



CITY OF CAMBRIDGE

Community Development Department

To: Planning Board

From: CDD Staff

Date: February 23, 2022

Re: Special Permit **PB-387, 36-64 Whittemore Avenue ("Alewife Park")**

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Overview

Submission Type:	Special Permit Application
Applicant:	IQHQ-Alewife LLC
Zoning District(s):	Special District 2, Special District 3, Parkway Overlay District, Flood Plain Overlay District
Proposal Summary:	Renovate 2 existing buildings, demolish 5 existing buildings, construct 3 new buildings, and construct a 350-vehicle above grade parking garage, totaling around 735,500 square feet Gross Floor Area for office, laboratory, and retail use
Special Permits Requested:	Project Review (19.20); Flood Plain Overlay District Special Permit (20.73)
Other City Permits Needed:	Conservation Commission approval
Planning Board Action:	Grant or deny requested special permits.
Memo Contents:	CDD Zoning Report & Urban Design Report
Other Staff Reports:	Parking and Transportation Dept. (TP+T), Department of Public Works (DPW), in separate documents.

Requested Special Permits	Required Planning Board Findings <i>(Summary - see appendix for zoning text excerpts)</i>
Project Review Special Permit (Section 19.20)	<ul style="list-style-type: none"> • The project will have no substantial adverse impact on city traffic within the study area, upon review of the traffic impact indicators analyzed in the Transportation Impact Study and mitigation efforts proposed. • The project is consistent with the urban design objectives of the City as set forth in Section 19.30.
Construction in Flood Plain Overlay District (Section 20.73)	<ul style="list-style-type: none"> • No encroachment of the floodway or displacement of water retention capacity is allowed unless fully offset. • Flood water systems shall not cause nuisance, hazard or detriment to site or abutters. • Development is consistent with zoning, area plans and guidelines, and applicable laws including Wetlands Protection Act. <p>Review by the City Engineer and Conservation Commission are required.</p>
General Special Permit Criteria (Section 10.43)	<p>Special permits will be normally granted if the zoning requirements are met, unless it is found not to be in the public interest due to one of the criteria enumerated in Section 10.43:</p> <ul style="list-style-type: none"> (a) It appears that requirements of this Ordinance cannot or will not be met, or (b) traffic generated or patterns of access or egress would cause congestion, hazard, or substantial change in established neighborhood character, or (c) the continued operation of or the development of adjacent uses as permitted in the Zoning Ordinance would be adversely affected by the nature of the proposed use, or (d) nuisance or hazard would be created to the detriment of the health, safety and/or welfare of the occupant of the proposed use or the citizens of the City, or (e) for other reasons, the proposed use would impair the integrity of the district or adjoining district, or otherwise derogate from the intent and purpose of this Ordinance, and (f) the new use or building construction is inconsistent with the Urban Design Objectives set forth in Section 19.30.



CITY OF CAMBRIDGE

Community Development Department

Date: February 23, 2022

Zoning Report: **PB-387, 36-64 Whittemore Avenue ("Alewife Park")**

Area Planning and Zoning

Site Context

Neighborhood/Area: North Cambridge/Alewife

Development Patterns: The site is former industrial land, and now contains commercial office and research buildings and surface parking surrounded by urban wilds. To the north and east of the site are neat blocks of mostly single- and two-family residential buildings with some three-family houses and multifamily apartment buildings scattered throughout.

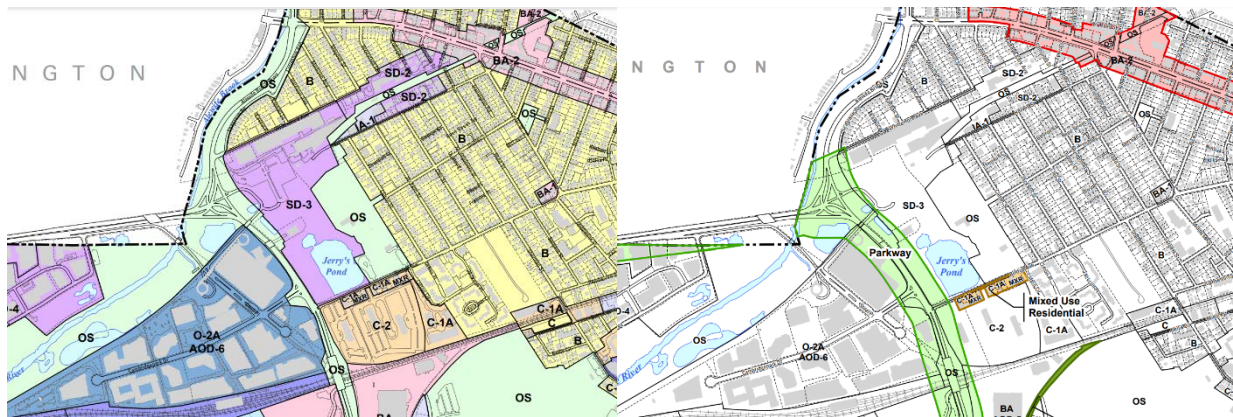
Nearby Features: The site is directly east of the Alewife Brook Parkway / Route 2 interchange. To the south are the MBTA Alewife Station headhouse, Jerry's Pond (a closed former swimming area), and a recreation complex that includes Russell Field, playgrounds, and a pool. Linear Park skirts the eastern and southern boundaries of the property.



Site context for 36-64 Whittemore Avenue. (Source: Nearmap March 27, 2021)

Site Zoning

General Description: Special District 3 (SD-3) is a unique district that allows residential and nonresidential development at a moderate height and density. The zoning anticipates large-scale site planning across multiple lots and thus sets district-wide standards. A small portion of the eastern edge of the site is in Special District 2, another unique district that allows primarily residential use at a similar scale and density. The northernmost part of the site on the north side of Whittemore Avenue is in Residence B and the western edge of the site is in the Parkway Overlay District. Portions of the site are also in the Flood Plain Overlay District by being within FEMA Flood Hazard Zones.



