To: Planning Board

From: CDD Staff

Date: February 21, 2019

Re: Special Permit PB #315, MXD 325 Main Street Design Review

The Special Permit for the Mixed-Use Development: Kendall Center (MXD) Infill Development Concept Plan (IDCP) was originally granted by the Planning Board in 2017. The first major amendment was recently granted by the Planning Board on December 4, 2018. As part of that amendment, Boston Properties also sought design review approval for a commercial building at 325 Main Street, which would be enabled by the amendment. At its December 4, 2018 meeting, while approving the amendment, the Planning Board decided to continue the design review process for the new building to a later date. The Board commented on various issues to be discussed further in the design review process, which are enumerated in the amendment decision.

Since the major amendment approval, the evolving design has been reviewed at one meeting of the Cambridge Redevelopment Authority (CRA) Design Review Committee. Two Planning Board members and CDD staff participated in this review session.

The IDCP special permit requires that the schematic design for each building, along with any open space and associated landscape elements, be subject to design review and approval by the Planning Board by an affirmative vote of at least five members. For each design review process, at least one Planning Board design review session must be held jointly with the CRA Board.

The following standards and guidelines, along with the comments incorporated into the amendment decision, guide the Board’s review and are summarized in Appendix I:

- Other applicable urban design guidelines for the area, including the Kendall Square (K2) Design Guidelines.
- Special Permit PB#315 Amendment Decision - Condition 4
- Sustainability Standards and Guidelines set forth in the IDCP and included, as excerpts, as Appendix F to the Special Permit Decision.
Key Design Issues Raised by the Planning Board

Some of the main issues that were discussed in the review of the major amendment were the scale of the proposed building in relation to nearby buildings, the impacts of the building on the rooftop garden, and the level of public benefit provided by the new open space connections and ground-floor amenities. Board members noted that there were still issues to be solved through the design process, but that a solution seemed possible. The following summarizes some of the key design-related goals expressed by the Planning Board at the December 4, 2018 amendment hearing.

- Desire to create a place that welcomes the community in, and that design details should support that integration.
- Recognize that this is one of the most extraordinary industries in the 21st century, and that such industries should create amazing places for the public.
- The rooftop garden, along with the new stair connection, should be enhanced as a special public place, with furniture, color, art, and activity.
- Continue to focus on public amenities in terms of programming and design, including free Wi-Fi, nursing pods, restrooms, and other features that will make the project feel welcoming to a diverse range of people who are not necessarily part of the Kendall Square economy.

Staff Comments - Urban Design

Pedestrian Connections and Open Space

The design of the stair connection to the rooftop garden was the focus of discussions at the December Design Review Committee Meeting and has continued to advance since then. The ground level landing has been pulled back from the sidewalk to create a more generous landing space. A high level of landscaping is shown, which helps to visually connect the plaza to the rooftop garden. The main public elevator has also been absorbed into the footprint of the building, which opens view lines to the rooftop. The materials depict the various upper stair configurations that were discussed at the committee meeting, with the preferred option providing a good balance between celebrating the stair and providing functionality. As the design details are further advanced, the goal should be to create a more pleasant and accommodating public realm. Areas of potential improvement include:

1. Further review the location and treatment of the rooftop elevator access.

At the ground-floor level, the location of the rooftop elevator being tucked into the building footprint remains a concern because it lacks good visual and physical access from the plaza and Main Street. This is further compounded by the design of the ground floor where it tends to spill out towards the plaza on the east side of the building, obscuring access to the elevator. It would be preferable if the retail was set back so that a direct line of sight and access from Main Street to the entrance was possible.

2. Consider ways to express the public elevator on the exterior of the façade.

On the east elevation between levels one and four, consider ways to express the public elevator on the exterior of the façade so that it is highly visible and does not need to rely on wayfinding signage. This
could be achieved through a slight modulation in massing, different materials or architectural expression, an entrance with canopy and vestibule, etc.

- Provide a greater level of detail and clarity regarding various aspects of the stair and elevator design.
  - Ensure the stairs are elegantly detailed, and transparency is maximized.
  - Consider adding a green wall to the parking garage behind the upper stairs.
  - Provide more detail on the landscaping of the public terrace and stairs, including provision of all landscape details, such as irrigation, species, paving, soil depths, maintenance, etc.
  - Provide clearer and consistent delineation between areas that are for general public circulation and use and areas that are for “potential programming and outdoor seating.”

