



CITY OF CAMBRIDGE
COMMUNITY DEVELOPMENT DEPARTMENT

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To: Planning Board
From: CDD Staff
Date: March 17, 2017
Re: **PB #302, MIT "NoMa" PUD Minor Amendments and Design Review**

The Special Permit for the "NoMa" Planned Unit Development (PUD) was granted by the Planning Board at the same time as the SoMa PUD on May 17, 2016. The design review materials for "Building 1" (housing and retail) and additions to the existing One Broadway Building have been submitted, along with a request for several minor amendments.

This memo summarizes the key areas of focus associated with each element of the review.

Requested Minor Amendments

The current NoMa proposal includes some dimensional changes that are outlined in the special permit documents. The special permit for the NoMa PUD authorizes some changes – provided those changes remain consistent with zoning requirements and are generally consistent with the original findings of the PUD approval – subject to review and approval by the Planning Board, but not requiring a Major Amendment to the special permit decision.

The modifications from the approved dimensions are summarized on page 3 of the design submission, and the key modifications are summarized below. Ancillary changes are proposed so that the development will continue to conform to bicycle parking requirements and other standards.

- Increase in total aggregate GFA of the development parcel by about 4%, with about a 6% increase on the One Broadway commercial site and about a 2% increase on the primarily residential Building 1 site (not including GFA that is exempt from zoning limitations). The additional GFA is for a mix of residential, office and ground floor retail use.
- Reduction in the number of authorized on-site parking spaces by about 10% (from 491 to 443 spaces), along with a decrease in GFA devoted to structured parking.
- Increase in height of the proposed residential Building 1 by about 10% (from 250 feet to 274.9 feet), with the addition of two residential stories. Per zoning, this increase in height will require middle-income housing to be provided in an amount equal to 25% of the floor area of the additional stories. The design submission predicts this will result in about 5-10 middle-income units (depending on actual unit sizes).

Aside from the dimensional changes, another key change is proposed to vehicular access and egress. The approved Final Development Plan provided parking access/egress and loading for the Building 1 site from Main Street, while the current proposal combines the parking access/egress for both One Broadway and Building 1 sites into the existing access/egress point along Third Street, and provides loading access/egress on Broad Canal Way instead of Main Street.

The special permit provides the following allowances relevant to these modifications.

[PB-302, Condition 1-a-vi.] Modifications of Aggregate Development Program. ... Any further change to the Aggregate Development Program, provided that the total change amounts to no more than ten percent (10%) of the total GFA authorized by this Special Permit, may be approved as a Minor Amendment pursuant to Condition #15 of this Decision.

[PB-302, Condition 1-a-viii.] Parking. ... A reduction in the total number of off-street parking spaces may be approved administratively by CDD provided that such decrease does not exceed five percent (5%) of the total number of approved parking spaces on the Development Parcel, while any further reduction may be approved as a Minor Amendment pursuant to Condition #15 of this Decision.

[PB-302, Condition 1-c-vii.] Modifications. During the Design Review process, or in the event that there is no Design Review process pending for a Building Site, upon the application of the Permittee, the Planning Board may approve modifications to the Site Development Plan and/or Site Development Table in Appendix A that constitute no more than a ten percent (10%) deviation in the land area, Publicly Beneficial Open Space and building height on any individual Building Site and, pursuant to and consistent with the provisions of Condition #1.a.vii. of this Decision, GFA, as Minor Amendments pursuant to Condition #15 of this Decision.

The special permit also provides the following guidance for approval of a minor amendment:

[PB-302, Condition 15-b.] Minor Amendments. A Minor Amendment to this Decision shall be approved by an affirmative vote of at least five (5) members of the Planning Board after consideration of the proposed change, as enumerated on the Agenda, at an appropriately noticed meeting of the Planning Board. In approving a Minor Amendment, the Board shall issue a written determination that:

- i. The change does not violate applicable Sections of the Zoning Ordinance, or if the change requires relief pursuant to a special permit or variance, such relief has been granted.*
- ii. The change will not substantially alter the Findings upon which this Decision is based.*

Design Review Process

Like the MIT SoMa projects recently before the Board, the review of the building design is guided by the conditions of the special permit, which references the design standards specified in the *Kendall Square PUD-5 Design Guidelines, 2016* (Appendix C of Final Development Plan), the *Sustainability Strategies* described in Appendix D of the Final Development Plan, and the *Kendall Square Design Guidelines, 2013*. A compilation of these guidance documents was previously sent to the Planning Board and is available on the CDD web site.

