CITY OF CAMBRIDGE
Community Development Department

To: Planning Board

From: CDD Staff

Date: March 29, 2022

Re: Affordable Housing Overlay Design Consultation **AHO-4, 49 Sixth Street**

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Overview

Submission Type:	Affordable Housing Overlay (AHO) Advisory Design Review
Applicant:	Preservation of Affordable Housing (POAH)
Zoning District(s):	Residence C-1
Proposal Summary:	Rehabilitation and adaptation of an existing church complex into affordable housing, with all development taking place inside of the existing building footprints. The total Gross Floor Area (GFA) of the development is 59,400 square feet and there will be 46 permanently affordable rental apartments. The building height will remain at approximately 68 feet. The development will include two off-street parking spaces, 48 long-term bicycle parking spaces, and no short-term bicycle parking spaces. It will also improve an existing courtyard at the corner of Sixth Street and Thorndike Street, as well as an interior courtyard.
Planning Board Action:	Review and comment on conformance with AHO Development Standards, City Development Guidelines for the proposal area, Design Guidelines for AHO, and Citywide Urban Design Objectives.
Memo Contents:	CDD Zoning Report & Urban Design Report
Other Staff Reports:	Department of Public Works (DPW), in separate document.

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11.207.5 – 11.207.7 AHO Development Standards

Development Standard	Requirements for AHO Project in (Zoning District)
Building Height & Stories Above Grade	• Generally follows underlying District Dimensional Standard (e.g., where 40' is permitted, AHO Development can build 4 Stories Above Grade or 45 feet). • Five additional feet are permitted in some districts when the Ground Story contains a non-residential active use. • Stepdowns in height are required when the AHO Development abuts a residential use.
Density	• If the underlying District Dimensional Standard establish a maximum FAR of 1.00, the AHO Development may not exceed an FAR of 2.00. Otherwise, there is no maximum FAR for an AHO Project. • There is no minimum lot area per dwelling unit for an AHO Development.
Yard Setbacks	• Generally, 15' Front Yard, 7.5' Side Yard, and 20' Rear Yard. • Yards may be reduced if the underlying District Dimensional Standard is less. • Front yards may be reduced to the average of the four (4) nearest pre-existing principal buildings on the same side of the street.
Open Space	• Generally AHO Developments must have 30% open space to lot area or meet the underlying District Dimensional Standard, whichever is less. • Required open space is reduced to 15% when a historic building is being preserved as part of the AHO Development.
Existing Buildings	• The required dimensional characteristics of the existing building and site shall be those existing at the time of conversion to an AHO Development. • Certain modifications may be permitted as-of-right to an existing building for an AHO Development.
Parking and Bicycle Parking	• There is no minimum off-street parking for an AHO Development. • For AHO Developments of twenty (20) or more units and less than 0.4 spaces per dwelling unit are provided, specific Transportation Demand Management (TDM) measures are required. • Bicycle parking is required per Article 6.100, but additional flexibility is provided for the location, quantity and type (long-term and short-term) of bicycle parking required.

Development Standard	Requirements for AHO Project in (Zoning District)
Transportation Demand Management	• Where applicable, required TDM measures include complimentary annual Bluebikes memberships or 50% discounted MBTA passes for six months, and providing transit information to each household within the AHO Development.
Site Design and Arrangement	• Front yards may be landscaped or hardscaped but cannot be used for off-street parking. • Pedestrian entrances shall be visible from the street. • Buildings with front facades in excess of 250’ in length shall provide forecourts to break up massing.
Building Facades	• Building facades facing public streets shall have a minimum percentage of glazing. • Building facades shall incorporate projections/recesses at regular intervals to promote visual interest. • Facades of ground stories shall have expanses of no more than 25’ with no windows or pedestrian entryways.
Ground Stories and Below Grade	• Ground stories with non-residential uses must have a height of at least 15’ and a depth of 35’. • Ground stories must contain a non-residential use when located in a Business base zoning district, or where a retail/consumer service establishment has existed on the site in the last two (2) years.
Mechanical Equipment, Refuse Storage and Loading Areas	• Mechanical equipment shall be generally screened from view. Rooftop mechanical equipment must be set back from the roof line equal to its height.
Environmental Design Standards	• Green Building Requirements as set forth in Article 22 shall generally apply to AHO Developments. • AHO Developments are exempt from the Green Roofs Ordinance.