- Further review the narrow passageway created between the T-headhouse and the first-floor retail.
  Staff remain concerned about the narrow passageway and pinch point created between the headhouse and first floor retail. The passageway narrows down to about 6-feet at the corner of the headhouse. Ideally, it should be at least 8-feet wide for two pairs of pedestrians to pass each other comfortably. Such a concealed space may also pose a safety and comfort concern for pedestrians. Further study of the following is suggested:
  - Details of the pedestrian experience including lighting and security, and a pedestrian perspective through the space.
  - Opportunities to set back the ground floor retail so that a direct line of sight is achieved.

- Improve bicyclists’ access and amenities.
  Access to the basement bicycle parking storage does not seem convenient given the multiple entry doors required from the lobby. Opportunities to make it easily accessible from the outside should be considered, such as providing a bicycle elevator with access and weather protection from Pioneer Way.

- Further review future improvements to the public sidewalk with City staff.
  The Main Street sidewalk is proposed to be used for construction staging and will then be reconstructed. The plans for the reinstatement show a sidewalk material change adjacent to the building frontage, where the ground floor is set back.
  - Staff recommend that the setback zone be treated like city sidewalk with concrete paving, perhaps with a varying pattern, and a simple score/joint line to demarcate private property.
  - The dimensions of the section view on page 105 should be corrected to show the correct travel zone width.

Built Form – Massing

The overall massing remains essentially unchanged from the most recent Planning Board meeting. Apertures have been added to articulate the massing and articulate various facets of the building. These generally create a break in the streetwall, which helps to define the main entrance and public connector, and articulates the top of the building. As the design is refined, the following improvements should be considered:
• It would be preferable if the outer edge of the apertures, which appears to consist of curtain wall, be given some thickness.

• On the north and west façade, review the need for the outer wall of the aperture from levels 5-7 as it appears to unnecessarily obscure potential sky and rooftop garden views.

• Areas where the massing steps back should be used as either green roofs, balconies, terraces or gardens. The current proposal identifies most of these as “potential tenant terrace”, but that should be clarified, and further details provided regarding plantings, balcony details, etc.

Façade design

The building relies on the bold massing moves of the three volumes and the apertures to create visual interest. A glass curtain wall system utilizing varying surface treatments, such as spandrel glass, glass frit, vision glass, and limited use of metal panel is proposed to articulate each volume. The visible light transmittance (VLT) and reflectance (VLR) proposed for the ground floor and upper level vision glass is very good in terms of maximizing transparency and minimizing reflectivity. The following suggestions should be the focus of continuing design efforts:

• Consider opportunities to provide more detail and play of shadows across the curtain wall façades.

While reference to Kendall Square’s red brick materials palette is evident in the colors selected for the frit and metal panel, the use of glass frit is unlikely to have a significant visual impact from a distance. The proposed dark red color is also unlikely to be as vibrant as that shown in the hand drafted renderings. Additionally, the curtain wall itself is relatively flat and lacks the texture and detail seen in other recent major projects. The proposed curtain wall treatment appears to emphasize the horizontal nature of the building, rather than vertical modulations and bay widths. The design guidelines suggest use of architectural articulations such as changes in materials, fenestration, reveals and recesses, frame depths, architectural details, or other elements to break down the scale of large buildings.

• Provide greater visual differentiation between the podium and middle zones

Currently, the design of the curtain wall creates a unifying element between the podium and middle. While there is a subtle difference between the enclosure types, it is unclear how much visual impact these will have. The opportunity to further differentiate the building podium and create more of a human scale should be further studied. Possibilities include:

- Architecturally expressing structural bays.
- Visually indicating the top of the podium by using a cornice, or projection, or other architectural features that would create surface relief, depth and shadow.
- As further discussed below, creation of a double height retail / programming space is also an opportunity to elaborate on the design of the podium.