NoMa Urban Design Objectives

In addition to the *Kendall Square Design Guidelines*, which the Board is familiar with, design objectives and strategies specific to the site were developed as part of the PUD process. The objectives most relevant to the review of Building 1 and the One Broadway additions are:

Site Planning and Open Space

- The Broad Canal area benefits from existing activities at the water’s edge and active retail on the north side of Broad Canal Way. The MIT open space system will create a new connection to the Broad Canal via a new pedestrian crossing of Main Street and a new generous and activated pedestrian pathway between Building 1 and the Luke Building, owned and occupied by the American Red Cross. The Broad Canal area will be enhanced with active ground floor retail uses along the passageway and the south side of Broad Canal Way through the addition of Building 1 and a new retail liner on the north edge of the existing One Broadway building.
- Design connecting pathways and streets to be welcoming and comfortable for all users, including pedestrians and people traveling by bicycle.
- Enhance and improve wayfinding for all users, including bicyclists, to make it easier to find the campus, the river, neighborhoods and the center of Kendall Square.

Ground level design and uses

- Complement the successful uses along the north side of Broad Canal Way and create a two-sided retail corridor with retail and active uses on the south side of Broad Canal Way.
- Where possible, activate the Third Street and Broadway sides of the NoMa development with enhanced retail and active uses.
- To the greatest extent possible, activate the edges of secondary streets and the interior open spaces to provide activity and interest for pedestrians.

Built Form – Siting, Scale and Massing

- Site and shape buildings to minimize their impact on the historical buildings, as well as the public realm, particularly associated with Main Street and Broad Canal Way.
- Create a strong pedestrian scaled street wall throughout the PUD area and particularly on Main Street to align with the existing historic fabric, and achieve the level of public realm activity desired in the heart of Kendall Square.
- Enhance the pedestrian experience along the secondary streets.

Architectural Character

- Create a family of buildings that work harmoniously together while allowing for individual character and definition to be developed and celebrated
- Create an architectural approach that will distinctly represent Kendall Square, employing innovative, contemporary architecture and the latest cost-effective green building design technologies.
- Enable each building to maintain a distinct character due to its unique context, use and relationship to the public realm. This could include integration with the historic buildings or the

specific uses programmed for the building, such as the MIT Museum or academic housing or a significant ground floor retail or active use.

Parking and Loading

- Where possible, parking and loading entries should be located on secondary streets and consolidated. The location of driveways should not preclude or negatively impact possible future visual and physical connections to the Charles River.
- Above-grade parking should be carefully screened to minimize the visual impact.
- Loading should be internal to buildings.
- Loading should be consolidated where possible and located below grade.
- At-grade loading facilities should not be more than 30 feet wide and should have the ability to be closed off when not in use.
- Loading dock areas should have adequate visibility and sightlines for pedestrians on the sidewalk, vehicles and cyclists on the street and trucks entering/exiting.

The specific Building 1 Design Guidelines include:

Building 1 should be designed to reduce its perceived mass to the extent possible. Techniques to achieve this may include gradual tapering so that the upper portions of the building have a slightly reduced volume. Potential strategies may include sculpted massing and the use of balconies. Building 1 massing should activate the street edge of Broad Canal Way to create a double-sided street with ground floor uses and an improved path to the Broad Canal from Third Street.

Staff Comments

Staff has met with the Applicant on a few occasions over the last several months, and has collaborated with the City’s urban design consultants, Over, Under, to review the materials. These meetings have also included the Cambridge Historical Commission since the site is adjacent to the historically significant Red Cross Building. Based on that work and meetings, detailed comments, organized by topic, are provided on the following pages.

As described in the amendment materials, Building 1 has increased in scale with the two additional floors and now reaches a height of 275 feet. The design has also changed significantly in relation to the earlier concept that the Planning Board reviewed as part of the PUD process. The design for the tall mass of the building is characterized by wide flanks of terracotta wall panels with deep aluminum framed, double-height openings. The north and south ends of the tower are clad in a curtainwall. The base of the building is formed from one story of retail/active functions surmounted by two low stories of parking with punched openings.