Zoning Map (left) and Overlay Zoning Map (right). (Source: City of Cambridge)

Development Plans and Guidelines

- [Special District 3](#). The zoning for this district was adopted in 1999 (Ordinance #1212). According to Section 17.31 of the Zoning Ordinance, the intent of SD-3 is “to permit a modest level of residential and nonresidential development in the District consistent with the public interest in protecting regulated wetlands where they occur within the district; maintaining flood storage capacity in the district consistent with federal regulations; minimizing the amount of additional traffic passing through congested intersections on arterial streets, and on local, neighborhood streets, that could provide access to the district; limiting stormwater runoff onto property located outside the district ensuring adequate visual buffers and screening of buildings and parking facilities from adjacent public parks and recreation facilities; minimizing the disturbance of existing soil within the district to limit dispersal and exposure to possible harmful residual substances in the soil; and in enhancing the parkway character of the Parkway Overlay District.”
- [Envision Cambridge](#) (2019). This comprehensive plan establishes city-wide planning goals and recommendations. Envision Cambridge calls for a balanced mix of development types that are sensitive to their context while still advancing the City’s goals in providing affordable housing, environmental resilience, cohesive urban form, and community wellbeing. It advocates for providing both commercial and residential development, as well as preserving and expanding the city’s open space network. Envision Cambridge designates this area as one of several “Evolving Mixed-Use Areas,” meaning that it should continue to accommodate the bulk of the city’s growth and change. The plan encourages new development to take advantage of transit

proximity and transform areas currently characterized by surface parking lots, automobile-oriented uses, and obsolete commercial buildings.

- [Alewife District Plan](#) (2019). This area-specific follow-up to Envision Cambridge sets a vision for the entire Alewife area, which includes five subdistricts. Overall, the plan seeks to encourage sustainable, resilient, mixed-use development that increases the connectivity of the district. This site is located in the Whittemore Avenue subdistrict, which has the following goals:
 - Encourage commercial use along Alewife Brook Parkway.
 - Encourage mid-density residential development adjacent to the existing residential neighborhood.
 - Incentivize development to invest in open space improvements in and around Jerry’s Pond.
 - Create new multi-use path connections from Whittemore Avenue and the Linear Park to the Alewife MBTA station.

Current Proposal

Overview

The Application, by IQHQ, proposes to redevelop the site by renovating two existing buildings, demolishing five existing buildings, constructing three new buildings, and constructing an above-grade parking garage. All development will be concentrated on the northern part of the site, south of Whittemore Avenue. Existing surface parking lots north and south of Whittemore Avenue will be retained. The Application also designates the four-acre natural habitat to the south of the site as a “Covenant Area” that will prohibit future construction of buildings and grant some public access.

The total development will amount to approximately 735,500 square feet of Gross Floor Area (GFA) and will be used predominantly for office and laboratory uses, with some retail use. Building heights will range from 48 feet to 52 feet. The project will provide approximately 653 parking spaces, including 350 spaces in the above-grade parking garage and 303 spaces in surface lots. It will also provide 140 long-term bicycle parking spaces, 44 short-term bicycle parking spaces, and eight loading bays.

The proposed development generally conforms to the SD-3 zoning, and is not seeking any use, dimensional, or parking relief. It requires a Project Review Special Permit because it proposes at least 50,000 square feet of new GFA, and a special permit for development in the Flood Plain Overlay District.

Proposed Uses

The Application proposes the following uses on the site:

Proposed Uses	Location/Size	Notes
4.34 Office and Laboratory	611,000 square feet	Allowed use
4.35 Retail or Consumer Service Establishments	3,500 square feet	Allowed: Convenience Stores, Restaurants, Arts Studios, and Retail Bakeries up to 1,200 SF per establishment; Grocery Stores up to 55,000 SF
Accessory Parking	121,000 square feet	Accessory to allowed uses

The current zoning for SD-3 allows all types of residential, office and laboratory, and institutional uses, with a limited range of retail and consumer service establishments. The Alewife District Plan recognizes the potential of this site to be an important mixed-use center, envisioning commercial uses along Alewife Brook Parkway and mid-density residential development adjacent to the existing residential neighborhoods. It also envisions publicly beneficial open space in the areas surrounding the Alewife MBTA headhouse.

At the time of programming retail spaces, the zoning may need to be looked at more closely to determine what range of retail uses would be allowed and if any relief might be needed from the BZA. The Application notes that in addition to brick-and-mortar retail, parts of the site may host food trucks. If food trucks are employed, staff would recommend participating with the City’s Food Truck Program, which provides opportunities for Cambridge residents, women, and BIPOC business-owned food trucks.

Proposed Dimensions

The new development is concentrated in Special District 3 (SD-3) and the Parkway Overlay District. The below table shows key dimensional features of the proposed development compared to the relevant base and overlay zoning:

	Dimensional Standards (SD-3/Parkway Overlay)	Proposed Development
Building Height	55’, 70’ near the MBTA headhouse (SD-3) 85’, with setbacks above 55’ (Parkway)	48-52’ (varies by building)
Floor Area Ratio (FAR)	0.45 allocated to each lot, may be pooled/transferred across lots	0.94 on Development Area
Gross Floor Area (GFA)	782,500 SF: entire district 764,751 SF: land controlled by Applicant	735,500 SF square feet
Setbacks (Yards)	<ul style="list-style-type: none"> • 25’ abutting Alewife Brook Parkway, comprised of Green Area Open Space with standards for tree plantings • 25’ on Whittemore Avenue • 50’ abutting Rindge Avenue, any Open Space District, and any public park or recreation area • Side yard of (H+L)/7 and rear yard of (H+L)/5 for nonresidential uses within 100’ of open space or residential uses 	<ul style="list-style-type: none"> • Front (Whittemore): 25’ • Side (Alewife Brook Parkway): Not specified • Side (eastern edge): Not specified • Rear (southern edge): Not specified
Open Space	20% min. - Any combination of Private open space, Publicly Beneficial Open Space, or Green Area Open Space; may be pooled across lots	51% of lot area <ul style="list-style-type: none"> • 42% of lot area is permeable open space (352,000 square feet) • 6% of lot area is permeable pavers (50,000 square feet)
Other	No basement construction permitted	No basement construction proposed

Gross Floor Area (GFA) and Floor Area Ratio (FAR)

The SD-3 zoning is atypical in that it limits the overall amount of GFA allowed in the district, rather than applying a strict FAR limit to individual sites or development parcels. Each lot in the district is assigned an FAR of 0.45, but the development rights can be pooled and transferred as-of-right, without Planning

Board approval, which is required for Planned Unit Development (PUD) or Transfer of Development Rights (TDR) zoning. The lots controlled by the Applicant, which comprise most of SD-3, are allocated a total of 764,751 square feet of GFA. Lots not controlled by the Applicant include the MBTA headhouse parcel and a residential lot in the northwest of the district; the Application notes that these lots are allocated a total of 17,649 square feet of development rights.

