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# CITY OF CAMBRIDGE

Community Development Department

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To: Planning Board

From: CDD Staff

Date: June 22, 2022

Re: **AHO-4, 49 Sixth Street – Advisory Design Consultation Meeting #2**

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## Overview

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Submission Type:	Affordable Housing Overlay (AHO) Advisory Design Review
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Applicant:	Preservation of Affordable Housing (POAH)
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Zoning District(s):	Residence C-1
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**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.

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Planning Board	Review revised materials and provide final comments on
Action:	conformance with AHO Development Standards, City Development Guidelines for the proposal area, Design Guidelines for AHO, and Citywide Urban Design Objectives. This is the second of two required advisory review sessions under the AHO.

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Memo Contents:	CDD Zoning Report & Urban Design Report
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### 11.207.5 – 11.207.7 AHO Development Standards

Development Standard	Requirements for AHO Project in Residence C-1
Building Height & Stories Above Grade	<ul style="list-style-type: none"> <li>• 4 Stories Above Grade or 45 feet for new construction.</li> <li>• Existing building height is allowed for preservation/reuse.</li> </ul>
Density	<ul style="list-style-type: none"> <li>• Maximum FAR of 2.00, except in the case of a preservation/reuse project.</li> <li>• There is no minimum lot area per dwelling unit for an AHO Development.</li> </ul>
Yard Setbacks	<ul style="list-style-type: none"> <li>• For new construction: 10' Front Yard, 7.5' Side Yard, and 20' Rear Yard.</li> <li>• Front yards may be reduced to the average of the four (4) nearest pre-existing principal buildings on the same side of the street.</li> <li>• Existing building setbacks are allowed for preservation/reuse</li> </ul>
Open Space	<ul style="list-style-type: none"> <li>• Generally 30% of lot area.</li> <li>• Existing open space is allowed for preservation/reuse; minor reductions are permitted in order to adapt building to meet accessibility standards.</li> </ul>
Existing Buildings	<ul style="list-style-type: none"> <li>• The required dimensional characteristics of the existing building and site shall be those existing at the time of conversion to an AHO Development.</li> <li>• Certain modifications may be permitted as-of-right to an existing building for an AHO Development.</li> </ul>
Parking and Bicycle Parking	<ul style="list-style-type: none"> <li>• There is no minimum off-street parking for an AHO Development.</li> <li>• 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, including complimentary annual Bluebikes memberships or 50% discounted MBTA passes for six months, and providing transit information to each household within the AHO Development.</li> <li>• Bicycle parking is generally required per Article 6.100; in an existing building, bicycle parking spaces meeting zoning standards are not required but are encouraged to be provided to the extent practical given the limitations of the existing structure.</li> </ul>

Development Standard	Requirements for AHO Project in Residence C-1
Site Design and Arrangement	<ul style="list-style-type: none"> <li>• Front yards may be landscaped or hardscaped but cannot be used for off-street parking.</li> <li>• Pedestrian entrances shall be visible from the street.</li> <li>• Buildings with front facades in excess of 250' in length shall provide forecourts to break up massing.</li> <li>• Existing buildings may maintain existing conditions; alterations are allowed if they do not increase nonconformance with standards.</li> </ul>
Building Facades	<ul style="list-style-type: none"> <li>• Building facades facing public streets shall have a minimum percentage of glazing.</li> <li>• Building facades shall incorporate projections/recesses at regular intervals to promote visual interest.</li> <li>• Facades of ground stories shall have expanses of no more than 25' with no windows or pedestrian entryways.</li> <li>• Existing buildings may maintain existing conditions; alterations are allowed if they do not increase nonconformance with standards.</li> </ul>
Ground Stories and Below Grade	<ul style="list-style-type: none"> <li>• Ground stories with non-residential uses must have a height of at least 15' and a depth of 35'.</li> <li>• 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.</li> <li>• Existing buildings may maintain existing conditions; alterations are allowed if they do not increase nonconformance with standards.</li> </ul>
Mechanical Equipment, Refuse Storage and Loading Areas	<ul style="list-style-type: none"> <li>• New mechanical equipment shall be generally screened from view. Rooftop mechanical equipment must be set back from the roof line equal to its height.</li> </ul>
Environmental Design Standards	<ul style="list-style-type: none"> <li>• Green Building Requirements as set forth in Article 22 shall generally apply to AHO Developments.</li> <li>• AHO Developments are exempt from the Green Roofs Ordinance.</li> </ul>