Ground floor design – pedestrian frontage zone

Staff appreciates efforts to accentuate the entrance to the public connector and minimize the extent of lobby facing Main Street. The design also incorporates active retail uses along the sidewalk, and a highly transparent ground floor façade is proposed. At this stage, the detailed design of the building’s
pedestrian zone (the lower two floors of the building) does not appear well resolved in the submitted materials. To further enrich this zone and elaborate on the design details, the following improvements should be considered:

- Differentiate the lower two floors of the building from those above to create a two-story expression.

As currently depicted, the first floor appears relatively squat proportionally. Given that the first and second floors are occupied by retail, there is scope to provide a greater sense of height with a two-story expression that recognizes Kendall Square’s urbane setting. Furthermore, a two-story expression could be detailed in a way to create a sense of elegance and visual interest. For example, if transparency is the key objective, structural glazing with high-quality stainless steel details could be considered. The second floor could also be pulled back from the facade so that a double height interior space is created.

- Refine the ground floor façade design to enhance the character and complexity of the pedestrian environment.

The ground floor façade appears quite monotonous for a large stretch of Main Street. The curtain wall storefront shown in the rendering on page 63 lacks depth and texture to create an interesting pedestrian environment. The regularity of the facade system, and how reflective the glazing is rendered, does not help to differentiate the retail or allow much view into the interior. The metal band at transom height does not appear to relate to the active uses. It is also unclear how retail entrances will be integrated into the storefront design, which should be provided at this stage in the design review process. Depending on how the abovementioned two-story expression is resolved, there are opportunities to provide a greater level of detail at the ground floor. The K2 Design Guidelines suggest a mix of materials, different openings (such as recessed entries, operable windows), and expression of structural bays to provide visual interest, human scale and vertical expression.

The corner adjoining the grand stair also appears relatively utilitarian in the renderings on pages 82-84 and 86-87. A simple system of terracotta tiles adjacent to the stair is shown. The potential for more transparency, or other more distinct architectural features, should be studied as a way to celebrate that prominent location and the entrance to the stairs and terrace.

The T-headhouse design will be subject to MBTA approval at a later time. As such, three possible design alternatives are presented. While alternatives 1 and 2 are preferred as they maximize use of the headhouse roof, in terms of architectural character the base case scenario (rendered on page 86) is recommended as it has less visual impact on the staircase. Alternatives 1 and 2, with the red spandrel panel/parapet, appear visually heavy and obscure views.

- Provide more certainty regarding the quantity, location and design of building entrances and pedestrian connectors.

Several “possible” entrances are identified on the plans; however, as required in the Special Permit amendment decision, greater certainty should be provided regarding more specific locations, and possible design and detailing. It is understood that retail tenant needs are not yet known; however, a
minimum number of entrances and design details should be established, including details on how the major pedestrian entrances from the plaza and upper terrace will be articulated.

The main tenant entrance is to be located directly off the pedestrian connector between Main Street and Pioneer Way. While this reflects the existing conditions, a separate tenant entrance directly off Main Street might be more useful, and might also help to emphasize the public nature of the connector.

Retail Plan and Public Amenities

- Public restrooms are to be located on the first floor, close to the T-headhouse. A free public wi-fi lobby has also been incorporated into the design of the first floor. For the detailed design of these interior spaces, the Applicant could look to the Smith Campus Center, which has successfully created an area that people feel comfortable accessing and utilizing, particularly in the winter months.
- Further information should be provided as to whether the public restrooms are the only bathrooms, or if additional bathrooms will be provided for retail tenants.
- The opportunity for customers to “wander” along the pedestrian paths that are shown in plan is good and critical to the ability for people to look around and visit all the retailers.
- Section 6 of the submitted materials provides information on the proposed future retail and types of uses. However, the text does not highlight how local business owners will be attracted to the first-floor retail spaces, which is a requirement of the IDCP regarding the need to consider local businesses in their retail mix.