The proposal to concentrate development in one part of the district reduces additional development potential in other parts of the district, namely the Jerry's Pond area. The SD-3 zoning specifies that such a proposal requires written consent from the owner whose development rights would be reduced as a result. The Application proposes to enter into a restrictive covenant with the City to prohibit future building construction in the areas around the MBTA headhouse and Jerry's Pond, which the Applicant also controls. Such a covenant, or other mechanism to constrain development rights on other lots controlled by the Applicant, could be made a condition of a special permit to ensure the zoning requirements are met.

Another unique aspect of the SD-3 zoning is that it does not permit below-grade construction, due to the environmental conditions of the site. This means that parking must be above-grade, and above-grade parking is counted as GFA and is subject to other district dimensional standards for buildings.

Other Dimensional Standards

The siting of the development is largely in response to the setback standards, which aim to provide a buffer between open space and residential uses. While the new buildings appear to be sited sufficiently far away from the rear and side yard setback lines, it is unclear what those setback figures are. One of the existing buildings that will be renovated is located within the required front yard setback but will be maintained as an existing nonconforming condition. Similarly, the large, existing surface parking lot at the northeastern corner of the development site is located within both the required front yard setback and a required side yard setback.

Since there are multiple buildings on one lot, the development is also subject to Section 5.13 of the Zoning Ordinance. This standard requires that the minimum distance between buildings is 10 feet or the sum of the heights of the buildings divided by six, whichever figure is greater. It is not specified in the graphic materials if the proposed development meets this requirement.

Because the dimensional standards are as-of-right, and cannot be adjusted by Planning Board special permit, they would be reviewed for compliance at the building permit stage.

Open Space

The proposal includes a significant amount of open space due to development constraints in the southern portion of the site, including the GFA limitations noted above and other environmental constraints. In addition to the aforementioned covenant restricting future building development, the Application proposes several voluntary commitments related to the landscaping and programming of this open space area as well as the Jerry's Pond area, discussed further in this memo.

The proposal also includes open spaces within the development area, particularly in the form of a "promenade" that will be programmed with various activities. The area is described as a "community benefit" and could meet the definition of Publicly Beneficial Open Space, though that is not specified. It

would be helpful to understand more about how that programmed area will be available to neighborhood residents – for example, would there be programming available on the weekends, or would the spaces be available for neighborhood groups to use.

Proposed Parking, Bicycle Parking, Loading, and Connectivity

	Standards (SD-3/Parkway Overlay)	Proposed Development
Quantity of Off-Street Parking	No minimum 1,000 spaces maximum	653 spaces (350 in a new above-grade structure, 303 in surface lots)
Off-Street Parking Design	Prohibited below grade (see above) Parkway Overlay standards for siting and landscaping	Garage is above-grade Existing conditions of surface parking maintained
Loading Bays	5 minimum	8 proposed
Bicycle Parking (spaces per 1,000 SF)	Technical office: 0.22 long-term, 0.06 short-term Retail: 0.10-0.20 long-term, 0.60-1.00 short-term (depending on type of retail)	140 long-term spaces 44 short-term spaces

Off-Street Parking

SD-3 and the Alewife District Plan both support the elimination of parking minimums and the establishment of parking maximums. The Alewife District Plan recommends setting maximum parking ratios of 1.5 per 1,000 square feet for retail uses, 1.1 per 1,000 square feet for office uses, and 0.8 per 1,000 square feet for research and development uses. Since this site is in close proximity to the Alewife MBTA station, there is an opportunity to promote the type of transit-oriented development envisioned by the Alewife District Plan. Parking quantity is discussed further in the TP+T memo.

The proposal to construct an above-grade parking structure also aligns with the Alewife District Plan, which recommends eliminating surface parking lots and consolidating parking into garages. The proposal would also maintain existing parking lots in their current, non-conforming condition. In the future, area planning would support the redevelopment of surface parking lots to other uses, or design improvements to provide landscaping and meet environmental goals.

Bicycle Parking

The Application narrative notes that the proposal exceeds the required amounts of bicycle parking by a small amount; however, the dimensional form shows the same quantity for required and proposed. The location of and access to the bicycle parking appears to comply with zoning but will be reviewed in further detail at the building permit stage. At that time, the applicant should revise their drawings to indicate the slope of the ramps providing access to bicycle parking. It would also help to better understand the dimensions of the short-term bicycle racks, as they do not appear to comply with the design standards.

Special Access Requirements

This development offers many opportunities to improve pedestrian and bicycle connections in this area, notably with Linear Park. There are two unique requirements in the SD-3 zoning related to connectivity:

- Section 17.36.3 prohibits any “building, structure, parking facility or access road” from having access to Harvey Street, “except as may be necessary for emergency vehicles.” The Application shows a road connection to Harvey Street with a gate, and states that “Harvey Street will be restricted to emergency vehicle access only, and pedestrian and bicycle use.”
- Section 17.36.4 of the Zoning Ordinance requires the construction of a pedestrian and bicycle connection between Linear Park and Whittemore Avenue in the vicinity of Madison Avenue. This connection must be designed to a standard comparable to the improvements in the Linear Park and the Minuteman Bikeway. There is an existing connection between Linear Park and Whittemore Avenue created as part of an adjacent development at [33 Cottage Park Avenue \(PB-276\)](#), but that is a relatively narrow walking path that does not meet the City’s standards for a multiuse path. The Application cites pedestrian and bicycle connections to Linear Park in general but does not specify whether any connection is intended to meet the requirement in Section 17.36.4. This should be explored further with staff and is discussed in both the Urban Design Report and the memo from TP+T.

Special Permits

Project Review Special Permit

While this multi-building development proposal is reminiscent of a Planned Unit Development (PUD), it is not located in a PUD overlay district. As a result, the applicant is only required to seek a Project Review Special Permit due to the total GFA of the proposed development. See the memo from TP+T for more information about transportation impact findings, and the Urban Design Report for more information about urban design findings.

As a single project, this development is not proposed to be built in phases and would not be subject to the special phasing provisions that are characteristic of PUDs. The Project Review Special Permit would approve the design for all buildings at once, without an individual design review process for each building. Also, the development would not be subject to the provisions for Major and Minor Amendments in the PUD zoning. If the special permit is granted, then a future amendment could still be sought under the normal Project Review Special Permit procedures.

Flood Plain Overlay District Special Permit

This project is also seeking a special permit due to its location within the Flood Plain Overlay District. The findings for this special permit are relative to plans submitted by the applicant to the Conservation Commission and the City Engineer. See their respective reports and recommendations for more information.

