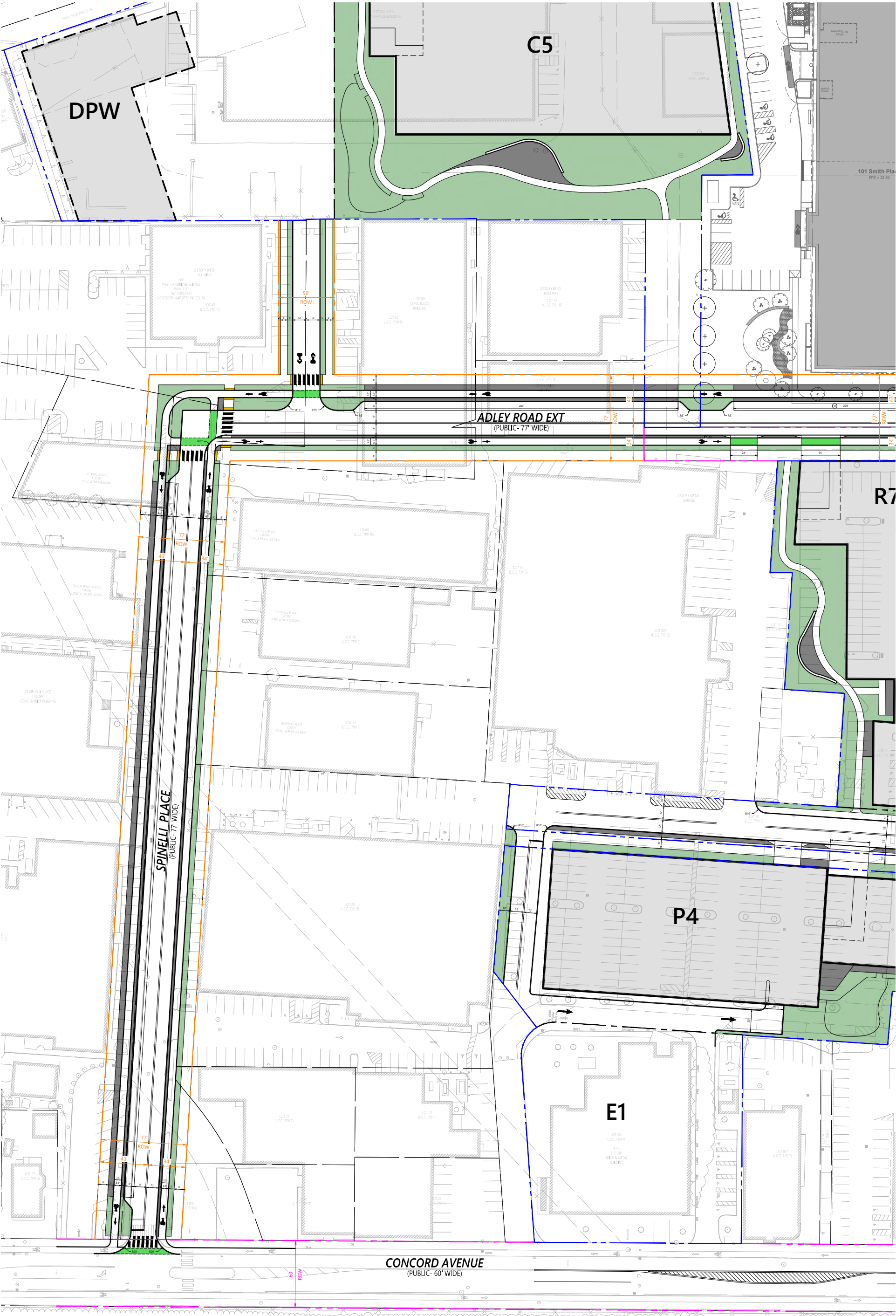
Smith Place Study - Alt 1