Lighting and signage

The following lighting and signage comments are made for the Board’s consideration:

- The lighting strategy tends to exceed the understated approaches adopted for buildings on the south side of Main Street. These other projects have minimized lighting above the podium in response to the City’s Draft Outdoor Lighting Ordinance and public comments.
- More specificity is needed regarding the locations of future building and retail signage. Some of the identified zones are too broad to be helpful when future retail signage is being considered. This is particularly the case for the lower two floors. The locations of signage should be considered in relation to the building’s architecture, to avoid confusion for future tenants resulting in the application of signs that disrupt the façade design.
- Signage at the top of the building, while uniquely allowed in this zoning district, is not typical throughout Kendall Square and does not contribute to the pedestrian wayfinding or the retail signage system.
- Identification signage for the office tenant above the connector should be minimized as it appears to designate that space for the future tenants, and detracts from its role as a public amenity and retail space. Instead, the design of the public connector should clearly demonstrate that the public are welcome, and retail signage be relied upon as a secondary wayfinding device.
Wind

While the wind study has not been updated to reflect the revised massing, a memo from the Applicant’s Wind Consultant states that the wind conditions associated with the new massing would remain similar to that of the earlier report. As discussed at the previous hearings, wind conditions around the site will both improve in some locations, and slightly reduce in others; however, all locations between Main Street and Broadway will be comfortable for pedestrians in winter and summer. An uncomfortable condition exists on the south side of Main Street, at the corner of Dock Street, which will need to be resolved as part of the development of MIT Building 5.

The five uncomfortable locations north of Broadway are referenced in the wind study documentation. It is understood that these are associated with 135 Broadway site, rather than the development of the 325 Main Street project. Staff recommends that massing changes be considered for this future project to help mitigate some of the wind concerns.

Staff Comments - Sustainability

The project is subject to the City’s Green Building Requirements (Section 22.20, Zoning Ordinance) and the MXD District zoning requirements (Section 14.74). The latter requires projects to be designed to LEED Gold under the version of LEED currently in effect, LEED v4. The design is currently meeting this requirement with 61 “Yes” credit points under the LEED BD+C: Core and Shell program.

LEED’s Optimize Energy Performance credit is designed to reduce environmental and economic harms associated with excessive energy use through increasing levels of energy performance beyond the prerequisite standard. The Project is targeting a 17-22% improvement in energy cost savings, and a 14-17% improvement in energy use savings over the baseline building performance standard. According to the preliminary energy model, a target EUI of 33 has been set, which is a favorable target for a project of this size and type. However, the preliminary energy model also indicates that there is an increase in cooling loads and heat rejection over the baseline building, which could be the result of a significant increase in the window-to-wall ratio. In addition to the numerous energy conservation measures incorporated, staff would also advocate for a lower window-to-wall ratio as a way to improve energy performance.

The Project has met the requirements set by Section 14.74 to enlist a Commissioning Authority (LEED’s Enhanced Commissioning credit), and for an integrated design approach (LEED’s Integrative Design Process credit).

The Project will be subject to review prior to receiving its Building Permit and Certificate of Occupancy. Staff looks forward to final updates on any design changes and/or projected building performance, including the required Statement of Energy Design Intent (Section 14.74).

Transitioning to Net Zero

In 2015, the City adopted the Net Zero Action Plan, a commitment to achieve citywide net-zero emissions by 2050. The Project has met the requirement set by Section 14.74 to evaluate the potential
for cogeneration. According to the Combined Heat and Power (CHP) analysis, the thermal efficiency of the CHP system is lower than grid-supplied electricity and the proposed on-site boiler system, so it would end up using more gas than the building would use otherwise. Further information regarding the following is requested:

- Other possible options for on-site energy generation. For example, if green electricity would not be produced on-site, where would it be coming from?
- While the narrative mentions that air-source heat pumps are not economically viable at this time, has consideration been given to a Variable Refrigerant Flow (VRF) approach to heating/cooling?

Finally, the Project has met the requirement set by Section 14.74 for solar-ready construction, but there is no commitment to install solar photovoltaics (PVs) at this time. Consideration should be given to ensuring that any roof penetrations that would impact solar are moved to the north side of the roof to avoid internal shading. The following information is requested:

- Information regarding the barriers to installing 50kW of solar panels currently
- If the “potential PV areas” were made available and utilized, what would be the total capacity of this system.

Climate Change and Resiliency

The following additional materials are requested:

- Information to demonstrate how the development has been designed and will be built to protect the structure from surface flooding to the anticipated 2070 10-year storm-event flood depths.
- Information to demonstrate how the development will recover from a surface flooding event consistent with the potential 2070 100-year storm-event flood depths.