Other Zoning Requirements

Green Building Requirements

The renovation of the two existing buildings and the construction of the three new buildings are required to meet the Green Building Requirements in Section 22.20. As a result, all buildings will be built to the LEED Gold standard. Additional commitments beyond meeting the Green Building Requirements

are noted in the application, including a solar photovoltaic canopy over parking lots, and electric vehicle charging stations.

CDD staff have reviewed the initial Green Building Report, which provides the required documentation at this stage to certify that the requirements will be met. Additional submissions and reviews will be required at the building permit and certificate of occupancy stages. In its review, staff offered the following advisory comments:

- Buildings 1 and 2 (renovation)
 - Design excellence is important to the city and involves higher level of sustainability. Considering the significance of the project in terms of location, community interest and involvement, we encourage the Project Architect to advance a higher level of energy performance, and green building strategies.
 - Staff appreciate the reuse of existing structural elements (i.e., floors, roofs, envelope) and requested more information on how much of each structural element will be used and how the commitment will be documented.
 - Staff had the following comments on the Net Zero Narrative:
 - The existing building renovation provides an excellent opportunity to provide a better transition to Net Zero at Day One by providing re-cladding with additional insulation through a metal panel system and high-performance glazing.
 - The proposed U value for the window is at .55. This seems to be in the high-range considering the latest in double-pane, insulating glass technology. Staff asked if high performing double pane or triple glazing has been considered.
 - The VLT for the vertical glazing at the ground level is very low at only .44. Transparency is important for views and connectivity to and from open spaces and public realm. Staff recommended at least a VLT of .60-.70.
 - Staff recommended using air source heat pumps for space heating, and possibly for heat pump for domestic water heating as new technology is available.
 - Regarding stretch code, it is not clear if the project is designed to meet the ASHRAE 90.1-2013 standard or if that standard is considered non-applicable.
- Buildings 3, 4, and 5 (new construction)
 - Continue assessment information on embodied carbon by using Tally or EC3 modeling.
 - Pursue additional credit points in impactful LEED categories including Energy & Atmosphere and Material Resources, Water Efficiency, and Indoor Environmental Quality.

Green Roofs Requirement

All three new buildings include green roofs on the main building roof as well as a “biosolar” installation (incorporating green roofs and solar photovoltaics) on the roof of the mechanical penthouse to comply with the Green Roofs Requirement in Section 22.35. A planted green roof is the minimum requirement, and this would be the first attempt at a biosolar roof installation since the Green Roofs Requirement was adopted last year. No relief is being sought and the requirements will be certified at the building permit and certificate of occupancy stages.

Incentive Zoning

This project is subject to the Incentive Zoning requirement, which requires development of more than 30,000 square feet of GFA to provide a Housing Contribution to the Affordable Housing Trust to mitigate the impact of non-residential development on the need for affordable housing in the city. The Application states that the Incentive Zoning payments would total approximately \$4.6 million.

Voluntary Commitments

The SD-3 zoning is not like PUD or similar districts that require specific public benefits in exchange for additional development rights; instead, the development standards apply as-of-right without the need for conditional approvals or relief granted by the Planning Board. However, given the project's scale and importance, the Application offers several voluntary commitments that will enhance the project, including:

- Improvements to the Jerry's Pond area that will improve public access.
- Improvements to the MBTA headhouse plaza and along Route 16, subject to approval from state authorities.
- Funding to scholarship and jobs programs and creating an internship program.
- Maintenance of a community garden.
- Incorporating an Ecological Center and tree nursery on the site.
- Allowing nearby residents to use parking on the site.

If the special permit is granted and the commitments described in the Application are made conditions of the special permit, more detailed review by appropriate City departments would ensure that the commitments are implemented in a way that aligns with applicable City standards, regulations, plans, and design guidelines.

Community Engagement

According to the applicant's community engagement summary, numerous meetings were held with the public and various stakeholder groups as the project was being developed. Three community-wide meetings were held between January and November 2021, with over 400 attendees in total. The applicant also created a website, www.ihqcommunityprocess.com, where recorded meetings and project materials were posted.

Special Permit Conditions

If the Board decides to grant the special permit, the following list summarizes the general categories of conditions recommended for this development based on the requested special permits:

1. Approved Development. Authorized development would need to conform with the submitted application materials. An Approved Dimensional Form would be attached as an Appendix. A restrictive covenant or other mechanism would be required to ensure that development rights on the non-developed parts of the site would be limited to comply with SD-3 zoning.
2. Permitted Uses. The special permit would authorize the uses proposed in the application, which would include Office and Laboratory uses listed in Section 4.34 and Retail or Consumer Service

Establishments listed in Sections 4.35 and 4.36, as permitted in the zoning district. In the future, uses that are allowed by zoning but not authorized by the special permit would require Planning Board approval, and uses that are limited by the Zoning Ordinance (e.g., requiring a separate special permit from the Planning Board or BZA) would need to seek the necessary relief.

3. Design Review. CDD staff would review and approve design details at the construction documents phase, prior to issuance of a building permit, to certify that the plans conform to the Planning Board’s approval. Board members may cite specific areas of focus for detailed review, based on the Urban Design Report and Board discussion.
4. Transportation and Infrastructure. Work being done on City property would be subject to review and approval by appropriate City departments, including DPW, TP+T and CDD. Transportation mitigation measures, as recommended in the TP+T memo, would be included as conditions.
5. Sustainability. Development will be subject to the Green Building Requirements in Section 22.20, which will be reviewed again by CDD staff at the building permit and certificate of occupancy stages. CDD would also review for compliance with Green Roof Requirements in Section 22.35.
6. Housing. Development will be subject to Incentive Zoning requirements, which will be certified by the CDD Housing staff at the building permit and certificate of occupancy stages.
7. Public Benefits. The voluntary commitments offered by the developer and agreed to by the Planning Board would be incorporated into the conditions, subject to certification by the appropriate City staff. Staff would recommend that further consultation with appropriate departments be conducted when implementing these commitments, particularly with respect to the design of publicly accessible open spaces and the provision of public services. Staff would also recommend consultation with CDD staff if food trucks are employed, to consider participating in the City’s Food Truck Program.
8. Construction Management Program. Per Section 18.20, staff would recommend a Construction Management Program be provided and approved by TP+T, DPW, and other applicable City departments before issuance of a building permit. This program would also include a community outreach program designating a point of contact to provide information to the public during the construction process and notification panels posted on the site with project information.