## AHO Design Guidelines

Site Design Objectives	
Response to Context	<ul style="list-style-type: none"> <li>Design site layouts to harmonize with the neighborhood context.</li> </ul>
Open Space & Landscape Design	<ul style="list-style-type: none"> <li>Design open space to enhance the lives of residents and the broader community by offering aesthetic and environmental benefits.</li> <li>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.</li> </ul>
Circulation	<ul style="list-style-type: none"> <li>Promote non-motorized mobility by prioritizing pedestrian-friendly and bike-accessible site design.</li> </ul>
Parking	<ul style="list-style-type: none"> <li>Minimize the impact of parking and driveway.</li> </ul>
Utilities	<ul style="list-style-type: none"> <li>Minimize the visual, acoustical, and environmental impacts of essential utilities and services.</li> </ul>
Outdoor Lighting	<ul style="list-style-type: none"> <li>Provide lighting for safety and functionality while minimizing energy use, light pollution, and other negative impacts.</li> </ul>
Public Art	<ul style="list-style-type: none"> <li>Enrich the visual environment and strengthen the sense of place by incorporating art.</li> </ul>
Building Design Objectives	
Massing	<ul style="list-style-type: none"> <li>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.</li> </ul>
Facades	<ul style="list-style-type: none"> <li>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.</li> <li>Where appropriate, incorporate ground level retail spaces and common areas to foster a lively enliven the urban environment.</li> <li>Provide daylight to interior spaces, avoid excessive energy use, and protect the privacy of residents of neighboring buildings.</li> <li>Design facades to relate to the residential scales and patterns of Cambridge's diverse and historic neighborhoods.</li> <li>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.</li> </ul>

Architectural Details, Materials, Color, and Finishes	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
Building Interiors	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<b>Sustainable Design Objective</b>	
Site and Building Design	<ul style="list-style-type: none"> <li>• Achieve resilience measures to the maximum extent possible, including energy efficiency and measures to promote the health and wellness of residents.</li> </ul>

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](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.	<ul style="list-style-type: none"> <li>• Transition to lower-scale neighborhoods</li> <li>• Consistency with established streetscape</li> <li>• Compatibility with adjacent uses</li> <li>• Consideration of nearby historic buildings</li> </ul>
Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.	<ul style="list-style-type: none"> <li>• Inhabited ground floor spaces</li> <li>• Discouraged ground-floor parking</li> <li>• Windows on ground floor</li> <li>• Orienting entries to pedestrian pathways</li> <li>• Safe and convenient bicycle and pedestrian access</li> </ul>
The building and site design should mitigate adverse environmental impacts of a development upon its neighbors.	<ul style="list-style-type: none"> <li>• Location/impact of mechanical equipment</li> <li>• Location/impact of loading and trash handling</li> <li>• Stormwater management</li> <li>• Shadow impacts</li> <li>• Retaining walls, if provided</li> <li>• Building scale and wall treatment</li> <li>• Outdoor lighting</li> <li>• Tree protection (requires plan approved by City Arborist)</li> </ul>
Projects should not overburden the City infrastructure services, including neighborhood roads,	<ul style="list-style-type: none"> <li>• Water-conserving plumbing, stormwater management</li> <li>• Capacity/condition of water and wastewater service</li> <li>• Efficient design (LEED standards)</li> </ul>

city water supply system, and sewer system.	
New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.	<ul style="list-style-type: none"> <li>• Institutional use focused on existing campuses</li> <li>• Mixed-use development (including retail) encouraged where allowed</li> <li>• Preservation of historic structures and environment</li> <li>• Provision of space for start-up companies, manufacturing activities</li> </ul>
Expansion of the inventory of housing in the city is encouraged.	<ul style="list-style-type: none"> <li>• Housing as a component of large, multi-building development</li> <li>• Affordable units exceeding zoning requirements, targeting units for middle-income families</li> </ul>
Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.	<ul style="list-style-type: none"> <li>• Publicly beneficial open space provided in large-parcel commercial development</li> <li>• Enhance/expand existing open space, complement existing pedestrian/bicycle networks</li> <li>• Provide wider range of activities</li> </ul>