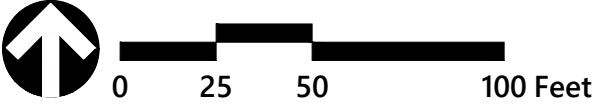
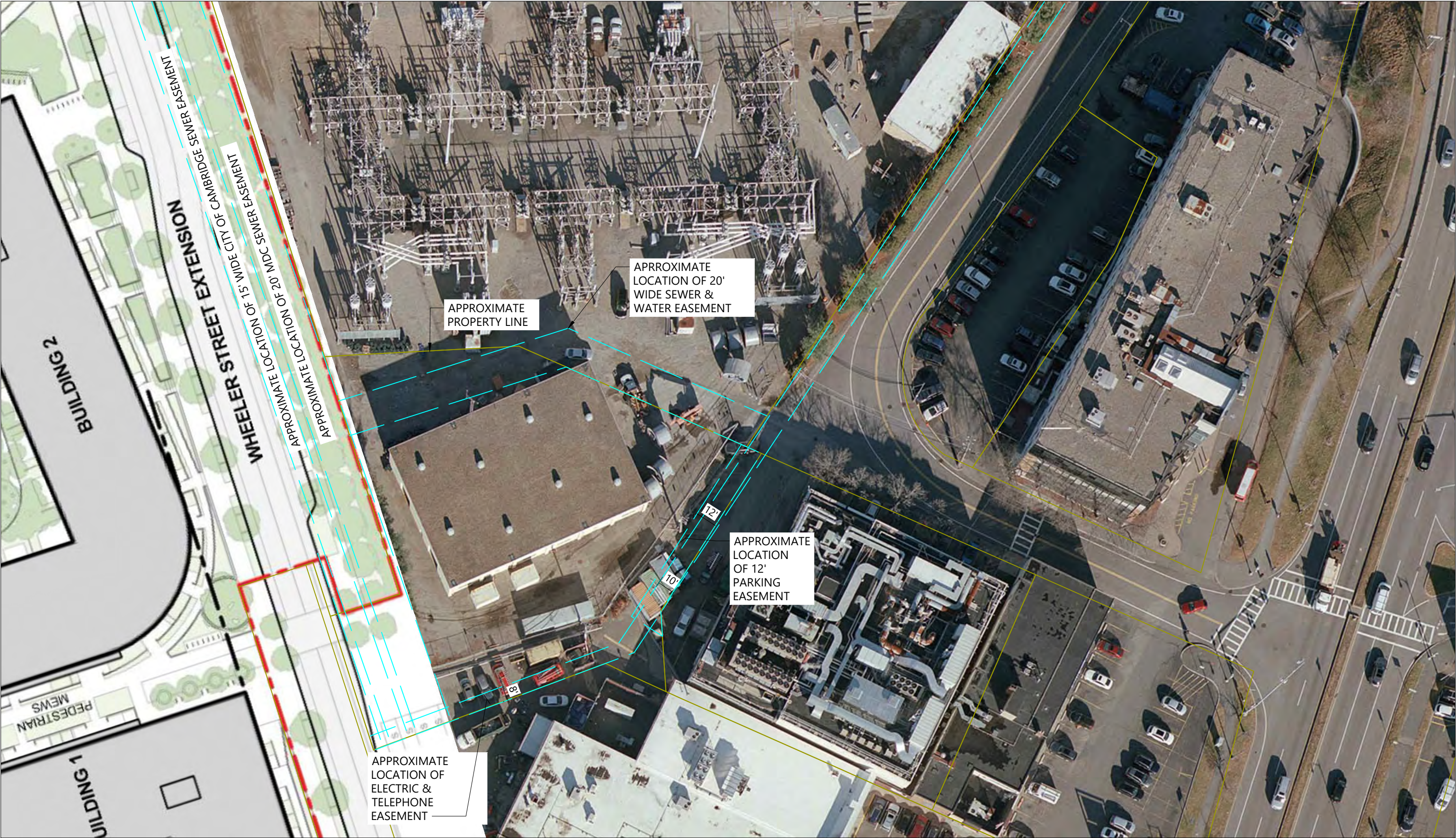
Healthpeak | Alewife Quad