CITY OF CAMBRIDGE

Community Development Department

Date: February 23, 2022

Urban Design Report: **PB-387, 36-64 Whittemore Avenue (“Alewife Park”)**

Urban Design Comments

Introduction

The Alewife Park project at 36-64 Whittemore Avenue presents a unique opportunity to improve circulation and connectivity in the Whittemore/Alewife/Russell Field/Jerry’s Pond area, enhance Whittemore Avenue, and to transform Jerry’s Pond and other natural areas of the site into assets for the community. It will also provide jobs in the area, while capitalizing on the site’s proximity to the Alewife MBTA station to minimize carbon footprint due to commuting by residents and workers.

The existing buildings to be renovated and the new buildings to be constructed are arranged as a relatively compact group of four-floor laboratory/office buildings between Whittemore Avenue and the 4-acre natural/wooded area north of Russell Field and the MBTA headhouse. A central spine – the “Pedestrian Corridor” or the “Promenade” – runs east/west, linking and organizing the buildings. At the middle of the Pedestrian Corridor a “Central Plaza” is linked north to Whittemore Avenue and south to a parking garage that projects into the natural/wooded area. The buildings will accommodate offices and laboratories, plus a small amount of retail and amenity space.

The development site is central to well populated neighborhoods and heavily used facilities: the Whittemore and Harvey Street neighborhoods to the north and east, the Alewife Linear Path to the east, Russell Field to the east and south, the Alewife MBTA headhouse and Station to the west. Jerry’s pond, in the southern portion of the site, is a significant but underutilized asset. The site’s existing buildings and design, however, impede connection between these districts and features by blocking entry to the site from Whittemore Avenue and the Linear Path; fences protect natural areas, benefiting habitat, but excluding pedestrian entry. The site’s drives and paths are awkwardly arranged, unrelated to the natural flow of pedestrians and bicyclists, and in places are closed by gates.

The proposed development takes significant steps toward ameliorating these conditions and delivering extensive additional benefits to the community. It creates a more permeable group of buildings, reduces impervious paved area, offers ground floor public active uses, and provides greater access to natural areas while protecting their value as habitat. In addition, the proposal makes numerous commitments for public benefits both on- and off-site.

Staff would like to encourage adjustments to the proposed design to further enhance and connect with the surrounding areas: architecture and landscape that creates a permeable and welcoming urban

district with meaningful public spaces and further enhances the site’s natural areas. Key recommendations are to:

- Further improve pedestrian and bicycle connectivity between the Linear Path, the Whittemore neighborhood, the Harvey Street neighborhood, Russell Field, Jerry’s Pond, and the Alewife MBTA station.
- Enhance Whittemore Avenue by the design of buildings and landscape.
- Minimize the intrusion of buildings into the 4-acre natural/wooded area between the proposed buildings, Russell Field, and the MBTA headhouse.
- Further reduce impermeable area and the urban heat island effect.

Design Guidelines

The Alewife Design Guidelines (2020) are intended to encourage the creation of a welcoming, usable, and beautiful public realm consisting of streets, parks, squares, and courtyards that are interconnected with each other and with the surrounding districts. They encourage building massing and façade design that frames and enriches public spaces and relates to nearby buildings, first floor uses that enliven adjoining streets, and landscape design that reinforces public spaces and offers beauty and environmental benefits. More specifically, its recommendations include:

- Pedestrian and bicycle connections should be provided to the extension of the Linear Path along the axis of Harvey Street.
- Buildings should be located and configured to create streetwalls along Fresh Pond Parkway, Whittemore Avenue, and the extension of the Linear Path.
- Pedestrian-friendly sidewalks, lined by curbside street trees, should be provided.
- Surface parking lots, if any, should be located on the interiors of blocks, or below buildings or landscaped terraces.

Connections and Circulation

Despite the development site’s central location between residential neighborhoods and heavily used public facilities, its adjacency to the Alewife Linear Park, and its proximity to the Alewife MBTA Station, it has long been an insular enclave. Connections to the site and through the site have been blocked or impeded by the locations of its buildings and by the arrangement of the site’s privately owned paths and vehicular drives.

The proposed development should ameliorate this condition as much as possible, transforming the site from a private enclave or campus to an integral part of the city and facilitating connections between neighboring districts and facilities. Staff recommends that more direct connections be created between the site and Whittemore Avenue, between the proposed Promenade and the Alewife Linear Park, and between the Promenade and the 4-acre natural area.

1. To emphasize the Promenade’s public character, the East Plaza should be reconfigured to create a clear and welcoming route from the Alewife Linear Park to the Promenade. The design of this area should be coordinated with the city’s ongoing study to improve the Linear Park.

2. To further enhance the public feel of the development, consideration should be given to providing a more direct, less meandering path from the East Plaza to the Promenade's Central Plaza, with more consistently aligned and spaced trees.
3. A new entry forecourt - the "Whittemore Gateway" - is proposed on Whittemore Avenue, leading to the Central Plaza. To make a more inviting entrance to the site from Whittemore Avenue, consideration could be given to gradually sloping its full length up to the elevated grade in the interior of the building group, rather than providing a complex of steps and ramps directly on Whittemore Avenue. In addition, a broader forecourt could be considered, with activating uses in the adjoining buildings, and the provision of a consistent canopy trees on the courtyard's east and west sides to help draw pedestrians into the heart of the building group.
4. A pedestrian path extends south from the Central Plaza to the "Harvey Gateway" at the perimeter loop drive, where it faces the north side of the parking garage. Consideration could be given to instead creating a more direct connection between the Whittemore Gateway directly through the Central Plaza to the 4-acre natural/wooded area. Means could include the adjustment of the location of the parking garage further west, the adjustment of the gap between buildings 4 and 5 farther east, and the relocation of the transformer/swichgear equipment proposed at the east end of the parking garage to a less obtrusive location.
5. A shuttle dropoff is planned where the west end of the pedestrian corridor meets the site's perimeter loop drive, and service vehicles will enter the pedestrian corridor at this location. Consideration could be given to creating a stronger sense of entry to the site by the design of paving, site furniture, the location of trees, the design of building facades, etc.
6. The application proposes improvements to the existing path that runs from the blank north side of the MBTA headhouse past the west end of the proposed garage to the perimeter loop driveway. Consideration could be given to adjusting its alignment to lead more directly to the headhouse's entrance at its east end.

In addition to improving connections *through* the proposed group of buildings, the project could also do more to enhance connections *between* the neighborhoods and facilities around the site.

