



CITY OF CAMBRIDGE
COMMUNITY DEVELOPMENT DEPARTMENT

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To: Planning Board
From: CDD Staff
Date: February 15, 2013
Re: **MIT Kendall Zoning Petition**

At the Planning Board hearing on January 15, 2013, the Board requested additional information on a number of different topics related to the MIT-Kendall Zoning Petition.

At the meeting on February 12, CDD presented information regarding the City's planning strategies regarding housing and the transportation analysis conducted as part of the K2C2 study. CDD also presented the proposed *Kendall Square Design Guidelines* developed as a result of the K2C2 study, which are relevant to the discussion of this zoning petition.

MIT has prepared a revised zoning text in consultation with City staff. This memo provides information that the Board had requested and responds to the revised MIT zoning language. The following topics are addressed:

1. **Comparison of Current Zoning with Proposed:** A broad technical overview of the proposed changes is provided.
2. **Resolution of Outstanding Issues in Petition:** MIT representatives and City staff have discussed the issues identified in the previous version of the text. The revised zoning text submitted by MIT addresses most of these issues.
3. **Relationship between Zoning and Design Guidelines:** Given that the Planning Board has recently reviewed the *Kendall Square Design Guidelines*, there can be a better understanding of how these guidelines will fit with the proposed zoning and with MIT's development plans for the area.
4. **Housing South of Main Street:** A discussion is provided of zoning approaches that would exempt future residential and dormitory development south of Main Street from Gross Floor Area and Floor Area Ratio limitations. MIT's revised zoning text includes language to this effect.

At the meeting on February 19, representatives from MIT will discuss their revised zoning text and will respond to these issues and others identified by the Board. Staff will be available to comment and to provide additional information.

1. Comparison of Current Zoning with Proposed

Overview

The area of the petition is currently divided into a few different zoning districts. The predominant district south of Main Street is Residence C-3B, which allows residential and institutional development and allows permitted floor area to be distributed flexibly throughout the district. A portion of the area along the river is zoned Residence C-3, which is similar, but does not provide the same flexibility to shift development rights.

Along Main Street there is a Mixed-Use Residential Overlay (MXR), which allows a limited amount of commercial use (such as ground-floor retail) within existing buildings.

The northern part of the area (the One Broadway site) is part of the Office 3A / PUD-3 District. Residential, institutional and office uses are allowed. Limited retail use is allowed but only as part of an approved PUD plan.

The proposed zoning would keep the same base districts, and would create a single new Planned Unit Development overlay (PUD-5), which sets overall limits on development but allows flexibility in how that development is distributed, subject to Planning Board approval. One effect of this redistricting would be to allow more significant commercial development south of Main Street. It would also enable development on the One Broadway site, which is developed beyond the current zoning maximum.

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

Residence C-3 and C-3B currently allow an FAR of 3.0, and in Residence C-3B an FAR of 4.0 is allowed for residential uses only. Given existing development, this means that either 800,000 square feet of additional academic uses or 1.077 million square feet of residential or dormitory uses would be allowed. If future development contained both academic and residential/dormitory uses, the total allowed development would be somewhere in between those two figures depending on the exact mix of uses.

The existing Office 3A / PUD-3 District allows an FAR of 2.0 for non-residential and 3.0 for residential uses, and since the current One Broadway site is all commercial and has an FAR of about 2.6, no new development would be allowed.

The proposed zoning allows an overall FAR of 3.9. Given existing development, this would result in about 2,074,000 square feet of new development potential, of which 980,000 square feet of new commercial use is allowed, and 240,000 square feet of new housing is required. This would leave about 854,000 square feet of additional development that could be residential (including dormitory) or institutional.

See chart on the next page.