AHO Design Guidelines

Site Design Objectives	
Response to Context	• Design site layouts to harmonize with the neighborhood context.
Open Space & Landscape Design	• Design open space to enhance the lives of residents and the broader community by offering aesthetic and environmental benefits. • Offer useful amenities to residents, provide opportunities to minimize the impact of new development on neighbors' privacy and quality of life, and contribute to the beauty of the city.
Circulation	• Promote non-motorized mobility by prioritizing pedestrian-friendly and bike-accessible site design.

Parking	• Minimize the impact of parking and driveway.
Utilities	• Minimize the visual, acoustical, and environmental impacts of essential utilities and services.
Outdoor Lighting	• Provide lighting for safety and functionality while minimizing energy use, light pollution, and other negative impacts.
Public Art	• Enrich the visual environment and strengthen the sense of place by incorporating art.
Building Design Objectives	
Massing	• Configure massing for compatibility with the prevailing or desired pattern of neighboring buildings and open spaces. In established neighborhoods, relate to the existing pattern of streets and other open spaces, and prioritize compatibility with existing buildings. In evolving areas, configure new developments to help realize the City's vision for urban form.
Facades	• Design facades to enhance and enliven the public realm. In established areas, emphasize compatibility and reinforce sense of place. In evolving residential and commercial districts, contribute to the transformation of urban form by setting precedents for design excellence. • Where appropriate, incorporate ground level retail spaces and common areas to foster a lively enliven the urban environment. • Provide daylight to interior spaces, avoid excessive energy use, and protect the privacy of residents of neighboring buildings. • Design facades to relate to the residential scales and patterns of Cambridge's diverse and historic neighborhoods. • Design street facades to offer a sense of civic presence and human scale, and visual interest as appropriate to their role in defining public space.
Architectural Details, Materials, Color, and Finishes	• Use materials that are warm, inviting, and compatible with surrounding existing buildings and the neighborhood context. Develop building facades of high-quality, durable materials and with colors, finishes, and textures appropriate to building contexts.
Building Interiors	• Affordable housing, like all housing, should serve the needs of its residents while contributing to the residential character and sense of neighborhood within the area at large.
Sustainable Design Objective	
Site and Building Design	• Achieve resilience measures to the maximum extent possible, including energy efficiency and measures to promote the health and wellness of residents.

The complete set of Design Guidelines for Affordable Housing (28 July 2020) can be found at: https://www.cambridgema.gov/-/media/Files/CDD/Housing/Overlay/zngamend_aho_designguidelines_20200728v2.pdf

19.30 Citywide Urban Design Objectives [SUMMARIZED]

Objective	Indicators
New projects should be responsive to the existing or anticipated pattern of development.	• Transition to lower-scale neighborhoods • Consistency with established streetscape • Compatibility with adjacent uses • Consideration of nearby historic buildings
Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.	• Inhabited ground floor spaces • Discouraged ground-floor parking • Windows on ground floor • Orienting entries to pedestrian pathways • Safe and convenient bicycle and pedestrian access
The building and site design should mitigate adverse environmental impacts of a development upon its neighbors.	• Location/impact of mechanical equipment • Location/impact of loading and trash handling • Stormwater management • Shadow impacts • Retaining walls, if provided • Building scale and wall treatment • Outdoor lighting • Tree protection (requires plan approved by City Arborist)
Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.	• Water-conserving plumbing, stormwater management • Capacity/condition of water and wastewater service • Efficient design (LEED standards)
New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.	• Institutional use focused on existing campuses • Mixed-use development (including retail) encouraged where allowed • Preservation of historic structures and environment • Provision of space for start-up companies, manufacturing activities
Expansion of the inventory of housing in the city is encouraged.	• Housing as a component of large, multi-building development • Affordable units exceeding zoning requirements, targeting units for middle-income families
Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.	• Publicly beneficial open space provided in large-parcel commercial development • Enhance/expand existing open space, complement existing pedestrian/bicycle networks • Provide wider range of activities