Cambridge, MA

Source: Internal Review
Prepared for: June 17, 2026

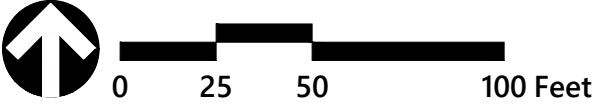
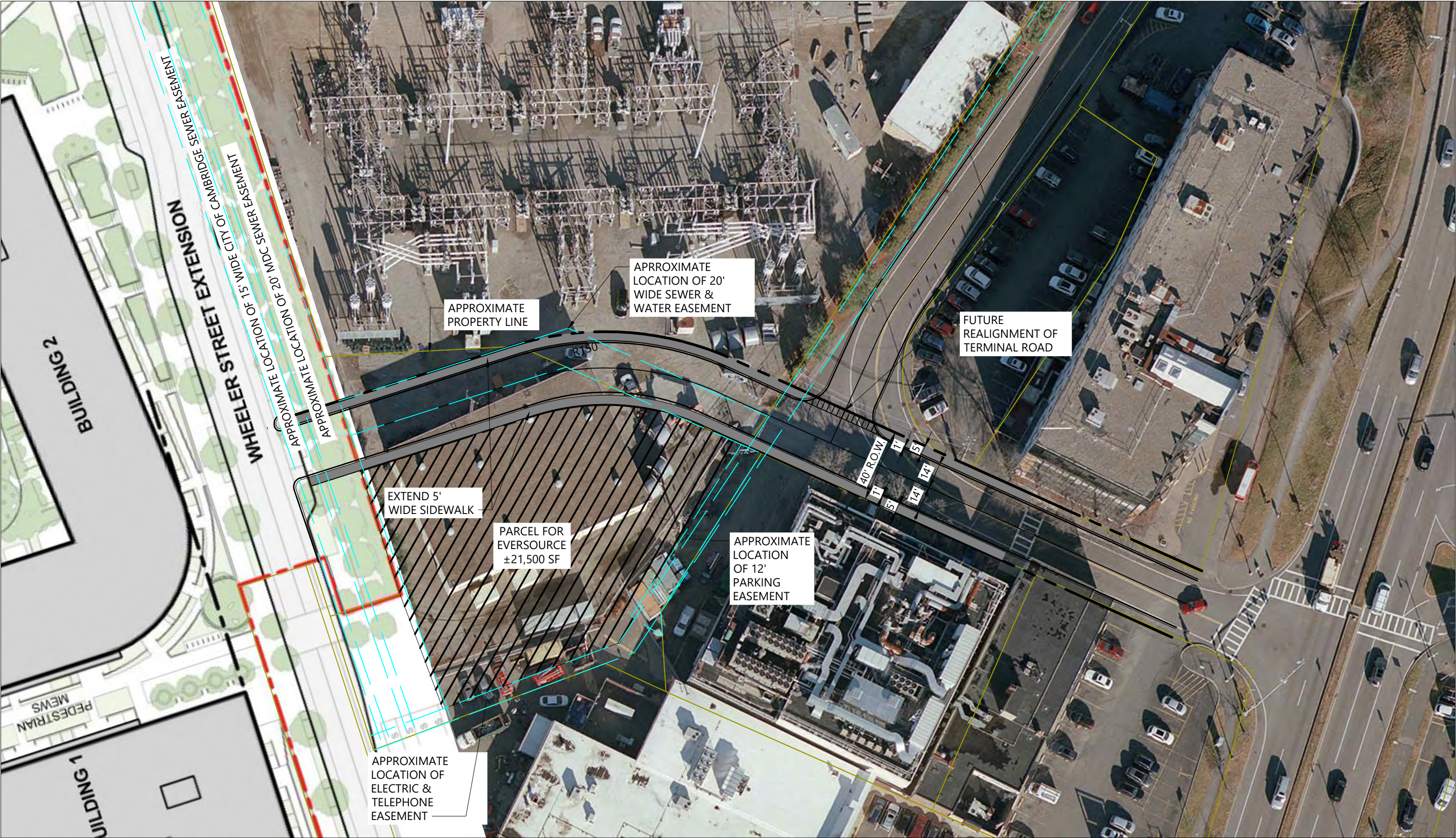