Staff Comments - Transportation

The following additional materials are requested:

- An approved curb utilization plan is required for any changes to curb use (e.g. employee drop-offs) on Main Street.
- Further information regarding loading and trash management should be provided, including a larger plan showing how trucks enter/exit the loading docks from street level.
- Further details on any agreements that the Applicant has with the MBTA, including the level of improvements proposed to the headhouse and station platform, once available.
- A plan for the Main Street Right of Way Reconstruction, which should be submitted for review and approval by city staff at least two months before such work is intended to commence. The Applicant should generally plan to reconstruct Main Street back to the standards it was constructed to as part of the City’s recent redesign with City standard concrete sidewalk with brick edging, trees with irrigation and structural soil, replaced site furnishings, though the plan may allow for minor shifts in site furnishings to support changes in adjacent use and current curb use desires.
Appendix

IDCP Design Guidelines – Draft

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<thead>
<tr>
<th>Key Design Goals and Objectives</th>
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<tbody>
<tr>
<td>1. Create a complementary mix of uses that contribute to Kendall Square’s evolution as a 24/7 Live Work and Play neighborhood.</td>
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<tr>
<td>2. Create permeability with pedestrian and bicycle connections through the site blocks within the district especially those routes that strengthen ground floor active use and retail.</td>
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<td>3. Provide access to outdoor and indoor public spaces that allow people to enjoy them throughout day and evening.</td>
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<td>4. Enhance connections between existing open spaces and public and private pedestrian and bicycle infrastructure.</td>
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<td>5. Make housing available across multiple income spectrums as further defined in the Zoning Ordinance.</td>
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<td>6. Design and build in a sustainable and resilient fashion.</td>
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<td>7. Create buildings of appropriate scale, mass, height, form and texture for their site context on its parcel, the block, and in relation to the width of the street or adjacent open space, with the goal of optimizing light, air and views for all both inside and outside the buildings.</td>
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<tr>
<td>8. Building and open space design enhances and embraces that life in a dense urban setting happens vertically by including public and private open spaces such as balconies, terraces and rooftop decks.</td>
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<tr>
<th>Character of Streetscape and Pathways</th>
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<tr>
<td>1. Streets shall be designed to improve pedestrian and bicycle access, circulation, and safety.</td>
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<td>2. Streets shall be designed to allow for separated circulation paths for pedestrian bicycles and automobiles to minimize conflict and ensure safety.</td>
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<td>3. Intersections between private access roads and streets shall be carefully designed to compromise between the variable needs of pedestrians, bicycles, automobile traffic, bus traffic, delivery trucks and emergency service vehicles.</td>
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<td>4. Where possible, lay by areas shall be planned to allow for safe access to ride sharing vehicles.</td>
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<td>5. Bike racks shall be included in a manner consistent with zoning for short or long term bike uses, and dedicated space provided for municipal bike share systems as required by PTDM or Zoning.</td>
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<td>6. Lighting shall be provided consistent with city standards that balances concerns between light pollution, safety, and the creation of a compelling evening streetscape, outdoor patio, retail, and open space environment.</td>
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<td>7. Where possible, planted areas and permeable hardscape shall be included to allow for water infiltration.</td>
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<td>8. Street furnishing shall be included consistent with City Standards to allow for points of gathering, rest, and for public transit uses.</td>
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<th>Built Form and Massing</th>
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<td>1. Create dynamic varied street walls to help frame sidewalks, plazas, and other public spaces while allowing for breaks in street wall to define entries to buildings. Varying materials and massing forms may be employed to prevent monolithic or flat street wall.</td>
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<tr>
<td>2. Use building mass to establish street corners, urban thresholds or create landmarks.</td>
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<td>3. Create a variety of forms and rhythm, appropriate to urban context and street width.</td>
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4. Introduce vertical breaks in facades where appropriate to define entries or other programmatic changes.
5. Create interesting and varied rooflines identifiable from the ground and at a distance.
6. Create or support appropriate contextual datum lines to limit sense of height at street level.
7. Provide transition to adjacent context (parks, buildings).
8. Visually connect outdoor public realm with indoor public spaces.
9. Use recessed or projected entryways, canopies, awnings, etc., to enhance pedestrian experience, and provide weather protection to the sidewalk.
10. Architectural contrast is encouraged, while being deferential to the existing signature architectural elements of any existing buildings and/or blocks.
11. Use massing to mitigate potential wind impacts as described in wind studies provided as part of each building’s Design Review submission.

