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

To: Planning Board

From: CDD Staff

Date: November 29, 2023

Re: **AHO-6, 1627 Massachusetts Avenue – Advisory Design Consultation Meeting #2**

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Overview

Submission Type:	Affordable Housing Overlay (AHO) Advisory Design Review
Applicant:	Homeowners Rehab, Inc. (HRI)
Zoning District(s):	Residence C-2A; Basement Housing Overlay District
Proposal Summary:	Renovation of an existing structure and new addition to create twenty-nine (29) new rental units under the AHO.
Planning Board Action:	Review revised materials and provide final comments on 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.
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.

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11.207.5 – 11.207.7 AHO Development Standards

Development Standard	Requirements for AHO Project in Residence C-2A
Building Height & Stories Above Grade	• Residence C-2A permits 60' maximum height. Under the AHO, this site is part of an AHO Corridor which permits a maximum building height of 12 stories, 140'. • 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 establishes 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. Residence C-2A permits 2.5 FAR; therefore, there is no maximum FAR for an AHO Project at this location. • There is no minimum lot area per dwelling unit for an AHO Development.
Yard Setbacks	• Under the amended AHO, there is no front or side yard setback required for AHO Projects. AHO Projects shall have a rear yard of 15 feet, which can be reduced to the District Dimensional Standard if it is less restrictive.
Open Space	• Generally AHO Developments must have 30% open space to lot area or meet the underlying District Dimensional Standard, whichever is less. Residence C-2A requires 10% open space on a lot. • 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.
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.

Development Standard	Requirements for AHO Project in Residence C-2A
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 Mellen Street and Mass Ave shall have at least 20% clear glass windows. • 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.
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. The proposed building is 29,352 square feet, which triggers GBR. • New development is subject to Green Factor compliance and Flood Resilience standards. The proposed development meets these requirements and will be reviewed again at building permit and certificate of occupancy. • 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

Zoning & Development Staff Report

Overview

Homeowners Rehab, Inc. ("HRI" or the "Applicant") is proposing to renovate an existing building at 1627 Mass Ave (the "Saunders House") and construct a new, six-story rear addition to accommodate up to 29 permanently affordable apartments under the provisions of the Affordable Housing Overlay (AHO). The redevelopment includes no off-street parking spaces, 30 long-term bicycle parking spaces, and 4 short-term bicycle parking spaces. In addition to new residential units, the proposal will include additional ground floor space for resident amenities.

Planning Board Comments from Initial Consultation Meeting

The Planning Board (the "Board") held its first advisory design review consultation on Tuesday, July 19, 2023 and issued its Initial Report on August 7. Board members were generally supportive of new affordable housing at the location and the preservation of the existing Saunders House, but provided several comments related to the overall design of the proposal. Specifically, Board members focused on:

- Improving the rear addition's overall massing and appearance, with a focus on increasing articulation of the façade and the bay projections; improving the color of the rear addition to be more compatible with the existing Saunders house; and adjusting the first floor height of the rear addition to better complement the pattern of existing development along Mellen Street.

- Refining the overall site design, including relocating the transformer, increasing the usable open space on the site, and preserving existing site features of the Saunders front yard (i.e., the walkway and entryway of the house).

Staff Comments on Revised Submission

Since the first hearing, the City Council adopted a zoning amendment to the AHO which makes modifications to the existing AHO height, setback and open space standards. The Applicant has submitted a revised dimensional form in response to these standards, but has not made modifications to the height, setbacks or open space that was made part of the initial submission of the proposal. The proposal does still conform to the modified AHO standards.

The Applicant has also met several times with City staff to discuss further design refinements on the site since the initial hearing. The revised submission from the Developer dated October 26, 2023 is responsive to staff and the Planning Board's initial comments.

In the initial CDD memo on this Proposal, CDD staff noted two elements of the proposal that needed additional information in order to determine that the proposal will be compliant with the AHO zoning standards. These elements, along with the revised submission response, are highlighted below for the Board's information:

- Minimum Façade Projecting/Recessed Elements: The AHO zoning standards require that an AHO Project incorporate projecting and/or recessed architectural elements of at least two feet for every forty (40) feet of a façade facing a public street.

    - Page 16 of Volume 2 of the revised submission includes a diagram illustrating compliance with the above-referenced design standard.

- Rooftop Mechanical Screening Standards: The AHO requires that mechanical equipment carried above the roof be screened from view of adjacent public streets and residentially-zoned lots.