The existing pedestrian and bicycle path that links the Linear Park with the MBTA headhouse runs along the north and west sides of Russell Field and from there west to the MBTA headhouse. It is heavily used, at times congested with pedestrian and bicycle traffic, and compromised by the poor sight lines and sharp turn at the intersection of four paths by the southwest corner of Russell Field. The scheme provides an alternate pedestrian and bicycle route between the Linear Park and the MBTA headhouse: along the proposed perimeter loop driveway, then south around the proposed garage to the headhouse and the route 16 underpass. The roundabout character of this route, with its deviation from natural desire lines, two 90 degree turns, and alignment with the blank north side of the headhouse compromises its utility as a primary connection.

7. Consideration should be given to providing a more natural and direct route linking the existing path along the west side of Russell Field to the MBTA headhouse. A range of possibilities exist for its exact route; each has its own advantages and raises different issues.

- a. A new path starting from the bend in the existing path at the northwest corner of Russell Field to the headhouse would be the most direct, but would proceed through the natural/wooded area and need to minimize impacts on hydrology and habitat (a boardwalk should be considered).
- b. A new path at the southern apex of the proposed community garden area, rounding off the existing very sharp corner, could reduce the congestion at the four-way intersection, but would not ameliorate the crowded conditions on the path west from that intersection to the MBTA headhouse. (Note that the proposed location of the community garden in this area has the potential to further increase pedestrian and bicycle traffic at this already awkward corner.)
- c. A path in an intermediate location could also be considered, such as a route through the northern portion of the area proposed for the Community Garden.

As noted in the Z&D memo, Section 17.36.4 of the Zoning Ordinance requires that a path be created between the Linear Park and Whittemore Avenue, designed to a standard compatible with the Linear Park and the Minuteman Bikeway.

8. The location and design of the proposed path should be clearly documented, and its connection to the Linear Park should be readily apparent.

Four gates are proposed on the development's private drives, intended to reduce traffic impacts on the surrounding residential neighborhoods by limiting traffic within the site to employees and emergency vehicles.

9. While the gate at the west end of Harvey Street is required by zoning (17.36.4), the need for the other three gates should be evaluated, balancing their benefits in preventing cut-through traffic with the detrimental implication that the site is an exclusive precinct.
10. In any case, all the gates and the approaches to them should be designed to allow free pedestrian and bicycle passage, to convey that the public is welcome to the site, and to prevent traffic entering the gates from backing up on to adjoining streets.
11. The applicant should collaborate with the city to reconstruct the western end of Harvey Street as appropriate to accommodate pedestrian, bicycle, and limited vehicular traffic.

Given the circuitous routes of the drives and the use of gates to control entry to the site, their use by private vehicles seems likely to be low and at a slow speed.

12. The possibility of shared bicycle and vehicle use on the north/south drive at the west end of the parking garage should be evaluated. Eliminating the proposed separate two way separated bicycle path in this location would enable the garage to be located significantly to the west, reducing its intrusion into the natural wooded area. (In any case, it seems inconsistent that vehicles and bicycles are proposed to share the perimeter loop drive's carriageway, but a separated bicycle path is provided on the west side of the Garage, linking to the MBTA headhouse.)
13. Curb to curb widths should be the minimum practical to accommodate emergency vehicles and the turning radii of trucks at loading docks.

The east/west portion of the proposed perimeter loop drive is aligned south of Harvey Street.

14. To create a more welcoming entrance to the site from Harvey Street and a more direct route for pedestrians and bicyclists, consideration should be given to aligning the east/west portion of the perimeter loop drive more closely with Harvey Street.

Siting and Massing

The development consists of five lab/office buildings and a parking garage. Buildings 1 and 2 are existing and will be renovated. The three new lab/office buildings will occupy the sites of existing buildings to be demolished and paved parking lots. The garage is sited partially on an existing parking lot and partially within the existing natural/wooded area. The proposed buildings are sited within the zoning setbacks; the built-up area is fairly compact. The site presents the opportunity to create an urban block, with significant interior space and a legible perimeter that addresses the adjoining streets and open spaces and is permeable to pedestrian movement.

The proposed four-floor buildings will have a greater impact on the adjacent natural/wooded area and on views from the Russell Field area than the existing single floor buildings. Further efforts could be made to reduce these impacts.

15. Consideration should be given to moving the southern lab/office buildings (Buildings 4 and 5), the garage, and the perimeter loop drive north by reducing the façade-to-façade widths of the promenade and perimeter loop road. This would locate the buildings and drive more substantially on portions of the site that are currently paved or occupied by buildings, allowing the natural/wooded area to be enlarged, and reducing the number of existing trees and amount of understory vegetation that needs to be removed.
16. As noted above, the need for the proposed separate two-way bicycle lane on the west side of the garage should be evaluated. If it is not needed, the garage could be moved west, thereby increasing the size of the natural/wooded area, further reducing the number of trees that need to be removed, and better screening the garage as seen from Russell Field.

As noted above, the path extending from the Central Plaza to the perimeter loop drive is aligned with the north side of the proposed garage, precluding a visual connection from the Plaza to the 4-acre natural area.

17. Consideration should be given to adjusting the lengths of the two buildings on the south side of the Promenade so as to locate the gap between them – the “Harvey Gateway” - in closer alignment with the pedestrian entry to the site from Whittemore, thereby creating a more direct visual and pedestrian connection between the Whittemore neighborhood through the complex to the 4-acre natural area.
18. To further strengthen this connection, consideration should be given to relocating the transformer and switchgear from its proposed site at the east end of the proposed garage,

where it intervenes between the Harvey Gateway and the 4-acre natural/wooded area and will be prominent for users of the perimeter driveway.

The east and west ends of buildings 4 and 5 have been adjusted to relate more directly to the perimeter loop drive's curved bends, but the sawtooth outside corners of the Building 4 remain at odds with the drive's geometry, creating a sense of disjunction between architectural form and public space.

19. Further adjustments could be contemplated to create a more harmonious relationship between the building massings and the geometry of the drive.

The boxy two-story elements that project from the main masses of Buildings 3, 4, and 5 disrupt the continuity of the Promenade and thereby weaken the connection between the Central Plaza and the Alewife Linear Park. Their forms and materials suggest that they have a special function related to the public nature of the promenade, such as building entrances or amenity spaces. With one exception, however, they do not.

20. Consideration should be given to adjusting the form of these elements to enhance the continuity of the Promenade: reducing their size and/or giving them more unique forms (perhaps curvilinear), and if possible, giving them more ground floor? public uses.