**Commercial Building B (325 Main Street)**

1. Activate the adjacent public realm with ground and second floor active use and lobby spaces.
2. Active use space on the ground and second floors occupies the majority of the south facade along Main Street and the east facade facing Kendall Plaza.
3. Massing on Main Street marks the building entrance and relates to the adjacent context by stepping down to Kendall Plaza, holding the street edge along some portion of the facade.
4. Interlocking bays and recesses as well as vertical sloped planes break up the scale of the facade and create visual interest.
5. The building connects existing open space at Kendall Plaza and the future ground and second level retail experience to and from the existing Kendall Plaza and the Kendall Square Rooftop Garden.

**Building Material and Facade Guidelines**

1. Provide high transparency at the ground floor level to emphasize the activity within the building, extending the public realm and enlivening the streetscape.
2. Provide openness and permeability at the ground level and other retail/active use levels (if applicable) by providing sliding walls and raising doors at all possible locations.
3. Maximize transparency of glass at upper levels while considering solar heat gain, energy performance, and interior daylighting.
4. Use variation in glazing types, frame depths and scale of horizontal and vertical expressions to heighten visual interest.
5. Consider using reveals, recesses, and cantilevers to break down the proportions of large facades.
6. Introduce solid wall cladding, where appropriate, to embed the scale of occupants and interior spaces on the elevations in addition to allowing for complementary materials to the urban context.
7. Solid wall cladding should incorporate a mix of color and texture, depth, create shadows and incorporate middle scaling elements.
Kendall Square (K2) Design Guidelines

Summarized Objectives

1. Introduction and Site Organization

| Major Public Streets | • Create a well-defined streetwall to help frame Kendall Square’s major public streets as public spaces.  
|                      | • Provide adequate space along sidewalks for outdoor activity associated with active ground level uses.  |
| Park Edges           | • Pay special attention to activating the ground floors of buildings abutting open space resources.  
|                      | • Scale and massing design should be carefully considered to minimize negative impacts to the nearby parks and plazas.  |

2. Environmental Quality

| Shadow, Wind, Vegetative Cover, Noise | • Carefully design new projects to avoid unnecessary environmental impacts.  
|                                       | • Evaluate each design decision to find outcomes that balance the positive aspects of building near a transit hub with the changes in the environment that result from more density in relatively dense new structures located in close proximity to one another.  |

3. Walkability

| Connections/Block sizes | • Break up large blocks and increase permeability by creating pedestrian and bicycle connections through the site.  |
| Loading and Servicing   | • Locate and design loading and servicing areas to support the walkability of the area and minimize dead zones.  |
| Street Activity         | • Support pedestrian flow throughout the district and provide access to outdoor and indoor public spaces that allow people to gather.  
|                         | • Encourage public activity throughout the day and evening.  |
| Universal Access        | • Design of buildings and outdoor spaces should provide an emphasis on universal access.  |

4. Built Form

| Architectural Identity of Kendall Square | • Architectural composition should particularly emphasize a distinct identity for the building as well as for Kendall Square.  
|                                          | • Design buildings to help create streetwalls, where appropriate, to help frame the sidewalks, plazas, and other public spaces in Kendall Square  
|                                          | • Convey the act and spirit of innovation in Kendall Square through transparency that directly reveals activity and displays visual media.  |
| Scale and Massing | • Encourage building forms and site planning that relate to the surrounding context.  
|                  | • Create sensitive transitions to neighboring uses, especially to existing residential buildings, historical structures, and public parks.  
|                  | • Design buildings to minimize monolithic massing and break down the scale of large buildings.
- Limit the impact of tall buildings both at street level within the district and from, nearby areas.

**Major Public Streets**
- Create a strong datum by setting back the building at upper floors to create a strong edge to the street and to limit the sense of height at street level.

**Park Edges**
- Development around parks and plazas should support an environment that is active, safe, and welcoming to a wide spectrum of users throughout the day, week and year.