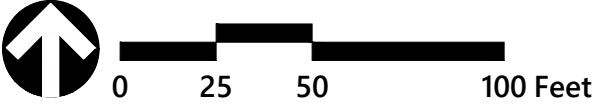
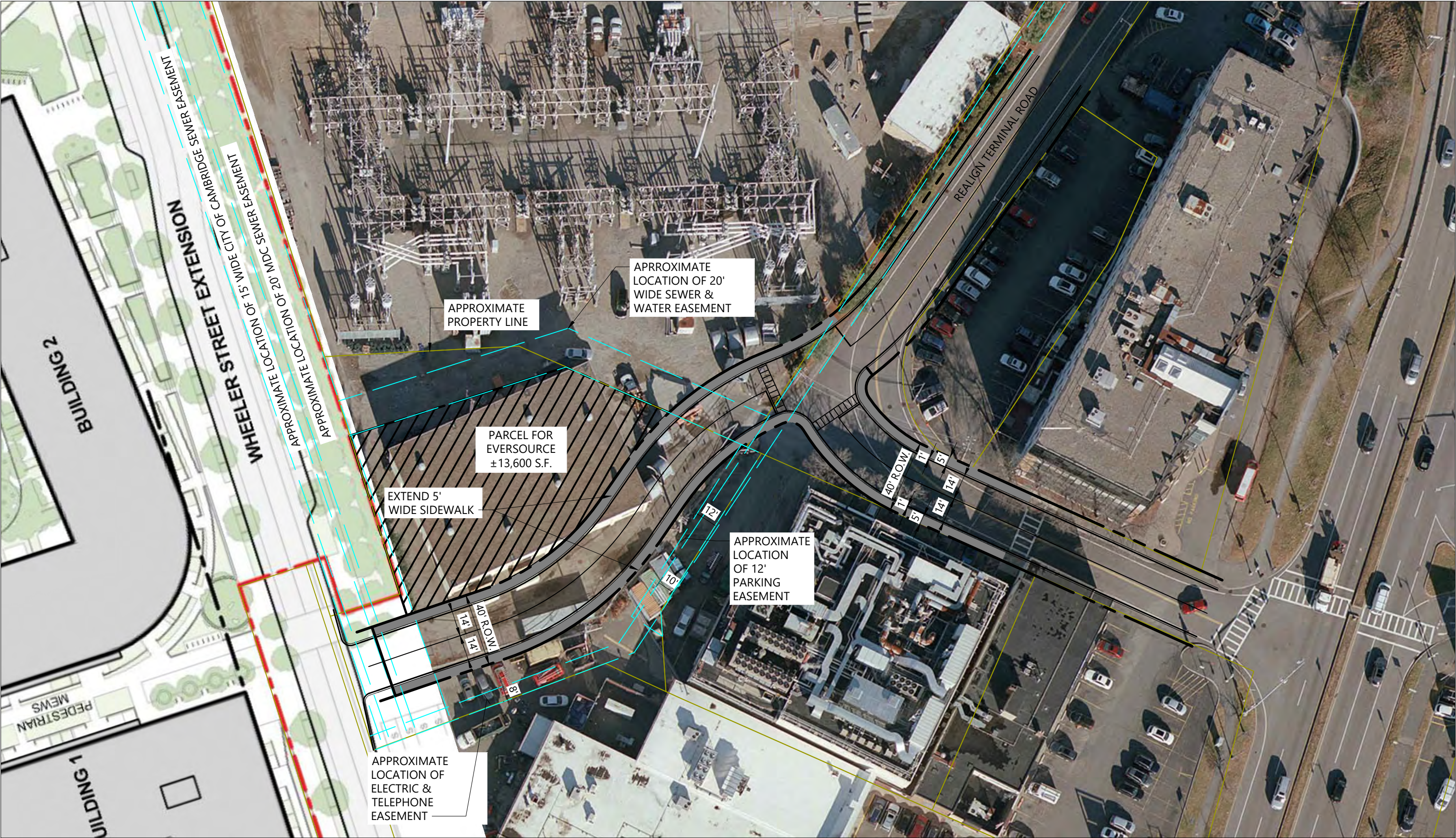
Cambridge, MA
Wheeler - Terminal
Aerial