CITY OF CAMBRIDGE

Community Development Department

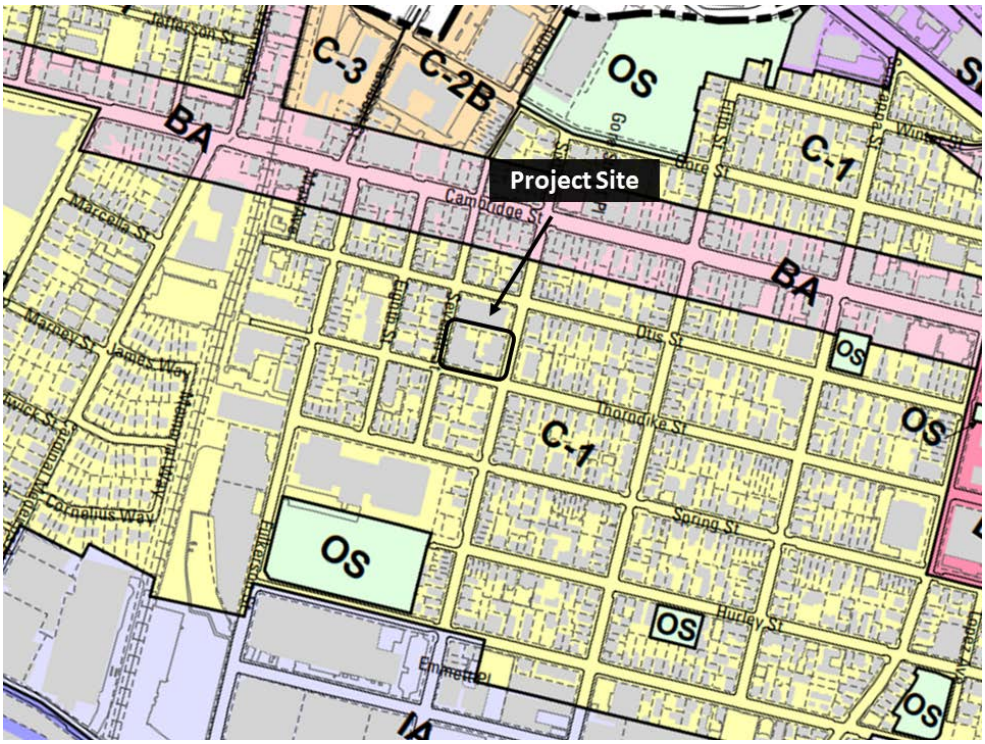
Date: March 29, 2022

Zoning Report: **AHO-4, 49 Sixth Street**

Site & Zoning Context

Site Context

Neighborhood/Area:	East Cambridge
Zoning District(s):	Residence C-1
Zoning Description:	Multifamily residential and limited institutional buildings up to 35 feet in height, low-moderate density with a 30% open space requirement
Existing Development Patterns:	Predominantly residential neighborhood made up of a mix of single-, two-, and multifamily houses with three stories above grade, typically built to front and side lot lines
Nearby Features:	Cambridge Street commercial corridor, Kennedy-Longfellow School and Ahern Field, O'Connell Branch of the Cambridge Public Library. The site is approximately half a mile to the Lechmere MBTA Green Line station and approximately two-thirds of a mile to the Kendall/MIT MBTA Red Line station.



Section of the Zoning Map showing the Residence C-1 zoning district and surrounding zoning districts (City of Cambridge December 21, 2020)

Aerial image showing the development patterns and land use context of 49 Sixth Street (Nearmap March 27, 2021)

Development Plans and Guidelines

The most recent planning document for East Cambridge is the Eastern Cambridge Planning Study (2001), which was undertaken in response to the rapid pace of development in that area. The study sought zoning and planning solutions to protect residents' quality of life and maintain neighborhood stability. It noted the importance of expanding housing opportunities, especially near public transit, for a wide range of residents while protecting and preserving the character of the residential neighborhoods of East Cambridge.

Adopted in 2020, the Affordable Housing Overlay (AHO) provides relaxed zoning requirements and an as-of-right approval pathway for development in which all units are permanently affordable. The intent of the AHO is to allow incremental increases in density, limited increases in height, and relaxation of certain other zoning limitations for residential developments in which all units are made permanently affordable to households earning up to 100% of area median income. If a proposal complies with the requirements in Section 11.207, it does not need to obtain a special permit or other zoning relief from a City Board or Commission.

Comments on Proposal

Advisory Review

This is the first of two required advisory design consultations in front of the Planning Board. The development is seeking as-of-right approval under the AHO, and therefore is not seeking a special permit or any other type of zoning relief. The purpose of the advisory review is for the Board to comment on the project's general conformance with the City's urban design objectives, including design

guidelines created specifically for the AHO, and make suggestions for improvement. Upon completing the two-part advisory design review procedure, the developer can seek a building permit.

Project Overview

The developer, Preservation of Affordable Housing (POAH), proposes to rehabilitate an existing church complex and adapt it for use as affordable housing. Three of the existing five buildings will be converted into housing; the remaining two buildings on the site will continue to be used by the church. The development will take place inside of the existing buildings. The project is pursuing Enterprise Green Communities certification for environmental sustainability.