    - Volume 2 of the revised submission includes a Proposed Perspectives section that illustrates the proposed rooftop mechanical screening system and demonstrates compliance with the AHO standard.

- Minimum Ground Story Transparency Requirements: The AHO requires that ground stories facing a public street or open space consist of at least 20% clear glass windows.

    - A transparency diagram is presented on Page 15 of Volume 2 which illustrates that at least 28% of the ground story will be glazed with clear glass windows in accordance with the AHO design standard.

Urban Design Staff Report

Overview

The Affordable Housing Overlay project at 1627 Massachusetts Avenue consists of the preservation and restoration of the existing historic Saunders House (facing Massachusetts Avenue), and the addition of a five and six floor high building in the rear of the site (facing Mellen Street). The project will provide twenty-nine residential units, four of them in the Saunders House, and the rest in the rear addition. Seven of the units will be three-bedroom family size units. The Saunders House will be connected to the rear addition at three levels to enable the latter's elevator to serve both buildings. No vehicular parking is provided, but the project is close to Harvard Square's numerous public transportation options.

In general terms, the design shown in the revised (October 26, 2023) submission is similar to the design presented at the first Planning Board hearing on July 18, 2023 (documents dated June 5, 2023):

- The rear addition remains five and six floors tall, and its floor plans remain generally the same.
- To maximize the number of residential units, the rear addition fills much of the eastern portion of the site, which is currently occupied by a surface parking lot.
- A corner bay window emphasizes the rear addition's northwest corner, looking east through the Saunders House's north side yard toward Mass Ave.
- A sheltered outdoor terrace facing Mellen Street leads to the addition's main entrance, which is adjoined by the building's amenity space.
- The Saunders House's front yard is retained as open space for the residents and as green space to enhance the Mass Ave streetscape.
- Long-term bicycle parking is provided in the basement of the Saunders House, and four short term spaces are provided next to the Mellen Street sidewalk and the rear addition's entry terrace.
- Trash and recycling enclosures are on the south side of the site, between the Saunders House and the adjoining property to the south. They are screened by wooden fences and plantings.
- Most of the site's existing trees are preserved.

While the revised design incorporates numerous improvements, it remains in general conformance with the Design Guidelines for the Affordable Housing Overlay (2020). These guidelines:

- Stress compatibility with existing neighboring buildings. They encourage the design of massing, façades, details, and materials to create compatibility of scale and appearance.
- Encourage the provision of welcoming spaces at building entrances, provided with benches and amenities for the use of residents.
- Encourage the preservation of historical buildings and careful consideration of the relationship between new and existing fabric.

In the project's first hearing, the Planning Board strongly supported the project, but suggested that further study be given to specific aspects of the design, including:

- Explore ways to create more compatible relationships with the existing buildings on Mellen Street, by increasing the articulation and visual interest of the rear addition's facades - especially the Mellen Street façade - and to consider using strategies employed by the large buildings nearby on Mass Ave to reduce the addition's visual bulk.

- Step the rear addition's top floor back from the typical plane of façade and/or distinguish it from the lower floors by color.
- Consider lowering the level of the addition's second floor, so as to reduce the building's overall height.
- Give the bay windows increased depth and provide windows on their sides.
- Make the front yard of Saunders House a more useful amenity for the project's residents.
- Find a better way to deal with the project's transformer, which was proposed to be at grade, and which intruded on the Saunders House's front yard and the Mass Ave streetscape.
- Retain the front entrance to the Saunders House as a functional entry.

Urban Design Comments on Design Revisions

After the July 18th Planning Board hearing, the applicant met with CDD staff to review design issues, and worked with the Cambridge Historical Commission on the rear addition's exterior colors. The revised design addresses many of the Planning Board's and staff's comments and makes other improvements.

Building Design

- The overall mass of the rear addition is the same as in the previous design: it is five and six floors tall, and its typical floors are close to square in plan. The appearance of the revised design, however, is quite different, and is more compatible with the scale of the neighboring buildings on Mellen Street. Instead of reading as a unified roughly cubical block, the revised façade treatment breaks the building into smaller elements, distinguished from each other by color, reveals, fenestration types, proportions, and height.
- In consultation with the Cambridge Historical Commission, rear addition's colors were developed for more compatibility with the Saunders House and the other buildings on Mellen Street.
- The bicycle parking room in the basement of the Saunders House has been adjusted for clearances.
- Improvements have been made to the interior layout of the rear addition's first floor.