**Visual Interest**
- Buildings should reflect a rhythm and variation appropriate to the urban context
- Where appropriate, vary the architecture of individual buildings to create architecturally diverse districts

**Tall Buildings**
- Design buildings over 200 feet tall with particular attention to the architectural character of the top of the building, which will be visible from significant public spaces and from some distance.

**Connectors**
- Connectors over public ways are not encouraged in the heart of Kendall Square.
- Consider upper-floor connections only in circumstances where tenants need large floorplates that might otherwise result in excessive apparent building mass.
- Design connectors to provide architectural interest, maintain permeability, and continue to allow light and views of the sky.
- Connectors may be more acceptable over minor streets internal to the quieter parts of the MIT campus, such as Carlton or Hayward.

**Rooftops**
- Design rooftops, including mechanical equipment and cellular installations, as integral to the rest of the architecture of the building.

### 5. Ground Floor

**Uses**
- First floors of the buildings should be actively used.
- Retail and services should serve local communities as well as people who work in the area.
- Where retail is not provided, ground floor spaces should be designed to accommodate retail in the future

**Setbacks**
- Create space at the sidewalk level to allow for interaction between activities on the ground floor of the buildings and the public sidewalk.
- Directly engage the public and create a well-defined streetwall to help frame Kendall Square’s streets and public spaces.

**Facades**
- Reduce the distinction between exterior and interior space to extend the effective public realm indoors and reveal indoor activity on the street.

** Entrances**
- Locate major entrances on public streets, and on corners wherever possible.
- Entrances should relate to crosswalks and pathways that lead to bus stops, transit and bike stations.
### 19.30 Citywide Urban Design Objectives [SUMMARIZED]

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<th>Objective</th>
<th>Indicators</th>
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<td>New projects should be responsive to the existing or anticipated pattern of development.</td>
<td>• Transition to lower-scale neighborhoods&lt;br&gt;• Consistency with established streetscape&lt;br&gt;• Compatibility with adjacent uses&lt;br&gt;• Consideration of nearby historic buildings</td>
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<td>Development should be pedestrian and bicycle-friendly, with a positive relationship to its surroundings.</td>
<td>• Inhabited ground floor spaces&lt;br&gt;• Discouraged ground-floor parking&lt;br&gt;• Windows on ground floor&lt;br&gt;• Orienting entries to pedestrian pathways&lt;br&gt;• Safe and convenient bicycle and pedestrian access</td>
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<td>The building and site design should mitigate adverse environmental impacts of a development upon its neighbors.</td>
<td>• Location/impact of mechanical equipment&lt;br&gt;• Location/impact of loading and trash handling&lt;br&gt;• Stormwater management&lt;br&gt;• Shadow impacts&lt;br&gt;• Retaining walls, if provided&lt;br&gt;• Building scale and wall treatment&lt;br&gt;• Outdoor lighting&lt;br&gt;• Tree protection (requires plan approved by City Arborist)</td>
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<td>Projects should not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system.</td>
<td>• Water-conserving plumbing, stormwater management&lt;br&gt;• Capacity/condition of water and wastewater service&lt;br&gt;• Efficient design (LEED standards)</td>
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<td>New construction should reinforce and enhance the complex urban aspects of Cambridge as it has developed historically.</td>
<td>• Institutional use focused on existing campuses&lt;br&gt;• Mixed-use development (including retail) encouraged where allowed&lt;br&gt;• Preservation of historic structures and environment&lt;br&gt;• Provision of space for start-up companies, manufacturing activities</td>
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<td>Expansion of the inventory of housing in the city is encouraged.</td>
<td>• Housing as a component of large, multi-building development&lt;br&gt;• Affordable units exceeding zoning requirements, targeting units for middle-income families</td>
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<tr>
<td>Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city.</td>
<td>• Publicly beneficial open space provided in large-parcel commercial development&lt;br&gt;• Enhance/expand existing open space, complement existing pedestrian/bicycle networks&lt;br&gt;• Provide wider range of activities</td>
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Special Permit Amendment Decision Conditions that apply to 325 Main Street