The total Gross Floor Area (GFA) of the development is 59,400 square feet and there will be 46 permanently affordable rental apartments. The building height will remain at approximately 68 feet. Building entries will be located on the Seventh Street, Thorndike Street, and Sixth Street elevations. The development will provide long-term bicycle parking within the building and two off-street parking spaces on-site. It will also improve an existing courtyard at the corner of Sixth Street and Thorndike Street, as well as an interior courtyard.

Proposed Uses

The Application proposes the following uses on the site:

Proposed Uses	Size	Notes
4.31g. Multifamily dwelling	59,400 square feet/46 units	Allowed use

The residential units will be a mix of one-, two-, three-, and four-bedrooms with two-bedrooms comprising the plurality of the total number of units:

	1 Bedroom	2 Bedrooms	3 Bedrooms	4 Bedrooms
Number of Units	14	20	11	1
Average Unit Size (square feet)	627	902	1087	1501
Unit Size Range (square feet)	433-773	797-1008	980-1421	n/a

All units will be rented to households that earn 80% or less of the Area Median Income (AMI), with most units being rented to households that earn 60% AMI or less. For reference, 60% AMI for a four-person household is $80,520 as of June 2021.

	30% or Below	60% or Below	80% or Below
Number of Units	8	31	7

Proposed Dimensions

The AHO zoning allows existing buildings that do not conform to applicable AHO dimensional standards to be altered, reconstructed, extended, relocated, and/or enlarged for use as an AHO Project as-of-right. The Application proposes the following dimensions for development on the site:

Dimension	Existing	Proposed
Gross Floor Area (GFA)	59,400 square feet	59,400 square feet
Floor Area Ratio (FAR)	2.98	2.98

Height and Stories	67'10" with 5-6 stories above grade	67'10" with 5-6 stories above grade
Setbacks (Yards)	0'	0'
Open Space	4,329 square feet (22%)	4,867 square feet (25%)

As the above table shows, the developer is slightly increasing the amount of open space on the site by creating a small pocket park at the corner of Sixth Street and Thorndike Street. Otherwise, all existing dimensional conditions will be maintained.

Proposed Parking, Bicycle Parking, and Loading

	Existing	Proposed Development
Off-Street Parking Spaces	2 existing	2
Loading Bays	0 existing	0
Bicycle Parking Spaces	0 existing	48 or 52 long-term 0 short-term

The developer proposes to maintain the two existing off-street parking spaces located off Thorndike Street for use by visiting aides or staff and the adjacent church; no off-street parking will be available for building residents. AHO Projects that do not provide off-street parking are required to commit to Transportation Demand Management (TDM) measures. The developer has agreed to the following measures:

- Offer a 50% discounted MBTA combined subway and bus pass for six months or pass of equivalent value, to up to two individuals in each household upon initial occupancy of a unit.
- Provide transit information in the form of transit maps and schedules to each household upon initial occupancy of a unit. This information will also include Zipcar locations.
- Provide long-term bicycle parking, even though it is not required by zoning.

The application materials are unclear on several aspects of the bicycle parking. The dimensional form records 48 long-term bicycle parking spaces, but the application narrative notes that the project will provide 52 long-term bicycle parking spaces. The bicycle storage plan on page 64 notes that there are three storage areas, but they are not keyed to the ground story site plan, so it is hard to know where they're located. It would also be helpful to clarify the access routes to the bicycle storage areas to ensure that they meet the City's design guidelines for bicycle parking. Because the project is in an existing building, it is not required to meet the precise zoning standards for access, layout, and design of long-term bicycle parking spaces. However, staff would work with the developer to help design the facilities to be as accessible, usable, and convenient as possible.

Other Zoning Requirements

As an AHO Project, the developer is not seeking any special permits and is not subject to most base zoning requirements. The project is required to comply with the Green Building Requirements, but not the Green Roofs Requirement. To meet the Green Building Requirements, the developer is using the Enterprise Green Communities standard, which is designed for affordable housing development. This is the first time that a developer is using this standard to meet the Green Building Requirements, but it is used frequently by affordable housing developers. CDD has reviewed the initial Green Building Review documentation and certified that it is sufficient to demonstrate compliance at this stage of review. Staff offered the following comments to improve sustainability:

- Increase the materials category points in the Enterprise Green Communities criteria checklist, specifically EGC 6.1, 6.2, 6.3, 6.4, 6.5 and 6.7.
- Demonstrate that the project team will be making design decisions on products/material selection by assessing their embodied carbon through product/material life cycle assessments (LCA) with environmental product declarations (EPDs). For example, since concrete has the most in terms of embodied carbon, it would be preferable to use a substitute for Portland cement wherever possible.
- Use life cycle assessment tools such as TRACI, Athena Impact Estimator or OneClick LCA to provide an estimate on the upfront supply chain emissions of construction materials and product used in the rehab to assist in assessing, benchmarking and reduction of embodied carbon.
- Include a sustainable design section in the specs or some language related to sustainable design practices specifically for materials/products used in the rehab scope requirements/submittals in the final specs.
- Consider heat pumps for domestic hot water and all-electric building systems.

Non-Zoning Standards

The Sacred Heart Church, Rectory, School and Convent complex has been listed in the National Register of Historic Places since 1986. The Cambridge Historical Commission does not have jurisdiction over this project, but the developer has agreed to provide the proposed window and masonry specifications, along with any other historic components, for a courtesy review. Since the developer will be using historic preservation tax credits as part of their financing package, the renovation will be carried out to standards established by the National Park Service. The Cambridge Historical Commission wholeheartedly supports this project.

Community Engagement

The developer held two in-person community meetings at the Sacred Heart Church, one on July 27, 2021, and the other on November 3, 2021. Both meetings were also recorded and available for viewing along with presentation material. Approximately 40-50 people attended the community meetings. Information about the meetings is provided in the AHO submission.

C I T Y O F C A M B R I D G E

Community Development Department

Date: March 29, 2022

Urban Design Report: **AHO-4, 49 Sixth Street**

Urban Design Comments

Overview

The existing convent, rectory, and school buildings of the Sacred Heart Church were built in 1885 and 1902. Together with the church and chapel, which are not part of the proposed project, they fill out the block, framing a private interior courtyard. With the exception of a small open space at the southeast corner of the block, their streetwall facades are located directly on the property line at the inner edge of the sidewalk.

The three buildings are largely vacant at present. The project proposes to renovate them as affordable housing, creating 46 rental units. Unit types will range from one to four bedrooms. The building's richly detailed interior spaces will be preserved and restored. Their solidly built facades incorporate brick and stone detail typical of the late 19th and early 20th centuries. Other than repairs and restoration, the removal of an existing smokestack and a small garage, and improvements to landscape including changes to the open space at the southeast corner of the site, the project will leave the complex's exterior appearance largely unchanged.

The site is well served by public amenities. It is directly across the street from the O'Connell Branch of the Cambridge Public Library, and near the Kennedy-Longfellow and King Schools, Ahern Field, Gold Star Mother's Park. Public transportation is available on Cambridge Street and the Lechmere T Station, and shopping is nearby at Twin City Plaza.

Consistency with AHO Design Guidelines

The project is generally consistent with the Design Guidelines for the Affordable Housing Overlay. The preservation of the existing historical buildings is greatly appreciated by staff. Not only do the building's high-quality construction and rich details contribute to the historical and aesthetic qualities of Cambridge, their adaptive reuse preserves the considerable amount of energy embodied in their materials. The applicant is collaborating with the Cambridge Historical Commission on the restoration of the existing fabric. As recommended by the Guidelines, the project provides open space: a public forecourt at the southeast corner of the site and a private courtyard internal to the block. The proposed landscape designs of these spaces will enhance their value to the general public and to residents. A variety of unit sizes and types are provided, and unit layouts seem generally good given the constraints provided by the existing building and the need to maximize their number. The project incorporates numerous sustainable features, as noted in the Green Building Report.

Site Design

With the exceptions of the existing open space at its southeast corner and the internal courtyard, the buildings fill the site, so opportunities for improvements to landscape are limited.

At the southeast corner of the site, the existing site wall around the open space will be lowered, an existing war memorial will be relocated slightly north, and the space redesigned as a publicly accessible courtyard/garden. The existing cherry tree will be preserved, and another tree added. Pavers and benches will match those of the branch library across Sixth Street, which will emphasize the space's public character. The existing two-car garage adjoining the courtyard will be removed, two uncovered parking spaces will be provided instead, and a new ramp installed to create an accessible building entrance.

1. Details of the design should be further documented and coordinated with staff, including the design of the parking spaces, the ramp and railings, the height and appearance of the courtyard wall, plant species, the proposed benches and other features, and opportunities to include plantings in the parking and ramp area.