Site Design

- The transformer is now located in an underground vault, eliminating the need for the enclosure that in the previous design projected beyond the Saunders House's front facade into its front yard.
- A seating nook has been created at the southern end of the Saunders House's front yard.
- The existing walk to the Saunders House's Mass Ave entry is retained, and the building's front entrance can be used by residents.
- The rear addition's entry terrace facing Mellen Street has been further developed with low seat walls.
- The short-term bicycle parking previously located in the entry terrace has been relocated next to the Mellen Street sidewalk.
- An additional street tree is proposed near the west end of Mellen Street. **(**Because the city is developing plans to address Mass Ave, the project refrains from proposing changes to the Mass Ave sidewalk and street trees.)

Sustainability

- The building will be designed and constructed in accord with Enterprise Green Communities certification.
- A "potential solar array" is noted on the roof.
- Native and/or drought tolerant plants are proposed for the landscaping, and shade tolerant plants are indicated in areas receiving little sun.

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.

Facades

The appearance of the rear addition is improved and much more compatible with the existing buildings on Mellen Street. The following suggestions would not change the fundamental direction of the design; they could be investigated as the design is refined.

- The cornices at the levels of the fifth and sixth floors have a very heavy appearance. A thinner and more strongly projecting profile would be more elegant and relate better to the cornice of the Saunders House and the cornices of other buildings on Mellen Street.
- Consideration should be given to extending the vertical reveal in the middle of the north (Mellen Street) façade through the first floor down to ground level.
- The proportions and depth of the Amenity Room's fenestration could be improved: The windows could be recessed more deeply in the wall, the widths of the opaque vertical panels between the windows could be reduced, the locations of the mullions could be adjusted to improve the proportions of the glazing units, etc. Consideration could be given to extending the windows to the building's northeast corner.
- In the June 5, 2023 submission, the canopy/soffit over the Mellen Street entry terrace had a slim profile, and the expressed beam ends on its north, east, and west sides added detail. In the revised submission, the soffit has a very thick and boxy profile and the beam ends are less prominent. Consideration should be given to revising the design to the lighter and more engaging design of the June submission.
- To reduce the Mellen Street entrance's somewhat corporate look, consideration could be given to eliminating the accent lighting at the junction between the walls and the soffit of the terrace.
- The addition's east façade (facing the neighboring blue house) is divided by a projecting vertical element that separates its northern reddish part from its beige southern part. Consideration could be given to eliminating the projecting element, and to extending the reddish part (with its cornice and lighter colored top floor) south to the north face of the bay window at the southeast corner of the building.
- Further consideration of the proportions and alignments of the windows, especially on the Mellen Street façade, would improve the building's appearance.
- Elements such as head and jamb trim, and projecting sills, spandrel panels, framing elements, etc. could be used to increase the apparent size of the windows, to create larger groups of related elements on the facades, and to create more compatibility with the nearby buildings.

- Much of the building is clad with flush V groove cementitious siding. To increase the visual detail and the project's affinity with the neighboring buildings on Mellen Street, consideration should be given to instead using lap siding.
- Consideration could be given to breaking up the continuity of the facades of the top floors by slight changes in plane (even a few inches would do much to reduce their monolithic appearance).
- To further distinguish the top floors from the typical floors, consideration could be given to giving them larger windows than the floors below.
- The bay window at the building's northwest corner is clad with metal panels. Consideration could be given to adding detail by providing projecting metal sills or window frames, additional panel joints, etc.

Building Massing:

- The overall effect of the addition, and its relationship to both the Saunder's house and the other houses on Mellen Street, would be improved if its top floors were stepped back from the plane of the façades below.
- As the Board suggested, consideration could be given to reducing the floor-to-floor dimension of the rear building's first floor so as to reduce the building's overall height. This would require steps or a ramp to connect the rear addition's second floor to that of the Saunders house.

Site plan

The site plan of the revised scheme is generally well developed, preserving the character of the Saunders House's setting, and making the site a more useful amenity for the project's residents.

- The front yards of the other houses along Mellen Street generally have clipped hedges above a low stone curb at sidewalk edge, giving the street an appealing consistency and domestic feel. The project preserves the western portion of the existing hedge on Mellen Street, but proposes new low irregular plantings for the rest of its frontage. For more compatibility with the context, a clipped hedge and low curb should be considered. A native species that is similar in appearance to the existing hedge, such as American arborvitae (Thuja occidentalis), could be employed.