Current Zoning

Base District	Land Area	Allowed GFA ¹	Existing GFA	Remaining GFA ¹
Residence C-3B	914,000 SF	Res: 3,656,000 SF NR: 2,742,000 SF ²	Res: 192,000 SF NR: 1,935,000 SF ³	Res: 955,000 SF NR: 678,000 SF ²
Residence C-3	167,000 SF	Res: 501,000 SF NR: 501,000 SF ²	Res: 379,000 SF NR: None	Res: 122,000 SF NR: 122,000 SF ²
Office 3A / PUD-3	116,000 SF	Res: 348,000 SF NR: 232,000 SF	Res: None NR: 307,000 SF	Res: None NR: None
TOTAL	1,253,000 SF	Res: 4,505,000 SF NR: 3,475,000 SF	Res: 571,000 SF NR: 2,242,000 SF	Res: 1,077,000 SF NR: 800,000 SF ²

¹ In most districts, the Allowed GFA and Remaining GFA figures differ for residential (Res) and Non-residential (NR) development. (In this case, residential includes dormitory use as well.) In the table above, the figures refer to the maximum allowed (or remaining) for *either* residential *or* non-residential development, assuming that all future development is of that type. For development that is a mix of residential and non-residential, the allowed total would be some amount in between the two, as determined by the mixed use formula in 5.30.12.

² Under current zoning, commercial uses are not allowed in the Residence C-3B or Residence C-3 districts, except for limited amounts in the Mixed-Use Residential Overlay (MXR) district along Main Street. Generally, in those districts non-residential uses would be limited to institutional uses such as classrooms, student services, academic offices and labs.

³ Non-residential development existing in the Residence C-3B district includes about 1,843,000 SF of institutional uses and about 92,000 SF of commercial uses.

Proposed Zoning

PUD Overlay ⁴	Land Area	Allowed GFA	Existing GFA	Remaining GFA
PUD-5	1,253,000 SF	Total: 4,887,000 SF <i>New commercial:</i> 980,000 SF (<i>max</i>) <i>New residential:</i> 240,000 SF (<i>min</i>)	Total: 2,813,000 SF <i>Exist. commercial:</i> 399,000 SF <i>Exist. residential:</i> 571,000 SF <i>Exist. academic:</i> 1,843,000 SF	Total: 2,074,000 SF <i>New commercial:</i> 980,000 SF (<i>max</i>) <i>New residential:</i> 240,000 SF (<i>min</i>) <i>Remaining academic or residential:</i> 854,000 SF

⁴ Under the proposal, the base zoning would remain the same. The PUD Overlay District would create an alternate set of zoning regulations that apply to the entire area and allow development to be arranged more flexibly within that area. In the proposed PUD district, development is controlled in a different way than under base zoning by setting a total FAR limit (3.9) and additional limitations on specific use types.

NOTE: Figures based on Cambridge Assessing Department records – ALL FIGURES APPROXIMATE

Heights

The current zoning allows maximum heights of 120 feet within the Residence C-3 and C-3B Districts. In the Office 3A / PUD-3 District, the maximum height under base zoning is 90 feet for non-residential uses and 120 feet for residential uses, but heights can be increased to as much as 230 feet in limited areas, subject to Planning Board approval as part of a PUD.

The proposed zoning allows heights to be increased to 150, 200 or 250 feet in different portions of the district (with taller heights allowed near the Kendall MBTA station and lower heights allowed closer to the Charles River), subject to Planning Board approval as part of a PUD. **See attached map.**

Yards/Setbacks

Under base zoning, the Residence C-3 District has formula yard requirements, meaning that buildings have to be set back from abutting lots based on their height and size. Residence C-3B has only a modest 10-foot front yard and no side or rear yard requirements. Office 3A also has formula yard requirements, but the Planning Board may approve any setbacks when approving a PUD under the PUD-3 regulations.

The proposed zoning would allow the Planning Board to approve any variations in yard setbacks as part of the approval of a PUD Final Development Plan. However, the proposed zoning imposes some restrictions on building height and massing that are not included in the current base zoning, including step-backs along major streets and floorplate size limitations at taller heights.

Open Space

Residence C-3 and C-3B require that for residential development, at least 10% of the lot must be used for private open space, which would be intended for use by occupants of the building. In the Office 3A District, there is a similar 10% private open space requirement for residential uses. However, under the PUD-3 regulations, 15% of a development parcel must be open space, although the Planning Board may reduce the requirement under specific circumstances such as adjacency to public open space.

Under the proposed zoning, 15% of the new PUD-5 district would be required to be publicly accessible open space. The Planning Board would review and approve the location and configuration of open space as part of a PUD Final Development Plan, but could not reduce the required amount.

Parking

Under existing zoning, parking requirements are mostly governed by Article 6.000, which sets minimum and maximum parking rates for different uses.