Figure 1



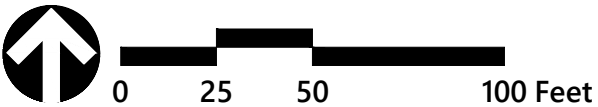
Cambridge, MA
Potential Wheeler - Terminal
Vehicular Connection - North

Figure 2



Cambridge, MA
Potential Wheeler - Terminal
Vehicular Connection - South

Figure 3



Cambridge, MA
Potential Wheeler - Terminal
Pedestrian Connection

Figure 4

Appendix I

Statistical Summary Table

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I. Project as a Whole**A. Summary**

a. Parcel Area	Total Area (Acres)	43.30
	Total Area (Square Feet)	1,886,286
	Conveyed (SF)	293,145
	Mooney St. Relocation (SF)	10,821
	Non-Conveyed (SF)	1,582,320
b. Floor Area	Total GFA	4,786,400
c. Non-Residential	Max. FAR	1.5
	Zoning GFA	2,829,429
	Proposed GFA	2,521,000
	Neighborhood Use	75,640
d. Residential	Max. FAR	2.5
	Zoning GFA	4,715,715
	Proposed GFA	2,246,900
e. Open Space	Open Space	598,514
	Permeable	395,960
f. Parking Spaces	Non-Residential	3,032
	Residential	1,445
	Total	4,477
g. Dwelling Units	Proposed Number	2,296

A. Statistical Summary - Phase 1**1. Overall Dimensional Limits**

a. Parcel Areas	Total Area (SF)	935,351
	Conveyed (SF)	232,791
	Non-Conveyed (SF)	702,560
b. Floor Area	Total GFA (SF)	2,197,250
c. Non-Residential	GFA (SF)	1,175,000
	Neighborhood Use GFA (SF)	18,500
d. Residential	GFA (SF)	1,003,750
e. Open Space	Open Space (SF)	270,943
	Permeable (SF)	189,486
f. Parking Spaces	Non-Residential	1,510
	Residential	490
	Total	2,000
g. Dwelling Units	Proposed Number	1,063

B. Statistical Summary - Phase 2**1. Overall Dimensional Limits**

a. Parcel Areas	Total Area (SF)	950,935
	Conveyed (SF)	60,354
	Non-Conveyed (SF)	890,581
b. Floor Area	Total GFA (SF)	2,589,150
c. Non-Residential	GFA (SF)	1,346,000
	Neighborhood Use GFA (SF)	57,140
d. Residential	GFA (SF)	1,243,150
e. Open Space	Open Space (SF)	327,571
	Permeable (SF)	206,474
f. Parking Spaces	Non-Residential	1,522
	Residential	955
	Total	2,477
g. Dwelling Units	Proposed Number	1,233

A. Statistical Summary - Phase 1A*

1. Overall Dimensional Limits

a. Parcel Areas	Total Area (SF)	411,911
	Conveyed (SF)	83,938
	Non-Conveyed (SF)	327,973
b. Floor Area	Total GFA (SF)	1,015,250
c. Non-Residential	GFA (SF)	0
	Neighborhood Use GFA (SF)	11,500
d. Residential	GFA (SF)	1,003,750
e. Total Open Space	Open Space (SF)	139,828
	Permeable (SF)	81,457
e. Open Space	Open Space (SF)	102,802
	Permeable (SF)	70,132
f. Parking Spaces	Non-Residential	654
	Residential	490
g. Dwelling Units	Proposed Number	1063

*The Applicant intends to convey the approximately 1-acre DPW Parcel to the City of Cambridge by the end of Phase 1A. The City of Cambridge will subsequently construct a new Department of Public Works Facility on the DPW Parcel.