## **Zoning & Development Staff Report**

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### **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.

### **Planning Board Comments from Initial Consultation Meeting**

The Planning Board (the “Board”) met on Tuesday, April 5, 2022 to review and comment on the design for this project, which is being developed under the Affordable Housing Overlay (Section 11.207 of the Zoning Ordinance). The Board reviewed a plan set submitted by POAH dated December 29, 2021 and presentation dated April 5, 2022. They also reviewed memos from the Community Development Department (CDD) and the Department of Public Works (DPW).

Board members were generally supportive of the proposed project and were excited to see the adaptive reuse of an historic structure. The project’s inclusion of units for families with children was also commended. The majority of comments from the Board focused on improving the overall design of the buildings and the site. The report from the initial meeting is attached.

### **Staff Comments on Revised Submission**

The revised submission from the Developer remains generally consistent with the AHO standards. The Initial Report primarily focused on comments related to building design, which are addressed in the accompanying Urban Design report. The following are some aspects of the project that the Board requested additional information on in relation to AHO zoning standards:

- Long-Term Bicycle Parking. The AHO zoning does not require short- or long-term bicycle parking to meet normal zoning standards for projects that involve the renovation of existing buildings but encourages bicycle parking to be provided to the extent practicable given existing constraints. The Developer is providing 48 long-term bicycle parking spaces and has worked with City staff to meet the access and design standards for that type of bicycle parking. The revised submission shows the ramp access route to the long-term bicycle parking and the three locations of the long-term bicycle parking. The quality of the site plan graphic makes it challenging to read, so it is unclear if the proposed design meets the City’s design standards. A

1:10 scale plan for the proposed bicycle parking should be provided at the building permit stage with the access route and access aisle widths clearly labelled.

- Short-Term Bicycle Parking. The Developer is not proposing to provide short-term bicycle parking on-site due to site and budget constraints. They've indicated a willingness to work with the City to identify locations for short-term bicycle parking on the public sidewalk but have not proposed contributing funding.
- Resident Parking. There are two existing off-street parking spaces accessed from Thorndike Street. The application materials do not indicate how those spaces will be used, but the Developer does state that off-street parking will not be provided for residents. The AHO zoning does not require off-street parking. The AHO zoning does require Transportation Demand Management (TDM) measures and a certification from the Traffic, Parking and Transportation Department (TP+T) that short-term pick-up, drop-off, and loading can be reasonably accommodated either off-street or on-street. It also allows, but does not require, the Developer to secure off-site parking for the project if it meets the standards in Section 11.207.6.2(b). The Developer has committed to Transportation Demand Management (TDM) measures, including discounted MBTA passes; transit information; and long-term bicycle parking. The Developer has also explored providing parking options for residents off-site.



## Urban Design Staff Report

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### Overview

The convent, school, and rectory of the Sacred Heart Church complex at 46 Sixth Street will be renovated to accommodate 46 units of affordable housing. The massing of the buildings will be unchanged, but numerous improvements will be made to their appearance: the brick facades will be cleaned and repointed, historically accurate replacement windows will be installed, and window openings that are currently infilled will be restored. The building's historically significant interior details will be preserved and restored. Insulation will be added, and new all-electric building systems installed. The existing interior walls will be retained where possible. New elevators will be installed, and accessible routes will be created. Long term bicycle parking will be provided. Sitework will include the renovation of the existing courtyard at the southeast corner of the site and the improvement of the complex's internal courtyard with plantings, paving, and furniture. The small existing garage on Thorndike Street will be demolished and replaced by two open-air vehicular parking spaces.