The existing surface parking lots on the north side of Whittemore and at the northeast corner of the site disrupt the continuity of Whittemore Avenue and contribute to the Urban Heat Island Effect.

21. If parking needs decline in the future, consideration should be given to developing these sites as housing or other neighborhood-serving uses.

Landscape design - Open Space and Public Realm

Site design should minimize the urban heat island effect and stormwater runoff.

22. The curb-to-curb width of the site's drives should be no wider than necessary.
23. The drives should be provided with curbside shade trees.
24. Consideration could be given to providing additional trees within the Whittemore Avenue parking lots, to reducing the widths of their very broad existing curb cuts, and to collaborating with the city to provide more closely spaced curbside trees along the streets bordering them.

The 4-acre wooded/natural area, while small, enhances the parklike feeling of the Russell Field area, offers habitat to wildlife, and screens the site's existing buildings from view from the south. As noted above, the proposed garage will intrude into the 4-acre area, necessitating the removal of some fairly large trees, which given the garage's height, will likely make it prominent from Russell Field. In addition, extensive regrading, removal of existing vegetation, and replanting is proposed in the 4-acre natural/wooded area, in part to accommodate stormwater.

25. A greater understanding of the intended character and uses of the natural/wooded area would be helpful.
26. As noted above, consideration should be given to relocating the garage farther west, so as to preserve the existing trees at its east end.

27. A fence is shown at the western edge of the 4-acre area, but it is not clear from the application whether the other sides of the area will be fenced.

The public uses concentrated in and around the Central Plaza include a temporary performance space, food trucks, and retail and amenity space and will accommodate daily use and special events.

Adjustments could be made to the landscape design of the project's open spaces to further create a welcoming sense of place.

28. The public character and uses of the Central Plaza - the crossroads of the development – would be enhanced by the provision of a clear flexible open space with more intimate and occupiable edges. Consideration could be given to creating a simpler and more consistent arrangement of canopy trees and low plantings that would shelter and frame the space and enrich its edges, and a pavement design that would emphasize it as a unique component of the development's public realm.
29. Additional ground floor activating uses could be considered, if feasible.
30. More information on the design, features, and programming of the Central Plaza's "temporary performance platform" would be helpful.

At the east end of the Promenade, a paved area, necessitated by the turning radius of emergency vehicles, is designated as the "East Plaza". As the adjoining buildings do not address it with active uses, and the Central Plaza is nearby, it seems possible that it will be underutilized.

31. Consideration should be given to adjusting the pavement, plantings, and site furniture to prioritize the creation of a direct and legible connection between the Promenade and the Linear Path.

A community garden is proposed outside the southern boundary of the development area site, at the apex of the vegetated area adjoining the busy intersection of paths leading to Russell Field, the MBTA headhouse, the Linear Path, and Jerry's Pond.

32. The location of the garden should be evaluated in the context of the heavy bicycle and pedestrian use of the adjoining paths.
33. In any case, care should be taken in the design of the gardens and the location of their entrances to avoid creating additional congestion on the paths and blocking sight lines for their users.

As a public benefit, the project will undertake extensive improvements to Jerry's Pond, creating public access to it, transforming it into an educational asset, and improving pedestrian and bicycle movement along Rindge Avenue. Changes will include new universally accessible boardwalks, overlooks, paths, a boardwalk along Rindge Avenue with new street trees, and an "Eco Center Pavilion".

34. More information on the site's educational program would be helpful.
35. Consideration should be given to reducing the number of paths connecting the proposed boardwalk on the east side of the Pond to the existing pedestrian paths linking the MBTA headhouse to Rindge Avenue.
36. Care should be taken to minimize the impact of lighting on habitat around the pond.

Interpretive signage addressing history and natural features will be provided as a public benefit.

37. In addition, wayfinding signage should be provided to locate the site's pedestrian and bicycle paths in the context of the Linear Path, the Minuteman Trail, and the regional trail system.

As part of the project, the applicant proposes to refurbish the exterior of the MBTA headhouse and improve the paved plaza around it with new paving and trees.

38. Consideration could be given to designing the paved area between the headhouse and the Alewife Brook Parkway (Route 16) underpass for recreational uses, such as a skate park.

Public art is suggested at the MBTA headhouse.

39. Other locations could also be considered.

Architectural Character

The outward facing facades of the buildings – those facing Whittemore Avenue and the 4-acre natural area - are relatively opaque. The inward facing facades – those facing the Promenade - are more heavily glazed. This strategy of transparency and opacity helps convey that the buildings are components of an urban block that addresses adjoining streets and open spaces, and that contains an internal public space with its own distinct character.

40. Consideration should be given to more strongly differentiating the group's perimeter facades from those facing the promenade to create a stronger sense of place in the interior of the group.
41. As noted above, consideration could be given to reducing the projection of the two floor boxy elements into the Promenade, reshaping them for more compatibility with the linear nature of the Promenade (for instance considering curvilinear shapes), and to giving them a particular function (such as entry or active use space).

The building's flat façades, clad primarily with panelized systems and including areas of curtainwall fenestration, differ from those of the surrounding neighborhoods in relief, scale, and detail.

42. While a contrast in scale and character is an inevitable result of locating large commercial buildings in a primarily residential area, more could be done in terms of detail, subtle changes in plane, and proportions to address the public realm with more visually engaging facades.
43. Consideration could be given to the expression of structural bays, to details of fenestration and, materials, especially at the ground floors.

The four-floor parking garage will be visually prominent from multiple vantage points and directly adjoins the 4-acre natural/wooded area. It is designed as an open frame.

44. Consideration should be given to providing it with more opaque facades or louvers, or to screening it with climbing vegetation.

Materials, Colors, and Details

Ultra-High Performance Concrete (UHPC) cladding panels are proposed, with a certain amount of texture and variation in color. The color schemes have been conceived in relation to colors found in the adjoining residential areas, which will enhance the project's fit with its context.

45. Glass selection should allow visibility into the building interiors, particularly at ground floors. The proposed glass has a fairly low Visible Light Reflectance value, but is less transparent than desirable, particularly at the ground floor. Alternatives should be considered.
46. As is typical for laboratory buildings, the mechanical penthouses and screening will represent a considerable portion of their overall height. Care should be taken in the design and their material and color selection to minimize their visual impact.
47. The parking garage directly adjoins the 4-acre wooded/natural area. Means such as opaque, louvered, or vegetatively screened facades should be considered to minimize the impact of its lighting on the natural area.