2. Dimensional Limits on Individual Parcels

DPW	a. Total Parcel Area (SF):	55,530
	b. Total GFA (SF):	35,000*
	c. Use:	Conveyed Land
	d. Non-Residential GFA (SF):	
	e. Neighborhood Use (SF):	
	f. Residential GFA (SF):	
	g. Total Parking Spaces:	14
	h. Open Space	0
	i. Permeable	0
R1	a. Total Parcel Area (SF):	42,869
	b. Total GFA (SF):	196,650
	c. Use:	Residential
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	196,650
	g. Total Parking Spaces:	160
	h. Open Space	15,246
	i. Permeable	10,890

*The Gross Floor Area associated with the DPW Facility Project is exempt under Section 20.1100.5.1.4(a) of the Cambridge Zoning Ordinance.

R2	a. Total Parcel Area (SF):	97,266
	b. Total GFA (SF):	400,000
	c. Use:	Residential
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	7,000
	f. Residential GFA (SF):	400,000
	g. Total Parking Spaces:	330
	h. Open Space	43,124
	i. Permeable	24,829
E2	a. Total Parcel Area (SF):	9,537
	b. Total GFA (SF):	4,500
	c. Use:	Existing Commercial Use
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	4,500
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	4,792
	i. Permeable	1,742
R7	a. Total Parcel Area (SF):	49,653
	b. Total GFA (SF):	347,300
	c. Use:	Residential
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	347,300
	g. Total Parking Spaces:	0
	h. Open Space	13,504
	i. Permeable	10,454
R6/P4	a. Total Parcel Area (SF):	64,992
	b. Total GFA (SF):	59,800
	c. Use:	Residential/Parking
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	59,800
	g. Total Parking Spaces:	630
	h. Open Space	12,197
	i. Permeable	10,454
E1 (Existing Use to Remain)	a. Total Parcel Area (SF):	36,850
	b. Total GFA (SF):	84,500
	c. Use:	Existing Use
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	84,500
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	13,939
	i. Permeable	11,761

B. Statistical Summary - Phase 1B

1. Overall Dimensional Limits

a. Parcel Areas	Total Area (SF)	523,440
	Conveyed (SF)	148,853
	Non-Conveyed (SF)	374,587
b. Floor Area	Total GFA (SF)	1,182,000
c. Non-Residential	GFA (SF)	1,175,000
	Neighborhood Use GFA (SF)	7,000
d. Residential	GFA (SF)	0
e. Total Open Space	Open Space (SF)	253,519
	Permeable (SF)	150,282
e. Open Space	Open Space (SF)	168,142
	Permeable (SF)	119,354
f. Parking Spaces	Non-Residential	856
	Residential	0
g. Dwelling Units	Proposed Number	0

2. Dimensional Limits on Individual Parcels

C3	a. Total Parcel Area (SF):	51,305
	b. Total GFA (SF):	294,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	294,000
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	10,019
	i. Permeable	7,841
C4	a. Total Parcel Area (SF):	45,001
	b. Total GFA (SF):	288,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	288,000
	e. Neighborhood Use (SF):	7,000
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	5,663
	i. Permeable	3,049
C6	a. Total Parcel Area (SF):	57,692
	b. Total GFA (SF):	301,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	301,000
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	13,939
	i. Permeable	9,148
P2	a. Total Parcel Area (SF):	42,217
	b. Total GFA (SF):	0
	c. Use:	Parking
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	856
	h. Open Space	12,197
	i. Permeable	11,761
C5	a. Total Parcel Area (SF):	91,360
	b. Total GFA (SF):	292,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	292,000
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	39,204
	i. Permeable	31,799