In the hearing on April 5, 2022, the applicant addressed numerous topics raised by the Planning Board including:

- The roof will be insulated.
- Due to a desire to preserve interior finishes, insulation won't be added to the exterior walls; the applicant will analyze the thermal performance of the building's triple withe brick walls.
- The applicant reviewed several options that had been considered to provide basement level parking and explained their conclusion that they were impractical given the dimensions of the building and the desire to have substantial trees in the courtyard.
- The applicant will test for lead paint and asbestos and follow recommendations.

In subsequent review, staff has concluded that:

- The mix of unit sizes is appropriate.
- While borrowed light in bedrooms is less than ideal, it is acceptable.

The current design is largely the same as it was at the April 5<sup>th</sup> hearing. The unit count remains at 46. In response to Planning Board and staff comments on the materials presented in the hearing on April 5<sup>th</sup>, improvements have been made to the design and documentation, including:

- Small changes and corrections have been made to unit layouts.
- The arched window on the Sixth Street façade will be restored.
- All windows will be replaced with historically accurate windows, including two-over-one windows for the rectory building.
- New, historically appropriate doors will be provided where the originals have been replaced.
- Dual draw window blinds will be provided to increase privacy, especially at the ground floor units.
- Additional information has been provided regarding plant species and landscape furnishings.
- The courtyard at the southeast corner of the site has been revised: the tree that had previously been in its center is now at its western side, more low plantings are provided, and the benches have been moved closer to the perimeter plantings. Loose furniture is shown in the central paved area.
- The route to the bicycle storage rooms is now indicated.

## **Urban Design Comments on Design Revisions**

### **Site Design**

1. Consider providing additional street trees on all three bordering streets.
2. Consider revising the courtyard at the southeast corner of the site, possibilities include:
  - a. Creating more visual separation between the courtyard and the adjoining two car parking lot and the pedestrian ramp by providing a solid wall at the height of the rectory's stone base and taller and denser plantings.
  - b. Giving the courtyard more protected feeling relative to the public sidewalks by raising the low wall on the east or south side of the courtyard to approximately 3 feet.
  - c. Giving the WW2 memorial more honorific emphasis.
  - d. Reusing the memorial's wrought iron gate somewhere in the project.
3. Consider adding plantings in the 2-car parking area. There may be some space available north of the eastern parking space.

### **Building Design**

4. Some coordination remains to be done regarding the locations of windows in plan and elevation.
5. Consideration should be given to replacing existing wall mounted exterior flood lights with less obtrusive lighting.
6. The material and color of infill panels at the new elevator in the rectory building should be resolved.

### **Sustainability**

Staff believes it is important to demonstrate that design team is thinking about embodied carbon in addition to operational emissions at the early stages of design.

7. Staff recommends that the design team try to estimate greenhouse gas emissions, including embodied carbon from products and construction processes involved in the rehab work, and make this information available during design development and/or construction document phases. To address embodied carbon, staff suggests that the design team use the LEED v.4 or v.4.1 materials and resources credit options and framework and procuring materials with third-party verified environmental product declarations EPDs.
8. Staff suggests that the new historically appropriate windows maximize thermal performance, with aluminum frames and a thermal-break system for energy efficiency.

### **Suggestions for further study**

Because the Planning Board's review of this project is advisory, there are no conditions for continuing design review. However, as the developer further refines the design through the building permit and construction process, staff would encourage the developer to review the following topics. Staff will continue to consult with the developer as appropriate.

1. Brick repair/restoration, including review of repointing mortar and joint tooling
2. Replacement windows
3. Proposed exterior wall sections
4. Locations of potential new street trees
5. Species and planting standards for proposed trees and other plantings
6. Bicycle parking
7. Site furniture
8. Design of the southeast courtyard and the WW2 memorial
9. Design of the play area
10. Exterior lighting
11. Sitework materials