Scale and Massing

While tall, the perspectives from multiple viewpoints in the city suggest that Building 1 will generally be in keeping with other buildings planned for Kendall Square. However, it does not entirely conform to the K2 Design Guidelines for building heights above 250 feet. Specifically, the guidelines suggest:

- Maximum plan dimensions of 160' x 65' above 250'.
- Façades above the podium facing parks and plazas exceeding 100' in length should be separated by a gap of approximately 50 feet, extending back 50 feet from the ground level façade.
- An urban rhythm by creating a major vertical break for every 100' of façade length with a displacement of approximately 8' in depth or that divides building form into major distinct massing elements.
- Avoidance of broad “slab” volumes that make the building appear bulky. Point towers expressing vertical volumes are encouraged.

With regard to these guidelines, the tower has overall floorplate dimensions of approximately 215 feet by 70 feet, with unbroken west and east façade lengths of around 185 feet. The setback of the tower from the podium does comply with the Design Guidelines. The glassy north and south elevations successfully emphasize slender, vertically-oriented proportions, and the notched corners at each end also help to minimize bulk. Solar shades are used on the south façade, which give it scale and shadow, and the balconies create a further level of refined details. The north facade, however, is much flatter and less resolved in the renderings.

The terracotta façades are articulated as double-height floors, which also helps to mitigate some of the massing impacts, and applies the design approach used for Building 4 to achieve more of a residential scale and feel. Continuing review of the project will need to focus on exterior materials, colors and details, especially for understanding the terra-cotta color and finish, and a mockup of all wall assemblies (including the ground floor) should be provided on site.

The massing of the mechanical penthouse has changed from the original concept, which incorporated the mechanicals into the architecture of the building. The penthouse is set back from the principal wall plane as a separate element atop the roof. While detailed with vertical fins aligned with the metal window frames below that give texture and shadow to the surface, the penthouse does seem to accentuate the slab like proportions of the tower in some of the perspective views. Further study should explore opportunities to create a more interesting roofscape, or whether the mechanicals should be partially concealed.

Podium and ground floor design

The design of the Building 1 ground level and above-ground parking structure is called out as a specific item for design review in the NoMa PUD Decision. The change to the terra cotta cladding at the podium level, and the pattern of punched windows and masonry cladding has improved the relationship with the Red Cross building. This change also softens the treatment of the parking garage, although the garage façade remains inactive and it will be necessary to carefully consider the materials, particularly the fritted glass used in the openings. The corner windows, particularly above the residential entrance, are larger, which does animate the public space at that important corner.

The podium level does appear somewhat squat in the design materials and should perhaps be larger in scale to be more consistent with the Main Street context, and the overall proportionality of massing. The potential for a higher parapet and/or additional trellis-like structures (like the adjacent facade) should be considered. While a solid handrail has been added to the top of the glass guardrail to address

this issue, staff still have concerns about the podium height. Moreover, the solid handrail occurs only along the southern side of the building, and not toward Triangle Green and Broad Canal Way.

The previous design also had a better ground floor relationship with Triangle Green as the retail wrapped further down the new pedestrian connection. The new design includes more than 80 feet of inactive ground floor frontage along the proposed connection and open space. While a graphic art proposal is suggested in the review materials, opportunities to reduce or interrupt the length of the inactive edge should be further studied.

The introduction of two levels of office space used to “wrap” the existing One Broadway parking garage as it faces Main Street is a significant design improvement. The office space, combined with the roof terrace above, enriches the pedestrian environment and provides visual interest.

The seam and the wind screen between the existing One Broadway and the single-story retail liner on Broad Canal Way requires further study. The way in which the new structure touches the existing building does not appear well resolved. The screen too remains a work in progress, and while the latest iteration (as represented in the perspective of page 37) creates visual interest and is integrated with the planter in which it sits, further development of this moment should be considered.

Mechanicals, loading and parking

Utilizing the side street (Broad Canal Way) for loading for Building 1, and consolidating the existing loading for One Broadway, is more consistent with the City’s urban design objectives than the PUD proposal. Now, a much more cohesive streetscape experience can be developed on Main Street. Additional comments on transportation-related impacts will be provided by the Traffic, Parking and Transportation Department (TP&T).