C. Statistical Summary - Phase 2A

1. Overall Dimensional Limits

a. Parcel Areas	Total Area (SF)	344,566
	Conveyed (SF)	14,971
	Non-Conveyed (SF)	329,595
b. Floor Area	Total GFA (SF)	841,000
c. Non-Residential	GFA (SF)	588,000
	Neighborhood Use GFA (SF)	0
d. Residential	GFA (SF)	253,000
e. Total Open Space	Open Space (SF)	167,270
	Permeable (SF)	121,968
e. Open Space	Open Space (SF)	156,816
	Permeable (SF)	118,919
f. Parking Spaces	Non-Residential	630
	Residential	165
g. Dwelling Units	Proposed Number	220

2. Dimensional Limits on Individual Parcels

C1	a. Total Parcel Area (SF):	78,853
	b. Total GFA (SF):	294,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	294,000
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	10
	h. Open Space	28,314
	i. Permeable	25,700
C2	a. Total Parcel Area (SF):	50,375
	b. Total GFA (SF):	294,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	294,000
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	10,019
	i. Permeable	8,276
P1	a. Total Parcel Area (SF):	102,085
	b. Total GFA (SF):	0
	c. Use:	Parking
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	620
	h. Open Space	57,064
	i. Permeable	40,511
R8	a. Total Parcel Area (SF):	37,476
	b. Total GFA (SF):	253,000
	c. Use:	Residential
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	253,000
	g. Total Parking Spaces:	165
	h. Open Space	6,098
	i. Permeable	3,920

D. Statistical Summary - Phase 2B

1. Overall Dimensional Limits

a. Parcel Areas	Total Area (SF)	606,369
	Conveyed (SF)	45,383
	Non-Conveyed (SF)	560,986
b. Floor Area	Total GFA (SF)	1,805,290
c. Non-Residential	GFA (SF)	758,000
	Neighborhood Use GFA (SF)	57,140
d. Residential	GFA (SF)	990,150
e. Total Open Space	Open Space (SF)	208,652
	Permeable (SF)	97,574
e. Open Space	Open Space (SF)	170,755
	Permeable (SF)	87,556
f. Parking Spaces	Non-Residential	892
	Residential	790
g. Dwelling Units	Proposed Number	1,013

2. Dimensional Limits on Individual Parcels

C7	a. Total Parcel Area (SF):	76,726
	b. Total GFA (SF):	380,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	380,000
	e. Neighborhood Use (SF):	9,070
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	4,792
	i. Permeable	436
C8	a. Total Parcel Area (SF):	76,725
	b. Total GFA (SF):	378,000
	c. Use:	Commercial
	d. Non-Residential GFA (SF):	378,000
	e. Neighborhood Use (SF):	9,070
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	6,534
	i. Permeable	436
R3	a. Total Parcel Area (SF):	69,055
	b. Total GFA (SF):	389,850
	c. Use:	Residential
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	25,000
	f. Residential GFA (SF):	389,850
	g. Total Parking Spaces:	320
	h. Open Space	10,019
	i. Permeable	1,742

R4	a. Total Parcel Area (SF):	59,925
	b. Total GFA (SF):	357,650
	c. Use:	Residential
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	14,000
	f. Residential GFA (SF):	357,650
	g. Total Parking Spaces:	300
	h. Open Space	8,276
	i. Permeable	2,178
R5	a. Total Parcel Area (SF):	41,227
	b. Total GFA (SF):	242,650
	c. Use:	Residential
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	242,650
	g. Total Parking Spaces:	170
	h. Open Space	12,632
	i. Permeable	10,019
P3	a. Total Parcel Area (SF):	62,830
	b. Total GFA (SF):	0
	c. Use:	Parking
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	861
	h. Open Space	13,504
	i. Permeable	8,712
E3 (Existing Use to Remain)	a. Total Parcel Area (SF):	43,183
	b. Total GFA (SF):	109,000
	c. Use:	Existing Commercial Use
	d. Non-Residential GFA (SF):	0
	e. Neighborhood Use (SF):	0
	f. Residential GFA (SF):	0
	g. Total Parking Spaces:	0
	h. Open Space	16,988
	i. Permeable	12,632