The internal courtyard between the renovated buildings and the south side of the church will be extensively redesigned, with new plantings, seating and grills, lighting, and a small play area. Existing fire escapes and a stair down to the lower level will be removed.

2. More information on plant species should be provided.
3. Staff is available for input on the design of the play area.

There appear to be additional siting opportunities for street trees in the sidewalks that border the site.

4. Additional curbside street trees should be provided if possible.

Building Design

The renovation will have little impact on the buildings' massing or street facing facades. The applicant has been working closely with the Cambridge Historical Commission on the restoration of the historical fabric. The brickwork will be repaired and repointed as needed. Windows will be replaced to improve the building envelope's energy efficiency; the replacements will be appropriate in appearance to the historic structure. Fire escapes will be removed from the facades facing the interior courtyard. Mechanical equipment will be located on the roof, visually screened by the tall existing parapets, and will adhere to the city's Noise Ordinance.

5. Staff recommends that the collaboration with city staff on restoration and preservation of the exterior fabric and details continue through the project's design and construction phases, including review of masonry samples and the repointing once it is underway.
6. Based on historical photos, the windows on the rectory building, at the corner of Sixth Street and Thorndike, were originally two-over-two. Staff suggests that this appearance be restored.
7. Staff encourages that the partially infilled window to the right of the Rectory's main entrance on Sixth Street be restored.

Some of the existing building-mounted lighting will be replaced.

8. The existing light fixtures that are proposed to remain should be evaluated for glare, light trespass, and color temperature; fixtures should be replaced and/or relocated as appropriate.

Affordable housing units should be livable in terms of size and design, with a priority on accommodating maximum household sizes while providing privacy, light, and safety. The proposed unit layouts adapt the existing structure with considerable success.

9. Note that some bedrooms have only borrowed light from adjoining spaces.

10. Ground floor units on Seventh Street are just below sidewalk level; privacy may be a concern. Particular attention should be paid to ensure adequate privacy, safety, light, and livability.
11. Staff understands the need to maximize the number of residential units, but note that the ground level spaces may be more appropriate for use as common/community spaces.

Parking and Loading

The site provides parking for two cars. Long-term bicycle parking will be provided inside the building, 48 spaces according to the enlarged plans. No short-term bicycle spaces are proposed.

12. The long-term bicycle storage rooms should be checked for recommended dimensions and clearances and adjustments made if indicated. The number of parking spaces provided should be checked.
13. The differences between the plans of the long-term bicycle storage rooms as shown on the floor plans and in the bicycle section of the application should be resolved.
14. The accessible route to the long-term bike storage rooms should be dimensioned.
15. Consideration could be given to providing a small number of short-term spaces in the southeast garden/courtyard at the southeast corner of the site.

Sustainable Design

Due to the historic nature of the building facades, the addition of exterior wall insulation is not possible. On the interior side of the exterior walls, the applicant will strongly consider installing a vapor barrier and insulation, but ultimately energy modeling, energy codes, Enterprise Green Communities requirements, and existing constraints will guide decisions. A typical wall section with this detail will be developed during the construction drawing phase and shared with staff for review.

The applicant proposes a solar ready, light-colored roof, and additional roof insulation. Photovoltaic panels will be provided pending the availability of financing and a solar credit investor; their extent and configuration will be developed as the layout of rooftop mechanical equipment is finalized.

The applicant intends to specify all-electric heating, cooling, and ventilation systems, as well as electric domestic hot water.

Eastern Cambridge is one of the city's heat island areas.

16. Consideration should be given to providing additional street trees.

Consistency with Citywide Urban Design Objectives

The project will be compatible with the Citywide Urban Design objectives. While the complex's buildings are taller and larger than the generally one- and two-family buildings on the bordering streets, there are buildings of a similar height nearby, and the rich detail and substantial construction of their facades provide visual interest and scale that creates a sense of compatibility with the neighborhood. Open spaces are provided both for the public and for residents. Mechanical equipment will be mounted on the rooftop and hidden from view. Most importantly, the project will increase the city's inventory of housing.

Recommendations

The following are recommendations for further study:

1. Collaboration with staff on the design of the garden/courtyard at the southeast corner of the site and on the internal courtyard's play area.
2. Staff review of bicycle parking.
3. Provision of additional street trees if possible.
4. Staff review of the restoration of the building exterior, including replacement windows, brick samples, and repointing.
5. Staff review of typical exterior wall section.
6. Collaboration with staff on further development of unit layouts.