Mechanicals have been added to the One Broadway structure, above the grocery store and office additions. Further information regarding materials and details of the proposed screening should be provided. In addition, to ensure that the quality of the Broad Canal Way public realm is not diminished, the location of exhaust vents and mechanical equipment needed to service the single story retail should be provided.

Wind

Wind impacts appear to have been addressed, particularly with the introduction of a wind screen at the corner of Third Street and Broad Canal Way. Staff note that wind mitigation relies on strategic plantings, rather than modifications to the built form, which should be a priority.

Open Space and Landscape design.

Staff is very supportive of the different landscape treatments proposed for each side of the site. The landscape design includes a simple materials and color palette, and detail and thought have been incorporated into the designs. Creation of interesting and diverse spaces, and pedestrian experiences, is very much in line with the City’s urban design goals.

The inclusion of Triangle Green to the scheme is a noteworthy addition to the public realm enhancements associated with the project. Opportunities to capitalize on the location adjoining the

Broad Canal and a node of active open space should be further explored, whether that be through introduction of playful design features, or art, or color. Perhaps here is a better location to introduce wood landscape features as it has a closer relationship to Broad Canal and is set back from trafficable areas.

Staff has some concerns about the durability of the materials proposed, particularly where wood furnishings are sited so close to the roadway. Also, bicycle parking in some locations appears to impinge on the public realm. For example, the bicycle parking on Third Street where two lines of racks flank the sidewalk seems to narrow the pedestrian travel zone. The Hubway parking on Broad Canal Way appears to undermine the landscape potential of the small courtyard space. If it was swapped out with trees, this space would feel more expansive, and views to the loading drive would be further screened. In addition, further clarification regarding the public nature of this small space is required as it unclear if all the seating will be open to the public, or is some tenant seating will be delimited.

Sustainability and Green Building Review

MIT and staff worked collaboratively during the PUD process to prepare the Sustainability Appendix that was incorporated into the special permit decision. The appendix articulates the strategies and objectives for this particular project and establishes guidelines to be incorporated into ongoing design review. A special permit condition also requires that future buildings in the PUD meet future sustainability requirements at the time a building is designed.

Staff has reviewed the sustainability narrative provided in the materials and has requested that the following information be provided:

- Clarification of MIT’s intention to achieve energy performance significantly better than 10% energy cost savings, which would be desirable and commendable.
- Clarification of MIT’s intention to achieve energy performance significantly better than an EUI of 55, which would be desirable and commendable.
- Information documenting a reasonable level of tenant space metering.
- Evaluation of the feasibility of solar PV on top of the One Broadway garage and on a canopy above the tower’s mechanical penthouse. If technically feasible, but not currently economically feasible, an analysis should be provided regarding roof construction so as to not preclude the addition of solar in the future.
- Further information documenting a future ‘pathway to net zero’ for the building.

Presently, this project is set to achieve LEED Gold with a projected 67 points, with 19 points listed as “medium probably”. At this point, staff is confident that NoMa Building 1 will meet, at minimum, its projected certification level and point totals. There are some inconsistencies between the credits claimed in the narrative and the checklist, which should be resolved. In addition, Credit SS c3 - Open Space is listed as “maybe” and further calculation for credit compliance will be conducted. Staff agree with this approach, and strongly recommend pursuing this credit for reasons that were stated in the narrative, namely maintaining pedestrian-oriented open spaces that are inviting and engaging to the public.

Historical Review

As the project is adjacent to the historically significant Red Cross Building, staff at the Cambridge Historical Commission have attended internal staff meetings to review the project. Feedback on the current proposal has been positive.

Continuing review

The following is a summary of issues that staff recommends should be subject to continuing design review by staff if the Board approves the building design:

- Review of all exterior materials, colors, and details, including a materials mock-up(s) of all wall assemblies on the site.
- Continuing study and review of wind mitigation measures, particularly the design of the wind screen.
- Review of all public realm and landscape details, including Triangle Green, sidewalk design, street furniture, and placement of bicycle parking.
- Review of rooftop HVAC, exhausts, and mechanical equipment screening and penthouse treatments.