4. The following additional conditions shall apply to the commercial component of Phase 2 development (325 Main Street and adjacent open space improvements), and shall be reviewed by the Planning Board during the Design Review process for those sites:

a. Public restrooms shall be provided and maintained at the ground level of 325 Main Street as generally depicted in the Application Documents dated November 2, 2018. Other non-commercial public amenities should be explored as part of the design and programming of public and retail spaces in the building, which may include nursing pods, heating/cooling spaces, free public wireless internet connection, and other resources.

b. The east-west public pedestrian easement, if it passes through a retail marketplace or atrium, shall nonetheless provide a reasonably direct and unimpeded path of travel for pedestrians who are not retail customers. The approximate path of travel shall be depicted in the ground floor plan. The easements shall be refined where necessary as set forth in the memorandum from CRA staff dated November 30, 2018.

c. The ground-floor retail space(s) at 325 Main Street shall provide direct pedestrian entrances onto Main Street as generally depicted in the Application Documents dated November 2, 2018, although the exact locations may vary subject to approval through the Design Review process.

d. As recommended in the memorandum from CDD staff dated November 28, 2018, in addition to consulting with CDD’s Economic Development Division regarding marketing and tenanting efforts for retail spaces, as required in the Conditions of the Original Decision, the Permittee shall continue to work with the CRA, CDD, and other nearby property owners to make sure that the intended ground-floor retail uses are complementary to the other existing or planned retail in Kendall Square.

e. The Innovation Space Plan approved in the Original Decision shall be supplemented by the plan for an “Opportunity Space” component described in concept in the Application Documents dated November 2, 2018 to fulfill the zoning requirement for “below-market” space. The programmatic and operational aspects of this space shall be reviewed by CRA and CDD staff on an annual basis. The Board recommends that the program should include a focus on underrepresented communities within the technology sector and Cambridge youth.

f. The addition of canopy trees, as depicted in the renderings (but not the plans) in the Application Documents dated November 2, 2018, shall be incorporated into the rooftop garden design to the degree possible.

g. Programmatic changes to the operation of the Kendall Square Rooftop Garden shall be implemented in accordance with the Application Documents dated November 2, 2018, including the addition of lighting and the extension of evening hours until 11:00 P.M. for the months of June to September. Safety and privacy should be considered as the lighting plan is designed.

h. As recommended in the memorandum from CDD staff dated November 28, 2018, a comparable alternative plan shall be presented for the Board’s approval in the event that approval is not granted by the MBTA for the terrace depicted on the roof of the Red Line outbound headhouse in the Application Documents dated November 2, 2018.
i. As recommended in the memorandum from CDD staff dated November 28, 2018, the following additional issues related to the building design shall be studied further in the Design Review process:

   i. The current proposed line of the building footprint in relationship to the sidewalk space, to clarify whether there would be an adequate and urbane open space considering the number of building occupants and the expected increase in foot traffic within Kendall Square overall.

   ii. The potential for the connection or “gasket” between 325 and 355 Main Street to be more clearly separated as a vertical slot between the two buildings. As currently proposed, there appears to be some overlap between the massing elements of both buildings, which reduces the ability of the gasket to act as a clearly differentiated zone and to celebrate entry into the pedestrian connection.

   iii. The step-back distances between the stacked volumes should also be considered, to respond to the K2 Design Guidelines encouraging a more tapered built form as buildings rise in height.

   iv. The potential for a more vertical grain, as called for in the K2 Design Guidelines, to create slender vertical proportions that help mitigate the sense of bulk and horizontality of buildings when perceived from the pedestrian realm.

   v. The width of the public stairway connection where it connects to Main Street, and its many turns, to ensure that the stair is generous and direct enough to feel welcoming to all, and to ensure that the ground level landing of the stair at the southeast corner of the building is given enough space to clear the path of the foot traffic at the sidewalk.

   vi. The location of the rooftop elevator access, which should have good visual and physical access from the plaza and Main Street.

   vii. The width of the narrow alleyway between the MBTA headhouse and building, which may pose a safety and comfort concern.

   viii. Access to the MBTA headhouse coming from both the north and south, to ensure such access is convenient for all users.

   ix. The design and character of public pedestrian connections throughout the site.

j. As recommended in the memorandum from CRA staff dated November 30, 2018, the Applicant shall propose a plan for creative re-use of the trellis grid adjacent to Kendall Plaza.