The proposed zoning adopts the recommendation of the K2 study by establishing strict maximum parking rates but not prescribing strict minimum parking rates, allowing the required amount of parking to be approved by the Planning Board as part of PUD approval. The proposed zoning also allows sharing of parking facilities among different uses, and requires a study showing the feasibility of shared parking as a way to reduce the total number of parking spaces provided. **See chart on the following page.**

Bicycle parking would be required as per Article 6.000. A rezoning proposal to revise the bicycle parking requirements in Article 6.000 is currently under consideration.

Comparison of Required Off-Street Motor Vehicle Parking Rates

Use	Current Zoning ¹		Proposed Zoning	
	Minimum Parking	Maximum Parking	Minimum Parking	Maximum Parking
Residential	1.00 sp /unit	None	0.50 sp /unit	0.75 sp /unit
Institutional (University)	0.56 sp /1,000 SF	0.83 sp /1,000 SF	No change	No change
General Office	1.00 sp /1,000 SF	2.00 sp /1,000 SF	Determined by PB	0.90 sp /1,000 SF
Technical Office (Lab)	0.75 sp /1,000 SF	1.50 sp /1,000 SF	Determined by PB	0.80 sp /1,000 SF
Retail and Consumer Service	<i>Varies by type:</i> 0.56 – 1.11 sp /1,000 SF	<i>Varies by type:</i> 0.83 – 1.67 sp /1,000 SF	Determined by PB	0.50 sp /1,000 SF

“sp” = off-street parking space(s).

¹ The required rates under current zoning are converted from the format used in Article 6.000, which expresses the requirement as the amount of square footage (or dwelling units, restaurant seating or other unit of measure) for which one parking space is required. The “spaces per 1,000 square feet” format is now more typically used.

Other Requirements

Current zoning has few other requirements that are unique to these districts. Certain citywide requirements apply, including Article 19 Project Review (which would apply to some, but not all, university development in the Residence C-3 and C-3B Districts), Inclusionary Zoning for housing development, and Green Building Requirements under Article 22.000 (requiring that buildings over 50,000 square feet be designed to a LEED Silver standard).

The proposed zoning includes additional requirements that were recommended in the K2 study and were previously discussed with the Planning Board, including:

- Middle-income housing component (in addition to the Inclusionary Zoning requirement) for residential development above 250 feet
- “Innovation space” requirement for new commercial office and laboratory development
- Additional requirements for sustainable design and development
- Requirements and incentives for active retail uses at the ground floors of major streets
- Contributions to a community fund to support ongoing open space programming, enhanced transit service and workforce development.

These additional requirements help to balance the additional permitted development with meaningful impact controls and improvements to the district as a whole.

2. Resolution of Outstanding Issues in Petition

At the prior hearing, staff noted a number of issues in the proposed language. After discussion with MIT, we feel that significant progress has been made in resolving these issues with the revised text:

Gross Floor Area Exemption for Retail (13.83.1(a))

The K2 study recommends that GFA occupied by ground-floor retail be exempt from limitations if it is used by establishments each occupying 5,000 square feet or less. The revised MIT zoning text exempts ground floor and basement retail provided that the average size of all establishments is 5,000 square feet or less. Although there is a slight difference, this is a reasonable interpretation of the K2 recommendation that allows flexibility to adapt to changing circumstances.

Conceptual Planning (13.83.3(b))

The proposed zoning sets FAR and GFA limits across the district, but the minimum PUD parcel size is only 25,000 square feet, making it difficult for the Planning Board to evaluate a specific Development Proposal without understanding what future development might occur. The Conceptual Development Plan, included in the revised zoning text, would require MIT to illustrate the potential for future development throughout the district with each Development Proposal, with revisions made each time new development is proposed. A similar provision would apply to required open space (13.87.2). Given the unique character of the district, this approach strikes a balance between predictability and flexibility that is appropriate for long-range campus planning.

Middle Income Housing (13.86.1.1(b))

The zoning text has been revised to be consistent with the K2 recommendations, which set a new requirement for Middle Income Units but do not exempt development from Inclusionary Zoning. However, there will need to be future discussion within the City about the appropriate way in which to approve and administer the Middle Income Units.

Parking Standards (13.88.6)

The revised text simplifies and clarifies the Planning Board's ability to approve variations in parking design, layout and location when approving a PUD.