Ground Floor Design and Uses

Small retail and amenity spaces are indicated on the drawings, located at the east end of building 4 and the west end of Building 5.

48. Consideration could be given to providing additional retail or other active uses that would benefit the residential neighborhoods, including at the Whittemore Gateway.

Of the three buildings adjoining Whittemore Avenue, the middle one (Building 2) lacks a street facing entrance.

49. To help enliven the street, an entrance should be provided.

The first-floor facades facing Whittemore Avenue and the perimeter loop drive include large opaque areas.

50. Consideration could be given to increasing their transparency where possible, and to providing more visually engaging detail in areas that must remain opaque.

Mechanical Systems

Building mechanical systems will be located at roof level in enclosed mechanical penthouses or screened with enclosures to hide the equipment and contain the noise generated. Site located electrical equipment is proposed on the south side of the perimeter loop drive, next to the parking garage.

51. Consideration should be given to accommodating the electrical equipment in a less obtrusive location, concealed within the parking garage or one of the buildings if possible. If not, an attractive enclosure should be provided for the equipment.

Loading and Parking

New trees are proposed in the existing surface parking northern lots on the north side of Whittemore Avenue, and photovoltaic panels shading the cars in the existing east lot.

52. The parking lots on Whittemore Avenue are detrimental to the quality of the street and to the adjoining residences. The provision of features such as continuous street trees, more internal trees, other landscaping, low walls, the reduction of curb cut widths, etc. would reduce their negative impacts.

The project will provide short- and long-term bicycle parking spaces and a Bluebike station.

53. Their dimensions and clearances, and the design of access routes to them should be reviewed with city staff.

Environmental Impacts

Given the distance to residences north of the development, shadow impacts will be limited. Noise from all mechanical equipment will be calculated and sound attenuating measures will be incorporated if appropriate.

The existing and proposed buildings face the Whittemore neighborhood, and together with the parking garage and the drives directly adjoin the 4-acre natural/wooded/meadow area. Careful design and control of lighting will be needed to minimize impacts and disruption to the neighborhood and to habitat.

54. Blackout shades at fenestration, timers, fixture shielding, and more opaque facades on the parking garage should be considered.

While both the 4-acre and the 7-acre Jerry's Pond areas are fairly small, they are habitat for numerous plant and animal species. As noted above, the 4-acre natural/wooded area is proposed to be extensively regraded and replanted.

55. Consideration should be given to options that would preserve more of the existing large trees.
56. Care should be taken in grading and species selection to maximize the area's benefits as natural habitat while accommodating floodwater.
57. Maintenance regimens should be reviewed by city staff.
58. Consideration should be given to reducing the number of radial boardwalks leading to Jerry's Pond.

Sustainability

The renovated and new buildings will be built to the LEED Gold standard. First Floors will be elevated above 2070 100-year flood level, no basement spaces are provided, and extensive changes to site topography and storage tanks will accommodate stormwater. Green and biosolar roofs are provided. The renovation, rather than replacement of two of the existing buildings, should constitute a savings in embodied carbon.

59. Improvements to the building's energy performance should be considered, including more energy efficient windows; see the Z&D memo.
60. The embodied carbon in the new buildings should continue to be assessed.

Photovoltaic panels are provided over some of the parking spaces in the east surface parking lot.

61. Consideration could be given to providing them over more of the lot's spaces, and also in the parking lots on the north side of Whittemore Avenue.

Public Benefits

The project will provide extensive public benefits, some of which are discussed above and in the Z&D memo.

1. Clarification should be provided regarding the internship opportunities listed under the Community Benefits.
2. A more detailed understanding of the programming of amenity spaces should be provided, and whether neighborhood groups will be able to use the spaces.
3. More information on the proposed Food Trucks would be helpful, including the anticipated schedule and program. Staff would like to encourage opportunities for Cambridge residents and BIPOC business-owned food trucks, similar to the City's Food Truck Program. See: <https://www.cam.gov/public-benefits>

Continuing Review

The following is a summary of issues that staff recommends should be further studied by the Applicant, either in preparing revised materials if the Planning Board continues the hearing to a future date, or as conditions for ongoing design review by staff if the Board decides to grant the special permit:

1. Clarification of the design of paths and drives to minimize impediments to pedestrian and bicycle movement, and to avoid creating the sense that the development is a private enclave.
 - a. Review of pedestrian and bicycle paths, crosswalks, drives, curb cuts, etc. relative to the City's standards.
 - b. Collaboration with city staff on the routes and designs of bicycle and pedestrian paths linking the Linear Path with the MBTA headhouse and the Alewife Station.
 - c. Collaboration with city staff on the connection between the Promenade and to the Linear Park, informed by preliminary or final conclusions about desired improvements to the latter that will result from the ongoing Linear Park Study.
 - d. Collaboration with city staff on the connection between the Linear Park and Whittemore Avenue, also informed by the Linear Park Study.
 - e. Review of the design of vehicular gates so as to invite ready pedestrian and bicycle access through the site while precluding unintended vehicular through traffic, and of their precise location to prevent traffic at the gates from backing up onto city streets.
2. Collaboration with city staff on the creation of a separate right turn bus lane to the Route 2 entry ramp located just to the west of the development site.

3. Adjustments to building massing and landscape design to strengthen the form of the Promenade and Central Plaza, to increase connectivity between the Central Plaza and the natural area south of the buildings, and to create a more harmonious relationship between building massing and the loop driveway.
4. Review by city staff of plant species and locations, planting standards, and maintenance regimens, within the group of buildings, along the city owned streets, in the 4-acre natural/wooded area, around Jerry's Pond, and in the parking lots on the north and south sides of Whittemore Avenue.
5. Review of the amount, type, and location of ground floor retail and other active uses, and of the project's food truck program.
6. Review of the design of site lighting to minimize light trespass into the natural areas and the residential neighborhood and of methods for the control of interior and exterior lighting for the lab/office buildings and garage.
7. Review of the location of site-located electrical equipment and the design of its enclosure.
8. Review by city staff of short- and long-term bicycle parking spaces and the Bluebike station for required clearances, dimensions, and the design of access routes.
9. Collaboration with city staff on the selection and acquisition of public art.
10. Review of all exterior materials, colors, and details, including a materials mockup for each building, by city staff and the Planning Board prior to any exterior materials being ordered. The mockup should include features such as the upper floor and first floor vision glass, spandrel glass, mullion systems, metal cladding, penthouse cladding and screening, attachment details, etc.