Pre-Existing Parking Spaces (13.88.8)

The revised text provides the ability to manage pre-existing parking for pre-existing commercial uses while assuring that the Planning Board has the ability to grant relief based on reasonable considerations of pre-existing use and traffic concerns, rather than being constrained by outside agreements to which the City is not a party.

Innovation Space (13.89.3)

The revised text incorporates the required quantity and operational standards for Innovation Space that were recommended in the K2 study. Allowing the Planning Board to grant variations to the specific

operational standards is also consistent with the K2 recommendations. However, MIT's zoning text includes a provision allowing a waiver to reduce the required amount of Innovation Space as early as five years after approval of a PUD. This was not contemplated in the K2 study and will require further discussion.

Sustainability (13.89.4)

The revised zoning text incorporates nearly all the sustainability elements recommended in the K2 study: To submit a Statement of Energy Design Intent with new buildings, to monitor and report on energy usage, to study the feasibility of using the district steam system, to employ cool roofs, and to meet strict stormwater management standards. The revised text also allows co-generation facilities or other renewable energy systems to be approved, which is consistent with the K2 recommendations.

The K2 study recommends that all new buildings subject to Green Building Requirements meet the LEED Gold design standard, rather than the citywide standard of Silver. The revised zoning text incorporates these standards for commercial and residential buildings but not for university/academic buildings. Further discussion may be needed to determine what standards would ensure that future academic buildings meet the higher energy standards recommended by the K2 study.

3. Relationship between Zoning and Design Guidelines

MIT's revised text includes a section (13.810.3) affirming that development will be subject to applicable planning studies and guidelines for the area. MIT has reviewed the *Kendall Square Design Guidelines* presented to the Board on February 12, and is advising on possible revisions in response to comments made at that meeting.

The Planning Board has commented that some provisions in the MIT zoning are matters that are often addressed through the application of design guidelines, including the following:

- *Floor Plate Limitations (13.83.3(d))*: The revised zoning text eliminates specific requirements, but comparable standards are included in the *Kendall Square Design Guidelines*.
- *Setbacks (13.85)*: The revised text retains these requirements, and requires an additional minimum setback along the edge that abuts 139 Main Street (Red Cross building).
- *Evaluation of Building Heights Above 250 Feet (13.86.1.2)*: The revised text removes the criteria from the zoning, but comparable criteria are included in the *Kendall Square Design Guidelines*.
- *Active Uses and Pedestrian Activity (13.810.2)*: The revised zoning text retains specific requirements for the type and extent of ground-floor active uses.

So long as there are no direct conflicts, zoning standards and design guidelines could both apply. In revising the design guidelines, MIT will help to identify and resolve potential conflicts. Where standards have been removed in favor of guidelines, it will allow for creative design solutions that the Planning Board can approve based on performance criteria. Where zoning standards are retained, it will provide greater certainty around issues that are of a particular concern to the City, the neighborhood or direct abutters.

Exempting Residential Development South of Main Street

The Planning Board suggested incentivizing additional housing development in the MIT Campus area south of Main Street by exempting new residential GFA (which in this case would specifically include dormitories) from the district limitations. The most straightforward approach to this would be to require that all net new residential development in the Residence C-3 and C-3B Districts not be subject to the 3.9 FAR maximum. MIT's proposed zoning text includes a paragraph to this effect (13.83.2(c)).

It is difficult to tell whether this would be an effective incentive to promote the development of new housing. Furthermore, if only net new development is exempted, and an existing residential building is demolished at some point in the future, there may not be a strong incentive to redevelop a residential building instead of an academic building because the incentive would only take effect if the existing residential GFA were reconstructed first.

Some variations on this approach might include the following, each with benefits and drawbacks:

- *Exempt all residential development, existing and new:* This would provide a more simple and uniform incentive that would apply regardless of whether the housing were existing or new. However, it would also “free up” more potential for academic development. If this approach were taken, the allowed FAR might be reduced to compensate.
- *Exempt all new residential development regardless of whether existing residential GFA is demolished:* The appropriateness of this incentive would depend on the value of preserving the existing residential buildings rather than allowing them to be demolished and reconstructed. If reconstruction is acceptable, it could be required that any residential GFA that is demolished must be reconstructed.